Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM110843

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.: VINCE FED 4H [335039]

2. Name of Operator: STEWARD ENERGY II LLC [371682]

9. API Well No.: 30-025-52294

3a. Address: 2600 N DALLAS PARKWAY SUITE 400, FRISCO, TX 750

3b. Phone No. *(include area code)*: (214) 297-0500

10. Field and Pool, or Exploratory: BRONCO/SAN ANDRES, SOUTH

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SWSW / 1101 FSL / 1268 FWL / LAT 33.230711 / LONG -103.072093

At proposed prod. zone: SENW / 2535 FNL / 2114 FWL / LAT 33.206405 / LONG -103.069334

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 35/T12S/R38E/NMP

14. Distance in miles and direction from nearest town or post office*: 15 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 6300 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 479.62

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 20 feet

19. Proposed Depth: 5350 feet / 13667 feet

20. BLM/BIA Bond No. in file: FED: NMB001879

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3793 feet

22. Approximate date work will start*: 01/08/2024

23. Estimated duration: 60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRIAN WOOD / Ph: (214) 297-0500	05/22/2023

Title: President

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	11/28/2023

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

NGMP Rec 11/30/2023

SL

APPROVED WITH CONDITIONS

KZ 12/07/2023

(Continued on page 2)

*(Instructions on page 2)

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INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

0. SHL: SWSW / 1101 FSL / 1268 FWL / TWSP: 12S / RANGE: 38E / SECTION: 35 / LAT: 33.230711 / LONG: -103.072093 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 3 / 100 FNL / 2114 FWL / TWSP: 12S / RANGE: 38E / SECTION: 2 / LAT: 33.227688 / LONG: -103.069323 (TVD: 5350 feet, MD: 5944 feet)

BHL: SENW / 2535 FNL / 2114 FWL / TWSP: 13S / RANGE: 38E / SECTION: 11 / LAT: 33.206405 / LONG: -103.069334 (TVD: 5350 feet, MD: 13667 feet)

BLM Point of Contact

Name: Candy Vigil

Title: LIE

Phone: (575) 234-5982

Email: cvigil@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	STEWARD ENERGY II LLC
WELL NAME & NO.:	VINCE FED 4H
SURFACE HOLE FOOTAGE:	1001'/S & 1268'/W
BOTTOM HOLE FOOTAGE	2535'/N & 2114'/W
LOCATION:	Section 35, T.12 S., R.38 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	(•) None	( ) Flex Hose	( ) Other
Wellhead	( ) Conventional	( ) Multibowl	(•) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[ ] EchoMeter	[ ] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[ ] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[ ] Break Testing	[ ] Offline Cementing	[ ] Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The **9-5/8** inch surface casing shall be set at approximately **2319 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 12-1/4 inch in diameter.

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a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7** X **5.5** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

C. PRESSURE CONTROL

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi. **Annular which shall be tested to 3000 (3M) psi.**

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive

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strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal

or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JS 10/4/2023

Approval Date: 11/28/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-52294	7500	BRONCO;SAN ANDRES, SOUTH

Property Code	Property Name	Well Number
335039	VINCE FED	#4H

OGRID No.	Operator Name	Elevation
371682	STEWARD ENERGY II, LLC	3793'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	12 S	38 E		1001	SOUTH	1268	WEST	LEA

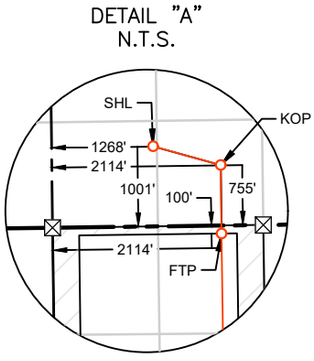
Bottom Hole Location If Different From Surface

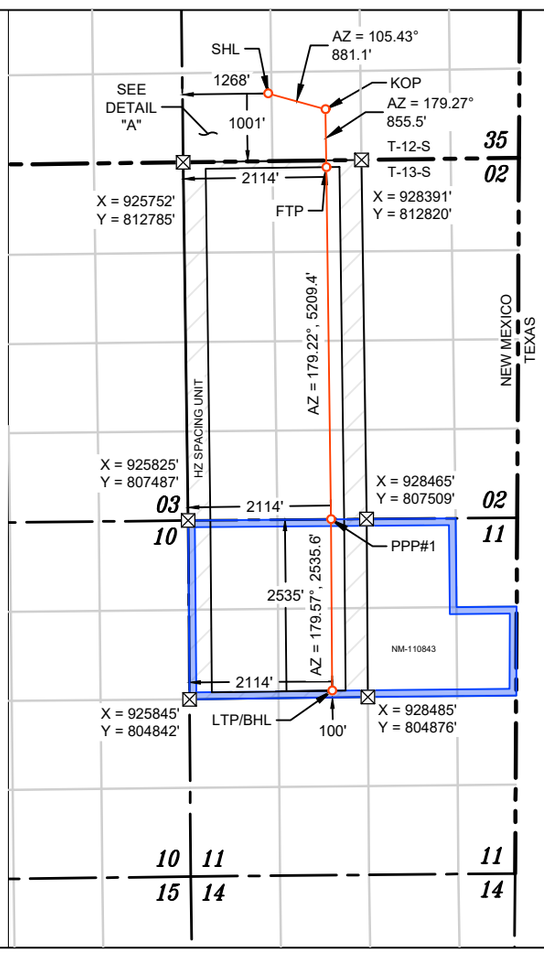
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	11	13 S	38 E		2535	NORTH	2114	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
479.62			

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.

APPROXIMATE WELL BORE DISTANCE FROM FTP TO LTP	
SECTION 02	5209.42'
SECTION 11	2535.62'
TOTAL	7745.04'





OPERATOR CERTIFICATION

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

Vanessa De Los Santos — 11/29/2023
Signature — Date

Vanessa De Los Santos
Printed Name

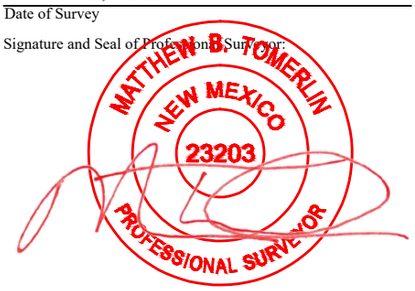
vanessa.delossantos@stewardenergy.com
E-mail Address

SURVEYOR CERTIFICATION

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

APRIL 18, 2023
Date of Survey

Signature and Seal of Professional Surveyor:



Job No.: 23-04-2963
MATTHEW B. TOMERLIN, N.M.P.L.S.
Certificate Number 23203

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 33.230711°
LONGITUDE = -103.072093°
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 33.230604°
LONGITUDE = -103.071594°
STATE PLANE NAD 83 (N.M. EAST)
N: 813803.28' E: 927007.39'
STATE PLANE NAD 27 (N.M. EAST)
N: 813740.16' E: 885831.53'

NAD 83 (KOP)
LATITUDE = 33.230039°
LONGITUDE = -103.069325°
NAD 27 (KOP)
LATITUDE = 33.229932°
LONGITUDE = -103.068826°
STATE PLANE NAD 83 (N.M. EAST)
N: 813568.80' E: 927856.71'
STATE PLANE NAD 27 (N.M. EAST)
N: 813505.72' E: 886680.84'

NAD 83 (FTP)
LATITUDE = 33.227688°
LONGITUDE = -103.069323°
NAD 27 (FTP)
LATITUDE = 33.227581°
LONGITUDE = -103.068824°
STATE PLANE NAD 83 (N.M. EAST)
N: 812713.39' E: 927867.60'
STATE PLANE NAD 27 (N.M. EAST)
N: 812650.34' E: 886691.73'

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 APRIL, 2023. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT 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.

NAD 83 (PPP #1)
LATITUDE = 33.213373°
LONGITUDE = -103.069296°
NAD 27 (PPP #1)
LATITUDE = 33.213266°
LONGITUDE = -103.068797°
STATE PLANE NAD 83 (N.M. EAST)
N: 807504.46' E: 927938.88'
STATE PLANE NAD 27 (N.M. EAST)
N: 807441.56' E: 886762.99'

NAD 83 (LTP/BHL)
LATITUDE = 33.206405°
LONGITUDE = -103.069334°
NAD 27 (LTP/BHL)
LATITUDE = 33.206298°
LONGITUDE = -103.068835°
STATE PLANE NAD 83 (N.M. EAST)
N: 804968.91' E: 927957.84'
STATE PLANE NAD 27 (N.M. EAST)
N: 804906.08' E: 886781.94'

◎ FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
☒ CALC. CORNER
○ SHL/ KOP/ PPP/ LTP / BHL
OIL & GAS LEASE
HORIZONTAL SPACING UNIT

0' 2500' 5000'
SCALE: 1" = 2500'

EXHIBIT 1
LOCATION & ELEVATION VERIFICATION MAP

LEASE NAME AND WELL NUMBER: VINCE FED #4H
LATITUDE: N 33.230711 LONGITUDE: W 103.072093 ELEVATION: 3793'
DESCRIPTION: 1001' FSL & 1268' FWL

STEWARD ENERGY II

Situated in
SECTION 35, TOWNSHIP 12 SOUTH, RANGE 38 EAST
LEA COUNTY, NEW MEXICO

0 1 MILE 2 MILE
SCALE: 1" = 1 MILE

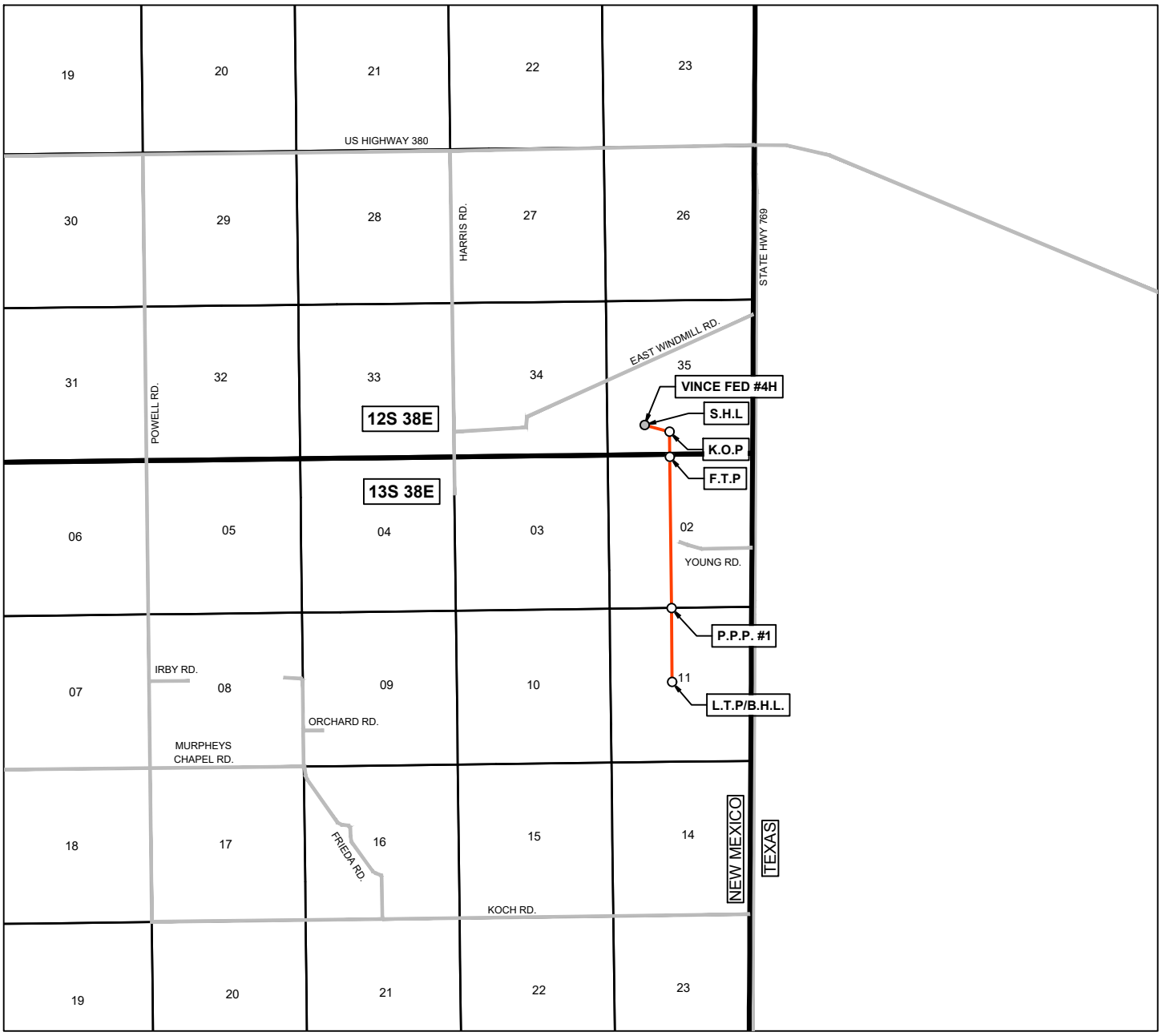
LEGEND
- S.H.L
- F.T.P.; K.O.P.; P.P.P.; L.T.P.; B.H.L.
- PROPOSED WELL BORE
- SECTION LINE
- TOWNSHIP/RANGE LINE

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

DRAWN BY: JH	DATE : 04/11/2023	REV. 0
CHECKED BY: JW	DATE : 04/11/2023	
AFE #	PROJECT ID: 23-04-2963	PAGE 1 OF 1

PLOT DATE: 4/11/2023 11:01:23 AM FILENAME: Z:\2023\STEWARD ENERGY\23-04-2963 - VINCE FED #4H-6H WELLS\PLATS\VINCE FED #4H\-LOCATION ELEVATION MAP\NM-LOCATION ELEVATION MAP-VINCE FED #4H.DWG

EXHIBIT 1
VICINITY MAP



LEASE NAME AND WELL NUMBER: VINCE FED #4H
LATITUDE: N 33.230711 LONGITUDE: W 103.072093 ELEVATION: 3793'
DESCRIPTION: 1001' FSL & 1268' FWL

LEGEND
- S.H.L
- F.T.P.; K.O.P.; P.P.P.; L.T.P.; B.H.L.
- EXISTING ROADS
- PROPOSED WELL BORE
- SECTION LINE
- TOWNSHIP/RANGE LINE

0 1 MILE 2 MILE
SCALE: 1" = 1 MILE

STEWARD ENERGY II

Situated in
SECTION 35, TOWNSHIP 12 SOUTH, RANGE 38 EAST
LEA COUNTY, NEW MEXICO

DATAPOINT SURVEYING & MAPPING

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

DRAWN BY: JH	DATE : 04/11/2023	REV. 0
CHECKED BY: JW	DATE : 04/11/2023	
AFE #	PROJECT ID: 23-04-2962	PAGE 1 OF 1

PLOT DATE: 4/11/2023 11:35:38 AM FILENAME: Z:\2023\STEWARD ENERGY\23-04-2963 - VINCE FED #4H-6H WELLS\PLATS\VINCE FED #4H\2-VICINITY MAP\NM-VICINITY MAP-VINCE FED #4H.DWG

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Steward Energy II LLC **OGRID:** 371682 **Date:** 11/28/2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Vince Fed 4H		M-35-12S-38E	1001' FSL & 1268'FWL	500	100	350
Vince Fed 5H		M-35-12S-38E	1001' FSL & 1248'FWL	500	100	350
Vince Fed 6H		M-35-12S-38E	1002' FSL & 1228'FWL	500	100	350

IV. Central Delivery Point Name: _____ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Vince Fed 4H		1/8/2024	1/18/2023	2/1/24	n/a (no flowback)	2/5/2024
Vince Fed 5H		1/8/2024	1/18/2023	2/1/24	n/a (no flowback	2/5/2024
Vince Fed 6H		1/8/2024	1/18/2023	2/1/24	n/a (no flowback	2/5/2024

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

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

☐ Attach Operator's plan to manage production in response to the increased line pressure.

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 information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

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

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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

Signature: Vanessa De Los Santos
Printed Name: Vanessa De Los Santos
Title: Senior Regulatory Analyst & Environmental
E-mail Address: vanessa.delossantos@stewardenergy.com
Date: 11/28/2023
Phone: 214-297-0500

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

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.

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

Elevation above Sea Level: 3793'

DRILLING PROGRAM

1. Estimated Tops

Formation Name	TVD	MD	Litholooies	Mineral Resources
-	0	0	OTHER : un con sol idated	NONE
RUSTLER	2223	2295	AN H YDRITE	NONE
SALADO	2325	2386	ANHYDRITE, LIMESTONE, SANDSTONE, SILTSTONE	NONE
CASTILE	2895	2975	AN H Y D R ITE	NONE
TANSILL	2981	3078	DO LOMITE, SANDSTONE	NATURAL GAS, OIL
YATES	3079	3164	DOLOMITE, SANDSTONE, SHALE	NATURAL GAS, OIL
SEVEN RIVERS	3319	3422	D OLOMITE, GYPSUM, SANDSTONE, SHALE	NATURAL GAS, OIL
QUEEN	3866	3987	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL
GRAYBURG	4235	4352	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL
SAN ANDRES	4495	4616	ANHYDRITE, DOLOMITE, SHALE	NATURAL GAS, OIL

2. Notable Zones

San Andres is target formation

3. Pressure Control

Pressure Control Equipment (See Schematics):
A 3000# BOP stack will be used consisting of a 3000# hydraulically operated annular preventer, 3000# double hydraulic rams with the blind rams on bottom, a 3000# mud cross with 1 3000# manually operated 4 1/16 valve, 1 3000psi manually operated 2 1/16 valve and 1 3000 psi check valve. A 1000# rotating head will also be installed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

BOP Test procedure will be as follows:
After nipple up, we will test the rig pump to 1500 psi for 30 minutes on all components, including floor valves and choke manifold; furthermore, we will function test on all bit trips; weekly BOP drills will be preformed by each crew. These drills will be noted on the daily tour sheets and by electronic means as well.

Variance Requests: none

4. Casing & Cement

All Casing will be new.

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

	Vince Federal 4H														
	Hole Size	Condition	API Standard?	Tapered String?	Top MD	Bottom MD	Top TVD	Bottom TVD	Casing Size	Casing Weight (lb/ft)	Casing Grade	Joint Type	SF Tension	SF Collapse	SF Burst
Surface	12 1/4	New	Y	N	0	2305	0	2250	9 5/8	36	J-55	LTC	7.70	1.88	3.50
Production	8 3/4	New	Y	Y	0	5644	0	5273	7	32	L-80	BTC	2.32	3.14	3.09
Production	8 3/4	New	Y	Y	5644	13667	5273	5350	5 1/2	20	L-80	BTC	3.13	3.17	3.23

Vince Federal 4H								
Surface	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend	Additives	Top of Cement	% Excess
Lead	468	2.29	12.4	1071	15:85 Poz/Class C	5% Salt BWOW + 8% Bentonite + 0.3% CEA-2 + 0.25 lb/sk Celloflake	0	120
Tail	350	1.34	14.8	470	Class C	1% Cacl2 + 0.25 lb/sk Celloflake	1555	100
Production	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend	Additives	Top of Cement	% Excess
Lead	617	2.69	11.5	1659	50/50 Poz/Class C	5% Salt BWOW + 10% Bentonite + 1% CEA-2 + 0.3% CFL-5 + 0.3% CFL-1 + 0.1% CR-2	0	150
Tail	2420	1.27	14.2	3073	50/50 Poz/Class H	3% Salt BWOW + 2% Bentonite + 0.1% CAS-2 + 0.5% CFL-1 + 0.2% CFR-1 + 0.2% CR-2	4500	55

5. Mud Program

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	2305	FW Spud Mud	8.4-8.9	28-32	NC
Produciton	2305	13667	Brine Water	10-10.2	28-34	NC

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.
- GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD.
- No DSTs or cores are planned at this time.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈2,550 psi. Expected bottom hole temperature is ≈120˚ F.

Steward Energy II does not anticipate that there will be enough H2S from the surface to the San Andres formation to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Steward Energy II has an H2S safety package on all wells and an "Emergency Response Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 12 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

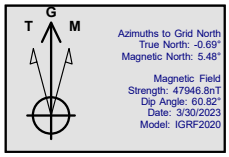
Steward Energy II, LLC

DrilTech, LLC

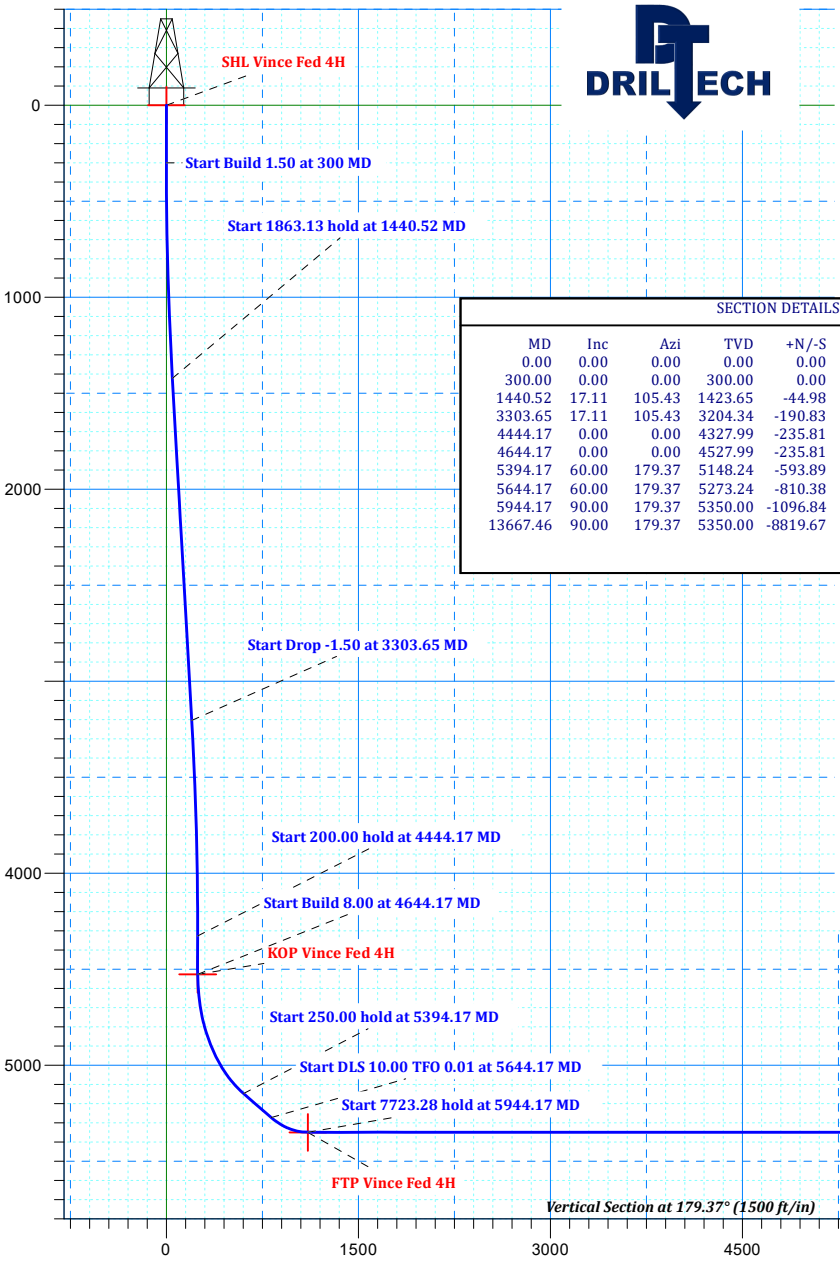
Lea County, NM (NAD 83) NM East Zone
Vince Fed Site
Vince Fed 4H
Wellbore #1
Plan #1

STEWARD ENERGY II

SURFACE LOCATION			
US State Plane 1983 New Mexico Eastern Zone Elevation: GL 3793' + RKB 19 @ 3812.00ft			
Northing	Easting	Latitude	Longitude
813803.28	927007.39	33.231°N	103.072°W

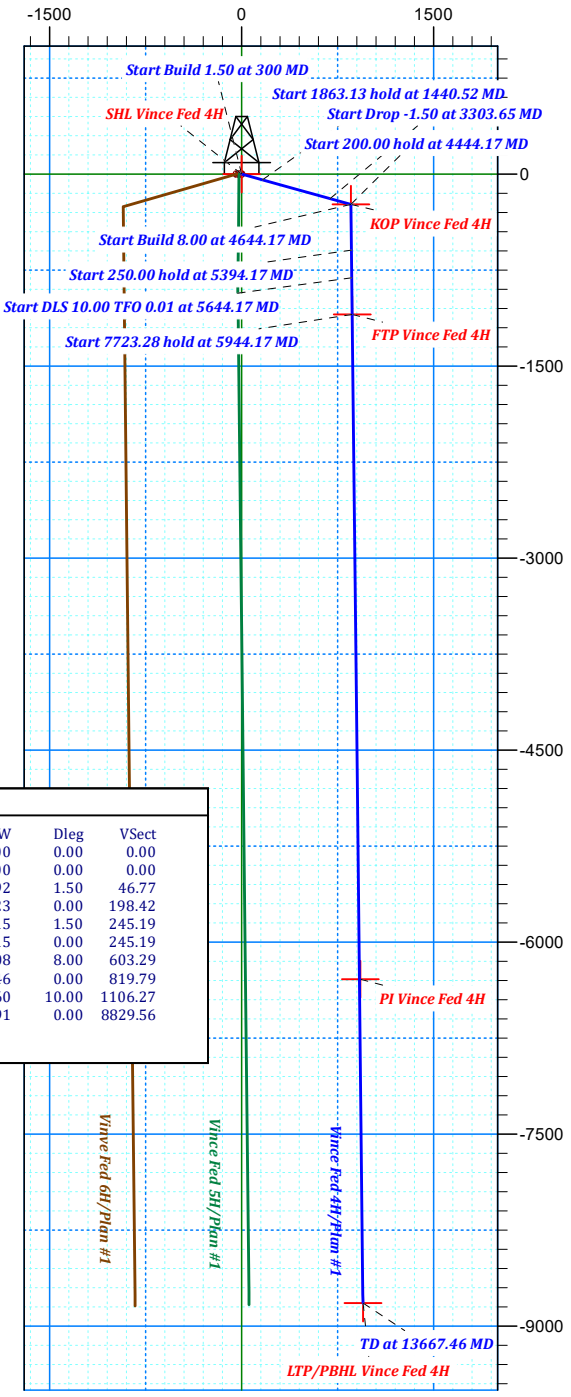


WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL Vince Fed 4H	0.00	0.00	0.00	813803.28	927007.39
KOP Vince Fed 4H	4527.99	-235.81	854.15	813567.47	927861.53
FTP Vince Fed 4H	5350.00	-1096.84	863.55	812706.44	927870.94
LTP/PBHL Vince Fed 4H	5350.00	-8819.67	947.91	804983.63	927955.30
PI Vince Fed 4H	5350.00	-6289.24	927.27	807514.05	927934.66



DRILTECH

SECTION DETAILS							
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
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
1440.52	17.11	105.43	1423.65	-44.98	162.92	1.50	46.77
3303.65	17.11	105.43	3204.34	-190.83	691.23	0.00	198.42
4444.17	0.00	0.00	4327.99	-235.81	854.15	1.50	245.19
4644.17	0.00	0.00	4527.99	-235.81	854.15	0.00	245.19
5394.17	60.00	179.37	5148.24	-593.89	858.08	8.00	603.29
5644.17	60.00	179.37	5273.24	-810.38	860.46	0.00	819.79
5944.17	90.00	179.37	5350.00	-1096.84	863.60	10.00	1106.27
13667.46	90.00	179.37	5350.00	-8819.67	947.91	0.00	8829.56



Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone
Vince Fed Site
Vince Fed 4H

Wellbore #1

Plan: Plan #1

Standard Planning Report

30 March, 2023

Planning Report

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Vince Fed Site

Site Position:		**Northing:**	813,803.28 usft	**Latitude:**	33.231°N
From:	Map	**Easting:**	927,007.39 usft	**Longitude:**	103.072°W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in		

Well Vince Fed 4H

Well Position	**+N/-S**	0.00 ft	**Northing:**	813,803.28 usft	**Latitude:**	33.231°N
	+E/-W	0.00 ft	**Easting:**	927,007.39 usft	**Longitude:**	103.072°W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,793.00 ft
Grid Convergence:		0.69 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/30/2023	6.17	60.82	47,946.81153223

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	179.37

Plan Survey Tool Program **Date** 3/30/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,667.46	Plan #1 (Wellbore #1)	MWD	
				MWD - Standard	

Planning Report

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	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	
1,440.52	17.11	105.43	1,423.65	-44.98	162.92	1.50	1.50	0.00	105.43	
3,303.65	17.11	105.43	3,204.34	-190.83	691.23	0.00	0.00	0.00	0.00	
4,444.17	0.00	0.00	4,327.99	-235.81	854.15	1.50	-1.50	0.00	180.00	
4,644.17	0.00	0.00	4,527.99	-235.81	854.15	0.00	0.00	0.00	0.00	
5,394.17	60.00	179.37	5,148.24	-593.89	858.08	8.00	8.00	0.00	179.37	
5,644.17	60.00	179.37	5,273.24	-810.38	860.46	0.00	0.00	0.00	0.00	
5,944.17	90.00	179.37	5,350.00	-1,096.84	863.60	10.00	10.00	0.00	0.01	
13,667.46	90.00	179.37	5,350.00	-8,819.67	947.91	0.00	0.00	0.00	0.00	LTP/PBHL Vince Fed

Planning Report

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50 at 300 MD									
400.00	1.50	105.43	399.99	-0.35	1.26	0.36	1.50	1.50	0.00
500.00	3.00	105.43	499.91	-1.39	5.05	1.45	1.50	1.50	0.00
600.00	4.50	105.43	599.69	-3.13	11.35	3.26	1.50	1.50	0.00
700.00	6.00	105.43	699.27	-5.57	20.17	5.79	1.50	1.50	0.00
800.00	7.50	105.43	798.57	-8.70	31.50	9.04	1.50	1.50	0.00
900.00	9.00	105.43	897.54	-12.52	45.33	13.01	1.50	1.50	0.00
1,000.00	10.50	105.43	996.09	-17.02	61.66	17.70	1.50	1.50	0.00
1,100.00	12.00	105.43	1,094.16	-22.21	80.46	23.10	1.50	1.50	0.00
1,200.00	13.50	105.43	1,191.70	-28.09	101.73	29.20	1.50	1.50	0.00
1,300.00	15.00	105.43	1,288.62	-34.64	125.46	36.01	1.50	1.50	0.00
1,400.00	16.50	105.43	1,384.86	-41.86	151.62	43.53	1.50	1.50	0.00
1,440.52	17.11	105.43	1,423.65	-44.98	162.92	46.77	1.50	1.50	0.00
Start 1863.13 hold at 1440.52 MD									
1,500.00	17.11	105.43	1,480.50	-49.63	179.78	51.61	0.00	0.00	0.00
1,600.00	17.11	105.43	1,576.07	-57.46	208.14	59.75	0.00	0.00	0.00
1,700.00	17.11	105.43	1,671.65	-65.29	236.50	67.89	0.00	0.00	0.00
1,800.00	17.11	105.43	1,767.22	-73.12	264.85	76.03	0.00	0.00	0.00
1,900.00	17.11	105.43	1,862.80	-80.95	293.21	84.17	0.00	0.00	0.00
2,000.00	17.11	105.43	1,958.37	-88.78	321.56	92.31	0.00	0.00	0.00
2,100.00	17.11	105.43	2,053.95	-96.61	349.92	100.45	0.00	0.00	0.00
2,200.00	17.11	105.43	2,149.52	-104.43	378.28	108.59	0.00	0.00	0.00
2,300.00	17.11	105.43	2,245.10	-112.26	406.63	116.73	0.00	0.00	0.00
2,400.00	17.11	105.43	2,340.67	-120.09	434.99	124.87	0.00	0.00	0.00
2,500.00	17.11	105.43	2,436.25	-127.92	463.34	133.01	0.00	0.00	0.00
2,600.00	17.11	105.43	2,531.82	-135.75	491.70	141.15	0.00	0.00	0.00
2,700.00	17.11	105.43	2,627.40	-143.58	520.06	149.29	0.00	0.00	0.00
2,800.00	17.11	105.43	2,722.98	-151.41	548.41	157.43	0.00	0.00	0.00
2,900.00	17.11	105.43	2,818.55	-159.23	576.77	165.57	0.00	0.00	0.00
3,000.00	17.11	105.43	2,914.13	-167.06	605.13	173.71	0.00	0.00	0.00
3,100.00	17.11	105.43	3,009.70	-174.89	633.48	181.85	0.00	0.00	0.00
3,200.00	17.11	105.43	3,105.28	-182.72	661.84	189.99	0.00	0.00	0.00
3,300.00	17.11	105.43	3,200.85	-190.55	690.19	198.13	0.00	0.00	0.00
3,303.65	17.11	105.43	3,204.34	-190.83	691.23	198.42	0.00	0.00	0.00
Start Drop -1.50 at 3303.65 MD									
3,400.00	15.66	105.43	3,296.77	-198.07	717.43	205.94	1.50	-1.50	0.00
3,500.00	14.16	105.43	3,393.40	-204.92	742.23	213.06	1.50	-1.50	0.00
3,600.00	12.66	105.43	3,490.67	-211.09	764.59	219.48	1.50	-1.50	0.00
3,700.00	11.16	105.43	3,588.52	-216.58	784.49	225.19	1.50	-1.50	0.00
3,800.00	9.66	105.43	3,686.87	-221.39	801.91	230.19	1.50	-1.50	0.00
3,900.00	8.16	105.43	3,785.66	-225.51	816.84	234.48	1.50	-1.50	0.00
4,000.00	6.66	105.43	3,884.82	-228.95	829.28	238.05	1.50	-1.50	0.00
4,100.00	5.16	105.43	3,984.28	-231.69	839.21	240.90	1.50	-1.50	0.00
4,200.00	3.66	105.43	4,083.99	-233.74	846.63	243.03	1.50	-1.50	0.00
4,300.00	2.16	105.43	4,183.85	-235.09	851.52	244.44	1.50	-1.50	0.00
4,400.00	0.66	105.43	4,283.82	-235.74	853.90	245.12	1.50	-1.50	0.00
4,444.17	0.00	0.00	4,327.99	-235.81	854.15	245.19	1.50	-1.50	0.00
Start 200.00 hold at 4444.17 MD									
4,500.00	0.00	0.00	4,383.82	-235.81	854.15	245.19	0.00	0.00	0.00
4,600.00	0.00	0.00	4,483.82	-235.81	854.15	245.19	0.00	0.00	0.00

Planning Report

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,644.17	0.00	0.00	4,527.99	-235.81	854.15	245.19	0.00	0.00	0.00
Start Build 8.00 at 4644.17 MD									
4,700.00	4.47	179.37	4,583.76	-237.99	854.17	247.36	8.00	8.00	0.00
4,800.00	12.47	179.37	4,682.59	-252.70	854.33	262.07	8.00	8.00	0.00
4,900.00	20.47	179.37	4,778.41	-281.02	854.64	290.40	8.00	8.00	0.00
5,000.00	28.47	179.37	4,869.36	-322.40	855.10	331.78	8.00	8.00	0.00
5,100.00	36.47	179.37	4,953.66	-376.03	855.69	385.42	8.00	8.00	0.00
5,200.00	44.47	179.37	5,029.68	-440.87	856.40	450.26	8.00	8.00	0.00
5,300.00	52.47	179.37	5,095.93	-515.66	857.22	525.06	8.00	8.00	0.00
5,394.17	60.00	179.37	5,148.24	-593.89	858.08	603.29	8.00	8.00	0.00
Start 250.00 hold at 5394.17 MD									
5,400.00	60.00	179.37	5,151.15	-598.94	858.14	608.34	0.00	0.00	0.00
5,500.00	60.00	179.37	5,201.15	-685.53	859.09	694.94	0.00	0.00	0.00
5,600.00	60.00	179.37	5,251.15	-772.13	860.04	781.54	0.00	0.00	0.00
5,644.17	60.00	179.37	5,273.24	-810.38	860.46	819.79	0.00	0.00	0.00
Start DLS 10.00 TFO 0.01 at 5644.17 MD									
5,700.00	65.58	179.37	5,298.75	-860.01	861.01	869.43	10.00	10.00	0.00
5,800.00	75.58	179.37	5,331.95	-954.20	862.04	963.62	10.00	10.00	0.00
5,900.00	85.58	179.37	5,348.30	-1,052.72	863.12	1,062.15	10.00	10.00	0.00
5,944.17	90.00	179.37	5,350.00	-1,096.84	863.60	1,106.27	10.00	10.00	0.00
Start 7723.28 hold at 5944.17 MD									
6,000.00	90.00	179.37	5,350.00	-1,152.67	864.21	1,162.10	0.00	0.00	0.00
6,100.00	90.00	179.37	5,350.00	-1,252.66	865.30	1,262.10	0.00	0.00	0.00
6,200.00	90.00	179.37	5,350.00	-1,352.66	866.39	1,362.10	0.00	0.00	0.00
6,300.00	90.00	179.37	5,350.00	-1,452.65	867.49	1,462.10	0.00	0.00	0.00
6,400.00	90.00	179.37	5,350.00	-1,552.65	868.58	1,562.10	0.00	0.00	0.00
6,500.00	90.00	179.37	5,350.00	-1,652.64	869.67	1,662.10	0.00	0.00	0.00
6,600.00	90.00	179.37	5,350.00	-1,752.63	870.76	1,762.10	0.00	0.00	0.00
6,700.00	90.00	179.37	5,350.00	-1,852.63	871.85	1,862.10	0.00	0.00	0.00
6,800.00	90.00	179.37	5,350.00	-1,952.62	872.94	1,962.10	0.00	0.00	0.00
6,900.00	90.00	179.37	5,350.00	-2,052.62	874.04	2,062.10	0.00	0.00	0.00
7,000.00	90.00	179.37	5,350.00	-2,152.61	875.13	2,162.10	0.00	0.00	0.00
7,100.00	90.00	179.37	5,350.00	-2,252.60	876.22	2,262.10	0.00	0.00	0.00
7,200.00	90.00	179.37	5,350.00	-2,352.60	877.31	2,362.10	0.00	0.00	0.00
7,300.00	90.00	179.37	5,350.00	-2,452.59	878.40	2,462.10	0.00	0.00	0.00
7,400.00	90.00	179.37	5,350.00	-2,552.59	879.49	2,562.10	0.00	0.00	0.00
7,500.00	90.00	179.37	5,350.00	-2,652.58	880.59	2,662.10	0.00	0.00	0.00
7,600.00	90.00	179.37	5,350.00	-2,752.57	881.68	2,762.10	0.00	0.00	0.00
7,700.00	90.00	179.37	5,350.00	-2,852.57	882.77	2,862.10	0.00	0.00	0.00
7,800.00	90.00	179.37	5,350.00	-2,952.56	883.86	2,962.10	0.00	0.00	0.00
7,900.00	90.00	179.37	5,350.00	-3,052.56	884.95	3,062.10	0.00	0.00	0.00
8,000.00	90.00	179.37	5,350.00	-3,152.55	886.04	3,162.10	0.00	0.00	0.00
8,100.00	90.00	179.37	5,350.00	-3,252.54	887.14	3,262.10	0.00	0.00	0.00
8,200.00	90.00	179.37	5,350.00	-3,352.54	888.23	3,362.10	0.00	0.00	0.00
8,300.00	90.00	179.37	5,350.00	-3,452.53	889.32	3,462.10	0.00	0.00	0.00
8,400.00	90.00	179.37	5,350.00	-3,552.53	890.41	3,562.10	0.00	0.00	0.00
8,500.00	90.00	179.37	5,350.00	-3,652.52	891.50	3,662.10	0.00	0.00	0.00
8,600.00	90.00	179.37	5,350.00	-3,752.51	892.59	3,762.10	0.00	0.00	0.00
8,700.00	90.00	179.37	5,350.00	-3,852.51	893.69	3,862.10	0.00	0.00	0.00
8,800.00	90.00	179.37	5,350.00	-3,952.50	894.78	3,962.10	0.00	0.00	0.00
8,900.00	90.00	179.37	5,350.00	-4,052.50	895.87	4,062.10	0.00	0.00	0.00
9,000.00	90.00	179.37	5,350.00	-4,152.49	896.96	4,162.10	0.00	0.00	0.00
9,100.00	90.00	179.37	5,350.00	-4,252.48	898.05	4,262.10	0.00	0.00	0.00

Planning Report

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,200.00	90.00	179.37	5,350.00	-4,352.48	899.14	4,362.10	0.00	0.00	0.00
9,300.00	90.00	179.37	5,350.00	-4,452.47	900.24	4,462.10	0.00	0.00	0.00
9,400.00	90.00	179.37	5,350.00	-4,552.47	901.33	4,562.10	0.00	0.00	0.00
9,500.00	90.00	179.37	5,350.00	-4,652.46	902.42	4,662.10	0.00	0.00	0.00
9,600.00	90.00	179.37	5,350.00	-4,752.45	903.51	4,762.10	0.00	0.00	0.00
9,700.00	90.00	179.37	5,350.00	-4,852.45	904.60	4,862.10	0.00	0.00	0.00
9,800.00	90.00	179.37	5,350.00	-4,952.44	905.69	4,962.10	0.00	0.00	0.00
9,900.00	90.00	179.37	5,350.00	-5,052.44	906.79	5,062.10	0.00	0.00	0.00
10,000.00	90.00	179.37	5,350.00	-5,152.43	907.88	5,162.10	0.00	0.00	0.00
10,100.00	90.00	179.37	5,350.00	-5,252.43	908.97	5,262.10	0.00	0.00	0.00
10,200.00	90.00	179.37	5,350.00	-5,352.42	910.06	5,362.10	0.00	0.00	0.00
10,300.00	90.00	179.37	5,350.00	-5,452.41	911.15	5,462.10	0.00	0.00	0.00
10,400.00	90.00	179.37	5,350.00	-5,552.41	912.24	5,562.10	0.00	0.00	0.00
10,500.00	90.00	179.37	5,350.00	-5,652.40	913.33	5,662.10	0.00	0.00	0.00
10,600.00	90.00	179.37	5,350.00	-5,752.40	914.43	5,762.10	0.00	0.00	0.00
10,700.00	90.00	179.37	5,350.00	-5,852.39	915.52	5,862.10	0.00	0.00	0.00
10,800.00	90.00	179.37	5,350.00	-5,952.38	916.61	5,962.10	0.00	0.00	0.00
10,900.00	90.00	179.37	5,350.00	-6,052.38	917.70	6,062.10	0.00	0.00	0.00
11,000.00	90.00	179.37	5,350.00	-6,152.37	918.79	6,162.10	0.00	0.00	0.00
11,100.00	90.00	179.37	5,350.00	-6,252.37	919.88	6,262.10	0.00	0.00	0.00
11,200.00	90.00	179.37	5,350.00	-6,352.36	920.98	6,362.10	0.00	0.00	0.00
11,300.00	90.00	179.37	5,350.00	-6,452.35	922.07	6,462.10	0.00	0.00	0.00
11,400.00	90.00	179.37	5,350.00	-6,552.35	923.16	6,562.10	0.00	0.00	0.00
11,500.00	90.00	179.37	5,350.00	-6,652.34	924.25	6,662.10	0.00	0.00	0.00
11,600.00	90.00	179.37	5,350.00	-6,752.34	925.34	6,762.10	0.00	0.00	0.00
11,700.00	90.00	179.37	5,350.00	-6,852.33	926.43	6,862.10	0.00	0.00	0.00
11,800.00	90.00	179.37	5,350.00	-6,952.32	927.53	6,962.10	0.00	0.00	0.00
11,900.00	90.00	179.37	5,350.00	-7,052.32	928.62	7,062.10	0.00	0.00	0.00
12,000.00	90.00	179.37	5,350.00	-7,152.31	929.71	7,162.10	0.00	0.00	0.00
12,100.00	90.00	179.37	5,350.00	-7,252.31	930.80	7,262.10	0.00	0.00	0.00
12,200.00	90.00	179.37	5,350.00	-7,352.30	931.89	7,362.10	0.00	0.00	0.00
12,300.00	90.00	179.37	5,350.00	-7,452.29	932.98	7,462.10	0.00	0.00	0.00
12,400.00	90.00	179.37	5,350.00	-7,552.29	934.08	7,562.10	0.00	0.00	0.00
12,500.00	90.00	179.37	5,350.00	-7,652.28	935.17	7,662.10	0.00	0.00	0.00
12,600.00	90.00	179.37	5,350.00	-7,752.28	936.26	7,762.10	0.00	0.00	0.00
12,700.00	90.00	179.37	5,350.00	-7,852.27	937.35	7,862.10	0.00	0.00	0.00
12,800.00	90.00	179.37	5,350.00	-7,952.26	938.44	7,962.10	0.00	0.00	0.00
12,900.00	90.00	179.37	5,350.00	-8,052.26	939.53	8,062.10	0.00	0.00	0.00
13,000.00	90.00	179.37	5,350.00	-8,152.25	940.63	8,162.10	0.00	0.00	0.00
13,100.00	90.00	179.37	5,350.00	-8,252.25	941.72	8,262.10	0.00	0.00	0.00
13,200.00	90.00	179.37	5,350.00	-8,352.24	942.81	8,362.10	0.00	0.00	0.00
13,300.00	90.00	179.37	5,350.00	-8,452.23	943.90	8,462.10	0.00	0.00	0.00
13,400.00	90.00	179.37	5,350.00	-8,552.23	944.99	8,562.10	0.00	0.00	0.00
13,500.00	90.00	179.37	5,350.00	-8,652.22	946.08	8,662.10	0.00	0.00	0.00
13,600.00	90.00	179.37	5,350.00	-8,752.22	947.18	8,762.10	0.00	0.00	0.00
13,667.46	90.00	179.37	5,350.00	-8,819.67	947.91	8,829.56	0.00	0.00	0.00
TD at 13667.46 MD									

Planning Report

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL Vince Fed 4H - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	813,803.28	927,007.39	33.231°N	103.072°W
KOP Vince Fed 4H - plan hits target center - Point	0.00	0.00	4,527.99	-235.81	854.15	813,567.47	927,861.54	33.230°N	103.069°W
LTP/PBHL Vince Fed 4H - plan hits target center - Point	0.00	0.00	5,350.00	-8,819.67	947.91	804,983.63	927,955.30	33.206°N	103.069°W
PI Vince Fed 4H - plan misses target center by 6.98ft at 11136.96ft MD (5350.00 TVD, -6289.32 N, 920.29 E) - Point	0.00	0.01	5,350.00	-6,289.24	927.27	807,514.05	927,934.66	33.213°N	103.069°W
FTP Vince Fed 4H - plan misses target center by 0.05ft at 5944.17ft MD (5350.00 TVD, -1096.84 N, 863.60 E) - Point	0.00	0.00	5,350.00	-1,096.84	863.55	812,706.44	927,870.94	33.228°N	103.069°W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 1.50 at 300 MD
1,440.52	1,423.65	-44.98	162.92	Start 1863.13 hold at 1440.52 MD
3,303.65	3,204.34	-190.83	691.23	Start Drop -1.50 at 3303.65 MD
4,444.17	4,327.99	-235.81	854.15	Start 200.00 hold at 4444.17 MD
4,644.17	4,527.99	-235.81	854.15	Start Build 8.00 at 4644.17 MD
5,394.17	5,148.24	-593.89	858.08	Start 250.00 hold at 5394.17 MD
5,644.17	5,273.24	-810.38	860.46	Start DLS 10.00 TFO 0.01 at 5644.17 MD
5,944.17	5,350.00	-1,096.84	863.60	Start 7723.28 hold at 5944.17 MD
13,667.46	5,350.00	-8,819.67	947.91	TD at 13667.46 MD

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone
Vince Fed Site
Vince Fed 4H

Wellbore #1

Plan: Plan #1

Standard Planning Report - Geographic

30 March, 2023

Planning Report - Geographic

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Vince Fed Site

Site Position:		**Northing:**	813,803.28 usft	**Latitude:**	33.231°N
From:	Map	**Easting:**	927,007.39 usft	**Longitude:**	103.072°W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in		

Well Vince Fed 4H

Well Position	**+N/-S**	0.00 ft	**Northing:**	813,803.28	usft	**Latitude:**	33.231°N
	+E/-W	0.00 ft	**Easting:**	927,007.39	usft	**Longitude:**	103.072°W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		ft	**Ground Level:**	3,793.00 ft
Grid Convergence:		0.69 °					

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/30/2023	6.17	60.82	47,946.81153223

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	179.37

Plan Survey Tool Program **Date** 3/30/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	13,667.46	Plan #1 (Wellbore #1)	MWD MWD - Standard	

Planning Report - Geographic

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	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	
1,440.52	17.11	105.43	1,423.65	-44.98	162.92	1.50	1.50	0.00	105.43	
3,303.65	17.11	105.43	3,204.34	-190.83	691.23	0.00	0.00	0.00	0.00	
4,444.17	0.00	0.00	4,327.99	-235.81	854.15	1.50	-1.50	0.00	180.00	
4,644.17	0.00	0.00	4,527.99	-235.81	854.15	0.00	0.00	0.00	0.00	
5,394.17	60.00	179.37	5,148.24	-593.89	858.08	8.00	8.00	0.00	179.37	
5,644.17	60.00	179.37	5,273.24	-810.38	860.46	0.00	0.00	0.00	0.00	
5,944.17	90.00	179.37	5,350.00	-1,096.84	863.60	10.00	10.00	0.00	0.01	
13,667.46	90.00	179.37	5,350.00	-8,819.67	947.91	0.00	0.00	0.00	0.00	LTP/PBHL Vince Fed

Planning Report - Geographic

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	813,803.28	927,007.39	33.231°N	103.072°W
100.00	0.00	0.00	100.00	0.00	0.00	813,803.28	927,007.39	33.231°N	103.072°W
200.00	0.00	0.00	200.00	0.00	0.00	813,803.28	927,007.39	33.231°N	103.072°W
300.00	0.00	0.00	300.00	0.00	0.00	813,803.28	927,007.39	33.231°N	103.072°W
Start Build 1.50 at 300 MD									
400.00	1.50	105.43	399.99	-0.35	1.26	813,802.93	927,008.65	33.231°N	103.072°W
500.00	3.00	105.43	499.91	-1.39	5.05	813,801.89	927,012.44	33.231°N	103.072°W
600.00	4.50	105.43	599.69	-3.13	11.35	813,800.14	927,018.74	33.231°N	103.072°W
700.00	6.00	105.43	699.27	-5.57	20.17	813,797.71	927,027.56	33.231°N	103.072°W
800.00	7.50	105.43	798.57	-8.70	31.50	813,794.58	927,038.89	33.231°N	103.072°W
900.00	9.00	105.43	897.54	-12.52	45.33	813,790.76	927,052.72	33.231°N	103.072°W
1,000.00	10.50	105.43	996.09	-17.02	61.66	813,786.26	927,069.05	33.231°N	103.072°W
1,100.00	12.00	105.43	1,094.16	-22.21	80.46	813,781.06	927,087.85	33.231°N	103.072°W
1,200.00	13.50	105.43	1,191.70	-28.09	101.73	813,775.19	927,109.12	33.231°N	103.072°W
1,300.00	15.00	105.43	1,288.62	-34.64	125.46	813,768.64	927,132.85	33.231°N	103.072°W
1,400.00	16.50	105.43	1,384.86	-41.86	151.62	813,761.42	927,159.02	33.231°N	103.072°W
1,440.52	17.11	105.43	1,423.65	-44.98	162.92	813,758.30	927,170.31	33.231°N	103.072°W
Start 1863.13 hold at 1440.52 MD									
1,500.00	17.11	105.43	1,480.50	-49.63	179.78	813,753.64	927,187.17	33.231°N	103.072°W
1,600.00	17.11	105.43	1,576.07	-57.46	208.14	813,745.82	927,215.53	33.231°N	103.071°W
1,700.00	17.11	105.43	1,671.65	-65.29	236.50	813,737.99	927,243.89	33.231°N	103.071°W
1,800.00	17.11	105.43	1,767.22	-73.12	264.85	813,730.16	927,272.24	33.231°N	103.071°W
1,900.00	17.11	105.43	1,862.80	-80.95	293.21	813,722.33	927,300.60	33.230°N	103.071°W
2,000.00	17.11	105.43	1,958.37	-88.78	321.56	813,714.50	927,328.95	33.230°N	103.071°W
2,100.00	17.11	105.43	2,053.95	-96.61	349.92	813,706.67	927,357.31	33.230°N	103.071°W
2,200.00	17.11	105.43	2,149.52	-104.43	378.28	813,698.84	927,385.67	33.230°N	103.071°W
2,300.00	17.11	105.43	2,245.10	-112.26	406.63	813,691.02	927,414.02	33.230°N	103.071°W
2,400.00	17.11	105.43	2,340.67	-120.09	434.99	813,683.19	927,442.38	33.230°N	103.071°W
2,500.00	17.11	105.43	2,436.25	-127.92	463.34	813,675.36	927,470.73	33.230°N	103.071°W
2,600.00	17.11	105.43	2,531.82	-135.75	491.70	813,667.53	927,499.09	33.230°N	103.070°W
2,700.00	17.11	105.43	2,627.40	-143.58	520.06	813,659.70	927,527.45	33.230°N	103.070°W
2,800.00	17.11	105.43	2,722.98	-151.41	548.41	813,651.87	927,555.80	33.230°N	103.070°W
2,900.00	17.11	105.43	2,818.55	-159.23	576.77	813,644.04	927,584.16	33.230°N	103.070°W
3,000.00	17.11	105.43	2,914.13	-167.06	605.13	813,636.22	927,612.52	33.230°N	103.070°W
3,100.00	17.11	105.43	3,009.70	-174.89	633.48	813,628.39	927,640.87	33.230°N	103.070°W
3,200.00	17.11	105.43	3,105.28	-182.72	661.84	813,620.56	927,669.23	33.230°N	103.070°W
3,300.00	17.11	105.43	3,200.85	-190.55	690.19	813,612.73	927,697.58	33.230°N	103.070°W
3,303.65	17.11	105.43	3,204.34	-190.83	691.23	813,612.44	927,698.62	33.230°N	103.070°W
Start Drop -1.50 at 3303.65 MD									
3,400.00	15.66	105.43	3,296.77	-198.07	717.43	813,605.21	927,724.82	33.230°N	103.070°W
3,500.00	14.16	105.43	3,393.40	-204.92	742.23	813,598.36	927,749.62	33.230°N	103.070°W
3,600.00	12.66	105.43	3,490.67	-211.09	764.59	813,592.19	927,771.98	33.230°N	103.070°W
3,700.00	11.16	105.43	3,588.52	-216.58	784.49	813,586.70	927,791.88	33.230°N	103.070°W
3,800.00	9.66	105.43	3,686.87	-221.39	801.91	813,581.89	927,809.30	33.230°N	103.069°W
3,900.00	8.16	105.43	3,785.66	-225.51	816.84	813,577.76	927,824.23	33.230°N	103.069°W
4,000.00	6.66	105.43	3,884.82	-228.95	829.28	813,574.33	927,836.67	33.230°N	103.069°W
4,100.00	5.16	105.43	3,984.28	-231.69	839.21	813,571.59	927,846.60	33.230°N	103.069°W
4,200.00	3.66	105.43	4,083.99	-233.74	846.63	813,569.54	927,854.02	33.230°N	103.069°W
4,300.00	2.16	105.43	4,183.85	-235.09	851.52	813,568.19	927,858.91	33.230°N	103.069°W
4,400.00	0.66	105.43	4,283.82	-235.74	853.90	813,567.53	927,861.29	33.230°N	103.069°W
4,444.17	0.00	0.00	4,327.99	-235.81	854.15	813,567.47	927,861.54	33.230°N	103.069°W
Start 200.00 hold at 4444.17 MD									
4,500.00	0.00	0.00	4,383.82	-235.81	854.15	813,567.47	927,861.54	33.230°N	103.069°W
4,600.00	0.00	0.00	4,483.82	-235.81	854.15	813,567.47	927,861.54	33.230°N	103.069°W

Planning Report - Geographic

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,644.17	0.00	0.00	4,527.99	-235.81	854.15	813,567.47	927,861.54	33.230°N	103.069°W
Start Build 8.00 at 4644.17 MD									
4,700.00	4.47	179.37	4,583.76	-237.99	854.17	813,565.29	927,861.56	33.230°N	103.069°W
4,800.00	12.47	179.37	4,682.59	-252.70	854.33	813,550.58	927,861.72	33.230°N	103.069°W
4,900.00	20.47	179.37	4,778.41	-281.02	854.64	813,522.26	927,862.03	33.230°N	103.069°W
5,000.00	28.47	179.37	4,869.36	-322.40	855.10	813,480.88	927,862.49	33.230°N	103.069°W
5,100.00	36.47	179.37	4,953.66	-376.03	855.69	813,427.25	927,863.08	33.230°N	103.069°W
5,200.00	44.47	179.37	5,029.68	-440.87	856.40	813,362.41	927,863.79	33.229°N	103.069°W
5,300.00	52.47	179.37	5,095.93	-515.66	857.22	813,287.61	927,864.61	33.229°N	103.069°W
5,394.17	60.00	179.37	5,148.24	-593.89	858.08	813,209.39	927,865.47	33.229°N	103.069°W
Start 250.00 hold at 5394.17 MD									
5,400.00	60.00	179.37	5,151.15	-598.94	858.14	813,204.34	927,865.53	33.229°N	103.069°W
5,500.00	60.00	179.37	5,201.15	-685.53	859.09	813,117.75	927,866.48	33.229°N	103.069°W
5,600.00	60.00	179.37	5,251.15	-772.13	860.04	813,031.15	927,867.43	33.229°N	103.069°W
5,644.17	60.00	179.37	5,273.24	-810.38	860.46	812,992.90	927,867.85	33.228°N	103.069°W
Start DLS 10.00 TFO 0.01 at 5644.17 MD									
5,700.00	65.58	179.37	5,298.75	-860.01	861.01	812,943.27	927,868.40	33.228°N	103.069°W
5,800.00	75.58	179.37	5,331.95	-954.20	862.04	812,849.08	927,869.43	33.228°N	103.069°W
5,900.00	85.58	179.37	5,348.30	-1,052.72	863.12	812,750.56	927,870.51	33.228°N	103.069°W
5,944.17	90.00	179.37	5,350.00	-1,096.84	863.60	812,706.44	927,870.99	33.228°N	103.069°W
Start 7723.28 hold at 5944.17 MD									
6,000.00	90.00	179.37	5,350.00	-1,152.67	864.21	812,650.61	927,871.60	33.228°N	103.069°W
6,100.00	90.00	179.37	5,350.00	-1,252.66	865.30	812,550.62	927,872.69	33.227°N	103.069°W
6,200.00	90.00	179.37	5,350.00	-1,352.66	866.39	812,450.62	927,873.78	33.227°N	103.069°W
6,300.00	90.00	179.37	5,350.00	-1,452.65	867.49	812,350.63	927,874.88	33.227°N	103.069°W
6,400.00	90.00	179.37	5,350.00	-1,552.65	868.58	812,250.64	927,875.97	33.226°N	103.069°W
6,500.00	90.00	179.37	5,350.00	-1,652.64	869.67	812,150.64	927,877.06	33.226°N	103.069°W
6,600.00	90.00	179.37	5,350.00	-1,752.63	870.76	812,050.65	927,878.15	33.226°N	103.069°W
6,700.00	90.00	179.37	5,350.00	-1,852.63	871.85	811,950.65	927,879.24	33.226°N	103.069°W
6,800.00	90.00	179.37	5,350.00	-1,952.62	872.94	811,850.66	927,880.33	33.225°N	103.069°W
6,900.00	90.00	179.37	5,350.00	-2,052.62	874.04	811,750.67	927,881.43	33.225°N	103.069°W
7,000.00	90.00	179.37	5,350.00	-2,152.61	875.13	811,650.67	927,882.52	33.225°N	103.069°W
7,100.00	90.00	179.37	5,350.00	-2,252.60	876.22	811,550.68	927,883.61	33.224°N	103.069°W
7,200.00	90.00	179.37	5,350.00	-2,352.60	877.31	811,450.69	927,884.70	33.224°N	103.069°W
7,300.00	90.00	179.37	5,350.00	-2,452.59	878.40	811,350.69	927,885.79	33.224°N	103.069°W
7,400.00	90.00	179.37	5,350.00	-2,552.59	879.49	811,250.70	927,886.88	33.224°N	103.069°W
7,500.00	90.00	179.37	5,350.00	-2,652.58	880.59	811,150.70	927,887.97	33.223°N	103.069°W
7,600.00	90.00	179.37	5,350.00	-2,752.57	881.68	811,050.71	927,889.07	33.223°N	103.069°W
7,700.00	90.00	179.37	5,350.00	-2,852.57	882.77	810,950.72	927,890.16	33.223°N	103.069°W
7,800.00	90.00	179.37	5,350.00	-2,952.56	883.86	810,850.72	927,891.25	33.223°N	103.069°W
7,900.00	90.00	179.37	5,350.00	-3,052.56	884.95	810,750.73	927,892.34	33.222°N	103.069°W
8,000.00	90.00	179.37	5,350.00	-3,152.55	886.04	810,650.73	927,893.43	33.222°N	103.069°W
8,100.00	90.00	179.37	5,350.00	-3,252.54	887.14	810,550.74	927,894.52	33.222°N	103.069°W
8,200.00	90.00	179.37	5,350.00	-3,352.54	888.23	810,450.75	927,895.62	33.221°N	103.069°W
8,300.00	90.00	179.37	5,350.00	-3,452.53	889.32	810,350.75	927,896.71	33.221°N	103.069°W
8,400.00	90.00	179.37	5,350.00	-3,552.53	890.41	810,250.76	927,897.80	33.221°N	103.069°W
8,500.00	90.00	179.37	5,350.00	-3,652.52	891.50	810,150.77	927,898.89	33.221°N	103.069°W
8,600.00	90.00	179.37	5,350.00	-3,752.51	892.59	810,050.77	927,899.98	33.220°N	103.069°W
8,700.00	90.00	179.37	5,350.00	-3,852.51	893.69	809,950.78	927,901.07	33.220°N	103.069°W
8,800.00	90.00	179.37	5,350.00	-3,952.50	894.78	809,850.78	927,902.17	33.220°N	103.069°W
8,900.00	90.00	179.37	5,350.00	-4,052.50	895.87	809,750.79	927,903.26	33.220°N	103.069°W
9,000.00	90.00	179.37	5,350.00	-4,152.49	896.96	809,650.80	927,904.35	33.219°N	103.069°W
9,100.00	90.00	179.37	5,350.00	-4,252.48	898.05	809,550.80	927,905.44	33.219°N	103.069°W
9,200.00	90.00	179.37	5,350.00	-4,352.48	899.14	809,450.81	927,906.53	33.219°N	103.069°W

Planning Report - Geographic

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,300.00	90.00	179.37	5,350.00	-4,452.47	900.24	809,350.81	927,907.62	33.218°N	103.069°W
9,400.00	90.00	179.37	5,350.00	-4,552.47	901.33	809,250.82	927,908.72	33.218°N	103.069°W
9,500.00	90.00	179.37	5,350.00	-4,652.46	902.42	809,150.83	927,909.81	33.218°N	103.069°W
9,600.00	90.00	179.37	5,350.00	-4,752.45	903.51	809,050.83	927,910.90	33.218°N	103.069°W
9,700.00	90.00	179.37	5,350.00	-4,852.45	904.60	808,950.84	927,911.99	33.217°N	103.069°W
9,800.00	90.00	179.37	5,350.00	-4,952.44	905.69	808,850.85	927,913.08	33.217°N	103.069°W
9,900.00	90.00	179.37	5,350.00	-5,052.44	906.79	808,750.85	927,914.17	33.217°N	103.069°W
10,000.00	90.00	179.37	5,350.00	-5,152.43	907.88	808,650.86	927,915.27	33.217°N	103.069°W
10,100.00	90.00	179.37	5,350.00	-5,252.43	908.97	808,550.86	927,916.36	33.216°N	103.069°W
10,200.00	90.00	179.37	5,350.00	-5,352.42	910.06	808,450.87	927,917.45	33.216°N	103.069°W
10,300.00	90.00	179.37	5,350.00	-5,452.41	911.15	808,350.88	927,918.54	33.216°N	103.069°W
10,400.00	90.00	179.37	5,350.00	-5,552.41	912.24	808,250.88	927,919.63	33.215°N	103.069°W
10,500.00	90.00	179.37	5,350.00	-5,652.40	913.33	808,150.89	927,920.72	33.215°N	103.069°W
10,600.00	90.00	179.37	5,350.00	-5,752.40	914.43	808,050.89	927,921.82	33.215°N	103.069°W
10,700.00	90.00	179.37	5,350.00	-5,852.39	915.52	807,950.90	927,922.91	33.215°N	103.069°W
10,800.00	90.00	179.37	5,350.00	-5,952.38	916.61	807,850.91	927,924.00	33.214°N	103.069°W
10,900.00	90.00	179.37	5,350.00	-6,052.38	917.70	807,750.91	927,925.09	33.214°N	103.069°W
11,000.00	90.00	179.37	5,350.00	-6,152.37	918.79	807,650.92	927,926.18	33.214°N	103.069°W
11,100.00	90.00	179.37	5,350.00	-6,252.37	919.88	807,550.93	927,927.27	33.213°N	103.069°W
11,200.00	90.00	179.37	5,350.00	-6,352.36	920.98	807,450.93	927,928.37	33.213°N	103.069°W
11,300.00	90.00	179.37	5,350.00	-6,452.35	922.07	807,350.94	927,929.46	33.213°N	103.069°W
11,400.00	90.00	179.37	5,350.00	-6,552.35	923.16	807,250.94	927,930.55	33.213°N	103.069°W
11,500.00	90.00	179.37	5,350.00	-6,652.34	924.25	807,150.95	927,931.64	33.212°N	103.069°W
11,600.00	90.00	179.37	5,350.00	-6,752.34	925.34	807,050.96	927,932.73	33.212°N	103.069°W
11,700.00	90.00	179.37	5,350.00	-6,852.33	926.43	806,950.96	927,933.82	33.212°N	103.069°W
11,800.00	90.00	179.37	5,350.00	-6,952.32	927.53	806,850.97	927,934.92	33.212°N	103.069°W
11,900.00	90.00	179.37	5,350.00	-7,052.32	928.62	806,750.97	927,936.01	33.211°N	103.069°W
12,000.00	90.00	179.37	5,350.00	-7,152.31	929.71	806,650.98	927,937.10	33.211°N	103.069°W
12,100.00	90.00	179.37	5,350.00	-7,252.31	930.80	806,550.99	927,938.19	33.211°N	103.069°W
12,200.00	90.00	179.37	5,350.00	-7,352.30	931.89	806,450.99	927,939.28	33.210°N	103.069°W
12,300.00	90.00	179.37	5,350.00	-7,452.29	932.98	806,351.00	927,940.37	33.210°N	103.069°W
12,400.00	90.00	179.37	5,350.00	-7,552.29	934.08	806,251.01	927,941.46	33.210°N	103.069°W
12,500.00	90.00	179.37	5,350.00	-7,652.28	935.17	806,151.01	927,942.56	33.210°N	103.069°W
12,600.00	90.00	179.37	5,350.00	-7,752.28	936.26	806,051.02	927,943.65	33.209°N	103.069°W
12,700.00	90.00	179.37	5,350.00	-7,852.27	937.35	805,951.02	927,944.74	33.209°N	103.069°W
12,800.00	90.00	179.37	5,350.00	-7,952.26	938.44	805,851.03	927,945.83	33.209°N	103.069°W
12,900.00	90.00	179.37	5,350.00	-8,052.26	939.53	805,751.04	927,946.92	33.209°N	103.069°W
13,000.00	90.00	179.37	5,350.00	-8,152.25	940.63	805,651.04	927,948.01	33.208°N	103.069°W
13,100.00	90.00	179.37	5,350.00	-8,252.25	941.72	805,551.05	927,949.11	33.208°N	103.069°W
13,200.00	90.00	179.37	5,350.00	-8,352.24	942.81	805,451.05	927,950.20	33.208°N	103.069°W
13,300.00	90.00	179.37	5,350.00	-8,452.23	943.90	805,351.06	927,951.29	33.207°N	103.069°W
13,400.00	90.00	179.37	5,350.00	-8,552.23	944.99	805,251.07	927,952.38	33.207°N	103.069°W
13,500.00	90.00	179.37	5,350.00	-8,652.22	946.08	805,151.07	927,953.47	33.207°N	103.069°W
13,600.00	90.00	179.37	5,350.00	-8,752.22	947.18	805,051.08	927,954.56	33.207°N	103.069°W
13,667.46	90.00	179.37	5,350.00	-8,819.67	947.91	804,983.63	927,955.30	33.206°N	103.069°W
TD at 13667.46 MD									

Planning Report - Geographic

Database:	edmdb	**Local Co-ordinate Reference:**	Well Vince Fed 4H
Company:	Steward Energy II, LLC	**TVD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Project:	Lea County, NM (NAD 83) NM East Zone	**MD Reference:**	GL 3793' + RKB 19 @ 3812.00ft
Site:	Vince Fed Site	**North Reference:**	Grid
Well:	Vince Fed 4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL Vince Fed 4H - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	813,803.28	927,007.39	33.231°N	103.072°W
KOP Vince Fed 4H - plan hits target center - Point	0.00	0.00	4,527.99	-235.81	854.15	813,567.47	927,861.54	33.230°N	103.069°W
LTP/PBHL Vince Fed 4H - plan hits target center - Point	0.00	0.00	5,350.00	-8,819.67	947.91	804,983.63	927,955.30	33.206°N	103.069°W
PI Vince Fed 4H - plan misses target center by 6.98ft at 11136.96ft MD (5350.00 TVD, -6289.32 N, 920.29 E) - Point	0.00	0.01	5,350.00	-6,289.24	927.27	807,514.05	927,934.66	33.213°N	103.069°W
FTP Vince Fed 4H - plan misses target center by 0.05ft at 5944.17ft MD (5350.00 TVD, -1096.84 N, 863.60 E) - Point	0.00	0.00	5,350.00	-1,096.84	863.55	812,706.44	927,870.94	33.228°N	103.069°W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 1.50 at 300 MD
1,440.52	1,423.65	-44.98	162.92	Start 1863.13 hold at 1440.52 MD
3,303.65	3,204.34	-190.83	691.23	Start Drop -1.50 at 3303.65 MD
4,444.17	4,327.99	-235.81	854.15	Start 200.00 hold at 4444.17 MD
4,644.17	4,527.99	-235.81	854.15	Start Build 8.00 at 4644.17 MD
5,394.17	5,148.24	-593.89	858.08	Start 250.00 hold at 5394.17 MD
5,644.17	5,273.24	-810.38	860.46	Start DLS 10.00 TFO 0.01 at 5644.17 MD
5,944.17	5,350.00	-1,096.84	863.60	Start 7723.28 hold at 5944.17 MD
13,667.46	5,350.00	-8,819.67	947.91	TD at 13667.46 MD

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

Elevation above Sea Level: 3793'

DRILLING PROGRAM

1. Estimated Tops

Formation Name	TVD	MD	Litholooies	Mineral Resources
-	0	0	OTHER : un con sol idated	NONE
RUSTLER	2223	2295	AN H YDRITE	NONE
SALADO	2325	2386	ANHYDRITE, LIMESTONE, SANDSTONE, SILTSTONE	NONE
CASTILE	2895	2975	AN H Y D R ITE	NONE
TANSILL	2981	3078	DO LOMITE, SANDSTONE	NATURAL GAS, OIL
YATES	3079	3164	DOLOMITE, SANDSTONE, SHALE	NATURAL GAS, OIL
SEVEN RIVERS	3319	3422	D OLOMITE, GYPSUM, SANDSTONE, SHALE	NATURAL GAS, OIL
QUEEN	3866	3987	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL
GRAYBURG	4235	4352	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL
SAN ANDRES	4495	4616	ANHYDRITE, DOLOMITE, SHALE	NATURAL GAS, OIL

2. Notable Zones

San Andres is target formation

3. Pressure Control

Pressure Control Equipment (See Schematics):
A 3000# BOP stack will be used consisting of a 3000# hydraulically operated annular preventer, 3000# double hydraulic rams with the blind rams on bottom, a 3000# mud cross with 1 3000# manually operated 4 1/16 valve, 1 3000psi manually operated 2 1/16 valve and 1 3000 psi check valve. A 1000# rotating head will also be installed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

BOP Test procedure will be as follows:
After nipple up, we will test the rig pump to 1500 psi for 30 minutes on all components, including floor valves and choke manifold; furthermore, we will function test on all bit trips; weekly BOP drills will be preformed by each crew. These drills will be noted on the daily tour sheets and by electronic means as well.

Variance Requests: none

4. Casing & Cement

All Casing will be new.

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

	Vince Federal 4H														
	Hole Size	Condition	API Standard?	Tapered String?	Top MD	Bottom MD	Top TVD	Bottom TVD	Casing Size	Casing Weight (lb/ft)	Casing Grade	Joint Type	SF Tension	SF Collapse	SF Burst
Surface	12 1/4	New	Y	N	0	2305	0	2250	9 5/8	36	J-55	LTC	7.70	1.88	3.50
Production	8 3/4	New	Y	Y	0	5644	0	5273	7	32	L-80	BTC	2.32	3.14	3.09
Production	8 3/4	New	Y	Y	5644	13667	5273	5350	5 1/2	20	L-80	BTC	3.13	3.17	3.23

Vince Federal 4H								
Surface	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend	Additives	Top of Cement	% Excess
Lead	468	2.29	12.4	1071	15:85 Poz/Class C	5% Salt BWOW + 8% Bentonite + 0.3% CEA-2 + 0.25 lb/sk Celloflake	0	120
Tail	350	1.34	14.8	470	Class C	1% Cacl2 + 0.25 lb/sk Celloflake	1555	100
Production	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend	Additives	Top of Cement	% Excess
Lead	617	2.69	11.5	1659	50/50 Poz/Class C	5% Salt BWOW + 10% Bentonite + 1% CEA-2 + 0.3% CFL-5 + 0.3% CFL-1 + 0.1% CR-2	0	150
Tail	2420	1.27	14.2	3073	50/50 Poz/Class H	3% Salt BWOW + 2% Bentonite + 0.1% CAS-2 + 0.5% CFL-1 + 0.2% CFR-1 + 0.2% CR-2	4500	55

5. Mud Program

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	2305	FW Spud Mud	8.4-8.9	28-32	NC
Produciton	2305	13667	Brine Water	10-10.2	28-34	NC

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.
- GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD.
- No DSTs or cores are planned at this time.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈2,550 psi. Expected bottom hole temperature is ≈120˚ F.

Steward Energy II does not anticipate that there will be enough H2S from the surface to the San Andres formation to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Steward Energy II has an H2S safety package on all wells and an "Emergency Response Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

Vince Fed 4H
Drilling Operations Plan
SHL 1001’ FSL & 1268’ FWL, Sec. 35
BHL 2535’ FNL & 2114’ FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 12 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

Elevation above Sea Level: 3793'

DRILLING PROGRAM

1. Estimated Tops

Formation Name	TVD	MD	Litholooies	Mineral Resources
-	0	0	OTHER : un con sol idated	NONE
RUSTLER	2223	2295	AN H YDRITE	NONE
SALADO	2325	2386	ANHYDRITE, LIMESTONE, SANDSTONE, SILTSTONE	NONE
CASTILE	2895	2975	AN H Y D R ITE	NONE
TANSILL	2981	3078	DO LOMITE, SANDSTONE	NATURAL GAS, OIL
YATES	3079	3164	DOLOMITE, SANDSTONE, SHALE	NATURAL GAS, OIL
SEVEN RIVERS	3319	3422	D OLOMITE, GYPSUM, SANDSTONE, SHALE	NATURAL GAS, OIL
QUEEN	3866	3987	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL
GRAYBURG	4235	4352	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL
SAN ANDRES	4495	4616	ANHYDRITE, DOLOMITE, SHALE	NATURAL GAS, OIL

2. Notable Zones

San Andres is target formation

3. Pressure Control

Pressure Control Equipment (See Schematics):
A 3000# BOP stack will be used consisting of a 3000# hydraulically operated annular preventer, 3000# double hydraulic rams with the blind rams on bottom, a 3000# mud cross with 1 3000# manually operated 4 1/16 valve, 1 3000psi manually operated 2 1/16 valve and 1 3000 psi check valve. A 1000# rotating head will also be installed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

BOP Test procedure will be as follows:
After nipple up, we will test the rig pump to 1500 psi for 30 minutes on all components, including floor valves and choke manifold; furthermore, we will function test on all bit trips; weekly BOP drills will be preformed by each crew. These drills will be noted on the daily tour sheets and by electronic means as well.

Variance Requests: none

4. Casing & Cement

All Casing will be new.

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

	Vince Federal 4H														
	Hole Size	Condition	API Standard?	Tapered String?	Top MD	Bottom MD	Top TVD	Bottom TVD	Casing Size	Casing Weight (lb/ft)	Casing Grade	Joint Type	SF Tension	SF Collapse	SF Burst
Surface	12 1/4	New	Y	N	0	2305	0	2250	9 5/8	36	J-55	LTC	7.70	1.88	3.50
Production	8 3/4	New	Y	Y	0	5644	0	5273	7	32	L-80	BTC	2.32	3.14	3.09
Production	8 3/4	New	Y	Y	5644	13667	5273	5350	5 1/2	20	L-80	BTC	3.13	3.17	3.23

Vince Federal 4H								
Surface	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend	Additives	Top of Cement	% Excess
Lead	468	2.29	12.4	1071	15:85 Poz/Class C	5% Salt BWOW + 8% Bentonite + 0.3% CEA-2 + 0.25 lb/sk Celloflake	0	120
Tail	350	1.34	14.8	470	Class C	1% Cacl2 + 0.25 lb/sk Celloflake	1555	100
Production	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend	Additives	Top of Cement	% Excess
Lead	617	2.69	11.5	1659	50/50 Poz/Class C	5% Salt BWOW + 10% Bentonite + 1% CEA-2 + 0.3% CFL-5 + 0.3% CFL-1 + 0.1% CR-2	0	150
Tail	2420	1.27	14.2	3073	50/50 Poz/Class H	3% Salt BWOW + 2% Bentonite + 0.1% CAS-2 + 0.5% CFL-1 + 0.2% CFR-1 + 0.2% CR-2	4500	55

5. Mud Program

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	2305	FW Spud Mud	8.4-8.9	28-32	NC
Produciton	2305	13667	Brine Water	10-10.2	28-34	NC

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.
- GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD.
- No DSTs or cores are planned at this time.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈2,550 psi. Expected bottom hole temperature is ≈120˚ F.

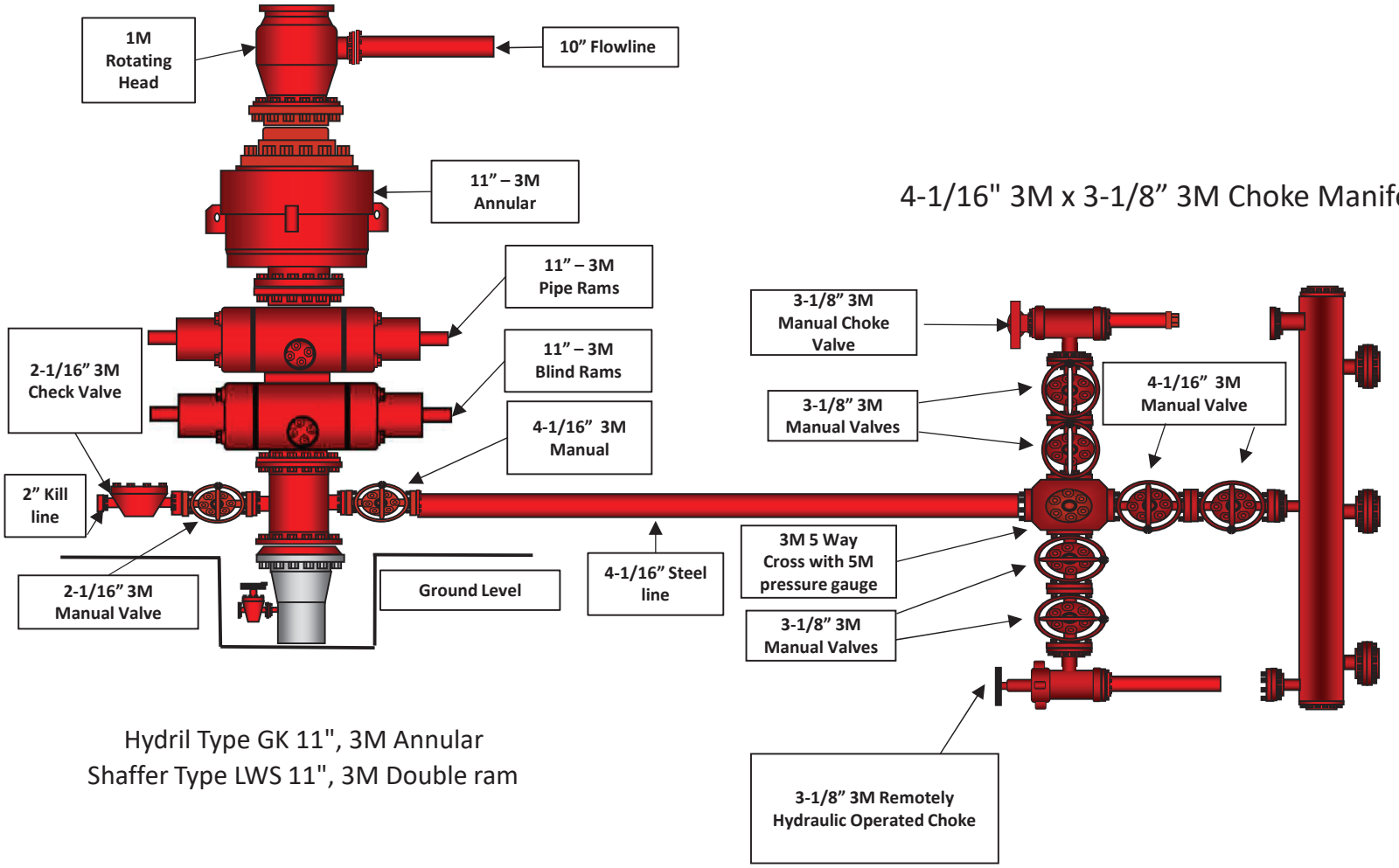
Steward Energy II does not anticipate that there will be enough H2S from the surface to the San Andres formation to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Steward Energy II has an H2S safety package on all wells and an "Emergency Response Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

Vince Fed 4H
Drilling Operations Plan
SHL 1001' FSL & 1268' FWL, Sec. 35
BHL 2535' FNL & 2114' FWL, Sec. 11
T. 12S., R. 38E & T. 13S., R. 38E Lea County, NM

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 12 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

BOP and Choke Manifold Diagrams



4-1/16" 3M x 3-1/8” 3M Choke Manifold

Hydril Type GK 11", 3M Annular
Shaffer Type LWS 11", 3M Double ram

BOP Equipment and Testing Procedure

Blowout Prevention Equipment will consist of:

- 1M Rotating Head
- 3M Hydraulically Operated Annular Preventer
- 3M Double Hydraulically Operated Rams with the Blind rams on bottom
- 3M Mud Cross with 1 – 3M Manually Operated 4-1/6” Valve, 1- 3M Manually Operated 2-1/16” Valve 1- 3M 2-1/16” Check Valve

Testing Procedure:

- After nipple up, we will test with rig pump to 1500 psi for 30 minutes on all components, including floor valves and choke manifold;
- Furthermore, we will function test on all bit trips;
- Weekly BOP drills will be preformed by each crew. These drills will be noted on the daily tour sheets and by electronic means as well.

Casing Design Assumptions

Surface Casing

- Will consist of 9 5/8", 36#/ft, J55, LTC set at +/- 2,400'
- Cement will consist of 12.8 ppg of 35/65 Poz/Class C lead and 14.8 ppg Class C tail with designed excess to circulate cement to surface
- Collapse, burst and tensile are designed with a worst-case scenario, i.e. where applicable full evacuation, greater of mud weight or pore pressure, no cement backing and not utilizing buoyancy

Collapse

- Design for running with a collapse force greater than the calculated collapse of the casing plus a 1.125 safety factor utilizing the force of 9.2 ppg mud weight on the outside and assuming full evacuation
- Effects of axial load considered in design
- Design for cementing with a collapse force greater than the calculated collapse of the casing plus a 1.125 safety factor utilizing the force of planned cement slurries on the outside of the casing and 9.2 ppg mud weight inside of the casing

Burst

- Design for a burst force greater the calculated burst of the casing plus a 1.25 safety factor assuming full evacuation on the inside of the casing and with no mud on outside of the casing but facing the full pore pressure equivalent to 9.2 ppg
- Internally pressure test the casing to allow for a force greater than the external force of the 9.2 ppg mud weight in which the casing will be run

Tensile

- Design for a tensile force greater than the calculated joint strength of the casing joint plus a 1.8 safety factor with no buoyancy calculated
- Design for a tensile force greater than the calculated body strength of the casing plus a 1.8 safety factor with no buoyancy calculated
- Design for a tensile force greater than the calculated joint strength of the casing joint and body strength of the casing joint plus 100,000 lbs overpull as well as a 1.8 safety factor with no buoyancy calculated

Production Casing

- Will be a tapered string consisting of 5 ½", 20#/ft, L80, BTC set at TD to a depth at the base of the 60 degree tangent section with a 5 ½", L80, BTC x 7", L80, BTC crossover to 7", 29#/ft, L80, BTC to surface
  Cement will consist of 11.5 ppg of 50/50 Poz/Class C lead and 14.5 ppg 50/50 Poz/Class H tail with designed excess to circulate cement to surface
- Collapse, burst and tensile are designed with a worst-case scenario, i.e. where applicable full evacuation, greater of mud weight or pore pressure and assuming no buoyancy

Collapse

- Design for running with a collapse force greater than the calculated collapse of the casing plus a 1.125 safety factor utilizing the force of 10.0 ppg mud weight on the outside and assuming full evacuation
- Effects of axial load considered in design
- Design for cementing with a collapse force greater than the calculated collapse of the casing plus a 1.125 safety factor utilizing the force of planned cement slurries on the outside of the casing and 10.0 ppg mud weight inside of the casing

Burst

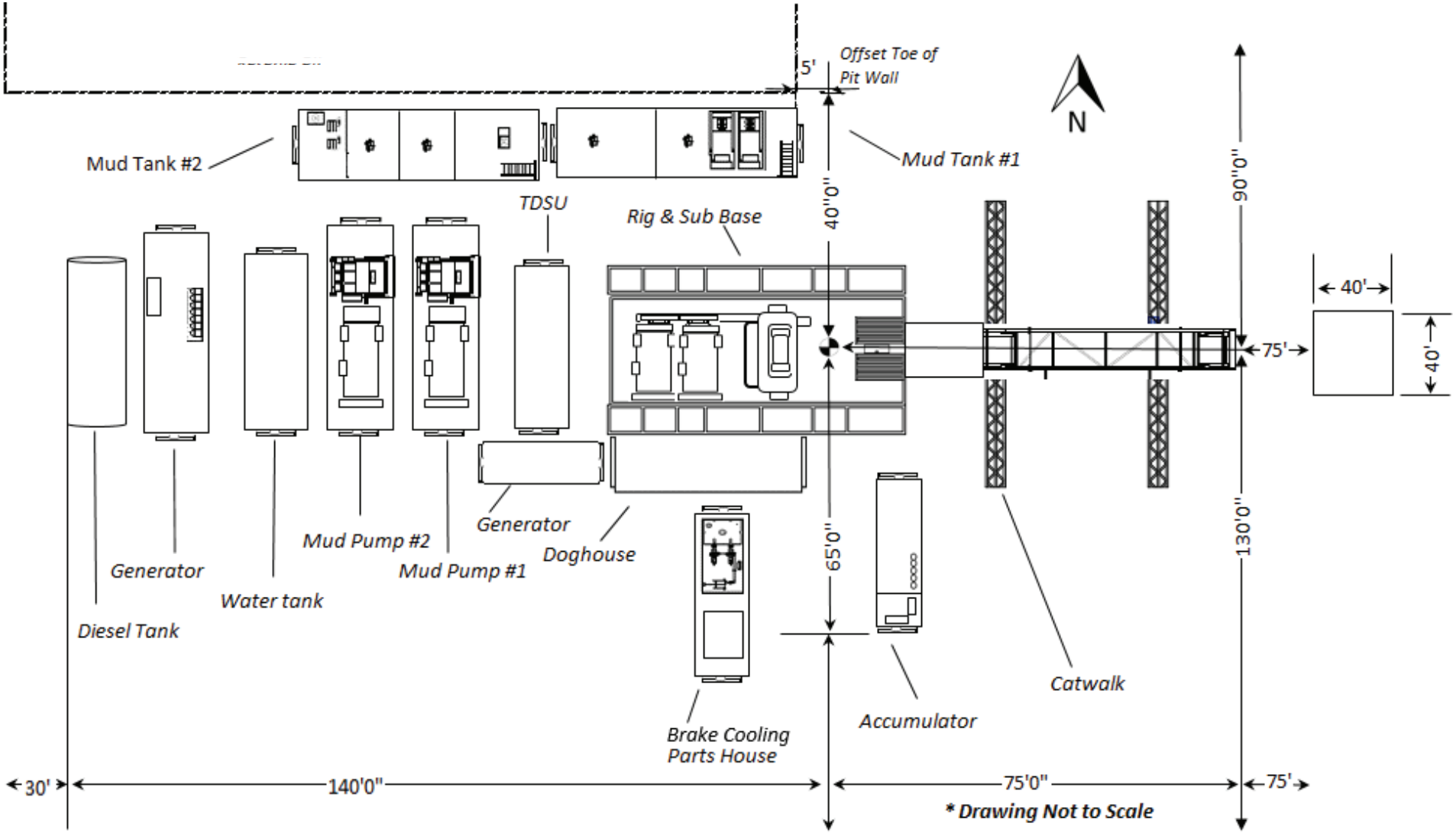
- Design for a burst force equal to the maximum frac pressure of 0.8696 times the calculated burst rating assuming no cement on the outside of the casing.
- This design will calculate to be far greater than the calculated burst of the casing plus a 1.25 safety factor assuming full evacuation on the inside of the casing and with no mud on outside of the casing but facing the full pore pressure equivalent to 10.0 ppg
- Internally pressure test the casing to allow for a force greater than the external force of the 10.0 ppg mud weight in which the casing will be run

Tensile

- Design for a tensile force greater than the calculated joint strength of the casing joint plus a 1.8 safety factor with no buoyancy calculated
- Design for a tensile force greater than the calculated body strength of the casing plus a 1.8 safety factor with no buoyancy calculated
- Design for a tensile force greater than the calculated joint strength of the casing joint and body strength of the casing joint plus 100,000 lbs overpull as well as a 1.8 safety factor with no buoyancy calculated

NORTON ENERGY DRILLING

Norton Energy Drilling Rig #8



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811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 289607

CONDITIONS

Operator: STEWARD ENERGY II, LLC 2600 Dallas Parkway Frisco, TX 75034	OGRID: 371682
	Action Number: 289607
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/7/2023
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	12/7/2023
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	12/7/2023
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	12/7/2023
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing	12/7/2023