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

Sundry Print Report

06/19/2025

Well Name: THOROUGHBRED 10-3 FED COM

Well Location: T26S / R31E / SEC 10 / SWSE / 32.0512906 / -103.765039

County or Parish/State: EDDY / NM

Well Number: 302H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM89057

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2857833

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 06/12/2025

Time Sundry Submitted: 12:19

Date proposed operation will begin: 06/13/2025

Procedure Description: Devon Energy Production Co., L.P. (Devon) respectfully requests a Well Name, SHL, BHL, Pool / Formation, TVD / MD, and drill plan change for the subject well (API ID 10400101203). Please see revised C102, drill plan, and directional plan attached. Permitted Well Name: Thoroughbred 10-3 Fed Com 302H Proposed Well Name: Thoroughbred 10-3 Fed Com 825H Permitted SHL: UL O, 420 FSL, 2360 FEL, Sec 10, T 26S, R 31E Proposed SHL: UL O, 270 FSL, 2270 FEL, Sec 10, T 26S, R 31E Permitted BHL: UL B, 20 FNL, 2530 FEL, Sec 3, T 26S, R 31E Proposed BHL: UL A, 20 FNL, 1460 FEL, Sec 3, T 26S, R 31E Permitted Pool / Formation: Jennings; Bone Spring West (97860) / Bone Spring Proposed Pool / Formation: Purple Sage; Wolfcamp Gas (98220) / Wolfcamp Permitted TVD, MD: 10741 / 21041 Proposed TVD, MD: 12164 / 22583

NOI Attachments

Procedure Description

5.5_20lb_P110EC_DWC_C_IS_PLUS_20250612121749.pdf

8.625_32lb_P110_ICY_20250612121731.pdf

10.75_45.5lb_J55_BTC_20250612121716.pdf

UPDATED_WELL_PAD_3_SITE_MAP_06.2025_20250612121629.pdf

THOROUGHBRED_10_3_FED_COM_825H_Directional_Plan_06_11_25_20250612121617.pdf

THOROUGHBRED_10_3_FED_COM_825H_6_11_25_20250612121605.pdf

WA022471644_THOROUGHBRED_10_3_FED_COM_825H_SIGNED_20250612121549.pdf

Well Name: THOROUGHBRED 10-3 FED COM

Well Location: T26S / R31E / SEC 10 / SWSE / 32.0512906 / -103.765039

County or Parish/State: EDDY / NM

Well Number: 302H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM89057

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Additional

Thoroughbred_10_3_Fed_Com_825H_Sundry_ID_2857833_20250618070813.pdf

10_26_31_O_Sundry_ID_2857833_Thoroughbred_10_3_Fed_Com_825H_20250618070813.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: AMY BROWN

Signed on: JUN 12, 2025 12:18 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Professional

Street Address: 333 WEST SHERIDAN AVENUE

City: OKLAHOMA CITY **State:** OK

Phone: (405) 552-6137

Email address: AMY.BROWN@DVN.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CODY LAYTON

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 06/18/2025

Signature: Cody R. Layton

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

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

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

Additional Information

Location of Well

0. SHL: SWSE / 420 FSL / 2360 FEL / TWSP: 26S / RANGE: 31E / SECTION: 10 / LAT: 32.0512906 / LONG: -103.765039 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 100 FSL / 2530 FEL / TWSP: 26S / RANGE: 31E / SECTION: 10 / LAT: 32.0504102 / LONG: -103.7655832 (TVD: 10115 feet, MD: 10148 feet)

PPP: SWSE / 168 FSL / 2526 FEL / TWSP: 26S / RANGE: 31E / SECTION: 3 / LAT: 32.0652576 / LONG: -103.7655912 (TVD: 10700 feet, MD: 15900 feet)

BHL: NWNE / 20 FNL / 2530 FEL / TWSP: 26S / RANGE: 31E / SECTION: 3 / LAT: 32.0793898 / LONG: -103.7656023 (TVD: 10742 feet, MD: 21041 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production Company LP**
LOCATION:	Section 10, T.26 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	**Thoroughbred 10-3 Fed Com 825H**
ATS/API ID:	**ATS-25-17**
APD ID:	**10400101203**
Sundry ID:	**2857833**

COA

H2S	No		
Potash	None	None	
Cave/Karst Potential	Medium		
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☑ Flex Hose	☐ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String ☐ 5 String	Capitan Reef None	☐ WIPP
Other	Pilot Hole None	☐ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter Int 1	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention Waste MP	
Special Requirements Variance	☐ BOPE Break Testing ☐ Offline BOPE Testing	☐ Offline Cementing	☐ Casing Clearance

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **1125 feet** (a minimum of 70 feet into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **14 3/4** inch in diameter.

    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.

    Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **8-5/8** 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 to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 6360'.**

b. Second stage:

- Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. **(Squeeze 443 sxs Class C)**
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Operator has proposed to pump down **10-3/4**" X **8-5/8**" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the **8-5/8**" casing to surface after the second stage BH to verify TOC.
Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad. Operator may conduct a negative and positive pressure test during completion to remediate sustained casing pressure.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

❖ In Medium 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:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

C. 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 **8-5/8** inch 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:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** inch 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 43 CFR 3172.6(b)(9) must be followed.

D. 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.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**

- 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.

Commercial Well Determination

- A commercial well determination shall be submitted after production has been established for at least six months if the well penetrate a federal exploratory unit acreage, in addition the unit number and participating area number shall be on the well sign when the well is determined to be a Unit well.
- If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Offline Cementing

Operator has been **(Not Approved)** to pump the proposed cement program offline in the **Intermediate(s) interval**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at **Eddy County: 575-361-2822**.

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)

☑ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

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 **43 CFR part 3170 Subpart 3172** 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.

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 of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity 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 integrity 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 **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

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 43 CFR 3172.6(b)(9) 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 cement), 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** 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 8 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 **43 CFR part 3170 Subpart 3172**.

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.

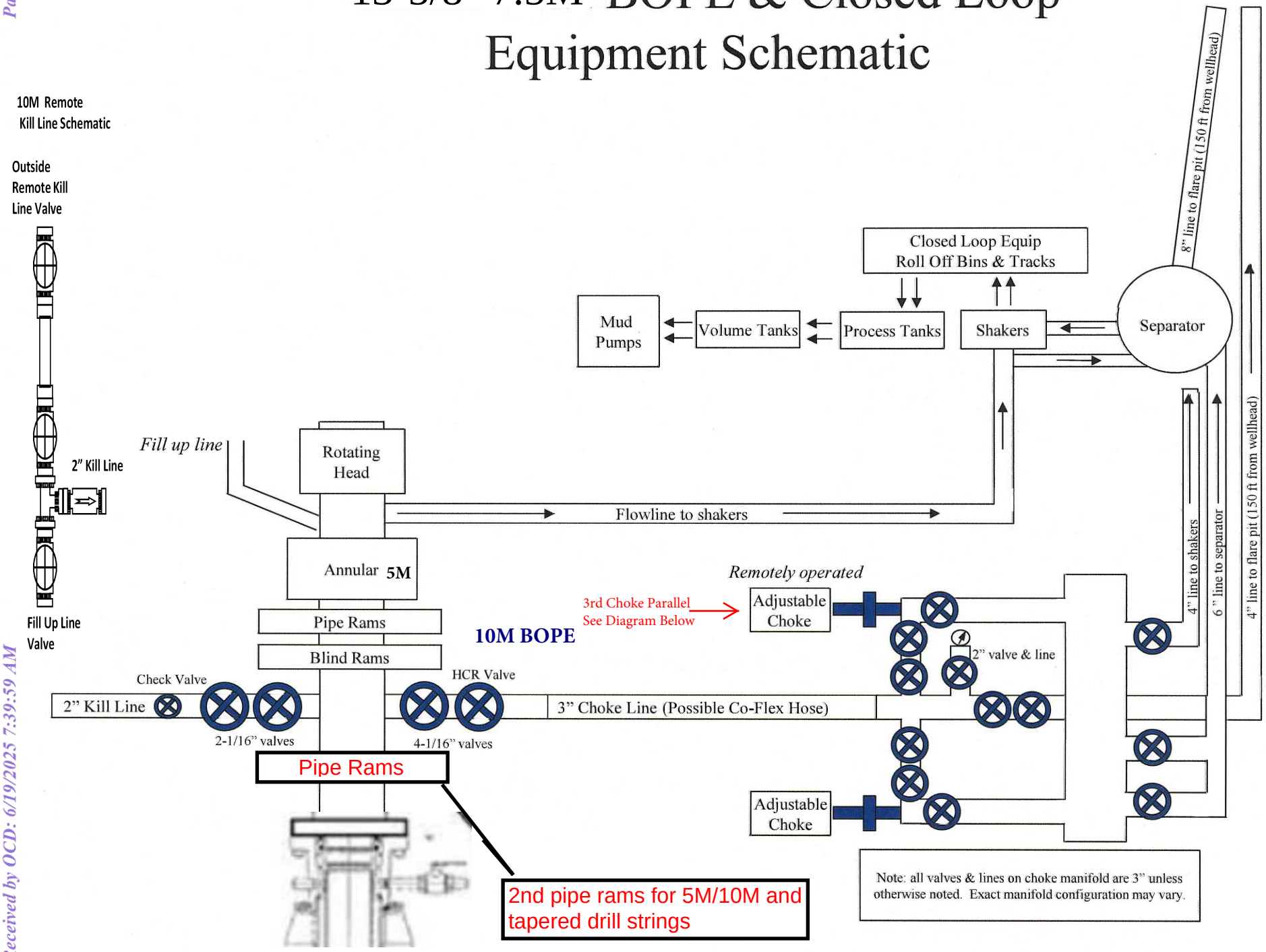
D. WASTE MATERIAL AND FLUIDS

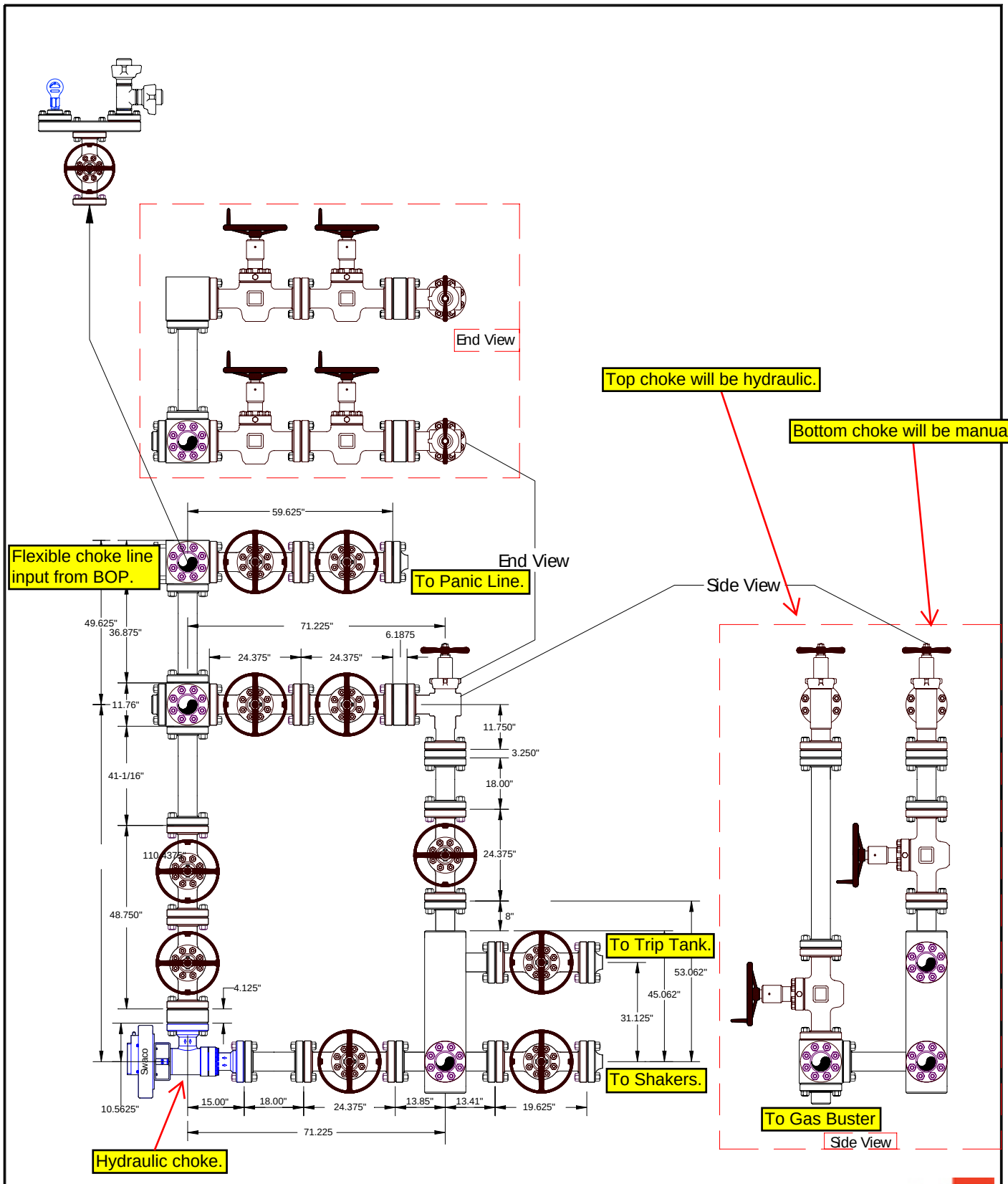
All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location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

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

Long Vo (LVO) 6/16/2025

13-5/8" 7.5M BOPE & Closed Loop Equipment Schematic




End View
Top choke will be hydraulic.
Bottom choke will be manual.
59.625"
Flexible choke line input from BOP.
End View
To Panic Line.
Side View
49.625"
36.875"
71.225"
6.1875
24.375"
24.375"
11.76"
11.750"
3.250"
18.00"
41-1/16"
24.375"
8"
48.750"
To Trip Tank.
53.062"
45.062"
31.125"
4.125"
To Shakers.
10.5625"
15.00"
18.00"
24.375"
13.85"
13.41"
19.625"
71.225
Hydraulic choke.
To Gas Buster
Side View
Helmerich & Payne
Flex 3 Rig w/ 3 Chokes
devon
Name: Mike Potts
Date: 6-23-2010
Working Pressure: 10M
J-5132-E

A multibowl wellhead may be used. The BOP will be tested per 43 CFR 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Devon proposes using 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 5000 (5M) psi.

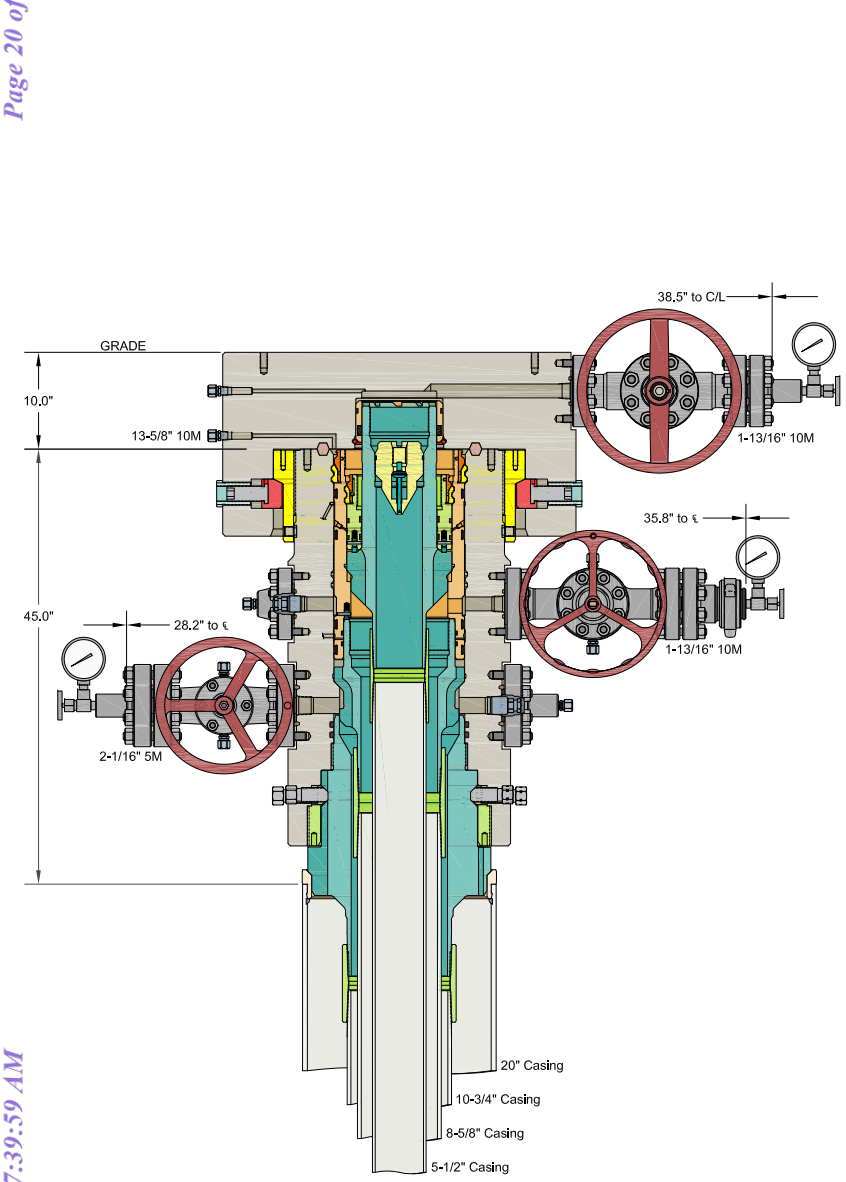
- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per 43 CFR 3172.

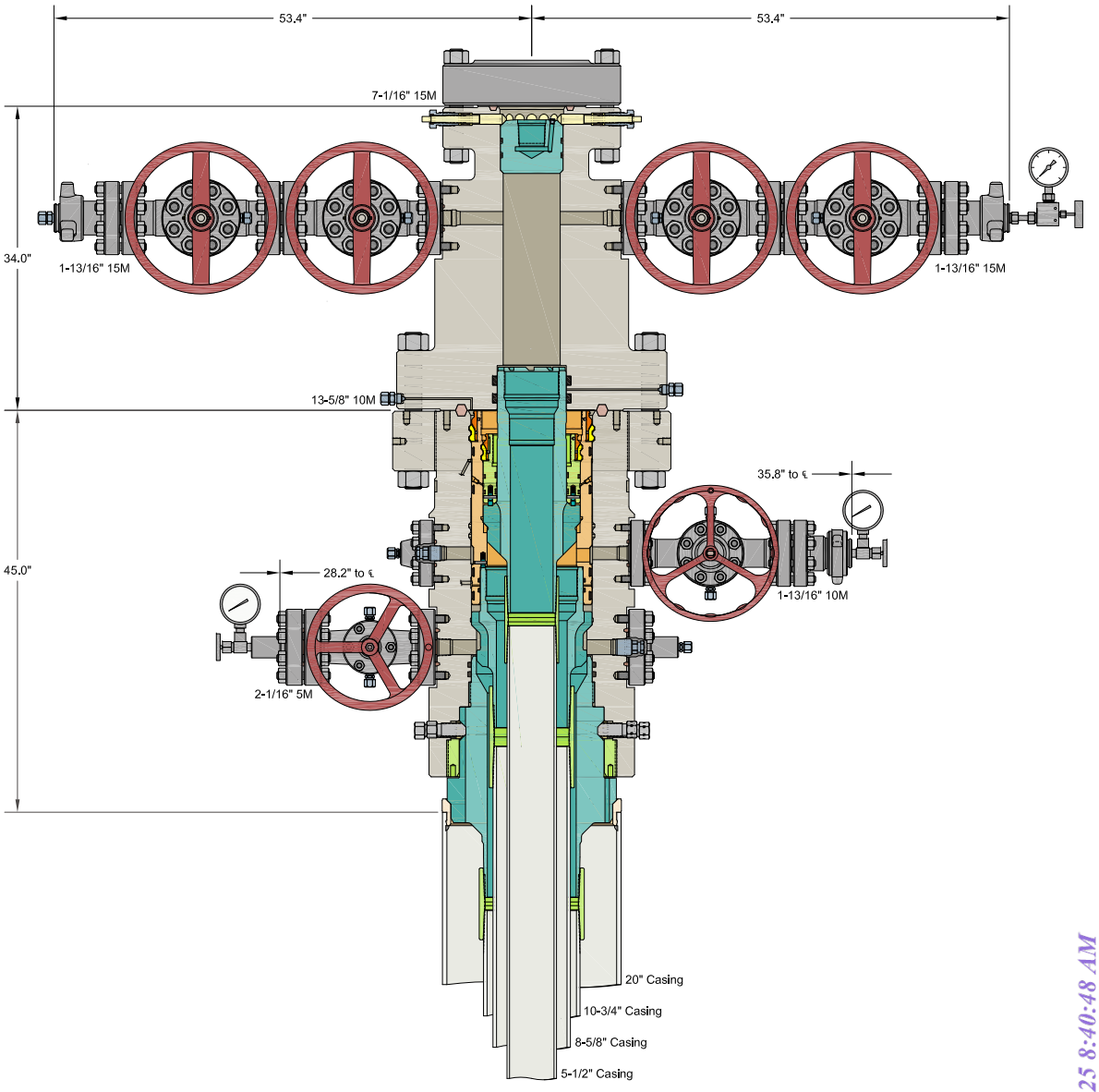
After running the surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per 43 CFR 3172. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per 43 CFR 3172.

After running the intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 5M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.





ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

DEVON ENERGY CORPORATION
DELAWARE BASIN

10-3/4" x 8-5/8" x 5-1/2" 10M MBU-3T-CFL-R-DBLO Wellhead Sys.
With 8-5/8" And 5-1/2" Mandrel Casing Hangers
And 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head

DRAWN	DLE	16SEP21
APPRV		

DRAWING NO. HBE0000595

Devon Energy Annular Preventer Summary

1. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the 10M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

6-3/4" Production hole section, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
HWDP	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
Drill collars and MWD tools	4.75"	Upper 4.5-7" VBR	10M
Mud Motor	4.75"	Upper 4.5-7" VBR	10M
Production casing	5.5"	Upper 4.5-7" VBR	10M
ALL	0-13-5/8"	Annular	5M
Open-hole	-	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.

2. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. The pressure at which control is swapped from the annular to another compatible ram is variable, but the operator will document in the submission their operating pressure limit. The operator may chose an operating pressure less than or equal to RWP, but in no case will it exceed the RWP of the annular preventer.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

Devon Energy Annular Preventer Summary

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

Devon Energy Annular Preventer Summary

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
    a. Perform flowcheck, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper pipe ram.
    e. Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
    f. Confirm shut-in
    g. Notify toolpusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    i. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the compatible pipe ram.
    d. Shut-in using compatible pipe ram. (HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify toolpusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    h. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario.
    c. If impossible to pick up high enough to pull the string clear of the stack:
    d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
    e. Space out drill string with tooljoint just beneath the upper pipe ram.
    f. Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
    g. Confirm shut-in
    h. Notify toolpusher/company representative
    i. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    j. Regroup and identify forward plan

Thoroughbred 10-3 Fed Com 825H

10 3/4	surface csg in a	14 3/4	inch hole.	Design Factors			Surface				
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	45.50	j 55	btc scc	9.89	3.97	0.57	1,125	7	0.95	7.51	51,188
"B"			btc scc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,500	Tail Cmt	does not	circ to sfc.	Totals:	1,125				51,188

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
14 3/4	0.5563	676	973	626	56	9.00	3763	5M	1.75

Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.

8 5/8	casing inside the	10 3/4		Design Factors			Int 1				
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00	p 110	wedge 441	2.51	0.63	1.38	11,562	1	2.32	1.06	369,984
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,381				Totals:	11,562				369,984
	The cement volume(s) are intended to achieve a top of			0	ft from surface or a		1125				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
9 7/8	0.1261	595	857	1467	-42	10.50	3959	5M	0.49
D V Tool(s):			6360				sum of sx	Σ CuFt	Σ%excess
by stage % :		31	26				1038	1876	28

Class 'C' tail cmt yld > 1.35

Tail cmt

5 1/2	casing inside the	8 5/8		Design Factors			Prod 1				
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	p 110	dwc/c is+	3.00	1.82	2.16	22,583	2	3.63	3.05	451,660
"B"							0				0
"C"							0				0
"D"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	2,676				Totals:	22,583				451,660
	The cement volume(s) are intended to achieve a top of			11362	ft from surface or a		200				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
7 7/8	0.1733	1564	2470	1945	27	10.50			0.79

Class 'C' tail cmt yld > 1.35

#N/A

0		5 1/2		Design Factors			<Choose Casing>				
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:					Totals:	0				0
	Cmt vol calc below includes this csg, TOC intended			#N/A	ft from surface or a		#N/A				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
0		#N/A	#N/A	0	#N/A				

#N/A Capitan Reef est top XXXX.

DWC/C-IS PLUS

Connection Data Sheet

OD (in.)	WEIGHT (lbs./ft.)	WALL (in.)	GRADE	DRIFT (in.)	RBW%	CONNECTION
5.500	Nominal: 20.00 Plain End: 19.83	0.361	VST P110 EC	4.653	87.5	DWC/C-IS PLUS

PIPE PROPERTIES

Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Area	5.828	sq.in.
Grade Type	API 5CT; Vallourec Sourced Material Only	
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Tensile Strength	135	ksi
Yield Strength	729	klb
Ultimate Strength	787	klb
Min. Internal Yield	14,360	psi
High Collapse	12,090	psi

CONNECTION PROPERTIES

Connection Type	Semi-Premium T&C	
Connection OD (nom)	6.300	in.
Connection ID (nom)	4.778	in.
Make-Up Loss	4.125	in.
Coupling Length	9.250	in.
Critical Cross Section	5.828	sq.in.
Tension Efficiency	100.0%	of pipe
Compression Efficiency	100.0%	of pipe
Internal Pressure Efficiency	100.0%	of pipe
External Pressure Efficiency	100.0%	of pipe

CONNECTION PERFORMANCES

Yield Strength	729	klb
Parting Load	787	klb
Compression Rating	729	klb
Min. Internal Yield	14,360	psi
High Collapse	12,090	psi
Maximum Uniaxial Bend Rating	104.2	°/100 ft
Ref String Length w 1.4 Design Factor	26,040	ft

FIELD TORQUE VALUES

Min. Make-up Torque	16,600	ft.lbs
Opti. Make-up Torque	17,850	ft.lbs
Max. Make-up Torque	19,100	ft.lbs
Min. Shoulder Torque	1,660	ft.lbs
Max. Shoulder Torque	13,280	ft.lbs
Max. Delta Turn	0.200	Turns
†Max Operational Torque	24,300	ft.lbs
†Maximum Torsional Value (MTV)	26,730	ft.lbs

†Maximum Operational Torque and Maximum Torsional Value Only Valid with Vallourec P110EC Material

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

05/23/2023 4:11 PM

VAM USA

VAM USA
2107 CityWest Boulevard Suite 1300
Houston, TX 77042
Phone: 713-479-3200
Fax: 713-479-3234
VAM USA Sales E-mail: VAMUSAsales@vam-usa.com
Tech Support E-mail: tech.support@vam-usa.com

DWC Connection Data Notes:

1. DWC connections are available with a seal ring (SR) option.
2. All standard DWC/C connections are interchangeable for a given 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.
7. 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.
11. DWC connections will accommodate API standard drift diameters.
12. DWC/C family of connections are compatible with API Buttress BTC connections. Please contact tech.support@vam-usa.com for details on connection ratings and make-up.

05/23/2023 4:11 PM

Printed on: 6/19/2024

Tenaris

TenarisHydril Wedge 441® - AD

Coupling	Pipe Body
Grade: **P110-ICY**	Grade: **P110-ICY**
Body: **White**	1st Band: **White**
1st Band: **Pale Green**	2nd Band: **Pale Green**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	8.625 in.	**Wall Thickness**	0.352 in.	**Grade**	P110-ICY
Min. Wall Thickness	90.00 %	**Pipe Body Drift**	Alternative Drift	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	8.625 in.	**Wall Thickness**	0.352 in.	**Body Yield Strength**	1144 x1000 lb
Nominal Weight	32.00 lb/ft	**Plain End Weight**	31.13 lb/ft	**Min. Internal Yield Pressure**	9180 psi
Drift	7.875 in.	**OD Tolerance**	API	**SMYS**	125,000 psi
Nominal ID	7.921 in.			**Collapse Pressure**	4000 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	8.889 in.	**Tension Efficiency**	81.20 %	**Minimum**	23,000 ft-lb
Coupling Length	8.862 in.	**Joint Yield Strength**	929 x1000 lb	**Optimum**	24,000 ft-lb
Connection ID	7.921 in.	**Internal Pressure Capacity**	9180 psi	**Maximum**	27,000 ft-lb
Make-up Loss	3.744 in.	**Compression Efficiency**	81.20 %		
Threads per inch	3.43	**Compression Strength**	929 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	53.59 °/100 ft	**Operating Torque**	59,000 ft-lb
		External Pressure Capacity	4000 psi	**Yield Torque**	70,000 ft-lb
				Buck-On	
				Minimum	27,000 ft-lb
				Maximum	29,000 ft-lb

Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

SeAH

10-3/4" 45.50# 0.400" J-55

Dimensions (Nominal)

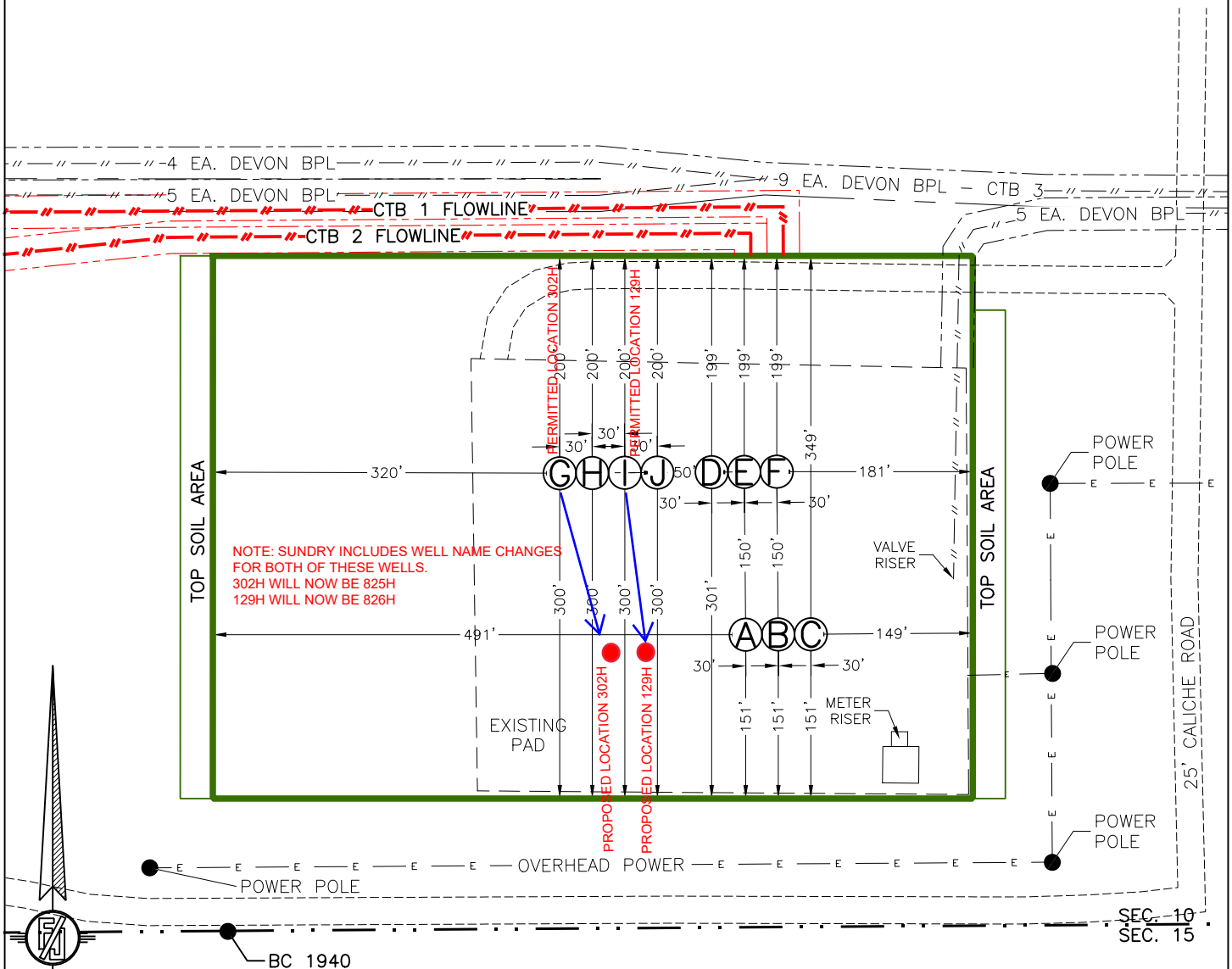
Outside Diameter	**10.750**	**in.**
Wall	**0.400**	**in.**
Inside Diameter	**9.950**	**in.**
Drift	**9.875**	**in.**
Weight, T&C	**45.500**	**lbs/ft**
Weight, PE	**44.260**	**lbs/ft**

Performance Properties

Collapse		**2090**	**psi**
Internal Yield Pressure at Minimum Yield			
	PE	**3580**	**psi**
	STC	**3580**	**psi**
	BTC	**3580**	**psi**
Yield Strength, Pipe Body		**715**	**1000 lbs**
Joint Strength			
	STC	**493**	**1000 lbs**
	BTC	**796**	**1000 lbs**
	BTC Special Clearance (11.25" OD Cplg)	**506**	**1000 lbs**

THOROUGHBRED 10 WELLPAD 3 (AA000289611)
DEVON ENERGY PRODUCTION COMPANY, L.P.
IN THE S/2 SW/4 SE/4 & SE/4 SE/4 SW/4 OF
SECTION 10, TOWNSHIP 26 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
APRIL 30, 2024

SITE MAP



Ⓐ EXISTING THOROUGHBRED 10–3 FED COM 713H

Ⓑ EXISTING THOROUGHBRED 10–3 FED COM 623H

Ⓒ EXISTING THOROUGHBRED 10–3 FED COM 733H

Ⓓ THOROUGHBRED 10–3 FED COM 525H

Ⓔ THOROUGHBRED 10–3 FED COM 123H

Ⓕ THOROUGHBRED 10–3 FED COM 526H

Ⓖ THOROUGHBRED 10–3 FED COM 302H

Ⓗ THOROUGHBRED 10–3 FED COM 233H

Ⓘ THOROUGHBRED 10–3 FED COM 129H

Ⓙ THOROUGHBRED 10–3 FED COM 303H

I, FILIMON F. JARAMILLO, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, PLS# 17078

FILIMON F. JARAMILLO NEW MEXICO 17078 REGISTERED PROFESSIONAL SURVEYOR

015 75 150 300

SCALE 1" = 150'

SHEET: 3 OF 3

SURVEY NO. 6712B

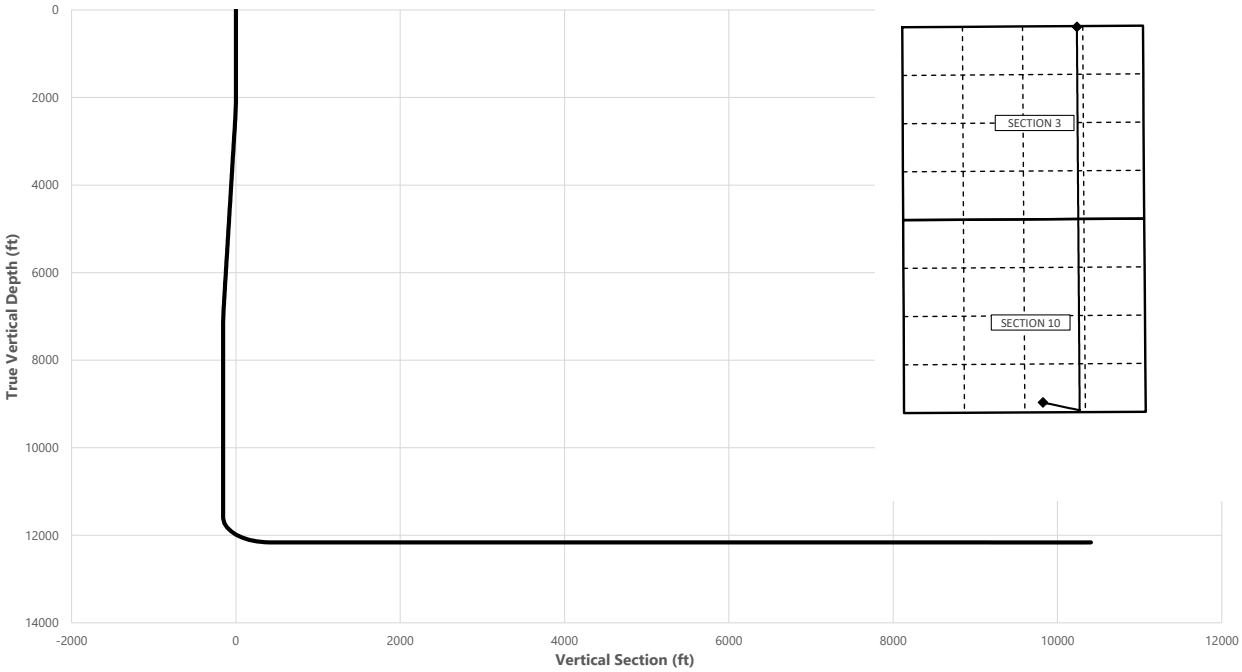
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

devon

Well: THOROUGHBRED 10-3 FED COM 825H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	104.80	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	104.80	2497.47	-11.12	42.08	-8.06	2.00	Hold Tangent
6836.24	10.00	104.80	6767.82	-203.46	770.08	-147.42	0.00	Drop to Vertical
7336.24	0.00	104.80	7265.29	-214.58	812.16	-155.48	2.00	Hold Vertical
11661.99	0.00	359.66	11591.04	-214.58	812.16	-155.48	0.00	KOP
12561.99	90.00	359.66	12164.00	358.37	808.80	415.74	10.00	Landing Point
22583.08	90.00	359.66	12164.00	10379.29	750.13	10406.36	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	1630.00	1630.00
Salt	1938.00	1938.00
Base of Salt	3915.03	3891.00
delaware	4104.92	4078.00
Cherry Canyon	5113.24	5071.00
Brushy Canyon	6422.12	6360.00
1st Bone Spring Lime	8105.95	8035.00
Bone Spring 1st	9103.95	9033.00
Bone Spring 2nd	9753.95	9683.00
3rd BSLM / Point of Penetration	10185.95	10115.00
exit	22503.08	12164.01

	MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
SHL	0.00	0.00	32.0508	-103.7648	270' FSL, 2270' FEL of Sec 10 in T26S, R31E
KOP	11661.99	11591.04	32.0502	-103.7621	50' FSL, 1460' FEL of Sec 10 in T26S, R31E
Point of Penetration	10185.95	10115.00	32.0504	-103.7621	100' FSL, 1460' FEL of Sec 10 in T26S, R31E
Exit	22503.08	12164.01	32.0792	-103.7621	100' FNL , 1460' FEL of Sec 3 in T26S, R31E
BHL	22583.08	12164.00	32.0793	-103.7622	20' FNL, 1460' FEL of Sec 3 in T26S, R31E

	Y	X	MD
KOP	382497	718308	11661.99

devon

Well: THOROUGHBRED 10-3 FED COM 825H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	104.80	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	104.80	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	104.80	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	104.80	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	104.80	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	104.80	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	104.80	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	104.80	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	104.80	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	104.80	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	104.80	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	104.80	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	104.80	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	104.80	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	104.80	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	104.80	1600.00	0.00	0.00	0.00	0.00	
1630.00	0.00	104.80	1630.00	0.00	0.00	0.00	0.00	Rustler
1700.00	0.00	104.80	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	104.80	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	104.80	1900.00	0.00	0.00	0.00	0.00	
1938.00	0.00	104.80	1938.00	0.00	0.00	0.00	0.00	Salt
2000.00	0.00	104.80	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	104.80	2099.98	-0.45	1.69	-0.32	2.00	
2200.00	4.00	104.80	2199.84	-1.78	6.75	-1.29	2.00	
2300.00	6.00	104.80	2299.45	-4.01	15.17	-2.90	2.00	
2400.00	8.00	104.80	2398.70	-7.12	26.95	-5.16	2.00	
2500.00	10.00	104.80	2497.47	-11.12	42.08	-8.06	2.00	Hold Tangent
2600.00	10.00	104.80	2595.95	-15.55	58.87	-11.27	0.00	
2700.00	10.00	104.80	2694.43	-19.99	75.66	-14.48	0.00	
2800.00	10.00	104.80	2792.91	-24.42	92.44	-17.70	0.00	
2900.00	10.00	104.80	2891.39	-28.86	109.23	-20.91	0.00	
3000.00	10.00	104.80	2989.87	-33.30	126.02	-24.13	0.00	
3100.00	10.00	104.80	3088.35	-37.73	142.81	-27.34	0.00	
3200.00	10.00	104.80	3186.83	-42.17	159.60	-30.55	0.00	
3300.00	10.00	104.80	3285.31	-46.60	176.39	-33.77	0.00	
3400.00	10.00	104.80	3383.79	-51.04	193.18	-36.98	0.00	
3500.00	10.00	104.80	3482.27	-55.48	209.97	-40.20	0.00	
3600.00	10.00	104.80	3580.75	-59.91	226.75	-43.41	0.00	
3700.00	10.00	104.80	3679.23	-64.35	243.54	-46.62	0.00	
3800.00	10.00	104.80	3777.72	-68.78	260.33	-49.84	0.00	
3900.00	10.00	104.80	3876.20	-73.22	277.12	-53.05	0.00	
3915.03	10.00	104.80	3891.00	-73.88	279.64	-53.53	0.00	Base of Salt
4000.00	10.00	104.80	3974.68	-77.65	293.91	-56.27	0.00	
4100.00	10.00	104.80	4073.16	-82.09	310.70	-59.48	0.00	
4104.92	10.00	104.80	4078.00	-82.31	311.52	-59.64	0.00	delaware
4200.00	10.00	104.80	4171.64	-86.53	327.49	-62.69	0.00	
4300.00	10.00	104.80	4270.12	-90.96	344.28	-65.91	0.00	
4400.00	10.00	104.80	4368.60	-95.40	361.06	-69.12	0.00	
4500.00	10.00	104.80	4467.08	-99.83	377.85	-72.34	0.00	
4600.00	10.00	104.80	4565.56	-104.27	394.64	-75.55	0.00	
4700.00	10.00	104.80	4664.04	-108.70	411.43	-78.76	0.00	
4800.00	10.00	104.80	4762.52	-113.14	428.22	-81.98	0.00	
4900.00	10.00	104.80	4861.00	-117.58	445.01	-85.19	0.00	
5000.00	10.00	104.80	4959.48	-122.01	461.80	-88.41	0.00	
5100.00	10.00	104.80	5057.97	-126.45	478.58	-91.62	0.00	
5113.24	10.00	104.80	5071.00	-127.03	480.81	-92.04	0.00	Cherry Canyon
5200.00	10.00	104.80	5156.45	-130.88	495.37	-94.83	0.00	
5300.00	10.00	104.80	5254.93	-135.32	512.16	-98.05	0.00	
5400.00	10.00	104.80	5353.41	-139.75	528.95	-101.26	0.00	
5500.00	10.00	104.80	5451.89	-144.19	545.74	-104.48	0.00	
5600.00	10.00	104.80	5550.37	-148.63	562.53	-107.69	0.00	
5700.00	10.00	104.80	5648.85	-153.06	579.32	-110.90	0.00	
5800.00	10.00	104.80	5747.33	-157.50	596.11	-114.12	0.00	
5900.00	10.00	104.80	5845.81	-161.93	612.89	-117.33	0.00	
6000.00	10.00	104.80	5944.29	-166.37	629.68	-120.54	0.00	
6100.00	10.00	104.80	6042.77	-170.80	646.47	-123.76	0.00	
6200.00	10.00	104.80	6141.25	-175.24	663.26	-126.97	0.00	
6300.00	10.00	104.80	6239.73	-179.68	680.05	-130.19	0.00	
6400.00	10.00	104.80	6338.22	-184.11	696.84	-133.40	0.00	

devon

Well: THOROUGHBRED 10-3 FED COM 825H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6422.12	10.00	104.80	6360.00	-185.09	700.55	-134.11	0.00	Brushy Canyon
6500.00	10.00	104.80	6436.70	-188.55	713.63	-136.61	0.00	
6600.00	10.00	104.80	6535.18	-192.98	730.42	-139.83	0.00	
6700.00	10.00	104.80	6633.66	-197.42	747.20	-143.04	0.00	
6800.00	10.00	104.80	6732.14	-201.85	763.99	-146.26	0.00	
6836.24	10.00	104.80	6767.82	-203.46	770.08	-147.42	0.00	Drop to Vertical
6900.00	8.72	104.80	6830.74	-206.11	780.11	-149.34	2.00	
7000.00	6.72	104.80	6929.83	-209.55	793.10	-151.83	2.00	
7100.00	4.72	104.80	7029.32	-212.09	802.74	-153.68	2.00	
7200.00	2.72	104.80	7129.10	-213.75	809.02	-154.88	2.00	
7300.00	0.72	104.80	7229.05	-214.52	811.93	-155.44	2.00	
7336.24	0.00	104.80	7265.29	-214.58	812.16	-155.48	2.00	Hold Vertical
7400.00	0.00	359.66	7329.05	-214.58	812.16	-155.48	0.00	
7500.00	0.00	359.66	7429.05	-214.58	812.16	-155.48	0.00	
7600.00	0.00	359.66	7529.05	-214.58	812.16	-155.48	0.00	
7700.00	0.00	359.66	7629.05	-214.58	812.16	-155.48	0.00	
7800.00	0.00	359.66	7729.05	-214.58	812.16	-155.48	0.00	
7900.00	0.00	359.66	7829.05	-214.58	812.16	-155.48	0.00	
8000.00	0.00	359.66	7929.05	-214.58	812.16	-155.48	0.00	
8100.00	0.00	359.66	8029.05	-214.58	812.16	-155.48	0.00	
8105.95	0.00	359.66	8035.00	-214.58	812.16	-155.48	0.00	1st Bone Spring Lime
8200.00	0.00	359.66	8129.05	-214.58	812.16	-155.48	0.00	
8300.00	0.00	359.66	8229.05	-214.58	812.16	-155.48	0.00	
8400.00	0.00	359.66	8329.05	-214.58	812.16	-155.48	0.00	
8500.00	0.00	359.66	8429.05	-214.58	812.16	-155.48	0.00	
8600.00	0.00	359.66	8529.05	-214.58	812.16	-155.48	0.00	
8700.00	0.00	359.66	8629.05	-214.58	812.16	-155.48	0.00	
8800.00	0.00	359.66	8729.05	-214.58	812.16	-155.48	0.00	
8900.00	0.00	359.66	8829.05	-214.58	812.16	-155.48	0.00	
9000.00	0.00	359.66	8929.05	-214.58	812.16	-155.48	0.00	
9100.00	0.00	359.66	9029.05	-214.58	812.16	-155.48	0.00	
9103.95	0.00	359.66	9033.00	-214.58	812.16	-155.48	0.00	Bone Spring 1st
9200.00	0.00	359.66	9129.05	-214.58	812.16	-155.48	0.00	
9300.00	0.00	359.66	9229.05	-214.58	812.16	-155.48	0.00	
9400.00	0.00	359.66	9329.05	-214.58	812.16	-155.48	0.00	
9500.00	0.00	359.66	9429.05	-214.58	812.16	-155.48	0.00	
9600.00	0.00	359.66	9529.05	-214.58	812.16	-155.48	0.00	
9700.00	0.00	359.66	9629.05	-214.58	812.16	-155.48	0.00	
9753.95	0.00	359.66	9683.00	-214.58	812.16	-155.48	0.00	Bone Spring 2nd
9800.00	0.00	359.66	9729.05	-214.58	812.16	-155.48	0.00	
9900.00	0.00	359.66	9829.05	-214.58	812.16	-155.48	0.00	
10000.00	0.00	359.66	9929.05	-214.58	812.16	-155.48	0.00	
10100.00	0.00	359.66	10029.05	-214.58	812.16	-155.48	0.00	
10185.95	0.00	359.66	10115.00	-214.58	812.16	-155.48	0.00	3rd BSLM / Point of Penetration
10200.00	0.00	359.66	10129.05	-214.58	812.16	-155.48	0.00	
10300.00	0.00	359.66	10229.05	-214.58	812.16	-155.48	0.00	
10400.00	0.00	359.66	10329.05	-214.58	812.16	-155.48	0.00	
10500.00	0.00	359.66	10429.05	-214.58	812.16	-155.48	0.00	
10600.00	0.00	359.66	10529.05	-214.58	812.16	-155.48	0.00	
10700.00	0.00	359.66	10629.05	-214.58	812.16	-155.48	0.00	
10800.00	0.00	359.66	10729.05	-214.58	812.16	-155.48	0.00	
10900.00	0.00	359.66	10829.05	-214.58	812.16	-155.48	0.00	
11000.00	0.00	359.66	10929.05	-214.58	812.16	-155.48	0.00	
11100.00	0.00	359.66	11029.05	-214.58	812.16	-155.48	0.00	
11200.00	0.00	359.66	11129.05	-214.58	812.16	-155.48	0.00	
11300.00	0.00	359.66	11229.05	-214.58	812.16	-155.48	0.00	
11400.00	0.00	359.66	11329.05	-214.58	812.16	-155.48	0.00	
11500.00	0.00	359.66	11429.05	-214.58	812.16	-155.48	0.00	
11600.00	0.00	359.66	11529.05	-214.58	812.16	-155.48	0.00	
11661.99	0.00	359.66	11591.04	-214.58	812.16	-155.48	0.00	KOP
11700.00	3.80	359.66	11629.03	-213.32	812.15	-154.22	10.00	
11800.00	13.80	359.66	11727.72	-198.04	812.06	-138.99	10.00	
11900.00	23.80	359.66	11822.27	-165.85	811.87	-106.90	10.00	
12000.00	33.80	359.66	11909.79	-117.74	811.59	-58.93	10.00	
12100.00	43.80	359.66	11987.62	-55.16	811.22	3.46	10.00	
12200.00	53.80	359.66	12053.40	19.99	810.78	78.38	10.00	
12300.00	63.80	359.66	12105.14	105.42	810.28	163.55	10.00	
12400.00	73.80	359.66	12141.25	198.53	809.73	256.38	10.00	
12500.00	83.80	359.66	12160.65	296.50	809.16	354.06	10.00	
12561.99	90.00	359.66	12164.00	358.37	808.80	415.74	10.00	Landing Point

devon

Well: THOROUGHBRED 10-3 FED COM 825H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12600.00	90.00	359.66	12164.00	396.38	808.58	453.63	0.00	
12700.00	90.00	359.66	12164.00	496.38	807.99	553.33	0.00	
12800.00	90.00	359.66	12164.00	596.38	807.41	653.03	0.00	
12900.00	90.00	359.66	12164.00	696.37	806.82	752.72	0.00	
13000.00	90.00	359.66	12164.00	796.37	806.23	852.42	0.00	
13100.00	90.00	359.66	12164.00	896.37	805.65	952.11	0.00	
13200.00	90.00	359.66	12164.00	996.37	805.06	1051.81	0.00	
13300.00	90.00	359.66	12164.00	1096.37	804.48	1151.51	0.00	
13400.00	90.00	359.66	12164.00	1196.37	803.89	1251.20	0.00	
13500.00	90.00	359.66	12164.00	1296.36	803.30	1350.90	0.00	
13600.00	90.00	359.66	12164.00	1396.36	802.72	1450.59	0.00	
13700.00	90.00	359.66	12164.00	1496.36	802.13	1550.29	0.00	
13800.00	90.00	359.66	12164.00	1596.36	801.55	1649.98	0.00	
13900.00	90.00	359.66	12164.00	1696.36	800.96	1749.68	0.00	
14000.00	90.00	359.66	12164.00	1796.35	800.37	1849.38	0.00	
14100.00	90.00	359.66	12164.00	1896.35	799.79	1949.07	0.00	
14200.00	90.00	359.66	12164.00	1996.35	799.20	2048.77	0.00	
14300.00	90.00	359.66	12164.00	2096.35	798.62	2148.46	0.00	
14400.00	90.00	359.66	12164.00	2196.35	798.03	2248.16	0.00	
14500.00	90.00	359.66	12164.00	2296.35	797.44	2347.86	0.00	
14600.00	90.00	359.66	12164.00	2396.34	796.86	2447.55	0.00	
14700.00	90.00	359.66	12164.00	2496.34	796.27	2547.25	0.00	
14800.00	90.00	359.66	12164.00	2596.34	795.69	2646.94	0.00	
14900.00	90.00	359.66	12164.00	2696.34	795.10	2746.64	0.00	
15000.00	90.00	359.66	12164.00	2796.34	794.51	2846.34	0.00	
15100.00	90.00	359.66	12164.00	2896.34	793.93	2946.03	0.00	
15200.00	90.00	359.66	12164.00	2996.33	793.34	3045.73	0.00	
15300.00	90.00	359.66	12164.00	3096.33	792.76	3145.42	0.00	
15400.00	90.00	359.66	12164.00	3196.33	792.17	3245.12	0.00	
15500.00	90.00	359.66	12164.00	3296.33	791.58	3344.81	0.00	
15600.00	90.00	359.66	12164.00	3396.33	791.00	3444.51	0.00	
15700.00	90.00	359.66	12164.00	3496.33	790.41	3544.21	0.00	
15800.00	90.00	359.66	12164.00	3596.32	789.83	3643.90	0.00	
15900.00	90.00	359.66	12164.00	3696.32	789.24	3743.60	0.00	
16000.00	90.00	359.66	12164.00	3796.32	788.65	3843.29	0.00	
16100.00	90.00	359.66	12164.00	3896.32	788.07	3942.99	0.00	
16200.00	90.00	359.66	12164.00	3996.32	787.48	4042.69	0.00	
16300.00	90.00	359.66	12164.00	4096.32	786.90	4142.38	0.00	
16400.00	90.00	359.66	12164.00	4196.31	786.31	4242.08	0.00	
16500.00	90.00	359.66	12164.00	4296.31	785.72	4341.77	0.00	
16600.00	90.00	359.66	12164.00	4396.31	785.14	4441.47	0.00	
16700.00	90.00	359.66	12164.01	4496.31	784.55	4541.17	0.00	
16800.00	90.00	359.66	12164.01	4596.31	783.97	4640.86	0.00	
16900.00	90.00	359.66	12164.01	4696.30	783.38	4740.56	0.00	
17000.00	90.00	359.66	12164.01	4796.30	782.79	4840.25	0.00	
17100.00	90.00	359.66	12164.01	4896.30	782.21	4939.95	0.00	
17200.00	90.00	359.66	12164.01	4996.30	781.62	5039.65	0.00	
17300.00	90.00	359.66	12164.01	5096.30	781.04	5139.34	0.00	
17400.00	90.00	359.66	12164.01	5196.30	780.45	5239.04	0.00	
17500.00	90.00	359.66	12164.01	5296.29	779.86	5338.73	0.00	
17600.00	90.00	359.66	12164.01	5396.29	779.28	5438.43	0.00	
17700.00	90.00	359.66	12164.01	5496.29	778.69	5538.12	0.00	
17800.00	90.00	359.66	12164.01	5596.29	778.11	5637.82	0.00	
17900.00	90.00	359.66	12164.01	5696.29	777.52	5737.52	0.00	
18000.00	90.00	359.66	12164.01	5796.29	776.93	5837.21	0.00	
18100.00	90.00	359.66	12164.01	5896.28	776.35	5936.91	0.00	
18200.00	90.00	359.66	12164.01	5996.28	775.76	6036.60	0.00	
18300.00	90.00	359.66	12164.01	6096.28	775.18	6136.30	0.00	
18400.00	90.00	359.66	12164.01	6196.28	774.59	6236.00	0.00	
18500.00	90.00	359.66	12164.01	6296.28	774.00	6335.69	0.00	
18600.00	90.00	359.66	12164.01	6396.28	773.42	6435.39	0.00	
18700.00	90.00	359.66	12164.01	6496.27	772.83	6535.08	0.00	
18800.00	90.00	359.66	12164.01	6596.27	772.25	6634.78	0.00	
18900.00	90.00	359.66	12164.01	6696.27	771.66	6734.48	0.00	
19000.00	90.00	359.66	12164.01	6796.27	771.07	6834.17	0.00	
19100.00	90.00	359.66	12164.01	6896.27	770.49	6933.87	0.00	
19200.00	90.00	359.66	12164.01	6996.27	769.90	7033.56	0.00	
19300.00	90.00	359.66	12164.01	7096.26	769.32	7133.26	0.00	
19400.00	90.00	359.66	12164.01	7196.26	768.73	7232.95	0.00	
19500.00	90.00	359.66	12164.01	7296.26	768.14	7332.65	0.00	

devon

Well: THOROUGHBRED 10-3 FED COM 825H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
19600.00	90.00	359.66	12164.01	7396.26	767.56	7432.35	0.00	
19700.00	90.00	359.66	12164.01	7496.26	766.97	7532.04	0.00	
19800.00	90.00	359.66	12164.01	7596.26	766.39	7631.74	0.00	
19900.00	90.00	359.66	12164.01	7696.25	765.80	7731.43	0.00	
20000.00	90.00	359.66	12164.01	7796.25	765.21	7831.13	0.00	
20100.00	90.00	359.66	12164.01	7896.25	764.63	7930.83	0.00	
20200.00	90.00	359.66	12164.01	7996.25	764.04	8030.52	0.00	
20300.00	90.00	359.66	12164.01	8096.25	763.46	8130.22	0.00	
20400.00	90.00	359.66	12164.01	8196.24	762.87	8229.91	0.00	
20500.00	90.00	359.66	12164.01	8296.24	762.28	8329.61	0.00	
20600.00	90.00	359.66	12164.01	8396.24	761.70	8429.31	0.00	
20700.00	90.00	359.66	12164.01	8496.24	761.11	8529.00	0.00	
20800.00	90.00	359.66	12164.01	8596.24	760.53	8628.70	0.00	
20900.00	90.00	359.66	12164.01	8696.24	759.94	8728.39	0.00	
21000.00	90.00	359.66	12164.01	8796.23	759.35	8828.09	0.00	
21100.00	90.00	359.66	12164.01	8896.23	758.77	8927.79	0.00	
21200.00	90.00	359.66	12164.01	8996.23	758.18	9027.48	0.00	
21300.00	90.00	359.66	12164.01	9096.23	757.60	9127.18	0.00	
21400.00	90.00	359.66	12164.01	9196.23	757.01	9226.87	0.00	
21500.00	90.00	359.66	12164.01	9296.23	756.42	9326.57	0.00	
21600.00	90.00	359.66	12164.01	9396.22	755.84	9426.26	0.00	
21700.00	90.00	359.66	12164.01	9496.22	755.25	9525.96	0.00	
21800.00	90.00	359.66	12164.01	9596.22	754.67	9625.66	0.00	
21900.00	90.00	359.66	12164.01	9696.22	754.08	9725.35	0.00	
22000.00	90.00	359.66	12164.01	9796.22	753.49	9825.05	0.00	
22100.00	90.00	359.66	12164.01	9896.22	752.91	9924.74	0.00	
22200.00	90.00	359.66	12164.01	9996.21	752.32	10024.44	0.00	
22300.00	90.00	359.66	12164.01	10096.21	751.74	10124.14	0.00	
22400.00	90.00	359.66	12164.01	10196.21	751.15	10223.83	0.00	
22500.00	90.00	359.66	12164.01	10296.21	750.56	10323.53	0.00	
22503.08	90.00	359.66	12164.01	10299.29	750.55	10326.60	0.00	exit
22583.08	90.00	359.66	12164.00	10379.29	750.13	10406.36	0.00	BHL

THOROUGHBRED 10-3 FED COM 825H

1. Geologic Formations

TVD of target	12164	Pilot hole depth	N/A
MD at TD:	22583	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	1630		
Salt	1938		
Base of Salt	3891		
delaware	4078		
Cherry Canyon	5071		
Brushy Canyon	6360		
1st Bone Spring Lime	8035		
Bone Spring 1st	9033		
Bone Spring 2nd	9683		
3rd BSLM	10115		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

THOROUGHBRED 10-3 FED COM 825H

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
14 3/4	10 3/4	45 1/2	J-55	BTC SCC	0	1125	0	1125
9 7/8	8 5/8	32	P110-ICY	441	0	11562	0	11562
7 7/8	5 1/2	20	P110EC	DWC / C-IS+	0	22583	0	12164

•All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.

3. Cementing Program

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	676	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	443	Surf	13.0	2.3	2nd State: Bradenhead Squeeze - Lead: Class C Cement + additives
	595	6422	13.2	1.44	Tail: Class H / C + additives
Production	119	9662	9	3.27	Lead: Class H /C + additives
	1445	11662	13.2	1.44	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Prod	10%

THOROUGHBRED 10-3 FED COM 825H

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	10M	Annular (5M)	X	100% of rated working pressure
			Blind Ram	X	10M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular (5M)		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
Y	A variance is requested to run a 5 M annular on a 10M system

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Rpeort and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	6642
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR 3176. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

1 Spudder rig will move in and batch drill surface hole.
    a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR 3172, all COAs and NMOCD regulations).
3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan
_____ Other, describe

Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July, 2024 Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
	98220	PURPLE SAGE; WOLFCAMP (GAS)
Property Code	**Property Name**	**Well Number**
	THOROUGHBRED 10-3 FED COM	825H
OGRID No.	**Operator Name**	**Ground Level Elevation**
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3236.8'

Surface Owner: ☐State ☐Fee ☐Tribal ☒Federal | **Mineral Owner:** ☐State ☐Fee ☐Tribal ☒Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	10	26-S	31-E		270' S	2270' E	32.050880	103.764748	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	3	26-S	31-E		20' N	1460' E	32.079400	103.762149	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640.00	INFILL	30-015-46899	N	C

Order Numbers PENDING NSL | **Well setbacks are under Common Ownership:** ☐Yes ☒No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	10	26-S	31-E		50' S	1460' E	32.050279	103.762130	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	10	26-S	31-E		100' S	1460' E	32.050416	103.762131	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	3	26-S	31-E		100' N	1460' E	32.079180	103.762149	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type Horizontal Vertical	Ground Floor Elevation:
N	X	N/A

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Amy A. Brown 06/11/2025

Signature **Date**

Amy Brown

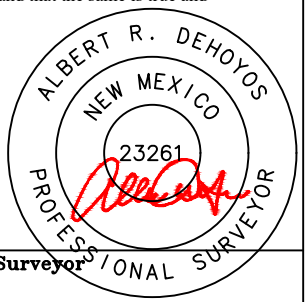
Printed Name

amy.brown@dvn.com

Email Address

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
23261	02/2025

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

SURFACE HOLE LOCATION
GEODETIC COORDINATES NAD 83
NMSP EAST SURFACE LOCATION
270' FSL 2270' FEL SECTION 10
EL: 3236.8'
N:382711.84/E:717496.17
LAT:32.050880/LON:103.764748

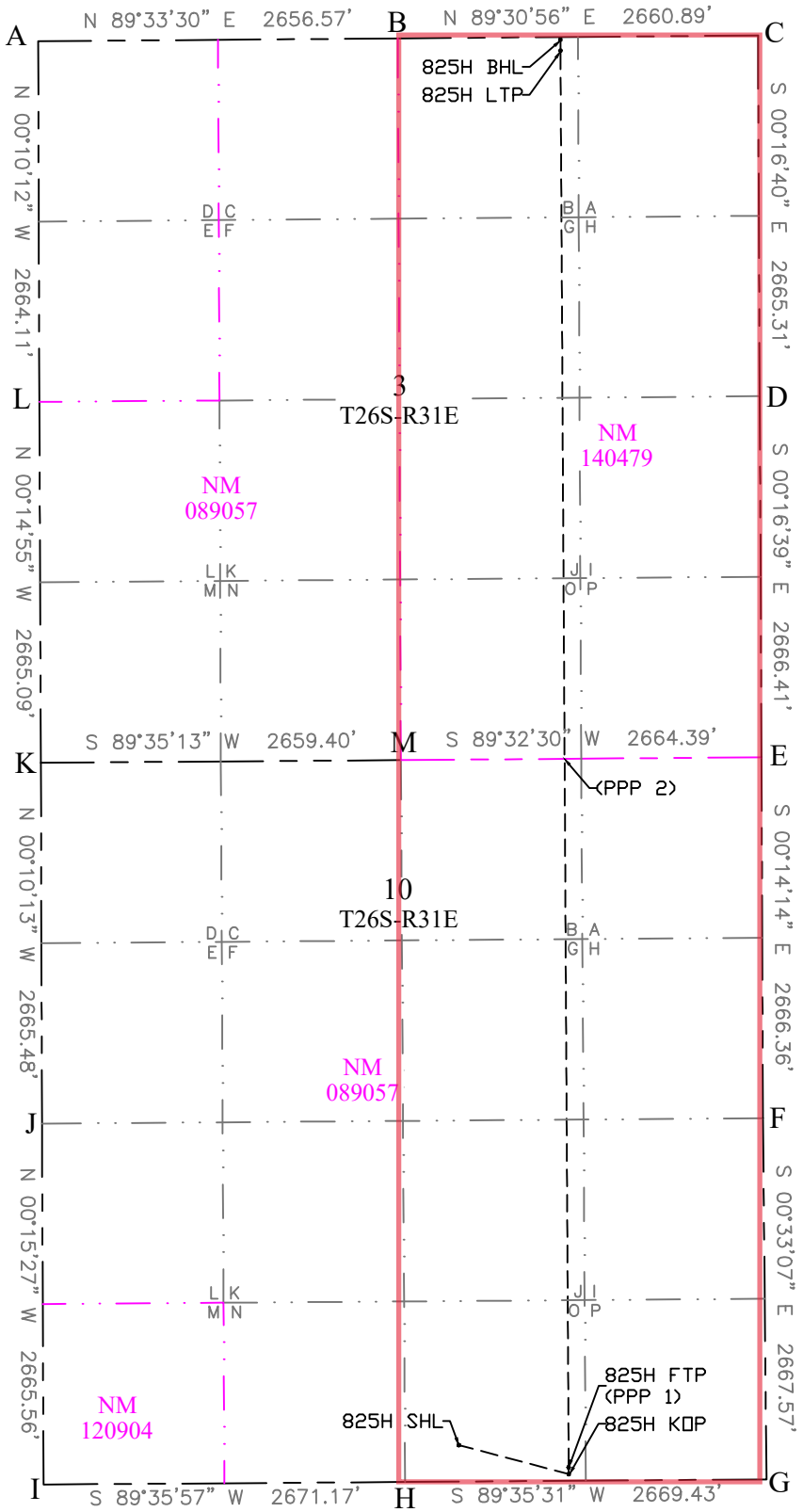
KICK OFF POINT
50' FSL 1460' FEL SECTION 10
N:382497.62/E:718308.28
LAT:32.050279/LON:103.762130

FIRST TAKE POINT(PPP 1)
100' FSL 1460' FEL SECTION 10
N:382547.62/E:718307.79
LAT:32.050416/LON:103.762131

LAST TAKE POINT
100' FNL 1460' FEL SECTION 3
N:393011.13/E:718246.69
LAT:32.079180/LON:103.762149

BOTTOM HOLE LOCATION
20' FNL 1460' FEL SECTION 3
N:393091.13/E:718246.30
LAT:32.079400/LON:103.762149

PPP 2
0' FSL 605' FEL SECTION 3
N:387786.97/E:719127.21
LAT:32.064807/LON:103.759396



A=N:393080.49/E:714388.87
B=N:393100.97/E:717045.36
C=N:393123.47/E:719706.15
D=N:390458.19/E:719719.07
E=N:387791.81/E:719731.99
F=N:385125.47/E:719743.02
G=N:382458.02/E:719768.72
H=N:382439.00/E:717099.36
I=N:382420.32/E:714428.25
J=N:385085.85/E:714416.27
K=N:387751.32/E:714408.35
L=N:390416.39/E:714396.78
M=N:387770.49/E:717067.68

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 476842
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	7/11/2025