Form 3160-3		as ocd		FORM	APPROVED 541
(June 2015) LINITED STATE:	^e Hor	0018		OMB Ne Expires: Ja	o. 1004-0137 inuary 31, 2018
DEPARTMENT OF THE I BUREAU OF LAND MAN	NTERIORI AGEMENT	G 31 2010	ð	5. Lease Serial No. NMNM094095	
APPLICATION FOR PERMIT TO D		RECEIVE		6. If Indian, Allotee	or Tribe Name
1a. Type of work:	EENTER			7. If Unit or CA Agi	reement, Name and No.
ib. Type of Well: 🔽 Oil Well 🔲 Gas Well 🗍 O)ther			8 Lease Name and	Well No
Ic. Type of Completion: Hydraulic Fracturing	ingle Zone	Multiple Zone		CAPER 20/29 830	N FED COM 32
				2H	
Name of Operator MEWBOURNE OIL COMPANY (14744)			X	9. API Well No. 30-02	5-45156
ia. Address PO Box 5270 Hobbs NM 88240	3b. Phone N (575)393-59	o. (include area cod	e) ALEY	10, Field and Pool, or RED TANK BONE	or Exploratory SPRING / BONE SPR
Location of Well (Report location clearly and in accordance -	with any State	requirements.*)	PAS	11. Sec., T. R. M. or	Blk. and Survey or Area
At surface NESW / 1645 FSL / 2020 FWL / LAT 32.47	5947 / LONG	-103.6988888	and the second se	SEC 171 1215 / R	32E / NMP
At proposed prod. zone SESW / 100 FSL / 1980 FWL / L	LAT 32.44266	604 / LONG -103.6	989948		
. Distance in miles and direction from nearest town or post off 5 miles	fice*	×.		12. County or Parisl LEA	n 13. State NM
5. Distance from proposed* location to nearest 330 feet	16. No of ac	res in lease	17. Spacin	hg.Unit dedicated to t	his well
(Also to nearest drig. unit line, if any)			320		
3. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50 feet	19. Propose 11620 feet	d Depth / 23433 feet	20./BLM	BIA Bond No. in file 11693	
L Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxi	mate date work will	start*	23. Estimated durati	on
	24. Attac	hments			
ne following, completed in accordance with the requirements or s applicable)	of Onshore Oil	and Gas Order No. 1	, and the H	Iydraulic Fracturing r	ule per 43 CFR 3162.3-3
. Well plat certified by a registered surveyor. A Drilling Plan.		4. Bond to cover th Item 20 above).	e operation	s unless covered by an	n existing bond on file (see
A Surface Use Plan (if the location is on National Forest Syste SUPO must be filed with the appropriate Forest Service Office	em Lands, the	 Operator certific Such other site sp BLM. 	ation. ecific infor	mation and/or plans as	may be requested by the
	Name	(Printed/Typed)	5)202 500	 E	Date
5. Signature	م المحم		นเฉยอะอชน	J	12/10/2017
5. Signature Electronic Submission)	Bradle	y bishop / Ph. (5/	-,		
Electronic Submission) tle Regulatory	Bradle	у ызпор / Pn: (57			*
5. Signature Electronic Submission) tle tegulatory pproved by (Signature) Electronic Submission)	Bradle Name Cody	(Printed/Typed) Layton / Ph: (575)2	234-5959		Date 08/31/2018
5. Signature Electronic Submission) itle Regulatory pproved by (Signature) Electronic Submission) itle Assistant Field Manager Lands & Minerals	Name Cody Office CARL	(Printed/Typed) Layton / Ph: (575)2	234-5959		Date 08/31/2018
5. Signature (Electronic Submission) Title Regulatory (pproved by (Signature) (Electronic Submission) Title Assistant Field Manager Lands & Minerals (pplication approval does not warrant or certify that the applicar pplicant to conduct operations thereon. Conditions of approval, if any, are attached.	Name Cody Office CARL nt holds legal of	(Printed/Typed) Layton / Ph: (575) SBAD or equitable title to th	234-5959 nose rights	in the subject lease w	Date 08/31/2018 hich would entitle the
25. Signature (Electronic Submission) Fitle Regulatory Approved by (Signature) (Electronic Submission) Fitle Assistant Field Manager Lands & Minerals Application approval does not warrant or certify that the applicant pplication approval does not warrant or certify that the applicant pplication approval does not warrant or certify that the applicant pplication of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, n of the United States any false, fictitious or fraudulent statements	Name Cody Office CARL nt holds legal of nake it a crime or representati	(Printed/Typed) Layton / Ph: (575) SBAD or equitable title to the effor any person known ons as to any matter	234-5959 hose rights wingly and within its j	in the subject lease w willfully to make to a urisdiction.	Date 08/31/2018 hich would entitle the any department or agency
25. Signature (Electronic Submission) Title Regulatory Approved by (Signature) (Electronic Submission) Title Assistant Field Manager Lands & Minerals Application approval does not warrant or certify that the applican upplicant 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, no of the United States any false, fictitious or fraudulent statements Cond. Back of Market 1.6	Name Cody Office CARL nt holds legal of nake it a crime or representati	(Printed/Typed) Layton / Ph: (575) SBAD or equitable title to the for any person known as to any matter	234-5959 nose rights wingly and within its j	in the subject lease w willfully to make to a jurisdiction.	Date 08/31/2018 hich would entitle the any department or agency
25. Signature (Electronic Submission) Fitle Regulatory Approved by (Signature) (Electronic Submission) Fitle Assistant Field Manager Lands & Minerals Application approval does not warrant or certify that the applicant upplicant to conduct operations thereon. Conditions of approval, if any, are attached. Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, n of the United States any false, fictitious or fraudulent statements ECCH Rec. SIMILS	Name Cody Office CARL nt holds legal of nake it a crime or representati	(Printed/Typed) Layton / Ph: (575) SBAD or equitable title to the for any person known ons as to any matter	234-5959 hose rights wingly and within its j	in the subject lease w willfully to make to a purisdiction.	Date 08/31/2018 hich would entitle the any department or agency
Signature lectronic Submission) le agulatory proved by (Signature) lectronic Submission) le ssistant Field Manager Lands & Minerals plication approval does not warrant or certify that the applicant plicant to conduct operations thereon. nditions of approval, if any, are attached. le 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, m he United States any false, fictitious or fraudulent statements FCH Rec S/31/18	Name Cody Office CARL nt holds legal of nake it a crime or representati	(Printed/Typed) Layton / Ph: (575) SBAD or equitable title to the e for any person knowns as to any matter	234-5959 hose rights wingly and within its j	in the subject lease w willfully to make to a purisdiction.	Date 08/31/2018 hich would entitle the uny department or agen 4/16

(Continued on page 2)

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APPROVED WITH CONDI-APPROVED Date: 08/31/2018

*(Instructions on page 2).

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INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

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

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

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

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

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

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

Additional Operator Remarks

Location of Well

SHL: NESW / 1645 FSL / 2020 FWL / TWSP: 21S / RANGE: 32E / SECTION: 17 / LAT: 32.475947 / LONG: -103.6988888 (TVD: 0 feet, MD: 0 feet)
 PPP: SENW / 2642 FNL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 29 / LAT: 32.4496477 / LONG: -103.69890003 (TVD: 11599 feet, MD: 20891 feet)
 PPP: SESW / 1321 FSL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 29 / LAT: 32.4460166 / LONG: -103.6989974 (TVD: 11609 feet, MD: 22212 feet)
 PPP: NENW / 0 FNL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 29 / LAT: 32.4460166 / LONG: -103.6989074 (TVD: 11577 feet, MD: 18249 feet)
 PPP: NENW / 0 FNL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 20 / LAT: 32.4711511 / LONG: -103.69900171 (TVD: 11534 feet, MD: 13068 feet)
 PPP: SENW / 2642 FNL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 20 / LAT: 32.4641638 / LONG: -103.6990117 (TVD: 11555 feet, MD: 15610 feet)
 BHL: SESW / 100 FSL / 1980 FWL / TWSP: 21S / RANGE: 32E / SECTION: 29 / LAT: 32.4426604 / LONG: -103.6989948 (TVD: 11620 feet, MD: 23433 feet)

BLM Point of Contact

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

Review and Appeal Rights

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



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



Operator Certification

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

NAME: Bradley Bishop

Title: Regulatory

Street Address: PO Box 5270

City: Hobbs

State: NM

State:

Zip: 88240

Signed on: 12/13/2017

Phone: (575)393-5905

Email address: bbishop@mewbourne.com

Field Representative

Representative Name:

Street Address:

City:

Phone:

Email address:

Zip:



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

Application Data Report

08/31/2018

APD ID: 10400025284

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CAPER 20/29 B3CN FED COM

Well Type: OIL WELL

Well Number: 2H Well Work Type: Drill

Submission Date: 12/15/2017

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General		
APD ID: 10400025284	Tie to previous NOS?	Submission Date: 12/15/2017
BLM Office: CARLSBAD	User: Bradley Bishop	Title: Regulatory
Federal/Indian APD: FED	Is the first lease penetrated	l for production Federal or Indian? FED
Lease number: NMNM094095	Lease Acres: 640	
Surface access agreement in place?	Allotted?	Reservation:
Agreement in place? NO	Federal or Indian agreemer	nt:
Agreement number:		
Agreement name:		
Keep application confidential? YES		
Permitting Agent? NO	APD Operator: MEWBOURI	NE OIL COMPANY
Operator letter of designation:		

Operator Info

Operator Organization Name: MEWBOURNE OIL COMPANY

State: NM

Operator Address: PO Box 5270

Operator PO Box:

Operator City: Hobbs

Zip: 88240

Operator Phone: (575)393-5905

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? EXISTING	Mater Development Plan name:	Caper Drill Island
Well in Master SUPO? NO	Master SUPO name:	
Well in Master Drilling Plan? NO	Master Drilling Plan name:	
Well Name: CAPER 20/29 B3CN FED COM	Well Number: 2H	Well API Number:
Field/Pool or Exploratory? Field and Pool	Field Name: RED TANK BONE SPRING	Pool Name: BONE SPRING

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

Well Number: 2H

Describe other minerals:				
Is the proposed well in a Helium produ	iction area? N	Use Existing Well Pad?	NO	New surface disturbance?
Type of Well Pad: MULTIPLE WELL		Multiple Well Pad Name	e :	Number: 6
Well Class: HORIZONTAL		CAPER DRILL ISLAND Number of Legs:		
Well Work Type: Drill				
Well Type: OIL WELL				
Describe Well Type:				
Well sub-Type: APPRAISAL				
Describe sub-type:				
Distance to town: 25 Miles	Distance to ne	arest well: 50 FT	Distanc	e to lease line: 330 FT
Reservoir well spacing assigned acres	Measurement:	320 Acres		
Well plat: Caper20_29B3CNFedCom	12H_wellPLAT_2	0180822103137.pdf		
Well work start Date: 09/01/2017		Duration: 60 DAYS		

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Survey number:

Vertical Datum: NAVD88

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	QIM	TVD
SHL Leg #1	164 5	FSL	202 0	FWL	215	32E	17	Aliquot NESW	32.47594 7	- 103.6988 888	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 094095	363 8	0	0
KOP Leg #1	164 5	FSL	198 0	FWL	215	32E	17	Aliquot NESW	32.47594 76	- 103.6990 209	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 094095	- 741 8	110 56	110 56
PPP Leg #1	264 2	FNL	198 0	FWL	21S	32E	20	Aliquot SENW	32.46416 38	- 103.6990 117	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 014331	- 791 7	156 10	115 55

Well Name: CAPER 20/29 B3CN FED COM

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Well Number: 2H

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	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Trac	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	۵۷T
PPP Leg #1	100	FNL	198 0	FWL	215	32E	20	Aliquot NENW	32.47115 11	- 103.6990 171	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 014331	- 789 6	130 68	115 34
PPP Leg #1	0	FNL	198 0	FWL	21S	32E	29	Aliquot NENW	32.45690 99	- 103.6990 06	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 031955	- 793 9	182 49	115 77
PPP Leg #1	132 1	FSL	198 0	FWL	21S	32E	29	Aliquot SESW	32.44601 66	- 103.6989 974	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 029235	- 797 1	222 12	116 09
PPP Leg #1	264 2	FNL	198 0	FWL	21S	32E	29	Aliquot SENW	32.44964 77	- 103.6990 003	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 014331	- 796 1	208 91	115 99
EXIT Leg #1	100	FSL	198 0	FWL	21S	32E	29	Aliquot SESW	32.44266 04	- 103.6989 948	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 029235	- 798 2	234 33	116 20
BHL Leg #1	100	FSL	198 0	FWL	215	32E	29	Aliquot SESW	32.44266 04	- 103.6989 948	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 029235	- 798 2	234 33	116 20



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

08/31/2018

APD ID: 10400025284

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Highlighted data reflects the most recent changes

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

Submission Date: 12/15/2017

Section 1 - Geologic Formations

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
1	UNKNOWN	3638	27	27		NONE	No
2	RUSTLER	2656	981	981	DOLOMITE,ANHYDRIT E	USEABLE WATER	No
3	TOP SALT	2247	1390	1390	SALT	NONE	No
4	BASE OF SALT	311	3326	3326	SALT	NONE	No
5	LAMAR	-677	4314	4314	LIMESTONE	NATURAL GAS,OIL	No
6	BELL CANYON	-941	4578	4578	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-1887	5524	5524	SANDSTONE	NATURAL GAS,OIL	No
8	MANZANITA	-2061	5698	5698		NONE	No
9	BRUSHY CANYON	-3081	6718	6718	SANDSTONE	NATURAL GAS,OIL	Yes
10	BONE SPRING	-4800	8437	8437	LIMESTONE, SHALE	NATURAL GAS, OIL	No
11	BONE SPRING 1ST	-5897	9534	9534	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 2ND	-6532	10169	10169	SANDSTONE	NATURAL GAS, OIL	No
13	BONE SPRING 3RD	-7503	11140	11140	SANDSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Pressure Rating (PSI): 5M Rat

Rating Depth: 23433

Equipment: Annular, Pipe Ram, Blind Ram

Requesting Variance? YES

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

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

Choke Diagram Attachment:

Caper_20_29_B3CN_Fed_Com_2H_5M_BOPE_Choke_Diagram_20171215135618.pdf

Caper_20_29_B3CN_Fed_Com_2H_Flex_Line_Specs_20171215135620.pdf

BOP Diagram Attachment:

Caper_20_29_B3CN_Fed_Com_2H_5M_BOPE_Schematic_20171215135641.pdf

Caper_20_29_B3CN_Fed_Com_2H_Multi_Bowl_WH_20171215135642.pdf

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1055	0	1055			1055	H-40	48	STC	1.59	3.58	DRY	6.36	DRY	10.6 8
2	INTERMED IATE	12.2 5	9.625	NEW	API	Y	0	3926	0	3926			3926	J-55	40	LTC	1.13	1.96	DRY	3.16	DRY	3.94
3	PRODUCTI ON	8.75	7.0	NEW	API	N	0	11787	0	11524			11787	P- 110	26	LTC	1.4	1.79	DRY	2.13	DRY	2.71
4	LINER	6.12 5	4.5	NEW	API	N	11056	23433	11056	11620			12377	₽- 110	13.5	LTC	1.77	2.05	DRY	2.02	DRY	2.53

Section 3 - Casing

Casing Attachments

Operator Name: MEWBOURNE OIL COMPANY Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caper_20_29_B3CN_Fed_Com_2H_Csg_Assumptions_20180821093617.pdf

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Caper_20_29_B3CN_Fed_Com_2H_Type_Inter_Tapered_String_Diagram_20180821093925.pdf

Casing Design Assumptions and Worksheet(s):

Caper_20_29_B3CN_Fed_Com_2H_Csg_Assumptions_20180821093626.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caper_20_29_B3CN_Fed_Com_2H_Csg_Assumptions_20180821093634.pdf

Well Number: 2H

Casing Attachments

Casing ID: 4 String Type:LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Caper_20_29_B3CN_Fed_Com_2H_Csg_Assumptions_20180821093643.pdf

Section	4 - C	emen	it								
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	863	570	2.12	12.5	1208	100	Class C	Salt, Gel, Extender, LCM
SURFACE	Tail		863	1055	200	1.34	14.8	268	100	Class C	Retarder
INTERMEDIATE	Lead	~	0	3282	645	2.12	12.5	1367	25	Class C	Salt, Gel, Extender, LCM
INTERMEDIATE	Tail		3282	3926	200	1.34	14.8	268	25	Class C	Retarder
PRODUCTION	Lead	5700	0	5018	465	2.12	12.5	986	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		5018	5700	100	1.34	14.8	134	25	Class C	Retarder
PRODUCTION	Lead	5700	5700	9289	320	2.12	12.5	678	25	Class C	Gel, Retarder, Defoamer, Extender
PRODUCTION	Tail		9289	1178 7	400	1.18	15.6	472	25	Class H	Retarder, Fluid Loss, Defoamer
LINER	Lead		1105 6	2343 3	500	2.97	11.2	1485	25	Class C	Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-Settling Agent

Well Number: 2H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	Н	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1055	SPUD MUD	8.6	8.8							
1055	3926	SALT SATURATED	10	10							
3926	1105 6	WATER-BASED MUD	8.6	9.7							
1105 6	1162 0	OIL-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 (11056') to surface

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

CNL,DS,GR,MWD,MUDLOG

Coring operation description for the well:

None

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6042

Anticipated Surface Pressure: 3485.6

Anticipated Bottom Hole Temperature(F): 140

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Caper_20_29_B3CN_Fed_Com_2H_H2S_Plan_20171215142033.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Caper_20_29_B3CN_Fed_Com_2H__Dir_Plan_20180821095312.pdf Caper_20_29_B3CN_Fed_Com_2H_Dir_Plot_20180821095319.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Caper_20_29_B3CN_Fed_Com_2H_Drlg_Program_20180821095400.doc Caper_20_29_B3CN_Fed_Com_2H_OCD_Sheet_20180821095956.pdf

Other Variance attachment:



Same >	ENGINEERING & SERVICES

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

Customer ·		а, г		
	AUSTIN DISTRIBUTING	Test Date:	4/30/2015	
Customer Ref. :	4060578	Hose Senai No.:		
IIVORDE NO. :				
Product Description:		10K3.548.0CK4.1/1610KFLGE/E	LE	
ind Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG	
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7	1 11
Norking Pressure :	10,000 PSI	Test Pressure :	15,000 PSI	
Gates E & S N	orth America, Inc. certifies	that the following hose	assembly has been tested to	
the Gates Oilf hydrostatic test	ield Roughneck Agreement/Sj per API Spec 7K/Q1, Fifth Ed	pecification requirement lition, June 2010, Test p	s and passed the 15 minute ressure 9.6.7 and per Table 9	
to 15,000 psi	minimum of 2.5 times t	et number. Hose burst p he working pressure per	Table 9.	
		······································		
Chuality Mananer -		Produciton:	PRODUCTION	
Date :	4/30/2015	Date :	4/30/2016	
Signature :	C Wigen C app	Signature : L	4-	
			Form-PrC - 01 Rev.0 2	
/				
/			Fater	
/			Sater	
			EDY RATES	
			Sector Barrier	



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13-5/8" MN-DS Wellhead System





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	SF		SF Jt	SF Body	
Casing	Collapse	Burst	Tension	Tension	
36# J-55	1.13	1.96	3.16	3.94	
40# J-55	1.26	1.93	27.48	33.30	

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Casing Program

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Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1055'	13.375"	48	H40	STC	1.59	3.58	6.36	10.68
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.16	3.94
12.25"	3453'	3926'	9.625"	40	J55	LTC	1.26	1.93	27.48	33.30
8.75"	0'	11787'	7"	26	HCP110	LTC	1.40	1.79	2.13	2.71
6.125"	11056'	23433'	4.5"	13.5	P110	LTC	1.77	2.05	2.02	2.53
				BLM Minimum Safety			1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

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

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension .	Tension
17.5"	0'	1055'	13.375"	48	H40	STC	1.59	3.58	6.36	10.68
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.16	3.94
12.25"	3453'	3926'	9.625"	40	J55	LTC	1.26	1.93	27.48	33.30
8.75"	0'	11787'	7"	26	HCP110	LTC	1.40	1.79	2.13	2.71
6.125"	11056'	23433'	4.5"	13.5	P110	LTC	1.77	2.05	2.02	2.53
		-		BLM Minimum Safety			1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

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

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1055'	13.375"	48	H40	STC	1.59	3.58	6.36	10.68
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12.25"	3453'	3926'	9.625"	40	J55	LTC	1.26	1.93	27.48	33.30
8.75"	0'	11787'	7"	26	HCP110	LTC	1.40	1.79	2.13	2.71
6.125"	11056'	23433'	4.5"	13.5	P110	LTC	1.77	2.05	2.02	2.53
				BLM Minimum Safety			1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

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

Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	To	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1055'	13.375"	48	H40	STC	1.59	3.58	6.36	10.68
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12.25"	3453'	3926'	9.625"	40	J55	LTC	1.26	1.93	27.48	33.30
8.75"	0'	11787'	7"	26	HCP110	LTC	1.40	1.79	2.13	2.71
6.125"	11056'	23433'	4.5"	13.5	P110	LTC	1.77	2.05	2.02	2.53
				BLM Minimum Safety			1.125	1	1.6 Dry	1.6 Dry
						Factor			1.8 Wet	1.8 Wet

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

1. Geologic Formations

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TVD of target	11620'	Pilot hole depth	NA
MD at TD:	23433'	Deepest expected fresh water:	125'

Basin			
Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	981	Water	
Top Salt	1390		
Castile			
Base Salt	3326		
Lamar	4314	Oil/Gas	
Bell Canyon	4578	Oil/Gas	
Cherry Canyon	5524	Oil/Gas	
Manzanita Marker	5698		
Brushy Canyon	6718	Oil/Gas	
Bone Spring	8437	Oil/Gas	
1 st Bone Spring Sand	9534		
2 nd Bone Spring Sand	10169	Oil/Gas	
3 rd Bone Spring Sand	11140	Target Zone	
Abo			
Wolfcamp			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

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2. Casing Program

Hole	Casing	Interval	Csg.	Weight	Grade	Conn.	SF	SF	SF Jt	SF Body
Size	From	То	Size	(lbs)			Collapse	Burst	Tension	Tension
17.5"	0'	1055'	13.375"	48	H40	STC	1.59	3.58	6.36	10.68
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	3.16	3.94
12.25"	3453'	3926'	9.625"	40	J55	LTC	1.26	1.93	27.48	33.30
8.75"	0'	11787'	7"	26	HCP110	LTC	1.40	1.79	2.13	2.71
6.125"	11056'	23433'	4.5"	13.5	P110	LTC	1.77	2.05	2.02	2.53
В	LM Mini	mum Safet	y 1.125	1	1.6 Dr	y 1.6 E)ry			
		Facto	or		1.8 We	et 1.8 V	Vet			

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

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3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H20 gal/ sk	500# Comp. Strength (hours)	Slurry Description			
Surf.	570	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM			
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder			
Inter.	645	12.5	2.12	11	10	Lead: Class C + Salt + Gel + Extender + LCM			
	200	14.8	1.34	6.3	8	Tail: Class C + Retarder			
Prod. Stg 1	320	12.5	2.12	11	9	Lead: Class C + Gel + Retarder + Defoamer + Extender			
	400	15.6	1.18	5.2	13	Tail: Class H + Retarder + Fluid Loss + Defoamer			
					ECP/DV T	'ool @ 5700'			
Prod. Stg 2	465	12.5	2.12	11	16	Lead: Class C + Gel + Retarder + Defoamer + Extender			
	100	14.8	1.34	6.3	8	Tail: Class C + Retarder			
Liner	500	11.2	2.97	17	16	Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent			

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	0'	25%
Liner	11056'	25%

4. Pressure Control Equipment

Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP]	Гуре	~	Tested to:
			Annular		X	2500#
			Blind Ram		X	
12-1/4"	13-5/8"	5M	Pip	e Ram	X	F000#
			Dou	Double Ram		5000#
			Other*			

*Specify if additional ram is utilized.

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

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

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

5. Mud Program

Depth		Туре	Weight (ppg)	Viscosity	Water Loss	
From	To			_		
0'	1055'	Spud Mud	8.6-8.8	28-34	N/C	
1055'	3926'	BW	10.0	28-34	N/C	
3926'	11056'	FW w/ Polymer	8.6-9.7	28-34	N/C	
11056'	11620'	OBM	8.6-10.0	30-40	<10cc	

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

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

6. Logging and Testing Procedures

Logg	ing, Coring and Testing.						
X	Will run GR/CNL from KOP (11056') to surface (horizontal well - vertical portion of						
	hole). Stated logs run will be in the Completion Report and submitted to the BLM.						
	No Logs are planned based on well control or offset log information.						
	Drill stem test? If yes, explain						
	Coring? If yes, explain						

Add	litional logs planned	Interval		
X	Gamma Ray	11056' (KOP) to TD		
	Density			
	CBL			
	Mud log			
	PEX			

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6042 psi
Abnormal Temperature	No

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

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

H2S is present

X H2S Plan attached

8. Other facets of operation

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

Attachments

____ Directional Plan

____ Other, describe

Operator Name:	Property Name:	Well Number
Mewbourne Oil Company	Caper 20/29 B3CN Fed Com	2H

Kick Off Point (KOP)

UL K	Section	Township 21S	Range 32E	Lot	Feet 1645	From N/S S	Feet 2020	From E/W W	County Lea	
Latitu 32.4	Latitude 32.4759476			Longitude	990209			NAD 83		

First Take Point (FTP)

UL C	Section 20	Township 21S	Range 32E	Lot	Feet 100	From N/S N	Feet 1980	From E/W W	County Lea	
Latitude				Longitude				NAD		
32.4711511				-103.6	-103.6990171			83		

Last Take Point (LTP)

UL N	Section 29	Township 21S	Range 32E	Lot	Feet 100	From N/S S	Feet 1980	From E/W W	County Lea
Latitude				Longitu	Longitude			NAD	
32.4426604				-103.	-103.6989948			83	

Is this well the defining well for the Horizontal Spacing Unit?	N

Y

Is this well an infill well?

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-025-45087		
Operator Name:	Property Name:	Well Number
Mewbourne Oil Company	Caper 20/29 B2CN Fed Com	1H



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

APD ID: 10400025284

Operator Name: MEWBOURNE OIL COMPANY

Well Name: CAPER 20/29 B3CN FED COM

Well Type: OIL WELL

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Caper20_29B3CNFedCom2H_existingroadmap_20180822103154.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

Submission Date: 12/15/2017

Well Number: 2H

Well Work Type: Drill

SUPO Data Report

08/31/2018

Highlighted data reflects the most

recent changes

Show Final Text

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Width (ft.): 20

Max grade (%): 3

Will new roads be needed? YES

New Road Map:

Caper20_29B3CNFedCom2H_newroadmap_20180822103209.pdf

Feet

New road type: RESOURCE

Length: 476.06

Max slope (%): 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: None

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Access surfacing type: OTHER Access topsoil source: OFFSITE Access surfacing type description: Caliche Access onsite topsoil source depth: Offsite topsoil source description: Topsoil will be on edge of lease road.

Onsite topsoil removal process:

Access other construction information: None

Access miscellaneous information: None

Number of access turnouts: 3

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: None

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Caper20_29B3CNFedCom2H_existingwellmap_20171213140731.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

Caper20_29B3CNFedCom2H_productionfacilitylayout_20171213140805.pdf Caper20_29B3CNFedCom2H_drillislandmap_20171213140828.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

		ner 2H
Water source use type: DUST CON INTERMEDIATE/PRODUCTION CAS CASING Describe type:	TROL, SING, STIMULATION, SURFACE	Water source type: IRRIGATION
Source latitude: 32 /3158		Source longitude: -103.66656
Source datum: NAD83		
Water source permit type: WATER I		
Source land ownershin: PRIVATE		
Water source transport method: TR		
Source transportation land owners		
Water source volume (barrels): 201	4	Source volume (acre-feet): 0 2505007
Source volume (gal): 84588	•	Source volume (acre-reet). 0.2000007
Water source use type: DUST CON INTERMEDIATE/PRODUCTION CAS CASING	TROL, ING, STIMULATION, SURFACE	Water source type: IRRIGATION
Describe type:		Source longitude: -103.62513
Source latitude: 32.3991		
Source datum: NAD83		
Water source permit type: WATER \	WELL	
Source land ownership: FEDERAL		
Water source transport method: TR	UCKING	
Source transportation land owners	hip: COMMERCIAL	
Water source volume (barrels): 2014	4	Source volume (acre-feet): 0.2595907
Source volume (gal): 84588		
Vater source and transportation map:		
aper20_29B3CNFedCom2H_watersour	rceandtransmap_2017121314090	02.pdf
later source comments: Both Sources	shown on one map	
ew water weil? NO		
New Water Well In	fo	
Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est, depth to top of aquifer(ft):	Est thickness of a	auifer:
Aquifer comments:		
Aquifer documentation:		
-		

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Operator Name: MEWBOURNE OIL COMPANY Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Well casing outside diameter (in.):	Well casing inside diameter (in.):
New water well casing?	Used casing source:
Drilling method:	Drill material:
Grout material:	Grout depth:
Casing length (ft.):	Casing top depth (ft.):
Well Production type:	Completion Method:
Water well additional information:	
State appropriation permit:	
Additional information attachment:	

Section 6 - Construction Materials

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

Construction Materials source location attachment:

Caper20_29B3CNFedCom2H_calichesourceandtransmap_20171213140941.pdf

Section 7 - Methods for Handling Waste

Waste type: SEWAGE Waste content description: Human waste & grey water

Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: 2,000 gallon plastic container

Safe containmant attachment:

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

Disposal location description: City of Carlsbad Water Treatment facility

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Enclosed trash trailer

Safe containmant attachment:

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

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Disposal location description: Waste Management facility in Carlsbad.

