

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

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

Form C-101
August 1, 2011

Permit 365924

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

| | | |
|--|---|-------------------------------|
| 1. Operator Name and Address Permian Resources Operating, LLC 300 N. Marienfeld St Ste 1000 Midland, TX 79701 | | 2. OGRID Number 372165 |
| | | 3. API Number 30-025-53013 |
| 4. Property Code 335946 | 5. Property Name OUTLAND 14 23 STATE COM | 6. Well No. 123H |

7. Surface Location

| | | | | | | | | | |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|
| UL - Lot B | Section 14 | Township 21S | Range 34E | Lot Idn B | Feet From 245 | N/S Line N | Feet From 1756 | E/W Line E | County Lea |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|

8. Proposed Bottom Hole Location

| | | | | | | | | | |
|---------------|---------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|---------------|
| UL - Lot G | Section 23 | Township 21S | Range 34E | Lot Idn G | Feet From 2540 | N/S Line N | Feet From 1980 | E/W Line E | County Lea |
|---------------|---------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|---------------|

9. Pool Information

| | |
|-----------------------------|-------|
| GRAMA RIDGE;BONE SPRING, NE | 28435 |
|-----------------------------|-------|

Additional Well Information

| | | | | |
|---------------------------|-----------------------------|--|---------------------------|------------------------------------|
| 11. Work Type New Well | 12. Well Type OIL | 13. Cable/Rotary | 14. Lease Type Private | 15. Ground Level Elevation 3685 |
| 16. Multiple N | 17. Proposed Depth 17790 | 18. Formation 2nd Bone Spring Sand | 19. Contractor | 20. Spud Date 7/1/2024 |
| 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 | 1721 | 1300 | 0 |
| Int1 | 12.25 | 9.625 | 40 | 5410 | 1430 | 0 |
| Prod | 7.875 | 5.5 | 20 | 17790 | 1050 | 9793 |
| Prod | 8.75 | 5.5 | 20 | 10542 | 710 | 4910 |

Casing/Cement Program: Additional Comments

| |
|------------------------------------|
| ADDITIONAL CASING DETAILS ATTACHED |
|------------------------------------|

22. Proposed Blowout Prevention Program

| Type | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Annular | 2500 | 2500 | |
| Double Ram | 5000 | 5000 | |

| | | |
|--|----------------------------------|---------------------------------|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. Signature: | OIL CONSERVATION DIVISION | |
| Printed Name: Electronically filed by Stephanie Rabadue | | |
| Title: Regulatory Manager | Title: Geologist | |
| Email Address: stephanie.rabadue@permianres.com | Approved Date: 6/5/2024 | Expiration Date: 6/5/2026 |
| Date: 5/21/2024 | Phone: 432-260-4388 | Conditions of Approval Attached |

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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|--------------------------------------|---|--|
| ¹ API Number | ² Pool Code 28430 28435 | ³ Pool Name GRAMA RIDGE; BONE SPRING, NE |
| ⁴ Property Code 335942 | ⁵ Property Name OUTLAND 14-23 STATE COM | ⁶ Well Number 123H |
| ⁷ OGRID No. 331165 | ⁸ Operator Name EARTHSTONE OPERATING, LLC | ⁹ Elevation 3,685.29' |

¹⁰ Surface Location

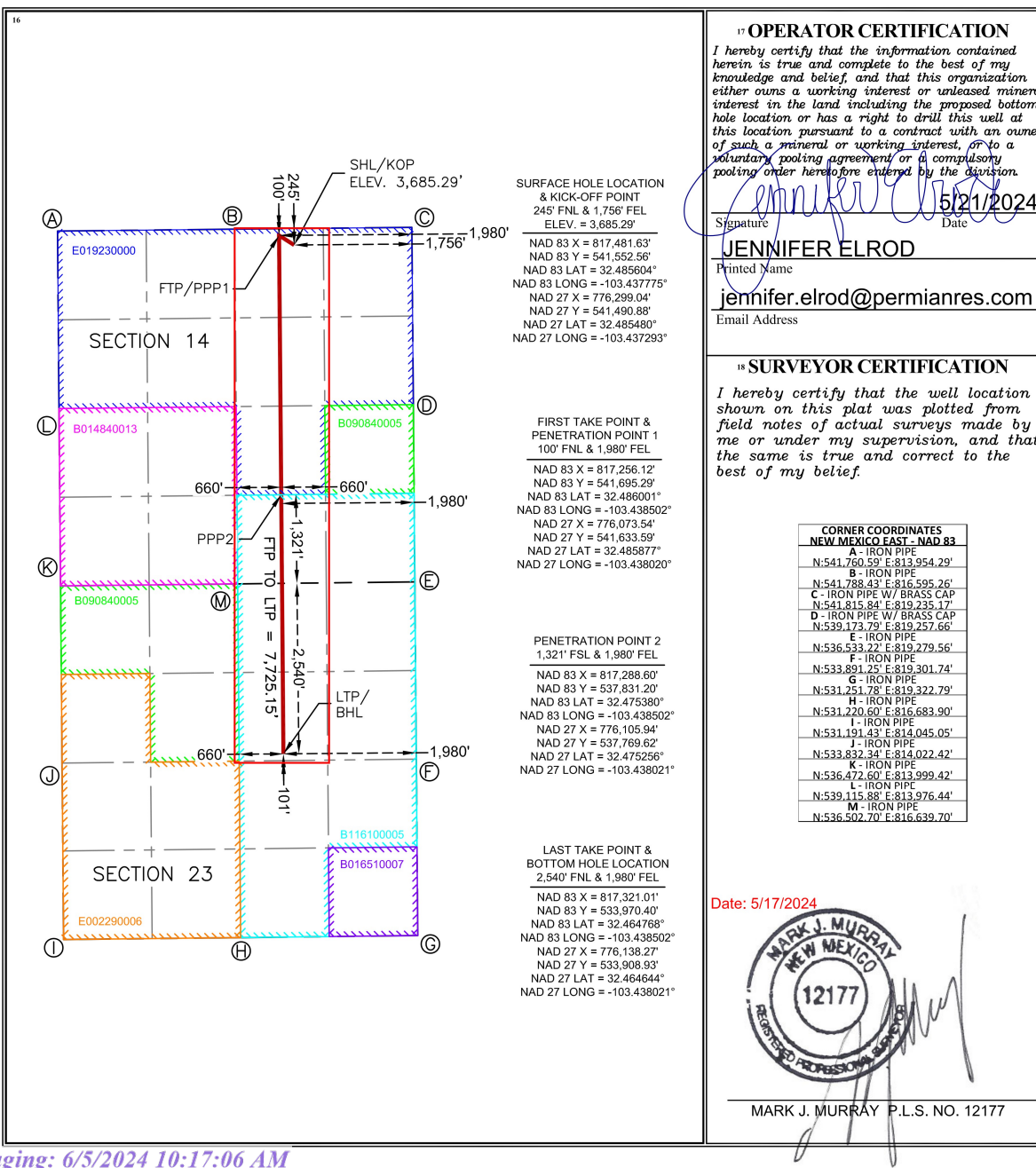
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| B | 14 | 21 S | 34 E | | 245' | NORTH | 1,756' | EAST | LEA |

¹¹ 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| G | 23 | 21 S | 34 E | | 2,540' | NORTH | 1,980' | EAST | LEA |

| | | | |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 240 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ 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.



