

|                                         |                                                                             |                                                   |
|-----------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------|
| <b>Well Name:</b> LONESOME DOVE FED COM | <b>Well Location:</b> T26S / R35E / SEC 17 / NWSE / 32.042371 / -103.387295 | <b>County or Parish/State:</b> LEA / NM           |
| <b>Well Number:</b> 413H                | <b>Type of Well:</b> OIL WELL                                               | <b>Allottee or Tribe Name:</b>                    |
| <b>Lease Number:</b> NMNM110841         | <b>Unit or CA Name:</b>                                                     | <b>Unit or CA Number:</b>                         |
| <b>US Well Number:</b> 3002549525       | <b>Well Status:</b> Drilling Well                                           | <b>Operator:</b> TITUS OIL AND GAS PRODUCTION LLC |

Notice of Intent

**Sundry ID:** 2643531

|                                                       |                                     |
|-------------------------------------------------------|-------------------------------------|
| <b>Type of Submission:</b> Notice of Intent           | <b>Type of Action:</b> Other        |
| <b>Date Sundry Submitted:</b> 11/08/2021              | <b>Time Sundry Submitted:</b> 03:16 |
| <b>Date proposed operation will begin:</b> 11/14/2021 |                                     |

**Procedure Description:** Name change from Lonesome Dove Fed Com 403H to Lonesome Dove Fed Com 413H; Depth change from 12,561' TVD and 21,466' MD to 12,560' TVD and 21,853' MD; Target change from Wolfcamp X Sand to Wolfcamp Y Sand formation; Intermediate casing depth change from 11800' to 12050'; other plan adjustments to account for changes in well design. Attachments - Revised C-102 - Updated Drilling Plan - Updated Directional Plan - Updated Directional AC Report

Surface Disturbance

**Is any additional surface disturbance proposed?:** No

NOI Attachments

Procedure Description

LONESOME\_DOVE\_FED\_COM\_413H\_\_403H\_OLD\_NAME\_\_C102\_REV\_1\_SIGNED\_20211108151204.pdf

Lonesome\_Dove\_Fed\_Com\_413H\_\_Plan\_3\_11\_04\_21\_20211108151204.pdf

Lonesome\_Dove\_Fed\_Com\_413H\_\_APD\_Temp\_\_WC\_3S\_10M\_20211108151204.pdf

Lonesome\_Dove\_Fed\_Com\_413H\_\_Plan\_3\_11\_04\_21\_AC\_Report\_20211108151204.pdf

Received by OCD: 1/20/2022 7:42:43 AM

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|                                  |                                                                      |                                            |
|----------------------------------|----------------------------------------------------------------------|--------------------------------------------|
| Well Name: LONESOME DOVE FED COM | Well Location: T26S / R35E / SEC 17 / NWSE / 32.042371 / -103.387295 | County or Parish/State: LEA / NM           |
| Well Number: 413H                | Type of Well: OIL WELL                                               | Allottee or Tribe Name:                    |
| Lease Number: NMNM110841         | Unit or CA Name:                                                     | Unit or CA Number:                         |
| US Well Number: 3002549525       | Well Status: Drilling Well                                           | Operator: TITUS OIL AND GAS PRODUCTION LLC |

Conditions of Approval

Specialist Review

Lonesome\_Dove\_Fed\_Com\_413H\_\_COA\_20220118074022.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: RYAN DELONG

Signed on: NOV 08, 2021 03:15 PM

Name: TITUS OIL AND GAS PRODUCTION LLC

Title: Regulatory Manager

Street Address: 420 Throckmorton Street, Suite 1150

City: Fort WorthState: TX

Phone: (817) 852-6370

Email address: rdelong@titusoil.com

Field Representative

Representative Name:

Street Address:

City:State:Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: ZOTA M STEVENS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752345998

BLM POC Email Address: ZSTEVENS@BLM.GOV

Disposition: Approved

Disposition Date: 01/18/2022

Signature: Zota Stevens

**District I**  
1625 N. French Dr., Hobbs, NM 88420  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

|                              |                                                   |                      |                                              |                       |
|------------------------------|---------------------------------------------------|----------------------|----------------------------------------------|-----------------------|
| 1 API Number<br>30-025-49525 |                                                   | 2 Pool Code<br>96776 | 3 Pool Name<br>JABALINA; WOLFCAMP, SOUTHWEST |                       |
| 4 Property Code<br>329881    | 5 Property Name<br>LONESOME DOVE FED COM          |                      |                                              | 6 Well Number<br>413H |
| 7 OGRID No.<br>373986        | 8 Operator Name<br>TITUS OIL & GAS PRODUCTION LLC |                      |                                              | 9 Elevation<br>3208'  |

## <sup>10</sup> Surface Location

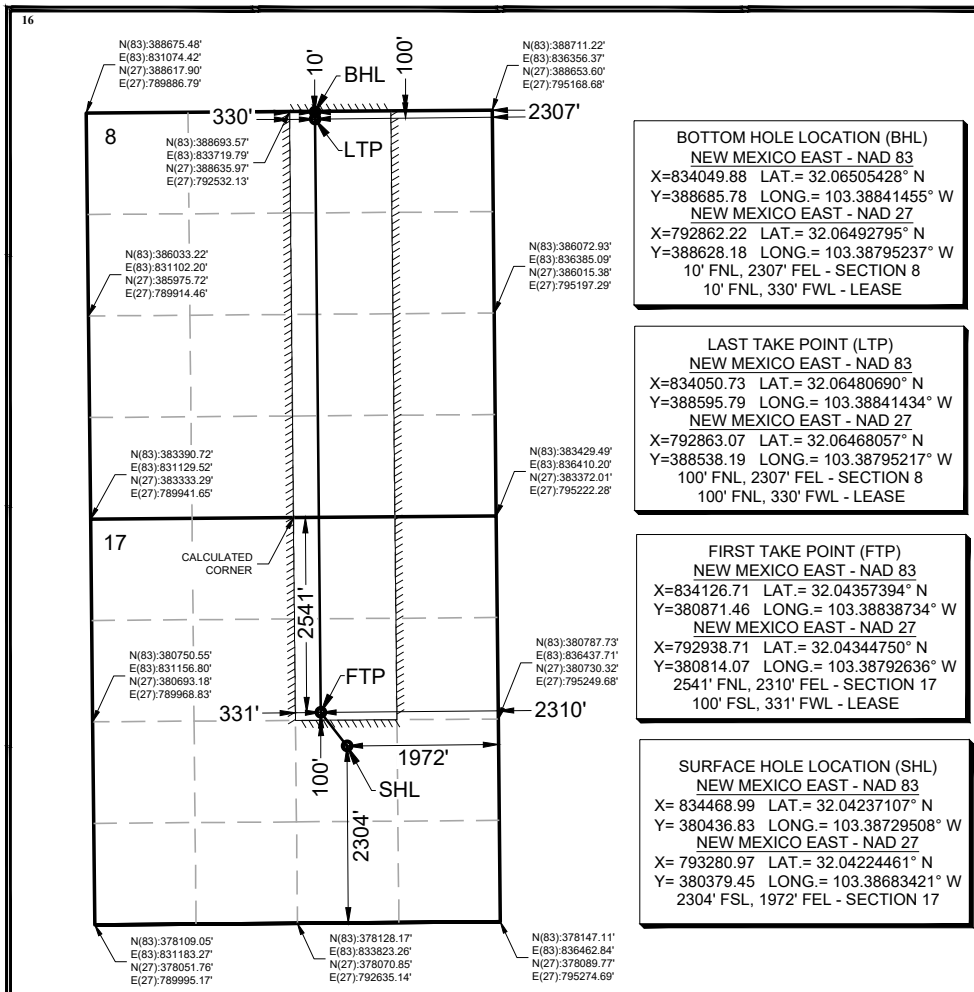
|               |         |          |       |         |               |                  |               |                |        |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| J             | 17      | 26-S     | 35-E  |         | 2304'         | SOUTH            | 1972'         | EAST           | LEA    |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| B             | 8       | 26-S     | 35-E  |         | 10'           | NORTH            | 2307'         | EAST           | LEA    |

|                    |                    |                       |              |
|--------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
| 240                | Y                  |                       |              |

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



## 17 OPERATOR CERTIFICATION

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

Signature \_\_\_\_\_ Date 11/8/2021

Ryan DeLong - Regulatory Manager  
Printed Name

---

E-mail Address

## <sup>18</sup> SURVEYOR CERTIFICATION

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

Date of Survey \_\_\_\_\_

Signature and Seal of Professional Surveyor: \_\_\_\_\_

10/12/2021

# Titus Oil & Gas Production, LLC - Lonesome Dove Fed Com 413H

## 1. Geologic Formations

|               |             |                               |      |
|---------------|-------------|-------------------------------|------|
| TVD of target | 12,560' EOL | Pilot hole depth              | NA   |
| MD at TD:     | 20,853'     | Deepest expected fresh water: | 400' |

| Formation        | Depth (TVD) from KB | Water/Mineral Bearing/ Target Zone? | Hazards* |
|------------------|---------------------|-------------------------------------|----------|
| Quaternary Fill  | Surface             | Water                               |          |
| Rustler          | 1116                | Water                               |          |
| Top of Salt      | 1612                | Salt                                |          |
| Base of Salt     | 5088                | Salt                                |          |
| Lamar            | 5415                | Salt Water                          |          |
| Delaware         | 5447                | Salt Water                          |          |
| Bone Spring Lime | 9331                | Oil/Gas                             |          |
| 1st Bone Spring  | 10551               | Oil/Gas                             |          |
| 2nd Bone Spring  | 11070               | Oil/Gas                             |          |
| 3rd Bone Spring  | 12191               | Oil/Gas                             |          |
| Wolfcamp         | 12558               | Oil/Gas                             |          |
| Wolfcamp X Sand  | 12572               | Oil/Gas                             |          |
| Wolfcamp Y Sand  | 12603               | Target Oil/Gas                      |          |
| Wolfcamp A       | 12643               | Not Penetrated                      |          |
| Wolfcamp B       | 12946               | Not Penetrated                      |          |

