U.S. Department of the Interior BUREAU OF LAND MANAGEMENT



Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 /

FED COM

SWSW / 32.4140341 / -103.4820317

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Notice of Intent

Type of Submission: Notice of Intent

Type of Action APD Change

Date Sundry Submitted: 02/23/2021

Time Sundry Submitted: 05:14

Date proposed operation will begin: 02/23/2021

Procedure Description: Mewbourne Oil Co. requests approval to make the following change(s) to the approved APD: Change the well name to Black Sheep 4/33 B3MD Fed Com #1H. Change the BHL to 100' FNL & 450' FWL, Sec 33, T21S, R34E. Change casing and cement design as detailed in the attachment.

Application

FED COM

Well Number: 1H

Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 /

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL

County or Parish/State: LEA /

Allottee or Tribe Name:

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Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

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Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Section 1 - General

APD ID: 10400034739 Tie to previous NOS?

Submission Date: 10/19/2018

BLM Office: CARLSBAD

User: Bradley Bishop

Lease Acres:

Title: Regulatory

Federal/Indian APD: FED

Agreement in place? NO

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM0381970

Allotted?

Reservation:

Surface access agreement in place?

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO

APD Operator: MEWBOURNE OIL COMPANY

Operator letter of designation:

BlackSheep4B2MDFedCom2H_operatorletterofdesignation_20181002091305.pdf

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

Operator Address: PO Box 5270

Zip: 88240

Operator PO Box:

Operator City: Hobbs

State: NM

Operator Phone: (575)393-5905 **Operator Internet Address:**

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: BLACK SHEEP 4 B2MD FED COM

Well Number: 2H

Well API Number: 3002546395

Field/Pool or Exploratory? Field and Pool

Field Name: GATUNA CANYON Pool Name: BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Is the proposed well in a Helium production area? N

Use Existing Well Pad? NO

New surface disturbance?

Type of Well Pad: SINGLE WELL

Multiple Well Pad Name:

Number:

Well Class: HORIZONTAL

Number of Legs:

Well Work Type: Drill Well Type: OIL WELL

Describe Well Type:

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 20 Miles

Distance to nearest well: 1012 FT

Distance to lease line: 185 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

BlackSheep4B2MDFedCom2H_wellplat_20181002091400.pdf Well plat:

Duration: 60 DAYS Well work start Date: 01/02/2019

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number: Reference Datum:

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	205	FSL	450	FW L	22S	34E	4	Aliquot SWS W	32.41403 41	- 103.4820 317	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 038197 0	360 8	27	27	
KOP Leg #1	10	FSL	450	FW L	228	34E	4	Aliquot SWS W	32.41349 8	- 103.4820 343	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 038197 0	- 643 5	100 47	100 43	
PPP Leg #1-1	263 8	FSL	450	FW L	228	34E	4	Aliquot SWN W	32.42781	- 103.4819 582	LEA		NEW MEXI CO	F	NMNM 005867 8	- 694 2	129 49	105 50	
PPP Leg #1-2	100	FSL	450	FW L	228	34E	4	Aliquot SWS W	32.41374 54	- 103.4820 33	LEA	10.0	NEW MEXI CO	F	NMNM 038197 0	- 671 4	103 45	103 22	

FED COM

SWSW / 32.4140341 / -103.4820317

Well Number: 1H Type of Well: OIL WELL Allottee or Tribe Name:

County or Parish/State: LEA /

Unit or CA Number:

Unit or CA Name: Lease Number: NMNM0381970

Well Status: Approved Application for **US Well Number: 3002546395**

Permit to Drill

Operator: MEWBOURNE OIL COMPANY

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well proc from this lease?
EXIT Leg #1	100	FNL	450	FW L	228	34E	4	Aliquot NWN W	32.42780 99	- 103.4819 571	LEA	NEW MEXI CO	NEW MEXI CO		NMNM 005867 8	- 697 7	155 27	105 85	
BHL Leg #1	100	FNL	450	FW L	228	34E	4	Aliquot NWN W	32.42780 99	- 103.4819 571	LEA	NEW MEXI CO	114211	F	NMNM 005867 8	- 697 7	155 27	105 85	

Drilling Plan

Section 1 - Geologic Formations

Formation	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1617564	UNKNOWN	3608	27	27	101	NONE	N
1617569	RUSTLER	1833	1775	1775	ANHYDRITE, DOLOMITE	USEABLE WATER	N
1617568	TOP SALT	1348	2260	2260	SALT	NONE	N
1617565	BOTTOM SALT	-127	3735	3735	SALT	NONE	N
1617572	YATES	-367	3975	3975	SANDSTONE	NATURAL GAS, OIL	N
1617573	CAPITAN REEF	-657	4265	4265	DOLOMITE, LIMESTONE	USEABLE WATER	N
1617570	DELAWARE	-1677	5285	5285	LIMESTONE	NATURAL GAS, OIL	N
1617563	BONE SPRINGS	-4952	8560	8560	LIMESTONE, SHALE	NATURAL GAS, OIL	N
1617566	BONE SPRING 1ST	-6057	9665	9665	SANDSTONE	NATURAL GAS, OIL	N
1617567	BONE SPRING 2ND	-6602	10210	10210	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Rating Depth: 15527 Pressure Rating (PSI): 5M

Equipment: Annular, Pipe Rams, Blind Ram

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold, Anchors not required by manufacturer. A multi-bowl wellhead is being used. See attached schematic

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

FED COM Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

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.

Choke Diagram Attachment:

Black Sheep 4 B2MD Fed Com_2H_5M_BOPE_Choke_Diagram_20181018105406.pdf Black_Sheep_4_B2MD_Fed_Com_2H_Flex_Line_Specs_20181018105408.pdf

BOP Diagram Attachment:

Black Sheep_4_B2MD_Fed_Com_2H_Multi_Bowl_WH_20181018105428.pdf

Black Sheep 4 B2MD_Fed_Com_2H_5M_BOPE_Schematic_20181018105427.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	100
1	SURFACE	17.5	13.375	NEW	API	Y	0	1800	0	1800	3635	1835	1800	H-40	48	ST&C	1.12 5	2,53	DRY	3.71	DRY	6
2	INTERMED IATE	12.2 5	9.625	NEW	API	Y	0	5260	0	5260	3624	-1625	5260	J-55	36	LT&C	1.12 5	1.96	DRY	2.3	DRY	2.
3	PRODUCTI ON	8.75	7.0	NEW	API	N	0	10790	0	10520	3635	-6885	10790	P- 110	26	LT&C	1.2	1.91	DRY	2.28	DRY	2.
4	LINER	6.12 5	4.5	NEW	API	N	10047	15527	10043	10585	-6408	-6950		P- 110	13.5	LT&C	1.62	1.88	DRY	4.57	DRY	5.

Casing Attachments

Casing ID: 1

String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_B2MD_Fed_Com_2H_Surface_Csg_Tapered_String_20181018150949.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_B2MD_Fed_Com_2H_Csg_Assumptions_20181018151257.doc

FED COM

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Casing Attachments

Casing ID: 2

String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Black_Sheep_4_B2MD_Fed_Com_2H_Intermediate_Csg_Tapered_String_20181018151340.pdf

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_B2MD_Fed_Com_2H_Csg_Assumptions_20181019085344.doc

Casing ID: 3

String Type:PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_B2MD_Fed_Com_2H_Csg_Assumptions_20181019085547.doc

Casing ID: 4

String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Black_Sheep_4_B2MD_Fed_Com_2H_Csg_Assumptions_20181019085751.doc

Section 4	4 - C	emen	t								
String Type	ead/Tail	Stage Tool Depth	Гор МD	Bottom MD	Quantity(sx)	rield	Density	Su Ft	Excess%	Cement type	Additives

FED COM

SWSW / 32.4140341 / -103.4820317

Well Number: 1H Type of Well: OIL WELL Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

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String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1607	1055	2.12	12.5	2237	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		1607	1800	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	4200	0	3570	720	2.12	12.5	1526	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3570	4200	200	1.34	14.8	268	25	Class C	Retarder
INTERMEDIATE	Lead	4200	4200	4575	75	2.12	12.5	159	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		4575	5260	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	5500	4215	4817	60	2.12	12.5	127	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		4817	5500	100	1.34	14.8	134	25	Class C	Retarder
PRODUCTION	Lead	5500	5500	8278	250	2.12	12.5	530	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail	1	8278	1079 0	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		1004 7	1558 5	220	2.97	11.2	653	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

SWSW / 32.4140341 / -103.4820317

Well Number: 1H Type of Well: OIL WELL Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

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Top Depth	Bottom Depth	Mud Type	Min Weight (İbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	РН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1800	SPUD MUD	8.6	8.8				1			1
1800	5260	SALT SATURATED	10	10		-					
5260	1052 0	WATER-BASED MUD	8.6	9.5		€		1			
1052 0	1058 5	OIL-BASED MUD	9	12							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GR/CNL from KOP (10047') to surface

List of open and cased hole logs run in the well:

CNL,DS,GR,MWD,MUDLOG

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Surface Pressure: 4276.3 Anticipated Bottom Hole Pressure: 6605

Anticipated Bottom Hole Temperature(F): 140

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Black_Sheep_4_B2MD_Fed_Com_2H_H2S_Plan_20181019091954.pdf

FED COM

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

NM

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

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Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Black_Sheep_4_B2MD_Fed_Com_2H_Dir_Plan_20181019092019.pdf Black_Sheep_4_B2MD_Fed_Com_2H_Dir_Plot_20181019092020.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Black_Sheep_4_B2MD_Fed_Com_2H_Drlg_Program_20181019092323.doc Black_Sheep_4_B2MD_Fed_Com_2H_OCD_Sheet_20181019092324.pdf

Other Variance attachment:

SUPO

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BlackSheep4B2MDFedCom2H_existingroadmap_20181002091611.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

BlackSheep4B2MDFedCom2H_newroadmap_20181002091634.pdf

New road type: RESOURCE

Length: 1982.47

Feet

Width (ft.): 30

Max slope (%): 3

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s): New road travel width: 14

New road access erosion control: None

New road access plan or profile prepared? NO

FED COM

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Unit or CA Number:

Lease Number: NMNM0381970 Unit or CA Name:

US Well Number: 3002546395 Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Turnout? Y

Access surfacing type: OTHER Access topsoil source: OFFSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth:

Offsite topsoil source description: Stored onsite, on edge of slope.

Onsite topsoil removal process:

Access other construction information: None Access miscellaneous information: None

Access turnout map: Number of access turnouts: 1

Drainage Control

New road drainage crossing: OTHER **Drainage Control comments: None**

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BlackSheep4B2MDFedCom2H_existingwellmap_20181002091719.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

BlackSheep4B2MDFedCom2H_productionfacilitymap_20181002091745.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

FED COM

SWSW / 32.4140341 / -103.4820317

Well Number: 1H

Type of Well: OIL WELL

County or Parish/State: LEA /

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Source longitude: -103.66579

Water source type: IRRIGATION

Water source use type:

SURFACE CASING

STIMULATION DUST CONTROL

INTERMEDIATE/PRODUCTION

CASING

Source latitude: 32.430565

Source datum: NAD83

WATER WELL

Water source permit type: Water source transport method:

TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: FEDERAL

Water source volume (barrels): 3510

Source volume (acre-feet): 0.45241478

Source volume (gal): 147420

Water source type: IRRIGATION

Water source use type:

SURFACE CASING

STIMULATION DUST CONTROL

CAMP USE

INTERMEDIATE/PRODUCTION

CASING

Source latitude: 32.265114

Source longitude: -103.28177

Source datum: NAD83

Water source permit type:

WATER WELL

Water source transport method:

TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 3510

Source volume (acre-feet): 0.45241478

Source volume (gal): 147420

FED COM

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

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COMPANY

Water source and transportation map:

BlackSheep4B2MDFedCom2H_watersourceandtransmap_20181002091809.pdf

Water source comments: Both sources shown on one map

New water well? NO

New Water Well Info

Well latitude: Well Longitude: Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aguifer documentation:

Well depth (ft): Well casing type:

Well casing outside diameter (in.): Well casing inside diameter (in.):

New water well casing? Used casing source:

Drilling method: Drill material: Grout depth: Grout material:

Casing top depth (ft.): Casing length (ft.): Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche - both sources shown on one map

Construction Materials source location attachment:

 $Black Sheep 4B2MD Fed Com 2H_calichesource and transmap_20181002091831.pdf$

Section 7 - Methods for Handling Waste

Waste type: GARBAGE

Waste content description: Garbage & trash Amount of waste: 1500 Waste disposal frequency: One Time Only

Safe containment description: Enclosed trash trailer

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

FED COM

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

Allottee or Tribe Name:

Type of Well: OIL WELL Well Number: 1H

Unit or CA Number: Lease Number: NMNM0381970 Unit or CA Name:

Well Status: Approved Application for Operator: MEWBOURNE OIL **US Well Number: 3002546395**

COMPANY Permit to Drill

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

Waste type: SEWAGE

Waste content description: Human waste & grey water

gallons Amount of waste: 1500 Waste disposal frequency: Weekly

Safe containment description: 2,000 gallon plastic container

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

Disposal type description:

Disposal location description: City of Carlsbad Water Treatment facility

Waste type: DRILLING

Waste content description: Drill cuttings Amount of waste: 3510 Waste disposal frequency: One Time Only

Safe containment description: Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.)

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

FACILITY

Disposal type description:

Disposal location description: NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.) Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Unit or CA Number: Lease Number: NMNM0381970 Unit or CA Name:

Well Status: Approved Application for Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Description of cuttings location

US Well Number: 3002546395

Cuttings area width (ft.) Cuttings area length (ft.)

Cuttings area volume (cu. yd.) Cuttings area depth (ft.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BlackSheep4B2MDFedCom2H_wellsitelayout_20181002091901.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Multiple Well Pad Name: Type of disturbance: New Surface Disturbance

Multiple Well Pad Number:

Recontouring attachment:

Drainage/Erosion control construction: None Drainage/Erosion control reclamation: None

Well pad proposed disturbance

(acres): 3.95

Road proposed disturbance (acres):

1.365

Powerline proposed disturbance (acres): 0

Pipeline proposed disturbance (acres): 0 Other proposed disturbance (acres): 0

Total proposed disturbance: 5.315

Well pad interim reclamation (acres): Well pad long term disturbance

1.75

Road interim reclamation (acres): 0

Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

Other interim reclamation (acres): 0

Total interim reclamation: 1.75

(acres): 2.2

Road long term disturbance (acres): 0

Powerline interim reclamation (acres): Powerline long term disturbance (acres): 0

(acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 2.2

Disturbance Comments: In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

Well Number: 1H

FED COM

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Soil treatment: NA

Existing Vegetation at the well pad: Various brush & grasses

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary Seed Type

Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

FED COM

Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 /

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Operator Contact/Responsible Official Contact Info

Last Name: First Name:

Email: bbishop@mewbourne.com Phone: (575)393-5905

Seedbed prep: Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites. Seed BMP: To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

Seed method: drilling or broadcasting seed over entire reclaimed area.

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: NA

Weed treatment plan attachment:

Monitoring plan description: vii. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion and invasive/noxious weeds are controlled.

Monitoring plan attachment:

Success standards: regrowth within 1 full growing season of reclamation.

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office: State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

FED COM

SWSW / 32.4140341 / -103.4820317

County or Parish/State: LEA /

Well Number: 1H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner:

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office: State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

FED COM

Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 /

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information: NONE Use a previously conducted onsite? YES

Previous Onsite information: SEP 24 2018 Met w/RRC Surveying & staked location @ 205' FSL & 450' FWL, Sec 4, T22S, R34E, Lea Co., NM. (Elevation @ 3608'). Top soil stockpiled 30 to the W. New road needed off the NE corner headed E. Reclaim all sides 60. Production will go to Black Sheep OB battery. Will require arc study. Will require BLM onsite, Location: Lat.: 32.41403411 N, Long: -103.48203617 W NAD83.

Other SUPO Attachment

BlackSheep4B2MDFedCom2H_interimreclamationdiagram_20181002092100.pdf BlackSheep4B2MDFedCom2H_gascaptureplan_20181002092047.pdf

PWD

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

County or Parish/State: LEA /

Allottee or Tribe Name:

Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 / FED COM

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Unit or CA Number: Lease Number: NMNM0381970 Unit or CA Name:

Operator: MEWBOURNE OIL Well Status: Approved Application for **US Well Number: 3002546395**

COMPANY Permit to Drill

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

FED COM

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Unit or CA Number: Lease Number: NMNM0381970 Unit or CA Name:

Operator: MEWBOURNE OIL **US Well Number: 3002546395** Well Status: Approved Application for

Permit to Drill

COMPANY

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well name: Injection well number:

Injection well API number: Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

FED COM

Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 / SWSW / 32.4140341 / -103.4820317

Well Number: 1H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

County or Parish/State: LEA /

COMPANY

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Signed on: 02/23/2021 NAME: Bradley Bishop

Title: Regulatory

Street Address: PO Box 5270

Zip: 88260 State: NM City: Hobbs

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

Field Representative

FED COM

SWSW / 32.4140341 / -103.4820317

Type of Well: OIL WELL Well Number: 1H

Allottee or Tribe Name:

County or Parish/State: LEA /

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Representative Name:

Street Address:

City:

State:

Phone:

Email address:

NOI Attachments

Procedure Description

Black_Sheep_4_33_B3MD_Fed_Com_1H_Sundry_20210223171227.doc

Black_Sheep_4_33_B3MD_Fed_Com_1H_Dir_Plot_20210223171203.pdf

Black_Sheep_4_33_B3MD_Fed_Com_1H_Dir_Plan_20210223171203.pdf

Black_Sheep_4_33_B3MD_Fed_Com_1H_C_102_20210223171155.pdf

Conditions of Approval

Additional Reviews

BLACK_SHEEP_4_33_B3MD_FED_COM_1H_Sundry_1516252__Drilling_COA_OTA_20210226164526.pdf

FED COM

Well Name: BLACK SHEEP 4-33 B3MD Well Location: T22S / R34E / SEC 4 /

SWSW / 32.4140341 / -103.4820317

Well Number: 1H

Type of Well: OIL WELL

County or Parish/State: LEA /

Allottee or Tribe Name:

Lease Number: NMNM0381970

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002546395

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: TAYLOR

Signed on: FEB 23, 2021 05:12 PM

Name: MEWBOURNE OIL COMPANY

Title: Engineer

Street Address: PO Box 5270

City: Hobbs

State: NM

Phone: (575) 393-5905

Email address:

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Phone: 5752342234

Disposition: Approved

Signature: Chris Walls

BLM POC Title: Petroleum Engineer

BLM POC Email Address: cwalls@blm.gov

Disposition Date: 03/01/2021

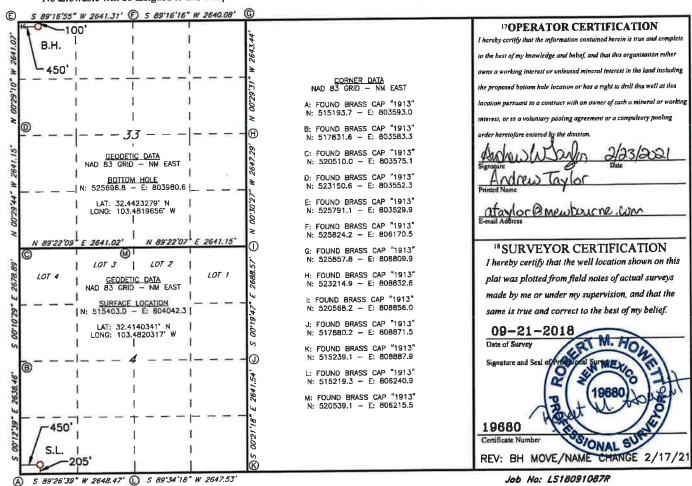
State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

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

☐ AMENDED REPORT

		W	ELL LO	CATIO	N AND ACE	EAGE DEDIC	ATION PLA	Т		
	API Number			2 Pool Code	Λ	Δ	3 Pool Na			
30-0	25-	46395	2	8430	6	ramma P	ridge B	one	Spri	04
3261	ode			ACK SH	EEP 4/33	B3MD FED (COM			Well number 1H
70GRID				MEWI	ROperator N BOURNE OI	EME L COMPANY				3608'
					10 Surface	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/W	est line	County
M	4	22S	34E		205	SOUTH	450	WE	ST	LEA
			11 I	Bottom F	lole Location	If Different Fro	om Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	est line	County
D	33	21S	34E		100	NORTH	450	WE	ST	LEA
12 Dedicated Acre	s 13 Joint	or Infill 14 (Consolidation	Code 15	Order No.	-11				
320										

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.



Mewbourne Oil Company

Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H Sec 4, T22S, R34E

SHL: 205' FSL & 450' FWL, Sec 4 BHL: 100' FNL & 450' FWL, Sec 33

Plan: Design #1

Standard Planning Report

23 February, 2021

Database: Hobbs Company: Mewbourne Oil Company Project: Site:

Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H

Sec 4, T22S, R34E Well: BHL: 100' FNL & 450' FWL, Sec 33

Wellbore:

Design: Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Black Sheep 4/33 B3MD Fed Com #1H WELL @ 3636.0usft (Original Well Elev) WELL @ 3636.0usft (Original Well Elev)

Minimum Curvature

Lea County, New Mexico NAD 83 Project

Map System: US State Plane 1983 North American Datum 1983 Geo Datum:

New Mexico Eastern Zone Map Zone:

System Datum:

Mean Sea Level

Black Sheep 4/33 B3MD Fed Com #1H Site

Northing: 515,403.00 usft 32.4140340 Latitude: Site Position: -103.4820325 804,042.00 usft Longitude: Easting: Мар From: 0.46 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence:

Sec 4, T22S, R34E Well 32.4140340 515,403.00 usft Latitude: **Well Position** +N/-S 0.0 usft Northing: -103.4820325 804,042.00 usft Longitude: +E/-W 0.0 usft Easting: 3,608.0 usft 0,0 usft Wellhead Elevation: 3,636.0 usft **Ground Level: Position Uncertainty**

BHL: 100' FNL & 450' FWL, Sec 33 Wellbore Field Strength Declination Dip Angle Sample Date **Model Name** Magnetics (nT) (°) IGRF2010 12/31/2014 7.12 60.29 48,384

Design Design #1 Audit Notes: PROTOTYPE 0.0 Phase: Tie On Depth: Version: +E/-W Direction Vertical Section: Depth From (TVD) +N/-S (usft) (°) (usft) (usft) 0.0 359.66 0.0 0.0

lan 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	
5,650.0	0.00	0.00	5,650.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,759.0	2.18	179.71	5,758.9	-2.1	0.0	2.00	2.00	0.00	179.71	
10,777.8	2.18	179.71	10,774.1	-192.9	1.0	0.00	0.00	0.00	0.00	
10,886.7	0.00	0.00	10,883.0	-195.0	1.0	2,00	-2.00	0.00	180.00	KOP: 10' FSL & 450'
11,774.8	88.79	359.66	11,456.0	366.0	-2.3	10.00	10.00	0.00	-0.34	
21,705.2	88.79	359.66	11,666.0	10,294.0	-61.0	0.00	0.00	0.00	0.00	BHL: 100' FNL & 450

Database: Company: Project: Site:

Wells

Hobbs Mewbourne Oil Company Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H

Sec 4, T22S, R34E

Wellbore: BHL: 100' FNL & 450' FWL, Sec 33

Design: Design #1 Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Site Black Sheep 4/33 B3MD Fed Com #1H WELL @ 3636.0usft (Original Well Elev) WELL @ 3636.0usft (Original Well Elev)

Grid Minimum Curvature

0.0 SHL: 205' FS 100.0 200.0	(°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
100.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	L & 450' FWL (4)								
	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
	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
	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0					0.0	0.0	0.00	0.00	0.00
800.0 900.0	0.00 0.00	0.00 0.00	800.0 900.0	0.0 0.0	0.0	0.0	0.00	0.00	0.00
								0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	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
	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00		2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0		0.00		0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0				0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0						
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
4,100.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	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
					0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0			0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0			
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 0.0	0.00	0.00	0.00

Database: Company: Project: Site:

Hobbs

Mewbourne Oil Company Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H

Sec 4, T22S, R34E

Well: Wellbore: Design:

BHL: 100' FNL & 450' FWL, Sec 33

Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Black Sheep 4/33 B3MD Fed Com #1H WELL @ 3636.0usft (Original Well Elev) WELL @ 3636.0usft (Original Well Elev)

Minimum Curvature

lanned 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	
5,650.0	0.00	0.00	5,650.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,700.0	1.00	179.71	5,700.0	-0.4	0.0	-0.4	2.00	2.00	0.00	
5,759.0	2.18	179.71	5,758.9	-2.1	0.0	-2.1	2.00	2.00	0.00	
5,800.0	2.18	179.71	5,799.9	-3.6	0.0	-3.6	0.00	0.00	0.00	
5,900.0	2.18	179.71	5,899.9	-7.4	0.0	-7.4	0.00	0.00	0.00	
6,000.0	2.18	179.71	5,999.8	-11.2	0.1	-11.2	0.00	0.00	0.00	
6,100.0	2.18	179.71	6,099.7	-15.0	0.1	-15.0	0.00	0.00	0.00	
6,200.0	2.18	179.71	6,199.7	-18.8	0.1	-18.8	0.00	0.00	0.00	
	2.18	179.71	6,299.6	-22.6	0.1	-22.6	0.00	0.00	0.00	
6,300.0	2.18	179.71	6,399.5	-26.4	0.1	-26.4	0.00	0.00	0.00	
6,400.0 6,500.0	2.18	179.71	6,499.4	-30.3	0.2	-30.3	0.00	0.00	0.00	
6,600.0	2.18	179.71	6,599.4	-34.1	0.2	-34.1	0.00	0.00	0.00	
6,700.0	2.18	179.71	6,699.3	-37.9	0.2	-37.9	0.00	0.00	0.00	
	2.18	179.71	6,799.2	-41.7	0.2	-41.7	0.00	0.00	0.00	
6,800.0	2.18	179.71	6,899.1	-45.5	0.2	-45.5	0.00	0.00	0.00	
6,900.0	2.18	179.71	6,999.1	-49.3	0.3	-49.3	0.00	0.00	0.00	
7,000.0 7,100.0	2.18	179.71	7,099.0	-53.1	0.3	-53.1	0.00	0.00	0.00	
7,100.0	2.18	179.71	7,099.0	-56.9	0.3	-56.9	0.00	0.00	0.00	
·	2.18	179.71	7,298.9	-60.7	0.3	-60.7	0.00	0.00	0.00	
7,300.0	2.18	179.71	7,298.8	-64.5	0.3	-64.5	0.00	0.00	0.00	
7,400.0	2.18	179.71	7,498.7	-68.3	0.4	-68.3	0.00	0.00	0.00	
7,500.0 7,600.0	2.18	179.71	7,598.6	-72.1	0.4	-72.1	0.00	0.00	0.00	
7,700.0	2.18	179.71	7,698.6	-75.9	0.4	-75.9	0.00	0.00	0.00	
	2.18	179.71	7,798.5	-79.7	0.4	-79.7	0.00	0.00	0.00	
7,800.0 7,900.0	2.18	179.71	7,798.3	-83.5	0.4	-83.5	0.00	0.00	0.00	
8,000.0	2.18	179.71	7,998.4	-87.3	0.4	-87.3	0.00	0.00	0.00	
8,100.0	2.18	179.71	8,098.3	-91.1	0.5	-91.1	0.00	0.00	0.00	
8,200.0	2.18	179.71	8,198.2	-94.9	0.5	-94.9	0.00	0.00	0.00	
8,300.0	2.18	179.71	8,298.1	-98.7	0.5	-98.7	0.00	0.00	0.00	
8,400.0	2.18	179.71	8,398.1	-102.5	0.5	-102.5	0.00	0.00	0.00	
8,500.0	2.18	179.71	8,498.0	-106.3	0.5	-106.3	0.00	0.00	0.00	
8,600.0	2.18	179.71	8,597.9	-110.1	0.6	-110.1	0.00	0.00	0.00	
8,700.0	2.18	179.71	8,697.8	-113.9	0.6	-113.9	0.00	0.00	0.00	
8,800.0	2.18	179.71	8,797.8	-117.7	0.6	-117.7	0.00	0.00	0.00	
8,900.0	2.18	179.71	8,897.7	-121.5	0.6	-121.5	0.00	0.00	0.00	
9,000.0	2.18	179.71	8,997.6	-125.3	0.6	-125.3	0.00	0.00	0.00	
9,100.0	2.18	179.71	9,097.6	-129-1	0.7	-129.1	0.00	0.00	0.00	
9,200.0	2.18	179.71	9,197.5	-132.9	0.7	-132.9	0.00	0.00	0.00	
9,300.0	2.18	179.71	9,297.4	-136.7	0.7	-136.7	0.00	0.00	0.00	
9,400.0	2.18	179.71	9,397.3	-140.5	0.7	-140.5	0.00	0.00	0.00	
9,500.0	2.18	179.71	9,497.3	-144.3	0.7	-144.3	0.00	0.00	0.00	
9,600.0	2.18	179.71	9,597.2	-148.1	0.8	-148.1	0.00	0.00	0.00	
9,700.0	2.18	179.71	9,697.1	-151.9	0.8	-151.9	0.00	0.00	0.00	
9,800.0	2.18	179.71	9,797.1	-155.7	0.8	-155.7	0.00	0.00	0.00	
9,900.0	2.18	179.71	9,897.0	-159.5	0.8	-159.6	0.00	0.00	0.00	
10,000.0	2.18	179.71	9,996.9	-163.4	0.8	-163.4	0.00	0.00	0.00	
10,100.0	2.18	179.71	10,096.8	-167.2	0.9	-167.2	0.00	0.00	0.00	
10,200.0	2.18	179.71	10,196.8	-171.0	0.9	-171.0	0.00	0.00	0.00	
10,300.0	2.18	179.71	10,296.7	-174.8	0.9	-174.8	0.00	0.00	0.00	
10,400.0	2.18	179.71	10,396.6	-178.6	0.9	-178.6	0.00	0.00	0.00	

COMPASS 5000.1 Build 72 2/23/2021 5:17:28PM Page 4

Database: Company: Project:

Site:

Hobbs

Mewbourne Oil Company

Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H

Well: Sec 4, T22S, R34E

Wellbore: BHL: 100' FNL & 450' FWL, Sec 33

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Black Sheep 4/33 B3MD Fed Com #1H WELL @ 3636.0usft (Original Well Elev) WELL @ 3636.0usft (Original Well Elev)

Grid

Minimum Curvature

EX. PART	Design #1				THE STATE OF THE S				
ed 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)
10,500.0	2.18	179.71	10,496.5	-182.4	0.9	-182.4	0.00	0.00	0.00
10,600.0	2.18	179.71	10,596.5	-186.2	1.0	-186.2	0.00	0.00	0.00
10,700.0	2,18	179.71	10,696.4	-190.0	1.0	-190.0	0.00	0.00	0.00
10.777.8	2,18	179.71	10,774.1	-192.9	1.0	-192.9	0.00	0.00	0.00
10,800.0	1.73	179.71	10,796.3	-193.7	1.0	-193.7	2.00	-2.00	0.00
10,886.7	0.00	0.00	10,883.0	-195.0	1.0	-195.0	2.00	-2,00	0.00
KOP: 10' FS	L & 450' FWL (4)								
10,900.0	1.33	359.66	10,896.3	-194.8	1.0	-194.8	10.00	10,00	0.00
11,000.0	11.33	359.66	10,995.6	-183.8	0.9	-183.8	10.00	10.00	0.00
11,100.0	21.32	359.66	11,091.4	-155.8	0.8	-155.8	10.00	10.00	0.00
11,200.0	31.32	359.66	11,180.9	-111.5	0.5	-111.5	10.00	10.00	0.00
11,212.2	32.54	359.66	11,191.3	-105.0	0.5	-105.0	10.00	10.00	0.00
FTP: 100' FS	SL & 450' FWL (4								
11,300.0	41.32	359.66	11,261.4	-52.3	0.2	-52.3	10.00	10.00	0.00
11,400.0	51.32	359.66	11,330.4	19.9	-0.3	19.9	10.00	10.00	0.00
11,500.0	61.31	359.66	11,385.8	103.0	-0.8	103.0	10.00	10.00	0.00
11,600.0	71.31	359.66	11,425.9	194.5	-1.3	194.5	10.00	10.00	0.00
11,700.0	81.31	359.66	11,449.5	291.5	-1.9	291.5	10.00	10.00	0.00
11,774.8	88.79	359.66	11,456.0	366.0	-2.3	366.0	9.99	9.99	0.00
LP: 571' FSL	& 450' FWL (4)								
11,800.0	88.79	359.66	11,456.5	391.1	-2.5	391.2	0.00	0,00	0.00
11,900.0	88.79	359.66	11,458.6	491.1	-3.1	491.1	0.00	0.00	0.00
12,000.0	88.79	359.66	11,460.8	591.1	-3.6	591.1	0.00	0.00	0.00
12,100.0	88.79	359,66	11,462.9	691.1	-4.2	691.1	0.00	0.00	0.00
12,200.0	88.79	359.66	11,465.0	791.0	-4.8	791,1	0.00	0.00	0.00
12,300.0	88.79	359.66	11,467.1	891.0	-5.4	891.0	0.00	0.00	0.00
12,400.0	88.79	359.66	11,469.2	991.0	-6.0	991.0	0.00	0.00	0.00
12,500.0	88.79	359.66	11,471.3	1,091.0	-6.6	1,091.0	0.00	0.00	0.00
12,600.0	88.79	359.66	11,473.5	1,191.0	-7.2	1,191.0	0.00	0.00	0.00
12,700.0	88.79	359.66	11,475.6	1,290.9	-7.8	1,291.0	0.00 0.00	0.00 0.00	0.00 0.00
12,800.0	88.79	359.66	11,477.7	1,390.9	-8.4	1,390.9			
12,900.0	88.79	359.66	11,479.8	1,490.9	-9.0	1,490.9	0.00	0.00	0.00
13,000.0	88.79	359.66	11,481.9	1,590.9	-9.6	1,590.9	0.00	0.00	0.00
13,100.0	88.79	359.66	11,484.0	1,690.8	-10.1	1,690.9 1,790.8	0.00 0.00	0.00 0.00	0.00 0.00
13,200.0	88.79	359.66	11,486.1 11,488.3	1,790.8 1,890.8	-10.7 -11.3	1,790.8	0.00	0.00	0.00
13,300.0	88.79	359,66	· ·						
13,400.0	88.79	359.66	11,490.4	1,990.8	-11.9	1,990.8	0.00	0.00	0.00
13,500.0	88.79	359.66	11,492.5	2,090.7	-12.5	2,090.8	0.00 0.00	0.00 0.00	0.00 0.00
13,600.0	88.79	359.66	11,494.6	2,190.7 2,290.7	-13.1 -13.7	2,190.8 2,290.7	0.00	0.00	0.00
13,700.0 13,800.0	88.79 88.79	359.66 359.66	11,496.7 11,498.8	2,290.7	-13.7 -14.3	2,290.7	0.00	0.00	0.00
13,842.1	88.79	359.66	11,499.7	2,432.8	-14.5	2,432.8	0.00	0.00	0.00
	FNL & 450' FWL		44 500 6	0.400.0	44.0	0.400.7	0.00	0.00	0.00
13,900.0	88.79	359.66	11,500.9	2,490.6 2,590.6	-14.9 -15.5	2,490.7 2,590.7	0.00 0.00	0.00	0.00
14,000.0	88.79 88.79	359.66 359.66	11,503.1 11,505.2	2,590.6	-15.5 -16.1	2,590.7	0.00	0.00	0.00
14,100.0 14,200.0	88.79	359.66	11,507.3	2,790.6	-16.6	2,790.6	0.00	0.00	0.00
14,300.0	88.79	359.66	11,509.4	2,890.5	-17.2	2,890.6	0.00	0.00	0.00
14,400.0	88.79	359.66	11,511.5	2,990.5	-17.8	2,990.6	0.00	0.00	0.00
14,500.0	88.79	359.66	11,513.6	3,090.5	-18.4	3,090.5	0.00	0.00	0.00
14,600.0	88.79	359.66	11,515.7	3,190,5	-19.0	3,190.5	0.00	0.00	0.00
14,700.0	88.79	359.66	11,517.9	3,290.4	-19.6	3,290.5	0.00	0.00	0.00
14,800.0	88.79	359.66	11,520.0	3,390.4	-20.2	3,390.5	0.00	0.00	0.00

Database: Company: Project:

Site:

Hobbs

Mewbourne Oil Company

Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H

Well: Sec 4, T22S, R34E

Wellbore:

BHL: 100' FNL & 450' FWL, Sec 33

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Black Sheep 4/33 B3MD Fed Com #1H WELL @ 3636.0usft (Original Well Elev) WELL @ 3636.0usft (Original Well Elev)

Grid

Minimum Curvature

ed 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)
14,900.0	88.79	359.66	11,522.1	3,490.4	-20.8	3,490.5	0.00	0.00	0.00
15,000.0	88.79	359.66	11,524.2	3,590.4	-21.4	3,590.4	0.00	0.00	0.00
15,100.0	88.79	359.66	11,526.3	3,690.3	-22.0	3,690.4	0.00	0.00	0.00
15,200.0	88.79	359.66	11,528.4	3,790.3	-22.6	3,790.4	0.00	0.00	0.00
15,300.0	88.79	359.66	11,530.5	3,890.3	-23.1	3,890.4	0.00	0.00	0.00
15,400.0	88.79	359.66	11,532.7	3,990.3	-23.7	3,990.3	0.00	0.00	0.00
15,500.0	88.79	359.66	11,534.8	4,090.3	-24.3	4,090.3	0.00	0.00	0.00
15,600.0	88.79	359.66	11,536.9	4,190.2	-24.9	4,190.3	0.00	0.00	0.00
	88.79	359.66	11,539.0	4,290.2	-25.5	4,290.3	0.00	0.00	0.00
15,700.0									
15,800.0	88.79	359,66	11,541.1	4,390.2	-26.1	4,390.3	0.00	0.00	0.00
15,900.0	88.79	359.66	11,543.2	4,490.2	-26.7	4,490.2	0.00	0.00	0.00
16,000.0	88.79	359.66	11,545.4	4,590.1	-27.3	4,590.2	0.00	0.00	0.00
16,100.0	88.79	359.66	11,547.5	4,690.1	-27.9	4,690.2	0.00	0.00	0.00
16,100.0	88.79	359.66	11,549.6	4,790.1	-28.5	4,790.2	0.00	0.00	0.00
16,300.0	88,79	359.66	11,551.7	4,890.1	-29.1	4,890.1	0.00	0.00	0.00
			,	•		4,990.1	0.00	0.00	0.00
16,400.0	88.79	359.66	11,553.8	4,990.0	-29.6				
16,500.0	88.79	359.66	11,555.9	5,090.0	-30.2	5,090.1	0.00	0.00	0.00
16,521.8	88.79	359.66	11,556.4	5,111.8	-30.4	5,111.9	0.00	0.00	0.00
	SL & 450' FWL (33		44.550.0	F 400 0	20.0	E 100 1	0.00	0.00	0.00
16,600.0	88.79	359.66	11,558.0	5,190.0	-30.8	5,190.1			
16,700.0	88.79	359.66	11,560.2	5,290.0	-31.4	5,290.1	0.00	0.00	0.00
16,800.0	88.79	359.66	11,562.3	5,389.9	-32.0	5,390.0	0.00	0.00	0.00
16,900.0	88.79	359.66	11,564.4	5,489.9	-32.6	5,490.0	0.00	0.00	0.00
17,000.0	88.79	359.66	11,566.5	5,589.9	-33.2	5,590.0	0.00	0.00	0.00
17,100.0	88.79	359.66	11,568.6	5,689.9	-33.8	5,690.0	0.00	0.00	0.00
	88.79	359.66	11,570.7	5,789.8	-34.4	5,789.9	0.00	0.00	0.00
17,200.0					-35.0	5,889.9	0.00	0.00	0.00
17,300.0	88.79	359.66	11,572.8	5,889.8					0.00
17,400.0	88.79	359.66	11,575.0	5,989.8	-35.6	5,989.9	0.00	0.00	
17,500.0	88.79	359.66	11,577-1	6,089.8	-36.1	6,089.9	0.00	0.00	0.00
17,600.0	88.79	359.66	11,579.2	6,189.7	-36.7	6,189.9	0.00	0.00	0.00
17,700.0	88.79	359.66	11,581.3	6,289.7	-37.3	6,289.8	0.00	0.00	0.00
17,800.0	88.79	359.66	11,583.4	6,389.7	-37.9	6,389.8	0.00	0.00	0.00
17,900.0	88.79	359.66	11,585.5	6,489.7	-38.5	6,489.8	0.00	0.00	0.00
18,000.0	88.79	359.66	11,587.6	6,589.7	-39.1	6,589.8	0.00	0.00	0.00
18,100.0	88.79	359.66	11,589.8	6,689.6	-39.7	6,689.7	0.00	0.00	0.00
	88.79	359.66	11,591.9	6,789.6	-40.3	6,789.7	0.00	0.00	0.00
18,200.0		359.66	11,594.0	6,889.6	4 0.3	6,889.7	0.00	0.00	0.00
18,300.0	88.79					•		0.00	0.00
18,400.0	88.79	359.66	11,596.1	6,989.6	-41.5	6,989.7	0.00		
18,500.0	88.79	359.66	11,598.2	7,089.5	-42.1	7,089.7	0.00	0.00	0.00 0.00
18,600.0	88.79	359.66	11,600.3	7,189.5	-42.6	7,189.6	0.00	0.00	
18,700.0	88.79	359.66	11,602.4	7,289.5	-43.2	7,289.6	0.00	0.00	0.00
18,800.0	88.79	359.66	11,604.6	7,389.5	-43.8	7,389.6	0.00	0.00	0.00
18,900.0	88.79	359.66	11,606.7	7,489.4	-44.4	7,489.6	0.00	0.00	0.00
19,000.0	88.79	359.66	11,608.8	7,589.4	-45.0	7,589.5	0.00	0.00	0.00
19,100.0	88.79	359.66	11,610.9	7,689.4	-45.6	7,689.5	0.00	0.00	0.00
19,200.0	88.79	359.66	11.613.0	7,789.4	-46.2	7,789.5	0.00	0.00	0.00
		359.66	11,615.1	7,889.3	-46.8	7,889.5	0.00	0.00	0.00
19,300.0	88.79								0.00
19,400.0	88.79	359.66	11,617.3	7,989.3	-47.4	7,989.5	0.00	0.00	
19,500.0	88.79	359.66	11,619.4	8,089.3	-48.0	8,089.4	0.00	0.00	0.00
19,600.0	88.79	359.66	11,621.5	8,189.3	-48.6	8,189.4	0.00	0.00	0.00
19,700.0	88.79	359.66	11,623.6	8,289.2	-49.1	8,289.4	0.00	0.00	0.00
19,800.0	88.79	359.66	11,625.7	8,389.2	-49.7	8,389.4	0.00	0.00	0.00
19,900.0		359.66	11,627.8	8,489.2	-50.3	8,489.3	0.00	0.00	0.00
20,000.0		359.66	11,629.9	8,589.2	-50.9	8,589.3	0.00	0.00	0.00

Database: Company: Project:

Site:

Hobbs

Mewbourne Oil Company

Lea County, New Mexico NAD 83 Black Sheep 4/33 B3MD Fed Com #1H

Well: Sec 4, T22S, R34E

Wellbore:

BHL: 100' FNL & 450' FWL, Sec 33

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

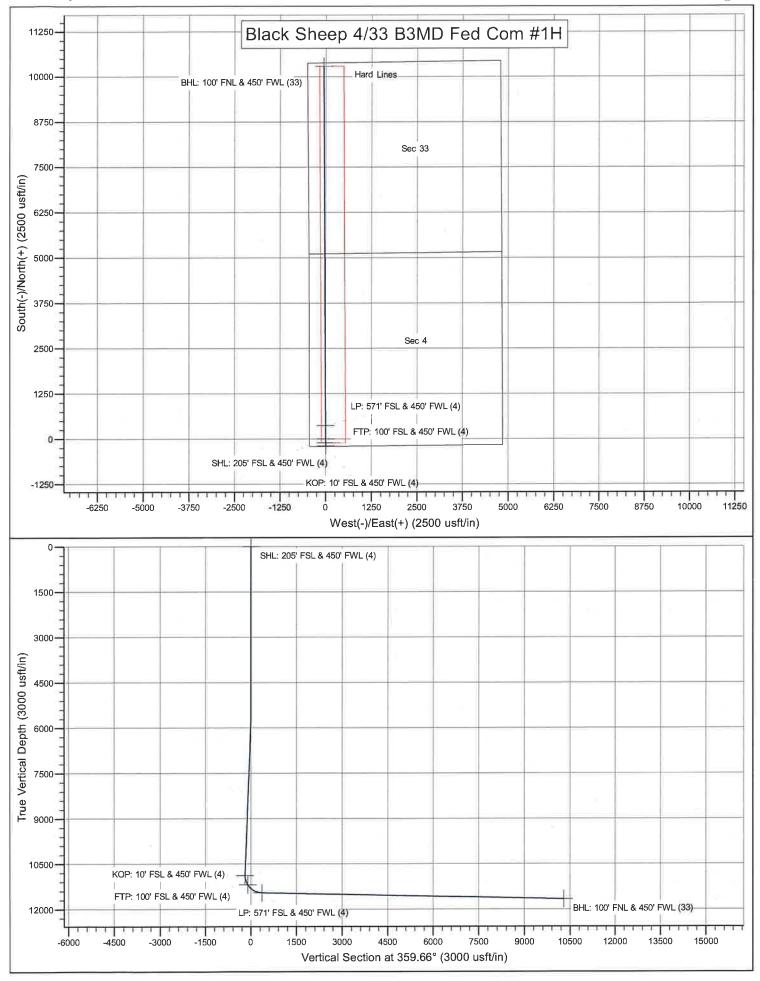
Site Black Sheep 4/33 B3MD Fed Com #1H WELL @ 3636.0usft (Original Well Elev) WELL @ 3636.0usft (Original Well Elev)

Grid

Minimum Curvature

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)
20,100.0	88.79	359.66	11,632.1	8,689.1	-51.5	8,689.3	0.00	0.00	0.00
20,200.0	88.79	359.66	11,634.2	8,789.1	-52.1	8,789.3	0.00	0.00	0.00
20,300.0	88.79	359.66	11,636.3	8,889.1	-52.7	8,889.3	0.00	0.00	0.00
20,400.0	88.79	359.66	11,638.4	8,989.1	-53.3	8,989.2	0.00	0.00	0.00
20,500.0	88.79	359.66	11,640.5	9,089.0	-53.9	9,089.2	0.00	0.00	0.00
20,600.0	88.79	359.66	11,642.6	9,189.0	-54.5	9,189.2	0.00	0.00	0.00
20,700.0	88.79	359.66	11,644.7	9,289.0	-55.1	9,289.2	0.00	0.00	0.00
20,800.0	88.79	359.66	11,646.9	9,389.0	-55.7	9,389.1	0.00	0.00	0.00
20,900.0	88.79	359.66	11,649.0	9,489.0	-56.2	9,489.1	0.00	0.00	0,00
21,000.0	88.79	359.66	11,651.1	9,588.9	-56.8	9,589.1	0.00	0.00	0.00
21,100.0	88.79	359.66	11,653.2	9,688.9	-57.4	9,689.1	0.00	0.00	0.00
21,200.0	88.79	359.66	11,655.3	9,788.9	-58.0	9,789.1	0.00	0.00	0.00
21,300.0	88.79	359.66	11,657.4	9,888.9	-58.6	9,889.0	0.00	0.00	0.00
21,400.0	88.79	359.66	11,659.5	9,988.8	-59.2	9,989.0	0.00	0.00	0.00
21,500.0	88.79	359.66	11,661.7	10,088.8	-59.8	10,089.0	0.00	0.00	0.00
21,600.0	88.79	359.66	11,663.8	10,188.8	-60.4	10,189.0	0.00	0.00	0.00
21,700.0	88.79	359.66	11,665.9	10,288.8	-61.0	10,288.9	0.00	0.00	0.00
21,705,2	88.79	359.66	11.666.0	10,294,0	-61.0	10,294.2	0.00	0.00	0.00

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: 205' FSL & 450' FV - plan hits target cente - Point	0.00 er	0.00	0.0	0.0	0,0	515,403.00	804,042.00	32.4140340	-103.4820325
KOP: 10' FSL & 450' FW - plan hits target cente - Point	0.00 er	0.00	10,883.0	-195.0	1.0	515,208.00	804,043.00	32.4134980	-103.4820343
FTP: 100' FSL & 450' FV - plan hits target cente - Point	0.00 er	0.00	11,191.4	-105.0	0.5	515,298.00	804,042.47	32.4137454	-103.4820337
LP: 571' FSL & 450' FWI - plan hits target cente - Point	0.00 er	0.00	11,456.0	366.0	-2.3	515,769.00	804,039.68	32.4150400	-103.4820306
PPP2; 2679' FNL & 450' - plan hits target cente - Point	0.00 er	0,:00	11,499.7	2,432.8	-14.5	517,835.80	804,027.47	32.4207209	-103.4820168
PPP3: 0' FSL & 450' FW - plan hits target cente - Point	0.00 er	0,00	11,556.4	5,111.8	-30.4	520,514.80	804,011.63	32.4280846	-103.4819989
BHL: 100' FNL & 450' FV - plan hits target cente - Point	0.00 er	0.00	11,666.0	10,294.0	-61.0	525,697.00	803,981.00	32,4423286	-103.4819644



Mewbourne Oil Company, Black Sheep 4/33 B3MD Fed Com #1H Sec 4, T22S, R34E

SL: 205' FSL & 450' FWL (Sec 4) BHL: 100' FNL & 450' FWL (Sec 33)

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
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'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.16	2.68
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	6.05	7.34
12.25"	4393'	5282'	9.625"	40	N80	LTC	1.13	2.09	15.27	18.98
12.25"	5282'	5600'	9.625"	40	HCL80	LTC	1.45	1.97	65.81	72.02
8.75"	0'	11,775'	7"	26	P110	LTC	1.35	1.72	2.26	2.71
6.125"	10,887'	21,706'	4.5"	13.5	P110	LTC	1.47	1.70	2.31	2.89
=====	-			BLM Min	imum Safet	y Factor	1.125	1	1.6 Dry	1.6 Dry
									1.8 Wet	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.	N
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?	

1 Drilling Plan

Mewbourne Oil Company, Black Sheep 4/33 B3MD Fed Com #1H Sec 4, T22S, R34E

SL: 205' FSL & 450' FWL (Sec 4) BHL: 100' FNL & 450' FWL (Sec 33)

Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ 0 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.	215	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
Stg 1	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
					ECP/DV T	ool @ 3775'
Inter.	640	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
Stg 2	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	450	12.5	2.12	11	9	Lead: Class C + Salt + Gel + Extender + LCM
	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
Liner	435	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	10,887'	25%	

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | MEWBOURNE OIL COMPANY

LEASE NO.: | NMNM0381970

WELL NAME & NO.: | BLACK SHEEP 4-33 B3MD FED COM 1H

SURFACE HOLE FOOTAGE: 205' FSL & 450' FWL **BOTTOM HOLE FOOTAGE** 100' FNL & 450' FWL

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		← High
Variance	None	Flex Hose	○ Other
Wellhead	Conventional	Multibowl	← Both
Other	☐ 4 String Area	▼ Capitan Reef	☐ WIPP
Other	Fluid Filled	☐ Cement Squeeze	Tilot 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 5600 feet is:

Option 1 (Single Stage):

Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Excess cement calculates to -61%, additional cement might be required.

Option 2:

Operator has proposed DV tool at depth of 3775', but will adjust cement proportionately if moved, the depth may be adjusted as long as the cement is changed proportionally. 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. The DV tool may be cancelled if cement circulates to surface on the first stage.

- 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.
- b. Second stage above DV tool:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
- ❖ 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.

Production casing must be kept fluid filled to meet BLM minimum collapse requirement.

- 3. The minimum required fill of cement behind the 7 inch production casing is:
 - Cement should tie-back at least 50 feet above the Capitan Reef. Operator shall provide method of verification.
 Excess cement calculates to 25%, additional cement might be required.
- 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.

OTA02262021

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 24130

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
MEWBOURNE OIL CO	P.O. Box 5270	Hobbs, NM88241	14744	24130	C-103A

OCD Reviewer	Condition
pkautz	None