Intent ☒ As Drilled ☐

| | | |
|---|---|---------------------|
| API # | | |
| Operator Name: EARTHSTONE OPERATING, LLC | Property Name: OUTLAND 14-23 STATE COM | Well Number 123H |

Kick Off Point (KOP)

| | | | | | | | | | |
|-----------------------|---------------|------------------|---------------|-----|--------------------------|---------------|---------------|---------------|---------------|
| UL B | Section 14 | Township 21 S | Range 34 E | Lot | Feet 245 | From N/S N | Feet 1,756 | From E/W E | County LEA |
| Latitude 32.485604 | | | | | Longitude -103.437775 | | | NAD 83 | |

First Take Point (FTP)

| | | | | | | | | | |
|-----------------------|---------------|------------------|---------------|-----|--------------------------|---------------|---------------|---------------|---------------|
| UL B | Section 14 | Township 21 S | Range 34 E | Lot | Feet 100 | From N/S N | Feet 1,980 | From E/W E | County LEA |
| Latitude 32.486001 | | | | | Longitude -103.438502 | | | NAD 83 | |

Last Take Point (LTP)

| | | | | | | | | | |
|-----------------------|---------------|------------------|---------------|-----|--------------------------|---------------|---------------|---------------|---------------|
| UL G | Section 23 | Township 21 S | Range 34 E | Lot | Feet 2,540 | From N/S N | Feet 1,980 | From E/W E | County LEA |
| Latitude 32.464768 | | | | | Longitude -103.438502 | | | NAD 83 | |

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

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Form APD Conditions
Permit 365924

PERMIT CONDITIONS OF APPROVAL

| | |
|---|--|
| Operator Name and Address: Permian Resources Operating, LLC [372165] 300 N. Marienfeld St Ste 1000 Midland, TX 79701 | API Number: 30-025-53013 |
| | Well: OUTLAND 14 23 STATE COM #123H |

| | |
|-----------------|--|
| OCD 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
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 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: Earthstone Operating, LLC **OGRID:** 331165 **Date:** 5/2/2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____.

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | ULSTR | Footages | Anticipated Oil | Anticipated Gas | Anticipated Prod Water |
|------------------------------|-----|--------------|----------------------|-----------------|-----------------|------------------------|
| Outland 14 23 State Com 123H | | B-14-21S-34E | 245' FNL – 1756' FEL | 1500 BOPD | 1900 MCFD | 4900 BWPD |
| Outland 14 23 State Com 124H | | B-14-21S-34E | 245' FNL – 1723' FEL | 1500 BOPD | 1900 MCFD | 4900 BWPD |
| Outland 14 23 State Com 131H | | C-14-21S-34E | 216' FNL – 1857' FWL | 1700 BOPD | 2100 MCFD | 2500 BWPD |
| Outland 14 23 State Com 132H | | C-14-21S-34E | 216' FNL – 1890' FWL | 1700 BOPD | 2100 MCFD | 2500 BWPD |
| Outland 14 23 State Com 133H | | B-14-21S-34E | 245' FNL – 1822' FEL | 1700 BOPD | 2100 MCFD | 2500 BWPD |
| Outland 14 23 State Com 134H | | B-14-21S-34E | 245' FNL – 1789' FEL | 1700 BOPD | 2100 MCFD | 2500 BWPD |

IV. Central Delivery Point Name: Outland 14 23 NWNE 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 |
|------------------------------|-----|-----------|-----------------|------------------------------|------------------------|-----------------------|
| Outland 14 23 State Com 123H | | 8/9/2024 | 8/24/2024 | 11/13/2024 | 11/30/2024 | 11/30/2024 |
| Outland 14 23 State Com 124H | | 8/24/2024 | 9/9/2024 | 11/13/2024 | 11/30/2024 | 11/30/2024 |
| Outland 14 23 State Com 131H | | 7/31/2024 | 8/13/2024 | 11/13/2024 | 11/30/2024 | 11/30/2024 |
| Outland 14 23 State Com 132H | | 8/13/2024 | 8/27/2024 | 11/13/2024 | 11/30/2024 | 11/30/2024 |
| Outland 14 23 State Com 133H | | 7/26/2024 | 8/9/2024 | 11/13/2024 | 11/30/2024 | 11/30/2024 |
| Outland 14 23 State Com 134H | | 7/13/2024 | 7/26/2024 | 11/13/2024 | 11/30/2024 | 11/30/2024 |

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.

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:

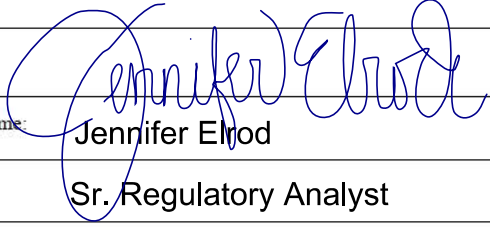
- (a) Power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative 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:

Jennifer Elrod

Title:

Sr. Regulatory Analyst

E-mail Address:

jennifer.elrod@permianres.com

Date:

05/17/2024

Phone:

940-452-6214

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

Approved By:

Title:

Approval Date:

Conditions of Approval:

Permian Resources Operating, LLC (372165)
Earthstone Operating, LLC (331165)

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)
Earthstone Operating, LLC (331165)

- 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

Permian Resources Operating, LLC (372165)
Earthstone Operating, LLC (331165)

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

OUTLAND 14-23 PROJECT

OUTLAND 14-23 ST 123H

OWB

Plan: PWP0

Standard Planning Report - Geographic

02 May, 2024

Permian Resources

Planning Report - Geographic

| | | | |
|-----------|-----------------------|------------------------------|----------------------------|
| Database: | Compass | Local Co-ordinate Reference: | Well OUTLAND 14-23 ST 123H |
| Company: | NEW MEXICO | TVD Reference: | KB @ 3715.0usft |
| Project: | (SP) LEA | MD Reference: | KB @ 3715.0usft |
| Site: | OUTLAND 14-23 PROJECT | North Reference: | Grid |
| Well: | OUTLAND 14-23 ST 123H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PWP0 | | |

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

| | | | |
|-----------------------|-----------------------|--------------|-------------------|
| Site | OUTLAND 14-23 PROJECT | | |
| Site Position: | | Northing: | 541,564.07 usft |
| From: | Map | Easting: | 815,780.50 usft |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16 " |
| | | Latitude: | 32° 29' 8.428 N |
| | | Longitude: | 103° 26' 35.847 W |

| | | | |
|----------------------|-----------------------|----------|---------------------|
| Well | OUTLAND 14-23 ST 123H | | |
| Well Position | +N/-S | 0.0 usft | Northing: |
| | +E/-W | 0.0 usft | Easting: |
| Position Uncertainty | | 0.0 usft | Wellhead Elevation: |
| Grid Convergence: | | 0.48 ° | |
| | | | Latitude: |
| | | | Longitude: |
| | | | Ground Level: |

| | | | |
|-----------|------------|-------------|-----------------|
| Wellbore | OWB | | |
| Magnetics | Model Name | Sample Date | Declination |
| | | | (°) |
| | IGRF200510 | 12/31/2009 | 7.71 |
| | | | Dip Angle |
| | | | (°) |
| | | | Field Strength |
| | | | (nT) |
| | | | 60.51 |
| | | | 48,964.20454602 |

| | | | |
|-------------------|------------------|-----------|---------------|
| Design | PWP0 | | |
| Audit Notes: | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: |
| | | | 0.0 |
| Vertical Section: | Depth From (TVD) | +N/-S | +E/-W |
| | (usft) | (usft) | (usft) |
| | 0.0 | 0.0 | 0.0 |
| | | | Direction |
| | | | (°) |
| | | | 181.21 |

| | | | |
|--------------------------|---------------|---------------------|-----------------------|
| Plan Survey Tool Program | Date 5/2/2024 | | |
| Depth From | Depth To | Survey (Wellbore) | Tool Name |
| (usft) | (usft) | | |
| 1 | 0.0 | 17,790.6 PWP0 (OWB) | MWD |
| | | | OWSG_Rev2_ MWD - Star |

| | | | | | | | | | | |
|---------------|-------------|---------|----------|----------|--------|-------------|-------------|-------------|--------|-----------------|
| Plan Sections | | | | | | | | | | |
| Measured | | | Vertical | | | Dogleg | Build | Turn | | |
| Depth | Inclination | Azimuth | Depth | +N/-S | +E/-W | Rate | Rate | Rate | TFO | Target |
| (usft) | (°) | (°) | (usft) | (usft) | (usft) | (°/100usft) | (°/100usft) | (°/100usft) | (°) | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,000.0 | 0.00 | 0.00 | 3,000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,350.0 | 7.00 | 302.33 | 3,349.1 | 11.4 | -18.0 | 2.00 | 2.00 | 0.00 | 302.33 | |
| 5,189.5 | 7.00 | 302.33 | 5,174.9 | 131.3 | -207.5 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,539.5 | 0.00 | 0.00 | 5,524.0 | 142.7 | -225.5 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 9,793.0 | 0.00 | 0.00 | 9,777.5 | 142.7 | -225.5 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 10,542.9 | 90.00 | 179.52 | 10,255.0 | -334.7 | -221.5 | 12.00 | 12.00 | 23.94 | 179.52 | |
| 17,790.6 | 90.00 | 179.52 | 10,255.0 | -7,582.2 | -160.6 | 0.00 | 0.00 | 0.00 | 0.00 | BHL-OUTLAND 14- |

