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. NMNM121473 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: NMNM137168X/CICADA UNIT 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 CICADA UNIT 99H 2. Name of Operator 9. API Well No. CHEVRON USA INCORPORATED 30-015-56692 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory PO BOX 1392, BAKERSFIELD, CA 93302 (661) 633-4000 WELCH/BONE SPRING 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 3/T26S/R27E/NMP At surface SWSE / 1076 FSL / 2513 FEL / LAT 32.066886 / LONG -104.177959 At proposed prod. zone SESW / 20 FSL / 1469 FWL / LAT 32.03494 / LONG -104.181758 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13 State **EDDY** NM 11.5 miles 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well 1076 feet location to nearest property or lease line, ft. 640.0 (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, 8089 feet / 19192 feet FED: ES0022 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 3272 feet 08/28/2025 147 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 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date (Electronic Submission) CINDY HERRERA-MURILLO / Ph: (432) 687-7866 09/03/2024 Title Permitting Specialist Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) CODY LAYTON / Ph: (575) 234-5959 02/28/2025 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

(Continued on page 2)

\*(Instructions on page 2)

General	(505) 476-34 I Information (505) 629-61		76-3462		Energy, Mir	e of New Mexico nerals & Natural Re Department ERVATION DIV			Su	C-10 evised July 9, 202 ubmit Electronica
	Phone Direct www.emnrd.	tory Visit: nm.gov/ocd/co	ntact-us/		OIL COINS	LICVITION DIV	101014	Submittal Type:	✓ Initial Su	
							☐ As Drille	ed		
API N	umber		Pool Code			TION INFORMATION Pool Name	N			
PEND	ing <mark>30-0</mark> 1	15-56692	64010			WELCH: BONE SPRIN	G		·	
325142	ty Code 2		Property N CICADA U						Well Numb 99H	er
OGRII 4323	D No.		Operator N CHEVRON		INC.				Ground Lev 3272'	el Elevation
	e Owner: 🗆	State □ Fee □	<u> </u>			Mineral Owner:	State   Fe	e 🗆 Tribal 🛭	▼ Federal	
					Surf	ace Location				
UL O	Section 3	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 1076' SOUTH	Ft. from E/W 2513' EAST	Latitude 32.06688		ongitude )4.177959° W	County EDDY
					Bottom	Hole Location	_			
UL N	Section 15	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 20' SOUTH	Ft. from E/W 1469' WEST	Latitude 32.03494		ongitude 04.181758° W	County EDDY
Dedica 640	nted Acres	Infill or Defi	ning Well	Definir 30-015	ng Well API -49000	Overlapping Spacin	g Unit (Y/N	) Consolidati U	on Code	
Order	Numbers. R-	<u>1</u> -22488				Well setbacks are u	nder Commo	l on Ownership	o: □Yes □No	⊠N/A
					Kick O	off Point (KOP)				
UL N					Ft. from N/S 0' SOUTH	Ft. from E/W 1585' WEST	Latitude 32.06397		ongitude 04.181857° W	County EDDY
			14.141.1 .141.		First T	ake Point (FTP)				
UL C	Section 10	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 100' NORTH	Ft. from E/W 1469' WEST	Latitude 32.06370		ongitude 04.182219° W	County EDDY
	1		ъ	Γ.		ake Point (LTP)	1	1-		
UL N	Section 15	Township 26 SOUTH	Range 27 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 100' SOUTH	Ft. from E/W 1469' WEST	Latitude 32.03516		ongitude )4.181759° W	County EDDY
		rea of Uniform MNM 1056946		Spacing	g Unit Type 🛭 Hor	rizontal 🏻 Vertical	Grov 3272	und Floor Ele 2'	evation:	
OPER.	ATOR CER	ΓΙΓΙCATIONS				SURVEYOR CERTIF	ICATIONS			
best of that this the land at this lunlease	my knowledge s organization d including the ocation pursu d mineral inte	and belief, and, i	if the well is a vorking interest of the hole location with an owner namy pooling a	vertical or o or unleased or has a ri of a workin	d mineral interest in ight to drill this well ng interest or	I hereby certify that the wactual surveys made by moto the best of my belief.  See Sheet 2 of 2 for plat.	e or under my	supervision, a		is true and correct
the cons mineral the well order fr	sent of at least l interest in ea l's completed i com the divisio	one lessee or ow ch tract (in the ta interval will be lo	rner of a workinget pool or fo. cated or obtain	ng interest rmation) ir 1ed a comp	n which any part of pulsory pooling		Sols	230	06) 04/10/20	
Signatu		ol Adler	Date			Signature and Seal of Pro	fessional Surv 05/01/20	cyol		
Printed		J. 7 WICI				Certificate Number	Date of Su			
	Ca Address	roladler@ch	evron.com							

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

See Sheet 1 of 2 for notes & certification.

### PROPOSED KICK OFF POINT/PPP #1

X = 547,077.29' (NAD27 NM E) Y = 386,987.79' LAT. 32.063854° N (NAD27) LONG. 104.181363° W X = 588,260.84' (NAD83/2011 NM E) Y = 387,044.97'

LAT. 32.063976° N (NAD83/2011) LONG. 104.181857° W

### PROPOSED FIRST TAKE POINT

X = 546,965.27' (NAD27 NM E) Y = 386,889.29' LAT. 32.063583° N (NAD27) LONG. 104.181725' W X = 588,148.82' (NAD83/2011 NM E) Y = 386,946.47' LAT. 32.063706° N (NAD83/2011) LONG. 104.182219' W

### PROPOSED MID POINT

X = 547,090.98' (NAD27 NM E) Y = 381,697.34' LAT. 32.049310° N (NAD27) LONG. 104.181343' W X = 588,274.63' (NAD83/2011 NM E) Y = 381,754.42' LAT. 32.049432° N (NAD83/2011) LONG. 104.181836' W

### PROPOSED LAST TAKE POINT

X = 547,122.01' (NAD27 NM E) Y = 376,505.58' LAT. 32.035037° N (NAD27) LONG. 104.181266° W X = 588,305.76' (NAD83/2011 NM E) Y = 376,562.56' LAT. 32.035160° N (NAD83/2011) LONG. 104.181759° W

### PROPOSED BOTTOM HOLE LOCATION

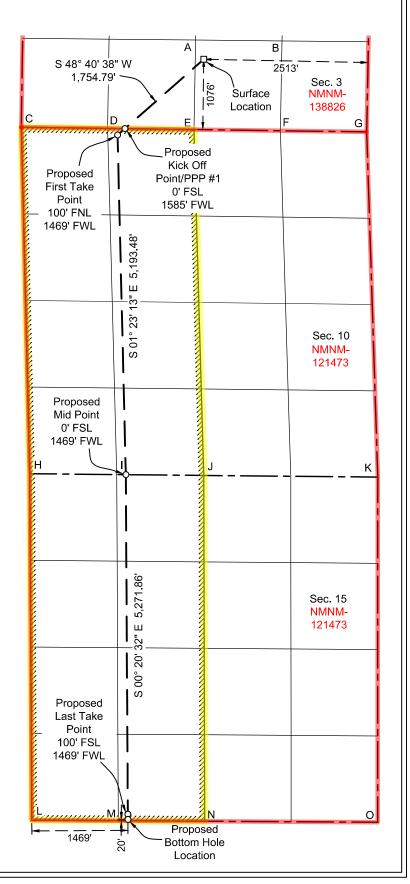
X = 547,122.48' (NAD27 NM E) Y = 376,425.57' LAT. 32.034817° N (NAD27) LONG. 104.181265' W X = 588,306.24' (NAD83/2011 NM E) Y = 376,482.55' LAT. 32.034940° N (NAD83/2011) LONG. 104.181758' W

### CORNER COORDINATES TABLE (NAD 27)

A- X= 548,157.44, Y= 388,342.12 B- X= 549,479.62, Y= 388,328.76 C- X= 545,492.91, Y= 387,009.20 D- X= 546,813.37, Y= 386,991.36 E- X= 548,133.83, Y= 386,973.51 F- X= 549,454.29, Y= 386,955.67 G- X= 550,774.76, Y= 386,937.82 H- X= 545,622.05, Y= 381,711.59 I- X= 546,952.45, Y= 381,698.68 J- X= 548,282.84, Y= 381,659.95 L- X= 545,653.53, Y= 381,659.95 L- X= 546,975.58, Y= 376,410.49 M- X= 546,975.58, Y= 376,406.42 N- X= 548,297.64, Y= 376,398.76 O- X= 550,941.76, Y= 376,383.44

### CICADA UNIT 99H

X = 548,283.12' (NAD27 NM E) Y = 388,047.98' LAT. 32.066763° N (NAD27) LONG. 104.177466° W X = 589,466.68' (NAD83/2011 NM E) Y = 388,105.19' LAT. 32.066886° N (NAD83/2011) LONG. 104.177959° W



### 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 must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description <u>Effective May 25, 2021</u>

Other, please describe:						
I. Well(s): Provide the follo recompleted from a single				ll or set of wells p	roposed to be drill	ed or proposed t
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
CICADA UNIT 98H	Pending	UL-O Sec 3 26S 27E	1076' FSL 2533' FEL	BBL/D	MCF/D	BBL/D
CICADA UNIT 99H	Pending	UL-O Sec 3 26S 27E	1076' FSL 2513' FEL	BBL/D	MCF/D	BBL/D
CICADA UNIT 100H	Pending	UL-O Sec 3 26S 27E	1077'FSL 2493' FWL	BBL/D	MCF/D	BBL/D
CICADA UNIT 101H	Pending	UL-O Sec 3 26S 27E	1077'FSL 2473' FEL	BBL/D	MCF/D	BBL/D
CICADA UNIT 102H	Pending	UL-O Sec 3 26S 27E	1077' FSL 2453' FEL	BBL/D	MCF/D	BBL/D
CICADA UNIT 103H	Pending	UL-O Sec 3 26S 27E	1077' FSL 2433' FEL	BBL/D	MCF/D	BBL/D
CICADA UNIT 104H	Pending	UL-O Sec 3 26S 27E	1077' FSL 2413' FEL	BBL/D	MCF/D	BBL/D

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
		-	Date	Commencement	Back Date	Date
				Date		
CICADA UNIT 98H	Pending		N/A	N/A	N/A	<u>N/A</u>
CICADA UNIT 99H	Pending		N/A	N/A	N/A	<u>N/A</u>
CICADA UNIT 100H	Pending		N/A	N/A	N/A	<u>N/A</u>
CICADA UNIT 101H	Pending		N/A	<u>N/A</u>	N/A	<u>N/A</u>
CICADA UNIT 102H	Pending		N/A	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CICADA UNIT 103H	Pending		N/A	N/A	N/A	N/A
CICADA UNIT 104H	Pending		N/A	N/A	N/A	N/A

VI. Separation Equipment: 
☐ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: 
☐ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

### 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.**  $\square$  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.

- ·	ural gas gathering system $\square$ will $\square$ will not have capacity to gather 100% of the anticipated natural gas well prior to the date of first production.											
	KIII. Line Pressure. Operator $\Box$ does $\Box$ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).											
☐ Attach Operator's plan to n	nanage production in response to the increased line pressure.											
Section 2 as provided in Parag	perator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in graph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information serted and the basis for such assertion.											
	Section 3 - Certifications  Effective May 25, 2021											
Operator certifies	s that, after reasonable inquiry and based on the available information at the time of submittal:											
one hundred percent of the ar	onnect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport nticipated volume of natural gas produced from the well(s) commencing on the date of first production, nt and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering											
hundred percent of the anticip into account the current and a	o connect to a natural gas gathering system in the general area with sufficient capacity to transport one pated volume of natural gas produced from the well(s) commencing on the date of first production, taking inticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.  **Operator will select one of the following:*											
Well Shut-In. ☐ Operator will D of 19.15.27.9 NMAC; or	ll shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection											
alternative beneficial uses for  (a) por (b) por (c) con (d) liqu (e) rein (f) rein (g) rein (h) fue	Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential the natural gas until a natural gas gathering system is available, including: wer generation on lease; wer generation for grid; mpression on lease; uids removal on lease; uids removal on lease; njection for underground storage; njection for temporary storage; njection for enhanced oil recovery; el cell production; and her alternative beneficial uses approved by the division.											
	Section 4 - Notices											
1. If, at any time after Operator	or 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 3 of 5

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: Carol Adler
Printed Name: Carol Adler
Title: Sr. HSE Regulatory Affairs Coordinator
E-mail Address: caroladler@chevron.com
Date: 7/3/2024
Phone: (432) 687-7148
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

### VI. Separation Equipment:

Separation equipment installed at each Chevron facility is designed for maximum anticipated throughput and pressure to minimize waste. Separation equipment is designed and built according to ASME Sec VIII Div I to ensure gas is separated from liquid streams according to projected production.

### VII./VIII. Operational & Best Management Practices:

- 1. General Requirements for Venting and Flaring of Natural Gas:
  - In all circumstances, Chevron will flare rather than vent unless flaring is technically infeasible and venting of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment.
  - Chevron installs and operates vapor recovery units (VRUs) in new facilities to minimize venting and flaring.
     If a VRU experiences operating issues, it is quickly assessed so that action can be taken to return the VRU to operation or, if necessary, facilities are shut-in to reduce the venting or flaring of natural gas.

### 2. During Drilling Operations:

- Flare stacks will be located a minimum of 110 feet from the nearest surface hole location.
- If an emergency or malfunction occurs, gas will be flared or vented to avoid a risk of an immediate and substantial adverse impact on public health, safety or the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Natural gas is captured or combusted if technically feasible using best industry practices and control technologies, such as the use of separators (e.g., Sand Commanders) during normal drilling and completions operations.

### 3. During Completions:

- Chevron typically does not complete traditional flowback, instead Chevron will flow produced oil, water, and gas to a centralized tank battery and continuously recover salable quality gas. If Chevron completes traditional flowback, Chevron conducts reduced emission completions as required by 40 CFR 60.5375a by routing gas to a gas flow line as soon as practicable once there is enough gas to operate a separator.
   Venting does not occur once there is enough gas to operate a separator
- Normally, during completions a flare is not on-site. A Snubbing Unit will have a flare on-site, and the flare volume will be estimated.
- If natural gas does not meet pipeline quality specification, the gas is sampled twice per week until the gas meets the specifications.

### 4. During Production:

- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and
  facilities to confirm that all production equipment is operating properly and there are no leaks or releases
  except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells
  and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will
  be available upon request by the division.
- Monitor manual liquid unloading for wells on-site, takes all reasonable actions to achieve a stabilized rate
  and pressure at the earliest practical time and takes reasonable actions to minimize venting to the
  maximum extent practicable.
- In all circumstances, Chevron will flare rather than vent unless flaring is technically infeasible and venting
  of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or
  the environment.
- Chevron's design for new facilities utilizes air-activated pneumatic controllers and pumps.
- If natural gas does not meet pipeline quality specification, the gas is sampled twice per week until the gas meets the specifications.
- Chevron does not produce oil or gas until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.

### 5. Performance Standards

- Equipment installed at each facility is designed for maximum anticipated throughput and pressure to minimize waste. Tank pressure relief systems utilize a soft seated or metal seated PSVs, as appropriate, which are both designed to not leak.
- Flare stack has been designed for proper size and combustion efficiency. New flares will have a
  continuous pilot and will be located at least 100 feet from the well and storage tanks and will be securely
  anchored.
- New tanks will be equipped with an automatic gauging system.
- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and
  facilities to confirm that all production equipment is operating properly and there are no leaks or releases
  except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells
  and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will
  be available upon request by the division.

### 6. Measurement or Estimation of Vented and Flared Natural Gas

- Chevron estimates or measures the volume of natural gas that is vented, flared, or beneficially used during drilling, operations, regardless of the reason or authorization for such venting or flaring.
- Where technically practicable, Chevron will install meters on flares installed after May 25, 2021. Meters
  will conform to industry standards. Bypassing the meter will only occur for inspecting and servicing of the
  meter.

Well Name: CICADA UNIT Well Number: 99H

to drilling the production lateral sections unless the BOP connection was not broken prior to drilling that hole section (example: drilling straight from production into production liner hole section). A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized. Chevron respectfully requests a variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC Technologies and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal. All tests performed by third party.

**Testing Procedure:** The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, production, and production liner will take place. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise (see variance request). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test pressures and other documented tests may be recorded and documented via utilization of the IPT 'Suretec' Digital BOP Test Method in lieu of the standard test chart. In the event the IPT system is unavailable, the standard test chart will be used.

### **Choke Diagram Attachment:**

BLM\_5M\_Choke\_Manifold\_Diagram\_20240828120744.pdf

Choke\_and\_Flex\_Hose\_COC\_7660103\_20240828120753.pdf

### **BOP Diagram Attachment:**

MultiBowl\_Wellhead\_Specs\_20240828120822.pdf

BLM\_5M\_Intermediate\_BOP\_and\_Choke\_Manifold\_NEW\_20240828120804.pdf

1.03\_\_\_WH\_\_\_NM\_Slim\_Hole\_DM100312151\_20240828120816.pdf

### **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	450	0	450	3272	2822	450	J-55	545	BUTT	5.43	3.58	BUOY	37.0 6	BUOY	34.7 8
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2347	0	2299	3272	973	2347	L-80	40	BUTT	2.79	2.61	BUOY	10.3	BUOY	9.96
3	INTERMED IATE	8.75	7.0	NEW	API	N	0	7820	0	7610	3272	-4338		P- 110		OTHER - BLUE	2.2	4.57	BUOY	4.21	BUOY	4.21
4	PRODUCTI ON	6.12 5	5.0	NEW	API	N	7620	8270	7410	8010	-4138	-4738		P- 110		OTHER - W513	1.82	4.35	BUOY	2.56	BUOY	4.02
5	PRODUCTI ON	6.12 5	4.5	NEW	API	N	8270	19192	8010	8183	-4738	-4911	10922	P- 110		OTHER - W521	1.82	4.35	BUOY	2.56	BUOY	4.02

Well Name: CICADA UNIT Well Number: 99H

Casing	<b>Attachments</b>

Casing ID: 1

String

**SURFACE** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

 $13.375 in\_BTC\_54.5 ppf\_J55\_20240830084818.pdf$ 

Casing ID: 2

String

INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

9.625in\_BTC\_40ppf\_L80\_20240830084540.pdf

Casing ID: 3

**String** 

**INTERMEDIATE** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

7in\_Blue\_SD\_29ppf\_P110\_20240828121157.pdf

Well Name: CICADA UNIT Well Number: 99H

### **Casing Attachments**

Casing ID: 4

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

 $5 in\_Wedge\_513\_18 ppf\_P110\_20240828121308.pdf$ 

Casing ID: 5

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

4.5in\_Wedge\_521\_11.6ppf\_P110\_20240830084632.pdf

### **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	N/A	N/A
SURFACE	Tail		0	450	240	1.63	13.6	391	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Lead		0	1347	247	2.29	11.5	555	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Tail		1347	2347	263	1.63	12.6	429	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Lead		0	6820	345	3.52	10.5	1213	25	CLASS C	Extender, Antifoam, Retarder, Viscosifier

Well Name: CICADA UNIT Well Number: 99H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		6820	7820	124	1.52	12.6	188	25		Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		7620	1919 2	896	1.52	12.6	1362	25		Extender, Antifoam, Retarder, Viscosifier

### **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: A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate. If an open reserve pit is not approved by OCD, a closed system will be used consisting of above ground steel tanks and all wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. If an open reserve pit is in place, pit construction, operation, and closure will follow all applicable rules and regulation. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations. And transportating of E&P waste will follow EPA regulations and accompanying manifests.

**Describe the mud monitoring system utilized:** A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

### **Circulating Medium Table**

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	450	SPUD MUD	8.3	8.9							
450	2347	SALT SATURATED	8.3	10.6							Saturated brine would be used through salt sections.

Well Name: CICADA UNIT Well Number: 99H

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
2347	7820	OTHER : WBM/BRINE	8.3	9.8							
7820	1919 2	OIL-BASED MUD	8.5	10							Due to wellbore instability in the lateral, may exceed the MW window needed to maintain overburden stresses

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

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

a. Production tests are not planned.

b. Logs run include: Gamma Ray Log, Directional Survey

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

GAMMA RAY LOG, DIRECTIONAL SURVEY,

Coring operation description for the well:

c. Coring Operations are not planned.

### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 4255 Anticipated Surface Pressure: 2454

Anticipated Bottom Hole Temperature(F): 143

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

Chevron\_Standard\_H2S\_Contingency\_Plan\_2022\_20240828122153.pdf

Well Name: CICADA UNIT Well Number: 99H

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

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

DefPlan100ft\_CicadaUnitNo.99H\_R0\_20240830085231.pdf Cicada\_Unit\_99H\_\_\_9\_Point\_Plan\_20240830085219.pdf

### Other proposed operations facets description:

- a. Batch drilling will be employed whereby the drilling rig may drill a specific hole section on all wells prior to moving to the next hole section.
- b. Shallow rig may be utilized to drill surface or intermediate sections. The production section will not be drilled by the shallow rig.
- c. Wait on cement duration for surface and intermediate string(s) will be based on time for tail slurry to develop 500 psi compressive strength and will follow rules as laid out in Onshore Order 2

### Other proposed operations facets attachment:

3\_Operational\_Best\_Management\_Practices\_20240828122503.pdf
CUSA\_Spudder\_Rig\_Data\_20240828122545.pdf
Gas\_Management\_Plan\_\_\_CICADA\_UNIT\_\_\_PAD\_63\_20240828122456.pdf
Visio\_Patterson\_Mock\_Pad\_v.2\_20240828122603.pdf

WASTE MINIMIZATION PLAN BONE SPRING 20240828122510.pdf

Other Variance attachment:



### Cicada Unit No. 99H R0 mdv 17Jun24 Proposal Geodetic Report

Report Date:

Tort / AHD / DDI / ERD Ratio Coordinate Reference Syste Location Lat / Long: Location Grid N/E Y/X CRS Grid Convergence Grid Scale Factor: Version / Patch:

June 18, 2024 - 04:05 PM (UTC 0) June 18, 2024 - 04:05 PM (UTIC Chevron NM, Eddy County (NAD 27 EZ) Chevron HNM Pkg 63 / 99H Cicada Unit No. 99H Cicada Unit No. 99H Unknown / Unknown Cicada Unit No. 99H R0 mdv 17Jun24 June 18, 2024 127.559 ° / 12497.395 ft / 6.573 / 1.527

NAD27 New Mexico State Plane, Eastern Zone, US Feet 32°4'0.34831"N , 104°10'38.87652"W N 388047.980 ftUS , E 548283.120 ftUS 0.083° 0.99991176(Applied) 2024.2.0.1

Survey / DLS Computation: Vertical Section Azimuth: Vertical Section Origin: TVD Reference Datum: TVD Reference Elevation: Seabed / Ground Elevation: Magnetic Declination: Magnetic Declination: Total Gravity Field Strength: Gravity Model: Minimum Curvature / Lubinsk 179.140 °(GRID North) 1.000 ft, 0.000 ft RKB 3300.000 ft above MSL 3272.000 ft above MSL 6.700° 998.429mgn (9.80665 Based) GARM

Total Magnetic Field Strength: Magnetic Dip Angle: Declination Date: Magnetic Declination Model:
North Reference:
Grid Convergence Used:
Total Corr Mag North->Grid North:
Local Coord Referenced To:

VSEC

47267.92 nT 59.563° April 10, 2024 HDGM 2024 Grid North

TVD (ft) TVDSS MD (ft) Incl (°) Azim (°) NS (ft) EW (ft) DLS (°/100ft) Northing (ftUS) Easting (ftUS) Comments (°) (°) 104.17746570 Surface -3,200.00 -3,100.00 -3,000.00 32.06676342 32.06676342 548,283.12 548,283.12 246.44 246.44 -2.900.00 0.00 0.00 0.00 388,047.98 388,047.98 500.00 -2.800.00 548,283,12 32.06676342 -104.17746570 Castile (CSTL) Build 1.5°/100ft 523.59 246.44 523.59 -2.776.41 0.00 0.00 0.00 388,047,98 548,283,12 32.06676342 -104.17746570 523.59 600.00 699.99 799.91 899.69 999.27 1,098.57 388,047,98 388,047,98 388,047,46 388,045,89 388,043,27 388,039,62 388,029,18 388,022,41 388,014,62 388,005,79 387,995,95 548,283.12 548,281.92 548,278.32 548,278.32 548,276.33 548,263.94 548,263.94 548,264.02 548,264.60 548,266.60 548,186.39 548,113.95 548,111.79 548,083.45 600.00 700.00 246.44 246.44 246.44 246.44 246.44 246.44 246.44 246.44 246.44 -2,700.00 -2,600.01 0.00 0.51 0.00 -0.52 -2.09 -4.71 -8.36 -13.06 -18.80 -25.57 -33.37 -42.19 -52.03 0.00 -1.20 -4.80 -10.79 -19.18 -29.95 -43.11 -58.63 -76.51 -96.74 32.06676342 32.06676199 800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 -2,500.01 -2,500.09 -2,400.31 -2,300.73 -2,201.43 -2,102.46 -2,003.91 32.06675199 32.06675769 32.06675052 32.06674050 32.06672763 32.06669337 32.06669337 32.06664783 2.02 4.54 8.08 12.61 18.15 24.69 32.22 40.73 1,098.57 1,197.54 1,296.09 1,394.16 1,491.70 1,588.62 -104.17760493 -104.1776550 ,400.00 -1,905.84 -1,808.30 -104.17777816 32.06664783 32.06662087 32.06659114 32.06655868 32.06655867 32.06652482 32.06649098 32.06645714 1,600.00 15.00 -1,711.38 50.23 -119.30 -104.17785104 387,995.95 387,985.10 387,973.26 387,973.25 387,960.90 387,948.55 387,936.20 387,923.85 387,911.49 387,903.25 1,600.00 1,700.00 1,799.95 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00 2,300.00 2,366.76 1,588.62 1,684.86 1,780.31 1,780.36 1,875.46 1,970.57 2,065.68 2,160.78 2,255.89 2,319.38 -1,711.38 -1,615.14 -1,519.69 -1,519.64 -1,424.54 -1,329.43 -1,234.32 -1,139.22 -1,044.11 -980.62 -104.17785104 -104.17793140 -104.17801914 -104.17801915 -104.17811067 -104.17820216 -104.17829364 246.44 246.44 246.44 246.44 246.44 246.44 246.44 246.44 60.71 72.15 72.15 84.08 96.01 107.93 119.86 131.79 139.75 -62.88 -74.73 -74.74 -87.09 -99.44 -111.79 -124.15 -136.50 -144.75 -144.18 -171.35 -171.36 -199.69 -228.01 -256.33 -284.66 -312.98 -331.89 32.06645714 32.06642329 32.06638945 32.06636686 Lamar (LMAR) -104.1785376 Bell Canyon (BLCN) 2.399.40 246.44 246.44 2.350.42 -949.58 -949.01 143.64 -148.78 -148.85 -341.14 -341.31 0.00 387,899.22 387,899.14 547,942.02 547,941.84 32.06635581 -104.17856754 2,400.00 2,350.99 143.71 0.00 32.06635561 -104.17856809 387,899.14 387,886.79 387,874.44 387,862.09 387,849.74 387,837.38 387,825.03 387,812.68 387,800.33 387,794.65 547,941.84 547,913.52 547,856.88 547,828.56 547,800.24 547,771.92 547,743.59 547,702.25 547,702.25 2,350.99 2,446.10 2,541.21 2,636.31 2,731.42 2,826.52 2,921.63 3,016.74 3,111.84 3,155.58 2,500.00 2,600.00 246.44 246.44 246.44 246.44 246.44 246.44 246.44 246.44 -853.90 -758.79 -369.63 -397.95 32.06632176 32.06628792 -758.79 -663.69 -568.58 -473.48 -378.37 -283.26 -188.16 -144.42 167.56 179.49 191.42 203.34 215.27 227.20 239.12 244.61 2,700.00 2,800.00 2,900.00 3,000.00 3,100.00 3,200.00 3,245.99 18.00 18.00 18.00 18.00 18.00 18.00 18.00 -173.30 -185.91 -198.26 -210.62 -222.97 -235.32 -426.28 -454.60 -482.93 -511.25 -539.57 32.06625408 32.06622023 32.06618639 -104.17884254 -104.17893403 -104.17902551 0.00 0.00 0.00 0.00 0.00 0.00 32.06618639 32.06615254 32.06611870 32.06608486 32.06606929 -247.67 -253.35 -567.90 -580.92 -104.17929996 -104.17934203 Cherry Canyon (CRCN) 3.300.00 246.44 3,206.95 3,302.05 -93.05 251.05 -260.03 -272.38 -596.22 0.00 387,787.98 387,775.63 547,686.95 547,658.63 32.06605101 -104.1793914 32.06605101 32.06601711 32.06598332 32.06594948 32.06591563 32.0658179 32.06581479 32.06581410 32.06578026 32.065778026 246.44 2.05 3,400.00 18.00 262.97 -624.55 0.00 -104.17948293 387,775.63 387,763.27 387,750.92 387,738.57 387,726.22 387,713.87 387,701.52 387,689.16 387,664.46 547,658.63 547,630.31 547,601.99 547,573.67 547,545.34 547,517.02 547,488.70 547,460.38 547,432.06 547,403.74 3,400.00 3,500.00 3,600.00 3,700.00 3,800.00 3,900.00 4,000.00 4,100.00 4,200.00 4,300.00 3,302.05 3,397.16 3,492.27 3,587.37 3,682.48 3,777.59 3,872.69 3,967.80 4,062.90 4,158.01 -272.36 -284.73 -297.08 -309.44 -321.79 -334.14 -346.49 -358.85 -104.17957441 -104.17966589 -104.17975737 -104.17984886 -104.17994034 246.44 246.44 246.44 246.44 246.44 246.44 246.44 246.44 97.16 192.27 287.37 382.48 477.59 572.69 667.80 762.90 858.01 274.90 286.83 -652.87 -681.19 -709.52 -737.84 -766.17 -794.49 -822.81 -851.14 -879.46 298.75 310.68 322.61 322.61 334.53 346.46 358.38 370.31 -104.18003182 -104.1801233 -371.20 -383.55 -104.18021479 -104.18030627 4.400.00 246.44 4.253.12 953.12 382.24 -395.91 -907.79 0.00 387.652.11 547,375,42 32.06567872 -104.1803977 547,375.42 547,347.09 547,339.31 547,318.77 547,290.45 547,262.13 547,233.81 547,205.49 547,177.17 547,148.85 -395.91 -408.26 -411.66 -420.61 -432.96 -445.32 -457.67 -470.02 -482.37 -494.73 4,500.00 4,527.50 4,348.22 4,374.38 -936.11 -943.90 387,639.76 387,636.36 32.06564488 32.06563557 Brushy Canyon (BCN) 4,374.38 4,443.33 4,538.43 4,633.54 4,728.65 4,823.75 4,918.86 5,013.96 -943.50 -964.43 -992.76 -1,021.08 -1,049.41 -1,077.73 -1,106.05 -1,134.38 387,636.36 387,627.41 387,615.06 387,602.70 387,590.35 387,578.00 387,565.65 387,553.30 32.06563557 32.06561103 32.06557719 32.06554334 32.06550950 32.06547565 32.06544181 32.06540796 -104.18051440 -104.18058072 -104.18067220 -104.18076368 -104.18085516 -104.18103813 -104.18112961 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 246.44 246.44 246.44 246.44 246.44 246.44 246.44 18.00 18.00 1,143.33 1,238.43 406.09 418.01 0.00 18.00 18.00 18.00 18.00 18.00 1,333.54 1,428.65 1,523.75 1,618.86 1,713.96 429.94 441.87 453.79 465.72 477.65 18.00 17.88 16.38 14.88 Drop 1.5°/100ft 5.292.24 246.44 5,101.69 5,109.07 1.801.69 488.65 -506.12 -1,160.50 -1,162.69 0.00 387,541.90 387,540.95 547,122.72 547,120.53 32.06537674 -104.18121399 5,300.00 246.44 1,809.07 489.57 -507.08 1.50 32.06537412 -104.18122107 387,540.95 387,529.17 387,518.40 387,508.64 387,499.90 387,492.18 387,485.49 387,479.84 387,475.22 387,472.68 547,120.53 547,093.53 547,068.83 547,046.46 547,026.41 547,008.72 546,993.38 546,980.41 546,969.83 546,964.00 5,109.07 5,204.63 5,300.93 5,397.90 5,495.48 5,593.59 5,692.18 5,791.17 5,890.50 5,958.04 5,400.00 5,500.00 246.44 246.44 1,904.63 2,000.93 500.94 511.34 -518.85 -529.63 -1,189.70 -1,214.40 32.06534186 32.06531234 -104.18130828 -104.18138806 32.06531234 32.06528560 32.06526165 32.06524050 32.06522217 32.06520668 32.06519402 32.06518706 2,097.90 2,195.48 2,293.59 2,392.18 2,491.17 2,590.50 2,658.04 -1,214.40 -1,236.78 -1,256.82 -1,274.52 -1,289.86 -1,302.82 -1,313.41 -1,319.24 -104.18146034 -104.18152509 -104.18158225 -104.18163178 -104.18167366 5,600.00 13.38 11.88 246.44 246.44 520.76 529.20 -539.39 -548.13 1.50 1.50 1.50 1.50 1.50 1.50 1.50 5,700.00 5,800.00 5,900.00 6,000.00 6,100.00 6,167.84 10.38 8.88 7.38 5.88 4.87 536.65 543.11 548.57 553.03 555.48 -104.18170786 -104.18172667 Bone Spring Lime (BSGL) 6.200.00 246.44 5.990.10 2,690.10 556.48 -576.38 -578.18 -1.321.61 1.50 1.50 387,471.65 387,469.86 546,961.63 546,957.52 32.06518423 -104.1817343 Avalon Upper (AVU) 6,266.14 246.44 6,056.08 2,756.08 558.21 -1,325.72 32.06517931 -104.18174762 6,300.00 246.44 246.44 6,089.89 2,789.89 2,889.82 558.93 560.37 -578.92 -580.41 -1,327.42 -1,330.83 387,469.11 387,467.63 546,955.82 546,952.41 32.06517729 -104.18175310 -104.18176412 6,400.00 6,189.82 32.06517321 387,467.63 387,467.18 387,467.18 387,467.18 387,467.18 387,467.18 387,467.18 546,952.41 546,951.39 546,951.39 546,951.39 546,951.39 546,951.39 546,951.39 32.06517199 32.06517199 32.06517199 32.06517199 32.06517199 32.06517199 32.06517199 246.44 246.44 246.44 246.44 246.44 246.44 246.44 Hold Vertical 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387,467.18 387,461.63 546,951.39 546,951.52 32.06517199 -104.18176741 -104.18176700 7,900.00 566.34 32.06515674 387,461.63 387,439.21 387,421.97 387,400.23 387,345.88 387,277.82 387,198.11 387,109.17 8,000.00 17.98 22.92 178.61 7,786.87 4,486.87 4,533.11 588.78 -608.83 -626.06 -1,331.17 10.00 546,952.07 546,952.48 32.06509508 -104.1817653 Second Bone Spring Lower (SBL) 8,049.36 7,833.11 606.02 -1,330.76 32.06504770 546,952.48 546,953.01 546,954.32 546,955.97 546,957.90 546,960.05 546,962.36 546,964.76 7,878.82 7,962.60 8,035.66 8,095.79 8,141.16 8,170.39 8,182.60 27.98 37.98 47.98 57.98 67.98 4,578.82 4,662.60 4,735.66 4,795.79 4,841.16 627.77 682.14 750.22 829.96 918.93 -647.81 -702.16 -770.23 -849.95 -938.90 -1,330.23 -1,328.92 -1,327.27 -1,325.34 -1,323.19 32.06498792 32.06483852 32.06465140 32.06443226 32.06418775 -104.18176249 -104.18175849 -104.18175348 -104.18174762 -104.18174108 8,100.00 8,200.00 8,300.00 8,400.00 8,500.00 77.98 87.98 10.00 10.00 10.00 8,600.00 8,700.00 4,870.39 4,882.60 1,014.43 1,113.55 -1,034.37 -1,133.47 -1,320.88 -1,318.48 387,013.70 386,914.62 32.06392531 32.06365290 -104.18173405 -104.18172676 178.61 Landing Point FTP Cross 90.51 1,138.85 1,138.95 -1,158.76 -1,158.86 -1,317.87 -1,317.87 386,889.32 386,889.22 546,965.37 546,965.37 32.06358337 32.06358309 -104.18172490 -104.18172490 8,725.31 8,725.41 178.61 178.61

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	
	8,800.00 8,900.00	90.51 90.51	178.61 178.61	8,182.26 8,181.37	4,882.26 4,881.37	1,213.54 1,313.53	-1,233.43 -1,333.40	-1,316.06 -1,313.64	0.00	386,814.66 386,714.70	546,967.18 546,969.59		-104.18171941 -104.18171206	
	9,000.00 9,100.00 9,200.00	90.51 90.51 90.51	178.61 178.61 178.61	8,180.47 8,179.58 8,178.69	4,880.47 4,879.58 4,878.69	1,413.52 1,513.51 1,613.50	-1,433.36 -1,533.33 -1,633.30	-1,311.23 -1,308.81	0.00 0.00 0.00	386,614.75 386,514.79 386,414.83	546,972.01 546,974.43 546,976.85	32.06255372	-104.18170470 -104.18169735 -104.18169000	
	9,300.00 9,300.00 9,400.00	90.51 90.51 90.51	178.61 178.61	8,177.79 8,176.90	4,877.79 4,876.90	1,713.50 1,813.49	-1,733.26 -1,833.23	-1,306.39 -1,303.97 -1,301.55	0.00	386,314.87 386,214.92	546,979.27 546,981.69	32.06200412	-104.18168265 -104.18167529	
	9,500.00 9,600.00	90.51 90.51	178.61 178.61	8,176.01 8,175.11	4,876.01 4,875.11	1,913.48 2,013.47	-1,933.20 -2,033.16	-1,299.13 -1,296.71	0.00	386,114.96 386,015.00	546,984.10 546,986.52	32.06145452	-104.18166794 -104.18166059	
	9,700.00 9,800.00	90.51 90.51	178.61 178.61	8,174.22 8,173.32	4,874.22 4,873.32	2,113.46 2,213.46	-2,133.13 -2,233.10	-1,294.30 -1,291.88	0.00	385,915.04 385,815.08	546,988.94 546,991.36	32.06090492	-104.18165323 -104.18164588	
	9,900.00 10,000.00	90.51 90.51	178.61 178.61	8,172.43 8,171.54	4,872.43 4,871.54	2,313.45 2,413.44	-2,333.06 -2,433.03	-1,289.46 -1,287.04	0.00	385,715.13 385,615.17	546,993.78 546,996.20	32.06035533 32.06008053	-104.18163853 -104.18163118	
	10,100.00 10,200.00	90.51 90.51	178.61 178.61	8,170.64 8,169.75	4,870.64 4,869.75	2,513.43 2,613.42	-2,533.00 -2,632.96	-1,284.62 -1,282.20	0.00	385,515.21 385,415.25	546,998.61 547,001.03	32.05953093	-104.18162382 -104.18161647	
	10,300.00 10,400.00	90.51 90.51	178.61 178.61	8,168.85 8,167.96	4,868.85 4,867.96	2,713.41 2,813.41	-2,732.93 -2,832.90	-1,279.78 -1,277.37	0.00	385,315.30 385,215.34	547,003.45 547,005.87	32.05898133	-104.18160912 -104.18160177	
	10,500.00 10,600.00	90.51 90.51	178.61 178.61	8,167.07 8,166.17	4,867.07 4,866.17	2,913.40 3,013.39	-2,932.86 -3,032.83	-1,274.95 -1,272.53	0.00	385,115.38 385,015.42	547,008.29 547,010.71	32.05843173	-104.18159441 -104.18158706	
	10,700.00 10,800.00 10,900.00	90.51 90.51 90.51	178.61 178.61 178.61	8,165.28 8,164.38 8,163.49	4,865.28 4,864.38 4,863.49	3,113.38 3,213.37 3,313.37	-3,132.80 -3,232.76 -3,332.73	-1,270.11 -1,267.69 -1,265.27	0.00 0.00 0.00	384,915.46 384,815.51 384,715.55	547,013.12 547,015.54 547,017.96	32.05788214	-104.18157971 -104.18157236 -104.18156500	
	11,000.00 11,100.00	90.51 90.51 90.51	178.61 178.61	8,162.60 8.161.70	4,862.60 4.861.70	3,413.36 3,513.35	-3,432.70 -3,532.66	-1,262.86 -1,260.44	0.00	384,615.59 384,515.63	547,020.38 547,022.80	32.05733254	-104.18155765 -104.18155030	
	11,200.00 11,300.00	90.51 90.51	178.61 178.61	8,160.81 8,159.92	4,860.81 4,859.92	3,613.34 3,713.33	-3,632.63 -3,732.60	-1,258.02 -1,255.60	0.00	384,415.68 384,315.72	547,025.22 547,027.63	32.05678294	-104.18154295 -104.18153560	
	11,400.00 11,500.00	90.51 90.51	178.61 178.61	8,159.02 8,158.13	4,859.02 4,858.13	3,813.32 3,913.32	-3,832.57 -3,932.53	-1,253.18 -1,250.76	0.00	384,215.76 384,115.80	547,030.05 547,032.47	32.05623334 32.05595854	-104.18152824 -104.18152089	
	11,600.00 11,700.00	90.51 90.51	178.61 178.61	8,157.23 8,156.34	4,857.23 4,856.34	4,013.31 4,113.30	-4,032.50 -4,132.47	-1,248.34 -1,245.93	0.00	384,015.85 383,915.89	547,034.89 547,037.31	32.05568374 32.05540894	-104.18151354 -104.18150619	
	11,800.00 11,900.00	90.51 90.51	178.61 178.61	8,155.45 8,154.55	4,855.45 4,854.55	4,213.29 4,313.28	-4,232.43 -4,332.40	-1,243.51 -1,241.09	0.00	383,815.93 383,715.97	547,039.72 547,042.14	32.05485935	-104.18149884 -104.18149148	
	12,000.00 12,100.00	90.51 90.51	178.61 178.61	8,153.66 8,152.76	4,853.66 4,852.76	4,413.27 4,513.27	-4,432.37 -4,532.33	-1,238.67 -1,236.25	0.00	383,616.01 383,516.06	547,044.56 547,046.98	32.05430975	-104.18148413 -104.18147678	
	12,200.00 12,300.00	90.51 90.51	178.61 178.61	8,151.87 8,150.98	4,851.87 4,850.98	4,613.26 4,713.25	-4,632.30 -4,732.27	-1,233.83 -1,231.41	0.00	383,416.10 383,316.14	547,049.40 547,051.82	32.05376015	-104.18146943 -104.18146208 -104.18145473	
	12,400.00 12,500.00 12,600.00	90.51 90.51 90.51	178.61 178.61 178.61	8,150.08 8,149.19 8,148.29	4,850.08 4,849.19 4,848.29	4,813.24 4,913.23 5,013.23	-4,832.23 -4,932.20 -5,032.17	-1,229.00 -1,226.58 -1,224.16	0.00 0.00 0.00	383,216.18 383,116.23 383,016.27	547,054.23 547,056.65 547,059.07		-104.18145473 -104.18144737 -104.18144002	
	12,700.00 12,700.00 12,800.00	90.51 90.51 90.51	178.61 178.61	8,147.40 8,146.51	4,847.40 4.846.51	5,113.22 5,213.21	-5,132.13 -5,232.10	-1,221.74 -1,219.32	0.00	382,916.31 382,816.35	547,061.49 547,063.91	32.05266095	-104.18143267 -104.18142532	
	12,900.00 12,900.00 13,000.00	90.51 90.51 90.51	178.61 178.61	8,145.61 8,144.72	4,845.61 4,844.72	5,313.20 5,413.19	-5,332.07 -5,432.03	-1,216.90 -1,214.49	0.00	382,716.39 382,616.44	547,066.33 547,068.74	32.05211135	-104.18141797 -104.18141062	
	13,100.00 13,200.00	90.51 90.51	178.61 178.61	8,143.83 8,142.93	4,843.83 4,842.93	5,513.18 5,613.18	-5,532.00 -5,631.97	-1,212.07 -1,209.65	0.00	382,516.48 382,416.52	547,071.16 547,073.58	32.05156176	-104.18140326 -104.18139591	
	13,300.00 13,400.00	90.51 90.51	178.61 178.61	8,142.04 8,141.14	4,842.04 4,841.14	5,713.17 5,813.16	-5,731.93 -5,831.90	-1,207.23 -1,204.81	0.00	382,316.56 382,216.61	547,076.00 547,078.42	32.05101216	-104.18138856 -104.18138121	
	13,500.00 13,600.00	90.51 90.51	178.61 178.61	8,140.25 8,139.36	4,840.25 4,839.36	5,913.15 6,013.14	-5,931.87 -6,031.83	-1,202.39 -1,199.97	0.00	382,116.65 382,016.69	547,080.84 547,083.25	32.05046256 32.05018776	-104.18137386 -104.18136651	
	13,700.00 13,800.00	90.51 90.51	178.61 178.61	8,138.46 8,137.57	4,838.46 4,837.57	6,113.14 6,213.13	-6,131.80 -6,231.77	-1,197.56 -1,195.14	0.00	381,916.73 381,816.78	547,085.67 547,088.09	32.04963816	-104.18135916 -104.18135181	
MP, Tum 2°/100ft	13,900.00 13,919.49	90.51 90.51	178.61 178.61	8,136.67 8,136.50	4,836.67 4,836.50	6,313.12 6,332.60	-6,331.73 -6,351.21	-1,192.72 -1,192.25	0.00	381,716.82 381,697.34	547,090.51 547,090.98	32.04930981	-104.18134446 -104.18134302	
Hold to TD	13,971.92 14,000.00	90.51 90.51	179.66 179.66	8,136.03 8,135.78	4,836.03 4,835.78	6,385.04 6,413.11	-6,403.64 -6,431.72	-1,191.46 -1,191.29	2.00 0.00	381,644.92 381,616.84	547,091.77 547,091.93	32.04908852	-104.18134072 -104.18134031	
	14,100.00 14,200.00	90.51 90.51	179.66 179.66	8,134.88 8,133.98	4,834.88 4,833.98	6,513.10 6,613.10	-6,531.71 -6,631.71	-1,190.71 -1,190.12	0.00	381,516.86 381,416.87	547,092.52 547,093.11	32.04853878	-104.18133887 -104.18133742	
	14,300.00 14,400.00 14,500.00	90.51 90.51 90.51	179.66 179.66 179.66	8,133.09 8,132.19 8.131.29	4,833.09 4,832.19 4.831.29	6,713.09 6,813.08 6,913.07	-6,731.70 -6,831.69 -6.931.69	-1,189.53 -1,188.94 -1,188.35	0.00 0.00 0.00	381,316.89 381,216.90 381,116.92	547,093.70 547,094.29 547,094.88	32.04798905	-104.18133598 -104.18133453 -104.18133309	
	14,600.00 14,700.00	90.51 90.51 90.51	179.66 179.66	8,130.40 8.129.50	4,830.40 4,829.50	7,013.06 7.113.05	-7,031.68 -7,131.68	-1,187.76 -1,187.18	0.00	381,016.93 380.916.95	547,094.88 547,095.46 547,096.05	32.04743931	-104.18133364 -104.18133020	
	14,800.00 14,900.00	90.51 90.51	179.66 179.66	8,128.60 8,127.70	4,828.60 4,827.70	7,213.05 7,313.04	-7,231.67 -7,331.67	-1,186.59 -1,186.00	0.00	380,816.96 380,716.98	547,096.64 547,097.23	32.04688958	-104.18132875 -104.18132731	
	15,000.00 15,100.00	90.51 90.51	179.66 179.66	8,126.81 8,125.91	4,826.81 4,825.91	7,413.03 7,513.02	-7,431.66 -7,531.65	-1,185.41 -1,184.82	0.00	380,616.99 380,517.01	547,097.82 547,098.41	32.04633984	-104.18132587 -104.18132442	
	15,200.00 15,300.00	90.51 90.51	179.66 179.66	8,125.01 8,124.12	4,825.01 4,824.12	7,613.01 7,713.01	-7,631.65 -7,731.64	-1,184.23 -1,183.64	0.00	380,417.02 380,317.04	547,098.99 547,099.58	32.04579010	-104.18132298 -104.18132153	
	15,400.00 15,500.00	90.51 90.51	179.66 179.66	8,123.22 8,122.32	4,823.22 4,822.32	7,813.00 7,912.99	-7,831.64 -7,931.63	-1,183.06 -1,182.47	0.00	380,217.05 380,117.07	547,100.17 547,100.76	32.04496550	-104.18132009 -104.18131864	
	15,600.00 15,700.00	90.51 90.51	179.66 179.66	8,121.42 8,120.53	4,821.42 4,820.53	8,012.98 8,112.97	-8,031.62 -8,131.62	-1,181.88 -1,181.29	0.00	380,017.08 379,917.09	547,101.35 547,101.94	32.04441576	-104.18131720 -104.18131575	
	15,800.00 15,900.00	90.51 90.51	179.66 179.66	8,119.63 8,118.73	4,819.63 4,818.73	8,212.96 8,312.96	-8,231.61 -8,331.61	-1,180.70 -1,180.11	0.00	379,817.11 379,717.12	547,102.52 547,103.11	32.04386603	-104.18131431 -104.18131286 -104.18131142	
	16,000.00 16,100.00 16,200.00	90.51 90.51 90.51	179.66 179.66 179.66	8,117.84 8,116.94 8,116.04	4,817.84 4,816.94 4,816.04	8,412.95 8,512.94 8,612.93	-8,431.60 -8,531.60 -8,631.59	-1,179.53 -1,178.94 -1,178.35	0.00 0.00 0.00	379,617.14 379,517.15 379,417.17	547,103.70 547,104.29 547,104.88	32.04331629	-104.18131142 -104.18130998 -104.18130853	
	16,300.00 16,400.00	90.51 90.51 90.51	179.66 179.66	8,115.14 8,114.25	4,815.14 4.814.25	8,712.92 8,812.92	-8,731.58 -8,831.58	-1,177.76 -1,177.17	0.00	379,317.18 379,217.20	547,104.88 547,105.47 547,106.05	32.04276655	-104.18130709 -104.18130564	
	16,500.00 16,600.00	90.51 90.51	179.66 179.66	8,113.35 8,112.45	4,813.35 4,812.45	8,912.91 9,012.90	-8,931.57 -9,031.57	-1,176.58 -1,176.00	0.00	379,117.21 379,017.23	547,106.64 547,107.23	32.04221682	-104.18130420 -104.18130275	
	16,700.00 16,800.00	90.51 90.51	179.66 179.66	8,111.56 8,110.66	4,811.56 4,810.66	9,112.89 9,212.88	-9,131.56 -9,231.56	-1,175.41 -1,174.82	0.00	378,917.24 378,817.26	547,107.82 547,108.41	32.04166708	-104.18130131 -104.18129986	
	16,900.00 17,000.00	90.51 90.51	179.66 179.66	8,109.76 8,108.87	4,809.76 4,808.87	9,312.87 9,412.87	-9,331.55 -9,431.54	-1,174.23 -1,173.64	0.00	378,717.27 378,617.29	547,109.00 547,109.58	32.04111735	-104.18129842 -104.18129697	
	17,100.00 17,200.00	90.51 90.51	179.66 179.66	8,107.97 8,107.07	4,807.97 4,807.07	9,512.86 9,612.85	-9,531.54 -9,631.53	-1,173.05 -1,172.47	0.00	378,517.30 378,417.32	547,110.17 547,110.76	32.04056761	-104.18129553 -104.18129409	
	17,300.00 17,400.00	90.51 90.51	179.66 179.66	8,106.17 8,105.28	4,806.17 4,805.28	9,712.84 9,812.83	-9,731.53 -9,831.52	-1,171.88 -1,171.29	0.00	378,317.33 378,217.35	547,111.35 547,111.94	32.03974300	-104.18129264 -104.18129120	
	17,500.00 17,600.00	90.51 90.51	179.66 179.66	8,104.38 8,103.48	4,804.38 4,803.48	9,912.83 10,012.82	-9,931.52 -10,031.51	-1,170.70 -1,170.11	0.00	378,117.36 378,017.38	547,112.53 547,113.11	32.03919327	-104.18128975 -104.18128831	
	17,700.00 17,800.00	90.51 90.51	179.66 179.66	8,102.59 8,101.69	4,802.59 4,801.69	10,112.81 10,212.80	-10,131.50 -10,231.50	-1,169.52 -1,168.94	0.00	377,917.39 377,817.40	547,113.70 547,114.29		-104.18128686 -104.18128542	
	17,900.00 18,000.00 18,100.00	90.51 90.51 90.51	179.66 179.66 179.66	8,100.79 8,099.89 8.099.00	4,800.79 4,799.89 4,799.00	10,312.79 10,412.78 10.512.78	-10,331.49 -10,431.49 -10.531.48	-1,168.35 -1,167.76 -1,167.17	0.00 0.00 0.00	377,717.42 377,617.43 377,517.45	547,114.88 547,115.47 547,116.06	32.03809379	-104.18128397 -104.18128253 -104.18128109	
	18,200.00	90.51 90.51 90.51	179.66	8,098.10	4,798.10	10,612.77	-10,631.48	-1,166.58	0.00 0.00 0.00	377,417.46	547,116.64	32.03754406	-104.18128109 -104.18127964 -104.18127820	
	18,300.00 18,400.00 18,500.00	90.51 90.51 90.51	179.66 179.66 179.66	8,097.20 8,096.31 8,095.41	4,797.20 4,796.31 4,795.41	10,712.76 10,812.75 10,912.74	-10,731.47 -10,831.46 -10,931.46	-1,165.99 -1,165.41 -1,164.82	0.00 0.00 0.00	377,317.48 377,217.49 377,117.51	547,117.23 547,117.82 547,118.41		-104.18127820 -104.18127675 -104.18127531	
	18,600.00 18,700.00	90.51 90.51 90.51	179.66 179.66	8,094.51 8,093.61	4,794.51 4,793.61	11,012.74 11,112.73	-11,031.45 -11,131.45	-1,164.23 -1,163.64	0.00	377,117.51 377,017.52 376.917.54	547,118.41 547,119.00 547,119.59	32.03644458	-104.18127331 -104.18127386 -104.18127242	
	18,800.00 18,900.00	90.51 90.51	179.66 179.66	8,092.72 8,091.82	4,792.72 4,791.82	11,212.72 11,312.71	-11,231.44 -11,331.44	-1,163.05 -1,162.46	0.00	376,817.55 376,717.57	547,119.33 547,120.17 547,120.76	32.03589485 32.03561998	-104.18127098 -104.18126953	
	19,000.00 19,100.00	90.51 90.51	179.66 179.66	8,090.92 8,090.03	4,790.92 4,790.03	11,412.70 11,512.69	-11,431.43 -11,531.42	-1,161.87 -1,161.29	0.00	376,617.58 376,517.60	547,121.35 547,121.94	32.03534511 32.03507024	-104.18126809 -104.18126664	
LTP Cross Cicada Unit No. 99H BHL	19,112.00 19,192.04	90.51 90.51	179.66 179.66	8,089.92 8,089.20	4,789.92 4,789.20	11,524.69 11,604.73	-11,543.42 -11,623.46	-1,161.22 -1,160.74	0.00 0.00	376,505.60 376,425.57	547,122.01 547,122.48		-104.18126647 -104.18126531	
Survey Type:	Def	Plan												
Survey Error Model: Survey Program:	WP	TS Rev 0.												
Description		Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Co	ode	Vendor	/ Tool	Borehole / Survey	_
		1	0.000	19,407.198	1/100.000	-	-	В0	001Mb_MWD+HRGM			(	Cicada Unit No. 99H / Cicada	Jnit No. 99H R0 md
A default hole/casing size was used for	or A/C calculation bed	cause the wellboo	re size is not defi	ned correctly.										
EOU Geometry: End MD (ft)		Hole Size	(in)	Casing Siz	e (in)		Name							
		5120	v/	Casing Siz	- (49		Hanile							

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: CHEVRON USA INCORPORATED
WELL NAME & NO.: CICADA UNIT 99H
SURFACE HOLE FOOTAGE: 1076'/S & 2513'/E
BOTTOM HOLE FOOTAGE 20'/S & 1469'/W
LOCATION: Section 3, T.26 S., R.27 E., NMP
COUNTY: Eddy County, New Mexico

COA

H2S	Yes	O No	
Potash	None	© Secretary	© R-111-P
Cave/Karst Potential	C Low	<ul><li>Medium</li></ul>	C High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	• Multibowl	O Both
Wellhead Variance	O Diverter		
Other	□4 String	☐ Capitan Reef	□WIPP
Other	Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency	☐ EchoMeter	☐ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	$\square$ COM	Unit
Special Requirements	☐ Batch Sundry		
Special Requirements	✓ Break Testing	□ Offline	□ Casing
Variance		Cementing	Clearance

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### **B. CASING**

### **Primary Casing Design:**

1. The 13-3/8 inch surface casing shall be set at approximately 450 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable

fresh water) and cemented to the surface. The surface hole shall be 16 inch or 17 1/2 inch in diameter.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of <u>8</u> hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Operator is approved to use contingency cementing for the Intermediate and Production section. Operator shall notify the BLM before proceeding with contingency operation.

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  - ❖ 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.
- 3. The minimum required fill of cement behind the 7 inch intermediate casing is:
  - Cement should tie-back at least 200 feet into previous casing string.
     Operator shall provide method of verification.
     Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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

- 4. The minimum required fill of cement behind the  $5 \times 4-1/2$  inch production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

Page 2 of 8

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

### 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 13-3/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

### D. SPECIAL REQUIREMENT (S)

### **Unit Wells**

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

### **Commercial Well Determination**

A commercial well determination shall be submitted after production has been established for at least six months.

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

- 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.

Page 3 of 8

- 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 Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

### **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

- 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

- i. Notify the BLM when moving in and removing the Spudder Rig.
- ii. 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.
- iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> 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.
- For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

### 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 of both lead and tail cement, 2) until cement has been in place at least 8 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 <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing 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-Q 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 **43** CFR 3172.
- 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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. 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.)
  - iii. 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. 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 crew-intensive operations.

JS 11/18/2024



### **Training**

MCBU Drilling and Completions H<sub>2</sub>S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S.

### **Awareness Level**

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S, who are not required to perform work in H<sub>2</sub>S areas, will be provided with an awareness level of H<sub>2</sub>S training prior to entering any H<sub>2</sub>S areas. At a minimum, awareness level training will include:

- 1. Physical and chemical properties of H<sub>2</sub>S
- 2. Health hazards of H<sub>2</sub>S
- 3. Personal protective equipment
- 4. Information regarding potential sources of H<sub>2</sub>S
- 5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

### Advanced Level H<sub>2</sub>S Training

Employees and contractors required to work in areas that may contain H<sub>2</sub>S will be provided with Advanced Level H<sub>2</sub>S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H<sub>2</sub>S training will include:

- 1. H<sub>2</sub>S safe work practice procedures.
- 2. Emergency contingency plan procedures.
- 3. Methods to detect the presence or release of H<sub>2</sub>S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H<sub>2</sub>S equipment.
- 4. Basic overview of respiratory protective equipment suitable for use in H<sub>2</sub>S environments.
  - a. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program.
- 5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H<sub>2</sub>S training.
- 6. Proficiency examination covering all course material.

Advanced H<sub>2</sub>S training courses will be instructed by personnel who have successfully completed an appropriate H<sub>2</sub>S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.



### H<sub>2</sub>S Training Certification

All employees and visitors will be issued an  $H_2S$  training certification card (or certificate) upon successful completion of the appropriate  $H_2S$  training course. Personnel working in an  $H_2S$  environment will carry a current  $H_2S$  training certification card as proof of having received the proper training on their person at all times.

### **Briefing Area**

A minimum of two briefing areas will be established in locations that at least one area will be upwind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

### H<sub>2</sub>S Equipment

### **Respiratory Protection**

- a) Six 30-minute SCBAs 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5-minute EBAs 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

### **Visual Warning System**

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the doghouse and one on the Drill Site Manager's Trailer.

### H<sub>2</sub>S Detection and Monitoring System

- a) H<sub>2</sub>S monitoring system (sensor head, warning light and siren) placed throughout rig.
  - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
  - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



### **Well Control Equipment**

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud/gas separator

### **Mud Program**

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

- 1. Use of a degasser
- 2. Use of a zinc-based mud treatment
- 3. Increasing mud weight

### **Public Safety - Emergency Assistance**

<u>Agency</u>	Telephone Number
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

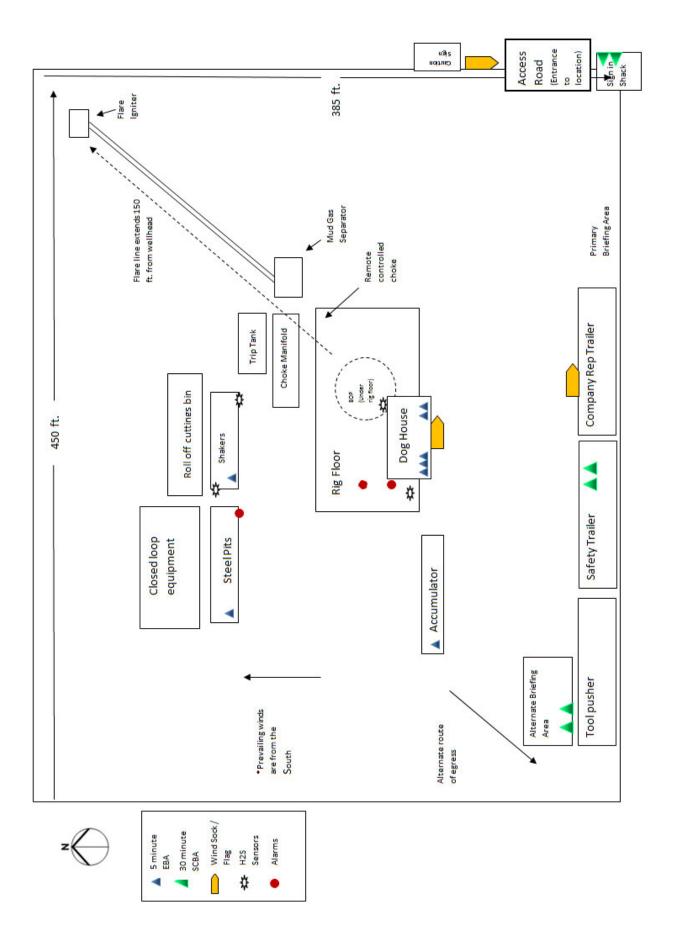


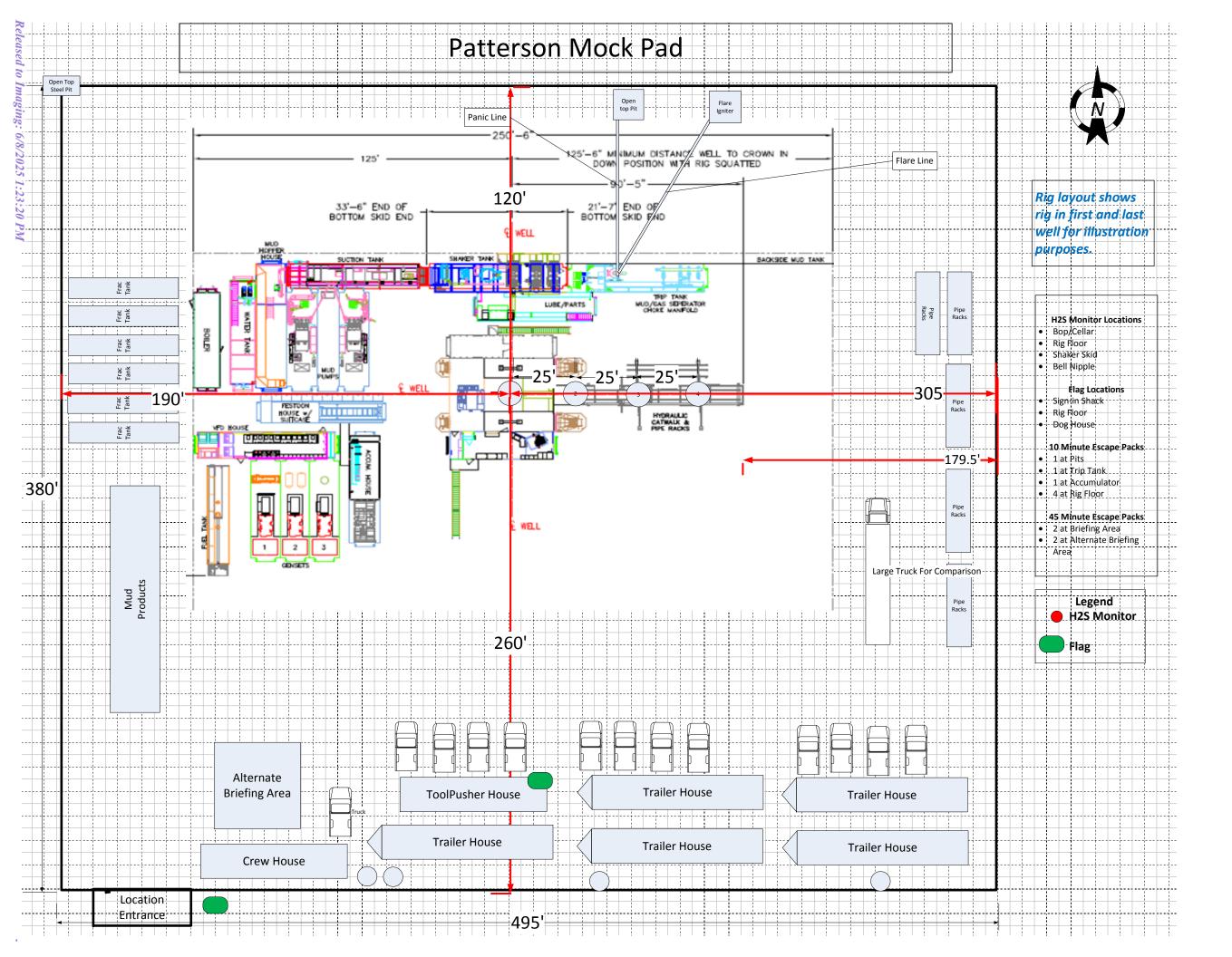
### **Chevron MCBU D&C Emergency Notifications**

Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	ТВО	Drilling Engineer		
2.	Ian McWilliam	Superintendent	(661) 770-6030	
3.	Matt Madson	Superintendent	(713) 206-1493	
4.	Nicholas Duhe	Superintendent	(713) 302-2674	
5.	Dennis McHugh	Drilling Manager	(713) 372-4496	
6.	Jay Gagneaux	Operations Manager	(713) 306-1082	
7.	TBD	Wells HSE		
8.	TBD	Completion Engineer		









APD ID: 10400100774

Well Name: CICADA UNIT

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

## Drilling Plan Data Report

Submission Date: 09/03/2024

Operator Name: CHEVRON USA INCORPORATED

Well Number: 99H

Well Type: OIL 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
15124177	RUSTLER	3272	28	28	SANDSTONE	NONE	N
15124178	TOP OF SALT	3244	28	28	ANHYDRITE, SALT	NONE	N
15124179	BASE OF SALT	2748	524	524	ANHYDRITE, SALT	NONE	N
15124180	LAMAR	953	2319	2367	LIMESTONE, SHALE	NONE	N
15124181	BELL CANYON	922	2350	2399	LIMESTONE, SILTSTONE	NONE	N
15124182	CHERRY CANYON	116	3156	3246	LIMESTONE, SANDSTONE	NONE	N
15124183	BRUSHY CANYON	-1102	4374	4528	LIMESTONE, SANDSTONE	NONE	N
15124184	BONE SPRING LIME	-2686	5958	6168	SHALE, SILTSTONE	NONE	N
15124185	AVALON SAND	-2784	6056	6580	SHALE	NATURAL GAS, OIL	N
15124186	BONE SPRING 1ST	-3565	6837	7278	SANDSTONE, SHALE	NATURAL GAS, OIL	N
15124187	BONE SPRING 2ND	-4148	7420	8049	SANDSTONE, SHALE	NATURAL GAS, OIL	Y

### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 8183

**Equipment:** Chevron will have a minimum of a 5,000 psi rig stack for drill out below surface casing

Requesting Variance? YES

**Variance request:** Chevron respectfully request to vary from the Onshore Order 2 where it states: (A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken. We propose to break test if able to finish the next hole section within 21 days of the previous full BOP test. No BOP components nor any break will ever surpass 21 days between testing. A break test will consist of a 250 psi low / 5,000 psi high for 10 min each test against the connection that was broken when skidding the rig. Upon the first nipple up of the pad a full BOP test will be performed. A full BOP test will be completed prior

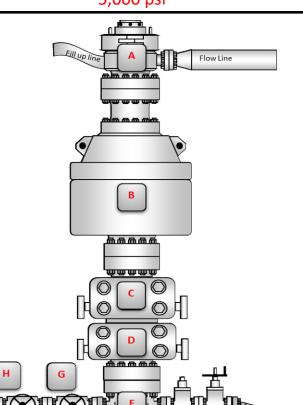
### **BLOWOUT PREVENTER SCHEMATIC**

Operation: Intermediate(s)

Minimum System operation pressure

5,000 psi

BOP Stack							
Part	Size	Pressure Rating	Description				
Α	13-5/8"	N/A	Rotating Head/Bell nipple				
В	13-5/8"	5,000	Annular				
С	13-5/8"	5,000	Blind Ram				
D	13-5/8"	5,000	Pipe Ram				
E	13-5/8"	5,000	Mud Cross				
F	13-5/8"	5,000	Pipe Ram				
		<u>Kill Line</u>					
Part	Part Size		Description				
G	2"	5,000	Inside Kill Line Valve (gate valve)				
H	2"	5,000	Outside Kill Line Valve (gate valve)				
I	2"	5,000	Kill Line Check valve				



	<u>Choke line</u>							
Part	Size	Pressure	Description					
Part	Size	Rating	Description					
J	3"	5,000	HCR (gate valve)					
K	3"	5,000	Manual HCR (gate valve)					
		<u>Wellhead</u>						
Part	Size	Pressure	Description					
Part	Size	Rating	Description					
L	13-5/8"	5,000	FMC 5M/10M wellhead					

BOP Installation Checklist: The following items must be verified and checked off prior to pressure testing BOP equipment

The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.

All valves on the kill line and choke line will be full opening and will allow straight flow through.

The kill line and choke line will be straight unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and reduce

Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be install on all manual valves on the choke and kill line.

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.

Upper kelly cock valve with handle will be available on rig floor along with saved valve and subs to fit all drill string connections in use.

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 452402

### **CONDITIONS**

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	452402
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

### CONDITIONS

Created By	Condition	Condition Date
carol adler	Cement is required to circulate on both surface and intermediate1 strings of casing.	4/15/2025
carol adler	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	4/15/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	6/8/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	6/8/2025
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.	6/8/2025
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.	6/8/2025
ward.rikala	This well can not be produced until operator is in compliance with Rule 5.9.	6/8/2025