## 2. Casing Program

| Hole Size                 | Casing Interval |        | Csg. Size | Weight (lbs) | Grade | Conn. | SF Collapse | SF Burst | SF Body            |
|---------------------------|-----------------|--------|-----------|--------------|-------|-------|-------------|----------|--------------------|
|                           | From            | To     |           |              |       |       |             |          |                    |
| 13.5"                     | 0               | 1145   | 10.75"    | 45.5         | J55   | BTC   | 3.99        | 0.81     | 13.72              |
| 9.875"                    | 0               | 12050  | 7.625"    | 29.7         | HCL80 | BTC   | 1.17        | 1.07     | 2.03               |
| 6.75"                     | 0               | 11850  | 5.5"      | 20           | P110  | BTC   | 1.88        | 1.96     | 3.22               |
| 6.75"                     | 11850           | 20,853 | 5"        | 18           | P110  | BTC   | 1.88        | 1.96     | 3.22               |
| BLM Minimum Safety Factor |                 |        |           |              |       |       | 1.125       | 1        | 1.6 Dry<br>1.8 Wet |

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse.  
 Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and  
 All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5" casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

## Titus Oil &amp; Gas Production, LLC - Lonesome Dove Fed Com 413H

|                                                                                                                                                  | Y or N |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Is casing new? If used, attach certification as required in Onshore Order #1                                                                     | Y      |
| Does casing meet API specifications? If no, attach casing specification sheet.                                                                   | Y      |
| Is premium or uncommon casing planned? If yes attach casing specification sheet.                                                                 | N      |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | Y      |
| Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?                | Y      |
|                                                                                                                                                  |        |
| Is well located within Capitan Reef?                                                                                                             | N      |
| If yes, does production casing cement tie back a minimum of 50' above the Reef?                                                                  |        |
| Is well within the designated 4 string boundary?                                                                                                 |        |
|                                                                                                                                                  |        |
| Is well located in SOPA but not in R-111-P?                                                                                                      | N      |
| If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?                       |        |
|                                                                                                                                                  |        |
| Is well located in R-111-P and SOPA?                                                                                                             | N      |
| If yes, are the first three strings cemented to surface?                                                                                         |        |
| Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?                                                                               |        |
|                                                                                                                                                  |        |
| Is well located in high Cave/Karst?                                                                                                              | N      |
| If yes, are there two strings cemented to surface?                                                                                               |        |
| (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?                                                           |        |
|                                                                                                                                                  |        |
| Is well located in critical Cave/Karst?                                                                                                          | N      |
| If yes, are there three strings cemented to surface?                                                                                             |        |

## Titus Oil &amp; Gas Production, LLC - Lonesome Dove Fed Com 413H

## 3. Cementing Program

| Casing | # Sk | Wt. lb/<br>gal | Yld ft3/<br>sack | H <sub>2</sub> O gal/sk | 500# Comp.<br>Strength<br>(hours) | Slurry Description                            |
|--------|------|----------------|------------------|-------------------------|-----------------------------------|-----------------------------------------------|
| Surf.  | 250  | 13.5           | 1.75             | 9                       | 12                                | Lead: Class C + 4% Gel + 1% CaCl <sub>2</sub> |
|        | 250  | 14.8           | 1.34             | 6.34                    | 8                                 | Tail: Class C + 2% CaCl <sub>2</sub>          |
| Int    | 900  | 10.3           | 3.6              | 22.95                   | 16                                | TXI Lightweight Blend                         |
|        | 250  | 15.0           | 1.27             | 5.72                    | 8                                 | Tail: Class H                                 |
| Prod   | 350  | 11.9           | 2.5              | 19                      | 72                                | Lead: 50:50:10 H Blend                        |
|        | 950  | 14.2           | 1.3              | 6.2                     | 19                                | Tail: 50:50:2 Class H Blend                   |

**Contingency remediation cement plan for intermediate casing if cmt is not circulated to surface:**1<sup>st</sup> Stage - Bradenhead Stage Notes

Operator will pump 1000+ sx of Class C and allow cement to fall into place. Operator will not put any fluid on top of the cement after the fall. This will leave annuls filled with air to TOC. We will WOC +/- 2 hrs ( or when surface samples are firm enough) to ensure cement is set up. TOC will be above the Lamar allowing for the fill up stage.

2<sup>nd</sup> Stage - Fill Up Stage Notes

After WOC to allow the Bradenhead Stage to set up, operator will proceed with the Fill Up Stage. Since there is only air in the annulus ( no fluid will be placed in annulus after bradenhead stage), we will pump cement with opposite valve set to allow air to displace out. Fill up cement will be mixed and pumped until returns are taken to surface to complete the fill up. This will confirm a solid column of cement in the annulus all the way to surface completing the top out job. Operator will WOC after cement returns have been taken to surface.

| Casing String                | TOC     | % Excess                       |
|------------------------------|---------|--------------------------------|
| Surface                      | 0'      | 50%                            |
| 1 <sup>st</sup> Intermediate | 0'      | 50%                            |
| Production                   | 11,550' | 35% OH in Lateral (KOP to EOL) |

## Titus Oil &amp; Gas Production, LLC - Lonesome Dove Fed Com 413H

## 4. Pressure Control Equipment

|   |                                                                                                         |
|---|---------------------------------------------------------------------------------------------------------|
| N | A variance is requested for the use of a diverter on the surface casing.<br>See attached for schematic. |
|---|---------------------------------------------------------------------------------------------------------|

| BOP installed and tested before drilling which hole? | Size?   | Min. Required WP | Type       | x | Tested to:           |
|------------------------------------------------------|---------|------------------|------------|---|----------------------|
| 9-7/8"                                               | 13-5/8" | 3M               | Annular    | x | 3000 psi             |
|                                                      |         |                  | Blind Ram  |   | 3M                   |
|                                                      |         |                  | Pipe Ram   |   |                      |
|                                                      |         |                  | Double Ram |   |                      |
|                                                      |         |                  | Other*     |   |                      |
| 6-3/4"                                               | 13-5/8" | 10M              | Annular    | x | 50% testing pressure |
|                                                      |         |                  | Blind Ram  | x | 5M                   |
|                                                      |         |                  | VBR Ram    | x |                      |
|                                                      |         |                  | VBR Ram    | x |                      |
|                                                      |         |                  | Other*     |   |                      |

See attached 5M Annular Variance Well Control plan for Titus Oil & Gas Production, LLC.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

|   |                                                                                                                                                                                                                                                                                                                   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y | Formation integrity test will be performed per Onshore Order #2.<br><br>On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |
| Y | A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.                                                                                                                                                                   |
| N | Are anchors required by manufacturer?                                                                                                                                                                                                                                                                             |
| Y | A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 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.                                                |

## Titus Oil &amp; Gas Production, LLC - Lonesome Dove Fed Com 413H

## 5. Mud Program

| Depth           |                 | Type         | Weight (ppg) | Viscosity | Water Loss |
|-----------------|-----------------|--------------|--------------|-----------|------------|
| From            | To              |              |              |           |            |
| 0               | Surf. Shoe      | FW Gel       | 8.6 - 8.8    | 28-34     | N/C        |
| Surf csg        | 9-5/8" Int shoe | Nova N-Gauge | 8.4 - 9      | 28-34     | N/C        |
| 7-5/8" Int shoe | Lateral TD      | OBM          | 10.8 - 11.8  | 35-45     | <20        |

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

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

## 6. Logging and Testing Procedures

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

| Additional logs planned |             | Interval                                                   |
|-------------------------|-------------|------------------------------------------------------------|
| N                       | Resistivity | Pilot Hole TD to ICP                                       |
| N                       | Density     | Pilot Hole TD to ICP                                       |
| Y                       | CBL         | Production casing<br>(If cement not circulated to surface) |
| Y                       | Mud log     | Intermediate shoe to TD                                    |
| N                       | PEX         |                                                            |

**Titus Oil & Gas Production, LLC - Lonesome Dove Fed Com 413H****7. Drilling Conditions**

| Condition                  | Specify what type and where? |
|----------------------------|------------------------------|
| BH Pressure at deepest TVD | 7710 psi at 12560' TVD       |
| Abnormal Temperature       | NO 180 Deg. F.               |

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

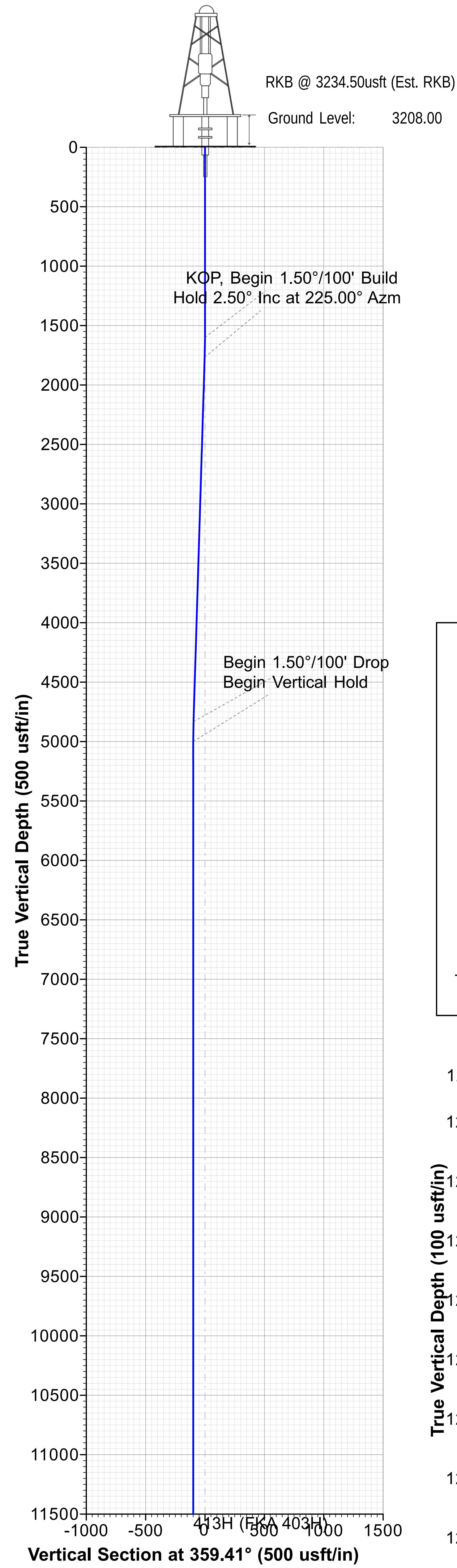
Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

|                                                                                                                                                                                                                                                                                                                                                              |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Hydrogen Sulfide (H <sub>2</sub> S) monitors will be installed prior to drilling out the surface shoe. If H <sub>2</sub> S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM. |                                |
| N                                                                                                                                                                                                                                                                                                                                                            | H <sub>2</sub> S is present    |
| Y                                                                                                                                                                                                                                                                                                                                                            | H <sub>2</sub> S Plan attached |

**8. Other Facets of Operation**

|   |                            |
|---|----------------------------|
| Y | Is it a walking operation? |
| N | Is casing pre-set?         |

|   |                         |
|---|-------------------------|
| x | H <sub>2</sub> S Plan.  |
| x | BOP & Choke Schematics. |
| x | Directional Plan        |
| x | Multibowl Schematic     |



Map System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone Name: New Mexico Eastern Zone

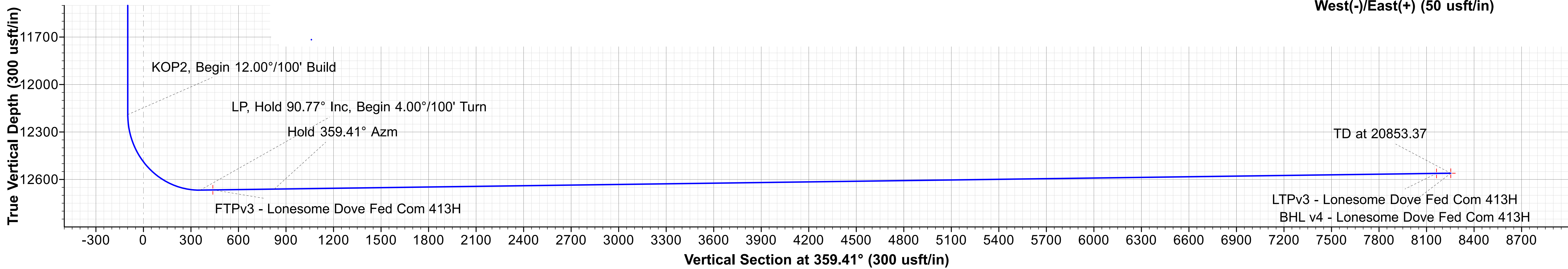
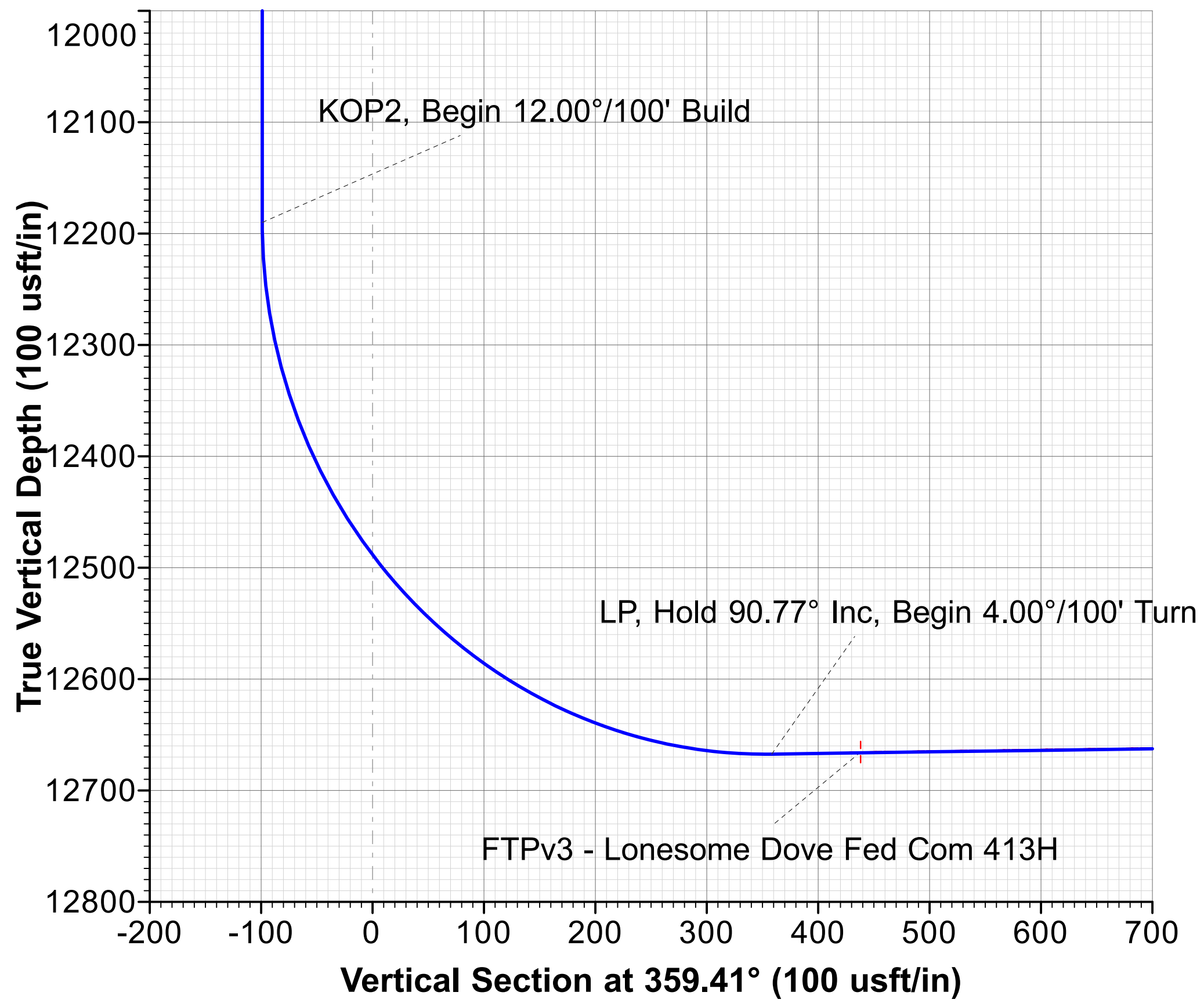
Local Origin: Well 413H (FKA 403H), Grid North

Latitude: 32° 2' 32.535852 N  
Longitude: 103° 23' 14.262288 W

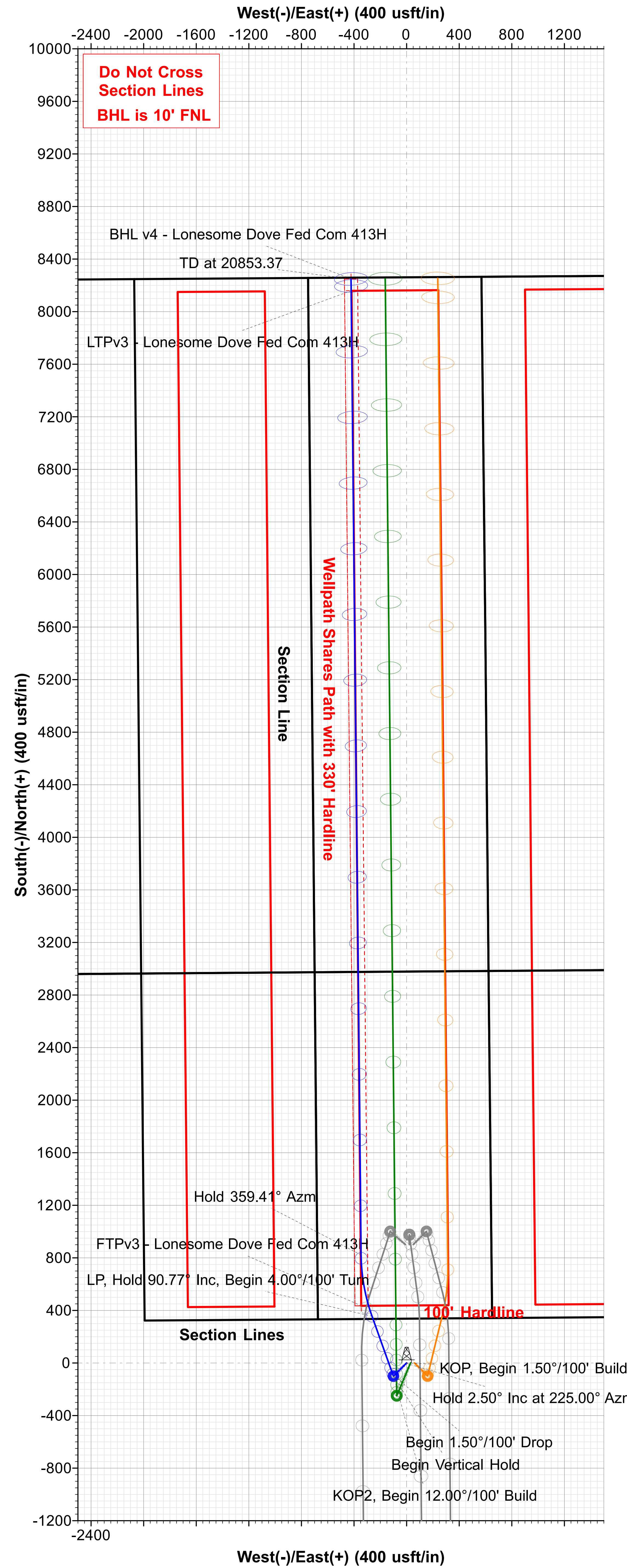
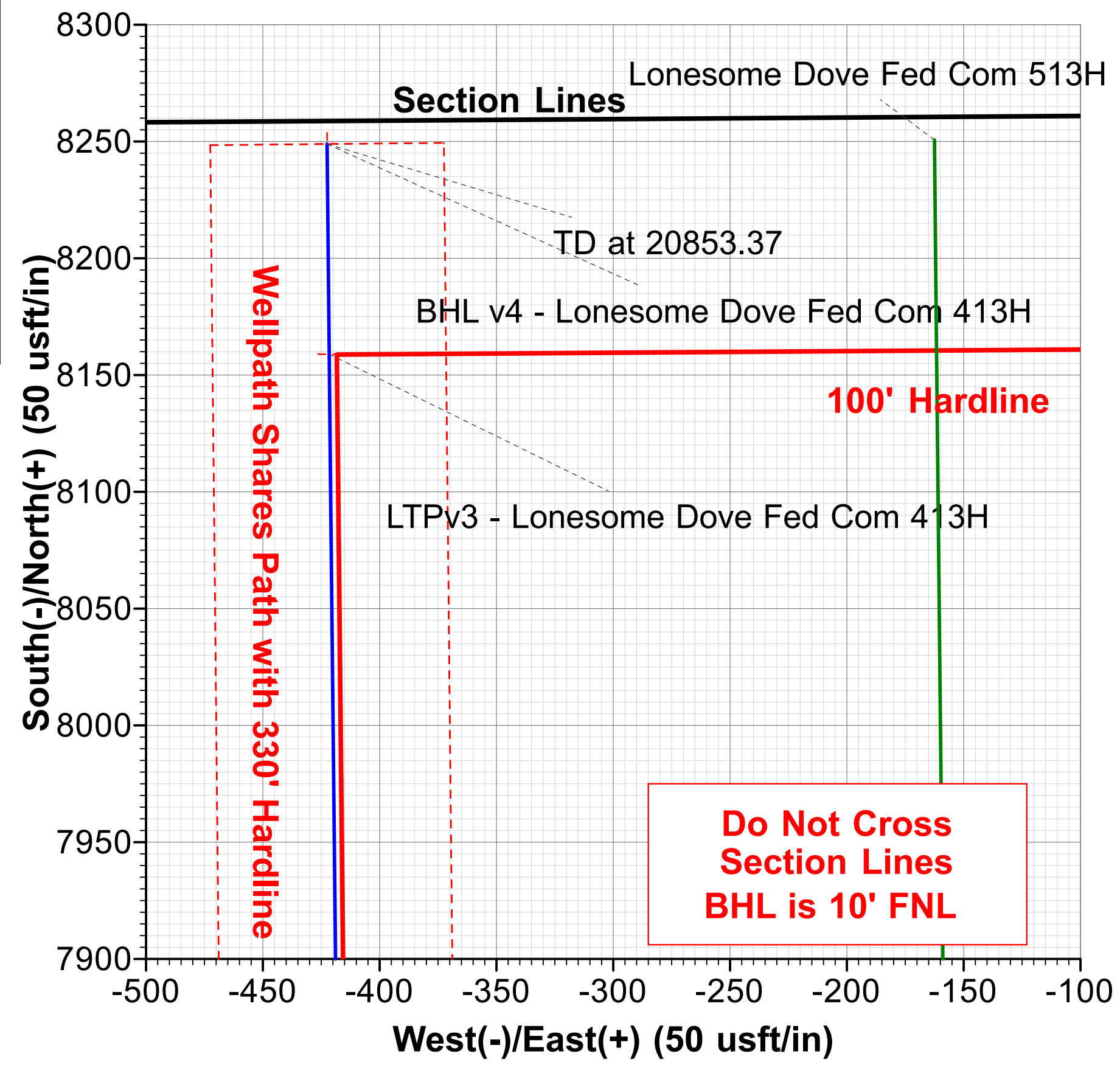
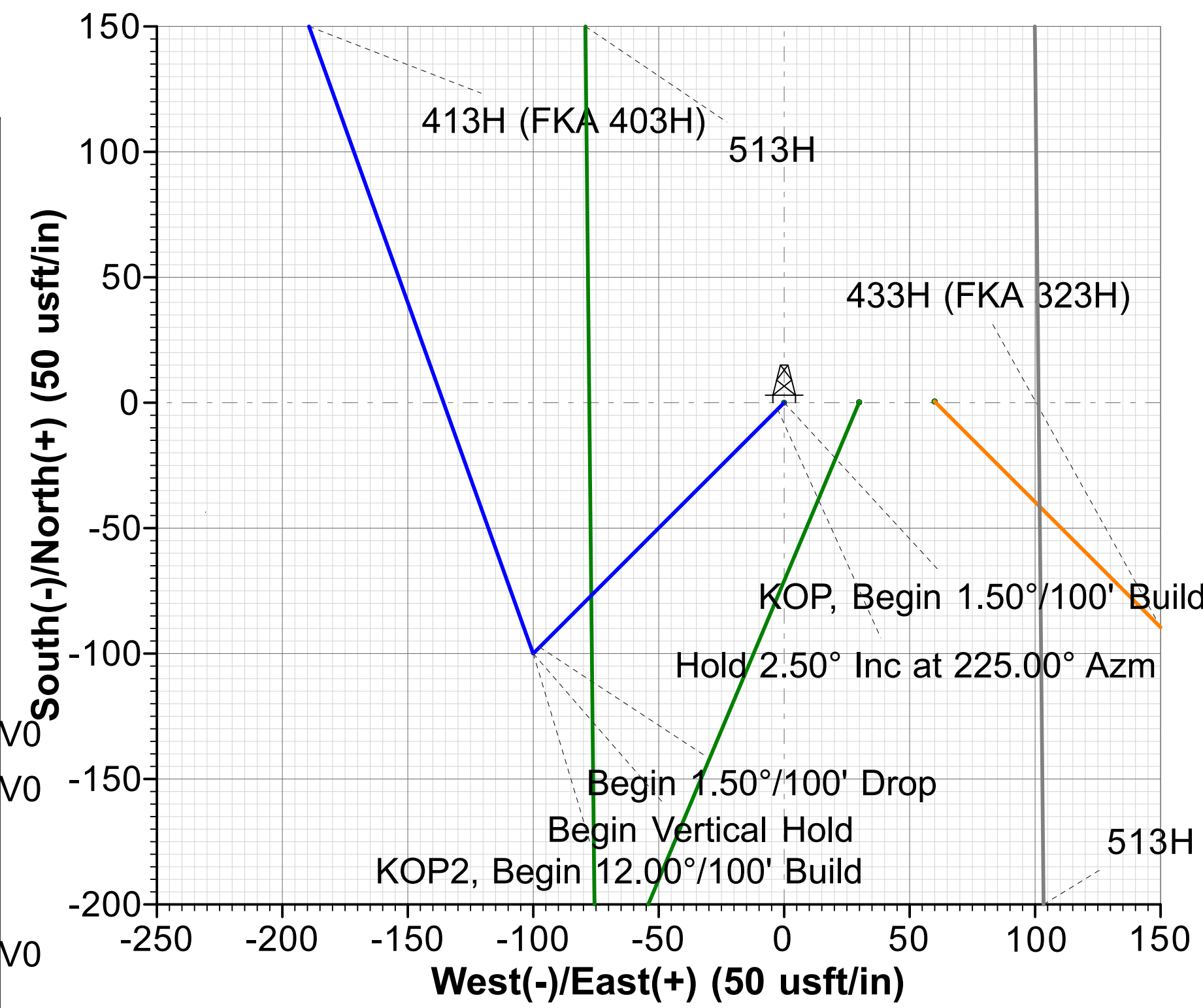
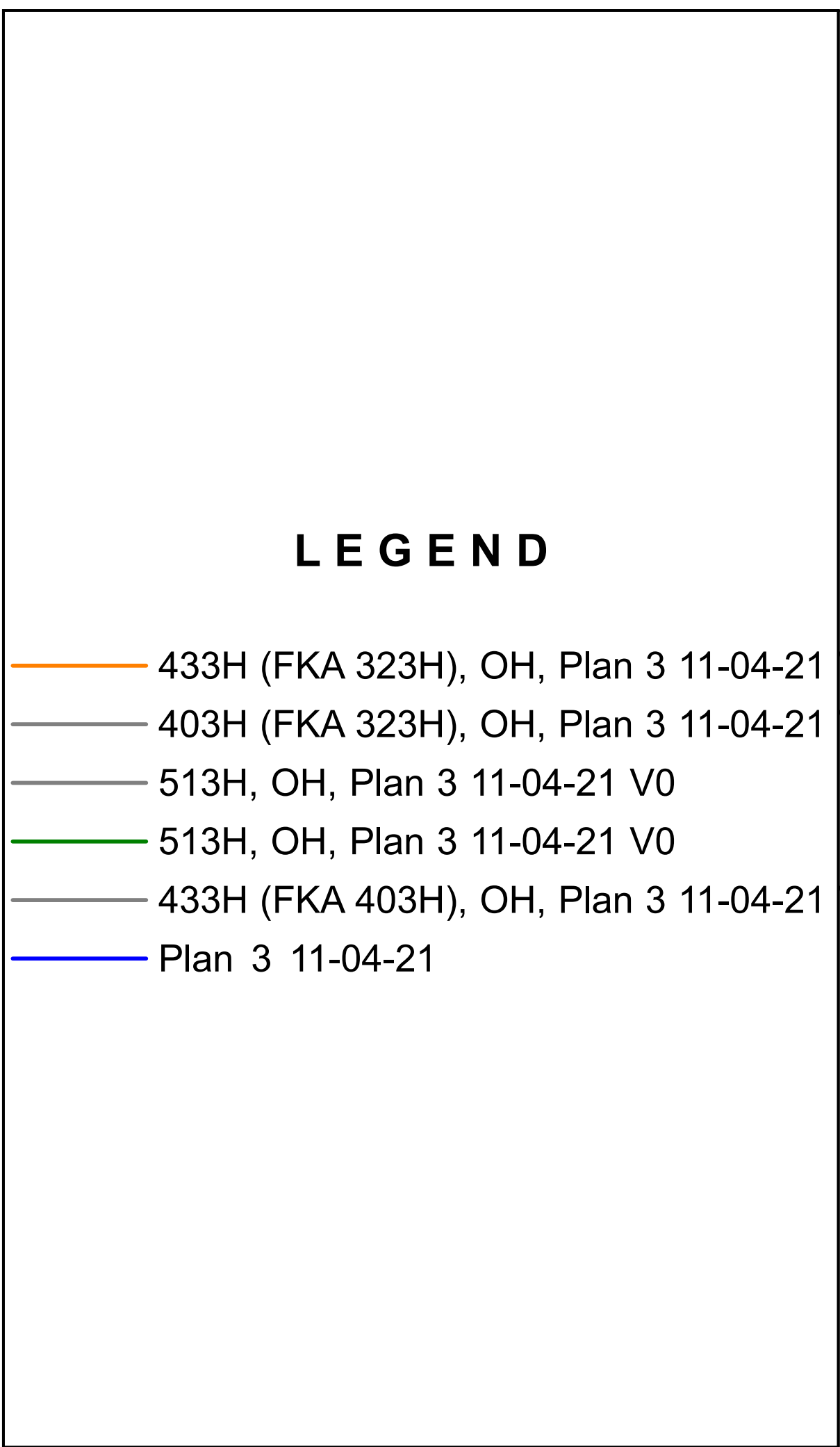
Grid East: 834468.99  
Grid North: 380436.83  
Scale Factor: 1.000

Geomagnetic Model: MVHD  
Sample Date: 29-Feb-20  
Magnetic Declination: 6.49°  
Dip Angle from Horizontal: 59.66°  
Magnetic Field Strength: 47594.38908324nT

To convert a Magnetic Direction to a Grid Direction, Add 5.99°  
To convert a Magnetic Direction to a True Direction, Add 6.49° East  
To convert a True Direction to a Grid Direction, Subtract 0.50°



| WELL DETAILS                        |          |               |        |               |         |                       |       |                                               |         |                                     |                                            |                                   |  |                    |  |                      |  |
|-------------------------------------|----------|---------------|--------|---------------|---------|-----------------------|-------|-----------------------------------------------|---------|-------------------------------------|--------------------------------------------|-----------------------------------|--|--------------------|--|----------------------|--|
|                                     |          | +N/-S<br>0.00 |        | +E/-W<br>0.00 |         | Northing<br>380436.83 |       | Ground Level: 3208.00<br>Easting<br>834468.99 |         | Latitude<br>32° 2' 32.535852 N      |                                            | Longitude<br>103° 23' 14.262288 W |  |                    |  |                      |  |
| DESIGN TARGET DETAILS               |          |               |        |               |         |                       |       |                                               |         |                                     |                                            |                                   |  |                    |  |                      |  |
| Name                                |          |               |        | TVD           |         | +N/-S                 |       | +E/-W                                         |         | Northing                            |                                            | Easting                           |  | Latitude           |  | Longitude            |  |
| BHL v4 - Lonesome Dove Fed Com 413H |          |               |        | 12560.50      |         | 8248.93               |       | -422.48                                       |         | 388685.76                           |                                            | 834046.51                         |  | 32° 3' 54.195480 N |  | 103° 23' 18.331512 W |  |
| LTPv3 - Lonesome Dove Fed Com 413H  |          |               |        | 12561.72      |         | 8158.93               |       | -421.50                                       |         | 388595.76                           |                                            | 834047.49                         |  | 32° 3' 53.304845 N |  | 103° 23' 18.329281 W |  |
| FTPv3 - Lonesome Dove Fed Com 413H  |          |               |        | 12665.50      |         | 434.63                |       | -342.28                                       |         | 380871.46                           |                                            | 834126.71                         |  | 32° 2' 36.866184 N |  | 103° 23' 18.194424 W |  |
| SECTION DETAILS                     |          |               |        |               |         |                       |       |                                               |         |                                     |                                            |                                   |  |                    |  |                      |  |
| Sec                                 | MD       | Inc           | Azi    | TVD           | +N/-S   | +E/-W                 | Dleg  | TFace                                         | VSect   | Target                              | Annotation                                 |                                   |  |                    |  |                      |  |
| 1                                   | 0.00     | 0.00          | 0.00   | 0.00          | 0.00    | 0.00                  | 0.00  | 0.00                                          | 0.00    |                                     |                                            |                                   |  |                    |  |                      |  |
| 2                                   | 1600.00  | 0.00          | 0.00   | 1600.00       | 0.00    | 0.00                  | 0.00  | 0.00                                          | 0.00    |                                     | KOP, Begin 1.50°/100' Build                |                                   |  |                    |  |                      |  |
| 3                                   | 1766.98  | 2.50          | 225.00 | 1766.93       | -2.58   | -2.58                 | 1.50  | 225.00                                        | -2.55   |                                     | Hold 2.50° Inc at 225.00° Azm              |                                   |  |                    |  |                      |  |
| 4                                   | 4836.06  | 2.50          | 225.00 | 4833.07       | -97.42  | -97.42                | 0.00  | 0.00                                          | -96.41  |                                     | Begin 1.50°/100' Drop                      |                                   |  |                    |  |                      |  |
| 5                                   | 5003.04  | 0.00          | 0.00   | 5000.00       | -100.00 | -100.00               | 1.50  | 180.00                                        | -98.96  |                                     | Begin Vertical Hold                        |                                   |  |                    |  |                      |  |
| 6                                   | 12193.04 | 0.00          | 0.00   | 12190.00      | -100.00 | -100.00               | 0.00  | 0.00                                          | -98.96  |                                     | KOP2, Begin 12.00°/100' Build              |                                   |  |                    |  |                      |  |
| 7                                   | 12949.46 | 90.77         | 340.35 | 12667.42      | 355.70  | -262.72               | 12.00 | 340.35                                        | 358.39  |                                     | LP, Hold 90.77° Inc, Begin 4.00°/100' Turn |                                   |  |                    |  |                      |  |
| 8                                   | 13425.92 | 90.77         | 359.41 | 12660.94      | 822.55  | -346.04               | 4.00  | 89.86                                         | 826.07  |                                     | Hold 359.41° Azm                           |                                   |  |                    |  |                      |  |
| 9                                   | 20853.37 | 90.77         | 359.41 | 12560.50      | 8248.93 | -422.48               | 0.00  | 0.00                                          | 8252.84 | BHL v4 - Lonesome Dove Fed Com 413H | TD at 20853.37                             |                                   |  |                    |  |                      |  |





## **Titus Oil & Gas Production, LLC**

**Lea County, NM - (NAD83 NME)**

**Lonesome Dove Fed Com**

**413H (FKA 403H)**

**OH**

**Plan: Plan 3 11-04-21**

## **Standard Planning Report**

**04 November, 2021**





## Planning Report



|                  |                                 |                                     |                              |
|------------------|---------------------------------|-------------------------------------|------------------------------|
| <b>Database:</b> | USA Compass                     | <b>Local Co-ordinate Reference:</b> | Well 413H (FKA 403H)         |
| <b>Company:</b>  | Titus Oil & Gas Production, LLC | <b>TVD Reference:</b>               | RKB @ 3234.50usft (Est. RKB) |
| <b>Project:</b>  | Lea County, NM - (NAD83 NME)    | <b>MD Reference:</b>                | RKB @ 3234.50usft (Est. RKB) |
| <b>Site:</b>     | Lonesome Dove Fed Com           | <b>North Reference:</b>             | Grid                         |
| <b>Well:</b>     | 413H (FKA 403H)                 | <b>Survey Calculation Method:</b>   | Minimum Curvature            |
| <b>Wellbore:</b> | OH                              |                                     |                              |
| <b>Design:</b>   | Plan 3 11-04-21                 |                                     |                              |

|                    |                              |                      |                |
|--------------------|------------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County, NM - (NAD83 NME) |                      |                |
| <b>Map System:</b> | US State Plane 1983          | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983    |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone      |                      |                |

| Site                  |           | Lonesome Dove Fed Com |                 |                   |                      |
|-----------------------|-----------|-----------------------|-----------------|-------------------|----------------------|
| Site Position:        |           | Northing:             | 379,941.34 usft | Latitude:         | 32° 2' 27.746664 N   |
| From:                 | Map       | Easting:              | 833,154.89 usft | Longitude:        | 103° 23' 29.578524 W |
| Position Uncertainty: | 0.00 usft | Slot Radius:          | 13-3/16 "       | Grid Convergence: | 0.50 °               |

|                      |                 |               |                     |                 |               |                      |
|----------------------|-----------------|---------------|---------------------|-----------------|---------------|----------------------|
| Well                 | 413H (FKA 403H) |               |                     |                 |               |                      |
| Well Position        | +N/-S           | 495.49 usft   | Northing:           | 380,436.83 usft | Latitude:     | 32° 2' 32.535852 N   |
|                      | +E/-W           | 1,314.10 usft | Easting:            | 834,468.99 usft | Longitude:    | 103° 23' 14.262288 W |
| Position Uncertainty |                 | 1.00 usft     | Wellhead Elevation: |                 | Ground Level: | 3,208.00 usft        |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OH                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | MVHD              | 2/29/2020          | 6.49                   | 59.66                | 47,594.38908325            |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Plan 3 11-04-21                |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.00                           | 0.00                | 0.00                 | 359.41               |

|                                 |                        |                          |                      |                       |
|---------------------------------|------------------------|--------------------------|----------------------|-----------------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b>            | 11/4/2021                |                      |                       |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>     | <b>Remarks</b>        |
| 1                               | 0.00                   | 20,853.37                | Plan 3 11-04-21 (OH) | MWD+HDGM              |
|                                 |                        |                          |                      | OWSG Rev.2 MWD + HDGM |

|                              |                        |                    |                              |                     |                     |                                |                               |                              |                |                     |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|-------------------------------|------------------------------|----------------|---------------------|
| <b>Plan Sections</b>         |                        |                    |                              |                     |                     |                                |                               |                              |                |                     |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> | <b>TFO (°)</b> | <b>Target</b>       |
| 0.00                         | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                           | 0.00                          | 0.00                         | 0.00           |                     |
| 1,600.00                     | 0.00                   | 0.00               | 1,600.00                     | 0.00                | 0.00                | 0.00                           | 0.00                          | 0.00                         | 0.00           |                     |
| 1,766.98                     | 2.50                   | 225.00             | 1,766.93                     | -2.58               | -2.58               | 1.50                           | 1.50                          | 0.00                         | 225.00         |                     |
| 4,836.06                     | 2.50                   | 225.00             | 4,833.07                     | -97.42              | -97.42              | 0.00                           | 0.00                          | 0.00                         | 0.00           |                     |
| 5,003.04                     | 0.00                   | 0.00               | 5,000.00                     | -100.00             | -100.00             | 1.50                           | -1.50                         | 0.00                         | 180.00         |                     |
| 12,193.04                    | 0.00                   | 0.00               | 12,190.00                    | -100.00             | -100.00             | 0.00                           | 0.00                          | 0.00                         | 0.00           |                     |
| 12,949.46                    | 90.77                  | 340.35             | 12,667.42                    | 355.70              | -262.72             | 12.00                          | 12.00                         | 0.00                         | 340.35         |                     |
| 13,425.92                    | 90.77                  | 359.41             | 12,660.94                    | 822.55              | -346.04             | 4.00                           | 0.00                          | 4.00                         | 89.86          |                     |
| 20,853.37                    | 90.77                  | 359.41             | 12,560.50                    | 8,248.93            | -422.48             | 0.00                           | 0.00                          | 0.00                         | 0.00           | BHL v4 - Lonesome C |



## Planning Report



|                  |                                 |                                     |                              |
|------------------|---------------------------------|-------------------------------------|------------------------------|
| <b>Database:</b> | USA Compass                     | <b>Local Co-ordinate Reference:</b> | Well 413H (FKA 403H)         |
| <b>Company:</b>  | Titus Oil & Gas Production, LLC | <b>TVD Reference:</b>               | RKB @ 3234.50usft (Est. RKB) |
| <b>Project:</b>  | Lea County, NM - (NAD83 NME)    | <b>MD Reference:</b>                | RKB @ 3234.50usft (Est. RKB) |
| <b>Site:</b>     | Lonesome Dove Fed Com           | <b>North Reference:</b>             | Grid                         |
| <b>Well:</b>     | 413H (FKA 403H)                 | <b>Survey Calculation Method:</b>   | Minimum Curvature            |
| <b>Wellbore:</b> | OH                              |                                     |                              |
| <b>Design:</b>   | Plan 3 11-04-21                 |                                     |                              |

| Planned Survey                       |                 |             |                       |              |              |                         |                         |                        |                       |
|--------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)                | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                                 | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,600.00                             | 0.00            | 0.00        | 1,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP, Begin 1.50°/100' Build</b>   |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,700.00                             | 1.50            | 225.00      | 1,699.99              | -0.93        | -0.93        | -0.92                   | 1.50                    | 1.50                   | 0.00                  |
| 1,766.98                             | 2.50            | 225.00      | 1,766.93              | -2.58        | -2.58        | -2.55                   | 1.50                    | 1.50                   | 0.00                  |
| <b>Hold 2.50° Inc at 225.00° Azm</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,800.00                             | 2.50            | 225.00      | 1,799.92              | -3.60        | -3.60        | -3.56                   | 0.00                    | 0.00                   | 0.00                  |
| 1,900.00                             | 2.50            | 225.00      | 1,899.82              | -6.69        | -6.69        | -6.62                   | 0.00                    | 0.00                   | 0.00                  |
| 2,000.00                             | 2.50            | 225.00      | 1,999.72              | -9.78        | -9.78        | -9.68                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.00                             | 2.50            | 225.00      | 2,099.63              | -12.87       | -12.87       | -12.74                  | 0.00                    | 0.00                   | 0.00                  |
| 2,200.00                             | 2.50            | 225.00      | 2,199.53              | -15.96       | -15.96       | -15.80                  | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00                             | 2.50            | 225.00      | 2,299.44              | -19.05       | -19.05       | -18.85                  | 0.00                    | 0.00                   | 0.00                  |
| 2,400.00                             | 2.50            | 225.00      | 2,399.34              | -22.14       | -22.14       | -21.91                  | 0.00                    | 0.00                   | 0.00                  |
| 2,500.00                             | 2.50            | 225.00      | 2,499.25              | -25.23       | -25.23       | -24.97                  | 0.00                    | 0.00                   | 0.00                  |
| 2,600.00                             | 2.50            | 225.00      | 2,599.15              | -28.32       | -28.32       | -28.03                  | 0.00                    | 0.00                   | 0.00                  |
| 2,700.00                             | 2.50            | 225.00      | 2,699.06              | -31.41       | -31.41       | -31.09                  | 0.00                    | 0.00                   | 0.00                  |
| 2,800.00                             | 2.50            | 225.00      | 2,798.96              | -34.50       | -34.50       | -34.15                  | 0.00                    | 0.00                   | 0.00                  |
| 2,900.00                             | 2.50            | 225.00      | 2,898.86              | -37.59       | -37.59       | -37.20                  | 0.00                    | 0.00                   | 0.00                  |
| 3,000.00                             | 2.50            | 225.00      | 2,998.77              | -40.68       | -40.68       | -40.26                  | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00                             | 2.50            | 225.00      | 3,098.67              | -43.77       | -43.77       | -43.32                  | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00                             | 2.50            | 225.00      | 3,198.58              | -46.86       | -46.86       | -46.38                  | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00                             | 2.50            | 225.00      | 3,298.48              | -49.95       | -49.95       | -49.44                  | 0.00                    | 0.00                   | 0.00                  |
| 3,400.00                             | 2.50            | 225.00      | 3,398.39              | -53.04       | -53.04       | -52.49                  | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00                             | 2.50            | 225.00      | 3,498.29              | -56.13       | -56.13       | -55.55                  | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00                             | 2.50            | 225.00      | 3,598.20              | -59.22       | -59.22       | -58.61                  | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00                             | 2.50            | 225.00      | 3,698.10              | -62.31       | -62.31       | -61.67                  | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00                             | 2.50            | 225.00      | 3,798.00              | -65.40       | -65.40       | -64.73                  | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                             | 2.50            | 225.00      | 3,897.91              | -68.49       | -68.49       | -67.79                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                             | 2.50            | 225.00      | 3,997.81              | -71.58       | -71.58       | -70.84                  | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                             | 2.50            | 225.00      | 4,097.72              | -74.67       | -74.67       | -73.90                  | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                             | 2.50            | 225.00      | 4,197.62              | -77.76       | -77.76       | -76.96                  | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                             | 2.50            | 225.00      | 4,297.53              | -80.85       | -80.85       | -80.02                  | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                             | 2.50            | 225.00      | 4,397.43              | -83.94       | -83.94       | -83.08                  | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                             | 2.50            | 225.00      | 4,497.34              | -87.03       | -87.03       | -86.13                  | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                             | 2.50            | 225.00      | 4,597.24              | -90.13       | -90.13       | -89.19                  | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                             | 2.50            | 225.00      | 4,697.14              | -93.22       | -93.22       | -92.25                  | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                             | 2.50            | 225.00      | 4,797.05              | -96.31       | -96.31       | -95.31                  | 0.00                    | 0.00                   | 0.00                  |
| 4,836.06                             | 2.50            | 225.00      | 4,833.07              | -97.42       | -97.42       | -96.41                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Begin 1.50°/100' Drop</b>         |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,900.00                             | 1.55            | 225.00      | 4,896.97              | -99.02       | -99.02       | -97.99                  | 1.50                    | -1.50                  | 0.00                  |
| 5,000.00                             | 0.05            | 225.00      | 4,996.96              | -100.00      | -100.00      | -98.96                  | 1.50                    | -1.50                  | 0.00                  |
| 5,003.04                             | 0.00            | 0.00        | 5,000.00              | -100.00      | -100.00      | -98.96                  | 1.50                    | -1.50                  | 0.00                  |
| <b>Begin Vertical Hold</b>           |                 |             |                       |              |              |                         |                         |                        |                       |
| 12,193.04                            | 0.00            | 0.00        | 12,190.00             | -100.00      | -100.00      | -98.96                  | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP2, Begin 12.00°/100' Build</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 12,200.00                            | 0.84            | 340.35      | 12,196.96             | -99.95       | -100.02      | -98.92                  | 12.00                   | 12.00                  | 0.00                  |
| 12,300.00                            | 12.84           | 340.35      | 12,296.07             | -88.76       | -104.01      | -87.69                  | 12.00                   | 12.00                  | 0.00                  |
| 12,400.00                            | 24.84           | 340.35      | 12,390.54             | -58.41       | -114.85      | -57.23                  | 12.00                   | 12.00                  | 0.00                  |
| 12,500.00                            | 36.84           | 340.35      | 12,476.25             | -10.23       | -132.05      | -8.87                   | 12.00                   | 12.00                  | 0.00                  |
| 12,600.00                            | 48.84           | 340.35      | 12,549.45             | 53.68        | -154.88      | 55.27                   | 12.00                   | 12.00                  | 0.00                  |
| 12,700.00                            | 60.84           | 340.35      | 12,606.93             | 130.53       | -182.32      | 132.40                  | 12.00                   | 12.00                  | 0.00                  |
| 12,800.00                            | 72.84           | 340.35      | 12,646.20             | 216.96       | -213.17      | 219.14                  | 12.00                   | 12.00                  | 0.00                  |
| 12,900.00                            | 84.84           | 340.35      | 12,665.53             | 309.18       | -246.11      | 311.70                  | 12.00                   | 12.00                  | 0.00                  |



## Planning Report



|                  |                                 |                                     |                              |
|------------------|---------------------------------|-------------------------------------|------------------------------|
| <b>Database:</b> | USA Compass                     | <b>Local Co-ordinate Reference:</b> | Well 413H (FKA 403H)         |
| <b>Company:</b>  | Titus Oil & Gas Production, LLC | <b>TVD Reference:</b>               | RKB @ 3234.50usft (Est. RKB) |
| <b>Project:</b>  | Lea County, NM - (NAD83 NME)    | <b>MD Reference:</b>                | RKB @ 3234.50usft (Est. RKB) |
| <b>Site:</b>     | Lonesome Dove Fed Com           | <b>North Reference:</b>             | Grid                         |
| <b>Well:</b>     | 413H (FKA 403H)                 | <b>Survey Calculation Method:</b>   | Minimum Curvature            |
| <b>Wellbore:</b> | OH                              |                                     |                              |
| <b>Design:</b>   | Plan 3 11-04-21                 |                                     |                              |

| Planned Survey                                    |                 |             |                       |              |              |                         |                         |                        |                       |  |
|---------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft)                             | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 12,949.46                                         | 90.77           | 340.35      | 12,667.42             | 355.71       | -262.72      | 358.39                  | 12.00                   | 12.00                  | 0.00                  |  |
| <b>LP, Hold 90.77° Inc, Begin 4.00°/100' Turn</b> |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 13,000.00                                         | 90.77           | 342.37      | 12,666.74             | 403.59       | -278.87      | 406.44                  | 4.00                    | 0.01                   | 4.00                  |  |
| 13,100.00                                         | 90.78           | 346.37      | 12,665.38             | 499.86       | -305.80      | 502.99                  | 4.00                    | 0.01                   | 4.00                  |  |
| 13,200.00                                         | 90.78           | 350.37      | 12,664.02             | 597.78       | -325.95      | 601.11                  | 4.00                    | 0.00                   | 4.00                  |  |
| 13,300.00                                         | 90.78           | 354.37      | 12,662.65             | 696.87       | -339.22      | 700.32                  | 4.00                    | 0.00                   | 4.00                  |  |
| 13,400.00                                         | 90.78           | 358.37      | 12,661.29             | 796.64       | -345.54      | 800.15                  | 4.00                    | -0.01                  | 4.00                  |  |
| 13,425.92                                         | 90.77           | 359.41      | 12,660.94             | 822.55       | -346.04      | 826.07                  | 4.00                    | -0.01                  | 4.00                  |  |
| <b>Hold 359.41° Azm</b>                           |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 13,500.00                                         | 90.77           | 359.41      | 12,659.94             | 896.62       | -346.80      | 900.14                  | 0.00                    | 0.00                   | 0.00                  |  |
| 13,600.00                                         | 90.77           | 359.41      | 12,658.59             | 996.61       | -347.83      | 1,000.14                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,700.00                                         | 90.77           | 359.41      | 12,657.23             | 1,096.59     | -348.86      | 1,100.13                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,800.00                                         | 90.77           | 359.41      | 12,655.88             | 1,196.58     | -349.89      | 1,200.12                | 0.00                    | 0.00                   | 0.00                  |  |
| 13,900.00                                         | 90.77           | 359.41      | 12,654.53             | 1,296.56     | -350.92      | 1,300.11                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,000.00                                         | 90.77           | 359.41      | 12,653.18             | 1,396.55     | -351.95      | 1,400.10                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,100.00                                         | 90.77           | 359.41      | 12,651.82             | 1,496.53     | -352.98      | 1,500.09                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,200.00                                         | 90.77           | 359.41      | 12,650.47             | 1,596.52     | -354.01      | 1,600.08                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,300.00                                         | 90.77           | 359.41      | 12,649.12             | 1,696.51     | -355.04      | 1,700.07                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,400.00                                         | 90.77           | 359.41      | 12,647.77             | 1,796.49     | -356.07      | 1,800.06                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,500.00                                         | 90.77           | 359.41      | 12,646.41             | 1,896.48     | -357.10      | 1,900.05                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,600.00                                         | 90.77           | 359.41      | 12,645.06             | 1,996.46     | -358.13      | 2,000.04                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,700.00                                         | 90.77           | 359.41      | 12,643.71             | 2,096.45     | -359.15      | 2,100.03                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,800.00                                         | 90.77           | 359.41      | 12,642.36             | 2,196.43     | -360.18      | 2,200.03                | 0.00                    | 0.00                   | 0.00                  |  |
| 14,900.00                                         | 90.77           | 359.41      | 12,641.01             | 2,296.42     | -361.21      | 2,300.02                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,000.00                                         | 90.77           | 359.41      | 12,639.65             | 2,396.40     | -362.24      | 2,400.01                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,100.00                                         | 90.77           | 359.41      | 12,638.30             | 2,496.39     | -363.27      | 2,500.00                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,200.00                                         | 90.77           | 359.41      | 12,636.95             | 2,596.38     | -364.30      | 2,599.99                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,300.00                                         | 90.77           | 359.41      | 12,635.60             | 2,696.36     | -365.33      | 2,699.98                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,400.00                                         | 90.77           | 359.41      | 12,634.24             | 2,796.35     | -366.36      | 2,799.97                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,500.00                                         | 90.77           | 359.41      | 12,632.89             | 2,896.33     | -367.39      | 2,899.96                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,600.00                                         | 90.77           | 359.41      | 12,631.54             | 2,996.32     | -368.42      | 2,999.95                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,700.00                                         | 90.77           | 359.41      | 12,630.19             | 3,096.30     | -369.45      | 3,099.94                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,800.00                                         | 90.77           | 359.41      | 12,628.84             | 3,196.29     | -370.48      | 3,199.93                | 0.00                    | 0.00                   | 0.00                  |  |
| 15,900.00                                         | 90.77           | 359.41      | 12,627.48             | 3,296.27     | -371.50      | 3,299.92                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,000.00                                         | 90.77           | 359.41      | 12,626.13             | 3,396.26     | -372.53      | 3,399.92                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,100.00                                         | 90.77           | 359.41      | 12,624.78             | 3,496.25     | -373.56      | 3,499.91                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,200.00                                         | 90.77           | 359.41      | 12,623.43             | 3,596.23     | -374.59      | 3,599.90                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,300.00                                         | 90.77           | 359.41      | 12,622.07             | 3,696.22     | -375.62      | 3,699.89                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,400.00                                         | 90.77           | 359.41      | 12,620.72             | 3,796.20     | -376.65      | 3,799.88                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,500.00                                         | 90.77           | 359.41      | 12,619.37             | 3,896.19     | -377.68      | 3,899.87                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,600.00                                         | 90.77           | 359.41      | 12,618.02             | 3,996.17     | -378.71      | 3,999.86                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,700.00                                         | 90.77           | 359.41      | 12,616.66             | 4,096.16     | -379.74      | 4,099.85                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,800.00                                         | 90.77           | 359.41      | 12,615.31             | 4,196.14     | -380.77      | 4,199.84                | 0.00                    | 0.00                   | 0.00                  |  |
| 16,900.00                                         | 90.77           | 359.41      | 12,613.96             | 4,296.13     | -381.80      | 4,299.83                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,000.00                                         | 90.77           | 359.41      | 12,612.61             | 4,396.12     | -382.83      | 4,399.82                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,100.00                                         | 90.77           | 359.41      | 12,611.26             | 4,496.10     | -383.85      | 4,499.82                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,200.00                                         | 90.77           | 359.41      | 12,609.90             | 4,596.09     | -384.88      | 4,599.81                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,300.00                                         | 90.77           | 359.41      | 12,608.55             | 4,696.07     | -385.91      | 4,699.80                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,400.00                                         | 90.77           | 359.41      | 12,607.20             | 4,796.06     | -386.94      | 4,799.79                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,500.00                                         | 90.77           | 359.41      | 12,605.85             | 4,896.04     | -387.97      | 4,899.78                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,600.00                                         | 90.77           | 359.41      | 12,604.49             | 4,996.03     | -389.00      | 4,999.77                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,700.00                                         | 90.77           | 359.41      | 12,603.14             | 5,096.01     | -390.03      | 5,099.76                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,800.00                                         | 90.77           | 359.41      | 12,601.79             | 5,196.00     | -391.06      | 5,199.75                | 0.00                    | 0.00                   | 0.00                  |  |
| 17,900.00                                         | 90.77           | 359.41      | 12,600.44             | 5,295.99     | -392.09      | 5,299.74                | 0.00                    | 0.00                   | 0.00                  |  |



## Planning Report



|                  |                                 |                                     |                              |
|------------------|---------------------------------|-------------------------------------|------------------------------|
| <b>Database:</b> | USA Compass                     | <b>Local Co-ordinate Reference:</b> | Well 413H (FKA 403H)         |
| <b>Company:</b>  | Titus Oil & Gas Production, LLC | <b>TVD Reference:</b>               | RKB @ 3234.50usft (Est. RKB) |
| <b>Project:</b>  | Lea County, NM - (NAD83 NME)    | <b>MD Reference:</b>                | RKB @ 3234.50usft (Est. RKB) |
| <b>Site:</b>     | Lonesome Dove Fed Com           | <b>North Reference:</b>             | Grid                         |
| <b>Well:</b>     | 413H (FKA 403H)                 | <b>Survey Calculation Method:</b>   | Minimum Curvature            |
| <b>Wellbore:</b> | OH                              |                                     |                              |
| <b>Design:</b>   | Plan 3 11-04-21                 |                                     |                              |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 18,000.00             | 90.77           | 359.41      | 12,599.09             | 5,395.97     | -393.12      | 5,399.73                | 0.00                    | 0.00                   | 0.00                  |
| 18,100.00             | 90.77           | 359.41      | 12,597.73             | 5,495.96     | -394.15      | 5,499.72                | 0.00                    | 0.00                   | 0.00                  |
| 18,200.00             | 90.77           | 359.41      | 12,596.38             | 5,595.94     | -395.18      | 5,599.71                | 0.00                    | 0.00                   | 0.00                  |
| 18,300.00             | 90.77           | 359.41      | 12,595.03             | 5,695.93     | -396.20      | 5,699.71                | 0.00                    | 0.00                   | 0.00                  |
| 18,400.00             | 90.77           | 359.41      | 12,593.68             | 5,795.91     | -397.23      | 5,799.70                | 0.00                    | 0.00                   | 0.00                  |
| 18,500.00             | 90.77           | 359.41      | 12,592.32             | 5,895.90     | -398.26      | 5,899.69                | 0.00                    | 0.00                   | 0.00                  |
| 18,600.00             | 90.77           | 359.41      | 12,590.97             | 5,995.88     | -399.29      | 5,999.68                | 0.00                    | 0.00                   | 0.00                  |
| 18,700.00             | 90.77           | 359.41      | 12,589.62             | 6,095.87     | -400.32      | 6,099.67                | 0.00                    | 0.00                   | 0.00                  |
| 18,800.00             | 90.77           | 359.41      | 12,588.27             | 6,195.86     | -401.35      | 6,199.66                | 0.00                    | 0.00                   | 0.00                  |
| 18,900.00             | 90.77           | 359.41      | 12,586.92             | 6,295.84     | -402.38      | 6,299.65                | 0.00                    | 0.00                   | 0.00                  |
| 19,000.00             | 90.77           | 359.41      | 12,585.56             | 6,395.83     | -403.41      | 6,399.64                | 0.00                    | 0.00                   | 0.00                  |
| 19,100.00             | 90.77           | 359.41      | 12,584.21             | 6,495.81     | -404.44      | 6,499.63                | 0.00                    | 0.00                   | 0.00                  |
| 19,200.00             | 90.77           | 359.41      | 12,582.86             | 6,595.80     | -405.47      | 6,599.62                | 0.00                    | 0.00                   | 0.00                  |
| 19,300.00             | 90.77           | 359.41      | 12,581.51             | 6,695.78     | -406.50      | 6,699.61                | 0.00                    | 0.00                   | 0.00                  |
| 19,400.00             | 90.77           | 359.41      | 12,580.15             | 6,795.77     | -407.53      | 6,799.60                | 0.00                    | 0.00                   | 0.00                  |
| 19,500.00             | 90.77           | 359.41      | 12,578.80             | 6,895.75     | -408.55      | 6,899.60                | 0.00                    | 0.00                   | 0.00                  |
| 19,600.00             | 90.77           | 359.41      | 12,577.45             | 6,995.74     | -409.58      | 6,999.59                | 0.00                    | 0.00                   | 0.00                  |
| 19,700.00             | 90.77           | 359.41      | 12,576.10             | 7,095.73     | -410.61      | 7,099.58                | 0.00                    | 0.00                   | 0.00                  |
| 19,800.00             | 90.77           | 359.41      | 12,574.74             | 7,195.71     | -411.64      | 7,199.57                | 0.00                    | 0.00                   | 0.00                  |
| 19,900.00             | 90.77           | 359.41      | 12,573.39             | 7,295.70     | -412.67      | 7,299.56                | 0.00                    | 0.00                   | 0.00                  |
| 20,000.00             | 90.77           | 359.41      | 12,572.04             | 7,395.68     | -413.70      | 7,399.55                | 0.00                    | 0.00                   | 0.00                  |
| 20,100.00             | 90.77           | 359.41      | 12,570.69             | 7,495.67     | -414.73      | 7,499.54                | 0.00                    | 0.00                   | 0.00                  |
| 20,200.00             | 90.77           | 359.41      | 12,569.34             | 7,595.65     | -415.76      | 7,599.53                | 0.00                    | 0.00                   | 0.00                  |
| 20,300.00             | 90.77           | 359.41      | 12,567.98             | 7,695.64     | -416.79      | 7,699.52                | 0.00                    | 0.00                   | 0.00                  |
| 20,400.00             | 90.77           | 359.41      | 12,566.63             | 7,795.62     | -417.82      | 7,799.51                | 0.00                    | 0.00                   | 0.00                  |
| 20,500.00             | 90.77           | 359.41      | 12,565.28             | 7,895.61     | -418.85      | 7,899.50                | 0.00                    | 0.00                   | 0.00                  |
| 20,600.00             | 90.77           | 359.41      | 12,563.93             | 7,995.60     | -419.88      | 7,999.50                | 0.00                    | 0.00                   | 0.00                  |
| 20,700.00             | 90.77           | 359.41      | 12,562.57             | 8,095.58     | -420.90      | 8,099.49                | 0.00                    | 0.00                   | 0.00                  |
| 20,800.00             | 90.77           | 359.41      | 12,561.22             | 8,195.57     | -421.93      | 8,199.48                | 0.00                    | 0.00                   | 0.00                  |
| 20,853.37             | 90.77           | 359.41      | 12,560.50             | 8,248.93     | -422.48      | 8,252.84                | 0.00                    | 0.00                   | 0.00                  |
| TD at 20853.37        |                 |             |                       |              |              |                         |                         |                        |                       |

| Design Targets                                                                                                                      |               |              |            |              |              |                 |                |                                         |           |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------------------------------------|-----------|
| Target Name<br>- hit/miss target<br>- Shape                                                                                         | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude                                | Longitude |
| BHL v4 - Lonesome Dove<br>- plan hits target center<br>- Rectangle (sides W100.00 H7,814.71 D0.00)                                  | -0.77         | 359.41       | 12,560.50  | 8,248.93     | -422.48      | 388,685.76      | 834,046.51     | 32° 3' 54.195480 N 103° 23' 18.331512 W |           |
| LTPv3 - Lonesome Dove<br>- plan misses target center by 0.05usft at 20763.36usft MD (12561.72 TVD, 8158.93 N, -421.56 E)<br>- Point | 0.00          | 0.00         | 12,561.72  | 8,158.93     | -421.50      | 388,595.76      | 834,047.49     | 32° 3' 53.304845 N 103° 23' 18.329281 W |           |
| FTPv3 - Lonesome Dove<br>- plan misses target center by 51.84usft at 13047.00usft MD (12666.10 TVD, 448.60 N, -292.36 E)<br>- Point | 0.00          | 0.00         | 12,665.50  | 434.63       | -342.28      | 380,871.46      | 834,126.71     | 32° 2' 36.866184 N 103° 23' 18.194424 W |           |



## Planning Report



|                  |                                 |                                     |                              |
|------------------|---------------------------------|-------------------------------------|------------------------------|
| <b>Database:</b> | USA Compass                     | <b>Local Co-ordinate Reference:</b> | Well 413H (FKA 403H)         |
| <b>Company:</b>  | Titus Oil & Gas Production, LLC | <b>TVD Reference:</b>               | RKB @ 3234.50usft (Est. RKB) |
| <b>Project:</b>  | Lea County, NM - (NAD83 NME)    | <b>MD Reference:</b>                | RKB @ 3234.50usft (Est. RKB) |
| <b>Site:</b>     | Lonesome Dove Fed Com           | <b>North Reference:</b>             | Grid                         |
| <b>Well:</b>     | 413H (FKA 403H)                 | <b>Survey Calculation Method:</b>   | Minimum Curvature            |
| <b>Wellbore:</b> | OH                              |                                     |                              |
| <b>Design:</b>   | Plan 3 11-04-21                 |                                     |                              |

| Casing Points         |                       |            |                     |                   |
|-----------------------|-----------------------|------------|---------------------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name       | Casing Diameter (") | Hole Diameter (") |
| 20,793.40             | 12,561.31             | 20" Casing | 20                  | 24                |

| Plan Annotations      |                       |                   |              |                                            |
|-----------------------|-----------------------|-------------------|--------------|--------------------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                                    |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                            |
| 1,600.00              | 1,600.00              | 0.00              | 0.00         | KOP, Begin 1.50°/100' Build                |
| 1,766.98              | 1,766.93              | -2.58             | -2.58        | Hold 2.50° Inc at 225.00° Azm              |
| 4,836.06              | 4,833.07              | -97.42            | -97.42       | Begin 1.50°/100' Drop                      |
| 5,003.04              | 5,000.00              | -100.00           | -100.00      | Begin Vertical Hold                        |
| 12,193.04             | 12,190.00             | -100.00           | -100.00      | KOP2, Begin 12.00°/100' Build              |
| 12,949.46             | 12,667.42             | 355.71            | -262.72      | LP, Hold 90.77° Inc, Begin 4.00°/100' Turn |
| 13,425.92             | 12,660.94             | 822.55            | -346.04      | Hold 359.41° Azm                           |
| 20,853.37             | 12,560.50             | 8,248.93          | -422.48      | TD at 20853.37                             |

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 73724

CONDITIONS

|                                                                                                       |                                                      |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Operator:<br>Titus Oil & Gas Production, LLC<br>420 Throckmorton St, Ste 1150<br>Fort Worth, TX 76012 | OGRID:<br>373986                                     |
|                                                                                                       | Action Number:<br>73724                              |
|                                                                                                       | Action Type:<br>[C-103] NOI Change of Plans (C-103A) |

CONDITIONS

|            |           |                |
|------------|-----------|----------------|
| Created By | Condition | Condition Date |
| pkautz     | None      | 1/21/2022      |