15-692

APPROVED
OCD Hobbs
NOV 30 2015
RECEIVED

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.	NMNM13641 & NMNM13838
6. If Indian, Allotee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No.	Pronghorn 15 B3DM Fed Com #1H (313683)
9. API Well No.	30-025-42968
10. Field and Pool, or Exploratory	Antelope Ridge West Bone Spring (2209)
11. Sec., T. R. M. or Blk. and Survey or Area	Sec. 15 T23S R34E
12. County or Parish	Lea
13. State	NM

1a. Type of work: ☑ DRILL ☐ REENTER

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

2. Name of Operator: Mewbourne Oil Company (14744)

3a. Address: PO Box 5270, Hobbs, NM 88241

3b. Phone No. *(include area code)*: 575-393-5905

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

At surface: 185' FNL & 450' FWL, Sec 15 T23S R34E (D)

At proposed prod. zone: 330' FSL & 450' FWL, Sec 15 T23S R34E (M)

14. Distance in miles and direction from nearest town or post office*: 20 miles SW of Eunice, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	185'	
16. No. of acres in lease	NMNM13641 - 400 acres NMNM13838 - 400 acres	
17. Spacing Unit dedicated to this well	160 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	2,849.66' - Belco Fed #1	
19. Proposed Depth	11,382' - TVD 15,885' - MD	
20. BLM/BIA Bond No. on file	NM1693 nationwide, NMB-000919	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	3402' - GL	
22. Approximate date work will start*	08/03/2015	
23. Estimated duration	60 days	

24. Attachments

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

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 required by the BLM.

25. Signature: B. Bishop	Name *(Printed/Typed)*: Bradley Bishop	Date: 06/03/2015
Title:		
Approved by *(Signature)*: Steve Caffey	Name *(Printed/Typed)*	Date: NOV 19 2015
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 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.

(Continued on page 2)

*(Instructions on page 2)

Capitan Controlled Water Basin

K2 11/30/15

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DEC 01 2015

Mewbourne Oil Company, Pronghorn 15 B3DM Fed Com 1H
Sec 15, T23S, R34E
SL: 185' FNL & 450' FWL
BHL: 330' FSL & 450' FWL

1. Geologic Formations

TVD of target	11382'	Pilot hole depth	NA
MD at TD:	15885'	Deepest expected fresh water:	325'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	1477	Water	
Top of Salt	1614	Salt	
Castile/Base Salt	4679		
Lamar	4950	Oil	
Bell Canyon	5049	Oil	
Cherry Canyon			
Manzanita Marker			
Brushy Canyon			
Bone Spring	8519	Oil/Gas	
1st Bone Spring Sand			
2nd Bone Spring Sand			
3rd Bone Spring Sand	11045	Target Zone	
Abo			
Wolfcamp		Will Not Penetrate	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0'	1265'	13.375"	48	H40	STC	1.13	2.63	4.37
17.5"	1265'	~~1502'~~ 1700	13.375	54.5	J55	STC	1.45	3.50	39.79
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.49
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	8.98
12.25"	4393'	4900'	9.625"	40	N80	LTC	1.21	2.26	36.35
8.75"	0'	10845'	7"	26	HCP110	LTC	1.38	1.77	2.30
8.75"	10845'	11588'	7"	26	HCP110	BTC	1.32	1.69	42.97
6.125"	10845'	15885'	4.5"	13.5	P110	LTC	1.81	2.10	4.95
BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet				

See COA

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

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

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	860	12.5	2.12	11	10	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Class C + 0.005pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter.	780	12.5	2.12	11	10	Lead: Class C (35:65:4) + 5% Sodium Chloride +5#/sk LCM +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Prod.	400	12.5	2.12	11	9	Lead: 60:40:0 Class C + 15.00 lb/sk BA-90 + 4.00% MPS-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free
	400	15.6	1.18	5.2	10	Tail: Class H + 0.65% FL-52 + 0.10% R-3 + 0.005 lb/sk Static Free
Liner	205	11.2	2.97	17	16	Class C (60:40:0) +4% MPA5+1.2% BA10A+ 10#/sk BA90+ 5%A10+0.65%ASA301+1.5% SMS+1.2%R21

A copy of cement test will be available on location at time of cement job providing pump times, compressive strengths, etc.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4700'	25%
Liner	10845'	25%

4. Pressure Control Equipment

	Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	X	~~1250#~~
			Blind Ram		See COA
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			Pipe Ram	X	
			Double Ram		
			Other*		
6-1/8"	11"	5M	Annular	X	2500#
			Blind Ram	X	5000#
			Pipe Ram	X	
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

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

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

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	Variance: None
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0'	~~1502'~~ 1700	FW Gel	8.6-8.8	28-34	N/C
~~1502'~~ 1700	4900'	Saturated Brine	10.0	28-34	N/C
4900'	10845'	Cut Brine	8.6-9.5	28-34	N/C
10845'	15885'	FW w/Polymer	8.6-9.5	30-40	<20cc

See COA

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

What will be used to monitor the loss or gain of fluid?	Visual Monitoring

6. Logging and Testing Procedures

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

Additional logs planned		Interval
X	Gamma Ray	10845'(KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4894 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole.

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

8. Other facets of operation

Is this a walking operation? If yes, describe.
Will be pre-setting casing? If yes, describe.

Attachments
___ Directional Plan
___ Other, describe

Mewbourne Oil Company

Lea County, New Mexico
Pronghorn 15 B3DM Fed Com 1H
Sec 15, T23S, R34E
SL: 185' FNL & 450' FWL
BHL: 330' FSL & 450' FWL

Plan: Design #1

Standard Planning Report

13 May, 2015

Database:	Hobbs	Local Co-ordinate Reference:	Site Pronghorn 15 B3DM Fed Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3427.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3427.0usft (Original Well Elev)
Site:	Pronghorn 15 B3DM Fed Com 1H	North Reference:	Grid
Well:	Sec 15, T23S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 450' FWL		
Design:	Design #1		

Project	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Pronghorn 15 B3DM Fed Com 1H				
Site Position:		**Northing:**	478,039.00 usft	**Latitude:**	32° 18' 40.519 N
From:	Map	**Easting:**	768,405.30 usft	**Longitude:**	103° 27' 52.422 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.46 °

Well	Sec 15, T23S, R34E					
Well Position	**+N/-S**	0.0 usft	**Northing:**	478,039.00 usft	**Latitude:**	32° 18' 40.519 N
	+E/-W	0.0 usft	**Easting:**	768,405.30 usft	**Longitude:**	103° 27' 52.422 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,427.0 usft	**Ground Level:**	3,402.0 usft

Wellbore	BHL: 330' FSL & 450' FWL			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/13/2015	7.06	60.19	48,289

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	179.50	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,844.5	0.00	0.00	10,844.5	0.0	0.0	0.00	0.00	0.00	0.00	
11,588.0	89.20	179.50	11,322.0	-470.9	4.1	12.00	12.00	0.00	179.50	
15,885.2	89.20	179.50	11,382.0	-4,767.5	41.7	0.00	0.00	0.00	0.00	BHL: 330 FSL & 450 I

Database:	Hobbs	Local Co-ordinate Reference:	Site Pronghorn 15 B3DM Fed Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3427.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3427.0usft (Original Well Elev)
Site:	Pronghorn 15 B3DM Fed Com 1H	North Reference:	Grid
Well:	Sec 15, T23S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 450' FWL		
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
SL: 185 FNL & 450 FWL									
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

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Well:	Sec 15, T23S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 450' FWL		
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)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
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
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	Hobbs	Local Co-ordinate Reference:	Site Pronghorn 15 B3DM Fed Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3427.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3427.0usft (Original Well Elev)
Site:	Pronghorn 15 B3DM Fed Com 1H	North Reference:	Grid
Well:	Sec 15, T23S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 450' FWL		
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)
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,800.0	0.0	0.0	0.0	0.00	0.00	0.00
10,844.5	0.00	0.00	10,844.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 10845									
10,900.0	6.66	179.50	10,899.9	-3.2	0.0	3.2	12.00	12.00	0.00
11,000.0	18.66	179.50	10,997.3	-25.1	0.2	25.1	12.00	12.00	0.00
11,100.0	30.65	179.50	11,088.0	-66.7	0.6	66.7	12.00	12.00	0.00
11,200.0	42.65	179.50	11,168.1	-126.3	1.1	126.3	12.00	12.00	0.00
11,226.7	45.86	179.50	11,187.2	-145.0	1.3	145.0	12.00	12.00	0.00
First Take Point: 330 FNL & 450 FWL									
11,300.0	54.65	179.50	11,234.0	-201.2	1.8	201.3	12.00	12.00	0.00
11,400.0	66.65	179.50	11,282.9	-288.3	2.5	288.3	12.00	12.00	0.00
11,500.0	78.65	179.50	11,312.7	-383.5	3.4	383.5	12.00	12.00	0.00
11,588.0	89.20	179.50	11,322.0	-470.9	4.1	470.9	11.99	11.99	0.00
LP: 656 FNL & 450 FWL									
11,600.0	89.20	179.50	11,322.2	-482.9	4.2	482.9	0.00	0.00	0.00
11,700.0	89.20	179.50	11,323.6	-582.9	5.1	582.9	0.00	0.00	0.00
11,800.0	89.20	179.50	11,325.0	-682.9	6.0	682.9	0.00	0.00	0.00
11,900.0	89.20	179.50	11,326.4	-782.9	6.8	782.9	0.00	0.00	0.00
12,000.0	89.20	179.50	11,327.8	-882.8	7.7	882.9	0.00	0.00	0.00
12,100.0	89.20	179.50	11,329.1	-982.8	8.6	982.9	0.00	0.00	0.00
12,200.0	89.20	179.50	11,330.5	-1,082.8	9.5	1,082.9	0.00	0.00	0.00
12,300.0	89.20	179.50	11,331.9	-1,182.8	10.3	1,182.8	0.00	0.00	0.00
12,400.0	89.20	179.50	11,333.3	-1,282.8	11.2	1,282.8	0.00	0.00	0.00
12,500.0	89.20	179.50	11,334.7	-1,382.8	12.1	1,382.8	0.00	0.00	0.00
12,600.0	89.20	179.50	11,336.1	-1,482.8	13.0	1,482.8	0.00	0.00	0.00
12,700.0	89.20	179.50	11,337.5	-1,582.7	13.8	1,582.8	0.00	0.00	0.00
12,800.0	89.20	179.50	11,338.9	-1,682.7	14.7	1,682.8	0.00	0.00	0.00
12,900.0	89.20	179.50	11,340.3	-1,782.7	15.6	1,782.8	0.00	0.00	0.00
13,000.0	89.20	179.50	11,341.7	-1,882.7	16.5	1,882.8	0.00	0.00	0.00
13,100.0	89.20	179.50	11,343.1	-1,982.7	17.3	1,982.8	0.00	0.00	0.00
13,200.0	89.20	179.50	11,344.5	-2,082.7	18.2	2,082.8	0.00	0.00	0.00
13,300.0	89.20	179.50	11,345.9	-2,182.7	19.1	2,182.8	0.00	0.00	0.00
13,400.0	89.20	179.50	11,347.3	-2,282.7	20.0	2,282.7	0.00	0.00	0.00
13,500.0	89.20	179.50	11,348.7	-2,382.6	20.8	2,382.7	0.00	0.00	0.00
13,600.0	89.20	179.50	11,350.1	-2,482.6	21.7	2,482.7	0.00	0.00	0.00
13,700.0	89.20	179.50	11,351.5	-2,582.6	22.6	2,582.7	0.00	0.00	0.00
13,800.0	89.20	179.50	11,352.9	-2,682.6	23.5	2,682.7	0.00	0.00	0.00
13,900.0	89.20	179.50	11,354.3	-2,782.6	24.3	2,782.7	0.00	0.00	0.00
14,000.0	89.20	179.50	11,355.7	-2,882.6	25.2	2,882.7	0.00	0.00	0.00
14,100.0	89.20	179.50	11,357.1	-2,982.6	26.1	2,982.7	0.00	0.00	0.00
14,200.0	89.20	179.50	11,358.5	-3,082.5	27.0	3,082.7	0.00	0.00	0.00
14,300.0	89.20	179.50	11,359.9	-3,182.5	27.8	3,182.7	0.00	0.00	0.00
14,400.0	89.20	179.50	11,361.3	-3,282.5	28.7	3,282.6	0.00	0.00	0.00
14,500.0	89.20	179.50	11,362.7	-3,382.5	29.6	3,382.6	0.00	0.00	0.00
14,600.0	89.20	179.50	11,364.1	-3,482.5	30.5	3,482.6	0.00	0.00	0.00
14,700.0	89.20	179.50	11,365.5	-3,582.5	31.3	3,582.6	0.00	0.00	0.00
14,800.0	89.20	179.50	11,366.8	-3,682.5	32.2	3,682.6	0.00	0.00	0.00
14,900.0	89.20	179.50	11,368.2	-3,782.5	33.1	3,782.6	0.00	0.00	0.00
15,000.0	89.20	179.50	11,369.6	-3,882.4	34.0	3,882.6	0.00	0.00	0.00
15,100.0	89.20	179.50	11,371.0	-3,982.4	34.8	3,982.6	0.00	0.00	0.00
15,200.0	89.20	179.50	11,372.4	-4,082.4	35.7	4,082.6	0.00	0.00	0.00
15,300.0	89.20	179.50	11,373.8	-4,182.4	36.6	4,182.6	0.00	0.00	0.00

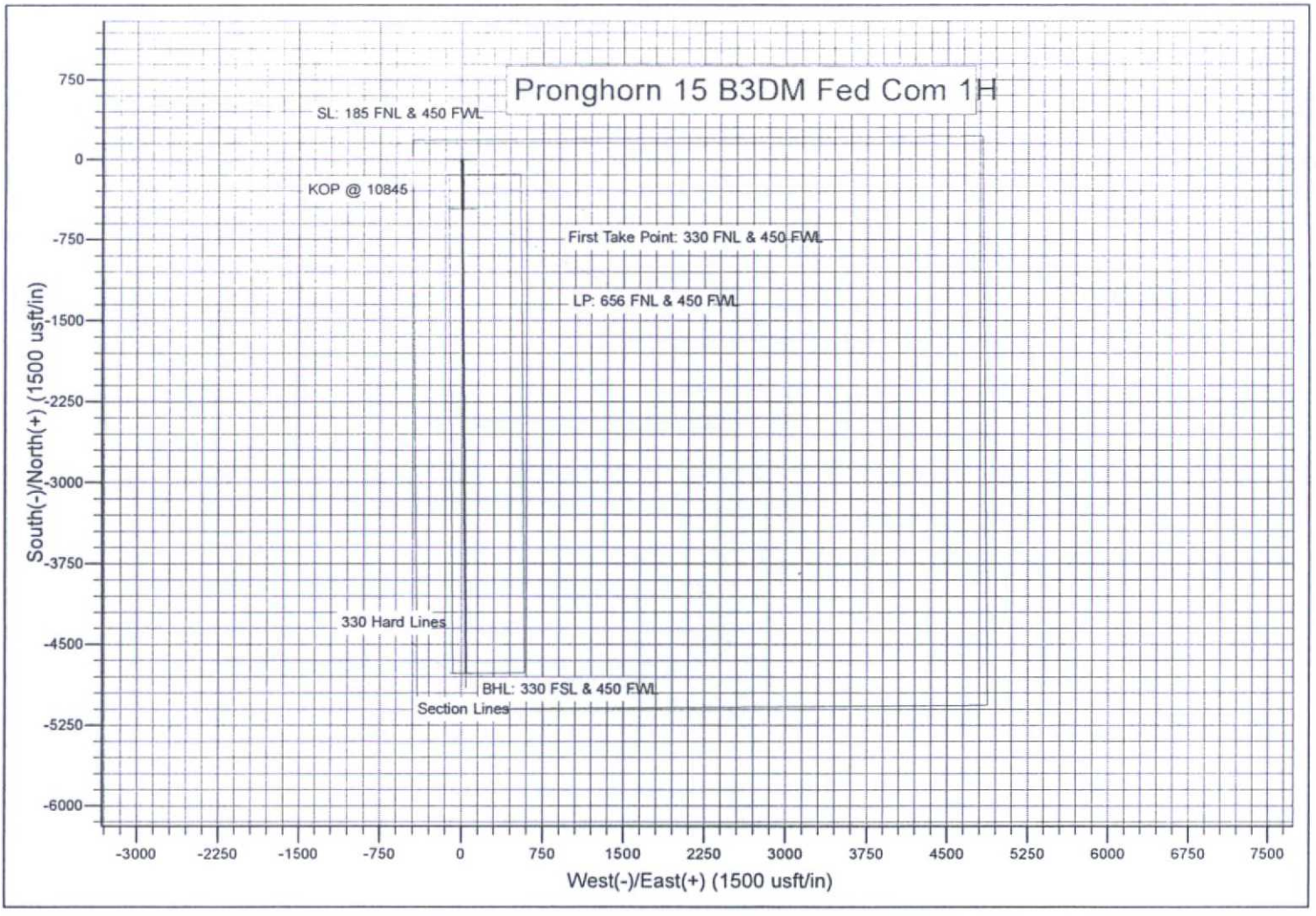
Database:	Hobbs	Local Co-ordinate Reference:	Site Pronghorn 15 B3DM Fed Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 3427.0usft (Original Well Elev)
Project:	Lea County, New Mexico	MD Reference:	WELL @ 3427.0usft (Original Well Elev)
Site:	Pronghorn 15 B3DM Fed Com 1H	North Reference:	Grid
Well:	Sec 15, T23S, R34E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 450' FWL		
Design:	Design #1		

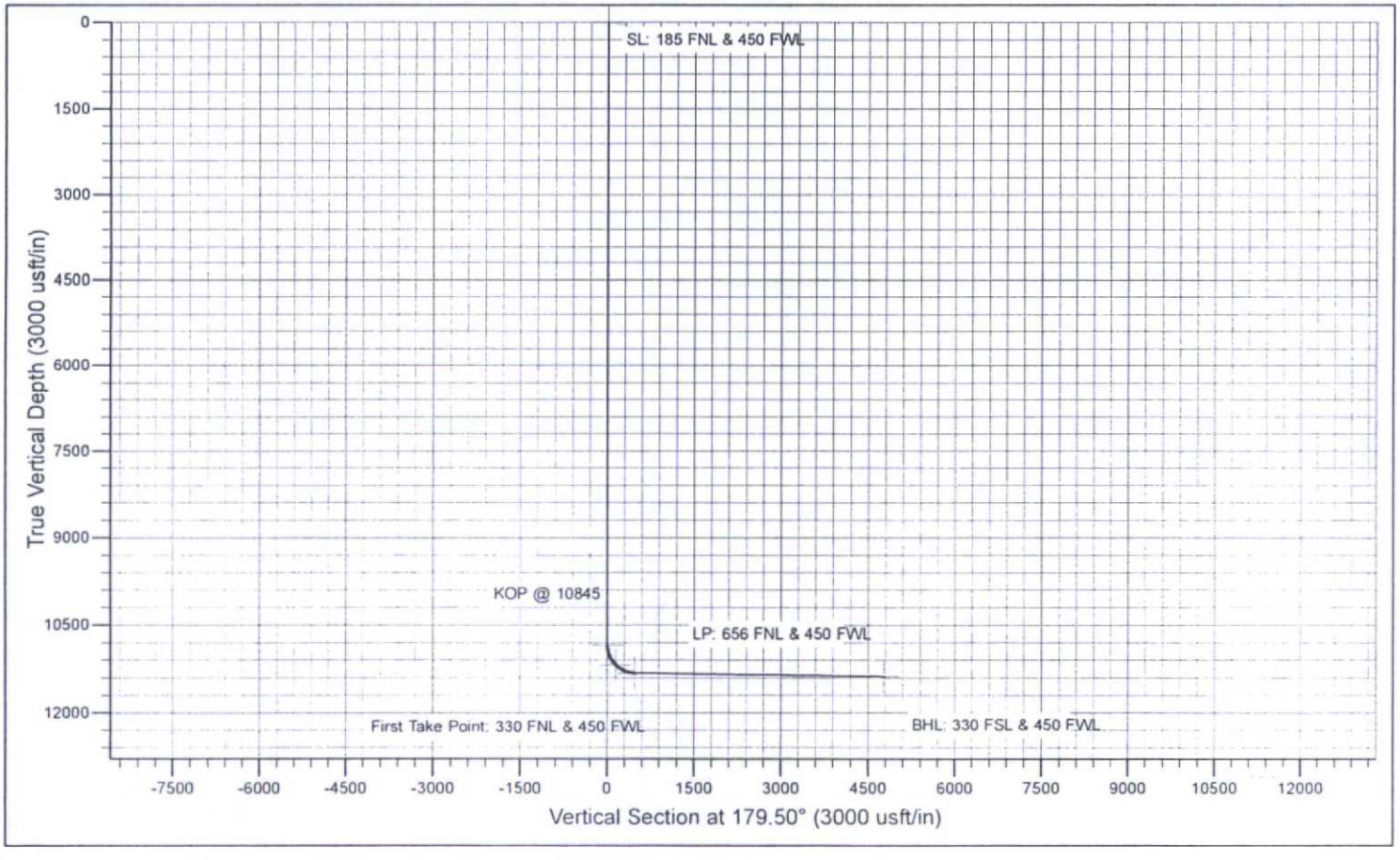
Planned Survey

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)
15,400.0	89.20	179.50	11,375.2	-4,282.4	37.5	4,282.5	0.00	0.00	0.00
15,500.0	89.20	179.50	11,376.6	-4,382.4	38.3	4,382.5	0.00	0.00	0.00
15,600.0	89.20	179.50	11,378.0	-4,482.4	39.2	4,482.5	0.00	0.00	0.00
15,700.0	89.20	179.50	11,379.4	-4,582.3	40.1	4,582.5	0.00	0.00	0.00
15,800.0	89.20	179.50	11,380.8	-4,682.3	41.0	4,682.5	0.00	0.00	0.00
15,885.2	89.20	179.50	11,382.0	-4,767.5	41.7	4,767.7	0.00	0.00	0.00
BHL: 330 FSL & 450 FWL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 185 FNL & 450 FWL - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	478,039.00	768,405.30	32° 18' 40.519 N	103° 27' 52.422 W
KOP @ 10845 - plan hits target center - Point	0.00	0.00	10,844.5	0.0	0.0	478,039.00	768,405.30	32° 18' 40.519 N	103° 27' 52.422 W
First Take Point: 330 FN - plan hits target center - Point	0.00	0.00	11,187.2	-145.0	1.3	477,894.00	768,406.60	32° 18' 39.084 N	103° 27' 52.421 W
LP: 656 FNL & 450 FWL - plan hits target center - Point	0.00	0.00	11,322.0	-470.9	4.1	477,568.10	768,409.40	32° 18' 35.859 N	103° 27' 52.419 W
BHL: 330 FSL & 450 FW - plan hits target center - Point	0.00	0.00	11,382.0	-4,767.5	41.7	473,271.50	768,447.00	32° 17' 53.341 N	103° 27' 52.387 W


Pronghorn 15 B3DM Fed Com 1H
SL: 185 FNL & 450 FWL
KOP @ 10845
First Take Point: 330 FNL & 450 FWL
LP: 656 FNL & 450 FWL
330 Hard Lines
BHL: 330 FSL & 450 FWL
Section Lines
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)
750
0
-750
-1500
-2250
-3000
-3750
-4500
-5250
-6000
-3000
-2250
-1500
-750
0
750
1500
2250
3000
3750
4500
5250
6000
6750
7500


SL: 185 FNL & 450 FWL
KOP @ 10845
LP: 656 FNL & 450 FWL
First Take Point: 330 FNL & 450 FWL
BHL: 330 FSL & 450 FWL
True Vertical Depth (3000 usft/in)
Vertical Section at 179.50° (3000 usft/in)
0
1500
3000
4500
6000
7500
9000
10500
12000
-7500
-6000
-4500
-3000
-1500
0
1500
3000
4500
6000
7500
9000
10500
12000