Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-015-56643 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Name (Printed/Typed) Date Title Office Application approval 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. Conditions of approval, if any, are attached. 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

APPROVED WITH CONDITIONS Released to Imaging: 5/28/2025 12:50:26 PM Approval Date: 03/25/2025

(Continued on page 2)

*(Instructions on page 2)

| <u>C-102</u> | | Energy, Minerals & Natura | | | | | Revised July, 2024 | | | | | |
|--|---------------|------------------------------------|------------------|------------------------------|-----------------|-----------------|--|---------------------|---------------|-------------------------|----------------|--|
| | lectronically | | OIL | CON | ISER | VAT. | ION DIVISION | | | | | |
| Via OCD | Permitting | | | | | | | | Submittal | ☑ Initial Submittal | | |
| | | | | | | | | Type: | Amended Repor | t | | |
| | | | | | | | | | | ☐ As Drilled | | |
| | | | | | ELL LO | | ON INFORMATIO | N | | | | |
| | 30-015-5 | 6643 | Pool Code | 98 | 236 | P | Pool Name WC-0 | 015 G-08 S | S233135I |); WOLFCAMP | 1 | |
| | | | | 36-2 | 5 STATE FED COM | М | | Well Number 813H | | | | |
| OGRID | No. 6137 | | Operator | | N ENERG | Y PR | RODUCTION COMPA | NY, L.P. | | Ground Level 3508.3' | Elevation | |
| Surfac | e Owner: | □State □ | Fee □Trib | al XFe | deral | | Mineral Owner: | ⊠State | □Fee □T | ribal XFederal | | |
| | | | | | | Surfa | ace Location | | | | | |
| UL | Section | Township | Range | Lot | Ft. from | m N/S | S Ft. from E/W | Latitude | | Longitude | County | |
| 0 | 36 | 23-S | 31-E | | 180' | \mathbf{S} | 1736'E | 32.254 | 163 | 103.728595 | EDDY | |
| | | | | | В | ottom | Hole Location | | | | | |
| UL | Section | Township | Range | Lot | Ft. from | m N/S | S Ft. from E/W | Latitude | | Longitude | County | |
| В | 25 | 23-S | 31-E | | 20' | N | 2150' E | 32.282 | 631 | 103.729924 | EDDY | |
| Dedicat | ed Acres | Infill or Def | ining Well | Defining | Well API | Overl | apping Spacing Unit | + (y/N) | Consolida | ation Code | | |
| 640 | eu Acres | Infill | ming wen | 30-015- | | Overr | apping spacing oni | N | consonue | C | | |
| Order : | Numbers | n/a | | 30-013- | 7/322 | Well | setbacks are under Common Ownership: □Yes ☒No | | | | | |
| | | II/ U | | | | l | | | | | | |
| *** | g (: | m 1. | n | 7 (| | | Point (KOP) | 7 (1) | | | g 1 | |
| UL | Section | Township | Range | Lot | Ft. from | m N/ | · | Latitude | | Longitude | County | |
| О | 36 | 23-S | 31-E | | 56' S | | 2149' E | 32.25372897 - | | -103.73001399 | EDDY | |
| | - ·· | | n | | | | ke Point (FTP) | · | | | | |
| UL O | Section 36 | Township 23-S | Range 31-E | Lot | Ft. from | • | S Ft. from E/W 2150' E | | | Longitude 103.729934 | County EDDY | |
| | 30 | 20-3 | 91-E | | | | | 32.233943 | | 105.729954 | EDDI | |
| | a | | - | | | | ke Point (LTP) | | | | | |
| UL B | Section 25 | Township 23-S | Range | Lot | Ft. from | | S Ft. from E/W 2150' E | Latitude 32.282 | | Longitude 103.729924 | County | |
| Ь | ر کی | გა-s | 31-E | | 100 | IN | 2130 E | 32.20Z | 412 | 103.729924 | EDDY | |
| | | | | | Spac | cing U | Jnit Type Horizon | tal Verti | cal G | round Floor Ele | vation: | |
| | | | | | l | | Α | | | | | |
| | | FICATIONS e information con | ntainad harain i | e true and co | omplete to th | | SURVEYOR CERTIFICATIONS | | | | | |
| of my kn | owledge and b | belief, and, if the | well is a vertic | al or direction | onal well, tha | at this | 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 | | | | | |
| 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 | | | | correct to the best of my be | | uper vision, ai | | | | | | |
| 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 | | | | | | SERT K. | DEHOL | | | | | |
| heretofore entered by the division. | | | | | | WEX | DEHOLOS | | | | | |
| If this well is a horizontal well, I further certify that this organization has received the | | | ed the | | | | | \o\\ | | | | |
| | | lessee or owner on the target pool | | | | | | | | 23261 | | |
| complete | | be located or ob | | | | | | | | PR Melles | M-15 / | |
| 3/31/2025 | | | | | | 1 | | | | | | |
| | | | 2 | Signature and Seal | of Profes | ssional S | urveyor /ONAL | 501 | | | | |
| ווב | ren Wa | tson | | | | | | | | | | |
| | ed Name | 13011 | | | | | Certificate Number | Date of | Survev | | | |
| | | atson@d | vn.com | | | | | | • | | | |
| Email | Address | | | | | | 23261 | 06/20 | 24 | | | |
| | | | | | | | | | | | | |

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
180' FSL 1736' FEL SECTION 29
EL:3508.3'
N:456724.19/E:728281.57
LAT:32.254163/LON:103.728595

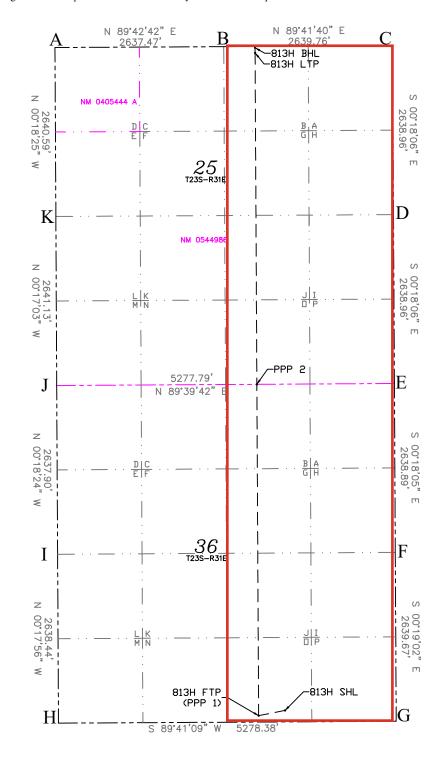
KICK DFF PDINT CALLS: 56' FSL, 2149' FEL N: 456598 E: 727869 LAT: 32.2537 LDN: 103.7300

FIRST TAKE PDINT(PPP 1)
100' FSL 2150' FEL SECTION 36
N:456641.92/E:727868.12
LAT:32.253943/LDN:103.729934

LAST_TAKE_PDINT 100' FNL 2150' FEL SECTION 25 N:466998.57/E:727812.93 LAT:32.282412/LDN:103.729924

<u>BOTTOM HOLE LOCATION</u> 20' FNL 2150' FEL SECTION 25 N:467078.57/E:727812.51 LAT:32.282631/LON:103.729924

PPP 2 0' FSL 2150' FEL SECTION 25 N:461819.50/E:727840.53 LAT:32.268175/LON:103.729929



A=N:467082.69 B=N:467095.96 C=N:467110.04 E:724685.21 E:727322.65 E:729962.37 D=N:464471.11 729976.26 E=N:461832.19 F=N:459193.34 729990.15 E:730004.03 G=N:456553.71 E:730018.64 H=N:456524.76 E:724740.34 I=N:459163.17 E:724726.57 E:724712.45 J=N:461801.03 K=N:464442.13 E:724699.35

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

| I. Operator: Devon End | ergy Productio | n Company, L.P. | OGRID: | 6137 | | Date:6/ | 26 / 2024 |
|--|----------------|-----------------|--------------------|----------------------------|------------|---------------------------|--|
| II. Type: ☐ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other. | | | | | | | |
| If Other, please describe | : | | | | | | |
| III. Well(s): Provide the be recompleted from a s | | | | | wells pro | oposed to be dr | illed or proposed to |
| Well Name | API | ULSTR | Footages | Anticipated Oil BBL/D | | cipated MCF/D F | Anticipated Produced Water BBL/D |
| See Attached | | | | | | | |
| | | | | | | | |
| IV. Central Delivery Po V. Anticipated Schedul proposed to be recomple | e: Provide the | | tion for each nev | | vell or se | | 27.9(D)(1) NMAC] osed to be drilled or |
| | | | | | | | |
| Well Name | API | Spud Date | TD Reached Date | Completion Commencement | | Initial Flow Back Date | First Production Date |
| See Attached | | | | | | | |
| | | | | | | | |
| VI. Separation Equipment: ☐ Attach a complete description of how Operator will size separation equipment to optimize gas capture. VII. Operational Practices: ☐ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. VIII. Best Management Practices: ☐ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance. | | | | | | | |

NATURAL GAS MANAGEMENT PLAN Section 1 - Plan Description

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| | | | | <u> </u> |
|-------------------------------|-----|--------------------------------|--|-----------------------------|
| | | | | |
| Well Name | API | ULSTR & FOOTAGE | Anticipated Gas/Oil/Water | Central Delivery Point Name |
| TODD 36-25 STATE FED COM 301H | n/a | 36-23S-31E, 180 FSL & 299 FWL | (+/-) 2839mcfd/(+/-)1130bopd/(+/-)6074bwpd | TODD 36 CTB 1 |
| TODD 36-25 STATE FED COM 302H | n/a | 36-23S-31E, 180 FSL & 329 FWL | (+/-) 2839mcfd/(+/-)1130bopd/(+/-)6074bwpd | TODD 36 CTB 1 |
| TODD 36-25 STATE FED COM 303H | n/a | 36-23S-31E, 180 FSL & 389 FWL | (+/-) 2839mcfd/(+/-)1130bopd/(+/-)6074bwpd | TODD 36 CTB 1 |
| FODD 36-25 STATE FED COM 304H | n/a | 36-23S-31E, 330 FSL & 1996 FEL | (+/-) 2839mcfd/(+/-)1130bopd/(+/-)6074bwpd | TODD 36 CTB 2 |
| TODD 36-25 STATE FED COM 305H | n/a | 36-23S-31E, 180 FSL & 645 FEL | (+/-) 2839mcfd/(+/-)1130bopd/(+/-)6074bwpd | TODD 36 CTB 2 |
| TODD 36-25 STATE FED COM 306H | n/a | 36-23S-31E, 180 FSL & 585 FEL | (+/-) 2839mcfd/(+/-)1130bopd/(+/-)6074bwpd | TODD 36 CTB 2 |
| TODD 36-25 STATE FED COM 811H | n/a | 36-23S-31E, 180 FSL & 1639 FWL | (+/-) 4641mcfd/(+/-)913bopd/(+/-)3197bwpd | TODD 36 CTB 1 |
| TODD 36-25 STATE FED COM 812H | n/a | 36-23S-31E, 180 FSL & 1699 FWL | (+/-) 4641mcfd/(+/-)913bopd/(+/-)3197bwpd | TODD 36 CTB 1 |
| TODD 36-25 STATE FED COM 813H | n/a | 36-23S-31E, 180 FSL & 1736 FEL | (+/-) 4641mcfd/(+/-)913bopd/(+/-)3197bwpd | TODD 36 CTB 2 |
| TODD 36-25 STATE FED COM 814H | n/a | 36-23S-31E, 180 FSL & 1676 FEL | (+/-) 4641mcfd/(+/-)913bopd/(+/-)3197bwpd | TODD 36 CTB 2 |
| TODD 36-25 STATE FED COM 821H | n/a | 36-23S-31E, 180 FSL & 269 FWL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 1 |
| TODD 36-25 STATE FED COM 822H | n/a | 36-23S-31E, 180 FSL & 1669 FWL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 1 |
| TODD 36-25 STATE FED COM 823H | n/a | 36-23S-31E, 180 FSL & 359 FWL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 1 |
| FODD 36-25 STATE FED COM 824H | n/a | 36-23S-31E, 180 FSL & 1729 FWL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 1 |
| ODD 36-25 STATE FED COM 825H | n/a | 36-23S-31E, 330 FSL & 2026 FEL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 2 |
| FODD 36-25 STATE FED COM 826H | n/a | 36-23S-31E, 180 FSL & 1706 FEL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 2 |
| FODD 36-25 STATE FED COM 827H | n/a | 36-23S-31E, 180 FSL & 615 FEL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 2 |
| TODD 36-25 STATE FED COM 828H | n/a | 36-23S-31E, 180 FSL & 1646 FEL | (+/-)7600mcfd/(+/-)695bopd/(+/-)4370bwpd | TODD 36 CTB 2 |

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| | | | | Completion | | |
|-------------------------------|-----|-----------|-----------------|--------------|------------------------|-----------------------|
| | | | | Commencement | | |
| Well Name | API | Spud Date | TD Reached Date | Date | Initial Flow back Date | First Production Date |
| TODD 36-25 STATE FED COM 301H | n/a | 2/6/2027 | 3/8/2027 | 7/6/2027 | 7/6/2027 | 7/6/2027 |
| TODD 36-25 STATE FED COM 302H | n/a | 2/6/2027 | 3/8/2027 | 7/6/2027 | 7/6/2027 | 7/6/2027 |
| TODD 36-25 STATE FED COM 303H | n/a | 2/6/2027 | 3/8/2027 | 7/6/2027 | 7/6/2027 | 7/6/2027 |
| TODD 36-25 STATE FED COM 304H | n/a | 2/6/2027 | 3/8/2027 | 7/6/2027 | 7/6/2027 | 7/6/2027 |
| TODD 36-25 STATE FED COM 305H | n/a | 2/6/2027 | 3/8/2027 | 7/6/2027 | 7/6/2027 | 7/6/2027 |
| TODD 36-25 STATE FED COM 306H | n/a | 2/6/2027 | 3/8/2027 | 7/6/2027 | 7/6/2027 | 7/6/2027 |
| TODD 36-25 STATE FED COM 811H | n/a | 9/17/2025 | 10/17/2025 | 2/14/2026 | 2/14/2026 | 2/14/2026 |
| TODD 36-25 STATE FED COM 812H | n/a | 8/29/2025 | 9/28/2025 | 1/26/2026 | 1/26/2026 | 1/26/2026 |
| TODD 36-25 STATE FED COM 813H | n/a | 8/20/2025 | 9/19/2025 | 1/17/2026 | 1/17/2026 | 1/17/2026 |
| TODD 36-25 STATE FED COM 814H | n/a | 7/31/2025 | 8/30/2025 | 12/28/2025 | 12/28/2025 | 12/28/2025 |
| TODD 36-25 STATE FED COM 821H | n/a | 8/10/2025 | 9/9/2025 | 1/7/2026 | 1/7/2026 | 1/7/2026 |
| TODD 36-25 STATE FED COM 822H | n/a | 8/10/2025 | 9/9/2025 | 1/7/2026 | 1/7/2026 | 1/7/2026 |
| TODD 36-25 STATE FED COM 823H | n/a | 7/21/2025 | 8/20/2025 | 12/18/2025 | 12/18/2025 | 12/18/2025 |
| TODD 36-25 STATE FED COM 824H | n/a | 7/21/2025 | 8/20/2025 | 12/18/2025 | 12/18/2025 | 12/18/2025 |
| TODD 36-25 STATE FED COM 825H | n/a | 7/21/2025 | 8/20/2025 | 12/18/2025 | 12/18/2025 | 12/18/2025 |
| TODD 36-25 STATE FED COM 826H | n/a | 7/21/2025 | 8/20/2025 | 12/18/2025 | 12/18/2025 | 12/18/2025 |
| TODD 36-25 STATE FED COM 827H | n/a | 7/21/2025 | 8/20/2025 | 12/18/2025 | 12/18/2025 | 12/18/2025 |
| TODD 36-25 STATE FED COM 828H | n/a | 7/21/2025 | 8/20/2025 | 12/18/2025 | 12/18/2025 | 12/18/2025 |

^{*} Dates subject to change

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

🗵 Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

| Well | API | Anticipated Average Natural Gas Rate MCF/D | Anticipated Volume of Natural Gas for the First Year MCF |
|------|-----|---|--|
| | | | |
| | | | |

X. Natural Gas Gathering System (NGGS):

| Operator | System | ULSTR of Tie-in | Anticipated Gathering Start Date | Available Maximum Daily Capacity of System Segment Tie-in |
|----------|--------|-----------------|----------------------------------|---|
| | | | | |
| | | | | |

| XI. Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the |
|---|
| production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of |
| the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected. |

| XII. Line Capacity. The natural | gas gathering system | □ will □ will r | not have capacity to | o gather 10 | 00% of the antic | ipated nat | tural gas |
|---------------------------------|---------------------------|-----------------|----------------------|-------------|------------------|------------|-----------|
| production volume from the well | prior to the date of firs | t production. | | | | | |

| XIII. Line Pressure. Operator \square does \square does not anticipate that its existing well(s) connected to the same segment, or portion, of the |
|--|
| natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s) |

| l Attach (| Onerator's nla | an to manag | nroduction i | n response to | the increased | l line pressure |
|------------|----------------|-------------|--------------|---------------|---------------|-----------------|

| XIV. Confidentiality: Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provides the information provide | ded in |
|--|--------|
| Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific inform | nation |
| for which confidentiality is asserted and the basis for such assertion. | |

Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal: 🗵 Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan.

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) power generation for grid; **(b)** (c) compression on lease; (d) liquids removal on lease; (e) reinjection for underground storage; **(f)** reinjection for temporary storage;

- reinjection for enhanced oil recovery; (g)
- fuel cell production; and (h)
- other alternative beneficial uses approved by the division. (i)

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

| Signature: |
|---|
| Printed Name: Jeff Walla |
| Title: Surface Land and Regulatory Manager |
| E-mail Address: |
| Date: |
| Phone: |
| OIL CONSERVATION DIVISION |
| (Only applicable when submitted as a standalone form) |
| Approved By: |
| Title: |
| Approval Date: |
| Conditions of Approval: |
| |
| |
| |
| |
| |



VI. Separation Equipment

Devon Energy Production Company, L.P. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. Devon utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.



VII. Operational Practices

Devon Energy Production Company, L. P. will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, Devon will utilize flares and/or combustors to capture and control
 natural gas, where technically feasible. If flaring is deemed technically in-feasible, Devon will
 employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, Devon will utilize Green Completion methods to capture gas
 produced during well completions that is otherwise vented or flared. If capture is technically
 in-feasible, flares and/or combustors will be used to capture and control flow back fluids
 entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon
 volumes, Devon will turn operations to onsite separation vessels and flow to the gathering
 pipeline.
- During production operations, Devon will take every practical effort to minimize waste of natural gas through venting and flaring by:
 - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
 - Utilizing a closed-loop capture system to collect and route produced gas to sales line via low pressure compression, or to a flare/combustor
 - o Flaring in lieu of venting, where technically feasible
 - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
 - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
 - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
 - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications
 - Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible



VIII. Best Management Practices during Maintenance

Devon Energy Production Company, L.P. will utilize best management practices to minimize venting during active and planned maintenance activities. Devon is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. Devon will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.



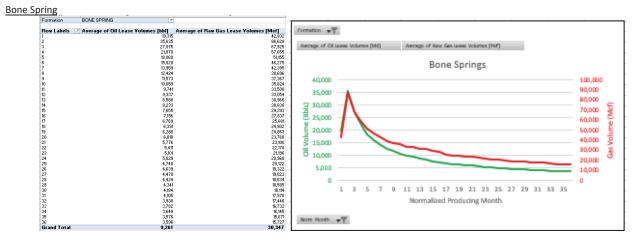
Devon Energy Production Company, L.P. 333 W. Sheridan Avenue Oklahoma City, Oklahoma 73102 Phone: (405) 228-4800

WASTE MINIMIZATION PLAN

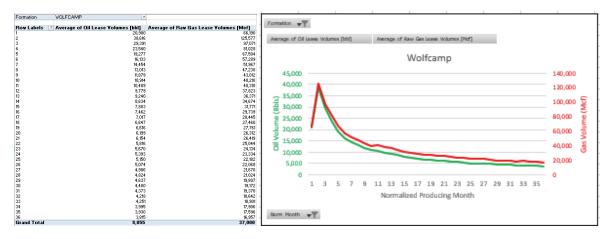
Per 89 FR 25378 - Waste Prevention, Production Subject to Royalties, and Resource Conservation, requirements:

- (1) initial oil production estimates and decline,
- (2) initial gas production estimates and decline,
- (3) certification that the operator has an executed gas sales contract to sell 100 percent of the produced oil-well gas, and
- (4) any other information demonstrating the operator's plans to avoid the waste of gas.

(1), (2) 3 year Oil and Gas decline curves: Bone Spring and Wolfcamp formation decline curves below supply Year 1, 2, 3 cumulative values for oil and gas, in range format; based on peak IP rates for oil and gas based on Devon Energy Production Company, L.P. operated wells ID post 1/2019, 10K LL norm, P90-10 ranges, annualized rates. Please refer to NGMP for table of initial oil and gas volumes.



Wolfcamp



- (3) Certification (NGMP Section 3 Certification): Operator (Devon Energy Production Company, L.P.) will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system;
- (4) Addl waste avoidance information: Refer to NGMP Sec. VII. Operational Practices & VIII. Best Management Practices during Maintenance

TODD 36-25 STATE FED COM 813H

1. Geologic Formations

| TVD of target | 12500 | Pilot hole depth | N/A |
|---------------|-------|------------------------------|-----|
| MD at TD: | 22770 | Deepest expected fresh water | |

Basin

| Dasin | | | |
|----------------------|---------|----------------|----------|
| | Depth | Water/Mineral | |
| Formation | (TVD) | Bearing/Target | Hazards* |
| | from KB | Zone? | |
| Rustler | 823 | | |
| Salt | 1165 | | |
| Base of Salt | 4217 | | |
| Delaware | 4527 | | |
| Cherry Canyon | 5426 | | |
| Brushy Canyon | 6667 | | |
| 1st Bone Spring Lime | 8334 | | |
| Bone Spring 1st | 9436 | | |
| Bone Spring 2nd | 10020 | | |
| 3rd Bone Spring Lime | 10543 | | |
| Bone Spring 3rd | 11294 | | |
| Wolfcamp | 11730 | | |
| | | | |
| | | | |
| | | | |
| | | | |
| _ | | | |
| | | | |

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

2. Casing Program (Primary Design)

| | , , , , , , , , , , , , , , , , , , , | Wt | | | | Casing Interval | | Casing Interval | |
|-----------|---------------------------------------|--------|----------|-----------|-----------|-----------------|------------|-----------------|--|
| Hole Size | Csg. Size | (PPF) | Grade | Conn | From (MD) | To (MD) | From (TVD) | To (TVD) | |
| 14 3/4 | 10 3/4 | 45 1/2 | J-55 | ВТС | 0 | 848 | 0 | 848 | |
| 9 7/8 | 8 5/8 | 32 | P110HSCY | MOFXL | 0 | 11862 | 0 | 11862 | |
| 7 7/8 | 5 1/2 | 20 | P110EC | DWC/IS-C+ | 0 | 22770 | 0 | 12500 | |

[•]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 | 516 | Surf | 13.2 | 1.44 | Lead: Class C Cement + additives |
| Int 1 | 471 | Surf | 13.0 | 2.3 | 2nd State: Bradenhead Squeeze - Lead: Class C Cement + additives |
| III I | 597 | 6702 | 13.2 | 1.44 | Tail: Class H / C + additives |
| Production | 117 | 9962 | 9 | 3.27 | Lead: Class H /C + additives |
| Froduction | 1430 | 11962 | 13.2 | 1.44 | Tail: Class H / C + additives |

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

4. Pressure Control Equipment (Three String Design)

| BOP installed and tested before drilling which hole? | Size? | Min. Required WP | T | ype | ✓ | Tested to: |
|--|--------------|------------------------|-------------|-------------|----------------|--------------------------------|
| | | | Anı | nular | X | 50% of rated working pressure |
| Int 1 | 13-5/8" | 5M | | d Ram | X | |
| IIIC I | 13 3/0 | J1 V1 | Pipe | Ram | | 5M |
| | | | Double Ram | | X | JIVI |
| | | | Other* | | | |
| | | | Annul | ar (5M) | X | 100% of rated working pressure |
| Production | 12 5/01 | 10M | Blind | d Ram | X | |
| | 13-5/8" | | Pipe Ram | | | 10M |
| | | | Double Ram | | X | |
| | | | Other* | | | |
| | | | Annul | ar (5M) | | |
| | | | Blind Ram | | | |
| | | | Pipe | Ram | |] |
| | | | Doub | le Ram | | 1 |
| | | | Other* | | | |
| N A variance is requested for | the use of a | diverter or | the surface | casing. See | attached for s | chematic. |
| Y A variance is requested to a | run a 5 M a | nnular on a | 10M system | | | |

5. Mud Program (Three String Design)

| Section | Туре | 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 ased to monitor the loss of gain of flata. | What will be used to monitor the loss or gain of fluid? | PVT/Pason/Visual Monitoring |
|---|---|-----------------------------|
|---|---|-----------------------------|

6. Logging and Testing Procedures

| Logging, C | oring and Testing |
|------------|---|
| | Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the |
| X | Completion Report and shumitted 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. |

| Additiona | l logs planned | Interval |
|-----------|----------------|-------------------------|
| | Resistivity | Int. shoe to KOP |
| | Density | Int. shoe to KOP |
| X | CBL | Production casing |
| X | Mud log | Intermediate shoe to TD |
| | PEX | |

7. Drilling Conditions

| Condition | Specfiy what type and where? |
|----------------------------|------------------------------|
| BH pressure at deepest TVD | 6825 |
| 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.

| measur | ca values and formations will be provided to the BLW. |
|--------|---|
| N | H2S is present |
| Y | H2S plan attached. |

TODD 36-25 STATE FED COM 813H

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 | 1 |
|-------------|------------------|
| X | Directional Plan |
| | Other, describe |

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern) Sec 36-T23S-R31E TODD 36-25 STATE FED COM 813H WA022501547 Wellbore #1 Plat R0 (2150FEL) WFMP B 100

Anticollision Summary Report

27 January, 2025

TVD Reference:

MD Reference:

Company: WCDSC Permian NM

Project: Eddy County (NAD 83 NM Eastern)

Reference Site: Sec 36-T23S-R31E

Site Error: 0.00 ft

Reference Well: TODD 36-25 STATE FED COM 813H

Well Error: 0.50 ft
Reference Wellbore #1

Reference Design: Plat R0 (2150FEL) WFMP B 100

Local Co-ordinate Reference:

Well TODD 36-25 STATE FED COM 813H

GL:3508.3+26ft @ 3534.30ft

GL:3508.3+26ft @ 3534.30ft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma

Database: EDM_5000.17
Offset TVD Reference: Offset Datum

Reference Plat R0 (2150FEL) WFMP B 100

Filter type: NO GLOBAL FILTER: Using user defined selection & filtering criteria

Interpolation Method: MD Interval 100.00ft Error Model: ISCWSA

 Depth Range:
 Unlimited
 Scan Method:
 Closest Approach 3D

 Results Limited by:
 Maximum centre distance of 2,493.47ft
 Error Surface:
 Pedal Curve

 Warning Levels Evaluated at:
 2.00 Sigma
 Casing Method:
 Not applied

Survey Tool Program Date 1/24/2025
From To

(ft) (ft) Survey (Wellbore) Tool Name Description

0.00 22,781.10 Plat R0 (2150FEL) WFMP B 100 (Wellbor MWD+HDGM OWSG MWD + HDGM

| Summary | | | | | | |
|--|--|--|--|--|---|--|
| Site Name Offset Well - Wellbore - Design | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Dista Between Centres (ft) | nce Between Ellipses (ft) | Separation Factor | Warning |
| Sec 12-T23S-R31E | | | | | | |
| Bora Bora 13-24 Fed Com 213H - Wellbore #1 - Final Su Bora Bora 13-24 Fed Com 214H - Wellbore #1 - Final su Bora Bora 13-24 Fed Com 215H - ST01 - ST01 Final Sur BORA BORA 13-24 FED COM 302H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 303H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 304H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 622H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 623H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 624H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 625H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 711H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 712H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 713H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 714H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 714H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 714H - Wellbore #1 - Fina BORA BORA 13-24 FED COM 811H - Wellbore #1 - Syys BORA BORA 13-24 FED COM 812H - Wellbore #1 - Syys | 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 22,781.10 | 21,105.00 20,535.00 20,346.88 21,194.00 21,175.00 21,264.00 22,040.00 22,417.26 22,485.00 22,211.43 22,180.00 22,163.00 22,626.00 22,293.00 22,569.00 22,516.00 | 2,430.99 2,230.63 2,233.20 1,803.03 1,556.66 2,178.90 1,684.98 801.91 923.13 1,934.18 2,186.89 1,049.52 525.28 1,300.04 2,425.34 1,213.93 | 2,206.51 2,060.98 2,034.86 1,580.97 1,374.80 1,921.88 1,390.18 567.73 666.97 1,633.60 1,881.85 763.78 340.41 999.23 2,108.93 900.13 | 13.148 11.259 8.119 8.560 8.477 5.716 3.424 3.604 6.435 7.169 3.673 2.841 4.322 7.665 3.869 | CC, ES, SF Alert, CC, ES, SF |
| BORA BORA 13-24 FED COM 813H - Wellbore #1 - Fina | 22,781.10 | 22,641.00 | 462.58 | 159.58 | | Minor Risk, CC, ES, SF |
| BORA BORA 13-24 FED COM 814H - Wellbore #1 - Fina | 22,781.10 | 22,537.17 | 1,555.36 | 1,238.93 | 4.915 | Alert, CC, ES, SF |
| Sec 25-T23S-R31E Aldabra 25 Fed 3H - Wellbore #1 - Wellbore #1 Aldabra 25 Fed 3H - Wellbore #1 - Wellbore #1 Aldabra 25 Fed 3H - Wellbore #1 - Wellbore #1 Todd 25 Fed 001Z SWD (Offset) - Wellbore #1 - Wellbor Todd 25 Fed 001Z SWD (Offset) - Wellbore #1 - Wellbor Todd 25 Fed 001Z SWD (Offset) - Wellbore #1 - Wellbor | 17,670.07 17,700.00 22,700.00 20,800.00 20,804.45 20,900.00 | 11,490.00 11,490.00 16,698.00 12,478.70 12,478.70 12,478.70 | 1,481.16 1,481.46 1,823.03 1,164.93 1,164.94 1,169.07 | 1,377.03 1,376.93 1,582.45 847.95 847.88 850.87 | 3.674 | ES |
| Sec 30-T23S-R32E | | | | | | |
| RIGHT MEOW 30-31 FED COM 821H (Proposed) - Well RIGHT MEOW 30-31 FED COM 821H (Proposed) - Well | 22,743.75 22,781.10 | 12,263.01 12,261.49 | 2,416.15 2,416.44 | 2,215.43 2,215.28 | 12.037 12.012 | CC ES, SF |

MD Reference:

WCDSC Permian NM Company:

Project: Eddy County (NAD 83 NM Eastern)

Sec 36-T23S-R31E Reference Site:

Site Error: 0.00 ft

Reference Well: TODD 36-25 STATE FED COM 813H

Well Error: 0.50 ft Wellbore #1 Reference Wellbore

Reference Design: Plat R0 (2150FEL) WFMP B 100 Local Co-ordinate Reference:

Well TODD 36-25 STATE FED COM 813H TVD Reference:

GL:3508.3+26ft @ 3534.30ft GL:3508.3+26ft @ 3534.30ft

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma EDM_5000.17 Database: Offset TVD Reference: Offset Datum

| ummary | | | | | | |
|--|---------------------------|---------------------------|----------------------------|-----------------------------|----------------------|--------------------|
| | Reference | Offset | Dista | nce | | |
| Site Name Offset Well - Wellbore - Design | Measured Depth (ft) | Measured Depth (ft) | Between Centres (ft) | Between Ellipses (ft) | Separation Factor | Warning |
| Sec 36-T23S-R31E | | , | , | | | |
| Todd 36 State 01 SWD - Wellbore #1 - Wellbore #1 | 15,529.40 | 12,490.10 | 1,168.63 | 918.22 | 4.667 | Alert, CC, ES |
| Todd 36 State 01 SWD - Wellbore #1 - Wellbore #1 | 15,600.00 | 12,490.10 | 1,170.75 | 919.54 | | Alert, SF |
| Todd 36 State 625H - Wellbore #1 - Final Svys | 8,344.28 | 8,422.10 | 1,449.07 | 1,388.86 | 24.066 | CC |
| Todd 36 State 625H - Wellbore #1 - Final Svys | 8,400.00 | 8,475.29 | 1,449.37 | 1,388.81 | 23.931 | ES |
| Todd 36 State 625H - Wellbore #1 - Final Svys | 17,600.00 | 17,038.00 | 1,637.00 | 1,474.73 | 10.088 | SF |
| Todd 36_25 State Fed Com 232H - Wellbore #1 - Wellbo | 9,791.02 | 9,809.02 | 952.17 | 882.80 | 13.724 | CC |
| Todd 36_25 State Fed Com 232H - Wellbore #1 - Wellbo | 9,800.00 | 9,815.84 | 952.18 | 882.75 | 13.714 | ES |
| Todd 36_25 State Fed Com 232H - Wellbore #1 - Wellbo | 22,781.10 | 20,379.00 | 2,404.46 | 2,207.71 | 12.221 | SF |
| Todd 36_25 State Fed Com 233H - Wellbore #1 - Final S | 4,805.40 | 4,818.72 | 153.44 | 119.56 | 4.528 | Alert, CC |
| Todd 36_25 State Fed Com 233H - Wellbore #1 - Final S | 5,500.00 | 5,514.33 | 156.97 | 117.79 | | Alert, ES |
| Todd 36_25 State Fed Com 233H - Wellbore #1 - Final S | 9,900.00 | 9,921.37 | 206.67 | 136.08 | 2.928 | Alert, SF |
| Todd 36_25 State Fed Com 235H - OH - OH Final Surve | 0.00 | 0.00 | 180.33 | 0.40.45 | 4= 04= | ٥٥ |
| Todd 36_25 State Fed Com 235H - OH - OH Final Surve | 2,200.00 | 2,186.46 | 227.12 | 212.19 | 15.210 | 5F |
| Todd 36_25 State Fed Com 235H - ST01 - ST01 Final Su | 0.00 | 0.00 | 180.33 | 040.40 | 45.040 | CE. |
| Todd 36_25 State Fed Com 235H - ST01 - ST01 Final Su | 2,200.00 | 2,186.46 | 227.12 | 212.19 | 15.210 | 5 F |
| Todd 36-25 State Fed Com 234H - Wellbore #1 - Actuals | 0.00 | 0.00 | 165.56 | 270.00 | 11 505 | C.E. |
| Todd 36-25 State Fed Com 234H - Wellbore #1 - Actuals | 3,800.00 | 3,793.41 | 304.48 | 278.09 | 11.535 | |
| TODD 36-25 STATE FED COM 302H - Wellbore #1 - Pla | 8,580.40 | 8,662.33 | 1,938.12 | 1,876.39 | 31.393 | |
| TODD 36-25 STATE FED COM 302H - Wellbore #1 - Pla TODD 36-25 STATE FED COM 302H - Wellbore #1 - Pla | 10,400.00 22,781.10 | 10,467.77 20,985.21 | 1,938.35 | 1,864.23 | 26.153 9.300 | |
| TODD 36-25 STATE FED COM 303H - Wellbore #1 - Pla | 8,580.40 | 8,805.64 | 2,437.65 1,244.15 | 2,175.54 1,181.55 | 19.873 | |
| TODD 36-25 STATE FED COM 303H - Wellbore #1 - Pla | 10,400.00 | 10,617.34 | 1,244.13 | 1,169.61 | 16.646 | |
| TODD 36-25 STATE FED COM 303H - Wellbore #1 - Pla | 22,781.10 | 21,177.48 | 1,787.15 | 1,577.25 | 8.514 | |
| TODD 36-25 STATE FED COM 304H - Wellbore #1 - Pla | 8,580.40 | 8,585.51 | 116.32 | 55.16 | | Minor Risk, CC |
| TODD 36-25 STATE FED COM 304H - Wellbore #1 - Pla | 10,400.00 | 10,400.00 | 116.85 | 43.16 | | Minor Risk, ES, SF |
| TODD 36-25 STATE FED COM 305H - Wellbore #1 - Pla | 6,588.17 | 6,669.00 | 840.21 | 792.88 | 17.752 | |
| TODD 36-25 STATE FED COM 305H - Wellbore #1 - Pla | 6,600.00 | 6,679.38 | 840.22 | 792.81 | 17.723 | |
| TODD 36-25 STATE FED COM 305H - Wellbore #1 - Pla | 22,781.10 | 21,010.62 | 1,798.45 | 1,586.60 | 8.489 | |
| TODD 36-25 STATE FED COM 306H - Wellbore #1 - Pla | 1,410.78 | 1,425.78 | 1,151.04 | 1,141.01 | 114.738 | |
| TODD 36-25 STATE FED COM 306H - Wellbore #1 - Pla | 1,500.00 | 1,511.60 | 1,151.06 | 1,140.41 | 108.025 | |
| TODD 36-25 STATE FED COM 306H - Wellbore #1 - Pla | 22,781.10 | 20,908.82 | 2,398.64 | 2,138.17 | 9.209 | |
| Todd 36-25 State Fed Com 338H - Wellbore #1 - Surveys | 3,515.72 | 3,569.32 | 775.23 | 752.85 | 34.643 | CC |
| Todd 36-25 State Fed Com 338H - Wellbore #1 - Surveys | 3,600.00 | 3,648.35 | 775.52 | 752.56 | 33.783 | ES |
| Todd 36-25 State Fed Com 338H - Wellbore #1 - Surveys | 22,781.10 | 21,835.00 | 1,335.40 | 1,074.96 | 5.128 | SF |
| Todd 36-25 State Fed Com 627H - OH - OH Final Survey | 10,617.26 | 10,614.35 | 116.30 | 44.32 | 1.616 | Minor Risk, CC |
| Todd 36-25 State Fed Com 627H - OH - OH Final Survey | 11,300.00 | 11,296.82 | 118.14 | 41.42 | | Minor Risk, ES |
| Todd 36-25 State Fed Com 627H - OH - OH Final Survey | 11,400.00 | 11,395.53 | 118.72 | 41.49 | | Minor Risk, SF |
| Todd 36-25 State Fed Com 627H - ST01 - ST01 Final Su | 10,617.26 | 10,614.35 | 116.30 | 44.32 | | Minor Risk, CC |
| Todd 36-25 State Fed Com 627H - ST01 - ST01 Final Su | 11,300.00 | 11,296.82 | 118.14 | 41.42 | | Minor Risk, ES |
| Todd 36-25 State Fed Com 627H - ST01 - ST01 Final Su | 11,400.00 | 11,395.53 | 118.72 | 41.49 | | Minor Risk, SF |
| Todd 36-25 State Fed Com 628H - Wellbore #1 - Final S | 1,361.94 | 1,370.96 | 815.11 | 806.91 | | CC, ES |
| Todd 36-25 State Fed Com 628H - Wellbore #1 - Final S | 22,781.10 | 22,119.00 | 1,845.04 | 1,527.87 | 5.817 | SF |
| Todd 36-25 State Fed Com 717H - Wellbore #1 - Final S | 0.00 | 0.00 | 299.92 | | | |
| Todd 36-25 State Fed Com 717H - Wellbore #1 - Final S | 22,781.10 | 22,346.00 | 812.82 | 532.59 | | Alert, SF |
| Todd 36-25 State Fed Com 718H - Wellbore #1 - Final S | 6,389.36 | 6,454.80 | 392.81 | 349.55 | 9.081 | |
| Todd 36-25 State Fed Com 718H - Wellbore #1 - Final S | 6,400.00 | 6,464.23 | 392.83 | 349.50 | 9.067 | |
| Todd 36-25 State Fed Com 718H - Wellbore #1 - Final S | 22,704.54 | 22,322.00 | 711.99 | 450.41 | | Alert, SF |
| TODD 36-25 STATE FED COM 812H - Wellbore #1 - Pla | 22,781.10 | 22,686.95 | 1,376.93 | 1,062.60 | | Alert, CC, ES, SF |
| TODD 36-25 STATE FED COM 814H - Wellbore #1 - Pla | 1,466.63 | 1,466.73 | 60.00 | 49.62 | 5.782 | |
| TODD 36-25 STATE FED COM 814H - Wellbore #1 - Pla | 1,500.00 | 1,500.00 | 60.00 | 49.39 | 5.653 | |
| TODD 36-25 STATE FED COM 814H - Wellbore #1 - Pla | 22,781.10 | 22,702.01 | 1,500.29 | 1,185.94 | | Alert, SF |
| TODD 36-25 STATE FED COM 822H - Wellbore #1 - Pla | 1,824.45 22,781.10 | 1,717.06 22,858.37 | 1,870.87 2,142.86 | 1,858.43 1,828.99 | 150.371 | ES, SF |

MD Reference:

Company: WCDSC Permian NM

Project: Eddy County (NAD 83 NM Eastern)

Sec 36-T23S-R31E Reference Site:

Site Error: 0.00 ft

Reference Well: TODD 36-25 STATE FED COM 813H

Well Error: 0.50 ft Wellbore #1 Reference Wellbore

Reference Design: Plat R0 (2150FEL) WFMP B 100 Local Co-ordinate Reference:

Well TODD 36-25 STATE FED COM 813H TVD Reference: GL:3508.3+26ft @ 3534.30ft

GL:3508.3+26ft @ 3534.30ft

North Reference: Grid

Survey Calculation Method: Minimum Curvature Output errors are at 2.00 sigma

EDM_5000.17 Database: Offset TVD Reference: Offset Datum

| | Reference | Offset | Dista | nce | | |
|---|---------------------------|---------------------------|----------------------------|-----------------------------|----------------------|-----------------------|
| Site Name Offset Well - Wellbore - Design | Measured Depth (ft) | Measured Depth (ft) | Between Centres (ft) | Between Ellipses (ft) | Separation Factor | Warning |
| Sec 36-T23S-R31E | | | | | | |
| TODD 36-25 STATE FED COM 823H - Wellbore #1 - Pla | 22,781.10 | 23,039.62 | 1,483.40 | 1,169.29 | 4.723 | Alert, CC, ES, SF |
| TODD 36-25 STATE FED COM 824H - Wellbore #1 - Pla | 22,781.10 | 22,932.58 | 830.97 | 519.60 | 2.669 | Alert, CC, ES, SF |
| TODD 36-25 STATE FED COM 825H - Wellbore #1 - Pla | 22,781.10 | 22,927.68 | 219.13 | -35.85 | 0.859 | Collision, CC, ES, SF |
| TODD 36-25 STATE FED COM 826H - Wellbore #1 - Pla | 1,500.00 | 1,500.10 | 30.00 | 19.39 | 2.826 | Alert, CC |
| TODD 36-25 STATE FED COM 826H - Wellbore #1 - Pla | 1,504.45 | 1,504.56 | 30.00 | 19.36 | 2.818 | Alert, ES |
| TODD 36-25 STATE FED COM 826H - Wellbore #1 - Pla | 22,700.00 | 22,841.29 | 521.98 | 218.38 | 1.719 | Minor Risk, SF |
| TODD 36-25 STATE FED COM 827H - Wellbore #1 - Pla | 4,099.46 | 4,184.90 | 898.83 | 869.30 | 30.443 | CC |
| TODD 36-25 STATE FED COM 827H - Wellbore #1 - Pla | 22,781.10 | 22,926.27 | 1,167.97 | 854.43 | 3.725 | Alert, ES, SF |
| TODD 36-25 STATE FED COM 828H - Wellbore #1 - Pla | 1,466.63 | 1,466.73 | 90.00 | 79.62 | 8.673 | CC |
| TODD 36-25 STATE FED COM 828H - Wellbore #1 - Pla | 1,500.00 | 1,500.00 | 90.00 | 79.39 | 8.479 | ES |
| TODD 36-25 STATE FED COM 828H - Wellbore #1 - Pla | 22,781.10 | 22,875.88 | 1,826.45 | 1,512.90 | 5.825 | SF |

TVD Reference:

MD Reference:

North Reference:

Output errors are at

Company: WCDSC Permian NM

Project: Eddy County (NAD 83 NM Eastern)

Reference Site: Sec 36-T23S-R31E

Site Error: 0.00 ft

Reference Well: TODD 36-25 STATE FED COM 813H

Well Error: 0.50 ft
Reference Wellbore #1

Reference Design: Plat R0 (2150FEL) WFMP B 100

Local Co-ordinate Reference:

Well TODD 36-25 STATE FED COM 813H

GL:3508.3+26ft @ 3534.30ft GL:3508.3+26ft @ 3534.30ft

Grid

Survey Calculation Method: Minimum Curvature

2.00 sigma EDM_5000.17

Database: EDM_5000.13
Offset TVD Reference: Offset Datum

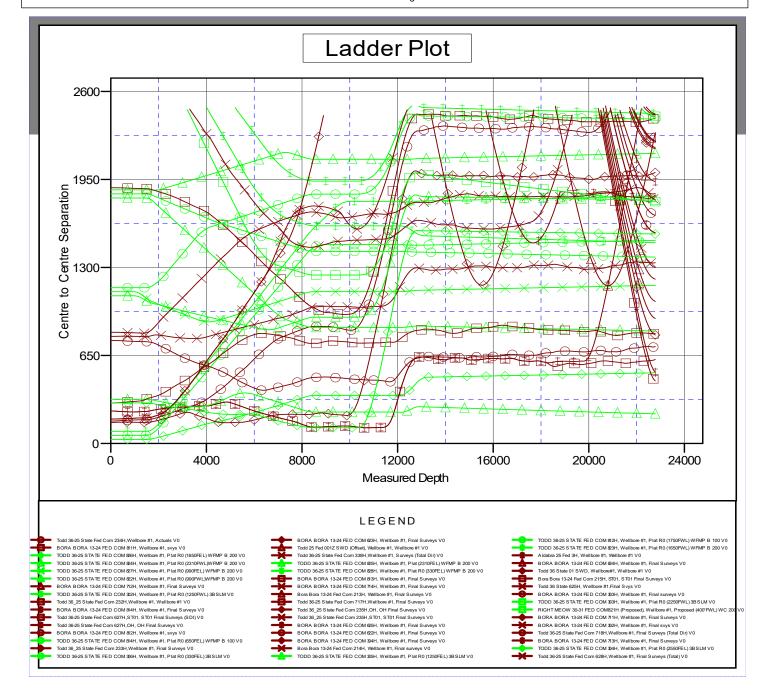
Reference Depths are relative to GL:3508.3+26ft @ 3534.30ft

Offset Depths are relative to Offset Datum

Central Meridian is -104.3333333

Coordinates are relative to: TODD 36-25 STATE FED COM 813H Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.32°



MD Reference:

Database:

North Reference:

Company: WCDSC Permian NM

Project: Eddy County (NAD 83 NM Eastern)

Sec 36-T23S-R31E Reference Site:

Offset Depths are relative to Offset Datum

Site Error: 0.00 ft

TODD 36-25 STATE FED COM 813H Reference Well:

Reference Depths are relative to GL:3508.3+26ft @ 3534.30ft

Well Error: 0.50 ft Reference Wellbore Wellbore #1

Central Meridian is -104.3333333

Reference Design: Plat R0 (2150FEL) WFMP B 100 Local Co-ordinate Reference:

Well TODD 36-25 STATE FED COM 813H TVD Reference: GL:3508.3+26ft @ 3534.30ft

GL:3508.3+26ft @ 3534.30ft

Survey Calculation Method: Minimum Curvature

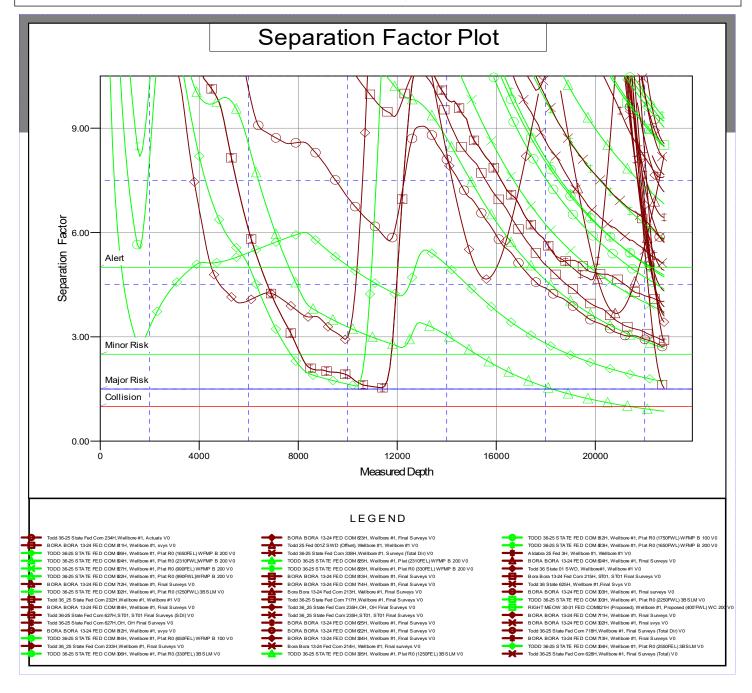
Output errors are at 2.00 sigma EDM 5000.17

Offset TVD Reference: Offset Datum

Coordinates are relative to: TODD 36-25 STATE FED COM 813H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.32°



Devon Energy APD VARIANCE DATA

OPERATOR NAME: Devon Energy

1. SUMMARY OF Variance:

Devon Energy respectfully requests approval for the following additions to the drilling plan:

1. Potential utilization of a spudder rig to pre-set surface casing.

2. Description of Operations

- 1. A spudder rig contractor may move in their rig to drill the surface hole section and pre-set surface casing on this well.
 - **a.** After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - **b.** Rig will utilize fresh water based mud to drill surface hole to TD.
- 2. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- **3.** A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
 - **a.** A means for intervention will be maintained while the drilling rig is not over the well.
- **4.** The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
- **5.** Drilling operation will be performed with the big rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
 - **a.** The BLM will be contacted / notified 24 hours before the big rig moves back on to the pad with the pre-set surface casing.
- **6.** Devon Energy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
- 7. Once the rig is removed, Devon Energy will secure the wellhead area by placing a guard rail around the cellar area.



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

Drilling Plan Data Report

03/27/2025

APD ID: 10400099589 Submission Date: 07/09/2024

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: TODD 36-25 STATE FED COM Well Number: 813H

Well Type: OIL WELL Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

| Formation Name UNKNOWN | Elevation | True Vertical | Measured | | Mineral Resources | Producing |
|------------------------|--|---|---|---|--|---|
| | □ Elevation | | | | 111111111111111111111111111111111111111 | |
| UNKNOWN | | | Depth | Lithologies | | Formatio |
| | 3508 | 0 | 0 | ALLUVIUM | NONE | N |
| RUSTLER | 2685 | 823 | 823 | SANDSTONE | NONE | N |
| TOP SALT | 2343 | 1165 | 1165 | SALT | NONE | N |
| BASE OF SALT | -709 | 4217 | 4217 | SALT | NONE | N |
| BELL CANYON | -1043 | 4551 | 4551 | SANDSTONE | NATURAL GAS, OIL | N |
| CHERRY CANYON | -1918 | 5426 | 5426 | SANDSTONE | NATURAL GAS, OIL | N |
| BRUSHY CANYON | -3159 | 6667 | 6667 | SANDSTONE | NATURAL GAS, OIL | N |
| BONE SPRING 1ST | -5928 | 9436 | 9436 | SANDSTONE | NATURAL GAS, OIL | N |
| BONE SPRING 2ND | -6512 | 10020 | 10020 | SANDSTONE | NATURAL GAS, OIL | N |
| BONE SPRING 3RD | -7035 | 10543 | 10543 | LIMESTONE | NATURAL GAS, OIL | N |
| BONE SPRING 3RD | -7786 | 11294 | 11294 | SANDSTONE | NATURAL GAS, OIL | N |
| WOLFCAMP | -8222 | 11730 | 11730 | SHALE | NATURAL GAS, OIL | Y |
| STRAWN | -9967 | 13475 | 13475 | LIMESTONE | NATURAL GAS, OIL | N |
| | TOP SALT BASE OF SALT BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING 1ST BONE SPRING 2ND BONE SPRING 3RD WOLFCAMP | TOP SALT 2343 BASE OF SALT -709 BELL CANYON -1043 CHERRY CANYON -1918 BRUSHY CANYON -3159 BONE SPRING 1ST -5928 BONE SPRING 2ND -6512 BONE SPRING 3RD -7035 BONE SPRING 3RD -7786 WOLFCAMP -8222 | TOP SALT 2343 1165 BASE OF SALT -709 4217 BELL CANYON -1043 4551 CHERRY CANYON -1918 5426 BRUSHY CANYON -3159 6667 BONE SPRING 1ST -5928 9436 BONE SPRING 2ND -6512 10020 BONE SPRING 3RD -7035 10543 BONE SPRING 3RD -7786 11294 WOLFCAMP -8222 11730 | TOP SALT 2343 1165 1165 BASE OF SALT -709 4217 4217 BELL CANYON -1043 4551 4551 CHERRY CANYON -1918 5426 5426 BRUSHY CANYON -3159 6667 6667 BONE SPRING 1ST -5928 9436 9436 BONE SPRING 2ND -6512 10020 10020 BONE SPRING 3RD -7035 10543 10543 BONE SPRING 3RD -7786 11294 11294 WOLFCAMP -8222 11730 11730 | TOP SALT 2343 1165 1165 SALT BASE OF SALT -709 4217 4217 SALT BELL CANYON -1043 4551 4551 SANDSTONE CHERRY CANYON -1918 5426 5426 SANDSTONE BRUSHY CANYON -3159 6667 6667 SANDSTONE BONE SPRING 1ST -5928 9436 9436 SANDSTONE BONE SPRING 2ND -6512 10020 10020 SANDSTONE BONE SPRING 3RD -7035 10543 10543 LIMESTONE BONE SPRING 3RD -7786 11294 11294 SANDSTONE WOLFCAMP -8222 11730 11730 SHALE | TOP SALT 2343 1165 1165 SALT NONE BASE OF SALT -709 4217 4217 SALT NONE BELL CANYON -1043 4551 4551 SANDSTONE NATURAL GAS, OIL CHERRY CANYON -1918 5426 5426 SANDSTONE NATURAL GAS, OIL BONE SPRING 1ST -5928 9436 9436 SANDSTONE NATURAL GAS, OIL BONE SPRING 2ND -6512 10020 10020 SANDSTONE NATURAL GAS, OIL BONE SPRING 3RD -7035 10543 10543 LIMESTONE NATURAL GAS, OIL BONE SPRING 3RD -7786 11294 11294 SANDSTONE NATURAL GAS, OIL WOLFCAMP -8222 11730 11730 SHALE NATURAL GAS, OIL |

Section 2 - Blowout Prevention



Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

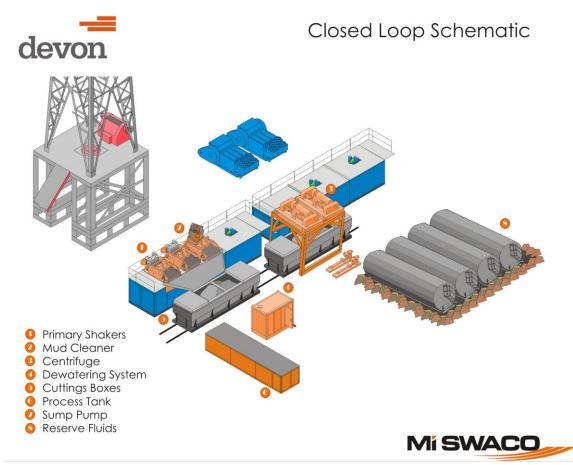
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

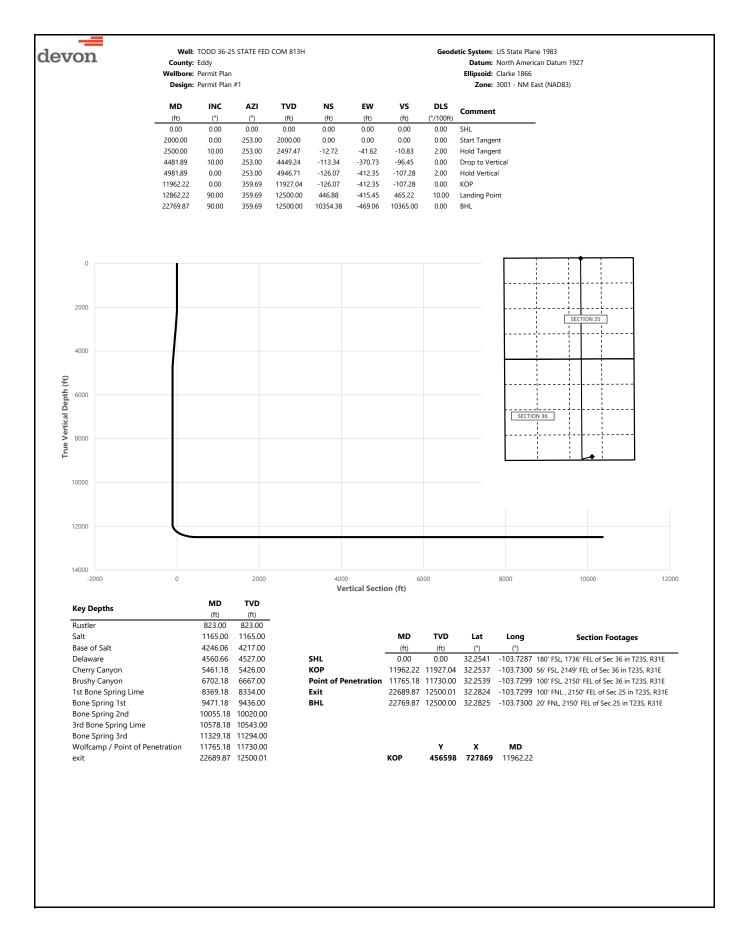
dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.



Zone: 3001 - NM East (NAD83)



