NM OIL CONSERVATION

OCBTES HADISTRICT

Form 3160-3 (March 2012)

JUN 06 2017

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

UNITED STATES			1		
DEPARTMENT OF THE II BUREAU OF LAND MANA			•	5. Lease Serial No.	
APPLICATION FOR PERMIT TO E				6. If Indian, Allotee	or Tribe Name
la. Type of work: DRILL REENTE	R			7. If Unit or CA Agr	eement, Name and No.
lb. Type of Well: Oil Well Gas Well Other	V	Single Zone	ole Zone	8. Lease Name and QUEEN 23/24 W2	Well No. OP FED COM 2H 3/
Name of Operator MEWBOURNE OIL COMPANY	1144	1		9. API Well No. 30. 0 15	5-44248
3a. Address PO Box 5270 Hobbs NM 88240	3b. Phone N (575)393	No. (include area code) -5905		10. Field and Pool, or WHLDCAT / WOLF	Exploratory 98230 CAMP purple
4. Location of Well (Report location clearly and in accordance with any	State require	ements.*)		11. Sec., T. R. M. or F	3lk. and Survey or Area
At surface SESW / 690 FSL / 2175 FWL / LAT 32.19784: At proposed prod. zone SESE / 330 FSL / 330 FEL / LAT 32				SEC 23 / T24S / R	228E / NMP
14. Distance in miles and direction from nearest town or post office*7 miles				12. County or Parish EDDY	13. State NM
15. Distance from proposed* location to nearest 330 feet property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of 160	acres in lease	17. Spacin 480	g Unit dedicated to this	well Deguired, Rut
18. Distance from proposed location* to nearest well, drilling, completed, 60 feet applied for, on this lease, ft.	19. Propos 10803 fe	sed Depth eet / 18699 feet	20. BLM/I FED: N		Ref
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2946 feet	22. Appro 03/07/20	ximate date work will sta	rt*	23. Estimated duration 60 days	non
	24. Att	achments			
The following, completed in accordance with the requirements of Onshor	e Oil and Ga	s Order No.1, must be a	ttached to the	is form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office). 	Lands, the	Item 20 above). 5. Operator certifie	cation	·	n existing bond on file (see s may be required by the
25. Signature (Electronic Submission)		e <i>(Printed/Typed)</i> dley Bishop / Ph: (57	(5)393-590	05	Date 11/22/2016
Title Regulatory					
Approved by (Signature) (Electronic Submission)		ne <i>(Printed/Typed)</i> y Layton / Ph: (575)2	234-5959		Date 05/26/2017
Fitle Supervisor Multiple Resources		RLSBAD			
Application approval does not warrant or certify that the applicant holds conduct operations thereon. Conditions of approval, if any, are attached.	s legal or eq	uitable title to those righ	ts in the sub	ject lease which would	entitle the applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 make it a cr	ima for any	norgan knowingly and a	willfully to p	aska to any department	or aganay of the United

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

(Continued on page 2)

*(Instructions on page 2)



6-6-17 Ref.

United States Department of the Interior Bureau of Land Management Roswell Field Office 2909 West Second Street Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:

Mewbourne Oil Company

Street or Box:

P.O. Box 5270

City, State:

Hobbs, New Mexico

Zip Code:

88241

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

Lease Number:

Fee & NMNM 107373

Legal Description of Land:

Section 23, T-24S, R-28E Eddy County, New Mexico.

Approved by:

Location @ 690' FSL & 2175' FWL

Formation (if applicable):

Wildcat Wolfcamp Gas

Bond Coverage:

\$150,000

BLM Bond File:

NM1693 Nationwide, NMB 000919

Authorized Signature:

Name: Robin Terrell Title: District Manager

Date: 11-17-2016 .

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



APD ID: 10400007954

Submission Date: 11/22/2016

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W2OP FED COM

Well Number: 2H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - Geologic Formations

ID: Surface formation

Name: UNKNOWN

Lithology(ies):

Elevation: 2955

True Vertical Depth: 27

Measured Depth: 27

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 1

Name: CASTILE

Lithology(ies):

SALT

Elevation: 1875

True Vertical Depth: 1080

Measured Depth: 1080

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2

Name: BOTTOM SALT

Lithology(ies):

SALT

Elevation: 540

True Vertical Depth: 2415

Measured Depth: 2415

Mineral Resource(s):

NONE

Is this a producing formation? N

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

ID: Formation 3

Name: LAMAR

Lithology(ies):

LIMESTONE

Elevation: 340

True Vertical Depth: 2615

Measured Depth: 2615

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 4

Name: BELL CANYON

Lithology(ies):

SANDSTONE

Elevation: 300

True Vertical Depth: 2655

Measured Depth: 2655

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 5

Name: CHERRY CANYON

Lithology(ies):

SANDSTONE

Elevation: -555

True Vertical Depth: 3510

Measured Depth: 3510

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 6

Name: MANZANITA

Lithology(ies):

LIMESTONE

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Elevation: -700 True V

True Vertical Depth: 3655

Measured Depth: 3655

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 7

Name: BRUSHY CANYON

Lithology(ies):

SANDSTONE

Elevation: -1815

True Vertical Depth: 4770

Measured Depth: 4770

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8

Name: BONE SPRING LIME

Lithology(ies):

LIMESTONE

SHALE

Elevation: -3370

True Vertical Depth: 6325

Measured Depth: 6325

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 9

Name: BONE SPRING 1ST

Lithology(ies):

SANDSTONE

Elevation: -4240

True Vertical Depth: 7195

Measured Depth: 7195

Mineral Resource(s):

NATURAL GAS

OIL

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Is this a producing formation? N

ID: Formation 10

Name: BONE SPRING 2ND

Lithology(ies):

SANDSTONE

Elevation: -5075

True Vertical Depth: 8030

Measured Depth: 8030

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 11

Name: BONE SPRING 3RD

Lithology(ies):

SANDSTONE

Elevation: -6165

True Vertical Depth: 9120

Measured Depth: 9120

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 12

Name: WOLFCAMP

Lithology(ies):

LIMESTONE

SHALE

SANDSTONE

Elevation: -6530

True Vertical Depth: 9485

Measured Depth: 9485

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Section 2 - Blowout Prevention

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Pressure Rating (PSI): 5M Rating Depth: 18725

Equipment: Annular, Pipe Ram, 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.

Testing Procedure: Test Annular to 2500# Test BOPE to 5000#

Choke Diagram Attachment:

Queen 23-24 W2OP Fed Com 2H_5M BOPE Choke Diagram_11-22-2016.pdf

BOP Diagram Attachment:

Queen 23-24 W2OP Fed Com 2H_5M BOPE Schematic_11-22-2016.pdf

Section 3 - Casing

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

String Type: SURFACE Oth

Other String Type:

Hole Size: 17.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -7113

Bottom setting depth MD: 650

Bottom setting depth TVD: 650

Bottom setting depth MSL: -7763

Calculated casing length MD: 650

Casing Size: 13.375

Other Size

Grade: H-40

Other Grade:

Weight: 48

Joint Type: STC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 2.28

Burst Design Safety Factor: 5.12

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 10.32

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 17.34

Casing Design Assumptions and Worksheet(s):

Queen_23_24_W2OP_Fed_Com_2H_Csg_Assumptions_04-07-2017.pdf

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

String Type: INTERMEDIATE

Other String Type:

Hole Size: 12.25

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -7113

Bottom setting depth MD: 2540

Bottom setting depth TVD: 2540

Bottom setting depth MSL: -9653 Calculated casing length MD: 2540

Casing Size: 9.625

Other Size

Grade: J-55

Other Grade:

Weight: 36

Joint Type: LTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.53

Burst Design Safety Factor: 2.67

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 4.95

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 6.17

Casing Design Assumptions and Worksheet(s):

Queen_23_24_W2OP_Fed_Com_2H_Csg_Assumptions 04-07-2017.pdf

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

String Type: PRODUCTION

Other String Type:

Hole Size: 8.75

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -7113

Bottom setting depth MD: 10750

Bottom setting depth TVD: 10592

Bottom setting depth MSL: -17705 Calculated casing length MD: 10750

Casing Size: 7.0

Other Size

Grade: P-110

Other Grade:

Weight: 26

Joint Type: LTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.49

Burst Design Safety Factor: 1.9

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 2.33

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 2.97

Casing Design Assumptions and Worksheet(s):

Queen_23_24_W2OP_Fed_Com_2H_Csg_Assumptions_04-07-2017.pdf

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

String Type: LINER

Other String Type:

Hole Size: 6.125

Top setting depth MD: 10059

Top setting depth TVD: 10059

Top setting depth MSL: -17172

Bottom setting depth MD: 18725

Bottom setting depth TVD: 10803

Bottom setting depth MSL: -17916

Calculated casing length MD: 8666

Casing Size: 4.5

Other Size

Grade: P-110

Other Grade:

Weight: 13.5

Joint Type: LTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N >

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.46

Burst Design Safety Factor: 1.7

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 2.89

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 3.61

Casing Design Assumptions and Worksheet(s):

Queen_23_24_W2OP_Fed_Com_2H_Csg_Assumptions_04-07-2017.pdf

Section 4 - Cement

Casing String Type: SURFACE

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Stage Tool Depth:

<u>Lead</u>

Top MD of Segment: 0 Bottom MD Segment: 460 Cement Type: Class C

Additives: Salt, Gel, Extender, LCM Quantity (sks): 305 Yield (cu.ff./sk): 2.12

Density: 12.5 Volume (cu.ft.): 646 Percent Excess: 100

<u>Tail</u>

Top MD of Segment: 460 Bottom MD Segment: 650 Cement Type: Class C

Additives: Retarder Quantity (sks): 200 Yield (cu.ff./sk): 1.34

Density: 14.8 Volume (cu.ft.): 268 Percent Excess: 100

Casing String Type: INTERMEDIATE

Stage Tool Depth:

<u>Lead</u>

Top MD of Segment: 0 **Bottom MD Segment:** 1903 **Cement Type:** Class C

Additives: Salt, Gel, Extender, LCM Quantity (sks): 375 Yield (cu.ff./sk): 2.12

Density: 12.5 Volume (cu.ft.): 795 Percent Excess: 25

<u>Tail</u>

Top MD of Segment: 1903 Bottom MD Segment: 2540 Cement Type: Class C

Additives: Retarder Quantity (sks): 200 Yield (cu.ff./sk): 1.34

Density: 14.8 Volume (cu.ft.): 268 Percent Excess: 25

Casing String Type: PRODUCTION

Stage Tool Depth: 3655

Lead

Top MD of Segment: 2340 Bottom MD Segment: 3031 Cement Type: Class C

Additives: Gel, Retarder, Defoamer, Quantity (sks): 70 Yield (cu.ff./sk): 2.12

Extender

Density: 12.5

Volume (cu.ft.): 148

Percent Excess: 25

Tail

Top MD of Segment: 3031 Bottom MD Segment: 3655 Cement Type: Class C

Additives: Retarder Quantity (sks): 100 Yield (cu.ff./sk): 1.34

Density: 14.8 Volume (cu.ft.): 134 Percent Excess: 25

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Stage Tool Depth: 3655

Lead

Cement Type: Class C Top MD of Segment: 3655 **Bottom MD Segment: 8288**

Additives: Gel, Retarder, Defoamer, Quantity (sks): 415 Yield (cu.ff./sk): 2.12

Extender Percent Excess: 25 Volume (cu.ft.): 880 Density: 12.5

Tail

Cement Type: Class H **Bottom MD Segment: 10750** Top MD of Segment: 8288

Yield (cu.ff./sk): 1.18 Quantity (sks): 400 Additives: Retarder, Fluid Loss,

Defoamer Percent Excess: 25 Volume (cu.ft.): 472 Density: 15.6

Casing String Type: LINER

Stage Tool Depth:

Lead

Top MD of Segment: 10059 Cement Type: Class C **Bottom MD Segment: 18725**

Yield (cu.ff./sk): 2.97 Additives: Salt, Gel, Fluid Loss, Quantity (sks): 350

Retarder, Dispersant, Defoamer, Anti-Percent Excess: 25 Volume (cu.ft.): 1039 Settling Agent

Pensity: 11.2

Bottom MD Segment: Cement Type:

Top MD of Segment: 925 Quantity (sks): Yield (cu.ff./sk):

Additives: Volume (cu.ft.): Percent Excess: 25

Density:

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: Pason/PVT/Visual Monitoring

Circulating Medium Table

Well Name: QUEEN 23/24 W2OP FED COM

Well Number: 2H

Top Depth: 0

Bottom Depth: 650

Mud Type: SPUD MUD

Min Weight (lbs./gal.): 8.6

Max Weight (lbs./gal.): 8.8

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Top Depth: 650

Bottom Depth: 2540

Mud Type: SALT SATURATED

Min Weight (lbs./gal.): 10

Max Weight (lbs./gal.): 10

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Top Depth: 2540

Bottom Depth: 10059

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.6

Max Weight (lbs./gal.): 9.5

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Top Depth: 10059

Bottom Depth: 10803

Mud Type: OIL-BASED MUD

Min Weight (lbs./gal.): 10

Max Weight (lbs./gal.): 13

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics: MW up to 13.0 ppg may be required for shale control. The highest MW needed to balance

formation pressure is expected to be 12.0 ppg.

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (10059') 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 Bottom Hole Pressure: 6741

Anticipated Surface Pressure: 4366.32

Anticipated Bottom Hole Temperature(F): 165

Anticipated abnormal proessures, 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:

Queen 23-24 W2OP Fed Com 2H_H2S Plan 11-22-2016.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Queen_23_24_W2OP_Fed_Com_2H_Dir_Plan_04-07-2017.pdf Queen_23_24_W2OP_Fed_Com_2H_Dir_Plot_04-07-2017.pdf

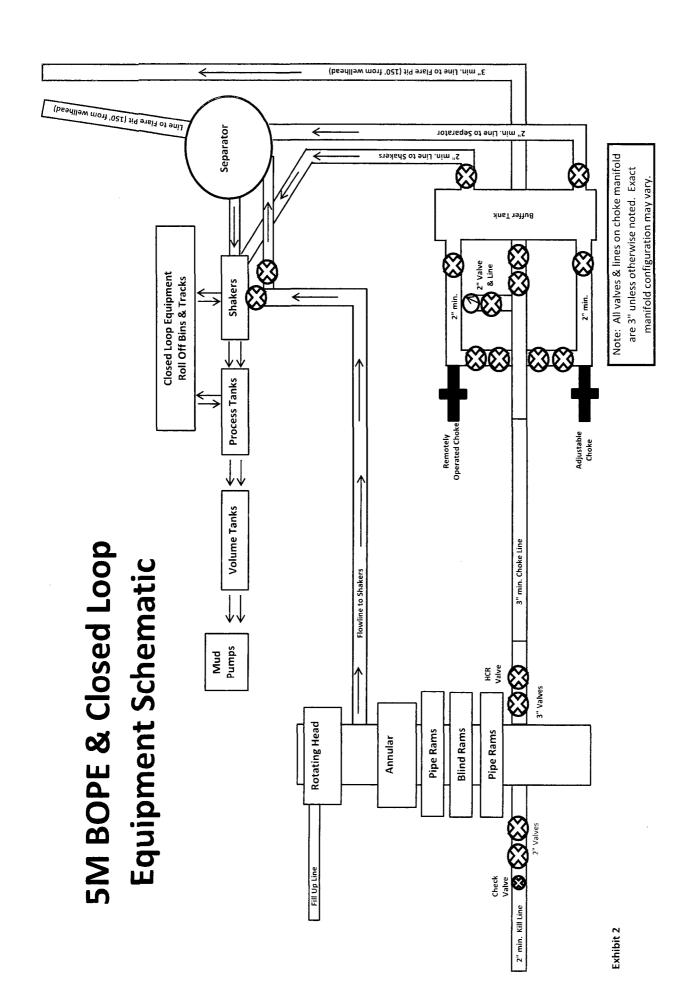
Other proposed operations facets description:

Other proposed operations facets attachment:

Queen_23_24_W2OP_Fed_Com_2H_Drlg_Program_04-07-2017.doc

Other Variance attachment:

Queen 23-24 W2OP Fed Com 2H_Flex Line Specs_11-22-2016.pdf Queen_23_24_W2OP_Fed_Com_2H_Multi_Bowl_WH_04-07-2017.pdf



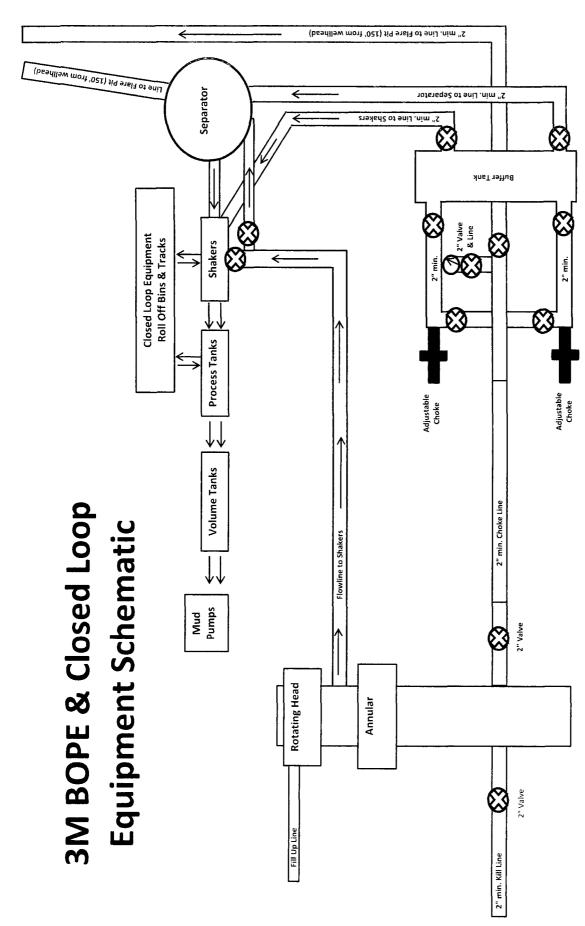
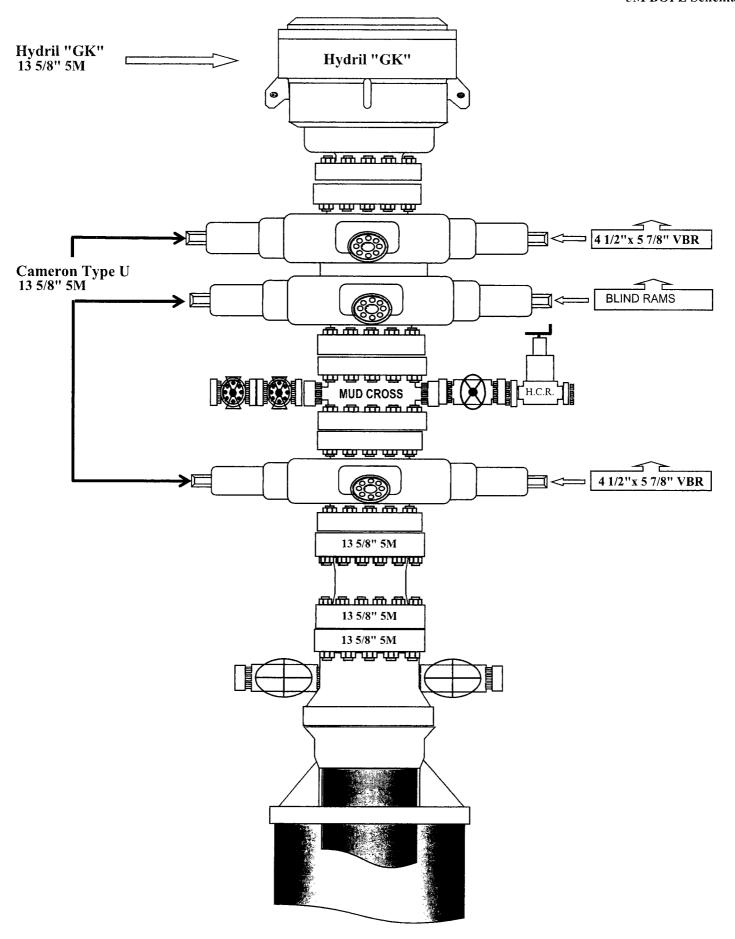


