Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM38458 **BUREAU OF LAND MANAGEMENT** APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. **✓** DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well ✓ Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone SCREAMING EAGLES 9/7 WONM FED C **1**H 2. Name of Operator 9. API Well No. 30-015-54863 MEWBOURNE OIL COMPANY 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory P O BOX 5270, HOBBS, NM 88241 (575) 393-5905 ALACRAN HILLS/Wolfcamp Oil 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 9/T21S/R27E/NMP At surface NWSW / 1310 FSL / 490 FWL / LAT 32.4910673 / LONG -104.2018401 At proposed prod. zone SWSW / 660 FSL / 100 FWL / LAT 32.488755 / LONG -104.2371061 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State **EDDY** NM 8 miles 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well 100 feet location to nearest property or lease line, ft. 160.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 30 feet 8799 feet / 19578 feet FED: NM1693 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 3248 feet 12/12/2021 60 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the Name (Printed/Typed) Date 25. Signature BRADLEY BISHOP / Ph: (575) 393-5905 06/23/2022 (Electronic Submission) Title Regulatory Approved by (Signature) Date Name (Printed/Typed) (Electronic Submission) CODY LAYTON / Ph: (575) 234-5959 03/07/2024 Title Office Assistant Field Manager Lands & Minerals Carlsbad Field Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency

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of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

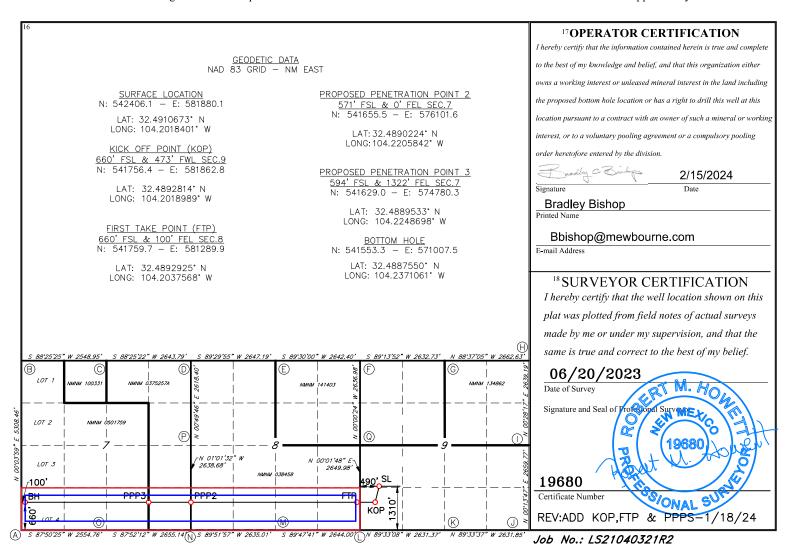
<sup>1</sup> API Number 30-015-54863	ALACRAN HILLS, UPPER WO	OLFCAMP OIL	
<sup>4</sup> Property Code 335619	operty Name S 9/7 WONM FED COM	<sup>6</sup> Well Number <b>1 H</b>	
<sup>7</sup> OGRID NO. <b>14744</b>	perator Name E OIL COMPANY	<sup>9</sup> Elevation <b>3248</b> '	

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
L	9	21S	27E		1310	SOUTH	490	WEST	EDDY
			11 ]	Bottom H	Iole Location	If Different Fr	om Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	7	21S	27E		660	SOUTH	100	WEST	EDDY
12 Dedicated Acre	s 13 Joint	or Infill 14 (	Consolidation	Code 15 (	Order No				

320 15 Joint or Infill 14 Consolidation Code 15 Order No.

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



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

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

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code		
		98314 ALACRAN HILLS, UPPER WOL		LFCAMP OIL
<sup>4</sup> Property Code		5 Pro	pperty Name	6 Well Number
		SCREAMING EAGLE	S 9/7 WONM FED COM	1 H
7 OGRID NO.		8 Op	erator Name	<sup>9</sup> Elevation
14744		MEWBOURNE	3248'	

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
L	9	21S	27E		1310	SOUTH	490	WEST	EDDY
			11 ]	Bottom H	lole Location	If Different Fr	om Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	7	21S	27E		660	SOUTH	100	WEST	EDDY
12 Dedicated Acres	s 13 Joint	or Infill 14	Consolidation	Code 15 (	Order No.				

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

#### 17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including CORNER DATA NAD 83 GRID - NM EAST the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working A: FOUND BRASS CAP "1976" J: FOUND BRASS CAP "1943" N: 540889.6 - E: 570906.8 N: 541059.5 - E: 586651.4 interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. B: FOUND BRASS CAP "1943" K: FOUND BRASS CAP "1943" N: 546196.8 - E: 570913.0 N: 541079.6 - E: 584020.2 radly C Bir 02/15/2024 C: FOUND BRASS CAP "1943" L: FOUND BRASS CAP " 1943" Signature Date N: 546266.9 - E: 573460.4 N: 541100.2 - E: 581389.6 **Bradley Bishop** D: FOUND BRASS CAP "1943" M: FOUND BRASS CAP "1943" Printed Name N: 546339.7 - E: 576102.5 N: 541090.7 - E: 578746.2 Bbishop@mewbourne.com E: FOUND BRASS CAP "1943" N: FOUND BRASS CAP "1943" E-mail Addres N: 546362.9 - E: 578749.0 N: 541084.6 - E: 576111.8 F: FOUND BRASS CAP "1943" O: FOUND BRASS CAP "1976" 18 SURVEYOR CERTIFICATION N: 546385.9 - E: 581390.6 N: 540985.9 - E: 573459.2 I hereby certify that the well location shown on this G: FOUND BRASS CAP "1943" P: FOUND BRASS CAP "1943" N: 546421.2 - F: 584022.5 N: 543722.2 - F: 576064.6 plat was plotted from field notes of actual surveys made by me or under my supervision, and that the H: FOUND BRASS CAP ILLEGIBLE Q: FOUND BRASS CAP "1943" N: 546357.0 - E: 586683.7 N: 543749.6 - E: 581390.9 same is true and correct to the best of my belief. I: FOUND BRASS CAP "1943" N: 543718.6 - E: 586662.0 06/20/2023 Date of Survey Signature and Seal of 19680 Certificate Number ONAL 507 PPPS-1/18/24 REV:ADD KOP,FTP &

Job No.: LS21040321R2

# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

	NATURAL GAS MANAGEMENT PLAN						
This Natural Gas	Management Plan m	ust be submitted v	vith each Applica	tion for Permit to I	Orill (APD) for a	new or recompleted well.	
		Section <u>F</u>	1 1 – Plan D Effective May 25	escription , 2021			
I. Operator:	Mewbourne (	Oil Co.	OGRID:	14744	Date:	5/2/22	
II. Type: 🗶 Ori	ginal □ Amendment	due to □ 19.15.2°	7.9.D(6)(a) NMA	C □ 19.15.27.9.D(	(6)(b) NMAC □ (	Other.	
If Other, please d	lescribe:						
	vide the following inf from a single well pad				wells proposed to	be drilled or proposed to	
Well Name	e API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D	
SCREAMING EAGLES 9/	7 WONM FED COM 1H	L 9 21S 27E	1310' FSL x 490' F	:v/L 1500	3000	5000	
V. Anticipated S	very Point Name:	following inform	ation for each nev	w or recompleted w		9.15.27.9(D)(1) NMAC] s proposed to be drilled or	
Well Name	e API	Spud Date	TD Reached Date	Completion Commencement			
SCREAMING EAGLES 9/	77 WONM FED COM 1H	7/2/22	8/2/22	9/2/22	9/17/2	2 9/17/22	
VII. Operationa Subsection A thr	al Practices: ☑ Attac ough F of 19.15.27.8	h a complete deso NMAC.	cription of the ac	tions Operator wil	l take to comply	at to optimize gas capture.  with the requirements of tices to minimize venting	

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# Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

🗵 Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

# IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

# X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI.** Map.  $\Box$  Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity.	. The natural ga	as gathering syste	m □ will □	l will not h	nave capacity	to gather	100% of the	anticipated i	natural g	as
production volume fi	rom the well pr	rior to the date of	first product	ion.						

XIII. Line P	ressure. Operator	$\square$ does $\square$ does not	t anticipate that its	existing well(s) c	onnected to t	he same segmen	t, or portion,	of the
natural gas ga	athering system(s)	described above wi	Il continue to meet	t anticipated incre	eases in line p	ressure caused b	y the new w	ell(s).

Attach (	Operator's	nlan to	manage	production	in response	to the	increased	line press	nre
Attach	Oberaior s	s bian to	manage	DIOGUCLION	III Tesponse	LO LHE	Hicreased	Time bress	sure

XIV. Confidentiality: $\square$ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in
Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific informatio
for which confidentiality is asserted and the basis for such assertion.

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# Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal: 🖾 Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan. 

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) (b) power generation for grid; compression on lease; (c) liquids removal on lease; (d) reinjection for underground storage; (e) reinjection for temporary storage; **(f)** 

- (g) reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

# **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

# Page 8

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Bradley Bishop
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	5/2/22
Phone:	575-393-5905
	OIL CONSERVATION DIVISION
	(Only applicable when submitted as a standalone form)
Approved By:	
Title:	
Approval Date:	
Conditions of Ap	proval:

# Mewbourne Oil Company

#### Natural Gas Management Plan – Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8:
  - A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
  - B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
  - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
  - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
  - E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
  - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

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

# Drilling Plan Data Report

**APD ID:** 10400085939 **Submission Date:** 06/23/2022

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

Well Type: CONVENTIONAL GAS WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

**Show Final Text** 

# **Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13051869	UNKNOWN	3248	28	28	OTHER : Topsoil	NONE	N
13051860	TOP SALT	3031	217	217	SALT	NONE	N
13051861	BASE OF SALT	2840	408	408	SALT	NONE	N
13051863	YATES	2699	549	549	SANDSTONE	NATURAL GAS, OIL	N
13051870	CAPITAN REEF	2421	827	827	LIMESTONE	USEABLE WATER	N
13051862	LAMAR	617	2631	2631	LIMESTONE	NATURAL GAS, OIL	N
13051864	BONE SPRING	-1852	5100	5100	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
13051865	BONE SPRING 1ST	-3202	6450	6450	SANDSTONE	NATURAL GAS, OIL	N
13051866	BONE SPRING 2ND	-3876	7124	7124	SANDSTONE	NATURAL GAS, OIL	N
13051867	BONE SPRING 3RD	-5252	8500	8500	SANDSTONE	NATURAL GAS, OIL	N
13051868	WOLFCAMP	-5550	8798	8798	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

# **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 19578

Equipment: Annular, Blind Ram, Pipe Ram

Requesting Variance? YES

**Variance request:** A variance is requested for the use of a variable choke line from the BOP to the choke manifold. See attached for hydrostatic test chart. Anchors are not required by manufacturer. Variance is requested to use a multi bowl wellhead. Variance is requested to perform break testing according to attached procedure.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3172 requirements. The System may be upgraded to a higher

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

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.

