

12-677

HOBBS OCD

SEP 21 2012

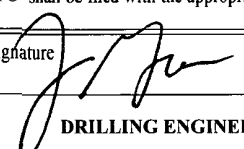
Form 3160-3
(April 2004)OCD Hobbs
RECEIVEDFORM APPROVED
OMB No 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work. ☒ DRILL ☐ REENTER		5 Lease Serial No. NMNM 18302; NM-0556094	
1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6 If Indian, Allottee or Tribe Name N/A	
2 Name of Operator NADEL AND GUSSMAN PERMIAN, L.L.C.		7 If Unit or CA Agreement, Name and No N/A	
3a Address 601 N. MARIENFELD, SUITE 508 MIDLAND, TEXAS 79701		8 Lease Name and Well No. Lion 34 Fed Com #1H	
3b. Phone No. (include area code) 432-682-4429		9 API Well No. 30-025-40777	
4 Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 2110' FNL, 200' FWL - UL E At proposed prod. zone 1980' FNL, 330' FEL - UL H		10. Field and Pool, or Exploratory QUERCHO PLA. BONE SPRING	
14. Distance in miles and direction from nearest town or post office* 8 MILES SOUTH OF MALJAMAR NM		11 Sec, T, R, M or Blk and Survey or Area SECTION 34, T-18-S, R-32-E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200		12. County or Parish LEA	
16 No. of acres in lease Both leases 640		13 State NM	
17 Spacing Unit dedicated to this well 160		18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1780 = McKay #1 1350 = Scarecrow #1H	
19 Proposed Depth 14,007 MD, 9500 TVD		20 BLM/BIA Bond No. on file NM# 2812	
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3696 GL		22 Approximate date work will start* 10/15/2012	
23. Estimated duration 45 DAYS		24. Attachments	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form

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

25. Signature 	Name (Printed/Typed) JASON GOSS	Date 05/25/2012
Title DRILLING ENGINEER		
Approved by (Signature) /s/ Don Petersen	Name (Printed/Typed) /s/ Don Petersen	Date SEP 19 2012
Title FIELD MANAGER		
Office 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.

APPROVAL FOR TWO YEARS

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

*(Instructions on page 2)

Capitan Controlled Water Basin

K2 09/25/12

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

SEP 25 2012

Nadel & Gussman Permian, LLC
601 N. Marienfeld, Suite 508
Midland, TX 79701
April 23, 2012

Bureau of Land Management
Lands & Minerals Division
620 E. Greene Street
Carlsbad, NM 88220
Attn: Mr. Wesley Ingram

Re: ^{Lion} Scarecrow 34 Fed Com #2H Application for Permit to Drill

Dear Mr. Ingram:

Nadel and Gussman Permian, LLC (NGP), as operator, respectfully requests permission to drill the Scarecrow Fed Com # 2H at 2,110' FNL and 200' FWL of UL E Sec. 34, T18S-R32E in Lea County, New Mexico. NGP also plans to develop a production pad for the surface location. The following documents and exhibits that constitute our Application for Permit to Drill are attached:

DOCUMENTS: APD Form 3160-3
 Closed-Loop Form C-144
 Statement Accepting Responsibility for Operations
 Operator Certification
 13 Point Surface Use and Operation Plan
 13 Point Drilling Plan
 Hydrogen Sulfide Drilling Operations Plan

EXHIBITS: 1. New Mexico Oil Conservation Division Form C-102
 2. Horizontal plan data
 3. Map of offset well and Lease
 4. Location diagram with Rig
 5. BOP, Choke Diagrams, Mud Gas Separator
 6. Tank Battery diagram Pad Size
 7. Choke manifold schematic for closed-loop system
 8. Closed-loop system: Operating, Maintenance and closure plan
 9. Scarecrow 34 Fed Com #3H Location plat and Frac pit.

This surface location was approved by Trish Bad Bear of the BLM on an on-site staking meeting with Jason Goss (NGP) and Rains Surveyors on April 3, 2012. Also, a Cultural Resource Survey has been performed by Boone Archeological Services and no significant cultural resources were encountered and a report will be submitted to the BLM by Boone Arch. Should you have questions please call me at 432-682-4429

Thank you for your consideration and attention to this request.

Sincerely,

Jason Goss
Drilling Engineer

Lion
SCARECROW 34 FED COM #2H
SHL 2110' FNL & 200' FWL, UL E
BHL 1980' FNL & 330' FEL, UL H
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 FED COM #2H~~

Lion 34 Federal Com 1H

Surface: 2110' FNL & 200' FWL, UL E
 BHL: 1980' FNL & 330' FEL, UL H
 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. Horizontal Oil well, no pilot hole.**

2. **TOPS OF IMPORTANT GEOLOGICAL MARKERS: TVD**

Rustler	1180'
Top Salt	1400'
BX (base salt)	2605'
Yates	2810'
Seven Rivers	3290'
Queen	3933'
Grayburg	4550'
Delaware	5150'
Bone Springs Ls	7090'
1 st Bone Springs Sand	8410'
2 nd Bone Springs Sand	8890'
Bone Springs (payzone)	9500'

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

Chile Fm., Santa Rosa	0-800'	Fresh Water
Queen	3850'	Oil
Grayburg	4550'	Oil
Delaware	5150'	Oil
Bone Springs	8400-9500'	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

SEA

HOLE SIZE	CASING SIZE	WT./GRADE	THREAD/COLLAR	SETTING DEPTH	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' ¹²⁹⁰	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'-14,007'	N/A**

* 4.5" casing: 450ft BTC 8rd in curve (9,500' – 9,950) and LTC 8rd in Lateral 9,750'- 14,007ft.

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

MINIMUM SAFETY FACTORS:**BURST 1.125****COLLAPSE 1.125****TENSION 1.8****ALL CASING WILL BE NEW API APPROVED****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

TAIL 200 SACKS CLASS "C" + .25% DEFOAMER, 14.8 PPG, 1.33 YIELD

C. 7" PRODUCTION

CEMENT 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

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

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:

Spud and drill 17 1/2" surface hole with **fresh water (8.4 to 8.7 ppg)** to a depth of approx ^{1,290}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 1200' 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 3/4" production hole from 3,300' to **9,700'** (9,550 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 (8.7 to 9.0 ppg), control filtrate with starch and water loss additives. Clean hole with pre-hydrated freshwater sweeps as necessary. System properties: viscosity 32-24, fluid loss <20 ml/30min.

Drill 6 1/8" horizontal production hole from 9,700'-14,007' 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 1/2" liner is run and set and rigging down operations have begun.

TESTING, LOGGING & CORING PROGRAM:

- See COA*
- a. Testing: No DST's are expected.
 - b. Open hole logs are planned for TD of vertical hole (KOP, 8927').
 - 1. Halliburton Triple Combo: 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 8927'
 - e. MWD (directional) and LWD (gamma) surveys will be taken from KOP (8927') to TD 14,007ft

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 H₂S is expected, but the operator will utilize a 3rd party H₂S monitoring package from 1,200' to TD. If H₂S 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 October 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
Nadel & Gussman Permian, LLC

Date

HOBBS OCD

SEP 21 2012

RECEIVED

Nadel & Gussman Permian, LLC

Eddy County, NM (NAD-83)

Sec 34, T18S, 32E

Scarecrow 34 Fed Com #2H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

27 April, 2012



DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Scarecrow 34 Fed Com #2H
Company:	Nadel & Gussman Permian, LLC	TVD Reference:	WELL @ 3696.0usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	WELL @ 3696.0usft (Original Well Elev)
Site:	Sec 34, T18S, 32E	North Reference:	Grid
Well:	Scarecrow 34 Fed Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Site:	Sec 34, T18S, 32E		
Site Position:		Northing:	622,189.42 usft
From:	Map	Easting:	717,272.08 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 42' 32.888 N
		Longitude:	103° 45' 40.818 W
		Grid Convergence:	0.31 °

