| Well Name | Well Number | US Well Number | Lease Number | Case Number | Operator |
|---|---|---|---|---|---|
| NINA CORTELL | 137H | 3002551489 | NMNM86147 | NMNM86147 | MATADOR |
| NINA CORTELL | 126H | 3002551188 | NMNM86147 | NMNM86147 | MATADOR |
| NINA CORTELL | 136H | 3002551191 | NMNM135247 | NMNM135247 | MATADOR |
| NINA CORTELL | 127H | 3002551611 | NMNM86147 | NMNM86147 | MATADOR |
| NINA CORTELL | 128H | 3002551462 | NMNM86147 | NMNM86147 | MATADOR |
| NINA CORTELL | 138H | 3002550471 | NMNM86147 | NMNM86147 | MATADOR |
| NINA CORTELL | 135H | 3002551461 | NMNM86147 | NMNM86147 | MATADOR |

## Notice of Intent

**Sundry ID:** 2794834

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 06/11/2024

**Time Sundry Submitted:** 07:43

**Date proposed operation will begin:** 06/18/2024

**Procedure Description:** BLM Bond NMB001079 Surety Bond No.: RLB0015172 Matador requests the option to amend the well design of the Nina Cortell Fed Com #126H, Nina Cortell Fed Com #127H, Nina Cortell Fed Com #128H, Nina Cortell Fed Com #135H, Nina Cortell Fed Com #136H, Nina Cortell Fed Com #137H, and Nina Cortell Fed Com #138H to make the following change to the current APD: Change the production open hole size to 7-7/8" from 0' to KOP and 6-3/4" from KOP to TD.

## NOI Attachments

**Procedure Description**

Sundry_Plan_Drill_Plan_3st_9.625in_5M_Nina_138H_v2_20240611194154.pdf

Sundry_Plan_Drill_Plan_3st_9.625in_5M_Nina_137H_v2_20240611194114.pdf

Sundry_Plan_Drill_Plan_3st_9.625in_5M_Nina_136H_v2_20240611194035.pdf

Sundry_Plan_Drill_Plan_3st_9.625in_5M_Nina_135H_v2_20240611193959.pdf

Sundry_Drill_Plan_3st_9.625in_5M_Nina_128H_v2_20240611193903.pdf

Sundry_Drill_Plan_3st_9.625in_5M_Nina_127H_v2_20240611193837.pdf

Sundry_Drill_Plan_3st_9.625in_5M_Nina_126H_v2_20240611193803.pdf

## Operator

*I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a*

**Operator Electronic Signature:** NICKY FITZGERALD **Signed on:** JUN 11, 2024 07:42 PM

**Name:** MATADOR PRODUCTION COMPANY

**Title:** Regulatory Consultant

**Street Address:** 5400 LBJ FREEWAY STE 1500

**City:** DALLAS **State:** TX

**Phone:** (972) 371-5448

**Email address:** nicky.fitzgerald@matadorresources.com

## Field

**Representative Name:**

**Street Address:**

**City:** **State:** **Zip:**

**Phone:**

**Email address:**

## BLM Point of Contact

**BLM POC Name:** CHRISTOPHER WALLS **BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5752342234 **BLM POC Email Address:** cwalls@blm.gov

**Disposition:** Approved **Disposition Date:** 06/24/2024

**Signature:** Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

**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.***

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

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☐ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| | ☐ Alter Casing | ☐ Hydraulic Fracturing | ☐ Reclamation | ☐ Well Integrity |
| ☐ Subsequent Report | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Final Abandonment Notice | ☐ Convert to Injection | ☐ Plug Back | ☐ 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 recomplete 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 perfonned 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 recompletion 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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

**THE SPACE FOR FEDERAL OR STATE OFICE USE**

Approved by

Title

Date

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

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)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13:* Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Batch Well Data

NINA CORTELL FED COM 136H, US Well Number: 3002551191, Case Number: NMNM135247, Lease Number: NMNM135247, Operator:MATADOR PRODUCTION COMPANY

NINA CORTELL FED COM 137H, US Well Number: 3002551489, Case Number: NMNM86147, Lease Number: NMNM86147, Operator:MATADOR PRODUCTION COMPANY

NINA CORTELL FED COM 138H, US Well Number: 3002550471, Case Number: NMNM86147, Lease Number: NMNM86147, Operator:MATADOR PRODUCTION COMPANY

NINA CORTELL FED COM 135H, US Well Number: 3002551461, Case Number: NMNM86147, Lease Number: NMNM86147, Operator:MATADOR PRODUCTION COMPANY

NINA CORTELL FED COM 126H, US Well Number: 3002551188, Case Number: NMNM86147, Lease Number: NMNM86147, Operator:MATADOR PRODUCTION COMPANY

NINA CORTELL FED COM 127H, US Well Number: 3002551611, Case Number: NMNM86147, Lease Number: NMNM86147, Operator:MATADOR PRODUCTION COMPANY

NINA CORTELL FED COM 128H, US Well Number: 3002551462, Case Number: NMNM86147, Lease Number: NMNM86147, Operator:MATADOR PRODUCTION COMPANY

# Drill Plan

**Nina Cortell Fed Com 138H**
**SHL: 274 FSL & 1260' FEL Section 10**
**BHL: 110' FNL & 985' FEL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3789**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #138H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21606' MD / 11450' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3995586965 N / -103.7898401525 W
TD Lat/Long (NAD83): 32.4280612948 N / -103.7902256610 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 839 | 839 | 352 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,191 | 1,191 | 3,706 | Salt | Barren |
| Lamar (Base of Salt) | 4,922 | 4,897 | 42 | Dolomite | Barren |
| Bell Canyon | 4,964 | 4,939 | 903 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,867 | 5,842 | 1,143 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,010 | 6,985 | 1,841 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,851 | 8,826 | 838 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Carb | 9,689 | 9,664 | 233 | Carbonate | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,922 | 9,897 | 281 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,203 | 10,178 | 379 | Carbonate | Oil/Natural Gas |
| **2nd Bone Spring Sand** | **10,582** | **10,557** | **422** | **Sandstone** | **Oil/Natural Gas** |
| KOP | 10,903 | 10,877 | - | Sandstone | Oil/Natural Gas |
| **3rd Bone Spring Carb** | **11,006** | **10,979** | **-** | **Carbonate** | **Oil/Natural Gas** |
| **TD** | **21,606** | **11,450** | | **Carbonate** | **Oil/Natural Gas** |

### 2. Notable Zones

Third Bone Spring Carbonate is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375''.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador request the option to offline cement surface casing. The “Offline Cementing - Surface Procedure” is attached for review. No changes in cement program are necessary.

Matador request the option to offline cement intermediate casing. The “Offline Cementing - Intermediate Casing" Procedure is attached for review. No changes in cement program are necessary.

Matador request the option to break test the BOP during batch drilling operations. The "Modified BOP Testing Procedure for Batch Drilling" Procedure is attached for review.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

## Drill Plan

| String | Hole Size (in) | Set MD (ft) | Set TVD (ft) | Casing Size (in) | Wt. (lb/ft) | Grade | Joint | Collapse | Burst | Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Intermediate 1 | 12.25 | 0 - 5014 | 0 - 4989 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10903 | 0 - 10877 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21606 | 0 - 11450 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

Variance Request

Matador request a variance to wave the centralizer requirement for the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. Option to cancel 2nd stage cement if cement is circulated on 1st stage.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 980 | 1.84 | 1798 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 380 | 1.33 | 503 | 14.8 | 50% | 4014 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 350 | 3.66 | 1284 | 11.5 | 25% | 4814 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 850 | 1.35 | 1152 | 13.2 | 25% | 10703 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

**5. Mud Program**

An electronic Pason mud monitoring system complying with Title 43 CFR 3172 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 5014 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 5014 - 10903 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10903 - 21606 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5954 psi. Maximum anticipated surface pressure is 3435 psi. Expected bottom hole temperature is 163 F.

In accordance with Title 43 CFR 3176, Matador does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H2S safety package on all wells, attached is an "H2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

**Drill Plan**

**Nina Cortell Fed Com 137H**
**SHL: 244 FSL & 1260' FEL Section 10**
**BHL: 110' FNL & 2307' FEL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3789**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #137H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21659' MD / 11450' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3991236519 N / -103.6614793964 W
TD Lat/Long (NAD83): 32.4276834219 N / -103.6615367532 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 839 | 839 | 352 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,191 | 1,191 | 3,706 | Salt | Barren |
| Lamar (Base of Salt) | 4,922 | 4,897 | 42 | Dolomite | Barren |
| Bell Canyon | 4,964 | 4,939 | 903 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,867 | 5,842 | 1,143 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,010 | 6,985 | 1,841 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,851 | 8,826 | 838 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Carb | 9,689 | 9,664 | 233 | Carbonate | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,922 | 9,897 | 281 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,203 | 10,178 | 379 | Carbonate | Oil/Natural Gas |
| **2nd Bone Spring Sand** | **10,582** | **10,557** | **422** | **Sandstone** | **Oil/Natural Gas** |
| KOP | 10,941 | 10,877 | - | Sandstone | Oil/Natural Gas |
| **3rd Bone Spring Carb** | **11,045** | **10,979** | **-** | **Carbonate** | **Oil/Natural Gas** |
| **TD** | **21,659** | **11,450** | | **Carbonate** | **Oil/Natural Gas** |

### 2. Notable Zones

Third Bone Spring Carbonate is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375''.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador request the option to offline cement surface casing. The “Offline Cementing - Surface Procedure” is attached for review. No changes in cement program are necessary.

Matador request the option to offline cement intermediate casing. The “Offline Cementing - Intermediate Casing" Procedure is attached for review. No changes in cement program are necessary.

Matador request the option to break test the BOP during batch drilling operations. The "Modified BOP Testing Procedure for Batch Drilling" Procedure is attached for review.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

## Drill Plan

| String | Hole Size (in) | Set MD (ft) | Set TVD (ft) | Casing Size (in) | Wt. (lb/ft) | Grade | Joint | Collapse | Burst | Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Intermediate 1 | 12.25 | 0 - 5014 | 0 - 4989 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10941 | 0 - 10877 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21659 | 0 - 11450 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

Variance Request

Matador request a variance to wave the centralizer requirement for the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. Option to cancel 2nd stage cement if cement is circulated on 1st stage.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 980 | 1.84 | 1798 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 380 | 1.33 | 503 | 14.8 | 50% | 4014 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 350 | 3.66 | 1293 | 11.5 | 25% | 4814 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 850 | 1.35 | 1154 | 13.2 | 25% | 10741 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

**5. Mud Program**

An electronic Pason mud monitoring system complying with Title 43 CFR 3172 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 5014 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 5014 - 10941 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10941 - 21659 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5954 psi. Maximum anticipated surface pressure is 3435 psi. Expected bottom hole temperature is 163 F.

In accordance with Title 43 CFR 3176, Matador does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H2S safety package on all wells, attached is an "H2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

# Drill Plan

**Nina Cortell Fed Com 136H**
**SHL: 242' FSL & 1601' FWL Section 10**
**BHL: 110' FNL & 1650' FWL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3,790'**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #136H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21614' MD / 11450' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3991049 N / -103.6657793 W
TD Lat/Long (NAD83): 32.4276750 N / -103.6658337 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 928 | 928 | 324 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,252 | 1,252 | 1,884 | Salt | Barren |
| Castile | 3,149 | 3,136 | 1,711 | Salt | Barren |
| Lamar (Base of Salt) | 4,860 | 4,847 | 267 | Salt | Barren |
| Bell Canyon | 5,127 | 5,113 | 654 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,781 | 5,767 | 1,232 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,013 | 6,999 | 1,790 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,803 | 8,789 | 1,087 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,890 | 9,876 | 291 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,180 | 10,167 | 378 | Carbonate | Oil/Natural Gas |
| **2nd Bone Spring Sand** | **10,559** | **10,545** | **412** | **Sandstone** | **Oil/Natural Gas** |
| KOP | 10,890 | 10,877 | - | Sandstone | Oil/Natural Gas |
| **3rd Bone Spring Carb** | **10,971** | **10,958** | **-** | **Carbonate** | **Oil/Natural Gas** |
| **TD** | **21,614** | **11,450** | | **Carbonate** | **Oil/Natural Gas** |

### 2. Notable Zones

3rd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375'.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador request the option to offline cement surface casing. The “Offline Cementing - Surface Procedure” is attached for review. No changes in cement program are necessary.

Matador request the option to offline cement intermediate casing. The “Offline Cementing - Intermediate Casing" Procedure is attached for review. No changes in cement program are necessary.

Matador request the option to break test the BOP during batch drilling operations. The "Modified BOP Testing Procedure for Batch Drilling" Procedure is attached for review.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

## Drill Plan

| String | Hole Size (in) | Set MD (ft) | Set TVD (ft) | Casing Size (in) | Wt. (lb/ft) | Grade | Joint | Collapse | Burst | Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Intermediate 1 | 12.25 | 0 - 4910.2 | 0 - 4896.8 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10890 | 0 - 10877 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21614 | 0 - 11450 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

Variance Request

Matador request a variance to wave the centralizer requirement for the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. Option to cancel 2nd stage cement if cement is circulated on 1st stage.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 960 | 1.84 | 1758 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 370 | 1.33 | 494 | 14.8 | 50% | 3928 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 360 | 3.66 | 1304 | 11.5 | 25% | 4710 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 860 | 1.35 | 1154 | 13.2 | 25% | 10690 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

**5. Mud Program**

An electronic Pason mud monitoring system complying with Title 43 CFR 3172 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 4910.2 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 4910.2 - 10890 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10890 - 21614 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5954 psi. Maximum anticipated surface pressure is 3435 psi. Expected bottom hole temperature is 163 F.

In accordance with Title 43 CFR 3176, Matador does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H2S safety package on all wells, attached is an "H2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

# Drill Plan

**Nina Cortell Fed Com 135H**
**SHL: 272' FSL & 1681' FWL Section 10**
**BHL: 110' FNL & 330' FWL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3,790'**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #135H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21748' MD / 11450' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3990858 N / -103.6700603 W
TD Lat/Long (NAD83): 32.4276689 N / -103.6701105 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 928 | 928 | 324 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,252 | 1,252 | 1,883 | Salt | Barren |
| Castile | 3,141 | 3,135 | 1,711 | Salt | Barren |
| Lamar (Base of Salt) | 4,867 | 4,846 | 267 | Salt | Barren |
| Bell Canyon | 5,137 | 5,113 | 654 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,801 | 5,767 | 1,232 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,047 | 6,999 | 1,790 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,846 | 8,789 | 1,087 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,934 | 9,876 | 290 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,225 | 10,166 | 379 | Carbonate | Oil/Natural Gas |
| **2nd Bone Spring Sand** | **10,603** | **10,545** | **412** | **Sandstone** | **Oil/Natural Gas** |
| KOP | 10,935 | 10,877 | - | Sandstone | Oil/Natural Gas |
| **3rd Bone Spring Carb** | **11,016** | **10,957** | **-** | **Carbonate** | **Oil/Natural Gas** |
| **TD** | **21,748** | **11,450** | | **Carbonate** | **Oil/Natural Gas** |

### 2. Notable Zones

3rd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375'.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador request the option to offline cement surface casing. The “Offline Cementing - Surface Procedure” is attached for review. No changes in cement program are necessary.

Matador request the option to offline cement intermediate casing. The “Offline Cementing - Intermediate Casing" Procedure is attached for review. No changes in cement program are necessary.

Matador request the option to break test the BOP during batch drilling operations. The "Modified BOP Testing Procedure for Batch Drilling" Procedure is attached for review.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

## Drill Plan

| String | Hole Size (in) | Set MD (ft) | Set TVD (ft) | Casing Size (in) | Wt. (lb/ft) | Grade | Joint | Collapse | Burst | Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Intermediate 1 | 12.25 | 0 - 4917 | 0 - 4896 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10935 | 0 - 10877 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21748 | 0 - 11450 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

Variance Request

Matador request a variance to wave the centralizer requirement for the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. Option to cancel 2nd stage cement if cement is circulated on 1st stage.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 960 | 1.84 | 1761 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 370 | 1.33 | 495 | 14.8 | 50% | 3934 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 360 | 3.66 | 1312 | 11.5 | 25% | 4717 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 860 | 1.35 | 1164 | 13.2 | 25% | 10735 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

**5. Mud Program**

An electronic Pason mud monitoring system complying with Title 43 CFR 3172 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 4917 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 4917 - 10935 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10935 - 21748 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5954 psi. Maximum anticipated surface pressure is 3435 psi. Expected bottom hole temperature is 163 F.

In accordance with Title 43 CFR 3176, Matador does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H2S safety package on all wells, attached is an "H2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

**Drill Plan**

**Nina Cortell Fed Com 128H**
**SHL: 274' FSL & 1229' FEL Section 10**
**BHL: 60' FNL & 660' FEL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3,789'**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #128H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21204' MD / 10933' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.39914357511785 N / -103.6566732907736 W
TD Lat/Long (NAD83): 32.42784524583518 N / -103.65620066187077 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 839 | 839 | 352 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,191 | 1,191 | 1,944 | Salt | Barren |
| Castile | 3,149 | 3,135 | 1,762 | Salt | Barren |
| Lamar (Base of Salt) | 4,921 | 4,897 | 42 | Salt | Barren |
| Bell Canyon | 4,963 | 4,939 | 903 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,873 | 5,842 | 1,143 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,016 | 6,985 | 1,841 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,857 | 8,826 | 1,071 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,928 | 9,897 | 281 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,209 | 10,178 | 379 | Carbonate | Oil/Natural Gas |
| **KOP** | **10,422** | **10,392** | **-** | **Carbonate** | **Oil/Natural Gas** |
| 2nd Bone Spring Sand | 10,590 | 10,557 | - | Sandstone | Oil/Natural Gas |
| **TD** | **21,204** | **10,933** | | **Sandstone** | **Oil/Natural Gas** |

### 2. Notable Zones

2nd Bone Spring Sand is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375''.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador request the option to offline cement surface casing. The “Offline Cementing - Surface Procedure” is attached for review. No changes in cement program are necessary.

Matador request the option to offline cement intermediate casing. The “Offline Cementing - Intermediate Casing" Procedure is attached for review. No changes in cement program are necessary.

Matador request the option to break test the BOP during batch drilling operations. The "Modified BOP Testing Procedure for Batch Drilling" Procedure is attached for review.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

| String | Hole Size (in) | Set MD (ft) | Set TVD (ft) | Casing Size (in) | Wt. (lb/ft) | Grade | Joint | Collapse | Burst | Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Intermediate 1 | 12.25 | 0 - 4971 | 0 - 4947 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10422 | 0 - 10392 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21204 | 0 - 10933 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

Variance Request

Matador request a variance to wave the centralizer requirement for the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. Option to cancel 2nd stage cement if cement is circulated on 1st stage.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 970 | 1.84 | 1781 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 380 | 1.33 | 500 | 14.8 | 50% | 3977 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 320 | 3.66 | 1189 | 11.5 | 25% | 4771 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 860 | 1.35 | 1160 | 13.2 | 25% | 10222 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

**5. Mud Program**

An electronic Pason mud monitoring system complying with Title 43 CFR 3172 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 4971 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 4971 - 10422 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10422 - 21204 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5685 psi. Maximum anticipated surface pressure is 3280 psi. Expected bottom hole temperature is 163 F.

In accordance with Title 43 CFR 3176, Matador does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H2S safety package on all wells, attached is an "H2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

# Drill Plan

**Nina Cortell Fed Com 127H**
**SHL: 244' FSL & 1229' FEL Section 10**
**BHL: 60' FNL & 1980' FEL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3,789'**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #127H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21130' MD / 10851' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3991251748249 N / -103.66042531204583 W
TD Lat/Long (NAD83): 32.4278264328119 N / -103.66047859687673 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 839 | 839 | 352 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,191 | 1,191 | 1,944 | Salt | Barren |
| Castile | 3,149 | 3,135 | 1,762 | Salt | Barren |
| Lamar (Base of Salt) | 4,926 | 4,897 | 42 | Salt | Barren |
| Bell Canyon | 4,968 | 4,939 | 903 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,880 | 5,842 | 1,143 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,034 | 6,985 | 1,841 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,879 | 8,826 | 1,071 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,950 | 9,897 | 281 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,231 | 10,178 | 379 | Carbonate | Oil/Natural Gas |
| **KOP** | **10,362** | **10,310** | **-** | **Carbonate** | **Oil/Natural Gas** |
| 2nd Bone Spring Sand | 10,618 | 10,557 | - | Sandstone | Oil/Natural Gas |
| **TD** | **21,130** | **10,851** | | **Sandstone** | **Oil/Natural Gas** |

### 2. Notable Zones

2nd Bone Spring Sand is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375''.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 5M BOPE system will be installed. Test pressures will be 250 psi low and 5000 psi high with the annular preventer being tested to 250 psi low and 2500 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 5M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1 and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador request the option to offline cement surface casing. The “Offline Cementing - Surface Procedure” is attached for review. No changes in cement program are necessary.

Matador request the option to offline cement intermediate casing. The “Offline Cementing - Intermediate Casing" Procedure is attached for review. No changes in cement program are necessary.

Matador request the option to break test the BOP during batch drilling operations. The "Modified BOP Testing Procedure for Batch Drilling" Procedure is attached for review.

**4. Casing & Cement**

All casing will be API and new. See attached casing assumption worksheet.

| String | Hole Size (in) | Set MD (ft) | Set TVD (ft) | Casing Size (in) | Wt. (lb/ft) | Grade | Joint | Collapse | Burst | Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Intermediate 1 | 12.25 | 0 - 4976 | 0 - 4947 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10362 | 0 - 10310 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21130 | 0 - 10851 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality, and as run specification sheets will be on location for review
- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

Variance Request

Matador request a variance to wave the centralizer requirement for the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. Option to cancel 2nd stage cement if cement is circulated on 1st stage.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 970 | 1.84 | 1783 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 380 | 1.33 | 500 | 14.8 | 50% | 3981 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 320 | 3.66 | 1175 | 11.5 | 25% | 4776 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 860 | 1.35 | 1159 | 13.2 | 25% | 10162 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

**5. Mud Program**

An electronic Pason mud monitoring system complying with Title 43 CFR 3172 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 4976 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 4976 - 10362 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10362 - 21130 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5643 psi. Maximum anticipated surface pressure is 3255 psi. Expected bottom hole temperature is 163 F.

In accordance with Title 43 CFR 3176, Matador does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H2S safety package on all wells, attached is an "H2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

**Drill Plan**

**Nina Cortell Fed Com 126H**
**SHL: 242' FSL & 1681' FWL Section 10**
**BHL: 60' FNL & 1980' FWL Section 3**
**Township/Range: 22S 32E**
**Elevation Above Sea Level: 3,790'**

## Sundry Request

Matador request the option to amend the well design of the Nina Cortell Fed Com #126H and make the following changes to the current APD:

- Change the production open hole size to 7-7/8" from 0' - KOP and 6-3/4" from KOP - TD

## Drilling Operation Plan

Proposed Drilling Depth: 21094' MD / 10851' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.3992471 N / -103.6647146 W
TD Lat/Long (NAD83): 32.4278139 N / -103.6647633 W

### 1. Estimated Tops

| Formation | MD (ft) | TVD (ft) | Thickness (ft) | Lithology | Resource |
|---|---|---|---|---|---|
| Rustler | 928 | 928 | 324 | Anhydrite | Barren |
| Salado (Top of Salt) | 1,252 | 1,252 | 1,883 | Salt | Barren |
| Castile | 3,149 | 3,135 | 1,711 | Salt | Barren |
| Lamar (Base of Salt) | 4,869 | 4,846 | 267 | Salt | Barren |
| Bell Canyon | 5,135 | 5,113 | 654 | Sandstone | Oil/Natural Gas |
| Cherry Canyon | 5,790 | 5,767 | 1,232 | Sandstone | Oil/Natural Gas |
| Brushy Canyon | 7,021 | 6,999 | 1,790 | Sandstone | Oil/Natural Gas |
| Bone Spring Lime | 8,811 | 8,789 | 1,087 | Limestone | Oil/Natural Gas |
| 1st Bone Spring Sand | 9,898 | 9,876 | 290 | Sandstone | Oil/Natural Gas |
| 2nd Bone Spring Carb | 10,189 | 10,166 | 379 | Carbonate | Oil/Natural Gas |
| **KOP** | **10,324** | **10,301** | **-** | **Carbonate** | **Oil/Natural Gas** |
| 2nd Bone Spring Sand | 10,576 | 10,545 | - | Sandstone | Oil/Natural Gas |
| **TD** | **21,094** | **10,851** | | **Sandstone** | **Oil/Natural Gas** |

### 2. Notable Zones

2nd Bone Spring is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375'.

**3. Pressure Control**

Equipment

A 12,000' 5000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Title 43 CFR 3172 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

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BOP will be inspected and operated as required in Title 43 CFR 3172. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

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|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 17.5 | 0 - 975 | 0 - 975 | 13.375 | 54.5 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Intermediate 1 | 12.25 | 0 - 4919 | 0 - 4896 | 9.625 | 40 | J-55 | BUTT | 1.125 | 1.125 | 1.8 |
| Production | 7.875 | 0 - 10324 | 0 - 10301 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |
| Production | 6.75 | 0 - 21094 | 0 - 10851 | 5.5 | 20 | P-110 | Hunting TLW-SC | 1.125 | 1.125 | 1.8 |

- All casing strings will be tested in accordance with Title 43 CFR 3172.7(b)(8)
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
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- Request option drill 7.875" production hole, cement volumes will be adjusted accordingly.

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Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole, cement volumes will be adjusted accordingly.

***Primary Cement Design - DV/Packer 2-Stage Cement***

| String | Type | Sacks | Yield | Cu. Ft. | Weight | Percent Excess | Top of Cement (ft) | Class | Blend |
|---|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 410 | 1.72 | 700 | 13.5 | 50% | 0 | C | 5% NaCl + LCM |
| | Tail | 250 | 1.38 | 347 | 14.8 | 50% | 675 | C | 5% NaCl + LCM |
| Intermediate 1 w/ DV @ 1025' | Stg 2 Tail | 210 | 1.78 | 371 | 13.5 | 10% | 0 | A/C | 5% NaCl + LCM |
| | Stg 1 Lead | 960 | 1.84 | 1761 | 12.5 | 50% | 0 | A/C | Bentonite + 1% CaCl2 + 8% NaCl + LCM |
| | Stg 1 Tail | 370 | 1.33 | 495 | 14.8 | 50% | 3935 | A/C | 5% NaCl + LCM |
| Production (7-7/8" x 6-3/4") | Lead | 320 | 3.66 | 1179 | 11.5 | 25% | 4719 | A/C | Fluid Loss + Dispersant + Retarder + LCM |
| | Tail | 860 | 1.35 | 1159 | 13.2 | 25% | 10124 | A/C | Fluid Loss + Dispersant + Retarder + LCM |

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| Hole Section | Hole Size (in) | Mud Type | Interval MD (ft) | Density (lb/gal) | Viscosity | Fluid Loss |
|---|---|---|---|---|---|---|
| Surface | 17.5 | Spud Mud | 0 - 975 | 8.4 - 8.8 | 28-30 | NC |
| Intermediate 1 | 12.25 | Brine | 975 - 4919 | 9.8 - 10.5 | 28-30 | NC |
| Production | 7.875 | OBM/Cut Brine | 4919 - 10324 | 8.8 - 10 | 30-55 | <20 |
| Production | 6.75 | OBM/Cut Brine | 10324 - 21094 | 8.8 - 10 | 30-55 | <20 |

**6. Cores, Test, & Logs**

No core or drill stem test is planned.

No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve. We will be running a Neutron log on one of the wells on each pad.

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Bottom hole pressure is 5643 psi. Maximum anticipated surface pressure is 3255 psi. Expected bottom hole temperature is 163 F.

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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 390275

## CONDITIONS

| | |
|---|---|
| Operator:<br>MATADOR PRODUCTION COMPANY<br>One Lincoln Centre<br>Dallas, TX 75240 | OGRID:<br>228937 |
| | Action Number:<br>390275 |
| | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| dmcclure | None | 2/5/2025 |