

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
***Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***5. Lease Serial No.  
NMNM16131

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
SHIRE 22-15 FED COM 334H9. API Well No.  
30-015-47330-00-X110. Field and Pool or Exploratory Area  
JENNINGS-BONE SPRING, WEST11. County or Parish, State  
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY

Contact: JENNY HARMS

E-Mail: jennifer.harms@devon.com

3a. Address

333 WEST SHERIDAN AVENUE  
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)

Ph: 405-552-6560

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

Sec 22 T25S R31E SESE 350FSL 815FEL  
32.109520 N Lat, 103.759972 W Lon

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

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                               |                                                    |                                           |
|------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen               | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Hydraulic Fracturing | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction     | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input type="checkbox"/> Temporarily Abandon       | Change to Original APD                    |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back            | <input type="checkbox"/> Water Disposal            |                                           |

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

## BHL/NAME CHANGE

Devon Energy Production Co., L.P. (Devon) respectfully requests to move the BHL, have a name change, and formation change on the subject well. Please see attached revised C102, Drill plan, directional plan.

Permitted BHL: NENE, 330 FNL, 430 FEL 15-25S-31E

Proposed BHL: NENE, 20 FNL, 430 FEL, 15-25S-31E

Permitted Well name: SHIRE 22-15 FED COM 334H

Proposed Well name: SHIRE 22-15 FED COM 718H

Entered - KMS NMOCD

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

**Electronic Submission #537552 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION COMPANY LP, sent to the Carlsbad  
Committed to AFMSS for processing by PRISCILLA PEREZ on 11/19/2020 (21PP0614SE)**

Name (Printed/Typed) JENNY HARMS

Title REGULATORY COMPLIANCE ANALYST

Signature (Electronic Submission)

Date 11/16/2020

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By LONG VO

Title PETROLEUM ENGINEER

Date 11/22/2020

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

Office Carlsbad

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

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**Additional data for EC transaction #537552 that would not fit on the form**

**32. Additional remarks, continued**

Permitted Formation: 96654: BONE SPRING WC BIG SINK BONE SPRING  
Proposed Formation: 98220: PURPLE SAGE; WOLFCAMP (GAS)

## Revisions to Operator-Submitted EC Data for Sundry Notice #537552

|                | Operator Submitted                                                                                     | BLM Revised (AFMSS)                                                                                       |
|----------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Sundry Type:   | APDCH<br>NOI                                                                                           | APDCH<br>NOI                                                                                              |
| Lease:         | NMNM16131                                                                                              | NMNM16131                                                                                                 |
| Agreement:     |                                                                                                        |                                                                                                           |
| Operator:      | DEVON ENERGY PRODUCTION CO LP<br>333 W SHERIDAN AVE<br>OKLAHOMA CITY, OK 73102<br>Ph: 405-552-6560     | DEVON ENERGY PRODUCTION COM LP<br>333 WEST SHERIDAN AVENUE<br>OKLAHOMA CITY, OK 73102<br>Ph: 405 552 6571 |
| Admin Contact: | JENNY HARMS<br>REGULATORY COMPLIANCE ANALYST<br>E-Mail: jennifer.harms@dvn.com<br><br>Ph: 405-552-6560 | JENNY HARMS<br>REGULATORY COMPLIANCE ANALYST<br>E-Mail: jennifer.harms@dvn.com<br><br>Ph: 405-552-6560    |
| Tech Contact:  | JENNY HARMS<br>REGULATORY COMPLIANCE ANALYST<br>E-Mail: jennifer.harms@dvn.com<br><br>Ph: 405-552-6560 | JENNY HARMS<br>REGULATORY COMPLIANCE ANALYST<br>E-Mail: jennifer.harms@dvn.com<br><br>Ph: 405-552-6560    |
| Location:      |                                                                                                        |                                                                                                           |
| State:         | NM                                                                                                     | NM                                                                                                        |
| County:        | EDDY                                                                                                   | EDDY                                                                                                      |
| Field/Pool:    | JENNINGS; BONE SPRING, WE                                                                              | JENNINGS-BONE SPRING, WEST                                                                                |
| Well/Facility: | SHIRE 22-15 FED COM 334H<br>Sec 22 T25S R31E SESE 350FSL 815FEL                                        | SHIRE 22-15 FED COM 334H<br>Sec 22 T25S R31E SESE 350FSL 815FEL<br>32.109520 N Lat, 103.759972 W Lon      |

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 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

|                                                |                                                                            |                                                       |
|------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------|
| <sup>1</sup> API Number<br><b>30-015-47330</b> | <sup>2</sup> Pool Code<br>98220                                            | <sup>3</sup> Pool Name<br>PURPLE SAGE; WOLFCAMP (GAS) |
| <sup>4</sup> Property Code<br>328885           | <sup>5</sup> Property Name<br><b>SHIRE 22-15 FED COM</b>                   | <sup>6</sup> Well Number<br><b>718H</b>               |
| <sup>7</sup> OGRID No.<br><b>6137</b>          | <sup>8</sup> Operator Name<br><b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b> | <sup>9</sup> Elevation<br><b>3336.0</b>               |

| <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      |
| <b>P</b>                       | <b>22</b> | <b>25 S</b> | <b>31 E</b> |         | <b>350</b>    | <b>SOUTH</b>     | <b>815</b>    | <b>EAST</b>    | <b>EDDY</b> |

| <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>A</b>                                                     | <b>15</b> | <b>25 S</b> | <b>31 E</b> |         | <b>20</b>     | <b>NORTH</b>     | <b>430</b>    | <b>EAST</b>    | <b>EDDY</b> |

|                                      |                               |                                  |                         |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>640 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|

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.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>NW CORNER SEC. 15<br/>LAT. = 32.1376857°N<br/>LONG. = 103.7743767°W<br/>NMSP EAST (FT)<br/>N = 414274.67<br/>E = 714349.16</p> <p>W/4 CORNER SEC. 15<br/>LAT. = 32.1303992°N<br/>LONG. = 103.7744266°W<br/>NMSP EAST (FT)<br/>N = 411623.90<br/>E = 714347.47</p> <p>SECTION CORNER<br/>LAT. = 32.1230977°N<br/>LONG. = 103.7744128°W<br/>NMSP EAST (FT)<br/>N = 408967.74<br/>E = 714365.52</p> <p>W/4 CORNER SEC. 22<br/>LAT. = 32.1158227°N<br/>LONG. = 103.774447°W<br/>NMSP EAST (FT)<br/>N = 406321.16<br/>E = 714369.37</p> <p>SW CORNER SEC. 22<br/>LAT. = 32.1085472°N<br/>LONG. = 103.7744766°W<br/>NMSP EAST (FT)<br/>N = 403674.44<br/>E = 714373.22</p> |  |  |  | <p>N89°42'57"E 2652.44 FT N89°37'34"E 2664.18 FT</p> <p>N/4 CORNER SEC. 15<br/>LAT. = 32.1376837°N<br/>LONG. = 103.7658094°W<br/>NMSP EAST (FT)<br/>N = 414287.82<br/>E = 717000.99</p> <p>LAST TAKE POINT<br/>100' FNL, 430' FEL<br/>LAT. = 32.1374164°N<br/>LONG. = 103.7585957°W</p> <p>SEC. 15</p> <p>NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAVD88.</p> <p>QUARTER CORNER<br/>LAT. = 32.1230874°N<br/>LONG. = 103.7659304°W<br/>NMSP EAST (FT)<br/>N = 408977.73<br/>E = 713991.53</p> <p>SEC. 22</p> <p>FIRST TAKE POINT<br/>100' FSL, 430' FEL<br/>LAT. = 32.1088335°N<br/>LONG. = 103.7587321°W</p> <p>SHIRE 22-15 FED COM 718H<br/>ELEV. = 3336.0'<br/>LAT. = 32.1095196°N (NAD83)<br/>LONG. = 103.7599752°W<br/>NMSP EAST (FT)<br/>N = 404051.74<br/>E = 718861.38</p> <p>S/4 CORNER SEC. 22<br/>LAT. = 32.1085528°N<br/>LONG. = 103.7659126°W<br/>NMSP EAST (FT)<br/>N = 403690.32<br/>E = 717024.86</p> <p>SURFACE LOCATION</p> <p>NE CORNER SEC. 15<br/>LAT. = 32.1376926°N<br/>LONG. = 103.7572043°W<br/>NMSP EAST (FT)<br/>N = 414305.21<br/>E = 719664.53</p> <p>E/4 CORNER SEC. 15<br/>LAT. = 32.1304013°N<br/>LONG. = 103.7572709°W<br/>NMSP EAST (FT)<br/>N = 411652.64<br/>E = 719658.11</p> <p>SECTION CORNER<br/>LAT. = 32.1231179°N<br/>LONG. = 103.7573247°W<br/>NMSP EAST (FT)<br/>N = 409002.97<br/>E = 719655.63</p> <p>E/4 CORNER SEC. 22<br/>LAT. = 32.1158546°N<br/>LONG. = 103.7573421°W<br/>NMSP EAST (FT)<br/>N = 406360.67<br/>E = 719664.36</p> <p>SE CORNER SEC. 22<br/>LAT. = 32.1085597°N<br/>LONG. = 103.7573438°W<br/>NMSP EAST (FT)<br/>N = 403706.91<br/>E = 719678.01</p> |  |  |  | <p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Jenny Harms</i> 11-16-2020<br/>Signature Date</p> <p>JENNY HARMS<br/>Printed Name</p> <p>JENNY.HARMS@DVN.COM<br/>E-mail Address</p> <p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>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.</p> <p>SEPTEMBER 30, 2020<br/>Date of Survey</p> <p><i>[Signature]</i><br/>Signature and Seal of Professional Surveyor</p> <p>Certificate Number: F. J. MONTE JARAMILLO, PLS 12797<br/>SURVEY NO. 7576A</p> |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

Intent ☒ As Drilled ☐

|                                                            |                                       |                     |
|------------------------------------------------------------|---------------------------------------|---------------------|
| API #                                                      |                                       |                     |
| Operator Name:<br>DEVON ENERGY PRODUCTION<br>COMPANY, L.P. | Property Name:<br>SHIRE 22-15 FED COM | Well Number<br>718H |

Kick Off Point (KOP)

|                         |               |                 |              |     |                            |          |                 |          |                |
|-------------------------|---------------|-----------------|--------------|-----|----------------------------|----------|-----------------|----------|----------------|
| UL                      | Section<br>22 | Township<br>25S | Range<br>31E | Lot | Feet<br>46 FSL             | From N/S | Feet<br>430 FEL | From E/W | County<br>EDDY |
| Latitude<br>32.10857218 |               |                 |              |     | Longitude<br>-103.75873589 |          |                 |          | NAD<br>83      |

First Take Point (FTP)

|                        |               |                 |              |     |                          |                   |             |                  |                |
|------------------------|---------------|-----------------|--------------|-----|--------------------------|-------------------|-------------|------------------|----------------|
| UL<br>P                | Section<br>22 | Township<br>25S | Range<br>31E | Lot | Feet<br>100              | From N/S<br>SOUTH | Feet<br>430 | From E/W<br>EAST | County<br>EDDY |
| Latitude<br>32.1088335 |               |                 |              |     | Longitude<br>103.7587321 |                   |             |                  | NAD<br>83      |

Last Take Point (LTP)

|                        |               |                 |              |     |                          |                   |             |                  |                |
|------------------------|---------------|-----------------|--------------|-----|--------------------------|-------------------|-------------|------------------|----------------|
| UL<br>A                | Section<br>15 | Township<br>25S | Range<br>31E | Lot | Feet<br>100              | From N/S<br>NORTH | Feet<br>430 | From E/W<br>EAST | County<br>EDDY |
| Latitude<br>32.1374164 |               |                 |              |     | Longitude<br>103.7585957 |                   |             |                  | NAD<br>83      |

Is this well the defining well for the Horizontal Spacing Unit? ☐ NO

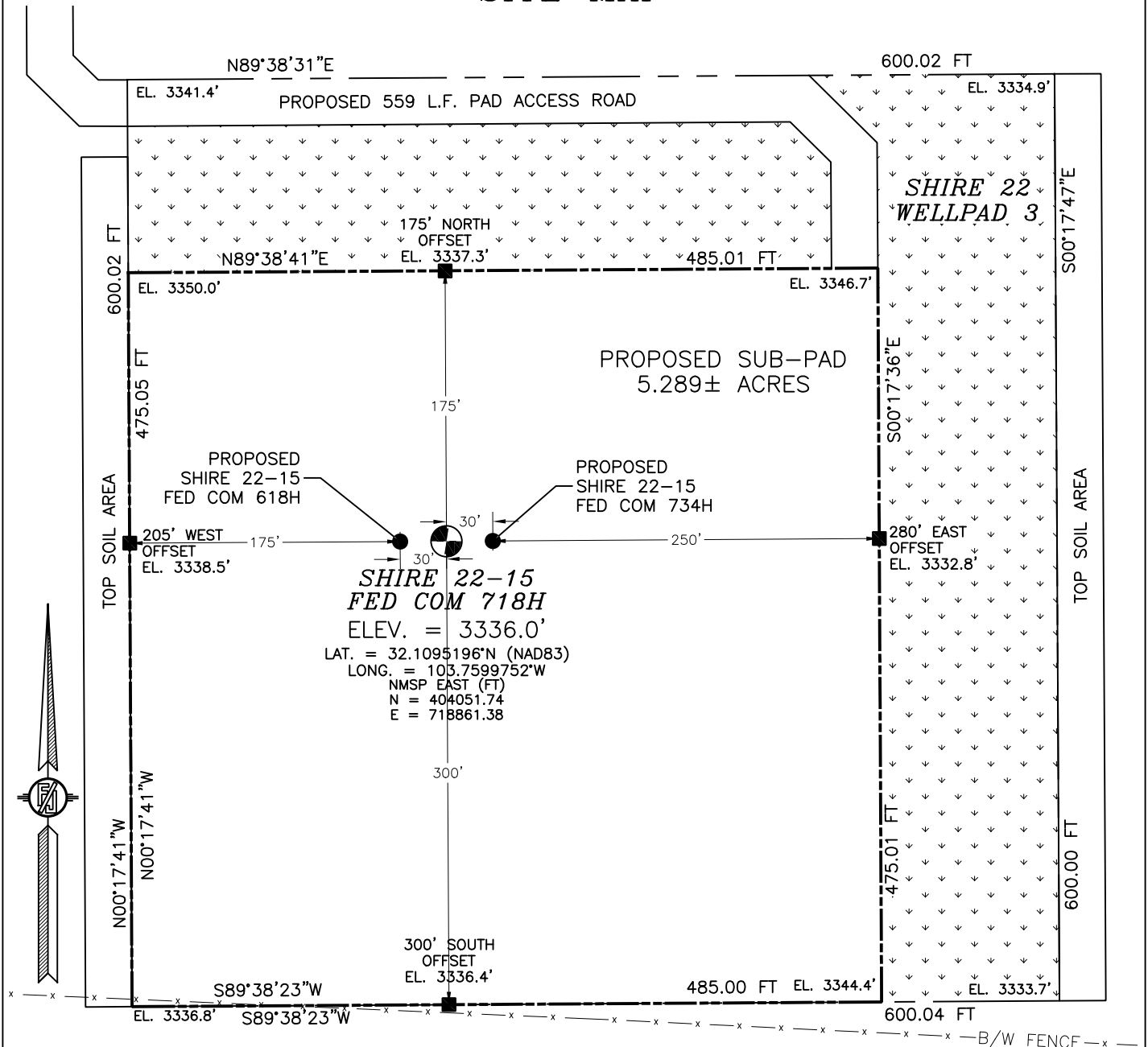
Is this well an infill well? ☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

|                |                |             |
|----------------|----------------|-------------|
| API #          |                |             |
| Operator Name: | Property Name: | Well Number |

KZ 06/29/2018

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SITE MAP



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF ST. HWY. 128 & CR. 1 (ORLA) GO SOUTH ON CR.1 APPROX 6.2 MILES, TURN RIGHT (WEST) ON EXISTING CALICHE ROAD (MONSANTO) AND GO APPROX 2.2 MILES, ROAD TURNS RIGHT (NORTH) AND GO APPROX 0.8 MILES, ROAD TURNS LEFT (WEST) AND GO APPROX. 2 MILES, TURN LEFT (SOUTHWEST) AND GO APPROX. 0.7 MILES, ROAD TURNS LEFT (SOUTH) AND GO APPROX. 0.2 MILES, TURN LEFT AND GO WEST APPROX. 0.2 MILES TO A PROPOSED ROAD LATH ON SOUTH SIDE OF ROAD, FOLLOW ROAD LATHS 1224' SOUTH, THEN EAST 485', THEN SOUTHEAST 50', THEN SOUTH 75' TO THE NORTHEAST RAIL CORNER FOR THIS LOCATION.

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

FILIMON F. JARAMILLO, LICENSE NO. 2781

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3341

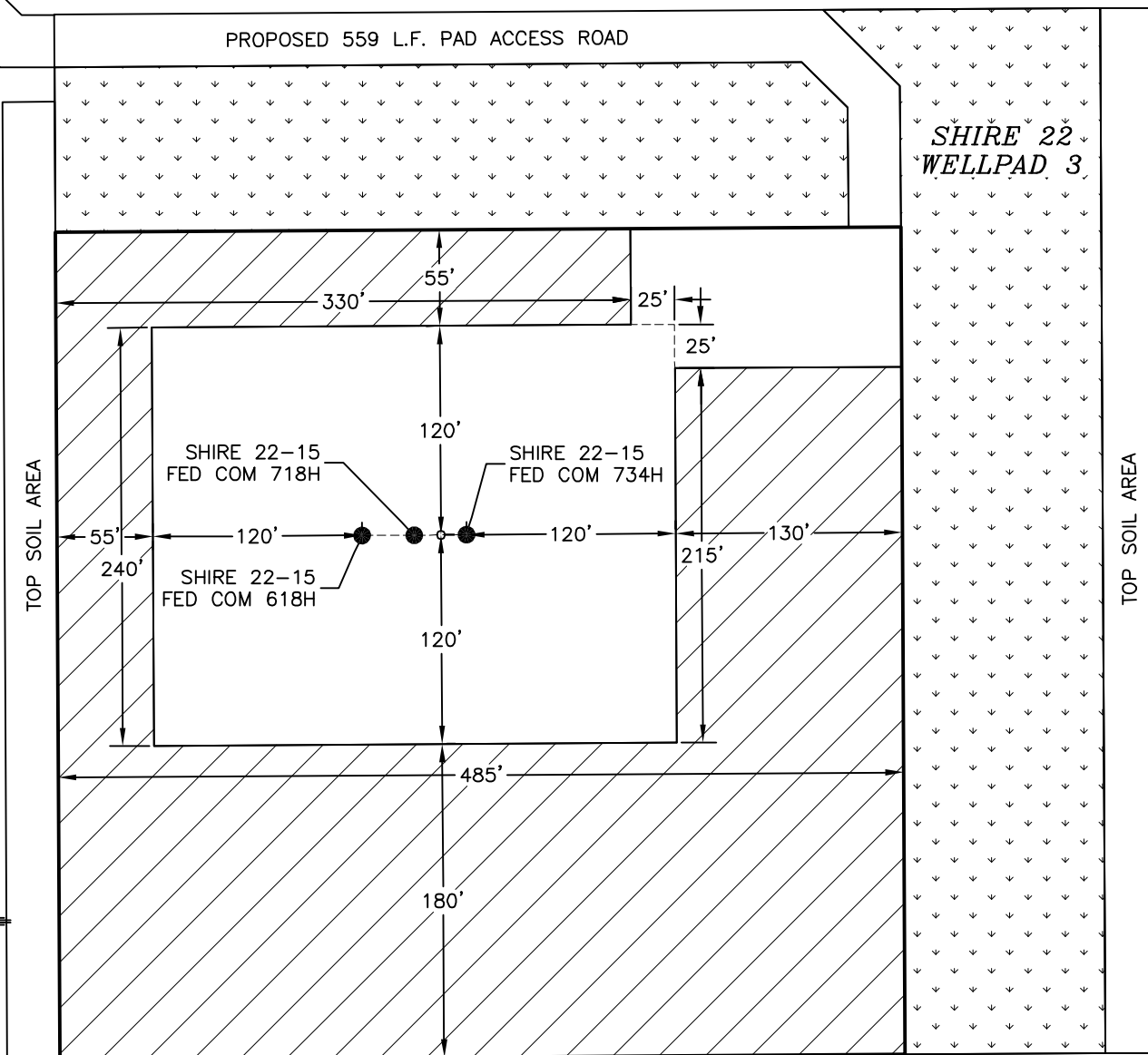
DEVON ENERGY PRODUCTION COMPANY, L.P.  
**SHIRE 22-15 FED COM 718H**  
LOCATED 350 FT. FROM THE SOUTH LINE  
AND 815 FT. FROM THE EAST LINE OF  
SECTION 22, TOWNSHIP 25 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

SURVEY NO. 7576A

CARLSBAD, NEW MEXICO

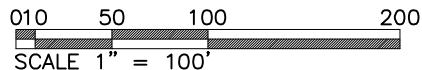
SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO  
 INTERIM SITE BUILD PLAN



DENOTES INTERIM PAD  
 RECLAMATION AREA



DENOTES GRADING SITE  
 RECLAMATION AREA



3.365± ACRES INTERIM PAD RECLAMATION AREA  
 2.590± ACRES GRADING SITE RECLAMATION AREA  
 2.310± ACRES NON-RECLAIMED AREA  
 8.265± ACRES SHIRE 22 WELLPAD 3

DEVON ENERGY PRODUCTION COMPANY, L.P.  
**SHIRE 22-15 FED COM 718H**  
 LOCATED 350 FT. FROM THE SOUTH LINE  
 AND 815 FT. FROM THE EAST LINE OF  
 SECTION 22, TOWNSHIP 25 SOUTH,  
 RANGE 31 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO

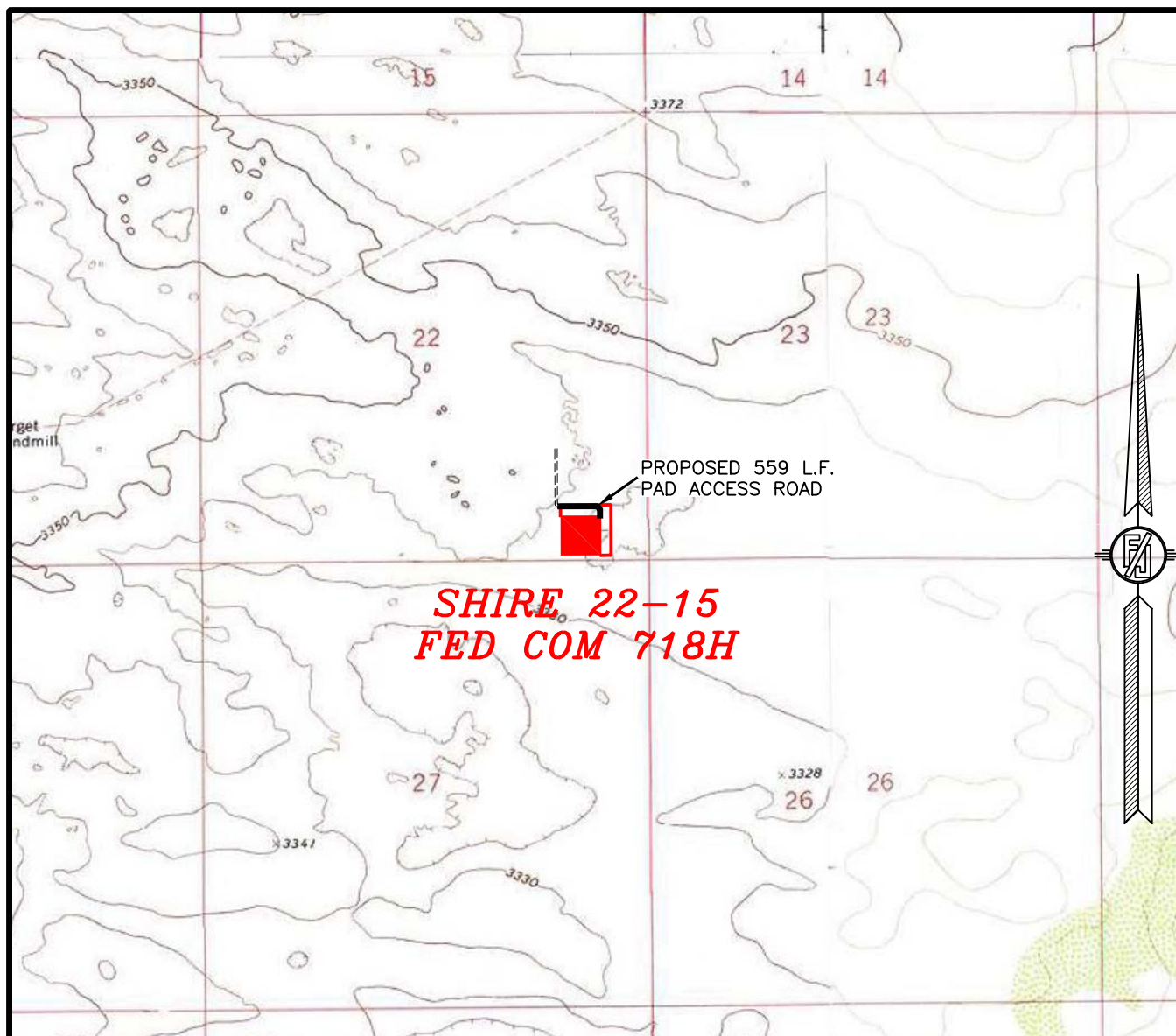
SEPTEMBER 30, 2020

SURVEY NO. 7576A

MADRON SURVEYING, INC. 301 SOUTH CANAL  
 (575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



USGS QUAD MAP:  
PHANTOM BANKS

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.  
**SHIRE 22-15 FED COM 718H**  
LOCATED 350 FT. FROM THE SOUTH LINE  
AND 815 FT. FROM THE EAST LINE OF  
SECTION 22, TOWNSHIP 25 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

MADRON SURVEYING, INC.

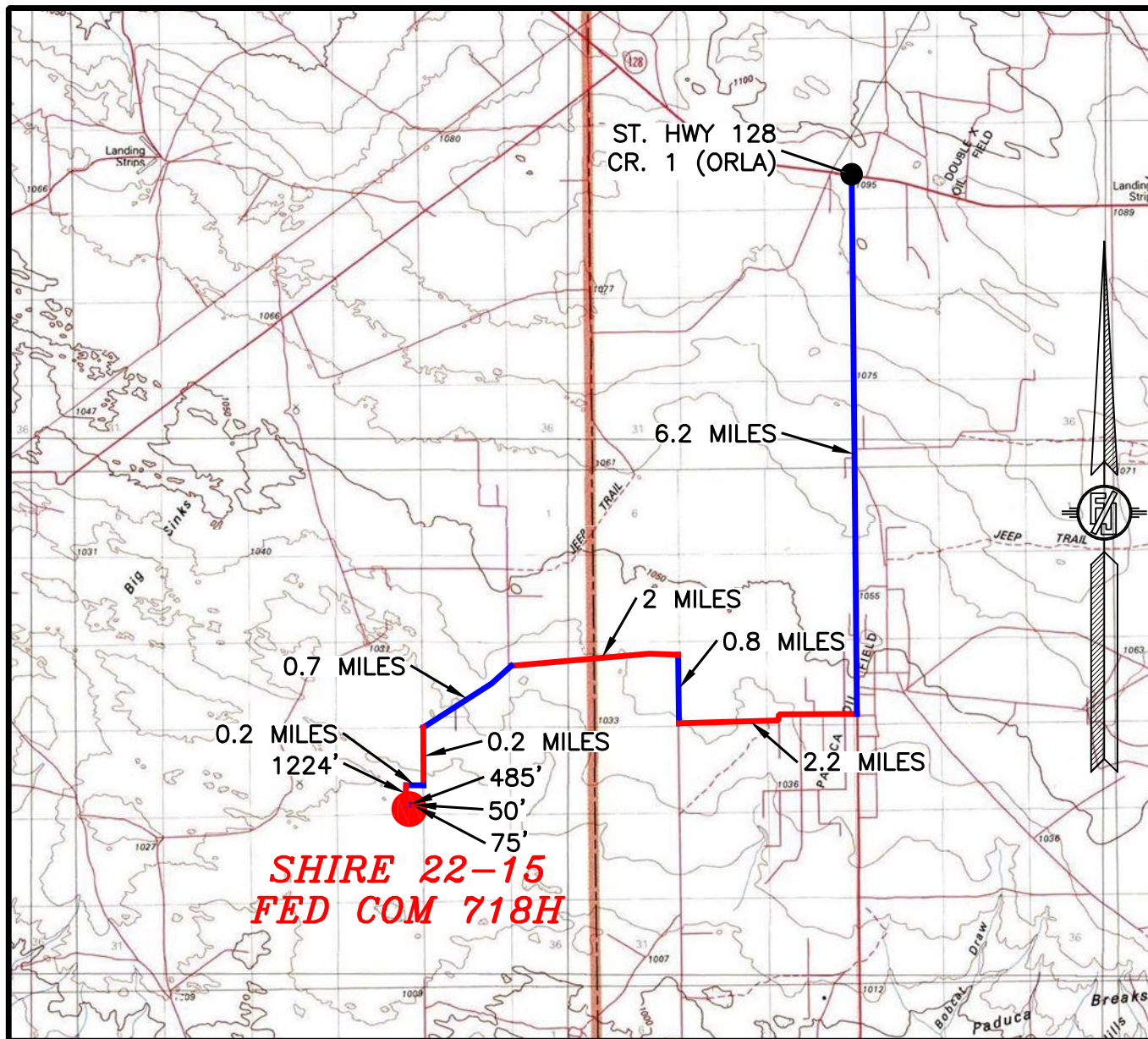
301 SOUTH CANAL  
(575) 234-3341

CARLSBAD, NEW MEXICO

SURVEY NO. 7576A



SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF ST. HWY. 128 & CR. 1 (ORLA) GO SOUTH ON CR.1 APPROX 6.2 MILES, TURN RIGHT (WEST) ON EXISTING CALICHE ROAD (MONSANTO) AND GO APPROX 2.2 MILES, ROAD TURNS RIGHT (NORTH) AND GO APPROX 0.8 MILES, ROAD TURNS LEFT (WEST) AND GO APPROX. 2 MILES, TURN LEFT (SOUTHWEST) AND GO APPROX. 0.7 MILES, ROAD TURNS LEFT (SOUTH) AND GO APPROX. 0.2 MILES, TURN LEFT AND GO WEST APPROX. 0.2 MILES TO A PROPOSED ROAD LATH ON SOUTH SIDE OF ROAD, FOLLOW ROAD LATHS 1224' SOUTH, THEN EAST 485', THEN SOUTHEAST 50', THEN SOUTH 75' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.

**SHIRE 22-15 FED COM 718H**

LOCATED 350 FT. FROM THE SOUTH LINE  
AND 815 FT. FROM THE EAST LINE OF  
SECTION 22, TOWNSHIP 25 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

SURVEY NO. 7576A

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
AERIAL PHOTO



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
FEB. 2019

DEVON ENERGY PRODUCTION COMPANY, L.P.  
**SHIRE 22-15 FED COM 718H**  
LOCATED 350 FT. FROM THE SOUTH LINE  
AND 815 FT. FROM THE EAST LINE OF  
SECTION 22, TOWNSHIP 25 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

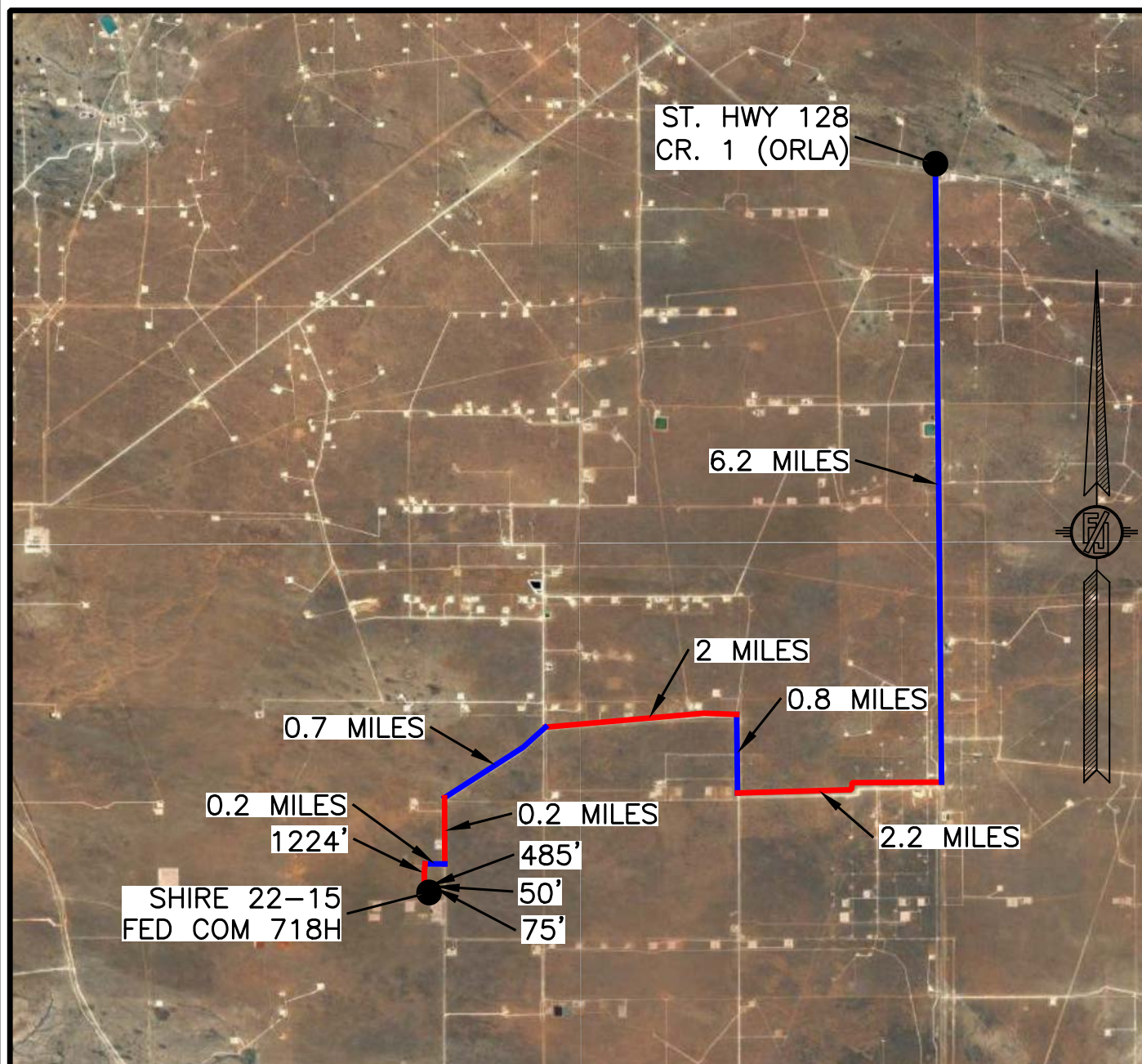
MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3341

SURVEY NO. 7576A  
CARLSBAD, NEW MEXICO



SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
AERIAL ACCESS ROUTE MAP



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
FEB. 2019

DEVON ENERGY PRODUCTION COMPANY, L.P.  
**SHIRE 22-15 FED COM 718H**  
LOCATED 350 FT. FROM THE SOUTH LINE  
AND 815 FT. FROM THE EAST LINE OF  
SECTION 22, TOWNSHIP 25 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

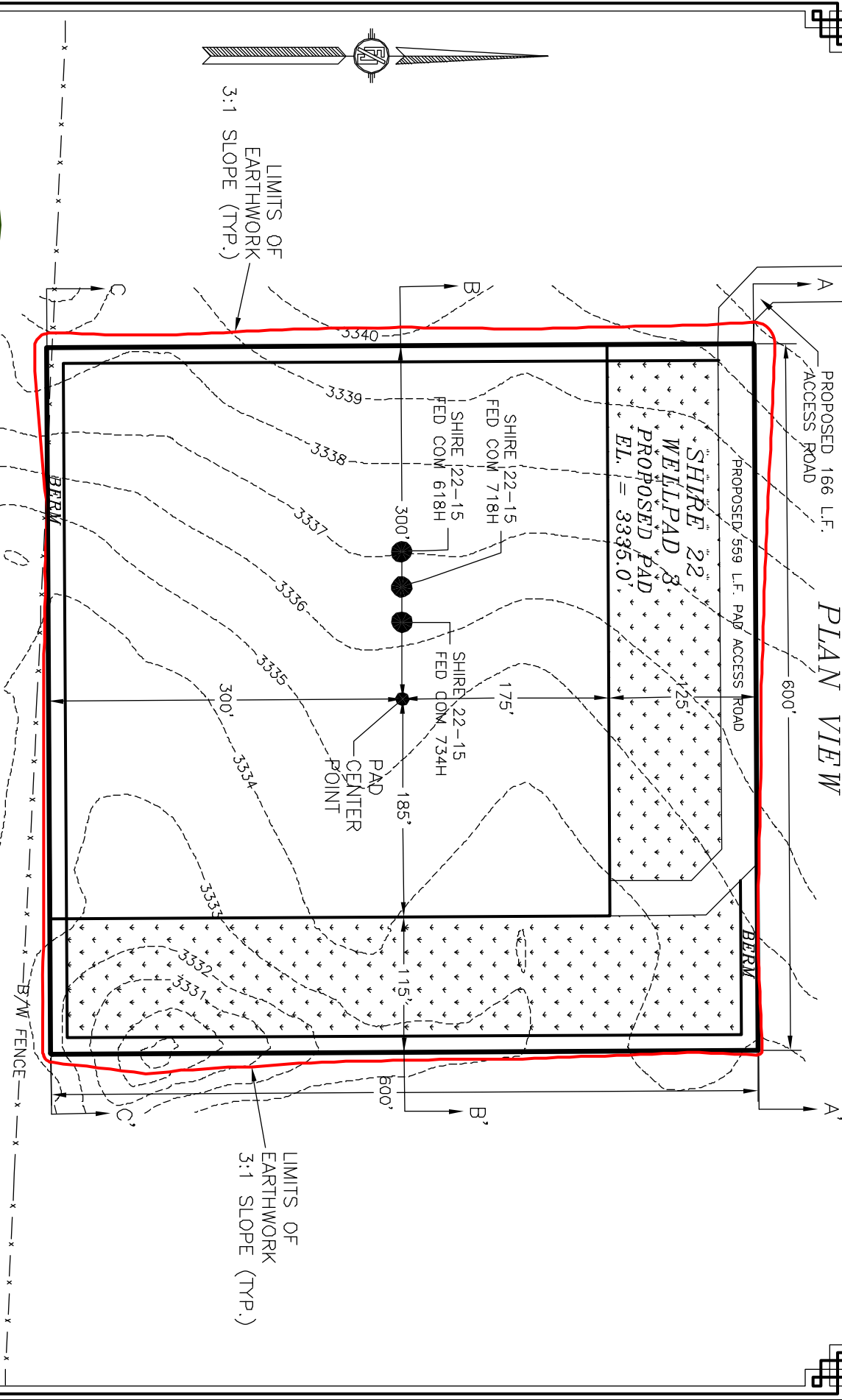
SURVEY NO. 7576A

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3341

CARLSBAD, NEW MEXICO

# PLAN VIEW



I, FILMON F. JARAMA, JR., A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT THE FOREGOING SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE SURVEYING ACT AND THE RULES AND REGULATIONS OF THE BOARD OF SURVEYING AND MAPPING, NEW MEXICO. I AM RESPONSIBLE FOR THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

DEVON ENERGY PRODUCTION COMPANY, L.P.  
 PAD GRADING AND CROSS SECTIONS  
**FOR SHIRE 22-15 FED COM 718H**  
 SECTION 22, TOWNSHIP 26 SOUTH,  
 RANGE 31 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO

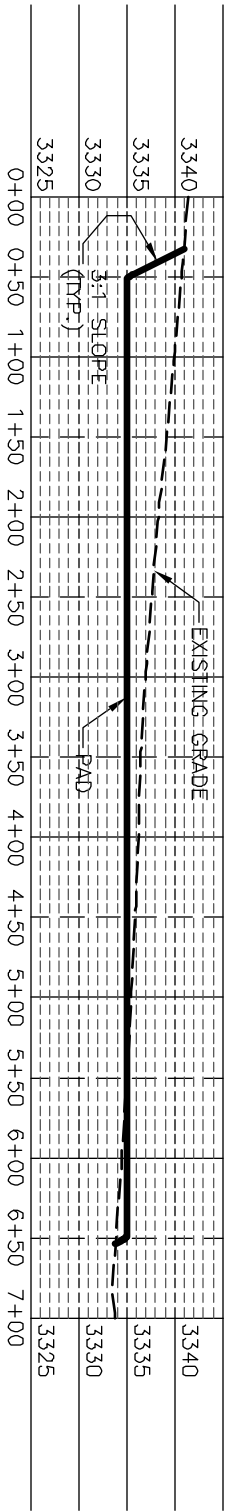
012 60 120 240  
 SCALE 1" = 120'

| CUT          | FILL         | NET               |
|--------------|--------------|-------------------|
| 14239 CU. YD | 10561 CU. YD | 3678 CU. YD (CUT) |

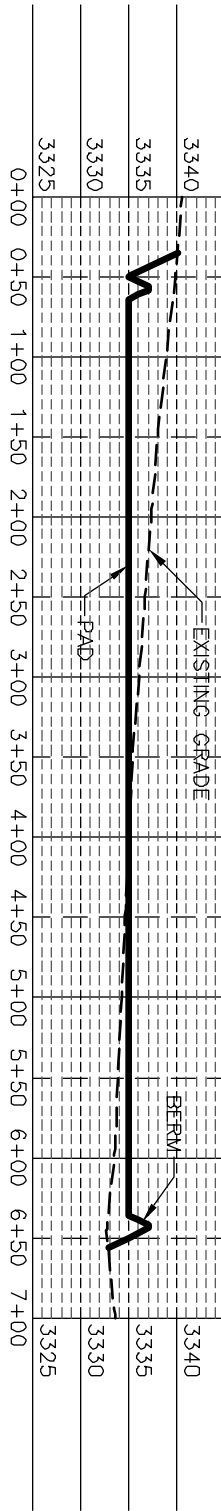
EARTHWORK QUANTITIES ARE ESTIMATED

# CROSS-SECTIONS

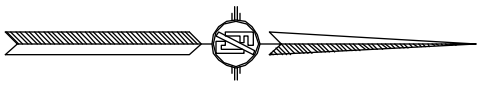
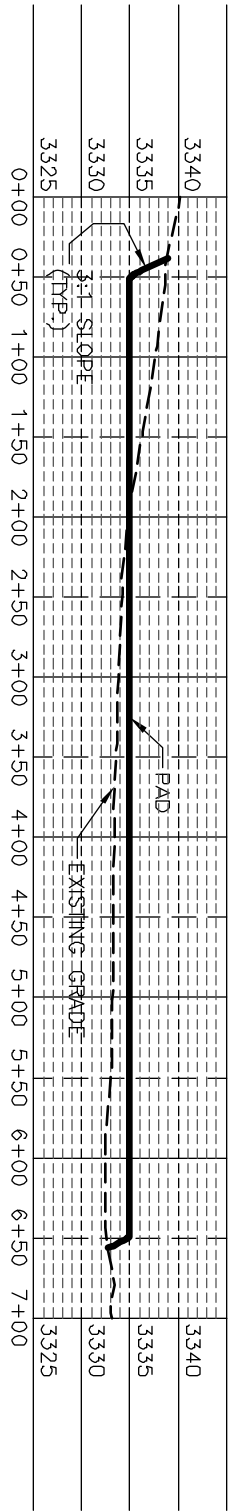
SECTION A-A'



SECTION B-B'



SECTION C-C'



I, FILMON F. JARAMA, a New Mexico Registered Professional Surveyor, certify that the foregoing is a true and correct copy of the original survey and plan as shown to me by the client, and that the same meets the minimum standards for accuracy in New Mexico.

DEVON ENERGY PRODUCTION COMPANY, L.P.  
 PAD GRADING AND CROSS SECTIONS  
 FOR SHIRE 22-15 FED COM 718H  
 SECTION 22, TOWNSHIP 26 SOUTH,  
 RANGE 31 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO

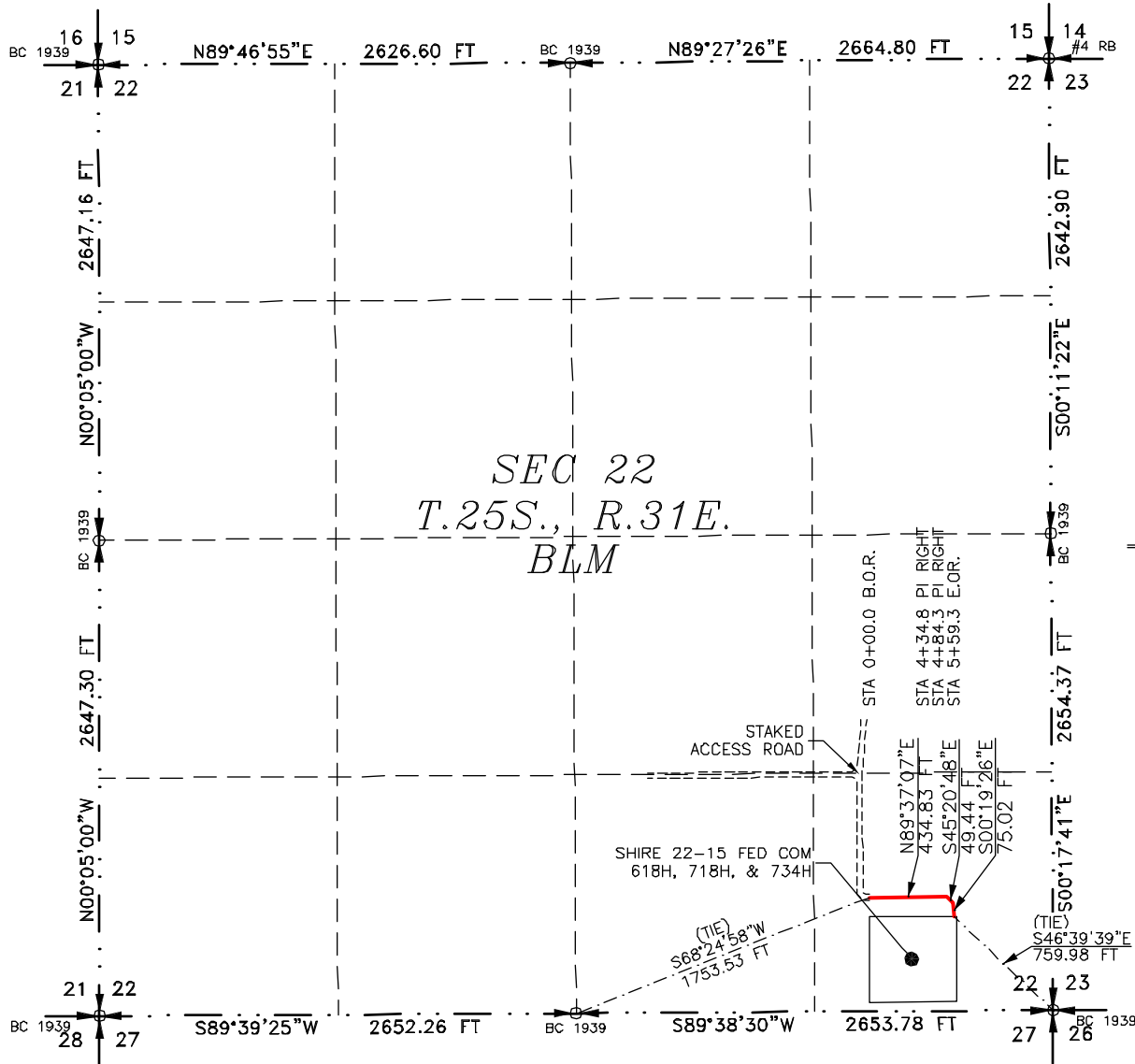
|                                |              |                   |     |
|--------------------------------|--------------|-------------------|-----|
| 012                            | 60           | 120               | 240 |
| SCALE 1" = 120' - 1" = 20' VER |              |                   |     |
| CUT                            | FILL         | NET               |     |
| 14239 CU. YD                   | 10561 CU. YD | 3678 CU. YD (CUT) |     |

EARTHWORK QUANTITIES ARE ESTIMATED

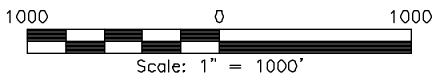
# ACCESS ROAD PLAT

PAD ACCESS ROAD FOR SHIRE 22-15 FED COM 618H, 718H, & 734H

DEVON ENERGY PRODUCTION COMPANY, L.P.  
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SEPTEMBER 30, 2020



SEE NEXT SHEET (2-2) FOR DESCRIPTION



## GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

## SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30th DAY OF SEPTEMBER 2020

FILMON F. JARAMILLO  
12797  
MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3341

SURVEY NO. 7576A

ARANSABAD, NEW MEXICO

## ACCESS ROAD PLAT

PAD ACCESS ROAD FOR SHIRE 22-15 FED COM 618H, 718H, & 734H

DEVON ENERGY PRODUCTION COMPANY, L.P.  
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
SEPTEMBER 30, 2020

### DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S68°24'58"W, A DISTANCE OF 1753.53 FEET;  
THENCE N89°37'07"E A DISTANCE OF 434.83 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S45°20'48"E A DISTANCE OF 49.44 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S00°19'26"E A DISTANCE OF 75.02 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S46°39'39"E, A DISTANCE OF 759.98 FEET;

SAID STRIP OF LAND BEING 559.29 FEET OR 33.90 RODS IN LENGTH, CONTAINING 0.385 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4    559.29 L.F.    33.90 RODS    0.385 ACRES

### SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30th DAY OF SEPTEMBER 2020

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SHEET: 2-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220 (575) 234-3341

SURVEY NO. 7576A

**1. Geologic Formations**

|               |       |                              |     |
|---------------|-------|------------------------------|-----|
| TVD of target | 11831 | Pilot hole depth             | N/A |
| MD at TD:     | 22249 | Deepest expected fresh water |     |

**Basin**

| Formation            | Depth<br>(TVD)<br>from KB | Water/Mineral<br>Bearing/Target<br>Zone? | Hazards* |
|----------------------|---------------------------|------------------------------------------|----------|
| Rustler              | 1160                      |                                          |          |
| Salt                 | 1460                      |                                          |          |
| Base of Salt         | 4330                      |                                          |          |
| Cherry Canyon        | 5295                      |                                          |          |
| Brushy Canyon        | 6650                      |                                          |          |
| 1st Bone Spring Lime | 8250                      |                                          |          |
| 1st Bone Spring Sand | 9330                      |                                          |          |
| Bone Spring 2nd      | 9950                      |                                          |          |
| 3rd Bone Spring Lime | 10440                     |                                          |          |
| Bone Spring 3rd      | 11215                     |                                          |          |
| Wolfcamp             | 11670                     |                                          |          |
|                      |                           |                                          |          |
|                      |                           |                                          |          |
|                      |                           |                                          |          |
|                      |                           |                                          |          |
|                      |                           |                                          |          |
|                      |                           |                                          |          |
|                      |                           |                                          |          |

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



**2. Casing Program (Primary Design)**

| Hole Size | Csg. Size | Wt (PPF) | Grade | Conn | Casing Interval |         | Casing Interval |          |
|-----------|-----------|----------|-------|------|-----------------|---------|-----------------|----------|
|           |           |          |       |      | From (MD)       | To (MD) | From (TVD)      | To (TVD) |
| 17 1/2    | 13 3/8    | 48       | H40   | STC  | 0               | 1185    | 0               | 1185     |
| 9 7/8     | 8 5/8     | 32       | P110  | TLW  | 0               | 11215   | 0               | 11215    |
| 7 7/8     | 5 1/2     | 17       | P110  | BTC  | 0               | 22249   | 0               | 11831    |

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

**3. Cementing Program (Primary Design)**

| Casing                     | # Sks     | TOC         | Wt. ppg | Yld (ft3/sack) | Slurry Description                       |
|----------------------------|-----------|-------------|---------|----------------|------------------------------------------|
| Surface                    | 896       | Surf        | 13.2    | 1.44           | Lead: Class C Cement + additives         |
| Int 1                      | 475       | Surf        | 9       | 3.27           | Lead: Class C Cement + additives         |
|                            | 465       | 4000' above | 13.2    | 1.44           | Tail: Class H / C + additives            |
| Int 1 Intermediate Squeeze | As Needed | Surf        | 13.2    | 1.44           | Squeeze Lead: Class C Cement + additives |
|                            | 475       | Surf        | 9       | 3.27           | Lead: Class C Cement + additives         |
|                            | 465       | 4000' above | 13.2    | 1.44           | Tail: Class H / C + additives            |
| Production                 | 117       | 9387        | 9       | 3.27           | Lead: Class H / C + additives            |
|                            | 1438      | 11387       | 13.2    | 1.44           | Tail: Class H / C + additives            |

| Casing String              | % Excess |
|----------------------------|----------|
| Surface                    | 50%      |
| Intermediate 1             | 30%      |
| Intermediate 1 (Two Stage) | 25%      |
| Prod                       | 10%      |

**4. Pressure Control Equipment (Three String Design)**

| BOP installed and tested before drilling which hole? |                                                                                                      | Size?   | Min. Required WP | Type         | ✓ | Tested to: |                               |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------|------------------|--------------|---|------------|-------------------------------|
| Int 1                                                |                                                                                                      | 13-5/8" | 5M               | Annular      |   | X          | 50% of rated working pressure |
|                                                      |                                                                                                      |         |                  | Blind Ram    |   | X          | 5M                            |
|                                                      |                                                                                                      |         |                  | Pipe Ram     |   |            |                               |
|                                                      |                                                                                                      |         |                  | Double Ram   |   | X          |                               |
|                                                      |                                                                                                      |         |                  | Other*       |   |            |                               |
| Production                                           |                                                                                                      | 13-5/8" | 5M               | Annular (5M) |   | X          | 50% of rated working pressure |
|                                                      |                                                                                                      |         |                  | Blind Ram    |   | X          | 5M                            |
|                                                      |                                                                                                      |         |                  | Pipe Ram     |   |            |                               |
|                                                      |                                                                                                      |         |                  | Double Ram   |   | X          |                               |
|                                                      |                                                                                                      |         |                  | Other*       |   |            |                               |
|                                                      |                                                                                                      |         |                  | Annular (5M) |   |            |                               |
|                                                      |                                                                                                      |         |                  | Blind Ram    |   |            |                               |
|                                                      |                                                                                                      |         |                  | Pipe Ram     |   |            |                               |
|                                                      |                                                                                                      |         |                  | Double Ram   |   |            |                               |
|                                                      |                                                                                                      |         |                  | Other*       |   |            |                               |
| N                                                    | A variance is requested for the use of a diverter on the surface casing. See attached for schematic. |         |                  |              |   |            |                               |
| Y                                                    | A variance is requested to run a 5 M annular on a 10M system                                         |         |                  |              |   |            |                               |

**5. Mud Program (Three String Design)**

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

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

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

**6. Logging and Testing Procedures****Logging, Coring and Testing**

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

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

**7. Drilling Conditions**

| Condition                  | Specify what type and where? |
|----------------------------|------------------------------|
| BH pressure at deepest TVD | 6460                         |
| Abnormal temperature       | No                           |

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

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**

Is this a walking operation? Potentially

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

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed

from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

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

Attachments

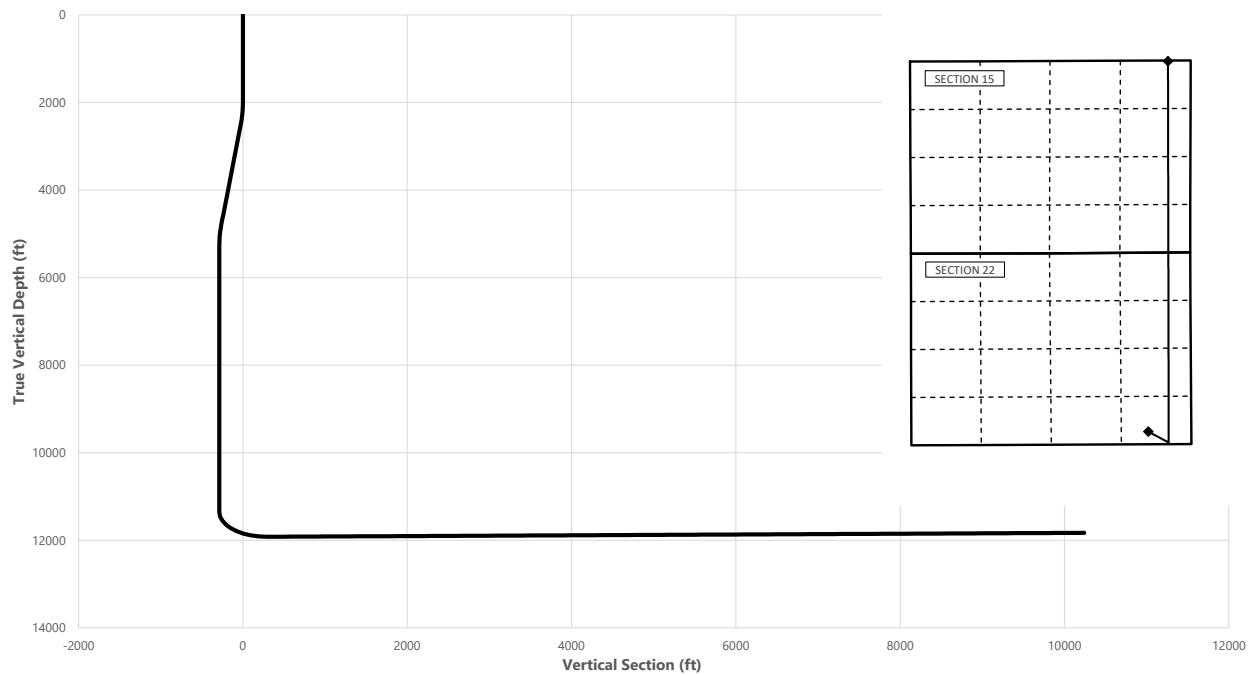
|                   |                  |
|-------------------|------------------|
| <u>X</u>          | Directional Plan |
| <u>          </u> | Other, describe  |



**Well:** Shire 22-15 Fed Com 718H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

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

| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment          |
|------------|------------|------------|-------------|------------|------------|------------|------------------|------------------|
| 0.00       | 0.00       | 0.00       | 0.00        | 0.00       | 0.00       | 0.00       | 0.00             | SHL              |
| 2000.00    | 0.00       | 128.00     | 2000.00     | 0.00       | 0.00       | 0.00       | 0.00             | Start Tangent    |
| 2500.00    | 10.00      | 128.00     | 2497.47     | -26.80     | 34.30      | -25.53     | 1.00             | Hold Tangent     |
| 4820.63    | 10.00      | 128.00     | 4782.84     | -274.89    | 351.84     | -261.88    | 0.00             | Drop to Vertical |
| 5320.63    | 0.00       | 128.00     | 5280.30     | -301.69    | 386.14     | -287.41    | 2.00             | Hold Vertical    |
| 11387.39   | 0.00       | 359.93     | 11347.07    | -301.69    | 386.14     | -287.41    | 0.00             | KOP              |
| 12292.57   | 90.52      | 359.93     | 11920.00    | 276.45     | 385.43     | 290.32     | 10.00            | Landing Point    |
| 22249.43   | 90.52      | 359.93     | 11830.00    | 10232.90   | 373.27     | 10239.71   | 0.00             | BHL              |



| Key Depths                      | MD<br>(ft) | TVD<br>(ft) |
|---------------------------------|------------|-------------|
| Rustler                         | 0.00       | 0.00        |
| Salt                            | 1460.00    | 1460.00     |
| Base of Salt                    | 4360.80    | 4330.00     |
| Cherry Canyon                   | 5335.32    | 5295.00     |
| Brushy Canyon                   | 6690.32    | 6650.00     |
| 1st Bone Spring Lime            | 8290.32    | 8250.00     |
| 1st Bone Spring Sand            | 9370.32    | 9330.00     |
| Bone Spring 2nd                 | 9990.32    | 9950.00     |
| 3rd Bone Spring Lime            | 10480.32   | 10440.00    |
| Bone Spring 3rd                 | 11255.32   | 11215.00    |
| Wolfcamp / Point of Penetration | 11730.46   | 11670.00    |
| EXIT                            | 22169.43   | 11830.74    |

**SHL**  
**KOP**  
**Point of Penetration**  
**Exit**  
**BHL**

| MD<br>(ft) | TVD<br>(ft) | Lat<br>(°) | Long<br>(°) | Section Footages                           |
|------------|-------------|------------|-------------|--------------------------------------------|
| 0.00       | 0.00        | 32.1094    | -103.7601   | 350' FSL, 815' FEL of Sec 22 in T25S, R31E |
| 11387.39   | 11347.07    | 32.1086    | -103.7588   | 46' FSL, 430' FEL of Sec 22 in T25S, R31E  |
| 11730.46   | 11670.00    | 32.1088    | -103.7587   | 100' FSL, 430' FEL of Sec 22 in T25S, R31E |
| 22169.43   | 11830.74    | 32.1374    | -103.7586   | 100' FNL, 430' FEL of Sec 15 in T25S, R31E |
| 22249.43   | 11830.00    | 32.1375    | -103.7587   | 20' FNL, 430' FEL of Sec 15 in T25S, R31E  |





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| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment          |
|------------|------------|------------|-------------|------------|------------|------------|------------------|------------------|
| 0.00       | 0.00       | 0.00       | 0.00        | 0.00       | 0.00       | 0.00       | 0.00             | SHL              |
| 100.00     | 0.00       | 128.00     | 100.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 200.00     | 0.00       | 128.00     | 200.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 300.00     | 0.00       | 128.00     | 300.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 400.00     | 0.00       | 128.00     | 400.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 500.00     | 0.00       | 128.00     | 500.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 600.00     | 0.00       | 128.00     | 600.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 700.00     | 0.00       | 128.00     | 700.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 800.00     | 0.00       | 128.00     | 800.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 900.00     | 0.00       | 128.00     | 900.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1000.00    | 0.00       | 128.00     | 1000.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1100.00    | 0.00       | 128.00     | 1100.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1160.00    | 0.00       | 128.00     | 1160.00     | 0.00       | 0.00       | 0.00       | 0.00             | Rustler          |
| 1200.00    | 0.00       | 128.00     | 1200.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1300.00    | 0.00       | 128.00     | 1300.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1400.00    | 0.00       | 128.00     | 1400.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1460.00    | 0.00       | 128.00     | 1460.00     | 0.00       | 0.00       | 0.00       | 0.00             | Salt             |
| 1500.00    | 0.00       | 128.00     | 1500.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1600.00    | 0.00       | 128.00     | 1600.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1700.00    | 0.00       | 128.00     | 1700.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1800.00    | 0.00       | 128.00     | 1800.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1900.00    | 0.00       | 128.00     | 1900.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 2000.00    | 0.00       | 128.00     | 2000.00     | 0.00       | 0.00       | 0.00       | 0.00             | Start Tangent    |
| 2100.00    | 2.00       | 128.00     | 2099.98     | -1.07      | 1.38       | -1.02      | 2.00             |                  |
| 2200.00    | 4.00       | 128.00     | 2199.84     | -4.30      | 5.50       | -4.09      | 2.00             |                  |
| 2300.00    | 6.00       | 128.00     | 2299.45     | -9.66      | 12.37      | -9.20      | 2.00             |                  |
| 2400.00    | 8.00       | 128.00     | 2398.70     | -17.16     | 21.97      | -16.35     | 2.00             |                  |
| 2500.00    | 10.00      | 128.00     | 2497.47     | -26.80     | 34.30      | -25.53     | 1.00             | Hold Tangent     |
| 2600.00    | 10.00      | 128.00     | 2595.95     | -37.49     | 47.98      | -35.71     | 0.00             |                  |
| 2700.00    | 10.00      | 128.00     | 2694.43     | -48.18     | 61.66      | -45.90     | 0.00             |                  |
| 2800.00    | 10.00      | 128.00     | 2792.91     | -58.87     | 75.35      | -56.08     | 0.00             |                  |
| 2900.00    | 10.00      | 128.00     | 2891.39     | -69.56     | 89.03      | -66.27     | 0.00             |                  |
| 3000.00    | 10.00      | 128.00     | 2989.87     | -80.25     | 102.71     | -76.45     | 0.00             |                  |
| 3100.00    | 10.00      | 128.00     | 3088.35     | -90.94     | 116.40     | -86.64     | 0.00             |                  |
| 3200.00    | 10.00      | 128.00     | 3186.83     | -101.63    | 130.08     | -96.82     | 0.00             |                  |
| 3300.00    | 10.00      | 128.00     | 3285.31     | -112.32    | 143.77     | -107.01    | 0.00             |                  |
| 3400.00    | 10.00      | 128.00     | 3383.79     | -123.01    | 157.45     | -117.19    | 0.00             |                  |
| 3500.00    | 10.00      | 128.00     | 3482.27     | -133.70    | 171.13     | -127.38    | 0.00             |                  |
| 3600.00    | 10.00      | 128.00     | 3580.75     | -144.39    | 184.82     | -137.56    | 0.00             |                  |
| 3700.00    | 10.00      | 128.00     | 3679.23     | -155.08    | 198.50     | -147.75    | 0.00             |                  |
| 3800.00    | 10.00      | 128.00     | 3777.72     | -165.78    | 212.18     | -157.93    | 0.00             |                  |
| 3900.00    | 10.00      | 128.00     | 3876.20     | -176.47    | 225.87     | -168.12    | 0.00             |                  |
| 4000.00    | 10.00      | 128.00     | 3974.68     | -187.16    | 239.55     | -178.30    | 0.00             |                  |
| 4100.00    | 10.00      | 128.00     | 4073.16     | -197.85    | 253.24     | -188.49    | 0.00             |                  |
| 4200.00    | 10.00      | 128.00     | 4171.64     | -208.54    | 266.92     | -198.67    | 0.00             |                  |
| 4300.00    | 10.00      | 128.00     | 4270.12     | -219.23    | 280.60     | -208.85    | 0.00             |                  |
| 4360.80    | 10.00      | 128.00     | 4330.00     | -225.73    | 288.92     | -215.05    | 0.00             | Base of Salt     |
| 4400.00    | 10.00      | 128.00     | 4368.60     | -229.92    | 294.29     | -219.04    | 0.00             |                  |
| 4500.00    | 10.00      | 128.00     | 4467.08     | -240.61    | 307.97     | -229.22    | 0.00             |                  |
| 4600.00    | 10.00      | 128.00     | 4565.56     | -251.30    | 321.65     | -239.41    | 0.00             |                  |
| 4700.00    | 10.00      | 128.00     | 4664.04     | -261.99    | 335.34     | -249.59    | 0.00             |                  |
| 4800.00    | 10.00      | 128.00     | 4762.52     | -272.68    | 349.02     | -259.78    | 0.00             |                  |
| 4820.63    | 10.00      | 128.00     | 4782.84     | -274.89    | 351.84     | -261.88    | 0.00             | Drop to Vertical |
| 4900.00    | 8.41       | 128.00     | 4861.18     | -282.71    | 361.85     | -269.33    | 2.00             |                  |
| 5000.00    | 6.41       | 128.00     | 4960.34     | -290.65    | 372.02     | -276.90    | 2.00             |                  |
| 5100.00    | 4.41       | 128.00     | 5059.89     | -296.46    | 379.45     | -282.43    | 2.00             |                  |
| 5200.00    | 2.41       | 128.00     | 5159.71     | -300.12    | 384.14     | -285.92    | 2.00             |                  |
| 5300.00    | 0.41       | 128.00     | 5259.68     | -301.64    | 386.08     | -287.36    | 2.00             |                  |
| 5320.63    | 0.00       | 128.00     | 5280.30     | -301.69    | 386.14     | -287.41    | 2.00             | Hold Vertical    |
| 5335.32    | 0.00       | 359.93     | 5295.00     | -301.69    | 386.14     | -287.41    | 0.00             | Cherry Canyon    |
| 5400.00    | 0.00       | 359.93     | 5359.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 5500.00    | 0.00       | 359.93     | 5459.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 5600.00    | 0.00       | 359.93     | 5559.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 5700.00    | 0.00       | 359.93     | 5659.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 5800.00    | 0.00       | 359.93     | 5759.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 5900.00    | 0.00       | 359.93     | 5859.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 6000.00    | 0.00       | 359.93     | 5959.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 6100.00    | 0.00       | 359.93     | 6059.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 6200.00    | 0.00       | 359.93     | 6159.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |
| 6300.00    | 0.00       | 359.93     | 6259.68     | -301.69    | 386.14     | -287.41    | 0.00             |                  |



**Well:** Shire 22-15 Fed Com 718H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

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

| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment                         |
|------------|------------|------------|-------------|------------|------------|------------|------------------|---------------------------------|
| 6400.00    | 0.00       | 359.93     | 6359.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 6500.00    | 0.00       | 359.93     | 6459.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 6600.00    | 0.00       | 359.93     | 6559.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 6690.32    | 0.00       | 359.93     | 6650.00     | -301.69    | 386.14     | -287.41    | 0.00             | Brushy Canyon                   |
| 6700.00    | 0.00       | 359.93     | 6659.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 6800.00    | 0.00       | 359.93     | 6759.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 6900.00    | 0.00       | 359.93     | 6859.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7000.00    | 0.00       | 359.93     | 6959.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7100.00    | 0.00       | 359.93     | 7059.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7200.00    | 0.00       | 359.93     | 7159.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7300.00    | 0.00       | 359.93     | 7259.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7400.00    | 0.00       | 359.93     | 7359.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7500.00    | 0.00       | 359.93     | 7459.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7600.00    | 0.00       | 359.93     | 7559.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7700.00    | 0.00       | 359.93     | 7659.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7800.00    | 0.00       | 359.93     | 7759.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 7900.00    | 0.00       | 359.93     | 7859.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8000.00    | 0.00       | 359.93     | 7959.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8100.00    | 0.00       | 359.93     | 8059.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8200.00    | 0.00       | 359.93     | 8159.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8290.32    | 0.00       | 359.93     | 8250.00     | -301.69    | 386.14     | -287.41    | 0.00             | 1st Bone Spring Lime            |
| 8300.00    | 0.00       | 359.93     | 8259.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8400.00    | 0.00       | 359.93     | 8359.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8500.00    | 0.00       | 359.93     | 8459.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8600.00    | 0.00       | 359.93     | 8559.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8700.00    | 0.00       | 359.93     | 8659.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8800.00    | 0.00       | 359.93     | 8759.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 8900.00    | 0.00       | 359.93     | 8859.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9000.00    | 0.00       | 359.93     | 8959.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9100.00    | 0.00       | 359.93     | 9059.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9200.00    | 0.00       | 359.93     | 9159.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9300.00    | 0.00       | 359.93     | 9259.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9370.32    | 0.00       | 359.93     | 9330.00     | -301.69    | 386.14     | -287.41    | 0.00             | 1st Bone Spring Sand            |
| 9400.00    | 0.00       | 359.93     | 9359.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9500.00    | 0.00       | 359.93     | 9459.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9600.00    | 0.00       | 359.93     | 9559.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9700.00    | 0.00       | 359.93     | 9659.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9800.00    | 0.00       | 359.93     | 9759.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9900.00    | 0.00       | 359.93     | 9859.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 9990.32    | 0.00       | 359.93     | 9950.00     | -301.69    | 386.14     | -287.41    | 0.00             | Bone Spring 2nd                 |
| 10000.00   | 0.00       | 359.93     | 9959.68     | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10100.00   | 0.00       | 359.93     | 10059.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10200.00   | 0.00       | 359.93     | 10159.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10300.00   | 0.00       | 359.93     | 10259.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10400.00   | 0.00       | 359.93     | 10359.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10480.32   | 0.00       | 359.93     | 10440.00    | -301.69    | 386.14     | -287.41    | 0.00             | 3rd Bone Spring Lime            |
| 10500.00   | 0.00       | 359.93     | 10459.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10600.00   | 0.00       | 359.93     | 10559.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10700.00   | 0.00       | 359.93     | 10659.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10800.00   | 0.00       | 359.93     | 10759.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 10900.00   | 0.00       | 359.93     | 10859.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 11000.00   | 0.00       | 359.93     | 10959.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 11100.00   | 0.00       | 359.93     | 11059.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 11200.00   | 0.00       | 359.93     | 11159.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 11255.32   | 0.00       | 359.93     | 11215.00    | -301.69    | 386.14     | -287.41    | 0.00             | Bone Spring 3rd                 |
| 11300.00   | 0.00       | 359.93     | 11259.68    | -301.69    | 386.14     | -287.41    | 0.00             |                                 |
| 11387.39   | 0.00       | 359.93     | 11347.07    | -301.69    | 386.14     | -287.41    | 0.00             | KOP                             |
| 11400.00   | 1.26       | 359.93     | 11359.67    | -301.55    | 386.14     | -287.27    | 10.00            |                                 |
| 11500.00   | 11.26      | 359.93     | 11458.95    | -290.65    | 386.13     | -276.39    | 10.00            |                                 |
| 11600.00   | 21.26      | 359.93     | 11554.83    | -262.69    | 386.09     | -248.44    | 10.00            |                                 |
| 11700.00   | 31.26      | 359.93     | 11644.39    | -218.50    | 386.04     | -204.28    | 10.00            |                                 |
| 11730.46   | 34.31      | 359.93     | 11670.00    | -202.01    | 386.02     | -187.80    | 10.00            | Wolfcamp / Point of Penetration |
| 11800.00   | 41.26      | 359.93     | 11724.93    | -159.43    | 385.97     | -145.25    | 10.00            |                                 |
| 11900.00   | 51.26      | 359.93     | 11793.98    | -87.27     | 385.88     | -73.15     | 10.00            |                                 |
| 12000.00   | 61.26      | 359.93     | 11849.45    | -4.22      | 385.77     | 9.85       | 10.00            |                                 |
| 12100.00   | 71.26      | 359.93     | 11889.65    | 87.20      | 385.66     | 101.21     | 10.00            |                                 |
| 12200.00   | 81.26      | 359.93     | 11913.37    | 184.22     | 385.54     | 198.15     | 10.00            |                                 |
| 12292.57   | 90.52      | 359.93     | 11920.00    | 276.45     | 385.43     | 290.32     | 10.00            | Landing Point                   |
| 12300.00   | 90.52      | 359.93     | 11919.93    | 283.88     | 385.42     | 297.74     | 0.00             |                                 |
| 12400.00   | 90.52      | 359.93     | 11919.03    | 383.88     | 385.30     | 397.67     | 0.00             |                                 |



**Well:** Shire 22-15 Fed Com 718H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

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

| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment |
|------------|------------|------------|-------------|------------|------------|------------|------------------|---------|
| 12500.00   | 90.52      | 359.93     | 11918.13    | 483.87     | 385.18     | 497.59     | 0.00             |         |
| 12600.00   | 90.52      | 359.93     | 11917.22    | 583.87     | 385.06     | 597.52     | 0.00             |         |
| 12700.00   | 90.52      | 359.93     | 11916.32    | 683.87     | 384.93     | 697.44     | 0.00             |         |
| 12800.00   | 90.52      | 359.93     | 11915.41    | 783.86     | 384.81     | 797.37     | 0.00             |         |
| 12900.00   | 90.52      | 359.93     | 11914.51    | 883.86     | 384.69     | 897.29     | 0.00             |         |
| 13000.00   | 90.52      | 359.93     | 11913.61    | 983.85     | 384.57     | 997.22     | 0.00             |         |
| 13100.00   | 90.52      | 359.93     | 11912.70    | 1083.85    | 384.44     | 1097.14    | 0.00             |         |
| 13200.00   | 90.52      | 359.93     | 11911.80    | 1183.84    | 384.32     | 1197.07    | 0.00             |         |
| 13300.00   | 90.52      | 359.93     | 11910.90    | 1283.84    | 384.20     | 1296.99    | 0.00             |         |
| 13400.00   | 90.52      | 359.93     | 11909.99    | 1383.84    | 384.07     | 1396.92    | 0.00             |         |
| 13500.00   | 90.52      | 359.93     | 11909.09    | 1483.83    | 383.95     | 1496.84    | 0.00             |         |
| 13600.00   | 90.52      | 359.93     | 11908.18    | 1583.83    | 383.83     | 1596.77    | 0.00             |         |
| 13700.00   | 90.52      | 359.93     | 11907.28    | 1683.82    | 383.71     | 1696.69    | 0.00             |         |
| 13800.00   | 90.52      | 359.93     | 11906.38    | 1783.82    | 383.58     | 1796.62    | 0.00             |         |
| 13900.00   | 90.52      | 359.93     | 11905.47    | 1883.82    | 383.46     | 1896.54    | 0.00             |         |
| 14000.00   | 90.52      | 359.93     | 11904.57    | 1983.81    | 383.34     | 1996.47    | 0.00             |         |
| 14100.00   | 90.52      | 359.93     | 11903.66    | 2083.81    | 383.22     | 2096.39    | 0.00             |         |
| 14200.00   | 90.52      | 359.93     | 11902.76    | 2183.80    | 383.09     | 2196.32    | 0.00             |         |
| 14300.00   | 90.52      | 359.93     | 11901.86    | 2283.80    | 382.97     | 2296.24    | 0.00             |         |
| 14400.00   | 90.52      | 359.93     | 11900.95    | 2383.79    | 382.85     | 2396.17    | 0.00             |         |
| 14500.00   | 90.52      | 359.93     | 11900.05    | 2483.79    | 382.72     | 2496.09    | 0.00             |         |
| 14600.00   | 90.52      | 359.93     | 11899.15    | 2583.79    | 382.60     | 2596.02    | 0.00             |         |
| 14700.00   | 90.52      | 359.93     | 11898.24    | 2683.78    | 382.48     | 2695.94    | 0.00             |         |
| 14800.00   | 90.52      | 359.93     | 11897.34    | 2783.78    | 382.36     | 2795.87    | 0.00             |         |
| 14900.00   | 90.52      | 359.93     | 11896.43    | 2883.77    | 382.23     | 2895.79    | 0.00             |         |
| 15000.00   | 90.52      | 359.93     | 11895.53    | 2983.77    | 382.11     | 2995.72    | 0.00             |         |
| 15100.00   | 90.52      | 359.93     | 11894.63    | 3083.77    | 381.99     | 3095.64    | 0.00             |         |
| 15200.00   | 90.52      | 359.93     | 11893.72    | 3183.76    | 381.87     | 3195.57    | 0.00             |         |
| 15300.00   | 90.52      | 359.93     | 11892.82    | 3283.76    | 381.74     | 3295.49    | 0.00             |         |
| 15400.00   | 90.52      | 359.93     | 11891.92    | 3383.75    | 381.62     | 3395.42    | 0.00             |         |
| 15500.00   | 90.52      | 359.93     | 11891.01    | 3483.75    | 381.50     | 3495.34    | 0.00             |         |
| 15600.00   | 90.52      | 359.93     | 11890.11    | 3583.74    | 381.38     | 3595.27    | 0.00             |         |
| 15700.00   | 90.52      | 359.93     | 11889.20    | 3683.74    | 381.25     | 3695.19    | 0.00             |         |
| 15800.00   | 90.52      | 359.93     | 11888.30    | 3783.74    | 381.13     | 3795.11    | 0.00             |         |
| 15900.00   | 90.52      | 359.93     | 11887.40    | 3883.73    | 381.01     | 3895.04    | 0.00             |         |
| 16000.00   | 90.52      | 359.93     | 11886.49    | 3983.73    | 380.88     | 3994.96    | 0.00             |         |
| 16100.00   | 90.52      | 359.93     | 11885.59    | 4083.72    | 380.76     | 4094.89    | 0.00             |         |
| 16200.00   | 90.52      | 359.93     | 11884.69    | 4183.72    | 380.64     | 4194.81    | 0.00             |         |
| 16300.00   | 90.52      | 359.93     | 11883.78    | 4283.72    | 380.52     | 4294.74    | 0.00             |         |
| 16400.00   | 90.52      | 359.93     | 11882.88    | 4383.71    | 380.39     | 4394.66    | 0.00             |         |
| 16500.00   | 90.52      | 359.93     | 11881.97    | 4483.71    | 380.27     | 4494.59    | 0.00             |         |
| 16600.00   | 90.52      | 359.93     | 11881.07    | 4583.70    | 380.15     | 4594.51    | 0.00             |         |
| 16700.00   | 90.52      | 359.93     | 11880.17    | 4683.70    | 380.03     | 4694.44    | 0.00             |         |
| 16800.00   | 90.52      | 359.93     | 11879.26    | 4783.69    | 379.90     | 4794.36    | 0.00             |         |
| 16900.00   | 90.52      | 359.93     | 11878.36    | 4883.69    | 379.78     | 4894.29    | 0.00             |         |
| 17000.00   | 90.52      | 359.93     | 11877.46    | 4983.69    | 379.66     | 4994.21    | 0.00             |         |
| 17100.00   | 90.52      | 359.93     | 11876.55    | 5083.68    | 379.53     | 5094.14    | 0.00             |         |
| 17200.00   | 90.52      | 359.93     | 11875.65    | 5183.68    | 379.41     | 5194.06    | 0.00             |         |
| 17300.00   | 90.52      | 359.93     | 11874.74    | 5283.67    | 379.29     | 5293.99    | 0.00             |         |
| 17400.00   | 90.52      | 359.93     | 11873.84    | 5383.67    | 379.17     | 5393.91    | 0.00             |         |
| 17500.00   | 90.52      | 359.93     | 11872.94    | 5483.67    | 379.04     | 5493.84    | 0.00             |         |
| 17600.00   | 90.52      | 359.93     | 11872.03    | 5583.66    | 378.92     | 5593.76    | 0.00             |         |
| 17700.00   | 90.52      | 359.93     | 11871.13    | 5683.66    | 378.80     | 5693.69    | 0.00             |         |
| 17800.00   | 90.52      | 359.93     | 11870.23    | 5783.65    | 378.68     | 5793.61    | 0.00             |         |
| 17900.00   | 90.52      | 359.93     | 11869.32    | 5883.65    | 378.55     | 5893.54    | 0.00             |         |
| 18000.00   | 90.52      | 359.93     | 11868.42    | 5983.64    | 378.43     | 5993.46    | 0.00             |         |
| 18100.00   | 90.52      | 359.93     | 11867.51    | 6083.64    | 378.31     | 6093.39    | 0.00             |         |
| 18200.00   | 90.52      | 359.93     | 11866.61    | 6183.64    | 378.19     | 6193.31    | 0.00             |         |
| 18300.00   | 90.52      | 359.93     | 11865.71    | 6283.63    | 378.06     | 6293.24    | 0.00             |         |
| 18400.00   | 90.52      | 359.93     | 11864.80    | 6383.63    | 377.94     | 6393.16    | 0.00             |         |
| 18500.00   | 90.52      | 359.93     | 11863.90    | 6483.62    | 377.82     | 6493.09    | 0.00             |         |
| 18600.00   | 90.52      | 359.93     | 11863.00    | 6583.62    | 377.69     | 6593.01    | 0.00             |         |
| 18700.00   | 90.52      | 359.93     | 11862.09    | 6683.62    | 377.57     | 6692.94    | 0.00             |         |
| 18800.00   | 90.52      | 359.93     | 11861.19    | 6783.61    | 377.45     | 6792.86    | 0.00             |         |
| 18900.00   | 90.52      | 359.93     | 11860.28    | 6883.61    | 377.33     | 6892.79    | 0.00             |         |
| 19000.00   | 90.52      | 359.93     | 11859.38    | 6983.60    | 377.20     | 6992.71    | 0.00             |         |
| 19100.00   | 90.52      | 359.93     | 11858.48    | 7083.60    | 377.08     | 7092.64    | 0.00             |         |
| 19200.00   | 90.52      | 359.93     | 11857.57    | 7183.59    | 376.96     | 7192.56    | 0.00             |         |
| 19300.00   | 90.52      | 359.93     | 11856.67    | 7283.59    | 376.84     | 7292.49    | 0.00             |         |
| 19400.00   | 90.52      | 359.93     | 11855.77    | 7383.59    | 376.71     | 7392.41    | 0.00             |         |



**Well:** Shire 22-15 Fed Com 718H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

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

| MD       | INC   | AZI    | TVD      | NS       | EW     | VS       | DLS       | Comment |
|----------|-------|--------|----------|----------|--------|----------|-----------|---------|
| (ft)     | (°)   | (°)    | (ft)     | (ft)     | (ft)   | (ft)     | (°/100ft) |         |
| 19500.00 | 90.52 | 359.93 | 11854.86 | 7483.58  | 376.59 | 7492.34  | 0.00      |         |
| 19600.00 | 90.52 | 359.93 | 11853.96 | 7583.58  | 376.47 | 7592.26  | 0.00      |         |
| 19700.00 | 90.52 | 359.93 | 11853.05 | 7683.57  | 376.34 | 7692.19  | 0.00      |         |
| 19800.00 | 90.52 | 359.93 | 11852.15 | 7783.57  | 376.22 | 7792.11  | 0.00      |         |
| 19900.00 | 90.52 | 359.93 | 11851.25 | 7883.57  | 376.10 | 7892.04  | 0.00      |         |
| 20000.00 | 90.52 | 359.93 | 11850.34 | 7983.56  | 375.98 | 7991.96  | 0.00      |         |
| 20100.00 | 90.52 | 359.93 | 11849.44 | 8083.56  | 375.85 | 8091.89  | 0.00      |         |
| 20200.00 | 90.52 | 359.93 | 11848.53 | 8183.55  | 375.73 | 8191.81  | 0.00      |         |
| 20300.00 | 90.52 | 359.93 | 11847.63 | 8283.55  | 375.61 | 8291.74  | 0.00      |         |
| 20400.00 | 90.52 | 359.93 | 11846.73 | 8383.54  | 375.49 | 8391.66  | 0.00      |         |
| 20500.00 | 90.52 | 359.93 | 11845.82 | 8483.54  | 375.36 | 8491.59  | 0.00      |         |
| 20600.00 | 90.52 | 359.93 | 11844.92 | 8583.54  | 375.24 | 8591.51  | 0.00      |         |
| 20700.00 | 90.52 | 359.93 | 11844.02 | 8683.53  | 375.12 | 8691.44  | 0.00      |         |
| 20800.00 | 90.52 | 359.93 | 11843.11 | 8783.53  | 374.99 | 8791.36  | 0.00      |         |
| 20900.00 | 90.52 | 359.93 | 11842.21 | 8883.52  | 374.87 | 8891.28  | 0.00      |         |
| 21000.00 | 90.52 | 359.93 | 11841.30 | 8983.52  | 374.75 | 8991.21  | 0.00      |         |
| 21100.00 | 90.52 | 359.93 | 11840.40 | 9083.52  | 374.63 | 9091.13  | 0.00      |         |
| 21200.00 | 90.52 | 359.93 | 11839.50 | 9183.51  | 374.50 | 9191.06  | 0.00      |         |
| 21300.00 | 90.52 | 359.93 | 11838.59 | 9283.51  | 374.38 | 9290.98  | 0.00      |         |
| 21400.00 | 90.52 | 359.93 | 11837.69 | 9383.50  | 374.26 | 9390.91  | 0.00      |         |
| 21500.00 | 90.52 | 359.93 | 11836.79 | 9483.50  | 374.14 | 9490.83  | 0.00      |         |
| 21600.00 | 90.52 | 359.93 | 11835.88 | 9583.49  | 374.01 | 9590.76  | 0.00      |         |
| 21700.00 | 90.52 | 359.93 | 11834.98 | 9683.49  | 373.89 | 9690.68  | 0.00      |         |
| 21800.00 | 90.52 | 359.93 | 11834.07 | 9783.49  | 373.77 | 9790.61  | 0.00      |         |
| 21900.00 | 90.52 | 359.93 | 11833.17 | 9883.48  | 373.65 | 9890.53  | 0.00      |         |
| 22000.00 | 90.52 | 359.93 | 11832.27 | 9983.48  | 373.52 | 9990.46  | 0.00      |         |
| 22100.00 | 90.52 | 359.93 | 11831.36 | 10083.47 | 373.40 | 10090.38 | 0.00      |         |
| 22169.43 | 90.52 | 359.93 | 11830.74 | 10152.90 | 373.31 | 10159.76 | 0.00      | EXIT    |
| 22200.00 | 90.52 | 359.93 | 11830.46 | 10183.47 | 373.28 | 10190.31 | 0.00      |         |
| 22249.43 | 90.52 | 359.93 | 11830.00 | 10232.90 | 373.27 | 10239.71 | 0.00      | BHL     |