

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

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

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101  
August 1, 2011

Permit 289608

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

|                                                                                                    |                                      |                               |
|----------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------|
| 1. Operator Name and Address<br>Spur Energy Partners LLC<br>9655 Katy Freeway<br>Houston, TX 77024 |                                      | 2. OGRID Number<br>328947     |
|                                                                                                    |                                      | 3. API Number<br>30-015-47783 |
| 4. Property Code<br>329863                                                                         | 5. Property Name<br>WELCH A 28 STATE | 6. Well No.<br>050H           |

**7. Surface Location**

|               |               |                 |              |              |                  |               |                  |               |                |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|------------------|---------------|----------------|
| UL - Lot<br>D | Section<br>27 | Township<br>17S | Range<br>28E | Lot Idn<br>D | Feet From<br>655 | N/S Line<br>N | Feet From<br>890 | E/W Line<br>W | County<br>Eddy |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|------------------|---------------|----------------|

**8. Proposed Bottom Hole Location**

|               |               |                 |              |              |                  |               |                 |               |                |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|-----------------|---------------|----------------|
| UL - Lot<br>D | Section<br>28 | Township<br>17S | Range<br>28E | Lot Idn<br>D | Feet From<br>430 | N/S Line<br>N | Feet From<br>50 | E/W Line<br>W | County<br>Eddy |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|-----------------|---------------|----------------|

**9. Pool Information**

|                            |       |
|----------------------------|-------|
| ARTESIA; GLORIETA-YESO (O) | 96830 |
|----------------------------|-------|

**Additional Well Information**

|                           |                            |                                        |                         |                                    |
|---------------------------|----------------------------|----------------------------------------|-------------------------|------------------------------------|
| 11. Work Type<br>New Well | 12. Well Type<br>OIL       | 13. Cable/Rotary                       | 14. Lease Type<br>State | 15. Ground Level Elevation<br>3654 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>9632 | 18. Formation<br>Yeso                  | 19. Contractor          | 20. Spud Date<br>12/8/2020         |
| Depth to Ground water     |                            | Distance from nearest fresh water well |                         | Distance to nearest surface water  |

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 12.25     | 9.625       | 36               | 1200          | 393             | 0             |
| Prod | 8.75      | 7           | 32               | 4300          | 1448            | 0             |
| Prod | 8.75      | 5.5         | 20               | 9632          | 1448            | 0             |

**Casing/Cement Program: Additional Comments**

|  |
|--|
|  |
|--|

**22. Proposed Blowout Prevention Program**

| Type  | Working Pressure | Test Pressure | Manufacturer            |
|-------|------------------|---------------|-------------------------|
| Blind | 5                | 70            | Control Technology Inc. |

|                                                                                                                                                                                                                                                                                                    |                                  |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br>I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. | <b>OIL CONSERVATION DIVISION</b> |                                 |
| Signature:                                                                                                                                                                                                                                                                                         |                                  |                                 |
| Printed Name: Electronically filed by Sarah Chapman                                                                                                                                                                                                                                                | Approved By: Kurt Simmons        |                                 |
| Title: Regulatory Director                                                                                                                                                                                                                                                                         | Title: Petroleum Specialist - A  |                                 |
| Email Address: schapman@spurepllc.com                                                                                                                                                                                                                                                              | Approved Date: 12/4/2020         | Expiration Date: 12/4/2022      |
| Date: 11/30/2020                                                                                                                                                                                                                                                                                   | Phone: 832-930-8613              | Conditions of Approval Attached |

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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-</b> |  | <sup>2</sup> Pool Code<br><b>96830</b>                         |  | <sup>3</sup> Pool Name<br><b>Artesia, Glorieta-Yeso (O)</b> |                                        |
| <sup>4</sup> Property Code                |  | <sup>5</sup> Property Name<br><b>WELCH A 28 STATE</b>          |  |                                                             | <sup>6</sup> Well Number<br><b>50H</b> |
| <sup>7</sup> OGRID NO.<br><b>328947</b>   |  | <sup>8</sup> Operator Name<br><b>SPUR ENERGY PARTNERS LLC.</b> |  |                                                             | <sup>9</sup> Elevation<br><b>3654'</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>D</b>      | <b>27</b> | <b>17S</b> | <b>28E</b> |         | <b>655</b>    | <b>NORTH</b>     | <b>890</b>    | <b>WEST</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>D</b>      | <b>28</b> | <b>17S</b> | <b>28E</b> |         | <b>430</b>    | <b>NORTH</b>     | <b>50</b>     | <b>WEST</b>    | <b>EDDY</b> |

| <sup>12</sup> Dedicated Acres | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|-------------------------------|-------------------------------|----------------------------------|-------------------------|
| <b>160</b>                    |                               |                                  |                         |

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><sup>16</sup> <b>GEODETIC DATA</b><br/>NAD 83 GRID — NM EAST</p> <p><b>SURFACE LOCATION (SL)</b><br/>N: 658805.9 — E: 591678.3<br/>LAT: 32.8109795° N<br/>LONG: 104.1694788° W</p> <p><b>FIRST TAKE POINT (FTP)</b><br/>430' FNL &amp; 100' FEL — SEC 28<br/>N: 659024.8 — E: 590690.7<br/>LAT: 32.8115851° N<br/>LONG: 104.1726922° W</p> <p><b>LAST TAKE POINT (LTP)</b><br/>430' FNL &amp; 100' FWL — SEC 28<br/>N: 658871.0 — E: 585697.7<br/>LAT: 32.8111821° N<br/>LONG: 104.1889450° W</p> <p><b>BOTTOM HOLE (BH)</b><br/>N: 658869.4 — E: 585647.7<br/>LAT: 32.8111781° N<br/>LONG: 104.1891076° W</p> <p><b>CORNER DATA</b><br/>NAD 83 GRID — NM EAST</p> <p>A: FOUND BRASS CAP "1941"<br/>N: 654104.0 — E: 585547.5</p> <p>B: FOUND BRASS CAP "1941"<br/>N: 656702.1 — E: 585573.1</p> <p>C: FOUND BRASS CAP "1941"<br/>N: 659297.8 — E: 585602.6</p> <p>D: FOUND BRASS CAP "1941"<br/>N: 659377.1 — E: 588198.9</p> <p>E: FOUND BRASS CAP "1941"<br/>N: 659457.7 — E: 590794.9</p> <p>F: FOUND BRASS CAP "1941"<br/>N: 659466.8 — E: 593406.4</p> <p>G: FOUND BRASS CAP "1941"<br/>N: 659475.1 — E: 596017.9</p> <p>H: FOUND BRASS CAP "1941"<br/>N: 656886.5 — E: 595997.7</p> <p>I: FOUND BRASS CAP "1941"<br/>N: 654298.0 — E: 595977.3</p> <p>J: FOUND BRASS CAP "1941"<br/>N: 654266.7 — E: 593360.1</p> <p>K: FOUND BRASS CAP "1941"<br/>N: 654235.0 — E: 590741.9</p> <p>L: FOUND BRASS CAP "1941"<br/>N: 654169.8 — E: 588139.7</p> <p>M: FOUND BRASS CAP "1941"<br/>N: 656846.0 — E: 590769.0</p> | <p><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p><i>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.</i></p> <p><i>Sarah Chapman</i> 11/30/2020<br/>Signature Date</p> <p><b>Sarah Chapman</b><br/>Printed Name</p> <p><b>schapman@spurepllc.com</b><br/>E-mail Address</p> <p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <p><b>10-28-2020</b><br/>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>19680</b><br/>Certificate Number</p> <p><b>PROF. ROBERT M. HOWETT</b><br/><b>NEW MEXICO</b><br/><b>19680</b><br/><b>PROFESSIONAL SURVEYOR</b></p> <p><b>LS20100588</b></p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

## GAS CAPTURE PLAN

Date: 12/4/2020

☒ Original

Operator & OGRID No.: [328947] Spur Energy Partners LLC

☐ Amended - Reason for  
Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

**Well(s)/Production Facility – Name of facility**

The well(s) that will be located at the production facility are shown in the table below.

| Well Name              | API          | Well Location (ULSTR) | Footages    | Expected MCF/D | Flared or Vented | Comments                               |
|------------------------|--------------|-----------------------|-------------|----------------|------------------|----------------------------------------|
| WELCH A 28 STATE #050H | 30-015-47783 | D-27-17S-28E          | 0655N 0890W | 600            | Flared           | Will flare until gathering line tie-in |

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP Low Pressure gathering system located in Eddy County, New Mexico. It will require 743' of pipeline to connect the facility to Low Pressure gathering system. Spur Energy Partners LLC provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Spur Energy Partners LLC and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 07, Twn. 17S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

**Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP OPERATING COMPANY, LP system at that time. Based on current information, it is Spur Energy Partners LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

**Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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1220 S. St Francis Dr.  
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Form APD Comments

Permit 289608

PERMIT COMMENTS

|                                                                                                           |         |                                 |
|-----------------------------------------------------------------------------------------------------------|---------|---------------------------------|
| Operator Name and Address:<br>Spur Energy Partners LLC [328947]<br>9655 Katy Freeway<br>Houston, TX 77024 |         | API Number:<br>30-015-47783     |
|                                                                                                           |         | Well:<br>WELCH A 28 STATE #050H |
| Created By                                                                                                | Comment | Comment Date                    |

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Form APD Conditions

Permit 289608

**PERMIT CONDITIONS OF APPROVAL**

|                                                                                                           |                                 |
|-----------------------------------------------------------------------------------------------------------|---------------------------------|
| Operator Name and Address:<br>Spur Energy Partners LLC [328947]<br>9655 Katy Freeway<br>Houston, TX 77024 | API Number:<br>30-015-47783     |
|                                                                                                           | Well:<br>WELCH A 28 STATE #050H |

|              |                                                                                                                                                                                                                                                                      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OCD Reviewer | Condition                                                                                                                                                                                                                                                            |
| ksimmons     | Will require a directional survey with the C-104                                                                                                                                                                                                                     |
| ksimmons     | Cement is required to circulate on both surface and intermediate1 strings of casing                                                                                                                                                                                  |
| kpickford    | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string |
| kpickford    | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system                  |
| kpickford    | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud                                                                                                                                                                   |
| kpickford    | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days      |
| kpickford    | Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water                                                                                                                                                                 |
| kpickford    | Operator must notify other operators with well(s) in the same spacing unit.                                                                                                                                                                                          |

**Spur Energy Partners LLC – Welch A 28 State #50H****1. Geologic Formations**

| <b>Formation</b>     | <b>TVD - RKB</b> | <b>Expected Fluids</b> |
|----------------------|------------------|------------------------|
| Top San Andres       | 1975'            | Water Flow             |
| Top Lower San Andres | 2875'            | Oil/Gas                |
| Top Glorieta         | 3425'            | Oil/Gas                |
| <b>Top Yeso</b>      | <b>3535'</b>     | <b>Oil/Gas</b>         |
| Base Yeso            | 5525'            | Oil/Gas                |

\*H<sub>2</sub>S, water flows, loss of circulation, abnormal pressures, etc.

**2. Casing Program**

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

**Primary Plan:**

| Hole Size (in)                | Casing Interval |         | Csg. Size (in) | Weight (lbs) | Grade | Conn. | SF       | SF Burst | Body SF | Joint SF |
|-------------------------------|-----------------|---------|----------------|--------------|-------|-------|----------|----------|---------|----------|
|                               | From (ft)       | To (ft) |                |              |       |       | Collapse |          | Tension | Tension  |
| 12.25                         | 0               | 1200    | 9.625          | 36           | J-55  | BTC   | 1.125    | 1.2      | 1.4     | 1.4      |
| 8.75                          | 0               | 4300    | 7              | 32           | L-80  | BK-HT | 1.125    | 1.2      | 1.4     | 1.4      |
| 8.75                          | 4300            | 9632    | 5.5            | 20           | L-80  | BK-HT | 1.125    | 1.2      | 1.4     | 1.4      |
| SF Values will meet or Exceed |                 |         |                |              |       |       |          |          |         |          |

**Spur Energy Partners LLC – Welch A 28 State #50H**

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

## Spur Energy Partners LLC – Welch A 28 State #50H

### 3. Cementing Program

#### *Primary Plan:*

| Casing String     | Top (ft) | Bottom (ft) | % Excess |
|-------------------|----------|-------------|----------|
| Surface (Lead)    | 0        | 950         | 100%     |
| Surface (Tail)    | 950      | 1200        | 165%     |
| Production (Lead) | 0        | 3300        | 0%       |
| Production (Tail) | 3300     | 9632        | 50%      |

| Casing String     | # Sks | Wt.<br>(lb/gal) | Yld<br>(ft3/sack) | H2O<br>(gal/sk) | 500#<br>Comp.<br>Strength<br>(hours) | Slurry Description         |
|-------------------|-------|-----------------|-------------------|-----------------|--------------------------------------|----------------------------|
| Surface (Lead)    | 270   | 12.2            | 2.31              | 13.48           | 8:12                                 | Clas C Premium Plus Cement |
| Surface (Tail)    | 123   | 13.2            | 1.84              | 9.92            | 6:59                                 | Clas C Premium Plus Cement |
| Production (Lead) | 204   | 11.8            | 2.54              | 15.29           | N/A                                  | Clas C Premium Plus Cement |
| Production (Tail) | 1244  | 13.2            | 1.81              | 9.81            | N/A                                  | Clas C Premium Plus Cement |



## Spur Energy Partners LLC – Welch A 28 State #50H

## 4. Pressure Control Equipment

| BOP installed and tested before drilling which hole? | Size? | Min. Required WP | Type       | ✓ | Tested to:              |
|------------------------------------------------------|-------|------------------|------------|---|-------------------------|
| 17.5" Hole                                           | 11"   | 3M               | Annular    | ✓ | 70% of working pressure |
|                                                      |       | 3M               | Blind Ram  | ✓ | 250 psi / 3000 psi      |
|                                                      |       |                  | Pipe Ram   | ✓ |                         |
|                                                      |       |                  | Double Ram |   |                         |
|                                                      |       |                  | Other*     |   |                         |
| 8.75" Hole                                           | 11"   | 3M               | Annular    | ✓ | 70% of working pressure |
|                                                      |       | 3M               | Blind Ram  | ✓ | 250 psi / 3000 psi      |
|                                                      |       |                  | Pipe Ram   | ✓ |                         |
|                                                      |       |                  | Double Ram |   |                         |
|                                                      |       |                  | Other*     |   |                         |

| Condition                     | Specify what type and where? |
|-------------------------------|------------------------------|
| BH Pressure at deepest TVD    | 1886 psi                     |
| Abnormal Temperature          | No                           |
| BH Temperature at deepest TVD | 113°F                        |

\*Specify if additional ram is utilized.

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

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

|   |                                                                                                                                                                                                                                                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | Formation integrity test will be performed per Onshore Order #2.<br>On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |
| Y | Are anchors required by manufacturer?                                                                                                                                                                                                                                                                         |
|   | A conventional wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days.<br>See attached schematics.  |

**Spur Energy Partners LLC – Welch A 28 State #50H****BOP Break Testing Request**

Spur Energy Partners LLC requests permission to adjust the BOP break testing requirements as follows:

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000 TVD.
- When skidding to drill a production section that does not penetrate the 3<sup>rd</sup> Bone Spring or deeper.

If the kill line is broken prior to skid, four tests will be performed.

- 1) The void between the wellhead and the spool (this consists of two tests)
- 2) The spool between the kill lines and the choke manifold (this consists of two tests)

If the kill line is not broken prior to skid, two tests will be performed.

- 1) The void between the wellhead and the pipe rams

**5. Mud Program**

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Spur will use a closed mud system.

| Depth     |         | Type            | Weight (ppg) | Viscosity | Water Loss |
|-----------|---------|-----------------|--------------|-----------|------------|
| From (ft) | To (ft) |                 |              |           |            |
| 0         | 1200    | Water-Based Mud | 8.6-8.9      | 32-36     | N/C        |
| 1200      | 9632    | Water-Based Mud | 8.6-8.9      | 32-36     | N/C        |

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

## Spur Energy Partners LLC – Welch A 28 State #50H

### 6. Logging and Testing Procedures

| Logging, Coring and Testing. |                                                                                                                                                         |          |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Yes                          | Will run GR 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.                                                                                       |          |
| No                           | Drill stem test? If yes, explain                                                                                                                        |          |
| No                           | Coring? If yes, explain                                                                                                                                 |          |
| Additional logs planned      |                                                                                                                                                         | Interval |
| No                           | Resistivity                                                                                                                                             |          |
| No                           | Density                                                                                                                                                 |          |
| No                           | CBL                                                                                                                                                     |          |
| Yes                          | Mud log                                                                                                                                                 | ICP - TD |
| No                           | PEX                                                                                                                                                     |          |

### 7. Drilling Conditions

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

|                                                                                                                                                                                                                                                                                                                                                              |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 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 |

**Total estimated cuttings volume:** 891 bbls.

#### Attachments

- ☒ Directional Plan
- ☒ H<sub>2</sub>S Contingency Plan
- ☒ Akita 57 Attachments
- ☒ BOP Schematics

### 9. Company Personnel

| Name               | Title                            | Office Phone | Mobile Phone |
|--------------------|----------------------------------|--------------|--------------|
| Christopher Hollis | Drilling Manager                 | 832-930-8629 | 713-380-7754 |
| Johnny Nabors      | Senior Vice President Operations | 832-930-8502 | 281-904-8811 |



# **Spur Energy Partners, LLC**

**Eddy County, NM (NAD 83 - NME)**

**Welch A/B 28 State**

**A #50H**

**Wellbore #1**

**Plan: PERMIT**

## **Standard Planning Report**

**24 November, 2020**





## Planning Report



|                  |                                |                                     |                         |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| <b>Database:</b> | WBDS_SQL_2                     | <b>Local Co-ordinate Reference:</b> | Well A #50H             |
| <b>Company:</b>  | Spur Energy Partners, LLC      | <b>TVD Reference:</b>               | RKB = 20' @ 3674.00usft |
| <b>Project:</b>  | Eddy County, NM (NAD 83 - NME) | <b>MD Reference:</b>                | RKB = 20' @ 3674.00usft |
| <b>Site:</b>     | Welch A/B 28 State             | <b>North Reference:</b>             | Grid                    |
| <b>Well:</b>     | A #50H                         | <b>Survey Calculation Method:</b>   | Minimum Curvature       |
| <b>Wellbore:</b> | Wellbore #1                    |                                     |                         |
| <b>Design:</b>   | PERMIT                         |                                     |                         |

|                    |                                |                      |                |
|--------------------|--------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, NM (NAD 83 - NME) |                      |                |
| <b>Map System:</b> | US State Plane 1983            | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983      |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone        |                      |                |

| Site                  |           | Welch A/B 28 State |                 |                   |              |
|-----------------------|-----------|--------------------|-----------------|-------------------|--------------|
| Site Position:        |           | Northing:          | 657,715.70 usft | Latitude:         | 32.8079833   |
| From:                 | Map       | Easting:           | 591,569.60 usft | Longitude:        | -104.1698382 |
| Position Uncertainty: | 0.00 usft | Slot Radius:       | 13.200 in       | Grid Convergence: | 0.089        |

|                      |        |               |                     |                 |               |               |
|----------------------|--------|---------------|---------------------|-----------------|---------------|---------------|
| Well                 | A #50H |               |                     |                 |               |               |
| Well Position        | +N/-S  | 1,090.20 usft | Northing:           | 658,805.90 usft | Latitude:     | 32.8109794    |
|                      | +E/-W  | 108.70 usft   | Easting:            | 591,678.30 usft | Longitude:    | -104.1694789  |
| Position Uncertainty |        | 0.00 usft     | Wellhead Elevation: |                 | Ground Level: | 3,654.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2020          | 11/21/20           | 6.935                  | 60.362               | 47,835.33794355            |

|                          |                                |                     |                     |                      |      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|------|
| <b>Design</b>            | PERMIT                         |                     |                     |                      |      |
| <b>Audit Notes:</b>      |                                |                     |                     |                      |      |
| <b>Version:</b>          |                                | <b>Phase:</b>       | PLAN                | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                           | 0.00                | 0.00                | 268.23               |      |

|                                 |                        |                          |                      |                       |  |
|---------------------------------|------------------------|--------------------------|----------------------|-----------------------|--|
| <b>Plan Survey Tool Program</b> | <b>Date</b>            | 11/24/20                 |                      |                       |  |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>     | <b>Remarks</b>        |  |
| 1                               | 0.00                   | 9,632.17                 | PERMIT (Wellbore #1) | MWD+IGRF              |  |
|                                 |                        |                          |                      | OWSG MWD + IGRF or WM |  |

|                              |                        |                    |                              |                     |                     |                              |                             |                            |                |                    |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|------------------------------|-----------------------------|----------------------------|----------------|--------------------|
| <b>Plan Sections</b>         |                        |                    |                              |                     |                     |                              |                             |                            |                |                    |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Dogleg Rate (°/100ft)</b> | <b>Build Rate (°/100ft)</b> | <b>Turn Rate (°/100ft)</b> | <b>TFO (°)</b> | <b>Target</b>      |
| 0.00                         | 0.00                   | 0.00               | 0.00                         | 0.00                | 0.00                | 0.00                         | 0.00                        | 0.00                       | 0.000          |                    |
| 300.00                       | 0.00                   | 0.00               | 300.00                       | 0.00                | 0.00                | 0.00                         | 0.00                        | 0.00                       | 0.000          |                    |
| 525.14                       | 4.50                   | 348.19             | 524.91                       | 8.66                | -1.81               | 2.00                         | 2.00                        | 0.00                       | 348.194        |                    |
| 3,092.48                     | 4.50                   | 348.19             | 3,084.32                     | 205.95              | -43.05              | 0.00                         | 0.00                        | 0.00                       | 0.000          |                    |
| 4,081.07                     | 60.00                  | 268.23             | 3,898.27                     | 233.23              | -522.46             | 6.00                         | 5.61                        | -8.09                      | -82.565        |                    |
| 4,281.07                     | 60.00                  | 268.23             | 3,998.27                     | 227.90              | -695.58             | 0.00                         | 0.00                        | 0.00                       | 0.000          |                    |
| 4,586.75                     | 90.57                  | 268.23             | 4,075.00                     | 218.90              | -987.60             | 10.00                        | 10.00                       | 0.00                       | 0.000          | Welch A-28 St #50H |
| 9,582.36                     | 90.57                  | 268.23             | 4,025.50                     | 65.04               | -5,980.60           | 0.00                         | 0.00                        | 0.00                       | 0.000          | Welch A-28 St #50H |
| 9,632.39                     | 90.57                  | 268.23             | 4,025.00                     | 63.50               | -6,030.60           | 0.00                         | 0.00                        | 0.00                       | 0.000          | Welch A-28 St #50H |



## Planning Report



|                  |                                |                                     |                         |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| <b>Database:</b> | WBDS_SQL_2                     | <b>Local Co-ordinate Reference:</b> | Well A #50H             |
| <b>Company:</b>  | Spur Energy Partners, LLC      | <b>TVD Reference:</b>               | RKB = 20' @ 3674.00usft |
| <b>Project:</b>  | Eddy County, NM (NAD 83 - NME) | <b>MD Reference:</b>                | RKB = 20' @ 3674.00usft |
| <b>Site:</b>     | Welch A/B 28 State             | <b>North Reference:</b>             | Grid                    |
| <b>Well:</b>     | A #50H                         | <b>Survey Calculation Method:</b>   | Minimum Curvature       |
| <b>Wellbore:</b> | Wellbore #1                    |                                     |                         |
| <b>Design:</b>   | PERMIT                         |                                     |                         |

| Planned Survey        |                 |             |                       |              |              |                         |                       |                      |                     |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                  | 0.00                 | 0.00                |
| 100.00                | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                  | 0.00                 | 0.00                |
| 200.00                | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                  | 0.00                 | 0.00                |
| 300.00                | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 0.00                    | 0.00                  | 0.00                 | 0.00                |
| 400.00                | 2.00            | 348.19      | 399.98                | 1.71         | -0.36        | 0.30                    | 2.00                  | 2.00                 | 0.00                |
| 500.00                | 4.00            | 348.19      | 499.84                | 6.83         | -1.43        | 1.22                    | 2.00                  | 2.00                 | 0.00                |
| 525.14                | 4.50            | 348.19      | 524.91                | 8.66         | -1.81        | 1.54                    | 2.00                  | 2.00                 | 0.00                |
| 600.00                | 4.50            | 348.19      | 599.54                | 14.41        | -3.01        | 2.57                    | 0.00                  | 0.00                 | 0.00                |
| 700.00                | 4.50            | 348.19      | 699.23                | 22.09        | -4.62        | 3.93                    | 0.00                  | 0.00                 | 0.00                |
| 800.00                | 4.50            | 348.19      | 798.92                | 29.78        | -6.22        | 5.30                    | 0.00                  | 0.00                 | 0.00                |
| 900.00                | 4.50            | 348.19      | 898.61                | 37.46        | -7.83        | 6.67                    | 0.00                  | 0.00                 | 0.00                |
| 1,000.00              | 4.50            | 348.19      | 998.30                | 45.15        | -9.44        | 8.04                    | 0.00                  | 0.00                 | 0.00                |
| 1,100.00              | 4.50            | 348.19      | 1,097.99              | 52.83        | -11.04       | 9.41                    | 0.00                  | 0.00                 | 0.00                |
| 1,200.00              | 4.50            | 348.19      | 1,197.69              | 60.52        | -12.65       | 10.77                   | 0.00                  | 0.00                 | 0.00                |
| 1,300.00              | 4.50            | 348.19      | 1,297.38              | 68.20        | -14.26       | 12.14                   | 0.00                  | 0.00                 | 0.00                |
| 1,400.00              | 4.50            | 348.19      | 1,397.07              | 75.89        | -15.86       | 13.51                   | 0.00                  | 0.00                 | 0.00                |
| 1,500.00              | 4.50            | 348.19      | 1,496.76              | 83.57        | -17.47       | 14.88                   | 0.00                  | 0.00                 | 0.00                |
| 1,600.00              | 4.50            | 348.19      | 1,596.45              | 91.26        | -19.08       | 16.25                   | 0.00                  | 0.00                 | 0.00                |
| 1,700.00              | 4.50            | 348.19      | 1,696.14              | 98.94        | -20.68       | 17.62                   | 0.00                  | 0.00                 | 0.00                |
| 1,800.00              | 4.50            | 348.19      | 1,795.83              | 106.63       | -22.29       | 18.98                   | 0.00                  | 0.00                 | 0.00                |
| 1,900.00              | 4.50            | 348.19      | 1,895.52              | 114.31       | -23.89       | 20.35                   | 0.00                  | 0.00                 | 0.00                |
| 2,000.00              | 4.50            | 348.19      | 1,995.22              | 122.00       | -25.50       | 21.72                   | 0.00                  | 0.00                 | 0.00                |
| 2,100.00              | 4.50            | 348.19      | 2,094.91              | 129.68       | -27.11       | 23.09                   | 0.00                  | 0.00                 | 0.00                |
| 2,200.00              | 4.50            | 348.19      | 2,194.60              | 137.37       | -28.71       | 24.46                   | 0.00                  | 0.00                 | 0.00                |
| 2,300.00              | 4.50            | 348.19      | 2,294.29              | 145.05       | -30.32       | 25.82                   | 0.00                  | 0.00                 | 0.00                |
| 2,400.00              | 4.50            | 348.19      | 2,393.98              | 152.74       | -31.93       | 27.19                   | 0.00                  | 0.00                 | 0.00                |
| 2,500.00              | 4.50            | 348.19      | 2,493.67              | 160.42       | -33.53       | 28.56                   | 0.00                  | 0.00                 | 0.00                |
| 2,600.00              | 4.50            | 348.19      | 2,593.36              | 168.10       | -35.14       | 29.93                   | 0.00                  | 0.00                 | 0.00                |
| 2,700.00              | 4.50            | 348.19      | 2,693.06              | 175.79       | -36.75       | 31.30                   | 0.00                  | 0.00                 | 0.00                |
| 2,800.00              | 4.50            | 348.19      | 2,792.75              | 183.47       | -38.35       | 32.67                   | 0.00                  | 0.00                 | 0.00                |
| 2,900.00              | 4.50            | 348.19      | 2,892.44              | 191.16       | -39.96       | 34.03                   | 0.00                  | 0.00                 | 0.00                |
| 3,000.00              | 4.50            | 348.19      | 2,992.13              | 198.84       | -41.56       | 35.40                   | 0.00                  | 0.00                 | 0.00                |
| 3,092.48              | 4.50            | 348.19      | 3,084.32              | 205.95       | -43.05       | 36.67                   | 0.00                  | 0.00                 | 0.00                |
| 3,100.00              | 4.58            | 342.59      | 3,091.82              | 206.53       | -43.20       | 36.80                   | 6.00                  | 1.07                 | -74.58              |
| 3,150.00              | 6.02            | 313.47      | 3,141.61              | 210.24       | -45.70       | 39.18                   | 6.00                  | 2.86                 | -58.23              |
| 3,200.00              | 8.33            | 297.90      | 3,191.22              | 213.73       | -50.80       | 44.18                   | 6.00                  | 4.62                 | -31.15              |
| 3,250.00              | 10.97           | 289.40      | 3,240.51              | 217.01       | -58.49       | 51.76                   | 6.00                  | 5.30                 | -17.00              |
| 3,300.00              | 13.77           | 284.24      | 3,289.35              | 220.05       | -68.75       | 61.92                   | 6.00                  | 5.58                 | -10.32              |
| 3,350.00              | 16.63           | 280.81      | 3,337.60              | 222.86       | -81.55       | 74.62                   | 6.00                  | 5.73                 | -6.86               |
| 3,400.00              | 19.53           | 278.37      | 3,385.12              | 225.42       | -96.85       | 89.84                   | 6.00                  | 5.81                 | -4.88               |
| 3,450.00              | 22.46           | 276.54      | 3,431.80              | 227.72       | -114.61      | 107.52                  | 6.00                  | 5.86                 | -3.66               |
| 3,500.00              | 25.40           | 275.11      | 3,477.50              | 229.76       | -134.79      | 127.63                  | 6.00                  | 5.89                 | -2.85               |
| 3,550.00              | 28.36           | 273.97      | 3,522.09              | 231.54       | -157.32      | 150.09                  | 6.00                  | 5.91                 | -2.29               |
| 3,600.00              | 31.32           | 273.02      | 3,565.45              | 233.05       | -182.15      | 174.87                  | 6.00                  | 5.93                 | -1.89               |
| 3,650.00              | 34.29           | 272.23      | 3,607.47              | 234.28       | -209.21      | 201.87                  | 6.00                  | 5.94                 | -1.59               |
| 3,700.00              | 37.26           | 271.54      | 3,648.03              | 235.24       | -238.42      | 231.04                  | 6.00                  | 5.95                 | -1.37               |
| 3,750.00              | 40.24           | 270.95      | 3,687.02              | 235.91       | -269.71      | 262.30                  | 6.00                  | 5.95                 | -1.19               |
| 3,800.00              | 43.22           | 270.42      | 3,724.33              | 236.30       | -302.99      | 295.54                  | 6.00                  | 5.96                 | -1.06               |
| 3,850.00              | 46.20           | 269.95      | 3,759.86              | 236.41       | -338.16      | 330.70                  | 6.00                  | 5.96                 | -0.94               |
| 3,900.00              | 49.19           | 269.52      | 3,793.51              | 236.23       | -375.13      | 367.66                  | 6.00                  | 5.97                 | -0.85               |
| 3,950.00              | 52.17           | 269.13      | 3,825.19              | 235.77       | -413.81      | 406.33                  | 6.00                  | 5.97                 | -0.78               |
| 4,000.00              | 55.16           | 268.77      | 3,854.81              | 235.03       | -454.07      | 446.60                  | 6.00                  | 5.97                 | -0.72               |
| 4,050.00              | 58.14           | 268.43      | 3,882.30              | 234.01       | -495.82      | 488.36                  | 6.00                  | 5.97                 | -0.67               |
| 4,081.07              | 60.00           | 268.23      | 3,898.27              | 233.23       | -522.46      | 515.01                  | 6.00                  | 5.98                 | -0.63               |



## Planning Report



|                  |                                |                                     |                         |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| <b>Database:</b> | WBDS_SQL_2                     | <b>Local Co-ordinate Reference:</b> | Well A #50H             |
| <b>Company:</b>  | Spur Energy Partners, LLC      | <b>TVD Reference:</b>               | RKB = 20' @ 3674.00usft |
| <b>Project:</b>  | Eddy County, NM (NAD 83 - NME) | <b>MD Reference:</b>                | RKB = 20' @ 3674.00usft |
| <b>Site:</b>     | Welch A/B 28 State             | <b>North Reference:</b>             | Grid                    |
| <b>Well:</b>     | A #50H                         | <b>Survey Calculation Method:</b>   | Minimum Curvature       |
| <b>Wellbore:</b> | Wellbore #1                    |                                     |                         |
| <b>Design:</b>   | PERMIT                         |                                     |                         |

| Planned Survey        |                 |             |                       |              |              |                         |                       |                      |                     |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |  |
| 4,100.00              | 60.00           | 268.23      | 3,907.73              | 232.73       | -538.85      | 531.40                  | 0.00                  | 0.00                 | 0.00                |  |
| 4,200.00              | 60.00           | 268.23      | 3,957.73              | 230.06       | -625.41      | 618.00                  | 0.00                  | 0.00                 | 0.00                |  |
| 4,281.07              | 60.00           | 268.23      | 3,998.27              | 227.90       | -695.58      | 688.21                  | 0.00                  | 0.00                 | 0.00                |  |
| 4,300.00              | 61.89           | 268.23      | 4,007.46              | 227.39       | -712.12      | 704.76                  | 10.00                 | 10.00                | 0.00                |  |
| 4,350.00              | 66.89           | 268.23      | 4,029.06              | 226.00       | -757.18      | 749.84                  | 10.00                 | 10.00                | 0.00                |  |
| 4,400.00              | 71.89           | 268.23      | 4,046.65              | 224.56       | -803.94      | 796.62                  | 10.00                 | 10.00                | 0.00                |  |
| 4,450.00              | 76.89           | 268.23      | 4,060.10              | 223.08       | -852.06      | 844.76                  | 10.00                 | 10.00                | 0.00                |  |
| 4,500.00              | 81.89           | 268.23      | 4,069.30              | 221.56       | -901.17      | 893.89                  | 10.00                 | 10.00                | 0.00                |  |
| 4,550.00              | 86.89           | 268.23      | 4,074.19              | 220.03       | -950.89      | 943.64                  | 10.00                 | 10.00                | 0.00                |  |
| 4,586.75              | 90.57           | 268.23      | 4,075.00              | 218.90       | -987.60      | 980.37                  | 10.00                 | 10.00                | 0.00                |  |
| 4,600.00              | 90.57           | 268.23      | 4,074.87              | 218.49       | -1,000.85    | 993.62                  | 0.00                  | 0.00                 | 0.00                |  |
| 4,700.00              | 90.57           | 268.23      | 4,073.88              | 215.41       | -1,100.80    | 1,093.62                | 0.00                  | 0.00                 | 0.00                |  |
| 4,800.00              | 90.57           | 268.23      | 4,072.89              | 212.33       | -1,200.74    | 1,193.61                | 0.00                  | 0.00                 | 0.00                |  |
| 4,900.00              | 90.57           | 268.23      | 4,071.90              | 209.25       | -1,300.69    | 1,293.61                | 0.00                  | 0.00                 | 0.00                |  |
| 5,000.00              | 90.57           | 268.23      | 4,070.90              | 206.17       | -1,400.64    | 1,393.60                | 0.00                  | 0.00                 | 0.00                |  |
| 5,100.00              | 90.57           | 268.23      | 4,069.91              | 203.09       | -1,500.59    | 1,493.60                | 0.00                  | 0.00                 | 0.00                |  |
| 5,200.00              | 90.57           | 268.23      | 4,068.92              | 200.01       | -1,600.53    | 1,593.59                | 0.00                  | 0.00                 | 0.00                |  |
| 5,300.00              | 90.57           | 268.23      | 4,067.93              | 196.93       | -1,700.48    | 1,693.59                | 0.00                  | 0.00                 | 0.00                |  |
| 5,400.00              | 90.57           | 268.23      | 4,066.94              | 193.85       | -1,800.43    | 1,793.58                | 0.00                  | 0.00                 | 0.00                |  |
| 5,500.00              | 90.57           | 268.23      | 4,065.95              | 190.77       | -1,900.38    | 1,893.58                | 0.00                  | 0.00                 | 0.00                |  |
| 5,600.00              | 90.57           | 268.23      | 4,064.96              | 187.69       | -2,000.32    | 1,993.57                | 0.00                  | 0.00                 | 0.00                |  |
| 5,700.00              | 90.57           | 268.23      | 4,063.97              | 184.61       | -2,100.27    | 2,093.57                | 0.00                  | 0.00                 | 0.00                |  |
| 5,800.00              | 90.57           | 268.23      | 4,062.98              | 181.53       | -2,200.22    | 2,193.56                | 0.00                  | 0.00                 | 0.00                |  |
| 5,900.00              | 90.57           | 268.23      | 4,061.99              | 178.45       | -2,300.17    | 2,293.56                | 0.00                  | 0.00                 | 0.00                |  |
| 6,000.00              | 90.57           | 268.23      | 4,061.00              | 175.37       | -2,400.11    | 2,393.55                | 0.00                  | 0.00                 | 0.00                |  |
| 6,100.00              | 90.57           | 268.23      | 4,060.00              | 172.29       | -2,500.06    | 2,493.55                | 0.00                  | 0.00                 | 0.00                |  |
| 6,200.00              | 90.57           | 268.23      | 4,059.01              | 169.21       | -2,600.01    | 2,593.54                | 0.00                  | 0.00                 | 0.00                |  |
| 6,300.00              | 90.57           | 268.23      | 4,058.02              | 166.13       | -2,699.96    | 2,693.54                | 0.00                  | 0.00                 | 0.00                |  |
| 6,400.00              | 90.57           | 268.23      | 4,057.03              | 163.05       | -2,799.91    | 2,793.53                | 0.00                  | 0.00                 | 0.00                |  |
| 6,500.00              | 90.57           | 268.23      | 4,056.04              | 159.97       | -2,899.85    | 2,893.53                | 0.00                  | 0.00                 | 0.00                |  |
| 6,600.00              | 90.57           | 268.23      | 4,055.05              | 156.89       | -2,999.80    | 2,993.52                | 0.00                  | 0.00                 | 0.00                |  |
| 6,700.00              | 90.57           | 268.23      | 4,054.06              | 153.81       | -3,099.75    | 3,093.52                | 0.00                  | 0.00                 | 0.00                |  |
| 6,800.00              | 90.57           | 268.23      | 4,053.07              | 150.73       | -3,199.70    | 3,193.51                | 0.00                  | 0.00                 | 0.00                |  |
| 6,900.00              | 90.57           | 268.23      | 4,052.08              | 147.65       | -3,299.64    | 3,293.51                | 0.00                  | 0.00                 | 0.00                |  |
| 7,000.00              | 90.57           | 268.23      | 4,051.09              | 144.57       | -3,399.59    | 3,393.50                | 0.00                  | 0.00                 | 0.00                |  |
| 7,100.00              | 90.57           | 268.23      | 4,050.09              | 141.49       | -3,499.54    | 3,493.50                | 0.00                  | 0.00                 | 0.00                |  |
| 7,200.00              | 90.57           | 268.23      | 4,049.10              | 138.41       | -3,599.49    | 3,593.49                | 0.00                  | 0.00                 | 0.00                |  |
| 7,300.00              | 90.57           | 268.23      | 4,048.11              | 135.33       | -3,699.43    | 3,693.49                | 0.00                  | 0.00                 | 0.00                |  |
| 7,400.00              | 90.57           | 268.23      | 4,047.12              | 132.25       | -3,799.38    | 3,793.48                | 0.00                  | 0.00                 | 0.00                |  |
| 7,500.00              | 90.57           | 268.23      | 4,046.13              | 129.18       | -3,899.33    | 3,893.48                | 0.00                  | 0.00                 | 0.00                |  |
| 7,600.00              | 90.57           | 268.23      | 4,045.14              | 126.10       | -3,999.28    | 3,993.47                | 0.00                  | 0.00                 | 0.00                |  |
| 7,700.00              | 90.57           | 268.23      | 4,044.15              | 123.02       | -4,099.22    | 4,093.47                | 0.00                  | 0.00                 | 0.00                |  |
| 7,800.00              | 90.57           | 268.23      | 4,043.16              | 119.94       | -4,199.17    | 4,193.46                | 0.00                  | 0.00                 | 0.00                |  |
| 7,900.00              | 90.57           | 268.23      | 4,042.17              | 116.86       | -4,299.12    | 4,293.46                | 0.00                  | 0.00                 | 0.00                |  |
| 8,000.00              | 90.57           | 268.23      | 4,041.18              | 113.78       | -4,399.07    | 4,393.45                | 0.00                  | 0.00                 | 0.00                |  |
| 8,100.00              | 90.57           | 268.23      | 4,040.19              | 110.70       | -4,499.02    | 4,493.45                | 0.00                  | 0.00                 | 0.00                |  |
| 8,200.00              | 90.57           | 268.23      | 4,039.19              | 107.62       | -4,598.96    | 4,593.44                | 0.00                  | 0.00                 | 0.00                |  |
| 8,300.00              | 90.57           | 268.23      | 4,038.20              | 104.54       | -4,698.91    | 4,693.44                | 0.00                  | 0.00                 | 0.00                |  |
| 8,400.00              | 90.57           | 268.23      | 4,037.21              | 101.46       | -4,798.86    | 4,793.43                | 0.00                  | 0.00                 | 0.00                |  |
| 8,500.00              | 90.57           | 268.23      | 4,036.22              | 98.38        | -4,898.81    | 4,893.43                | 0.00                  | 0.00                 | 0.00                |  |
| 8,600.00              | 90.57           | 268.23      | 4,035.23              | 95.30        | -4,998.75    | 4,993.43                | 0.00                  | 0.00                 | 0.00                |  |
| 8,700.00              | 90.57           | 268.23      | 4,034.24              | 92.22        | -5,098.70    | 5,093.42                | 0.00                  | 0.00                 | 0.00                |  |
| 8,800.00              | 90.57           | 268.23      | 4,033.25              | 89.14        | -5,198.65    | 5,193.42                | 0.00                  | 0.00                 | 0.00                |  |
| 8,900.00              | 90.57           | 268.23      | 4,032.26              | 86.06        | -5,298.60    | 5,293.41                | 0.00                  | 0.00                 | 0.00                |  |



## Planning Report



|                  |                                |                                     |                         |
|------------------|--------------------------------|-------------------------------------|-------------------------|
| <b>Database:</b> | WBDS_SQL_2                     | <b>Local Co-ordinate Reference:</b> | Well A #50H             |
| <b>Company:</b>  | Spur Energy Partners, LLC      | <b>TVD Reference:</b>               | RKB = 20' @ 3674.00usft |
| <b>Project:</b>  | Eddy County, NM (NAD 83 - NME) | <b>MD Reference:</b>                | RKB = 20' @ 3674.00usft |
| <b>Site:</b>     | Welch A/B 28 State             | <b>North Reference:</b>             | Grid                    |
| <b>Well:</b>     | A #50H                         | <b>Survey Calculation Method:</b>   | Minimum Curvature       |
| <b>Wellbore:</b> | Wellbore #1                    |                                     |                         |
| <b>Design:</b>   | PERMIT                         |                                     |                         |

| Planned Survey        |                 |             |                       |              |              |                         |                       |                      |                     |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |  |
| 9,000.00              | 90.57           | 268.23      | 4,031.27              | 82.98        | -5,398.54    | 5,393.41                | 0.00                  | 0.00                 | 0.00                |  |
| 9,100.00              | 90.57           | 268.23      | 4,030.28              | 79.90        | -5,498.49    | 5,493.40                | 0.00                  | 0.00                 | 0.00                |  |
| 9,200.00              | 90.57           | 268.23      | 4,029.28              | 76.82        | -5,598.44    | 5,593.40                | 0.00                  | 0.00                 | 0.00                |  |
| 9,300.00              | 90.57           | 268.23      | 4,028.29              | 73.74        | -5,698.39    | 5,693.39                | 0.00                  | 0.00                 | 0.00                |  |
| 9,400.00              | 90.57           | 268.23      | 4,027.30              | 70.66        | -5,798.33    | 5,793.39                | 0.00                  | 0.00                 | 0.00                |  |
| 9,500.00              | 90.57           | 268.23      | 4,026.31              | 67.58        | -5,898.28    | 5,893.38                | 0.00                  | 0.00                 | 0.00                |  |
| 9,582.36              | 90.57           | 268.23      | 4,025.50              | 65.04        | -5,980.60    | 5,975.74                | 0.00                  | 0.00                 | 0.00                |  |
| 9,600.00              | 90.57           | 268.23      | 4,025.32              | 64.50        | -5,998.23    | 5,993.38                | 0.00                  | 0.00                 | 0.00                |  |
| 9,632.39              | 90.57           | 268.23      | 4,025.00              | 63.50        | -6,030.60    | 6,025.76                | 0.00                  | 0.00                 | 0.00                |  |

| Design Targets                                                                                                                   |               |              |            |              |              |                 |                |            |              |  |
|----------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------|--------------|--|
| Target Name                                                                                                                      | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude   | Longitude    |  |
| Welch A-28 St #50H: I<br>- hit/miss target<br>- Shape<br>- Point                                                                 | 0.00          | 0.00         | 0.00       | 0.00         | 0.00         | 658,805.90      | 591,678.30     | 32.8109794 | -104.1694789 |  |
| Welch A-28 St #50H: I<br>- plan hits target center<br>- Point                                                                    | 0.00          | 0.00         | 3,084.32   | 205.95       | -43.05       | 659,011.86      | 591,635.25     | 32.8115457 | -104.1696180 |  |
| Welch A-28 St #50H: I<br>- plan hits target center<br>- Point                                                                    | 0.00          | 0.00         | 4,025.00   | 63.50        | -6,030.60    | 658,869.40      | 585,647.70     | 32.8111781 | -104.1891075 |  |
| Welch A-28 St #50H: I<br>- plan misses target center by 0.06usft at 9582.36usft MD (4025.50 TVD, 65.04 N, -5980.60 E)<br>- Point | 0.00          | 0.00         | 4,025.50   | 65.10        | -5,980.60    | 658,871.00      | 585,697.70     | 32.8111823 | -104.1889448 |  |
| Welch A-28 St #50H: I<br>- plan hits target center<br>- Point                                                                    | 0.00          | 0.00         | 4,075.00   | 218.90       | -987.60      | 659,024.80      | 590,690.70     | 32.8115852 | -104.1726923 |  |





Company: Spur Energy Partners, LLC  
Project: Eddy County, NM (NAD 83 - NME)  
Site: Welch A/B 28 State  
Well: A #50H  
Wellbore: Wellbore #1  
Rig:  
Design: PERMIT / 7:43, November 24 2020

DESIGN TARGET DETAILS

| Name                                        | TVD     | +N/-S  | +E/-W    | Northing  | Easting   | Latitude   | Longitude    |
|---------------------------------------------|---------|--------|----------|-----------|-----------|------------|--------------|
| Welch A-28 St #50H: SHL 655' NFL & 890' FWL | 0.00    | 0.00   | 0.00     | 658805.90 | 591678.30 | 32.8109794 | -104.1694789 |
| Welch A-28 St #50H: KOP 3092.48' MD         | 3084.32 | 205.95 | -43.05   | 659011.85 | 591635.25 | 32.8115456 | -104.1696180 |
| Welch A-28 St #50H: PBHL 430' NFL & 50' FWL | 4025.00 | 63.50  | -6030.60 | 658869.40 | 585647.70 | 32.8111781 | -104.1891076 |
| Welch A-28 St #50H: LTP 100' FWL            | 4025.50 | 65.10  | -5980.60 | 658871.00 | 585697.70 | 32.8111823 | -104.1889448 |
| Welch A-28 St #50H: FTP 100' FEL            | 4075.00 | 218.90 | -987.60  | 659024.80 | 590690.70 | 32.8115852 | -104.1726923 |

WELL DETAILS: A #50H

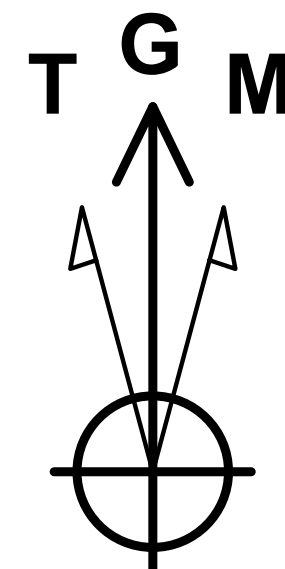
|                                    |       |           |           |            |              |  |
|------------------------------------|-------|-----------|-----------|------------|--------------|--|
| RKB = 20° @ 3674.00usft<br>3654.00 |       |           |           |            |              |  |
| +N/-S                              | +E/-W | Northing  | Easting   | Latitude   | Longitude    |  |
| 0.00                               | 0.00  | 658805.90 | 591678.30 | 32.8109794 | -104.1694789 |  |

SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N/-S  | +E/-W    | Dleg  | VSect   |
|-----|---------|-------|--------|---------|--------|----------|-------|---------|
| 1   | 0.00    | 0.00  | 0.00   | 0.00    | 0.00   | 0.00     | 0.00  | 0.00    |
| 2   | 300.00  | 0.00  | 0.00   | 300.00  | 0.00   | 0.00     | 0.00  | 0.00    |
| 3   | 525.14  | 4.50  | 348.19 | 524.91  | 8.66   | -1.81    | 2.00  | 1.54    |
| 4   | 3092.48 | 4.50  | 348.19 | 3084.32 | 205.95 | -43.05   | 0.00  | 36.67   |
| 5   | 4081.07 | 60.00 | 268.23 | 3898.27 | 233.23 | -522.46  | 6.00  | 515.01  |
| 6   | 4281.07 | 60.00 | 268.23 | 3998.27 | 227.90 | -695.58  | 0.00  | 688.21  |
| 7   | 4586.75 | 90.57 | 268.23 | 4075.00 | 218.90 | -987.60  | 10.00 | 980.37  |
| 8   | 9582.36 | 90.57 | 268.23 | 4025.50 | 65.04  | -5980.60 | 0.00  | 5975.74 |
| 9   | 9632.39 | 90.57 | 268.23 | 4025.00 | 63.50  | -6030.60 | 0.00  | 6025.76 |

PROJECT DETAILS: Eddy County, NM (NAD 83 - NME)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level



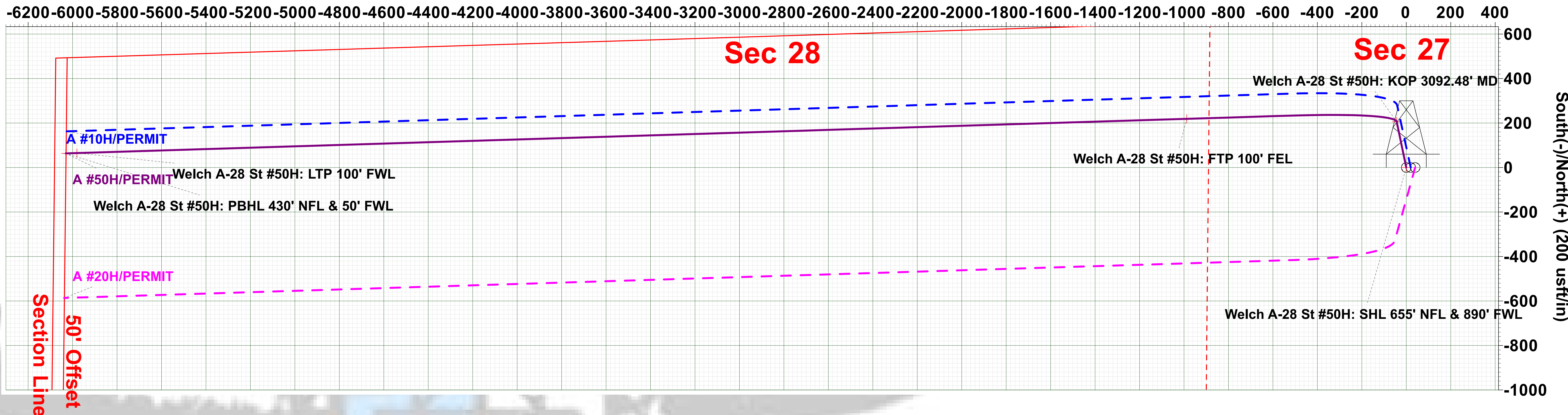
Azimuths to Grid North  
True North: -0.09°  
Magnetic North: 6.85°

Magnetic Field  
Strength: 47835.3snT  
Dip Angle: 60.36°  
Date: 11/21/2020  
Model: IGRF2020

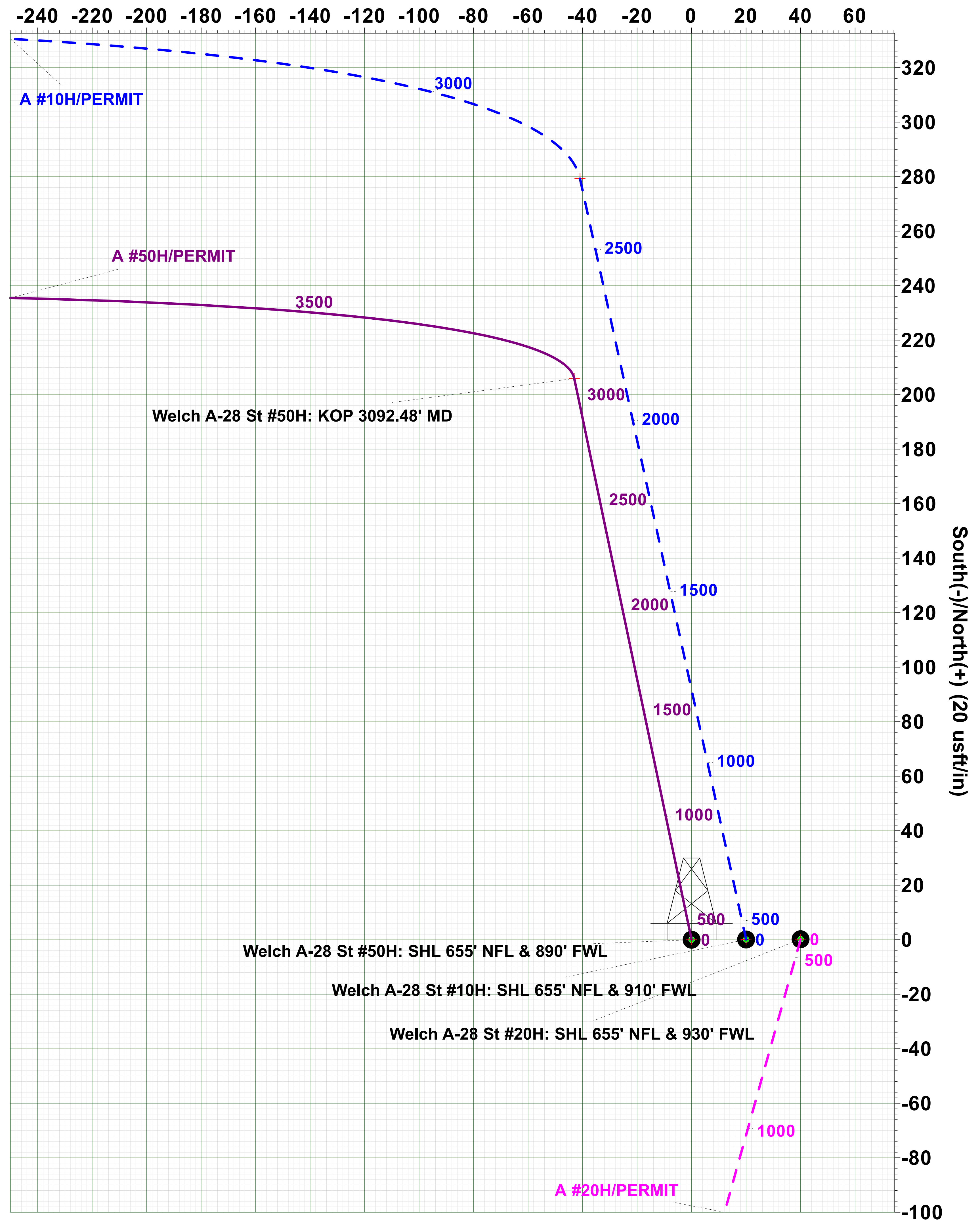
CORRECTION REFERENCE DATA:

To convert a Magnetic Direction to a Grid Direction, Add 6.846°  
To convert a True Direction to a Grid Direction, Subtract 0.089°  
To convert a Magnetic Direction to a True Direction, Add 6.935° East  
Magnetic Declination: 6.935°  
Grid Convergence: 0.089° West  
Magnetic Dip Angle: 60.362°  
Magnetic Field Strength: 47835.33794356nT

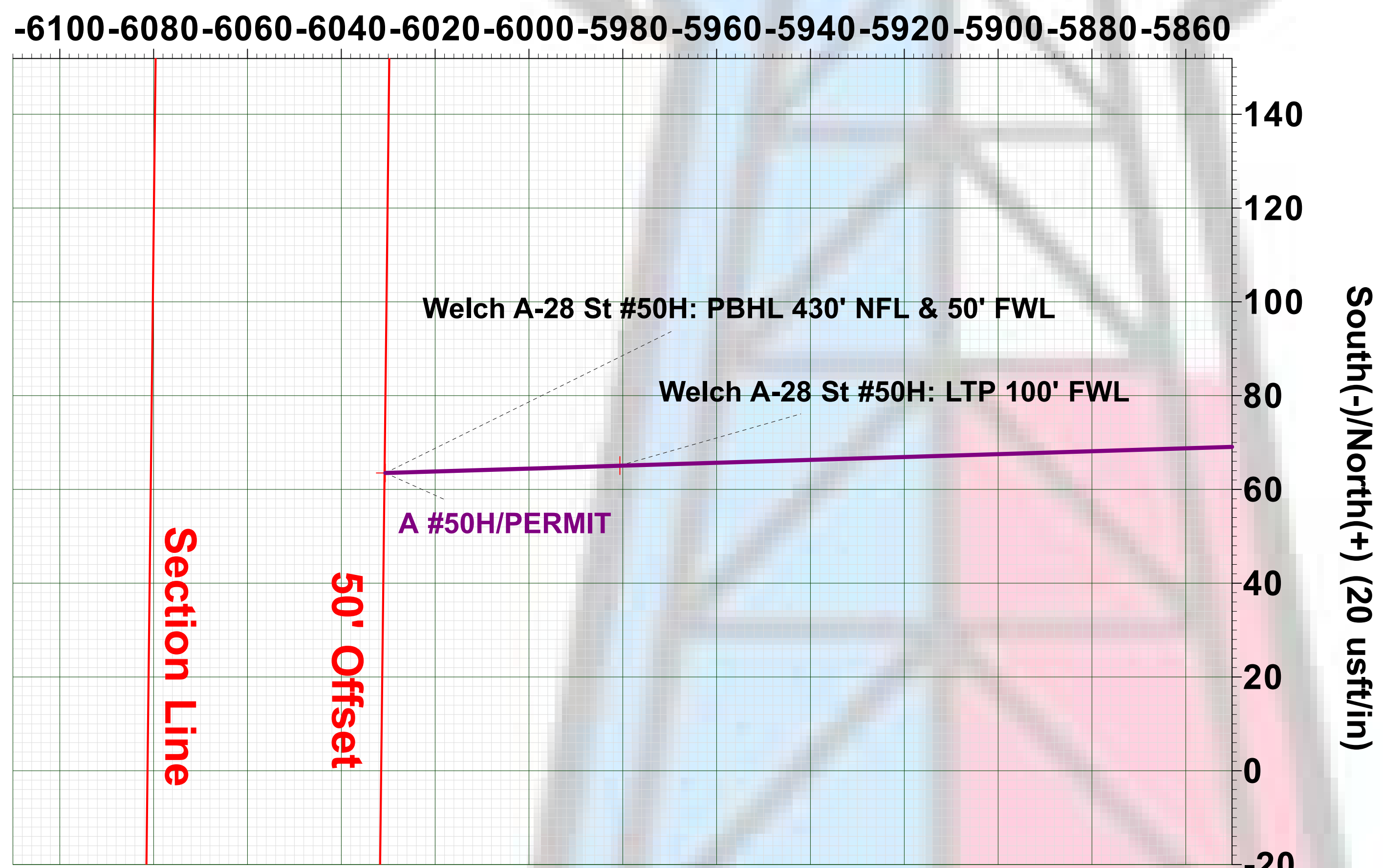
West(-)/East(+) (200 usft/in)



West(-)/East(+) (20 usft/in)



West(-)/East(+) (20 usft/in)



Disclaimer:

All Plan Details, boundary lines and offset well location/ survey data is provided by customer and subject to customer approval.

Plan: PERMIT (A #50H/Wellbore #1)

Created By: Matthew May Date: 7:43, November 24 2020





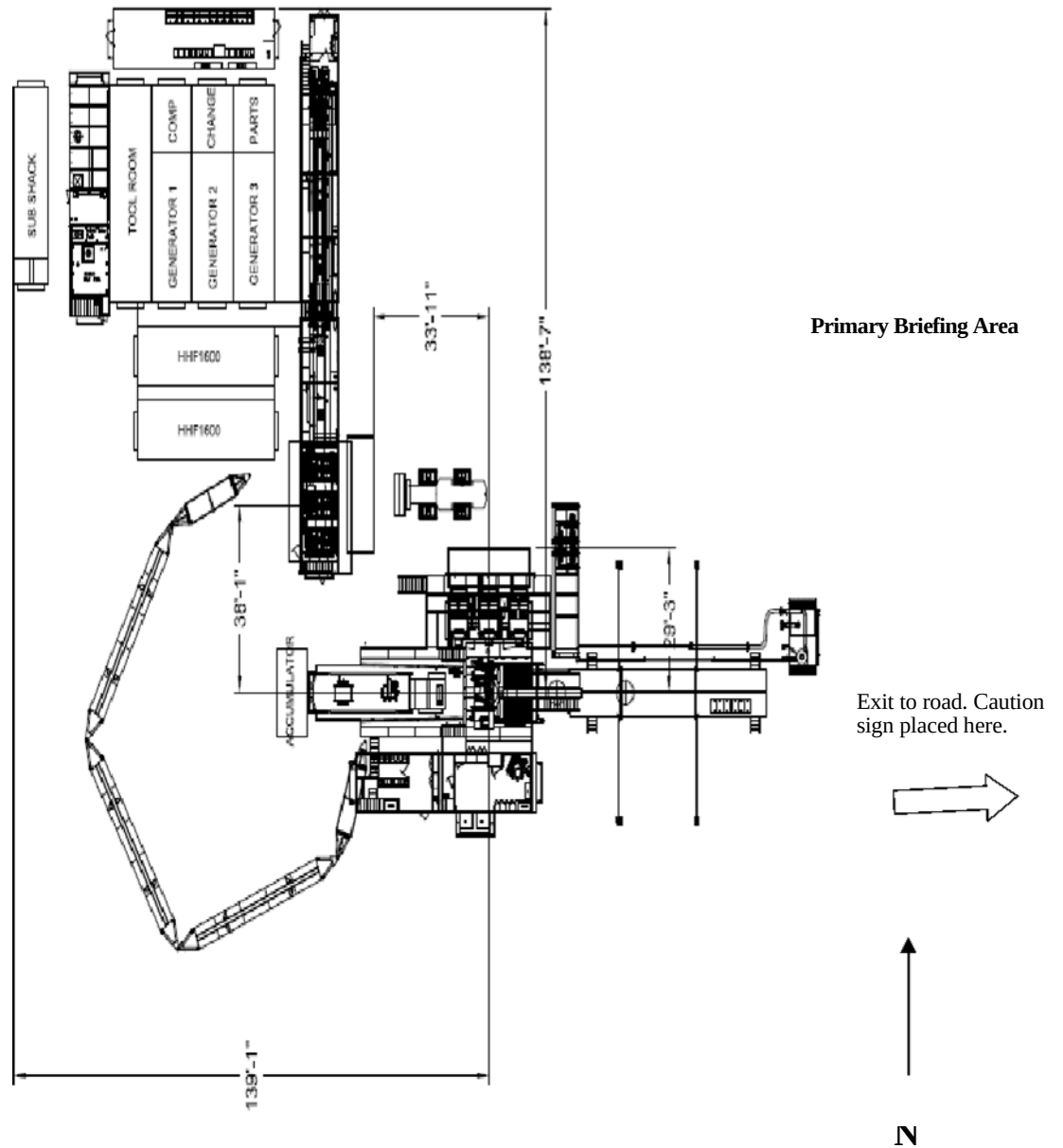
## **Permian Drilling Hydrogen Sulfide Drilling Operations Plan Welch A 28 State 50H**

Open drill site. No homes or buildings are near the proposed location.

### **1. Escape**

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

Secondary Briefing Area



Secondary Egress

WIND: Prevailing winds are from the Southwest

Intent ☐ As Drilled ☐

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

## Kick Off Point (KOP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      |          | NAD    |

## First Take Point (FTP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      |          | NAD    |

## Last Take Point (LTP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      |          | NAD    |

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

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