# **Choke Diagram Attachment:**

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_5M\_BOPE\_Choke\_Diagram\_20240202174703.pdf
Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Flex\_Line\_Specs\_20240202174703.pdf
Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Flex\_Line\_Specs\_API\_16C\_20240202174703.pdf

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

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_5M\_BOPE\_Schematic\_20240202174730.pdf

Mewbourne\_Break\_Testing\_Variance\_20240202174730.pdf

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Multi\_Bowl\_WH\_20240202174730.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	26	20.0	NEW	API	N	0	200	0	200	3248	3048	200	J-55	94	BUTT	6.02	17.7 2	DRY	30.9	DRY	55.3 7
2	INTERMED IATE	17.5	13,375	NEW	API	N	0	750	0	750	3192	2498	750	H-40	48	ST&C	2.35	5.28	DRY	8.94	DRY	15.0 3
3	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2560	0	2560	2982	688	2560	J-55	36	LT&C	1.69	2.94	DRY	4.92	DRY	6.12
4	PRODUCTI ON	8.75	7.0	NEW	API	N	0	8393	0	8352	2982	-5104	8393	N-80	26	LT&C	1.24	1.66	DRY	2.38	DRY	2.77
5	LINER	6.12 5	4.5	NEW	API	N	8193	19578	8152	8925	-4904	-5677	11385	P- 110	13.5	LT&C	1.5	1.75	DRY	2.2	DRY	2.75

# **Casing Attachments**

Well Name: SCREAMING EAGLES 9/7 WONM FED COM Well Number: 1H

Casing Attachments		
Casing ID: 1	String	SURFACE
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assump	otions and W	/orksheet(s):
Screaming_Eagles	s_9_7_W0NM	1_Fed_Com_1H_Csg_Assumptions_20240202175024.pdf
Casing ID: 2	String	INTERMEDIATE
Inspection Document:		
Spec Document:		
Tapered String Spec:		
Casing Design Assump	otions and W	/orksheet(s):
Screaming_Eagles	s_9_7_W0NM	1_Fed_Com_1H_Csg_Assumptions_20240202175007.pdf
Casing ID: 3 Inspection Document:	String	INTERMEDIATE
Spec Document:		
Tapered String Spec:		
Casing Design Assump	otions and W	/orksheet(s):
Screaming_Eagles	s_9_7_W0NM	1_Fed_Com_1H_Csg_Assumptions_20240202174959.pdf

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

# **Casing Attachments**

Casing ID: 4

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Csg\_Assumptions\_20240202174950.pdf

Casing ID: 5

String

**LINER** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Csg\_Assumptions\_20240202175016.pdf

# **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	111	160	2.12	12.5	340	100	Class C	Salt, Gel, Extedner, LCM
SURFACE	Tail		111	200	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	800	0	447	80	2.12	12.5	170	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		447	800	100	1.34	14.8	134	25	Class C	Retarder
INTERMEDIATE	Lead		0	498	250	2.12	12.5	530	50	Class C	Salt, Gel, Extender, LCM

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		498	750	200	1.34	14.8	268	50	Class C	Retarder
INTERMEDIATE	Lead	800	800	1884	200	2.12	12.5	430	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		1884	2560	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	5000	2360	4298	170	2.12	12.5	370	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		4298	5000	100	1.34	14.8	134	25	Class C	Retarder, Fluid Loss, Defoamer
PRODUCTION	Lead	5000	5000	5898	80	2.12	12.5	170	25	Class C	Gel, Retarder, Defoamer, Extender, LCM
PRODUCTION	Tail		8598	8393	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		8193	1957 8	730	1.85	13.5	1360	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

# **Section 5 - Circulating Medium**

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties & meet minimum lost circulation and weight increase requirements will be kept on location at all times.

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

# **Circulating Medium Table**

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	200	SPUD MUD	8.3	8.3							
200	750	SALT SATURATED	10	10						8	
8393	1957 8	OIL-BASED MUD	10	12					1		
750	8393	WATER-BASED MUD	8.6	10							

# Section 6 - Test, Logging, Coring

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

Will run GR/CNL from KOP (8393' MD) to surface (horizontal well - vertical portion of hole).

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

GAMMA RAY LOG, MEASUREMENT WHILE DRILLING, MUD LOG/GEOLOGIC LITHOLOGY LOG, DIRECTIONAL SURVEY, COMPENSATED NEUTRON LOG, MUD LOG/GEOLOGICAL LITHOLOGY LOG, Coring operation description for the well:

None

# **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 5569 Anticipated Surface Pressure: 3605

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_H2S\_Plan\_20240202175139.pdf

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

# **Section 8 - Other Information**

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

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Dir\_Plot\_20240202180050.pdf Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Dir\_Plan\_20240202180050.pdf

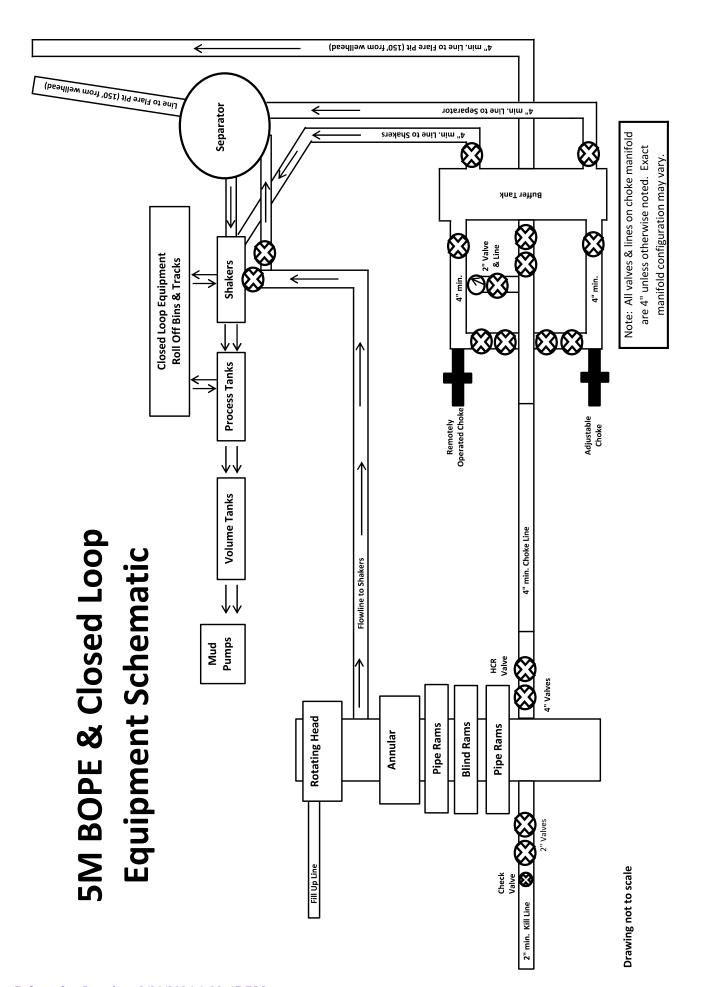
# Other proposed operations facets description:

#### Other proposed operations facets attachment:

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Add\_Info\_20240202180437.pdf Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_Drlg\_Program\_20240205090336.pdf

#### Other Variance attachment:

Mewbourne\_Offline\_Cementing\_Variance\_20240202180502.pdf





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

EMAIL: Tim.Cantu@gates.com

WEB: www.gates.com

# **10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE**

Customer : Customer Ref. :

Invoice No.:

AUSTIN DISTRIBUTING

4060578 500506 Test Date:

Hose Serial No.: Created By: 4/30/2015

D-043015-7 JUSTIN CROPPER

Product Description:

10K3.548.0CK4.1/1610KFLGE/E LE

End Fitting 1:

Gates Part No. :

Working Pressure :

4 1/16 10K FLG

4773-6290

10,000 PSI

End Fitting 2:

Assembly Code:

Test Pressure:

4 1/16 10K FLG

L36554102914D-043015-7

15,000 PSI

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

Quality Manager:

Date:

Signature:

QUALITY

4/30/2015

Produciton:

Date:

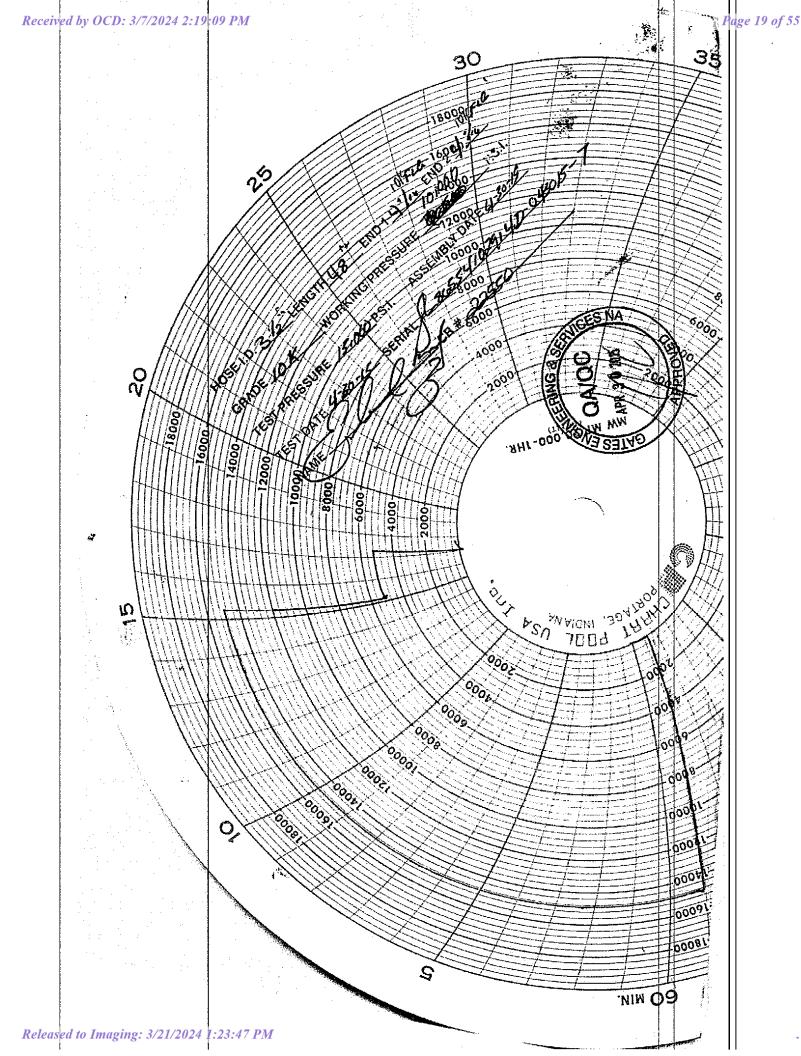
Signature :

**PRODUCTION** 

4/30/2015

Forn PTC - 01 Rev.0 2







GATES ENGINEERING & SERVICES NORTH AMERICA 7603 Prairie Oak Dr. Houston, TX 77086 PHONE: (281) 602 - 4119

FAX:

EMAIL: Troy.Schmidt@gates.com

WEB: www.gates.com

# **10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE**

Test Date: 8/20/2018 A-7 AUSTIN INC DBA AUSTIN HOSE Customer: Hose Serial No.: H-082018-10 Customer Ref .: 4101901 Created By: Moosa Nagvi Invoice No.: 511956 10KF3.035.0CK41/1610KFLGFXDxFLT\_L/E Product Description: End Fitting 2: 4 1/16 in. Float Flange End Fitting 1: 4 1/16 in. Fixed Flange Assembly Code: L40695052218H-082018-10 Gates Part No.: 68503010-9721632 Test Pressure: 15,000 psi. Working Pressure: 10,000 psi.

Gates Engineering & Services North America certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements.

Quality:

Date :

QUALITY

8/20/2018

Signature:

Production:

Date :

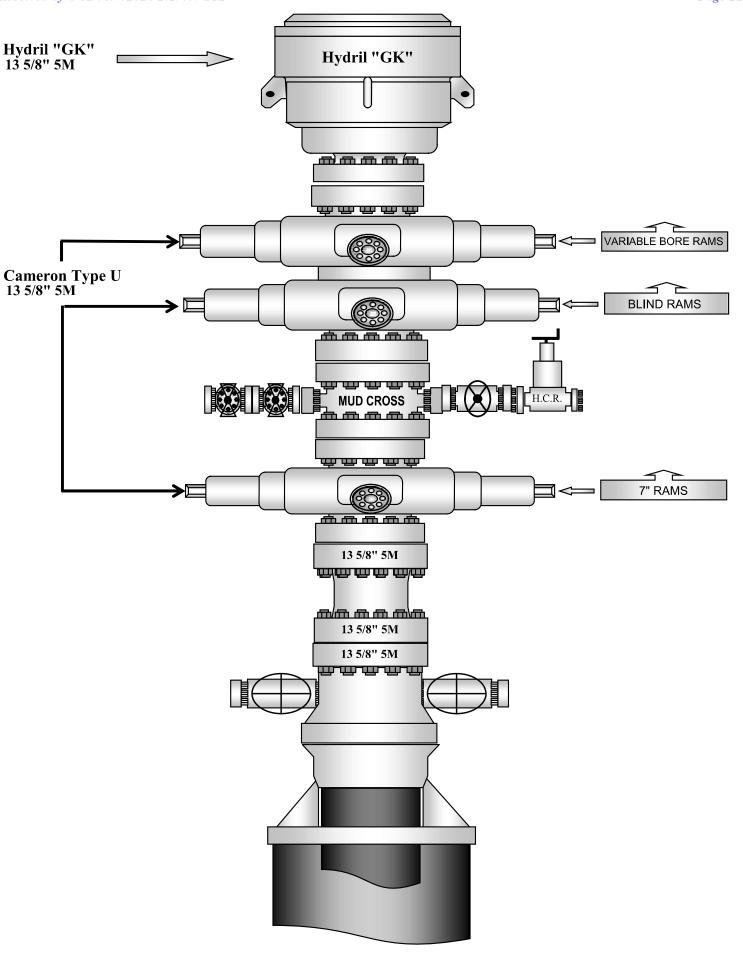
Signature:

8/20/2018

Form PTC - 01 Rev.0 2



PRODUCTION



# Mewbourne Oil Company, Screaming Eagles 9/7 W0NM Fed Com #1H Sec 9, T218, R27E

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

		Casing Prog	ram Design A			BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	8393'	8352'	7" 26# N-80 LTC	1.24	1.66	2.38	2.77
Liner	6.125'	8193'	8152'	19578'	8925'	4.5" 13.5# P110 LTC	1.50	1.75	2.20	2.75

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft <sup>3</sup> /sack	тос/вос	Volume ft <sup>3</sup>	% Excess	Slurry Description			
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM			
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder			
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM			
15.575 III	TAIL	200	14.8	1.34	498' - 750'	268	3070	Class C: Retarder			
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM			
18t 5tg 9.025 m	TAIL	200	14.8	1.34	1884' - 2560'	268	2570	Class C: Retarder			
	9 5/8" DV Tool @ 800'										
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM			
2110 Stg 9.023 III	TAIL	100	14.8	1.34	447' - 800'	530	2370	Class C: Retarder			
1st Stg 7 in	LEAD	80	12.5	2.12	5000' - 5898'	170	25%	Class C: Salt, Gel, Extender, LCM, Defoamer			
1st Stg / III	TAIL	400	15.6	1.18	5898' - 8393'	472	2370	Class H: Retarder, Fluid Loss, Defoamer			
					7" DV	Tool @ 5000'					
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer			
Ziiu Sig / iii	TAIL	100	14.8	1.34	4298' - 5000'	134	2370	Class C: Retarder, Fluid Loss, Defoamer			
4.5 in	LEAD	730	13.5	1.85	8193' - 19578.3'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti- settling Agent			

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 8393'	10	Cut-Brine
8393' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

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

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

		Casing Prog	ram Design B			BLM Minimum Safety	1.125	1.0	1.6 Dry	1.6 Dry
		Cusing 110g	rum Design D			Factors	1.125	1.0	1.8 Wet	1.8 Wet
Céntura	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Con Simo	SF Collapse	SF Burst	SF Jt Tension	SF Body
String	Hole Size	T OP MID	TOPIVD	DOU MID	DOLIVD	Csg. Size	Sr Collapse	or burst	Sr Jt Tension	Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	9293'	8925'	7" 26# P110 LTC	1.29	2.06	2.87	3.44
Liner	6.125'	8393'	8352'	19578'	8925'	4.5" 13.5# P110 LTC	1.53	1.78	2.24	2.79

Design B - Cement Program

Design D - Cement I									
Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description			
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM	
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder	
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM	
13.373 III	TAIL	200	14.8	1.34	498' - 750'	268	30%	Class C: Retarder	
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM	
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	23%	Class C: Retarder	
					9 5/8'' 1	DV Tool @ 800'			
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM	
2110 Stg 9.025 III	TAIL	100	14.8	1.34	447' - 800'	0	2370	Class C: Retarder	
1st Stg 7 in	LEAD	160	12.5	2.12	5000' - 6798'	340	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
ist Stg / III	TAIL	400	15.6	1.18	6798' - 9293'	472	23%	Class H: Retarder, Fluid Loss, Defoamer	
7" DV Tool @ 5000"									
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
Znu Stg / m	TAIL	100	14.8	1.34	4298' - 5000'	134	25%	Class C: Retarder, Fluid Loss, Defoamer	

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 9293'	10	Cut-Brine
9293' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	FALSE
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	0
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?	T T

# Mewbourne Oil Company, Screaming Eagles 9/7 W0NM Fed Com #1H Sec 9, T21S, R27E

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

	Casing Program Design A						1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	8393'	8352'	7" 26# N-80 LTC	1.24	1.66	2.38	2.77
Liner	6.125'	8193'	8152'	19578'	8925'	4.5" 13.5# P110 LTC	1.50	1.75	2.20	2.75

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft <sup>3</sup> /sack	тос/вос	Volume ft <sup>3</sup>	% Excess	Slurry Description
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM
13.373 III	TAIL	200	14.8	1.34	498' - 750'	268	3070	Class C: Retarder
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	2370	Class C: Retarder
					9 5/8'' I	OV Tool @ 800'		
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM
2110 Stg 9.023 III	TAIL	100	14.8	1.34	447' - 800'	530	2370	Class C: Retarder
1st Stg 7 in	LEAD	80	12.5	2.12	5000' - 5898'	170	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
1st Stg / III	TAIL	400	15.6	1.18	5898' - 8393'	472	2370	Class H: Retarder, Fluid Loss, Defoamer
					7" DV	Tool @ 5000'		
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
Ziiu Stg / iii	TAIL	100	14.8	1.34	4298' - 5000'	134	2370	Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	730	13.5	1.85	8193' - 19578.3'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti- settling Agent

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 8393'	10	Cut-Brine
8393' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

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

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

Casino Program Design B						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry	1.6 Dry
	Cusing 110g. and Design D						11125	1.0	1.8 Wet	1.8 Wet
Cántino	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Con Simo	SF Collapse	SF Burst	SF Jt Tension	SF Body
String	Hole Size	TOP MID	100 1 10	DOU MID	DOL I V D	Csg. Size	Sr Collapse	or burst	Sr Jt Tension	Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	9293'	8925'	7" 26# P110 LTC	1.29	2.06	2.87	3.44
Liner	6.125'	8393'	8352'	19578'	8925'	4.5" 13.5# P110 LTC	1.53	1.78	2.24	2.79

Design B - Cement Program

Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description				
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	1000/	Class C: Salt, Gel, Extender, LCM		
20.000 In	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder		
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM		
13.3/5 III	TAIL	200	14.8	1.34	498' - 750'	268	30%	Class C: Retarder		
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM		
18t Stg 9.025 in	TAIL	200	14.8	1.34	1884' - 2560'	268	25%	Class C: Retarder		
	-				9 5/8" 1	DV Tool @ 800'				
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM		
2110 Stg 9.025 III	TAIL	100	14.8	1.34	447' - 800'	0	25%	Class C: Retarder		
1st Stg 7 in	LEAD	160	12.5	2.12	5000' - 6798'	340	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
ist Stg / in	TAIL	400	15.6	1.18	6798' - 9293'	472	25%	Class H: Retarder, Fluid Loss, Defoamer		
7" DV Tool @ 5000'										
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
Znu Stg / m	TAIL	100	14.8	1.34	4298' - 5000'	134	25%	Class C: Retarder, Fluid Loss, Defoamer		

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 9293'	10	Cut-Brine
9293' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production easing cement tie back a minimum of 50' above the Reef?	Ÿ
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	FALSE
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	0
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 comented to surface?	

# Mewbourne Oil Company, Screaming Eagles 9/7 W0NM Fed Com #1H Sec 9, T21S, R27E

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

	Casing Program Design A					BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	8393'	8352'	7" 26# N-80 LTC	1.24	1.66	2.38	2.77
Liner	6.125'	8193'	8152'	19578'	8925'	4.5" 13.5# P110 LTC	1.50	1.75	2.20	2.75

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft <sup>3</sup> /sack	тос/вос	Volume ft <sup>3</sup>	% Excess	Slurry Description
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	10076	Class C: Retarder
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM
13.373 III	TAIL	200	14.8	1.34	498' - 750'	268	3076	Class C: Retarder
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	2370	Class C: Retarder
					9 5/8'' I	OV Tool @ 800'		
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM
2110 Stg 9.023 III	TAIL	100	14.8	1.34	447' - 800'	530	2370	Class C: Retarder
1st Stg 7 in	LEAD	80	12.5	2.12	5000' - 5898'	170	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
1st Stg / III	TAIL	400	15.6	1.18	5898' - 8393'	472	23%	Class H: Retarder, Fluid Loss, Defoamer
					7" DV	Tool @ 5000'		
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
Ziiu Stg / iii	TAIL	100	14.8	1.34	4298' - 5000'	134	2370	Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	730	13.5	1.85	8193' - 19578.3'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti- settling Agent

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 8393'	10	Cut-Brine
8393' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

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

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

Casing Program Design B				BLM Minimum Safety		1.125 1.0	1.6 Dry	1.6 Dry		
		Cuoning 110g	rum Design D			Factors	11125	1.0	1.8 Wet	1.8 Wet
Céntura	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	C 6!	SF Collapse	SF Burst	SF Jt Tension	SF Body
String	Hole Size	T OP MID	TOPIVD	DOI MID	DOL I V D	Csg. Size	Sr Collapse	or burst	SF Jt Tension	Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	9293'	8925'	7" 26# P110 LTC	1.29	2.06	2.87	3.44
Liner	6.125'	8393'	8352'	19578'	8925'	4.5" 13.5# P110 LTC	1.53	1.78	2.24	2.79

Design B - Cement Program

Design B - Cement Program									
Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description			
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM	
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder	
13.375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM	
13.575 III	TAIL	200	14.8	1.34	498' - 750'	268	30%	Class C: Retarder	
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM	
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	23%	Class C: Retarder	
					9 5/8" 1	DV Tool @ 800'			
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM	
2110 Stg 9.025 III	TAIL	100	14.8	1.34	447' - 800'	0	2370	Class C: Retarder	
1st Stg 7 in	LEAD	160	12.5	2.12	5000' - 6798'	340	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
ist stg / iii	TAIL	400	15.6	1.18	6798' - 9293'	472	23%	Class H: Retarder, Fluid Loss, Defoamer	
7" DV Tool @ 5000'									
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
Ziiu Stg / III	TAIL	100	14.8	1.34	4298' - 5000'	134	25%	Class C: Retarder, Fluid Loss, Defoamer	

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 9293'	10	Cut-Brine
9293' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

	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?	Y Y
Is well within the designated 4 string boundary.	N Y
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	FALSE
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	0
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?	

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

	Casing Program Design A						1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	8393'	8352'	7" 26# N-80 LTC	1.24	1.66	2.38	2.77
Liner	6.125'	8193'	8152'	19578'	8925'	4.5" 13.5# P110 LTC	1.50	1.75	2.20	2.75

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft <sup>3</sup> /sack	тос/вос	Volume ft <sup>3</sup>	% Excess	Slurry Description	
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM	
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	10076	Class C: Retarder	
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM	
13.373 III	TAIL	200	14.8	1.34	498' - 750'	268	30%	Class C: Retarder	
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM	
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	2370	Class C: Retarder	
	9 5/8" DV Tool @ 800'								
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM	
2110 Stg 9.023 III	TAIL	100	14.8	1.34	447' - 800'	530	2370	Class C: Retarder	
1st Stg 7 in	LEAD	80	12.5	2.12	5000' - 5898'	170	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
1st Stg / III	TAIL	400	15.6	1.18	5898' - 8393'	472	23%	Class H: Retarder, Fluid Loss, Defoamer	
					7" DV	Tool @ 5000'			
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
Ziiu Stg / iii	TAIL	100	14.8	1.34	4298' - 5000'	134	23%	Class C: Retarder, Fluid Loss, Defoamer	
4.5 in	LEAD	730	13.5	1.85	8193' - 19578.3'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti- settling Agent	

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 8393'	10	Cut-Brine
8393' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

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

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

	Casing Program Design B						1.125	1.0	1.6 Dry	1.6 Dry
Cusing 1 regium 200gh 2						Factors	1.125	1.0	1.8 Wet	1.8 Wet
Ctutus	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Con Sino	SF Collapse	Collapse SF Burst	SF Jt Tension	SF Body
String	Hole Size	T OP MID	TOPIVD	DOI MID	DOLIVD	Csg. Size	Sr Collapse	or burst	Sr Jt Tension	Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	9293'	8925'	7" 26# P110 LTC	1.29	2.06	2.87	3.44
Liner	6.125'	8393'	8352'	19578'	8925'	4.5" 13.5# P110 LTC	1.53	1.78	2.24	2.79

Design B - Cement Program

Design D - Cement I	l g min							
Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	TOC	Slurry Description		
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder
13.375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM
15.5/5 III	TAIL	200	14.8	1.34	498' - 750'	268	30%	Class C: Retarder
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268		Class C: Retarder
					9 5/8'' 1	DV Tool @ 800'		
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM
2110 Stg 9.025 III	TAIL	100	14.8	1.34	447' - 800'	0	2370	Class C: Retarder
1st Stg 7 in	LEAD	160	12.5	2.12	5000' - 6798'	340	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
ist Stg / III	TAIL	400	15.6	1.18	6798' - 9293'	472	23%	Class H: Retarder, Fluid Loss, Defoamer
					7" DV	Tool @ 5000'		
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
2nd Stg / in TAIL	TAIL	100	14.8	1.34	4298' - 5000'	134	23%	Class C: Retarder, Fluid Loss, Defoamer

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 9293'	10	Cut-Brine
9293' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	FALSE
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	0
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# Mewbourne Oil Company, Screaming Eagles 9/7 W0NM Fed Com #1H Sec 9, T21S, R27E

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

	Casing Program Design A						1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Тор МД	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	8393'	8352'	7" 26# N-80 LTC	1.24	1.66	2.38	2.77
Liner	6.125'	8193'	8152'	19578'	8925'	4.5" 13.5# P110 LTC	1.50	1.75	2.20	2.75

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft <sup>3</sup> /sack	тос/вос	Volume ft <sup>3</sup>	% Excess	Slurry Description	
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM	
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder	
13,375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM	
13.373 III	TAIL	200	14.8	1.34	498' - 750'	268	5070	Class C: Retarder	
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM	
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	2370	Class C: Retarder	
	9 5/8" DV Tool @ 800'								
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM	
2110 Stg 5.025 III	TAIL	100	14.8	1.34	447' - 800'	530	2370	Class C: Retarder	
1st Stg 7 in	LEAD	80	12.5	2.12	5000' - 5898'	170	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
ist Stg / iii	TAIL	400	15.6	1.18	5898' - 8393'	472	2376	Class H: Retarder, Fluid Loss, Defoamer	
					7" DV	Tool @ 5000'			
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer	
Ziiu Sig / iii	TAIL	100	14.8	1.34	4298' - 5000'	134	2370	Class C: Retarder, Fluid Loss, Defoamer	
4.5 in	LEAD	730	13.5	1.85	8193' - 19578.3'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti- settling Agent	

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 8393'	10	Cut-Brine
8393' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

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

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

		Casing Prog	ram Design B			BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	26'	0'	0'	200'	200'	20" 94# H40 STC	6.02	17.72	30.90	55.37
Int 1	17.5'	0'	0'	750'	750'	13.375" 48# H40 STC	2.35	5.28	8.94	15.03
Int 2	12.25'	0'	0'	2560'	2560'	9.625" 36# J55 LTC	1.69	2.94	4.92	6.12
Production	8.75'	0'	0'	9293'	8925'	7" 26# P110 LTC	1.29	2.06	2.87	3.44
Liner	6.125'	8393'	8352'	19578'	8925'	4.5" 13.5# P110 LTC	1.53	1.78	2.24	2.79

Design B - Cement Program

Design B - Cement F	rogram									
Casing		# Sacks	Wt. lb/gal	Yield cu.ft/sack	тос	Slurry Description				
20.000 in	LEAD	160	12.5	2.12	0' - 111'	340	100%	Class C: Salt, Gel, Extender, LCM		
20.000 III	TAIL	200	14.8	1.34	111' - 200'	268	100%	Class C: Retarder		
13.375 in	LEAD	250	12.5	2.12	0' - 498'	530	50%	Class C: Salt, Gel, Extender, LCM		
13.575 III	TAIL	200	14.8	1.34	498' - 750'	268	30%	Class C: Retarder		
1st Stg 9.625 in	LEAD	200	12.5	2.12	800' - 1884'	430	25%	Class C: Salt, Gel, Extender, LCM		
18t 5tg 9.025 III	TAIL	200	14.8	1.34	1884' - 2560'	268	23%	Class C: Retarder		
					9 5/8" 1	DV Tool @ 800'				
2nd Stg 9.625 in	LEAD	80	12.5	2.12	0' - 447'	170	25%	Class C: Salt, Gel, Extender, LCM		
2110 Stg 9.025 III	TAIL	100	14.8	1.34	447' - 800'	0	2370	Class C: Retarder		
1st Stg 7 in	LEAD	160	12.5	2.12	5000' - 6798'	340	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
ist stg / iii	TAIL	400	15.6	1.18	6798' - 9293'	472	23%	Class H: Retarder, Fluid Loss, Defoamer		
					7" DV	Tool @ 5000'				
2nd Stg 7 in	LEAD	170	12.5	2.12	2360' - 4298'	370	25%	Class C: Salt, Gel, Extender, LCM, Defoamer		
Ziiu Stg / III	TAIL	100	14.8	1.34	4298' - 5000'	134	25%	Class C: Retarder, Fluid Loss, Defoamer		

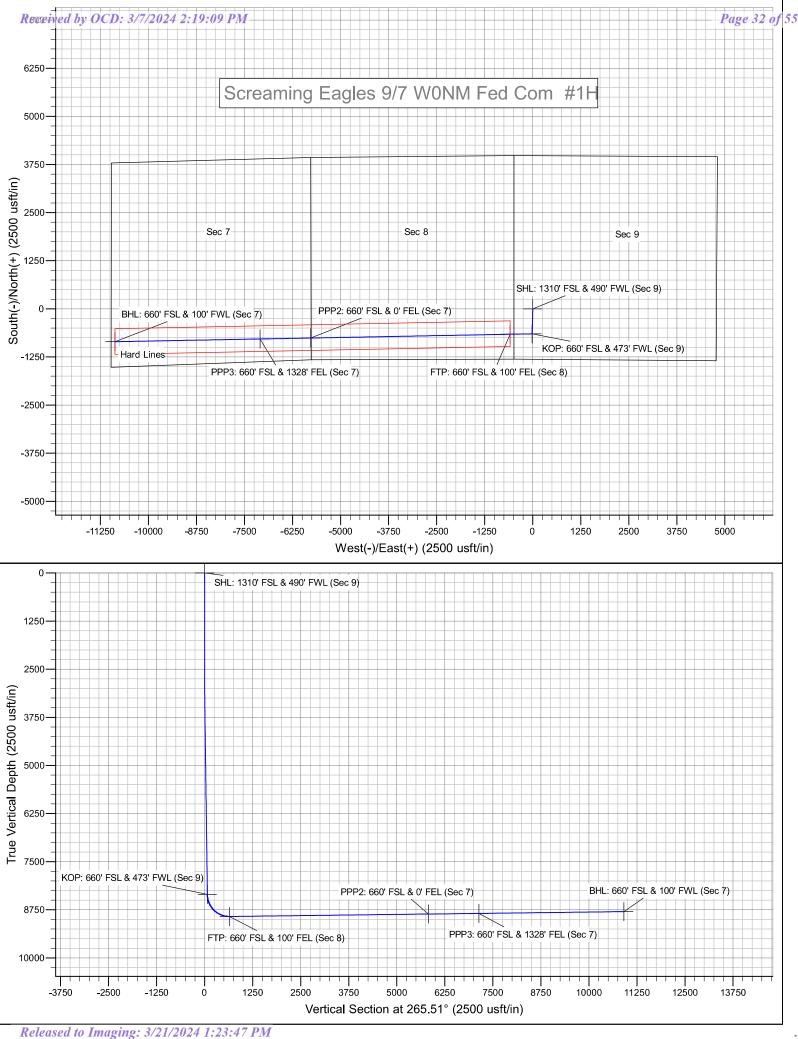
Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 200'	8.3	Fresh Water
200' - 750'	8.4	Brine
750' - 2560'	9	Fresh Water
2560' - 9293'	10	Cut-Brine
9293' - 19578.3'	12	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler			Yeso		
Castile			Delaware (Lamar)	2631'	Oil/Natural Gas
Salt Top	217'	None	Bell Canyon		
Salt Base	408'	None	Cherry Canyon		
Yates	549'	Oil/Natural Gas	Manzanita Marker		
Seven Rivers			Basal Brushy Canyon		
Queen			Bone Spring	5100'	Oil/Natural Gas
Capitan	827'	Usable Water	1st Bone Spring	6450'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7124'	Oil/Natural Gas
San Andres			3rd Bone Spring	8500'	Oil/Natural Gas
Glorieta			Wolfcamp	8798'	Oil/Natural Gas

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50° above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	FALSE
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	0
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?	N
if yes, are there three strings cemented to surface:	



# **Mewbourne Oil Company**

Eddy County, New Mexico NAD 83 Screaming Eagles 9/7 W0NM Fed Com #1H Sec 09, T21S, R27E

SHL: 1310' FSL & 490' FWL (Sec 9) BHL: 660' FSL & 100' FWL (Sec 7)

Plan: Design #1

# **Standard Planning Report**

02 February, 2024

#### Planning Report

TVD Reference:

MD Reference:

North Reference:

Database: Hobbs

Company: Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Screaming Eagles 9/7 W0NM Fed Com #1H

Site: Well:

Project:

Sec 09, T21S, R27E

Wellbore:

BHL: 660' FSL & 100' FWL (Sec 7)

Design: Design #1

Local Co-ordinate Reference:

**Survey Calculation Method:** 

Site Screaming Eagles 9/7 W0NM Fed Com

#1F

WELL @ 3276.0usft (Original Well Elev) WELL @ 3276.0usft (Original Well Elev)

Grid

Minimum Curvature

Project Eddy County, New Mexico NAD 83

Map System: Geo Datum:

Map Zone:

Site

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone System Datum:

Ground Level

Screaming Eagles 9/7 W0NM Fed Com #1H

 Site Position:
 Northing:
 542,406.40 usft
 Latitude:
 32.4910682

 From:
 Map
 Easting:
 581,880.20 usft
 Longitude:
 -104.2018398

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 "

Well Sec 09, T21S, R27E

 Well Position
 +N/-S
 0.0 usft
 Northing:
 542,406.40 usft
 Latitude:
 32.4910682

 +E/-W
 0.0 usft
 Easting:
 581,880.20 usft
 Longitude:
 -104.2018398

Position Uncertainty

0.0 usft

Wellhead Elevation:

301,000.20 usft

Cound Level:

3,248.0 usft

Ground Level:

Grid Convergence:  $0.07~^{\circ}$ 

Wellbore BHL: 660' FSL & 100' FWL (Sec 7)

 Magnetics
 Model Name
 Sample Date
 Declination (°)
 Dip Angle (nT)
 Field Strength (nT)

 IGRF2010
 12/31/2014
 7.46
 60.24
 48,355.67901074

Design #1

Audit Notes:

Version:Phase:PROTOTYPETie On Depth:0.0

 Vertical Section:
 Depth From (TVD) (usft)
 +N/-S (usft)
 +E/-W (usft)
 Direction (vsft)

 0.0
 0.0
 0.0
 265.51

Plan Survey Tool Program Date

Depth From Depth To (usft) (usft) Survey (Wellbore) Tool Name Remarks

1 0.0 19,578.3 Design #1 (BHL: 660' FSL & 100'

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,371.9	7.44	181.52	3,370.9	-24.1	-0.6	2.00	2.00	0.00	181.52	
8,021.3	7.44	181.52	7,981.1	-625.8	-16.7	0.00	0.00	0.00	0.00	
8,393.2	0.00	0.00	8,352.0	-649.9	-17.3	2.00	-2.00	0.00	180.00	KOP: 660' FSL & 473'
9,300.4	90.70	268.93	8,925.0	-660.8	-597.3	10.00	10.00	0.00	-91.07	
19,578.3	90.70	268.93	8,799.0	-853.5	-10,872.6	0.00	0.00	0.00	0.00	BHL: 660' FSL & 100'

#### **Planning Report**

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83
Site: Screaming Eagles 9/7 W0NM Fed Com #1H

**Well:** Sec 09, T21S, R27E

Wellbore: BHL: 660' FSL & 100' FWL (Sec 7)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Screaming Eagles 9/7 W0NM Fed Com

#1F

WELL @ 3276.0usft (Original Well Elev) WELL @ 3276.0usft (Original Well Elev)

Grid

Minimum Curvature

ed Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL: 1310'	FSL & 490' FWL	(Sec 9)							
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	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	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0		0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0		0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0		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	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0		0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	2.00	181.52	3,100.0	-1.7	0.0	0.2	2.00	2.00	0.00
3,200.0	4.00	181.52	3,199.8	-7.0	-0.2	0.7	2.00	2.00	0.00
3,300.0	6.00	181.52	3,299.5	-15.7	-0.4	1.6	2.00	2.00	0.00
3,371.9		181.52	3,370.9	-24.1	-0.6	2.5	2.00	2.00	0.00
3,400.0		181.52	3,398.7	-27.7	-0.7	2.9	0.00	0.00	0.00
3,500.0		181.52	3,497.9	-40.7	-1.1	4.3	0.00	0.00	0.00
3,600.0		181.52	3,597.0	-53.6	-1.4	5.6	0.00	0.00	0.00
3,700.0		181.52	3,696.2	-66.6	-1.8	7.0	0.00	0.00	0.00
3,800.0		181.52	3,795.4	-79.5	-2.1	8.3	0.00	0.00	0.00
3,900.0		181.52	3,894.5	-92.4	-2.5	9.7	0.00	0.00	0.00
4,000.0		181.52	3,993.7	-105.4	-2.8	11.0	0.00	0.00	0.00
4,100.0		181.52	4,092.8	-118.3	-3.1	12.4	0.00	0.00	0.00
4,200.0		181.52	4,192.0	-131.3	-3.5	13.8	0.00	0.00	0.00
4,300.0	7.44	181.52	4,291.1	-144.2	-3.8	15.1	0.00	0.00	0.00
4,400.0		181.52	4,390.3	-157.1	-4.2	16.5	0.00	0.00	0.00
4,500.0		181.52	4,489.5	-170.1	-4.5	17.8	0.00	0.00	0.00
4,600.0		181.52	4,588.6	-183.0	-4.9	19.2	0.00	0.00	0.00
4,700.0		181.52	4,687.8	-196.0	-5.2	20.5	0.00	0.00	0.00
4,800.0	7.44	181.52	4,786.9	<del>-</del> 208.9	-5.6	21.9	0.00	0.00	0.00
4,900.0		181.52	4,886.1	-221.9	-5.9	23.2	0.00	0.00	0.00
5,000.0	7.44	181.52	4,985.3	-234.8	-6.3	24.6	0.00	0.00	0.00