Permian Resources

Planning Report - Geographic

| | | | |
|------------------|-----------------------|-------------------------------------|----------------------------|
| Database: | Compass | Local Co-ordinate Reference: | Well OUTLAND 14-23 ST 123H |
| Company: | NEW MEXICO | TVD Reference: | KB @ 3715.0usft |
| Project: | (SP) LEA | MD Reference: | KB @ 3715.0usft |
| Site: | OUTLAND 14-23 PROJECT | North Reference: | Grid |
| Well: | OUTLAND 14-23 ST 123H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PWPO | | |

| Planned Survey | | | | | | | | | | |
|--------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|-----------------|-------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,100.0 | 0.00 | 0.00 | 2,100.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,200.0 | 0.00 | 0.00 | 2,200.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,300.0 | 0.00 | 0.00 | 2,300.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,400.0 | 0.00 | 0.00 | 2,400.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,500.0 | 0.00 | 0.00 | 2,500.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,600.0 | 0.00 | 0.00 | 2,600.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,700.0 | 0.00 | 0.00 | 2,700.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,800.0 | 0.00 | 0.00 | 2,800.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 2,900.0 | 0.00 | 0.00 | 2,900.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| 3,000.0 | 0.00 | 0.00 | 3,000.0 | 0.0 | 0.0 | 541,552.56 | 817,481.63 | 32° 29' 8.173 N | 103° 26' 15.989 W | |
| Start Build 2.00 | | | | | | | | | | |
| 3,100.0 | 2.00 | 302.33 | 3,100.0 | 0.9 | -1.5 | 541,553.50 | 817,480.15 | 32° 29' 8.182 N | 103° 26' 16.007 W | |
| 3,200.0 | 4.00 | 302.33 | 3,199.8 | 3.7 | -5.9 | 541,556.29 | 817,475.73 | 32° 29' 8.210 N | 103° 26' 16.058 W | |
| 3,300.0 | 6.00 | 302.33 | 3,299.5 | 8.4 | -13.3 | 541,560.96 | 817,468.37 | 32° 29' 8.257 N | 103° 26' 16.143 W | |
| 3,350.0 | 7.00 | 302.33 | 3,349.1 | 11.4 | -18.0 | 541,563.98 | 817,463.58 | 32° 29' 8.287 N | 103° 26' 16.199 W | |
| Start 1839.5 hold at 3350.0 MD | | | | | | | | | | |
| 3,400.0 | 7.00 | 302.33 | 3,398.8 | 14.7 | -23.2 | 541,567.24 | 817,458.44 | 32° 29' 8.320 N | 103° 26' 16.259 W | |
| 3,500.0 | 7.00 | 302.33 | 3,498.0 | 21.2 | -33.5 | 541,573.76 | 817,448.14 | 32° 29' 8.385 N | 103° 26' 16.378 W | |
| 3,600.0 | 7.00 | 302.33 | 3,597.3 | 27.7 | -43.8 | 541,580.28 | 817,437.84 | 32° 29' 8.451 N | 103° 26' 16.498 W | |
| 3,700.0 | 7.00 | 302.33 | 3,696.5 | 34.2 | -54.1 | 541,586.79 | 817,427.54 | 32° 29' 8.516 N | 103° 26' 16.617 W | |
| 3,800.0 | 7.00 | 302.33 | 3,795.8 | 40.7 | -64.4 | 541,593.31 | 817,417.25 | 32° 29' 8.581 N | 103° 26' 16.737 W | |
| 3,900.0 | 7.00 | 302.33 | 3,895.0 | 47.3 | -74.7 | 541,599.83 | 817,406.95 | 32° 29' 8.647 N | 103° 26' 16.857 W | |
| 4,000.0 | 7.00 | 302.33 | 3,994.3 | 53.8 | -85.0 | 541,606.35 | 817,396.65 | 32° 29' 8.712 N | 103° 26' 16.976 W | |
| 4,100.0 | 7.00 | 302.33 | 4,093.5 | 60.3 | -95.3 | 541,612.86 | 817,386.35 | 32° 29' 8.777 N | 103° 26' 17.096 W | |
| 4,200.0 | 7.00 | 302.33 | 4,192.8 | 66.8 | -105.6 | 541,619.38 | 817,376.05 | 32° 29' 8.843 N | 103° 26' 17.215 W | |
| 4,300.0 | 7.00 | 302.33 | 4,292.0 | 73.3 | -115.9 | 541,625.90 | 817,365.76 | 32° 29' 8.908 N | 103° 26' 17.335 W | |
| 4,400.0 | 7.00 | 302.33 | 4,391.3 | 79.9 | -126.2 | 541,632.42 | 817,355.46 | 32° 29' 8.974 N | 103° 26' 17.455 W | |
| 4,500.0 | 7.00 | 302.33 | 4,490.6 | 86.4 | -136.5 | 541,638.93 | 817,345.16 | 32° 29' 9.039 N | 103° 26' 17.574 W | |
| 4,600.0 | 7.00 | 302.33 | 4,589.8 | 92.9 | -146.8 | 541,645.45 | 817,334.86 | 32° 29' 9.104 N | 103° 26' 17.694 W | |
| 4,700.0 | 7.00 | 302.33 | 4,689.1 | 99.4 | -157.1 | 541,651.97 | 817,324.57 | 32° 29' 9.170 N | 103° 26' 17.813 W | |
| 4,800.0 | 7.00 | 302.33 | 4,788.3 | 105.9 | -167.4 | 541,658.49 | 817,314.27 | 32° 29' 9.235 N | 103° 26' 17.933 W | |
| 4,900.0 | 7.00 | 302.33 | 4,887.6 | 112.4 | -177.7 | 541,665.01 | 817,303.97 | 32° 29' 9.300 N | 103° 26' 18.052 W | |
| 5,000.0 | 7.00 | 302.33 | 4,986.8 | 119.0 | -188.0 | 541,671.52 | 817,293.67 | 32° 29' 9.366 N | 103° 26' 18.172 W | |

Permian Resources

Planning Report - Geographic

| | | | |
|------------------|-----------------------|-------------------------------------|----------------------------|
| Database: | Compass | Local Co-ordinate Reference: | Well OUTLAND 14-23 ST 123H |
| Company: | NEW MEXICO | TVD Reference: | KB @ 3715.0usft |
| Project: | (SP) LEA | MD Reference: | KB @ 3715.0usft |
| Site: | OUTLAND 14-23 PROJECT | North Reference: | Grid |
| Well: | OUTLAND 14-23 ST 123H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PWPO | | |

| Planned Survey | | | | | | | | | |
|---------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-----------------|-------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude |
| 5,100.0 | 7.00 | 302.33 | 5,086.1 | 125.5 | -198.3 | 541,678.04 | 817,283.38 | 32° 29' 9.431 N | 103° 26' 18.292 W |
| 5,189.5 | 7.00 | 302.33 | 5,174.9 | 131.3 | -207.5 | 541,683.87 | 817,274.16 | 32° 29' 9.489 N | 103° 26' 18.399 W |
| Start Drop -2.00 | | | | | | | | | |
| 5,200.0 | 6.79 | 302.33 | 5,185.3 | 132.0 | -208.5 | 541,684.55 | 817,273.09 | 32° 29' 9.496 N | 103° 26' 18.411 W |
| 5,300.0 | 4.79 | 302.33 | 5,284.8 | 137.4 | -217.1 | 541,689.94 | 817,264.57 | 32° 29' 9.550 N | 103° 26' 18.510 W |
| 5,400.0 | 2.79 | 302.33 | 5,384.6 | 140.9 | -222.6 | 541,693.48 | 817,258.99 | 32° 29' 9.586 N | 103° 26' 18.575 W |
| 5,500.0 | 0.79 | 302.33 | 5,484.5 | 142.6 | -225.3 | 541,695.15 | 817,256.35 | 32° 29' 9.602 N | 103° 26' 18.605 W |
| 5,539.5 | 0.00 | 0.00 | 5,524.0 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| Start 4253.5 hold at 5539.5 MD | | | | | | | | | |
| 5,600.0 | 0.00 | 0.00 | 5,584.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 5,700.0 | 0.00 | 0.00 | 5,684.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 5,800.0 | 0.00 | 0.00 | 5,784.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 5,900.0 | 0.00 | 0.00 | 5,884.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,000.0 | 0.00 | 0.00 | 5,984.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,100.0 | 0.00 | 0.00 | 6,084.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,200.0 | 0.00 | 0.00 | 6,184.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,300.0 | 0.00 | 0.00 | 6,284.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,400.0 | 0.00 | 0.00 | 6,384.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,500.0 | 0.00 | 0.00 | 6,484.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,600.0 | 0.00 | 0.00 | 6,584.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,700.0 | 0.00 | 0.00 | 6,684.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,800.0 | 0.00 | 0.00 | 6,784.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 6,900.0 | 0.00 | 0.00 | 6,884.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,000.0 | 0.00 | 0.00 | 6,984.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,100.0 | 0.00 | 0.00 | 7,084.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,200.0 | 0.00 | 0.00 | 7,184.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,300.0 | 0.00 | 0.00 | 7,284.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,400.0 | 0.00 | 0.00 | 7,384.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,500.0 | 0.00 | 0.00 | 7,484.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,600.0 | 0.00 | 0.00 | 7,584.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,700.0 | 0.00 | 0.00 | 7,684.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,800.0 | 0.00 | 0.00 | 7,784.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 7,900.0 | 0.00 | 0.00 | 7,884.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,000.0 | 0.00 | 0.00 | 7,984.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,100.0 | 0.00 | 0.00 | 8,084.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,200.0 | 0.00 | 0.00 | 8,184.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,300.0 | 0.00 | 0.00 | 8,284.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,400.0 | 0.00 | 0.00 | 8,384.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,500.0 | 0.00 | 0.00 | 8,484.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,600.0 | 0.00 | 0.00 | 8,584.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,700.0 | 0.00 | 0.00 | 8,684.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,800.0 | 0.00 | 0.00 | 8,784.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 8,900.0 | 0.00 | 0.00 | 8,884.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,000.0 | 0.00 | 0.00 | 8,984.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,100.0 | 0.00 | 0.00 | 9,084.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,200.0 | 0.00 | 0.00 | 9,184.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,300.0 | 0.00 | 0.00 | 9,284.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,400.0 | 0.00 | 0.00 | 9,384.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,500.0 | 0.00 | 0.00 | 9,484.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,600.0 | 0.00 | 0.00 | 9,584.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,700.0 | 0.00 | 0.00 | 9,684.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| 9,793.0 | 0.00 | 0.00 | 9,777.5 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| Start DLS 12.00 TFO 179.52 | | | | | | | | | |
| 9,800.0 | 0.85 | 179.52 | 9,784.5 | 142.7 | -225.5 | 541,695.24 | 817,256.12 | 32° 29' 9.603 N | 103° 26' 18.608 W |

Permian Resources

Planning Report - Geographic

| | | | |
|------------------|-----------------------|-------------------------------------|----------------------------|
| Database: | Compass | Local Co-ordinate Reference: | Well OUTLAND 14-23 ST 123H |
| Company: | NEW MEXICO | TVD Reference: | KB @ 3715.0usft |
| Project: | (SP) LEA | MD Reference: | KB @ 3715.0usft |
| Site: | OUTLAND 14-23 PROJECT | North Reference: | Grid |
| Well: | OUTLAND 14-23 ST 123H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PWPO | | |

| Planned Survey | | | | | | | | | | |
|---------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|------------------|-----------|----------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 9,825.0 | 3.85 | 179.52 | 9,809.5 | 141.7 | -225.5 | 541,694.22 | 817,256.13 | 32° 29' 9.593 N | 103° 26' | 18.608 W |
| 9,850.0 | 6.85 | 179.52 | 9,834.4 | 139.3 | -225.5 | 541,691.89 | 817,256.15 | 32° 29' 9.570 N | 103° 26' | 18.608 W |
| 9,875.0 | 9.85 | 179.52 | 9,859.1 | 135.7 | -225.5 | 541,688.26 | 817,256.18 | 32° 29' 9.534 N | 103° 26' | 18.608 W |
| 9,900.0 | 12.85 | 179.52 | 9,883.7 | 130.8 | -225.4 | 541,683.34 | 817,256.22 | 32° 29' 9.486 N | 103° 26' | 18.608 W |
| 9,925.0 | 15.85 | 179.52 | 9,907.9 | 124.6 | -225.4 | 541,677.15 | 817,256.27 | 32° 29' 9.424 N | 103° 26' | 18.608 W |
| 9,950.0 | 18.85 | 179.52 | 9,931.7 | 117.1 | -225.3 | 541,669.70 | 817,256.33 | 32° 29' 9.351 N | 103° 26' | 18.608 W |
| 9,975.0 | 21.85 | 179.52 | 9,955.2 | 108.4 | -225.2 | 541,661.01 | 817,256.41 | 32° 29' 9.265 N | 103° 26' | 18.608 W |
| 10,000.0 | 24.85 | 179.52 | 9,978.1 | 98.5 | -225.1 | 541,651.10 | 817,256.49 | 32° 29' 9.167 N | 103° 26' | 18.608 W |
| 10,025.0 | 27.85 | 179.52 | 10,000.5 | 87.4 | -225.0 | 541,640.01 | 817,256.58 | 32° 29' 9.057 N | 103° 26' | 18.608 W |
| 10,050.0 | 30.85 | 179.52 | 10,022.3 | 75.2 | -224.9 | 541,627.76 | 817,256.69 | 32° 29' 8.936 N | 103° 26' | 18.608 W |
| 10,075.0 | 33.85 | 179.52 | 10,043.4 | 61.8 | -224.8 | 541,614.38 | 817,256.80 | 32° 29' 8.803 N | 103° 26' | 18.608 W |
| 10,100.0 | 36.85 | 179.52 | 10,063.8 | 47.4 | -224.7 | 541,599.92 | 817,256.92 | 32° 29' 8.660 N | 103° 26' | 18.608 W |
| 10,125.0 | 39.85 | 179.52 | 10,083.4 | 31.9 | -224.6 | 541,584.41 | 817,257.05 | 32° 29' 8.507 N | 103° 26' | 18.608 W |
| 10,150.0 | 42.85 | 179.52 | 10,102.2 | 15.3 | -224.4 | 541,567.90 | 817,257.19 | 32° 29' 8.343 N | 103° 26' | 18.608 W |
| 10,175.0 | 45.85 | 179.52 | 10,120.1 | -2.1 | -224.3 | 541,550.43 | 817,257.34 | 32° 29' 8.170 N | 103° 26' | 18.608 W |
| 10,200.0 | 48.85 | 179.52 | 10,137.0 | -20.5 | -224.1 | 541,532.05 | 817,257.49 | 32° 29' 7.989 N | 103° 26' | 18.608 W |
| 10,225.0 | 51.85 | 179.52 | 10,153.0 | -39.8 | -224.0 | 541,512.80 | 817,257.65 | 32° 29' 7.798 N | 103° 26' | 18.608 W |
| 10,250.0 | 54.85 | 179.52 | 10,167.9 | -59.8 | -223.8 | 541,492.75 | 817,257.82 | 32° 29' 7.600 N | 103° 26' | 18.608 W |
| 10,275.0 | 57.85 | 179.52 | 10,181.7 | -80.6 | -223.6 | 541,471.94 | 817,257.99 | 32° 29' 7.394 N | 103° 26' | 18.608 W |
| 10,300.0 | 60.85 | 179.52 | 10,194.5 | -102.1 | -223.5 | 541,450.44 | 817,258.18 | 32° 29' 7.181 N | 103° 26' | 18.608 W |
| 10,325.0 | 63.85 | 179.52 | 10,206.1 | -124.3 | -223.3 | 541,428.30 | 817,258.36 | 32° 29' 6.962 N | 103° 26' | 18.608 W |
| 10,350.0 | 66.85 | 179.52 | 10,216.5 | -147.0 | -223.1 | 541,405.58 | 817,258.55 | 32° 29' 6.737 N | 103° 26' | 18.608 W |
| 10,375.0 | 69.85 | 179.52 | 10,225.7 | -170.2 | -222.9 | 541,382.35 | 817,258.75 | 32° 29' 6.507 N | 103° 26' | 18.608 W |
| 10,400.0 | 72.85 | 179.52 | 10,233.7 | -193.9 | -222.7 | 541,358.66 | 817,258.95 | 32° 29' 6.273 N | 103° 26' | 18.608 W |
| 10,425.0 | 75.85 | 179.52 | 10,240.5 | -218.0 | -222.5 | 541,334.60 | 817,259.15 | 32° 29' 6.035 N | 103° 26' | 18.608 W |
| 10,450.0 | 78.85 | 179.52 | 10,245.9 | -242.4 | -222.3 | 541,310.21 | 817,259.35 | 32° 29' 5.793 N | 103° 26' | 18.608 W |
| 10,475.0 | 81.85 | 179.52 | 10,250.1 | -267.0 | -222.1 | 541,285.56 | 817,259.56 | 32° 29' 5.550 N | 103° 26' | 18.608 W |
| 10,500.0 | 84.85 | 179.52 | 10,253.0 | -291.8 | -221.9 | 541,260.74 | 817,259.77 | 32° 29' 5.304 N | 103° 26' | 18.608 W |
| 10,525.0 | 87.85 | 179.52 | 10,254.6 | -316.8 | -221.7 | 541,235.79 | 817,259.98 | 32° 29' 5.057 N | 103° 26' | 18.608 W |
| 10,542.9 | 90.00 | 179.52 | 10,255.0 | -334.7 | -221.5 | 541,217.85 | 817,260.13 | 32° 29' 4.879 N | 103° 26' | 18.608 W |
| Start 7247.7 hold at 10542.9 MD | | | | | | | | | | |
| 10,600.0 | 90.00 | 179.52 | 10,255.0 | -391.8 | -221.0 | 541,160.80 | 817,260.61 | 32° 29' 4.315 N | 103° 26' | 18.608 W |
| 10,700.0 | 90.00 | 179.52 | 10,255.0 | -491.8 | -220.2 | 541,060.80 | 817,261.45 | 32° 29' 3.326 N | 103° 26' | 18.608 W |
| 10,800.0 | 90.00 | 179.52 | 10,255.0 | -591.8 | -219.3 | 540,960.80 | 817,262.29 | 32° 29' 2.336 N | 103° 26' | 18.608 W |
| 10,900.0 | 90.00 | 179.52 | 10,255.0 | -691.8 | -218.5 | 540,860.81 | 817,263.13 | 32° 29' 1.347 N | 103° 26' | 18.608 W |
| 11,000.0 | 90.00 | 179.52 | 10,255.0 | -791.8 | -217.7 | 540,760.81 | 817,263.97 | 32° 29' 0.357 N | 103° 26' | 18.608 W |
| 11,100.0 | 90.00 | 179.52 | 10,255.0 | -891.7 | -216.8 | 540,660.82 | 817,264.81 | 32° 28' 59.368 N | 103° 26' | 18.608 W |
| 11,200.0 | 90.00 | 179.52 | 10,255.0 | -991.7 | -216.0 | 540,560.82 | 817,265.65 | 32° 28' 58.378 N | 103° 26' | 18.608 W |
| 11,300.0 | 90.00 | 179.52 | 10,255.0 | -1,091.7 | -215.1 | 540,460.82 | 817,266.49 | 32° 28' 57.389 N | 103° 26' | 18.608 W |
| 11,400.0 | 90.00 | 179.52 | 10,255.0 | -1,191.7 | -214.3 | 540,360.83 | 817,267.33 | 32° 28' 56.399 N | 103° 26' | 18.608 W |
| 11,500.0 | 90.00 | 179.52 | 10,255.0 | -1,291.7 | -213.5 | 540,260.83 | 817,268.17 | 32° 28' 55.410 N | 103° 26' | 18.608 W |
| 11,600.0 | 90.00 | 179.52 | 10,255.0 | -1,391.7 | -212.6 | 540,160.83 | 817,269.01 | 32° 28' 54.420 N | 103° 26' | 18.608 W |
| 11,700.0 | 90.00 | 179.52 | 10,255.0 | -1,491.7 | -211.8 | 540,060.84 | 817,269.85 | 32° 28' 53.431 N | 103° 26' | 18.608 W |
| 11,800.0 | 90.00 | 179.52 | 10,255.0 | -1,591.7 | -210.9 | 539,960.84 | 817,270.69 | 32° 28' 52.441 N | 103° 26' | 18.608 W |
| 11,900.0 | 90.00 | 179.52 | 10,255.0 | -1,691.7 | -210.1 | 539,860.84 | 817,271.53 | 32° 28' 51.452 N | 103° 26' | 18.608 W |
| 12,000.0 | 90.00 | 179.52 | 10,255.0 | -1,791.7 | -209.3 | 539,760.85 | 817,272.37 | 32° 28' 50.462 N | 103° 26' | 18.608 W |
| 12,100.0 | 90.00 | 179.52 | 10,255.0 | -1,891.7 | -208.4 | 539,660.85 | 817,273.21 | 32° 28' 49.473 N | 103° 26' | 18.608 W |
| 12,200.0 | 90.00 | 179.52 | 10,255.0 | -1,991.7 | -207.6 | 539,560.85 | 817,274.05 | 32° 28' 48.483 N | 103° 26' | 18.608 W |
| 12,300.0 | 90.00 | 179.52 | 10,255.0 | -2,091.7 | -206.7 | 539,460.86 | 817,274.89 | 32° 28' 47.494 N | 103° 26' | 18.608 W |
| 12,400.0 | 90.00 | 179.52 | 10,255.0 | -2,191.7 | -205.9 | 539,360.86 | 817,275.73 | 32° 28' 46.504 N | 103° 26' | 18.608 W |
| 12,500.0 | 90.00 | 179.52 | 10,255.0 | -2,291.7 | -205.1 | 539,260.86 | 817,276.57 | 32° 28' 45.515 N | 103° 26' | 18.608 W |
| 12,600.0 | 90.00 | 179.52 | 10,255.0 | -2,391.7 | -204.2 | 539,160.87 | 817,277.41 | 32° 28' 44.525 N | 103° 26' | 18.608 W |
| 12,700.0 | 90.00 | 179.52 | 10,255.0 | -2,491.7 | -203.4 | 539,060.87 | 817,278.25 | 32° 28' 43.536 N | 103° 26' | 18.608 W |
| 12,800.0 | 90.00 | 179.52 | 10,255.0 | -2,591.7 | -202.5 | 538,960.87 | 817,279.09 | 32° 28' 42.546 N | 103° 26' | 18.608 W |

Permian Resources

Planning Report - Geographic

| | | | |
|------------------|-----------------------|-------------------------------------|----------------------------|
| Database: | Compass | Local Co-ordinate Reference: | Well OUTLAND 14-23 ST 123H |
| Company: | NEW MEXICO | TVD Reference: | KB @ 3715.0usft |
| Project: | (SP) LEA | MD Reference: | KB @ 3715.0usft |
| Site: | OUTLAND 14-23 PROJECT | North Reference: | Grid |
| Well: | OUTLAND 14-23 ST 123H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PWPO | | |

| Planned Survey | | | | | | | | | | |
|---------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------------|-------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 12,900.0 | 90.00 | 179.52 | 10,255.0 | -2,691.7 | -201.7 | 538,860.88 | 817,279.93 | 32° 28' 41.557 N | 103° 26' 18.608 W | |
| 13,000.0 | 90.00 | 179.52 | 10,255.0 | -2,791.7 | -200.9 | 538,760.88 | 817,280.77 | 32° 28' 40.567 N | 103° 26' 18.608 W | |
| 13,100.0 | 90.00 | 179.52 | 10,255.0 | -2,891.7 | -200.0 | 538,660.89 | 817,281.61 | 32° 28' 39.578 N | 103° 26' 18.608 W | |
| 13,200.0 | 90.00 | 179.52 | 10,255.0 | -2,991.7 | -199.2 | 538,560.89 | 817,282.45 | 32° 28' 38.589 N | 103° 26' 18.608 W | |
| 13,300.0 | 90.00 | 179.52 | 10,255.0 | -3,091.7 | -198.3 | 538,460.89 | 817,283.29 | 32° 28' 37.599 N | 103° 26' 18.608 W | |
| 13,400.0 | 90.00 | 179.52 | 10,255.0 | -3,191.7 | -197.5 | 538,360.90 | 817,284.13 | 32° 28' 36.610 N | 103° 26' 18.608 W | |
| 13,500.0 | 90.00 | 179.52 | 10,255.0 | -3,291.7 | -196.7 | 538,260.90 | 817,284.97 | 32° 28' 35.620 N | 103° 26' 18.608 W | |
| 13,600.0 | 90.00 | 179.52 | 10,255.0 | -3,391.7 | -195.8 | 538,160.90 | 817,285.81 | 32° 28' 34.631 N | 103° 26' 18.608 W | |
| 13,700.0 | 90.00 | 179.52 | 10,255.0 | -3,491.7 | -195.0 | 538,060.91 | 817,286.65 | 32° 28' 33.641 N | 103° 26' 18.608 W | |
| 13,800.0 | 90.00 | 179.52 | 10,255.0 | -3,591.7 | -194.1 | 537,960.91 | 817,287.49 | 32° 28' 32.652 N | 103° 26' 18.608 W | |
| 13,900.0 | 90.00 | 179.52 | 10,255.0 | -3,691.6 | -193.3 | 537,860.91 | 817,288.33 | 32° 28' 31.662 N | 103° 26' 18.608 W | |
| 13,930.0 | 90.00 | 179.52 | 10,255.0 | -3,721.6 | -193.0 | 537,830.94 | 817,288.58 | 32° 28' 31.366 N | 103° 26' 18.607 W | |
| B116100005 Entry at 13930.0 MD | | | | | | | | | | |
| 14,000.0 | 90.00 | 179.52 | 10,255.0 | -3,791.6 | -192.5 | 537,760.92 | 817,289.17 | 32° 28' 30.673 N | 103° 26' 18.607 W | |
| 14,100.0 | 90.00 | 179.52 | 10,255.0 | -3,891.6 | -191.6 | 537,660.92 | 817,290.01 | 32° 28' 29.683 N | 103° 26' 18.607 W | |
| 14,200.0 | 90.00 | 179.52 | 10,255.0 | -3,991.6 | -190.8 | 537,560.92 | 817,290.85 | 32° 28' 28.694 N | 103° 26' 18.607 W | |
| 14,300.0 | 90.00 | 179.52 | 10,255.0 | -4,091.6 | -189.9 | 537,460.93 | 817,291.69 | 32° 28' 27.704 N | 103° 26' 18.607 W | |
| 14,400.0 | 90.00 | 179.52 | 10,255.0 | -4,191.6 | -189.1 | 537,360.93 | 817,292.53 | 32° 28' 26.715 N | 103° 26' 18.607 W | |
| 14,500.0 | 90.00 | 179.52 | 10,255.0 | -4,291.6 | -188.3 | 537,260.93 | 817,293.37 | 32° 28' 25.725 N | 103° 26' 18.607 W | |
| 14,600.0 | 90.00 | 179.52 | 10,255.0 | -4,391.6 | -187.4 | 537,160.94 | 817,294.21 | 32° 28' 24.736 N | 103° 26' 18.607 W | |
| 14,700.0 | 90.00 | 179.52 | 10,255.0 | -4,491.6 | -186.6 | 537,060.94 | 817,295.05 | 32° 28' 23.746 N | 103° 26' 18.607 W | |
| 14,800.0 | 90.00 | 179.52 | 10,255.0 | -4,591.6 | -185.7 | 536,960.95 | 817,295.89 | 32° 28' 22.757 N | 103° 26' 18.607 W | |
| 14,900.0 | 90.00 | 179.52 | 10,255.0 | -4,691.6 | -184.9 | 536,860.95 | 817,296.73 | 32° 28' 21.767 N | 103° 26' 18.607 W | |
| 15,000.0 | 90.00 | 179.52 | 10,255.0 | -4,791.6 | -184.1 | 536,760.95 | 817,297.57 | 32° 28' 20.778 N | 103° 26' 18.607 W | |
| 15,100.0 | 90.00 | 179.52 | 10,255.0 | -4,891.6 | -183.2 | 536,660.96 | 817,298.41 | 32° 28' 19.788 N | 103° 26' 18.607 W | |
| 15,200.0 | 90.00 | 179.52 | 10,255.0 | -4,991.6 | -182.4 | 536,560.96 | 817,299.25 | 32° 28' 18.799 N | 103° 26' 18.607 W | |
| 15,300.0 | 90.00 | 179.52 | 10,255.0 | -5,091.6 | -181.5 | 536,460.96 | 817,300.09 | 32° 28' 17.809 N | 103° 26' 18.607 W | |
| 15,400.0 | 90.00 | 179.52 | 10,255.0 | -5,191.6 | -180.7 | 536,360.97 | 817,300.93 | 32° 28' 16.820 N | 103° 26' 18.607 W | |
| 15,500.0 | 90.00 | 179.52 | 10,255.0 | -5,291.6 | -179.9 | 536,260.97 | 817,301.77 | 32° 28' 15.830 N | 103° 26' 18.607 W | |
| 15,600.0 | 90.00 | 179.52 | 10,255.0 | -5,391.6 | -179.0 | 536,160.97 | 817,302.61 | 32° 28' 14.841 N | 103° 26' 18.607 W | |
| 15,700.0 | 90.00 | 179.52 | 10,255.0 | -5,491.6 | -178.2 | 536,060.98 | 817,303.45 | 32° 28' 13.851 N | 103° 26' 18.607 W | |
| 15,800.0 | 90.00 | 179.52 | 10,255.0 | -5,591.6 | -177.3 | 535,960.98 | 817,304.29 | 32° 28' 12.862 N | 103° 26' 18.607 W | |
| 15,900.0 | 90.00 | 179.52 | 10,255.0 | -5,691.6 | -176.5 | 535,860.98 | 817,305.13 | 32° 28' 11.873 N | 103° 26' 18.607 W | |
| 16,000.0 | 90.00 | 179.52 | 10,255.0 | -5,791.6 | -175.7 | 535,760.99 | 817,305.97 | 32° 28' 10.883 N | 103° 26' 18.607 W | |
| 16,100.0 | 90.00 | 179.52 | 10,255.0 | -5,891.6 | -174.8 | 535,660.99 | 817,306.81 | 32° 28' 9.894 N | 103° 26' 18.607 W | |
| 16,200.0 | 90.00 | 179.52 | 10,255.0 | -5,991.6 | -174.0 | 535,560.99 | 817,307.65 | 32° 28' 8.904 N | 103° 26' 18.607 W | |
| 16,300.0 | 90.00 | 179.52 | 10,255.0 | -6,091.6 | -173.1 | 535,461.00 | 817,308.49 | 32° 28' 7.915 N | 103° 26' 18.607 W | |
| 16,400.0 | 90.00 | 179.52 | 10,255.0 | -6,191.6 | -172.3 | 535,361.00 | 817,309.33 | 32° 28' 6.925 N | 103° 26' 18.607 W | |
| 16,500.0 | 90.00 | 179.52 | 10,255.0 | -6,291.6 | -171.5 | 535,261.01 | 817,310.17 | 32° 28' 5.936 N | 103° 26' 18.607 W | |
| 16,600.0 | 90.00 | 179.52 | 10,255.0 | -6,391.6 | -170.6 | 535,161.01 | 817,311.01 | 32° 28' 4.946 N | 103° 26' 18.607 W | |
| 16,700.0 | 90.00 | 179.52 | 10,255.0 | -6,491.5 | -169.8 | 535,061.01 | 817,311.85 | 32° 28' 3.957 N | 103° 26' 18.607 W | |
| 16,800.0 | 90.00 | 179.52 | 10,255.0 | -6,591.5 | -168.9 | 534,961.02 | 817,312.69 | 32° 28' 2.967 N | 103° 26' 18.607 W | |
| 16,900.0 | 90.00 | 179.52 | 10,255.0 | -6,691.5 | -168.1 | 534,861.02 | 817,313.53 | 32° 28' 1.978 N | 103° 26' 18.607 W | |
| 17,000.0 | 90.00 | 179.52 | 10,255.0 | -6,791.5 | -167.3 | 534,761.02 | 817,314.37 | 32° 28' 0.988 N | 103° 26' 18.607 W | |
| 17,100.0 | 90.00 | 179.52 | 10,255.0 | -6,891.5 | -166.4 | 534,661.03 | 817,315.21 | 32° 27' 59.999 N | 103° 26' 18.607 W | |
| 17,200.0 | 90.00 | 179.52 | 10,255.0 | -6,991.5 | -165.6 | 534,561.03 | 817,316.05 | 32° 27' 59.009 N | 103° 26' 18.607 W | |
| 17,300.0 | 90.00 | 179.52 | 10,255.0 | -7,091.5 | -164.7 | 534,461.03 | 817,316.89 | 32° 27' 58.020 N | 103° 26' 18.607 W | |
| 17,400.0 | 90.00 | 179.52 | 10,255.0 | -7,191.5 | -163.9 | 534,361.04 | 817,317.73 | 32° 27' 57.030 N | 103° 26' 18.607 W | |
| 17,500.0 | 90.00 | 179.52 | 10,255.0 | -7,291.5 | -163.1 | 534,261.04 | 817,318.57 | 32° 27' 56.041 N | 103° 26' 18.607 W | |
| 17,600.0 | 90.00 | 179.52 | 10,255.0 | -7,391.5 | -162.2 | 534,161.04 | 817,319.41 | 32° 27' 55.051 N | 103° 26' 18.607 W | |
| 17,700.0 | 90.00 | 179.52 | 10,255.0 | -7,491.5 | -161.4 | 534,061.05 | 817,320.25 | 32° 27' 54.062 N | 103° 26' 18.607 W | |
| 17,790.6 | 90.00 | 179.52 | 10,255.0 | -7,582.2 | -160.6 | 533,970.40 | 817,321.01 | 32° 27' 53.165 N | 103° 26' 18.607 W | |
| TD at 17790.6 | | | | | | | | | | |

Permian Resources

Planning Report - Geographic

| | | | |
|-----------|-----------------------|------------------------------|----------------------------|
| Database: | Compass | Local Co-ordinate Reference: | Well OUTLAND 14-23 ST 123H |
| Company: | NEW MEXICO | TVD Reference: | KB @ 3715.0usft |
| Project: | (SP) LEA | MD Reference: | KB @ 3715.0usft |
| Site: | OUTLAND 14-23 PROJECT | North Reference: | Grid |
| Well: | OUTLAND 14-23 ST 123H | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PWP0 | | |

| Design Targets | | | | | | | | | |
|---|-----------|----------|----------|----------|--------|------------|------------|------------------|-------------------|
| Target Name | | | | | | | | | |
| - hit/miss target | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - Shape | (°) | (°) | (usft) | (usft) | (usft) | (usft) | (usft) | | |
| BHL-OUTLAND 14-23 | 0.00 | 0.00 | 10,255.0 | -7,582.2 | -160.6 | 533,970.40 | 817,321.01 | 32° 27' 53.165 N | 103° 26' 18.607 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |
| FTP-OUTLAND 14-23 | 0.00 | 0.00 | 10,255.0 | 142.7 | -225.5 | 541,695.29 | 817,256.12 | 32° 29' 9.604 N | 103° 26' 18.608 W |
| - plan misses target center by 197.8usft at 10170.2usft MD (10116.7 TVD, 1.3 N, -224.3 E) | | | | | | | | | |
| - Point | | | | | | | | | |

| Plan Annotations | | | | |
|-----------------------|-----------------------|-------------------|--------------|---------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 3,000.0 | 3,000.0 | 0.0 | 0.0 | Start Build 2.00 |
| 3,350.0 | 3,349.1 | 11.4 | -18.0 | Start 1839.5 hold at 3350.0 MD |
| 5,189.5 | 5,174.9 | 131.3 | -207.5 | Start Drop -2.00 |
| 5,539.5 | 5,524.0 | 142.7 | -225.5 | Start 4253.5 hold at 5539.5 MD |
| 9,793.0 | 9,777.5 | 142.7 | -225.5 | Start DLS 12.00 TFO 179.52 |
| 10,542.9 | 10,255.0 | -334.7 | -221.5 | Start 7247.7 hold at 10542.9 MD |
| 13,930.0 | 10,255.0 | -3,721.6 | -193.0 | B116100005 Entry at 13930.0 MD |
| 17,790.6 | 10,255.0 | -7,582.2 | -160.6 | TD at 17790.6 |

Permian Resources - Outland 14-23 State 123H

1. Geologic Formations

| Formation | Elevation | TVD | Target |
|----------------------|-----------|-------|--------|
| Rustler | 2019 | 1696 | No |
| Top of Salt | 1620 | 2095 | No |
| Yates | 125 | 3590 | No |
| Capitan | -278 | 3993 | No |
| Cherry Canyon | -1745 | 5460 | No |
| Brushy Canyon | -3005 | 6720 | No |
| Bone Spring Lime | -4454 | 8169 | No |
| 1st Bone Spring Sand | -5656 | 9371 | No |
| 2nd Bone Spring Sand | -6176 | 9891 | Yes |
| 3rd Bone Spring Sand | -7063 | 10778 | No |
| Wolfcamp | -7241 | 10956 | No |

2. Blowout Prevention

| BOP installed and tested before drilling | Size? | Min. Required WP | Type | x | Tested to: |
|--|---------|------------------|------------|---|------------|
| 12.25 | 13-5/8" | 5M | Annular | x | 2500 psi |
| | | | Blind Ram | x | 5000 psi |
| | | | Pipe Ram | x | |
| | | | Double Ram | | |
| | | | Other* | | |
| 8.75 | 13-5/8" | 5M | Annular | x | 2500 psi |
| | | | Blind Ram | x | 5000 psi |
| | | | Pipe Ram | x | |
| | | | Double Ram | | |
| | | | Other* | | |

Equipment: BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. All BOPE connections shall be flanged, welded or clamped. All choke lines shall be straight unless targeted with running tees or tee blocks are used, and choke lines shall be anchored to prevent whip and reduce vibrations. All valves in the choke line & the choke manifold shall be full opening as to not cause restrictions and to allow for straight fluid paths to minimize potential erosion. All gauges utilized in the well control system shall be of a type designed for drilling fluid service. A top drive inside BOP valve will be utilized at all times. Subs equipped with full opening valves sized to fit the drill pipe and collars will be available on the rig floor in the open position. The key to operate said valve equipped subs will be on the rig floor at all times. The accumulator system will have sufficient capacity to open the HCR and close all three sets of rams plus the annular preventer while retaining at least 300 psi above precharge on the closing manifold (accumulator system shall be capable of doing so without using the closing unit pumps). The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity, and the fluid level will be maintained at the manufacturer's recommended level. Prior to connecting the closing unit to the BOP stack, an accumulator precharge pressure test shall be performed to ensure the precharge pressure is within 100 psi of the desired precharge pressure (only nitrogen gas will be used to precharge). Two independent power sources will be made available at all times to power the closing unit pumps so that the pumps can automatically start when the closing valve manifold pressure has decreased to the preset level. Closing unit pumps will be sized to allow opening of HCR and closing of annular preventer on 5" drill pipe achieving at least 200 psi above precharge pressure with the accumulator system isolated from service in less than two minutes. A valve shall be installed in the closing line as close to the annular preventer as possible to act as a locking device; the valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative. Remote controls capable of opening and closing all preventers & the HCR shall be readily accessible to the driller; master controls with the same capability will be operable at the accumulator. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing & isolation of the 133/8 x 95/8 annulus without breaking the connection between the BOP & wellhead to install an additional casing head. A wear bushing will be installed & inspected frequently to guard against internal wear to wellhead. VBRs (variablebore rams) will be run in upper rambody of BOP stack to provide redundancy to annular preventer while RIH w/ production casing;

Requesting Variance? YES

Variance request: Flex hose and offline cement variances, see attachments in section 8.

Testing Procedure: The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed b. whenever any seal subject to test pressure is broken c. following related repairs d. at 30 day intervals e. checked daily as to mechanical operating conditions. The ram type preventer(s) will be tested using a test plug to 250 psi (low) and 5,000 psi (high) (casinghead WP) with a test plug upon its installation onto the 13 surface casing. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing. The annular type preventer(s) shall be tested to 3500 psi. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer. A Sundry Notice (Form 3160 5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test. If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure. The BLM office will be provided with a minimum of four (4) hours notice of BOP testing to allow witnessing. The BOP Configuration, choke manifold layout, and accumulator system, will be in compliance with Onshore Order 2 for a 5,000 psi system. A remote accumulator and a multi-bowl system will be used, please see attachment in section 8 for multi-bowl procedure. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM 'witnessed BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible.

Choke Diagram Attachemnt: 5 M Choe Manifold
BOP Diagram Attachment: BOP Schematic

3. Casing

| String | Hole Size | Casing Size | Top | Bottom | Top TVD | Bottom TVD | Length | Grade | Weight | Connection | Collapse SF | Burst SF | Joint SF Type | Joint SF | Body SF Type | Body SF |
|-----------------------|-----------|-------------|-------|--------|---------|------------|--------|--------|--------|------------|-------------|----------|---------------|----------|--------------|---------|
| Surface | 17.5 | 13.375 | 0 | 1721 | 0 | 1721 | 1721 | J55 | 54.5 | BTC | 1.33 | 1.53 | Dry | 4.69 | Dry | 4.40 |
| Intermediate | 12.25 | 9.625 | 0 | 5410 | 0 | 5410 | 5410 | J55 | 40 | BTC | 2.30 | 1.46 | Dry | 2.26 | Dry | 1.99 |
| Production | 8.75 | 5.5 | 0 | 10542 | 0 | 10255 | 10542 | P110RY | 20 | TCBC-HT | 1.98 | 2.07 | Dry | 2.10 | Dry | 2.10 |
| Production | 7.875 | 5.5 | 10542 | 17790 | 10255 | 10255 | 7248 | P110RY | 20 | TCBC-HT | 1.98 | 2.07 | Dry | 2.10 | Dry | 2.10 |
| BLM Min Safety Factor | | | | | | | | | | | 1.125 | 1 | | 1.6 | | 1.6 |

Non API casing spec sheets and casing design assumptions attached.

4. Cement

| String | Lead/Tail | Top MD | Bottom MD | Quantity (sx) | Yield | Density | Cu Ft | Excess % | Cement Type | Additives |
|------------------------|-----------|--------|-----------|---------------|-------|---------|-------|----------|-------------|---|
| Surface | Lead | 0 | 1370 | 1020 | 1.88 | 12.9 | 1910 | 100% | Class C | EconoCem-HLC + 5% Salt + 5% Kol-Seal |
| Surface | Tail | 1370 | 1721 | 280 | 1.34 | 14.8 | 370 | 50% | Class C | Accelerator |
| Intermediate | Lead | 3615 | 4320 | 190 | 1.88 | 12.9 | 340 | 50% | Class C | EconoCem-HLC + 5% Salt + 5% Kol-Seal |
| Intermediate | Tail | 4320 | 5410 | 390 | 1.34 | 14.8 | 520 | 50% | Class C | Retarder |
| Stage Tool Depth | | 3615 | | | | | | | | |
| Intermediate 2nd Stage | Lead | 0 | 3115 | 690 | 1.88 | 12.9 | 1280 | 50% | Class C | EconoCem-HLC + 5% Salt + 5% Kol-Seal |
| Intermediate 2nd Stage | Tail | 3115 | 3615 | 160 | 1.33 | 14.8 | 200 | 25% | Class C | Salt |
| Production | Lead | 4910 | 9793 | 710 | 2.41 | 11.5 | 1690 | 40% | Class H | POZ, Extender, Fluid Loss, Dispersant, Retarder |
| Production | Tail | 9793 | 17790 | 1050 | 1.73 | 12.5 | 1810 | 25% | Class H | POZ, Extender, Fluid Loss, Dispersant, Retarder |
| | | | | | | | | | | |
| Plug Back | Tail | 9477 | 11175 | 440 | 0.97 | 17.5 | 420 | 10% | Class C | Defoamer, HR-601, Salt |

5. Circulating Medium

Mud System Type: Closed

Will an air or gas system be used: No

Describe what will be on location to control well or mitigate other conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a saturated brine fluid to inhibit salt washout. The production hole will employ brine based and oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check

Cuttings Volume: 10490 Cu Ft

Circulating Medium Table

| Top Depth | Bottom Depth | Mud Type | Min Weight | Max Weight |
|-----------|--------------|-----------------|------------|------------|
| 0 | 1721 | Spud Mud | 8.6 | 9.5 |
| 1721 | 5410 | Water Based Mud | 10 | 10 |
| 5410 | 10542 | Water Based Mud | 9 | 10.5 |
| 10542 | 17790 | OBM | 9 | 10.5 |

6. Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:
 Will utilize MWD/LWD (Gamma Ray logging) from intermediate hole to TD of the well.
 List of open and cased hole logs run in the well:
 DIRECTIONAL SURVEY, GAMMA RAY LOG,
 Coring operation description for the well:
 N/A

7. Pressure

| | | |
|---|------|-----|
| Anticipated Bottom Hole Pressure | 5600 | psi |
| Anticipated Surface Pressure | 3343 | psi |
| Anticipated Bottom Hole Temperature | 158 | °F |
| Anticipated Abnormal pressure, temp, or geo hazards | No | |

8. Waste Management

| | |
|-------------------------------|--|
| Waste Type: | Drilling |
| Waste content description: | Fresh water based drilling fluid |
| Amount of waste: | 1500 bbls |
| Waste disposal frequency: | Weekly (after drilling all surfaces) |
| Safe containment description: | Steel tanks with plastic-lined containment berms |
| Waste disposal type: | Haul to commercial facility |
| Disposal location ownership: | Commercial |
| Waste Type: | Grey Water & Human Waste |
| Waste content description: | Grey Water/Human Waste |
| Amount of waste: | 5000 gallons |
| Waste disposal frequency: | Weekly |
| Safe containment description: | Approved waste storage tanks with containment |
| Waste disposal type: | Haul to commercial facility |
| Disposal location ownership: | Commercial |
| Waste Type: | Garbage |
| Waste content description: | General trash/garbage |
| Amount of waste: | 5000 lbs |
| Waste disposal frequency: | Weekly |
| Safe containment description: | Enclosed trash trailer |
| Waste disposal type: | Haul to commercial facility |
| Disposal location ownership: | Commercial |
| Waste Type: | Drilling |
| Waste content description: | Drill Cuttings |
| Amount of waste: | 10490 Cu Ft |
| Waste disposal frequency: | Per well |
| Safe containment description: | Steel tanks |
| Waste disposal type: | Haul to commercial facility |
| Disposal location ownership: | Commercial |
| Waste Type: | Drilling |
| Waste content description: | Brine water based drilling fluid |
| Amount of waste: | 1500 bbls |
| Waste disposal frequency: | Monthly |
| Safe containment description: | Steel tanks with plastic-lined containment berms |
| Waste disposal type: | Haul to commercial facility |
| Disposal location ownership: | Commercial |

9. Other Information

Well Plan and AC Report: attached
Batching Drilling Procedure: attached
WBD: attached
Flex Hose Specs: attached
Offline Cementing Procedure Attached: