HOBBS OCD

| SF | EP 1 9 2012 | | | | |
|--|--|--|--------------------------------|---|--|
| Form 3160-3 (April 2004) | OCD Hobbs | | OMB No | APPROVED 1004-0137 Jarch 31, 2007 | |
| UNITED STATES DEPARTMENT OF THE I | 5. Lease Serial No. NMNM-18302 | | | | |
| BUREAU OF LAND MANA | | | 6. If Indian, Allotee | or Tribe Name | |
| APPLICATION FOR PERMIT TO D | DRILL OR REENTER | | N/A | | |
| la. Type of work: DRILL REENTE | R | | 7. If Unit or CA Agre | ement, Name and No. | |
| lb. Type of Well: Oil Well Gas Well Other | ✓ Single Zone Multip | ole Zone | 8. Lease Name and Scarecrow 34 | 77/2 / 4/ | |
| 2. Name of Operator NADEL AND GUSSMAN PERMIAN, I | .L.C. <15561 | 57 | 9. API Well No. | 5-40908 | |
| 3a. Address 601 N. MARIENFELD, SUITE 508 MIDLAND, TEXAS 79701 | Bb. Phone No. (include area code) 432-682-4429 | | 10. Field and Pool, or I | Exploratory | |
| 4. Location of Well (Report location clearly and in accordance with any | State requirements.*) | | 11. Sec., T. R. M. or B | lk.and Survey or Area | |
| At surface 760' FNL, 430' FWL - UL D At proposed prod. zone @ BHL 660' FNL, 330' FEL - UL A | | | SECTION 34, | T-18-S, R-32-E | |
| 14. Distance in miles and direction from nearest town or post office* 8 MILES SOUTH OF MALJAMAR NEW MEXICO | | | 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) | 16. No. of acres in lease | 17. Spacing Unit dedicated to this well 160 | | | |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Lion Fold Com #IH | 19. Proposed Depth Pilot hole = 9800 TVD 9500 113,780 mC | NM# | BIA Bond No. on file 2812 | | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3709 | 22 Approximate date work will sta 08/15/2012 | rt* | 23. Estimated duration 45 DAYS | n | |
| | 24. Attachments | | | | |
| The following, completed in accordance with the requirements of Onshore | Oil and Gas Order No.1, shall be a | ttached to the | is form: | | |
| Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO shall be filed with the appropriate Forest Service Office). | Item 20 above). ands, the 5. Operator certific | cation specific info | • | existing bond on file (see | |
| 25. Signature | Name (Printed/Typed) JASON GOSS | | | Date 05/25/2012 | |
| Title DRILLING ENGINEER | • | | | | |
| Approved by (Signature) /s/ Don Peterson | Name (Printed/Typed) /s | J Don F | Peterson | Date SEP 1 7 2012 | |
| Title 64 FIELD MANAGER | Office | LSBADF | IELD OFFICE | ··· | |
| Application approval does not warrant or certify that the applicant holds conduct operations thereon. Conditions of approval, if any, are attached. | legal or equitable title to those righ | | - | ntitle the applicant to TWO YEARS | |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri States any false, fictitious or fraudulent statements or representations as to | me for any person knowingly and vo | willfully to m | ake to any department of | or agency of the United | |

*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Nadel and Gussman Permian, L.L.C. 601 N. Marienfeld, Suite 508 Midland, Texas 79701

May 25, 2012

UNITED STATES DEPARTMENT OF INTERIOR

Bureau of Land Management Carlsbad Field Office 620 E. Greene Street Carlsbad, NM 88220

RE: STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease Name: Scarecrow 34 Federal #1H

Lease Number: Federal Lease NM NM-18302; NM-0556094

Legal Description of Land: S34, T-18-S R-32-E,

Lease Covers: NM-18302 covers 400 acres in section 34, T-19-S, R-32-E, Lea County, NM

Formations: Bone Springs

Bond Coverage: Blanket Statewide

BLM Bond File Number: NM2812

Land ownership: Federal

Drilling Engineer

SCARECROW 34 FED COM #1H SHL 760' FNL & 430' FWL, UL D BHL 660' FNL & 330' FEL, UL A SECTION 34, T-18-S, R-32-E LEA COUNTY, NEW MEXICO

APPLICATION FOR PERMIT TO DRILL BUREAU OF LAND MANAGEMENT APRIL 23, 2012

NADEL & GUSSMAN PERMIAN, LLC

601 MARIENFELD SUITE 508 MIDLAND, TEXAS 79701 432-682-4429 (OFFICE) 432-682-4325 (FAX)

DRILLING AND OPERATIONS PLAN NADEL AND GUSSMAN PERMIAN, L.L.C. SCARECROW 34 FEDERAL #1H

Surface: 760' FNL & 430' FWL, UL D BHL: 660' FNL & 330' FEL, UL A Sec 34, T-18-S, R-32-E Lea County, New Mexico.

1. Geological Surface Formation: Qal/Vegitated Dunes at surface. Drill with rotary tools.

2. Tops of Important Geological Markers: TVD

| Rustler | 1180' |
|-----------------------------------|-------|
| Salado-Top Salt | 1400' |
| BX (base salt) | 2605' |
| Yates | 2810' |
| Seven Rivers | 3290' |
| Queen | 3933' |
| Grayburg | 4550' |
| Delaware | 5150' |
| Bone Springs Ls | 7090' |
| 1st Bone Springs Sand | 8410' |
| 2 nd Bone Springs Sand | 8890' |
| Bone Springs (Target) | 9500' |
| TD Vertical Pilot Hole | 9800' |

3. Estimated Depth of Anticipated Water, Oil or Gas:

| Chinle Fm., Santa Rosa | 0-800' | Fresh Water |
|------------------------|--------------|-------------|
| Queen | 3850' | Oil |
| Grayburg | 4550' | Oil |
| Delaware | 5100' | Oil |
| Bone Springs | 8400'-9,500' | Oil |

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water will be protected by setting 13 3/8" casing at 1200° and circulating cement back to surface, all other intervals will be isolated by the 9 5/8 intermediate and 7" production casing.

4. Proposed Casing Program

| HOLE SIZE | CASING SIZE | WT./GRADE | THREAD/COLLAR | SETTING DEPTH (MD) | TOP CEMENT |
|-----------|---------------|---------------|----------------|--------------------|------------|
| Conductor | 20" | 94# H-40 | 8rd STC | 120' | Surface |
| 17.5" | 13 3/8" (new) | 54.5# J-55 | 8rd STC | 1,200 1245 | Surface |
| 12.25" | 9 5/8" (new) | 40# J-55 | 8rd LTC | 3,300' | Surface |
| 8.75" | 7" (new) | 26# P-110HC | 8rd BTC | 9,700' | 2,800' |
| 6.125" | 4 1/2" (new) | 13.5# P-110HC | 8rd BTC & LTC* | 9,500'-13,779' | N/A** |

^{* 4.5&}quot; casing: 450ft BTC 8rd in curve (9,500' – 9,950) and LTC 8rd in Lateral 9,950'- 13,779ft.

MINIMUM SAFETY FACTORS:

BURST 1.125

COLLAPSE 1.125

TENSION 1.8

ALL CASING WILL BE NEW API APPROVED

See

<u>Pilot hole plug back procedure</u>: Vertical hole has been drilled to a TD of 9,800ft. Well will be logged with Halliburton Triple Combo (GR, CNL, Resistivity, Caliper) and Horizontal target will be revised. Spot 200ft plug on bottom 100 sacks Class H cement. WOC 12 hours or until 500 psi compressive strength and tag plug to verify depth. Pull up hole to KOP and spot 225 sacks Class H plug 100ft above and 200ft below KOP at 8,927'. Kick off and continue with directional plan.

CEMENT PROGRAM-ALL CEMENT BLENDS WILL BE TESTED TO BLM MINIMUM REQUIREMENTS.

| A. | 13 3/8" | SURFACE | CEMENT TO SURFACE 100% EXCESS OVER CALCULATED |
|----|---------|--------------|--|
| | | | LEAD 800 SACKS CLASS "C" +4% BENTONITE +2% CACL +.25# CELLO-FLAKE+.25% DEFOAMER, 13.5 PPG, 1.75 YIELD |
| | | | TAIL: 200 SACKS CLASS "C"+2%CACL+.25# CELLO-FLAKE+.25% DEFOAMER, 14.8 PPG, 1.35 YIELD |
| B. | 9 5/8" | INTERMEDIATE | CEMENT TO SURFACE 50% EXCESS OVER CALCULATED |
| | | | LEAD 700 SACKS CLASS "C" 35/65 +6% BENTONITE+5% SALT+.25% DEFOAMER 12.8 PPG, 1.9 YIELD |
| | | <u> </u> | TAIL 200 SACKS CLASS "C" + .25% DEFOAMER, 14.8 PPG, 1.33 YIELD |
| C. | 7" | PRODUCTION | CEMENT TO 2,800' (WILL RUN FLUID CALIPER) 25% EXCESS OVER FLUID CALIPER, OR 50% OVER CALCULATED. |
| | | \ \ | LEAD 750 SACKS CLASS C 50/50 +10% BENTONITE +.15% C-20 RETARDER +3# STAR SEAL +.3% C-12 FLUID LOSS+3% SALT+.25% DEFOAMER, 11.8 PPG, 2.37 YIELD |

^{**} Packer Plus completion 20 stages. No cement, packers and frac port open hole completion with liner hanger.

TAIL 250 SACKS CLASS "H" STAR BOND+.5% FL-10+.2%C-20, +3# GILSONITE+.25% DEFOAMER+3% SALT 13.2 PPG, 1.6 YIELD

PILOT HOLE CEMENT:

D. BOTTOM HOLE PLUG:

100 SACKS CLASS H, 16.9 PPG, 1.0 YIELD, 50% EXCESS,

E. KICK OFF PLUG

225 SACKS CLASS H, 16.9 PPG, 1.0 YIELD. 100% EXCESS

SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT: (EXHIBIT #5)

A 2000# WP Annular will be installed after running the 13-3/8" casing. A 3,000# WP Double Ram BOP and 3,000 annular will be installed after running the 9-5/8" and 7" casing. Pressure test will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a 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 when the Kelly is not in use. 7" and 9-5/8" BOP will be tested to 3000# and the annular to 1500# with a third party testing company before drilling below each shoe. If operations last more than 30 days from 1st test, will test again as per BLM Onshore Oil and Gas order #2.

MUD PROGRAM:

1245

Spud and drill 17 ½" surface hole with **fresh water (8.4 to 8.7 ppg)** to a depth of approx 1,200°. Control lost circulation with paper and LCM pills. Viscosity 28-55, no fluid loss control. Fresh water gel sweeps.

Drill 12 1/4" hole from 1,200' to 3,300' with **Brine (9.5 to 10.0 ppg)**. Control lost circulation with paper and LCM pills. Viscosity 28-30, no fluid loss control. Salt water gel sweeps.

Drill 8 ¾" production hole from 3,300' to 9,800' (9,800 TD of Pilot hole) with fresh water (8.4 to 8.7 ppg) or cut brine (8.4 to 9.0 ppg). Control lost circulation with paper and LCM pills. From 6300' to TD (8.4 to 8.9 ppg), control filtrate with starch and water loss additives. Clean hole with pre-hydrated freshwater bentonite sweeps as necessary. System properties: viscosity 32-24, fluid loss <20 ml/30min.

Drill 6 1/8" horizontal production hole from 9,800'-13,708' with **fresh water (8.4-8.7 ppg)**, control filtrate and increase viscosity with Xanthan gum and Poly Anionic Cellulose. Clean hole with high viscosity sweeps and lubricants as necessary. System Properties viscosity 32-34, fluid loss <20 ml/30min.

All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

Auxiliary Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times
- C. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 4 ½" liner is run and set and rigging down operations have begun.

TESTING, LOGGING & CORING PROGRAM:

Testing: No DST's will be conducted.

^{*} ADDITIVES ON BOTH PLUGS AS RECOMMENDED BY CEMENT COMPANY

- b. Open hole logs and Coring are planned for TD of vertical hole.
 - 1. Dual lateral log and gamma ray, compensated neutron, caliper log.



- c. Mud logging will take place from 3,300ft to TD 10ft samples
- d. Gyro survey will be run at KOP of 8929'
- e. MWD (directional) and LWD (gamma) surveys will be taken from KOP (8929') to TD

POTENTIAL HAZARDS:

No significant hazards are expected, no abnormal pressures or temperatures are expected, **Expected pressure gradient will be that of .433 psi/ft (8.33 PPG FW) or less**. Lost circulation may occur, no H_2S is expected, but the operator will utilize a 3^{rd} party H_2S monitoring package from 1,200' to TD. If H_2S is encountered the operator will comply with the provisions of onshore oil and gas order no 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

ANTICIPATED STARTING DATE & DURATION:

Nadel & Gussman Permian, LLC anticipates drilling operations to begin around August 15, 2012 and completed in approximately 45 days. An additional 15 days will be needed for completion activities. Road and location construction will begin after the BLM has approved the APD.

| Jason Goss, Drilling Engineer | Date |
|-------------------------------|------|
| Nadel & Gussman Permian, LLC | |

Nadel & Gussman Permian, LLC

Eddy County, NM (NAD-83) Sec 34, T18S, 32E Scarecrow 34 Fed #1H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

27 April, 2012



Well Planning Report



EDM 5000.1 Single User Db Company: Nadel & Gussman Permian, LLC Eddy County, NM (NAD-83) Project: Site:

Sec 34, T18S, 32E

Well: Scarecrow 34 Fed Wellbore: Wellbore #1 Design: Design #1

Local Co-ordinate Reference

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Scarecrow 34 Fed

WELL @ 3709.0usft (Original Well Elev) WELL @ 3709.0usft (Original Well Elev)

Grid

Minimum Curvature

Eddy County, NM (NAD-83) Project 🔗

Map System: Geo Datum: Map Zone:

US State Plane 1983

North American Datum 1983 New Mexico Eastern Zone

System Datum:

Mean Sea Level

Site Sec 34, T18S, 32E

Site Position:

From:

Мар

Northing: Easting:

#1H

622,189.42 usft 717,272.08 usft

Latitude: Longitude:

32° 42' 32.888 N 103° 45' 40.818 W

Position Uncertainty:

0.0 usft

Slot Radius:

13-3/16 "

Grid Convergence:

0.31

Scarecrow 34 Fed Com #1H

622,189.42 usft

Latitude:

32° 42' 32.888 N

Well

Well Position

Wellbore

+N/-S +E/-W

Wellbore #1

0.0 usft 0.0 usft Northing: Easting:

4/27/2012

717,272.08 usft

Longitude: **Ground Level:** 103° 45' 40.818 W 3,709.0 usft

Position Uncertainty

Wellhead Elevation: 0.0 usft

Magnetics Model Name

Sample Date **IGRF2010**

Declination (°)。

Dip Angle

Field Strength

Design.

Audit Notes:

Version:

Phase:

PLAN

Tie On Depth:

0.0

Depth From (TVD) (usft) 0.0

(usft) 0.0

+E/-W (usft) 0.0

Direction (°); 88.23

| Plan Sections | aya Mahaman | | THE PARTY OF THE P | | SECTION AND SECTION ASSESSMENT | | e assert the | | | |
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| 13,779.7 | 90.00 | 88.23 | 9,500.0 | 139.4 | 4,523.5 | 0.00 | 0.00 | 0.00 | 0.00 PBHL | Scarecrow 34 |

DDC Well Planning Report



Database: Company: Project: Site: Well: Wellbore: EDM 5000.1 Single User Db Nadel & Gussman Permian, LLC Eddy County, NM (NAD-83)

Sec 34, T18S, 32E

Scarecrow 34 Fed

Wellbore #1 Design: Design #1

Local Co-ordinate Reference: TVD Reference

MD Reference North Reference:

Survey Calculation Method:

Well Scarecrow 34 Fed

WELL @ 3709.0usft (Original Well Elev) WELL @ 3709.0usft (Original Well Elev)

Grid

Minimum Curvature

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| 4,100.0 | 0.00 | 0.00 | 4,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 4,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 0.00 | 0.00 | 4,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 4,400.0 | 0.00 | 0.00 | 4,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4 500 0 | 0.00 | 0.00 | 4 500 0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | | |
| 4,600.0 | 0.00 | 0.00 | 4,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 0.00 | 0.00 | 4,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 0.00 | 0.00 | 4,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 4,900.0 | 0.00 | 0.00 | 4,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5 000 0 | 0.00 | 0.00 | E 000 0 | ^ ^ | ~ ~ | ^ ^ | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 0.00 | 0.00 | 5,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 0.00 | 0.00 | 5,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 0.00 | 0.00 | 5,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 5,300.0 | 0.00 | 0.00 | 5,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |

Well Planning Report



Database EDM 5000.
Company: Nadel & Gi
Project: Eddy Coun
Site: Sec 34, T1
Well: Scarecrow
Wellbore: Wellbore #
Design: Design #1

EDM 5000.1 Single User Db Local Co-ordinate Reference; Nadel & Gussman Permian, LLC Eddy County, NM (NAD-83) Sec 34, T18S, 32E

Scarecrow 34 Fed #1H Wellbore #1

TVD Reference: MD Reference North Reference Survey Calculation Method:

Well Scarecrow 34 Fed #1H

WELL @ 3709.0usft (Original Well Elev) WELL @ 3709.0usft (Original Well Elev)

Grid

Minimum Curvature

| Design: De | esign #1 | | S. D. T. D. S. D. S. S. D. T. S. D. | | | | Porto entra intrado tentra transcriptiones | COC. NO PERSONAL DE LA COLUMNA DE | Эметтинический кактический избилистиний избилистиний избилистиний избилистиний избилистиний избилистиний избили |
|---------------------|-----------------|--|--|-----------------|--|-------------------|--|--|---|
| Planned Survey | CONTRACTOR LAND | THE TRANSPORT OF THE PARTY OF T | and the second second | | T. DETECTION OF THE PARTY OF TH | and the liberalis | TENNEL PROPERTY AND LOS | | DOORE ON BUILDING STREET |
| annous out vey | | | | | | | | | |
| Measured | WANT | | Vertical | | | ertical | Dogleg | Build | Turn |
| | lination | Azimuth | | +N/-S | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | Rate | | Rate |
| | iination , | Azimutn /8\ | Jeptii Lieft\ | +N/-S (usft) | +E/-W \$ \$ | lueft\ | /100ueff\/ / | 7/1000eft\ | */100ue#\ |
| -XE 148 - W | | ر (°) _د ا | 10317 | (usπ) | (usit) | | No. | 1000317 | Trought, |
| 5,400.0 | 0.00 | 0.00 | 5,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 0.00 | 0.00 | 5,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 0.00 | 0.00 | 5,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 0.00 | 0.00 | 5,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 0.00 | 0.00 | 5,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 0.00 | 0.00 | 6,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 0.00 | 0.00 | 6,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 6,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 0.00 | 0.00 | 6,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 0.00 | 0.00 | 6,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 0.00 | 0.00 | 6,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 0.00 | 0.00 | 6,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 0.00 | 0.00 | 6,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 0.00 | 0.00 | 6,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 7,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 7,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 7,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 0.00 | 0.00 | 7,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 0.00 | 0.00 | 7,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 0.00 | 0.00 | 7,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 0.00 | 0.00 | 7,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 0.00 | 0.00 | 7,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 0.00 | 0.00 | 7,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 0.00 | 0.00 | 7,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 0.00 | 0.00 | 8,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 0.00 | 0.00 | 8,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 0.00 | 0.00 | 8,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 0.00 | 0.00 | 8,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 0.00 | 0.00 | 8,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 0.00 | 0.00 | 8,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 0.00 | 0.00 | 8,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 0.00 | 0.00 | 8,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 0.00 | 0.00 | 8,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 0.00 | 0.00 | 8,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Build 10°/100' @ | | | | | | | | | |
| 8,927.0 | 0.00 | 0.00 | 8,927.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 7.30 | 88.23 | 8,999.8 | 0.1 | 4.6 | 4.6 | 10.00 | 10.00 | 0.00 |
| 9,100.0 9,200.0 | 17.30 27.30 | 88.23 | 9,097.4 | 0.8 | 25.9 | 25.9 | 10.00 | 10.00 | 0.00 |
| 9,200.0 9,300.0 | 27.30 37.30 | 88.23 88.23 | 9,189.8 9,274.2 | 2.0 | 63.8 117.1 | 63.8 117.2 | 10.00 | 10.00 | 0.00 |
| | | | i i | 3.6 | | | 10.00 | 10.00 | 0.00 |
| 9,400.0 9,500.0 | 47.30 57.30 | 88.23 | 9,348.1 | 5.7 | 184.3 | 184.4 | 10.00 | 10.00 | 0.00 |
| 9,500.0 | 57.30 67.30 | 88.23 88.23 | 9,409.2 9,455.6 | 8.1 | 263.3 | 263.4 | 10.00 | 10.00 | 0.00 |
| 9,700.0 | 77.30 | 88.23 | 9,455.6 9,485.9 | 10.8 13.8 | 351.7 446.8 | 351.8 447.0 | 10.00 10.00 | 10.00 10.00 | 0.00 0.00 |
| 9,800.0 | 87.30 | 88.23 | 9,499.3 | 16.8 | 545.7 | 546.0 | 10.00 | 10.00 | 0.00 |
| | | | * 1 | .5.5 | J .J., | 5.5.5 | 10.00 | . 0.00 | 0.00 |
| EOB @ 9827' M | | | 1 - | 4= 4 | | 570.0 | 40.55 | 40.55 | |
| 9,827.0 | 90.00 | 88.23 | 9,500.0 | 17.6 | 572.7 | 573.0 | 10.00 | 10.00 | 0.00 |
| 9,900.0 10,000.0 | 90.00 90.00 | 88.23 | 9,500.0 | 19.9 | 645.7 | 646.0 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 88.23 88.23 | 9,500.0 9,500.0 | 23.0 26.1 | 745.6 845.6 | 746.0 846.0 | 0.00 0.00 | 0.00 0.00 | 0.00 0.00 |
| 10,100.0 | 90.00 | 88.23 | 9,500.0 9,500.0 | 29.1 | 945.5 | 946.0 | 0.00 | 0.00 | 0.00 |
| . 3,233.3 | JJ.50 | 00.20 | J,550.0 | 29.1 | 0-10.0 | J-J.U | 0.00 | 0.00 | 0.00 |

Well Planning Report



Database: Company: Project: Site: Well:

Well: Wellbore:

Design:

EDM 5000.1 Single User Db Nadel & Gussman Permian, LLC

₁#1H

Eddy County, NM (NAD-83) Sec 34, T18S, 32E

Scarecrow 34 Fed Wellbore #1 Design #1

Local Co-ordinate Reference: Well Scarecrow 34 Fed
TVD Reference: WELL @ 3709.0usft (Orig
MD Reference: WELL @ 3709.0usft (Orig
North Reference: Grid

Survey Calculation Method:

WELL @ 3709 Ousft (Original Well Elev) WELL @ 3709.0usft (Original Well Elev)

Minimum Curvature

| Planned Survey | | | | | | | Program Constitution of | | |
|--|---------------|---------|------------|--------|---------|----------|-------------------------|-----------|-------------|
| Measured | | | Vertical * | | | Vertical | Dogleg | Build | Turn |
| The state of the s | nclination | Azimuth | Depth | +N/-S | +E/-W | Section | Rate | Rate | Rate |
| (usft) | (°) : | (°) | (usft) | (usft) | (usft) | (usft) | (°/100usft)(° | /100usft) | (°/100usft) |
| 10,300.0 | 90.00 | 88.23 | 9,500.0 | 32.2 | 1,045.5 | 1,046.0 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.00 | 88.23 | 9,500.0 | 35.3 | 1,145.4 | 1,146.0 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 88.23 | 9,500.0 | 38.4 | 1,245.4 | 1,246.0 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 88.23 | 9,500.0 | 41.5 | 1,345.3 | 1,346.0 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 88.23 | 9,500.0 | 44.5 | 1,445.3 | 1,446.0 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 88.23 | 9,500.0 | 47.6 | 1,545.2 | 1,546.0 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 88.23 | 9,500.0 | 50.7 | 1,645.2 | 1,646.0 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 88.23 | 9,500.0 | 53.8 | 1,745.1 | 1,746.0 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 88.23 | 9,500.0 | 56.9 | 1,845.1 | 1,846.0 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 88.23 | 9,500.0 | 59.9 | 1,945.0 | 1,946.0 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 88.23 | 9,500.0 | 63.0 | 2,045.0 | 2,046.0 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 88.23 | 9,500.0 | 66.1 | 2,144.9 | 2,146.0 | 0.00 | 0.00 | . 0.00 |
| 11,500.0 | 90.00 | 88.23 | 9,500.0 | 69.2 | 2,244.9 | 2,246.0 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.00 | 88.23 | 9,500.0 | 72.3 | 2,344.8 | 2,346.0 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 88.23 | 9,500.0 | 75.3 | 2,444.8 | 2,446.0 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 88.23 | 9,500.0 | 78.4 | 2,544.7 | 2,546.0 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 88.23 | 9,500.0 | 81.5 | 2,644.7 | 2,646.0 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 88.23 | 9,500.0 | 84.6 | 2,744.7 | 2,746.0 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 88.23 | 9,500.0 | 87.7 | 2,844.6 | 2,846.0 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 88.23 | 9,500.0 | 90.7 | 2,944.6 | 2,946.0 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 88.23 | 9,500.0 | 93.8 | 3,044.5 | 3,046.0 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 88.23 | 9,500.0 | 96.9 | 3,144.5 | 3,146.0 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 88.23 | 9,500.0 | 100.0 | 3,244.4 | 3,246.0 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 88.23 | 9,500.0 | 103.1 | 3,344.4 | 3,346.0 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 88.23 | 9,500.0 | 106.1 | 3,444.3 | 3,446.0 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 88.23 | 9,500.0 | 109.2 | 3,544.3 | 3,546.0 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 88.23 | 9,500.0 | 112.3 | 3,644.2 | 3,646.0 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 88.23 | 9,500.0 | 115.4 | 3,744.2 | 3,746.0 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 88.23 | 9,500.0 | 118.5 | 3,844.1 | 3,846.0 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 88.23 | 9,500.0 | 121.5 | 3,944.1 | 3,946.0 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 88.23 | 9,500.0 | 124.6 | 4,044.0 | 4,046.0 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 88.23 | 9,500.0 | 127.7 | 4,144.0 | 4,146.0 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 88.23 | 9,500.0 | 130.8 | 4,243.9 | 4,246.0 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 88.23 | 9,500.0 | 133.9 | 4,343.9 | 4,346.0 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 88.23 | 9,500.0 | 136.9 | 4,443.8 | 4,446.0 | 0.00 | 0.00 | 0.00 |
| | MD / 9500' TV | | | | | | | | • |
| 13,779.7 | 90.00 | 88.23 | 9,500.0 | 139.4 | 4,523.5 | 4,525.7 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |

| Design Targets Target Name hit/miss target Dip.A Shape | inglê. D | ip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | | Longitude | |
|--|----------|----------------|---------------|-----------------|-----------------|--------------------|----------------|---------------|-------|-----------------|---|
| PBHL Scarecrow 34 F - plan hits target center - Point | 0.00 | 0.00 | 9,500.0 | 139.4 | 4,523.5 | 622,328.82 | 721,795.58 | 32° 42' 34.02 | 2 N 1 | 103° 44' 47.867 | W |

Well Planning Report



Database: Company: Project: Site: Well: Wellbore: EDM 5000.1 Single User Db

Nadel & Gussman Permian, LLC

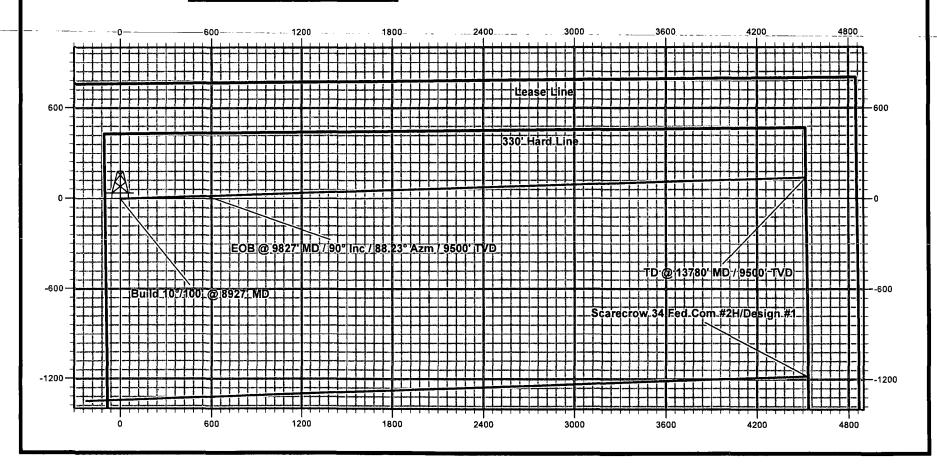
Local Co-ordinate Reference: Well Scarecrow 34 Fed WELL @ 3709.0usft (Original Well Elev) Eddy County, NM (NAD-83) MD Reference: 🐗 WELL @ 3709.0usft (Original Well Elev) North Reference: Sec 34, T18S, 32E Grid Scarecrow 34 Fed Survey Calculation Method: Minimum Curvature Wellbore #1 Design: Design #1

| 8,927.0 8,927.0 0.0 0.0 Build 10°/100° @ 8927' MD 9,827.0 9,500.0 17.6 572.7 EOB @ 9827' MD / 90° Inc / 88.23° Azm / 9500' TVD | Plan Annotations Measured Depth (Usft) | Vertical Depth (usft) | Local Coordir +N/S (usft) | nates +E/-W * | Comment |
|---|---|-----------------------------|---------------------------------|------------------|---------|
| 13,779.7 9,500.0 139.4 4,523.5 TD @ 13780' MD / 9500' TVD | 9,827.0 | 9,500.0 | 17.6 | 572.7 | |

Nadel & Gussman Permian

Eddy County, NM (NAD-83) Scarecrow 34 Fed #1H Quote 120319

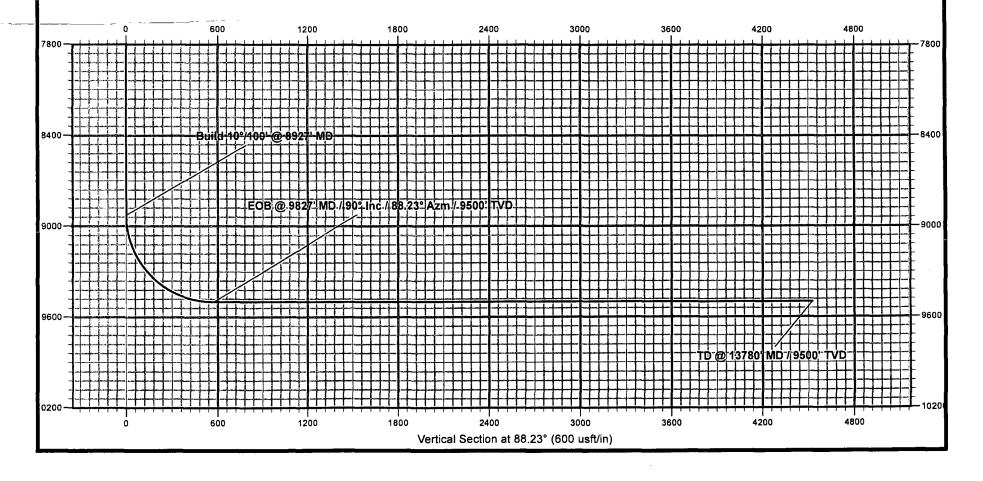




Nadel & Gussman Permian

Eddy County, NM (NAD-83)
Scarecrow 34 Fed #1H
Quote 120319





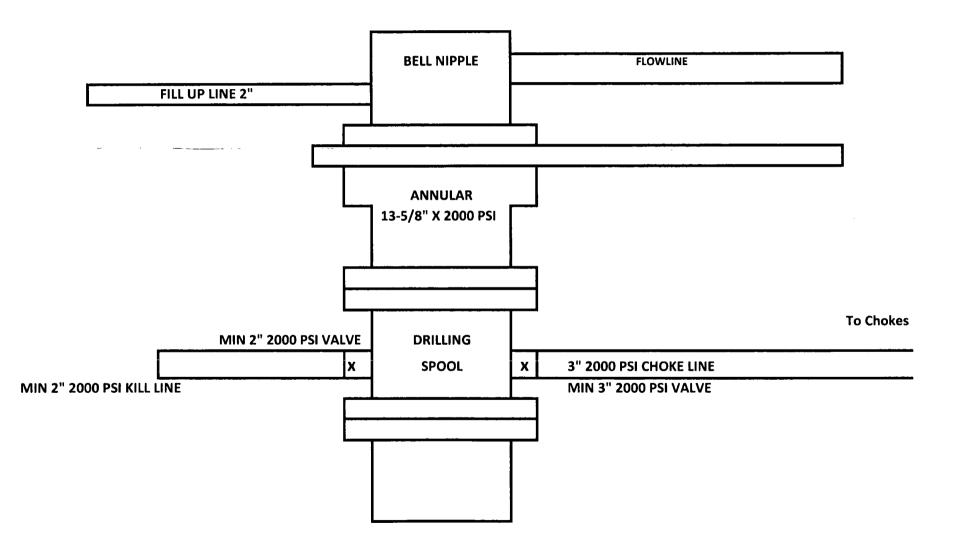
Well

Scarecrow 34 Federal #1H

760 FNL, 430 FWL, Sec. 34, 19S, 32E

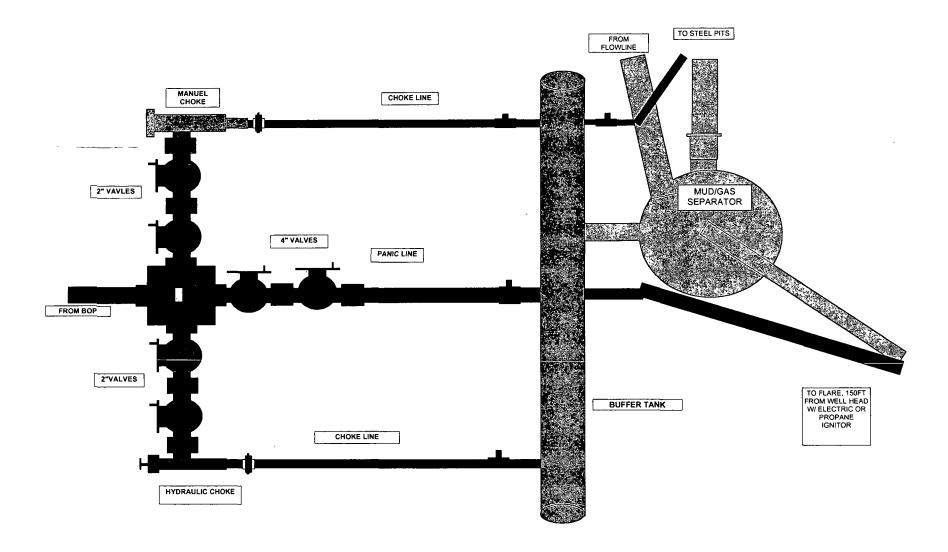
Lea County New Mexico

Nadel and Gussman Permian, L.L.C. BOP Scematic 12.25" hole



Scarecrow 34 Federal #1H Well Nadel and Gussman Permian, L.L.C. 760 FNL, 430 FWL, Sec. 34, 18S, 32E BOP Scematic 8.75" & 6.125" hole **Lea County New Mexico BELL NIPPLE FLOWLINE TO PITS FILL UP LINE 2"** ANNULAR 11" X 3000 PSI 11" x 3000 psi Pipe Rams 11" x 3000 psi **Blind Rams** to chokes MIN 2" 3000 PSI VALVESs DRILLING MIN 3" 3000 PSI VALVE **SPOOL** X MIN 2" 3000 PSI KILL LINE MIN 3" HCR VALVE

Scarecrow 34 Federal #1H 3000 psi BOP Manifold System



NADEL AND GUSSMAN PERMIAN, L.L.C. 601 N. MARIENFELD STE. 508 MIDLAND, TX 79701 (432) 682-4429 (Office) (432) 682-4325 (Fax)

5/25/12

Mr. Ingram Carlsbad BLM Field Office 620 E. Greene St. Carlsbad, NM 88220

Re: Scarecrow 34 Federal #1H SHL: 660' FNL & 330 FWL UL D Sec. 34, T18S, R32E Lea, NM Rule 118 H2S Exposure

Dear Mr. Ingram,

Nadel and Gussman Permian, LLC have evaluated this well and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to drilling out the surface casing and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

Sincerely,

Jason Goss Drilling Engineer