Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

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

5.	Lease	Serial	No

BURI	EAU OF LAND MANAGEMENT	3. Lease Schai ivo.			
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Jse Form 3160-3 (APD) for suc	6. If Indian, Allottee or	6. If Indian, Allottee or Tribe Name		
abandoned wen.	ose romi oroc-o (Ar b) for suc	7 IfII:: 4 - f C A / A	None and None		
	TRIPLICATE - Other instructions on page	/. If Unit of CA/Agree	ement, Name and/or No.		
1. Type of Well		8. Well Name and No.			
Oil Well Gas W	Vell Other				
2. Name of Operator			9. API Well No.		
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or I	Exploratory Area	
4. Location of Well (Footage, Sec., T.,R	.,M., or Survey Description)		11. Country or Parish,	State	
12. CHE	CK THE APPROPRIATE BOX(ES) TO INC	DICATE NATURE OF NO	TICE, REPORT OR OTH	IER DATA	
TYPE OF SUBMISSION		TYPE OF A	CTION		
Notice of Intent	Acidize Deep Alter Casing Hydra	=	oduction (Start/Resume)	Water Shut-Off Well Integrity	
Subsequent Report	Casing Repair New	Construction Re	ecomplete	Other	
Subsequent Report	Change Plans Plug	and Abandon Te	mporarily Abandon		
Final Abandonment Notice	Convert to Injection Plug	Back W	ater Disposal		
completed. Final Abandonment Not is ready for final inspection.)	ns. If the operation results in a multiple comices must be filed only after all requirements				
4. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)	Title			
Signature		Date			
	THE SPACE FOR FEDE	ERAL OR STATE C	FICE USE		
Approved by			I		
rr		Title	I	Date	
	ned. Approval of this notice does not warrant quitable title to those rights in the subject lead duct operations thereon.		'		
	B U.S.C Section 1212, make it a crime for an		villfully to make to any de	partment or agency of the United States	

(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, 3162.3-4.

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 of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

Additional Information

Location of Well

0. SHL: SWSE / 155 FSL / 2175 FEL / TWSP: 20S / RANGE: 33E / SECTION: 9 / LAT: 32.58083 / LONG: -103.66675 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 1332 FNL / 2170 FEL / TWSP: 20S / RANGE: 33E / SECTION: 4 / LAT: 32.605808 / LONG: -103.666722 (TVD: 10073 feet, MD: 18986 feet)

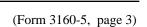
PPP: NWSE / 1323 FSL / 2153 FEL / TWSP: 20S / RANGE: 33E / SECTION: 4 / LAT: 32.598544 / LONG: -103.666733 (TVD: 10082 feet, MD: 16336 feet)

PPP: SWSE / 0 FNL / 2145 FEL / TWSP: 20S / RANGE: 33E / SECTION: 4 / LAT: 32.594908 / LONG: -103.666739 (TVD: 10087 feet, MD: 15011 feet)

PPP: SWNE / 2638 FNL / 2638 FEL / TWSP: 20S / RANGE: 33E / SECTION: 9 / LAT: 32.587658 / LONG: -103.66675 (TVD: 10096 feet, MD: 12375 feet)

PPP: SWSE / 100 FSL / 2178 FEL / TWSP: 20S / RANGE: 33E / SECTION: 9 / LAT: 32.580679 / LONG: -103.66676 (TVD: 9813 feet, MD: 9836 feet)

BHL: NWNE / 50 FNL / 2178 FEL / TWSP: 20S / RANGE: 33E / SECTION: 4 / LAT: 32.609333 / LONG: -103.666716 (TVD: 10068 feet, MD: 20367 feet)



Sundry Print Reports

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Well Name: SILVER FED COM Well Location: T20S / R33E / SEC 9 / County or Parish/State:

SWSE /

Well Number: 504H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM51844 Unit or CA Name: Unit or CA Number:

US Well Number: 3002548926 Well Status: Approved Application for Operator: MATADOR

Permit to Drill PRODUCTION COMPANY

Notice of Intent

Sundry ID: 2667958

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 04/21/2022 Time Sundry Submitted: 08:48

Date proposed operation will begin: 02/01/2023

Procedure Description: BLM Bond No. NMB 001079 Surety Bond No. RLB 0015172 Matador respectfully requests the option to make the following changes to the Silver Fed Com #504H: • Upsize Well and Casing Design. Details can be found in the attached Drill Plan with updated casing, cement and drilling fluid information. Casing specification sheets for the 7" x 5-1/2" production casing is attached as well as the Casing Design Assumption Worksheet for the updated design. • SHL change from 155' FSL and 2175' FEL to 85' FSL and 2170' FEL. The new SHL remains on the existing drill pad. • BHL change from 50' FNL and 2178' FEL to 100' FNL and 1980' FEL. Thanks for your time and diligence on this matter.

NOI Attachments

Procedure Description

Silver_Fed_Com__504H_C_102_04.21.22_signed_20221003123931.pdf

Casing_Specs_7.0_29_P110EC_DWC_C__20220421084643.pdf

BLM_Casing_Design_Assumptions_4_string_20220421084643.pdf

Silver_Fed_Com__504H_Fed_Planning_Doc___Casing_Cement_Mud_Sundry_20220421084643.pdf

Casing_Specs_5.5in_20lb_Hunting_TLW_SC_20220421084643.pdf

eceived by OCD: 10/31/2022 8:51:11 AM
Well Name: SILVER FED COM

Well Location: T20S / R33E / SEC 9 /

SWSE /

Well Number: 504H Type of Well: OIL WELL

Allottee or Tribe Name:

County or Parish/State:

Page 5 of

Lease Number: NMNM51844

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002548926

Well Status: Approved Application for Permit to Drill

Operator: MATADOR PRODUCTION COMPANY

Conditions of Approval

Additional

SILVER_FED_COM_504H___SUNDRY_COA_20221022080906.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: HAWKS HOLDER Signed on: OCT 03, 2022 12:40 PM

Name: MATADOR PRODUCTION COMPANY

Title: Landman

Street Address: 5400 LBJ FREEWAY, SUITE 1500

City: DALLAS State: TX

Phone: (806) 282-6846

Email address: HAWKS.HOLDER@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:** 10/26/2022

Signature: Chris Walls

Page 2 of 2

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

All previous COAs still apply.

OPERATOR'S NAME:	MATADOR RESOURCES
WELL NAME & NO.:	SILVER FED COM 504H
SURFACE HOLE FOOTAGE:	85'/S & 2170'/W
BOTTOM HOLE FOOTAGE	100'/N & 1980'/W
LOCATION:	Section 9, T.20 S., R.33 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	O Yes	• No	
Potash	O None	Secretary	© R-111-P
Cave/Karst Potential	• Low	Medium	O High
Cave/Karst Potential	Critical		
Variance	O None	Flex Hose	Other
Wellhead	Conventional	• Multibowl	O Both
Other	✓ 4 String Area	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled		☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	□ Unit

A. CASING

Alternate Casing Design:

- 1. The **20 inch** surface casing shall be set at approximately **1,295** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **KEEP CASING FULL FOR COLLAPSE SF.**
 - 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.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** 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 13-3/8 inch intermediate casing shall be set at approximately 2,985 feet. **KEEP CASING FULL FOR COLLAPSE SF.** The minimum required fill of cement behind the 13-3/8 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 <u>R111 Potash Areas</u> if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing string must come to surface.
- 3. The 9-5/8 inch intermediate casing shall be set at approximately 5,205 feet. **KEEP CASING FULL FOR COLLAPSE SF.** The minimum required fill of cement behind the 9-5/8 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.

- c. 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.
- d. Second stage above DV tool:
 - 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.
- 4. The **7** x **5-1/2** inch production casing shall be set at approximately **20,334** feet. **KEEP HOLE FULL FOR TENSILE SF.** The minimum required fill of cement behind the **7** x **5-1/2** inch production casing is:

Option 1 (Single Stage):

• Cement should tie-back at least **500 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 **500 feet** into previous casing string. Operator shall provide method of verification.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)

- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

 - Lea County
 Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
 689-5981
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement

- program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - 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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. 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.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been

done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

KPI -10/21/2022



TEC-LOCK WEDGE 5.500" 20 LB/FT (.361"Wall) with 5.875" SPECIAL CLEARANCE OD

BEN P110 CY

Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	P110 CY	
Mill/Specification:	BEN	
Yield Strength:	125,000	psi
Tensile Strength:	135,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	13,010	psi

Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in²
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	13,010	psi
Maximum Bend:	101.2	°/100ft

Operational Data

Minimum Makeup Torque:	15,000	ft*lbf
Optimum Makeup Torque:	18,700	ft*lbf
Maximum Makeup Torque:	41,200	ft*lbf
Minimum Yield:	45,800	ft*lbf
Makeup Loss:	5.97	in

Notes Operational Torque is equivalent to the Maximum Make-Up Torque



Generated on Sep 03, 2019

Silver Fed Com #504H

- Matador respectfully requests the option to amend the well design of the Silver Fed Com #504H to make the following changes to the current APD.

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	26	0 - 1295	0 - 1295	20	94	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	17.5	0 - 2985	0 - 2985	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 2	12.25	0 - 5205	0 - 5205	9.625	40	J-55	BUTT	1.125	1.125	1.8
Production Top	8.75	0 - 9457	0 - 9448	7	29	P-110	VAM DWC/C	1.125	1.125	1.8
Production Bottom	8.75	9457 - 20334	9448 - 10086	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 option to run a full 5.5" production string, cement volumes will be adjusted accordingly.
- Request option to drill 8.5" hole throughout 5.5" production casing section. 7" casing will not be ran in 8.5" hole.

String	Туре	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Tail	3050	1.35	4119	14.8	100%	0	С	5% NaCl + LCM
Intermediate 1	Lead	1750	1.78	3119	13.5	50%	0	С	5% NaCl + LCM
	Tail	490	1.35	657	14.8	50%	2388	С	5% NaCl + LCM
Intermediate 2	Lead	1230	1.78	2197	13.5	50%	0	С	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	370	1.35	504	14.8	50%	4205	O	5% NaCl + LCM
Production	Lead	280	3.66	1037	10.3	25%	3230	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	2400	1.35	3239	13.2	15%	9057	A/C	Fluid Loss + Dispersant + Retarder + LCM

Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 13-3/8" or 9-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.

Drill Plan

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	26	Spud Mud	0 - 1295	8.4 - 8.8	28-30	NC
Intermediate 1	17.5	Brine Water	1295 - 2985	9.5 - 10.2	28-32	NC
Intermediate 2	12.25	Fresh Water	2985 - 5205	8.4 - 8.6	28-30	NC
Production	8.75	OBM/Cut Brine	5205 - 20334	8.6 - 9.4	28-30	NC

Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: DF_C=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: DF_b=1.125

Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore
pressure.

Tensile: DF_t=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
 gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore
 pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

Intermediate #2 Casing

Collapse: DF_C=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud
 gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore
 pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile: DFt=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.4 ppg).

Production Casing

Collapse: DFc=1.125

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: DF_b=1.125

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: DF_t=1.8

• Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

Technical Specifications

Connection Type:	Size(O.D.):	Weight (Wall):	Grade:
DWC/C Casing	7 in	29.00 lb/ft (0.408 in)	VMS P110 EC

2012 API Spec 5CT Coupling O.D.

712 API Spec 5C1 Coup	ning O.D.	
	Material	*
VMS P110 EC	Grade	
125,000	Minimum Yield Strength (psi)	USA
135,000	Minimum Ultimate Strength (psi)	
, , , , , , ,	(F)	VAM-USA 4424 W. Sam Houston Pkwy. Suite 150
	Pipe Dimensions	Houston, TX 77041
7.000	Nominal Pipe Body O.D. (in)	Phone: 713-479-3200 Fax: 713-479-3234
6.184	Nominal Pipe Body I.D.(in)	E-mail: VAMUSAsales@na.vallourec.com
0.408	Nominal Wall Thickness (in)	
29.00	Nominal Weight (lbs/ft)	
28.75	Plain End Weight (lbs/ft)	
8.449	Nominal Pipe Body Area (sq in)	
	Pipe Body Performance Properties	
1,056,000	Minimum Pipe Body Yield Strength (lbs)	
9,580	Minimum Collapse Pressure (psi)	3
12,750	Minimum Internal Yield Pressure (psi)	3
11,700	Hydrostatic Test Pressure (psi)	120
	Connection Dimensions	
7.875	Connection O.D. (in)	1311
6.184	Connection I.D. (in)	3
6.125	Connection Drift Diameter (in)	
4.50	Make-up Loss (in)	
8.449	Critical Area (sq in)	
100.0	Joint Efficiency (%)	
		13.0
1.056.000	Connection Performance Properties	120
1,056,000	Joint Strength (lbs)	3
26,010 1,045,000	Reference String Length (ft) 1.4 Design Factor API Joint Strength (lbs)	3
528,000	Compression Rating (lbs)	
9,580	API Collapse Pressure Rating (psi)	
12,750	API Internal Pressure Resistance (psi)	
40.9	Maximum Uniaxial Bend Rating [degrees/100 ft]	
40.9	Maximum Omaxiai Bend Italing [degrees/100 lt]	
	Appoximated Field End Torque Values	
26,800	Minimum Final Torque (ft-lbs)	
31,300	Maximum Final Torque (ft-lbs)	
35,800	Connection Yield Torque (ft-lbs)	

For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

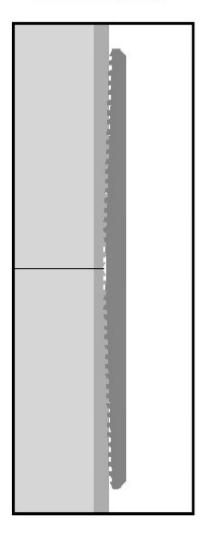
Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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DWC Connection Data Notes:

- DWC connections are available with a seal ring (SR) option.
- All standard DWC/C connections are interchangeable for a give pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
- 3. Connection performance properties are based on nominal pipe body and connection dimensions.
- 4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
- 5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
- 6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
- Bending efficiency is equal to the compression efficiency.
- 8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
- 9. Connection yield torque is not to be exceeded.
- 10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
- DWC connections will accommodate API standard drift diameters.



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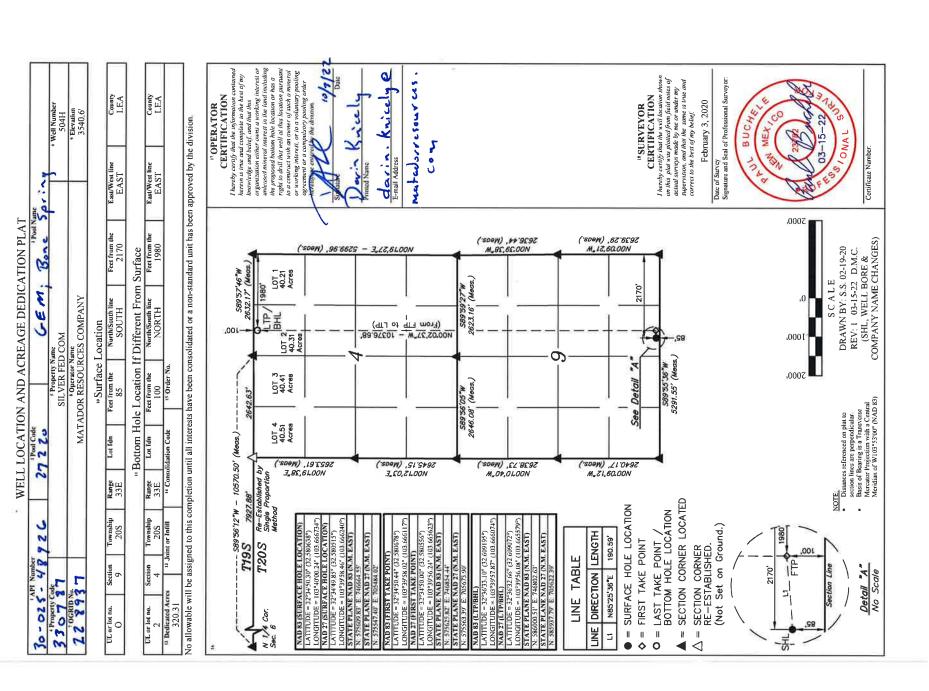
District I (1223 N French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 Phone: (575) 393-6161 Fax: (575) 393-0720 District II (175) 748-128 Fax: (575) 748-9720 Phone: (575) 748-128 Fax: (575) 748-9720 Phone: (575) 748-128 Fax: (575) 748-9720 Phone: (505) 344-6178 Fax: (505) 334-6170 District IV (505) 347-6178 Fax: (505) 347-6170 Phone: (505) 476-3460 Fax: (505) 476-3

OIL CONȘERVATION DIVISION 1220 South St. Francis Dr. State of New Mexico

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

AMENDED REPORT

Energy, Minerals & Natural Resources Department Santa Fe, NM 87505



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

CONDITIONS

Action 154871

CONDITIONS

Operator:	OGRID:
MATADOR PRODUCTION COMPANY	228937
One Lincoln Centre	Action Number:
Dallas, TX 75240	154871
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
pkautz	None	11/1/2022