CHARTEBIA DISTRICT		FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018
OCT 1 2019 UNITED STATE DEPARTMENT OF THE BUREAU OF LAND MAN	INTERIOR 5. Lease	Serial No.
RECEIVEPPLICATION FOR PERMIT TO I		an, Allotec or Tribe Name
Ia. Type of work:	REENTER 7. If Unit	or CA Agreement, Name and No.
1b. Type of Well: Oil Well 🔽 Gas Well 🗌 G	Other 8. Lease	Name and Well No.
Ic. Type of Completion: Hydraulic Fracturing	Single Zone Multiple Zone DELAWA	ARERANCH13/24 W2DM FEDC
2. Name of Operator MEWBOURNE OIL COMPANY		ell No. -015-46309
3a. Address PO Box 5270 Hobbs NM 88240	3b. Phone No. (include area code) 10. Figure (575)393-5905 WHEDCA	WOLECAMP + WOLFCAMP
 Location of Well (Report location clearly and in accordance At surface NWNW / 575 FNL / 120 FWL / LAT 32.048 At proposed prod. zone SWSW / 330 FSL / 330 FWL / L 	3016 / LONG -104.0489461 AT 32.0218146 / LONG -104.0485922	T. R. M. or Blk. and Survey or Area T26S / R28E / NMP
14. Distance in miles and direction from nearest town or post of 7 miles	fice* 12. Coun EDDY	ty or Parish 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease 1400 480	licated to this well
 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth 20./BLM/BIA Bond 10344 feet / 20405 feet FED: NM1693	No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2946 feet	22. Approximate date work will start* 23. Estim 06/16/2019 60 days	ated duration
	24. Attachments	
 The following, completed in accordance with the requirements of (as applicable) 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest Syst SUPO must be filed with the appropriate Forest Service Office) 	4. Bond to cover the operations unless co Item 20 above). 5. Operator certification.	vered by an existing bond on file (se
25. Signature (Electronic Submission)	Name (Printed/Typed) Bradley Bishop / Ph: (575)393-5905	Date 04/16/2019
Title (()		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 09/27/2019
Title (Assistant Field Manager Lands)& Minerals	Office CARLSBAD	
Application approval does not warrant or certify that the application		



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 I: 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.

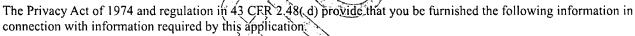
ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal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

ITEMS 15 AND 18: If well is to be, or has been directionany 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.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES



AUTHORITY: 30 U.S.C. 181 et seq., 25 U(\$,G, 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 wen 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 win 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 conects this information to anow 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

SHL: NWNW / 575 FNL / 120 FWL / TWSP: 26S / RANGE: 28E / SECTION: 13 / LAT: 32.0483016 / LONG: -104.0489461 (TVD: 0 feet, MD: 0 feet)
 PPP: NWNW / 330 FNL / 330 FWL / TWSP: 26S / RANGE: 28E / SECTION: 13 / LAT: 32.048973 / LONG: -104.048274 (TVD: 10365 feet, MD: 10515 feet)
 PPP: NWSW / 2636 FNL / 330 FWL / TWSP: 26S / RANGE: 28E / SECTION: 13 / LAT: 32.0426368 / LONG: -104.0483483 (TVD: 10407 feet, MD: 12829 feet)
 PPP: NWNW / 0 FNL / 330 FWL / TWSP: 26S / RANGE: 28E / SECTION: 24 / LAT: 32.0353605 / LONG: £104.0484377 (TVD: 10385 feet, MD: 15476 feet)
 PPP: SWNW / 1317 FNL / 330 FWL / TWSP: 26S / RANGE: 28E / SECTION: 24 / LAT: 32.0317539 / LONG: ±104:0484767 (TVD: 10374 feet, MD: 16788 feet)
 PPP: SWNW / 330 FSL / 330 FWL / TWSP: 26S / RANGE: 28E / SECTION: 24 / LAT: 32.02181467 [LONG: ±104:0484767 (TVD: 10374 feet, MD: 16788 feet)
 BHL: SWSW / 330 FSL / 330 FWL / TWSP: 26S / RANGE: 28E / SECTION: 24 / LAT: 32.02181467 [LONG: ±104:04845922 (TVD: 10344 feet, MD: 12782 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.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NMNM12559
WELL NAME & NO.:	DELAWARERANCH 13/24 W2DM FEDCOM 1H
SURFACE HOLE FOOTAGE:	575' FNL & 120' FWL
BOTTOM HOLE FOOTAGE	330' FSL & 330' FWL
LOCATION:	Section 13, T. 26 S., R 28 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 250 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of $\underline{8}$ hours or 500 pounds compressive strength, whichever is greater. (This is to

include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Excess cement calculates to 20%, additional cement might be required. 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.

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

3. The minimum required fill of cement behind the 7 inch production casing is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- 4. The minimum required fill of cement behind the 4-1/2 inch production liner is:
 - Cement should tie-back **100 feet** 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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. <u>When the Communitization Agreement number is known, it shall also be</u> <u>on the sign.</u> JJP09102019

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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)
 - 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
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- <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 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. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <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: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 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 not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- 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. The results of the test shall be reported to the appropriate BLM office.
- f. 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.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. 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.



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

Operator Certification

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

Operator Certification Data Report

10/01/2019

NAME: Bradley Bishop		Signed on: 04/16/2019
Title: Regulatory		
Street Address:		
City:	State:	Zip:
Phone : (575)393-5905		
Email address: bbishop@mewbo	burne.com	
Field Representativ	e	
-		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

AFMSS

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

Application Data Report

APD ID: 10400040826 **Operator Name: MEWBOURNE OIL COMPANY** Well Name: DELAWARERANCH13/24 W2DM FEDCOM Well Type: CONVENTIONAL GAS WELL

Well Number: 1H Well Work Type: Drill

Submission Date: 04/16/2019

Highlighted data reflects the most recent changes

10/01/2019

100

Show Final Text

Section 1 - General		
APD ID: 10400040826	Tie to previous NOS?	Submission Date: 04/16/2019
BLM Office: CARLSBAD	User: Bradley Bishop	Title: Regulatory
Federal/Indian APD: FED	Is the first lease penetrated	for production Federal or Indian? FED
Lease number: NMNM012559	Lease Acres: 1400	
Surface access agreement in place?	Allotted? R	eservation:
Agreement in place? NO	Federal or Indian agreemen	t
Agreement number:		
Agreement name:		
Keep application confidential? YES		
Permitting Agent? NO	APD Operator: MEWBOURN	E OIL COMPANY
Operator letter of designation:		

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

Operator Address: PO Box 5270

Operator PO Box:

Operator City: Hobbs State: NM

Operator Phone: (575)393-5905

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Zip: 88240

Well in Master SUPO? NO

Well in Master Drilling Plan? NO

Master SUPO name:

Master Drilling Plan name:

Well Name: DELAWARERANCH13/24 W2DM FEDCOM Well Number: 1H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILDCAT

Pool Name: WOLFCAMP

WOLFCAMP

mineral recourses? LISEARI E MATER the proposed wall in an area containing

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

Is the proposed well in a Helium produ	ction area? N	Use Existing Well Pad?	NO	New surface disturbance?
Type of Well Pad: SINGLE WELL		Multiple Well Pad Name	:	Number:
Well Class: HORIZONTAL		Number of Legs:		
Well Work Type: Drill				
Well Type: CONVENTIONAL GAS WELL	_			
Describe Well Type:				
Well sub-Type: APPRAISAL				
Describe sub-type:				
Distance to town: 7 Miles	Distance to ne	arest well: 60 FT	Distanc	e to lease line: 330 FT
Reservoir well spacing assigned acres	Measurement:	480 Acres		
Well plat: DelawareRanch13_24W2D	MFedCom1H_v	vellplat_20190416100227.j	odf	
Well work start Date: 06/16/2019		Duration: 60 DAYS		

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Survey number:

Vertical Datum: NAVD88

Reference Datum:

	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	TVD
SHL Leg #1	575	FNL	120	FWL	26S	28E	13	Aliquot NWN W	32.04830 16	- 104.0489 461	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	294 6	0	0
KOP Leg #1	10	FNL	330	FWL	26S	28E	13	Aliquot NWN W	32.04985 27	- 104.0482 637	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 690 5	987 7	985 1
PPP Leg #1	131 7	FNL	330	FWL	26S	28E	24	Aliquot SWN W	32.03175 39	- 104.0484 76	EDD Y		NEW MEXI CO	F	NMNM 012559	- 742 8	167 88	103 74

Operator Name: MEWBOURNE OIL COMPANY

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

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	DW	TVD
PPP Leg #1	0	FNL	330	FWL	26S	28E	24	Aliquot NWN W	32.03536 05	- 104.0484 337	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 743 9	154 76	103 85
PPP Leg #1	330	FNL	330	FWL	26S	28E	13	Aliquot NWN W	32.04897 3	- 104.0482 74	EDD Y	NEW MEXI CO	NEW MEXI CO	F	FEE	- 741 9	105 15	103 65
PPP Leg #1	263 6	FNL	330	FWL	26S	28E	13	Aliquot NWS W	32.04263 68	- 104.0483 483	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 012559	- 746 1	128 29	104 07
EXIT Leg #1	330	FSL	330	FWL	26S	28E	24	Aliquot SWS W	32.02181 46	- 104.0485 922	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 012559	- 739 8	204 05	103 44
BHL Leg #1	330	FSL	330	FWL	26S	28E	24	Aliquot SWS W	32.02181 46	- 104.0485 922	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 012559	- 739 8	204 05	103 44

WAFMSS

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

Drilling Plan Data Report

1315

10/01/2019

APD ID: 10400040826

Operator Name: MEWBOURNE OIL COMPANY

Well Type: CONVENTIONAL GAS WELL

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Well Work Type: Drill

Submission Date: 04/16/2019

Highlighted data reflects the most recent changes

1-1-1-2-2

Show Final Text

Section 1 - Geologic Formations

ormation ID	Formation Name	Elevation	True Vertical			Mineral Resources	Producing
	UNKNOWN	2946	Depth 27	Depth 27	Lithologies	NONE	N
2 .	BOTTOM SALT	492	2454	2454	SALT	NONE	N
3	LAMAR	302	2644	2644	LIMESTONE	NATURAL GAS,OIL	N
4	BELL CANYON	269	2677	2677	SANDSTONE	NATURAL GAS,OIL	N
5	CHERRY CANYON	-599	3545	3545	SANDSTONE	NATURAL GAS,OIL	N
6	MANZANITA	-748	3694	3694	LIMESTONE	NATURAL GAS,OIL	N
7	BRUSHY CANYON	-3166	6112	6112	SANDSTONE	NATURAL GAS,OIL	N
8	BONE SPRING LIME	' -3392	6338	6338	LIMESTONE, SHALE	NATURAL GAS,OIL	N
9	BONE SPRING 1ST	-4304	7250	7250	SANDSTONE	NATURAL GAS,OIL	N
10	BONE SPRING 2ND	-5128	8074	8074	SANDSTONE	NATURAL GAS,OIL	N
11	BONE SPRING 3RD	-6248	9194	9194	SANDSTONE	NATURAL GAS,OIL	N
12	WOLFCAMP	-6525	9471	9471	LIMESTONE,SHALE,SA NDSTONE	NATURAL GAS,OIL	Y

Section 2 - Blowout Prevention

ressure Rating (PSI): 5M

Rating Depth: 20405

quipment: Annular, Pipe Ram, Blind Ram

equesting Variance? YES

'ariance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. A multi-bowl rellhead is being used. See attached schematic.

esting Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure idicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the

Well Name: DELAWARERANCH13/24 W2DM FEDCOM Well Number: 1H

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

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_5M_BOPE_Choke_Diagram_20190415163637.pdf

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_Flex_Line_Specs_20190415163639.pdf

OP Diagram Attachment:

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_5M_BOPE_Schematic_20190415163651.pdf

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_Multi_Bowl_WH_20190415163652.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	250	0	250			250	H-40	48	ST&C	6.73	15.1 2	DRY	26.8 3	DRY	45.(5
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2575	0	2575			2575	J-55	36	LT&C	1.51	2.63	DRY	4.89	DRY	6.08
3	PRODUCTI ON	8.75	7.0	NEW	API	N	0	10600	0	10397			10600	P- 110	26	LT&C	1.21	1.94	DRY	2.51	DRY	3.01
4	LINER	6.12 5	4.5	NEW	API	N	9877	20405	9851	10424			10528	P- 110	13.5	LT&C	1.64	1.91	DRY	2.38	DRY	2.97

Casing Attachments

Well Name: DELAWARERANCH13/24 W2DM FEDCOM W

Well Number: 1H

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_Csg_Assumptions_20190415163858.pdf

 Casing ID:
 2
 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_Csg_Assumptions_20190415163939.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_Csg_Assumptions_20190415164042.pdf

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Casing Attachments

Casing ID: 4 String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Delaware_Ranch_13_24_W2DM_Fed_Com_1H_Csg_Assumptions_20190415164159.pdf

Section	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
3URFACE	Lead		0	60	40	2.12	12.5	85	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		60	250	200	1.34	14.8	268	100	Class C	Retarder
NTERMEDIATE	Lead		0	1892	350	2.12	12.5	742	25	Class C	Salt, Gel, Extender, LCM
NTERMEDIATE	Tail		1892	2575	200	1.34	14.8	268	25	Class C	Retarder
RODUCTION	Lead	3695	2375	3018	60	2.12	12.5	127	25	Class C	Gel, Extender, Salt, LCM
RODUCTION	Tail		3018	3695	100	1.34	14.8	134	25	Class C	Retarder
RODUCTION	Lead	3695	3695	8091	390	2.12	12.5	827	25	Class C	Gel, Retarder, Defoamer, Extender
RODUCTION	Tail		8091	1060 0	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
.INER	Lead		9877	2040 5	420	2.97	11.2	1247	25	Class H	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Operator Name: MEWBOURNE OIL COMPANY

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Section 5 - Circulating Medium

lud System Type: Closed

Vill an air or gas system be Used? NO

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

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

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

rescribe the mud monitoring system utilized: Pason/PVT/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	250	SPUD MUD	8.6	8.8							
250	2375	SALT SATURATED	10	10							
2375	1039 7	WATER-BASED MUD	8.6	9.5							
1039 7	1042 4	OIL-BASED MUD	10	12							MW up to 13.0 ppg may be required for shale control. The highest MW needed to balance formation pressure is expected to be 12.0 ppg.

Operator Name: MEWBOURNE OIL COMPANY

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Section 6 - Test, Logging, Coring

ist of production tests including testing procedures, equipment and safety measures: /ill run GR/CNL from KOP (9877') to surface

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

:NL,DS,GR,MWD,MUDLOG

oring operation description for the well:

ione

Section 7 - Pressure

Inticipated Bottom Hole Pressure: 6505

Anticipated Surface Pressure: 4215.46

Inticipated Bottom Hole Temperature(F): 170

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

escribe:

contingency Plans geoharzards description:

contingency Plans geohazards attachment:

lydrogen Sulfide drilling operations plan required? YES

lydrogen sulfide drilling operations plan:

Delaware Ranch 13 24 W2DM Fed Com 1H H2S Plan 20190415164736.pdf

Section 8 - Other Information

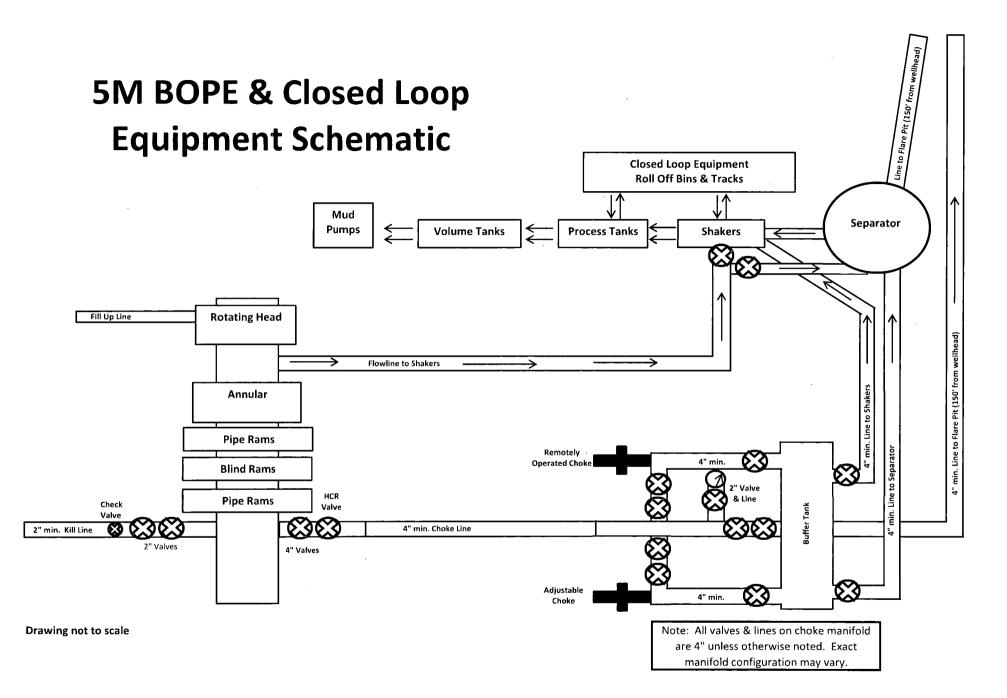
roposed horizontal/directional/multi-lateral plan submission:

Delaware Ranch 13 24 W2DM Fed Com 1H Dir Plan 20190415164805.pdf Delaware Ranch 13 24 W2DM Fed Com 1H Dir Plot 20190415164806.pdf Ither proposed operations facets description:

ther proposed operations facets attachment:

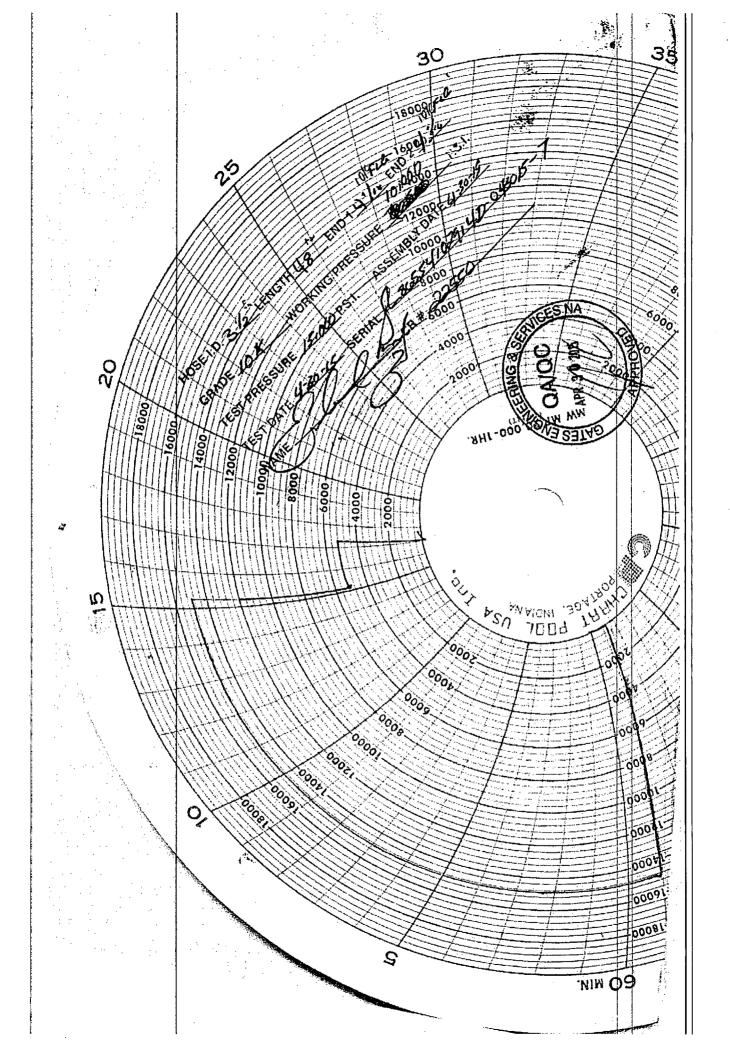
Delaware Ranch 13 24 W2DM Fed Com 1H Additional Points 20190415164827.pdf Delaware Ranch 13 24 W2DM Fed Com 1H Drlg Program 20190415164829.docx **Ither Variance attachment:**

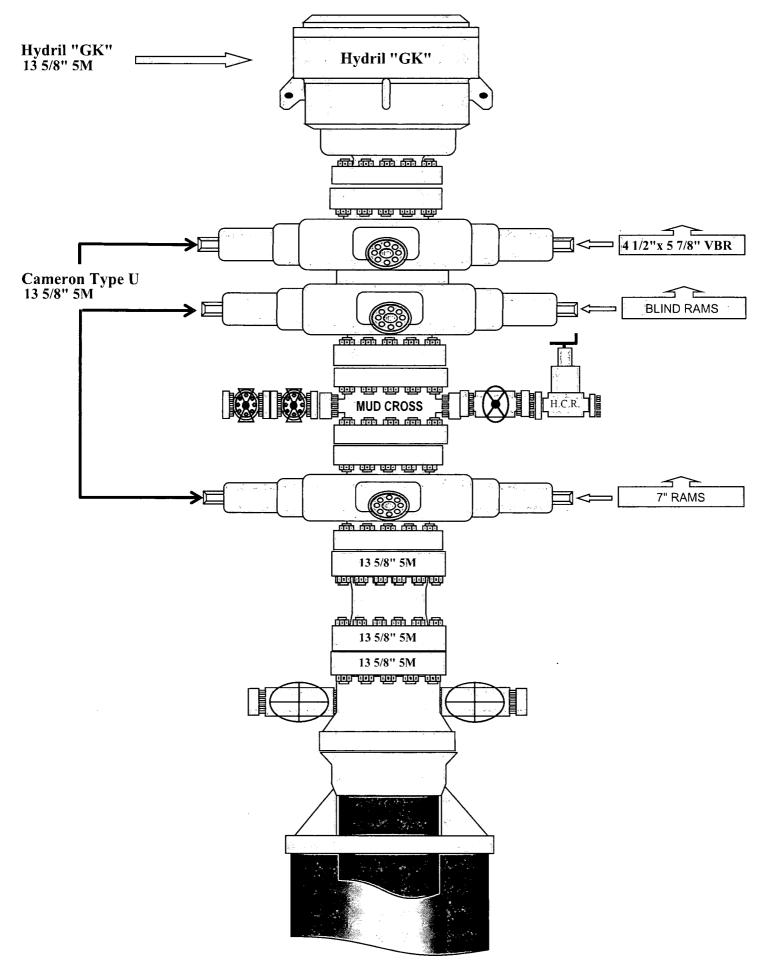
Well Number: 1H



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2.	ENGINEERING & SERVICES			
Jul 10/1	& SERVICES			
/.				
TES E & S NORT	H AMERICA, INC.		PHONE: 361-887-9807	
4 44TH STREET		· •	FAX: 361-887-0812	
RPUS CHRISTI,	TEXAS 78405		EMAIL: Tim.Cantu@gates.com	1
		. :	WEB: www.gates.com	
10K CI	MENTING ASSEMBL	LY PRESSURE	TEST CERTIFICATE	
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Lustomer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015	
Lustomer Ref. :	4060578	Hose Serial No.:	D-043015-7	
invoice No. :	500506	Created By:	JUSTIN CROPPER	
-				
Product Description:		10K3.548.0CK4.1/1610KFL	GE/E LE	
	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG	
End Fitting 1 : Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7	
Working Pressure :	10,000 PSI	Test Pressure :	15,000 PSI	
the Gates Oilf	ield Roughneck Agreement/S	Specification requirem	nose assembly has been tested to nents and passed the 15 minute est pressure 9.6.7 and per Table 9	
the Gates Oilf hydrostatic test	ield Roughneck Agreement/S per API Spec 7K/Q1, Fifth Ec	Specification requirem dition, June 2010, Te uct number. Hose bu	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 irst pressure 9.6.7.2 exceeds the	
the Gates Oilf hydrostatic test	ield Roughneck Agreement/S per API Spec 7K/Q1, Fifth Ec n accordance with this produ	Specification requirem dition, June 2010, Te uct number. Hose bu	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 irst pressure 9.6.7.2 exceeds the	
the Gates Oilf hydrostatic test to 15,000 psi i	ield Roughneck Agreement/S per API Spec 7K/Q1, Fifth Ec n accordance with this produ minimum of 2.5 times t	Specification requirem dition, June 2010, Te uct number. Hose bu the working pressure	nents and passed the 15 minute est pressure 9.6.7 and per Table 9 irst pressure 9.6.7.2 exceeds the e per Table 9.	
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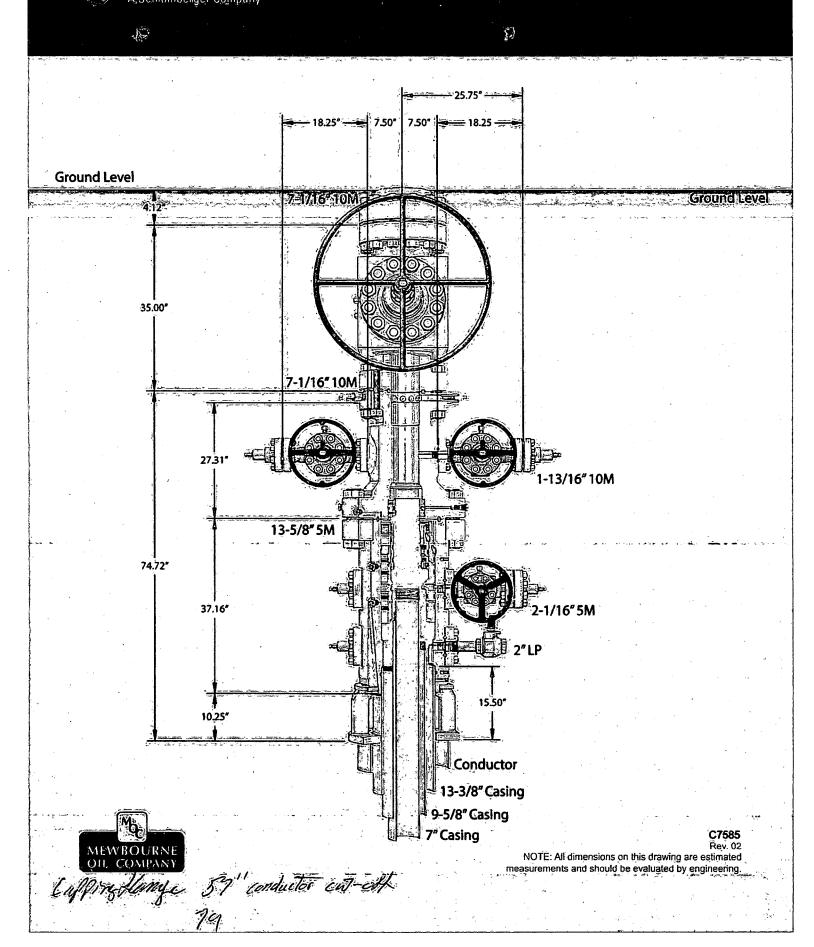
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A Schlumberger Company

13-5/8" MN-DS Wellhead System



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
17.5"	0'	250'	13.375"	48	H40 ·	STC	6.73	15.12	26.83	45.08
12.25"	0'	2575'	9.625"	36	J55	LTC	1.51	2.63	4.89	6.08
8.75"	0'	10600'	7"	26	P110	LTC	1.21	1.94	2.51	3.01
6.125"	9877'	20405'	4.5"	13.5	P110	LTC	1.64	1.91	2.38	2.97
		•	•	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 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

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2. Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)	•		Collapse	Burst	Tension	Tension
17.5"	0'	250'	13.375"	48	H40	STC	6.73	15.12	26.83	45.08
12.25"	0'	2575'	9.625"	36	J55 ·	LTC	1.51	2.63	4.89	6.08
8.75"	0'	10600'	7"	26	P110	LTC	1.21	1.94	2.51	3.01
6.125"	9877'	20405'	4.5"	13.5	P110	LTC	1.64	1.91	2.38	2.97
		•		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 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
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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
17.5"	0'	250'	13.375"	48	H40	STC	6.73	15.12	26.83	45.08
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8.75"	0'	10600'	7"	26	P110	LTC	1.21	1.94	2.51	3.01
6.125"	9877'	20405'	4.5"	13.5	P110	LTC	1.64	1.91	2.38	2.97
				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 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
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Is well located in critical Cave/Karst?	N
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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
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8.75"	0'	10600'	7"	26	P110	LTC	1.21	1.94	2.51	3.01
6.125"	9877'	20405'	4.5"	13.5	P110	LTC	1.64	1.91	2.38	2.97
			•	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.	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?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	· · · · · · · · · · · · · · · · · · ·
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

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. <u>Hydrogen Sulfide Protection and Monitoring Equipment</u>

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

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

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. Mud Program

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

5. Metallurgy

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

6. Communications

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

7. Well Testing

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

8. Emergency Phone Numbers

Eddy County Sheriff's Office911 or 575-887-7551Ambulance Service911 or 575-885-2111Carlsbad Fire Dept911 or 575-885-2111Loco Hills Volunteer Fire Dept.911 or 575-677-3266Closest Medical Facility - Columbia Medical Center of Carlsbad575-492-5000

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

Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Delaware Ranch 13/24 W2DM Fed Com #1H Secs. 13 & 24, T26S, R28E SL: 575' FNL & 120' FWL (13) BHL: 330' FSL & 330' FWL (24)

Plan: Design #1

Standard Planning Report

15 April, 2019

Planning Report

Database:	Hobbs				Local Co-o	ordinate Referen		Site Delaware Ra	anch 13/24 W	2DM Fed Com
Company: Project: Site: Well: Wellbore:	Eddy (Delawa Secs. BHL: 3	ourne Oil Comp County, New M are Ranch 13/2 13 & 24, T26S, 30' FSL & 330'	exico NAD 8 24 W2DM Fe R28E		TVD Refere MD Refere North Refe Survey Cal	nce:	V V C	41H VELL @ 2973.0u VELL @ 2973.0u Grid Ainimum Curvatu	usft (Original	
Design:	Desigr	1 #1								
Project	Êddy C	ounty, New Me	xico NAD 8	3						
Map System: Geo Datum: Map Zone:	North Am	Plane 1983 erican Datum ⁻ ico Eastern Zo			System Dati	um:	Me	an Sea Level		
Site	Delawa	re Ranch 13/24	W2DM Fe	d Com #1H		امېمىيە يېرىمىيە مىلىرىسىيە كىرىد ، بىلىرىدىيە يېرىرىرىيونىرىدى بېرە ، ، ، مىلى قىلىد				
Site Position: From: Position Uncertai	Map inty:		Eas	thing: sting: t Radius:		448.00 usft Lo	atitude: ongitude: rid Converge	ence:		32.0483010 -104.0489463 0.15 °
Well	Secs. 1	3 & 24, T26S, F	R28E							
Well Position	+N/-S			Northing:		381,426.00 us		tude: gitude:		32.0483010 -104.0489463
	+E/-W	0.	.0 usft	Easting:		629,448.00 us		•		
Position Uncertai	inty	0.	.0 usft	Easting: Wellhead Elevatio	on:	629,448.00 Us		und Level:		2,946.0 usf
Position Uncertai Wellbore Magnetics	hinty	0. 30' FSL & 330' del Name	.0 usft FWL (24)	-	Declinat	2,973.0 us	sft Grou Dip A	und Level:		2,946.0 usf
Wellbore	nty	0. 30' FSL & 330' del Name	.0 usft FWL (24)	Wellhead Elevation		2,973.0 us	sft Gro	und Level:		Strength
Wellbore	hinty	0. 30' FSL & 330' del Name IGRF2010	.0 usft FWL (24)	Wellhead Elevation	Declinat	2,973.0 us	sft Grou Dip A	und Level:		Strength nT)
Wellbore Magnetics	Inty	0. 30' FSL & 330' del Name IGRF2010	.0 usft FWL (24)	Wellhead Elevation	Declinat	2,973.0 us	sft Grou Dip A	und Level:		Strength nT)
Wellbore Magnetics Design	Inty	0. 30' FSL & 330' del Name IGRF2010	0 usft FWL (24) Sam	Wellhead Elevation pple Date 4/15/2019	Declinat	2,973.0 us	sft Grou Dip A	ngle 59.75		Strength nT)
Wellbore Magnetics Design Audit Notes:	Inty	0. 30' FSL & 330' del Name IGRF2010 #1	0 usft FWL (24) Sam	Wellhead Elevation hple Date 4/15/2019 ase: Pl	Declinat (°)	2,973.0 us	sft Grou Dip A (°) n Depth: V	und Level: ngle 59.75 (Dire	()	Strength nT)
Wellbore Magnetics Design Audit Notes: Version: Vertical Section:	Inty	0. 30' FSL & 330' del Name IGRF2010 #1	0 usft FWL (24) Sam Phi epth From ((usft)	Wellhead Elevation hple Date 4/15/2019 ase: Pl	Declinat (°) ROTOTYPE +N/-S (usft)	2,973.0 us lon 6.83 Tie O +E/.V (usft	sft Grou Dip A (°) n Depth: V	und Level: ngle 59.75 (Dire	() 0.0 retion	Strength nT)
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Plan Sections Measured	Inty	0. 30' FSL & 330' del Name IGRF2010 #1	0 usft FWL (24) Sam Phi epth From ((usft)	Wellhead Elevation hple Date 4/15/2019 ase: Pl	Declinat (°) ROTOTYPE +N/-S (usft)	2,973.0 us ion 6.83 Tie O +E/-V (usft 0.0 Dogleg Rate	sft Grou Dip A (°) n Depth: V	und Level: ngle 59.75 (Dire	() 0.0 retion	Strength nT)
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Plan Sections Measured Depth (usft) 0.0	Inty BHL: 3 Mon Design Inclination (°) 0.00	0. 30' FSL & 330' del Name IGRF2010 #1 Azimuth (°) 0.00	0 usft FWL (24) Sam Phi epth From ((usft) 0.0 Vertical Depth (usft) 0.0	Wellhead Elevation nple Date 4/15/2019 ase: Pl (TVD) +N/-S (usrt) D 0.0	Declinat (°) ROTOTYPE +N/-S (usft) 0.0 +E/-W (usft) 0.0	2,973.0 us lion 6.83 Tie O +E/-V (usft 0.0 Dogleg Rate (°/100usft) (sft Grou Dip A (°, n Depth: V) Build Rate (°/100usft) 0.00	und Level: ngle 59.75 (Dire (Turn Rate (*/100usft) 0.00	() 0.0 iction (°) 9.20 TFO (°) 0.00	Strength nT) 47,684
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Plan Sections Measured Depth (usft) 0.0 2,650.0	Inty { BHL: 3 Mon Design (°) 0.00 0.00	0. 30' FSL & 330' del Name IGRF2010 #1 Azimuth (°) 0.00 0.00	0 usft FWL (24) Sam Phi epth From ((usft) 0.0 Vertical Depth (usft) 0.0 0.0	Wellhead Elevation nple Date 4/15/2019 ase: Pl (TVD) +N/-S (usrti) 0 0.0 0 0.0	Declinat (°) ROTOTYPE +N/-S (usft) 0.0 +E/-W (usft) 0.0 0.0 0.0	2,973.0 us lion 6.83 Tie O +E/-V (usft 0.0 Dogleg Rate (*/100usft) (0.00 0.00	sft Grou Dip A (°, n Depth: V) Build Rate (°/100usft) 0.00 0.00	und Level: ngle 59.75 0 0.00 0.00 0.00	() 0.0 iction (°) 9.20 TFO (°) 0.00 0.00	Strength nT) 47,684
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Plan Sections Measured Depth (usft) 0.0 2,650.0 2,984.5	Inty BHL: 3 Mod Design Design (°) (°) 0.00 0.00 0.00 5.02	0. 30' FSL & 330' del Name IGRF2010 #1 Azimuth (°) 0.00 0.00 0.00 20.39	0 usft FWL (24) Sam Phi epth From ((usft) 0.0 Vertical Depth (usft) 0.0 2,650.0 2,984.0	Wellhead Elevation nple Date 4/15/2019 ase: Pl (TVD) +N/-S (usrti) 0 0.0 0 0.0 0 13.7	Declinat (°) ROTOTYPE +N/-S (usft) 0.0 +E/-W (usft) 0.0 0.0 5.1	2,973.0 us ion 6.83 Tie O +E/-V (usft 0.0 Dogleg Rate (°/100usft) (0.00 0.00 1.50	sft Grou Dip A (°, (°,) Build Rate (°/100usft) 0.00 0.00 1.50	und Level: ingle 59.75 Dire (Turn Rate (*/100usft) 0.00 0.00 0.00 0.00	() 0.0 ection (°) 9.20 TFO (°) 0.00	Strength nT) 47,684
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Plan Sections Measured Depth (usft) 0.0 2,650.0	Inty { BHL: 3 Mon Design (°) 0.00 0.00	0. 30' FSL & 330' del Name IGRF2010 #1 Azimuth (°) 0.00 0.00	0 usft FWL (24) Sam Phi epth From ((usft) 0.0 Vertical Depth (usft) 0.0 0.0	Wellhead Elevation hple Date 4/15/2019 ase: Pl (TVD) +N/-S (usft) 0 0.0 0 0.0 0 13.7 0 551.3	Declinat (°) ROTOTYPE +N/-S (usft) 0.0 +E/-W (usft) 0.0 0.0 0.0	2,973.0 us lion 6.83 Tie O +E/-V (usft 0.0 Dogleg Rate (*/100usft) (0.00 0.00	sft Grou Dip A (°, n Depth: V) Build Rate (°/100usft) 0.00 0.00	und Level: ngle 59.75 0 0.00 0.00 0.00	() 0.0 (?) 9.20 TFO (?) 0.00 0.00 20.39 0.00	Strength nT) 47,684 Target
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Plan Sections Measured Depth (usft) 0.0 2,650.0 2,984.5 9,542.5	Inty BHL: 3 Mod Design Design (°) 0.00 0.00 5.02 5.02	0. 30' FSL & 330' del Name IGRF2010 #1 Azimuth (°) 0.00 0.00 20.39 20.39	0 usft FWL (24) Sam Phi epth From ((usft) 0.0 Vertical Depth (usft) 0.0 2,650.0 2,984.0 9,517.0	Wellhead Elevation hple Date 4/15/2019 ase: Pl (TVD) +N/-S (usft) 0 0.0 0 13.7 0 551.3 0 565.0 0 -12.8	Declinat (°) ROTOTYPE +N/-S (usft) 0.0 +E/-W (usft) 0.0 0.0 5.1 204.9	2,973.0 us ion 6.83 Tie O +E/-V (usft 0.0 Dogleg Rate (°/100usft) (0.00 0.00 1.50 0.00	sft Grou Dip A (*) n Depth: V) Build Rate (*)100usft) 0.00 0.00 1.50 0.00	und Level: mgle 59.75 Dire (Turn Rate (°/100usft) 0.00 0.00 0.00 0.00 0.00 0.00 0.00	((0.0 (°) 9.20 TFO (°) 0.00 0.00 20.39 0.00 180.00 -179.58	Strength nT) 47,684

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Planning Report

Database:	Hobbs	Local Co-ordinate Reference:	Site Delaware Ranch 13/24 W2DM Fed Com #1H							
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 2973.0usft (Original Well Elev)							
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 2973.0usft (Original Well Elev)							
Site:	Delaware Ranch 13/24 W2DM Fed Com #1H	North Reference:	Grid							
Well:	Secs. 13 & 24, T26S, R28E	Survey Calculation Method:	Minimum Curvature							
Wellbore:	BHL: 330' FSL & 330' FWL (24)	•								
Design:	Design #1									

Measured			Vertical		4. 	Vertical	Dogleg	Build	Turn
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SL: 575' FN	L & 120' FWL (13)								
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0,00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0,00	0.00	300.0	0,0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,650.0	0.00	0.00	2,650.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.75	20.39	2,700.0	0.3	0.1	-0.3	1.50	1.50	0.00
2,800.0	2.25	20.39	2,800.0	2.8	1.0	-2.7	1.50	1.50	0.00
2,900.0	3.75	20.39	2,899.8	7.7	2.8	-7.6	1.50	1.50	0.00
2,984.5	5.02	20.39	2,984.0	13.7	5.1	-13.6	1.50	1.50	0.00
3,000.0	5.02	20.39	2,999.5	15.0	5.6	-14.9	0.00	0.00	0.00
3,100.0	5.02	20.39	3,099.1	23.2	8.6	-23.1	0.00	0.00	0.00
3,200.0	5.02	20.39	3,198.7	31.4	11.7	-31.2	0.00	0.00	0.00
3,300.0	5.02	20.39	3,298.4	39.6	14.7	-39.4	0.00	0.00	0.00
3,400.0	5.02	20.39	3,398.0	47.8	17.8	-47.5	0.00	0.00	0.00
3,500.0	5.02	20.39	3,497.6	56.0	20.8	-55.7	0.00	0.00	0.00
3,600.0	5.02	20.39	3,597.2	64.2	23.9	-63.8	0.00	0.00	0.00
3,700.0	5.02	20.39	3,696.8	72.4	26.9	-72.0	0.00	0.00	0.00
3,800.0	5.02	20.39	3,796.4	80.6	29.9	-80.1	0.00	0.00	0.00
3,900.0	5.02	20.39	3,896.1	88.8	33.0	-88.3	0.00	0.00	0.00
4,000.0	5.02	20.39	3,995.7	97.0	36.0	-96.4	0.00	0.00	0.00
4,100.0	5.02	20.39	4,095.3	105.2	39.1	-104.6	0.00	0.00	0.00
4,200.0	5.02	20.39	4,194.9	113.4	42.1	-112.8	0.00	0.00	0.00
4,300.0	5.02	20.39	4,294.5	121.6	45.2	-120.9	0.00	0.00	0.00
4,400.0	5.02	20.39	4,394.1	129.7	48.2	-129.1	0.00	0.00	0.00
4,500.0	5.02	20.39	4,493.8	137.9	51.3	-137.2	0.00	0.00	0.00
4,600.0	5.02	20.39	4,593.4	146.1	54.3	-145.4	0.00	0.00	0.00
4,700.0	5.02	20.39	4,693.0	154.3	57.4	-153.5	0.00	0.00	0.00
4,800.0	5.02	20.39	4,792.6	162.5	60.4	-161,7	0.00	0.00	0.00
4,800.0	5.02	20.39	4,892.2	170.7	63.5	-169.8	0.00	0.00	0.00

Database:	Hobbs	Local Co-ordinate Reference:	Site Delaware Ranch 13/24 W2DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 2973.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 2973.0usft (Original Well Elev)
Site:	Delaware Ranch 13/24 W2DM Fed Com #1H	North Reference:	Grid
Well:	Secs. 13 & 24, T26S, R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL (24)		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.0	5.02	20.39	4,991.9	178.9	66.5	-178.0	0.00	0.00	0.00
5,100.0	5.02	20.39	5,091.5	187.1	69.6	-186.1	0.00	0.00	0.00
5,200.0	5.02	20.39	5,191.1	195.3	72.6	-194.3	0.00	0.00	0.00
5,300.0	5.02	20.39	5,290.7	203.5	75,6	-202.4	0.00	0.00	0.00
5,400.0	5.02	20.39	5,390.3	211.7	78.7	-210.6	0.00	0.00	0.00
5,500.0	5.02	20,39	5,489.9	219.9	81.7	-218.7	0.00	0.00	0.00
5,600.0	5.02	20.39	5,589.6	228.1	84.8	-226.9	0.00	0.00	0.00
5,700.0	5.02	20.39	5,689.2	236.3	87.8	-235.1	0.00	0.00	0.00
5,800.0	5.02	20.39	5,788.8	244.5	90.9	-243.2	0.00	0.00	0.00
5,900.0	5.02	20.39	5,888.4	252.7	93.9	-251.4	0.00	0.00	0.00
6,000.0	5.02	20.39	5,988.0	260.9	97.0	-259.5	0.00	0.00	0.00
6,100.0	5.02	20.39	6,087.6	269.1	100.0	-267.7	0.00	0.00	0.00
6,200.0	5.02	20.39	6,187.3	277.3	103.1	-275.8	0.00	0.00	0.00
6,300.0	5.02	20.39	6,286.9	285.5	106.1	-284.0	0.00	0.00	0.00
6,400.0	5.02	20.39	6,386.5	293.7	109.2	-292.1	0.00	0.00	0.00
6,500.0	5.02	20.39	6,486.1	301.9	112.2	-300.3	0.00	0.00	0.00
6,600.0	5.02	20.39	6,585.7	310.1	115.3	-308.4	0.00	0.00	0.00
6,700.0	5.02	20.39	6,685.3	318.3	118.3	-316.6	0.00	0.00	0.00
6,800.0	5.02	20.39	6,785.0	326.5	121.3	-324.7	0.00	0.00	0.00
6,900.0	5.02	20.39	6,884.6	334.7	124.4	-332.9	0.00	0.00	0.00
7,000.0	5.02	20.39	6,984.2	342.9	127.4	-341.1	0.00	0.00	0.00
7,100.0	5.02	20.39	7,083.8	351.1	130.5	-349.2	0.00	0.00	0.00
7,200.0	5.02	20.39	7,183.4	359.3	133.5	-357.4	0.00	0.00	0.00
7,300.0	5.02	20.39	7,283.0	367.5	136.6	-365.5	0.00	0.00	0.00
7,400.0	5.02	20.39	7,382.7	375.7	139.6	-373.7	0.00	0.00	0.00
7,500.0	5.02	20.39	7,482.3	383.9	142.7	-381.8	0.00	0.00	0.00
7,600.0	5.02	20.39	7,581.9	392.1	145.7	-390.0	0.00	0.00	0.00
7,700.0	5.02	20.39	7,681.5	400.3	148.8	-398.1	0.00	0.00	0.00
7,800.0	5.02	20.39	7,781.1	408.4	151.8	-406.3	0.00	0.00	0.00
7,900.0	5.02	20.39	7,880.7	416.6	154.9	-414.4	0.00	0.00	0.00
8,000.0	5.02	20.39	7,980.4	424.8	157.9	-422.6	0.00	0.00	0.00
8,100.0	5.02	20.39	8,080.0	433.0	161.0	-430.7	0.00	0.00	0.00
8,200.0	5.02	20.39	8,179.6	441.2	164.0	-438.9	0.00	0.00	0.00
8,300.0	5.02	20.39	8,279.2	449,4	167.0	447.0		0.00	0.00
	5.02 5.02	20.39 20.39	•	449.4 457.6	167.0	-447.0 -455.2	0.00 0.00	0.00 0.00	0.00
8,400.0 8,500.0	5.02	20.39 20.39	8,378.8 8 478 4	457.6 465.8	170.1 173.1	-455.2 -463.4		0.00	0.00
	5.02		8,478.4 8 578 1	465.8 474.0			0.00		0.00
8,600.0 8,700.0	5.02	20.39 20.39	8,578.1 8,677.7	474.0 482.2	176.2 179.2	-471.5 -479.7	0.00 0.00	0.00 0.00	0.00 0.00
8,800.0	5.02	20.39	8,777.3	490.4	182.3	-487.8	0.00	0.00	0.00
8,900.0	5.02	20.39	8,876.9	498.6	185.3	-496.0	0.00	0.00	0.00
9,000.0	5.02	20.39	8,976.5	506.8	188.4	-504.1	0.00	0.00	0.00
9,100.0	5.02	20.39	9,076.1	515.0	191.4	-512.3	0.00	0.00	0.00
9,200.0	5.02	20.39	9,175.8	523.2	194.5	-520.4	0.00	0.00	0.00
9,300.0	5.02	20.39	9,275.4	531.4	197.5	-528.6	0.00	0.00	0.00
9,400.0	5.02	20.39	9,375.0	539.6	200.6	-536.7	0.00	0.00	0.00
9,400.0 9,500.0	5.02	20.39	9,375.0 9,474.6	539.6 547.8	200.6	-536.7 -544.9	0.00	0.00	0.00
9,500.0 9,542.5	5.02		9,474.6 9,517.0	547.8 551.3		-544.9 -548.4		0.00	
		20.39			204.9		0.00		0.00
9,600.0	4.15	20.39	9,574.3	555.6	206.5	-552.6	1.50	-1.50	0.00
9,700.0	2.65	20.39	9,674.1	561.2	208.6	-558.2	1.50	-1.50	0.00
9,800.0	1.15	20.39	9,774.0	564.3	209.7	-561.3	1.50	-1.50	0.00
9,877.0	0.00	0.00	9,851.0	565.0	210.0	-562.0	1.50	-1.50	0.00
KOP: 10' FN	L & 330' FWL (13	·)							
9,900.0	2,30	180.42	9,874.0	564.5	210.0	-561.5	10.00	10.00	0.00

Database:	Hobbs	Local Co-ordinate Reference:	Site Delaware Ranch 13/24 W2DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 2973.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 2973.0usft (Original Well Elev)
Site:	Delaware Ranch 13/24 W2DM Fed Com #1H	North Reference:	Grid
Well:	Secs. 13 & 24, T26S, R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL (24)		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.0	12.30	180.42	9,973.1	551.8	209.9	-548.9	10.00	10.00	0.00
10,100.0		180.42	10,068.4	522.1	209.7	-519.2	10.00	10.00	0.00
10,200.0	32.30	180.42	10,157.2	476.3	209.3	-473.4	10.00	10.00	0.00
10,300.0	42.30	180.42	10,236.6	415.8	208.9	-412.9	10.00	10.00	0.00
10,400.0	52,30	180,42	10,304.4	342.4	208.4	-339.5	10.00	10,00	0.00
10,500.0	62.30	180.42	10,358.3	258.4	207.7	-255.5	10.00	10.00	0.00
10,515.0	63.80	180.42	10,365.1	245.0	207.6	-242.1	10.00	10.00	0.00
FTP: 330' I	FNL & 330' FWL (1	3)							
10,600.0	72.29	180.42	10,396.9	166.3	207.1	-163.3	10.00	10.00	0.00
10,700.0	82.29	180.42	10,418.8	68.8	206.4	-65.9	10.00	10.00	0.00
10,781.8	90.48	180.42	10,424.0	-12.8	205.8	15.6	10.00	10.00	0.00
10,800.0		180.42	10,423.8	-30.9	205.6	33.8	0.00	0.00	0.00
10,900.0	90.48	180.42	10.423.0	-130.9	204.9	133.8	0.00	0.00	0.00
11,000.0		180.42	10,422.2	-230.9	204.1	233.8	0.00	0.00	0.00
11,100.0		180.42	10,421.4	-330.9	203.4	333.7	0.00	0.00	0.00
11,200.0		180.42	10,420.5	-430.9	202.7	433.7	0.00	0.00	0.00
11,300.0		180.42	10,419.7	-530.9	201.9	533.7	0.00	0.00	0.00
11,400.0	90,48	180,42	10,418.9	-630.9	201,2	633.6	0.00	0.00	0.00
11,500.0		180.42	10,418.0	-730.9	200.5	733.6	0.00	0.00	0.00
11,600.0		180.42	10,417.2	-830.9	199.7	833.6	0.00	0.00	0.00
11,700.0		180.42	10,416.4	-930.9	199.0	933.6	0.00	0.00	0.00
11,800.0		180.42	10,415.5	-1,030.9	198.3	1,033.5	0.00	0.00	0.00
11,900.0	90.48	180.42	10,414.7	-1,130.9	197.5	1,133.5	0.00	0.00	0.00
12,000.0		180.42	10,413.9	-1,230.9	196.8	1,233.5	0.00	0.00	0.00
12,100.0		180.42	10,413.0	-1,330.8	196.1	1,333.5	0.00	0.00	0.00
12,200.0		180.42	10,412.2	-1,430.8	195.3	1,433.4	0.00	0.00	0.00
12,300.0		180.42	10,411.4	-1,530.8	194.6	1,533.4	0.00	0.00	0.00
12,400.0	90,48	180,42	10,410,5	-1,630.8	193.9	1,633.4	0.00	0.00	0.00
12,500.0		180.42	10,409.7	-1,730.8	193.1	1,733.4	0.00	0.00	0.00
12,600.0		180.42	10,408.9	-1,830.8	192.4	1,833.3	0.00	0.00	0.00
12,700.0		180.42	10,408.1	-1,930.8	191.6	1,933.3	0.00	0.00	0.00
12,800.0		180.42	10,407.2	-2,030.8	190.9	2,033.3	0.00	0.00	0.00
12,829.2	90.48	180.42	10,407.0	-2,060.0	190.7	2,062.5	0.00	0.00	0.00
	' FNL & 330' FWL (,					
12,900.0		180.42	10,406.4	-2,130.8	190.2	2,133.3	0.00	0.00	0.00
13,000.0		180.42	10,405.6	-2,230.8	189.4	2,233.2	0.00	0.00	0.00
13,100.0		180.42	10,404.7	-2,330.8	188.7	2,333.2	0.00	0.00	0.00
13,200.0	90.48	180.42	10,403.9	-2,430.8	188.0	2,433.2	0.00	0.00	0.00
13,300.0	90.48	180.42	10,403.1	-2,530.8	187.2	2,533.1	0.00	0.00	0.00
13,400.0		180.42	10,402.2	-2,630.8	186.5	2,633.1	0.00	0.00	0.00
13,500.0		180.42	10,401.4	-2,730.8	185.8	2,733.1	0.00	0.00	0.00
13,600.0	90.48	180.42	10,400.6	-2,830.8	185.0	2,833.1	0.00	0.00	0.00
13,700.0	90.48	180.42	10,399.7	-2,930.7	184.3	2,933.0	0.00	0.00	0.00
13,800.0		180.42	10,398.9	-3,030.7	183.6	3,033.0	0.00	0.00	0.00
13,900.0	90.48	180.42	10,398.1	-3,130.7	182.8	3,133.0	0.00	0.00	0.00
14,000.0		180.42	10,397.2	-3,230.7	182.1	3,233.0	0.00	0.00	0.00
14,100.0		180.42	10,396.4	-3,330.7	181.4	3,332.9	0.00	0.00	0.00
14,200.0		180.42	10,395.6	-3,430.7	180.6	3,432.9	0.00	0.00	0.00
14,300.0	90.48	180.42	10,394.8	-3,530.7	179.9	3,532.9	0.00	0.00	0.00
14,400.0		180.42	10,393.9	-3,630.7	179.1	3,632.9	0.00	0.00	0.00
14,500.0		180.42	10,393.1	-3,730.7	178.4	3,732.8	0.00	0.00	0.00
14,600.0		180.42	10,392.3	-3,830.7	177.7	3,832.8	0.00	0.00	0.00
14,700.0		180.42	10,391.4	-3,930.7	176.9	3,932.8	0.00	0.00	0.00

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Database:	Hobbs	Local Co-ordinate Reference:	Site Delaware Ranch 13/24 W2DM Fed Com
Camaani	Mouteurse Oil Company) #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 2973.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 2973.0usft (Original Well Elev)
Site:	Delaware Ranch 13/24 W2DM Fed Com #1H	North Reference:	Grid
Well:	Secs. 13 & 24, T26S, R28E	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 330' FSL & 330' FWL (24)		
Design:	Design #1	the first state of the	
Planned Survey			
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Planned Survey

	Measured Depth (usft)	Inclination	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	14,800.0	90.48	180.42	10,390.6	-4,030.7	176.2	4,032.8	0.00	0.00	0.00
	14,900.0	90.48	180.42	10,389.8	-4,130.7	175.5	4,132.7	0.00	0.00	0.00
1	15,000.0	90.48	180.42	10,388.9	-4,230.7	174.7	4,232.7	0.00	0.00	0.00
1	15,100.0	90.48	180.42	10,388.1	-4,330.7	174.0	4,332.7	0.00	0.00	0.00
	15,200.0	90.48	180.42	10,387.3	-4,430.7	173.3	4,432.6	0.00	0.00	0.00
		50.40				170.0			0.00	
1	15,300.0	90.48	180.42	10,386.4	-4,530.6	172.5	4,532.6	0.00	0.00	0.00
	15,400.0	90.48	180.42	10,385.6	-4,630.6	171.8	4,632.6	0.00	0.00	0.00
	15,476.4	90.48	180.42	10,385.0	-4,707.0	171.2	4,708.9	0.00	0.00	0.00
	PPP 2: 0' FN	IL & 330' FWL (24	4)							
	15,500.0	90.48	180.42	10,384.8	-4,730.6	171.1	4,732.6	0.00	0.00	0.00
1	15,600.0	90.48	180.42	10,383.9	-4,830.6	170.3	4,732.0	0.00	0.00	0.00
	13,000.0	50.40	100.42	10,363.9	-4,030.0	110.5	4,032.3	0.00	0.00	0.00
Í	15,700.0	90.48	180.42	10,383.1	-4,930.6	169.6	4,932.5	0.00	0.00	0.00
1	15,800.0	90.48	180.42	10,382.3	-5,030.6	168.9	5,032.5	0.00	0.00	0.00
	15,900.0	90.48	180.42	10,381.4	-5,130.6	168.1	5,132.5	0.00	0.00	0.00
i i	16,000.0	90.48	180.42	10,380.6	-5,230.6	167.4	5,232.4	0.00	0.00	0.00
l .	16,100.0	90.48	180.42	10,379.8	-5,330.6	166.6	5,332.4	0.00	0.00	0.00
	-									
í.	16,200.0	90.48	180.42	10,379.0	-5,430.6	165.9	5,432.4	0.00	0,00	0.00
	16,300.0	90.48	180.42	10,378.1	-5,530.6	165.2	5,532.4	0.00	0.00	0.00
ļ	16,400.0	90.48	180.42	10,377.3	-5,630.6	164.4	5,632.3	0.00	0.00	0.00
l	16,500.0	90.48	180.42	10,376.5	-5,730.6	163.7	5,732.3	0.00	0.00	0.00
í.	16,600.0	90.48	180.42	10,375.6	-5,830.6	163.0	5,832.3	0.00	0.00	0.00
1										
	16,700.0	90.48	180.42	10,374.8	-5,930.6	162.2	5,932.3	0.00	0.00	0.00
	16,788.4	90.48	180.42	10,374.1	-6,019.0	161.6	6,020.7	0.00	0.00	0.00
	PPP 3: 1317	' FNL & 330' FWI	_ (24)							
	16,800.0	90.48	180.42	10,374.0	-6,030.6	161.5	6,032.2	0.00	0.00	0.00
	16,900.0	90.48	180.42	10,373.1	-6,130.6	160.8	6,132.2	0.00	0.00	0.00
	17,000.0	90.48	180.42	10,372.3	-6,230.5	160.0	6,232.2	0.00	0.00	0.00
	17,100.0	90.48	180.42	10,371.5	-6,330.5	159.3	6,332.1	0.00	0.00	0.00
	17,200.0	90.48	180.42	10,370.6	-6,430.5	158.6	6,432.1	0.00	0.00	0.00
	17,300.0	90.48	180.42	10,369.8	-6,530.5	157.8	6,532.1	0.00	0.00	0.00
	17,400.0	90.48	180.42	10,369.0	-6,630.5	157.1	6,632.1	0.00	0.00	0.00
	17,500.0	90.48	180.42	10,368.1	-6,730.5	156.4	6,732.0	0.00	0.00	0.00
	17,600.0	90.48	180.42	10,367.3	-6,830.5	155.6	6,832.0	0.00	0.00	0.00
	17,700.0	90.48	180.42	10,366.5	-6,930.5	155.0	6,932.0	0.00	0.00	0.00
	17,800.0	90.48	180.42	10,365.7	-7,030.5	154.9	7,032.0	0.00	0.00	0.00
	17,800.0	90.48	180.42	10,365.7	-7,030.5	154.2	7,032.0	0.00	0.00	0.00
	18,000.0	90.48	180.42		-7,130.5	153.4		0.00	0.00	0.00
				10,364.0		152.7	7,231.9			
	18,100.0	90.48	180.42	10,363.2	-7,330.5	151.9	7,331.9	0.00	0.00	0.00
	18,200.0	90.48	180.42	10,362.3	-7,430.5	151.2	7,431.9	0.00	0.00	0.00
	18,300.0	90.48	180.42	10,361.5	-7,530.5	150.5	7,531.8	0.00	0.00	0.00
	18,400.0	90.48	180.42	10,360.7	-7,630.5	149.7	7.631.8	0.00	0.00	0.00
	18,500.0	90.48	180.42	10,359.8	-7,730.5	149.0	7,731.8	0.00	0.00	0.00
	18,600.0	90.48	180.42	10,359.0	-7,830.4	148.3	7,831.8	0.00	0.00	0.00
	18,700.0	90.48	180.42	10,358.2	-7,930.4	147.5	7,931.7	0.00	0.00	0.00
	18,800.0	90.48	180.42	10,357.3	-8,030.4	146.8	8,031.7	0.00	0.00	0.00
	18,900.0	90.48	180.42	10,356.5	-8,130.4	146.1	8,131.7	0.00	0.00	0.00
	19,000.0	90.48	180.42	10,355.7	-8,230.4	145.3	8,231.7	0.00	0.00	0.00
	19,100.0	90.48	180.42	10,354.8	-8,330.4	144.6	8,331.6	0.00	0.00	0.00
	19,200.0	90.48	180.42	10,354.0	-8,430.4	143.9	8,431.6	0.00	0.00	0.00
	19,300.0	90.48	180.42	10,353.2	-8,530.4	143.1	8,531.6	0.00	0.00	0.00
	19,400.0	90.48	180.42	10,352.4	-8,630.4	142.4	8,631.5	0.00	0.00	0.00
	19,500.0	90.48	180.42	10,351.5	-8,730.4	141.7	8,731.5	0.00	0.00	0.00

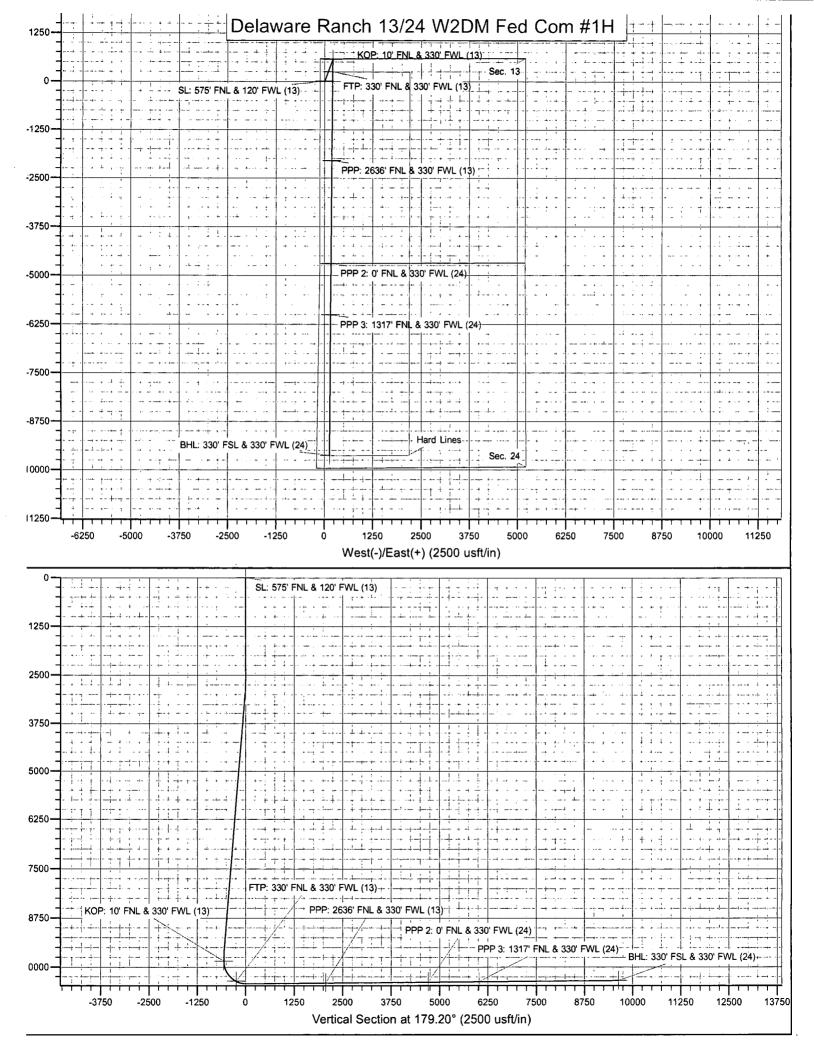
Database:	Hobbs	Local Co-ordinate Reference:	Site Delaware Ranch 13/24 W2DM Fed Com #1H
Company:	Mewbourne Oil Company	TVD Reference:	WELL @ 2973.0usft (Original Well Elev)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	WELL @ 2973.0usft (Original Well Elev)
Site:	Delaware Ranch 13/24 W2DM Fed Com #1H	North Reference:	Grid
Well:	Secs. 13 & 24, T26S, R28E	Survey Calculation Method:	Minimum Curvature
Weilbore:	BHL: 330' FSL & 330' FWL (24)		
Design:	Design #1		

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1. 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)
	19,600.0	90.48	180.42	10,350.7	-8,830.4	140.9	8,831.5	0.00	0.00	0.00
	19,700.0	90.48	180.42	10,349.9	-8,930.4	140.2	8,931.5	0.00	0.00	0.00
	19,800.0	90.48	180.42	10,349.0	-9,030.4	139.4	9,031.4	0.00	0.00	0.00
	19,900.0	90.48	180.42	10,348.2	-9,130.4	138.7	9,131.4	0.00	0.00	0.00
	20,000.0	90.48	180.42	10,347.4	-9,230.4	138.0	9,231.4	0.00	0.00	0.00
	20,100.0	90.48	180.42	10,346.5	-9,330.4	137.2	9,331.4	0.00	0.00	0.00
	20,200.0	90.48	180.42	10,345.7	-9,430.3	136.5	9,431.3	0.00	0.00	0.00
	20,300.0	90.48	180.42	10,344.9	-9,530.3	135.8	9,531.3	0.00	0.00	0.00
	20,400.0	90.48	180.42	10,344.0	-9,630.3	135.0	9,631.3	0.00	0.00	0.00
	20,404,7	90.48	180.42	10,344.0	-9,635.0	135.0	9,635.9	0.00	0.00	0.00

Design Targets	nania manananana manananana						and and a second se		
Target Name - hit/miss target I - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SL: 575' FNL & 120' FWI - plan hits target cente - Point	0.00 r	0.00	0.0	0.0	0.0	381,426.00	629,448.00	32.0483010	-104.0489463
KOP: 10' FNL & 330' FW - plan hits target cente - Point	0.00 r	0.00	9,851.0	565.0	210.0	381,991.00	629,658.00	32.0498527	-104.0482637
BHL: 330' FSL & 330' FV - plan hits target cente - Point	0.00 r	0.00	10,344.0	-9,635.0	135.0	371,791.00	629,583.00	32.0218139	-104.0485925
FTP: 330' FNL & 330' FV - plan hits target cente - Point	0.00 r	0.00	10,365.1	245.0	207.6	381,671.00	629,655.65	32.0489730	-104.0482740
PPP 3: 1317' FNL & 330 - plan hits target cente - Point	0.00 r	0.00	10,374.1	-6,019.0	161.6	375,407.00	629,609.59	32.0317539	-104.0484760
PPP 2: 0' FNL & 330' FV - plan hits target cente - Point	0.00 r	0.00	10,385.0	-4,707.0	171.2	376,719.00	629,619.24	32.0353605	-104.0484337
PPP: 2636' FNL & 330' F - plan hits target cente - Point	0.00 r	0.00	10,407.0	-2,060.0	190.7	379,366.00	629,638.70	32.0426368	-104.0483483



1. Geologic Formations

TVD of target	10344'	Pilot hole depth	NA
MD at TD:	20405'	Deepest expected fresh water:	60'

Basin

Dasin			
Formation	Depth (TVD)	Water/Mineral Bearing/	Hazards*
	from KB	Target Zone?	
Quaternary Fill	Surface		
Rustler			
Top of Salt			
Base of Salt	2454		
Yates		Oil/Gas	
Seven Rivers		Oil/Gas	
Queen		Oil/Gas	
Grayburg		Oil/Gas	
San Andres		Oil/Gas	
Lamar	2644	Oil/Gas	
Bell Canyon	2677	Oil/Gas	
Cherry Canyon	3545	Oil/Gas	
Manzanita	3694	Oil/Gas	
Brushy Canyon	6112	Oil/Gas	
Bone Spring	6338	Oil/Gas	
1 st Bone Spring	7250	Oil/Gas	
2 nd Bone Spring	8074	Oil/Gas	
3 rd Bone Spring	9194	Oil/Gas	
Wolfcamp	9471	Target Zone	
Granite Wash			

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

2. Casing Program

Hole Size		ising erval	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	Fro m	То								a
17.5"	0'	250'	13.375"	48	H40	STC	6.73	15.12	26.83	45.08
12.25"	0'	2575'	9.625"	36	J55	LTC	1.51	2.63	4.89	6.08
8.75"	0'	10600'	7"	26	P110	LTC	1.21	1.94	2.51	3.01
6.125"	9877'	20405'	4.5"	13.5	P110	LTC	1.64	1.91	2.38	2.97
BLM Minimu	1.125	1	1.6 Dr 1.8 We		~					
m			1.0 WC	1.0 W	τι					
Safety Factor										

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

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

Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt.	Yld	H ₂ 0	500#	Slurry Description
		lb/	ft3/	gal/	Comp.	
		gal	sack	sk	Strength	
			4 '4 '	4	(hours)	
Surf.	40	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Inter.	350	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder
Prod.	60	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM
Stg. 2	100	14.8	1.34	6.3	8	Tail: Class C + Retarder
	-				ECP/DV T	'ool @ 3695'
Prod.	390	12.5	2.12	11	9	Lead: Class C + Salt + Gel + Extender + LCM
Stg. 1	400	15.6	1.18	5.2	10	Tail: Class H + Retarder + Fluid Loss + Defoamer
Liner	420	11.2	2.97	18	16	Class H + Salt + Gel + Fluid Loss + Retarder +
						Dispersant + Defoamer + Anti-Settling Agent

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	2375'	25%
Liner	9877'	25%

4. Pressure Control Equipment

BOP installed	Size?	Size? System Type			Tested to:	
and tested		Rated			, e ca	
before drilling		WP	in a second		1. 1.	
which hole?	San Star	فتو			an n	
			Annular		Χ	2500#
			Blind Ram		X	
12-1/4"	13-5/8"	5M	Pipe Ram		X	5000#
			Double Ram			5000#
			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.

Х	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

	accor	accordance with Onshore Oil and Gas Order #2 III.B.1.i.						
	A variance is requested for the use of a flexible choke line from the BOP to Choke							
Y	Manifold. See attached for specs and hydrostatic test chart.							
	N	N Are anchors required by manufacturer?						
Y	Y 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

De	pth	Туре	e Weight (ppg)		Water Loss	
From	To					
0'	250'	FW Gel	8.6-8.8	28-34	N/C	
250'	2575'	Saturated Brine	10.0	28-34	N/C	
2575'	10397'	Cut Brine	8.6-9.5	28-34	N/C	
10397'	10424'	OBM	9.5-12.0	30-40	<10cc	

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	Pason/PVT/Visual Monitoring
of fluid?	_

6. Logging and Testing Procedures

Logg	Logging, Coring and Testing.							
X	Will run GR/CNL from KOP (9877') to surface (horizontal well – vertical portion of							
	hole). Stated logs run will be in the Completion Report and submitted to the BLM.							
	No Logs are planned based on well control or offset log information.							
	Drill stem test? If yes, explain							
	Coring? If yes, explain							

Add	litional logs planned	Interval
X	Gamma Ray	9877' (KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6505 psi
Abnormal Temperature	No

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

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

 H2S is present

 X
 H2S Plan attached

8. Other facets of operation

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

۲

Attachments

____ Directional Plan

____ Other, describe

.

WAFMSS

APD ID: 10400040826

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

Submission Date: 04/16/2019

Highlighted data reflects the most recent changes

10/01/2019

SUPO Data Report

Show Final Text

Operator Name: MEWBOURNE OIL COMPANY Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Type: CONVENTIONAL GAS WELL

Well Number: 1H Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

DelawareRanch13_24W2DMFedCom1H_existingroadmap_20190416100308.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

DelawareRanch13 24W2DMFedCom1H existingwellmap 20190416100333.pdf

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Battery will be off location to the east. 1 - 3.5" buried steel flowline with a working pressure of 250#. 1 - 3.5" buried steel gas line for gas lift purposes with a working pressure of 250#. 1 - 1" buried gas supply line with a working pressure of 150#. These lines will be installed in one ditch following the attached route approximately 2463' in length.

Production Facilities map:

DelawareRanch13_24W2DMFedCom1H_productionfacilitymap_20190416100353.pdf DelawareRanch13_24W2DMFedCom1H_flowlinemap_20190416100400.pdf

Section 5 - Location and Types of Water Supply

Water Source Tab	le	
Water source type: IRRIGATION		
Water source use type:	SURFACE CASING	
	INTERMEDIATE/PRODUCTION CASING STIMULATION	
	DUST CONTROL	
Source latitude: 32.25578		Source longitude: -104.32694
Source datum: NAD83		
Water source permit type:	WATER WELL	
Water source transport method:	TRUCKING	
Source land ownership: PRIVATE		
Source transportation land owner	ship: COMMERCIAL	
Water source volume (barrels): 21	52	Source volume (acre-feet): 0.27737793
Source volume (gal): 90384		

Operator Name: MEWBOURNE OIL Well Name: DELAWARERANCH13/2	
Water source type: IRRIGATION	
Water source use type:	SURFACE CASING
	INTERMEDIATE/PRODUCTION CASING STIMULATION
	DUST CONTROL
Source latitude: 32.114056	Source longitude: -104.33811
Source datum: NAD83	
Water source permit type:	WATER WELL
Water source transport method:	TRUCKING
Source land ownership: FEDERA	۱L.
Source transportation land owne Water source volume (barrels): 2 Source volume (gal): 90384	
Water source and transportation ma DelawareRanch13_24W2DMFedCom Water source comments: Both source New water well? NO	1H_watersourceandtransmap_20190416100521.pdf
New Water Well	Info
Well latitude:	
Well target aquifer:	Well Longitude: Well datum:
Est. depth to top of aquifer(ft):	Est thickness of aquifer:
Aquifer comments:	
Aquifer documentation:	
Vell depth (ft): Nell casing outcide diameter (in):	Well casing type:
Vell casing outside diameter (in.): New water well casing?	Well casing inside diameter (in.): Used casing source:
Drilling method:	Drill material:
Grout material:	Grout depth:

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche

Construction Materials source location attachment:

DelawareRanch13_24W2DMFedCom1H_calichesourceandtransmap_20190416100532.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

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

Waste type: SEWAGE

Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: 2,000 gallon plastic container

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIALDisposal location ownership: PRIVATEFACILITYDisposal type description:

Disposal location description: City of Carlsbad Water Treatment facility

Well Name: DELAWARERANCH13/24 W2DM FEDCOM Well Number: 1H

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.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

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

WCuttings area liner

Cuttings area liner specifications and installation description

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

DelawareRanch13_24W2DMFedCom1H_wellsitelayout_20190416100551.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name:

Multiple Well Pad Number:

Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance	Well pad interim reclamation (acres):	Well pad long term disturbance
(acres): 3.95	1.12	(acres): 2.83
Road proposed disturbance (acres): 0.724	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance	Pipeline interim reclamation (acres): 0	
(acres): 0 Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	(acres): 0 Other long term disturbance (acres): 0
Total proposed disturbance: 4.674	Total interim reclamation: 1.12	Total long term disturbance: 2.83

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

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Soil treatment: NA Existing Vegetation at the well pad: Various brush & grasses Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Various brush & grasses Existing Vegetation Community at the road attachment: Existing Vegetation Community at the pipeline: NA Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: NA Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed TableSeed type:Seed source:Seed name:Source address:Source name:Source address:Source phone:Seed cultivar:Seed cultivar:Seed use location:PLS pounds per acre:Proposed seeding season:

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Bradley

Last Name: Bishop

Phone: (575)393-5905

Email: bbishop@mewbourne.com

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

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

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: NA

Weed treatment plan attachment:

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

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

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Operator Name: MEWBOURNE OIL COMPANY Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Scott BransonFee Owner Address:Phone: (575)885-2066Email:Surface use plan certification: NOSurface use plan certification document:Surface access agreement or bond: AgreementSurface Access Agreement Need description: SUA in placeSurface Access Bond BLM or Forest Service:BLM Surface Access Bond number:USFS Surface access bond number:Surface Access bond number:

Disturbance type: EXISTING ACCESS ROAD Describe: Surface Owner: OTHER Other surface owner description: Eddy County Road Dept. BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: USFWS Local Office: USFS Region: USFS Forest/Grassland:

USFS Ranger District:

Operator Name: MEWBOURNE OIL COMPANY Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Scott BransonFee Owner Address:Phone: (575)885-2066Email:Surface use plan certification: NOEmail:Surface use plan certification document:Email:Surface access agreement or bond: AgreementEmail:Surface Access Agreement Need description: SUA in placeSurface Access Bond BLM or Forest Service:BLM Surface Access Bond number:USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO S

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

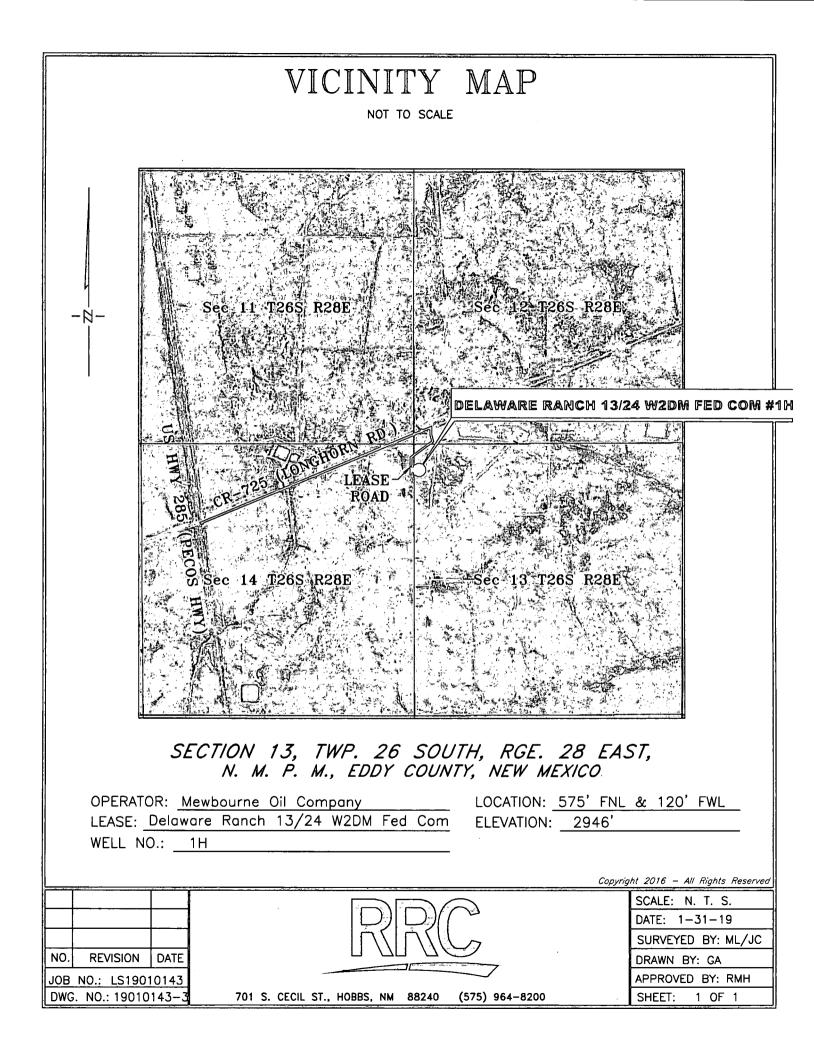
SUPO Additional Information: NONE

Use a previously conducted onsite? YES

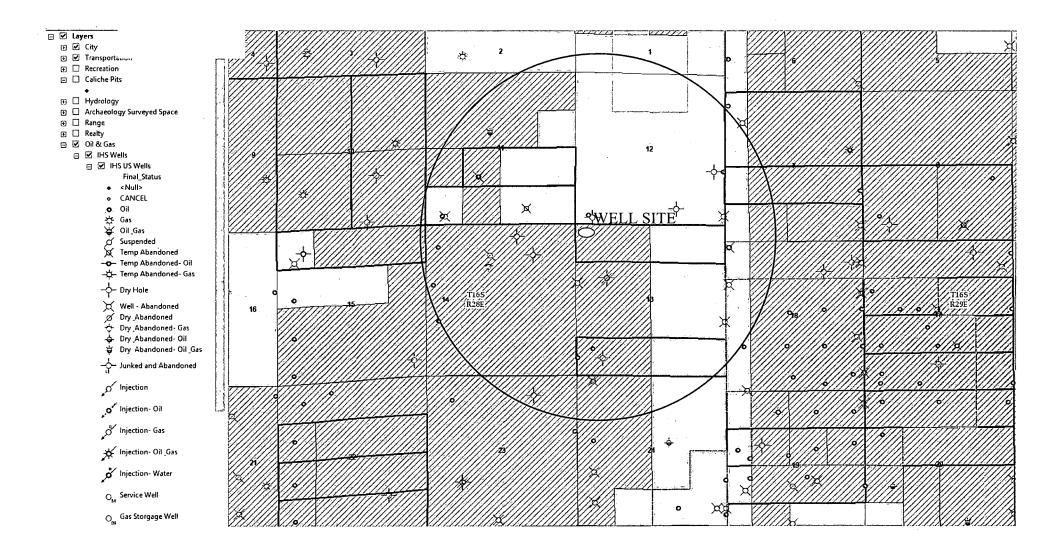
Previous Onsite information: FEB 01 2019 Met w/RRC Surveying & staked location @ 260' FNL & 180' FWL, Sec 13, T26S, R28E, Eddy Co. NM. This location was unacceptable due to buried Plains and Anadarko pipelines to the N & E. Restaked location @ 575' FNL & 120' FWL, Sec 13, T26S, R28E, Eddy Co. NM. (Elevation @ 2946'). Pad size 400' x 430'. Topsoil to the S. Reclaim 60' to all sides. No new road needed & enters on NE corner. Will require a BLM onsite for approval. Will require arch PA payment. Lat.: 32.0483015 N, Long.: -104.0489457 N NAD83.

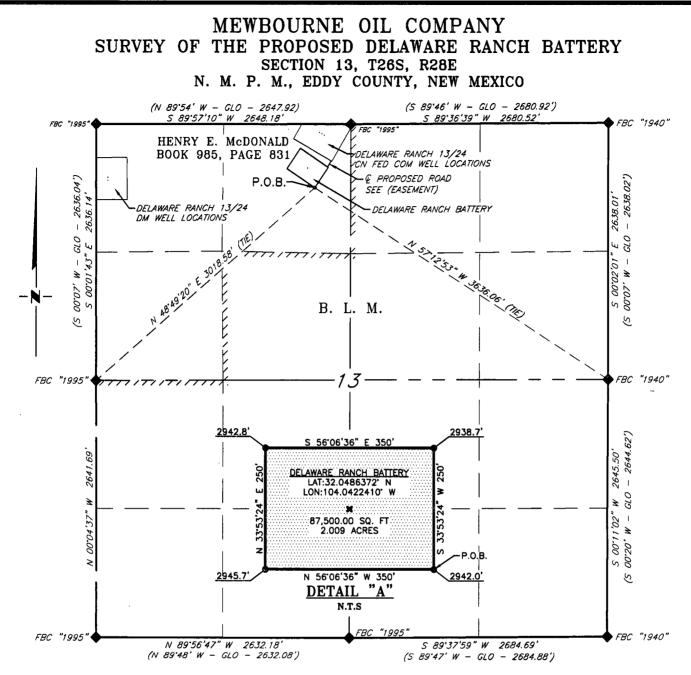
Other SUPO Attachment

DelawareRanch13_24W2DMFedCom1H_interimreclamationdiagram_20190416100733.pdf DelawareRanch13_24W2DMFedCom1H_gascaptureplan_20190416100742.pdf



DELAWARE RANCH 13/24 W2DM FED COM #1H EXISTING WELL MAP





DESCRIPTION

A tract of land situated within the Northwest quarter of Section 13, Township 26 South, Range 28 East, N. M. P. M. Eddy County, New Mexico, across the lands of Henry E. McDonald, according to a deed filed for record in Book 985, Page 831, of the Deed Records of Eddy County, New Mexico, and being more particularly described by metes and bounds as follows:

BEGINNING at a point which bears, N 48*49'20" E, 3,018.58 feet from a brass cap, stamped "1995", found for the West quarter corner of Section 13 and being N 57*12'53" W, 3,636.06 feet from a brass cap, stamped "1940", found for the East quarter corner of Section 13;

Thence N 56'06'36" W, 350.00 feet, to a point;

Thence N 33'53'24" E, 250.00 feet, to a point;

Thence S 56°06'36" E, 350.00 feet, to a point;

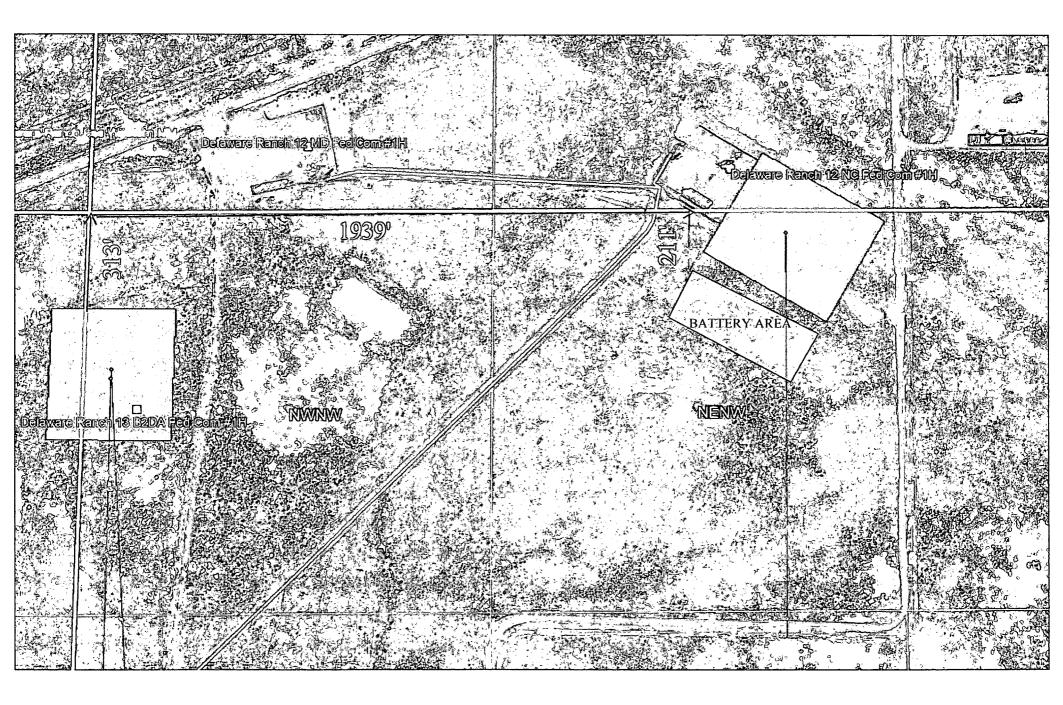
Thence S 33'53'24" W, 250.00 feet, to the Point of Beginning.

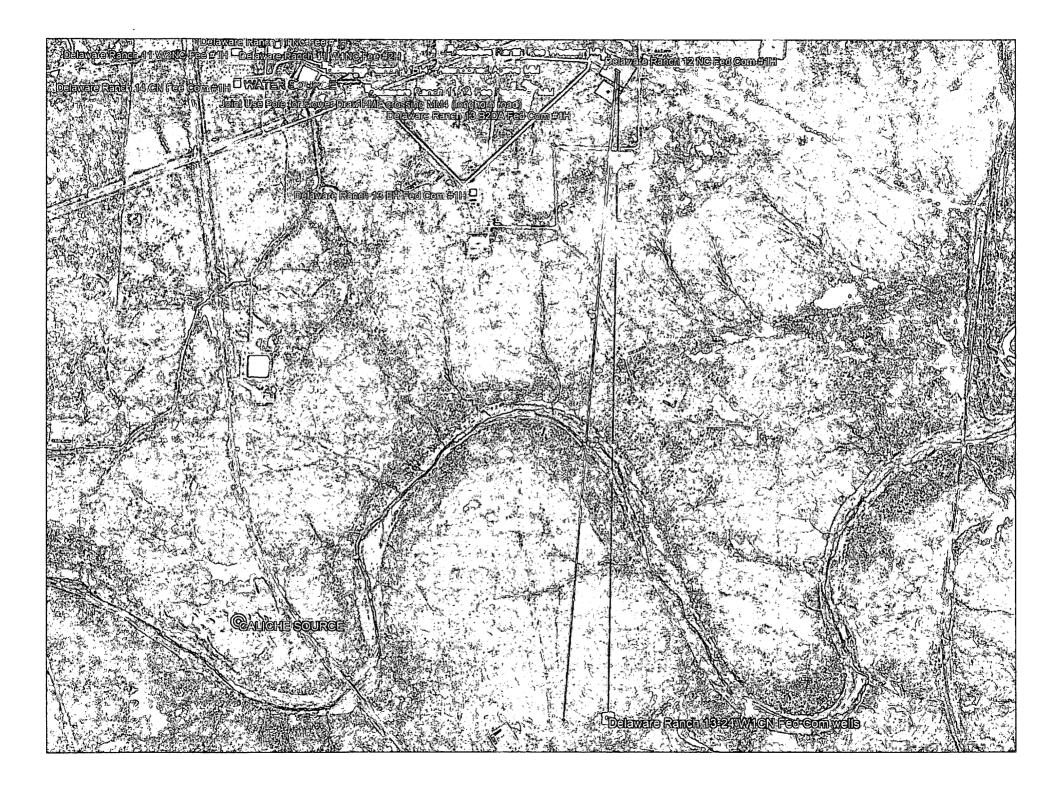
Said tract of land contains 87,500.00 square feet or 2.009 acres, more or less, and is allocated by forties as follows:

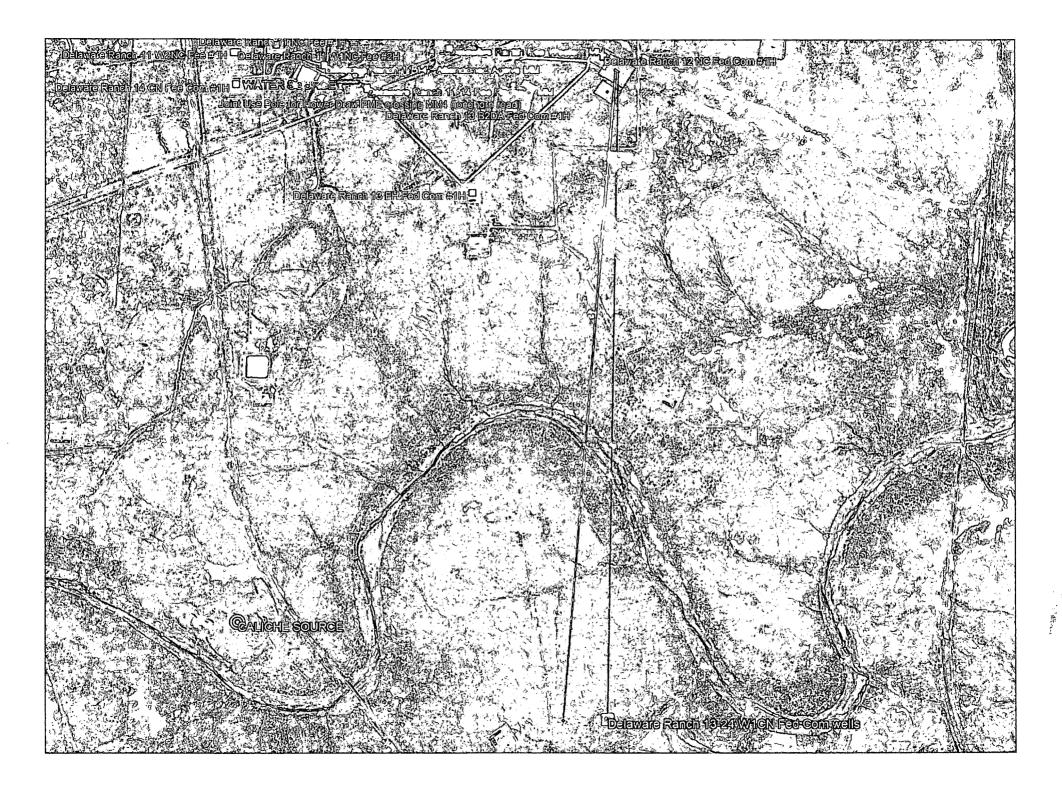
SCALE: 1" = 1000'

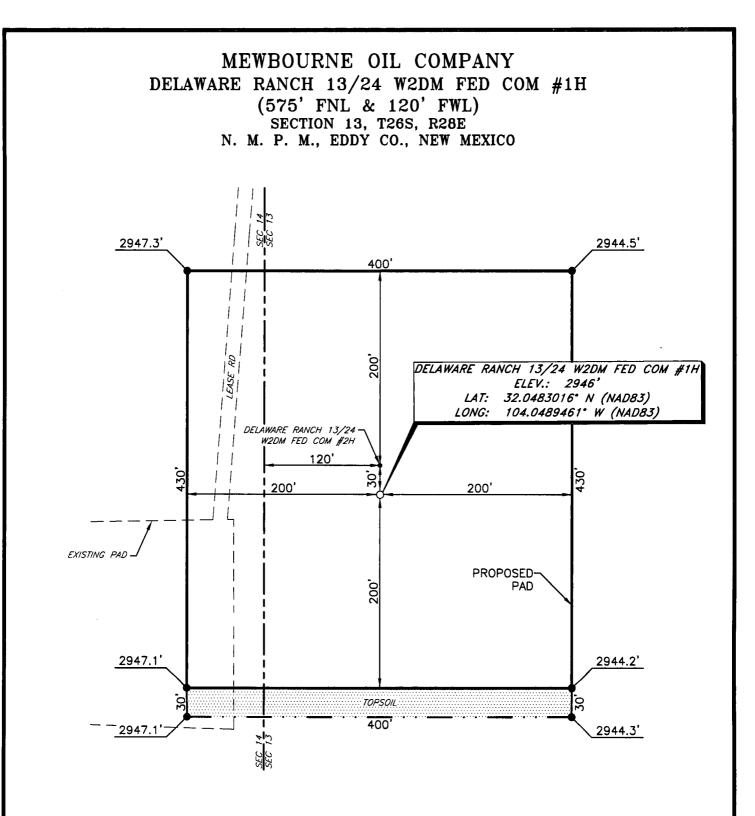
NE 1/4 NW 1/4 87,500.00 Sq. Ft. 2.009 Acres

ERT M. HOL





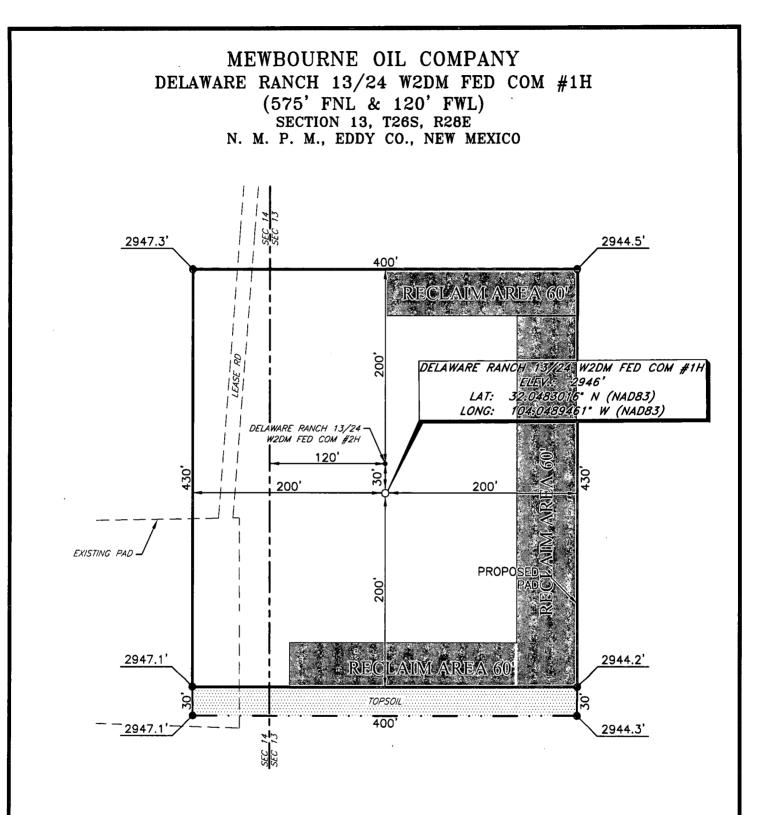




DIRECTIONS TO LOCATION

From the intersection of US Hwy 285 (Pecos Hwy) & CR-725 (Longhorn Rd.); Go Northeast on CR-725 approx. 0.9 miles to a lease road on the right; Turn right and go South approx. 273 feet to a lease road on the right; Turn right and go Southwest approx. 689 feet to a curve to the left; Continue South approx. 375 feet to location on the left.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA IS SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.



DIRECTIONS TO LOCATION

From the intersection of US Hwy 285 (Pecos Hwy) & CR-725 (Longhorn Rd.); Go Northeast on CR-725 approx. 0.9 miles to a lease road on the right; Turn right and go South approx. 273 feet to a lease road on the right; Turn right and go Southwest approx. 689 feet to a curve to the left; Continue South approx. 375 feet to location on the left.

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

APD ID: 10400040826

Operator Name: MEWBOURNE OIL COMPANY

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Type: CONVENTIONAL GAS WELL

Well Number: 1H Well Work Type: Drill

Submission Date: 04/16/2019

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO Produced Water Disposal (PWD) Location: **PWD surface owner:** Lined pit PWD on or off channel: Lined pit PWD discharge volume (bbl/day): Lined pit specifications: Pit liner description: Pit liner manufacturers information: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Lined pit precipitated solids disposal schedule: Lined pit precipitated solids disposal schedule attachment: Lined pit reclamation description: Lined pit reclamation attachment: Leak detection system description: Leak detection system attachment

PWD disturbance (acres):

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Lined pit Monitor description: Lined pit Monitor attachment: Lined pit: do you have a reclamation bond for the pit? Is the reclamation bond a rider under the BLM bond? Lined pit bond number: Lined pit bond amount: Additional bond information attachment: **Section 3 - Unlined Pits** Would you like to utilize Unlined Pit PWD options? NO **Produced Water Disposal (PWD) Location: PWD disturbance (acres):** 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?

Operator Name: MEWBOURNE OIL COMPANY
Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Is the reclamation bond a rider under the BLM bond?

Well Number: 1H

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:	PWD disturbance (acres):
Injection PWD discharge volume (bbl/day):	
Injection well mineral owner:	
Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	Injection well API number:
Injection well new surface disturbance (acres):	
Minerals protection information:	
Mineral protection attachment:	
Underground Injection Control (UIC) Permit?	
UIC Permit attachment:	
Section 5 - Surface Discharge	
Would you like to utilize Surface Discharge PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Surface discharge PWD discharge volume (bbl/day):	
Surface Discharge NPDES Permit?	
Surface Discharge NPDES Permit attachment:	
Surface Discharge site facilities information:	
Surface discharge site facilities map:	
Section 6 - Other	

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Well Name: DELAWARERANCH13/24 W2DM FEDCOM

Well Number: 1H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

'AFMSS

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

Bond Info Data Report

10/01/2019

APD ID: 10400040826 **Operator Name: MEWBOURNE OIL COMPANY** Well Name: DELAWARERANCH13/24 W2DM FEDCOM Well Type: CONVENTIONAL GAS WELL Well Work Type: Drill

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:

Submission Date: 04/16/2019 Well Number: 1H

Highlighted data reflects the most recent changes

Show Final Text