Rec'd 05/18/2020 - NMOCD

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM138866

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.
Multiple--See Attached

2. Name of Operator
MATADOR PRODUCTION COMPANY

Contact: NICKY FITZGERALD
E-Mail: nicky.fitzgerald@matadorresources.com

9. API Well No.
Multiple--See Attached

3a. Address
ONE LINCOLN CENTER 5400 LBJ FREEWAY SUITE 1500
DALLAS, TX 75240

3b. Phone No. (include area code)
Ext 972-371-5448

10. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

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

11. County or Parish, State
EDDY COUNTY, NM

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
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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 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 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 determined that the site is ready for final inspection.

BLM Bond No. NMB001079
Surety Bond No. RLB0015172

Matador Resources respectfully requests the OPTION to amend the casing, cementing and mud program on the Voni Federal Com 201H (30-015-46988).

This will also apply to the following Voni wells:

Voni Federal Com 202H (30-015-46990)
Voni Federal Com 203H (30-015-47016)
Voni Federal Com 215H (30-015-47017)
Voni Federal Com 216H (30-015-46992)

Accepted 05/19/2020 - KMS NMOCD

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

Electronic Submission #512354 verified by the BLM Well Information System
For MATADOR PRODUCTION COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/01/2020 (20PP2570SE)

Name *(Printed/Typed)* BLAKE HERMES — Title DRILLING ENGINEER

Signature (Electronic Submission) — Date 04/23/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By NDUNGU KAMAU — Title PETROLEUM ENGINEER — Date 05/13/2020

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 Carlsbad

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 ****

Additional data for EC transaction #512354 that would not fit on the form

Wells/Facilities, continued

Agreement	Lease	Well/Fac Name, Number	API Number	Location
NMNM138866	NMNM138866	VONI FED COM 202H	30-015-46990-00-X1	Sec 21 T26S R31E NENW 350FNL 2100FWL 32.034496 N Lat, 103.785034 W Lon
NMNM138866	NMNM138866	VONI FED COM 203H	30-015-47016-00-X1	Sec 21 T26S R31E NWNE 350FNL 2196FEL 32.034500 N Lat, 103.781761 W Lon
NMNM138866	NMNM138866	VONI FED COM 215H	30-015-47017-00-X1	Sec 21 T26S R31E NWNW 350FNL 404FWL 32.034492 N Lat, 103.790504 W Lon
NMNM138866	NMNM138866	VONI FED COM 216H	30-015-46992-00-X1	Sec 21 T26S R31E NENW 350FNL 2130FWL 32.034496 N Lat, 103.784935 W Lon
NMNM138866	NMNM138866	VONI FED COM 217H	30-015-46993-00-X1	Sec 21 T26S R31E NWNE 350FNL 2166FEL 32.034500 N Lat, 103.781662 W Lon
NMNM138866	NMNM138866	VONI FED COM 201H	30-015-46988-00-X1	Sec 21 T26S R31E NWNW 350FNL 374FWL 32.034492 N Lat, 103.790604 W Lon

32. Additional remarks, continued

Voni Federal Com 217H (30-015-46993)
Voni Federal Com 218H (Pending API#)

Please find supporting documentation attached and contact Blake Hermes at 972-371-5485 for any questions.

Revisions to Operator-Submitted EC Data for Sundry Notice #512354

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM138866	NMNM138866
Agreement:		
Operator:	MATADOR PRODUCTION COMPANY 5400 LBJ FREEWAY, SUITE 1500 DALLAS, TX 75240 Ph: 972-371-5448	MATADOR PRODUCTION COMPANY ONE LINCOLN CENTER 5400 LBJ FREEWAY SUITE 1500 DALLAS, TX 75240 Ph: 972.371.5200
Admin Contact:	NICKY FITZGERALD REGULATORY ANALYST E-Mail: nicky.fitzgerald@matadorresources.com Ph: 972-371-5448	NICKY FITZGERALD REGULATORY ANALYST E-Mail: nicky.fitzgerald@matadorresources.com Ph: 972-371-5448
Tech Contact:	BLAKE HERMES DRILLING ENGINEER E-Mail: bhermes@matadorresources.com Ph: 972-371-5485	BLAKE HERMES DRILLING ENGINEER E-Mail: bhermes@matadorresources.com Ph: 972-371-5485
Location: State: County:	 NM EDDY	 NM EDDY
Field/Pool:	PURPLE SAGE;WOLFCAMP(GAS)	PURPLE SAGE-WOLFCAMP (GAS)
Well/Facility:	VONI FEDERAL COM 201H Sec 21 T26S R31E 350FNL 374FWL	VONI FED COM 202H Sec 21 T26S R31E NENW 350FNL 2100FWL 32.034496 N Lat, 103.785034 W Lon VONI FED COM 203H Sec 21 T26S R31E NWNE 350FNL 2196FEL 32.034500 N Lat, 103.781761 W Lon VONI FED COM 215H Sec 21 T26S R31E NWNW 350FNL 404FWL 32.034492 N Lat, 103.790504 W Lon VONI FED COM 216H Sec 21 T26S R31E NENW 350FNL 2130FWL 32.034496 N Lat, 103.784935 W Lon VONI FED COM 217H Sec 21 T26S R31E NWNE 350FNL 2166FEL 32.034500 N Lat, 103.781662 W Lon VONI FED COM 201H Sec 21 T26S R31E NWNW 350FNL 374FWL 32.034492 N Lat, 103.790604 W Lon

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM138885
LOCATION:	Section 15, T.26 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	Voni Federal 201H
SURFACE HOLE FOOTAGE:	350'/N & 344'/W
BOTTOM HOLE FOOTAGE	240'/S & 338'/W

WELL NAME & NO.:	Voni Federal 202H
SURFACE HOLE FOOTAGE:	350'/N & 2100'/W
BOTTOM HOLE FOOTAGE	240'/S & 1650'/W

WELL NAME & NO.:	Voni Federal 203H
SURFACE HOLE FOOTAGE:	350'/N & 2196'/E
BOTTOM HOLE FOOTAGE	240'/S & 2310'/E

WELL NAME & NO.:	Voni Federal 215H
SURFACE HOLE FOOTAGE:	320'/N & 374'/W
BOTTOM HOLE FOOTAGE	240'/S & 990'/W

WELL NAME & NO.:	Voni Federal 216H
SURFACE HOLE FOOTAGE:	320'/N & 2130'/W
BOTTOM HOLE FOOTAGE	240'/S & 2310'/W

WELL NAME & NO.:	Voni Federal 217H
SURFACE HOLE FOOTAGE:	320'/N & 2166'/W
BOTTOM HOLE FOOTAGE	240'/S & 1650'/W

WELL NAME & NO.:	Voni Federal 218H
SURFACE HOLE FOOTAGE:	290'/N & 1098'/E
BOTTOM HOLE FOOTAGE	240'/N & 330'/E

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	○ Medium	◉ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both

Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

ALL PREVOUS COAs STILL APPLY.

A. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1066** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

    Option 2:

    Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

    a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In **High Cave/Karst Areas** if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

C. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

NMK05132020

Voni Federal 201H
SHL: 350' FNL & 344' FWL Section 21
BHL: 240' FSL & 338' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,194'

Drilling Operation Plan

Proposed Drilling Depth: 23657' MD / 11341' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0353176611 N / -103.7907142996 W
TD Lat/Long (NAD83): 32.0008349213 N / -103.7906431123 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	742	742	765	Anhydrite	Barren
Top of Salt	1,507	1,507	1,884	Salt	Barren
Castile	3,391	3,391	586	Salt	Barren
Base of Salt	3,977	3,977	32	Salt	Barren
Bell Canyon	4,009	4,009	1,115	Sandstone	Oil/Natural Gas
Cherry Canyon	5,124	5,124	1,138	Sandstone	Oil/Natural Gas
Brushy Canyon	6,262	6,262	1,638	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,900	7,900	961	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,861	8,861	495	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,356	9,356	174	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,530	9,530	630	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,160	10,160	595	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,755	10,755	437	Sandstone	Oil/Natural Gas
KOP	**10,787**	**10,768**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,263	11,192	-	Shale	Oil/Natural Gas
TD	**23,657**	**11,341**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

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 Onshore Order #2 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 Onshore Order #2. 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 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, Intermediate 2, 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.

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 - 767	0 - 767	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	12.25	0 - 4034	0 - 4034	9.625	40	J-55	BUTT	1.125	1.125	1.8
Intermediate 2 Top	8.75	0 - 3734	0 - 3734	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 2 Bottom	8.75	3734 - 11600	3734 - 11334	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production Top	6.75	0 - 11500	0 - 11308	5.5	20	P-110	DWC/C-IS MS	1.125	1.125	1.8
Production Bottom	6.75	11500 - 23657	11308 - 11341	5.5	20	P-110	VAM EDGE SF	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed

Variance Request
Matador requests a variance to run 7-5/8" BTC casing inside 9-5/8" BTC casing which will be less than the 0.422" stand off regulation. Matador has met with Christopher Walls and Mustafa Haque as well as other BLM representatives and determined that this would be acceptable as long as the 7-5/8" flush casing was run throughout the entire 300' cement tie back section between 9-5/8" and 7-5/8" casing.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	320	1.72	559	12.5	50%	0	C	5% NaCl + LCM

Surface	Tail	250	1.38	347	14.8	50%	467	C	5% NaCl + LCM
Intermediate 1	Lead	740	2.13	1573	12.6	50%	0	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	300	1.38	413	14.8	50%	3227	C	5% NaCl + LCM
Intermediate 2	Lead	440	2.13	931	11.0	35%	3734	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	10600	TXI	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	1000	1.17	1169	14.5	10%	11100	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 767	8.4 - 8.8	28-30	NC
Intermediate 1	12.25	Brine Water	767 - 4034	9.5 - 10.2	28-30	NC
Intermediate 2	8.75	FW/Cut Brine	4034 - 11600	8.4 - 9.4	28-30	NC
Production	6.75	OBM	11600 - 23657	11.5 - 12.5	30-35	<20

6. Cores, Test, & Logs

No core or drill stem test is planned.

A 2-person mud logging program will be used from Intermediate 2 Casing shoe to TD.

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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4877 psi. Expected bottom hole temperature is 187 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Federal 201H
SHL: 350' FNL & 344' FWL Section 21
BHL: 240' FSL & 338' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,194'

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 - 767	0 - 767	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	12.25	0 - 4034	0 - 4034	9.625	40	J-55	BUTT	1.125	1.125	1.8
Intermediate 2 Top	8.75	0 - 3734	0 - 3734	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 2 Bottom	8.75	3734 - 11600	3734 - 11334	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production Top	6.75	0 - 11500	0 - 11308	5.5	20	P-110	DWC/C-IS MS	1.125	1.125	1.8
Production Bottom	6.75	11500 - 23657	11308 - 11341	5.5	20	P-110	VAM EDGE SF	1.125	1.125	1.8

Voni Fed Com 202H
SHL: 350' FNL & 2100' FWL Section 21
BHL: 240' FSL & 1650' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,187'

Drilling Operation Plan

Proposed Drilling Depth: 23735' MD / 11358' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0353243049 N / -103.7871417970 W
TD Lat/Long (NAD83): 32.0008369515 N / -103.7864130752 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	789	789	748	Anhydrite	Barren
Salado (Top of Salt)	1,537	1,537	1,854	Salt	Barren
Castile	3,391	3,391	602	Salt	Barren
Lamar (Base of Salt)	3,993	3,993	30	Salt	Barren
Bell Canyon	4,023	4,023	1,114	Sandstone	Oil/Natural Gas
Cherry Canyon	5,137	5,137	1,139	Sandstone	Oil/Natural Gas
Brushy Canyon	6,276	6,276	1,646	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,922	7,922	965	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,887	8,887	462	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,349	9,349	213	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,562	9,562	558	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,120	10,120	661	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,781	10,781	411	Sandstone	Oil/Natural Gas
KOP	**10,843**	**10,785**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,266	11,192	-	Shale	Oil/Natural Gas
TD	**23,735**	**11,358**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

3. Pressure Control

Equipment
A 18,000' 10,000-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 Onshore Order #2 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 Onshore Order #2. 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 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 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 10M 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, Intermediate 2, 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 requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The "Well Control Plan For 10M MASP Section of Wellbore" is attached.

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 - 814	0 - 814	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 11650	9500 - 11348	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23735	0 - 11358	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- 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 the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and 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.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate I hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

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.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	350	1.72	608	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	514	C	5% NaCl + LCM
Intermediate 1 DV ~4,200'	Lead	260	5.57	1430	10.2	35%	0	A/C	Stage 2: Tuned light blend
	Lead	340	5.57	1870	10.2	35%	4200	A/C	Stage 1:Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	10650	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
Intermediate 1 Alternate Design- Bradenhead Squeeze	Lead	550	5.57	3088	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	10650	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Clas C Cement + LCM
Production	Tail	970	1.17	1141	14.5	10%	11450	H	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 814	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	814 - 11650	8.4 - 9.4	28-30	NC
Production	6.75	OBM	11650 - 23735	11.5 - 12.5	50-65	<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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4884 psi. Expected bottom hole temperature is 187 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Fed Com 202H
SHL: 350' FNL & 2100' FWL Section 21
BHL: 240' FSL & 1650' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,187'

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 - 814	0 - 814	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 11650	9500 - 11348	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23735	0 - 11358	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

Voni Fed Com 203H
SHL: 350' FNL & 2196' FEL Section 21
BHL: 240' FSL & 2310' FEL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3191

Drilling Operation Plan

Proposed Drilling Depth: 23716' MD / 11377' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0353268829 N / -103.7826560348 W
TD Lat/Long (NAD83): 32.0008391313 N / -103.7820095802 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	855	855	707	Anhydrite	Barren
Salado (Top of Salt)	1,562	1,562	1,829	Salt	Barren
Castile	3,391	3,391	624	Salt	Barren
Lamar (Base of Salt)	4,015	4,015	28	Salt	Barren
Bell Canyon	4,043	4,043	1,103	Sandstone	Oil/Natural Gas
Cherry Canyon	5,146	5,146	1,143	Sandstone	Oil/Natural Gas
Brushy Canyon	6,289	6,289	1,640	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,929	7,929	986	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,915	8,915	438	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,353	9,353	177	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,530	9,530	591	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,121	10,121	685	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,806	10,806	422	Sandstone	Oil/Natural Gas
KOP	**10,830**	**10,804**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,306	11,228	-	Shale	Oil/Natural Gas
TD	**23,716**	**11,377**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

3. Pressure Control

Equipment
A 18,000' 10,000-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 Onshore Order #2 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 Onshore Order #2. 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 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 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 10M 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, Intermediate 2, 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 requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The "Well Control Plan For 10M MASP Section of Wellbore" is attached.

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 - 880	0 - 880	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10680	9500 - 10654	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23716	0 - 11377	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- 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 the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and 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.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate I hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

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.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	390	1.72	676	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	580	C	5% NaCl + LCM
Intermediate 1 DV ~4,200'	Lead	260	5.57	1447	10.2	35%	0	A/C	Stage 2: Tuned light blend
	Lead	290	5.57	1589	10.2	35%	4200	A/C	Stage 1:Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	9680	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
Intermediate 1 Alternate Design- Bradenhead Squeeze	Lead	500	5.57	2807	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9680	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Clas C Cement + LCM
Production	Tail	1050	1.17	1228	14.5	10%	10480	H	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 880	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	880 - 10680	8.4 - 9.4	28-30	NC
Production	6.75	OBM	10680 - 23716	11.5 - 12.5	50-65	<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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4892 psi. Expected bottom hole temperature is 187 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Fed Com 203H
SHL: 350' FNL & 2196' FEL Section 21
BHL: 240' FSL & 2310' FEL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3191

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 - 880	0 - 880	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10680	9500 - 10654	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23716	0 - 11377	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

Voni Fed Com 215H
SHL: 350' FNL & 404' FWL Section 21
BHL: 240' FSL & 990' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,194'

Drilling Operation Plan

Proposed Drilling Depth: 23905' MD / 11561' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0351842765 N / -103.7890982779 W
TD Lat/Long (NAD83): 32.0008359456 N / -103.7885421424 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	742	742	765	Anhydrite	Barren
Salado (Top of Salt)	1,507	1,507	1,884	Salt	Barren
Castile	3,391	3,391	586	Salt	Barren
Lamar (Base of Salt)	3,977	3,977	32	Salt	Barren
Bell Canyon	4,009	4,009	1,115	Sandstone	Oil/Natural Gas
Cherry Canyon	5,124	5,124	1,138	Sandstone	Oil/Natural Gas
Brushy Canyon	6,262	6,262	1,638	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,900	7,900	961	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,861	8,861	495	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,356	9,356	174	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,530	9,530	630	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,160	10,160	595	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,755	10,755	437	Sandstone	Oil/Natural Gas
KOP	**11,021**	**10,988**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,229	11,192	-	Shale	Oil/Natural Gas
TD	**23,905**	**11,561**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

3. Pressure Control

Equipment
A 18,000' 10,000-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 Onshore Order #2 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 Onshore Order #2. 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 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 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 10M 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, Intermediate 2, 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 requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The "Well Control Plan For 10M MASP Section of Wellbore" is attached.

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 - 767	0 - 767	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10950	9500 - 10950	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23905	0 - 11561	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- 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 the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and 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.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate I hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

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.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	320	1.72	559	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	467	C	5% NaCl + LCM
Intermediate 1 DV ~4,200'	Lead	250	5.57	1418	10.2	35%	0	A/C	Stage 2: Tuned light blend
	Lead	300	5.57	1667	10.2	35%	4200	A/C	Stage 1:Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	9950	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
Intermediate 1 Alternate Design- Bradenhead Squeeze	Lead	520	5.57	2885	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9950	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Clas C Cement + LCM
Production	Tail	1040	1.17	1221	14.5	10%	10750	H	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 767	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	767 - 10950	8.4 - 9.4	28-30	NC
Production	6.75	OBM	10950 - 23905	11.5 - 12.5	50-65	<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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4971 psi. Expected bottom hole temperature is 190 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Fed Com 215H
SHL: 350' FNL & 404' FWL Section 21
BHL: 240' FSL & 990' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,194'

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 - 767	0 - 767	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10950	9500 - 10950	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23905	0 - 11561	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

Voni Fed Com 216H
SHL: 350' FNL & 2130' FWL Section 21
BHL: 240' FSL & 2310' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,186'

Drilling Operation Plan

Proposed Drilling Depth: 23900' MD / 11578' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0353244962 N / -103.7846407495 W
TD Lat/Long (NAD83): 32.0008378390 N / -103.7842839769 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	789	789	748	Anhydrite	Barren
Salado (Top of Salt)	1,537	1,537	1,854	Salt	Barren
Castile	3,391	3,391	602	Salt	Barren
Lamar (Base of Salt)	3,993	3,993	30	Salt	Barren
Bell Canyon	4,023	4,023	1,114	Sandstone	Oil/Natural Gas
Cherry Canyon	5,137	5,137	1,139	Sandstone	Oil/Natural Gas
Brushy Canyon	6,276	6,276	1,646	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,922	7,922	965	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,887	8,887	462	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,349	9,349	213	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,562	9,562	558	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,120	10,120	661	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,781	10,781	426	Sandstone	Oil/Natural Gas
KOP	**11,022**	**11,005**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,229	11,207	-	Shale	Oil/Natural Gas
TD	**23,900**	**11,578**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

3. Pressure Control

Equipment
A 18,000' 10,000-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 Onshore Order #2 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 Onshore Order #2. 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 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 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 10M 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, Intermediate 2, 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 requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The "Well Control Plan For 10M MASP Section of Wellbore" is attached.

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 - 814	0 - 814	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10950	9500 - 10950	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23900	0 - 11578	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- 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 the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and 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.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate I hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

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.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	350	1.72	608	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	514	C	5% NaCl + LCM
Intermediate 1 DV ~4,200'	Lead	260	5.57	1430	10.2	35%	0	A/C	Stage 2: Tuned light blend
	Lead	300	5.57	1667	10.2	35%	4200	A/C	Stage 1:Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	9950	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
Intermediate 1 Alternate Design- Bradenhead Squeeze	Lead	520	5.57	2885	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9950	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Clas C Cement + LCM
Production	Tail	1040	1.17	1220	14.5	10%	10750	H	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 814	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	814 - 10950	8.4 - 9.4	28-30	NC
Production	6.75	OBM	10950 - 23900	11.5 - 12.5	50-65	<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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4979 psi. Expected bottom hole temperature is 187 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Fed Com 216H
SHL: 350' FNL & 2130' FWL Section 21
BHL: 240' FSL & 2310' FWL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3,186'

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 - 814	0 - 814	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10950	9500 - 10950	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23900	0 - 11578	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

Voni Fed Com 217H
SHL: 320' FNL & 2166' FEL Section 21
BHL: 240' FSL & 1650' FEL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3191

Drilling Operation Plan

Proposed Drilling Depth: 23935' MD / 11597' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0353277604 N / -103.780332478 W
TD Lat/Long (NAD83): 32.0008407428 N / -103.7798806078 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	855	855	707	Anhydrite	Barren
Salado (Top of Salt)	1,562	1,562	1,829	Salt	Barren
Castile	3,391	3,391	624	Salt	Barren
Lamar (Base of Salt)	4,015	4,015	28	Salt	Barren
Bell Canyon	4,043	4,043	1,103	Sandstone	Oil/Natural Gas
Cherry Canyon	5,146	5,146	1,143	Sandstone	Oil/Natural Gas
Brushy Canyon	6,289	6,289	1,640	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,929	7,929	986	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,915	8,915	438	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,353	9,353	177	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,530	9,530	591	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,121	10,121	685	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,806	10,806	421	Sandstone	Oil/Natural Gas
KOP	**11,056**	**11,024**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,263	11,227	-	Shale	Oil/Natural Gas
TD	**23,935**	**11,597**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

3. Pressure Control

Equipment
A 18,000' 10,000-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 Onshore Order #2 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 Onshore Order #2. 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 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 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 10M 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, Intermediate 2, 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 requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The "Well Control Plan For 10M MASP Section of Wellbore" is attached.

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 - 880	0 - 880	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10906	9500 - 10874	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23935	0 - 11597	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- 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 the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and 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.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate I hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

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.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	390	1.72	676	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	580	C	5% NaCl + LCM
Intermediate 1 DV ~4,200'	Lead	260	5.57	1447	10.2	35%	0	A/C	Stage 2: Tuned light blend
	Lead	300	5.57	1654	10.2	35%	4200	A/C	Stage 1:Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	9906	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
Intermediate 1 Alternate Design- Bradenhead Squeeze	Lead	520	5.57	2872	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9906	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Clas C Cement + LCM
Production	Tail	1050	1.17	1227	14.5	10%	10706	H	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 880	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	880 - 10906	8.4 - 9.4	28-30	NC
Production	6.75	OBM	10906 - 23935	11.5 - 12.5	50-65	<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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4987 psi. Expected bottom hole temperature is 187 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Fed Com 217H
SHL: 320' FNL & 2166' FEL Section 21
BHL: 240' FSL & 1650' FEL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3191

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 - 880	0 - 880	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10906	9500 - 10874	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23935	0 - 11597	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

Voni Fed Com 218H
SHL: 290' FNL & 1098' FEL Section 21
BHL: 240' FSL & 330' FEL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3190

Drilling Operation Plan

Proposed Drilling Depth: 23958' MD / 11606' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Gas

Geologic Name of Surface Formation Quaternary Deposits

KOP Lat/Long (NAD83): 32.0353335563 N / -103.7760080585 W
TD Lat/Long (NAD83): 32.0008437478 N / -103.7756224400 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	893	893	681	Anhydrite	Barren
Salado (Top of Salt)	1,574	1,574	1,817	Salt	Barren
Castile	3,391	3,391	634	Salt	Barren
Lamar (Base of Salt)	4,025	4,025	27	Salt	Barren
Bell Canyon	4,052	4,052	1,090	Sandstone	Oil/Natural Gas
Cherry Canyon	5,142	5,142	1,149	Sandstone	Oil/Natural Gas
Brushy Canyon	6,291	6,291	1,653	Sandstone	Oil/Natural Gas
Bone Spring Lime	7,944	7,944	986	Limestone	Oil/Natural Gas
1st Bone Spring Sand	8,930	8,930	425	Sandstone	Oil/Natural Gas
2nd Bone Spring Carbonate	9,355	9,355	253	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	9,608	9,608	503	Sandstone	Oil/Natural Gas
3rd Bone Spring Carbonate	10,111	10,111	708	Carbonate	Oil/Natural Gas
3rd Bone Spring Sand	10,819	10,819	416	Sandstone	Oil/Natural Gas
KOP	**11,081**	**11,033**	**-**	**Shale**	**Oil/Natural Gas**
Wolfcamp	11,288	11,235	-	Shale	Oil/Natural Gas
TD	**23,958**	**11,606**		**Shale**	**Oil/Natural Gas**

2. Notable Zones

Wolfcamp 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 230'

3. Pressure Control

Equipment
A 18,000' 10,000-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 Onshore Order #2 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 Onshore Order #2. 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 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 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 10M 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, Intermediate 2, 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 requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The “Well Control Plan For 10M MASP Section of Wellbore” is attached.

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 - 918	0 - 918	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10931	9500 - 10883	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23958	0 - 11606	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- 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 the option to deepen the Intermediate 1 casing set depth to 70° in curve, no changes in pipe grade or weight is neccesary.

Variance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and 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.

9-7/8" hole depth may fluctuate, but 7-5/8" BUTT will only be run inside of 9-7/8" OH and Flush joint will be run in 8-3/4" OH. Cement volumes will be adjusted proportionally. Option to drill the entire Intermediate I hole section in 9-7/8" hole size.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

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.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	420	1.72	716	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	618	C	5% NaCl + LCM
Intermediate 1 DV ~4,200'	Lead	260	5.57	1457	10.2	35%	0	A/C	Stage 2: Tuned light blend
	Lead	300	5.57	1662	10.2	35%	4200	A/C	Stage 1:Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	156	13.2	35%	9931	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
Intermediate 1 Alternate Design- Bradenhead Squeeze	Lead	520	5.57	2879	10.3	35%	0	A/C	Tuned light blend
	Tail	110	1.43	156	13.2	35%	9931	A/C	Stage 1: Fluid Loss + Dispersant + Retarder
	Tail	1000	1.46	1460	14.2	35%	0	C	Bradenhead Contingency: Clas C Cement + LCM
Production	Tail	1050	1.17	1227	14.5	10%	10731	H	Fluid Loss + Dispersant + Retarder

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 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 - 918	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Brine Emulsion	918 - 10931	8.4 - 9.4	28-30	NC
Production	6.75	OBM	10931 - 23958	11.5 - 12.5	50-65	<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.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is 4991 psi. Expected bottom hole temperature is 190 F.

In accordance with Onshore Order 6, 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.

Tapered String Specification Sheet

Voni Fed Com 218H
SHL: 290' FNL & 1098' FEL Section 21
BHL: 240' FSL & 330' FEL Section 33
Township/Range: 26S 31E
Elevation Above Sea Level: 3190

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 - 918	0 - 918	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1 Top	9.875	0 - 9500	0 - 9500	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Intermediate 1 Bottom	8.75	9500 - 10931	9500 - 10883	7.625	29.7	P-110	VAM HTF-NR	1.125	1.125	1.8
Production	6.75	0 - 23958	0 - 11606	5.5	20	P-110	Hunting TLW	1.125	1.125	1.8