Well	Scarecrow 34 Fed Com #2H					
Well Position	+N/-S	-1,350.4 usft	Northing:	620,839.01 usft	Latitude:	32° 42' 19.537 N
	+E/-W	-220.8 usft	Easting:	717,051.24 usft	Longitude:	103° 45' 43.488 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,696.0 usft

Wellbore		Wellbore #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/27/2012	7.60	60.58	48,797

Design		Design #1		
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	87.93

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,927.0	0.00	0.00	8,927.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,827.0	90.00	87.93	9,500.0	20.7	572.6	10.00	10.00	9.77	87.93	
14,007.2	90.00	87.93	9,500.0	171.4	4,750.1	0.00	0.00	0.00	0.00	PBHL Scarecrow 3-

DDC Well Planning Report



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Site:	Sec 34, T18S, 32E	North Reference:	Grid
Well:	Scarecrow 34 Fed Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
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
4,600.0	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	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

DDC Well Planning Report



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Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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' @ 8927° MD									
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	87.93	8,999.8	0.2	4.6	4.6	10.00	10.00	0.00
9,100.0	17.30	87.93	9,097.4	0.9	25.9	25.9	10.00	10.00	0.00
9,200.0	27.30	87.93	9,189.8	2.3	63.8	63.8	10.00	10.00	0.00
9,300.0	37.30	87.93	9,274.2	4.2	117.1	117.2	10.00	10.00	0.00
9,400.0	47.30	87.93	9,348.1	6.6	184.3	184.4	10.00	10.00	0.00
9,500.0	57.30	87.93	9,409.2	9.5	263.3	263.4	10.00	10.00	0.00
9,600.0	67.30	87.93	9,455.6	12.7	351.6	351.8	10.00	10.00	0.00
9,700.0	77.30	87.93	9,485.9	16.1	446.7	447.0	10.00	10.00	0.00
9,800.0	87.30	87.93	9,499.3	19.7	545.6	546.0	10.00	10.00	0.00
EOB @ 9827° MD / 90° Inc / 87.93° Azm / 9500' TVD									
9,827.0	90.00	87.93	9,500.0	20.7	572.6	573.0	10.00	10.00	0.00
9,900.0	90.00	87.93	9,500.0	23.3	645.5	646.0	0.00	0.00	0.00
10,000.0	90.00	87.93	9,500.0	26.9	745.5	746.0	0.00	0.00	0.00
10,100.0	90.00	87.93	9,500.0	30.5	845.4	846.0	0.00	0.00	0.00
10,200.0	90.00	87.93	9,500.0	34.1	945.3	946.0	0.00	0.00	0.00

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Scarecrow 34 Fed Com #2H
Company:	Nadel & Gussman Permian, LLC	TVD Reference:	WELL @ 3696.0usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	WELL @ 3696.0usft (Original Well Elev)
Site:	Sec 34, T18S, 32E	North Reference:	Grid
Well:	Scarecrow 34 Fed Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	90.00	87.93	9,500.0	37.7	1,045.3	1,046.0	0.00	0.00	0.00
10,400.0	90.00	87.93	9,500.0	41.3	1,145.2	1,146.0	0.00	0.00	0.00
10,500.0	90.00	87.93	9,500.0	44.9	1,245.1	1,246.0	0.00	0.00	0.00
10,600.0	90.00	87.93	9,500.0	48.5	1,345.1	1,346.0	0.00	0.00	0.00
10,700.0	90.00	87.93	9,500.0	52.1	1,445.0	1,446.0	0.00	0.00	0.00
10,800.0	90.00	87.93	9,500.0	55.7	1,545.0	1,546.0	0.00	0.00	0.00
10,900.0	90.00	87.93	9,500.0	59.3	1,644.9	1,646.0	0.00	0.00	0.00
11,000.0	90.00	87.93	9,500.0	62.9	1,744.8	1,746.0	0.00	0.00	0.00
11,100.0	90.00	87.93	9,500.0	66.6	1,844.8	1,846.0	0.00	0.00	0.00
11,200.0	90.00	87.93	9,500.0	70.2	1,944.7	1,946.0	0.00	0.00	0.00
11,300.0	90.00	87.93	9,500.0	73.8	2,044.6	2,046.0	0.00	0.00	0.00
11,400.0	90.00	87.93	9,500.0	77.4	2,144.6	2,146.0	0.00	0.00	0.00
11,500.0	90.00	87.93	9,500.0	81.0	2,244.5	2,246.0	0.00	0.00	0.00
11,600.0	90.00	87.93	9,500.0	84.6	2,344.4	2,346.0	0.00	0.00	0.00
11,700.0	90.00	87.93	9,500.0	88.2	2,444.4	2,446.0	0.00	0.00	0.00
11,800.0	90.00	87.93	9,500.0	91.8	2,544.3	2,546.0	0.00	0.00	0.00
11,900.0	90.00	87.93	9,500.0	95.4	2,644.2	2,646.0	0.00	0.00	0.00
12,000.0	90.00	87.93	9,500.0	99.0	2,744.2	2,746.0	0.00	0.00	0.00
12,100.0	90.00	87.93	9,500.0	102.6	2,844.1	2,846.0	0.00	0.00	0.00
12,200.0	90.00	87.93	9,500.0	106.2	2,944.0	2,946.0	0.00	0.00	0.00
12,300.0	90.00	87.93	9,500.0	109.8	3,044.0	3,046.0	0.00	0.00	0.00
12,400.0	90.00	87.93	9,500.0	113.4	3,143.9	3,146.0	0.00	0.00	0.00
12,500.0	90.00	87.93	9,500.0	117.0	3,243.8	3,246.0	0.00	0.00	0.00
12,600.0	90.00	87.93	9,500.0	120.6	3,343.8	3,346.0	0.00	0.00	0.00
12,700.0	90.00	87.93	9,500.0	124.2	3,443.7	3,446.0	0.00	0.00	0.00
12,800.0	90.00	87.93	9,500.0	127.8	3,543.7	3,546.0	0.00	0.00	0.00
12,900.0	90.00	87.93	9,500.0	131.4	3,643.6	3,646.0	0.00	0.00	0.00
13,000.0	90.00	87.93	9,500.0	135.1	3,743.5	3,746.0	0.00	0.00	0.00
13,100.0	90.00	87.93	9,500.0	138.7	3,843.5	3,846.0	0.00	0.00	0.00
13,200.0	90.00	87.93	9,500.0	142.3	3,943.4	3,946.0	0.00	0.00	0.00
13,300.0	90.00	87.93	9,500.0	145.9	4,043.3	4,046.0	0.00	0.00	0.00
13,400.0	90.00	87.93	9,500.0	149.5	4,143.3	4,146.0	0.00	0.00	0.00
13,500.0	90.00	87.93	9,500.0	153.1	4,243.2	4,246.0	0.00	0.00	0.00
13,600.0	90.00	87.93	9,500.0	156.7	4,343.1	4,346.0	0.00	0.00	0.00
13,700.0	90.00	87.93	9,500.0	160.3	4,443.1	4,446.0	0.00	0.00	0.00
13,800.0	90.00	87.93	9,500.0	163.9	4,543.0	4,546.0	0.00	0.00	0.00
13,900.0	90.00	87.93	9,500.0	167.5	4,642.9	4,646.0	0.00	0.00	0.00
14,000.0	90.00	87.93	9,500.0	171.1	4,742.9	4,746.0	0.00	0.00	0.00
TD @ 14007' MD / 9500' TVD									
14,007.2	90.00	87.93	9,500.0	171.4	4,750.1	4,753.2	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL Scarecrow 34 F	0.00	0.00	9,500.0	171.4	4,750.1	621,010.38	721,801.32	32° 42' 20.976 N	103° 44' 47.886 W
- plan hits target center									
- Point									

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well: Scarecrow 34 Fed Com #2H
Company:	Nadel & Gussman, Permian, LLC	TVD Reference:	WELL @ 3696.0usft (Original Well Elev)
Project:	Eddy County, NM (NAD-83)	MD Reference:	WELL @ 3696.0usft (Original Well Elev)
Site:	Sec 34, T18S, 32E	North Reference:	Grid
Well:	Scarecrow 34 Fed Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,927.0	8,927.0	0.0	0.0	Build 10°/100' @ 8927' MD
9,827.0	9,500.0	20.7	572.6	EOB @ 9827' MD / 90° Inc / 87.93° Azm / 9500' TVD
14,007.2	9,500.0	171.4	4,750.1	TD @ 14007' MD / 9500' TVD

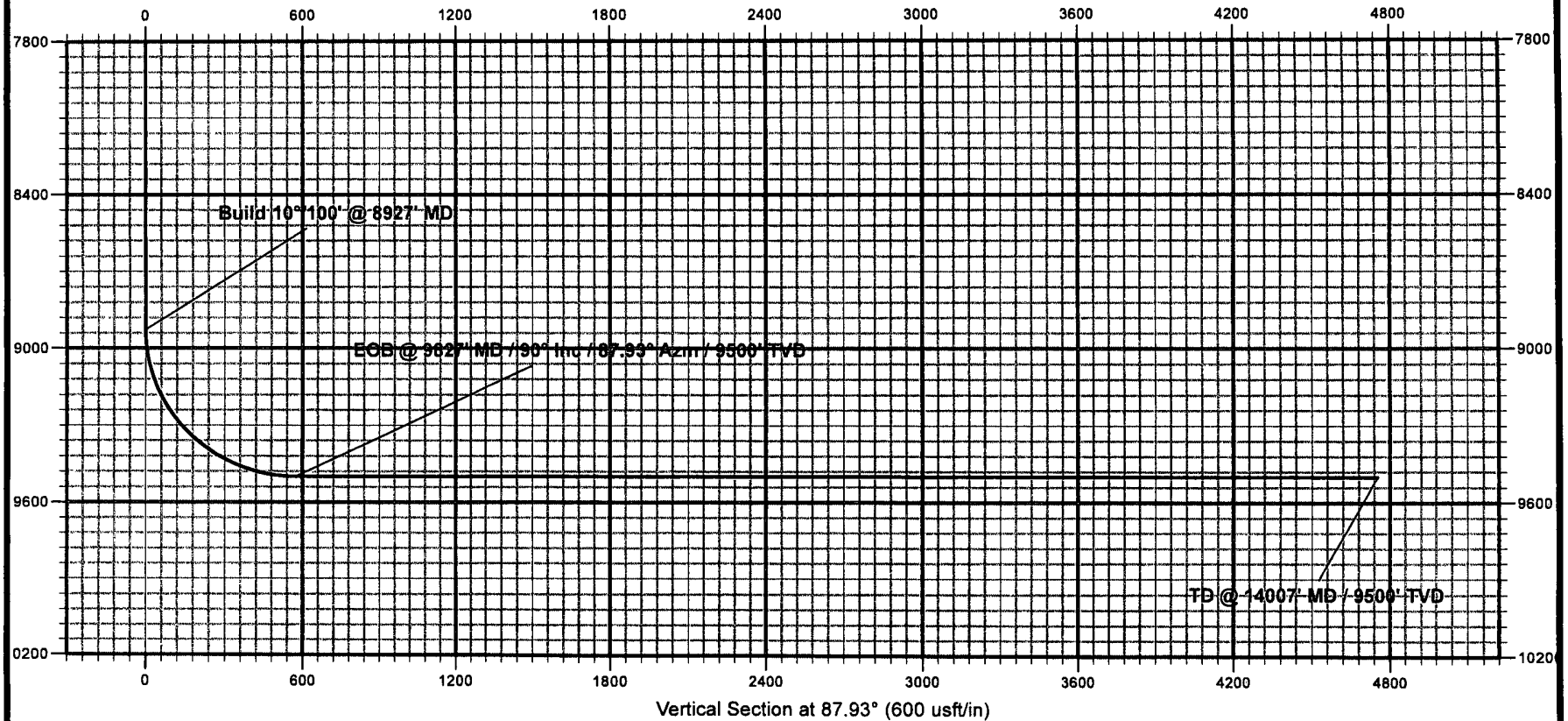
Nadel & Gussman Permian



Eddy County, NM (NAD-83)

Scarecrow 34 Fed Com #2H

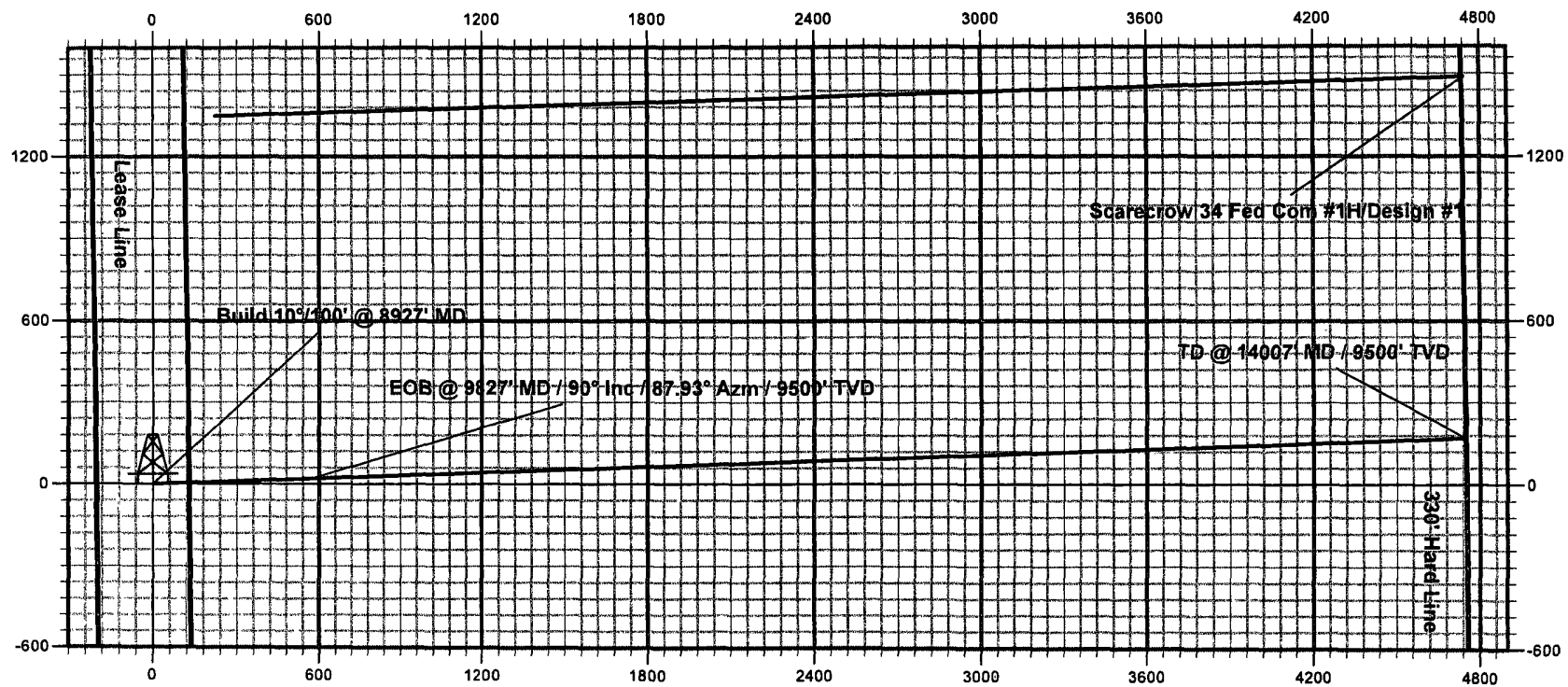
Quote 120320



Nadel & Gussman Permian

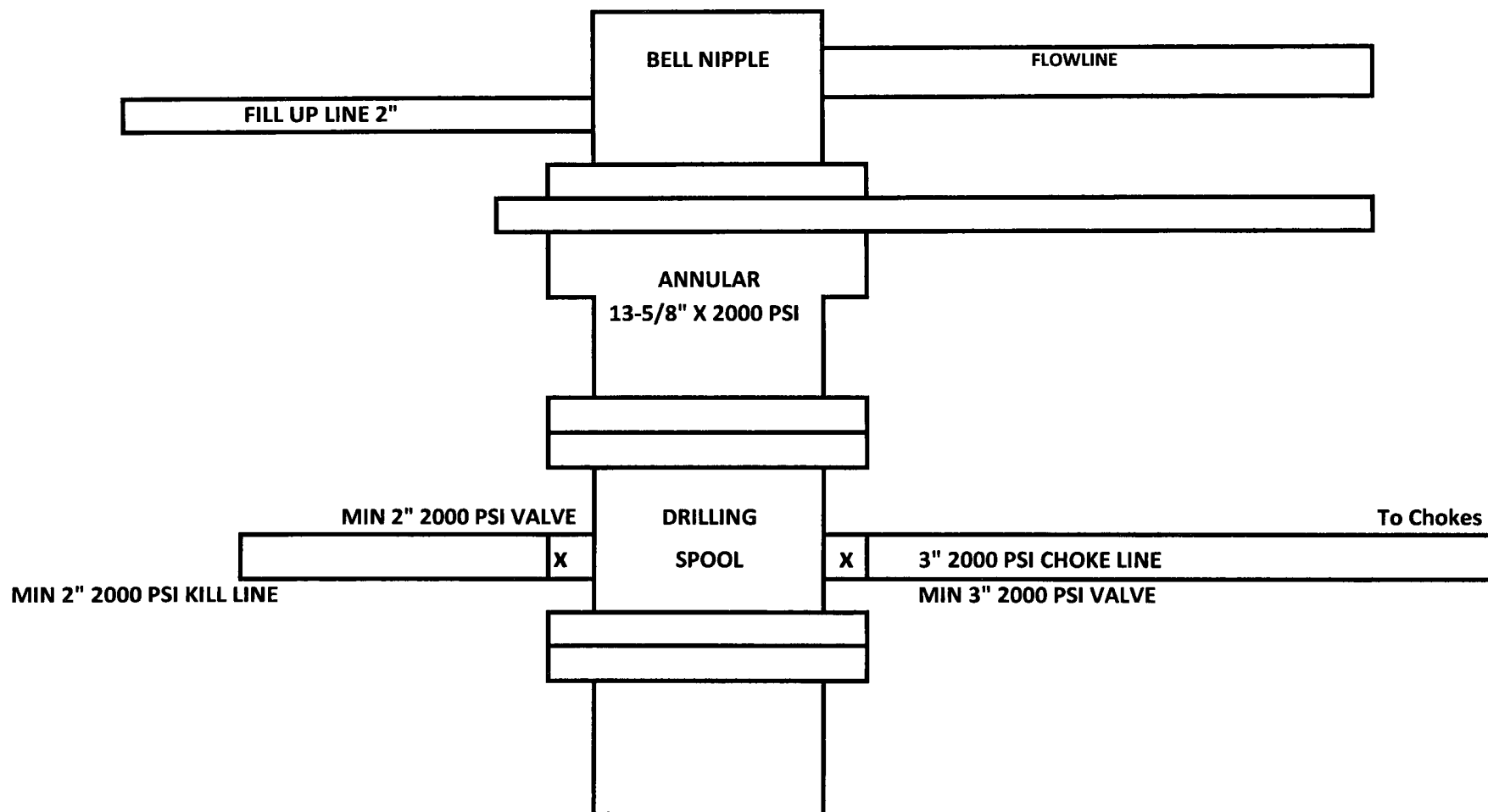


Eddy County, NM (NAD-83)
Scarecrow 34 Fed Com #2H
Quote 120320



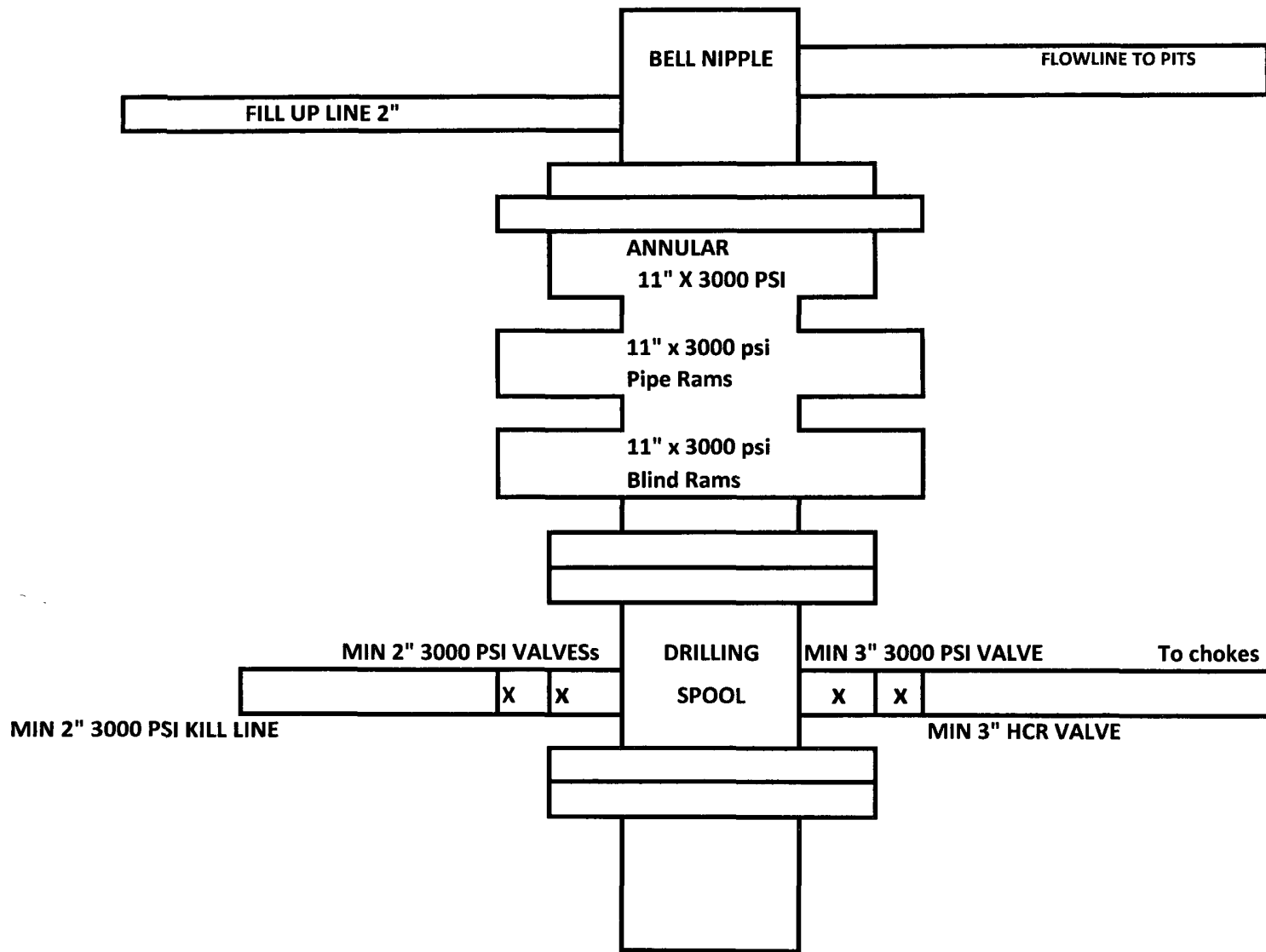
Well Scarecrow Fed Com #2H
2,110 FNL, 200 FWL, Sec. 34, 19S, 32E
Lea County New Mexico

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



Well Scarecrow Fed Com #2H
2110 FNL, 200 FWL, Sec. 34, 18S, 32E
Lea County New Mexico

**Nadel and Gussman Permian, L.L.C.
BOP Scematic 8.75" & 6.125" hole**



**Scarecrow 34 Fed Com #2H
3000 psi BOP Manifold System**

