Form C-101 August 1, 2011

Permit 360838

<u>District I</u> 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**

| APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE |                 |  |  |  |  |  |
|--|-----------------|--|--|--|--|--|
| 1. Operator Name and Address   | 2. OGRID Number |  |  |  |  |  |
| STEWARD ENERGY II, LLC   | 371682          |  |  |  |  |  |
| 420 Throckmorton   | 3. API Number   |  |  |  |  |  |
| Fort Worth, TX 76102   | 30-025-52815    |  |  |  |  |  |

Fort Worth, TX 76102 4. Property Code 5. Property Name 6. Well No. 333572 WEXLER FEE 001H

7 Surface Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| Н        | 3       | 13S      | 38E   | Н       | 1737      | N        | 1259      | E        | Lea    |

8. Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|
| Р        | 10      | 13S      | 38E   | Р       | 100       | S        | 550       | E        | Lea    |

9. Pool Information

7500 BRONCO;SAN ANDRES, SOUTH

**Additional Well Information** 

| 11. Work Type         | 12. Well Type      | 13. Cable/Rotary                       | 14. Lease Type                    | 15. Ground Level Elevation |
|-----------------------|--------------------|--|-----------------------------------|----------------------------|
| New Well              | OIL                |  | Private                           | 3803                       |
| 16. Multiple          | 17. Proposed Depth | 18. Formation                          | 19. Contractor                    | 20. Spud Date              |
| N                     | 13621              | San Andres                             |                                   | 9/13/2024                  |
| 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               | 2307          | 830             | 0             |
| Prod | 8.5       | 7           | 29               | 5500          | 360             | 0             |
| Prod | 8.5       | 5.5         | 20               | 13621         | 2300            | 0             |

**Casing/Cement Program: Additional Comments** 

Tapered Production Casing

22. Proposed Blowout Prevention Program

| Туре       | Working Pressure | Test Pressure | Manufacturer |  |
|------------|------------------|---------------|--------------|--|
| Annular    | 3000             | 1500          | SCHAFER      |  |
| Double Ram | 3000             | 1500          | SCHAFER      |  |

| knowledge and I further certify , if applicable. | belief.<br>I have complied with 19.15.14.9 (A | is true and complete to the best of my ) NMAC ⊠ and/or 19.15.14.9 (B) NMAC |                                 | OIL CONSERVAT | ION DIVISION               |
|--|---|--|---------------------------------|---------------|----------------------------|
| Signature:                                       |   |  |                                 | D 151/ 1      |                            |
| Printed Name:                                    | Electronically filed by Ryan Del              | ong  | Approved By:                    | Paul F Kautz  |                            |
| Title:   |   |  | Title:                          | Geologist     |                            |
| Email Address:                                   | rdelong@titusoil.com                          |  | Approved Date:                  | 4/19/2024     | Expiration Date: 4/19/2026 |
| Date: 4/9/2024 Phone: 817-852-6370               |   |  | Conditions of Approval Attached |               |                            |

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

Phone: (505) 476-3460 Fax: (505) 476-3462

District IV

# 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

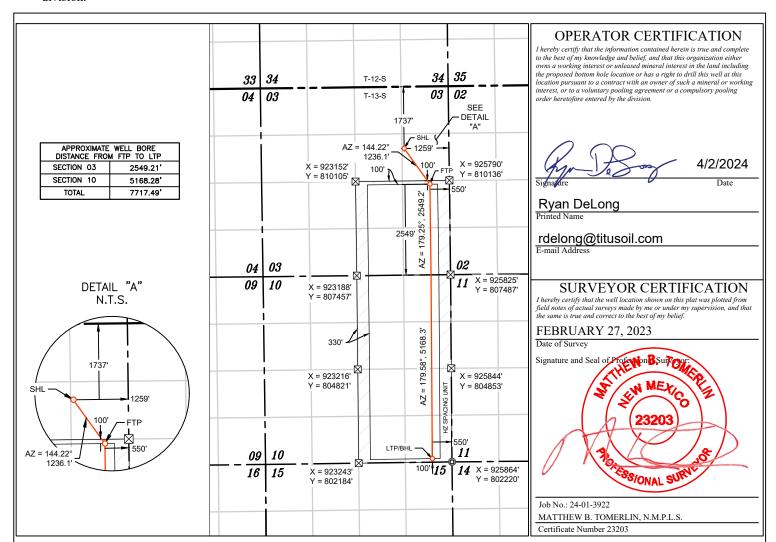
☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

|                         | WEEE ECCHITOTYTH D HEIGHT DEDICATION TENT |          |                            |                                      |               |                  |               |                |                    |  |
|-------------------------|---|----------|----------------------------|--------------------------------------|---------------|------------------|---------------|----------------|--------------------|--|
| AP                      | API Number                                |          |                            | Pool Code Pool Name                  |               |                  |               |                |                    |  |
|                         |   |          | 7500 Bronco; San Andres, S |                                      |               |                  | South         | outh           |                    |  |
| Property Code<br>333572 |   |          | Property Name WEXLER FEE   |                                      |               |                  |               |                | Well Number<br>#1H |  |
| OGRID N<br>371682       | OGRID No.<br>371682                       |          |                            | Operator Name STEWARD ENERGY II, LLC |               |                  |               |                | ion<br><b>3'</b>   |  |
|                         | Surface Location                          |          |                            |                                      |               |                  |               |                |                    |  |
| UL or lot no.           | Section                                   | Township | Range                      | Lot Idn                              | Feet from the | North/South line | Feet from the | East/West line | County             |  |

03 13 S 38 E 1737 **NORTH** 1259 **EAST** LEA Bottom Hole Location If Different From Surface East/West line Township Ρ 13 S 38 E SOUTH 10 100 550 **EAST** LEA Dedicated Acres Joint or Infill Order No 480.00

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



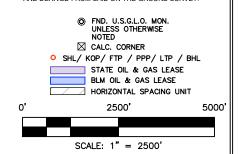


| NAD 83 (FTP) 2549' FSL & 550' FEL |
|-----------------------------------|
| LATITUDE = 33.220401°             |
| LONGITUDE = -103.078014°          |
| NAD 27 (FTP)                      |
| LATITUDE = 33.220294°             |
| LONGITUDE = -103.077515°          |
| STATE PLANE NAD 83 (N.M. EAST)    |
| N: 810029.60' E: 925241.73'       |
| STATE PLANE NAD 27 (N.M. EAST)    |
| N: 809966.50' E: 884065.86'       |

| NAD 83 (LTP/BHL) 100' FSL & 550' FEL |
|--------------------------------------|
| LATITUDE = 33.199193°                |
| LONGITUDE = -103.078083°             |
| NAD 27 (LTP/BHL)                     |
| LATITUDE = 33.199086°                |
| LONGITUDE = -103.077584°             |
| STATE PLANE NAD 83 (N.M. EAST)       |
| N: 802312.47' E: 925313.07'          |
| STATE PLANE NAD 27 (N.M. EAST)       |
| N: 802249.59' E: 884137.17'          |

### NOTES

- 1. ALL COORDINATES, BEARINGS, AND DISTANCES CONTAINED HEREIN ARE GRID, BASED UPON THE NEW MEXICO STATE PLANE COORDINATES SYSTEM, NORTH AMERICAN DATUM 83, NEW MEXICO EAST (3001), NAVD 88.
- 2. THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING FEBRUARY, 2024. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS BEASEMENT IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.
- 3. ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.



# WEXLER FEE 1H\PLATS\FED PACKET\1-LOCATION ELEVATION MAP\20240223\1-NM-STEWARD-LOCATION ELEVATION MAP-WEXLER FEE ∯IH\_R1.DWG

# EXHIBIT 1 LOCATION & ELEVATION VERIFICATION MAP

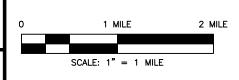




LEASE NAME AND WELL NUMBER: WEXLER FEE #1H LATITUDE: N 33.223180 LONGITUDE: W 103.080337 ELEVATION:  $\underline{3803}$  DESCRIPTION:  $\underline{1737}$  FNL & 1259' FEL



Situated in SECTION 03, TOWNSHIP 13 SOUTH, RANGE 38 EAST LEA COUNTY, NEW MEXICO



SHL
 KOP/FTP/PPP/LTP/BHL
 PROPOSED WELL BORE
 SECTION LINE
 TOWNSHIP/RANGE LINE

**LEGEND** 

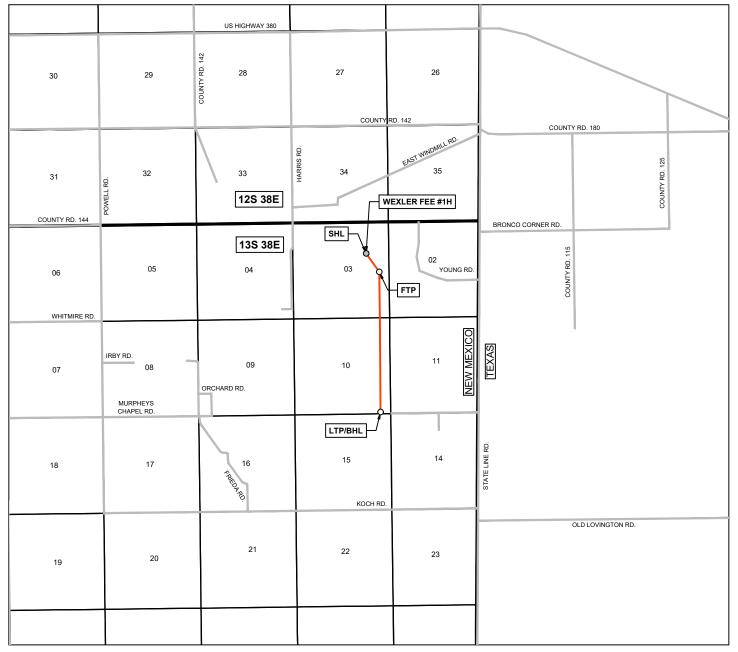


12450 Network Blvd. - Suite 155 San Antonio, TX 78249 Phone: 726-777-4240 Firm No. 10194585

| DRAWN BY: JW   | DATE: 02/23/2024           | REV.     |
|----------------|----------------------------|----------|
| CHECKED BY: JH | DATE: 02/23/2024           | 1        |
| AFE#           | PROJECT ID: 24-01-3922 PAG | E 1 OF 1 |

## **EXHIBIT 2 VICINITY MAP**





LEASE NAME AND WELL NUMBER: WEXLER FEE #1H LATITUDE: N 33.223180 LONGITUDE: W 103.080337 ELEVATION: 3803' DESCRIPTION: 1737' FNL & 1259' FEL



Z:\2024\STEWARD ENERGY\24-01-3922 - WEXLER FEE 1H\PLATS\FED PACKET\2-VICHITY MAP\20240223\2-NW-STEWARD-VICHITY MAP-WEXLER FEE #1H\_R1.DWG

PLOT DATE: 2/23/2024 10:47:01

Situated in SECTION 03, TOWNSHIP 13 SOUTH, RANGE 38 EAST LEA COUNTY, NEW MEXICO





12450 Network Blvd. - Suite 155 San Antonio, TX 78249 Phone: 726-777-4240 Firm No. 10194585

| DRAWN BY: JW   |                        | DATE : | 02/23/2024 |      | REV.   |
|----------------|------------------------|--------|------------|------|--------|
| CHECKED BY: JH |                        | DATE : | 02/23/2024 |      | 1      |
| AFE#           | PROJECT ID: 24-01-3922 |        |            | PAGE | 1 OF 1 |

**LEGEND** 

Released to Imaging: 4/19/2024 10:20:51 AM

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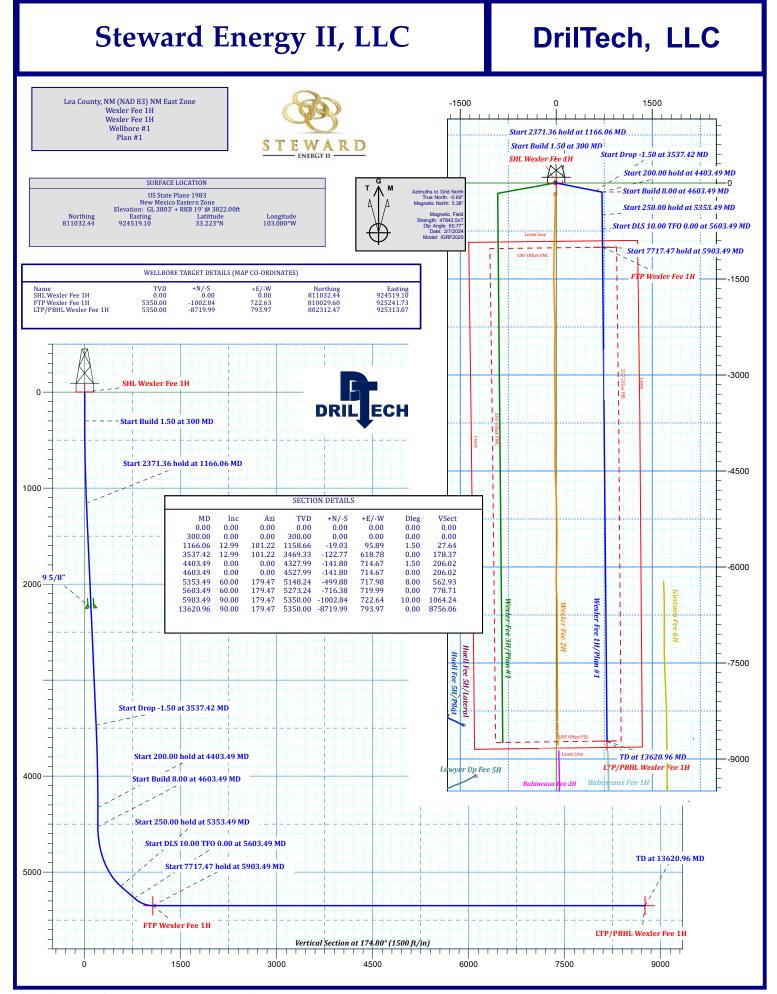
Form APD Conditions

Permit 360838

### PERMIT CONDITIONS OF APPROVAL

| Operator Name and Address:      | API Number:      |
|---------------------------------|------------------|
| STEWARD ENERGY II, LLC [371682] | 30-025-52815     |
| 420 Throckmorton                | Well:            |
| Fort Worth, TX 76102            | WEXLER FEE #001H |

| OCD<br>Reviewer | Condition  |
|-----------------|--|
| pkautz          | Notify OCD 24 hours prior to casing & cement   |
| pkautz          | Will require a File As Drilled C-102 and a Directional Survey with the C-104   |
| pkautz          | 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 |
| pkautz          | 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                  |
| pkautz          | Cement is required to circulate on both surface and intermediate1 strings of casing  |
| pkautz          | If cement does not circulate on any string, a CBL is required for that string of casing  |
| pkautz          | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud   |



# Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone Wexler Fee 1H Wexler Fee 1H

Wellbore #1

Plan: Plan #1

# **Standard Planning Report**

08 March, 2024

Database: Company: edmdb

Steward Energy II, LLC

Project:

Lea County, NM (NAD 83) NM East Zone

Site: Wexler Fee 1H Well: Wexler Fee 1H Wellbore: Wellbore #1 Plan #1

**Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Minimum Curvature

Design: Project

Lea County, NM (NAD 83) NM East Zone

Map System: Geo Datum: Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone

System Datum:

Mean Sea Level

Wexler Fee 1H Site

Site Position: From:

Мар

Plan #1

Northing: Easting:

811,032.44 usft 924,519.10 usft 13.200 in

Latitude: Longitude:

33.223°N 103.080°W

**Position Uncertainty:** 0.00 ft Slot Radius:

Well Wexler Fee 1H

**Well Position** +N/-S +E/-W

0.00 ft 0.00 ft 0.00 ft

Easting: Wellhead Elevation:

Northing: 811,032.44 usft 924,519.10 usft ft

Latitude: Longitude: **Ground Level:** 

33.223°N 103.080°W 3,803.00 ft

**Grid Convergence:** 

**Position Uncertainty** 

0.69°

| Wellbore  | Wellbore #1 |             |             |           |                 |
|-----------|-------------|-------------|-------------|-----------|-----------------|
|           |             |             |             |           |                 |
| Magnetics | Model Name  | Sample Date | Declination | Dip Angle | Field Strength  |
|           |             |             | (°)         | (°)       | (nT)            |
|           | IGRF2020    | 3/7/2024    | 6.07        | 60.77     | 47,842.51016897 |

Design

Audit Notes:

Version: Vertical Section:

Phase: Depth From (TVD)

(ft)

0.00

PLAN

+N/-S (ft)

Tie On Depth: +E/-W (ft)

0.00

0.00 Direction

(°) 174.80

Plan Survey Tool Program

3/8/2024 Date

**Depth From** (ft)

0.00

Depth To (ft) 13,620.96

Survey (Wellbore) Plan #1 (Wellbore #1)

**Tool Name** MWD

0.00

Remarks

MWD - Standard

Database: Company:

Project:

edmdb

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Site: Wexler Fee 1H Well: Wexler Fee 1H Wellbore #1 Wellbore: Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

| Plan Sections             |                    |                |                           |               |               |                             |                            |                           |            |                     |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|---------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) | TFO<br>(°) | Target              |
| 0.00                      | 0.00               | 0.00           | 0.00                      | 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       |                     |
| 1,166.06                  | 12.99              | 101.22         | 1,158.66                  | -19.03        | 95.89         | 1.50                        | 1.50                       | 0.00                      | 101.22     |                     |
| 3,537.42                  | 12.99              | 101.22         | 3,469.33                  | -122.77       | 618.78        | 0.00                        | 0.00                       | 0.00                      | 0.00       |                     |
| 4,403.49                  | 0.00               | 0.00           | 4,327.99                  | -141.80       | 714.67        | 1.50                        | -1.50                      | 0.00                      | 180.00     |                     |
| 4,603.49                  | 0.00               | 0.00           | 4,527.99                  | -141.80       | 714.67        | 0.00                        | 0.00                       | 0.00                      | 0.00       |                     |
| 5,353.49                  | 60.00              | 179.47         | 5,148.24                  | -499.88       | 717.98        | 8.00                        | 8.00                       | 0.00                      | 179.47     |                     |
| 5,603.49                  | 60.00              | 179.47         | 5,273.24                  | -716.38       | 719.99        | 0.00                        | 0.00                       | 0.00                      | 0.00       |                     |
| 5,903.49                  | 90.00              | 179.47         | 5,350.00                  | -1,002.84     | 722.64        | 10.00                       | 10.00                      | 0.00                      | 0.00       |                     |
| 13,620.96                 | 90.00              | 179.47         | 5,350.00                  | -8,719.99     | 793.97        | 0.00                        | 0.00                       | 0.00                      | 0.00       | LTP/PBHL Wexler Fee |

Database: Company:

edmdb

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Project: Site: Well:

Wexler Fee 1H
Wexler Fee 1H

Wellbore: Wellbore #1

Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| ,o.g                      |                  |                |                                  |                               |                            |                             |                             |                            |                           |
|---------------------------|------------------|----------------|----------------------------------|-------------------------------|----------------------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| lanned Survey             |                  |                |                                  |                               |                            |                             |                             |                            |                           |
| Measured<br>Depth<br>(ft) | Inclination (°)  | Azimuth<br>(°) | Vertical<br>Depth<br>(ft)        | +N/-S<br>(ft)                 | +E/-W<br>(ft)              | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/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                      |
|                           |                  | 0.00           | 000.00                           | 0.00                          | 0.00                       | 0.00                        | 0.00                        | 0.00                       | 0.00                      |
| Start Build 1.            |                  | 404.00         | 000.00                           | 0.05                          | 4.00                       | 0.07                        | 4.50                        | 4.50                       | 0.00                      |
| 400.00                    | 1.50             | 101.22         | 399.99                           | -0.25                         | 1.28                       | 0.37                        | 1.50                        | 1.50                       | 0.00                      |
| 500.00                    | 3.00             | 101.22         | 499.91                           | -1.02                         | 5.13                       | 1.48                        | 1.50                        | 1.50                       | 0.00                      |
| 600.00                    | 4.50             | 101.22         | 599.69                           | -2.29                         | 11.55                      | 3.33                        | 1.50                        | 1.50                       | 0.00                      |
| 700.00                    | 6.00             | 101.22         | 699.27                           | -4.07                         | 20.52                      | 5.92                        | 1.50                        | 1.50                       | 0.00                      |
| 800.00                    | 7.50             | 101.22         | 798.57                           | -6.36                         | 32.05                      | 9.24                        | 1.50                        | 1.50                       | 0.00                      |
|                           |                  |                |                                  |                               |                            |                             |                             |                            |                           |
| 900.00                    | 9.00             | 101.22         | 897.54                           | -9.15                         | 46.13                      | 13.30                       | 1.50                        | 1.50                       | 0.00                      |
| 1,000.00                  | 10.50            | 101.22         | 996.09                           | -12.45                        | 62.74                      | 18.09                       | 1.50                        | 1.50                       | 0.00                      |
| 1,100.00                  | 12.00            | 101.22         | 1,094.16                         | -16.24                        | 81.87                      | 23.60                       | 1.50                        | 1.50                       | 0.00                      |
| 1,166.06                  | 12.99            | 101.22         | 1,158.66                         | -19.03                        | 95.89                      | 27.64                       | 1.50                        | 1.50                       | 0.00                      |
|                           |                  |                | 1,130.00                         | -13.00                        | 33.03                      | 21.04                       | 1.50                        | 1.50                       | 0.00                      |
|                           | hold at 1166.06  |                |                                  |                               |                            |                             |                             |                            |                           |
| 1,200.00                  | 12.99            | 101.22         | 1,191.73                         | -20.51                        | 103.38                     | 29.80                       | 0.00                        | 0.00                       | 0.00                      |
| 1,300.00                  | 12.99            | 101.22         | 1,289.17                         | -24.89                        | 125.43                     | 36.16                       | 0.00                        | 0.00                       | 0.00                      |
| 1,400.00                  | 12.99            | 101.22         | 1,386.61                         | -29.26                        | 147.48                     | 42.51                       | 0.00                        | 0.00                       | 0.00                      |
|                           |                  |                |                                  |                               |                            |                             |                             |                            |                           |
| 1,500.00                  | 12.99            | 101.22         | 1,484.05                         | -33.64                        | 169.53                     | 48.87                       | 0.00                        | 0.00                       | 0.00                      |
| 1,600.00                  | 12.99            | 101.22         | 1,581.49                         | -38.01                        | 191.58                     | 55.23                       | 0.00                        | 0.00                       | 0.00                      |
| 1,700.00                  | 12.99            | 101.22         | 1,678.93                         | -42.39                        | 213.63                     | 61.58                       | 0.00                        | 0.00                       | 0.00                      |
| 1,800.00                  | 12.99            | 101.22         | 1,776.37                         | -46.76                        | 235.68                     | 67.94                       | 0.00                        | 0.00                       | 0.00                      |
| 1,900.00                  | 12.99            | 101.22         | 1,873.81                         | -51.14                        | 257.73                     | 74.29                       | 0.00                        | 0.00                       | 0.00                      |
| ,                         |                  |                | ,                                |                               |                            |                             |                             |                            |                           |
| 2,000.00                  | 12.99            | 101.22         | 1,971.25                         | -55.51                        | 279.78                     | 80.65                       | 0.00                        | 0.00                       | 0.00                      |
| 2,100.00                  | 12.99            | 101.22         | 2,068.69                         | -59.89                        | 301.83                     | 87.01                       | 0.00                        | 0.00                       | 0.00                      |
| 2,200.00                  | 12.99            | 101.22         | 2,166.14                         | -64.26                        | 323.88                     | 93.36                       | 0.00                        | 0.00                       | 0.00                      |
| 2,286.07                  | 12.99            | 101.22         | 2,250.00                         | -68.03                        | 342.85                     | 98.83                       | 0.00                        | 0.00                       | 0.00                      |
| 9 5/8"                    |                  |                |                                  |                               |                            |                             |                             |                            |                           |
| 2,300.00                  | 12.99            | 101.22         | 2,263.58                         | -68.63                        | 345.93                     | 99.72                       | 0.00                        | 0.00                       | 0.00                      |
| 2,400.00                  | 12.99            | 101.22         | 2,361.02                         | -73.01                        | 367.98                     | 106.08                      | 0.00                        | 0.00                       | 0.00                      |
| 2,500.00                  | 12.99            | 101.22         | 2,458.46                         | -77.38                        | 390.03                     | 112.43                      | 0.00                        | 0.00                       | 0.00                      |
| ,                         | 12.99            |                |                                  |                               | 412.08                     | 118.79                      |                             |                            |                           |
| 2,600.00                  |                  | 101.22         | 2,555.90                         | -81.76                        |                            |                             | 0.00                        | 0.00                       | 0.00                      |
| 2,700.00                  | 12.99            | 101.22         | 2,653.34                         | -86.13                        | 434.13                     | 125.14                      | 0.00                        | 0.00                       | 0.00                      |
| 2,800.00                  | 12.99            | 101.22         | 2,750.78                         | -90.51                        | 456.18                     | 131.50                      | 0.00                        | 0.00                       | 0.00                      |
| 2,900.00                  | 12.99            | 101.22         | 2,848.22                         | -94.88                        | 478.23                     | 137.86                      | 0.00                        | 0.00                       | 0.00                      |
| 3,000.00                  | 12.99            | 101.22         | 2,945.66                         | -99.26                        | 500.28                     | 144.21                      | 0.00                        | 0.00                       | 0.00                      |
| 3,100.00                  | 12.99            | 101.22         | 3,043.10                         | -103.63                       | 522.33                     | 150.57                      | 0.00                        | 0.00                       | 0.00                      |
|                           |                  |                |                                  |                               |                            |                             |                             |                            |                           |
| 3,200.00                  | 12.99            | 101.22         | 3,140.54                         | -108.01                       | 544.38                     | 156.93                      | 0.00                        | 0.00                       | 0.00                      |
| 3,300.00                  | 12.99            | 101.22         | 3,237.98                         | -112.38                       | 566.43                     | 163.28                      | 0.00                        | 0.00                       | 0.00                      |
| 3,400.00                  | 12.99            | 101.22         | 3,335.42                         | -116.76                       | 588.48                     | 169.64                      | 0.00                        | 0.00                       | 0.00                      |
| 3,500.00                  | 12.99            | 101.22         | 3,432.86                         | -121.13                       | 610.53                     | 176.00                      | 0.00                        | 0.00                       | 0.00                      |
| 3,537.42                  | 12.99            | 101.22         | 3,469.33                         | -121.13                       | 618.78                     | 178.37                      | 0.00                        | 0.00                       | 0.00                      |
|                           |                  |                | 0,-00.00                         | -122.11                       | 010.70                     | 170.07                      | 0.00                        | 0.00                       | 0.00                      |
| •                         | .50 at 3537.42 M |                | 0.500.15                         | 40                            | 000.00                     | 100.01                      |                             |                            |                           |
| 3,600.00                  | 12.05            | 101.22         | 3,530.42                         | -125.41                       | 632.08                     | 182.21                      | 1.50                        | -1.50                      | 0.00                      |
| 3,700.00                  | 10.55            | 101.22         | 3,628.47                         | -129.23                       | 651.31                     | 187.75                      | 1.50                        | -1.50                      | 0.00                      |
| 3,800.00                  | 9.05             | 101.22         | 3,727.01                         | -132.54                       | 668.01                     | 192.57                      | 1.50                        | -1.50                      | 0.00                      |
| 3,900.00                  | 7.55             | 101.22         | 3,825.96                         | -135.35                       | 682.17                     | 196.65                      | 1.50                        | -1.50                      | 0.00                      |
| 4,000.00                  | 6.05             | 101.22         | 3,925.25                         | -137.65                       | 693.79                     | 200.00                      | 1.50                        | -1.50                      | 0.00                      |
| 4,100.00                  | 4.55             | 101.22         | 4,024.82                         | -139.45                       | 702.85                     | 202.61                      | 1.50                        | -1.50                      | 0.00                      |
| ₹,100.00                  | 4.55             | 101.22         | 7,024.02                         | -103.40                       | 102.03                     | 202.01                      | 1.50                        | -1.50                      | 0.00                      |
|                           | 3.05             | 101.22         | 4,124.60                         | -140.74                       | 709.36                     | 204.48                      | 1.50                        | -1.50                      | 0.00                      |
| 4,200.00                  | 3.05             |                |                                  |                               |                            |                             |                             |                            |                           |
| 4,200.00<br>4,300.00      | 1.55             | 101.22         | 4,224.52                         | -141.52                       | 713.30                     | 205.62                      | 1.50                        | -1.50                      | 0.00                      |
| 4,300.00                  | 1.55             | 101.22         |                                  |                               |                            |                             |                             |                            |                           |
|                           |                  |                | 4,224.52<br>4,324.50<br>4,327.99 | -141.52<br>-141.80<br>-141.80 | 713.30<br>714.67<br>714.67 | 205.62<br>206.02<br>206.02  | 1.50<br>1.50<br>1.50        | -1.50<br>-1.50<br>-1.50    | 0.00<br>0.00<br>0.00      |

Database: Company:

edmdb

Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

 Site:
 Wexler Fee 1H

 Well:
 Wexler Fee 1H

 Wellbore:
 Wellbore #1

 Design:
 Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| nned Survey               |                      |                |                           |               |               |                             |                             |                            |                           |
|---------------------------|----------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°)   | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
| 4,500.0                   | 0.00                 | 0.00           | 4,424.50                  | -141.80       | 714.67        | 206.02                      | 0.00                        | 0.00                       | 0.00                      |
| 4,600.0                   |                      | 0.00           | 4,524.50                  | -141.80       | 714.67        | 206.02                      | 0.00                        | 0.00                       | 0.00                      |
| 4,603.4                   |                      | 0.00           | 4,527.99                  | -141.80       | 714.67        | 206.02                      | 0.00                        | 0.00                       | 0.00                      |
|                           | d 8.00 at 4603.49 M  |                |                           |               |               |                             |                             |                            |                           |
| 4,700.0                   |                      | 179.47         | 4,624.21                  | -148.29       | 714.73        | 212.49                      | 8.00                        | 8.00                       | 0.00                      |
| 4,800.0                   |                      | 179.47         | 4,722.05                  | -168.59       | 714.92        | 232.72                      | 8.00                        | 8.00                       | 0.00                      |
| 4,900.0                   | 0 23.72              | 179.47         | 4,816.10                  | -202.30       | 715.23        | 266.32                      | 8.00                        | 8.00                       | 0.00                      |
| 5,000.0                   | 0 31.72              | 179.47         | 4,904.56                  | -248.78       | 715.66        | 312.65                      | 8.00                        | 8.00                       | 0.00                      |
| 5,100.0                   |                      | 179.47         | 4,985.68                  | -307.11       | 716.20        | 370.79                      | 8.00                        | 8.00                       | 0.00                      |
| 5,200.0                   |                      | 179.47         | 5,057.89                  | -376.17       | 716.84        | 439.62                      | 8.00                        | 8.00                       | 0.00                      |
| 5,300.0                   |                      | 179.47         | 5,119.79                  | -454.60       | 717.57        | 517.80                      | 8.00                        | 8.00                       | 0.00                      |
| 5,353.4                   |                      | 179.47         | 5,148.24                  | -499.88       | 717.98        | 562.93                      | 8.00                        | 8.00                       | 0.00                      |
|                           | .00 hold at 5353.49  |                | 0,110.21                  | 100.00        |               | 002.00                      | 0.00                        | 0.00                       | 0.00                      |
| 3tart 250.                | .00 Holu at 3333.49  | IND            |                           |               |               |                             |                             |                            |                           |
| 5,400.0                   | 0 60.00              | 179.47         | 5,171.49                  | -540.16       | 718.36        | 603.07                      | 0.00                        | 0.00                       | 0.00                      |
| 5,500.0                   | 0 60.00              | 179.47         | 5,221.49                  | -626.76       | 719.16        | 689.39                      | 0.00                        | 0.00                       | 0.00                      |
| 5,600.0                   | 0 60.00              | 179.47         | 5,271.49                  | -713.36       | 719.96        | 775.70                      | 0.00                        | 0.00                       | 0.00                      |
| 5,603.4                   | 9 60.00              | 179.47         | 5,273.24                  | -716.38       | 719.99        | 778.71                      | 0.00                        | 0.00                       | 0.00                      |
| Start DLS                 | 10.00 TFO 0.00 at    | 5603.49 MD     |                           |               |               |                             |                             |                            |                           |
| 5,700.0                   |                      | 179.47         | 5,314.24                  | -803.62       | 720.79        | 865.67                      | 10.00                       | 10.00                      | 0.00                      |
| 5,800.0                   | 0 79.65              | 179.47         | 5,340.68                  | -899.92       | 721.68        | 961.66                      | 10.00                       | 10.00                      | 0.00                      |
| 5,900.0                   |                      | 179.47         | 5,349.99                  | -999.36       | 722.60        | 1,060.76                    | 10.00                       | 10.00                      | 0.00                      |
| 5,903.4                   |                      | 179.47         | 5,350.00                  | -1,002.84     | 722.64        | 1,064.24                    | 10.00                       | 10.00                      | 0.00                      |
|                           |                      |                | 3,330.00                  | -1,002.04     | 722.04        | 1,004.24                    | 10.00                       | 10.00                      | 0.00                      |
|                           | 7.47 hold at 5903.49 |                | 5 050 00                  | 4 000 05      | 700.50        | 4 400 40                    | 0.00                        | 0.00                       | 0.00                      |
| 6,000.0                   |                      | 179.47         | 5,350.00                  | -1,099.35     | 723.53        | 1,160.43                    | 0.00                        | 0.00                       | 0.00                      |
| 6,100.0                   | 0 90.00              | 179.47         | 5,350.00                  | -1,199.35     | 724.45        | 1,260.10                    | 0.00                        | 0.00                       | 0.00                      |
| 6,200.0                   | 0 90.00              | 179.47         | 5,350.00                  | -1,299.34     | 725.38        | 1,359.77                    | 0.00                        | 0.00                       | 0.00                      |
| 6,300.0                   |                      | 179.47         | 5,350.00                  | -1,399.34     | 726.30        | 1,459.43                    | 0.00                        | 0.00                       | 0.00                      |
| 6,400.0                   |                      | 179.47         | 5,350.00                  | -1,499.34     | 727.23        | 1,559.10                    | 0.00                        | 0.00                       | 0.00                      |
| 6,500.0                   |                      | 179.47         | 5,350.00                  | -1,599.33     | 728.15        | 1,658.77                    | 0.00                        | 0.00                       | 0.00                      |
| 6,600.0                   |                      | 179.47         | 5,350.00                  | -1,699.33     | 729.07        | 1,758.44                    | 0.00                        | 0.00                       | 0.00                      |
|                           |                      |                |                           |               |               |                             |                             |                            |                           |
| 6,700.0                   |                      | 179.47         | 5,350.00                  | -1,799.32     | 730.00        | 1,858.10                    | 0.00                        | 0.00                       | 0.00                      |
| 6,800.0                   |                      | 179.47         | 5,350.00                  | -1,899.32     | 730.92        | 1,957.77                    | 0.00                        | 0.00                       | 0.00                      |
| 6,900.0                   |                      | 179.47         | 5,350.00                  | -1,999.31     | 731.85        | 2,057.44                    | 0.00                        | 0.00                       | 0.00                      |
| 7,000.0                   |                      | 179.47         | 5,350.00                  | -2,099.31     | 732.77        | 2,157.11                    | 0.00                        | 0.00                       | 0.00                      |
| 7,100.0                   | 0 90.00              | 179.47         | 5,350.00                  | -2,199.31     | 733.70        | 2,256.78                    | 0.00                        | 0.00                       | 0.00                      |
| 7,200.0                   | 0 90.00              | 179.47         | 5,350.00                  | -2,299.30     | 734.62        | 2,356.44                    | 0.00                        | 0.00                       | 0.00                      |
| 7,300.0                   |                      | 179.47         | 5,350.00                  | -2,399.30     | 735.54        | 2,456.11                    | 0.00                        | 0.00                       | 0.00                      |
| 7,400.0                   |                      | 179.47         | 5,350.00                  | -2,499.29     | 736.47        | 2,555.78                    | 0.00                        | 0.00                       | 0.00                      |
| 7,500.0                   |                      | 179.47         | 5,350.00                  | -2,599.29     | 737.39        | 2,655.45                    | 0.00                        | 0.00                       | 0.00                      |
| 7,600.0                   |                      | 179.47         | 5,350.00                  | -2,699.28     | 738.32        | 2,755.11                    | 0.00                        | 0.00                       | 0.00                      |
| ,                         |                      |                |                           |               |               |                             |                             |                            |                           |
| 7,700.0                   |                      | 179.47         | 5,350.00                  | -2,799.28     | 739.24        | 2,854.78                    | 0.00                        | 0.00                       | 0.00                      |
| 7,800.0                   |                      | 179.47         | 5,350.00                  | -2,899.28     | 740.17        | 2,954.45                    | 0.00                        | 0.00                       | 0.00                      |
| 7,900.0                   |                      | 179.47         | 5,350.00                  | -2,999.27     | 741.09        | 3,054.12                    | 0.00                        | 0.00                       | 0.00                      |
| 8,000.0                   |                      | 179.47         | 5,350.00                  | -3,099.27     | 742.01        | 3,153.78                    | 0.00                        | 0.00                       | 0.00                      |
| 8,100.0                   | 0 90.00              | 179.47         | 5,350.00                  | -3,199.26     | 742.94        | 3,253.45                    | 0.00                        | 0.00                       | 0.00                      |
| 8,200.0                   | 0 90.00              | 179.47         | 5,350.00                  | -3,299.26     | 743.86        | 3,353.12                    | 0.00                        | 0.00                       | 0.00                      |
| 8,300.0                   |                      | 179.47         | 5,350.00                  | -3,399.26     | 744.79        | 3,452.79                    | 0.00                        | 0.00                       | 0.00                      |
| 8,400.0                   |                      | 179.47         | 5,350.00                  | -3,499.25     | 745.71        | 3,552.45                    | 0.00                        | 0.00                       | 0.00                      |
| 8,500.0                   |                      | 179.47         | 5,350.00                  | -3,599.25     | 746.64        | 3,652.12                    | 0.00                        | 0.00                       | 0.00                      |
| 8,600.0                   |                      | 179.47         | 5,350.00                  | -3,699.24     | 747.56        | 3,751.79                    | 0.00                        | 0.00                       | 0.00                      |
|                           |                      |                |                           |               |               | 5,151.18                    |                             |                            |                           |
| 8,700.0                   |                      | 179.47         | 5,350.00                  | -3,799.24     | 748.49        | 3,851.46                    | 0.00                        | 0.00                       | 0.00                      |
| 8,800.0                   |                      | 179.47         | 5,350.00                  | -3,899.23     | 749.41        | 3,951.12                    | 0.00                        | 0.00                       | 0.00                      |
| 8,900.0                   | 0 90.00              | 179.47         | 5,350.00                  | -3,999.23     | 750.33        | 4,050.79                    | 0.00                        | 0.00                       | 0.00                      |

Database: Company:

Project:

edmdb

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

 Site:
 Wexler Fee 1H

 Well:
 Wexler Fee 1H

 Wellbore:
 Wellbore #1

 Design:
 Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| anned Survey              |                 |                  |                           |                        |                  |                             |                             |                            |                           |
|---------------------------|-----------------|------------------|---------------------------|------------------------|------------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured<br>Depth<br>(ft) | Inclination (°) | Azimuth<br>(°)   | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft)          | +E/-W<br>(ft)    | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
| 9,000.00<br>9,100.00      | 90.00<br>90.00  | 179.47<br>179.47 | 5,350.00<br>5,350.00      | -4,099.23<br>-4,199.22 | 751.26<br>752.18 | 4,150.46<br>4,250.13        | 0.00<br>0.00                | 0.00<br>0.00               | 0.00<br>0.00              |
| 9,200.00                  | 90.00           | 179.47           | 5,350.00                  | -4,299.22              | 753.11           | 4,349.79                    | 0.00                        | 0.00                       | 0.00                      |
| 9,300.00                  | 90.00           | 179.47           | 5,350.00                  | -4,399.21              | 754.03           | 4,449.46                    | 0.00                        | 0.00                       | 0.00                      |
| 9,400.00                  | 90.00           | 179.47           | 5,350.00                  | -4,499.21              | 754.96           | 4,549.13                    | 0.00                        | 0.00                       | 0.00                      |
| 9,500.00                  | 90.00           | 179.47           | 5,350.00                  | -4,599.20              | 755.88           | 4,648.80                    | 0.00                        | 0.00                       | 0.00                      |
| 9,600.00                  | 90.00           | 179.47           | 5,350.00                  | -4,699.20              | 756.80           | 4,748.47                    | 0.00                        | 0.00                       | 0.00                      |
| 9,700.00                  | 90.00           | 179.47           | 5,350.00                  | -4,799.20              | 757.73           | 4,848.13                    | 0.00                        | 0.00                       | 0.00                      |
| 9,800.00                  | 90.00           | 179.47           | 5,350.00                  | -4,899.19              | 758.65           | 4,947.80                    | 0.00                        | 0.00                       | 0.00                      |
| 9,900.00                  | 90.00           | 179.47           | 5,350.00                  | -4,999.19              | 759.58           | 5,047.47                    | 0.00                        | 0.00                       | 0.00                      |
| 10,000.00                 | 90.00           | 179.47           | 5,350.00                  | -5,099.18              | 760.50           | 5,147.14                    | 0.00                        | 0.00                       | 0.00                      |
| 10,100.00                 | 90.00           | 179.47           | 5,350.00                  | -5,199.18              | 761.43           | 5,246.80                    | 0.00                        | 0.00                       | 0.00                      |
| 10,200.00                 | 90.00           | 179.47           | 5,350.00                  | -5,299.17              | 762.35           | 5,346.47                    | 0.00                        | 0.00                       | 0.00                      |
| 10,300.00                 | 90.00           | 179.47           | 5,350.00                  | -5,399.17              | 763.27           | 5,446.14                    | 0.00                        | 0.00                       | 0.00                      |
| 10,400.00                 | 90.00           | 179.47           | 5,350.00                  | -5,499.17              | 764.20           | 5,545.81                    | 0.00                        | 0.00                       | 0.00                      |
| 10,500.00<br>10,600.00    | 90.00<br>90.00  | 179.47<br>179.47 | 5,350.00<br>5,350.00      | -5,599.16<br>-5,699.16 | 765.12<br>766.05 | 5,645.47<br>5,745.14        | 0.00<br>0.00                | 0.00<br>0.00               | 0.00<br>0.00              |
|                           |                 |                  |                           |                        |                  |                             |                             |                            |                           |
| 10,700.00                 | 90.00           | 179.47           | 5,350.00                  | -5,799.15              | 766.97           | 5,844.81                    | 0.00                        | 0.00                       | 0.00                      |
| 10,800.00<br>10,900.00    | 90.00<br>90.00  | 179.47<br>179.47 | 5,350.00<br>5,350.00      | -5,899.15<br>-5,999.14 | 767.90<br>768.82 | 5,944.48<br>6,044.14        | 0.00<br>0.00                | 0.00<br>0.00               | 0.00<br>0.00              |
| 11.000.00                 | 90.00           | 179.47           | 5,350.00                  | -6,099.14              | 769.74           | 6,143.81                    | 0.00                        | 0.00                       | 0.00                      |
| 11,100.00                 | 90.00           | 179.47           | 5,350.00                  | -6,199.14              | 770.67           | 6,243.48                    | 0.00                        | 0.00                       | 0.00                      |
| 11,200.00                 | 90.00           | 179.47           | 5,350.00                  | -6,299.13              | 771.59           | 6,343.15                    | 0.00                        | 0.00                       | 0.00                      |
| 11,300.00                 | 90.00           | 179.47           | 5,350.00                  | -6,399.13              | 772.52           | 6,442.81                    | 0.00                        | 0.00                       | 0.00                      |
| 11,400.00                 | 90.00           | 179.47           | 5,350.00                  | -6,499.12              | 773.44           | 6,542.48                    | 0.00                        | 0.00                       | 0.00                      |
| 11,500.00                 | 90.00           | 179.47           | 5,350.00                  | -6,599.12              | 774.37           | 6,642.15                    | 0.00                        | 0.00                       | 0.00                      |
| 11,600.00                 | 90.00           | 179.47           | 5,350.00                  | -6,699.11              | 775.29           | 6,741.82                    | 0.00                        | 0.00                       | 0.00                      |
| 11,700.00                 | 90.00           | 179.47           | 5,350.00                  | -6,799.11              | 776.22           | 6,841.48                    | 0.00                        | 0.00                       | 0.00                      |
| 11,800.00                 | 90.00           | 179.47           | 5,350.00                  | -6,899.11              | 777.14           | 6,941.15                    | 0.00                        | 0.00                       | 0.00                      |
| 11,900.00                 | 90.00           | 179.47           | 5,350.00                  | -6,999.10              | 778.06           | 7,040.82                    | 0.00                        | 0.00                       | 0.00                      |
| 12,000.00                 | 90.00           | 179.47           | 5,350.00                  | -7,099.10              | 778.99           | 7,140.49                    | 0.00                        | 0.00                       | 0.00                      |
| 12,100.00                 | 90.00           | 179.47           | 5,350.00                  | -7,199.09              | 779.91           | 7,240.16                    | 0.00                        | 0.00                       | 0.00                      |
| 12,200.00                 | 90.00           | 179.47           | 5,350.00                  | -7,299.09              | 780.84           | 7,339.82                    | 0.00                        | 0.00                       | 0.00                      |
| 12,300.00                 | 90.00           | 179.47           | 5,350.00                  | -7,399.08              | 781.76           | 7,439.49                    | 0.00                        | 0.00                       | 0.00                      |
| 12,400.00<br>12,500.00    | 90.00<br>90.00  | 179.47<br>179.47 | 5,350.00<br>5,350.00      | -7,499.08<br>-7,599.08 | 782.69<br>783.61 | 7,539.16<br>7,638.83        | 0.00<br>0.00                | 0.00<br>0.00               | 0.00<br>0.00              |
| 12,600.00                 | 90.00           | 179.47           | 5,350.00                  | -7,699.07              | 784.53           | 7,038.63                    | 0.00                        | 0.00                       | 0.00                      |
| 12.700.00                 | 90.00           | 179.47           | 5,350.00                  | -7,799.07              | 785.46           | 7,838.16                    | 0.00                        | 0.00                       | 0.00                      |
| 12,800.00                 | 90.00           | 179.47           | 5,350.00                  | -7,799.07<br>-7,899.06 | 786.38           | 7,030.10                    | 0.00                        | 0.00                       | 0.00                      |
| 12,900.00                 | 90.00           | 179.47           | 5,350.00                  | -7,999.06              | 787.31           | 8,037.50                    | 0.00                        | 0.00                       | 0.00                      |
| 13,000.00                 | 90.00           | 179.47           | 5,350.00                  | -8,099.05              | 788.23           | 8,137.16                    | 0.00                        | 0.00                       | 0.00                      |
| 13,100.00                 | 90.00           | 179.47           | 5,350.00                  | -8,199.05              | 789.16           | 8,236.83                    | 0.00                        | 0.00                       | 0.00                      |
| 13,200.00                 | 90.00           | 179.47           | 5,350.00                  | -8,299.05              | 790.08           | 8,336.50                    | 0.00                        | 0.00                       | 0.00                      |
| 13,300.00                 | 90.00           | 179.47           | 5,350.00                  | -8,399.04              | 791.00           | 8,436.17                    | 0.00                        | 0.00                       | 0.00                      |
| 13,400.00                 | 90.00           | 179.47           | 5,350.00                  | -8,499.04              | 791.93           | 8,535.83                    | 0.00                        | 0.00                       | 0.00                      |
| 13,500.00                 | 90.00           | 179.47           | 5,350.00                  | -8,599.03              | 792.85           | 8,635.50                    | 0.00                        | 0.00                       | 0.00                      |
| 13,600.00                 | 90.00           | 179.47           | 5,350.00                  | -8,699.03              | 793.78           | 8,735.17                    | 0.00                        | 0.00                       | 0.00                      |
| 13.620.96                 | 90.00           | 179.47           | 5.350.00                  | -8.719.99              | 793.97           | 8,756.06                    | 0.00                        | 0.00                       | 0.00                      |

Database: edmdb

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

 Site:
 Wexler Fee 1H

 Well:
 Wexler Fee 1H

 Wellbore:
 Wellbore #1

 Design:
 Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| Design Targets                                       |                        |                      |                          |                            |                          |                    |                   |          |           |
|--|------------------------|----------------------|--------------------------|----------------------------|--------------------------|--------------------|-------------------|----------|-----------|
| Target Name - hit/miss target - Shape                | Dip Angle<br>(°)       | Dip Dir.<br>(°)      | TVD<br>(ft)              | +N/-S<br>(ft)              | +E/-W<br>(ft)            | Northing<br>(usft) | Easting<br>(usft) | Latitude | Longitude |
| SHL Wexler Fee 1H - plan hits target cer - Point     | 0.00<br>nter           | 0.00                 | 0.00                     | 0.00                       | 0.00                     | 811,032.44         | 924,519.10        | 33.223°N | 103.080°W |
| FTP Wexler Fee 1H - plan misses target - Point       | 0.00<br>center by 0.01 | 0.00<br>ft at 5903.4 | 5,350.00<br>8ft MD (5350 | -1,002.84<br>.00 TVD, -100 | 722.63<br>02.84 N, 722.6 | 810,029.60<br>4 E) | 925,241.73        | 33.220°N | 103.078°W |
| LTP/PBHL Wexler Fee 1 - plan hits target cer - Point |                        | 0.00                 | 5,350.00                 | -8,719.99                  | 793.97                   | 802,312.47         | 925,313.07        | 33.199°N | 103.078°W |

| Casing Points |                   |                   |        |                    |                  |
|---------------|-------------------|-------------------|--------|--------------------|------------------|
|               | Measured<br>Depth | Vertical<br>Depth |        | Casing<br>Diameter | Hole<br>Diameter |
|               | (ft)              | (ft)              | Name   | (in)               | (in)             |
|               | 2,286.07          | 2,250.00          | 9 5/8" | 9.625              | 12.250           |

| Annotations   |               |               |               |  |
|---------------|---------------|---------------|---------------|--|
| Measured      | Vertical      | Local Coor    | dinates       |  |
| Depth<br>(ft) | Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Comment                                |
| 300.00        | 300.00        | 0.00          | 0.00          | Start Build 1.50 at 300 MD             |
| 1,166.06      | 1,158.66      | -19.03        | 95.89         | Start 2371.36 hold at 1166.06 MD       |
| 3,537.42      | 3,469.33      | -122.77       | 618.78        | Start Drop -1.50 at 3537.42 MD         |
| 4,403.49      | 4,327.99      | -141.80       | 714.67        | Start 200.00 hold at 4403.49 MD        |
| 4,603.49      | 4,527.99      | -141.80       | 714.67        | Start Build 8.00 at 4603.49 MD         |
| 5,353.49      | 5,148.24      | -499.88       | 717.98        | Start 250.00 hold at 5353.49 MD        |
| 5,603.49      | 5,273.24      | -716.38       | 719.99        | Start DLS 10.00 TFO 0.00 at 5603.49 MD |
| 5,903.49      | 5,350.00      | -1,002.84     | 722.64        | Start 7717.47 hold at 5903.49 MD       |
| 13,620.96     | 5,350.00      | -8,719.99     | 793.97        | TD at 13620.96 MD                      |

# **Steward Energy II, LLC**

Lea County, NM (NAD 83) NM East Zone Wexler Fee 1H Wexler Fee 1H

Wellbore #1

Plan: Plan #1

# **Standard Planning Report - Geographic**

08 March, 2024

Database: Company: edmdb

Steward Energy II, LLC

Project: Site:

Lea County, NM (NAD 83) NM East Zone

Wexler Fee 1H Well: Wexler Fee 1H Wellbore: Wellbore #1 Plan #1 Design:

**Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Minimum Curvature

Project

Lea County, NM (NAD 83) NM East Zone

Map System: Geo Datum: Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone

System Datum:

Mean Sea Level

Site Wexler Fee 1H

Site Position: From:

Northing: Мар Easting: Slot Radius: 811,032.44 usft Latitude: 924,519.10 usft 13.200 in

Longitude:

33.223°N 103.080°W

Position Uncertainty:

0.00 ft

Northing:

811,032.44 usft 924,519.10 usft

Latitude: Longitude:

33.223°N 103.080°W

**Position Uncertainty** 

0.00 ft 0.00 ft 0.69°

0.00 ft

Easting: Wellhead Elevation:

ft Ground Level: 3,803.00 ft

**Grid Convergence:** 

**Well Position** 

Well

Wexler Fee 1H

+N/-S

+E/-W

| Wellbore  | Wellbore #1 |             |             |           |                 |
|-----------|-------------|-------------|-------------|-----------|-----------------|
|           |             |             |             |           |                 |
| Magnetics | Model Name  | Sample Date | Declination | Dip Angle | Field Strength  |
|           |             |             | (°)         | (°)       | (nT)            |
|           | IGRF2020    | 3/7/2024    | 6.07        | 60.77     | 47,842.51016897 |

(ft)

0.00

MWD - Standard

Design **Audit Notes:**  Plan #1

Version: Phase: Vertical Section: Depth From (TVD)

**PLAN** 

Tie On Depth: +N/-S +E/-W (ft)

0.00

Remarks

0.00 Direction

(°) 174.80

Plan Survey Tool Program

Date 3/8/2024

(ft)

0.00

**Depth From** Depth To

(ft) Survey (Wellbore) (ft) 0.00 13,620.96 Plan #1 (Wellbore #1)

**Tool Name** 

MWD

3/8/2024 8:46:57AM Page 2 COMPASS 5000.17 Build 101

Database: edmdb Company: Steward

Project:

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

 Site:
 Wexler Fee 1H

 Well:
 Wexler Fee 1H

 Wellbore:
 Wellbore #1

 Design:
 Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| Plan Sections             |                    |                |                           |               |               |                             |                            |                           |            |                    |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|--------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) | TFO<br>(°) | Target             |
| 0.00                      | 0.00               | 0.00           | 0.00                      | 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       |                    |
| 1,166.06                  | 12.99              | 101.22         | 1,158.66                  | -19.03        | 95.89         | 1.50                        | 1.50                       | 0.00                      | 101.22     |                    |
| 3,537.42                  | 12.99              | 101.22         | 3,469.33                  | -122.77       | 618.78        | 0.00                        | 0.00                       | 0.00                      | 0.00       |                    |
| 4,403.49                  | 0.00               | 0.00           | 4,327.99                  | -141.80       | 714.67        | 1.50                        | -1.50                      | 0.00                      | 180.00     |                    |
| 4,603.49                  | 0.00               | 0.00           | 4,527.99                  | -141.80       | 714.67        | 0.00                        | 0.00                       | 0.00                      | 0.00       |                    |
| 5,353.49                  | 60.00              | 179.47         | 5,148.24                  | -499.88       | 717.98        | 8.00                        | 8.00                       | 0.00                      | 179.47     |                    |
| 5,603.49                  | 60.00              | 179.47         | 5,273.24                  | -716.38       | 719.99        | 0.00                        | 0.00                       | 0.00                      | 0.00       |                    |
| 5,903.49                  | 90.00              | 179.47         | 5,350.00                  | -1,002.84     | 722.64        | 10.00                       | 10.00                      | 0.00                      | 0.00       |                    |
| 13,620.96                 | 90.00              | 179.47         | 5,350.00                  | -8,719.99     | 793.97        | 0.00                        | 0.00                       | 0.00                      | 0.00 L     | TP/PBHL Wexler Fee |

Database: edmdb

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

 Site:
 Wexler Fee 1H

 Well:
 Wexler Fee 1H

 Wellbore:
 Wellbore #1

 Design:
 Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| Planned Survey            | ,               |                  |                           |                    |                  |                           |                          |                      |                        |
|---------------------------|-----------------|------------------|---------------------------|--------------------|------------------|---------------------------|--------------------------|----------------------|------------------------|
| Measured<br>Depth<br>(ft) | Inclination (°) | Azimuth<br>(°)   | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft)      | +E/-W<br>(ft)    | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude             | Longitude              |
| 0.00                      | 0.00            | 0.00             | 0.00                      | 0.00               | 0.00             | 811,032.44                | 924,519.10               | 33.223°N             | 103.080°W              |
| 100.00                    | 0.00            | 0.00             | 100.00                    | 0.00               | 0.00             | 811,032.44                | 924,519.10               | 33.223°N             | 103.080°W              |
| 200.00                    | 0.00            | 0.00             | 200.00                    | 0.00               | 0.00             | 811,032.44                | 924,519.10               | 33.223°N             | 103.080°W              |
| 300.00                    | 0.00            | 0.00             | 300.00                    | 0.00               | 0.00             | 811,032.44                | 924,519.10               | 33.223°N             | 103.080°W              |
| Start Bu                  | ild 1.50 at 300 |                  |                           |                    |                  |                           |                          |                      |                        |
| 400.00                    | 1.50            | 101.22           | 399.99                    | -0.25              | 1.28             | 811,032.18                | 924,520.38               | 33.223°N             | 103.080°W              |
| 500.00                    | 3.00            | 101.22           | 499.91                    | -1.02              | 5.13             | 811,031.42                | 924,524.24               | 33.223°N             | 103.080°W              |
| 600.00                    | 4.50            | 101.22           | 599.69                    | -2.29              | 11.55            | 811,030.15                | 924,530.65               | 33.223°N             | 103.080°W              |
| 700.00                    | 6.00            | 101.22           | 699.27                    | -4.07              | 20.52            | 811,028.37                | 924,539.63               | 33.223°N             | 103.080°W              |
| 800.00<br>900.00          | 7.50<br>9.00    | 101.22<br>101.22 | 798.57<br>897.54          | -6.36<br>-9.15     | 32.05<br>46.13   | 811,026.08<br>811,023.29  | 924,551.15<br>924,565.23 | 33.223°N<br>33.223°N | 103.080°W<br>103.080°W |
| 1,000.00                  | 10.50           | 101.22           | 996.09                    | -9.15<br>-12.45    | 62.74            | 811,019.99                | 924,581.84               | 33.223°N             | 103.080°W              |
| 1,100.00                  | 12.00           | 101.22           | 1,094.16                  | -16.24             | 81.87            | 811,016.19                | 924,600.97               | 33.223°N             | 103.080°W              |
| 1,166.06                  | 12.99           | 101.22           | 1,158.66                  | -19.03             | 95.89            | 811,013.41                | 924,614.99               | 33.223°N             | 103.080°W              |
|                           | 71.36 hold at 1 |                  | 1,100100                  |                    |                  | ,                         |                          |                      |                        |
| 1,200.00                  | 12.99           | 101.22           | 1,191.73                  | -20.51             | 103.38           | 811,011.93                | 924,622.48               | 33.223°N             | 103.080°W              |
| 1,300.00                  | 12.99           | 101.22           | 1,289.17                  | -24.89             | 125.43           | 811,007.55                | 924,644.53               | 33.223°N             | 103.080°W              |
| 1,400.00                  | 12.99           | 101.22           | 1,386.61                  | -29.26             | 147.48           | 811,003.18                | 924,666.58               | 33.223°N             | 103.080°W              |
| 1,500.00                  | 12.99           | 101.22           | 1,484.05                  | -33.64             | 169.53           | 810,998.80                | 924,688.63               | 33.223°N             | 103.080°W              |
| 1,600.00                  | 12.99           | 101.22           | 1,581.49                  | -38.01             | 191.58           | 810,994.43                | 924,710.68               | 33.223°N             | 103.080°W              |
| 1,700.00                  | 12.99           | 101.22           | 1,678.93                  | -42.39             | 213.63           | 810,990.05                | 924,732.73               | 33.223°N             | 103.080°W              |
| 1,800.00                  | 12.99           | 101.22           | 1,776.37                  | -46.76             | 235.68           | 810,985.68                | 924,754.78               | 33.223°N             | 103.080°W              |
| 1,900.00                  | 12.99           | 101.22           | 1,873.81                  | -51.14             | 257.73           | 810,981.30                | 924,776.83               | 33.223°N             | 103.079°W              |
| 2,000.00                  | 12.99           | 101.22           | 1,971.25                  | -55.51             | 279.78           | 810,976.93                | 924,798.88               | 33.223°N             | 103.079°W              |
| 2,100.00<br>2,200.00      | 12.99<br>12.99  | 101.22<br>101.22 | 2,068.69<br>2,166.14      | -59.89<br>-64.26   | 301.83<br>323.88 | 810,972.55<br>810,968.18  | 924,820.93<br>924,842.98 | 33.223°N<br>33.223°N | 103.079°W<br>103.079°W |
| 2,286.07                  | 12.99           | 101.22           | 2,100.14                  | -68.03             | 342.85           | 810,964.41                | 924,861.95               | 33.223°N             | 103.079°W              |
| 9 5/8"                    | 12.55           | 101.22           | 2,230.00                  | -00.03             | 342.03           | 010,304.41                | 324,001.33               | 33.223 N             | 103.073 VV             |
| 2,300.00                  | 12.99           | 101.22           | 2,263.58                  | -68.63             | 345.93           | 810,963.80                | 924,865.03               | 33.223°N             | 103.079°W              |
| 2,400.00                  | 12.99           | 101.22           | 2,361.02                  | -73.01             | 367.98           | 810,959.43                | 924,887.08               | 33.223°N             | 103.079°W              |
| 2,500.00                  | 12.99           | 101.22           | 2,458.46                  | -77.38             | 390.03           | 810,955.05                | 924,909.13               | 33.223°N             | 103.079°W              |
| 2,600.00                  | 12.99           | 101.22           | 2,555.90                  | -81.76             | 412.08           | 810,950.68                | 924,931.18               | 33.223°N             | 103.079°W              |
| 2,700.00                  | 12.99           | 101.22           | 2,653.34                  | -86.13             | 434.13           | 810,946.30                | 924,953.23               | 33.223°N             | 103.079°W              |
| 2,800.00                  | 12.99           | 101.22           | 2,750.78                  | -90.51             | 456.18           | 810,941.93                | 924,975.28               | 33.223°N             | 103.079°W              |
| 2,900.00                  | 12.99           | 101.22           | 2,848.22                  | -94.88             | 478.23           | 810,937.55                | 924,997.33               | 33.223°N             | 103.079°W              |
| 3,000.00                  | 12.99           | 101.22           | 2,945.66                  | -99.26             | 500.28           | 810,933.18                | 925,019.38               | 33.223°N             | 103.079°W              |
| 3,100.00                  | 12.99           | 101.22           | 3,043.10                  | -103.63            | 522.33           | 810,928.80                | 925,041.43               | 33.223°N             | 103.079°W              |
| 3,200.00                  | 12.99           | 101.22           | 3,140.54                  | -108.01            | 544.38<br>566.43 | 810,924.43                | 925,063.48               | 33.223°N             | 103.079°W              |
| 3,300.00<br>3,400.00      | 12.99<br>12.99  | 101.22<br>101.22 | 3,237.98<br>3,335.42      | -112.38<br>-116.76 | 588.48           | 810,920.05<br>810,915.68  | 925,085.53<br>925,107.58 | 33.223°N<br>33.223°N | 103.078°W<br>103.078°W |
| 3,500.00                  | 12.99           | 101.22           | 3,432.86                  | -121.13            | 610.53           | 810,911.30                | 925,129.63               | 33.223°N             | 103.078°W              |
| 3,537.42                  |                 | 101.22           | 3,469.33                  | -122.77            | 618.78           | 810,909.67                | 925,137.88               | 33.223°N             | 103.078°W              |
| ,                         | op -1.50 at 353 |                  | 2,122122                  |                    |                  | ,                         | 5=5,151.55               |                      |                        |
| 3,600.00                  | 12.05           | 101.22           | 3,530.42                  | -125.41            | 632.08           | 810,907.03                | 925,151.18               | 33.223°N             | 103.078°W              |
| 3,700.00                  | 10.55           | 101.22           | 3,628.47                  | -129.23            | 651.31           | 810,903.21                | 925,170.41               | 33.223°N             | 103.078°W              |
| 3,800.00                  | 9.05            | 101.22           | 3,727.01                  | -132.54            | 668.01           | 810,899.90                | 925,187.11               | 33.223°N             | 103.078°W              |
| 3,900.00                  | 7.55            | 101.22           | 3,825.96                  | -135.35            | 682.17           | 810,897.09                | 925,201.27               | 33.223°N             | 103.078°W              |
| 4,000.00                  | 6.05            | 101.22           | 3,925.25                  | -137.65            | 693.79           | 810,894.78                | 925,212.89               | 33.223°N             | 103.078°W              |
| 4,100.00                  | 4.55            | 101.22           | 4,024.82                  | -139.45            | 702.85           | 810,892.99                | 925,221.95               | 33.223°N             | 103.078°W              |
| 4,200.00                  | 3.05            | 101.22           | 4,124.60                  | -140.74            | 709.36           | 810,891.70                | 925,228.46               | 33.223°N             | 103.078°W              |
| 4,300.00                  | 1.55            | 101.22           | 4,224.52                  | -141.52            | 713.30           | 810,890.91                | 925,232.40               | 33.223°N             | 103.078°W              |
| 4,400.00                  | 0.05            | 101.22           | 4,324.50                  | -141.80            | 714.67           | 810,890.64                | 925,233.77               | 33.223°N             | 103.078°W              |
| 4,403.49                  | 0.00            | 0.00             | 4,327.99                  | -141.80            | 714.67           | 810,890.64                | 925,233.77               | 33.223°N             | 103.078°W              |
| Start 200                 | 0.00 hold at 44 | 103.49 MD        |                           |                    |                  |                           |                          |                      |                        |

Database: Company:

edmdb

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Site: Well:

Project:

Wexler Fee 1H Wexler Fee 1H

Wellbore #1 Wellbore: Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

| Planned Survey            |                 |                  |                           |                        |                  |                           |                          |                      |                        |
|---------------------------|-----------------|------------------|---------------------------|------------------------|------------------|---------------------------|--------------------------|----------------------|------------------------|
| Measured<br>Depth<br>(ft) | Inclination (°) | Azimuth<br>(°)   | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft)          | +E/-W<br>(ft)    | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude             | Longitude              |
| 4,500.00                  | 0.00            | 0.00             | 4,424.50                  | -141.80                | 714.67           | 810,890.64                | 925,233.77               | 33.223°N             | 103.078°W              |
| 4,600.00                  | 0.00            | 0.00             | 4,524.50                  | -141.80                | 714.67           | 810,890.64                | 925,233.77               | 33.223°N             | 103.078°W              |
| 4,603.49                  | 0.00            | 0.00             | 4,527.99                  | -141.80                | 714.67           | 810,890.64                | 925,233.77               | 33.223°N             | 103.078°W              |
| Start Bui                 | ld 8.00 at 460  | 3.49 MD          |                           |                        |                  |                           |                          |                      |                        |
| 4,700.00                  | 7.72            | 179.47           | 4,624.21                  | -148.29                | 714.73           | 810,884.15                | 925,233.83               | 33.223°N             | 103.078°W              |
| 4,800.00                  | 15.72           | 179.47           | 4,722.05                  | -168.59                | 714.92           | 810,863.85                | 925,234.02               | 33.223°N             | 103.078°W              |
| 4,900.00                  | 23.72           | 179.47           | 4,816.10                  | -202.30                | 715.23           | 810,830.14                | 925,234.33               | 33.223°N             | 103.078°W              |
| 5,000.00                  | 31.72           | 179.47           | 4,904.56                  | -248.78                | 715.66           | 810,783.66                | 925,234.76               | 33.222°N             | 103.078°W              |
| 5,100.00                  | 39.72           | 179.47           | 4,985.68                  | -307.11                | 716.20           | 810,725.33                | 925,235.30               | 33.222°N             | 103.078°W              |
| 5,200.00                  | 47.72           | 179.47           | 5,057.89                  | -376.17                | 716.84           | 810,656.27                | 925,235.94               | 33.222°N             | 103.078°W              |
| 5,300.00                  | 55.72           | 179.47           | 5,119.79                  | -454.60                | 717.57           | 810,577.84                | 925,236.66               | 33.222°N             | 103.078°W              |
| 5,353.49                  | 60.00           | 179.47           | 5,148.24                  | -499.88                | 717.98           | 810,532.56                | 925,237.08               | 33.222°N             | 103.078°W              |
| 5,400.00                  | .00 hold at 53  |                  | 5,171.49                  | -540.16                | 718.36           | 810,492.28                | 925,237.46               | 33.222°N             | 103.078°W              |
| 5,500.00                  | 60.00<br>60.00  | 179.47<br>179.47 | 5,171.49                  | -626.76                | 719.16           | 810,405.68                | 925,238.26               | 33.221°N             | 103.078 W              |
| 5,600.00                  | 60.00           | 179.47           | 5,271.49                  | -713.36                | 719.10           | 810,319.08                | 925,239.06               | 33.221°N             | 103.078 W              |
| 5,603.49                  | 60.00           | 179.47           | 5,271.49                  | -716.38                | 719.90           | 810,316.06                | 925,239.09               | 33.221°N             | 103.078°W              |
|                           |                 | 0.00 at 5603.4   |                           | -7 10.50               | 7 15.55          | 010,010.00                | 920,209.09               | 30.221 N             | 103.070 **             |
| 5,700.00                  | 69.65           | 179.47           | 5,314.24                  | -803.62                | 720.79           | 810,228.82                | 925,239.89               | 33.221°N             | 103.078°W              |
| 5,800.00                  | 79.65           | 179.47           | 5,340.68                  | -899.92                | 721.68           | 810,132.52                | 925,240.78               | 33.221°N             | 103.078°W              |
| 5,900.00                  | 89.65           | 179.47           | 5,349.99                  | -999.36                | 722.60           | 810,033.08                | 925,241.70               | 33.220°N             | 103.078°W              |
| 5,903.49                  | 90.00           | 179.47           | 5,350.00                  | -1,002.84              | 722.64           | 810,029.60                | 925,241.73               | 33.220°N             | 103.078°W              |
|                           | 7.47 hold at \$ |                  | ,                         | ,                      |                  | ,                         | ,                        |                      |                        |
| 6,000.00                  | 90.00           | 179.47           | 5,350.00                  | -1,099.35              | 723.53           | 809,933.09                | 925,242.63               | 33.220°N             | 103.078°W              |
| 6,100.00                  | 90.00           | 179.47           | 5,350.00                  | -1,199.35              | 724.45           | 809,833.09                | 925,243.55               | 33.220°N             | 103.078°W              |
| 6,200.00                  | 90.00           | 179.47           | 5,350.00                  | -1,299.34              | 725.38           | 809,733.10                | 925,244.48               | 33.220°N             | 103.078°W              |
| 6,300.00                  | 90.00           | 179.47           | 5,350.00                  | -1,399.34              | 726.30           | 809,633.10                | 925,245.40               | 33.219°N             | 103.078°W              |
| 6,400.00                  | 90.00           | 179.47           | 5,350.00                  | -1,499.34              | 727.23           | 809,533.10                | 925,246.32               | 33.219°N             | 103.078°W              |
| 6,500.00                  | 90.00           | 179.47           | 5,350.00                  | -1,599.33              | 728.15           | 809,433.11                | 925,247.25               | 33.219°N             | 103.078°W              |
| 6,600.00                  | 90.00           | 179.47           | 5,350.00                  | -1,699.33              | 729.07           | 809,333.11                | 925,248.17               | 33.218°N             | 103.078°W              |
| 6,700.00                  | 90.00           | 179.47           | 5,350.00                  | -1,799.32              | 730.00           | 809,233.12                | 925,249.10               | 33.218°N             | 103.078°W              |
| 6,800.00                  | 90.00           | 179.47           | 5,350.00                  | -1,899.32              | 730.92           | 809,133.12                | 925,250.02               | 33.218°N             | 103.078°W              |
| 6,900.00                  | 90.00           | 179.47           | 5,350.00                  | -1,999.31              | 731.85           | 809,033.13                | 925,250.95               | 33.218°N             | 103.078°W              |
| 7,000.00                  | 90.00           | 179.47           | 5,350.00                  | -2,099.31              | 732.77           | 808,933.13                | 925,251.87               | 33.217°N             | 103.078°W              |
| 7,100.00                  | 90.00           | 179.47           | 5,350.00                  | -2,199.31              | 733.70           | 808,833.14                | 925,252.79               | 33.217°N             | 103.078°W              |
| 7,200.00<br>7,300.00      | 90.00<br>90.00  | 179.47<br>179.47 | 5,350.00<br>5,350.00      | -2,299.30<br>-2,399.30 | 734.62<br>735.54 | 808,733.14<br>808,633.15  | 925,253.72<br>925,254.64 | 33.217°N<br>33.217°N | 103.078°W<br>103.078°W |
| 7,400.00                  | 90.00           | 179.47           | 5,350.00                  | -2,399.30<br>-2,499.29 | 735.54           | 808,533.15                | 925,255.57               | 33.216°N             | 103.078 W              |
| 7,500.00                  | 90.00           | 179.47           | 5,350.00                  | -2,599.29              | 737.39           | 808,433.15                | 925,256.49               | 33.216°N             | 103.078°W              |
| 7,600.00                  | 90.00           | 179.47           | 5,350.00                  | -2,699.28              | 738.32           | 808,333.16                | 925,257.42               | 33.216°N             | 103.078°W              |
| 7,700.00                  | 90.00           | 179.47           | 5,350.00                  | -2,799.28              | 739.24           | 808,233.16                | 925,258.34               | 33.215°N             | 103.078°W              |
| 7,800.00                  | 90.00           | 179.47           | 5,350.00                  | -2,899.28              | 740.17           | 808,133.17                | 925,259.27               | 33.215°N             | 103.078°W              |
| 7,900.00                  | 90.00           | 179.47           | 5,350.00                  | -2,999.27              | 741.09           | 808,033.17                | 925,260.19               | 33.215°N             | 103.078°W              |
| 8,000.00                  | 90.00           | 179.47           | 5,350.00                  | -3,099.27              | 742.01           | 807,933.18                | 925,261.11               | 33.215°N             | 103.078°W              |
| 8,100.00                  | 90.00           | 179.47           | 5,350.00                  | -3,199.26              | 742.94           | 807,833.18                | 925,262.04               | 33.214°N             | 103.078°W              |
| 8,200.00                  | 90.00           | 179.47           | 5,350.00                  | -3,299.26              | 743.86           | 807,733.19                | 925,262.96               | 33.214°N             | 103.078°W              |
| 8,300.00                  | 90.00           | 179.47           | 5,350.00                  | -3,399.26              | 744.79           | 807,633.19                | 925,263.89               | 33.214°N             | 103.078°W              |
| 8,400.00                  | 90.00           | 179.47           | 5,350.00                  | -3,499.25              | 745.71           | 807,533.19                | 925,264.81               | 33.214°N             | 103.078°W              |
| 8,500.00                  | 90.00           | 179.47           | 5,350.00                  | -3,599.25              | 746.64           | 807,433.20                | 925,265.74               | 33.213°N             | 103.078°W              |
| 8,600.00                  | 90.00           | 179.47           | 5,350.00                  | -3,699.24              | 747.56           | 807,333.20                | 925,266.66               | 33.213°N             | 103.078°W              |
| 8,700.00                  | 90.00           | 179.47           | 5,350.00                  | -3,799.24              | 748.49           | 807,233.21                | 925,267.58               | 33.213°N             | 103.078°W              |
| 8,800.00                  | 90.00           | 179.47           | 5,350.00                  | -3,899.23              | 749.41           | 807,133.21                | 925,268.51               | 33.212°N             | 103.078°W              |
| 8,900.00                  | 90.00           | 179.47           | 5,350.00                  | -3,999.23              | 750.33           | 807,033.22                | 925,269.43               | 33.212°N             | 103.078°W              |
| 9,000.00                  | 90.00           | 179.47           | 5,350.00                  | -4,099.23              | 751.26           | 806,933.22                | 925,270.36               | 33.212°N             | 103.078°W              |

edmdb Database:

Site:

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone Wexler Fee 1H

Well: Wexler Fee 1H Wellbore: Wellbore #1 Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

| Planned Survey            | ,                  |                  |                           |                        |                  |                           |                          |                      |                        |
|---------------------------|--------------------|------------------|---------------------------|------------------------|------------------|---------------------------|--------------------------|----------------------|------------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°)   | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft)          | +E/-W<br>(ft)    | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude             | Longitude              |
| 9,100.00                  | 90.00              | 179.47           | 5,350.00                  | -4,199.22              | 752.18           | 806,833.23                | 925,271.28               | 33.212°N             | 103.078°W              |
| 9,200.00                  | 90.00              | 179.47           | 5,350.00                  | -4,299.22              | 753.11           | 806,733.23                | 925,272.21               | 33.211°N             | 103.078°W              |
| 9,300.00                  | 90.00              | 179.47           | 5,350.00                  | -4,399.21              | 754.03           | 806,633.23                | 925,273.13               | 33.211°N             | 103.078°W              |
| 9,400.00                  | 90.00              | 179.47           | 5,350.00                  | -4,499.21              | 754.96           | 806,533.24                | 925,274.05               | 33.211°N             | 103.078°W              |
| 9,500.00                  | 90.00              | 179.47           | 5,350.00                  | -4,599.20              | 755.88           | 806,433.24                | 925,274.98               | 33.211°N             | 103.078°W              |
| 9,600.00                  | 90.00              | 179.47           | 5,350.00                  | -4,699.20              | 756.80           | 806,333.25                | 925,275.90               | 33.210°N             | 103.078°W              |
| 9,700.00                  | 90.00              | 179.47           | 5,350.00                  | -4,799.20              | 757.73           | 806,233.25                | 925,276.83               | 33.210°N             | 103.078°W              |
| 9,800.00                  | 90.00              | 179.47           | 5,350.00                  | -4,899.19              | 758.65           | 806,133.26                | 925,277.75               | 33.210°N             | 103.078°W              |
| 9,900.00                  | 90.00              | 179.47           | 5,350.00                  | -4,999.19              | 759.58           | 806,033.26                | 925,278.68               | 33.209°N             | 103.078°W              |
| 10,000.00                 | 90.00              | 179.47           | 5,350.00                  | -5,099.18              | 760.50           | 805,933.27                | 925,279.60               | 33.209°N             | 103.078°W              |
| 10,100.00                 | 90.00              | 179.47           | 5,350.00                  | -5,199.18              | 761.43           | 805,833.27                | 925,280.53               | 33.209°N             | 103.078°W              |
| 10,200.00                 | 90.00              | 179.47           | 5,350.00                  | -5,299.17              | 762.35           | 805,733.27                | 925,281.45               | 33.209°N             | 103.078°W              |
| 10,300.00                 | 90.00              | 179.47           | 5,350.00                  | -5,399.17              | 763.27           | 805,633.28                | 925,282.37               | 33.208°N             | 103.078°W              |
| 10,400.00                 | 90.00              | 179.47           | 5,350.00                  | -5,499.17              | 764.20           | 805,533.28                | 925,283.30               | 33.208°N             | 103.078°W              |
| 10,500.00                 | 90.00              | 179.47           | 5,350.00                  | -5,599.16              | 765.12           | 805,433.29                | 925,284.22               | 33.208°N             | 103.078°W              |
| 10,600.00                 | 90.00              | 179.47           | 5,350.00                  | -5,699.16              | 766.05           | 805,333.29                | 925,285.15               | 33.207°N             | 103.078°W              |
| 10,700.00                 | 90.00              | 179.47           | 5,350.00                  | -5,799.15              | 766.97           | 805,233.30                | 925,286.07               | 33.207°N             | 103.078°W              |
| 10,800.00                 | 90.00              | 179.47           | 5,350.00                  | -5,899.15              | 767.90           | 805,133.30                | 925,287.00               | 33.207°N             | 103.078°W              |
| 10,900.00                 | 90.00              | 179.47           | 5,350.00                  | -5,999.14              | 768.82           | 805,033.31                | 925,287.92               | 33.207°N             | 103.078°W              |
| 11,000.00                 | 90.00              | 179.47           | 5,350.00                  | -6,099.14              | 769.74           | 804,933.31                | 925,288.84               | 33.206°N             | 103.078°W              |
| 11,100.00                 | 90.00              | 179.47           | 5,350.00                  | -6,199.14              | 770.67           | 804,833.32                | 925,289.77               | 33.206°N             | 103.078°W              |
| 11,200.00                 | 90.00              | 179.47           | 5,350.00                  | -6,299.13              | 771.59           | 804,733.32                | 925,290.69               | 33.206°N             | 103.078°W              |
| 11,300.00                 | 90.00              | 179.47           | 5,350.00                  | -6,399.13              | 772.52           | 804,633.32                | 925,291.62               | 33.206°N             | 103.078°W              |
| 11,400.00                 | 90.00              | 179.47           | 5,350.00                  | -6,499.12              | 773.44           | 804,533.33                | 925,292.54               | 33.205°N             | 103.078°W              |
| 11,500.00                 | 90.00              | 179.47           | 5,350.00                  | -6,599.12              | 774.37           | 804,433.33                | 925,293.47               | 33.205°N             | 103.078°W              |
| 11,600.00                 | 90.00              | 179.47           | 5,350.00                  | -6,699.11              | 775.29           | 804,333.34                | 925,294.39               | 33.205°N             | 103.078°W              |
| 11,700.00                 | 90.00              | 179.47           | 5,350.00                  | -6,799.11              | 776.22           | 804,233.34                | 925,295.31               | 33.204°N             | 103.078°W              |
| 11,800.00                 | 90.00              | 179.47           | 5,350.00                  | -6,899.11              | 777.14           | 804,133.35                | 925,296.24               | 33.204°N             | 103.078°W              |
| 11,900.00                 | 90.00              | 179.47           | 5,350.00                  | -6,999.10              | 778.06           | 804,033.35                | 925,297.16               | 33.204°N             | 103.078°W              |
| 12,000.00                 | 90.00              | 179.47           | 5,350.00                  | -7,099.10              | 778.99           | 803,933.36                | 925,298.09               | 33.204°N             | 103.078°W              |
| 12,100.00                 | 90.00              | 179.47           | 5,350.00                  | -7,199.09              | 779.91           | 803,833.36                | 925,299.01               | 33.203°N             | 103.078°W              |
| 12,200.00                 | 90.00              | 179.47           | 5,350.00                  | -7,299.09              | 780.84           | 803,733.36                | 925,299.94               | 33.203°N             | 103.078°W              |
| 12,300.00                 | 90.00              | 179.47           | 5,350.00                  | -7,399.08              | 781.76           | 803,633.37                | 925,300.86               | 33.203°N             | 103.078°W              |
| 12,400.00                 | 90.00              | 179.47           | 5,350.00                  | -7,499.08              | 782.69           | 803,533.37                | 925,301.78               | 33.203°N             | 103.078°W              |
| 12,500.00                 | 90.00              | 179.47           | 5,350.00                  | -7,599.08              | 783.61           | 803,433.38                | 925,302.71               | 33.202°N             | 103.078°W              |
| 12,600.00                 | 90.00              | 179.47           | 5,350.00                  | -7,699.07              | 784.53           | 803,333.38                | 925,303.63               | 33.202°N             | 103.078°W              |
| 12,700.00                 | 90.00              | 179.47           | 5,350.00                  | -7,799.07              | 785.46           | 803,233.39                | 925,304.56               | 33.202°N             | 103.078°W              |
| 12,800.00                 | 90.00              | 179.47           | 5,350.00                  | -7,899.06              | 786.38           | 803,133.39                | 925,305.48               | 33.201°N             | 103.078°W              |
| 12,900.00                 | 90.00              | 179.47           | 5,350.00                  | -7,999.06              | 787.31           | 803,033.40                | 925,306.41               | 33.201°N             | 103.078°W              |
| 13,000.00                 | 90.00              | 179.47           | 5,350.00                  | -8,099.05              | 788.23           | 802,933.40                | 925,307.33               | 33.201°N<br>33.201°N | 103.078°W              |
| 13,100.00                 | 90.00              | 179.47           | 5,350.00                  | -8,199.05              | 789.16           | 802,833.40                | 925,308.26               | 33.201°N<br>33.200°N | 103.078°W              |
| 13,200.00<br>13,300.00    | 90.00              | 179.47           | 5,350.00<br>5,350.00      | -8,299.05<br>8 300.04  | 790.08           | 802,733.41                | 925,309.18               |                      | 103.078°W<br>103.078°W |
| · ·                       | 90.00              | 179.47           | 5,350.00                  | -8,399.04              | 791.00<br>701.03 | 802,633.41                | 925,310.10               | 33.200°N             |                        |
| 13,400.00<br>13,500.00    | 90.00              | 179.47<br>179.47 | 5,350.00<br>5,350.00      | -8,499.04<br>-8,599.03 | 791.93<br>792.85 | 802,533.42                | 925,311.03<br>925,311.95 | 33.200°N             | 103.078°W<br>103.078°W |
| 13,500.00                 | 90.00<br>90.00     |                  | 5,350.00                  |                        | 792.85<br>793.78 | 802,433.42                |                          | 33.200°N             | 103.078 W              |
| 13,620.96                 | 90.00              | 179.47<br>179.47 | 5,350.00                  | -8,699.03<br>-8,719.99 | 793.76           | 802,333.43<br>802,312.47  | 925,312.88<br>925,313.07 | 33.199°N<br>33.199°N | 103.078°W              |
| ,                         |                    | 1/9.4/           | 3,330.00                  | -0,7 18.88             | 1 33.31          | 002,312.47                | 323,313.01               | 33.188 IN            | 103.076 W              |
| 1D at 13                  | 620.96 MD          |                  |                           |                        |                  |                           |                          |                      |                        |

Database: each company: each c

Project:

edmdb

dmdb

Steward Energy II, LLC Lea County, NM (NAD 83) NM East Zone

 Site:
 Wexler Fee 1H

 Well:
 Wexler Fee 1H

 Wellbore:
 Wellbore #1

 Design:
 Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Wexler Fee 1H

GL 3803' + RKB 19' @ 3822.00ft GL 3803' + RKB 19' @ 3822.00ft

Grid

| Design Targets                                       |                        |                      |                          |                            |                          |                    |                   |          |           |
|--|------------------------|----------------------|--------------------------|----------------------------|--------------------------|--------------------|-------------------|----------|-----------|
| Target Name - hit/miss target - Shape                | Dip Angle<br>(°)       | Dip Dir.<br>(°)      | TVD<br>(ft)              | +N/-S<br>(ft)              | +E/-W<br>(ft)            | Northing<br>(usft) | Easting<br>(usft) | Latitude | Longitude |
| SHL Wexler Fee 1H - plan hits target cer - Point     | 0.00<br>nter           | 0.00                 | 0.00                     | 0.00                       | 0.00                     | 811,032.44         | 924,519.10        | 33.223°N | 103.080°W |
| FTP Wexler Fee 1H - plan misses target - Point       | 0.00<br>center by 0.01 | 0.00<br>ft at 5903.4 | 5,350.00<br>8ft MD (5350 | -1,002.84<br>.00 TVD, -100 | 722.63<br>02.84 N, 722.6 | 810,029.60<br>4 E) | 925,241.73        | 33.220°N | 103.078°W |
| LTP/PBHL Wexler Fee 1 - plan hits target cer - Point |                        | 0.00                 | 5,350.00                 | -8,719.99                  | 793.97                   | 802,312.47         | 925,313.07        | 33.199°N | 103.078°W |

| Measured Vertical Casing Hole Depth Depth Diameter Diameter |  |
|---|--|
| (ft) (ft) Name (in) (in)                                    |  |
| 2,286.07 2,250.00 9 5/8" 9.625 12.250                       |  |

| Annotations   |               |               |               |  |
|---------------|---------------|---------------|---------------|--|
| Measured      | Vertical      | Local Coor    | dinates       |  |
| Depth<br>(ft) | Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Comment                                |
| 300.00        | 300.00        | 0.00          | 0.00          | Start Build 1.50 at 300 MD             |
| 1,166.06      | 1,158.66      | -19.03        | 95.89         | Start 2371.36 hold at 1166.06 MD       |
| 3,537.42      | 3,469.33      | -122.77       | 618.78        | Start Drop -1.50 at 3537.42 MD         |
| 4,403.49      | 4,327.99      | -141.80       | 714.67        | Start 200.00 hold at 4403.49 MD        |
| 4,603.49      | 4,527.99      | -141.80       | 714.67        | Start Build 8.00 at 4603.49 MD         |
| 5,353.49      | 5,148.24      | -499.88       | 717.98        | Start 250.00 hold at 5353.49 MD        |
| 5,603.49      | 5,273.24      | -716.38       | 719.99        | Start DLS 10.00 TFO 0.00 at 5603.49 MD |
| 5,903.49      | 5,350.00      | -1,002.84     | 722.64        | Start 7717.47 hold at 5903.49 MD       |
| 13,620.96     | 5,350.00      | -8,719.99     | 793.97        | TD at 13620.96 MD                      |

### 1. Geologic Formations

| TVD of target | 5,350' EOL | Pilot hole depth              | NA   |
|---------------|------------|-------------------------------|------|
| MD at TD:     | 13,621'    | Deepest expected fresh water: | 400' |

| Formation    | Depth (TVD)<br>from KB | Water/Mineral Bearing/<br>Target Zone? | Hazards* |
|--------------|------------------------|--|----------|
| Rustler      | 2257                   | anhydrite                              |          |
| Salado       | 2337                   | siltstone/sandstone/limestone          |          |
| Castile      | 2917                   | red shale/anhydrite/sandstone          |          |
| Tansill      | 3002                   | anhydrite                              |          |
| Yates        | 3097                   | dolomite/sandstone                     |          |
| Seven Rivers | 3342                   | sandstone/dolomite/shale               |          |
| Queen        | 3887                   | dolomite/sandstone/anhydrite           |          |
| Grayburg     | 4267                   | dolomite/sandstone/anhydrite           |          |
| San Andres   | 4525                   | dolomite/anhydrite                     |          |
| Manz Marker  | 4995                   | dolomite/anhydrite                     |          |
| Chambliss    | 5075                   | dolomite/anhydrite                     |          |
| Pi Marker    | 5121                   | dolomite/anhydrite                     |          |
| Brahaney B   | 5163                   | dolomite/anhydrite                     |          |
| Brahaney C   | 5205                   | dolomite/anhydrite                     |          |
| Brahaney D   | 5243                   | dolomite/anhydrite                     |          |
| Brahaney E   | 5281                   | dolomite/anhydrite                     |          |
| Brahaney F   | 5319                   | dolomite/anhydrite                     |          |

### 2. Casing Program

| Hole   | Casing | Interval | Csg.   | Weight | Grade     | Conn.   | SF       | SF    | SF      |
|--------|--------|----------|--------|--------|-----------|---------|----------|-------|---------|
| Size   | From   | То       | Size   | (lbs.) | Graue     | Collii. | Collapse | Burst | Tension |
| 12.25" | 0      | 2,307    | 9.625" | 36     | J55       | BTC     | 1.87     | 1.53  | 6.79    |
| 8.5"   | 0      | 5,500    | 7"     | 29     | HCL80     | BTC     | 3.24     | 3.54  | 4.44    |
| 8.5"   | 5,500  | 13,621   | 5.5"   | 20     | L80       | BTC     | 3.11     | 3.99  | 4.36    |
|        |        |          |        | BLM M  | linimum : | Safety  | 1.125    | 1     | 1.6 Dry |
|        |        |          |        |        | Factor    |         | 1.125    | I     | 1.8 Wet |

All casing strings will be kept at least 1/3 full while running to mitigate collapse. Production casing burst based on 0.7 psi/ft frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.

|  | 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.   | Υ      |
| 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?   | 14     |
| n yes, are there strings cernetical to surface:  |        |

### 3. Cementing Program

| Casing | # Sks | Density<br>(lb./gal.) | Yield<br>(ft.3/sk.) | H₂0<br>(gal/sk.) | 500# Comp.<br>Strength<br>(hrs.) | Slurry Description                |
|--------|-------|-----------------------|---------------------|------------------|----------------------------------|-----------------------------------|
| Surf.  | 580   | 12.8                  | 1.94                | 10.4             | 12                               | Lead: Class C + 6% Gel + 5% CaCl2 |
| Suii.  | 250   | 14.8                  | 1.32                | 6.3              | 8                                | Tail: Class C + 2% CaCl2          |
| Prod.  | 360   | 11.5                  | 2.7                 | 16.4             | 72                               | Lead: 50:50:10 Class C Blend      |
| Fiou.  | 2300  | 14                    | 1.3                 | 6.5              | 19                               | Tail: 50:50:2 Class C Blend       |

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results
Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

| Casing String | TOC | % Excess   |
|---------------|-----|--|
| Surface       | 0'  | 100%   |
| Production    | 0'  | 50% OH in Lateral (KOP to EOL) – 100% OH in Vertical |

### 4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

| BOP installed and tested before drilling which hole? | Size? | Minimum<br>Required<br>Working<br>Pressure | Туре       |   | Tested<br>to:              |
|--|-------|--|------------|---|----------------------------|
|  |       |  | Annular    | х | 50%<br>Testing<br>Pressure |
| 8.5"   | 11"   | 3M   | Blind Ram  | Х |                            |
|  |       | Pipe Ram                                   |            | Х | 3M                         |
|  |       |  | Double Ram |   | JIVI                       |
|  |       |  | Other*     |   |                            |

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.   |
|---|--|
| Х | On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.                          |
| Y | A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.  |
|   | N Are anchors required by manufacturer?  |
| Y | A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. |

### 5. Mud Program

|              | Depth        |                 | Weight    | Viscosity | Water Loss |  |
|--------------|--------------|-----------------|-----------|-----------|------------|--|
| From         | То           | Туре            | (ppg)     | Viscosity | Water Loss |  |
| 0            | Surface Shoe | FW Gel          | 8.6 - 9   | 28-34     | N/C        |  |
| Surface Shoe | Lateral TD   | Saturated Brine | 10 - 10.2 | 28-34     | N/C        |  |

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

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

### 6. Logging and Testing Procedures

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

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

### 7. Drilling Conditions

| Condition                  | Specify what type and where? |
|----------------------------|------------------------------|
| BH Pressure at deepest TVD | 2840 psi at 5350' TVD        |
| Abnormal Temperature       | NO 115 Deg. F.               |

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

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

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

| N | H2S is present    |
|---|-------------------|
| Υ | H2S Plan attached |

### 8. Other Facets of Operation

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

| Χ | H2S Plan               |
|---|------------------------|
| Χ | BOP & Choke Schematics |
| Χ | Directional Plan       |

**I. Operator:** Steward Energy II, LLC

### State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Date: 04 /04 /2024

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

### NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description Effective May 25, 2021

**OGRID:** 371682

| Amendmer                                | at due to $\square$ 19.15.27.9   | 9.D(6)(a) NMA  | C □ 19.15.27.9.D(   | (6)(b) N  | NMAC □ O   | ther.  |  |
|---|--|--|---|---|--|--|--|
| :                                       |  |  |   |   |  |  |  |
|   |  |  |   | wells p   | roposed to l   | oe dri   | lled or proposed to  |
| API                                     | ULSTR  | Footages   | Anticipated<br>Oil BBL/D  |   | -  |  | Anticipated roduced Water BBL/D  |
|   | H-Sec3-T13S-R38  |  | 650   | 310   |  |  | 2900   |
|   |  | 1259 FEL   |   |   |  |  | _  |
| e: Provide the                          | ne following informat<br>ngle well pad or con  | nected to a cent   | ral delivery point.   |   | set of wells   | propo  | . , . ,  |
| 1111                                    | Spud Buile   | Date   | 1   |   |  |  | Date   |
|   | 9/13/2024  | 9/25/2024  | 11/9/2024   |   | 11/29/2024   |  | 12/4/2024  |
| ices:  Atta of 19.15.27.8  t Practices: | ach a complete descriss NMAC.  | iption of the ac   | tions Operator wil  | l take t  | to comply v  | vith tl  | ne requirements of   |
|   | er following in ingle well particular API  Dint Name:  er: Provide the ted from a since API  dent:  Attackices:  Attackice | Following information for each reingle well pad or connected to a connected form.  H-Sec3-T13S-R38  Wexler  e: Provide the following informate ted from a single well pad or connected from a single w | Following information for each new or recompletingle well pad or connected to a central delivery part of the part | efollowing information for each new or recompleted well or set of ingle well pad or connected to a central delivery point.  API ULSTR Footages Anticipated Oil BBL/D  H-Sec3-T13S-R38E 1737 FNL 650  1259 FEL  Dint Name: Wexler  e: Provide the following information for each new or recompleted well from a single well pad or connected to a central delivery point.  API Spud Date TD Reached Completion Commencement  9/13/2024 9/25/2024 11/9/2024  Dent: \( \text{Attach a complete description of how Operator will size sepontations of the actions Operator will of 19.15.27.8 NMAC.}  t Practices: \( \text{X} \) Attach a complete description of Operator's best in the complete description | e following information for each new or recompleted well or set of wells purgle well pad or connected to a central delivery point.  API ULSTR Footages Anticipated Oil BBL/D Gas  H-Sec3-T13S-R38E 1737 FNL 650 310  Point Name: Wexler  e: Provide the following information for each new or recompleted well or sted from a single well pad or connected to a central delivery point.  API Spud Date TD Reached Completion Commencement Date  9/13/2024 9/25/2024 11/9/2024  Point: Attach a complete description of how Operator will size separation of 19.15.27.8 NMAC.  t Practices: Attach a complete description of Operator's best manage | Following information for each new or recompleted well or set of wells proposed to be ingle well pad or connected to a central delivery point.  API ULSTR Footages Anticipated Oil BBL/D Gas MCF/D  H-Sec3-T13S-R38E 1737 FNL 650 310  Dint Name: Wexler [See 19]  e: Provide the following information for each new or recompleted well or set of wells ted from a single well pad or connected to a central delivery point.  API Spud Date TD Reached Completion Commencement Date Back Date 9/13/2024 9/25/2024 11/9/2024 11/29/2024  Dent: \( \times \) Attach a complete description of how Operator will size separation equipment of 19.15.27.8 NMAC.  t Practices: \( \times \) Attach a complete description of Operator's best management practices. | Following information for each new or recompleted well or set of wells proposed to be drivingle well pad or connected to a central delivery point.  API ULSTR Footages Anticipated Gas MCF/D Proposed in the set of the proposed in the |

### Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

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

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

### IX. Anticipated Natural Gas Production:

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

### X. Natural Gas Gathering System (NGGS):

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

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

| XII. | Line Capaci  | ty. The natural | gas gathering   | system $\square$ | will □ will | not have | capacity to | gather | 100% of th | ne anticipated | natural ga | ıs |
|------|--------------|-----------------|-----------------|------------------|-------------|----------|-------------|--------|------------|----------------|------------|----|
| prod | uction volum | e from the well | prior to the da | te of first p    | production. |          |             |        |            |                |            |    |

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

| $\overline{}$ | A 1 .    | O 1      | 9 1 4      |        | 1 4.       | •           | 4 41 .      | eased line pro |         |
|---------------|----------|----------|------------|--------|------------|-------------|-------------|----------------|---------|
|               | Attach ( | Incrator | 'c nlan to | manage | nraduction | in rechance | to the incr | eaced line nr  | acciiro |
|               |          |          |            |        |            |             |             |                |         |

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

# Section 3 - Certifications <u>Effective May 25, 2021</u>

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

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) **(b)** power generation for grid;

- compression on lease; (c)
- (d) liquids removal on lease;
- reinjection for underground storage; (e)
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- fuel cell production; and (h)
- other alternative beneficial uses approved by the division. (i)

### **Section 4 - Notices**

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

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

### Natural Gas Management Plan - Attachment

- VI. Separation equipment will be sized by engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Steward Energy II, LLC (SEII) will take the following actions to comply with the regulations listed in 19.15.27.8:
  - A. SEII will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. SEII will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
  - B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
  - C. During completion, SEII does not allow the well to flow during CO so there will be nothing to flare. Immediately following the finish of completion operations. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, SEII will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. SEII will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
  - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(I) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
  - E. SEII will comply with the performance standards requirements and provisions listed in
    - 19.15.27.8 E.(I)through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the

- well and storage tanks unless otherwise approved by the division. SEII will conduct AVO (LDAR) inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
- F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. SEII will install equipment to measure the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, SEII will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.
- VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.