#### **Planning Report**

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83

Site: Screaming Eagles 9/7 W0NM Fed Com #1H

Well: Sec 09, T21S, R27E
Wellbore: BHL: 660' FSL & 100' FWL (Sec 7)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Site Screaming Eagles 9/7 W0NM Fed Com

#1⊢

WELL @ 3276.0usft (Original Well Elev) WELL @ 3276.0usft (Original Well Elev)

Grid

Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0 5,200.0	7.44 7.44	181.52 181.52	5,084.4 5,183.6	-247.7 -260.7	-6.6 -6.9	26.0 27.3	0.00 0.00	0.00 0.00	0.00 0.00
5,300.0	7.44	181.52	5,282.7	-273.6	-7.3 -7.0	28.7	0.00	0.00	0.00
5,400.0 5,500.0	7.44 7.44	181.52 181.52	5,381.9 5,481.0	-286.6 -299.5	-7.6 -8.0	30.0 31.4	0.00 0.00	0.00 0.00	0.00 0.00
5,600.0	7.44	181.52	5,580.2	-312.4	-8.3	32.7	0.00	0.00	0.00
5,700.0	7.44	181.52	5,679.4	-325.4	-8.7	34.1	0.00	0.00	0.00
5,800.0	7.44	181.52	5,778.5	-338.3	-9.0	35.5	0.00	0.00	0.00
5,900.0 6,000.0	7.44 7.44	181.52 181.52	5,877.7 5,976.8	-351.3 -364.2	-9.4 -9.7	36.8 38.2	0.00 0.00	0.00 0.00	0.00 0.00
6,100.0	7.44	181.52	6,076.0	-377.2	-10.0	39.5	0.00	0.00	0.00
6,200.0	7.44	181.52	6,175.2	-390.1	-10.4	40.9	0.00	0.00	0.00
6,300.0	7.44	181,52	6,274.3	-403.0	-10.7	42,2	0.00	0.00	0.00
6,400.0	7.44	181.52	6,373.5	-416.0	-11.1	43.6	0.00	0.00	0.00
6,500.0	7.44	181.52	6,472.6	-428.9	-11.4	44.9	0.00	0.00	0.00
6,600.0	7.44	181.52	6,571.8	-441.9 45.4.0	-11.8	46.3	0.00	0.00	0.00
6,700.0 6,800.0	7.44 7.44	181.52 181.52	6,670.9 6,770.1	-454.8 -467.7	-12.1 -12.5	47.7 49.0	0.00 0.00	0.00 0.00	0.00 0.00
,	7.44 7.44		6,869.3	-467.7 -480.7	-12.5 -12.8	49.0 50.4	0.00	0.00	0.00
6,900.0 7,000.0	7.44 7.44	181.52 181.52	6,869.3 6,968.4	-480.7 -493.6	-12.8 -13.1	50.4 51.7	0.00	0.00	0.00
7,000.0 7,100.0	7.44 7.44	181.52	7,067.6	-493.6 -506.6	-13.1 -13.5	53.1	0.00	0.00	0.00
7,100.0	7.44 7.44	181.52	7,067.6 7,166.7	-500.6 -519.5	-13.5 -13.8	54.4	0.00	0.00	0.00
7,200.0	7.44	181.52	7,166.7	-532.5	-14.2	55.8	0.00	0.00	0.00
7,400.0	7.44	181.52	7,365.1	-545.4	-14.5	57.2	0.00	0.00	0.00
7,500.0	7.44	181.52	7,464.2	-558.3	-14.9	58.5	0.00	0.00	0.00
7,600.0	7.44	181.52	7,563.4	-571.3	-15.2	59.9	0.00	0.00	0.00
7,700.0 7,800.0	7.44 7.44	181.52 181.52	7,662.5 7,761.7	-584.2 -597.2	-15.6 -15.9	61.2 62.6	0.00 0.00	0.00 0.00	0.00 0.00
7,900.0	7.44	181.52	7,860.8	-610.1	-16.2	63.9	0.00	0.00	0.00
8,000.0	7.44	181.52	7,960.0	-623.0	-16.6	65.3	0.00	0.00	0.00
8,021.3	7.44	181.52	7,981.1	-625.8	-16.7	65.6	0.00	0.00	0.00
8,100.0	5.86	181.52	8,059.3	-634.9	-16.9	66.5	2.00	<b>-</b> 2.00	0.00
8,200.0	3.86	181.52	8,158.9	-643.4	-17.1	67.4	2.00	-2.00	0.00
8,300.0	1.86	181.52	8,258.8	-648.4	-17.3	67.9	2.00	-2.00	0.00
8,393.2	0.00	0.00	8,352.0	-649.9	-17.3	68.1	2.00	-2.00	0.00
<b>KOP: 660' I</b> 8,400.0	FSL & 473' FWL ( 0.68	<b>Sec 9)</b> 268.93	8,358.8	-649.9	-17.3	68.1	10.00	10.00	0.00
8,450.0	5.68	268.93	8,408.7	-650.0	-17.3 -20.1	70.9	10.00	10.00	0.00
8,500.0	10.68	268.93	8,458.2	-650.1	-27.2	78.0	10.00	10.00	0.00
8,550.0	15.68	268.93	8,506.8	-650.3	-38.6	89.4	10.00	10.00	0.00
8,600.0	20.68	268.93	8,554.3	-650.6	-54.2	104.9	10.00	10.00	0.00
8,650.0	25.67	268.93	8,600.3	-651.0	-73.9	124.6	10.00	10.00	0.00
8,700.0	30.67	268.93	8,644.3	-651.4	-97.5	148.1	10.00	10.00	0.00
8,750.0	35.67	268.93	8,686.2	-651.9	-124.8	175.4	10.00	10.00	0.00
8,800.0	40.67	268.93	8,725.5	-652.5	-155.7	206.3	10.00	10.00	0.00
8,850.0	45.67	268.93	8,761.9	-653.1	-189.9	240.4	10.00	10.00	0.00
8,900.0	50.67	268.93	8,795.3	-653.8	-227.1	277.6	10.00	10.00	0.00
8,950.0 9,000.0	55.67 60.67	268.93 268.93	8,825.2 8,851.6	-654.6 -655.4	-267.1 -309.6	317.5 359.9	10.00 10.00	10.00 10.00	0.00 0.00
9,050.0	65.67	268.93	8,874.1	-656.2	-354.2	404.5	10.00	10.00	0.00
9,100.0	70.67	268.93	8,892.7	-657.1	-400.6	450.8	10.00	10.00	0.00
9,150.0	75.67	268.93	8,907.2	-658.0	-448.4	498.5	10.00	10.00	0.00
9,200.0	80.67	268.93	8,917.5	-658.9	-497.3	547.4	10.00	10.00	0.00

#### Planning Report

Database: H

Wellbore:

Hobbs

Local Co-ordinate Reference:

Site Screaming Eagles 9/7 W0NM Fed Com

#11

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Screaming Eagles 9/7 W0NM Fed Com #1H

BHL: 660' FSL & 100' FWL (Sec 7)

TVD Reference: MD Reference: North Reference: WELL @ 3276.0usft (Original Well Elev) WELL @ 3276.0usft (Original Well Elev)

North Reference:
Survey Calculation Method:

Grid Minimum Curvature

Well: Sec 09, T21S, R27E

Design: Design #1

**Planned Survey** Measured Vertical Vertical Dogleg Build Turn Depth Depth Inclination **Azimuth** +N/-S +E/-W Section Rate Rate Rate (usft) (usft) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (°) (°) 9,250.0 85.67 268.93 8,923.4 -659.8 -546.9 596.9 10.00 10.00 0.00 268.93 8,925.0 -660.6 -590.3 640.2 10.00 9,293.4 90.01 10.00 0.00 FTP: 660' FSL & 100' FEL (Sec 8) 9,300.4 90.70 268.93 8,925.0 -660.8-597.3647.1 10.00 10.00 0.00 9,400.0 90.70 268.93 8,923.8 -662.6 -696.9 746.6 0.00 0.00 0.00 90.70 268.93 8.922.6 -664.5 -796.8 846.4 0.00 0.00 9.500.0 0.00 946.2 9,600.0 90.70 268.93 8,921.3 -666.4-896.8 0.00 0.00 0.00 268.93 1,046.0 0.00 9,700.0 90.70 8.920.1 -668.3 -996.8 0.00 0.00 0.00 0.00 9,800.0 90.70 268.93 8.918.9 -670.1-1.096.81,145.8 0.00 9,900.0 90.70 268.93 8,917.6 -672.0 -1,196.7 1,245.7 0.00 0.00 0.00 10.000.0 90.70 268.93 8.916.4 -673.9 -1.296.71.345.5 0.00 0.00 0.00 10,100.0 90.70 268.93 8,915.2 -675.8 -1,396.71,445.3 0.00 0.00 0.00 10,200.0 90.70 268.93 8,914.0 -677.6 -1,496.7 1,545.1 0.00 0.00 0.00 10.300.0 90.70 268.93 8.912.7 -1.596.6 1.644.9 0.00 0.00 0.00 -679.510,400.0 90.70 268.93 8,911.5 -681.4 -1,696.6 1,744.7 0.00 0.00 0.00 10,500.0 90.70 268.93 8,910.3 -683.3 -1,796.6 1,844.6 0.00 0.00 0.00 10,600.0 90.70 268.93 8.909.1 -685.1 -1,896.6 1.944.4 0.00 0.00 0.00 10,700.0 90.70 268 93 8,907.8 -687.0 -1,996.5 2,044.2 0.00 0.00 0.00 8,906.6 2,144.0 10,800.0 90.70 268.93 -688.9 -2,096.50.00 0.00 0.00 10.900 0 90.70 268 93 8.905 4 -690.8 -2.196.5 2.2438 0.00 0.00 0.00 11,000.0 90.70 268.93 8,904.2 -692.6 -2,296.5 2,343.6 0.00 0.00 0.00 268.93 8,902.9 11.100.0 90.70 -694.5-2.396.42.443.4 0.00 0.00 0.00 11.200.0 90.70 268.93 8.901.7 -696.4 -2.496.4 2.543.3 0.00 0.00 0.00 11,300.0 90.70 268.93 8,900.5 -698.3-2,596.42,643.1 0.00 0.00 0.00 11,400.0 90.70 268.93 8,899.3 -700.1 -2,696.4 2,742.9 0.00 0.00 0.00 11.500.0 90.70 268 93 8.898.0 -7020-2.796.32.842 7 0.00 0.00 0.00 11,600.0 90.70 268.93 8,896.8 -703.9 -2.896.32.942.5 0.00 0.00 0.00 8,895.6 -705.8 0.00 11,700.0 90.70 268.93 -2,996.3 3,042.3 0.00 0.00 11.800.0 90.70 268 93 8.894.4 -707.6 -3.096.30.00 0.00 3.142.1 0.00 11,900.0 90.70 268.93 8,893.1 -709.5 -3,196.2 3,242.0 0.00 0.00 0.00 12 000 0 90.70 268 93 8 891 9 -711 4 -3 296 2 3 341 8 0.00 0.00 0.00 12,100.0 90.70 268.93 8,890.7 -713.3 -3,396.23,441.6 0.00 0.00 0.00 12,200.0 90.70 268.93 8,889.5 -715.1 -3,496.2 3,541.4 0.00 0.00 0.00 12.300.0 90.70 268.93 8.888.2 -717.0 -3.596.1 3.641.2 0.00 0.00 0.00 12,400.0 90.70 268.93 8,887.0 -718.9 -3,696.1 3.741.0 0.00 0.00 0.00 12,500.0 90.70 268 93 8,885.8 -720.8 -3,796.1 3,840.9 0.00 0.00 0.00 12,600.0 90.70 268.93 8,884.5 -722.6-3,896.13,940.7 0.00 0.00 0.00 12,700.0 90.70 268 93 8 883 3 -724 5 -3,996.0 4,040.5 0.00 0.00 0.0012,800.0 90.70 268.93 8.882.1 -726.4-4.096.04,140.3 0.00 0.00 0.00 8 880 9 0.00 0.00 12 900 0 90.70 268 93 -728.3-419604.240.1 0.00 13,000.0 90.70 268.93 8,879.6 -730.1 -4,296.0 4,339.9 0.00 0.00 0.00 268.93 -732.0 13.100.0 90.70 8.878.4 -4.395.94.439.7 0.00 0.00 0.00 13.200.0 90.70 268.93 8.877.2 -733.9 -4 495 9 4.539.6 0.00 0.00 0.00 13,300.0 90.70 268.93 8,876.0 -735.8 -4,595.94,639.4 0.00 0.00 0.00 13,400.0 90.70 268.93 8,874.7 -737.7 -4,695.9 4,739.2 0.00 0.00 0.00 13,500.0 90.70 268.93 8.873.5 -739.5 -4,795.8 4,839.0 0.00 0.00 0.00 13,600.0 90.70 268.93 8,872.3 -741.4 -4,895.8 4,938.8 0.00 0.00 0.00 13,700.0 90.70 268.93 8,871.1 -743.3 -4,995.8 5,038.6 0.00 0.00 0.00 13.800.0 90.70 268.93 8.869.8 -745.2 -5.095.8 5.138.4 0.00 0.00 0.00 268.93 8,868.6 -747.0 0.00 13,900.0 90.70 -5,195.7 5,238.3 0.00 0.00 14,000.0 268 93 8 867 4 0.00 90.70 -748 9 -5 295 7 5.338.1 0.00 0.00 14,100.0 90.70 268.93 8,866.2 -750.8 -5,395.7 5,437.9 0.00 0.00 0.00

### **Planning Report**

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83
Site: Screaming Eagles 9/7 W0NM Fed Com #1H

**Well:** Sec 09, T21S, R27E

Wellbore: BHL: 660' FSL & 100' FWL (Sec 7)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Site Screaming Eagles 9/7 W0NM Fed Com

#1H

WELL @ 3276.0usft (Original Well Elev) WELL @ 3276.0usft (Original Well Elev)

Grid

Minimum Curvature

lanned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
44.000.0			0.004.0			5 507 7			
14,200.0	90.70	268.93	8,864.9	-752.7	-5,495.7	5,537.7	0.00	0.00	0.00
14,300.0	90.70	268.93	8,863.7	-754.5	-5,595.6	5,637.5	0.00	0.00	0.00
14,400.0	90.70	268.93	8,862.5	-756.4	-5,695.6	5,737.3	0.00	0.00	0.00
14,484.6	90.70	268.93	8,861.4	-758.0	-5,780.2	5,821.8	0.00	0.00	0.00
	SL & 0' FEL (Se		-,		-,	-,-			
			0.004.0	750.0	5 <b>7</b> 05 0	F 007 0	0.00	0.00	0.00
14,500.0	90.70	268.93	8,861.3	<b>-</b> 758.3	-5,795.6	5,837.2	0.00	0.00	0.00
14,600.0	90.70	268.93	8,860.0	-760.2	-5,895.6	5,937.0	0.00	0.00	0.00
· ·									
14,700.0	90.70	268.93	8,858.8	-762.0	-5,995.5	6,036.8	0.00	0.00	0.00
14,800.0	90.70	268.93	8,857.6	-763.9	-6,095.5	6,136.6	0.00	0.00	0.00
14,900.0	90.70	268.93	8,856.4	-765.8	-6,195.5	6,236.4	0.00	0.00	0.00
15,000.0	90.70	268.93	8,855.1	-767.7	-6,295.5	6,336.2	0.00	0.00	0.00
10,000.0	000	200.00	0,000.1	, , , , ,	0,200.0	0,000.2	0.00	0.00	0.00
15,100.0	90.70	268.93	8,853.9	-769.5	-6,395.4	6,436.0	0.00	0.00	0.00
15,200.0	90.70	268.93	8,852.7	-771.4	-6,495.4	6,535.9	0.00	0.00	0.00
15,300.0	90.70	268.93	8,851.4	-773.3	-6,595.4	6,635.7	0.00	0.00	0.00
					•	,			
15,400.0	90.70	268.93	8,850.2	<del>-</del> 775.2	-6,695.4	6,735.5	0.00	0.00	0.00
15,500.0	90.70	268.93	8,849.0	-777.0	-6,795.3	6,835.3	0.00	0.00	0.00
						•			
15,600.0	90.70	268.93	8,847.8	-778.9	-6,895.3	6,935.1	0.00	0.00	0.00
15,700.0	90.70	268.93	8,846.5	-780.8	-6,995.3	7,034.9	0.00	0.00	0.00
15,800.0	90.70	268.93	8,845.3	-782.7	-7,095.2	7,134.7	0.00	0.00	0.00
·			0,040.0	102.1	7,000.2	1,104.1	0.00	0.00	0.00
	SL & 1328' FEL								
15,900.0	90.70	268.93	8,844.1	-784.5	-7,195.2	7,234.6	0.00	0.00	0.00
16,000.0	90.70	268.93	8,842.9	-786.4	-7,295.2	7,334.4	0.00	0.00	0.00
,					.,	.,			
16,100.0	90.70	268.93	8,841.6	-788.3	-7,395.2	7,434.2	0.00	0.00	0.00
16,200.0	90.70	268.93	8,840.4	-790.2	-7,495.2	7,534.0	0.00	0.00	0.00
16,300.0	90.70	268.93	8,839.2	-792.0	-7,595.1	7,633.8	0.00	0.00	0.00
16,400.0	90.70	268.93	8,838.0	-793.9	-7,695.1	7,733.6	0.00	0.00	0.00
16,500.0	90.70	268.93	8,836.7	-795.8	-7,795.1	7,833.5	0.00	0.00	0.00
16,600.0	90.70	268.93	8,835.5	-797.7	-7,895.1	7,933.3	0.00	0.00	0.00
16,700.0	90.70	268.93	8,834.3	-799.5	-7,995.0	8,033.1	0.00	0.00	0.00
16,800.0	90.70	268.93	8,833.1	-801.4	-8,095.0	8,132.9	0.00	0.00	0.00
16,900.0	90.70	268.93	8,831.8	-803.3	-8,195.0	8,232.7	0.00	0.00	0.00
17,000.0	90.70	268.93	8,830.6	-805.2	-8,295.0	8,332.5	0.00	0.00	0.00
17,100.0	90.70	268.93	8,829.4	-807.0	-8,394.9	8,432.3	0.00	0.00	0.00
17,200.0	90.70	268.93	8,828.2	-808.9	-8,494.9	8,532.2	0.00	0.00	0.00
17,300.0	90.70	268.93	8,826.9	-810.8	-8,594.9	8,632.0	0.00	0.00	0.00
17,400.0	90.70	268.93	8,825.7	-812.7	-8,694.9	8,731.8	0.00	0.00	0.00
17,500.0	90.70	268.93	8,824.5	-814.5	-8,794.8	8,831.6	0.00	0.00	0.00
17,300.0	30.70	200.93	0,024.3	-014.5	-0,134.0	0,001.0	0.00	0.00	0.00
17,600.0	90.70	268.93	8.823.3	-816.4	-8,894.8	8,931.4	0.00	0.00	0.00
,	90.70	268.93	8,822.0	-818.3		9,031.2	0.00		0.00
17,700.0					-8,994.8			0.00	
17,800.0	90.70	268.93	8,820.8	-820.2	-9,094.8	9,131.1	0.00	0.00	0.00
17,900.0	90.70	268.93	8,819.6	-822.0	-9,194.7	9,230.9	0.00	0.00	0.00
18,000.0	90.70	268.93	8,818.3	-823.9	-9,294.7	9,330.7	0.00	0.00	0.00
18,100.0	90.70	268.93	8,817.1	-825.8	-9,394.7	9,430.5	0.00	0.00	0.00
18,200.0	90.70	268.93	8,815.9	-827.7	-9,494.7	9,530.3	0.00	0.00	0.00
18,300.0	90.70	268.93	8,814.7	-829.5	-9,594.6	9,630.1	0.00	0.00	0.00
18,400.0	90.70	268.93	8,813.4	-831.4	-9,694.6	9,729.9	0.00	0.00	0.00
18,500.0	90.70	268.93	8,812.2	-833.3	-9,794.6	9,829.8	0.00	0.00	0.00
18,600.0	90.70	268.93	8,811.0	-835.2	-9,894.6	9,929.6	0.00	0.00	0.00
18,700.0	90.70	268.93	8,809.8	-837.0	-9,994.5	10,029.4	0.00	0.00	0.00
18,800.0	90.70	268.93	8,808.5	-838.9	-10,094.5	10,129.2	0.00	0.00	0.00
· ·									
18,900.0	90.70	268.93	8,807.3	-840.8	-10,194.5	10,229.0	0.00	0.00	0.00
19,000.0	90.70	268.93	8,806.1	-842.7	-10,294.5	10,328.8	0.00	0.00	0.00
	<b>a</b>				40.00	40 10			
19,100.0	90.70	268.93	8,804.9	-844.5	-10,394.4	10,428.6	0.00	0.00	0.00

### **Planning Report**

TVD Reference:

MD Reference:

North Reference:

Hobbs Database:

Mewbourne Oil Company Company:

Project: Eddy County, New Mexico NAD 83 Screaming Eagles 9/7 W0NM Fed Com #1H Site:

Sec 09, T21S, R27E Well:

Wellbore: BHL: 660' FSL & 100' FWL (Sec 7)

Design #1 Design:

Local Co-ordinate Reference:

**Survey Calculation Method:** 

Site Screaming Eagles 9/7 W0NM Fed Com

WELL @ 3276.0usft (Original Well Elev) WELL @ 3276.0usft (Original Well Elev)

Grid

Minimum Curvature

anned 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)
19,200.0	90.70	268.93	8,803.6	-846.4	-10,494.4	10,528.5	0.00	0.00	0.00
19,300.0	90.70	268.93	8,802.4	-848.3	-10,594.4	10,628.3	0.00	0.00	0.00
19,400.0	90.70	268.93	8,801.2	-850.2	-10,694.4	10,728.1	0.00	0.00	0.00
19,500.0	90.70	268.93	8,800.0	-852.0	-10,794.3	10,827.9	0.00	0.00	0.00
19,578.3	90.70	268.93	8,799.0	-853.5	-10,872.6	10,906.0	0.00	0.00	0.00
BHL: 660' FS	SL & 100' FWL (S	Sec 7)							

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL: 1310' FSL & 490' F - plan hits target ce - Point		0.00	0.0	0.0	0.0	542,406.40	581,880.20	32.4910682	-104.2018398
KOP: 660' FSL & 473' F - plan hits target ce - Point		0.00	8,352.0	-649.9	-17.3	541,756.50	581,862.90	32.4892819	-104.2018985
BHL: 660' FSL & 100' F\ - plan hits target cel - Point		0.01	8,799.0	-853.5	-10,872.6	541,552.90	571,007.60	32.4887541	-104.2371057
PPP3: 660' FSL & 1328' - plan hits target cel - Point		0.00	8,845.3	-782.7	-7,095.2	541,623.75	574,784.95	32.4889388	-104.2248546
PPP2: 660' FSL & 0' FE - plan hits target ce - Point		0.00	8,861.4	-758.0	-5,780.2	541,648.41	576,099.96	32.4890029	-104.2205896
FTP: 660' FSL & 100' Ft - plan hits target ce - Point		0.00	8,925.0	-660.6	-590.3	541,745.75	581,289.89	32.4892542	-104.2037570

# Mewbourne Oil Company, Screaming Eagles 9/7 W0NM Fed Com #1H Sec 9, T21S, R27E

SHL: 1310' FSL 490' FWL (Sec 9) BHL: 660' FSL 100' FWL (Sec 7)

Operator Name:	Property Name:	Well Number
Mewbourne Oil Company	Screaming Eagles 9/7 W0NM Fed Com	1 H

	nt (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	9	21	27	-	660'	FSL	473'	FWL	Eddy
Latitude							NAD		
32.4892819					-104.20189	985			83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
P	8	21	27	-	660'	FSL	100'	FEL	Eddy
		Latitude				Longitude			
32.4892542	2				-104.20375	570			83

Last Take Point (LTP)

Edit I dile I	01110 (221	,							
UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	7	21	27	_	660'	FSL	100'	FWL	Eddy
		Latitude				Long	itude		NAD
32.488755					-104.23710	061			83

Is this well the defining well for the Horizontal Is this well an infill well?	Spacing Unit? Y	
If infill is yes please provide API if available, O Spacing Unit.	Operator Name and well number for Defining well for Horizontal	
API#		
Operator Name:	Property Name:	Well Number

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | MEWBOURNE OIL COMPANY

WELL NAME & NO.: | SCREAMING EAGLES 9/7 W0NM FED COM 1H

APD ID: | 10400085939

SURFACE HOLE FOOTAGE: | 1310'/S & 490'/W BOTTOM HOLE FOOTAGE | 660'/S & 100'/W

SURFACE LOCATION: | Section 9, T.21 S., R.27 E. NMP.

COUNTY: | Eddy County, New Mexico

### COA

$H_2S$	• Yes	O No	
Potash	None	O Secretary	O R-111-P
Cave/Karst Potential	O Low	<ul><li>Medium</li></ul>	O High
Cave/Karst Potential	O Critical		
Variance	O None	• Flex Hose	Other Other
Wellhead	Conventional	<ul><li>Multibowl</li></ul>	O Both
Other	✓ 4 String	✓ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Other Variances	✓ Offline cementing	☐ Squeeze cement	☑ BOPE Break test
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed at SPUD. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet title 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING DESING

- 1. The 20 inch surface casing shall be set at approximately 200 ft. (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8

- <u>hours</u> or **500 psi 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 psi compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 13-3/8 in. 1<sup>st</sup> intermediate casing shall be set at approximately 750 ft. The minimum required fill of cement behind the 13-3/8 in. intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan reef.
  - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
  - ❖ In <u>Capitan Reef 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.
  - ❖ Special Capitan Reef requirements. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

# (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the Capitan interval)

- Switch to freshwater mud to protect the Capitan Reef and use freshwater mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
- 3. The 9-5/8 inch 2<sup>nd</sup> intermediate casing shall be set at approximately 2,560 feet. The minimum required fill of cement behind the 9-5/8 inch second intermediate casing is:
  - Option 1 (Single Stage): Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan reef.

<u>Option 2 (Two-Stage):</u> 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 to surface. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan reef.

**Note:** Excess cement for 2<sup>nd</sup> stage is below CFO's recommendation of %25. More cement might be needed.

**4.** Operator has proposed to set **7-inch** production casing at approximately **8,393 ft.** The minimum required fill of cement behind the **7-inch** production casing is:

Option 1 (Single Stage): Cement should tie-back at least 50 feet above the Capitan Reef top. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan Reef.

**Option 2 (two-stage):** 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 50 feet above the Capitan Reef top. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and Capitan Reef.

**Note:** Cement volume dedicated to the second stage is insufficient to bring TOC to 50 ft. above the top of Capitan reef. More cement is needed.

**Note:** Operator has requested an alternate casing set depth of **9,293 ft.** for the production casing. BLM accept the proposed set depth. Adjust cement volume accordingly. TOC for the production casing shall be at least 50 ft. above the Capitan reef formation top. Estimated Capitan reef top is 827 ft.

- 5. 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. Before drilling the surface casing shoe out, the BOP/BOPE and annular preventer shall be pressure-tested in accordance with **title 43 CFR 3172 and API Standard 53.** 
  - 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 the **title** 43 CFR 3172.6(b)(9) must be followed.

# BOPE Break Testing Variance (Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per title 43 CFR 3172.

• If in the event break testing is not utilized, then a full BOPE test would be conducted.

# **Offline Cementing**

Offline cementing variance is approved for surface and intermediate casings only. Contact the BLM prior to the commencement of any offline cementing procedure.

### D. SPECIAL REQUIREMENT (S)

### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

# 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

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV** (575) 361-2822

- ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)689-5981
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per title 43 CFR 3172
    - as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity 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 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity 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 the **title 43 CFR 3172** and **API STD 53 Sec. 5.3**.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 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 the title 43 CFR 3172.6(b)(9) 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 cement), whichever is greater. However, if the float does not hold, cutoff 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 43 CFR 3172.

### 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 crewintensive operations.

### SA 02/20/2024

# 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:

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

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

### 3. Hydrogen Sulfide Safety Equipment and Systems

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

### 1. Well Control Equipment

- A. Choke manifold with minimum of one adjustable choke/remote choke.
- B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- C. Auxiliary equipment including annular type blowout preventer.
- 2. <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. Visual Warning Systems

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

# 4. Mud Program

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

## 5. Metallurgy

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

### 6. Communications

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

## 7. Well Testing

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

### 8. Emergency Phone Numbers

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

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

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

Waste type: GARBAGE

Waste content description: Garbage & trash from all drilling & completion procedures

Amount of waste: 1500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Enclosed trash trailers

Safe containment attachment:

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

**FACILITY** 

Disposal type description:

Disposal location description: County of Eddy waste management

### **Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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? Y

**Description of cuttings location** Drill cuttings will be properly contained in steel tanks (20 yard roll off bins.) and taken to an NMOCD approved disposal facility listed below. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at the said facilities. NMOCD approved waste disposal locations are CRI or Lea Land, both facilities are located on HWY 62/180, Sec. 27 T20S R32E.

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

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: SCREAMING EAGLES 9/7 W0NM FED COM Well Number: 1H

## **Section 8 - Ancillary**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities** 

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Screaming\_Eagles\_9\_7\_W0NM\_Fed\_Com\_1H\_WellSiteLayout\_20240115085751.pdf

**Comments: NONE** 

**Section 10 - Plans for Surface Reclamation** 

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: Screaming Eagles 9/7 W0FG & W0CB Fed

Com wells

Multiple Well Pad Number: 2

Recontouring

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

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

(acres): 5.9 0.82 (acres): 5.08

Road proposed disturbance (acres): Road interim reclamation (acres): 0 Road long term disturbance (acres): 0

1.66

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

(acres): 0 (acres): 0

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

(acres): 0

Other proposed disturbance (acres): 0 Other interim reclamation (acres): 0 Other long term disturbance (acres): 0

Total proposed disturbance: Total interim reclamation: 0.82 Total long term disturbance: 5.08

7.5600000000000005

Disturbance Comments: The length of the pipeline is unknown. A sundry notice will be filed for approval of said pipeline.

Reconstruction method: Remove caliche, redistribute topsoil over reclaimed area & reseed.

**Topsoil redistribution:** Use backhoe/loader to spread material.

Soil treatment: None

Existing Vegetation at the well pad: Various brush & grasses.

Existing Vegetation at the well pad

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

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

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

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

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

CONDITIONS

Action 321336

### **CONDITIONS**

Operator:	OGRID:
MEWBOURNE OIL CO	14744
P.O. Box 5270 Hobbs, NM 88241	Action Number: 321336
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	3/21/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/21/2024
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	3/21/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	3/21/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	3/21/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	3/21/2024
ward.rikala	This well can not be produced until the well name is changed per proper naming convention.	3/21/2024