

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
NMNM92199

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

## 8. Well Name and No.

COPPERLINE WEST 29 FEDERAL 5H

## 9. API Well No.

30-025-45096

2. Name of Operator  
CAZA OPERATING LLCContact: STEVE MORRIS  
E-Mail: steve.morris@mojoenergy.com

## 3a. Address

200 NORTH LORRAINE SUITE 1550  
MIDLAND, TX 797013b. Phone No. (include area code)  
Ph: 403-923-975010. Field and Pool or Exploratory Area  
WOLFCAMP

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 29 T23S R34E NENW 130FNL 2130FWL  
32.282497 N Lat, 103.493729 W Lon

## 11. County or Parish, State

LEA COUNTY, NM

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                               |                                                    |                                           |
|------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen               | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Hydraulic Fracturing | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction     | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input type="checkbox"/> Temporarily Abandon       | Change to Original APD                    |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back            | <input type="checkbox"/> Water Disposal            |                                           |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Caza proposes to change the target formation from the wolfcamp (WC-025 G-09 S243336I; Upper Wolfcamp) to the Bone Spring (Antelope Ridge, Bone Spring West). the TVD will change from 11,600' to 11,300'. Production casing (5.5") length will be adjusted accordingly. Production cement volume will be adjusted accordingly.

**HOBBS OCD****SEP 13 2018****RECEIVED***All previous COAs shall apply.*

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #433609 verified by the BLM Well Information System

For CAZA OPERATING LLC, sent to the Hobbs

Committed to AFMSS for processing by DEBORAH MCKINNEY on 09/05/2018 (18DLM0610SE)

Name (Printed/Typed) STEVE MORRIS

Title CONTRACT ENGINEER

Signature (Electronic Submission)

Date 09/01/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By ZOTA STEVENS

Title PETROLEUM ENGINEER

Date 09/07/2018

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

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 Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                   |                                                    |                                                      |
|-----------------------------------|----------------------------------------------------|------------------------------------------------------|
| API Number<br><b>30-025-45096</b> | Pool Code<br><b>2209</b>                           | Pool Name<br><b>Antelope Ridge, Bone Spring West</b> |
| Property Code                     | Property Name<br><b>COPPERLINE WEST 29 FEDERAL</b> | Well Number<br><b>5H</b>                             |
| OGRID No.<br><b>249099</b>        | Operator Name<br><b>CAZA OPERATING, LLC</b>        | Elevation<br><b>3539'</b>                            |

Surface Location

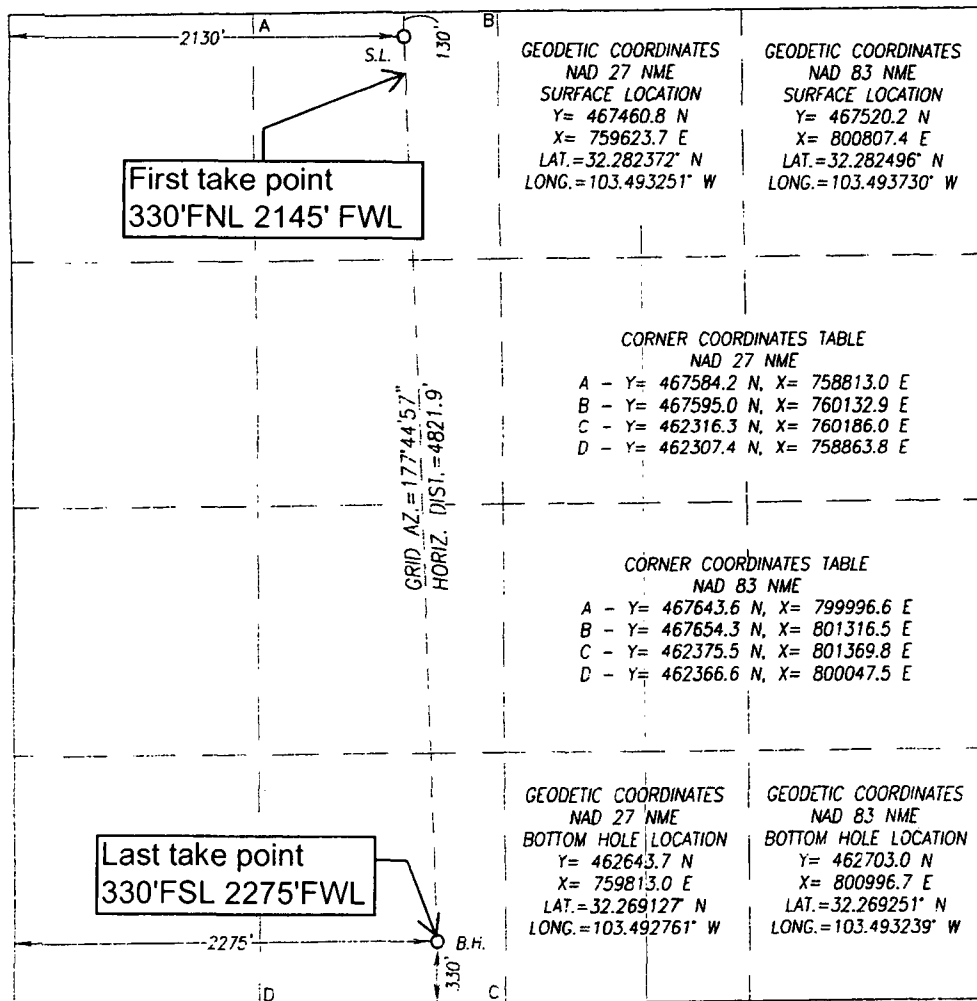
| UL or lot No. | Section   | Township    | Range       | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|------------|
| <b>C</b>      | <b>29</b> | <b>23-S</b> | <b>34-E</b> |         | <b>130</b>    | <b>NORTH</b>     | <b>2130</b>   | <b>WEST</b>    | <b>LEA</b> |

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     |
|---------------|-----------|-------------|-------------|---------|---------------|------------------|---------------|----------------|------------|
| <b>N</b>      | <b>29</b> | <b>23-S</b> | <b>34-E</b> |         | <b>330</b>    | <b>SOUTH</b>     | <b>2275</b>   | <b>WEST</b>    | <b>LEA</b> |

|                               |                 |                    |           |
|-------------------------------|-----------------|--------------------|-----------|
| Dedicated Acres<br><b>160</b> | Joint or Infill | Consolidation Code | 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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*[Signature]*  
Signature  
Date **08/24/2018**

**Steve Morris**  
Printed Name

**steve.morris@mojoenergy.com**  
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

**MAY 11, 2015**

Date of Survey  
Signature & Seal of Professional Surveyor

*[Signature]*  
Certificate Number **12641**  
**Ronald J. Eidson** **3239**  
LSL JWSC W.O. 16.11.0355



## **Caza Operating LLC**

**Copperline West 29 Federal 5H**

**Copperline West 29 Federal 5H**

**Copperline West 29 Federal 5H**

**Copperline West 29 Federal 5H**

**Plan: Copperline West 29 Federal 5H**

## **Morcor Standard Plan**

**28 August, 2018**

**MORCOR  
ENGINEERING**

Company: Caza Operating LLC  
Project: Copperline West 29 Federal 5H  
Site: Copperline West 29 Federal 5H  
Well: Copperline West 29 Federal 5H  
Wellbore: Copperline West 29 Federal 5H  
Design: Copperline West 29 Federal 5H

Local Co-ordinate Reference: Site Copperline West 29 Federal 5H  
TVD Reference: WELL @ 3561.0usft (Original Well Elev)  
MD Reference: WELL @ 3561.0usft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

Project: Copperline West 29 Federal 5H

Map System: US State Plane 1983  
Geo Datum: North American Datum 1983  
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site: Copperline West 29 Federal 5H

|                       |          |              |                 |                   |                   |
|-----------------------|----------|--------------|-----------------|-------------------|-------------------|
| Site Position:        | Lat/Long | Northing:    | 467,520.27 usft | Latitude:         | 32° 16' 56.986 N  |
| From:                 |          | Easting:     | 800,807.38 usft | Longitude:        | 103° 29' 37.428 W |
| Position Uncertainty: | 1.0 usft | Slot Radius: | 17-1/2 "        | Grid Convergence: | 0.45 °            |

Well: Copperline West 29 Federal 5H

|                      |       |          |                     |                 |               |                   |
|----------------------|-------|----------|---------------------|-----------------|---------------|-------------------|
| Well Position        | +N/-S | 0.0 usft | Northing:           | 467,520.27 usft | Latitude:     | 32° 16' 56.986 N  |
|                      | +E/-W | 0.0 usft | Easting:            | 800,807.38 usft | Longitude:    | 103° 29' 37.428 W |
| Position Uncertainty |       | 0.0 usft | Wellhead Elevation: | usft            | Ground Level: | 3,539.0 usft      |

Wellbore: Copperline West 29 Federal 5H

| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|-----------|------------|-------------|--------------------|------------------|------------------------|
|           | IGRF2010   | 8/28/2018   | 6.66               | 60.07            | 47,938                 |

Design: Copperline West 29 Federal 5H

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |
|-------------------|----------------------------|-----------------|-----------------|------------------|
|                   | 0.0                        | 0.0             | 0.0             | 177.84           |

Survey Tool Program Date 8/28/2018

| From<br>(usft) | To<br>(usft) | Survey (Wellbore)                        | Tool Name | Description |
|----------------|--------------|------------------------------------------|-----------|-------------|
| 0.0            | 16,268.0     | Copperline West 29 Federal 5H (Copperlin |           |             |



**Morcor Engineering**  
Morcor Standard Plan

MORCOR  
2016.11.15

Company: Caza Operating LLC  
Project: Copperline West 29 Federal 5H  
Site: Copperline West 29 Federal 5H  
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MD Reference: WELL @ 3561.0usft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

**Planned Survey**

| MD<br>(usft)                  | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
|-------------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|
| 0.0                           | 0.00       | 0.00                 | 0.0           | -3,561.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 100.0                         | 0.00       | 0.00                 | 100.0         | -3,461.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 120.0                         | 0.00       | 0.00                 | 120.0         | -3,441.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>20" Conductor</b>          |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 200.0                         | 0.00       | 0.00                 | 200.0         | -3,361.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 300.0                         | 0.00       | 0.00                 | 300.0         | -3,261.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 400.0                         | 0.00       | 0.00                 | 400.0         | -3,161.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 500.0                         | 0.00       | 0.00                 | 500.0         | -3,061.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 600.0                         | 0.00       | 0.00                 | 600.0         | -2,961.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 700.0                         | 0.00       | 0.00                 | 700.0         | -2,861.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 800.0                         | 0.00       | 0.00                 | 800.0         | -2,761.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 900.0                         | 0.00       | 0.00                 | 900.0         | -2,661.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,000.0                       | 0.00       | 0.00                 | 1,000.0       | -2,561.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,005.0                       | 0.00       | 0.00                 | 1,005.0       | -2,556.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>Rustler</b>                |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 1,055.0                       | 0.00       | 0.00                 | 1,055.0       | -2,506.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>13 3/8" Surface Casing</b> |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 1,100.0                       | 0.00       | 0.00                 | 1,100.0       | -2,461.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,200.0                       | 0.00       | 0.00                 | 1,200.0       | -2,361.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,205.0                       | 0.00       | 0.00                 | 1,205.0       | -2,356.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>Top of Salt</b>            |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 1,300.0                       | 0.00       | 0.00                 | 1,300.0       | -2,261.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,400.0                       | 0.00       | 0.00                 | 1,400.0       | -2,161.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,500.0                       | 0.00       | 0.00                 | 1,500.0       | -2,061.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,600.0                       | 0.00       | 0.00                 | 1,600.0       | -1,961.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,700.0                       | 0.00       | 0.00                 | 1,700.0       | -1,861.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,800.0                       | 0.00       | 0.00                 | 1,800.0       | -1,761.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 1,900.0                       | 0.00       | 0.00                 | 1,900.0       | -1,661.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |



**Morcor Engineering**  
Morcor Standard Plan

MORCOR  
COMPASS 5000.1

Company: Caza Operating LLC  
Project: Copperline West 29 Federal 5H  
Site: Copperline West 29 Federal 5H  
Well: Copperline West 29 Federal 5H  
Wellbore: Copperline West 29 Federal 5H  
Design: Copperline West 29 Federal 5H

Local Co-ordinate Reference: Site Copperline West 29 Federal 5H  
TVD Reference: WELL @ 3561.0usft (Original Well Elev)  
MD Reference: WELL @ 3561.0usft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

| Planned Survey |            |                       |               |                 |               |               |                   |                    |                  |                     |  |
|----------------|------------|-----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|--|
| MD<br>(usft)   | Inc<br>(°) | Azi. (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |  |
| 2,000.0        | 0.00       | 0.00                  | 2,000.0       | -1,561.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,100.0        | 0.00       | 0.00                  | 2,100.0       | -1,461.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,200.0        | 0.00       | 0.00                  | 2,200.0       | -1,361.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,300.0        | 0.00       | 0.00                  | 2,300.0       | -1,261.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,400.0        | 0.00       | 0.00                  | 2,400.0       | -1,161.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,500.0        | 0.00       | 0.00                  | 2,500.0       | -1,061.0        | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,600.0        | 0.00       | 0.00                  | 2,600.0       | -961.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,695.0        | 0.00       | 0.00                  | 2,695.0       | -866.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| Base of Salt   |            |                       |               |                 |               |               |                   |                    |                  |                     |  |
| 2,700.0        | 0.00       | 0.00                  | 2,700.0       | -861.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,800.0        | 0.00       | 0.00                  | 2,800.0       | -761.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 2,900.0        | 0.00       | 0.00                  | 2,900.0       | -661.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,000.0        | 0.00       | 0.00                  | 3,000.0       | -561.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,100.0        | 0.00       | 0.00                  | 3,100.0       | -461.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,200.0        | 0.00       | 0.00                  | 3,200.0       | -361.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,300.0        | 0.00       | 0.00                  | 3,300.0       | -261.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,400.0        | 0.00       | 0.00                  | 3,400.0       | -161.0          | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,500.0        | 0.00       | 0.00                  | 3,500.0       | -61.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,600.0        | 0.00       | 0.00                  | 3,600.0       | 39.0            | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,700.0        | 0.00       | 0.00                  | 3,700.0       | 139.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,800.0        | 0.00       | 0.00                  | 3,800.0       | 239.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 3,900.0        | 0.00       | 0.00                  | 3,900.0       | 339.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 4,000.0        | 0.00       | 0.00                  | 4,000.0       | 439.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 4,100.0        | 0.00       | 0.00                  | 4,100.0       | 539.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 4,200.0        | 0.00       | 0.00                  | 4,200.0       | 639.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 4,300.0        | 0.00       | 0.00                  | 4,300.0       | 739.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |
| 4,400.0        | 0.00       | 0.00                  | 4,400.0       | 839.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |  |



**Morcor Engineering**  
Morcor Standard Plan

MORCOR  
ENGINEERING

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**MD Reference:** WELL @ 3561.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**Planned Survey**

| MD<br>(usft)                      | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
|-----------------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|
| 4,500.0                           | 0.00       | 0.00                 | 4,500.0       | 939.0           | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 4,600.0                           | 0.00       | 0.00                 | 4,600.0       | 1,039.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 4,700.0                           | 0.00       | 0.00                 | 4,700.0       | 1,139.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 4,800.0                           | 0.00       | 0.00                 | 4,800.0       | 1,239.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 4,900.0                           | 0.00       | 0.00                 | 4,900.0       | 1,339.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,000.0                           | 0.00       | 0.00                 | 5,000.0       | 1,439.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,055.0                           | 0.00       | 0.00                 | 5,055.0       | 1,494.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>9 5/8" Intermediate Casing</b> |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 5,100.0                           | 0.00       | 0.00                 | 5,100.0       | 1,539.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,105.0                           | 0.00       | 0.00                 | 5,105.0       | 1,544.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>Delaware</b>                   |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 5,200.0                           | 0.00       | 0.00                 | 5,200.0       | 1,639.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,300.0                           | 0.00       | 0.00                 | 5,300.0       | 1,739.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,400.0                           | 0.00       | 0.00                 | 5,400.0       | 1,839.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,500.0                           | 0.00       | 0.00                 | 5,500.0       | 1,939.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,600.0                           | 0.00       | 0.00                 | 5,600.0       | 2,039.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,700.0                           | 0.00       | 0.00                 | 5,700.0       | 2,139.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 5,800.0                           | 0.00       | 0.00                 | 5,800.0       | 2,239.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>Cherry Canyon</b>              |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 5,900.0                           | 0.00       | 0.00                 | 5,900.0       | 2,339.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,000.0                           | 0.00       | 0.00                 | 6,000.0       | 2,439.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,100.0                           | 0.00       | 0.00                 | 6,100.0       | 2,539.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,200.0                           | 0.00       | 0.00                 | 6,200.0       | 2,639.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,300.0                           | 0.00       | 0.00                 | 6,300.0       | 2,739.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,400.0                           | 0.00       | 0.00                 | 6,400.0       | 2,839.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,500.0                           | 0.00       | 0.00                 | 6,500.0       | 2,939.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,600.0                           | 0.00       | 0.00                 | 6,600.0       | 3,039.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,700.0                           | 0.00       | 0.00                 | 6,700.0       | 3,139.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |



**Morcor Engineering**  
Morcor Standard Plan

WELL @ 3561.0usft (Original Well Elev)  
WELL @ 3561.0usft (Original Well Elev)

**Company:** Caza Operating LLC  
**Project:** Copperline West 29 Federal 5H  
**Site:** Copperline West 29 Federal 5H  
**Well:** Copperline West 29 Federal 5H  
**Wellbore:** Copperline West 29 Federal 5H  
**Design:** Copperline West 29 Federal 5H

**Local-Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**  
**Database:**

Site Copperline West 29 Federal 5H  
WELL @ 3561.0usft (Original Well Elev)  
WELL @ 3561.0usft (Original Well Elev)  
Grid  
Minimum Curvature  
EDM 5000.1 Single User Db

**Planned Survey**

| MD<br>(usft)                          | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
|---------------------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|
| 6,800.0                               | 0.00       | 0.00                 | 6,800.0       | 3,239.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 6,900.0                               | 0.00       | 0.00                 | 6,900.0       | 3,339.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,000.0                               | 0.00       | 0.00                 | 7,000.0       | 3,439.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,100.0                               | 0.00       | 0.00                 | 7,100.0       | 3,539.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>Brushy Canyon</b>                  |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 7,200.0                               | 0.00       | 0.00                 | 7,200.0       | 3,639.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,300.0                               | 0.00       | 0.00                 | 7,300.0       | 3,739.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,400.0                               | 0.00       | 0.00                 | 7,400.0       | 3,839.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,500.0                               | 0.00       | 0.00                 | 7,500.0       | 3,939.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,600.0                               | 0.00       | 0.00                 | 7,600.0       | 4,039.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,700.0                               | 0.00       | 0.00                 | 7,700.0       | 4,139.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,800.0                               | 0.00       | 0.00                 | 7,800.0       | 4,239.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 7,900.0                               | 0.00       | 0.00                 | 7,900.0       | 4,339.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,000.0                               | 0.00       | 0.00                 | 8,000.0       | 4,439.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,100.0                               | 0.00       | 48.00                | 8,100.0       | 4,539.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,200.0                               | 0.00       | 48.00                | 8,200.0       | 4,639.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,300.0                               | 0.00       | 48.00                | 8,300.0       | 4,739.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,400.0                               | 0.00       | 48.00                | 8,400.0       | 4,839.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,500.0                               | 0.00       | 48.00                | 8,500.0       | 4,939.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| 8,600.0                               | 0.00       | 48.00                | 8,600.0       | 5,039.0         | 0.0           | 0.0           | 800,807.38        | 467,520.27         | 0.00             | 0.00                |
| <b>Start Build 3.00</b>               |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 8,660.0                               | 1.80       | 48.00                | 8,660.0       | 5,099.0         | 0.6           | 0.7           | 800,808.08        | 467,520.90         | -0.60            | 3.00                |
| <b>Bone Spring/ Glorietta</b>         |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 8,700.0                               | 3.00       | 48.00                | 8,700.0       | 5,139.0         | 1.8           | 1.9           | 800,809.32        | 467,522.02         | -1.68            | 3.00                |
| 8,800.0                               | 6.00       | 48.00                | 8,799.6       | 5,238.6         | 7.0           | 7.8           | 800,815.15        | 467,527.27         | -6.70            | 3.00                |
| <b>Start 1200.0 hold at 8800.0 MD</b> |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 8,900.0                               | 6.00       | 48.00                | 8,899.1       | 5,338.1         | 14.0          | 15.5          | 800,822.92        | 467,534.26         | -13.40           | 0.00                |
| 9,000.0                               | 6.00       | 48.00                | 8,998.5       | 5,437.5         | 21.0          | 23.3          | 800,830.69        | 467,541.26         | -20.10           | 0.00                |



Company: Caza Operating LLC  
Project: Copperline West 29 Federal 5H  
Site: Copperline West 29 Federal 5H  
Well: Copperline West 29 Federal 5H  
Wellbore: Copperline West 29 Federal 5H  
Design: Copperline West 29 Federal 5H

Local Co-ordinate Reference: Site Copperline West 29 Federal 5H  
TVD Reference: WELL @ 3561.0usft (Original Well Elev)  
MD Reference: WELL @ 3561.0usft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

**Planned Survey**

| MD<br>(usft)                          | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
|---------------------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|
| 9,100.0                               | 6.00       | 48.00                | 9,098.0       | 5,537.0         | 28.0          | 31.1          | 800,838.46        | 467,548.25         | -26.79           | 0.00                |
| 9,200.0                               | 6.00       | 48.00                | 9,197.4       | 5,636.4         | 35.0          | 38.8          | 800,846.23        | 467,555.25         | -33.49           | 0.00                |
| 9,300.0                               | 6.00       | 48.00                | 9,296.9       | 5,735.9         | 42.0          | 46.6          | 800,853.99        | 467,562.24         | -40.18           | 0.00                |
| 9,400.0                               | 6.00       | 48.00                | 9,396.3       | 5,835.3         | 49.0          | 54.4          | 800,861.76        | 467,569.24         | -46.88           | 0.00                |
| 9,500.0                               | 6.00       | 48.00                | 9,495.8       | 5,934.8         | 56.0          | 62.2          | 800,869.53        | 467,576.23         | -53.58           | 0.00                |
| 9,600.0                               | 6.00       | 48.00                | 9,595.3       | 6,034.3         | 63.0          | 69.9          | 800,877.30        | 467,583.22         | -60.27           | 0.00                |
| 9,700.0                               | 6.00       | 48.00                | 9,694.7       | 6,133.7         | 69.9          | 77.7          | 800,885.07        | 467,590.22         | -66.97           | 0.00                |
| 9,750.6                               | 6.00       | 48.00                | 9,745.0       | 6,184.0         | 73.5          | 81.6          | 800,889.00        | 467,593.76         | -70.36           | 0.00                |
| <b>1st Bone Spring Sand</b>           |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 9,800.0                               | 6.00       | 48.00                | 9,794.2       | 6,233.2         | 76.9          | 85.5          | 800,892.83        | 467,597.21         | -73.67           | 0.00                |
| 9,900.0                               | 6.00       | 48.00                | 9,893.6       | 6,332.6         | 83.9          | 93.2          | 800,900.60        | 467,604.21         | -80.36           | 0.00                |
| 10,000.0                              | 6.00       | 48.00                | 9,993.1       | 6,432.1         | 90.9          | 101.0         | 800,908.37        | 467,611.20         | -87.06           | 0.00                |
| 10,100.0                              | 6.00       | 48.00                | 10,092.5      | 6,531.5         | 97.9          | 108.8         | 800,916.14        | 467,618.20         | -93.75           | 0.00                |
| 10,200.0                              | 6.00       | 48.00                | 10,192.0      | 6,631.0         | 104.9         | 116.5         | 800,923.91        | 467,625.19         | -100.45          | 0.00                |
| 10,298.6                              | 6.00       | 48.00                | 10,290.0      | 6,729.0         | 111.8         | 124.2         | 800,931.56        | 467,632.08         | -107.05          | 0.00                |
| <b>2nd Bone Spring Sand</b>           |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 10,300.0                              | 6.00       | 48.00                | 10,291.4      | 6,730.4         | 111.9         | 124.3         | 800,931.67        | 467,632.18         | -107.15          | 0.00                |
| 10,400.0                              | 6.00       | 48.00                | 10,390.9      | 6,829.9         | 118.9         | 132.1         | 800,939.44        | 467,639.18         | -113.84          | 0.00                |
| 10,470.0                              | 6.00       | 48.00                | 10,460.5      | 6,899.5         | 123.8         | 137.5         | 800,944.88        | 467,644.07         | -118.53          | 0.00                |
| <b>Start Drop -3.00</b>               |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 10,500.0                              | 5.10       | 48.00                | 10,490.3      | 6,929.3         | 125.7         | 139.7         | 800,947.04        | 467,646.02         | -120.39          | 3.00                |
| 10,600.0                              | 2.10       | 48.00                | 10,590.1      | 7,029.1         | 129.9         | 144.3         | 800,951.70        | 467,650.22         | -124.41          | 3.00                |
| 10,670.0                              | 0.00       | 0.00                 | 10,660.1      | 7,099.1         | 130.8         | 145.3         | 800,952.66        | 467,651.08         | -125.23          | 3.00                |
| <b>Start 130.0 hold at 10670.0 MD</b> |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 10,700.0                              | 0.00       | 179.50               | 10,690.1      | 7,129.1         | 130.8         | 145.3         | 800,952.66        | 467,651.08         | -125.23          | 0.00                |
| 10,800.0                              | 0.00       | 179.50               | 10,790.1      | 7,229.1         | 130.8         | 145.3         | 800,952.66        | 467,651.08         | -125.23          | 0.00                |
| <b>Start Build 11.19</b>              |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 10,900.0                              | 11.19      | 179.50               | 10,889.5      | 7,328.5         | 121.1         | 145.4         | 800,952.74        | 467,641.34         | -115.50          | 11.19               |



**Morcor Engineering**  
Morcor Standard Plan

MORCOR  
STANDARD PLAN

Company: Caza Operating LLC  
Project: Copperline West 29 Federal 5H  
Site: Copperline West 29 Federal 5H  
Well: Copperline West 29 Federal 5H  
Wellbore: Copperline West 29 Federal 5H  
Design: Copperline West 29 Federal 5H

Local Co-ordinate Reference: Site Copperline West 29 Federal 5H  
TVD Reference: WELL @ 3561.0usft (Original Well Elev)  
MD Reference: WELL @ 3561.0usft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

**Planned Survey**

| MD<br>(usft)                | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
|-----------------------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|
| 11,000.0                    | 22.39      | 179.50               | 10,985.1      | 7,424.1         | 92.2          | 145.6         | 800,952.99        | 467,612.50         | -86.67           | 11.19               |
| 11,100.0                    | 33.58      | 179.50               | 11,073.2      | 7,512.2         | 45.4          | 146.0         | 800,953.40        | 467,565.65         | -39.84           | 11.19               |
| 11,200.0                    | 44.77      | 179.50               | 11,150.6      | 7,589.6         | -17.7         | 146.6         | 800,953.95        | 467,502.58         | 23.20            | 11.19               |
| 11,300.0                    | 55.97      | 179.50               | 11,214.3      | 7,653.3         | -94.6         | 147.2         | 800,954.62        | 467,425.69         | 100.07           | 11.19               |
| 11,371.4                    | 63.96      | 179.50               | 11,250.0      | 7,689.0         | -156.3        | 147.8         | 800,955.16        | 467,363.97         | 161.76           | 11.19               |
| <b>3rd Bone Spring Sand</b> |            |                      |               |                 |               |               |                   |                    |                  |                     |
| 11,400.0                    | 67.16      | 179.50               | 11,261.9      | 7,700.9         | -182.4        | 148.0         | 800,955.39        | 467,337.89         | 187.83           | 11.19               |
| 11,500.0                    | 78.36      | 179.50               | 11,291.4      | 7,730.4         | -277.7        | 148.8         | 800,956.22        | 467,242.54         | 283.14           | 11.19               |
| 11,600.0                    | 89.55      | 179.50               | 11,302.0      | 7,741.0         | -377.0        | 149.7         | 800,957.09        | 467,143.26         | 382.39           | 11.19               |
| 11,700.0                    | 89.55      | 179.50               | 11,302.7      | 7,741.7         | -477.0        | 150.6         | 800,957.96        | 467,043.27         | 482.34           | 0.00                |
| 11,800.0                    | 89.55      | 179.50               | 11,303.5      | 7,742.5         | -577.0        | 151.5         | 800,958.83        | 466,943.27         | 582.30           | 0.00                |
| 11,900.0                    | 89.55      | 179.50               | 11,304.3      | 7,743.3         | -677.0        | 152.3         | 800,959.70        | 466,843.28         | 682.25           | 0.00                |
| 12,000.0                    | 89.55      | 179.50               | 11,305.1      | 7,744.1         | -777.0        | 153.2         | 800,960.58        | 466,743.29         | 782.21           | 0.00                |
| 12,100.0                    | 89.55      | 179.50               | 11,305.9      | 7,744.9         | -877.0        | 154.1         | 800,961.45        | 466,643.29         | 882.16           | 0.00                |
| 12,200.0                    | 89.55      | 179.50               | 11,306.7      | 7,745.7         | -977.0        | 154.9         | 800,962.32        | 466,543.30         | 982.12           | 0.00                |
| 12,300.0                    | 89.55      | 179.50               | 11,307.5      | 7,746.5         | -1,077.0      | 155.8         | 800,963.20        | 466,443.31         | 1,082.07         | 0.00                |
| 12,400.0                    | 89.55      | 179.50               | 11,308.2      | 7,747.2         | -1,177.0      | 156.7         | 800,964.07        | 466,343.32         | 1,182.03         | 0.00                |
| 12,500.0                    | 89.55      | 179.50               | 11,309.0      | 7,748.0         | -1,276.9      | 157.6         | 800,964.94        | 466,243.32         | 1,281.98         | 0.00                |
| 12,600.0                    | 89.55      | 179.50               | 11,309.8      | 7,748.8         | -1,376.9      | 158.4         | 800,965.81        | 466,143.33         | 1,381.94         | 0.00                |
| 12,700.0                    | 89.55      | 179.50               | 11,310.6      | 7,749.6         | -1,476.9      | 159.3         | 800,966.69        | 466,043.34         | 1,481.89         | 0.00                |
| 12,800.0                    | 89.55      | 179.50               | 11,311.4      | 7,750.4         | -1,576.9      | 160.2         | 800,967.56        | 465,943.34         | 1,581.85         | 0.00                |
| 12,900.0                    | 89.55      | 179.50               | 11,312.2      | 7,751.2         | -1,676.9      | 161.1         | 800,968.43        | 465,843.35         | 1,681.80         | 0.00                |
| 13,000.0                    | 89.55      | 179.50               | 11,313.0      | 7,752.0         | -1,776.9      | 161.9         | 800,969.30        | 465,743.36         | 1,781.76         | 0.00                |
| 13,100.0                    | 89.55      | 179.50               | 11,313.7      | 7,752.7         | -1,876.9      | 162.8         | 800,970.18        | 465,643.36         | 1,881.71         | 0.00                |
| 13,200.0                    | 89.55      | 179.50               | 11,314.5      | 7,753.5         | -1,976.9      | 163.7         | 800,971.05        | 465,543.37         | 1,981.67         | 0.00                |
| 13,300.0                    | 89.55      | 179.50               | 11,315.3      | 7,754.3         | -2,076.9      | 164.5         | 800,971.92        | 465,443.38         | 2,081.62         | 0.00                |
| 13,400.0                    | 89.55      | 179.50               | 11,316.1      | 7,755.1         | -2,176.9      | 165.4         | 800,972.79        | 465,343.38         | 2,181.58         | 0.00                |



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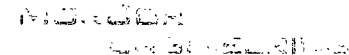
MORCOR  
ENGINEERING

Company: Caza Operating LLC  
Project: Copperline West 29 Federal 5H  
Site: Copperline West 29 Federal 5H  
Well: Copperline West 29 Federal 5H  
Wellbore: Copperline West 29 Federal 5H  
Design: Copperline West 29 Federal 5H

Local Co-ordinate Reference: Site Copperline West 29 Federal 5H  
TVD Reference: WELL @ 3561.0usft (Original Well Elev)  
MD Reference: WELL @ 3561.0usft (Original Well Elev)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: EDM 5000.1 Single User Db

**Planned Survey**

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|
| 13,500.0     | 89.55      | 179.50               | 11,316.9      | 7,755.9         | -2,276.9      | 166.3         | 800,973.67        | 465,243.39         | 2,281.53         | 0.00                |
| 13,600.0     | 89.55      | 179.50               | 11,317.7      | 7,756.7         | -2,376.9      | 167.2         | 800,974.54        | 465,143.40         | 2,381.49         | 0.00                |
| 13,700.0     | 89.55      | 179.50               | 11,318.5      | 7,757.5         | -2,476.9      | 168.0         | 800,975.41        | 465,043.40         | 2,481.44         | 0.00                |
| 13,800.0     | 89.55      | 179.50               | 11,319.2      | 7,758.2         | -2,576.9      | 168.9         | 800,976.28        | 464,943.41         | 2,581.40         | 0.00                |
| 13,900.0     | 89.55      | 179.50               | 11,320.0      | 7,759.0         | -2,676.9      | 169.8         | 800,977.16        | 464,843.42         | 2,681.35         | 0.00                |
| 14,000.0     | 89.55      | 179.50               | 11,320.8      | 7,759.8         | -2,776.8      | 170.7         | 800,978.03        | 464,743.43         | 2,781.30         | 0.00                |
| 14,100.0     | 89.55      | 179.50               | 11,321.6      | 7,760.6         | -2,876.8      | 171.5         | 800,978.90        | 464,643.43         | 2,881.26         | 0.00                |
| 14,200.0     | 89.55      | 179.50               | 11,322.4      | 7,761.4         | -2,976.8      | 172.4         | 800,979.77        | 464,543.44         | 2,981.21         | 0.00                |
| 14,300.0     | 89.55      | 179.50               | 11,323.2      | 7,762.2         | -3,076.8      | 173.3         | 800,980.65        | 464,443.45         | 3,081.17         | 0.00                |
| 14,400.0     | 89.55      | 179.50               | 11,324.0      | 7,763.0         | -3,176.8      | 174.1         | 800,981.52        | 464,343.45         | 3,181.12         | 0.00                |
| 14,500.0     | 89.55      | 179.50               | 11,324.7      | 7,763.7         | -3,276.8      | 175.0         | 800,982.39        | 464,243.46         | 3,281.08         | 0.00                |
| 14,600.0     | 89.55      | 179.50               | 11,325.5      | 7,764.5         | -3,376.8      | 175.9         | 800,983.27        | 464,143.47         | 3,381.03         | 0.00                |
| 14,700.0     | 89.55      | 179.50               | 11,326.3      | 7,765.3         | -3,476.8      | 176.8         | 800,984.14        | 464,043.47         | 3,480.99         | 0.00                |
| 14,800.0     | 89.55      | 179.50               | 11,327.1      | 7,766.1         | -3,576.8      | 177.6         | 800,985.01        | 463,943.48         | 3,580.94         | 0.00                |
| 14,900.0     | 89.55      | 179.50               | 11,327.9      | 7,766.9         | -3,676.8      | 178.5         | 800,985.88        | 463,843.49         | 3,680.90         | 0.00                |
| 15,000.0     | 89.55      | 179.50               | 11,328.7      | 7,767.7         | -3,776.8      | 179.4         | 800,986.76        | 463,743.49         | 3,780.85         | 0.00                |
| 15,100.0     | 89.55      | 179.50               | 11,329.4      | 7,768.4         | -3,876.8      | 180.2         | 800,987.63        | 463,643.50         | 3,880.81         | 0.00                |
| 15,200.0     | 89.55      | 179.50               | 11,330.2      | 7,769.2         | -3,976.8      | 181.1         | 800,988.50        | 463,543.51         | 3,980.76         | 0.00                |
| 15,300.0     | 89.55      | 179.50               | 11,331.0      | 7,770.0         | -4,076.8      | 182.0         | 800,989.37        | 463,443.51         | 4,080.72         | 0.00                |
| 15,400.0     | 89.55      | 179.50               | 11,331.8      | 7,770.8         | -4,176.7      | 182.9         | 800,990.25        | 463,343.52         | 4,180.67         | 0.00                |
| 15,500.0     | 89.55      | 179.50               | 11,332.6      | 7,771.6         | -4,276.7      | 183.7         | 800,991.12        | 463,243.53         | 4,280.63         | 0.00                |
| 15,600.0     | 89.55      | 179.50               | 11,333.4      | 7,772.4         | -4,376.7      | 184.6         | 800,991.99        | 463,143.54         | 4,380.58         | 0.00                |
| 15,700.0     | 89.55      | 179.50               | 11,334.2      | 7,773.2         | -4,476.7      | 185.5         | 800,992.86        | 463,043.54         | 4,480.54         | 0.00                |
| 15,800.0     | 89.55      | 179.50               | 11,334.9      | 7,773.9         | -4,576.7      | 186.4         | 800,993.74        | 462,943.55         | 4,580.49         | 0.00                |
| 15,900.0     | 89.55      | 179.50               | 11,335.7      | 7,774.7         | -4,676.7      | 187.2         | 800,994.61        | 462,843.56         | 4,680.45         | 0.00                |
| 16,000.0     | 89.55      | 179.50               | 11,336.5      | 7,775.5         | -4,776.7      | 188.1         | 800,995.48        | 462,743.56         | 4,780.40         | 0.00                |
| 16,100.0     | 89.55      | 179.50               | 11,337.3      | 7,776.3         | -4,876.7      | 189.0         | 800,996.35        | 462,643.57         | 4,880.36         | 0.00                |



|                                     |                                        |
|-------------------------------------|----------------------------------------|
| <b>Local Co-ordinate Reference:</b> | Site Copperline West 29 Federal 5H     |
| <b>TVD Reference:</b>               | WELL @ 3561.0usft (Original Well Elev) |
| <b>MD Reference:</b>                | WELL @ 3561.0usft (Original Well Elev) |
| <b>North Reference:</b>             | Grid                                   |
| <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Database:</b>                    | EDM 5000.1 Single User Db              |

| MD<br>(usft) | Inc<br>(°) | Azi.(azimuth)<br>(°) | TVD<br>(usft) | TVDSS<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Easting<br>(usft) | Northing<br>(usft) | V. Sec<br>(usft) | DLeg<br>(°/100usft) |      |
|--------------|------------|----------------------|---------------|-----------------|---------------|---------------|-------------------|--------------------|------------------|---------------------|------|
| 16,200.0     |            | 89.55                | 179.50        | 11,338.1        | 7,777.1       | -4,976.7      | 189.8             | 800,997.23         | 462,543.58       | 4,980.31            | 0.00 |
| 16,268.0     |            | 89.55                | 179.50        | 11,338.6        | 7,777.6       | -5,044.7      | 190.4             | 800,997.82         | 462,475.58       | 5,048.28            | 0.00 |

### Casing Points

## Formations

COMPASS 5000.1 Build 56



**Morcor Engineering**  
Morcor Standard Plan

MORCOR  
ENGINEERING

**Company:** Caza Operating LLC  
**Project:** Copperline West 29 Federal 5H  
**Site:** Copperline West 29 Federal 5H  
**Well:** Copperline West 29 Federal 5H  
**Wellbore:** Copperline West 29 Federal 5H  
**Design:** Copperline West 29 Federal 5H

**Local Co-ordinate Reference:** Site Copperline West 29 Federal 5H  
**TVD Reference:** WELL @ 3561.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3561.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**Plan Annotations**

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                        |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                |
| 8,600.0                     | 8,600.0                     | 0.0               | 0.0             | Start Build 3.00               |
| 8,800.0                     | 8,799.6                     | 0.0               | 0.0             | Start 1200.0 hold at 8800.0 MD |
| 10,470.0                    | 10,460.5                    | 0.0               | 0.0             | Start Drop -3.00               |
| 10,670.0                    | 10,660.1                    | 0.0               | 0.0             | Start 130.0 hold at 10670.0 MD |
| 10,800.0                    | 10,790.1                    | 7.0               | 7.8             | Start Build 11.19              |
| 16,268.0                    | 11,338.6                    | 90.9              | 101.0           | TD at 16268.0                  |

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