 Well:
 TODD 36-25 STATE FED COM 813H
 Geodetic System:
 US State Plane 1983

 County:
 Eddy
 Datum:
 North American Datum 1927

 Wellbore:
 Permit Plan
 Ellipsoid:
 Clarke 1866

Vellbore: Permit Plan **Design:** Permit Plan #1

| 000 0.00 0.00 0.00 0.00 0.00 0.00 0.00 | | Design: | Permit Plan | 1#1 | | | | | Zone: 3001 - NM East (NA |
|--|---------|---------|-------------|---------|---------|---------|---------|------|--------------------------|
| 1 | MD | INC | 471 | TVD | NC | EW | ve | DIC | |
| 100 | (ft) | | | | | | | | Comment |
| 0.00 | 0.00 | | | | | | | | SHI |
| 1,000 | 100.00 | | | | | | | | SILE |
| 1,000 | 200.00 | | | | | | | | |
| 0.00 | | | | | | | | | |
| 1,000 | 300.00 | | | | | | | | |
| 0.00 | 400.00 | | | | | | | | |
| 1,000 | 500.00 | | | | | | | | |
| 1,000 | 600.00 | | | | | | | | |
| 1,00 0,00 253,00 823,00 0,00 | 700.00 | | | | | | | | |
| 1,000 | 800.00 | | | | | | | | |
| 0.00 | 823.00 | 0.00 | 253.00 | 823.00 | 0.00 | 0.00 | 0.00 | 0.00 | Rustler |
| 0.00 | 900.00 | 0.00 | 253.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5.00 0.00 253.00 1250.00 0.00 0.00 0.00 31t 0.00 0.00 253.00 1300.00 | 1000.00 | 0.00 | 253.00 | 1000.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 1100.00 | 0.00 | 253.00 | 1100.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 165.00 | 0.00 | 253.00 | 1165.00 | 0.00 | 0.00 | 0.00 | 0.00 | Salt |
| 0.00 0.00 253.00 1400.00 | 1200.00 | 0.00 | 253.00 | 1200.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 300.00 | 0.00 | 253.00 | 1300.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 0.00 253.00 1500.00 253.00 289474 -12.72 -41.62 -10.83 2.00 Hold Tangent 1.00 1.00 253.00 289.87 -81.44 -23.79 0.00 1.00 253.00 289.93 -3.81 <td>1400.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | 1400.00 | | | | | | | | |
| 0.00 0.00 253.00 1600.00 253.00 2998.70 -8.15 -26.66 -6.94 2.00 0.00 1.00 253.00 2998.74 -12.72 -41.62 -10.83 2.00 Hold Tangent 1.00 0.00 1.00 253.00 2891.47 -12.72 -41.62 -4.03 2.00 1.00 1.00 | 500.00 | | | | | | | | |
| 0.00 0.00 253.00 1700.00 253.00 2897.47 1.27.26 -11.62 -10.83 2.00 Hold Tangent 0.00 1.00 253.00 2898.37 -12.28 -74.83 -19.47 -20.00 0.00 1.00 <td>600.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | 600.00 | | | | | | | | |
| 0.00 0.00 253.00 1800.00 | 700.00 | | | | | | | | |
| 0.00 0.00 253.00 1900.00 0.00 0.00 0.00 0.00 0.00 100 0.00 0.00 100 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 0.00 0.00 2.00 0.00 0.00 253.00 2398.70 -8.15 -26.66 -6.94 2.00 0.00 0.00 253.00 2398.70 -8.15 -26.66 -6.94 2.00 0.00 10.00 253.00 2599.95 -17.72 -18.01 -3.90 2.00 10.00 10.00 253.00 2594.34 -22.88 -74.83 -15.15 0.00 10.00 253.00 2594.39 -33.03 -108.04 -28.11 0.00 10.00 253.00 2898.87 -38.11 -124.65 -32.43 0.00 10.00 253.00 2898.87 -38.11 -141.26 -36.75 -0.00 10.00 253.00 388.35 -43.19 -141.26 -36.75 -0.00 10.00 | 800.00 | | | | | | | | |
| 0.00 253.00 2000.00 0.00 0.00 0.00 Start Tangent 0.00 4.00 253.00 2099.98 -0.51 -1.67 -0.43 2.00 0.00 4.00 253.00 2299.45 -4.59 -15.01 -3.90 2.00 0.00 6.00 253.00 2299.45 -4.59 -15.01 -3.90 2.00 0.00 10.00 253.00 2398.79 -8.15 -26.66 -6.94 2.00 0.00 10.00 253.00 2395.95 -17.80 58.23 -15.15 0.00 0.00 10.00 253.00 2599.95 -17.80 58.23 -15.15 0.00 0.00 10.00 253.00 2891.39 -33.03 118.04 -28.11 0.00 0.00 10.00 253.00 388.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3883.5 -83.9 -17.76.8 -41.07 0.00 | 900.00 | | | | | | | | |
| 0.00 2.00 253.00 2099.98 -0.51 -1.67 -0.43 2.00 0.00 4.00 253.00 2199.84 -2.04 -667 -1.74 2.00 0.00 8.00 253.00 2398.70 -8.15 -2.666 -6.94 2.00 0.00 10.00 253.00 2399.70 -8.15 -2.666 -6.94 2.00 0.00 10.00 253.00 2595.95 -17.80 -58.23 -15.15 0.00 0.00 10.00 253.00 2594.34 -22.88 -74.83 -19.47 0.00 0.00 10.00 253.00 2694.34 -22.88 -74.83 -19.47 0.00 0.00 10.00 253.00 388.35 -38.11 -214.65 -32.43 0.00 0.00 10.00 253.00 388.35 -38.11 -141.26 -36.75 0.00 0.00 10.00 253.00 3883.37 -58.24 -191.08 -49.71 0.00 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Start Tangent</td> | | | | | | | | | Start Tangent |
| 0.00 4.00 253.00 2199.48 -2.04 -6.67 -1.74 2.00 0.00 6.00 253.00 2299.45 -4.59 -15.01 -3.90 2.00 0.00 10.00 253.00 2497.47 -12.72 -41.62 -10.03 2.00 0.00 10.00 253.00 2595.95 -17.80 -58.23 -15.15 0.00 0.00 10.00 253.00 2599.97 -77.96 -91.44 -23.79 0.00 0.00 10.00 253.00 2891.39 -33.03 -108.04 -28.11 0.00 0.00 10.00 253.00 289.97 -38.11 -124.65 -32.43 0.00 0.00 10.00 253.00 388.35 -43.19 -141.26 -32.43 0.00 0.00 10.00 253.00 388.73 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3862.75 -63.50 207.68 -54.33 | 1000.00 | | | | | | | | start rangent |
| 0.00 6.00 253.00 2299.45 -4.59 -15.01 -3.90 2.00 Hold Tangent 0.00 10.00 253.00 2398.70 -8.15 -2.666 -6.94 2.00 Hold Tangent 0.00 10.00 253.00 2595.95 -17.80 -58.23 -15.15 0.00 0.00 10.00 253.00 2599.95 -17.80 -58.23 -15.15 0.00 0.00 10.00 253.00 2792.91 -27.96 -91.44 -23.79 0.00 0.00 10.00 253.00 2891.39 -33.03 -108.04 -28.11 0.00 0.00 10.00 253.00 3088.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3883.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3883.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3874.68 -240.89 | 100.00 | | | | | | | | |
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| 0.00 | 2400.00 | | | | | | | | |
| 0.00 10.00 253.00 2694.43 -22.88 -74.83 -19.47 0.00 0.00 10.00 253.00 2792.91 -27.96 -91.44 -23.79 0.00 0.00 10.00 253.00 2891.39 -33.03 -10.80 -28.11 0.00 0.00 10.00 253.00 3088.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3186.83 -48.26 -157.86 -41.07 0.00 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3880.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3876.20 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3876.20 -83.80 -274.11 -71.31 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 | 2500.00 | | | | | -41.62 | -10.83 | | Hold Tangent |
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| 0.00 10.00 253.00 2891.39 -33.03 -108.04 -28.11 0.00 0.00 10.00 253.00 2998.87 -38.11 -124.65 -32.43 0.00 0.00 10.00 253.00 3088.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3285.31 -53.34 -174.47 -45.39 0.00 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3777.72 -78.73 -257.50 -66.99 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4171.64 -99.03 -323.92 -84.27 </td <td>2700.00</td> <td>10.00</td> <td>253.00</td> <td>2694.43</td> <td>-22.88</td> <td>-74.83</td> <td>-19.47</td> <td>0.00</td> <td></td> | 2700.00 | 10.00 | 253.00 | 2694.43 | -22.88 | -74.83 | -19.47 | 0.00 | |
| 0.00 10.00 253.00 2989.87 -38.11 -124.65 -32.43 0.00 0.00 10.00 253.00 3088.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3285.31 -53.34 -174.47 -45.39 0.00 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3482.27 -63.50 -207.68 -54.03 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4277.12 -104.11 -340.53 -88.27< | 2800.00 | 10.00 | 253.00 | 2792.91 | -27.96 | -91.44 | -23.79 | 0.00 | |
| 0.00 10.00 253.00 3088.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3186.83 -48.26 -157.86 -41.07 0.00 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3482.27 -63.50 -207.68 -54.03 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -224.09 -62.67 0.00 0.00 10.00 253.00 377.72 -78.73 -257.50 -66.99 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4073.16 -93.96 -307.32 -79.95 0.00 0.00 10.00 253.00 477.12 -104.11 -34.53 -86.26 <td>2900.00</td> <td>10.00</td> <td>253.00</td> <td>2891.39</td> <td>-33.03</td> <td>-108.04</td> <td>-28.11</td> <td>0.00</td> <td></td> | 2900.00 | 10.00 | 253.00 | 2891.39 | -33.03 | -108.04 | -28.11 | 0.00 | |
| 0.00 10.00 253.00 3088.35 -43.19 -141.26 -36.75 0.00 0.00 10.00 253.00 3186.83 -48.26 -157.86 -41.07 0.00 0.00 10.00 253.00 3285.31 -53.34 -174.47 -45.39 0.00 0.00 10.00 253.00 3482.27 -63.50 -207.68 -54.03 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 377.72 -78.73 -257.50 -66.99 0.00 0.00 10.00 253.00 3974.68 -88.88 290.71 -75.63 0.00 0.00 10.00 253.00 4171.64 -99.03 -323.92 -84.27 0.00 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 <td>3000.00</td> <td>10.00</td> <td>253.00</td> <td>2989.87</td> <td>-38.11</td> <td>-124.65</td> <td>-32.43</td> <td>0.00</td> <td></td> | 3000.00 | 10.00 | 253.00 | 2989.87 | -38.11 | -124.65 | -32.43 | 0.00 | |
| 0.00 10.00 253.00 3186.83 -48.26 -157.86 -41.07 0.00 0.00 10.00 253.00 3285.31 -53.34 -174.47 -45.39 0.00 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3876.20 -83.80 -274.11 -71.31 0.00 0.00 10.00 253.00 3874.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4277.00 -101.37 -331.57 -86.26 0.00 Base of Salt 0.00 10.00 253.00 4270.01 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4467.09 -114.25 | 3100.00 | | 253.00 | 3088.35 | -43.19 | | -36.75 | 0.00 | |
| 0.00 10.00 253.00 3285.31 -53.34 -174.47 -45.39 0.00 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3482.27 -63.50 -207.68 -54.03 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 377.77.2 -78.75 -257.50 -66.99 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4073.16 -93.96 -307.32 -79.95 0.00 0.00 10.00 253.00 4271.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4368.60 -109.19 -357.14 -92.9 | 3200.00 | | | | | | | | |
| 0.00 10.00 253.00 3383.79 -58.42 -191.08 -49.71 0.00 0.00 10.00 253.00 3482.27 -63.50 -207.68 -54.03 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3876.20 -83.80 -274.11 -71.31 0.00 0.00 10.00 253.00 3874.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4073.16 -93.96 -307.32 -79.95 0.00 0.00 10.00 253.00 427.00 -10.13.7 -331.57 -86.26 0.00 Base of Salt 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4467.09 -114.25 | 3300.00 | | | | | | | | |
| 0.00 10.00 253.00 3482.27 -63.50 -207.68 -54.03 0.00 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3777.72 -78.73 -257.50 -66.99 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4073.16 -99.96 -307.32 -79.95 0.00 0.00 10.00 253.00 4071.64 -99.03 -323.92 -84.27 0.00 6.06 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4368.60 -109.19 -357.14 -92.91 0.00 0.00 7.64 253.00 4467.99 -114.25 -373.69 -97.22 | 3400.00 | | | | | | | | |
| 0.00 10.00 253.00 3580.75 -68.57 -224.29 -58.35 0.00 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3876.20 -83.80 -274.11 -71.31 0.00 0.00 10.00 253.00 3974.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4073.16 -93.96 -307.32 -79.95 0.00 0.00 10.00 253.00 4217.00 -101.37 -331.57 -86.26 0.00 Base of Salt 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.06 8.42 253.00 4565.95 -118.64 | 3500.00 | | | | | | | | |
| 0.00 10.00 253.00 3679.23 -73.65 -240.89 -62.67 0.00 0.00 10.00 253.00 3777.72 -78.73 -257.50 -66.99 0.00 0.00 10.00 253.00 3874.68 -88.88 -290.71 -75.63 0.00 0.00 10.00 253.00 4073.16 -99.93 -323.92 -84.27 0.00 0.00 10.00 253.00 4217.00 -1013.7 -331.57 -86.26 0.00 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.00 9.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 7.64 253.00 4565.95 -118.64 -388.05 -10 | 3600.00 | | | | | | | | |
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| 0.00 10.00 253.00 4073.16 -93.96 -307.32 -79.95 0.00 0.00 10.00 253.00 4171.64 -99.03 -323.92 -84.27 0.00 6.06 10.00 253.00 4217.00 -101.37 -331.57 -86.26 0.00 Base of Salt 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4368.60 -109.19 -357.14 -92.91 0.00 1.89 10.00 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.66 8.42 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 7.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 3.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 5.64 253.00 4664.83 -125.73 | 3900.00 | | | | | | | | |
| 0.00 10.00 253.00 4171.64 -99.03 -323.92 -84.27 0.00 6.06 10.00 253.00 4217.00 -101.37 -331.57 -86.26 0.00 Base of Salt 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 449.24 -113.34 -370.73 -96.45 0.00 Drop to Vertical 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 Delaware 0.66 8.42 253.00 4565.95 -118.64 -388.05 -100.96 2.00 Delaware 0.00 7.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 Delaware 0.00 3.64 253.00 4664.83 -122.02 -399.10 -103.83 2.00 Delaware 1.89 0.00 3.64 253.00 4664.83 -125.73 -411.24 -106.99 2.00 | 4000.00 | | | | | | | | |
| 6.06 10.00 253.00 4217.00 -101.37 -331.57 -86.26 0.00 Base of Salt 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4368.60 -109.19 -357.14 -92.91 0.00 0.00 9.64 253.00 4449.24 -113.34 -370.73 -96.45 0.00 Drop to Vertical 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.66 8.42 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 7.64 253.00 4565.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4964.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 | 4100.00 | | | | | | | | |
| 0.00 10.00 253.00 4270.12 -104.11 -340.53 -88.59 0.00 0.00 10.00 253.00 4368.60 -109.19 -357.14 -92.91 0.00 1.89 10.00 253.00 4449.24 -113.34 -370.73 -96.45 0.00 Drop to Vertical 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.00 7.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 7.64 253.00 4665.95 -118.64 -388.05 -100.96 2.00 0.00 3.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 | 4200.00 | | | | | | | | |
| 0.00 10.00 253.00 4368.60 -109.19 -357.14 -92.91 0.00 1.89 10.00 253.00 4449.24 -113.34 -370.73 -96.45 0.00 Drop to Vertical 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.06 8.42 253.00 4567.95 -118.64 -388.05 -100.96 2.00 Delaware 0.00 7.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 Delaware 0.00 5.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 5.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 </td <td>1246.06</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Base of Salt</td> | 1246.06 | | | | | | | | Base of Salt |
| 1.89 10.00 253.00 4449.24 -113.34 -370.73 -96.45 0.00 Drop to Vertical 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 Delaware 0.00 7.64 253.00 4527.00 -117.03 -382.79 -99.59 2.00 Delaware 0.00 7.64 253.00 4665.28 -118.64 -388.05 -100.96 2.00 0.00 5.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4864.83 -122.02 -399.10 -103.83 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 -126.07 -412.35 -107.28 0.00 0.00 <td>4300.00</td> <td>10.00</td> <td>253.00</td> <td>4270.12</td> <td>-104.11</td> <td>-340.53</td> <td>-88.59</td> <td>0.00</td> <td></td> | 4300.00 | 10.00 | 253.00 | 4270.12 | -104.11 | -340.53 | -88.59 | 0.00 | |
| 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.66 8.42 253.00 4527.00 -117.03 -382.79 -99.59 2.00 Delaware 0.00 7.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 | 1400.00 | 10.00 | 253.00 | 4368.60 | -109.19 | -357.14 | -92.91 | 0.00 | |
| 0.00 9.64 253.00 4467.09 -114.25 -373.69 -97.22 2.00 0.66 8.42 253.00 4527.00 -117.03 -382.79 -99.59 2.00 Delaware 0.00 7.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 | 1481.89 | | | | | | | 0.00 | Drop to Vertical |
| 0.666 8.42 253.00 4527.00 -117.03 -382.79 -99.59 2.00 Delaware 0.000 7.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 5.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 4964.82 -126.07 -412.35 -107.28 0.00 Hold Vertical 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 <td>500.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> | 500.00 | | | | | | | | • |
| 0.00 7.64 253.00 4565.95 -118.64 -388.05 -100.96 2.00 0.00 5.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 4964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 | 1560.66 | | | | | | | | Delaware |
| 0.00 5.64 253.00 4665.28 -122.02 -399.10 -103.83 2.00 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5464.82 -126.07 | 1600.00 | | | | | | | | |
| 0.00 3.64 253.00 4764.94 -124.38 -406.83 -105.84 2.00 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5426.00 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 | 4700.00 | | | | | | | | |
| 0.00 1.64 253.00 4864.83 -125.73 -411.24 -106.99 2.00 Hold Vertical 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 4964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 | 4800.00 | | | | | | | | |
| 1.89 0.00 253.00 4946.71 -126.07 -412.35 -107.28 2.00 Hold Vertical 0.00 0.00 359.69 4964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5426.00 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 | | | | | | | | | |
| 0.00 0.00 359.69 4964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5462.00 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 <td< td=""><td>4900.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>H-HW-2I</td></td<> | 4900.00 | | | | | | | | H-HW-2I |
| 0.00 0.00 359.69 5064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 - | 4981.89 | | | | | | | | Hold Vertical |
| 0.00 0.00 359.69 5164.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5426.00 -126.07 -412.35 -107.28 0.00 Cherry Canyon 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 | 5000.00 | | | | | | | | |
| 0.00 0.00 359.69 5264.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 1.18 0.00 359.69 5426.00 -126.07 -412.35 -107.28 0.00 Cherry Canyon 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 564.82 -126.07 | 5100.00 | | | | | | | | |
| 0.00 0.00 359.69 5364.82 -126.07 -412.35 -107.28 0.00 0.00 1.18 0.00 359.69 5426.00 -126.07 -412.35 -107.28 0.00 Cherry Canyon 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 | 5200.00 | | | | | | | | |
| 1.18 0.00 359.69 5426.00 -126.07 -412.35 -107.28 0.00 Cherry Canyon 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 | 5300.00 | 0.00 | 359.69 | 5264.82 | -126.07 | -412.35 | -107.28 | 0.00 | |
| 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5400.00 | 0.00 | 359.69 | 5364.82 | -126.07 | -412.35 | -107.28 | 0.00 | |
| 0.00 0.00 359.69 5464.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5461.18 | 0.00 | 359.69 | 5426.00 | -126.07 | -412.35 | -107.28 | 0.00 | Cherry Canyon |
| 0.00 0.00 359.69 5564.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5500.00 | | 359.69 | | -126.07 | | | | |
| 0.00 0.00 359.69 5664.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5600.00 | | | | | | | | |
| 0.00 0.00 359.69 5764.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5700.00 | | | | | | | | |
| 0.00 0.00 359.69 5864.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5800.00 | | | | | | | | |
| 0.00 0.00 359.69 5964.82 -126.07 -412.35 -107.28 0.00 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 5900.00 | | | | | | | | |
| 0.00 0.00 359.69 6064.82 -126.07 -412.35 -107.28 0.00 | 6000.00 | | | | | | | | |
| | 6100.00 | | | | | | | | |
| 0.00 0.00 555.00 0104.02 -120.01 -412.55 -107.20 0.00 | 6200.00 | | | | | | | | |
| | 200.00 | 0.00 | 222.03 | 0104.02 | -120.07 | -412.33 | -107.20 | 0.00 | |



Well: TODD 36-25 STATE FED COM 813H

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 vs INC AZI TVD NS EW DLS Comment (°/100ft (ft) (°) (°) (ft) (ft) (ft) (ft) 6300.00 0.00 359.69 6264.82 -126.07-412.35-107.280.00 6400.00 0.00 359.69 6364.82 -126.07 -412.35 -107.28 0.00 6500.00 0.00 359.69 6464.82 -126.07 -412.35 -107.28 0.00 6600.00 0.00 359.69 6564.82 -412.35 0.00 -126.07 -107.286700.00 0.00 359.69 6664.82 -126.07 -412.35 -107.28 0.00 6702.18 0.00 359.69 6667.00 -126.07 -412.35 -107.28 0.00 Brushy Canyon 6800.00 0.00 359.69 6764.82 -126.07 -412.35 -107.28 0.00 6900.00 0.00 359.69 6864.82 -126.07 -412.35 -107.280.00 7000.00 0.00 359.69 6964.82 -126.07 -412.35 -107.28 0.00 7100.00 0.00 359.69 7064.82 -126.07 -412.35 -107.28 0.00 7200.00 359.69 7164.82 -126.07 -412.35 -107.28 0.00 0.00 7300.00 0.00 359.69 7264.82 -126.07 -412.35 -107.280.00 7400.00 0.00 359.69 7364.82 -126.07 -412.35 -107.28 0.00 7500.00 0.00 359.69 7464.82 -126.07 -412.35 -107.28 7600.00 0.00 359.69 7564.82 -126.07 -412.35 -107.28 0.00 7700.00 0.00 359.69 7664.82 -126.07 -412.35 -107.28 0.00 7800.00 7764.82 -126.07 -412.35 -107.28 0.00 359.69 0.00 7900.00 -126.07 -412.35 -107.28 0.00 359.69 7864.82 0.00 8000.00 0.00 359.69 7964.82 -126.07 -412.35 -107.280.00 8100.00 0.00 359.69 8064.82 -126.07 -412.35 -107.28 0.00 8200.00 0.00 359.69 8164.82 -126.07 -412.35 -107.28 0.00 8300.00 0.00 359.69 8264.82 -126.07 -412.35 -107.28 0.00 8369.18 0.00 359 69 8334 00 -126.07 -412 35 -107280.00 1st Bone Spring Lime 8400.00 0.00 359.69 8364.82 -126.07 -412.35 -107.28 0.00 8500.00 0.00 359.69 8464.82 -126.07 -412.35 -107.28 0.00 8600.00 0.00 359.69 8564.82 -126.07 -412.35 -107.28 0.00 8700.00 0.00 359.69 8664 82 -126.07 -412.35 -107.280.00 8800.00 8764.82 -126.07 -412.35 -107.28 0.00 359.69 0.00 8900.00 0.00 359.69 8864.82 -126.07 -412.35 -107.28 0.00 9000.00 0.00 359.69 8964.82 -126.07 -412.35 -107.28 0.00 9100.00 0.00 359.69 9064 82 -126.07 -412.35 -107.280.00 9200.00 -126.07 -412.35 -107.28 0.00 359.69 9164.82 0.00 9300.00 9264.82 -126.07 -412.35 -107.28 0.00 359.69 0.00 9400.00 0.00 359.69 9364.82 -126.07-412.35-107.280.00 9471.18 0.00 359.69 9436.00 -126.07 -412.35 -107.28 0.00 Bone Spring 1st 9500.00 0.00 359.69 9464.82 -126.07 -412.35 -107.28 0.00 9600.00 0.00 359.69 9564.82 -126.07 -412.35 -107.28 0.00 9700.00 0.00 359.69 9664.82 -126.07 -412.35 -107.280.00 9800.00 0.00 359.69 9764.82 -126.07 -412.35 -107.28 0.00 9900.00 0.00 9864.82 -126.07 -412.35 -107.28 0.00 359.69 9964.82 10000.00 0.00 359.69 -126.07-412.35-107.280.00 10055.18 0.00 359.69 10020.00 -126.07 -412.35 -107.28 0.00 Bone Spring 2nd 10100.00 0.00 359.69 10064.82 -126.07 -412.35 -107.28 0.00 -412.35 10200.00 0.00 359.69 10164.82 -126.07 -107.28 0.00 10300.00 0.00 359.69 10264.82 -126.07-412.35 -107.280.00 10400.00 0.00 359.69 10364.82 -126.07 -412.35 -107.28 0.00 10500.00 0.00 359.69 10464.82 -126.07 -412.35 -107.28 0.00 359.69 10543.00 -412.35 10578.18 0.00 -126.07 -107.280.00 3rd Bone Spring Lime 10600.00 0.00 359.69 10564.82 -126.07 -412.35 -107.28 0.00 10700.00 10664.82 -126.07 -412.35 -107.28 0.00 359.69 0.00 10800.00 0.00 359.69 10764.82 -126.07 -412.35 -107.28 0.00 10900.00 0.00 359.69 10864.82 -126.07 -412.35 -107.280.00 11000.00 0.00 359.69 10964.82 -126.07 -412.35 -107.28 0.00 11100.00 -126.07 -412.35 -107.28 0.00 359.69 11064.82 0.00 -412.35 11200.00 0.00 359.69 11164.82 -126.07 -107.28 0.00 11300.00 0.00 359 69 11264 82 -126.07 -412 35 -107280.00 11329.18 0.00 359.69 11294.00 -126.07 -412.35 -107.28 0.00 Bone Spring 3rd 11400.00 0.00 359.69 11364.82 -126.07 -412.35 -107.28 0.00 0.00 359.69 -107.28 0.00 11500.00 11464.82 -126.07-412.35 11600.00 0.00 359.69 11564.82 -126.07 -412.35 -107.28 0.00 11700.00 -107.28 0.00 359.69 11664.82 -126.07 -412.35 0.00 11765.18 0.00 359.69 11730.00 -126.07 -412.35 -107.28 0.00 Wolfcamp / Point of Penetration 11800 00 0.00 359 69 11764 82 -126.07 -412 35 -107280.00 0.00 11900.00 0.00 359.69 11864.82 -126.07 -412.35 -107.28 11962.22 0.00 359.69 11927.04 -126.07 -412.35 -107.28 0.00 12000.00 -412.36 3.78 359.69 11964.79 -124.82-106.03 10.00 12100.00 13.78 359 69 12063 50 -109 58 -412 44 -90.81 10.00 12200.00 23.78 359.69 12158.05 -77.43 -412.62 -58.68 10.00 12300.00 33.78 359.69 12245.59 -29.35 -412.88 -10.64 10.00 12400.00 43.78 359.69 12323.45 33.20 -413.22 51.86 10.00



Well: TODD 36-25 STATE FED COM 813H

County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983 **Datum:** North American Datum 1927

Datum: North American Datum 1 Ellipsoid: Clarke 1866

Zone: 3001 - NM East (NAD83)

| Design: Permit Plan #1 | | | | | | | | Zone: 3001 - NM East (NAD83) |
|------------------------|-------|--------|----------------------|--------------------|--------------------|---------|-----------|------------------------------|
| MD | INC | AZI | TVD | NS | EW | vs | DLS | _ |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (°/100ft) | Comment |
| 12500.00 | 53.78 | 359.69 | 12389.27 | 108.31 | -413.62 | 126.92 | 10.00 | |
| 12600.00 | 63.78 | 359.69 | 12441.04 | 193.72 | -414.09 | 212.26 | 10.00 | |
| 2700.00 | 73.78 | 359.69 | 12477.19 | 286.82 | -414.59 | 305.29 | 10.00 | |
| 2800.00 | 83.78 | 359.69 | 12496.63 | 384.78 | -415.12 | 403.17 | 10.00 | |
| 2862.22 | 90.00 | 359.69 | 12500.00 | 446.88 | -415.45 | 465.22 | 10.00 | Landing Point |
| 2900.00 | 90.00 | 359.69 | 12500.00 | 484.66 | -415.66 | 502.97 | 0.00 | |
| 3000.00 | 90.00 | 359.69 | 12500.00 | 584.66 | -416.20 | 602.89 | 0.00 | |
| 3100.00 | 90.00 | 359.69 | 12500.00 | 684.66 | -416.74 | 702.81 | 0.00 | |
| 3200.00 | 90.00 | 359.69 | 12500.00 | 784.65 | -417.28 | 802.74 | 0.00 | |
| 3300.00 | 90.00 | 359.69 | 12500.00 | 884.65 | -417.83 | 902.66 | 0.00 | |
| 3400.00 | 90.00 | 359.69 | 12500.00 | 984.65 | -418.37 | 1002.58 | 0.00 | |
| 3500.00 | 90.00 | 359.69 | 12500.00 | 1084.65 | -418.91 | 1102.50 | 0.00 | |
| 3600.00 | 90.00 | 359.69 | 12500.00 | 1184.65 | -419.45 | 1202.42 | 0.00 | |
| 3700.00 | 90.00 | 359.69 | 12500.00 | 1284.65 | -419.99 | 1302.34 | 0.00 | |
| 3800.00 | 90.00 | 359.69 | 12500.00 | 1384.65 | -420.53 | 1402.26 | 0.00 | |
| 3900.00 | 90.00 | 359.69 | 12500.00 | 1484.64 | -421.08 | 1502.18 | 0.00 | |
| 4000.00 | 90.00 | 359.69 | 12500.00 | 1584.64 | -421.62 | 1602.10 | 0.00 | |
| 4100.00 | 90.00 | 359.69 | 12500.00 | 1684.64 | -421.02 -422.16 | 1702.02 | 0.00 | |
| 4200.00 | 90.00 | 359.69 | 12500.00 | 1784.64 | -422.16 -422.70 | 1801.94 | 0.00 | |
| 4300.00 | 90.00 | 359.69 | 12500.00 | 1884.64 | -423.24 | 1901.86 | 0.00 | |
| 4400.00 | 90.00 | 359.69 | 12500.00 | 1984.64 | -423.24 -423.78 | 2001.78 | 0.00 | |
| 4500.00 | 90.00 | 359.69 | 12500.00 | 2084.64 | -423.76 -424.32 | 2101.70 | 0.00 | |
| 4600.00 | 90.00 | 359.69 | 12500.00 | 2184.63 | -424.32 -424.87 | 2201.62 | 0.00 | |
| 4700.00 | 90.00 | 359.69 | 12500.00 | 2284.63 | -424.67 -425.41 | 2301.54 | 0.00 | |
| 4800.00 | 90.00 | 359.69 | 12500.00 | 2384.63 | -425.95 | 2401.46 | 0.00 | |
| 4900.00 | 90.00 | 359.69 | 12500.00 | 2484.63 | -425.95 -426.49 | 2501.39 | 0.00 | |
| 5000.00 | 90.00 | 359.69 | 12500.00 | 2584.63 | -420.49 -427.03 | 2601.39 | 0.00 | |
| 5100.00 | 90.00 | 359.69 | 12500.00 | 2684.63 | -427.03 -427.57 | 2701.23 | 0.00 | |
| 5200.00 | 90.00 | 359.69 | 12500.00 | 2784.63 | -428.12 | 2801.15 | 0.00 | |
| 5300.00 | 90.00 | 359.69 | 12500.00 | 2884.62 | -428.66 | 2901.13 | 0.00 | |
| 5400.00 | 90.00 | 359.69 | 12500.00 | 2984.62 | -429.20 | 3000.99 | 0.00 | |
| 5500.00 | 90.00 | 359.69 | 12500.00 | 3084.62 | -429.74 | 3100.91 | 0.00 | |
| 5600.00 | 90.00 | 359.69 | | | | 3200.83 | 0.00 | |
| 5700.00 | 90.00 | 359.69 | 12500.00 12500.00 | 3184.62 3284.62 | -430.28 -430.82 | 3300.75 | 0.00 | |
| 5800.00 | | | 12500.00 | | -430.62 -431.37 | 3400.67 | | |
| | 90.00 | 359.69 | | 3384.62 | | | 0.00 | |
| 5900.00 | 90.00 | 359.69 | 12500.00 | 3484.62 | -431.91 | 3500.59 | 0.00 | |
| 6000.00 | 90.00 | 359.69 | 12500.00 | 3584.61 | -432.45 | 3600.51 | 0.00 | |
| 6100.00 | 90.00 | 359.69 | 12500.00 | 3684.61 | -432.99 | 3700.43 | 0.00 | |
| 6200.00 | 90.00 | 359.69 | 12500.00 | 3784.61 | -433.53 | 3800.35 | 0.00 | |
| 6300.00 | 90.00 | 359.69 | 12500.00 | 3884.61 | -434.07 | 3900.27 | 0.00 | |
| 6400.00 | 90.00 | 359.69 | 12500.00 | 3984.61 | -434.61 | 4000.19 | 0.00 | |
| 6500.00 | 90.00 | 359.69 | 12500.00 | 4084.61 | -435.16 | 4100.11 | 0.00 | |
| 6600.00 | 90.00 | 359.69 | 12500.00 | 4184.60 | -435.70 | 4200.04 | 0.00 | |
| 6700.00 | 90.00 | 359.69 | 12500.01 | 4284.60 | -436.24 | 4299.96 | 0.00 | |
| 6800.00 | 90.00 | 359.69 | 12500.01 | 4384.60 | -436.78 | 4399.88 | 0.00 | |
| 6900.00 | 90.00 | 359.69 | 12500.01 | 4484.60 | -437.32 | 4499.80 | 0.00 | |
| 7000.00 | 90.00 | 359.69 | 12500.01 | 4584.60 | -437.86 | 4599.72 | 0.00 | |
| 7100.00 | 90.00 | 359.69 | 12500.01 | 4684.60 | -438.41 | 4699.64 | 0.00 | |
| 7200.00 | 90.00 | 359.69 | 12500.01 | 4784.60 | -438.95 | 4799.56 | 0.00 | |
| 7300.00 | 90.00 | 359.69 | 12500.01 | 4884.59 | -439.49 | 4899.48 | 0.00 | |
| 7400.00 | 90.00 | 359.69 | 12500.01 | 4984.59 | -440.03 | 4999.40 | 0.00 | |
| 7500.00 | 90.00 | 359.69 | 12500.01 | 5084.59 | -440.57 | 5099.32 | 0.00 | |
| 7600.00 | 90.00 | 359.69 | 12500.01 | 5184.59 | -441.11 | 5199.24 | 0.00 | |
| 7700.00 | 90.00 | 359.69 | 12500.01 | 5284.59 | -441.66 | 5299.16 | 0.00 | |
| 7800.00 | 90.00 | 359.69 | 12500.01 | 5384.59 | -442.20 | 5399.08 | 0.00 | |
| 7900.00 | 90.00 | 359.69 | 12500.01 | 5484.59 | -442.74 | 5499.00 | 0.00 | |
| 8000.00 | 90.00 | 359.69 | 12500.01 | 5584.58 | -443.28 | 5598.92 | 0.00 | |
| 8100.00 | 90.00 | 359.69 | 12500.01 | 5684.58 | -443.82 | 5698.84 | 0.00 | |
| 8200.00 | 90.00 | 359.69 | 12500.01 | 5784.58 | -444.36 | 5798.76 | 0.00 | |
| 8300.00 | 90.00 | 359.69 | 12500.01 | 5884.58 | -444.90 | 5898.69 | 0.00 | |
| 8400.00 | 90.00 | 359.69 | 12500.01 | 5984.58 | -445.45 | 5998.61 | 0.00 | |
| 8500.00 | 90.00 | 359.69 | 12500.01 | 6084.58 | -445.99 | 6098.53 | 0.00 | |
| 8600.00 | 90.00 | 359.69 | 12500.01 | 6184.58 | -446.53 | 6198.45 | 0.00 | |
| 8700.00 | 90.00 | 359.69 | 12500.01 | 6284.57 | -447.07 | 6298.37 | 0.00 | |
| 00.0088 | 90.00 | 359.69 | 12500.01 | 6384.57 | -447.61 | 6398.29 | 0.00 | |
| 8900.00 | 90.00 | 359.69 | 12500.01 | 6484.57 | -448.15 | 6498.21 | 0.00 | |
| 9000.00 | 90.00 | 359.69 | 12500.01 | 6584.57 | -448.70 | 6598.13 | 0.00 | |
| 9100.00 | 90.00 | 359.69 | 12500.01 | 6684.57 | -449.24 | 6698.05 | 0.00 | |
| | | 359.69 | 12500.01 | 6784.57 | -449.78 | 6797.97 | 0.00 | |
| 9200.00 | 90.00 | 333.03 | 12300.01 | 0.0 | | | | |



Well: TODD 36-25 STATE FED COM 813H

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 | INC | AZI | TVD | NS | EW | VS | DLS | Comment |
|----------|-------|--------|----------|----------|---------|----------|-----------|---------|
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (°/100ft) | Comment |
| 19400.00 | 90.00 | 359.69 | 12500.01 | 6984.56 | -450.86 | 6997.81 | 0.00 | |
| 19500.00 | 90.00 | 359.69 | 12500.01 | 7084.56 | -451.40 | 7097.73 | 0.00 | |
| 19600.00 | 90.00 | 359.69 | 12500.01 | 7184.56 | -451.95 | 7197.65 | 0.00 | |
| 19700.00 | 90.00 | 359.69 | 12500.01 | 7284.56 | -452.49 | 7297.57 | 0.00 | |
| 19800.00 | 90.00 | 359.69 | 12500.01 | 7384.56 | -453.03 | 7397.49 | 0.00 | |
| 19900.00 | 90.00 | 359.69 | 12500.01 | 7484.56 | -453.57 | 7497.41 | 0.00 | |
| 20000.00 | 90.00 | 359.69 | 12500.01 | 7584.55 | -454.11 | 7597.34 | 0.00 | |
| 20100.00 | 90.00 | 359.69 | 12500.01 | 7684.55 | -454.65 | 7697.26 | 0.00 | |
| 20200.00 | 90.00 | 359.69 | 12500.01 | 7784.55 | -455.19 | 7797.18 | 0.00 | |
| 20300.00 | 90.00 | 359.69 | 12500.01 | 7884.55 | -455.74 | 7897.10 | 0.00 | |
| 20400.00 | 90.00 | 359.69 | 12500.01 | 7984.55 | -456.28 | 7997.02 | 0.00 | |
| 20500.00 | 90.00 | 359.69 | 12500.01 | 8084.55 | -456.82 | 8096.94 | 0.00 | |
| 20600.00 | 90.00 | 359.69 | 12500.01 | 8184.55 | -457.36 | 8196.86 | 0.00 | |
| 20700.00 | 90.00 | 359.69 | 12500.01 | 8284.54 | -457.90 | 8296.78 | 0.00 | |
| 20800.00 | 90.00 | 359.69 | 12500.01 | 8384.54 | -458.44 | 8396.70 | 0.00 | |
| 20900.00 | 90.00 | 359.69 | 12500.01 | 8484.54 | -458.99 | 8496.62 | 0.00 | |
| 21000.00 | 90.00 | 359.69 | 12500.01 | 8584.54 | -459.53 | 8596.54 | 0.00 | |
| 21100.00 | 90.00 | 359.69 | 12500.01 | 8684.54 | -460.07 | 8696.46 | 0.00 | |
| 21200.00 | 90.00 | 359.69 | 12500.01 | 8784.54 | -460.61 | 8796.38 | 0.00 | |
| 21300.00 | 90.00 | 359.69 | 12500.01 | 8884.54 | -461.15 | 8896.30 | 0.00 | |
| 21400.00 | 90.00 | 359.69 | 12500.01 | 8984.53 | -461.69 | 8996.22 | 0.00 | |
| 21500.00 | 90.00 | 359.69 | 12500.01 | 9084.53 | -462.24 | 9096.14 | 0.00 | |
| 21600.00 | 90.00 | 359.69 | 12500.01 | 9184.53 | -462.78 | 9196.06 | 0.00 | |
| 21700.00 | 90.00 | 359.69 | 12500.01 | 9284.53 | -463.32 | 9295.99 | 0.00 | |
| 21800.00 | 90.00 | 359.69 | 12500.01 | 9384.53 | -463.86 | 9395.91 | 0.00 | |
| 21900.00 | 90.00 | 359.69 | 12500.01 | 9484.53 | -464.40 | 9495.83 | 0.00 | |
| 22000.00 | 90.00 | 359.69 | 12500.01 | 9584.53 | -464.94 | 9595.75 | 0.00 | |
| 22100.00 | 90.00 | 359.69 | 12500.01 | 9684.52 | -465.48 | 9695.67 | 0.00 | |
| 22200.00 | 90.00 | 359.69 | 12500.01 | 9784.52 | -466.03 | 9795.59 | 0.00 | |
| 22300.00 | 90.00 | 359.69 | 12500.01 | 9884.52 | -466.57 | 9895.51 | 0.00 | |
| 22400.00 | 90.00 | 359.69 | 12500.01 | 9984.52 | -467.11 | 9995.43 | 0.00 | |
| 22500.00 | 90.00 | 359.69 | 12500.01 | 10084.52 | -467.65 | 10095.35 | 0.00 | |
| 22600.00 | 90.00 | 359.69 | 12500.01 | 10184.52 | -468.19 | 10195.27 | 0.00 | |
| 22689.87 | 90.00 | 359.69 | 12500.01 | 10274.38 | -468.68 | 10285.06 | 0.00 | exit |
| 22700.00 | 90.00 | 359.69 | 12500.01 | 10284.52 | -468.73 | 10295.19 | 0.00 | |
| 22769.87 | 90.00 | 359.69 | 12500.00 | 10354.38 | -469.06 | 10365.00 | 0.00 | BHL |

Well: TODD 36-25 STATE FED COM 813H Geodetic System: US State Plane 1983 County: Eddy Datum: North American Datum 1927 Wellbore: Permit Plan Ellipsoid: Clarke 1866 Design: Permit Plan #1 **Zone:** 3001 - NM East (NAD83) INC TVD MD AZI NS EW ٧S DLS Comment (ft) (°) (°) (ft) (ft) (ft) (ft) (°/100ft)

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.

| Component | OD | Preventer | RWP |
|-----------------------------|-----------|------------------|-----|
| Drillpipe | 4.5" | Fixed lower 4.5" | 10M |
| | | Upper 4.5-7" VBR | |
| HWDP | 4.5" | Fixed lower 4.5" | 10M |
| | | Upper 4.5-7" VBR | |
| 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 |

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

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
 - i. Regroup and identify forward plan

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. 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.

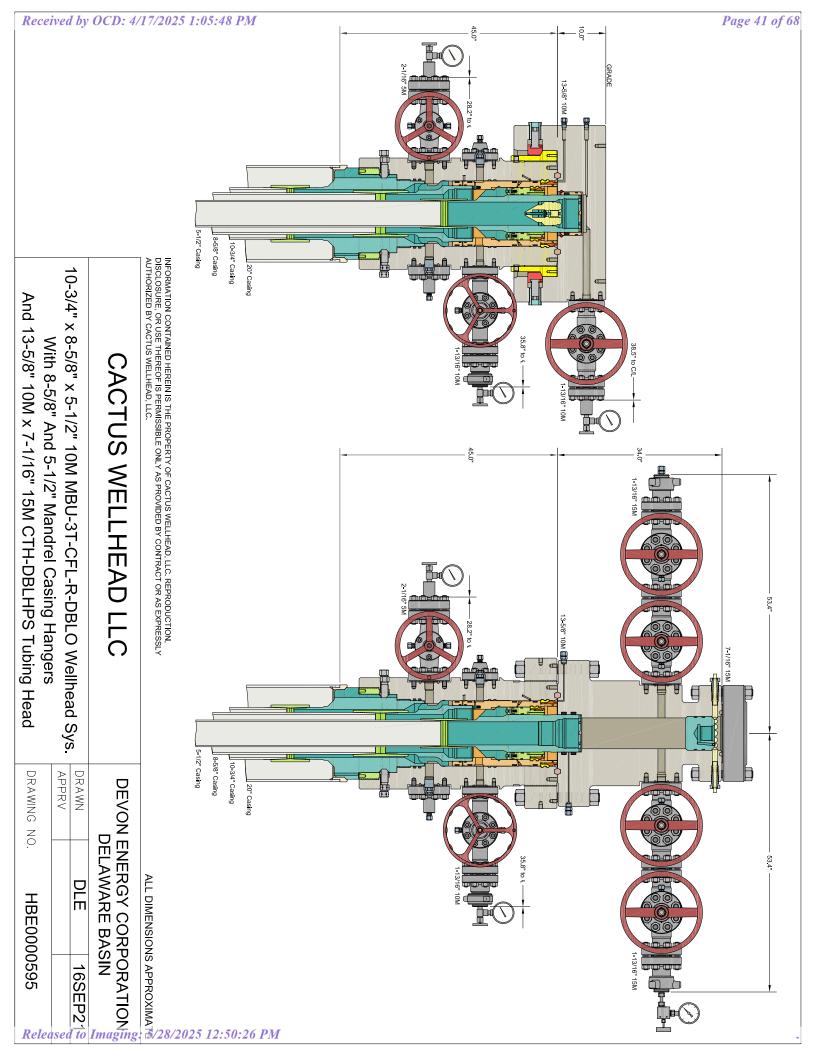
- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial 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.

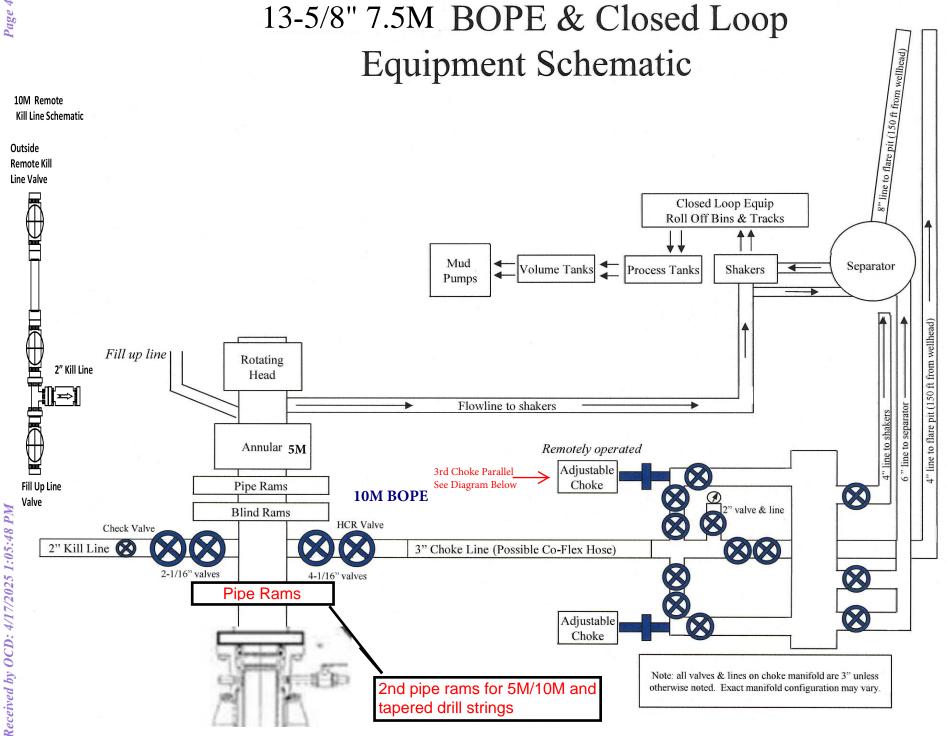
After running the surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 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.

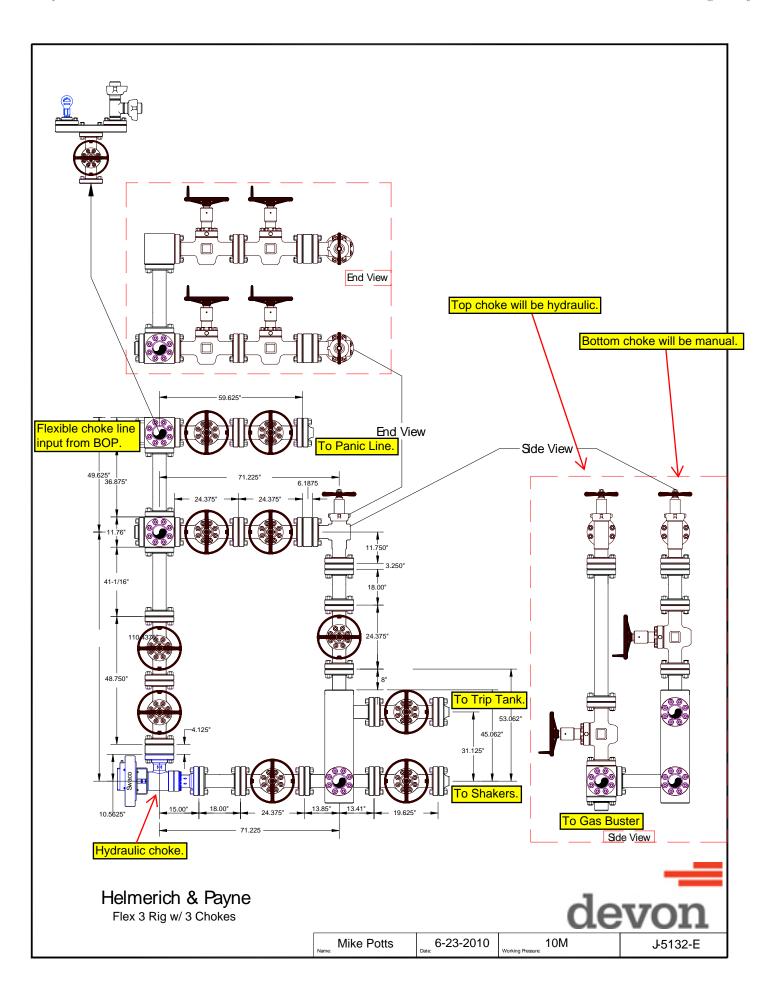
After running the intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 10M will be installed and tested, with 5M annular being tested to 100% of rated working pressure.

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 10,000 psi WP.

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







Casing Assumptions and Load Cases

Surface

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

| Surface Casing Burst Design | | | |
|-----------------------------|-------------------------|---|--|
| Load Case | External Pressure | Internal Pressure | |
| Pressure Test | Formation Pore Pressure | Max mud weight of next hole- section plus Test psi | |
| Drill Ahead | Formation Pore Pressure | Max mud weight of next hole section | |
| Displace to Gas | Formation Pore Pressure | Dry gas from next casing point | |

| Surface Casing Collapse Design | | | | |
|---|-------------------------------|-----------------|--|--|
| Load Case External Pressure Internal Pressure | | | | |
| Full Evacuation | Water gradient in cement, mud | None | | |
| above TOC | | | | |
| Cementing | Wet cement weight | Water (8.33ppg) | | |

| Surface Casing Tension Design | | |
|-------------------------------|-------------|--|
| Load Case | Assumptions | |
| Overpull | 100kips | |
| Runing in hole | 3 ft/s | |
| Service Loads | N/A | |

Casing Assumptions and Load Cases

Intermediate

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

| Intermediate Casing Burst Design | | | |
|---|-------------------------|---|--|
| Load Case External Pressure Internal Pressure | | | |
| Pressure Test | Formation Pore Pressure | Max mud weight of next hole- section plus Test psi | |
| Drill Ahead | Formation Pore Pressure | Max mud weight of next hole section | |
| Fracture @ Shoe | Formation Pore Pressure | Dry gas | |

| Intermediate Casing Collapse Design | | | | |
|---|---|------|--|--|
| Load Case External Pressure Internal Pressure | | | | |
| Full Evacuation | Water gradient in cement, mud above TOC | None | | |
| Cementing | | | | |

| Intermediate Casing Tension Design | | |
|------------------------------------|-------------|--|
| Load Case | Assumptions | |
| Overpull | 100kips | |
| Runing in hole 2 ft/s | | |
| Service Loads | N/A | |

| Metal One Corp. | MO-FXL | MO-FXL | | MO-FXL 8- P110H | |
|--|--|---|---|---|--|
| Metal One *1 Pipe Body: BMP P110HSCY MinYS125k | | NV MinVO40EL -1 | CDS# | | |
| Metal O ne | | *1 Pipe Body: BMP P110HSCY MinYS125ksi Special Drift 7.875" | | MinYS125ksi SD7.875 | |
| | • | | Data | 27-No | |
| | Connection Data | Sneet | Date | 27-NO | V-23 |
| | Geometry | <u>Imperia</u> | | <u>S.I.</u> | |
| | Pipe Body | | | | |
| | Grade *1 | P110HSCY | | P110HSCY | |
| | MinYS *1 | 125 | ksi | 125 | ksi |
| | Pipe OD (D) | 8 5/8 | in | 219.08 | mm |
| MO-FXL | Weight | 32.00 | lb/ft | 47.68 | kg/m |
| | Actual weight | 31.10 | | 46.34 | kg/m |
| | Wall Thickness (t) | 0.352 | in | 8.94 | mm |
| | Pipe ID (d) | 7.921 | in | 201.19 | mm |
| | Pipe body cross section | 9.149 | in ² | 5,902 | mm ² |
| | Special Drift Dia. *1 | 7.875 | in | 200.03 | mm |
| | - | - | - | - | - |
| _ | Connection | 1 | | | |
| | Box OD (W) | 8.625 | in | 219.08 | mm |
| | PIN ID | 7.921 | in | 201.19 | mm |
| | Make up Loss | 3.847 | in | 97.71 | mm |
| Box | Box Critical Area | | in ² | 3686 | |
| critical | Joint load efficiency | 5.853 | | | mm ² |
| area | | 69 | /10/1 | 69 | % |
| | i i ilieau Tabel | Thread Taper 1 / 10 (1.2" per ft) Number of Threads 5 TPI | | | |
| | Number of Threads | | | | |
| Make up | Number of Threads Performance | | 5 | | |
| Make up | Number of Threads Performance Performance Properties | for Pipe Body | 5 | TPI | kvi |
| Make up | Performance Performance Properties S.M.Y.S. *1 | for Pipe Body | 5 kips | TPI 5,087 | kN MPa |
| Make up loss | Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 | for Pipe Body 1,144 8,930 | kips psi | 5,087 61.59 | MPa |
| Make up loss Pin critical | Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 | for Pipe Body 1,144 8,930 4,300 | kips psi psi | 5,087 61.59 29.66 | MPa MPa |
| Make up loss | Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci | for Pipe Body 1,144 8,930 4,300 fied Minimum YIE | kips psi psi psi | 5,087 61.59 29.66 ngth of Pipe boo | MPa MPa |
| Make up loss Pin critical | Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S. = Speci M.I.Y.P. = Minim | for Pipe Body 1,144 8,930 4,300 fied Minimum YIE | kips psi psi ELD Streid Pressul | 5,087 61.59 29.66 ngth of Pipe body | MPa MPa dy |
| Make up loss Pin critical | Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minim *1: BMP P110HSCY: MinYS | for Pipe Body 1,144 8,930 4,300 fied Minimum YIE num Internal Yiel 125ksi, SD7.875, | kips psi psi ELD Streid Pressui Collapse | 5,087 61.59 29.66 ngth of Pipe body | MPa MPa dy |
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| Make up loss Pin critical | Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minim *1: BMP P110HSCY: MinYS Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure | for Pipe Body 1,144 8,930 4,300 fied Minimum YIE num Internal Yiel 125ksi, SD7.875, for Connectio 789 kips | kips psi psi psi Collapse n (69% 69% 70% | 5,087 61.59 29.66 ngth of Pipe body e Strength 4,300 of S.M.Y.S.) of S.M.Y.S.) | MPa MPa dy 0psi |
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| Make up loss Pin critical | Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minim *1: BMP P110HSCY: MinYS Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque | for Pipe Body 1,144 8,930 4,300 fied Minimum YIE num Internal Yiel 125ksi, SD7.875, for Connectio 789 kips 789 kips 6,250 psi | kips psi psi cl D Street d Pressur Collapse n (69% 70% 100% c 2 | 5,087 61.59 29.66 ngth of Pipe body e Strength 4,30 of S.M.Y.S.) of S.M.Y.S.) of M.I.Y.P.) of Collapse St | MPa MPa dy Opsi |
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Statements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to http://www.mtlo.co.jp/mo-con/_images/top/WebsiteTerms_Active_20333287_1.pdf the contents of which are incorporated by reference into this Connection Data Sheet.

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

| Production Casing Burst Design | | | | |
|---|-------------------------|----------------------------------|--|--|
| Load Case External Pressure Internal Pressure | | | | |
| Pressure Test | Formation Pore Pressure | Fluid in hole (water or produced | | |
| | | water) + test psi | | |
| Tubing Leak | Formation Pore Pressure | Packer @ KOP, leak below | | |
| surface 8.6 ppg packer fluid | | | | |
| Stimulation | Formation Pore Pressure | Max frac pressure with heaviest | | |
| | | frac fluid | | |

| Production Casing Collapse Design | | | |
|---|--|-----------------|--|
| Load Case External Pressure Internal Pressure | | | |
| Full Evacuation | Water gradient in cement, mud above TOC. | None | |
| Cementing | Wet cement weight | Water (8.33ppg) | |

| Production Casing Tension Design | | |
|----------------------------------|-------------|--|
| Load Case | Assumptions | |
| Overpull | 100kips | |
| Runing in hole 2 ft/s | | |
| Service Loads | N/A | |

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Devon Energy Production Company LP

LOCATION: Section 36, T.23 S., R.31 E., NMPM

COUNTY: Eddy County, New Mexico

WELL NAME & NO.: Todd 36-25 State Fed Com 811H

ATS/API ID: ATS-24-2184 APD ID: 10400099593

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 812H

ATS/API ID: ATS-24-2185 APD ID: 10400099606

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 813H

ATS/API ID: ATS-24-2186 APD ID: 10400099589

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 814H

ATS/API ID: ATS-24-2187 APD ID: 10400099633

Sundry ID: N/a

WELL NAME & NO.: | Todd 36-25 State Fed Com 821H

ATS/API ID: ATS-24-2188 APD ID: 10400099587

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 822H

ATS/API ID: ATS-24-2189 APD ID: 10400099607

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 825H

ATS/API ID: ATS-24-2192 APD ID: 10400099634

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 826H

ATS/API ID: ATS-24-2193 APD ID: 10400099635

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 827H

ATS/API ID: ATS-24-2194 APD ID: 10400099592

Sundry ID: N/a

WELL NAME & NO.: Todd 36-25 State Fed Com 828H

ATS/API ID: ATS-24-2195 APD ID: 10400099637

Sundry ID: N/a

COA

| H2S | Yes ▼ | | |
|-------------------------------------|---|---------------------------|-----------------------------|
| Potash | Secretary • | None | |
| Cave/Karst Potential | Low | | |
| Cave/Karst Potential | □ Critical | | |
| Variance | None | Flex Hose | C 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

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 880 feet (a minimum of 70 feet (Eddy County) 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 6667'.
- 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 473 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 <u>Secretary Potash Areas</u> 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 **500 feet** into the previous casing and may be lower than USGS Marker Bed No. 126. Operator must run a CBL from TD of the production casing to surface to verify top of cement. Submit results to the BLM.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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 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 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.

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) 2/12/2025



Devon Energy Center 333 West Sheridan Avenue Oklahoma City, Oklahoma 73102-5015

Hydrogen Sulfide (H₂S) Contingency Plan

For

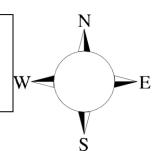
Todd 36-25 State Fed Com 813H

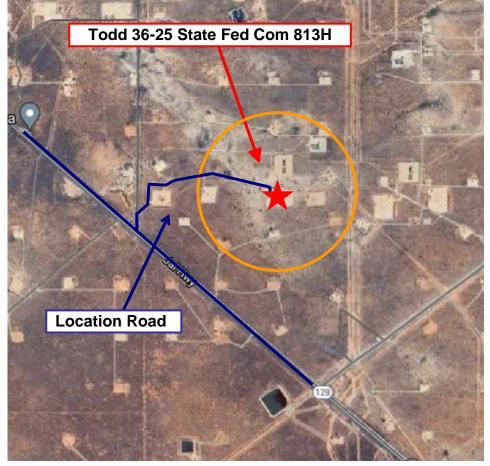
Sec-36 T-23S R-31E 180' FSL & 1736' FEL LAT. = 32.254163° N (NAD83) LONG = 103.728595° W

Eddy County NM

Todd 36-25 State Fed Com 813H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.





Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

| Common | Chemical | Specific | Threshold | Hazardous Limit | Lethal |
|---------------------|------------------|------------------|-----------|-----------------|---------------|
| Name | Formula | Gravity | Limit | | Concentration |
| Hydrogen Sulfide | H ₂ S | 1.189 Air = 1 | 10 ppm | 100 ppm/hr | 600 ppm |
| Sulfur Dioxide | SO ₂ | 2.21 Air = 1 | 2 ppm | N/A | 1000 ppm |

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards and characteristics of hydrogen sulfide (H₂S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H₂S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H₂S Drilling Operations Plan.

There will be weekly H₂S and well control drills for all personnel in each crew.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

2. Protective equipment for essential personnel:

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights which activate when H₂S levels reach 10 ppm and audible sirens which activate at 10 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. Mud program:

The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

5. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S trim.

6. Communication:

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

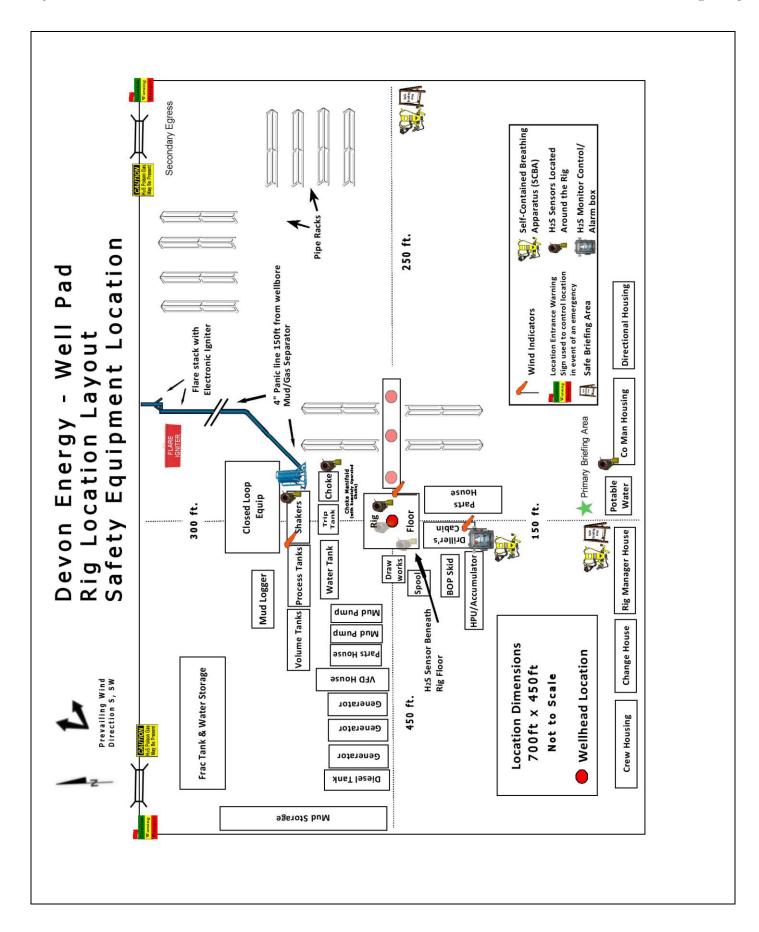
7. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

| Devon Energy Corp. Company Call List | | | | | | |
|---|------------------|-----------------|-----------------------|--|--|--|
| Employee/Company Contact Representative | Position | Phone Number | After Hours Number | | | |
| Jonathan Fisher (North) | Drilling Manager | 832-967-7912 | | | | |
| Jason Hildebrand (South) | Drilling Manager | 405-552-6514 | | | | |
| Rich Downey | Drilling VP | 405-228-2415 | | | | |
| Josh Harvey | EHS Manager | 405-228-2440 | 918-500-5536 | | | |
| Laura Wright | EHS Supervisor | 405-552-5334 | 832-969-8145 | | | |
| Robert Glover | EHS Professional | 575-703-5712 | 575-703-5712 | | | |
| Lane Frank | Lead EHS | 580-579-7052 | 580-579-7052 | | | |
| Rickey Porter | Lead EHS | 903-720-8315 | 903-720-8315 | | | |
| Ronnie Handy | Lead EHS | 918-839-2046 | 918-839-2046 | | | |
| Brock Vise | Lead EHS | 918-413-3291 | 918-413-3291 | | | |

| <u>Lea</u> | Hobbs | |
|--------------|---|------------------|
| County | Lea County Communication Authority | 397-9265 |
| <u>(575)</u> | State Police | 885-3138 |
| | City Police | 397-9265 |
| | Sheriff's Office | 396-3611 |
| | Ambulance | 911 |
| | Fire Department | 397-9308 |
| | LEPC (Local Emergency Planning Committee) | 393-2870 |
| | NMOCD | 393-6161 |
| | US Bureau of Land Management (Closed) | 393-0002 |
| Eddy | Carlsbad | |
| County | State Police | 885-3137 |
| (575) | City Police | 885-2111 |
| | Sheriff's Office | 887-7551 |
| | Ambulance | 911 |
| | Fire Department | 885-3125 |
| | LEPC (Local Emergency Planning Committee) | 887-3798 |
| | US Bureau of Land Management | 234-5972 |
| | NM Emergency Response Commission (Santa Fe) | (505) 476-9600 |
| | 24 HR | (505) 827-9126 |
| | National Emergency Response Center | (800) 424-8802 |
| | National Pollution Control Center: Direct | (703) 872-6000 |
| | For Oil Spills | (800) 280-7118 |
| | Emergency Services | (000) 200 7 7 70 |
| | Wild Well Control | (281) 784-4700 |
| | Cudd Pressure Control (915) 699-0139 | (915) 563-3356 |
| | Halliburton | (575) 746-2757 |
| | B. J. Services | (575) 746-3569 |
| Give | Native Air – Emergency Helicopter – Hobbs | (575) 347-9836 |
| GPS | For Air Ambulance - Eddy County Dispatch | (575)-616-7155 |
| position: | For Air Ambulance - Lea County (LCCA) | (575)-397-9265 |
| | Poison Control (24/7) | (800) 222-1222 |
| | Oil & Gas Pipeline 24 Hour Service | (800) 364-4366 |
| | NOAA – Website - www.nhc.noaa.gov | (222) 22300 |
| | National Pollution Control Center | 202-795-6958 |
| | NPCC – Oil Spills | 800-280-7118 |
| | or on opino | 200 200 1110 |

Prepared in conjunction with Dave Small



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

General Information Phone: (505) 629-6116

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

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

CONDITIONS

Action 453205

CONDITIONS

| Operator: | OGRID: |
|-------------------------------------|---|
| DEVON ENERGY PRODUCTION COMPANY, LP | 6137 |
| 333 West Sheridan Ave. | Action Number: |
| Oklahoma City, OK 73102 | 453205 |
| | Action Type: |
| | [C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

CONDITIONS

| Created By | Condition | Condition Date |
|-------------|---|-------------------|
| wsalter | Cement is required to circulate on both surface and intermediate1 strings of casing. | 4/17/2025 |
| wsalter | If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing. | 4/17/2025 |
| ward.rikala | Notify the OCD 24 hours prior to casing & cement. | 5/28/2025 |
| ward.rikala | File As Drilled C-102 and a directional Survey with C-104 completion packet. | 5/28/2025 |
| ward.rikala | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string. | 5/28/2025 |
| ward.rikala | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system. | 5/28/2025 |