Exhibit "2"



Mewbourne Oil Company BOP Schematic for

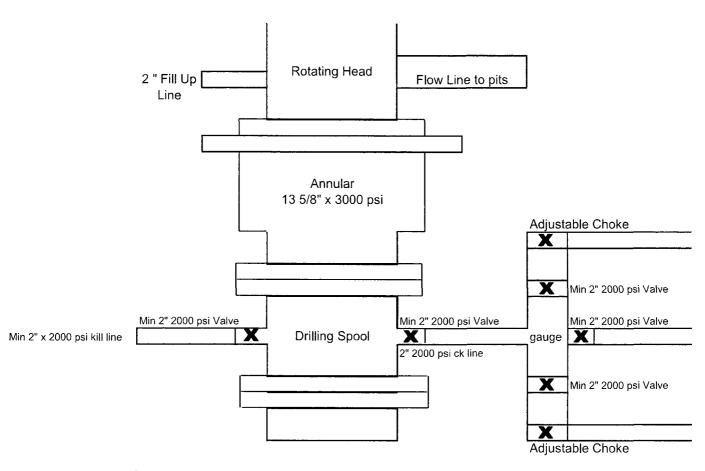


Exhibit #2

Mewbourne Oil Company, Queen 23/24 W2OP Fed Com #2H Sec 23, T24S, R28E

SL: 690' FSL & 2175' FEL, Sec 23 BHL: 330' FSL & 330' FEL, Sec 24

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	650'	13.375"	48	H40	STC	2.28	5.12	10.32	17.34
12.25"	0'	2540'	9.625"	36	J55	LTC	1.53	2.67	4.95	6.17
8.75"	0'	10750'	7"	26	HCP110	LTC	1.49	1.90	2.33	2.97
6.125"	10059'	18725'	4.5"	13.5	P110	LTC	1.46	1.70	2.89	3.61
				BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			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?	
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?	Y
If yes, are there two strings cemented to surface?	Y
(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?	

<u>Hydrogen Sulfide Drilling Operations Plan</u> **Mewbourne Oil Company**

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1. The hazards and characteristics of hydrogen sulfide gas.
- 2. The proper use of personal protective equipment and life support systems.
- 3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the $9\,5/8$ " intermediate casing.

- 1. Well Control Equipment
 - A. Choke manifold with minimum of one adjustable choke/remote choke.
 - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
 - C. Auxiliary equipment including annular type blowout preventer.
- 2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. <u>Visual Warning Systems</u>

- A. Wind direction indicators as indicated on the wellsite diagram.
- B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. Emergency Phone Numbers

Eddy County Sheriff's Office	911 or 575-887-7551
Ambulance Service	911 or 575-885-2111
Carlsbad Fire Dept	911 or 575-885-2111
Loco Hills Volunteer Fire Dept.	911 or 575-677-3266
Closest Medical Facility - Columbia Medical Cen	iter of Carlsbad 575-492-5000

Hobbs District Office	575-393-5905
Fax	575-397-6252
2 nd Fax	575-393-7259
Robin Terrell	575-390-4816
Frosty Lathan	575-390-4103
Bradley Bishop	575-390-6838
Wesley Noseff	575-441-0729
	2 nd Fax Robin Terrell Frosty Lathan Bradley Bishop

Mewbourne Oil Company

Eddy County, New Mexico Queen 23/24 W2OP Fed Com #2H Sec 23, T24S, R28E

SL: 690' FSL & 2175' FWL, Sec 23 BHL: 330' FSL & 330' FEL, Sec 24

Plan: Design #1

Standard Planning Report

06 April, 2017

Database:

Hobbs

Company: Project:

Mewbourne Oil Company Eddy County, New Mexico

Site: Well: Queen 23/24 W2OP Fed Com #2H Sec 23, T24S, R28E

Wellbore: Design:

BHL: 330' FSL & 330' FEL, Sec 24

Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: Site Queen 23/24 W2OP Fed Com #2H WELL @ 2982.0usft (Original Well Elev) WELL @ 2982.0usft (Original Well Elev)

Grid

Survey Calculation Method:

Minimum Curvature

Project

Eddy County, New Mexico

Map System: Geo Datum: Map Zone:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum:

Mean Sea Level

Site

Queen 23/24 W2OP Fed Com #2H

Site Position: From:

Мар

Northing: Easting:

435,759.00 usft 584,776,00 usft

Latitude: Longitude:

32° 11' 51.798 N 104° 3' 33.366 W

Position Uncertainty:

0.0 usft Slot Radius:

13-3/16 "

Grid Convergence:

0.15°

Well

Sec 23, T24S, R28E

Well Position

+N/-S +E/-W 0.0 usft 0.0 usft

Northing: Easting:

435,759.00 usft 584,776.00 usft

7.97

Latitude: Longitude:

32° 11' 51.798 N 104° 3' 33.366 W

48,725

Position Uncertainty

0.0 usft

Wellhead Elevation:

2,982.0 usft

Ground Level:

2,955.0 usft

Wellbore

BHL: 330' FSL & 330' FEL, Sec 24

Magnetics

Model Name

Sample Date

12/31/2009

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF200510

Design #1

Design

Audit Notes:

Version:

Phase:

PROTOTYPE

Tie On Depth:

0.0

Vertical Section:

Depth From (TVD) (usft) 0.0

+N/-S (usft) 0.0

+E/-W (usft) 0.0

Direction (°)

92.81

60.13

Plan Sections

feasured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,059.0	0.00	0.00	10,059.0	0.0	0.0	0.00	0.00	0.00	0.00 K	OP @ 10059'
10,971.9	91.28	118.71	10,631.9	-281.4	513.8	10.00	10.00	0.00	118.71	
11,325.9	88.67	90.26	10,632.0	-369.0	853.0	8.07	-0.74	-8.03	-95.14 L	.P/FTP: 330' FSL & 2
18,699.9	88.67	90.26	10,803.0	-403.0	8,225.0	0.00	0.00	0.00	0.00 E	330' FSL & 330'

Database:

Hobbs

Company: Project: Mewbourne Oil Company Eddy County, New Mexico

Site: Well: Queen 23/24 W2OP Fed Com #2H Sec 23, T24S, R28E

Wellbore:

BHL: 330' FSL & 330' FEL, Sec 24

Design:

Design #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Site Queen 23/24 W2OP Fed Com #2H WELL @ 2982.0usft (Original Well Elev)

WELL @ 2982.0usπ (Original Well Elev)

Grid

Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination	Azimuth	Vertical Depth (usft)	+N/-S	+E/-W	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
• •	(°)	(°)	, ,	(usft)	(usft)	, ,	,	, ,	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	& 2175' FWL, S		400.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00 0.00	0.00 0.00	100.0 200.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00 0.00	0.00 0.00
200.0 300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0 3,400.0	0.00 0.00	0.00 0.00	3,300.0 3,400.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00 0.00	0.00 0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0,0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0,0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

Database;

Hobbs

Company:

Mewbourne Oil Company

Project: Site: Eddy County, New Mexico Queen 23/24 W2OP Fed Com #2H

Well:

Sec 23, T24S, R28E

Wellbore:

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Design: Design #1

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MD Reference: North Reference:

Survey Calculation Method:

Site Queen 23/24 W2OP Fed Com #2H WELL @ 2982.0usft (Original Well Elev) WELL @ 2982.0usft (Original Well Elev)

Grid

Minimum Curvature

Planned Survey

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300,0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0,00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
					0.0		0.00	0.00	
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00 0.00	0.00	0.00 0.00
7,600.0	0.00 0.00	0.00 0.00	7,600.0 7,700.0	0.0 0.0	0.0	0.0 0.0	0.00	0.00	0.00
7,700.0 7,800.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,059.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 1005		0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	9 4.10	118.71	10,100,0	-0.7	1.3	1.3	10.00	10.00	0.00
10,100.0	4.10 14.10	118.71	10,100.0	-0.7 -8.3	15.1	1.5 15.5	10.00	10.00	0.00
10,200.0	24.10	118,71	10,198.0	-24.0	43.8	44.9	10.00	10.00	0.00
10,000,0	24.10		10,233.0	~27.0					

Database:

Hobbs

Company:

Mewbourne Oil Company

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Well:

Sec 23, T24S, R28E

Wellbore:

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Design: Design #1

Local Co-ordinate Reference:

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Survey Calculation Method:

Site Queen 23/24 W2OP Fed Com #2H WELL @ 2982.0usft (Original Well Elev) WELL @ 2982.0usft (Original Well Elev)

Grid

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)
10,400,0	34.10	118.71	10,380,2	-47.3	86.4	88.6	10,00	10,00	0.00
10,500.0	44.10	118.71	10,457.7	-77.6	141.6	145.3	10.00	10.00	0.00
10,600.0	54.10	118.71	10,523.1	-113.8	207.8	213.2	10.00	10.00	0.00
10,700.0	64.10	118.71	10,574.4	-155.0	283.0	290.2	10.00	10.00	0.00
10,800.0	74.10	118.71	10,610.1	-199.8	364.8	374.2	10.00	10.00	0.00
10,900.0	84.10	118.71	10,629.0	-246.9	450.8	462.4	10.00	10.00	0.00
10,971.9	91.28	118.71	10,631.9	-281.4	513.8	526.9	10.00	10.00	0.00
11,000.0	91.08	116.45	10,631.3	-294.4	538.7	552.5	8.07	-0.73	-8.04
11,100.0	90.34	108.41	10,630.0	-332.5	631.1	646.6	8.07	-0.74	-8.03
11,200.0	89.60	100.38	10,630.1	-357.3	727.8	744.5	8.07	-0.74	-8.03
11,300.0	88.86	92.34	10,631.4	-368.4	827.1	844.2	8.07	-0.74	-8.03
11,325.9	88.67	90.26	10,632.0	-369.0	853.0	870.0	8.07	-0.72	-8.04
LP/FTP: 330	' FSL & 2350' FE	L, Sec 23							
11,400.0	88.67	90.26	10,633.7	-369.3	927.1	944.1	0.00	0.00	0.00
11,500.0	88.67	90.26	10,636.0	-369.8	1,027.1	1,043.9	0.00	0.00	0.00
11,600.0	88.67	90.26	10,638.4	-370.3	1,127.1	1,143.8	0.00	0.00	0.00
11,700.0	88.67	90.26	10,640.7	-370.7	1,227.0	1,243,7	0.00	0.00	0.00
11,800.0	88.67	90.26	10,643.0	-371.2	1,327.0	1,343.6	0.00	0.00	0.00
11,900.0	88.67	90.26	10,645.3	-371.6	1.427.0	1,443.4	0.00	0.00	0.00
12,000.0	88.67	90.26	10,647.6	-371.0	1,526.9	1,543.3	0.00	0.00	0.00
12,100.0	88.67	90.26	10,650.0	-372.6	1,626.9	1,643.2	0.00	0.00	0.00
12,200.0	88.67	90.26	10,652.3	-373.0	1,726.9	1,743.1	0.00	0.00	0.00
12,300.0	88.67	90.26	10,654.6	-373.5	1,826.9	1,842.9	0.00	0.00	0.00
12,400.0	88.67	90.26	10,656.9	-374.0	1,926.8	1,942.8	0.00	0.00	0.00
12,500.0	88.67	90.26	10,659.2	-374.4	2,026.8	2,042.7	0.00	0.00	0.00
12,600.0	88.67	90.26	10,661.5	-374.9	2,126.8	2,142.6	0.00	0.00	0.00
12,700.0	88.67	90.26	10,663.9	-375.3	2,226.7	2,242.4	0.00	0.00	0.00
12,800.0	88.67	90.26	10,666.2	-375.8	2,326.7	2,342.3	0.00	0.00	0.00
12,900.0	88.67	90.26	10,668.5	-376.3	2,426.7	2,442.2	0.00	0.00	0.00
13,000.0	88.67	90.26	10,670.8	-376.7	2,526.7	2,542.1	0.00	0.00	0.00
13,100.0	88.67	90.26	10,673.1	-377.2	2,626.6	2,641.9	0.00	0.00	0.00
13,200.0	88.67	90.26	10,675.5	<i>-</i> 377.6	2,726.6	2,741.8	0.00	0.00	0.00
13,300,0	88.67	90.26	10,677.8	-378.1	2,826.6	2,841.7	0.00	0.00	0.00
13,400.0	88.67	90.26	10,680.1	-378.6	2,926.5	2,941.6	0.00	0.00	0.00
13,500.0	88.67	90.26	10,682.4	-379.0	3,026.5	3,041.4	0.00	0.00	0.00
13,600.0	88.67	90.26	10,684.7	-379.5	3,126.5	3,141.3	0.00	0.00	0.00
13,700,0	88.67	90.26	10,687.1	-379.9	3,226,5	3,241.2	0.00	0.00	0.00
13,800.0	88.67	90.26	10,689.4	-380.4	3,326.4	3,341.1	0.00	0.00	0.00
13,900.0	88.67	90.26	10,691.7	-380.9	3,426.4	3,440.9	0.00	0.00	0.00
14,000.0	88.67	90.26	10,694.0	-381.3	3,526.4	3,540.8	0.00	0.00	0.00
14,100.0	88.67	90.26	10,696.3	-381.8	3,626.4	3,640.7	0.00	0.00	0.00
14,200,0	88.67	90.26	10,698.6	-382.3	3,726.3	3,740.6	0.00	0.00	0.00
14,300.0	88.67	90.26	10,701.0	-382.7	3,826.3	3,840.4	0.00	0.00	0.00
14,400.0	88.67	90.26	10,703.3	-383.2	3,926.3	3,940.3	0.00	0.00	0.00
14,500.0	88.67	90.26	10,705.6	-383.6	4,026.2	4,040.2	0.00	0.00	0.00
14,600.0	88.67	90.26	10,707.9	-384.1	4,126.2	4,140.1	0.00	0.00	0.00
14,700.0	88.67	90.26	10,710.2	-384.6	4,226.2	4,239.9	0.00	0.00	0.00
14,800.0	88.67	90.26	10,712.6	-385.0	4,326.2	4,339.8	0.00	0.00	0.00
14,900.0	88.67	90.26	10,714.9	-385.5	4,426.1	4,439.7	0.00	0.00	0.00
15,000.0	88.67	90.26	10,717.2	-385.9	4,526.1	4,539.6	0.00	0.00	0.00
15,100.0	88.67	90.26	10,719.5	-386.4	4,626.1	4,639.4	0.00	0.00	0.00
15,200.0	88.67	90.26	10,721.8	-386.9	4,726.0	4,739.3	0.00	0.00	0.00
15,300.0	88.67	90.26	10,721.8	-386.9 -387.3	4,726.0	4,739.3	0.00	0.00	0.00
15,400.0	88.67	90.26 90.26	10,724.2	-387.3 -387.8	4,826.0	4,839.2 4,939.1	0.00	0.00	0.00
13,400.0	00,07	30.20	10,720.0	-301.0	7,320.0	7,333.1	0.00	0.00	

Database:

Hobbs

Company:

Mewbourne Oil Company

Project:

Eddy County, New Mexico Queen 23/24 W2OP Fed Com #2H

Site: Well:

Sec 23, T24S, R28E

Wellbore:

BHL: 330' FSL & 330' FEL, Sec 24

Design:

Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Queen 23/24 W2OP Fed Com #2H WELL @ 2982.0usft (Original Well Elev) WELL @ 2982.0usft (Original Well Elev)

Grid

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)
15,500.0	88.67	90.26	10,728.8	-388.2	5,026.0	5,038.9	0.00	0.00	0.00
15,600.0	88.67	90.26	10,731.1	-388.7	5,125.9	5,138.8	0.00	0.00	0.00
15,700.0	88.67	90.26	10,733.4	-389.2	5,225.9	5,238.7	0.00	0.00	0.00
15,800.0	88.67	90.26	10,735.8	-389.6	5,325.9	5,338.6	0.00	0.00	0.00
15,900.0	88.67	90.26	10,738.1	-390.1	5,425.8	5,438.4	0.00	0.00	0.00
16,000.0	88.67	90.26	10,740.4	-390.6	5,525.8	5,538.3	0.00	0.00	0.00
16,100.0	88.67	90,26	10,742.7	-391.0	5,625.8	5,638.2	0.00	0.00	0.00
16,200.0	88.67	90.26	10,745.0	- 391.5	5,725.8	5,738.1	0.00	0.00	0.00
16,300.0	88.67	90.26	10,747.3	-391.9	5,825.7	5,837.9	0.00	0.00	0.00
16,400.0	88.67	90.26	10,749.7	-392.4	5,925.7	5,937.8	0.00	0.00	0.00
16,500.0	88.67	90.26	10,752,0	-392.9	6,025.7	6,037.7	0.00	0.00	0.00
16,600.0	88.67	90.26	10,754.3	-393.3	6,125.7	6,137.6	0.00	0.00	0.00
16,700.0	88.67	90.26	10,756.6	-393.8	6,225.6	6,237.4	0.00	0.00	0.00
16,800.0	88.67	90.26	10,758.9	-394.2	6,325.6	6,337.3	0.00	0.00	0.00
16,900.0	88.67	90.26	10,761.3	-394.7	6,425.6	6,437.2	0.00	0.00	0.00
17,000.0	88.67	90.26	10,763.6	-395.2	6,525.5	6,537.1	0.00	0.00	0.00
17,100.0	88.67	90.26	10,765.9	-395.6	6,625.5	6,636.9	0.00	0.00	0.00
17,200.0	88.67	90.26	10,768.2	-396.1	6,725.5	6,736.8	0.00	0.00	0.00
17,300.0	88.67	90.26	10,770.5	-396.5	6,825.5	6,836.7	0.00	0.00	0.00
17,400.0	88.67	90.26	10,772.9	-397.0	6,925.4	6,936.6	0.00	0.00	0.00
17,500.0	88.67	90.26	10,775.2	-397.5	7,025.4	7,036.4	0.00	0.00	0.00
17,600.0	88.67	90.26	10,777.5	-397.9	7,125.4	7,136.3	0.00	0.00	0.00
17,700.0	88.67	90.26	10,779.8	-398.4	7,225.3	7,236.2	0.00	0.00	0.00
17,800.0	88.67	90.26	10,782.1	-398.9	7,325.3	7,336.1	0.00	0.00	0.00
17,900.0	88.67	90.26	10,784.4	-399.3	7,425.3	7,435.9	0.00	0.00	0.00
18,000.0	88.67	90.26	10,786.8	-399.8	7,525.3	7,535.8	0.00	0.00	0.00
18,100.0	88.67	90.26	10,789.1	-400.2	7,625.2	7,635.7	0.00	0.00	0.00
18,200.0	88.67	90.26	10,791.4	- 400.7	7,725.2	7,735.6	0.00	0.00	0.00
18,300.0	88.67	90.26	10,793.7	-401.2	7,825.2	7,835.4	0.00	0.00	0.00
18,400.0	88.67	90.26	10,796.0	-401.6	7,925.2	7,935.3	0.00	0.00	0.00
18,500.0	88.67	90.26	10,798.4	-402.1	8,025.1	8,035.2	0.00	0.00	0.00
18,600.0	88.67	90.26	10,800.7	-402.5	8,125.1	8,135.1	0.00	0.00	0.00
18,699.9	88.67	90.26	10,803.0	-403.0	8,225.0	8,234.9	0.00	0.00	0.00
BHL: 330' FS	SL & 330' FEL, S	ec24							

Database:

Hobbs

Company:

Mewbourne Oil Company Eddy County, New Mexico

Project: Site:

Queen 23/24 W2OP Fed Com #2H

Well:

Sec 23, T24S, R28E

Wellbore:

BHL: 330' FSL & 330' FEL, Sec 24

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Site Queen 23/24 W2OP Fed Com #2H

WELL @ 2982.0usft (Original Well Elev) WELL @ 2982.0usft (Original Well Elev)

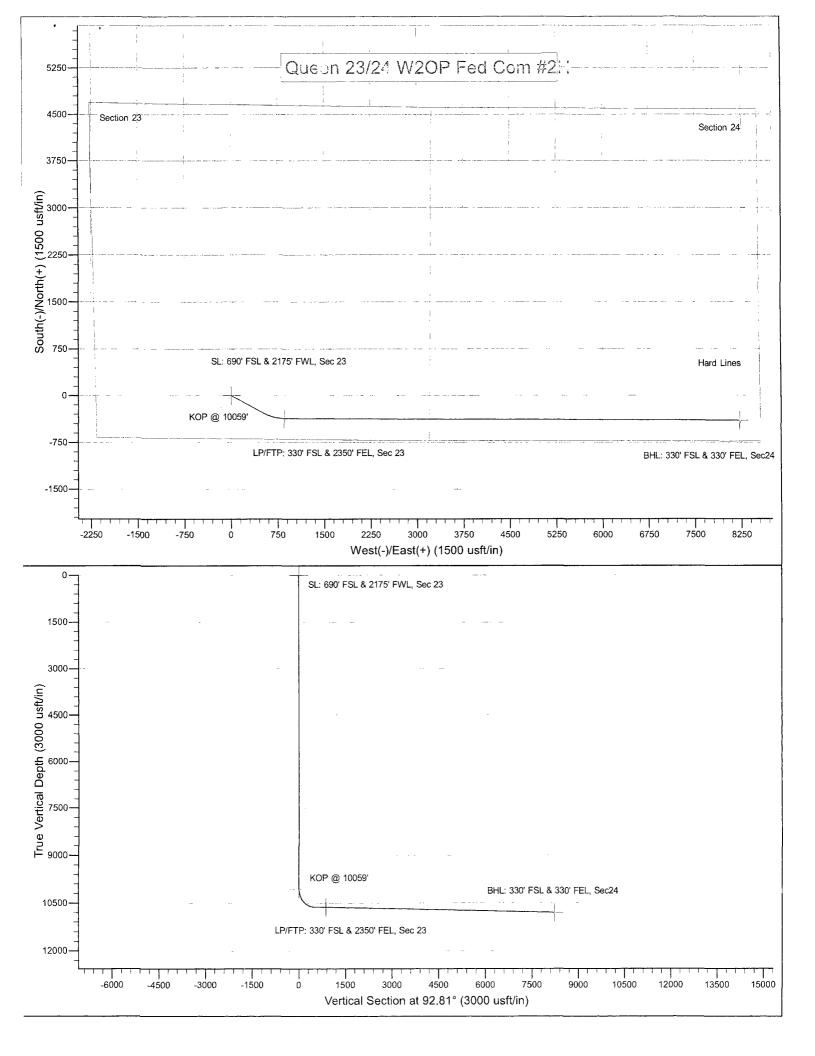
COMPASS 5000.1 Build 72

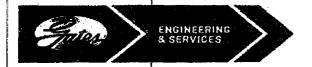
Grid

Minimum Curvature

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 690' FSL & 2175' FV - plan hits target cen - Point	0.00 ter	0.00	0.0	0.0	0.0	435,759.00	584,776.00	32° 11' 51.798 N	104° 3' 33.366 W
KOP @ 10059' - plan hits target cen - Point	0.00 ter	0.00	10,059.0	0.0	0.0	435,759.00	584,776.00	32° 11′ 51.798 N	104° 3' 33.366 W
LP/FTP: 330' FSL & 235 - plan hits target cen - Point	0.00 ter	0.00	10,632.0	-369.0	853.0	435,390.00	585,629.00	32° 11' 48.124 N	104° 3' 23.450 W
BHL: 330' FSL & 330' FE - plan hits target cen - Point	0.00 ter	0.00	10,803.0	-403.0	8,225.0	435,356.00	593,001.00	32° 11' 47.592 N	104° 1' 57.657 W





GATES E & S NORTH AMERICA, INC. 134 44TH STREET CORPUS CHRISTI, TEXAS 78405 PHONE: 361-887-9807 FAX: 361-887-0812

EMAIL: Tim.Cantu@gates.com

WEB: www.gates.com

10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer:	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:		10K3.548,0CK4.1/1610KFLGE/E	LE
·	A LUC TOV ET C		
Product Description: End Fitting 1: Gates Part No.:	4 1/16 10K FLG 4773-6290	10K3.548.0CK4.1/1610KFLGE/E End Fitting 2 : Assembly Code :	LE 4 1/16 10K FLG L36554102914D-043015-7

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 15,000 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality Manager:

Date:

Signature :

Produciton:

QUALITY

4/30/2015

Date :

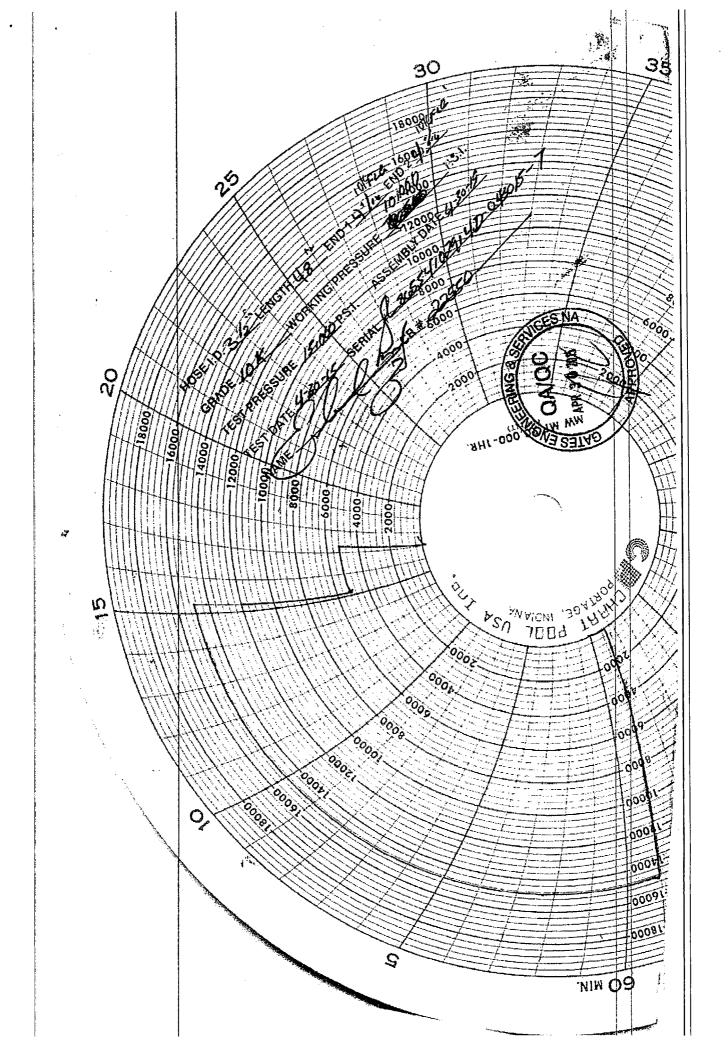
Signature :

PRODUCTION

4/30/2/015

Forn PTC - 01 Rev.D 2

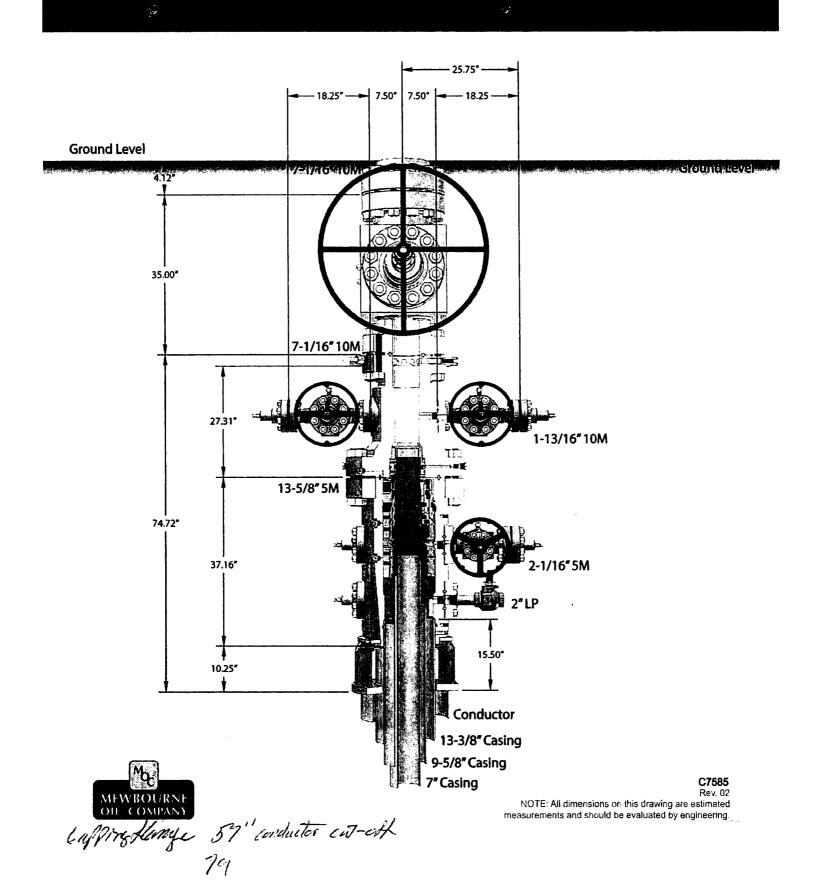




CAMERON

A Schlumberger Company

13-5/8" MN-DS Wellhead System



** AFMSS

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



APD ID: 10400007954

Submission Date: 11/22/2016

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W2OP FED COM

Well Number: 2H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Queen_23_24_W2OP_Federal_Com2H_existingroadmap_04-07-2017.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:

Queen_23_24_W2OP_Federal_Com2H_newroadmap_04-07-2017.pdf

New road type: RESOURCE

Length: 191.2

Feet

Width (ft.): 20

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

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Access surfacing type: OTHER

Access topsoil source: OFFSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth:

Offsite topsoil source description: Topsoil will be on edge of lease road.

Onsite topsoil removal process:

Access other construction information: None

Access miscellaneous information: None

Number of access turnouts: 1 Access turnout map:

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

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Queen 23_24 W2OP Federal Com2H_existingwellmap_11-17-2016.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

Production Facilities description: a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color that blends in with the surrounding landscape. The paint color will be one of the colors from the BLM Standard Environmental Colors chart selected by the BLM authorized officer. b. All proposed production facilities that are located on the well pad will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location. c. Production from the proposed well will be located on the West edge of location. d. If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation of construction. e. An electric line will be applied for through a sundry notice or BLM right of way at a later date.

Production Facilities map:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Queen_23_24_W2OP_Federal_Com2H_productionfacilitymap_04-07-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL,

Water source type: IRRIGATION

INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE

CASING

Describe type: Source longitude: -103.902405

Source latitude: 32.194504 Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: PRIVATE

Water source transport method: TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2152 Source volume (acre-feet): 0.27737793

Source volume (gal): 90384

Water source use type: DUST CONTROL,

Water source type: IRRIGATION

INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE

CASING

Describe type: Source longitude: -104.04341

Source latitude: 32.193806 Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2152 Source volume (acre-feet): 0.27737793

Source volume (gal): 90384

Water source and transportation map:

Queen 23_24 W2OP Federal Com2H_watersourceandtransportationmap_11-17-2016.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:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Est. depth to top of aquifer(ft): Est thickness of aquifer:

Aquifer comments:

Aquifer 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 material: Grout depth:

Casing length (ft.): Casing top depth (ft.):

Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche

Construction Materials source location attachment:

Queen 23 24 W2OP Federal Com2H calichesourceandtransportationmap 11-17-2016.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

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.

Waste type: SEWAGE

Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency: Weekly

Safe containment description: 2,000 gallon plastic container

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

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: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500

pounds

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

Disposal type description:

Disposal location description: Waste Management facility in Carlsbad.

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

Description of cuttings location

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

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

WCuttings area liner

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

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:

Queen_23 24 W2OP_Federal_Com2H_wellsitelayout_04-07-2017.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Wellpad long term disturbance (acres): 2.04

Access road long term disturbance (acres): 0.087

Pipeline long term disturbance (acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 2.127

Wellpad short term disturbance (acres): 2.75

Access road short term disturbance (acres): 0

Pipeline short term disturbance (acres): 0

Other short term disturbance (acres): 0

Total short term disturbance: 2.75

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:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

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 type: Seed source:

Seed name:

Source name: Source address:

Source phone: Seed cultivar:

Seed use location:

PLS pounds per acre: Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Bradley Last Name: Bishop

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

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.

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

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: PRIVATE OWNERSHIP

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:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Fee Owner: Scott Branson Fee Owner Address: 1501 Mountain Shadow Dr. Carlsbad,

Phone: (575)885-2066 NM 88220 Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA in place

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: OTHER

Other surface owner description: Eddy County Road Dept.

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:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

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:

Fee Owner: Scott Branson

Fee Owner Address: 1501 Mountain Shadow Dr. Carlsbad, NM 88220

Phone: (575)885-2066

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA in place

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

SUPO Additional Information: NONE

Use a previously conducted onsite? YES

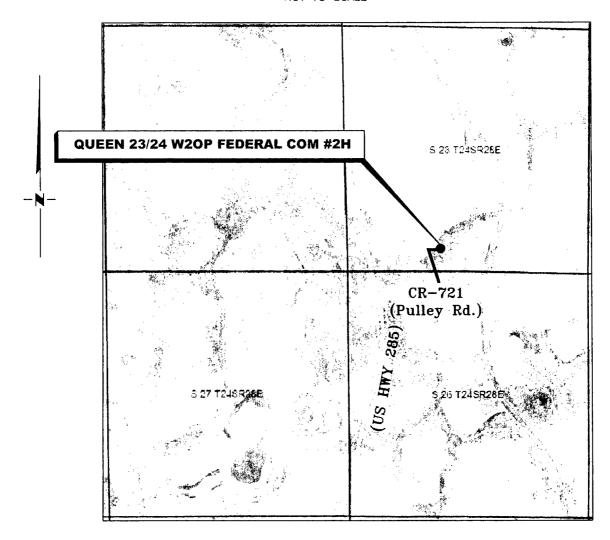
Previous Onsite information: FEB 15 2017 Met with Brooke Wilson (BLM), Paul (Boone Arc), surface owner Scott Branson & RRC Surveying & re-staked location at the request of Scott Branson. Moved location to 690' FSL & 2175' FWL, Sec 23, T24S, R28E, Eddy Co., NM. (Elevation @ 2955'). This appears to be a drillable location with pit area to the N. Topsoil stockpiled 30' wide on N side. Reclaim 60' N & E. Battery will be on W side. This will be a 340' x 460' pad. Road off the SW corner heading S. Will need 20' cattle guard. Queen 23/24 W0OP Fed Com #1H staked 60' N

Other SUPO Attachment

Queen 23_24 W0OP Federal Com1H_operatingletter_01-31-2017.pdf Queen_23_24_W2OP_Federal_Com2H_interimreclamationmap_04-07-2017.pdf

VICINITY MAP

NOT TO SCALE



SECTION 23, TWP. 24 SOUTH, RGE. 28 EAST, N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company

LEASE: Queen 23/24 W2OP Federal Com ELEVATION: 2955'

WELL NO.: 2H

LOCATION: 690' FSL & 2175' FWL

Firm No.: TX 10193838 NM 4655451

Copyright 2016 - All Rights Reserved SCALE: N. T. S.

NO. REVISION DATE JOB NO.: LS1609288R DWG. NO.: 1609288VM



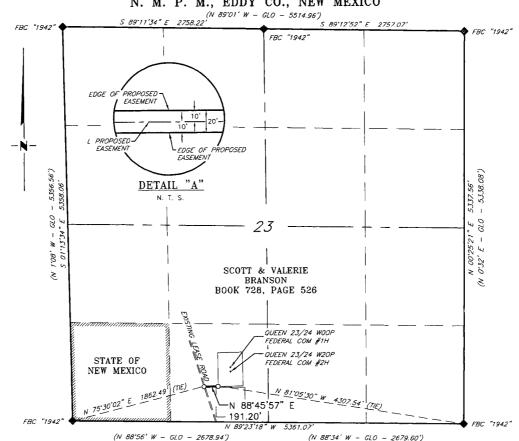
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

DATE: 2-15-2017 SURVEYED BY: ML/CG DRAWN BY: LPS APPROVED BY: RMH SHEET: 1 OF 1

MEWBOURNE OIL COMPANY PROPOSED ACCESS ROAD

FOR THE QUEEN 23/24 WOOP FEDERAL COM #1H & THE QUEEN 23/24 W2OP FEDERAL COM #2H SECTIONS 23, T24S, R28E,

N. M. P. M., EDDY CO., NEW MEXICO



DESCRIPTION

A strip of land 20 feet wide, being 191.20 feet or 11.588 rods in length, lying in Section 23, Township 24 South, Range 28 East, N. M. P. M., Eddy County, New Mexico, being 10 feet left and 10 feet right of the following described survey of a centerline across the lands of Scott & Valerie Branson, according to a deed filed for record in Book 728, Page 526, of the Deed Records of Eddy County New Mexico:

BEGINNING at Engr Sta. 0+00, a point in the Southwest quarter of Section 23, which bears, N 75'30'02" E, 1,862.49 feet from a brass cap, stamped "1942", found for the Southwest corner of Section 23;

Thence N 88'45'57" E, 191.20 feet, to Engr. Sta. 1+91.20, the End of Survey, a point in the Northwest quarter of Section 23, which bears, N 81'05'30" W, 4,307.54 feet from a brass cap, stamped "1942", found for the Southeast quarter corner of Section 23.

11.588 Rods

Said strip of land contains 0.088 acres, more or less, and is allocated by forties as follows:

500 1000 BEARINGS ARE GRID NAD 27 NM EAST DISTANCES ARE HORIZ. GROUND. LEGEND RECORD DATA - GLO

= 1000'

I, R. M. Howett, a N. M. Professional Surveyor, hereby ceruity that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

PROPOSED ACCESS ROAD POLYTA M TX 10193838 NM 4655451 Robert M. Howett NM PS 19680

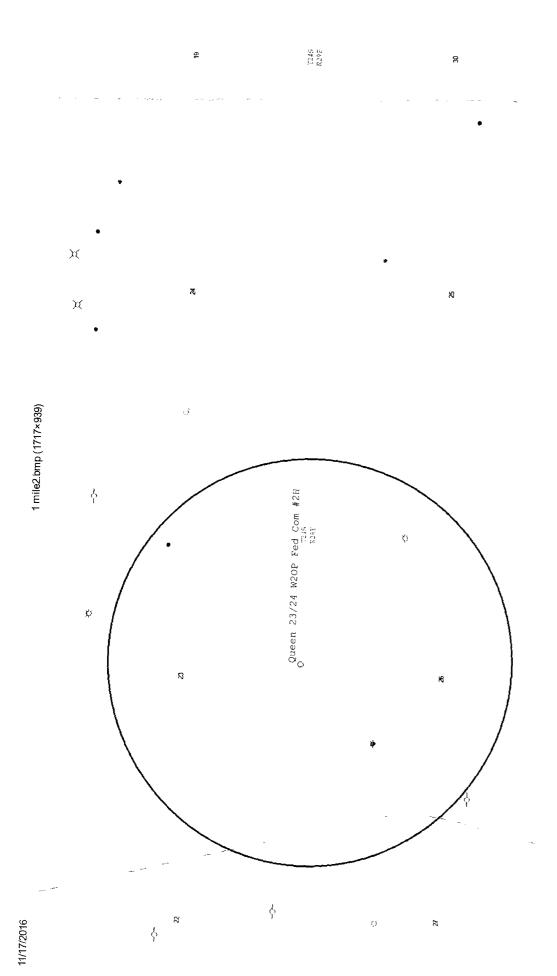
SE 1/4 SW 1/4

Copyright 2016 - All Rights Reserve SCALE: 1" = 1000DATE: 2-15-2017 SURVEYED BY: ML/CG DRAWN BY: LPS APPROVED BY: RMH SHEET: 1 OF 1

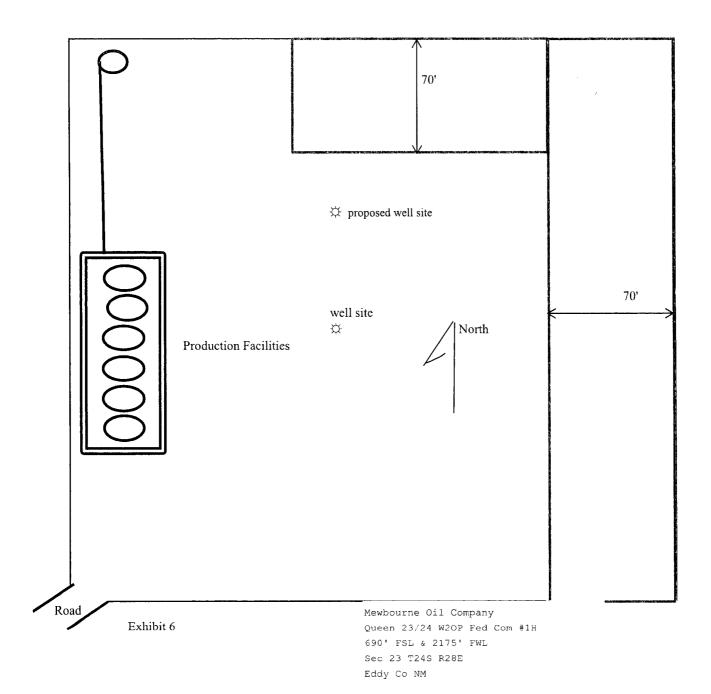
NO.	REVISION	DATE
JOB NO.: LS1609287R		
DWG. NO.: 1609287RD1		

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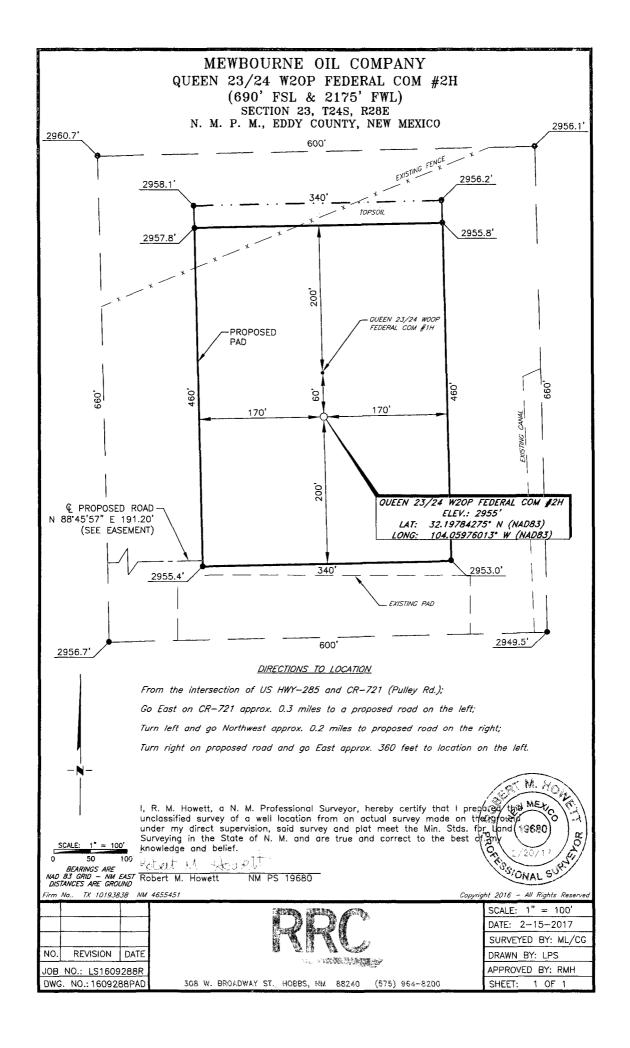
308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200



file:///C:/Data/APD's/Queen%2023-24%20W0OP%20Fed%20Com%20%231H/1%20mile2.bmp



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APD Attachment: Queen 23/24 W2OP Fed. Com #2H

BLM Serial No.: NM - 27919 - T24S, R28E, Section 24: NE/4SW/4, Eddy County, NM

Current Record Title owner: ConocoPhillips Company

Current Operating Rights Owner: EOG Resources, Inc. (below 7,202')

Mewbourne Oil Company currently has a contracted interest in this tract via Joint Operating Agreement dated September 15, 2016 between Mewbourne Oil Company as Operator and EOG Resources, Inc., et al. as Non-Operators covering this tract, among others limited in depth as to the Wolfcamp formation.

Mewbourne Oil Company is currently working with EOG Resources, Inc., et al. to form a Working Interest Unit including this lease that will allow for the development of all lands in the SE/4 of Section 23 and S/2 Section 24, both in T24S, R28E, Eddy County, New Mexico.

EOG Resources, Inc., P.O. Box 2267, Midland, TX 79701, Attn: Matthew C. Phillips, (432) 686-3649.

BLM Serial No.: NM - 110829 - T24S, R28E, Section 24: NE/4SE/4, Eddy County, NM

Current Record Title Owner: Charles D. Ray

Current Operating Rights Owner: Charles D. Ray, et al. (below 2,730')

Mewbourne Oil Company currently has a contractual interest in this tract via Joint Operating Agreement dated September 15, 2016 between Mewbourne Oil Company as Operator and Charles D. Ray, et al. as Non-Operators covering this tract, among others limited to the Wolfcamp formation.

Mewbourne Oil Company is currently working with Charles D. Ray, et al. to form a Working Interest Unit including this lease that will allow for the development of all lands in the SE/4 of Section 23 and S/2 Section 24, both in T24S, R28E, Eddy County, New Mexico.

Charles D. Ray, P.O. Box 51608, Midland, TX 79710, Attn: Charles D. Ray, (432) 682-8602.

APD Attachment: Queen 23/24 W2OP Fed. Com #2H

BLM Serial No.: NM - 107373 - T24S, R28E, Section 24: W/2SE/4 and SE/4SE/4, Eddy County, NM

Current Record Title Owner: The Allar Company

Current Operating Rights Owner: COG Operating LLC, et al. (All Depths)

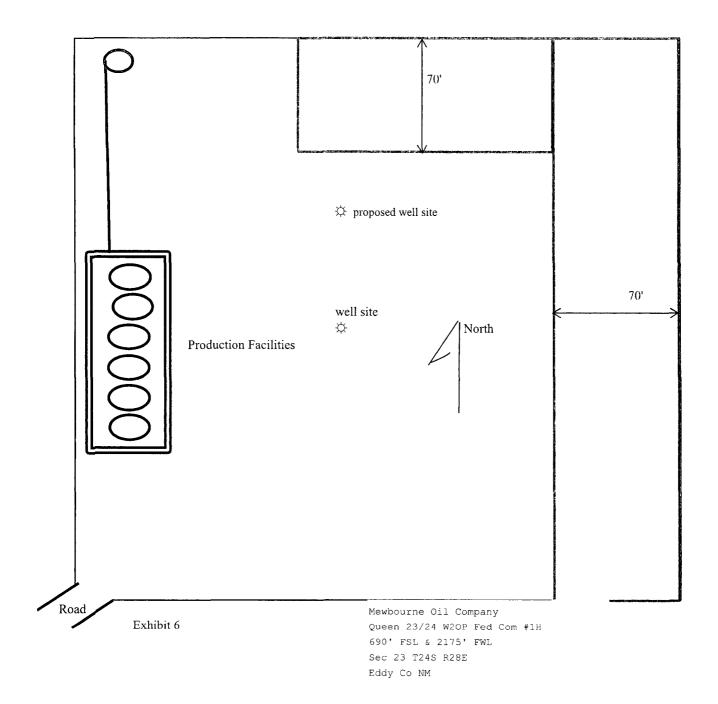
Mewbourne Oil Company currently has a contractual interest in this tract via Operating Agreement dated September 15, 2016 between Mewbourne Oil Company as Operator and COG Operating LLC, et al. as Non-Operators covering this tract, among others limited in depth as to the Wolfcamp formation.

Mewbourne Oil Company is currently working with COG Operating LLC, et al to form a Working Interest Unit including this lease that will allow for the development of all lands in the SE/4 of Section 23 and S/2 Section 24, both in T24S, R28E, Eddy County, New Mexico.

COG Operating LLC, 600 W. Illinois Ave., Midland, TX 79702-4882, Attn: Ms. Mollie McAuliffe (432) 685-4352.

Mewbourne Oil Company acquired a Term Assignment from Chi Energy, Inc. dated September 15, 2016 covering rights below 8,986' in the S/2SE/4 of Section 23, NE/4SE/4 of Section 23 below the base of the Delaware formation and the W/2SW/4 and SE/4SW/4 of Section 24 below 2,750' all in T24S, R28E, Eddy County, New Mexico; Recorded Book 1088, Page 0075 of the Eddy County Records.

Chi Energy, Inc., P.O. Box 1799, Midland, TX. 79702, Attn: Mr. John Qualls (432) 685-5001.



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



Section 1 - General

Is the reclamation bond a rider under the BLM bond?

Additional bond information attachment:

Lined pit bond number: Lined pit bond amount:

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 Produced Water Disposal (PWD) Location: PWD surface owner: PWD disturbance (acres): 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?

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: 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

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Produced Water Disposal (PWD) Location:

Injection well mineral owner:

PWD surface owner:

u .	
Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	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	
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:	

FAFMSS

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

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM1693

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | Mewbourne Oil Company

LEASE NO.: | NMNM107373

WELL NAME & NO.: | 2H- Queen 23-24 W2OP Fed Com

SURFACE HOLE FOOTAGE: 650'/S & 2455'/E BOTTOM HOLE FOOTAGE 330'/S & 330'/E, 24

LOCATION: | Section 23 T.24 S., R.28 E., NMPM

COUNTY: | Eddy County, New Mexico

Potash	None	C Secretary	← R-111-P
Cave Karst Potential	C Low	Medium	← High
Variance	C None	• Flex Hose	Other
Wellhead	r Conventional	• Multibowl	
Other	☐4 String Area	☐ Capitan Reef	□WIPP

A. Hydrogen Sulfide

1. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 25 feet 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 is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
- 3. The minimum required fill of cement behind the 7 inch production casing is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. 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 should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 4. The minimum required fill of cement behind the 4-1/2 inch liner is:
 - Cement as proposed
 - ❖ In Medium/High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be radily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. 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.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Chaves and Roosevelt Counties
 Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
 During office hours call (575) 627-0272.
 After office hours call (575)
 - Eddy County
 Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
 - ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)393-3612
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as

well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - 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. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.
 - e. 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.
 - f. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
- b. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production easing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

TMAK 05112017

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:
LEASE NO.:
WELL NAME & NO.:
SURFACE HOLE FOOTAGE:
BOTTOM HOLE FOOTAGE
LOCATION:
COUNTY:
Mewbourne Oil Company
NMNM107373
2H- Queen 23-24 W2OP Fed Com
650'/S & 2455'/E
330'/S & 330'/E, 24
Section 23 T.24 S., R.28 E., NMPM
Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Cave/Karst
Watershed
☐ Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
Production (Post Drilling)
Well Structures & Facilities
Interim Reclamation
Final Ahandonment & Reclamation

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cavebearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Watershed

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.
- Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Tank Battery COAs Only:

- Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Automatic shut off, check values, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

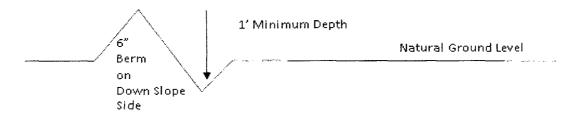
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope:
$$\frac{400'}{49\%} + 100' = 200'$$
 lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

- 1. Salvage topsoil
- 3. Redistribute topsoil
- 2. Construct road
- 4. Revegetate slopes

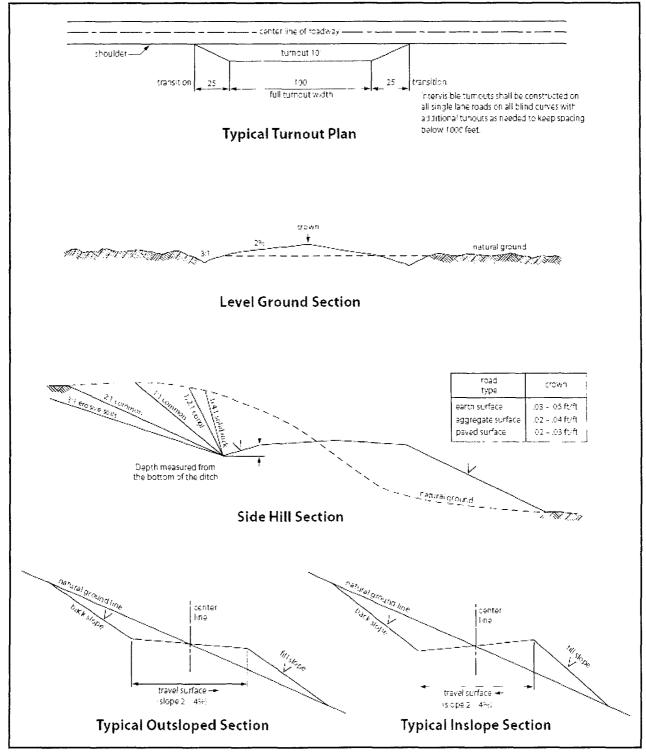


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 3, for Shallow Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	<u>lb/acre</u>
Plains Bristlegrass (Setaria macrostachya)	1.0
Green Sprangletop (Leptochloa dubia)	2.0
Sideoats Grama (Bouteloua curtipendula)	5.0

^{*}Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed



Email address:

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



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.

NAME: Bradley Bishop		Signed on: 11/17/2016			
Title: Regulatory					
Street Address: PO Box 5270					
City: Hobbs	State: NM	Zip : 88240			
Phone: (575)393-5905					
Email address: bbishop@mewbourne.com					
Field Representative					
Representative Name:					
Street Address:					
City:	State:	Zip:			
City: Phone:	State:	Zip:			

JAFMSS

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



APD ID: 10400007954 Submission Date: 11/22/2016

Operator Name: MEWBOURNE OIL COMPANY

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

Well Type: CONVENTIONAL GAS WELL Well Work Type: Drill

Section 1 - General

APD ID: 10400007954 Tie to previous NOS? 10400006191 Submission Date: 11/22/2016

BLM Office: CARLSBAD User: Bradley Bishop Title: Regulatory

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

Lease number: NMNM 107373 Lease Acres: 160

Surface access agreement in place? Allotted? Reservation:

Agreement in place? NO Federal or Indian agreement:

Agreement number:
Agreement name:

Keep application confidential? YES

Permitting Agent? NO APD Operator: MEWBOURNE OIL COMPANY

Operator letter of designation: Queen_23_24_W2OP_Federal_Com2H_operatorletterofdesignation_04-07-2017.pdf

Zip: 88240

Keep application confidential? YES

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

Operator Address: PO Box 5270

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 Mater Development Plan name:

Well in Master SUPO? NO Master SUPO name:

Well in Master Drilling Plan? NO Master Drilling Plan name:

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H Well API Number:

Field/Pool or Exploratory? Field and Pool Field Name: WILDCAT Pool Name: WOLFCAMP

Well Name: QUEEN 23/24 W2OP FED COM Well Number: 2H

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

Describe other minerals:

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: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: APPRAISAL

Describe sub-type:

Distance to town: 7 Miles

Distance to nearest well: 60 FT

Distance to lease line: 330 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat:

Queen_23_24_W2OP_Federal_Com2H_well_plat_04-07-2017.pdf

Well work start Date: 03/07/2017

Duration: 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

STATE: NEW MEXICO

Meridian: NEW MEXICO PRINCIPAL County: EDDY

Latitude: 32.1978427

Longitude: -104.0597601

SHL

Elevation: 2946

MD: 0

TVD: 0

Leg #: 1

Lease Type: FEE

Lease #: FEE

NS-Foot: 690

NS Indicator: FSL

EW-Foot: 2175

EW Indicator: FWL

Twsp: 24S

Range: 28E

Section: 23

Aliquot: SESW

Lot:

Tract:

NS-Foot: 330

EW-Foot: 330

Well Name: QUEEN 23/24 W2OP FED COM

Well Number: 2H

STATE: NEW MEXICO Meridian: NEW MEXICO PRINCIPAL County: EDDY Latitude: 32.1978427 Longitude: -104.0597601 KOP TVD: 10059 Elevation: -7113 MD: 10059 Leg #: 1 Lease Type: FEE Lease #: FEE **NS-Foot:** 690 NS Indicator: **FSL EW-Foot**: 2175 EW Indicator: FWL Range: 28E Twsp: 24S Section: 23 Aliquot: SESW Lot: Tract: **STATE: NEW MEXICO** Meridian: NEW MEXICO PRINCIPAL County: EDDY Latitude: 32.1967011 Longitude: -104.0565138 PPP TVD: 10634 Elevation: -7688 MD: 11400 Leg #: 1 Lease #: FEE Lease Type: FEE NS-Foot: 330 NS Indicator: **FSL** EW-Foot: 2350 EW Indicator: FEL Twsp: 24S Range: 28E Section: 23 Aliquot: SWSE Lot: Tract: Meridian: NEW MEXICO PRINCIPAL County: EDDY **STATE: NEW MEXICO** Latitude: 32,196674 Longitude: -104.033171 **EXIT** Elevation: -7857 MD: 18699 TVD: 10803 Leg #: 1 Lease Type: FEDERAL Lease #: NMNM107373 **NS-Foot**: 330 NS Indicator: FSL. EW-Foot: 330 EW Indicator: FEL Section: 24 Twsp: 24S Range: 28E Tract: Aliquot: SESE Lot: **STATE: NEW MEXICO** Meridian: NEW MEXICO PRINCIPAL County: EDDY Latitude: 32,196674 Longitude: -104.033171 BHL Elevation: -7857 MD: 18699 TVD: 10803 Leg #: 1 Lease #: NMNM107373 Lease Type: FEDERAL

NS Indicator:

EW Indicator: FEL

FSL

Well Name: QUEEN 23/24 W2OP FED COM

Well Number: 2H

Twsp: 24S

Range: 28E

Section: 24

Aliquot: SESE

Lot:

Tract: