- Car	lsba	d Field	Offi	Ce						
Form 3160 -3 (March 2012)	<b>OC</b> ]	D Artes	<b>ia</b> 🖉	تغلیقت FORM OMB N	APPROVE 0. 1004-013 ctober 31, 20	7				
UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANA				5. Lease Serial No. NMNM 045273 6. If Indian, Allotee or Tribe Name						
APPLICATION FOR PERMIT TO D	orill or	REENTER		6. If Indian, Allolee	or time w	vaine				
la. Type of work: DRILL REENTED	R			7 If Unit or CA Agree	$\sim$	7				
lb. Type of Well: 🔽 Oil Well 🔲 Gas Well 🛄 Other	<b>√</b> Sir	gle Zone 🔲 Multip	ole Zone 🖉	8. Lease Name and V BOGLE FLATS FEI	/ Vell No. D UNIT (	MD 32/6/5				
2. Name of Operator MEWBOURNE OIL COMPANY		141144	1/<	9. APÍ Well-Na 20-015	> - •	5066				
3a. Address PO Box 5270 Hobbs NM 88240	3b. Phone No. (575)393-5	(include area code) 905		10. Field and Pool, or E WILDCAT YESO /	Exploratory YESO	98284				
4. Location of Well (Report location clearly and in accordance with any At surface SWSW / 25 FSL / 660 FWL / LAT 32.4126598	/ LONG -1	04.5946266	$\sum$	11. Sec., T. R. M. or B		vey of Afea				
At proposed prod. zone NWNW / 330 FNL / 660 FWL / LAT 14. Distance in miles and direction from nearest town or post office*	32.4270554	4 / LONG -104:594	6326	12. County or Parish		13. State				
25 miles	/	/	÷~	EDDY		NM				
<ul> <li>15. Distance from proposed*</li> <li>location to nearest</li> <li>330 feet</li> <li>property or lease line, ft.</li> <li>(Also to nearest drig, unit line, if any)</li> </ul>	16. No. of a	cres in lease	17' Spacii 169.58	ng Unit dedicated to this v	vell					
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, 50 feet applied for, on this lease, ft.</li> </ol>	19. Proposed 2397 feet	Depth 7408 feet	20. BLM FED: N	BIA Bond No. on file M1693						
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4103 feet	22 Approxi 02/14/201	mate date work will sta 8	n*	23. Estimated duration 60 days	n					
		chments								
<ol> <li>The following, completed in accordance with the requirements of Onshort</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	·	<ol> <li>Bond to cover t Item 20 above).</li> <li>Operator certifier</li> </ol>	he operatio	nis form: ons unless covered by an formation and/or plans as						
25. Signature (Electropic Submission)	1	(Printed/Typed) ey Bishop / Ph: (57	75)393-59	05	Date 11/17/2	2017				
Title Regulatory										
Approved by (Signature) (Electronic Submission)	Cody	(Printed/Typed) Layton / Ph: (575)	234-5959		Date 06/15/	2018				
Title Supervisor Multiple Resources	Office	LSBAD								
Application approval does not warrant or certify that the applicant hold conduct operations thereon.) Conditions of approval, if any, are attached.	s legal or equ	itable title to those right	hts in the su	bject lease which would e	entitle the a	applicant to				
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	rime for any p	erson knowingly and within its jurisdiction.	willfully to	make to any department of	or agency	of the United				
(Continued on page 2)		<u></u>		*(Inst	truction	s on page 2)				
		CONDIT	IONS	1 · · · · · · · · · · · · · · · · · · ·	CONSI SIA DIS					
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APProv	al Date	: 06/15/2018		R	ECEIV	/ED				

Ru 6-29-18.

#### **INSTRUCTIONS**

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new-reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

# The Privacy Act of 1974 and regulation in 43 CFR 2:48(d) provide that you be furnished the following information in connection with information required by this application.

NOTICES

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts. ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

(Form 3160-3, page 2)



### **Additional Operator Remarks**

#### Location of Well

SHL: SWSW / 25 FSL / 660 FWL / TWSP: 22S / RANGE: 23E / SECTION: 3 / LAT: 32.4126598 / LONG: -104.5946266 (TVD: 0 feet) MD: 0 feet)
 PPP: SWSW / 330 FSL / 660 FWL / TWSP: 22S / RANGE: 23E / SECTION: 3 / LAT: 32.413482 / LONG: -104.59468(4TVD: 2353 feet, MD: 2500 feet)
 BHL: NWNW / 330 FNL / 660 FWL / TWSP: 22S / RANGE: 23E / SECTION: 3 / LAT: 32.4270554 / LONG: -104.5946326 (TVD: 2397) feet, MD: 7408 feet)

#### **BLM Point of Contact**

Name: Tenille Ortiz Title: Legal Instruments Examiner Phone: 5752342224 Email: tortiz@blm.gov

#### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



#### **NM OIL CONSERVATION**

ARTESIA DISTRICT

JUN 27 2018

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

RECEIVED

<b>OPERATOR'S NAME:</b>	Mewbourne Oil Co
LEASE NO.:	NM045273
WELL NAME & NO.:	1H – Bogle Flats Fed Unit 3-Y1
SURFACE HOLE FOOTAGE:	25'/S & 660'/W
<b>BOTTOM HOLE FOOTAGE</b>	330'/N & 660'/W
LOCATION:	Sec. 3, T. 22 S, R. 23 E
COUNTY:	Eddy County,New Mexico



H2S	r Yes	C No	
Potash		C Secretary	<b>^</b> R-111-P
Cave/Karst Potential	CLow	Medium	High     I H
Variance	C None	Flex Hose	• Other
Wellhead	Conventional	Multibowl	C Both
Other	<b>□</b> 4 String Area	Capitan Reef	<b>F</b> WIPP

#### A. Hydrogen Sulfide

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **GLORIETTA** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### **B.** CASING

- 1. The **9-5/8** inch surface casing shall be set at approximately **515** 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 <u>8</u> <u>hours</u> 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.

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- 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 7 inch production casing is:

• Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 4-1/2 inch production liner is:
  - Cement should tie-back 100' into the previous casing. Operator shall provide method of verification.

#### **C. PRESSURE CONTROL**

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** 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 County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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- 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 2<sup>nd</sup> 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.
- <u>Wait on cement (WOC) for Potash Areas:</u> 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 <u>24</u> <u>hours</u>. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

- 3. <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 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: The flex line must meet the requirements of API 16C. 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.

Page 4 of 6



- 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. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- 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).
  - b. 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, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
  - c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

- d. 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.
- 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. 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 casing 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.

#### Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

ZS 031818

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### **NM OIL CONSERVATION**

ARTESIA DISTRICT

## JUN **27** 2018

## SURFACE USE CONDITIONS OF APPROVAL

**PECOS DISTRICT** 

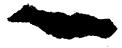
### RECEIVED

OPERATOR'S NAME:	Mewbourne Oil Co
LEASE NO.:	NM045273
	1H-Bogle Flats Fed Unit 3- Y1
SURFACE HOLE FOOTAGE:	
BOTTOM HOLE FOOTAGE	
	Section 3, T. 22 S., R. 23 E.
	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
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
Production (Post Drilling)
Well Structures & Facilities
Pipelines
Interim Reclamation
Final Abandonment & 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.)

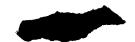
## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

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

Page 2 of 14



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 cave-bearing 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.

Page 4 of 14



### **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.

### FLOWLINES (SURFACE):

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

## **Watershed**

- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- 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.
- 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 or 24 hour production, whichever is greater.
- Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.
- The compacted berm shall be constructed at a minimum of 24 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.)
- A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

## **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.

Page 7 of 14



#### 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.

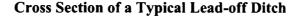
#### Turnouts

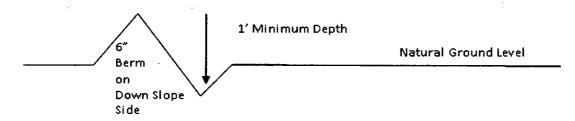
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

#### 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.





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: 400' + 100' = 200' lead-off ditch interval 4%

**Cattle guards** 

Page 8 of 14

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.

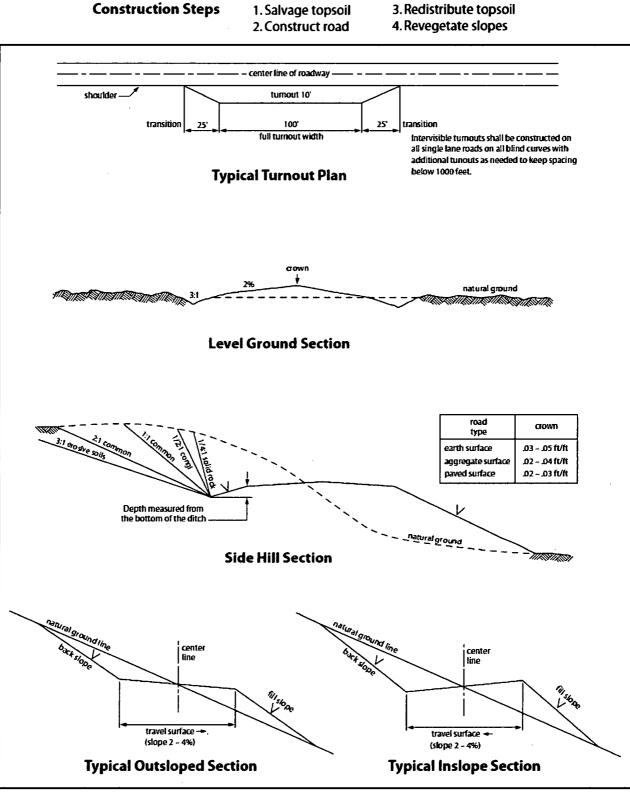


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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## 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 1  $\frac{1}{2}$  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 exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. <u>Use a maximum netting mesh size of 1 ½ inches.</u>

#### **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, <u>Shale Green</u> 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).

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#### Seed Mixture 1 for Loamy Sites

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 no primary or secondary noxious weeds in the seed mixture. Seed shall 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 shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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 lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

\*Pounds of pure live seed:

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



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

Title: Regulatory

Street Address: PO Box 5270

City: Hobbs

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

State: NM

State:

#### **Field Representative**

Representative Name:	
Street Address:	
Citv:	

Phone:

Email address:

Signed on: 11/17/2017

Zip: 88240

Zip:

## AFMSS

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



#### APD ID: 10400022784

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

**Section 1 - General** 

Well Type: OIL WELL

#### Submission Date: 11/17/2017

Well Number: #1H

Highlighted date where the nest segmaib in<u>ko</u>si

Show Final Text

Well Work Type: Drill

APD ID: 10400022784	Tie to	previous NOS?	10400012783	Submission Date: 11/17/2017						
BLM Office: CARLSBAD	User: I	Bradley Bishop	Title	e: Regulatory						
Federal/Indian APD: FED	is the	first lease penet	rated for producti	on Federal or Indian? FED						
Lease number: NMNM 045273	Lease	Acres:								
Surface access agreement in place	e? Allotte	d?	Reservation:	•						
Agreement in place? NO	Federa	l or Indian agre	ement:							
Agreement number:										
Agreement name:										
Keep application confidential? YE	s									
Permitting Agent? NO	APD O	perator: MEWB	OURNE OIL COMP	PANY						
Operator letter of designation:	BOGLEFLATSF	EDUNIT3Y1MD1	H_operatorletterof	designation_20171116131152.pdf						
Operator Info Operator Organization Name: MEN Operator Address: PO Box 5270 Operator PO Box: Operator City: Hobbs Operator Phone: (575)393-5905 Operator Internet Address:	State: NM	DMPANY	<b>Zip</b> : 88240							
Section 2 - Well In	nformation									
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 Drillin	g Plan name:							
Well Name: BOGLE FLATS FED UN	NIT 3 Y1MD	Well Number	: #1H	Well API Number:						
Field/Pool or Exploratory? Field ar	nd Pool	Field Name: \	WILDCAT YESO	Pool Name: YESO						

Is the proposed well in an area containing other mineral resources? USEABLE WATER, NATURAL GAS, OIL

Desc	ribe o	ther n	ninera	als:														
ls the	e prop	osed	well i	n a He	elium	prod	uction	n area?	N Use E	ixisting W	ell Pac	<b>17</b> NO	Ne	w s	surface d	listurt	oance	?
Туре	of We	ell Pac	: MU	LTIPL	E WE	LL							Nu	ımb	<b>er:</b> 2			
Well	Class	: HOF	RIZON	TAL					- + + -			1						
Well	Work	Туре	Drill															
Well	Type:	OIL V	VELL															
Desc	ribe V	Vell Ty	ype:															
Well	sub-T	ype:/	APPR	AISAL														
Desc	ribe s	ub-ty	pe:															
Dista	nce to	o towi	<b>n:</b> 25	Miles			Dist	ance to	nearest v	vell: 50 FT		Dist	ance te	o le	ase line:	330 F	т	
Rese	rvoir	well s	pacin	g ass	igned	l acre	s Mea	sureme	ent: 169.58	8 Acres								
Well	plat:	во	GLEF	LATS	FEDU	JNIT3	Y1MC	)1H_wel	lplat_2017	11161317	01.pdf							
Well	work	start I	Date:	02/14/	2018 Duration: 60 DAYS													
[							··		1									
	Sec	tion	3 - V	Vell	Loca	ation	Tab	ble										
Surv	еу Тур	be: RE		NGUL	AR													
Desc	ribe S	urvey	/ Туре	):														
Section 3 - Well Location Table           Survey Type: RECTANGULAR           Describe Survey Type:           Datum: NAD83         Vertical Datum: NAVD88           Survey number:           Image: Survey number:           Image: Survey number:           SHL 25         FSL 660         FWL 22S 23E 3         Airguet 32.41265 - SWS 98         EDD NEW NEW F         NMNNM 410 0         0           KOP 25         FSL 660         FWL 22S 23E 3         Airguet 32.41265 - SWS 98         EDD NEW NEW F         NMNNM 410 0         0           KOP 25         FSL 660         FWL 22S 23E 3         Airguet 32.41265 - SWS 98         EDD NEW NEW F         NMNNM 410 0         0           KOP 25         FSL 660         FWL 22S 23E 3         Airguet 32.41265 - SWS 98         EDD NEW NEW F         NMNNM 220 189 189         98 98         104.5946 Y         MEXI MEXI MEXI MEXI MEXI MEXI MEXI MEXI																		
Is the proposed well in a Hellum production area? N       Use Existing Well Pad? NO       New surface disturbance?         Type of Well Pad: MULTIPLE WELL       Multiple Well Pad Name: BOGLE FLATS MD/DM Number of Legs:       Number: 2         Well Work Type: Drill       Well Ype: OL WELL       Boscribe Well Type:       Number: 2         Well sub-Type: APPRAISAL       Describe well sub-Type:       Distance to nearest well: 50 FT       Distance to lease line: 330 FT         Reservoir well spacing assigned acres Measurement: 169.58 Acres       Well work start Date: 02/14/2018       Duration: 60 DAYS         Section 3 - Well Location Table         Survey Type: RECTANGULAR       Duration: 60 DAYS         Secribe Survey Type:       Duration: 60 DAYS         Survey number:       To a weight of a weight o																		
	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	-ease Type	Lease Number	Elevation	MD	DVT
Leg			_					Aliquot SWS	32.41265	- 104.5946	EDD	NEW MEXI	NEW MEXI		NMNM 004527	410		
Leg	25	FSL	660	FWL	22S	23E	3	sws		104.5946		MEXI	MEXI	Я	004527			189 9
Leg	330	FSL	660	FWL	22S	23E	3	SWS		104.5946		MEXI	MEXI	F	004527			235 3

**Operator Name:** MEWBOURNE OIL COMPANY **Well Name:** BOGLE FLATS FED UNIT 3 Y1MD

#### Well Number: #1H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	DM	DVT
EXIT	330	FNL	660	FWL	22S	23E	3	Aliquot	32.42705		EDD			F	NMNM	170	740	239
Leg								NWN	54	104.5946	Y		MEXI		004527	6	8	7
#1								W		326		co	co		3			
BHL	330	FNL	660	FWL	22S	23E	3	Aliquot	32.42705	-	EDD	NEW	NEW	F	NMNM	170	740	239
Leg					1			NWN	54	104.5946	Y	MEXI	MEXI		004527	6	8	7
#1								w		326		со	со		3			

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



APD ID: 10400022784

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Type: OIL WELL

Well Number: #1H

Show Final Text

Well Work Type: Drill

## **Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical Depth	Depth	Lithologies	Mineral Resources	
1	UNKNOWN	4103	27	27		NONE	No
2	SAN ANDRES	3588	515	515	DOLOMITE	NATURAL GAS,OIL	No
3	GLORIETA	2053	2050	2050	SANDSTONE,DOLOMIT E,SILTSTONE	NATURAL GAS,OIL	No
4	YESO	1928	2175	2175	DOLOMITE	NATURAL GAS,OIL	Yes

## **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 3M

Rating Depth: 7410

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. Anchors not required by manufacturer. A multibowl wellhead is being used. See attached schematic.

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

#### **Choke Diagram Attachment:**

Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_3M\_BOPE\_Choke\_Diagram\_20171012155509.pdf

Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Flex\_Line\_Specs\_20171012155514.pdf

#### **BOP Diagram Attachment:**

Bogle Flats Fed Unit 3 Y1MD\_1H 3M BOPE\_Schematic\_20171012164418.pdf

Bogle Flats Fed Unit 3 Y1MD\_1H\_Multi\_Bowl\_Diagram\_20171012164418.pdf

#### Operator Name: MEWBOURNE OIL COMPANY

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

## Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	12.2 5	9.625	NEW	API	N	0	515	0	515			515	J-55	36	LTC	7.77	13.5 4	DRY	25.1 7	DRY	31.3 3
	PRODUCTI ON	8.75	7.0	NEW	API	N	0	2646	0	2376			2646	J-55	26	BUTT	4.11	4.74	DRY	7.12	DRY	6.03
3	LINER	6.12 5	4.5	NEW	API	N	1898	7410	1898	2397			5512	J-55	11.6	LTC	4.68	5.05	DRY	2.53	DRY	2.88

#### **Casing Attachments**

Casing ID: 1 String Type: SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Csg\_Assumptions\_20171012170737.pdf

Well Number: #1H

#### **Casing Attachments**

Casing ID: 2 String Type: PRODUCTION Inspection Document:

Spec Document:

#### **Tapered String Spec:**

#### Casing Design Assumptions and Worksheet(s):

Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Csg\_Assumptions\_20171012170744.pdf

Casing ID: 3 String Type:LINER

Inspection Document:

Spec Document:

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Csg\_Assumptions\_20171012170751.pdf

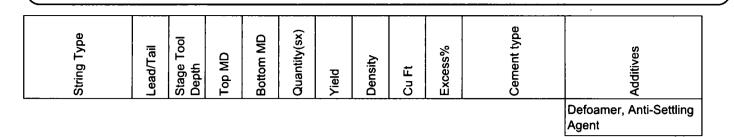
Section	1 4 - Ce	emen	t								
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	217	180	1.65	14.2	297	100	Class C	Thixotropic, Salt
SURFACE	Tail		217	515	305	1.34	14.8	409	100	Class C	Retarder
PRODUCTION	Lead		0	923	100	2.12	12.5	212	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		923	2646	300	1.32	14.8	396	25	Class C	none
LINER	Lead		1898	7410	230	2.97	11.2	683	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant,

Page 3 of 6

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H



### Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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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

٦

Describe the mud monitoring system utilized: Visual Monitoring

...

. .

	Circ	ulating Medic	um Ta	able							
Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	H	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	7410	WATER-BASED MUD	8.4	8.4							

Operator Name: MEWBOURNE OIL COMPANY

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

#### Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (1898') 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: 1047

Anticipated Surface Pressure: 1047

Anticipated Bottom Hole Temperature(F): 110

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

Describe:

**Contingency Plans geoharzards description:** 

**Contingency Plans geohazards attachment:** 

#### Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_H2S\_Plan\_20171013103512.pdf

#### **Section 8 - Other Information**

#### Proposed horizontal/directional/multi-lateral plan submission:

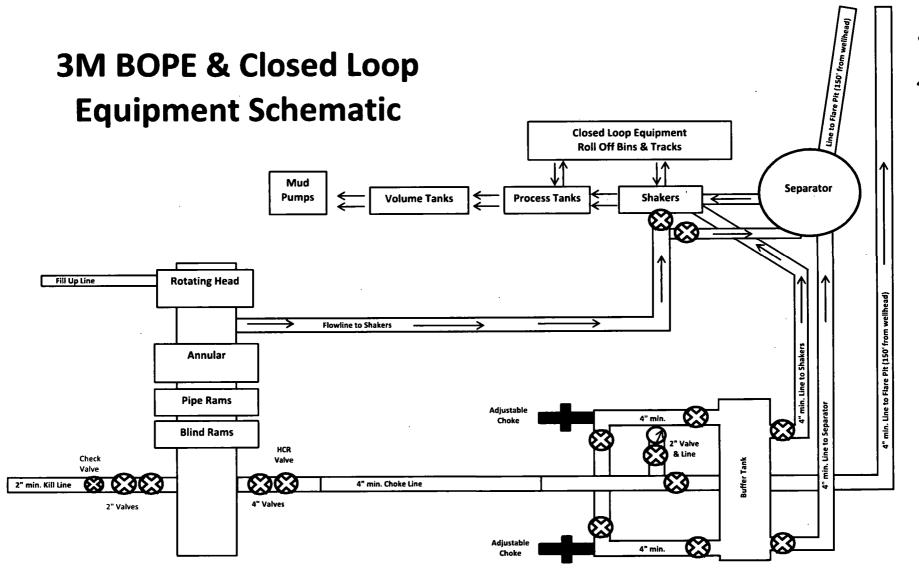
Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Dir\_Plot\_20171013103839.pdf Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Dir\_Plan\_20171013103840.pdf

#### Other proposed operations facets description:

#### Other proposed operations facets attachment:

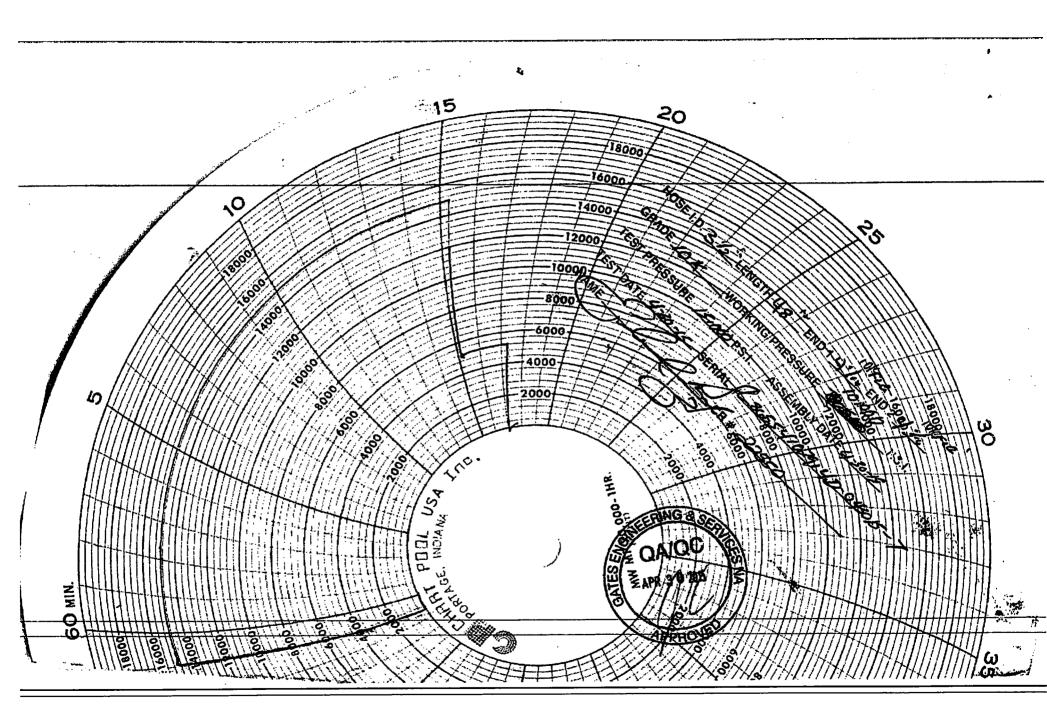
Bogle\_Flats\_Fed\_Unit\_3\_Y1MD\_1H\_Drlg\_Program\_20171013103856.doc

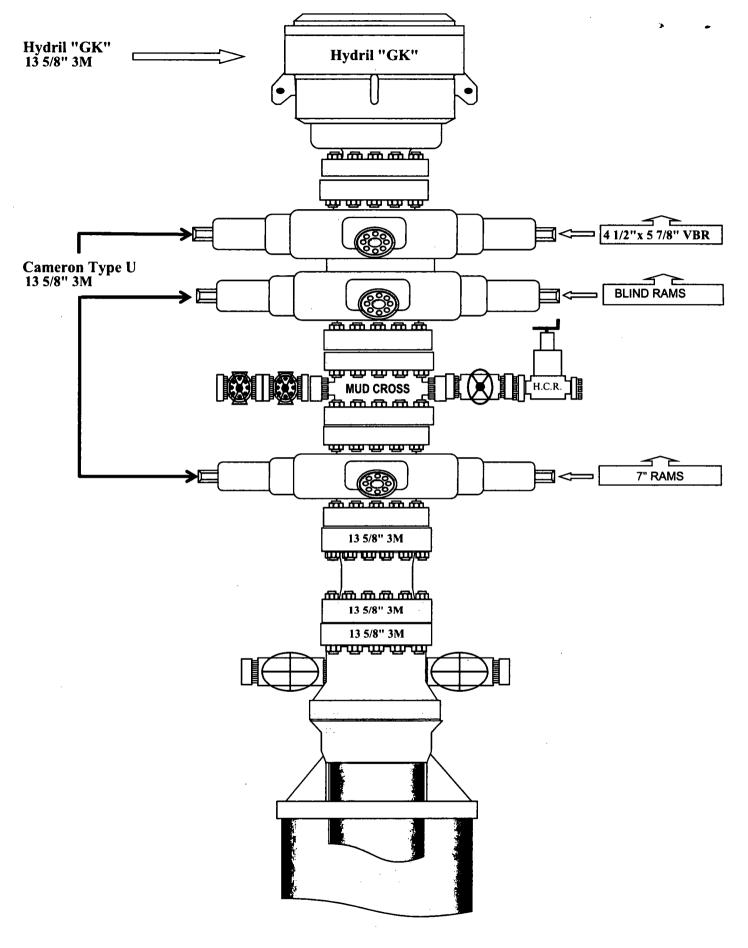
Other Variance attachment:

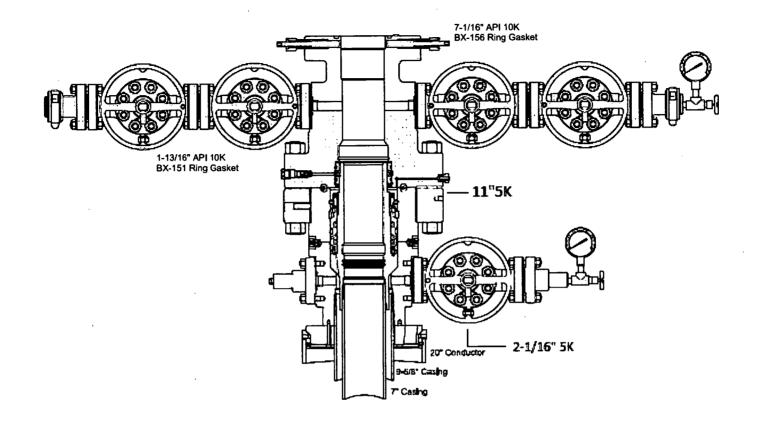


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Invoice No. :		500506	Created By:	JUSTIN CROPPER	[	·
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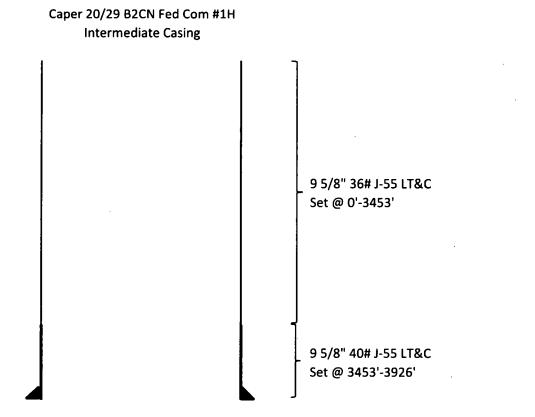








11" 5K TS-S



	SF	SF	SF Jt	SF Body
Casing	Collapse	Burst	Tension	Tension
36# J-55	1.125	1.96	3.16	4.54
40# J-55	1.26	1.93	27.48	33.3

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# **Casing Program**

Hole	Casing Interval		Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
12.25"	0'	500'	9.625"	36	J55	LTC	7.77	13.54	25.17	31.33
8.75"	0'	2646'	7"	26	J55	BTC	4.11	4.74	7.12	6.03
6.125"	1898'	7410'	4.5"	11.6	J55	LTC	4.68	5.05	2.53	2.88
	I			BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> 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 <sup>nd</sup> 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?	

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# **Casing Program**

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
12.25"	0'	500'	9.625"	36	J55	LTC	7.77	13.54	25.17	31.33
8.75"	0'	2646'	7"	26	J55	BTC	4.11	4.74	7.12	6.03
6.125"	1898'	7410'	4.5"	11.6	J55	LTC	4.68	5.05	2.53	2.88
				BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	· · · · · · · · · · · · · · · · · · ·
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> 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 <sup>nd</sup> 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?	

# **Casing Program**

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
12.25"	0'	500'	9.625"	36	J55	LTC	7.77	13.54	25.17	31.33
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	L.,	·	· ·	BL	M Minimu	m Safety	1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	N
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 <sup>nd</sup> 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?	

## Hydrogen Sulfide Drilling Operations Plan 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:

- 1 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.
- 3 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. <u>Well Control Equipment</u>
  - 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. <u>Protective Equipment for Essential Personnel</u>

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. Visual Warning Systems

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.

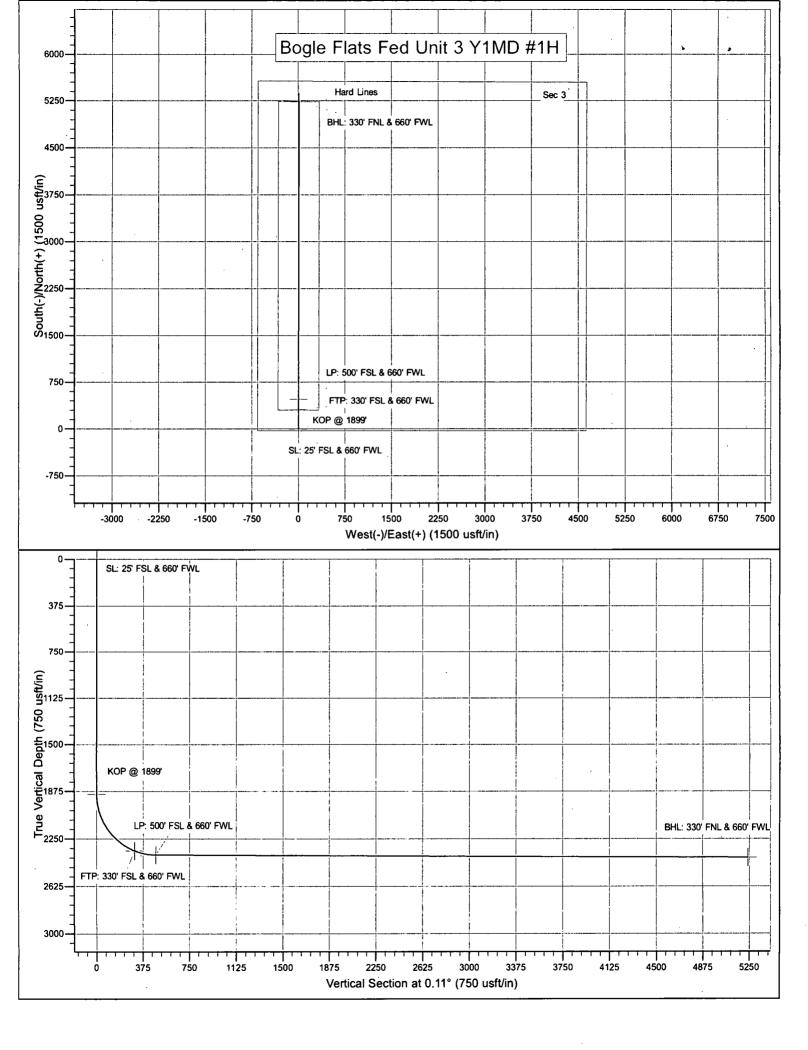
#### 7. Well Testing

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 Center of	of Carlsbad 575-492-5000

Mewbourne Oil Company	Hobbs District Office	575-393-5905
	Fax	575-397-6252
	2 <sup>nd</sup> Fax	575-393-7259
District Manager	<b>Robin</b> Terrell	575-390-4816
Drilling Superintendent	Frosty Lathan	575-390-4103
	<b>Bradley Bishop</b>	575-390-6838
Drilling Foreman	Wesley Noseff	575-441-0729



#### NM OIL CONSERVATION ARTESIA DISTRICT

JUN 27 2018

RECEIVED

# Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Bogle Flats Fed Unit 3 Y1MD #1H Sec 3, T22S, R23E SL: 25' FSL & 660' FWL BHL: 330' FNL & 660' FWL

Plan: Design #1

# **Standard Planning Report**

02 October, 2017

	-						·	· · · · · ·	
				Local Co	-ordinate Refe	rence:	Site Bogle Flat	s Fed Unit 3 Y	′1MD #1H
				TVD Refe	rence:		WELL @ 4130.	Ousft (Origina	l Well Elev)
-	•		i				-	Ousft (Origina	l Well Elev)
Bogle	Flats Fed Unit	1 3 Y1MD #1H		North Rei	ference:		Grid		
				Survey C	alculation Met	hod:	Minimum Curva	ature	
BHL:	330' FNL & 66	0' FWL							
Desig	n #1							1	
Eddy C	County, New M	exico NAD 83							· · · · · · · ·
				System Da	tum:	Me	ean Sea Level		
New Me	xico Eastern Z	one							
Bogle I	Flats Fed Unit	3 Y1MD #1H						:	
		North	ing:	513	956.00 usft	Latitude:			32° 24' 45.581
Mar	ρ	Easti	ng:	460	),705.00 usft	Longitude:			104° 35' 40.649 \
ty:	0.	.0 usft Slot I	Radius:		13-3/16 "	Grid Converg	ence:		-0.14
Sec 3, 1	T22S, R23E								
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BHL: 3	330' FNL & 660	)' FWL							
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			5/20/2011		7.50				47,500
Design	#1								
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	1	Depth From (T	VD)	+N/-S	+E	E/-W	Di	rection	
		(usft)	,	(usft)	(u	isft)		(°)	
		0.0		0.0	(	).0		0.11	
		· · · · · · · · · · · · · · · · · · ·							
		Vertical			Dogleg	Build	Turn		
lination	Azimuth	Depth	+N/-S	+E/-W	Rate	Rate	Rate	TFO	
(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	Target
0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	)
0.00	0.00	1.898.5	0.0	U.U	0.00	0.00	0.00	0.04	J KOP (02 1899
0.00 89.75	0.00 0.11	1,898.5 2,376.0	0.0 475.4	0.0 0.9	0.00 12.00	0.00 12.00	0.00 0.00	0.00	) KOP @ 1899' I
	Mewb Eddy Bogle Sec 3 BHL: Desig Eddy C US State North An New Me: Bogle f Mar ty: Sec 3, ' +N/-S +E/-W ty BHL: 3 Mo Design	Eddy County, New M Bogle Flats Fed Unit Sec 3, T22S, R23E BHL: 330' FNL & 66 Design #1 Eddy County, New M US State Plane 1983 North American Datum New Mexico Eastern Z Bogle Flats Fed Unit Map ty: 0 Sec 3, T22S, R23E +N/-S +E/-W ty BHL: 330' FNL & 660 Model Name IGRF2010 Design #1	Mewbourne Oil Company Eddy County, New Mexico NAD 83 Bogle Flats Fed Unit 3 Y1MD #1H Sec 3, T22S, R23E BHL: 330' FNL & 660' FWL Design #1 Eddy County, New Mexico NAD 83 US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone Bogle Flats Fed Unit 3 Y1MD #1H Map Eastin ty: 0.0 usft Slot F Sec 3, T22S, R23E +N/-S 0.0 usft Ni +E/-W 0.0 usft Slot F Sec 3, T22S, R23E +N/-S 0.0 usft Ni +E/-W 0.0 usft Eastin ty 0.0 usft W BHL: 330' FNL & 660' FWL Model Name Samp IGRF2010 Design #1 Phas Depth From (T (usft) 0.0	Mewbourne Oil Company Eddy County, New Mexico NAD 83 Bogle Flats Fed Unit 3 Y1MD #1H Sec 3, T22S, R23E BHL: 330' FNL & 660' FWL Design #1 Eddy County, New Mexico NAD 83 US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone Bogle Flats Fed Unit 3 Y1MD #1H Map Easting: ty: 0.0 usft Slot Radius: Sec 3, T22S, R23E +N/-S 0.0 usft Northing: +E/-W 0.0 usft Easting: ty 0.0 usft Wellhead Eleva BHL: 330' FNL & 660' FWL Model Name Sample Date IGRF2010 9/28/2017 Design #1 Phase: Depth From (TVD) (usft) 0.0 Sec 3, T200 Vertical Hase: Depth +N/-S (') (') (usft) (usft) Sec 3, T205, R23E Northing: Easting: Northing: Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E +N/-S Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Sec 3, T22S, R23E Sec 3, T22S, R23E Sec 3, T22S, R23E Sec 3, T22S, R23E Northing: Sec 3, T22S, R23E Sec 3,	Mewbourne Oil Company       TVD Refer         Eddy County, New Mexico NAD 83       MD Refer         Bogle Flats Fed Unit 3 Y1MD #1H       North Ref         Sec 3, T22S, R23E       Survey C         BHL: 330' FNL & 660' FWL       Design #1         Eddy County, New Mexico NAD 83       US State Plane 1983         North American Datum 1983       New Mexico Eastern Zone         Bogle Flats Fed Unit 3 Y1MD #1H       State Plane 1983         Map       Easting:       460         ty:       0.0 usft       Stot Radius:         Sec 3, T22S, R23E       +N/-S       0.0 usft         Hy:       0.0 usft       Stot Radius:         Sec 3, T22S, R23E       +N/-S       0.0 usft         Hy:       0.0 usft       Northing:         Sec 3, T22S, R23E       +N/-S       (°)         Hy:       0.0 usft       Northing:         Sec 3, T22S, R23E       +N/-S       (°)         Hy:       0.0 usft       Northing:         *E/-W       0.0 usft       Northing:         *E/-W       0.0 usft       Northing:         *E/-W       0.0 usft       Yettical         Design #1       Phase:       PROTOTYPE         Design #1       0.0	Mewbourne Oil Company     TVD Reference:       Eddy County, New Mexico NAD 83     MD Reference:       Bogle Flats Fed Unit 3 Y1MD #1H     North Reference:       Sec 3, T22S, R23E     Survey Calculation Met       BHL: 330' FNL & 660' FWL     Design #1       Eddy County, New Mexico NAD 83     US State Plane 1983       North American Datum 1983     System Datum:       North American Datum 1983     New Mexico Eastern Zone       Bogle Flats Fed Unit 3 Y1MD #1H     513,956.00 usft       Map     Easting:     460,705.00 usft       Map     Easting:     460,705.00 usft       Map     Easting:     460,705.00 usft       Sec 3, T22S, R23E     *13.956.00     13.3/16 *       *North American Datum 1983     Northing:     513,956.00 usft       Map     Easting:     460,705.00 usft       Map     Easting:     460,705.00 usft       Vetrical     Northing:     513,956.00       BHL: 330' FNL & 660' FWL     Model Name     Sample Date     Declination (*)       Design #1     IGRF2010     9/28/2017     7.30       Design #1     Yertical     PROTOTYPE     The       Usft     (usft)     (usft)     (usft)     (usft)	Mewbourne Oil Company     TVD Reference:       Eddy County, New Mexico NAD 83     MD Reference:       Bogle Flats Fed Unit 3 Y1MD #1H     North Reference:       Sec 3, T22S, R23E     Survey Calculation Method:       BHL: 330' FNL & 660' FWL     Design #1       Eddy County, New Mexico NAD 83     US State Plane 1983       US State Plane 1983     System Datum:       North American Datum 1983     New Mexico Eastern Zone       Bogle Flats Fed Unit 3 Y1MD #1H     S13,956.00 usft       Latitude:     Latitude:       Map     Easting:       460,705.00 usft     Congitude:       ty:     0.0 usft       Sec 3, T22S, R23E     Siot Radius:       +N/-S     0.0 usft       HL: 330' FNL & 660' FWL       Model Name     Sample Date       Design #1       Phase:       PROTOTYPE     Tie On Depth:       (°)     (°)       Usft)     (usft)       0.0     0.0	Mewbourne Oil Company     TVD Reference:     WELL @ 4130.       Eddy County, New Mexico NAD 83     MD Reference:     WELL @ 4130.       Bogle Flats Fed Unit 31 MD #1H     North Reference:     Grid       Sec 3, T22S, R23E     Survey Calculation Method:     Minimum Curve       Brit: 330 FNL & 660' FWL     Design #1     Mean Sea Level       Design #1     North Merican Datum:     Mean Sea Level       North American Datum 1983     System Datum:     Mean Sea Level       North Merican Datum 1983     New Mexico Eastern Zone     Latitude:       Bogle Flats Fed Unit 3 Y1MD #1H     Northing:     513,956.00 usft     Latitude:       Map     Easting:     460,705.00 usft     Latitude:       Map     0.0 usft     Stot Radius:     13-3/16 *     Grid Convergence:       Sec 3, T22S, R23E     *N/-S     0.0 usft     Latitude:     Longitude:       ty     0.0 usft     Northing:     513,956.00 usft     Latitude:       ty     0.0 usft     Weilhead Elevation:     4,130.0 usft     Longitude:       ty     0.0 usft     Weilhead Elevation:     4,130.0 usft     Ground Level:       BHL: 330' FNL & 660' FWL     Model Name     Sample Date     Declination     Dip Angle       (')     (GRF2010     9/28/2017     7.30     60.04	Mewbourne Oil Company Eddy County, New Mexico NAD 83 Bogle Flats Fed Unit 3 YIMD #1H Sec 3, T22S, R23E     TVD Reference: MD Reference: Survey Calculation Method:     WELL @ 4130.0usft (Origina Grid       Eddy County, New Mexico NAD 83     Survey Calculation Method:     Minimum Curvature       BHL: 330' FNL & 660' FWL Design #1     System Datum:     Mean Sea Level       Eddy County, New Mexico NAD 83     System Datum:     Mean Sea Level       US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone     System Datum:     Mean Sea Level       Bogle Flats Fed Unit 3 YIMD #1H     Northing:     513,956.00 usft 13-3/16'     Latitude:       Map     Easting:     460,705.00 usft 460,705.00 usft     Latitude:       Sec 3, T22S, R23E     Stot Radius:     13-3/16'     Grid Convergence:       Sec 3, T22S, R23E     Stot Radius:     513,956.00 usft 460,705.00 usft     Latitude:       HV-S     0.0 usft     Northing:     513,956.00 usft 460,705.00 usft     Congitude:       BHL: 330' FNL & 660' FWL     Easting:     460,705.00 usft 400,0 usft     Ground Level:       BHL: 330' FNL & 660' FWL     Declination     Dip Angle (')     Flaid (')       Design #1     Phase:     PROTOTYPE     Tie On Depth:     0.0       Design #1     Useft (usft)     (usft)     (usft)     (')100usft)     (')100usft)

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Database:	Hobbs	Local Co-ordinate Reference:	Site Bogle Flats Fed Unit 3 Y1MD #1H	
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 4130.0usft (Original Well Elev)	
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 4130.0usft (Original Well Elev)	
Site:	Bogle Flats Fed Unit 3 Y1MD #1H	North Reference:	Grid	
Well:	Sec 3, T22S, R23E	Survey Calculation Method:	Minimum Curvature	
Weilbore:	BHL: 330' FNL & 660' FWL			
Design:	Design #1			

#### Planned Survey

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Measu Dept	h	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
ei . 67	0.0	0.00 660' FWL	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
			0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
	100.0	0.00	0.00	100.0	0.0	0.0				
	200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
3	300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
4	100.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
-		0.00	0.00	500.0			0.0	0.00	0.00	0.00
	500.0	0.00	0.00	500.0	0.0	0.0				
	0.00	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
7	700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
8	300.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
g	900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
					• •	• •		0.00	0.00	0.00
	0.00	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,1	100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,2	200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1.3	300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
	400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,5	500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,6	500.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
	700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
-	800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
	898.5	0.00	0.00	1,898.5	0.0	0.0	0.0	0.00	0.00	0.00
			0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
	@ 1899'									
1,9	900.0	0.18	0.11	1,900.0	0.0	0.0	0.0	12.00	12.00	0.00
2,0	0.000	12.18	0.11	1,999.2	10.7	0.0	10.7	12.00	12.00	0.00
	100.0	24,18	0.11	2,094.1	41.9	0,1	41.9	12.00	12.00	0.00
	200.0	36.18	0.11	2,180.4	92.0	0.2	92.0	12.00	12.00	0.00
	300.0	48.18	0.11	2,254.3	159.1	0.3	159.1	12.00	12.00	0.00
2,0	500.0									
2.4	400.0	60.18	0.11	2,312.8	240.0	0.5	240.0	12.00	12.00	0.00
	472.1	68.83	0.11	2,343.8	305.0	0.6	305.0	12.00	12.00	0.00
		& 660' FWL								
			0.44	0.050 4	224.2	0.0	224.2	40.00	12.00	0.00
	500.0	72.18	0.11	2,353.1	331.3	0.6	331.3	12.00	12.00	
	600.0	84.18	0.11	2,373.5	429.0	0.8	429.0	12.00	12.00	0.00
2,6	646.5	89.75	0.11	2,376.0	475.4	0.9	475.4	11.99	11.99	0.00
LP: 50	00' FSL	& 660' FWL								
2.7	700.0	89.75	0.11	2,376.2	528.9	1.0	528.9	0.00	0.00	0.00
	800.0	89.75	0.11	2,376.7	628.9	1.2	628.9	0.00	0.00	0.00
	900.0	89.75	0.11	2,377.1	728.9	1.4	728.9	0.00	0.00	0.00
					828.9		828.9	0.00	0.00	0.00
	000.0	89.75	0.11	2,377.6		1.6				
3,1	100.0	89.75	0.11	2,378.0	928.9	1.8	928.9	0.00	0.00	0.00
3.2	200.0	89.75	0.11	2,378.4	1,028.9	2.0	1,028.9	0.00	0.00	0.00
-	300.0	89.75	0.11	2,378.9	1,128.9	2.2	1,128.9	0.00	0.00	0.00
	400.0	89.75	0.11	2,379.3	1,228.9	2.3	1,228.9	0.00	0.00	0.00
-		89.75		2,379.8	1,328.9	2.5	1,328.9	0.00	0.00	0.00
	500.0		0.11							
3,6	600.0	89.75	0.11	2,380.2	1,428.9	2.7	1,428.9	0.00	0.00	0.00
	700.0	89.75	0.11	2,380.6	1,528.9	2.9	1,528.9	0.00	0.00	0.00
3,8	800.0	89.75	0.11	2,381.1	1,628.9	3.1	1,628.9	0.00	0.00	0.00
	900.0	89.75	0.11	2,381.5	1,728.9	3.3	1,728.9	0.00	0.00	0.00
	0.000	89.75	0.11	2,382.0	1,828.9	3.5	1,828.9	0.00	0.00	0.00
-	100.0	89.75	0.11	2,382.0	1,928.9	3.5	1,928.9	0.00	0.00	0.00
	200.0	89.75	0.11	2,382.9	2,028.9	3.9	2,028.9	0.00	0.00	0.00
	300.0	89.75	0.11	2,383.3	2,128.9	4.1	2,128.9	0.00	0.00	0.00
4,4	400.0	89.75	0.11	2,383.7	2,228.9	4.3	2,228.9	0.00	0.00	0.00
	500.0	89.75	0.11	2,384.2	2,328.9	4.4	2,328.9	0.00	0.00	0.00
	600.0	89.75	0,11	2,384.6	2,428.9	4.6	2,428.9	0.00	0.00	0.00

Database:	Hobbs	Local Co-ordinate Reference:	Site Bogle Flats Fed Unit 3 Y1MD #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 4130.0usft (Original Well Elev
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 4130.0usft (Original Well Elev
Site:	Bogle Flats Fed Unit 3 Y1MD #1H	North Reference:	Grid
Well:	Sec 3, T22S, R23E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FNL & 660' FWL		
Design:	Design #1		

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)
4,700.0	89,75	0.11	2,385.1	2,528.9	4.8	2,528.9	0.00	0.00	0.00
4,800.0	89.75	0.11	2,385.5	2,628.9	5.0	2,628.9	0.00	0.00	0.00
4,900.0	89.75	0.11	2,385.9	2,728.9	5.2	2,728.9	0.00	0.00	0.00
5,000.0	89.75	0.11	2,386.4	2,828.9	5.4	2,828.9	0.00	0.00	0.00
5,100.0	89.75	0.11	2,386.8	2,928.9	5.6	2,928.9	0.00	0.00	0.00
5,200.0	89.75	0.11	2,387.3	3,028.9	5.8	3,028.9	0.00	0.00	0.00
5,300.0	89.75	0.11	2,387.7	3,128.9	6.0	3,128.9	0.00	0.00	0.00
5,400.0	89.75	0.11	2,388.1	3,228.9	6.2	3,228.9	0.00	0.00	0.00
5,500.0	89.75	0.11	2,388.6	3,328.9	6.4	3,328.9	0.00	0.00	0.00
5,600.0	89.75	0.11	2,389.0	3,428.9	6.5	3,428.9	0.00	0.00	0.00
5,700.0	89.75	0.11	2,389.5	3,528.9	6.7	3,528.9	0.00	0.00	0.00
5,800.0	89.75	0.11	2,389.9	3,628.9	6.9	3,628.9	0.00	0.00	0.00
5,900.0	89.75	0.11	2,390.3	3,728.9	7.1	3,728.9	0.00	0.00	0.00
6,000.0	89.75	0.11	2,390.8	3,828.9	7.3	3,828.9	0.00	0.00	0.00
6,100.0	89.75	0.11	2,391.2	3,928.9	7.5	3,928.9	0.00	0.00	0.00
6,200.0	89.75	0.11	2,391.7	4,028.9	7.7	4,028.9	0.00	0.00	0.00
6,300.0	89.75	0.11	2,392.1	4,128.9	7.9	4,128.9	0.00	0.00	0.00
6,400.0	89.75	0.11	2,392.6	4,228.9	8.1	4,228.9	0.00	0.00	0.00
6,500.0	89.75	0.11	2,393.0	4,328.9	8.3	4,328.9	0.00	0.00	0.00
6,600.0	89.75	0.11	2,393.4	4,428.9	8.5	4,428.9	0.00	0.00	0.00
6,700.0	89.75	0.11	2,393.9	4,528.9	8.6	4,528.9	0.00	0.00	0.00
6,800.0	8 <del>9</del> .75	0.11	2,394.3	4,628.9	8.8	4,628.9	0.00	0.00	0.00
6,900.0	89.75	0.11	2,394.8	4,728.9	9.0	4,728.9	0.00	0.00	0.00
7,000.0	89.75	0.11	2,395.2	4,828.9	9.2	4,828.9	0.00	0.00	0.00
7,100.0	89.75	0.11	2,395.6	4,928.9	9.4	4,928.9	0.00	0.00	0.00
7,200.0	89.75	0.11	2,396.1	5,028.9	9,6	5,028.9	0.00	0.00	0.00
7,300.0	89.75	0.11	2,396.5	5,128.9	9,8	5,128.9	0.00	0.00	0.00
7,400.0	89.75	0.11	2,397.0	5,228.9	10.0	5,228. <del>9</del>	0.00	0.00	0.00
7,408.1	89.75	0.11	2,397.0	5,237.0	10.0	5,237.0	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 25' FSL & 660' FWL - plan hits target centor - Point	0.00 er	360.00	0.0	0.0	0.0	513,956.00	460,705.00	32° 24' 45.581 N	104° 35' 40.649 W
KOP @ 1899' - plan hits target cente - Point	0.00 er	360.00	1,898.5	. 0.0	0.0	513,956.00	460,705.00	32° 24' 45.581 N	104° 35' 40.649 W
FTP: 330' FSL & 660' FV - plan hits target cento - Point	0.00 er	0.00	2,343.8	305.0	0.6	514,261.00	460,705.58	32° 24' 48.599 N	104° 35' 40.651 W
LP: 500' FSL & 660' FWI - plan hits target cento - Point	0.00 er	360.00	2,376.0	475.4	0.9	514,431.40	460,705.90	32° 24' 50.285 N	104° 35' 40.652 W
BHL: 330' FNL & 660' F\ - plan hits target cente - Point	0.00 er	0.00	2,397.0	5,237.0	10.0	519,193.00	460,715.00	32° 25' 37.405 N	104° 35' 40.682 W

Database:HobbsCompany:Mewbourne Oil CompanyProject:Eddy County, New Mexico NAD 83Site:Bogle Flats Fed Unit 3 Y1MD #1HWell:Sec 3, T22S, R23EWellbore:BHL: 330' FNL & 660' FWLDesign:Design #1

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Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Site Bogle Flats Fed Unit 3 Y1MD #1H WELL @ 4130.0usft (Original Well Elev) WELL @ 4130.0usft (Original Well Elev) Grid Minimum Curvature

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# 1. Geologic Formations

TVD of target	2397'	Pilot hole depth	NA
MD at TD:	7410'	Deepest expected fresh water:	225'

Basin					
Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*		
Quaternary Fill	Surface				
San Andres	515				
Glorieta	2050				
Yeso	2175	Target Formation			
Lamar		Oil			
Bell Canyon					
Cherry Canyon					
Manzanita Marker					
Brushy Canyon					
Bone Spring		Oil/Gas			
1 <sup>st</sup> Bone Spring Sand					
2 <sup>nd</sup> Bone Spring Sand					
3 <sup>rd</sup> Bone Spring Sand					
Wolfcamp		Oil/Gas			
Canyon Shale					
Strawn					
Atoka		-			
Morrow					
Top Mississippian					
Woodford					
Top Devonian					
Simpson					
Ellenberger					

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

# 2. Casing Program

Hole	Casing Interval		Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
12.25"	0'	500'	9.625"	36	J55	LTC	7.77	13.54	25.17	31.33
8.75"	0'	2646'	7"	26	J55	BTC	4.11	4.74	7.12	6.03
6.125"	1898'	7410'	4.5"	11.6	J55	LTC	4.68	5.05	2.53	2.88
BLM Minimum Safety		1.125	1	1.6 Dry	1.6 Dry					
Factor					1.8 Wet	1.8 Wet				

	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.	Ν
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> 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?	

# 3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	180	14.2	1.65	7.5	8	Lead: Class C + Thixotropic + Salt
	305	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	100	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender
	300	14.8	1.32	6.3	8	Tail: Class C
Liner	230	11.2	2.97	18	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent

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

Casing String	TOC	% Excess
Surface	0'	100%
Production	0'	25%
Liner	1898'	25%

## 4. Pressure Control Equipment

Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Туре		~	Tested to:
<u></u>	13-5/8"	3М	Annular		X	1500#
			Blind Ram		X	
12-1/4"			Pip	be Ram	X	3000#
			Dou	ble Ram		3000#
			Other*			

\*Specify if additional ram is utilized.

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

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

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.					
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.					
Y	N       Are anchors required by manufacturer?         A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.         • Provide description here: See attached schematic.					

# 5. Mud Program

Depth		Туре	Weight (ppg)	Viscosity	Water Loss
From	То				
0	7410	FW Gel	8.4	28-34	N/C

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

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

## 6. Logging and Testing Procedures

Logging, C	Coring and Testing.
Will	l run GR/CNL from KOP (1898') to surface (horizontal well – vertical portion of
hole	e). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
Dril	Il stem test? If yes, explain
Cor	ing? If yes, explain

Add	litional logs planned	Interval		
Χ	Gamma Ray	1898' (KOP) to TD		
	Density			
	CBL			
	Mud log			
	PEX			

## 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	1047 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe.

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

	H2S is present
Χ	H2S Plan attached

# 8. Other facets of operation

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

Attachments \_\_\_\_\_ Directional Plan \_\_\_\_ Other, describe

**Drilling Plan** 

# **FMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT SUPO Data Report

#### APD ID: 10400022784

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Type: OIL WELL

# Submission Date: 11/17/2017

the second second

Well Number: #1H Well Work Type: Drill Highlighted data 1601door the meet 1803hd Changes

Show Final Text

Well Work Type:

# **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

BOGLEFLATSFEDUNIT3Y1MD1H\_existingroadmap\_20171116132339.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 need	led? YES				
New Road Map:					
BOGLEFLATSFEDUNIT	3Y1MD1H_newroadr	nap_20171116132511.pdf			
New road type: RESOU	RCE				
Length: 3091.74	Feet	Width (ft.): 20			
Max slope (%): 3		Max grade (%): 3			
Army Corp of Engineer	s (ACOE) permit rec	uired? NO			
ACOE Permit Number(	5):				
New road travel width:	14				
New road access erosi	on control: None				
New road access plan	or profile prepared?	NO			
New road access plan a	attachment:				
Access road engineerin	n <b>g design?</b> NO				
Access road engineeri	ng design attachme	nt:			

#### Page 1 of 11

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

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: 3

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:

BOGLEFLATSFEDUNIT3Y1MD1H\_existingwellmap\_20171116132913.pdf

**Existing Wells description:** 

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** 

**Production Facilities map:** 

BOGLEFLATSFEDUNIT3Y1MD1H\_productionfaciility\_20171116132958.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Well Name: BOGLE FLATS FED UNIT	3 Y1MD Wel	I Number: #1H
Water source use type: CAMP USE INTERMEDIATE/PRODUCTION CAS CASING Describe type:		Water source type: IRRIGATION RFACE Source longitude: -104.41634
Source latitude: 32.48363		
Source datum: NAD83		
Water source permit type: WATER	WELL	
Source land ownership: FEDERAL		
Water source transport method: TF	RUCKING	
Source transportation land owners	hip: FEDERAL	
Water source volume (barrels): 194	10	Source volume (acre-feet): 0.250052
Source volume (gal): 81480		
Bogleflatsfedunit3Y1MD1H_watersource		33220.pdf
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO	eandtransmap_201711161	33220.pdf
Bogleflatsfedunit3Y1MD1H_watersource Water source comments:	eandtransmap_201711161	33220.pdf Well datum:
Bogleflatsfedunit3Y1MD1H_watersource Nater source comments: New water well? NO New Water Well In	eandtransmap_201711161	
Well latitude:	eandtransmap_201711161 Nfo Well Longitude:	
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO New Water Well In Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation:	eandtransmap_201711161 Nfo Well Longitude:	Well datum: ess of aquifer:
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO <u>New Water Well In</u> Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments:	eandtransmap_201711161 Nfo Well Longitude: Est thickne Well casing t	Well datum: ess of aquifer:
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO New Water Well In Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Well depth (ft): Well casing outside diameter (in.):	eandtransmap_201711161 Nfo Well Longitude: Est thickne Well casing t	Well datum: ess of aquifer: ype: nside diameter (in.):
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO New Water Well In Well latitude: Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Well depth (ft): Well casing outside diameter (in.): New water well casing?	eandtransmap_201711161 Ifo Well Longitude: Est thickne Well casing t Well casing i	Well datum: ess of aquifer: ype: nside diameter (in.): source:
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO New Water Well In Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Well depth (ft): Well casing outside diameter (in.): New water well casing? Drilling method:	eandtransmap_201711161 Nfo Well Longitude: Est thickne Well casing t Well casing i Used casing Drill material	Well datum: ess of aquifer: ype: nside diameter (in.): source:
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO <u>New Water Well In</u> Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Well depth (ft):	eandtransmap_201711161 Ifo Well Longitude: Est thickne Well casing t Well casing i Used casing	Well datum: ess of aquifer: ype: nside diameter (in.): source:
Bogleflatsfedunit3Y1MD1H_watersource Water source comments: New water well? NO New Water Well In Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Well depth (ft): Well casing outside diameter (in.): New water well casing? Drilling method: Grout material:	eandtransmap_201711161 Nfo Well Longitude: Est thickne Well casing t Used casing Drill material Grout depth:	Well datum: ess of aquifer: ype: nside diameter (in.): source: :

State appropriation permit:

Additional information attachment:

<u>т</u>

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Well Name: BOGLE FLATS FED UNIT 3 Y1MD

#### Well Number: #1H

## Section 6 - Construction Materials

Construction Materials description: Caliche

Construction Materials source location attachment:

BOGLEFLATSFEDUNIT3Y1MD1H\_calichesourceandtransmap\_20171116133315.pdf

## Section 7 - Methods for Handling Waste

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

Safe containmant 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 containmant attachment:

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

Disposal location description: Waste Management facility in Carlsbad.

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 containmant attachment:

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

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

#### Disposal type description:

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

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

**Reserve pit liner** 

Reserve pit liner specifications and installation description

**Cuttings Area** 

Cuttings Area being used? NO

Are you storing cuttings on location? NO

**Description of cuttings location** 

Cuttings area length (ft.)

Cuttings area depth (ft.)

Cuttings area width (ft.)

Cuttings area volume (cu. yd.)

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BOGLEFLATSFEDUNIT3Y1MD1H\_wellsitelayout\_20171116133643.pdf

Well Number: #1H

Comments:

# Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance	Multiple Well Pad Name: BOGLE FLATS MD/DM
	Multiple Well Pad Number: 2
Recontouring attachment:	
Drainage/Erosion control construction: None	
Drainage/Erosion control reclamation: None	
Wellpad long term disturbance (acres): 3.044	Wellpad short term disturbance (acres): 4.132
Access road long term disturbance (acres): 1.419	Access road short term disturbance (acres): 1.419
Pipeline long term disturbance (acres): 0	Pipeline short term disturbance (acres): 0
Other long term disturbance (acres): 1.377	Other short term disturbance (acres): 1.377
Total long term disturbance: 5.84	Total short term disturbance: 6.928

**Disturbance Comments:** In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging. **Reconstruction method:** The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

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

Soil treatment: NA

Existing Vegetation at the well pad: Various brush & grasses

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: NA

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA

Existing Vegetation Community at other disturbances attachment:

Operator Name: MEWBOURNE OIL COMPANY Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

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 name:

Source name:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Seed source:

Total pounds/Acre:

Source address:

Proposed seeding season:

Seed Type

Seed Summary

#### Seed reclamation attachment:

## **Operator Contact/Responsible Official Contact Info**

**Pounds/Acre** 

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.

Existing invasive species? NO

Well Name: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

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: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

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: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

Fee Owner: Pecos Valley Artesian Convservation District Phone: (575)622-7000 Fee Owner Address: PO Box 1346 Roswell NM 88202 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: WELL PAD

**Describe:** 

Surface Owner: BUREAU OF LAND MANAGEMENT

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:**

Page 9 of 11

Well Number: #1H

Fee Owner: Pecos Valley Artesian Conservation District Phone: (575)622-7000 Fee Owner Address: PO Box 1346 Roswell NM 88202 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: NEW ACCESS ROAD

**Describe:** 

Surface Owner: BUREAU OF LAND MANAGEMENT

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: BOGLE FLATS FED UNIT 3 Y1MD

Well Number: #1H

# Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

**ROW Applications** 

**SUPO Additional Information:** 

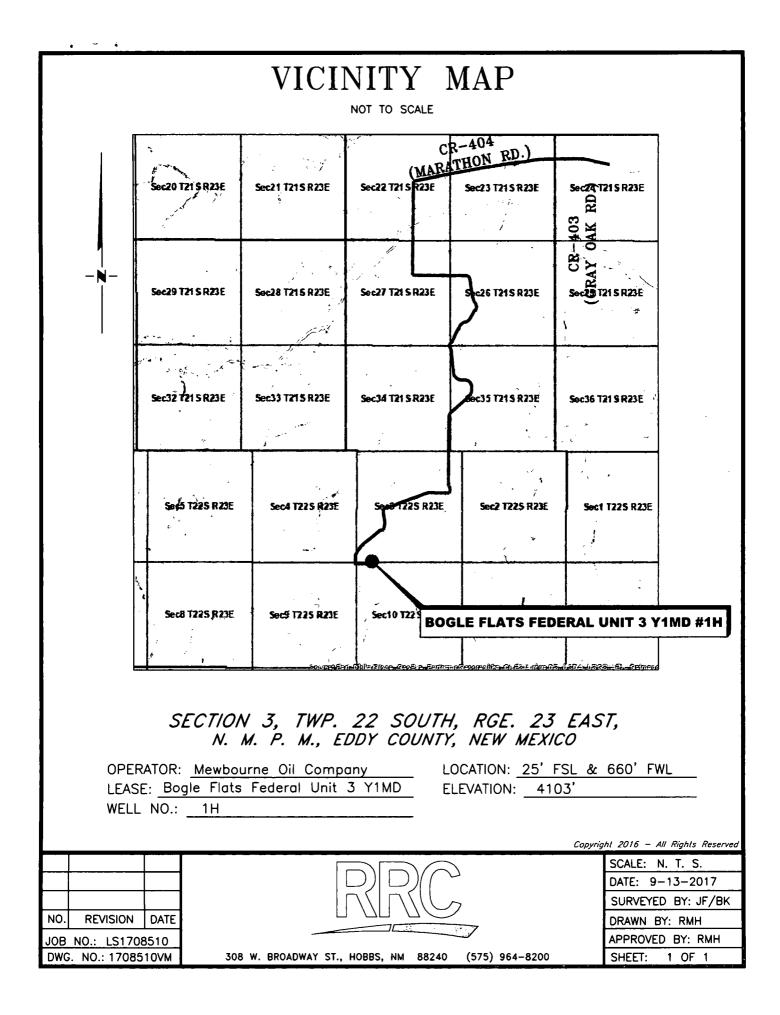
Use a previously conducted onsite? YES

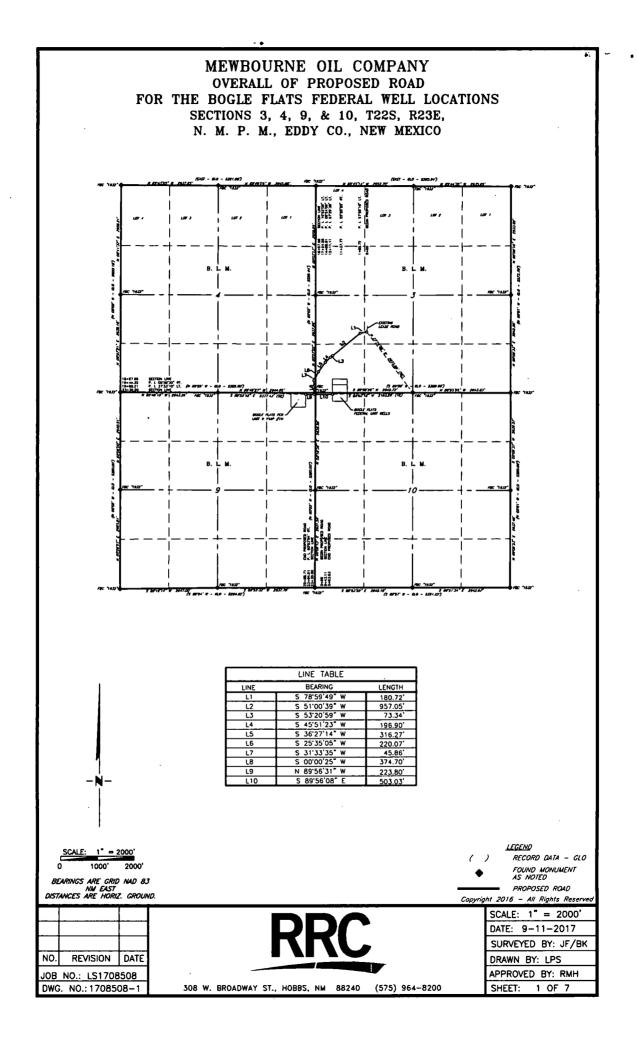
**Previous Onsite information:** SEP 12 2017 Met w/Paul Murphy (BLM) & RRC Surveying & staked location @ 185' FSL & 660' FWL, Sec 3, T22S, R23E, Eddy Co., NM. Location moved at the request of the BLM to minimize surface damage. Restaked location @ 25' FSL & 660' FWL, Sec 3, T22S, R23E, Eddy Co., NM. (Elev @ 4103'). This appears to be a drillable location w/pit area to S. Topsoil will be stockpiled 30' on S side. Reclaim 60' S & E. Road off the NW corner heading W then N to existing lease road. Offsite battery to N of pad. Will share pad w/Bogle Flats Fed Unit 10 Y1DM #1H

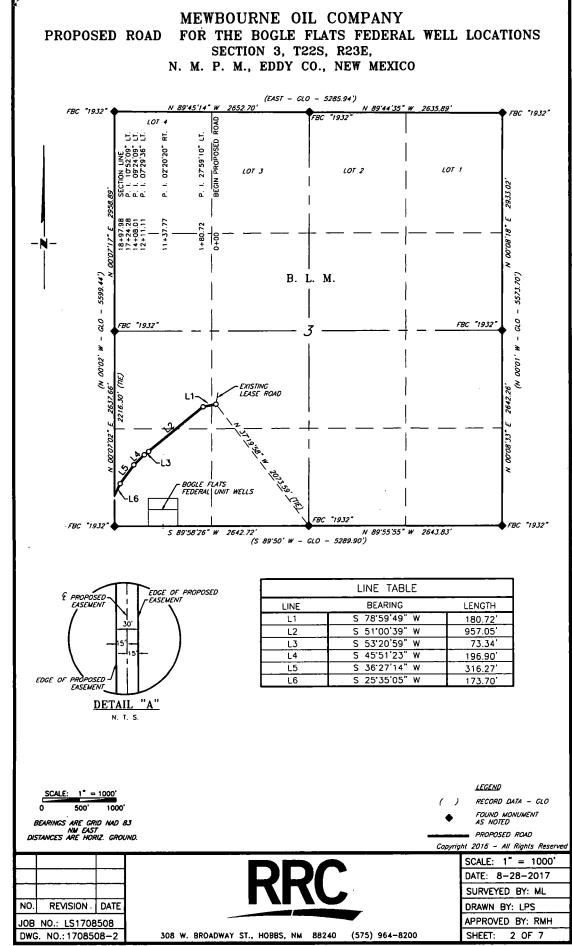
# **Other SUPO Attachment**

BOGLEFLATSFEDUNIT3Y1MD1H\_interimreclamationmap\_20171116134611.pdf BOGLEFLATSFEDUNIT3Y1MD1H\_gascaptureplan\_20171116135618.pdf

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#### MEWBOURNE OIL COMPANY PROPOSED ROAD FOR THE BOGLE FLATS FEDERAL WELL LOCATIONS SECTION 3, T22S, R23E, N. M. P. M., EDDY CO., NEW MEXICO

#### DESCRIPTION

A strip of land 30 feet wide, being 1,897.98 feet or 115.029 rods in length, lying in Section 3, Township 22 South, Range 23 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Southwest quarter of Section 3, which bears, N 37'19'58" W, 2,073.59 feet from a brass cap, stamped "1932", found for the South quarter corner of Section 3;

Thence S 78'59'49" W, 180.72 feet, to Engr. Sto. 1+80.72, a P. I. of 27'59'10" left;

Thence S 51°00'39" W, 957.05 feet, to Engr. Sto. 11+37.77, a P. I. of 02°20'20" right;

Thence S 53'20'59" W, 73.34 feet, to Engr. Sta. 12+11.11, a P. I. of 07'29'36" left;

Thence S 45'51'23" W, 196.90 feet, to Engr. Sta. 14+08.01, a P. I. of 09'24'09" left;

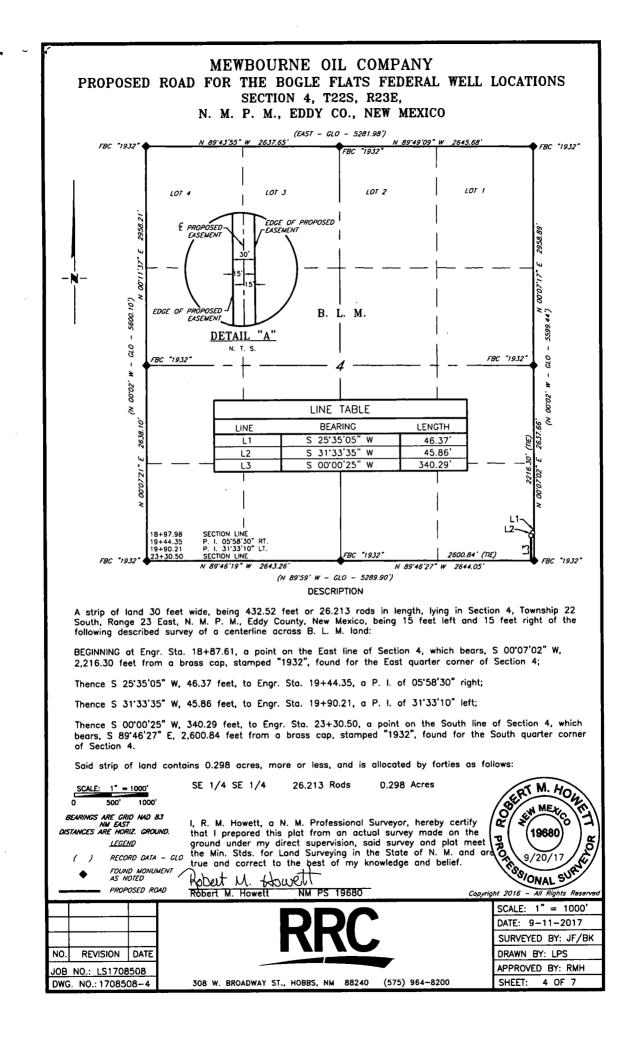
Thence S 36'27'14" W, 316.27 feet, to Engr. Sta. 17+24.28, a P. I. of 10'52'09" left;

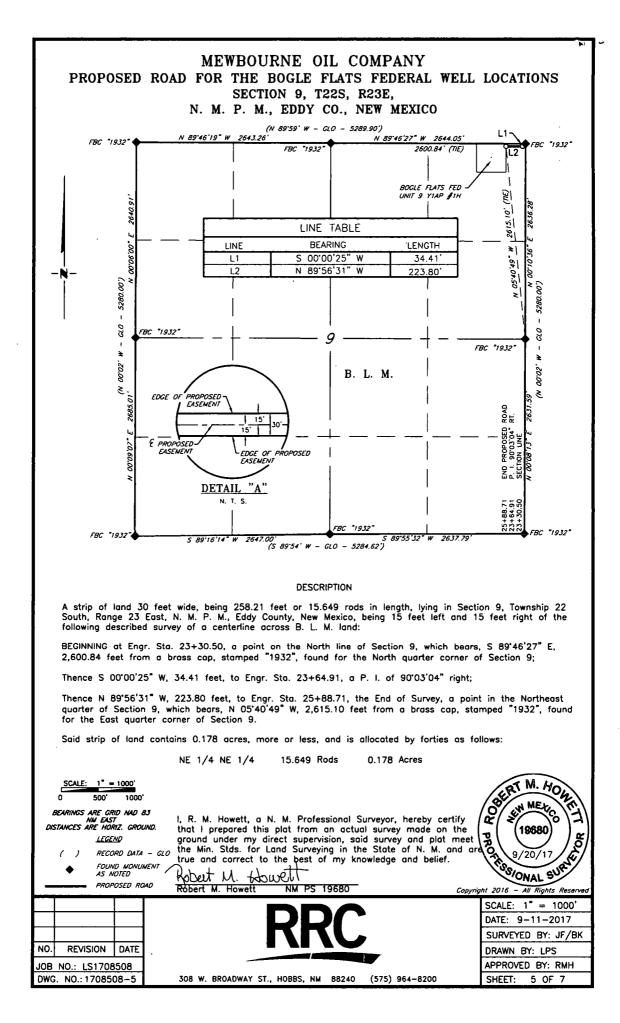
Thence S 25'35'05" W, 173.70 feet, to Engr. Sta. 18+97.98, a point on the West line of Section 3, which bears, S 00'07'02" W, 2,216.30 feet from a brass cap, stamped "1932", found for the West quarter corner of Section 3.

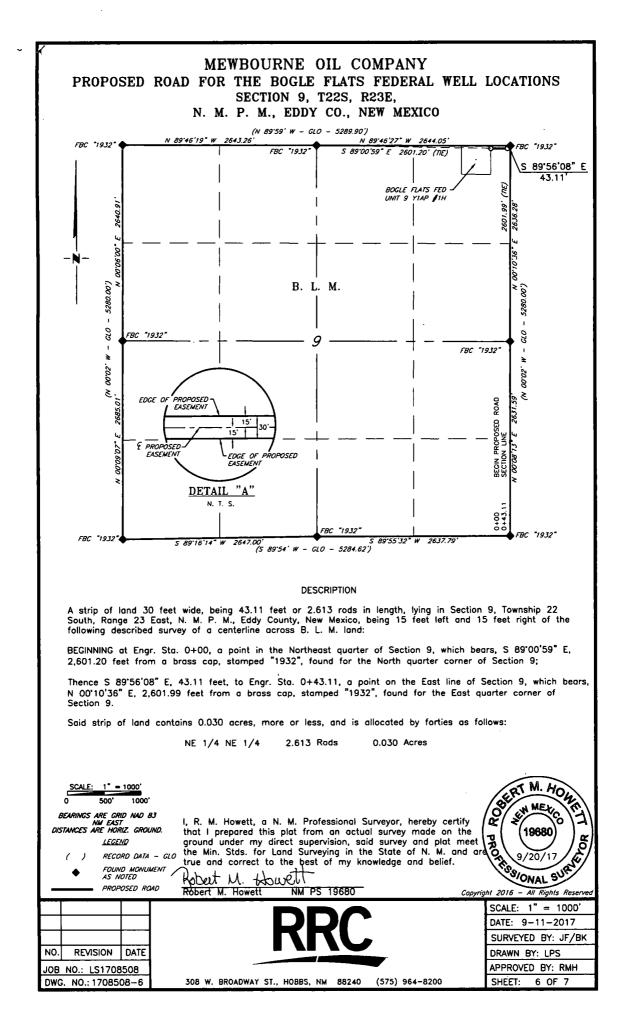
Said strip of land contains 1.306 acres, more or less, and is allocated by forties as follows:

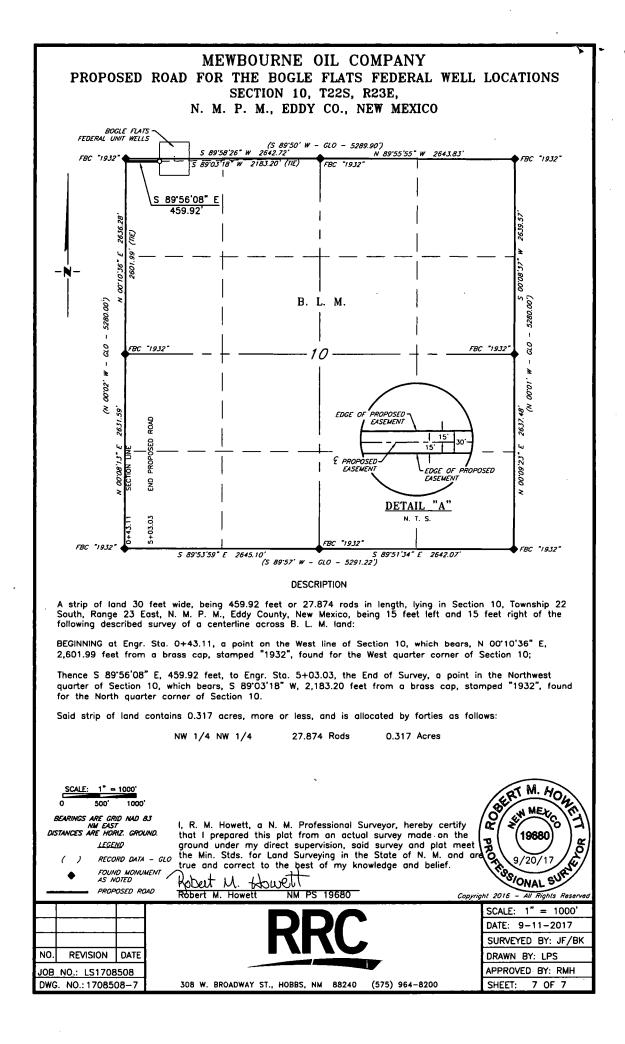
NE	1/4	SW	1/4	3.642	Rods	0.041	Acres
NW	1/4	S₩	1/4	35.847	Rods	0.407	Acres
S₩	1/4	SW	1/4	75.540	Rods	0.858 /	Acres

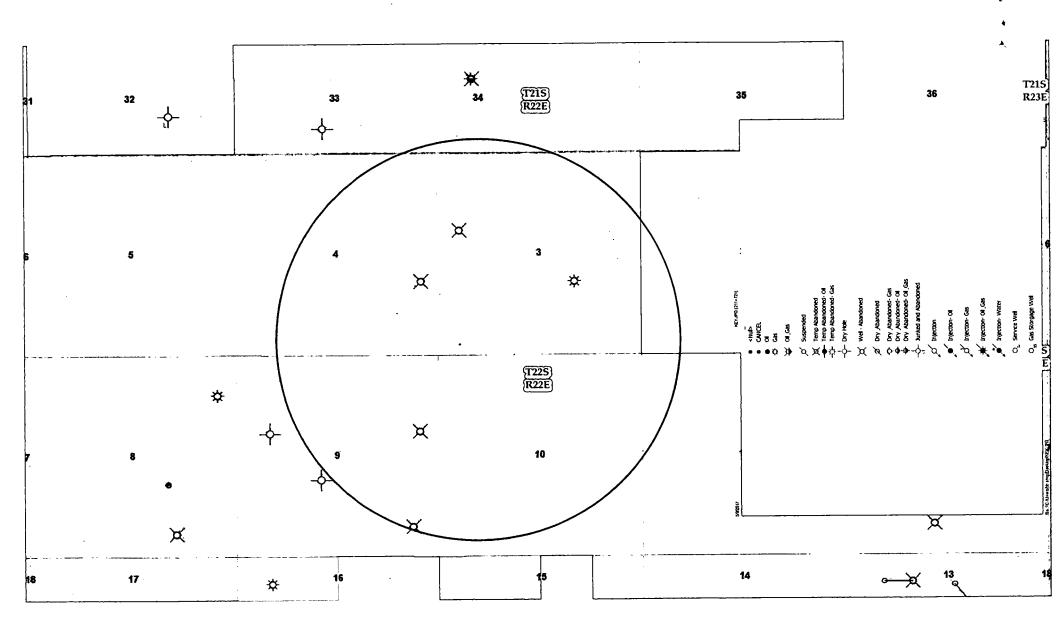
	<u> </u>	opyright 2015 - All Rights Reserved
	DDA	SCALE: 1" = 1000'
		DATE: 9-11-2017
	ΠΠ	SURVEYED BY: JF/BK
NO. REVISION DATE		DRAWN BY: LPS
JOB NO.: LS1708508		APPROVED BY: RMH
DWG. NO.: 1708508-3	308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200	SHEET: 3 OF 7



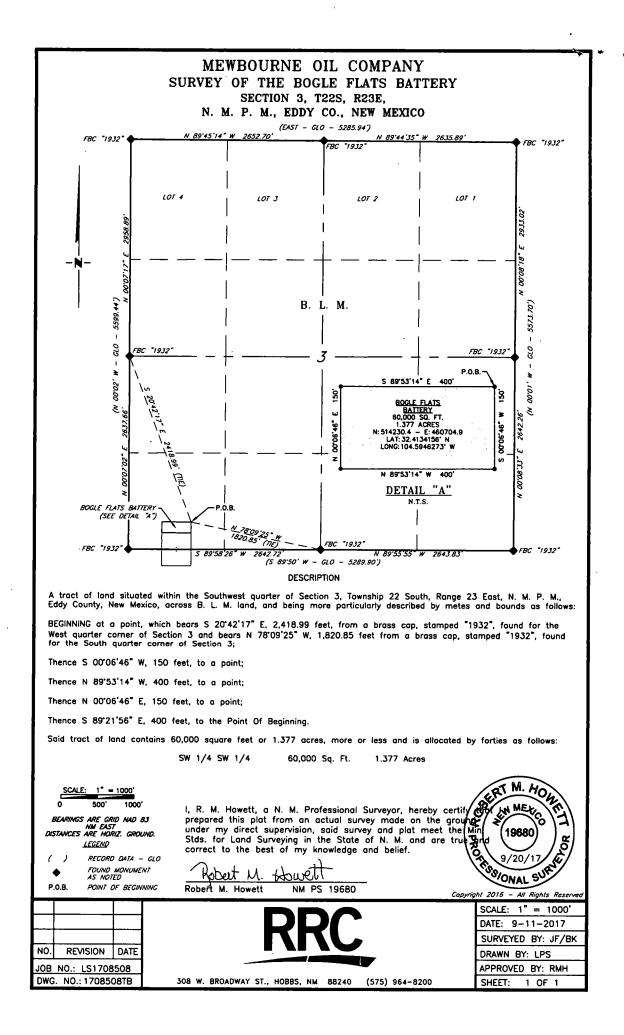




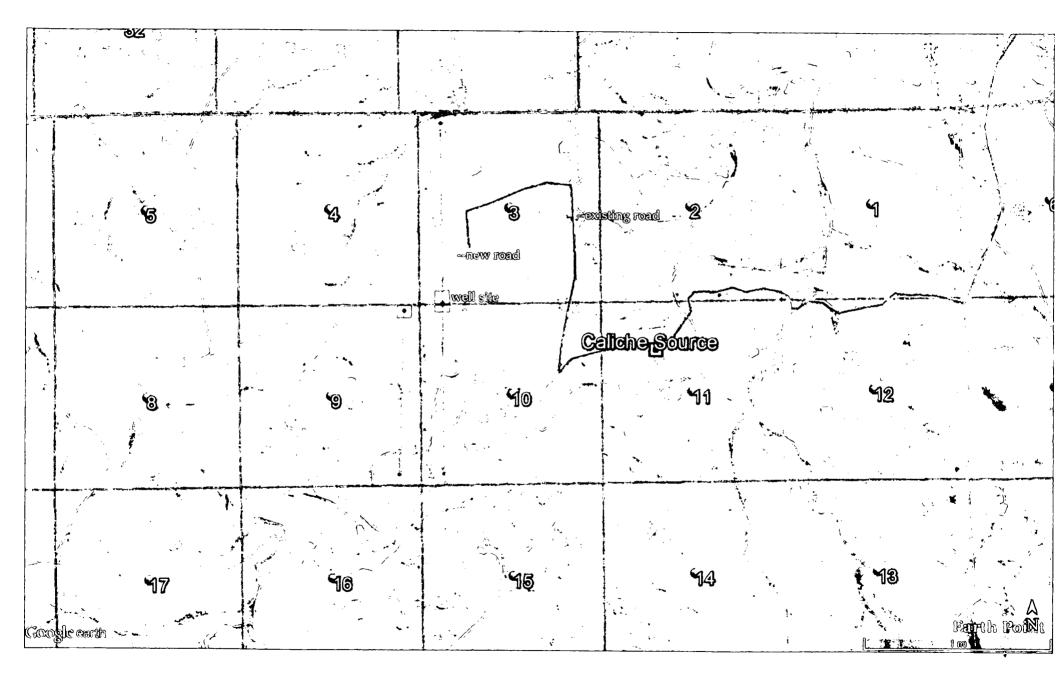


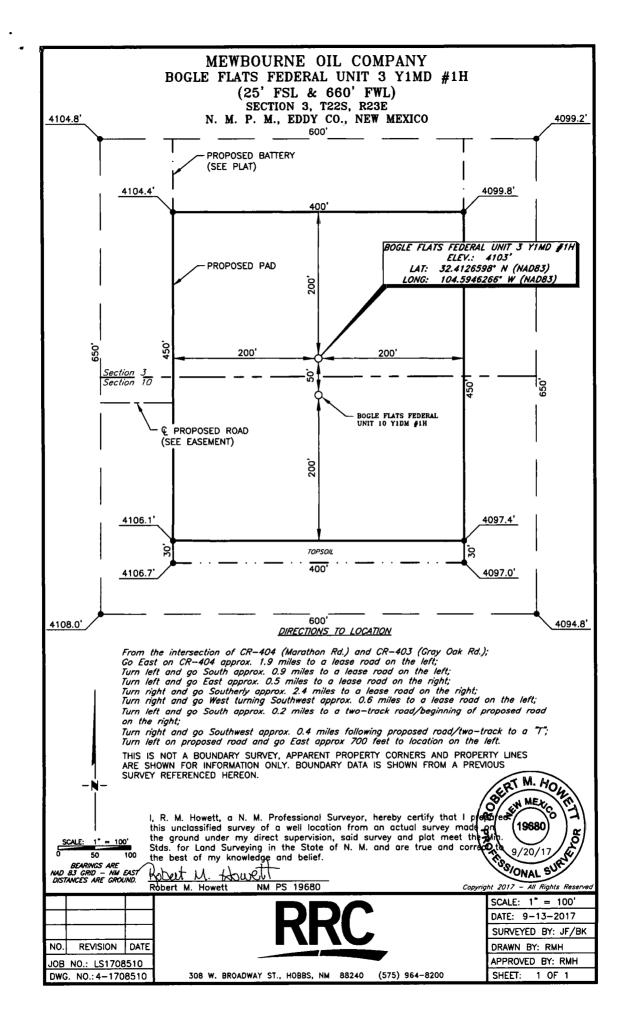


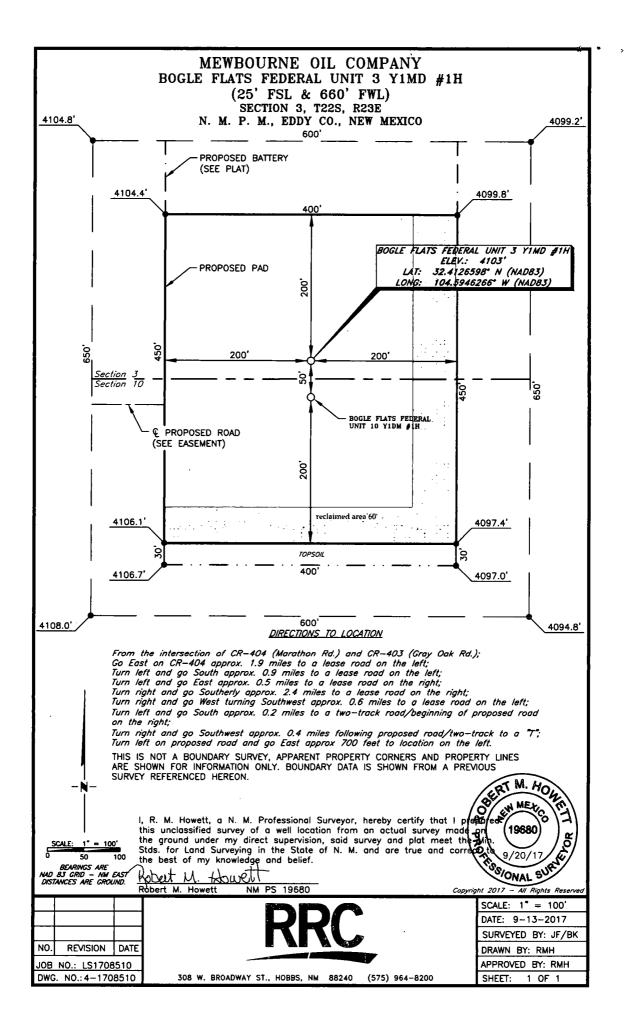
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### **Section 3 - Unlined Pits**

#### Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

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

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

PWD disturbance (acres):

PWD disturbance (acres):

Injection well type: Injection well number: Assigned injection well API number? Injection well new surface disturbance (acres): Minerals protection information: Mineral protection attachment: Underground Injection Control (UIC) Permit? UIC Permit attachment:

### Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location: PWD surface owner: 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: Other PWD discharge volume (bbl/day): Other PWD type description: Other PWD type attachment: Have other regulatory requirements been met? Other regulatory requirements attachment:

#### Injection well name:

#### Injection well API number:

**PWD disturbance (acres):** 

PWD disturbance (acres):



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:

# Bond Info Data Report

06/25/2018