Waste type: DRILLING

Waste content description: Drill cuttings

Amount of waste: 940 barrels

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

FACILITY Disposal type description:

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

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.)

Cuttings area depth (ft.)

Cuttings area width (ft.)

Cuttings area volume (cu. yd.)

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

WCuttings area liner

Cuttings area liner specifications and installation description

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Caper20_29B3CNFedCom2H_wellsitelayout_20180822103304.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: CAPER DRILL ISLAND

Multiple Well Pad Number: 6

Recontouring attachment:

Drainage/Erosion control construction: None

Drainage/Erosion control reclamation: None

Well pad proposed disturbance	Well pad interim reclamation (acres):	Well pad long term disturbance
(acres): 0	3.673	(acres): 2.5
Road proposed disturbance (acres): 0	Road interim reclamation (acres):	Road long term disturbance (acres): 0.028
Powerline proposed disturbance (acres): 0 Pineline proposed disturbance	Powerline interim reclamation (acres):	Powerline long term disturbance (acres): 0
(acres): 0 Other proposed disturbance (acres): 0	Pipeline interim reclamation (acres): 0.14655188 Other interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0.058842976 Other long term disturbance (acres): 0
Total proposed disturbance: 0	Total interim reclamation (acres): 0	Total long term disturbance: 2.586843

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

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

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

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

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

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

Non native seed used? NO Non native seed description: Seedling transplant description: Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO Seed harvest description: Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed name:

Source name:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed source:

Source address:

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Bradley

Last Name: Bishop

Phone: (575)393-5905

Email: bbishop@mewbourne.com

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

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

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: NA

Weed treatment plan attachment:

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

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

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

	· · · · · · · · · · · · · · · · · · ·
Operator Name: MEWBOURNE OIL COMPANY Well Name: CAPER 20/29 B3CN FED COM	Well Number: 2H
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:
Fee Owner: Pecos Valley Artesian Convservation District Phone: (575)622-7000	Fee Owner Address: PO Box 1346 Roswell NM 88202 Email:
Surface use plan certification: NO Surface use plan certification document:	
Surface access agreement or bond: Agreement	
Surface Access Agreement Need description: S	SUA in place
Surface Access Bond BLM or Forest Service:	
BLM Surface Access Bond number:	
USFS Surface access bond number:	
Discribe	
Surface Owner: BUREAU OF LAND MANAGEMENT	
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office:	
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:

Well Name: CAPER 20/29 B3CN FED COM

Well Number: 2H

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

Surface use plan certification: NO Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: SUA in place

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: DEC 01 2017 Met with Paul Murphy (BLM) & RRC Surveying. Staked location @ 360' FSL & 1950' FWL, Sec 17, T21S, R32E, Lea Co., NM. (Elevation @ 3637'). Approx 75' of new road needed off S side of pad. Plugged bore (Intrepid Potash) 67' NE of well. Topsoil W. Reclaim N & W 60'. Will need to relocate electric line going to EOG Caper BFE Fed #003. Lat. 32.47241508 N, Long 103.69911536 W NAD83. Offsite battery 200' x 300' NE of pad. Lat. 32.47226 N, Long 103.7033 W NAD 83. Enterprise gas tie-in is approx 800' along existing disturbance to W. Pit area to the N. Locations are MOA. (BPS) AUG 08 2018 Met w/RRC surveying & restaked location @ 1645' FSL & 2020' FWL, Sec 17, T21S, R32E, Lea Co., NM. (Elev @ 3638'). This location is approved by BLM. Lat; 32.47594817, Long 103.69888882 NAD 83. (BCB)

Other SUPO Attachment

Caper20_29B3CNFedCom2H_gascaptureplan_20180822103326.pdf Caper20_29B3CNFedCom2H_interimreclamationdiagram_20180822103327.pdf



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



Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

PWD disturbance (acres):

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

PWD disturbance (acres):

PWD disturbance (acres):

Injection well type:

Injection well number:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

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

Injection well API number:

PWD disturbance (acres):

PWD disturbance (acres):

FAFMSS

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

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM1693

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Bond Info Data Report

Section of the

08/31/2018

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: