

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM033312A

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
BLACK SHEEP 4/33 B3PA FED COM 2H9. API Well No.
30-025-45601-00-X110. Field and Pool or Exploratory Area
GRAMA RIDGE-BONE SPRINGS, WES11. County or Parish, State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
MEWBOURNE OIL COMPANYContact: JACKIE LATHAN
E-Mail: jlathan@mewbourne.com3a. Address
P O BOX 5270
HOBBS, NM 882413b. Phone No. (include area code)
Ph: 575-393-5905

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 4 T22S R34E SWSE 222FSL 2078FEL
32.414085 N Lat, 103.473068 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Mewbourne Oil Company requests approval to make the following changes to the approved APD:

- 1) Change well name to Black Sheep 4/33 B3PA Fed Com #2H.
- 2) Change BHL to 100' FNL & 660' FEL, Sec 33, T21S, R34E.
- 3) Change production casing to 7 5/8" P-110 FJ.

See attachments for C-102, directional plan & csg/cmt design.
Please contact Andy Taylor with any questions.**Carlsbad Field Office**
Operator Copy

Approved with conditions.
See attached COA.
All Previous COAs still Apply.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #509862 verified by the BLM Well Information System
For MEWBOURNE OIL COMPANY, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 04/07/2020 (20PP1974SE)

Name (Printed/Typed) ANDY TAYLOR

Title ENGINEER

Signature (Electronic Submission)

Date 04/06/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By OLABODE AJIBOLA

Title PETROLEUM ENGINEER

Date 07/24/2020

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Hobbs

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

KZ
E docs

Revisions to Operator-Submitted EC Data for Sundry Notice #509862

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM033312A	NMNM033312A
Agreement:		
Operator:	MEWBOURNE OIL COMPANY PO BOX 5270 HOBBS, NM 88241 Ph: 575-393-5905	MEWBOURNE OIL COMPANY P O BOX 5270 HOBBS, NM 88241 Ph: 575.393.5905
Admin Contact:	JACKIE LATHAN AUTHORIZED REPRESENTATIVE E-Mail: jlathan@mewbourne.com Ph: 575-393-5905	JACKIE LATHAN AUTHORIZED REPRESENTATIVE E-Mail: jlathan@mewbourne.com Ph: 575-393-5905
Tech Contact:	ANDY TAYLOR ENGINEER E-Mail: ataylor@mewbourne.com Ph: 575-393-5905	ANDY TAYLOR ENGINEER E-Mail: ataylor@mewbourne.com Ph: 575.393.5905
Location:		
State:	NM	NM
County:	LEA	LEA
Field/Pool:	GRAMMA RIDGE BONE SPRING	GRAMA RIDGE-BONE SPRINGS, WEST
Well/Facility:	BLACK SHEEP 4 B2OB FED COM 2H Sec 4 T22S R34E Mer NMP SWSE 222FSL 2078FEL	BLACK SHEEP 4/33 B3PA FED COM 2H Sec 4 T22S R34E SWSE 222FSL 2078FEL 32.414085 N Lat, 103.473068 W Lon

PECOS DISTRICT

DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NMNM033312A
WELL NAME & NO.:	BLACK SHEEP 4/33 B3PA FED COM 2H
SURFACE HOLE FOOTAGE:	222' FSL & 2078' FEL
BOTTOM HOLE FOOTAGE	100' FNL & 660' FEL
LOCATION:	Section 4, T. 22 S., R 34 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	☒ Yes	☐ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☒ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit

All Previous COAs Still Apply.

A. CASING

1. The 13-3/8 inch surface casing shall be set at approximately **1782 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - 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 **9-5/8** inch intermediate casing, which shall be set at approximately **5400 feet** is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. The minimum required fill of cement behind the **7-5/8** inch production casing is:

Operator has proposed DV tool at depth of **6047'**, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

Excess cement calculates to -4%, additional cement might be required.

- b. Second stage above DV tool:

- Cement should tie-back at least **50 feet** above the Capitan Reef. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

- Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - 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. 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.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

C. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

OTA07242020

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

¹ API Number 30-025-45601		² Pool Code 28430		³ Pool Name GRAMA RIDGE; BONE SPRING					
⁴ Property Code 324984		⁵ Property Name BLACK SHEEP 4/33 B3PA FED COM						⁶ Well Number 2H	
⁷ OGRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY						⁹ Elevation 3597'	
¹⁰ Surface Location									
UL or lot no. 0	Section 4	Township 22S	Range 34E	Lot Idn	Feet from the 222	North/South line SOUTH	Feet From the 2078	East/West line EAST	County LEA
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. B A	Section 33	Township 21S	Range 34E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 660	East/West line EAST	County LEA
¹² Dedicated Acres 321.39		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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

S 89°16'55" W 2641.31' (E) S 89°16'16" W 2640.08' (F) 100' B.H. 660' GEODETIC DATA NAD 83 GRID - NM EAST BOTTOM HOLE N: 525749.4 - E: 808151.0 LAT: 32.4423805° N LONG: 103.4684473° W 33 LOT 4 40.99 AC. LOT 3 41.12 AC. LOT 2 41.26 AC. LOT 1 41.39 AC. GEODETIC DATA NAD 83 GRID - NM EAST SURFACE LOCATION N: 515443.3 - E: 808808.9 LAT: 32.4140838° N LONG: 103.4730660° W 222' S.L. 2078' S 89°26'39" W 2648.47' (K) S 89°34'18" W 2647.53'		CORNER DATA NAD 83 GRID - NM EAST A: FOUND BRASS CAP "1913" N: 515193.7 - E: 803593.0 B: FOUND BRASS CAP "1913" N: 517831.6 - E: 803583.3 C: FOUND BRASS CAP "1913" N: 520510.0 - E: 803575.1 D: FOUND BRASS CAP "1913" N: 525791.1 - E: 803529.9 E: FOUND BRASS CAP "1913" N: 525824.2 - E: 806170.5 F: FOUND BRASS CAP "1913" N: 525857.8 - E: 808809.9 G: FOUND BRASS "1918" N: 523214.9 - E: 808832.6 H: FOUND BRASS CAP "1913" N: 520568.2 - E: 808856.0 I: FOUND BRASS CAP "1913" N: 517880.2 - E: 808871.5 J: FOUND BRASS CAP "1913" N: 515239.1 - E: 808867.9 K: FOUND BRASS CAP "1913" N: 515219.3 - E: 806240.9 L: FOUND BRASS CAP "1913" N: 520539.1 - E: 806215.5		¹⁷ 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. Signature: <i>Andy Taylor</i> Date: <i>4/1/2020</i> Printed Name: <i>Andy Taylor</i> E-mail Address: <i>ataylor@mebourne.com</i>	
¹⁸ 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. 3-25-2019 Date of Survey Signature and Seal of Professional Surveyor: <i>Robert M. Howett</i> 19680 Certificate Number REV:3-30-20 NAME/BHL		LS1802134R1			

Mewbourne Oil Company, Black Sheep 4/33 B3PA Prod Com #2H

Sec 4, T22S, R34E

SL: 222' FSL & 2078' FEL (Sec 4)

BHL: 100' FNL & 660' FEL (Sec 33)

Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	1495'	13.375"	48	H40	STC	1.13	2.53	3.68	6.19
17.5"	1495'	1782'	13.375"	54.5	J55	STC	1.39	3.35	32.94	54.67
12.25"	0'	4393'	9.625"	40	J55	LTC	1.13	1.73	2.41	2.92
12.25"	4393'	5400'	9.625"	40	HCL80	LTC	1.51	2.05	20.78	22.74
8.75"	0'	11,631'	7.625"	39	HCP110	FJ	2.15	2.23	1.90 (W)	3.19 (W)
6.125"	10,885'	21,664'	4.5"	13.5	P110	LTC	1.81	2.10	2.32	2.90
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd 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?	

Mewbourne Oil Company, Black Sheep 4/33 B3PA Prod Com #2H**Sec 4, T22S, R34E****SL: 222' FSL & 2078' FEL (Sec 4)****BHL: 100' FNL & 660' FEL (Sec 33)****Production Casing Tension Calculation**

Dry Weight = 11,631 ft x 39 lb/ft = 453,609 lb

Buoyancy Factor = $(65.4 - 9.7)/65.4 = 0.852$

Buoyant Weight = 453,609 lb x 0.852 = 386,331 lb

Safety Factor = 733,000 lb/386,331 lb = 1.897

Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	1045	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Inter.	940	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod. Stg 1	115	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
ECP/DV Tool @ 6047'						
Prod. Stg 2	60	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	100	14.8	1.34	6.3	8	Tail: Class C + Retarder
Liner	440	11.2	2.97	18	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4287'	25%
Liner	10,885'	25%

Preliminary Horizontal Planning Worksheet

Fill in the Blue Boxes

Yellow Boxes are Calculated

8/29/2019

Revised 3/27/20

Well Name:		Black Sheep 4/33 B3PA Fed Com #2H	
Surface Location:		222 FSL & 2078 FEL	
State/ County		NM/Lea	
S-T-R or Section-Block-Survey (Texas)		Section 4/ 22S/ 34E	
Target Formation:		3rd Bone Spring Lower Sand (B3L) tan sand	
Field:		Grama Ridge; Bone Spring	
Spacing:		320, 160 acre/section	
Setbacks:		100 FNL & FSL; 330 FEL & FWL	
Elevation of SL			
Ground Level:	3597	loc plat	
Height of KB:	28		
KB Elevation:	3625		
Landing Point		or as close to FTP of 100 FNL as possible	
Footings Calls	470 FSL & 660 FEL, Sec 4/22S/34E		
Subsea Depth	-7620		
TVD =	11245		
PBHL			
Footings Calls	100 FNL & 660 FEL, Sec 33/21S/34E		
Subsea Depth	-7715		
TVD =	11340		
Lateral Length:		9912.16	
Estimated KOP:		10767.54	
Est. Total Depth:		21425.12	
12 degree build			

PBHL Offsets =	10284.7	NS
	1440.2	EW

Anticipated Formation Tops:			
Formation	Est. Top	Formation	Est. Top
Rustler	1705	Delaware (Lamar)	5475
Salt Top	2185	Bell Canyon	
Salt Base	3755	Cherry Canyon	5895
Yates	4000	Manzanita Marker	6045
Seven Rivers		Basal Brushy Canyon	
Queen		Bone Spring	8440
Capitan	4335	1st Bone Spring Sand	9512
Grayburg		2nd Bone Spring Sand	10067
San Andres		3rd Bone Spring Sand	10958
Glorieta		Abo	
Yeso		Wolfcamp	



U. S. Steel Tubular Products

1/21/2020 11:41:25 AM

7.625" 39.00lbs/ft (0.500" Wall) P110 HC USS-LIBERTY FJM®



MECHANICAL PROPERTIES	Pipe	USS-LIBERTY FJM®	
Minimum Yield Strength	110,000	--	psi
Maximum Yield Strength	140,000	--	psi
Minimum Tensile Strength	125,000	--	psi
DIMENSIONS	Pipe	USS-LIBERTY FJM®	
Outside Diameter	7.625	7.625	in.
Wall Thickness	0.500	--	in.
Inside Diameter	6.625	6.539	in.
Standard Drift	6.500	6.500	in.
Alternate Drift	--	--	in.
Nominal Linear Weight, T&C	39.00	--	lbs/ft
Plain End Weight	38.08	--	lbs/ft
SECTION AREA	Pipe	USS-LIBERTY FJM®	
Critical Area	11,192	6,665	sq. in.
Joint Efficiency	--	59.5	%
PERFORMANCE	Pipe	USS-LIBERTY FJM®	
Minimum Collapse Pressure	12,180	12,180	psi
Minimum Internal Yield Pressure	12,640	12,640	psi
Minimum Pipe Body Yield Strength	1,231,000	--	lbs
Joint Strength	--	733,000	lbs
Compression Rating	--	733,000	lbs
Reference Length	--	12,843	ft
Maximum Uniaxial Bend Rating	--	39.4	deg/100 ft
MAKE-UP DATA	Pipe	USS-LIBERTY FJM®	
Make-Up Loss	--	4.75	in.
Minimum Make-Up Torque	--	14,700	ft-lbs
Maximum Make-Up Torque	--	20,750	ft-lbs

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
2. Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
4. USS-LIBERTY FJM™ connections are optimized for each combination of OD and wall thickness and cannot be interchanged.
5. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
6. Reference length is calculated by joint strength divided by nominal plain end weight with 1.5 safety factor.
7. Connection external pressure leak resistance has been verified to 100% API pipe body collapse pressure following the guidelines of API 5C5 Cal III.

Legal Notice

USS-LIBERTY FJM® is a trademark of U. S. Steel Corporation. All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U.S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

Mewbourne Oil Company

Lea County, New Mexico NAD 83

Black Sheep 4/33 B3PA Fed Com #2H

Sec 4, T22S, R34E

SHL: 222' FSL & 2078' FEL, Sec 4

BHL: 100' FNL & 660' FEL, Sec 33

Plan: Design #1

Standard Planning Report

02 April, 2020

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico NAD 83
Site: Black Sheep 4/33 B3PA Fed Com #2H
Well: Sec 4, T22S, R34E
Wellbore: BHL: 100' FNL & 660' FEL, Sec 33
Design: Design #1

Local Co-ordinate Reference: Site Black Sheep 4/33 B3PA Fed Com #2H
TVD Reference: WELL @ 3625.0usft (Original Well Elev)
MD Reference: WELL @ 3625.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, New Mexico 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	Black Sheep 4/33 B3PA Fed Com #2H			
Site Position:		Northing:	515,443.00 usft	Latitude: 32.4140831
From:	Map	Easting:	806,809.00 usft	Longitude: -103.4730658
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.46 °

Well	Sec 4, T22S, R34E			
Well Position	+N/-S	0.0 usft	Northing:	515,443.00 usft
	+E/-W	0.0 usft	Easting:	806,809.00 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:	3,625.0 usft
			Ground Level:	3,597.0 usft

Wellbore	BHL: 100' FNL & 660' FEL, Sec 33				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	7.12	60.29	48,385

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	7.42

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	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,279.1	9.58	97.98	2,276.9	-5.6	39.6	2.00	2.00	0.00	97.98	
10,406.3	9.58	97.98	10,290.6	-193.4	1,379.4	0.00	0.00	0.00	0.00	
10,885.4	0.00	0.00	10,767.5	-199.0	1,419.0	2.00	-2.00	0.00	180.00	KOP: 10' FSL & 660' I
11,630.9	89.46	359.58	11,245.0	273.9	1,415.5	12.00	12.00	0.00	-0.42	
21,663.7	89.46	359.58	11,340.0	10,306.0	1,342.0	0.00	0.00	0.00	0.00	BHL: 100' FNL & 660'

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico NAD 83
Site: Black Sheep 4/33 B3PA Fed Com #2H
Well: Sec 4, T22S, R34E
Wellbore: BHL: 100' FNL & 660' FEL, Sec 33
Design: Design #1

Local Co-ordinate Reference: Site Black Sheep 4/33 B3PA Fed Com #2H
TVD Reference: WELL @ 3625.0usft (Original Well Elev)
MD Reference: WELL @ 3625.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
SHL: 222' FSL & 2078' FEL (4)									
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	2.00	97.98	1,900.0	-0.2	1.7	0.0	2.00	2.00	0.00
2,000.0	4.00	97.98	1,999.8	-1.0	6.9	-0.1	2.00	2.00	0.00
2,100.0	6.00	97.98	2,099.5	-2.2	15.5	-0.2	2.00	2.00	0.00
2,200.0	8.00	97.98	2,198.7	-3.9	27.6	-0.3	2.00	2.00	0.00
2,279.1	9.58	97.98	2,276.9	-5.6	39.6	-0.4	2.00	2.00	0.00
2,300.0	9.58	97.98	2,297.5	-6.0	43.0	-0.4	0.00	0.00	0.00
2,400.0	9.58	97.98	2,396.1	-8.3	59.5	-0.6	0.00	0.00	0.00
2,500.0	9.58	97.98	2,494.7	-10.7	76.0	-0.8	0.00	0.00	0.00
2,600.0	9.58	97.98	2,593.3	-13.0	92.5	-0.9	0.00	0.00	0.00
2,700.0	9.58	97.98	2,691.9	-15.3	109.0	-1.1	0.00	0.00	0.00
2,800.0	9.58	97.98	2,790.5	-17.6	125.5	-1.2	0.00	0.00	0.00
2,900.0	9.58	97.98	2,889.1	-19.9	141.9	-1.4	0.00	0.00	0.00
3,000.0	9.58	97.98	2,987.7	-22.2	158.4	-1.6	0.00	0.00	0.00
3,100.0	9.58	97.98	3,086.3	-24.5	174.9	-1.7	0.00	0.00	0.00
3,200.0	9.58	97.98	3,184.9	-26.8	191.4	-1.9	0.00	0.00	0.00
3,300.0	9.58	97.98	3,283.5	-29.2	207.9	-2.1	0.00	0.00	0.00
3,400.0	9.58	97.98	3,382.1	-31.5	224.4	-2.2	0.00	0.00	0.00
3,500.0	9.58	97.98	3,480.7	-33.8	240.9	-2.4	0.00	0.00	0.00
3,600.0	9.58	97.98	3,579.3	-36.1	257.3	-2.6	0.00	0.00	0.00
3,700.0	9.58	97.98	3,677.9	-38.4	273.8	-2.7	0.00	0.00	0.00
3,800.0	9.58	97.98	3,776.5	-40.7	290.3	-2.9	0.00	0.00	0.00
3,900.0	9.58	97.98	3,875.2	-43.0	306.8	-3.0	0.00	0.00	0.00
4,000.0	9.58	97.98	3,973.8	-45.3	323.3	-3.2	0.00	0.00	0.00
4,100.0	9.58	97.98	4,072.4	-47.6	339.8	-3.4	0.00	0.00	0.00
4,200.0	9.58	97.98	4,171.0	-50.0	356.3	-3.5	0.00	0.00	0.00
4,300.0	9.58	97.98	4,269.6	-52.3	372.7	-3.7	0.00	0.00	0.00
4,400.0	9.58	97.98	4,368.2	-54.6	389.2	-3.9	0.00	0.00	0.00
4,500.0	9.58	97.98	4,466.8	-56.9	405.7	-4.0	0.00	0.00	0.00
4,600.0	9.58	97.98	4,565.4	-59.2	422.2	-4.2	0.00	0.00	0.00
4,700.0	9.58	97.98	4,664.0	-61.5	438.7	-4.4	0.00	0.00	0.00
4,800.0	9.58	97.98	4,762.6	-63.8	455.2	-4.5	0.00	0.00	0.00
4,900.0	9.58	97.98	4,861.2	-66.1	471.7	-4.7	0.00	0.00	0.00
5,000.0	9.58	97.98	4,959.8	-68.5	488.1	-4.9	0.00	0.00	0.00
5,100.0	9.58	97.98	5,058.4	-70.8	504.6	-5.0	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico NAD 83
Site: Black Sheep 4/33 B3PA Fed Com #2H
Well: Sec 4, T22S, R34E
Wellbore: BHL: 100' FNL & 660' FEL, Sec 33
Design: Design #1

Local Co-ordinate Reference: Site Black Sheep 4/33 B3PA Fed Com #2H
TVD Reference: WELL @ 3625.0usft (Original Well Elev)
MD Reference: WELL @ 3625.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
5,200.0	9.58	97.98	5,157.0	-73.1	521.1	-5.2	0.00	0.00	0.00
5,300.0	9.58	97.98	5,255.6	-75.4	537.6	-5.3	0.00	0.00	0.00
5,400.0	9.58	97.98	5,354.2	-77.7	554.1	-5.5	0.00	0.00	0.00
5,500.0	9.58	97.98	5,452.8	-80.0	570.6	-5.7	0.00	0.00	0.00
5,600.0	9.58	97.98	5,551.4	-82.3	587.1	-5.8	0.00	0.00	0.00
5,700.0	9.58	97.98	5,650.0	-84.6	603.5	-6.0	0.00	0.00	0.00
5,800.0	9.58	97.98	5,748.6	-87.0	620.0	-6.2	0.00	0.00	0.00
5,900.0	9.58	97.98	5,847.2	-89.3	636.5	-6.3	0.00	0.00	0.00
6,000.0	9.58	97.98	5,945.8	-91.6	653.0	-6.5	0.00	0.00	0.00
6,100.0	9.58	97.98	6,044.5	-93.9	669.5	-6.7	0.00	0.00	0.00
6,200.0	9.58	97.98	6,143.1	-96.2	686.0	-6.8	0.00	0.00	0.00
6,300.0	9.58	97.98	6,241.7	-98.5	702.5	-7.0	0.00	0.00	0.00
6,400.0	9.58	97.98	6,340.3	-100.8	718.9	-7.1	0.00	0.00	0.00
6,500.0	9.58	97.98	6,438.9	-103.1	735.4	-7.3	0.00	0.00	0.00
6,600.0	9.58	97.98	6,537.5	-105.4	751.9	-7.5	0.00	0.00	0.00
6,700.0	9.58	97.98	6,636.1	-107.8	768.4	-7.6	0.00	0.00	0.00
6,800.0	9.58	97.98	6,734.7	-110.1	784.9	-7.8	0.00	0.00	0.00
6,900.0	9.58	97.98	6,833.3	-112.4	801.4	-8.0	0.00	0.00	0.00
7,000.0	9.58	97.98	6,931.9	-114.7	817.9	-8.1	0.00	0.00	0.00
7,100.0	9.58	97.98	7,030.5	-117.0	834.3	-8.3	0.00	0.00	0.00
7,200.0	9.58	97.98	7,129.1	-119.3	850.8	-8.5	0.00	0.00	0.00
7,300.0	9.58	97.98	7,227.7	-121.6	867.3	-8.6	0.00	0.00	0.00
7,400.0	9.58	97.98	7,326.3	-123.9	883.8	-8.8	0.00	0.00	0.00
7,500.0	9.58	97.98	7,424.9	-126.3	900.3	-8.9	0.00	0.00	0.00
7,600.0	9.58	97.98	7,523.5	-128.6	916.8	-9.1	0.00	0.00	0.00
7,700.0	9.58	97.98	7,622.1	-130.9	933.3	-9.3	0.00	0.00	0.00
7,800.0	9.58	97.98	7,720.7	-133.2	949.7	-9.4	0.00	0.00	0.00
7,900.0	9.58	97.98	7,819.3	-135.5	966.2	-9.6	0.00	0.00	0.00
8,000.0	9.58	97.98	7,917.9	-137.8	982.7	-9.8	0.00	0.00	0.00
8,100.0	9.58	97.98	8,016.5	-140.1	999.2	-9.9	0.00	0.00	0.00
8,200.0	9.58	97.98	8,115.2	-142.4	1,015.7	-10.1	0.00	0.00	0.00
8,300.0	9.58	97.98	8,213.8	-144.8	1,032.2	-10.3	0.00	0.00	0.00
8,400.0	9.58	97.98	8,312.4	-147.1	1,048.7	-10.4	0.00	0.00	0.00
8,500.0	9.58	97.98	8,411.0	-149.4	1,065.1	-10.6	0.00	0.00	0.00
8,600.0	9.58	97.98	8,509.6	-151.7	1,081.6	-10.8	0.00	0.00	0.00
8,700.0	9.58	97.98	8,608.2	-154.0	1,098.1	-10.9	0.00	0.00	0.00
8,800.0	9.58	97.98	8,706.8	-156.3	1,114.6	-11.1	0.00	0.00	0.00
8,900.0	9.58	97.98	8,805.4	-158.6	1,131.1	-11.2	0.00	0.00	0.00
9,000.0	9.58	97.98	8,904.0	-160.9	1,147.6	-11.4	0.00	0.00	0.00
9,100.0	9.58	97.98	9,002.6	-163.2	1,164.1	-11.6	0.00	0.00	0.00
9,200.0	9.58	97.98	9,101.2	-165.6	1,180.5	-11.7	0.00	0.00	0.00
9,300.0	9.58	97.98	9,199.8	-167.9	1,197.0	-11.9	0.00	0.00	0.00
9,400.0	9.58	97.98	9,298.4	-170.2	1,213.5	-12.1	0.00	0.00	0.00
9,500.0	9.58	97.98	9,397.0	-172.5	1,230.0	-12.2	0.00	0.00	0.00
9,600.0	9.58	97.98	9,495.6	-174.8	1,246.5	-12.4	0.00	0.00	0.00
9,700.0	9.58	97.98	9,594.2	-177.1	1,263.0	-12.6	0.00	0.00	0.00
9,800.0	9.58	97.98	9,692.8	-179.4	1,279.5	-12.7	0.00	0.00	0.00
9,900.0	9.58	97.98	9,791.4	-181.7	1,296.0	-12.9	0.00	0.00	0.00
10,000.0	9.58	97.98	9,890.0	-184.1	1,312.4	-13.0	0.00	0.00	0.00
10,100.0	9.58	97.98	9,988.6	-186.4	1,328.9	-13.2	0.00	0.00	0.00
10,200.0	9.58	97.98	10,087.2	-188.7	1,345.4	-13.4	0.00	0.00	0.00
10,300.0	9.58	97.98	10,185.8	-191.0	1,361.9	-13.5	0.00	0.00	0.00
10,400.0	9.58	97.98	10,284.5	-193.3	1,378.4	-13.7	0.00	0.00	0.00
10,406.3	9.58	97.98	10,290.6	-193.4	1,379.4	-13.7	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico NAD 83
Site: Black Sheep 4/33 B3PA Fed Com #2H
Well: Sec 4, T22S, R34E
Wellbore: BHL: 100' FNL & 660' FEL, Sec 33
Design: Design #1

Local Co-ordinate Reference: Site Black Sheep 4/33 B3PA Fed Com #2H
TVD Reference: WELL @ 3625.0usft (Original Well Elev)
MD Reference: WELL @ 3625.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	7.71	97.98	10,383.3	-195.4	1,393.4	-13.9	2.00	-2.00	0.00
10,600.0	5.71	97.98	10,482.6	-197.0	1,404.9	-14.0	2.00	-2.00	0.00
10,700.0	3.71	97.98	10,582.3	-198.2	1,413.1	-14.0	2.00	-2.00	0.00
10,800.0	1.71	97.98	10,682.1	-198.8	1,417.7	-14.1	2.00	-2.00	0.00
10,885.4	0.00	0.00	10,767.5	-199.0	1,419.0	-14.1	2.00	-2.00	0.00
KOP: 10' FSL & 660' FEL (4)									
10,900.0	1.75	359.58	10,782.1	-198.8	1,419.0	-13.9	12.00	12.00	0.00
11,000.0	13.75	359.58	10,881.0	-185.3	1,418.9	-0.5	12.00	12.00	0.00
11,100.0	25.75	359.58	10,975.0	-151.6	1,418.7	32.9	12.00	12.00	0.00
11,183.4	35.76	359.58	11,046.6	-109.0	1,418.3	75.1	12.00	12.00	0.00
FTP: 100' FSL & 660' FEL (4)									
11,200.0	37.75	359.58	11,059.9	-99.1	1,418.3	84.9	12.00	12.00	0.00
11,300.0	49.75	359.58	11,132.0	-30.0	1,417.8	153.3	12.00	12.00	0.00
11,400.0	61.75	359.58	11,188.1	52.5	1,417.2	235.0	12.00	12.00	0.00
11,500.0	73.75	359.58	11,225.9	144.8	1,416.5	326.5	12.00	12.00	0.00
11,600.0	85.75	359.58	11,243.7	243.1	1,415.8	423.8	12.00	12.00	0.00
11,630.9	89.45	359.58	11,245.0	273.9	1,415.5	454.4	12.00	12.00	0.00
LP: 483' FSL & 660' FEL (4)									
11,700.0	89.46	359.58	11,245.7	343.0	1,415.0	522.9	0.01	0.01	0.00
11,800.0	89.46	359.58	11,246.6	443.0	1,414.3	621.9	0.00	0.00	0.00
11,900.0	89.46	359.58	11,247.5	543.0	1,413.6	721.0	0.00	0.00	0.00
12,000.0	89.46	359.58	11,248.5	643.0	1,412.8	820.1	0.00	0.00	0.00
12,100.0	89.46	359.58	11,249.4	743.0	1,412.1	919.1	0.00	0.00	0.00
12,200.0	89.46	359.58	11,250.4	843.0	1,411.4	1,018.2	0.00	0.00	0.00
12,300.0	89.46	359.58	11,251.3	943.0	1,410.6	1,117.2	0.00	0.00	0.00
12,400.0	89.46	359.58	11,252.3	1,043.0	1,409.9	1,216.3	0.00	0.00	0.00
12,500.0	89.46	359.58	11,253.2	1,143.0	1,409.2	1,315.4	0.00	0.00	0.00
12,600.0	89.46	359.58	11,254.2	1,243.0	1,408.4	1,414.4	0.00	0.00	0.00
12,700.0	89.46	359.58	11,255.1	1,343.0	1,407.7	1,513.5	0.00	0.00	0.00
12,800.0	89.46	359.58	11,256.1	1,443.0	1,407.0	1,612.5	0.00	0.00	0.00
12,900.0	89.46	359.58	11,257.0	1,542.9	1,406.2	1,711.6	0.00	0.00	0.00
13,000.0	89.46	359.58	11,258.0	1,642.9	1,405.5	1,810.7	0.00	0.00	0.00
13,100.0	89.46	359.58	11,258.9	1,742.9	1,404.8	1,909.7	0.00	0.00	0.00
13,200.0	89.46	359.58	11,259.9	1,842.9	1,404.0	2,008.8	0.00	0.00	0.00
13,300.0	89.46	359.58	11,260.8	1,942.9	1,403.3	2,107.9	0.00	0.00	0.00
13,400.0	89.46	359.58	11,261.8	2,042.9	1,402.6	2,206.9	0.00	0.00	0.00
13,500.0	89.46	359.58	11,262.7	2,142.9	1,401.8	2,306.0	0.00	0.00	0.00
13,600.0	89.46	359.58	11,263.6	2,242.9	1,401.1	2,405.0	0.00	0.00	0.00
13,700.0	89.46	359.58	11,264.6	2,342.9	1,400.4	2,504.1	0.00	0.00	0.00
13,800.0	89.46	359.58	11,265.5	2,442.9	1,399.6	2,603.2	0.00	0.00	0.00
13,900.0	89.46	359.58	11,266.5	2,542.9	1,398.9	2,702.2	0.00	0.00	0.00
14,000.0	89.46	359.58	11,267.4	2,642.9	1,398.2	2,801.3	0.00	0.00	0.00
14,100.0	89.46	359.58	11,268.4	2,742.9	1,397.4	2,900.3	0.00	0.00	0.00
14,200.0	89.46	359.58	11,269.3	2,842.9	1,396.7	2,999.4	0.00	0.00	0.00
14,300.0	89.46	359.58	11,270.3	2,942.8	1,396.0	3,098.5	0.00	0.00	0.00
14,400.0	89.46	359.58	11,271.2	3,042.8	1,395.2	3,197.5	0.00	0.00	0.00
14,500.0	89.46	359.58	11,272.2	3,142.8	1,394.5	3,296.6	0.00	0.00	0.00
14,600.0	89.46	359.58	11,273.1	3,242.8	1,393.8	3,395.6	0.00	0.00	0.00
14,700.0	89.46	359.58	11,274.1	3,342.8	1,393.0	3,494.7	0.00	0.00	0.00
14,800.0	89.46	359.58	11,275.0	3,442.8	1,392.3	3,593.8	0.00	0.00	0.00
14,900.0	89.46	359.58	11,276.0	3,542.8	1,391.6	3,692.8	0.00	0.00	0.00
15,000.0	89.46	359.58	11,276.9	3,642.8	1,390.8	3,791.9	0.00	0.00	0.00
15,100.0	89.46	359.58	11,277.8	3,742.8	1,390.1	3,891.0	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico NAD 83
Site: Black Sheep 4/33 B3PA Fed Com #2H
Well: Sec 4, T22S, R34E
Wellbore: BHL: 100' FNL & 660' FEL, Sec 33
Design: Design #1

Local Co-ordinate Reference: Site Black Sheep 4/33 B3PA Fed Com #2H
TVD Reference: WELL @ 3625.0usft (Original Well Elev)
MD Reference: WELL @ 3625.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
15,200.0	89.46	359.58	11,278.8	3,842.8	1,389.4	3,990.0	0.00	0.00	0.00
15,300.0	89.46	359.58	11,279.7	3,942.8	1,388.6	4,089.1	0.00	0.00	0.00
15,400.0	89.46	359.58	11,280.7	4,042.8	1,387.9	4,188.1	0.00	0.00	0.00
15,500.0	89.46	359.58	11,281.6	4,142.8	1,387.2	4,287.2	0.00	0.00	0.00
15,600.0	89.46	359.58	11,282.6	4,242.8	1,386.4	4,386.3	0.00	0.00	0.00
15,700.0	89.46	359.58	11,283.5	4,342.7	1,385.7	4,485.3	0.00	0.00	0.00
15,800.0	89.46	359.58	11,284.5	4,442.7	1,385.0	4,584.4	0.00	0.00	0.00
15,900.0	89.46	359.58	11,285.4	4,542.7	1,384.2	4,683.4	0.00	0.00	0.00
16,000.0	89.46	359.58	11,286.4	4,642.7	1,383.5	4,782.5	0.00	0.00	0.00
16,100.0	89.46	359.58	11,287.3	4,742.7	1,382.8	4,881.6	0.00	0.00	0.00
16,200.0	89.46	359.58	11,288.3	4,842.7	1,382.0	4,980.6	0.00	0.00	0.00
16,300.0	89.46	359.58	11,289.2	4,942.7	1,381.3	5,079.7	0.00	0.00	0.00
16,400.0	89.46	359.58	11,290.2	5,042.7	1,380.6	5,178.7	0.00	0.00	0.00
16,500.0	89.46	359.58	11,291.1	5,142.7	1,379.8	5,277.8	0.00	0.00	0.00
16,600.0	89.46	359.58	11,292.1	5,242.7	1,379.1	5,376.9	0.00	0.00	0.00
16,700.0	89.46	359.58	11,293.0	5,342.7	1,378.4	5,475.9	0.00	0.00	0.00
16,800.0	89.46	359.58	11,293.9	5,442.7	1,377.6	5,575.0	0.00	0.00	0.00
16,900.0	89.46	359.58	11,294.9	5,542.7	1,376.9	5,674.1	0.00	0.00	0.00
17,000.0	89.46	359.58	11,295.8	5,642.7	1,376.2	5,773.1	0.00	0.00	0.00
17,100.0	89.46	359.58	11,296.8	5,742.6	1,375.4	5,872.2	0.00	0.00	0.00
17,200.0	89.46	359.58	11,297.7	5,842.6	1,374.7	5,971.2	0.00	0.00	0.00
17,300.0	89.46	359.58	11,298.7	5,942.6	1,374.0	6,070.3	0.00	0.00	0.00
17,400.0	89.46	359.58	11,299.6	6,042.6	1,373.2	6,169.4	0.00	0.00	0.00
17,500.0	89.46	359.58	11,300.6	6,142.6	1,372.5	6,268.4	0.00	0.00	0.00
17,600.0	89.46	359.58	11,301.5	6,242.6	1,371.8	6,367.5	0.00	0.00	0.00
17,700.0	89.46	359.58	11,302.5	6,342.6	1,371.1	6,466.5	0.00	0.00	0.00
17,800.0	89.46	359.58	11,303.4	6,442.6	1,370.3	6,565.6	0.00	0.00	0.00
17,900.0	89.46	359.58	11,304.4	6,542.6	1,369.6	6,664.7	0.00	0.00	0.00
18,000.0	89.46	359.58	11,305.3	6,642.6	1,368.9	6,763.7	0.00	0.00	0.00
18,100.0	89.46	359.58	11,306.3	6,742.6	1,368.1	6,862.8	0.00	0.00	0.00
18,200.0	89.46	359.58	11,307.2	6,842.6	1,367.4	6,961.8	0.00	0.00	0.00
18,300.0	89.46	359.58	11,308.1	6,942.6	1,366.7	7,060.9	0.00	0.00	0.00
18,400.0	89.46	359.58	11,309.1	7,042.6	1,365.9	7,160.0	0.00	0.00	0.00
18,500.0	89.46	359.58	11,310.0	7,142.5	1,365.2	7,259.0	0.00	0.00	0.00
18,600.0	89.46	359.58	11,311.0	7,242.5	1,364.5	7,358.1	0.00	0.00	0.00
18,700.0	89.46	359.58	11,311.9	7,342.5	1,363.7	7,457.2	0.00	0.00	0.00
18,800.0	89.46	359.58	11,312.9	7,442.5	1,363.0	7,556.2	0.00	0.00	0.00
18,900.0	89.46	359.58	11,313.8	7,542.5	1,362.3	7,655.3	0.00	0.00	0.00
19,000.0	89.46	359.58	11,314.8	7,642.5	1,361.5	7,754.3	0.00	0.00	0.00
19,100.0	89.46	359.58	11,315.7	7,742.5	1,360.8	7,853.4	0.00	0.00	0.00
19,200.0	89.46	359.58	11,316.7	7,842.5	1,360.1	7,952.5	0.00	0.00	0.00
19,300.0	89.46	359.58	11,317.6	7,942.5	1,359.3	8,051.5	0.00	0.00	0.00
19,400.0	89.46	359.58	11,318.6	8,042.5	1,358.6	8,150.6	0.00	0.00	0.00
19,500.0	89.46	359.58	11,319.5	8,142.5	1,357.9	8,249.6	0.00	0.00	0.00
19,600.0	89.46	359.58	11,320.5	8,242.5	1,357.1	8,348.7	0.00	0.00	0.00
19,700.0	89.46	359.58	11,321.4	8,342.5	1,356.4	8,447.8	0.00	0.00	0.00
19,800.0	89.46	359.58	11,322.4	8,442.5	1,355.7	8,546.8	0.00	0.00	0.00
19,900.0	89.46	359.58	11,323.3	8,542.4	1,354.9	8,645.9	0.00	0.00	0.00
20,000.0	89.46	359.58	11,324.2	8,642.4	1,354.2	8,744.9	0.00	0.00	0.00
20,100.0	89.46	359.58	11,325.2	8,742.4	1,353.5	8,844.0	0.00	0.00	0.00
20,200.0	89.46	359.58	11,326.1	8,842.4	1,352.7	8,943.1	0.00	0.00	0.00
20,300.0	89.46	359.58	11,327.1	8,942.4	1,352.0	9,042.1	0.00	0.00	0.00
20,400.0	89.46	359.58	11,328.0	9,042.4	1,351.3	9,141.2	0.00	0.00	0.00
20,500.0	89.46	359.58	11,329.0	9,142.4	1,350.5	9,240.3	0.00	0.00	0.00

Planning Report

Database: Hobbs
Company: Mewbourne Oil Company
Project: Lea County, New Mexico NAD 83
Site: Black Sheep 4/33 B3PA Fed Com #2H
Well: Sec 4, T22S, R34E
Wellbore: BHL: 100' FNL & 660' FEL, Sec 33
Design: Design #1

Local Co-ordinate Reference: Site Black Sheep 4/33 B3PA Fed Com #2H
TVD Reference: WELL @ 3625.0usft (Original Well Elev)
MD Reference: WELL @ 3625.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
20,600.0	89.46	359.58	11,329.9	9,242.4	1,349.8	9,339.3	0.00	0.00	0.00
20,700.0	89.46	359.58	11,330.9	9,342.4	1,349.1	9,438.4	0.00	0.00	0.00
20,800.0	89.46	359.58	11,331.8	9,442.4	1,348.3	9,537.4	0.00	0.00	0.00
20,900.0	89.46	359.58	11,332.8	9,542.4	1,347.6	9,636.5	0.00	0.00	0.00
21,000.0	89.46	359.58	11,333.7	9,642.4	1,346.9	9,735.6	0.00	0.00	0.00
21,100.0	89.46	359.58	11,334.7	9,742.4	1,346.1	9,834.6	0.00	0.00	0.00
21,200.0	89.46	359.58	11,335.6	9,842.4	1,345.4	9,933.7	0.00	0.00	0.00
21,300.0	89.46	359.58	11,336.6	9,942.3	1,344.7	10,032.7	0.00	0.00	0.00
21,400.0	89.46	359.58	11,337.5	10,042.3	1,343.9	10,131.8	0.00	0.00	0.00
21,500.0	89.46	359.58	11,338.4	10,142.3	1,343.2	10,230.9	0.00	0.00	0.00
21,600.0	89.46	359.58	11,339.4	10,242.3	1,342.5	10,329.9	0.00	0.00	0.00
21,663.7	89.46	359.58	11,340.0	10,306.0	1,342.0	10,393.0	0.00	0.00	0.00

BHL: 100' FNL & 660' FEL (33)

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
SHL: 222' FSL & 2078' F - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	515,443.00	806,809.00	32.4140831	-103.4730658
KOP: 10' FSL & 660' FE - plan hits target center - Point	0.00	0.00	10,767.5	-199.0	1,419.0	515,244.00	808,228.00	32.4135046	-103.4684732
FTP: 100' FSL & 660' FE - plan hits target center - Point	0.00	0.00	11,046.6	-109.0	1,418.3	515,334.00	808,227.34	32.4137520	-103.4684729
LP: 483' FSL & 660' FEL - plan hits target center - Point	0.00	0.00	11,245.0	273.9	1,415.5	515,716.90	808,224.50	32.4148045	-103.4684721
BHL: 100' FNL & 660' FE - plan hits target center - Point	0.00	0.00	11,340.0	10,306.0	1,342.0	525,749.00	808,151.00	32.4423794	-103.4684471

Black Sheep 4/33 B3PA Fed Com #2H

