Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No. 30 015 48783

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 05/26/2021

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

0. SHL: SENE / 2665 FNL / 940 FEL / TWSP: 25S / RANGE: 27E / SECTION: 35 / LAT: 32.086365 / LONG: -104.155245 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 365 FNL / 750 FEL / TWSP: 25S / RANGE: 27E / SECTION: 26 / LAT: 32.107094 / LONG: -104.154806 (TVD: 9268 feet, MD: 9642 feet)

PPP: NESE / 1490 FSL / 750 FEL / TWSP: 25S / RANGE: 27E / SECTION: 26 / LAT: 32.097833 / LONG: -104.154631 (TVD: 9268 feet, MD: 9642 feet)

PPP: SENE / 2630 FNL / 750 FEL / TWSP: 25S / RANGE: 27E / SECTION: 35 / LAT: 32.086421 / LONG: -104.154631 (TVD: 9268 feet, MD: 9642 feet)

BHL: NENE / 50 FNL / 750 FEL / TWSP: 25S / RANGE: 27E / SECTION: 23 / LAT: 32.122527 / LONG: -104.154818 (TVD: 9338 feet, MD: 22748 feet)

BLM Point of Contact

Name: Candy Vigil
Title: LIE
Phone: (575) 234-5982
Email: cvigil@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.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	98220	PURPLE SAGE; WOLFCAMP (GAS)

[4] Property Code	[5] Property Name	[6] Well Number
	CICADA UNIT	43H

[7] OGRID No.	[8] Operator Name	[9] Elevation
4323	CHEVRON U.S.A. INC.	3143'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	35	25 SOUTH	27 EAST, N.M.P.M.		2,665'	NORTH	940'	EAST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	23	25 SOUTH	27 EAST, N.M.P.M.		50'	NORTH	750'	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
800			R-20858

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

[16]

PROPOSED LAST TAKE POINT		
X=	555,418'	NAD 27
Y=	408,020'	
LAT.	32.121636° N	
LONG.	104.154325° W	
X=	596,602'	NAD83/86
Y=	408,077'	
LAT.	32.121757° N	
LONG.	104.154817° W	

PROPOSED MID POINT (B)		
X=	555,430'	NAD 27
Y=	403,049'	
LAT.	32.107972° N	
LONG.	104.154314° W	
X=	596,614'	NAD83/86
Y=	403,107'	
LAT.	32.108094° N	
LONG.	104.154806° W	

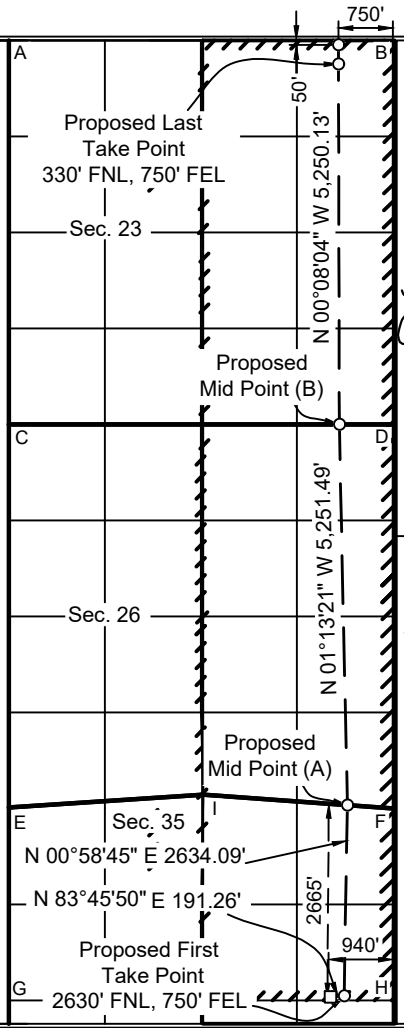
PROPOSED MID POINT (A)		
X=	555,542'	NAD 27
Y=	397,799'	
LAT.	32.093539° N	
LONG.	104.153980° W	
X=	596,726'	NAD83/86
Y=	397,857'	
LAT.	32.093661° N	
LONG.	104.154472° W	

PROPOSED FIRST TAKE POINT		
X=	555,497'	NAD 27
Y=	395,165'	
LAT.	32.086299° N	
LONG.	104.154139° W	
X=	596,681'	NAD83/86
Y=	395,223'	
LAT.	32.086421° N	
LONG.	104.154631° W	

PROPOSED BOTTOM HOLE LOCATION		
X=	555,418'	NAD 27
Y=	408,300'	
LAT.	32.122405° N	
LONG.	104.154325° W	
X=	596,601'	NAD83/86
Y=	408,357'	
LAT.	32.122527° N	
LONG.	104.154818° W	

CORNER COORDINATES TABLE (NAD 27)
A - Y=408374.82, X=550864.48
B - Y=408345.35, X=556167.66
C - Y=403066.35, X=550914.53
D - Y=403046.49, X=556180.10
E - Y=397757.44, X=551035.56
F - Y=397744.31, X=556293.47
G - Y=395102.78, X=550959.24
H - Y=395093.72, X=556245.96
I - Y=397933.25, X=553702.88

CICADA UNIT NO. 43H WELL		
X=	555,307'	NAD 27
Y=	395,145'	
LAT.	32.086243° N	
LONG.	104.154753° W	
X=	596,491'	NAD83/86
Y=	395,202'	
LAT.	32.086365° N	
LONG.	104.155245° W	
ELEVATION +3143' NAVD 88		



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 10/10/2020 Date

Laura Becerra
Printed Name

LBecerra@Chevron.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

09/30/2019
Date of Survey

Signature and Seal of Professional Surveyor:

STEVEN M. COLEMAN NEW MEXICO 22921 PROFESSIONAL SURVEYOR

Certificate Number 04/29/2020

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
Effective May 25, 2021

I. Operator: Chevron USA **OGRID:** 4323 **Date:** 7 / 26 / 21

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): 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	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
CICADA UNIT 41H	*Pending*	UL:M, Sec 35, T25S-R27E	2667' FNL, 990' FEL	1217BBL/D	4779 MCF/D	4270BBL/D
CICADA UNIT 43H	*Pending*	UL:M, Sec 35, T25S-R27E	2667' FNL, 990' FEL	1217BBL/D	4779 MCF/D	4270BBL/D

IV. Central Delivery Point Name: HHNM CTB 35 [See 19.15.27.9(D)(1) NMAC]

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 Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
CICADA UNIT 41H	*Pending*	11/1/2021	12/27/2021	10/1/2022	12/14/2022	12/16/2022
CICADA UNIT 43H	*Pending*	11/2/2021	12/28/2021	10/1/2022	12/16/2022	12/18/2022

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.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

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

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ 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 manage production in response to the increased line pressure.

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

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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:	Kayla McConnell
Printed Name:	Kayla McConnell
Title:	Regulatory Affairs Coordinator
E-mail Address:	gncv@chevron.com
Date:	7/26/2021
Phone:	32-741-9995

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.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHEVRON USA INCORPORATED
LEASE NO.:	NMNM107369
LOCATION:	Section 35, T.25 S., R.27 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	CICADA UNIT 41H
SURFACE HOLE FOOTAGE:	2667'/N & 990'/E
BOTTOM HOLE FOOTAGE	50'/N & 1590'/E

WELL NAME & NO.:	CICADA UNIT 43H
SURFACE HOLE FOOTAGE:	2665'/N & 940'/E
BOTTOM HOLE FOOTAGE	50'/N & 750'/E

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	○ Medium	◉ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☑ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☑ Unit

A. HYDROGEN SULFIDE

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

B. CASING

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 and above the salt) and cemented to the surface.

Approval Date: 05/26/2021

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

2. The **9-5/8** inch intermediate casing shall be set at approximately **2321** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

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

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In **High 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.

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to BLM.

Approval Date: 05/26/2021

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

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

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

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Operator has proposed to pump down 9-5/8" X 7" annulus. Operator must run a CBL from TD of the 7" casing to surface. Submit results to BLM.

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

- Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

Approval Date: 05/26/2021

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

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.

Approval Date: 05/26/2021

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

Approval Date: 05/26/2021

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

 Approval Date: 05/26/2021

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

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lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

NMK05242021

Approval Date: 05/26/2021

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT **Well Number:** 43H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	1490	FSL	750	FEL	25S	27E	26	Aliquot NESE	32.097833	-104.154631	EDDY	NEW MEXICO	NEW MEXICO	F	STATE	-6125	9642	9268	Y
PPP Leg #1-3	365	FNL	750	FEL	25S	27E	26	Aliquot NENE	32.107094	-104.154806	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 107369	-6125	9642	9268	Y
EXIT Leg #1	330	FNL	750	FEL	25S	27E	23	Aliquot NENE	32.121757	-104.154817	EDDY	NEW MEXICO	NEW MEXICO	F	STATE	-6215	22502	9358	Y
BHL Leg #1	50	FNL	750	FEL	25S	27E	23	Aliquot NENE	32.122527	-104.154818	EDDY	NEW MEXICO	NEW MEXICO	F	STATE	-6195	22748	9338	Y

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
		PURPLE SAGE; WOLFCAMP (GAS)

[4] Property Code	[5] Property Name	[6] Well Number
	CICADA UNIT	43H

[7] OGRID No.	[8] Operator Name	[9] Elevation
4323	CHEVRON U.S.A. INC.	3143'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	35	25 SOUTH	27 EAST, N.M.P.M.		2,665'	NORTH	940'	EAST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	23	25 SOUTH	27 EAST, N.M.P.M.		50'	NORTH	750'	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640			R-20858

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

[16]

PROPOSED LAST TAKE POINT		
X=	555,418'	NAD 27
Y=	408,020'	
LAT.	32.121636° N	
LONG.	104.154325° W	
X=	596,602'	NAD83/86
Y=	408,077'	
LAT.	32.121757° N	
LONG.	104.154817° W	

PROPOSED MID POINT (B)		
X=	555,430'	NAD 27
Y=	403,049'	
LAT.	32.107972° N	
LONG.	104.154314° W	
X=	596,614'	NAD83/86
Y=	403,107'	
LAT.	32.108094° N	
LONG.	104.154806° W	

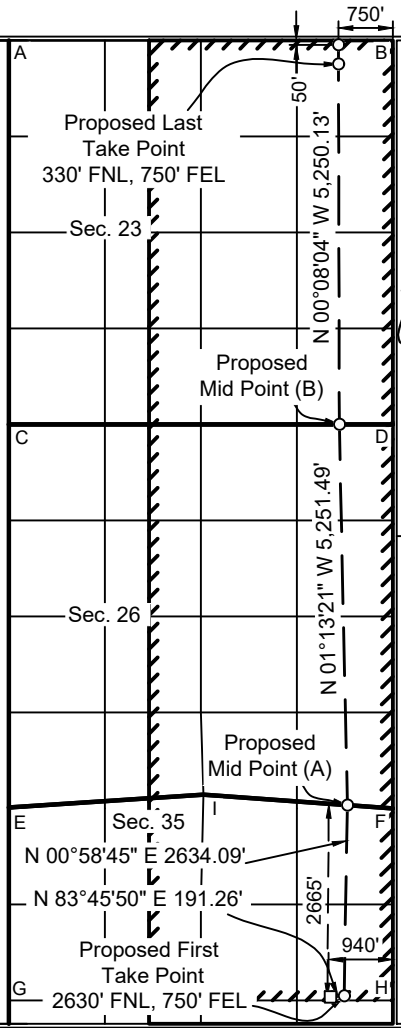
PROPOSED MID POINT (A)		
X=	555,542'	NAD 27
Y=	397,799'	
LAT.	32.093539° N	
LONG.	104.153980° W	
X=	596,726'	NAD83/86
Y=	397,857'	
LAT.	32.093661° N	
LONG.	104.154472° W	

PROPOSED FIRST TAKE POINT		
X=	555,497'	NAD 27
Y=	395,165'	
LAT.	32.086299° N	
LONG.	104.154139° W	
X=	596,681'	NAD83/86
Y=	395,223'	
LAT.	32.086421° N	
LONG.	104.154631° W	

PROPOSED BOTTOM HOLE LOCATION		
X=	555,418'	NAD 27
Y=	408,300'	
LAT.	32.122405° N	
LONG.	104.154325° W	
X=	596,601'	NAD83/86
Y=	408,357'	
LAT.	32.122527° N	
LONG.	104.154818° W	

CORNER COORDINATES TABLE (NAD 27)
A - Y=408374.82, X=550864.48
B - Y=408345.35, X=556167.66
C - Y=403066.35, X=550914.53
D - Y=403046.49, X=556180.10
E - Y=397757.44, X=551035.56
F - Y=397744.31, X=556293.47
G - Y=395102.78, X=550959.24
H - Y=395093.72, X=556245.96
I - Y=397933.25, X=553702.88

CICADA UNIT NO. 43H WELL		
X=	555,307'	NAD 27
Y=	395,145'	
LAT.	32.086243° N	
LONG.	104.154753° W	
X=	596,491'	NAD83/86
Y=	395,202'	
LAT.	32.086365° N	
LONG.	104.155245° W	
ELEVATION +3143' NAVD 88		



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 10/10/2020

Laura Becerra
Printed Name

LBecerra@Chevron.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

09/30/2019
Date of Survey

Signature and Seal of Professional Surveyor:

STEVEN M. COLEMAN
NEW MEXICO
22921
PROFESSIONAL SURVEYOR

Certificate Number — 04/29/2020

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

Drilling Plan Data Report
05/27/2021

APD ID: 10400064222
Submission Date: 10/27/2020
Operator Name: CHEVRON USA INCORPORATED
Well Name: CICADA UNIT
Well Number: 43H
Well Type: CONVENTIONAL GAS WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1097703	CASTILE	3143	1091	1091	ANHYDRITE, SALT	NONE	N
1097705	LAMAR	831	2312	2334	LIMESTONE, SANDSTONE	NONE	N
1097706	BELL CANYON	797	2346	2369	LIMESTONE, SANDSTONE	NONE	N
1097707	CHERRY CANYON	-35	3178	3217	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
1097708	BRUSHY CANYON	-1194	4337	4388	LIMESTONE, SANDSTONE, SHALE	NONE	N
1097709	BONE SPRING LIME	-2853	5996	6047	SHALE, SILTSTONE	NONE	N
1097710	AVALON SAND	-2945	6088	6139	SHALE	NONE	N
1097711	BONE SPRING 1ST	-3720	6863	6914	SANDSTONE, SHALE	NONE	N
1097712	BONE SPRING 2ND	-4250	7393	7444	SANDSTONE, SHALE	NONE	N
1097713	BONE SPRING 3RD	-5507	8650	8701	LIMESTONE, SANDSTONE, SHALE	NONE	N
1097714	WOLFCAMP	-6217	9360	22782	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 9360

Equipment: Chevron will have a minimum of a 5,000 psi rig stack for drill out below surface casing. 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 below). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.
Requesting Variance? YES

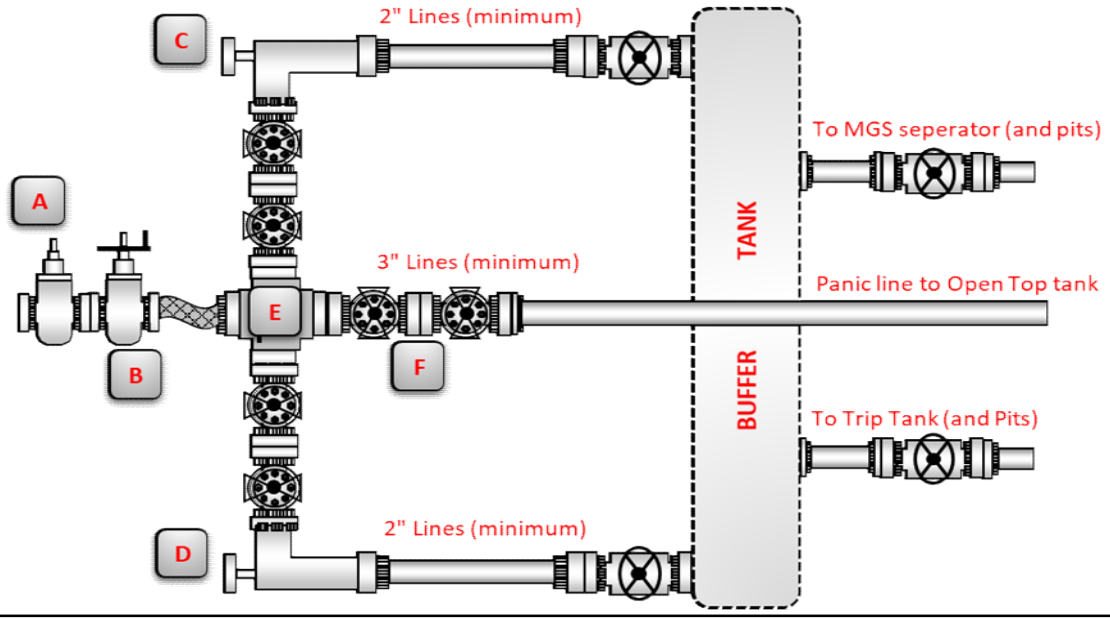
Variance request: Chevron is requesting the following variances: -A variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not 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

CHOKE MANIFOLD SCHEMATIC

Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

Choke Manifold

Part	Size	Pressure Rating	Description
A	3"	10,000	HCR (remotely operated)
B	3"	10,000	HCR (manually operated)
C	2"	10,000	Remotely operated choke
D	2"	10,000	Adjustable choke
E	3"	10,000	Crown valve with pressure gage
F	3"	10,000	Panic line valves



Choke Manifold 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.
Adjustable chokes may be remotely operated but will have backup hand pump for hydraulic actuation in case of loss of rig air or power.
Flare and panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
All valves (except chokes) on choke line, kill line and choke manifold will be full opening and will allow straight through flow. This excludes any valves between the mud gas separator and shale shakers.
All manual valves will have hand wheels installed.
Flare systems will have an effective method for ignition.
All connections will be flanged, welded or clamped
If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

BLOWOUT PREVENTER SCHEMATIC

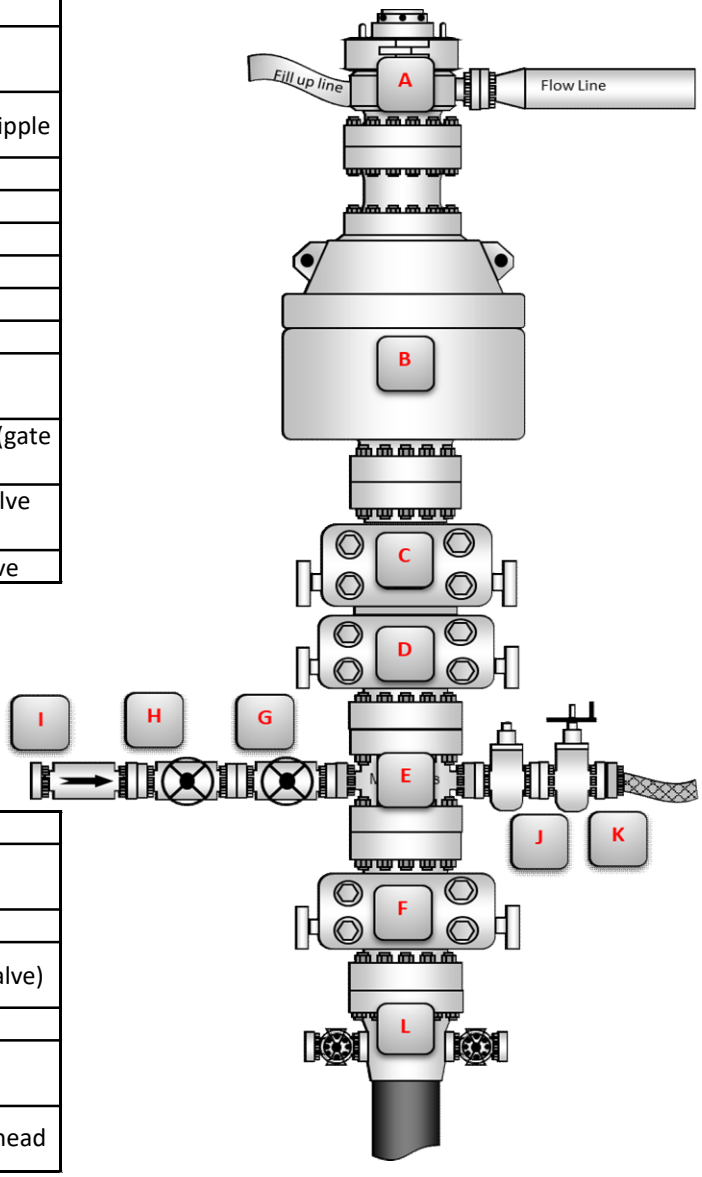
Operation:	Intermediate & Production Drilling Operations
Minimum System operation pressure	5,000 psi

BOP Stack

Part	Size	Pressure Rating	Description
A	13-5/8"	N/A	Rotating Head/Bell nipple
B	13-5/8"	5,000	Annular
C	13-5/8"	10,000	Blind Ram
D	13-5/8"	10,000	Pipe Ram
E	13-5/8"	10,000	Mud Cross
F	13-5/8"	10,000	Pipe Ram

Kill Line

Part	Size	Pressure Rating	Description
G	2"	10,000	Inside Kill Line Valve (gate valve)
H	2"	10,000	Outside Kill Line Valve (gate valve)
I	2"	10,000	Kill Line Check valve



Choke line

Part	Size	Pressure Rating	Description
J	3"	10,000	HCR (gate valve)
K	3"	10,000	Manual HCR (gate valve)

Wellhead

Part	Size	Pressure Rating	Description
L	13-5/8"	5,000	FMC Multibowl 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.
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.

BLOWOUT PREVENTER SCHEMATIC

Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

Minimum Requirements

Closing Unit and Accumulator Checklist

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

☐ **Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.**

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
☐	1500 psi	1500 psi	750 psi	800 psi	700 psi
☐	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
☐	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

☐ **Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. This test will be performed with test pressure recorded and kept on location through the end of the well**

☐ **Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. Usable fluid volume will be recorded. Reservior capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.**

☐ **Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.**

☐ **Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. It is recommended to check that air line to accumulator pump is "ON" during each tour change.**

☐ **With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. Test pressure and closing time will be recorded and kept on location through the end of the well.**

☐ **Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used)**

☐ **Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.**

☐ **Record accumulator tests in drilling reports and IADC sheet**

BLOWOUT PREVENTER SCHEMATIC	
Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

BOPE 5K Test Checklist

The following items must be checked off prior to beginning test:

- ☐ BLM will be given at least 4 hour notice prior to beginning BOPE testing.
- ☐ Valve on casing head below test plug will be open.
- ☐ Test will be performed using clear water.

The following items must be performed during the BOPE testing:

- ☐ BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 day intervals. **Test pressure and times will be recorded by a 3rd party on a test charge and kept on location through the end of the well.**
- ☐ Test plug will be used.
- ☐ Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).
- ☐ Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).
- ☐ Valves will be tested fromt eh working pressure side with all downstream valves open. The check valve will be held open to test the kill line valve(s).
- ☐ Each pressure test will be held for 10 minutes with no allowable leak off.
- ☐ Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOPE test.
- ☐ Record BOP tests and pressures in drilling reports and IADC sheet.

Hose Data Sheet

CRI Order No.	541802
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500606483 COM757207
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C** → FSL2
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155ST/ST INLAID R.GR. SOUR
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155 ST/ST INLAID R.GR. SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	No
Safety wire rope	Yes
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

CONTITECH RUBBER Industrial Kft.	No: QC-DB- 617 / 2015
	Page: 7 / 71

ATTACHMENT OF QUALITY CONTROL
INSPECTION AND TEST CERTIFICATE
No: 1609, 1610

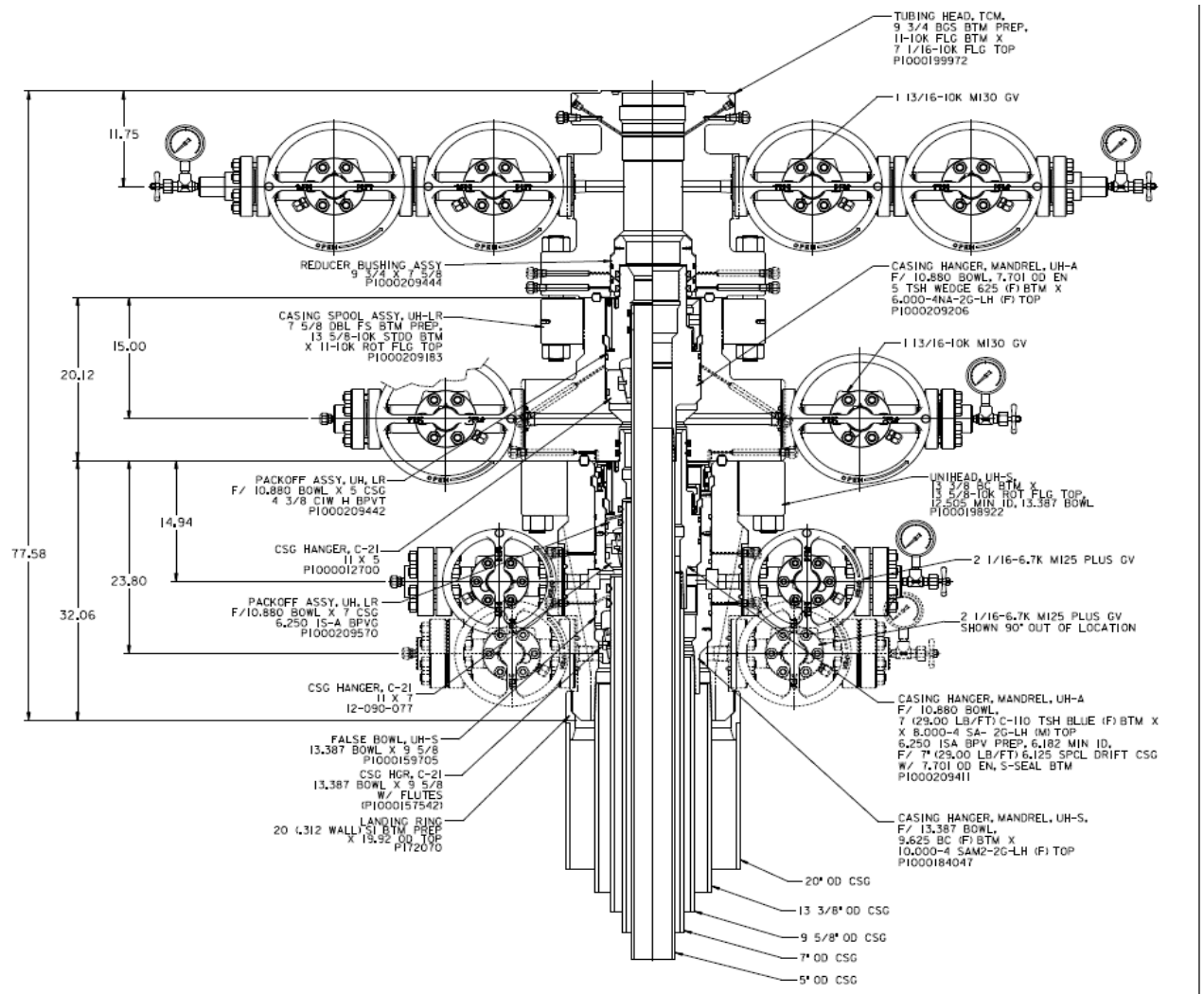
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)

	Cursor A	Cursor B	Difference
Data No.	324	1374	720
Absolute Time	2015/09/03 13:37:00.000	2015/09/03 14:07:00.000	01:00:00.000
Tag Comment	Value A	Value B	Value B-A
Pressure[bar]	1567.69	1520.38	-8.31
Ambient Temperature[°C]	27.60	28.27	0.67

File Name : 008177_7130X,7130X4,GEV,...,008187_7130X,7130X4 GEV
File Message :
Device Type : 7130X,7130X
Serial No. : GX10
Data Count : SSP03039
Print Group : 1304
Print Range : Press-Temp
Comment : 2015/09/03 12:50:50.000 - 2015/09/03 14:38:25.000

Sampling Int. : 5.000 sec
Start Time : 2015/09/03 12:50:50.000
Stop Time : 2015/09/03 14:38:25.000

1/1



PRODUCTION MODE

6650 PSI UH-S

CHEVRON

20 X 13 3/8 X 9 5/8 X 7 X 5

NEW MEXICO SLIM HOLE

QUOTE# 20395747
CASE# 00026966
FIII378
DB01016339A
REF: DM100312054
DM100276064

Tenaris

Data Sheet

TH DS-18.0150 9 Mar 18
Rev 00

API BTC 13 3/8'' 54.50 ppf J55

(USC Units)

PIPE BODY DATA					
GEOMETRY					
Nominal OD	13.375 in.	**Nominal Weight**	54.50 lbs/ft	**Standard Drift Diameter**	12.459 in.
Nominal ID	12.615 in.	**Wall Thickness**	0.380 in.	**Special Drift Diameter**	-
Plain End Weight	52.79 lbs/ft				
PERFORMANCE					
Body Yield Strength	853 x 1000 lbs	**Internal Yield**	2730 psi	**Collapse**	1130 psi

CONNECTION DATA					
GEOMETRY					
Coupling OD	14.375 in.	**Threads per inch**	5	**Hand-Tight Standoff Thread Turns**	1.00
PERFORMANCE					
Joint Strength	909 x 1000 lbs	**Internal Pressure Resistance**	2730 psi		

Performance calculated according to API Standards 5CT and 5B and API Technical Report 5C3.
Joint Strength as per API TR 5C3 1st Edition/ISO 10400:2007 - Section 9
Internal Pressure Resistance as per API TR 5C3 1st Edition/ISO 10400:2007 - Section 10

Tenaris

Data Sheet

TH DS-19.0248 13 May 19
Rev 00

API BTC 9 5/8" 40.00 ppf L80-ICY

(USC Units)

PIPE BODY DATA					
GEOMETRY					
Nominal OD	9.625 in.	**Nominal Weight**	40.00 lbs/ft	**Standard Drift Diameter**	8.679 in.
Nominal ID	8.835 in.	**Wall Thickness**	0.395 in.	**Special Drift Diameter**	8.750 in.
Plain End Weight	38.97 lbs/ft				
PERFORMANCE					
Body Yield Strength	974 x 1000 lbs	**Internal Yield**	6100 psi	**Collapse**	3870 psi

CONNECTION DATA					
GEOMETRY					
Coupling OD	10.625 in.	**Threads per inch**	5	**Hand-Tight Standoff Thread Turns**	1.00
PERFORMANCE (1)					
Joint Strength	968 x 1000 lbs	**Internal Pressure Resistance**	6100 psi		

(1) Non API size / grade combination for BTC.
This product is threaded on API-enhanced Steel Grade pipe.
Geometrical features according to API Standards 5CT and 5B
Performance calculated as per API Technical Report 5C3 (Sections 9 & 10).

For the latest performance data, always visit our website: www.tenaris.com

Blue®

Printed on: 07/15/2019

Outside Diameter	**7.000** in.	Min. Wall Thickness	**87.5**%	(*) Grade P110	
Wall Thickness	**0.408** in.	Connection OD Option	**REGULAR**	COUPLING	PIPE BODY
Grade	**P110***	Drift	**API Standard**	Body: **White** 1st Band: - 2nd Band: - 3rd Band: -	1st Band: **White** 2nd Band: - 3rd Band: - 4th Band: -
		Type	**Casing**		

PIPE BODY DATA

GEOMETRY

Nominal OD	**7.000** in.	Nominal Weight	**29.00** lbs/ft	Drift	**6.059** in.
Nominal ID	**6.184** in.	Wall Thickness	**0.408** in.	Plain End Weight	**28.75** lbs/ft
OD Tolerance	**API**				

PERFORMANCE

Body Yield Strength	**929** x1000 lbs	Internal Yield	**11220** psi	SMYS	**110000** psi
Collapse	**8530** psi				

CONNECTION DATA

GEOMETRY

Connection OD	**7.677** in.	Coupling Length	**10.551** in.	Connection ID	**6.118** in.
Make-up Loss	**4.480** in.	Threads per in	**4**	Connection OD Option	**REGULAR**

PERFORMANCE

Tension Efficiency	**100.0** %	Joint Yield Strength	**929.000** x1000 lbs	Internal Pressure Capacity	**11220.000** psi
Compression Efficiency	**100** %	Compression Strength	**929.000** x1000 lbs	Max. Allowable Bending	**72** °/100 ft
External Pressure Capacity	**8530.000** psi	Coupling Face Load	**433000** lbs		

MAKE-UP TORQUES

Minimum	**10480** ft-lbs	Optimum	**11640** ft-lbs	Maximum	**12800** ft-lbs

SHOULDER TORQUES

Minimum	**1750** ft-lbs	Maximum	**9890** ft-lbs		

OPERATION LIMIT TORQUES

Operating Torque	**29100** ft-lbs	Yield Torque	**36380** ft-lbs		

Notes

This connection is fully interchangeable with:

Blue® - 7 in. - 23 / 24.75 / 26 / 32 / 35 / 38 / 41 / 44 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Wedge 521®

Printed on: 05/09/2019

Outside Diameter	**4.500** in.	**Min. Wall Thickness**	**87.5%**	**(*) Grade P110**	
Wall Thickness	**0.250** in.	**Connection OD Option**	**REGULAR**	**COUPLING**	**PIPE BODY**
Grade	**P110***	**Drift**	**API Standard**	Body: **White** 1st Band: **-** 2nd Band: **-** 3rd Band: **-**	1st Band: **White** 2nd Band: **-** 3rd Band: **-** 4th Band: **-**
		Type	**Casing**		

PIPE BODY DATA

GEOMETRY

Nominal OD	**4.500** in.	Nominal Weight	**11.60** lbs/ft	Drift	**3.875** in.
Nominal ID	**4.000** in.	Wall Thickness	**0.250** in.	Plain End Weight	**11.36** lbs/ft
OD Tolerance	**API**				

PERFORMANCE

Body Yield Strength	**367** x1000 lbs	Internal Yield	**10690** psi	SMYS	**110000** psi
Collapse	**7580** psi				

CONNECTION DATA

GEOMETRY

Connection OD	**4.695** in.	Connection ID	**3.960** in.	Make-up Loss	**3.620** in.
Threads per in	**3.36**	Connection OD Option	**REGULAR**		

PERFORMANCE

Tension Efficiency	**64.2** %	Joint Yield Strength	**235.614** x1000 lbs	Internal Pressure Capacity	**10690.000** psi
Compression Efficiency	**84.8** %	Compression Strength	**311.216** x1000 lbs	Max. Allowable Bending	**71.9** °/100 ft
External Pressure Capacity	**7580.000** psi				

MAKE-UP TORQUES

Minimum	**3600** ft-lbs	Optimum	**4300** ft-lbs	Maximum	**6300** ft-lbs

OPERATION LIMIT TORQUES

Operating Torque	**14000** ft-lbs	Yield Torque	**21000** ft-lbs		

Notes

This connection is fully interchangeable with:

Wedge 521® - 4.5 in. - 10.5 / 11 / 12.6 / 13.5 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

ONSHORE ORDER NO. 1
Chevron
Cicada Unit 41H
Eddy County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN
PAGE: 1

Pad Summary: HHNM Pkg 16

The table below lists all the wells for the given pad and their respective name and TVD's (ft) for their production target intervals:

Well Name(s)	Target TVD	Formation Desc.
Cicada Unit 41H	9,251	WCA
Cicada Unit 42H	9,910	WCC
Cicada Unit 43H	9,268	WCA
Cicada Unit 44H	9,876	WCC

1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:
Elevation: 3171 ft

FORMATION	SUB-SEA TVD	TVD	MD	LITHOLOGIES	MIN. RESOURCES	PROD. FORMATION
Salado (SLDO) / Castile (CSTL)	2123	1,048	1,049	ANHY	N/A	
Lamar Lime (LMAR)	863	2,308	2,347	SS	N/A	
Bell Canyon (BLCN)	830	2,341	2,381	SS	N/A	
Cherry Canyon (CRCN)	2	3,169	3,238	SS	N/A	
Brushy Canyon (BRSC)	-1154	4,325	4,415	SS	N/A	
Bone Spring (BSGL)	-2805	5,976	6,068	LS	N/A	
Avalon (AVLN)	-2896	6,067	6,159	SH	Oil	
1st Bone Spring (FBSG)	-3660	6,831	6,923	SH	Oil	
2nd Bone Spring (SBSG)	-4190	7,361	7,454	SH	Oil	
3rd BS Carb	-5274	8,445	8,537	LS	Oil	
3rd Bone Spring (TBSG)	-5463	8,634	8,727	LS	Oil	
Wolfcamp (WFMP) A	-5813	8,984	9,094	Sh, LS, SS	Oil	
WCA1	-6017	9,188	9,400	Sh, LS, SS	Oil	
WCA_TGT1	-6080	**9,251**	**22,548**	**Sh**	**Oil**	**yes**

WELLBORE LOCATIONS	SUB-SEA TVD	RKB TVD	MD
SHL	3171	-	
KOP	-5507	8,678	8,770
FTP	-6080	9,251	9,666
LTP	-6165	9,336	22,468

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Top Depth
Deepest Expected Base of Fresh Water		300
Water	Salado (SLDO) / Castile (CSTL)	1,048
Oil/Gas	Avalon (AVLN)	6,067
Oil/Gas	1st Bone Spring (FBSG)	6,831
Oil/Gas	2nd Bone Spring (SBSG)	7,361
Oil/Gas	3rd Bone Spring (TBSG)	8,634
Oil/Gas	Wolfcamp (WFMP) A	8,984

All shows of fresh water and minerals will be reported and protected.

3. **BOP EQUIPMENT**

Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. 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 below). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.

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 to drilling the production liner hole 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 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.

4. **CASING PROGRAM**

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	450'	17-1/2" to 16"	13-3/8"	54.5 #	J-55	BTC/STC	New
Intermediate	0'	2,338'	12-1/4"	9-5/8"	40#	L-80	BTC/LTC	New
Production	0'	8,542'	8-3/4"	7"	29.0 #	P110/TN110S	BLUE	New
Production Liner	8,242'	22,548'	6-1/8"	4-1/2"	11.6 #	P110/TN110S	W521	New

b. **Casing design subject to revision based on geologic conditions encountered.**

c. **A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated & sent to the BLM prior to drilling.**

d. **Chevron will fill casing at a minimum of every 20 jts (~840') while running for intermediate and production casing in order to maintain collapse SF.**

SF Calculations based on the following "Worst Case" casing design:

Surface Casing:	500'	ftTVD	*max depths*
Intermediate Casing:	3,060'	ftTVD	*max depths*
Production Casing:	9,660'	ftTVD	*max depths*
Production Casing:	21,000'	ftMD	*max depths*

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.79	5.19	6.03	2.22
Intermediate	1.46	2.41	4.29	1.79
Production	1.10	1.76	1.84	1.29
Production Liner	1.38	1.02	1.61	1.54

The following worst case load cases were considered for calculation of the above Min. Safety Factors:

Burst Design	Surf	Int	Prod	Prod Lnr
Pressure Test- Surface, Int, Prod Csg P external: Mud weight above TOC, PP below P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Mud weight above TOC, PP below P internal: Dry Gas from Next Csg Point	X			
Gas over mud (60/40) - Int Csg P external: Mud weight above TOC, PP below P internal: 60% gas over 40% mud from hole TD PP		X		
Stimulation (Frac) Pressures- Prod Csg P external: Mud weight above TOC, PP below P internal: Max inj pressure w/ heaviest injected fluid			X	X
Tubing leak- Prod Csg (packer at KOP) P external: Mud weight above TOC, PP below P internal: Leak just below surf, 8.45 ppg packer fluid			X	X
Collapse Design	Surf	Int	Prod	Prod
Full Evacuation P external: Mud weight gradient P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: displacement fluid - water	X	X	X	X
Tension Design	Surf	Int	Prod	Prod
100k lb overpull	X	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	*Sacks*	Yield	Density	%Excess	Water	*Volume*	Additives
Surface 13-3/8					(cu ft/sk)	(ppg)	Open Hole	gal/sk	cuft	
Tail	Class C	0'	450'	259	1.33	14.8	10	6.36	344	Extender, Antifoam, Retarder
Intermediate Csg 9-5/8										
Planned single stage cement job										
Lead	Class C	0'	1,338'	185	2.49	11.9	10	14.11	461	Extender, Antifoam, Retarder, Viscosifier
Tail	Class C	1,338'	2,338'	287	1.33	14.8	10	6.36	382	Extender, Antifoam, Retarder, Viscosifier
Contingency: Top Job										
1st Tail	Class C	0'	1,338'	347	1.33	14.8	10	6.36	461	Extender, Antifoam, Retarder, Viscosifier
Production 7"										
Planned single stage cement job										
Lead	Class C	0'	7,542'	560	2.2	11.9	10	12.18	1231	Extender, Antifoam, Retarder, Viscosifier
Tail	Class C	7,542'	8,542'	118	1.4	14.5	10	6.82	165	Extender, Antifoam, Retarder, Viscosifier
Contingency: Top Job										
1st Tail	Class C	0'	5,542'	655	1.4	14.5	10	6.82	916	Extender, Antifoam, Retarder, Viscosifier
Production Liner 4-1/2"										
Lead	Class C	8,342'	21,548'	743	1.84	13.2	10	9.86	1368	Extender, Antifoam, Retarder, Viscosifier
Tail	Acid Sol Class H	21,548'	22,548'	48	2.16	15	10	9.22	104	Extender, Antifoam, Retarder, Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one solid body or bow spring type centralizer on every joint in the lateral, then every other joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing and surface.

6. **MUD PROGRAM**

From	To	Type	Weight	Viscosity	Filtrate	Notes
0'	450'	Fresh water mud	8.3 - 9.1	28-30	N/C	
450'	2,338'	Brine	8.9 - 10.5	26-36	15-25	
2,338'	8,542'	WBM/Brine	8.7 - 9.6	26-36	15-25	
8,542'	22,548'	OBM	9.2 - 13.0	50-70	5-10	Due to wellbore stability, the mud program may exceed the MW weight window needed to maintain overburden of pore pressure.

A closed system will be used consisting of above ground steel tanks. 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. 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.

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.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. **TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing
Mudlogs	2 man mudlog	Surface casing shoe through prod hole TD	While drilling or circulating
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling

c. Conventional whole core samples are not planned.
d. A directional survey will be run.

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

a. No abnormal pressure or temperatures are expected. Estimated BHP is: **2,246** psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

Tenaris

Data Sheet

TH DS-18.0150 9 Mar 18
Rev 00

API BTC 13 3/8'' 54.50 ppf J55

(USC Units)

PIPE BODY DATA					
GEOMETRY					
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Nominal ID	12.615 in.	**Wall Thickness**	0.380 in.	**Special Drift Diameter**	-
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CONNECTION DATA					
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Performance calculated according to API Standards 5CT and 5B and API Technical Report 5C3.
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Tenaris

Data Sheet

TH DS-19.0248 13 May 19
Rev 00

API BTC 9 5/8" 40.00 ppf L80-ICY

(USC Units)

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Nominal OD	9.625 in.	**Nominal Weight**	40.00 lbs/ft	**Standard Drift Diameter**	8.679 in.
Nominal ID	8.835 in.	**Wall Thickness**	0.395 in.	**Special Drift Diameter**	8.750 in.
Plain End Weight	38.97 lbs/ft				
PERFORMANCE					
Body Yield Strength	974 x 1000 lbs	**Internal Yield**	6100 psi	**Collapse**	3870 psi

CONNECTION DATA					
GEOMETRY					
Coupling OD	10.625 in.	**Threads per inch**	5	**Hand-Tight Standoff Thread Turns**	1.00
PERFORMANCE (1)					
Joint Strength	968 x 1000 lbs	**Internal Pressure Resistance**	6100 psi		

(1) Non API size / grade combination for BTC.
This product is threaded on API-enhanced Steel Grade pipe.
Geometrical features according to API Standards 5CT and 5B
Performance calculated as per API Technical Report 5C3 (Sections 9 & 10).

For the latest performance data, always visit our website: www.tenaris.com

Blue®

Printed on: 07/15/2019

Outside Diameter	**7.000** in.	Min. Wall Thickness	**87.5**%	(*) Grade P110	
Wall Thickness	**0.408** in.	Connection OD Option	**REGULAR**	COUPLING	PIPE BODY
Grade	**P110***	Drift	**API Standard**	Body: **White** 1st Band: - 2nd Band: - 3rd Band: -	1st Band: **White** 2nd Band: - 3rd Band: - 4th Band: -
		Type	**Casing**		

PIPE BODY DATA

GEOMETRY

Nominal OD	**7.000** in.	Nominal Weight	**29.00** lbs/ft	Drift	**6.059** in.
Nominal ID	**6.184** in.	Wall Thickness	**0.408** in.	Plain End Weight	**28.75** lbs/ft
OD Tolerance	**API**				

PERFORMANCE

Body Yield Strength	**929** x1000 lbs	Internal Yield	**11220** psi	SMYS	**110000** psi
Collapse	**8530** psi				

CONNECTION DATA

GEOMETRY

Connection OD	**7.677** in.	Coupling Length	**10.551** in.	Connection ID	**6.118** in.
Make-up Loss	**4.480** in.	Threads per in	**4**	Connection OD Option	**REGULAR**

PERFORMANCE

Tension Efficiency	**100.0** %	Joint Yield Strength	**929.000** x1000 lbs	Internal Pressure Capacity	**11220.000** psi
Compression Efficiency	**100** %	Compression Strength	**929.000** x1000 lbs	Max. Allowable Bending	**72** °/100 ft
External Pressure Capacity	**8530.000** psi	Coupling Face Load	**433000** lbs		

MAKE-UP TORQUES

Minimum	**10480** ft-lbs	Optimum	**11640** ft-lbs	Maximum	**12800** ft-lbs

SHOULDER TORQUES

Minimum	**1750** ft-lbs	Maximum	**9890** ft-lbs		

OPERATION LIMIT TORQUES

Operating Torque	**29100** ft-lbs	Yield Torque	**36380** ft-lbs		

Notes

This connection is fully interchangeable with:

Blue® - 7 in. - 23 / 24.75 / 26 / 32 / 35 / 38 / 41 / 44 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Wedge 521®

Printed on: 05/09/2019

Outside Diameter	**4.500** in.	**Min. Wall Thickness**	**87.5%**	**(*) Grade P110**	
Wall Thickness	**0.250** in.	**Connection OD Option**	**REGULAR**	**COUPLING**	**PIPE BODY**
Grade	**P110***	**Drift**	**API Standard**	Body: **White** 1st Band: **-** 2nd Band: **-** 3rd Band: **-**	1st Band: **White** 2nd Band: **-** 3rd Band: **-** 4th Band: **-**
		Type	**Casing**		

PIPE BODY DATA

GEOMETRY

Nominal OD	**4.500** in.	Nominal Weight	**11.60** lbs/ft	Drift	**3.875** in.
Nominal ID	**4.000** in.	Wall Thickness	**0.250** in.	Plain End Weight	**11.36** lbs/ft
OD Tolerance	**API**				

PERFORMANCE

Body Yield Strength	**367** x1000 lbs	Internal Yield	**10690** psi	SMYS	**110000** psi
Collapse	**7580** psi				

CONNECTION DATA

GEOMETRY

Connection OD	**4.695** in.	Connection ID	**3.960** in.	Make-up Loss	**3.620** in.
Threads per in	**3.36**	Connection OD Option	**REGULAR**		

PERFORMANCE

Tension Efficiency	**64.2** %	Joint Yield Strength	**235.614** x1000 lbs	Internal Pressure Capacity	**10690.000** psi
Compression Efficiency	**84.8** %	Compression Strength	**311.216** x1000 lbs	Max. Allowable Bending	**71.9** °/100 ft
External Pressure Capacity	**7580.000** psi				

MAKE-UP TORQUES

Minimum	**3600** ft-lbs	Optimum	**4300** ft-lbs	Maximum	**6300** ft-lbs

OPERATION LIMIT TORQUES

Operating Torque	**14000** ft-lbs	Yield Torque	**21000** ft-lbs		

Notes

This connection is fully interchangeable with:

Wedge 521® - 4.5 in. - 10.5 / 11 / 12.6 / 13.5 lbs/ft

Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

ONSHORE ORDER NO. 1
Chevron
Cicada Unit 43H
Eddy County, NM

CONFIDENTIAL -- TIGHT HOLE
DRILLING PLAN
PAGE: 1

Pad Summary: HHNM Pkg 16

The table below lists all the wells for the given pad and their respective name and TVD's (ft) for their production target intervals:

Well Name(s)	Target TVD	Formation Desc.
Cicada Unit 41H	9,251	WCA
Cicada Unit 42H	9,910	WCC
Cicada Unit 43H	9,268	WCA
Cicada Unit 44H	9,876	WCC

1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:
Elevation: 3171 ft

FORMATION	SUB-SEA TVD	TVD	MD	LITHOLOGIES	MIN. RESOURCES	PROD. FORMATION
Salado (SLDO) / Castile (CSTL)	2080	1,091	1,091	ANHY	N/A	
Lamar Lime (LMAR)	859	2,312	2,334	SS	N/A	
Bell Canyon (BLCN)	825	2,346	2,369	SS	N/A	
Cherry Canyon (CRCN)	-7	3,178	3,217	SS	N/A	
Brushy Canyon (BRSC)	-1166	4,337	4,388	SS	N/A	
Bone Spring (BSGL)	-2825	5,996	6,047	LS	N/A	
Avalon (AVLN)	-2917	6,088	6,139	SH	Oil	
1st Bone Spring (FBSG)	-3692	6,863	6,914	SH	Oil	
2nd Bone Spring (SBSG)	-4222	7,393	7,444	SH	Oil	
3rd BS Carb	-5291	8,462	8,513	LS	Oil	
3rd Bone Spring (TBSG)	-5479	8,650	8,701	LS	Oil	
Wolfcamp (WFMP) A	-5829	9,000	9,068	Sh, LS, SS	Oil	
WCA1	-6033	9,204	9,372	Sh, LS, SS	Oil	
WCA_TGT1	-6097	**9,268**	**22,582**	**Sh**	**Oil**	**yes**

WELLBORE LOCATIONS	SUB-SEA TVD	RKB TVD	MD
SHL	3171	-	
KOP	-5524	8,695	8,746
FTP	-6097	9,268	9,642
LTP	-6187	9,358	22,502

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Top Depth
Deepest Expected Base of Fresh Water		300
Water	Salado (SLDO) / Castile (CSTL)	1,091
Oil/Gas	Avalon (AVLN)	6,088
Oil/Gas	1st Bone Spring (FBSG)	6,863
Oil/Gas	2nd Bone Spring (SBSG)	7,393
Oil/Gas	3rd Bone Spring (TBSG)	8,650
Oil/Gas	Wolfcamp (WFMP) A	9,000

All shows of fresh water and minerals will be reported and protected.

3. **BOP EQUIPMENT**

Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. 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 below). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.

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 to drilling the production liner hole 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 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.

4. **CASING PROGRAM**

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	450'	17-1/2" to 16"	13-3/8"	54.5 #	J-55	BTC/STC	New
Intermediate	0'	2,321'	12-1/4"	9-5/8"	40#	L-80	BTC/LTC	New
Production	0'	8,600'	8-3/4"	7"	29.0 #	P110/TN110S	BLUE	New
Production Liner	8,300'	22,582'	6-1/8"	4-1/2"	11.6 #	P110/TN110S	W521	New

b. **Casing design subject to revision based on geologic conditions encountered.**

c. **A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated & sent to the BLM prior to drilling.**

d. **Chevron will fill casing at a minimum of every 20 jts (~840') while running for intermediate and production casing in order to maintain collapse SF.**

SF Calculations based on the following "Worst Case" casing design:

Surface Casing:	500'	ftTVD	*max depths*
Intermediate Casing:	3,060'	ftTVD	*max depths*
Production Casing:	9,660'	ftTVD	*max depths*
Production Casing:	21,000'	ftMD	*max depths*

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.79	5.19	6.03	2.22
Intermediate	1.46	2.41	4.29	1.79
Production	1.10	1.76	1.84	1.29
Production Liner	1.38	1.02	1.61	1.54

The following worst case load cases were considered for calculation of the above Min. Safety Factors:

Burst Design	Surf	Int	Prod	Prod Lnr
Pressure Test- Surface, Int, Prod Csg P external: Mud weight above TOC, PP below P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Mud weight above TOC, PP below P internal: Dry Gas from Next Csg Point	X			
Gas over mud (60/40) - Int Csg P external: Mud weight above TOC, PP below P internal: 60% gas over 40% mud from hole TD PP		X		
Stimulation (Frac) Pressures- Prod Csg P external: Mud weight above TOC, PP below P internal: Max inj pressure w/ heaviest injected fluid			X	X
Tubing leak- Prod Csg (packer at KOP) P external: Mud weight above TOC, PP below P internal: Leak just below surf, 8.45 ppg packer fluid			X	X
Collapse Design	Surf	Int	Prod	Prod
Full Evacuation P external: Mud weight gradient P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: displacement fluid - water	X	X	X	X
Tension Design	Surf	Int	Prod	Prod
100k lb overpull	X	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	*Sacks*	Yield	Density	%Excess	Water	*Volume*	Additives
Surface 13-3/8					(cu ft/sk)	(ppg)	Open Hole	gal/sk	cuft	
Tail	Class C	0'	450'	259	1.33	14.8	10	6.36	344	Extender, Antifoam, Retarder
Intermediate Csg 9-5/8										
Planned single stage cement job										
Lead	Class C	0'	1,321'	183	2.49	11.9	10	14.11	455	Extender, Antifoam, Retarder, Viscosifier
Tail	Class C	1,321'	2,321'	287	1.33	14.8	10	6.36	382	Extender, Antifoam, Retarder, Viscosifier
Contingency: Top Job										
1st Tail	Class C	0'	1,321'	342	1.33	14.8	10	6.36	455	Extender, Antifoam, Retarder, Viscosifier
Production 7"										
Planned single stage cement job										
Lead	Class C	0'	7,600'	564	2.2	11.9	10	12.18	1241	Extender, Antifoam, Retarder, Viscosifier
Tail	Class C	7,600'	8,600'	118	1.4	14.5	10	6.82	165	Extender, Antifoam, Retarder, Viscosifier
Contingency: Top Job										
1st Tail	Class C	0'	5,600'	661	1.4	14.5	10	6.82	926	Extender, Antifoam, Retarder, Viscosifier
Production Liner 4-1/2"										
Lead	Class C	8,400'	21,582'	742	1.84	13.2	10	9.86	1366	Extender, Antifoam, Retarder, Viscosifier
Tail	Acid Sol Class H	21,582'	22,582'	48	2.16	15	10	9.22	104	Extender, Antifoam, Retarder, Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one solid body or bow spring type centralizer on every joint in the lateral, then every other joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing and surface.

6. **MUD PROGRAM**

From	To	Type	Weight	Viscosity	Filtrate	Notes
0'	450'	Fresh water mud	8.3 - 9.1	28-30	N/C	
450'	2,321'	Brine	8.9 - 10.5	26-36	15-25	
2,321'	8,600'	WBM/Brine	8.7 - 9.6	26-36	15-25	
8,600'	22,582'	OBM	9.2 - 13.0	50-70	5-10	Due to wellbore stability, the mud program may exceed the MW weight window needed to maintain overburden of pore pressure.

A closed system will be used consisting of above ground steel tanks. 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. 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.

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.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. **TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing
Mudlogs	2 man mudlog	Surface casing shoe through prod hole TD	While drilling or circulating
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling

c. Conventional whole core samples are not planned.
d. A directional survey will be run.

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

a. No abnormal pressure or temperatures are expected. Estimated BHP is: **2,250** psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

Schlumberger

Chevron

Chevron Cicada Unit No. 43H Rev0 jjb 18May20 Proposal Geodetic Report

(Def Plan)

Report Date:	May 18, 2020 - 01:24 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chevron	**Vertical Section Azimuth:**	359.640 ° (Grid North)
Field:	NM Eddy County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chevron Cicada Unit Pkg 16 / 43H	**TVD Reference Datum:**	RKB = 28ft
Well:	Cicada Unit No. 43H	**TVD Reference Elevation:**	3171.000 ft above MSL
Borehole:	Cicada Unit No. 43H	**Seabed / Ground Elevation:**	3143.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.055 °
Survey Name:	Chevron Cicada Unit No. 43H Rev0 jjb 18May20	**Total Gravity Field Strength:**	998.4411mgn (9.80665 Based)
Survey Date:	May 18, 2020	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	119.940 ° / 14267.516 ft / 6.620 / 1.524	**Total Magnetic Field Strength:**	47721.581 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.720 °
Location Lat / Long:	N 32° 5' 10.47676", W 104° 9' 17.11213"	**Declination Date:**	May 18, 2020
Location Grid N/E Y/X:	N 395145.000 ftUS, E 555307.000 ftUS	**Magnetic Declination Model:**	HDGM 2020
CRS Grid Convergence Angle:	0.0949 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99991259	**Grid Convergence Used:**	0.0949 °
Version / Patch:	2.10.811.0	**Total Corr Mag North->Grid North:**	6.9600 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
Rustler	*86.00*	*0.00*	*168.60*	*86.00*	*0.00*	*0.00*	*0.00*	*0.00*	*395145.00*	*555307.00*	*N 32 5 10.48*	*W 104 9 17.11*
	100.00	0.00	168.60	100.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
	200.00	0.00	168.60	200.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
	300.00	0.00	168.60	300.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
	400.00	0.00	168.60	400.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
13 3/8" Casing	*450.00*	*0.00*	*168.60*	*450.00*	*0.00*	*0.00*	*0.00*	*0.00*	*395145.00*	*555307.00*	*N 32 5 10.48*	*W 104 9 17.11*
	500.00	0.00	168.60	500.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
	600.00	0.00	168.60	600.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
	700.00	0.00	168.60	700.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
Build 1.5°/100ft	730.00	0.00	168.60	730.00	0.00	0.00	0.00	0.00	395145.00	555307.00	N 32 5 10.48	W 104 9 17.11
	800.00	1.05	168.60	800.00	-0.63	-0.63	0.13	1.50	395144.37	555307.13	N 32 5 10.47	W 104 9 17.11
	900.00	2.55	168.60	899.94	-3.71	-3.71	0.75	1.50	395141.29	555307.75	N 32 5 10.44	W 104 9 17.10
	1000.00	4.05	168.60	999.78	-9.36	-9.35	1.89	1.50	395135.65	555308.89	N 32 5 10.38	W 104 9 17.09
Salado / Castile	*1091.39*	*5.42*	*168.60*	*1090.85*	*-16.77*	*-16.75*	*3.38*	*1.50*	*395128.26*	*555310.38*	*N 32 5 10.31*	*W 104 9 17.07*
	1100.00	5.55	168.60	1099.42	-17.57	-17.55	3.54	1.50	395127.45	555310.54	N 32 5 10.30	W 104 9 17.07
	1200.00	7.05	168.60	1198.81	-28.34	-28.31	5.71	1.50	395116.69	555312.71	N 32 5 10.20	W 104 9 17.05
	1300.00	8.55	168.60	1297.89	-41.66	-41.61	8.39	1.50	395103.39	555315.39	N 32 5 10.06	W 104 9 17.02
	1400.00	10.05	168.60	1396.57	-57.53	-57.45	11.58	1.50	395087.55	555318.58	N 32 5 9.91	W 104 9 16.98
Hold	1496.65	11.50	168.60	1491.51	-75.26	-75.17	15.16	1.50	395069.84	555322.15	N 32 5 9.73	W 104 9 16.94
	1500.00	11.50	168.60	1494.80	-75.92	-75.82	15.29	0.00	395069.19	555322.29	N 32 5 9.73	W 104 9 16.94
	1600.00	11.50	168.60	1592.79	-95.48	-95.36	19.23	0.00	395049.64	555326.23	N 32 5 9.53	W 104 9 16.89
	1700.00	11.50	168.60	1690.78	-115.05	-114.91	23.17	0.00	395030.10	555330.17	N 32 5 9.34	W 104 9 16.85
	1800.00	11.50	168.60	1788.77	-134.62	-134.45	27.11	0.00	395010.56	555334.11	N 32 5 9.15	W 104 9 16.80
	1900.00	11.50	168.60	1886.77	-154.18	-153.99	31.05	0.00	394991.02	555338.05	N 32 5 8.95	W 104 9 16.75
	2000.00	11.50	168.60	1984.76	-173.75	-173.54	34.99	0.00	394971.48	555341.99	N 32 5 8.76	W 104 9 16.71
	2100.00	11.50	168.60	2082.75	-193.32	-193.08	38.93	0.00	394951.94	555345.93	N 32 5 8.57	W 104 9 16.66
	2200.00	11.50	168.60	2180.74	-212.89	-212.62	42.87	0.00	394932.40	555349.87	N 32 5 8.37	W 104 9 16.62
	2300.00	11.50	168.60	2278.74	-232.45	-232.16	46.81	0.00	394912.86	555353.81	N 32 5 8.18	W 104 9 16.57
9 5/8" Casing	*2321.70*	*11.50*	*168.60*	*2300.00*	*-236.70*	*-236.41*	*47.67*	*0.00*	*394908.62*	*555354.66*	*N 32 5 8.14*	*W 104 9 16.56*
Lamar Lime	*2334.45*	*11.50*	*168.60*	*2312.49*	*-239.19*	*-238.90*	*48.17*	*0.00*	*394906.13*	*555355.16*	*N 32 5 8.11*	*W 104 9 16.56*
Bell Canyon	*2369.41*	*11.50*	*168.60*	*2346.75*	*-246.04*	*-245.73*	*49.55*	*0.00*	*394899.29*	*555356.54*	*N 32 5 8.04*	*W 104 9 16.54*
	2400.00	11.50	168.60	2376.73	-252.02	-251.71	50.75	0.00	394893.32	555357.75	N 32 5 7.99	W 104 9 16.53
	2500.00	11.50	168.60	2474.72	-271.59	-271.25	54.69	0.00	394873.77	555361.69	N 32 5 7.79	W 104 9 16.48
	2600.00	11.50	168.60	2572.71	-291.16	-290.79	58.63	0.00	394854.23	555365.63	N 32 5 7.60	W 104 9 16.44
	2700.00	11.50	168.60	2670.71	-310.72	-310.34	62.57	0.00	394834.69	555369.57	N 32 5 7.40	W 104 9 16.39
	2800.00	11.50	168.60	2768.70	-330.29	-329.88	66.51	0.00	394815.15	555373.51	N 32 5 7.21	W 104 9 16.35
	2900.00	11.50	168.60	2866.69	-349.86	-349.42	70.46	0.00	394795.61	555377.45	N 32 5 7.02	W 104 9 16.30
	3000.00	11.50	168.60	2964.68	-369.43	-368.97	74.40	0.00	394776.07	555381.39	N 32 5 6.82	W 104 9 16.25
	3100.00	11.50	168.60	3062.68	-388.99	-388.51	78.34	0.00	394756.53	555385.33	N 32 5 6.63	W 104 9 16.21
	3200.00	11.50	168.60	3160.67	-408.56	-408.05	82.28	0.00	394736.99	555389.27	N 32 5 6.44	W 104 9 16.16
Cherry Canyon	*3217.91*	*11.50*	*168.60*	*3178.22*	*-412.06*	*-411.55*	*82.98*	*0.00*	*394733.49*	*555389.97*	*N 32 5 6.40*	*W 104 9 16.16*
	3300.00	11.50	168.60	3258.66	-428.13	-427.59	86.22	0.00	394717.44	555393.21	N 32 5 6.24	W 104 9 16.12
	3400.00	11.50	168.60	3356.65	-447.69	-447.14	90.16	0.00	394697.90	555397.15	N 32 5 6.05	W 104 9 16.07
	3500.00	11.50	168.60	3454.65	-467.26	-466.68	94.10	0.00	394678.36	555401.09	N 32 5 5.86	W 104 9 16.03
Drop 1.5°/100ft	3529.09	11.50	168.60	3483.15	-472.95	-472.36	95.24	0.00	394672.68	555402.24	N 32 5 5.80	W 104 9 16.01
	3600.00	10.44	168.60	3552.77	-486.20	-485.59	97.91	1.50	394659.45	555404.90	N 32 5 5.67	W 104 9 15.98
	3700.00	8.94	168.60	3651.34	-502.71	-502.08	101.24	1.50	394642.96	555408.23	N 32 5 5.51	W 104 9 15.95
	3800.00	7.44	168.60	3750.32	-516.68	-516.04	104.05	1.50	394629.01	555411.04	N 32 5 5.37	W 104 9 15.91
	3900.00	5.94	168.60	3849.63	-528.11	-527.45	106.35	1.50	394617.59	555413.34	N 32 5 5.26	W 104 9 15.89
	4000.00	4.44	168.60	3949.22	-536.98	-536.31	108.14	1.50	394608.73	555415.13	N 32 5 5.17	W 104 9 15.87
	4100.00	2.94	168.60	4049.01	-543.29	-542.62	109.41	1.50	394602.43	555416.40	N 32 5 5.11	W 104 9 15.85
	4200.00	1.44	168.60	4148.94	-547.04	-546.35	110.16	1.50	394598.69	555417.15	N 32 5 5.07	W 104 9 15.84
Hold Vertical	4295.73	0.00	168.60	4244.66	-548.21	-547.53	110.40	1.50	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	4300.00	0.00	168.60	4248.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
Brushy Canyon	*4388.70*	*0.00*	*168.60*	*4337.63*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
	4400.00	0.00	168.60	4348.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	4500.00	0.00	168.60	4448.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	4600.00	0.00	168.60	4548.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	4700.00	0.00	168.60	4648.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	4800.00	0.00	168.60	4748.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	4900.00	0.00	168.60	4848.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5000.00	0.00	168.60	4948.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5100.00	0.00	168.60	5048.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5200.00	0.00	168.60	5148.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5300.00	0.00	168.60	5248.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5400.00	0.00	168.60	5348.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5500.00	0.00	168.60	5448.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5600.00	0.00	168.60	5548.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5700.00	0.00	168.60	5648.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5800.00	0.00	168.60	5748.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	5900.00	0.00	168.60	5848.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6000.00	0.00	168.60	5948.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
Bone Spring	*6047.82*	*0.00*	*168.60*	*5996.75*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
	6100.00	0.00	168.60	6048.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
Avalon Upper	*6139.96*	*0.00*	*168.60*	*6088.89*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6200.00	0.00	168.60	6148.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6300.00	0.00	168.60	6248.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6400.00	0.00	168.60	6348.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6500.00	0.00	168.60	6448.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6600.00	0.00	168.60	6548.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6700.00	0.00	168.60	6648.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6800.00	0.00	168.60	6748.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	6900.00	0.00	168.60	6848.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
1st Bone Spring	*6914.34*	*0.00*	*168.60*	*6863.27*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
	7000.00	0.00	168.60	6948.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7100.00	0.00	168.60	7048.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7200.00	0.00	168.60	7148.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7300.00	0.00	168.60	7248.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7400.00	0.00	168.60	7348.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
2nd Bone Spring Upper	*7444.66*	*0.00*	*168.60*	*7393.59*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
	7500.00	0.00	168.60	7448.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7600.00	0.00	168.60	7548.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7700.00	0.00	168.60	7648.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7800.00	0.00	168.60	7748.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	7900.00	0.00	168.60	7848.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8000.00	0.00	168.60	7948.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8100.00	0.00	168.60	8048.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8200.00	0.00	168.60	8148.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8300.00	0.00	168.60	8248.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8400.00	0.00	168.60	8348.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8500.00	0.00	168.60	8448.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8501.07	*0.00*	*168.60*	*8450.00*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
TBS 1st Carbonate	*8513.07*	*0.00*	*168.60*	*8462.00*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
7" Casing	8600.00	0.00	168.60	8548.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8700.00	0.00	168.60	8648.93	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
3rd Bone Spring	*8701.96*	*0.00*	*168.60*	*8650.89*	*-548.21*	*-547.53*	*110.40*	*0.00*	*394597.52*	*555417.39*	*N 32 5 5.06*	*W 104 9 15.84*
KOP, Build 10°/100ft	8746.13	0.00	168.60	8695.06	-548.21	-547.53	110.40	0.00	394597.52	555417.39	N 32 5 5.06	W 104 9 15.84
	8800.00	5.39	4.98	8748.85	-545.69	-545.01	110.62	10.00	394600.04	555417.61	N 32 5 5.08	W 104 9 15.84
	8900.00	15.39	4.98	8847.08	-527.77	-527.07	112.18	10.00	394617.98	555419.17	N 32 5 5.26	W 104 9 15.82
	9000.00	25.39	4.98	8940.70	-493.13	-492.41	115.20	10.00	394652.63	555422.19	N 32 5 5.60	W 104 9 15.78
Wolfcamp A	*9068.08*	*32.19*	*4.98*	*9000.33*	*-460.50*	*-459.77*	*118.05*	*10.00*	*394685.27*	*555425.04*	*N 32 5 5.93*	*W 104 9 15.75*
	9100.00	35.39	4.98	9026.85	-442.83	-442.08	119.59	10.00	394702.96	555426.58	N 32 5 6.10	W 104 9 15.73
	9200.00	45.39	4.98	9102.93	-378.39	-377.61	125.20	10.00	394767.42	555432.19	N 32 5 6.74	W 104 9 15.66
	9300.00	55.39	4.98	9166.61	-301.79	-300.97	131.88	10.00	394844.06	555438.87	N 32 5 7.50	W 104 9 15.59
WCA1	*9372.96*	*62.68*	*4.98*	*9204.12*	*-239.54*	*-238.68*	*137.31*	*10.00*	*394906.34*	*555444.30*	*N 32 5 8.11*	*W 104 9 15.52*
	9400.00	65.39	4.98	9215.96	-215.34	-214.47	139.42	10.00	394930.55	555446.40	N 32 5 8.35	W 104 9 15.50
Top Target 1	*9497.01*	*75.09*	*4.98*	*9248.72*	*-124.55*	*-123.63*	*147.33*	*10.00*	*395021.38*	*555454.32*	*N 32 5 9.25*	*W 104 9 15.40*
	9500.00	75.39	4.98	9249.48	-121.67	-120.74	147.58	10.00	395024.27	555454.57	N 32 5 9.28	W 104 9 15.40
	9600.00	85.39	4.98	9266.16	-23.62	-22.64	156.13	10.00	395122.36	555463.12	N 32 5 10.25	W 104 9 15.30
FTP Cross Landing Point	9642.09	89.60	4.98	9268.00	18.23	19.24	159.78	10.00	395164.23	555466.76	N 32 5 10.66	W 104 9 15.25
	9700.00	89.60	4.98	9268.41	75.89	76.93	164.80	0.00	395221.92	555471.79	N 32 5 11.24	W 104 9 15.20
WCA_TGT1	*9757.73*	*89.60*	*4.98*	*9268.82*	*133.36*	*134.43*	*169.81*	*0.00*	*395279.42*	*555476.80*	*N 32 5 11.80*	*W 104 9 15.14*
	9800.00	89.60	4.98	9269.12	175.45	176.55	173.48	0.00	395321.53	555480.47	N 32 5 12.22	W 104 9 15.09
	9900.00	89.60	4.98	9269.82	275.02	276.17	182.16	0.00	395421.14	555489.15	N 32 5 13.21	W 104 9 14.99
Turn 2°/100ft	9975.13	89.60	4.98	9270.36	349.82	351.01	188.68	0.00	395495.98	555495.67	N 32 5 13.95	W 104 9 14.91
	10000.00	89.60	4.48	9270.53	374.59	375.80	190.73	2.00	395520.76	555497.72	N 32 5 14.19	W 104 9 14.89
	10100.00	89.59	2.48	9271.24	474.36	475.60	196.81	2.00	395620.56	555503.79	N 32 5 15.18	W 104 9 14.82
Hold	10175.13	89.60	0.98	9271.77	549.44	550.70	199.07	2.00	395695.65	555506.06	N 32 5 15.92	W 104 9 14.79
	10200.00	89.60	0.98	9271.94	574.30	575.56	199.50	0.00	395720.51	555506.48	N 32 5 16.17	W 104 9 14.78
	10300.00	89.60	0.98	9272.65	674.27	675.55	201.21	0.00	395820.48	555508.19	N 32 5 17.16	W 104 9 14.76
	10400.00	89.60	0.98	9273.36	774.24	775.53	202.92	0.00	395920.46	555509.90	N 32 5 18.15	W 104 9 14.74
	10500.00	89.60	0.98	9274.06	874.21	875.51	204.63	0.00	396020.43	555511.61	N 32 5 19.14	W 104 9 14.72
	10600.00	89.60	0.98	9274.77	974.18	975.49	206.33	0.00	396120.41	555513.32	N 32 5 20.13	W 104 9 14.70
	10700.00	89.60	0.98	9275.48	1074.15	1075.48	208.04	0.00	396220.38	555515.02	N 32 5 21.12	W 104 9 14.67
	10800.00	89.60	0.98	9276.19	1174.12	1175.46	209.75	0.00	396320.35	555516.73	N 32 5 22.11	W 104 9 14.65
	10900.00	89.60	0.98	9276.89	1274.09	1275.44	211.46	0.00	396420.33	555518.44	N 32 5 23.09	W 104 9 14.63
	11000.00	89.60	0.98	9277.60	1374.06	1375.43	213.17	0.00	396520.30	555520.15	N 32 5 24.08	W 104 9 14.61
	11100.00	89.60	0.98	9278.31	1474.03	1475.41	214.88	0.00	396620.28	555521.86	N 32 5 25.07	W 104 9 14.59
	11200.00	89.60	0.98	9279.01	1574.00	1575.39	216.59	0.00	396720.25	555523.57	N 32 5 26.06	W 104 9 14.56
	11300.00	89.60	0.98	9279.72	1673.97	1675.37	218.29	0.00	396820.22	555525.27	N 32 5 27.05	W 104 9 14.54
	11400.00	89.60	0.98	9280.43	1773.94	1775.36	220.00	0.00	396920.20	555526.98	N 32 5 28.04	W 104 9 14.52
	11500.00	89.60	0.98	9281.13	1873.91	1875.34	221.71	0.00	397020.17	555528.69	N 32 5 29.03	W 104 9 14.50
	11600.00	89.60	0.98	9281.84	1973.88	1975.32	223.42	0.00	397120.15	555530.40	N 32 5 30.02	W 104 9 14.48
	11700.00	89.60	0.98	9282.55	2073.85	2075.31	225.13	0.00	397220.12	555532.11	N 32 5 31.01	W 104 9 14.46
	11800.00	89.60	0.98	9283.25	2173.82	2175.29	226.84	0.00	397320.09	555533.82	N 32 5 32.00	W 104 9 14.43
	11900.00	89.60	0.98	9283.96	2273.79	2275.27	228.55	0.00	397420.07	555535.52	N 32 5 32.99	W 104 9 14.41
	12000.00	89.60	0.98	9284.67	2373.76	2375.25	230.25	0.00	397520.04	555537.23	N 32 5 33.98	W 104 9 14.39
	12100.00	89.60	0.98	9285.37	2473.73	2475.24	231.96	0.00	397620.02	555538.94	N 32 5 34.97	W 104 9 14.37
	12200.00	89.60	0.98	9286.08	2573.70	2575.22	233.67	0.00	397719.99	555540.65	N 32 5 35.96	W 104 9 14.35
MP1, Turn 2°/100ft	12279.03	89.60	0.98	9286.64	2652.71	2654.24	235.02	0.00	397799.00	555542.00	N 32 5 36.74	W 104 9 14.33
	12300.00	89.60	0.56	9286.79	2673.67	2675.20	235.30	2.00	397819.97	555542.28	N 32 5 36.95	W 104 9 14.33
Hold	12390.26	89.60	358.75	9287.43	2763.93	2765.46	234.76	2.00	397910.21	555541.74	N 32 5 37.84	W 104 9 14.33
	12400.00	89.60	358.75	9287.49	2773.67	2775.19	234.55	0.00	397919.95	555541.53	N 32 5 37.94	W 104 9 14.33
	12500.00	89.60	358.75	9288.20	2873.65	2875.17	232.38	0.00	398019.91	555539.36	N 32 5 38.92	W 104 9 14.36
	12600.00	89.60	358.75	9288.91	2973.64	2975.14	230.20	0.00	398119.88	555537.18	N 32 5 39.91	W 104 9 14.38
	12700.00	89.60	358.75	9289.61	3073.62	3075.12	228.03	0.00	398219.84	555535.01	N 32 5 40.90	W 104 9 14.40
	12800.00	89.60	358.75	9290.32	3173.61	3175.09	225.85	0.00	398319.81	555532.83	N 32 5 41.89	W 104 9 14.43
Base Target 1	*12894.77*	*89.60*	*358.75*	*9290.99*	*3268.36*	*3269.83*	*223.79*	*0.00*	*398414.54*	*555530.77*	*N 32 5 42.83*	*W 104 9 14.45*
	12900.00	89.60	358.75	9291.03	3273.59	3275.06	223.68	0.00	398419.77	555530.66	N 32 5 42.88	W 104 9 14.45
	13000.00	89.60	358.75	9291.73	3373.58	3375.04	221.51	0.00	398519.74	555528.49	N 32 5 43.87	W 104 9 14.47
	13100.00	89.60	358.75	9292.44	3473.56	3475.01	219.33	0.00	398619.70	555526.31	N 32 5 44.86	W 104 9 14.50
	13200.00	89.60	358.75	9293.15	3573.55	3574.99	217.16	0.00	398719.67	555524.14	N 32 5 45.85	W 104 9 14.52
	13300.00	89.60	358.75	9293.85	3673.54	3674.96	214.99	0.00	398819.63	555521.97	N 32 5 46.84	W 104 9 14.54
	13400.00	89.60	358.75	9294.56	3773.52	3774.93	212.81	0.00	398919.60	555519.79	N 32 5 47.83	W 104 9 14.57
	13500.00	89.60	358.75	9295.27	3873.51	3874.91	210.64	0.00	399019.56	555517.62	N 32 5 48.82	W 104 9 14.59
	13600.00	89.60	358.75	9295.97	3973.49	3974.88	208.46	0.00	399119.53	555515.45	N 32 5 49.81	W 104 9 14.61
	13700.00	89.60	358.75	9296.68	4073.48	4074.85	206.29	0.00	399219.49	555513.27	N 32 5 50.80	W 104 9 14.64
	13800.00	89.60	358.75	9297.38	4173.46	4174.83	204.12	0.00	399319.46	555511.10	N 32 5 51.79	W 104 9 14.66
	13900.00	89.60	358.75	9298.09	4273.45	4274.80	201.94	0.00	399419.42	555508.92	N 32 5 52.78	W 104 9 14.68
	14000.00	89.60	358.75	9298.80	4373.43	4374.78	199.77	0.00	399519.39	555506.75	N 32 5 53.76	W 104 9 14.71
	14100.00	89.60	358.75	9299.50	4473.42	4474.75	197.59	0.00	399619.35	555504.58	N 32 5 54.75	W 104 9 14.73
	14200.00	89.60	358.75	9300.21	4573.41	4574.72	195.42	0.00	399719.31	555502.40	N 32 5 55.74	W 104 9 14.75
	14300.00	89.60	358.75	9300.92	4673.39	4674.70	193.25	0.00	399819.28	555500.23	N 32 5 56.73	W 104 9 14.78
	14400.00	89.60	358.75	9301.62	4773.38	4774.67	191.07	0.00	399919.24	555498.06	N 32 5 57.72	W 104 9 14.80
	14500.00	89.60	358.75	9302.33	4873.36	4874.65	188.90	0.00	400019.21	555495.88	N 32 5 58.71	W 104 9 14.82
	14600.00	89.60	358.75	9303.04	4973.35	4974.62	186.72	0.00	400119.17	555493.71	N 32 5 59.70	W 104 9 14.85
	14700.00	89.60	358.75	9303.74	5073.33	5074.59	184.55	0.00	400219.14	555491.53	N 32 6 0.69	W 104 9 14.87
	14800.00	89.60	358.75	9304.45	5173.32	5174.57	182.38	0.00	400319.10	555489.36	N 32 6 1.68	W 104 9 14.89

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	14900.00	89.60	358.75	9305.16	5273.30	5274.54	180.20	0.00	400419.07	555487.19	N 32 6 2.67	W 104 9 14.92
	15000.00	89.60	358.75	9305.86	5373.29	5374.51	178.03	0.00	400519.03	555485.01	N 32 6 3.66	W 104 9 14.94
	15100.00	89.60	358.75	9306.57	5473.28	5474.49	175.86	0.00	400619.00	555482.84	N 32 6 4.65	W 104 9 14.96
	15200.00	89.60	358.75	9307.27	5573.26	5574.46	173.68	0.00	400718.96	555480.67	N 32 6 5.64	W 104 9 14.99
	15300.00	89.60	358.75	9307.98	5673.25	5674.44	171.51	0.00	400818.93	555478.49	N 32 6 6.63	W 104 9 15.01
	15400.00	89.60	358.75	9308.69	5773.23	5774.41	169.33	0.00	400918.89	555476.32	N 32 6 7.62	W 104 9 15.03
	15500.00	89.60	358.75	9309.39	5873.22	5874.38	167.16	0.00	401018.86	555474.14	N 32 6 8.60	W 104 9 15.06
	15600.00	89.60	358.75	9310.10	5973.20	5974.36	164.99	0.00	401118.82	555471.97	N 32 6 9.59	W 104 9 15.08
	15700.00	89.60	358.75	9310.81	6073.19	6074.33	162.81	0.00	401218.79	555469.80	N 32 6 10.58	W 104 9 15.10
	15800.00	89.60	358.75	9311.51	6173.17	6174.31	160.64	0.00	401318.75	555467.62	N 32 6 11.57	W 104 9 15.13
	15900.00	89.60	358.75	9312.22	6273.16	6274.28	158.46	0.00	401418.72	555465.45	N 32 6 12.56	W 104 9 15.15
	16000.00	89.60	358.75	9312.93	6373.15	6374.25	156.29	0.00	401518.68	555463.28	N 32 6 13.55	W 104 9 15.17
	16100.00	89.60	358.75	9313.63	6473.13	6474.23	154.12	0.00	401618.65	555461.10	N 32 6 14.54	W 104 9 15.20
	16200.00	89.60	358.75	9314.34	6573.12	6574.20	151.94	0.00	401718.61	555458.93	N 32 6 15.53	W 104 9 15.22
	16300.00	89.60	358.75	9315.05	6673.10	6674.18	149.77	0.00	401818.58	555456.76	N 32 6 16.52	W 104 9 15.24
	16400.00	89.60	358.75	9315.75	6773.09	6774.15	147.59	0.00	401918.54	555454.58	N 32 6 17.51	W 104 9 15.27
	16500.00	89.60	358.75	9316.46	6873.07	6874.12	145.42	0.00	402018.51	555452.41	N 32 6 18.50	W 104 9 15.29
	16600.00	89.60	358.75	9317.16	6973.06	6974.10	143.25	0.00	402118.47	555450.23	N 32 6 19.49	W 104 9 15.31
	16700.00	89.60	358.75	9317.87	7073.04	7074.07	141.07	0.00	402218.44	555448.06	N 32 6 20.48	W 104 9 15.34
	16800.00	89.60	358.75	9318.58	7173.03	7174.04	138.90	0.00	402318.40	555445.89	N 32 6 21.47	W 104 9 15.36
	16900.00	89.60	358.75	9319.28	7273.02	7274.02	136.73	0.00	402418.37	555443.71	N 32 6 22.46	W 104 9 15.38
	17000.00	89.60	358.75	9319.99	7373.00	7373.99	134.55	0.00	402518.33	555441.54	N 32 6 23.45	W 104 9 15.41
	17100.00	89.60	358.75	9320.70	7472.99	7473.97	132.38	0.00	402618.30	555439.37	N 32 6 24.43	W 104 9 15.43
	17200.00	89.60	358.75	9321.40	7572.97	7573.94	130.20	0.00	402718.26	555437.19	N 32 6 25.42	W 104 9 15.45
	17300.00	89.60	358.75	9322.11	7672.96	7673.91	128.03	0.00	402818.23	555435.02	N 32 6 26.41	W 104 9 15.48
	17400.00	89.60	358.75	9322.82	7772.94	7773.89	125.86	0.00	402918.19	555432.84	N 32 6 27.40	W 104 9 15.50
	17500.00	89.60	358.75	9323.52	7872.93	7873.86	123.68	0.00	403018.16	555430.67	N 32 6 28.39	W 104 9 15.52
MP2, Turn 2°/100ft	17530.85	89.60	358.75	9323.74	7903.78	7904.71	123.01	0.00	403049.00	555430.00	N 32 6 28.70	W 104 9 15.53
Hold	17586.89	89.59	359.88	9324.14	7959.81	7960.74	122.34	2.00	403105.02	555429.33	N 32 6 29.25	W 104 9 15.54
	17600.00	89.59	359.88	9324.23	7972.92	7973.85	122.31	0.00	403118.13	555429.30	N 32 6 29.38	W 104 9 15.54
	17700.00	89.59	359.88	9324.94	8072.92	8073.84	122.09	0.00	403218.12	555429.08	N 32 6 30.37	W 104 9 15.54
	17800.00	89.59	359.88	9325.64	8172.91	8173.84	121.88	0.00	403318.11	555428.87	N 32 6 31.36	W 104 9 15.54
	17900.00	89.59	359.88	9326.35	8272.91	8273.84	121.66	0.00	403418.10	555428.65	N 32 6 32.35	W 104 9 15.54
	18000.00	89.59	359.88	9327.06	8372.91	8373.84	121.44	0.00	403518.09	555428.43	N 32 6 33.34	W 104 9 15.54
	18100.00	89.59	359.88	9327.77	8472.90	8473.83	121.22	0.00	403618.08	555428.21	N 32 6 34.33	W 104 9 15.54
	18200.00	89.59	359.88	9328.47	8572.90	8573.83	121.00	0.00	403718.06	555427.99	N 32 6 35.32	W 104 9 15.54
	18300.00	89.59	359.88	9329.18	8672.90	8673.83	120.79	0.00	403818.05	555427.77	N 32 6 36.31	W 104 9 15.54
	18400.00	89.59	359.88	9329.89	8772.89	8773.83	120.57	0.00	403918.04	555427.56	N 32 6 37.30	W 104 9 15.54
	18500.00	89.59	359.88	9330.60	8872.89	8873.82	120.35	0.00	404018.03	555427.34	N 32 6 38.29	W 104 9 15.54
	18600.00	89.59	359.88	9331.30	8972.89	8973.82	120.13	0.00	404118.02	555427.12	N 32 6 39.28	W 104 9 15.54
	18700.00	89.59	359.88	9332.01	9072.88	9073.82	119.91	0.00	404218.01	555426.90	N 32 6 40.27	W 104 9 15.54
	18800.00	89.59	359.88	9332.72	9172.88	9173.81	119.70	0.00	404317.99	555426.68	N 32 6 41.26	W 104 9 15.54
	18900.00	89.59	359.88	9333.43	9272.88	9273.81	119.48	0.00	404417.98	555426.47	N 32 6 42.25	W 104 9 15.54
	19000.00	89.59	359.88	9334.14	9372.87	9373.81	119.26	0.00	404517.97	555426.25	N 32 6 43.23	W 104 9 15.55
	19100.00	89.59	359.88	9334.84	9472.87	9473.81	119.04	0.00	404617.96	555426.03	N 32 6 44.22	W 104 9 15.55
	19200.00	89.59	359.88	9335.55	9572.87	9573.80	118.82	0.00	404717.95	555425.81	N 32 6 45.21	W 104 9 15.55
	19300.00	89.59	359.88	9336.26	9672.86	9673.80	118.60	0.00	404817.94	555425.59	N 32 6 46.20	W 104 9 15.55
	19400.00	89.59	359.88	9336.97	9772.86	9773.80	118.39	0.00	404917.92	555425.38	N 32 6 47.19	W 104 9 15.55
	19500.00	89.59	359.88	9337.67	9872.86	9873.79	118.17	0.00	405017.91	555425.16	N 32 6 48.18	W 104 9 15.55
	19600.00	89.59	359.88	9338.38	9972.85	9973.79	117.95	0.00	405117.90	555424.94	N 32 6 49.17	W 104 9 15.55
	19700.00	89.59	359.88	9339.09	10072.85	10073.79	117.73	0.00	405217.89	555424.72	N 32 6 50.16	W 104 9 15.55
	19800.00	89.59	359.88	9339.80	10172.85	10173.79	117.51	0.00	405317.88	555424.50	N 32 6 51.15	W 104 9 15.55
	19900.00	89.59	359.88	9340.50	10272.84	10273.78	117.30	0.00	405417.87	555424.29	N 32 6 52.14	W 104 9 15.55
	20000.00	89.59	359.88	9341.21	10372.84	10373.78	117.08	0.00	405517.85	555424.07	N 32 6 53.13	W 104 9 15.55
	20100.00	89.59	359.88	9341.92	10472.84	10473.78	116.86	0.00	405617.84	555423.85	N 32 6 54.12	W 104 9 15.55
	20200.00	89.59	359.88	9342.63	10572.83	10573.78	116.64	0.00	405717.83	555423.63	N 32 6 55.11	W 104 9 15.55
	20300.00	89.59	359.88	9343.33	10672.83	10673.77	116.42	0.00	405817.82	555423.41	N 32 6 56.10	W 104 9 15.55
	20400.00	89.59	359.88	9344.04	10772.83	10773.77	116.21	0.00	405917.81	555423.20	N 32 6 57.09	W 104 9 15.55
	20500.00	89.59	359.88	9344.75	10872.82	10873.77	115.99	0.00	406017.80	555422.98	N 32 6 58.08	W 104 9 15.55
	20600.00	89.59	359.88	9345.46	10972.82	10973.76	115.77	0.00	406117.78	555422.76	N 32 6 59.07	W 104 9 15.55
	20700.00	89.59	359.88	9346.16	11072.82	11073.76	115.55	0.00	406217.77	555422.54	N 32 7 0.06	W 104 9 15.56
	20800.00	89.59	359.88	9346.87	11172.81	11173.76	115.33	0.00	406317.76	555422.32	N 32 7 1.05	W 104 9 15.56
	20900.00	89.59	359.88	9347.58	11272.81	11273.76	115.12	0.00	406417.75	555422.11	N 32 7 2.04	W 104 9 15.56
	21000.00	89.59	359.88	9348.29	11372.81	11373.75	114.90	0.00	406517.74	555421.89	N 32 7 3.03	W 104 9 15.56
	21100.00	89.59	359.88	9348.99	11472.80	11473.75	114.68	0.00	406617.73	555421.67	N 32 7 4.02	W 104 9 15.56
	21200.00	89.59	359.88	9349.70	11572.80	11573.75	114.46	0.00	406717.71	555421.45	N 32 7 5.00	W 104 9 15.56
	21300.00	89.59	359.88	9350.41	11672.80	11673.75	114.24	0.00	406817.70	555421.23	N 32 7 5.99	W 104 9 15.56
	21400.00	89.59	359.88	9351.12	11772.79	11773.74	114.02	0.00	406917.69	555421.01	N 32 7 6.98	W 104 9 15.56
	21500.00	89.59	359.88	9351.83	11872.79	11873.74	113.81	0.00	407017.68	555420.80	N 32 7 7.97	W 104 9 15.56
	21600.00	89.59	359.88	9352.53	11972.79	11973.74	113.59	0.00	407117.67	555420.58	N 32 7 8.96	W 104 9 15.56
	21700.00	89.59	359.88	9353.24	12072.78	12073.73	113.37	0.00	407217.66	555420.36	N 32 7 9.95	W 104 9 15.56
	21800.00	89.59	359.88	9353.95	12172.78	12173.73	113.15	0.00	407317.64	555420.14	N 32 7 10.94	W 104 9 15.56
	21900.00	89.59	359.88	9354.66	12272.78	12273.73	112.93	0.00	407417.63	555419.92	N 32 7 11.93	W 104 9 15.56
	22000.00	89.59	359.88	9355.36	12372.77	12373.73	112.72	0.00	407517.62	555419.71	N 32 7 12.92	W 104 9 15.56
	22100.00	89.59	359.88	9356.07	12472.77	12473.72	112.50	0.00	407617.61	555419.49	N 32 7 13.91	W 104 9 15.56
	22200.00	89.59	359.88	9356.78	12572.77	12573.72	112.28	0.00	407717.60	555419.27	N 32 7 14.90	W 104 9 15.56
	22300.00	89.59	359.88	9357.49	12672.76	12673.72	112.06	0.00	407817.59	555419.05	N 32 7 15.89	W 104 9 15.57
	22400.00	89.59	359.88	9358.19	12772.76	12773.72	111.84	0.00	407917.57	555418.83	N 32 7 16.88	W 104 9 15.57
	22500.00	89.59	359.88	9358.90	12872.76	12873.71	111.63	0.00	408017.56	555418.62	N 32 7 17.87	W 104 9 15.57
LTP Cross	*22502.43*	*89.59*	*359.88*	*9358.92*	*12875.18*	*12876.14*	*111.62*	*0.00*	*408019.99*	*555418.61*	*N 32 7 17.89*	*W 104 9 15.57*
	22600.00	89.59	359.88	9359.61	12972.75	12973.71	111.41	0.00	408117.55	555418.40	N 32 7 18.86	W 104 9 15.57
	22700.00	89.59	359.88	9360.32	13072.75	13073.71	111.19	0.00	408217.54	555418.18	N 32 7 19.85	W 104 9 15.57
Cicada Unit No. 43H - PBHL	22782.47	89.59	359.88	9360.90	13155.22	13156.18	111.01	0.00	408300.00	555418.00	N 32 7 20.66	W 104 9 15.57

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	Cicada Unit No. 43H / Chevron Cicada Unit No. 43H Rev0 jjb 18May20
	1	28.000	22782.471	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	Cicada Unit No. 43H / Chevron Cicada Unit No. 43H Rev0 jjb

H_2S Preparedness and Contingency Plan Summary

Training

MCBU Drilling and Completions H_2S 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_2S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H_2S, who are not required to perform work in H_2S areas, will be provided with an awareness level of H_2S training prior to entering any H_2S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H_2S
2. Health hazards of H_2S
3. Personal protective equipment
4. Information regarding potential sources of H_2S
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_2S Training

Employees and contractors required to work in areas that may contain H_2S will be provided with Advanced Level H_2S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H_2S training will include:

1. H_2S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H_2S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H_2S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H_2S environments. 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_2S training;
6. Proficiency examination covering all course material.

Advanced H_2S training courses will be instructed by personnel who have successfully completed an appropriate H_2S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

H_2S Preparedness and Contingency Plan Summary

H_2S 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 up-wind 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_2S 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 dog house and one on the Drill Site Manager's Trailer.

H_2S Detection and Monitoring System

a) H_2S 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.

H_2S Preparedness and Contingency Plan Summary

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

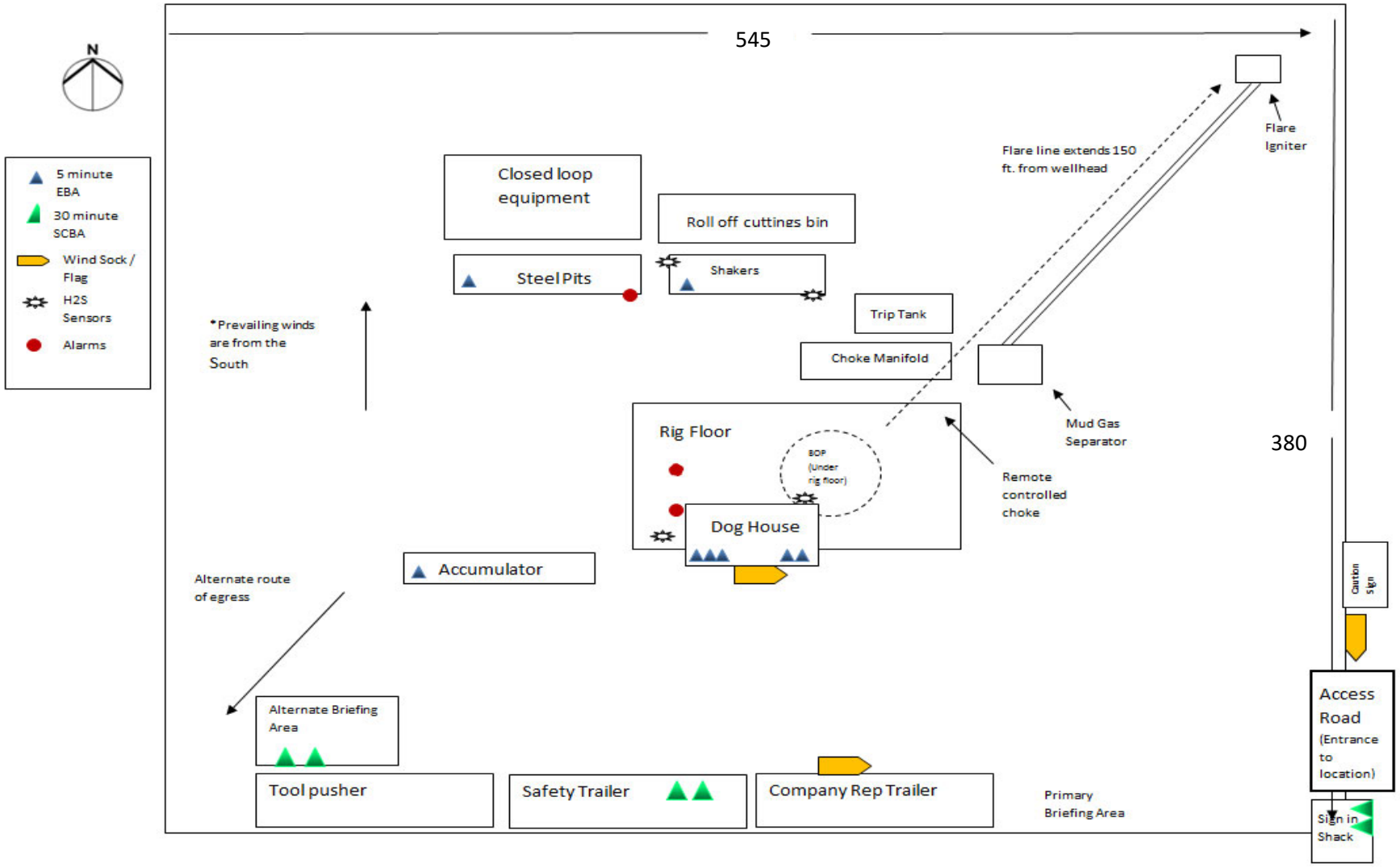
In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

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

Public Safety - Emergency Assistance

Agency	Telephone Number
Eddy County Sheriff's Department	575-887-7551
Carlsbad Fire Department	575-885-3125
Carlsbad Medical Center	575-887-4100
Eddy County Emergency Management	575-885-3581
Poison Control Center	800-222-1222

H_2S Preparedness and Contingency Plan Summary



District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

X Original Operator & OGRID No.: CHEVRON USA INC 4323
☐ Amended Date: 9/14/2020
Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – HHNM CTB 35

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
CICADA UNIT 41H	*Pending*	UL:M, Sec 35, T25S-R27E	2667' FNL, 990' FEL	3200	0	Wolfcamp A
CICADA UNIT 43H	*Pending*	UL:M, Sec 35, T25S-R27E	2667' FNL, 940' FEL	3200	0	Wolfcamp A

Gathering System and Pipeline Notification

These wells will be connected to Chevron's HHNM CTB 35 production facility located in Sec 35, T25S, R27E, Eddy County, New Mexico during flowback and production. Gas produced from the production facility is dedicated to Enterprise GC, LLC (Enterprise) and will be connected to Enterprise's high pressure gathering system located in Eddy County, New Mexico. Produced gas will be processed at Enterprise's Orla, Texas gas plant located in Abstract 3895476, T&P RR Co Survey No. 30, Block 56 T2, Reeves County, Texas. Chevron periodically provides Enterprise a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Chevron and Enterprise have periodic conference calls to discuss changes to the drilling and completion schedules.

Flowback Strategy

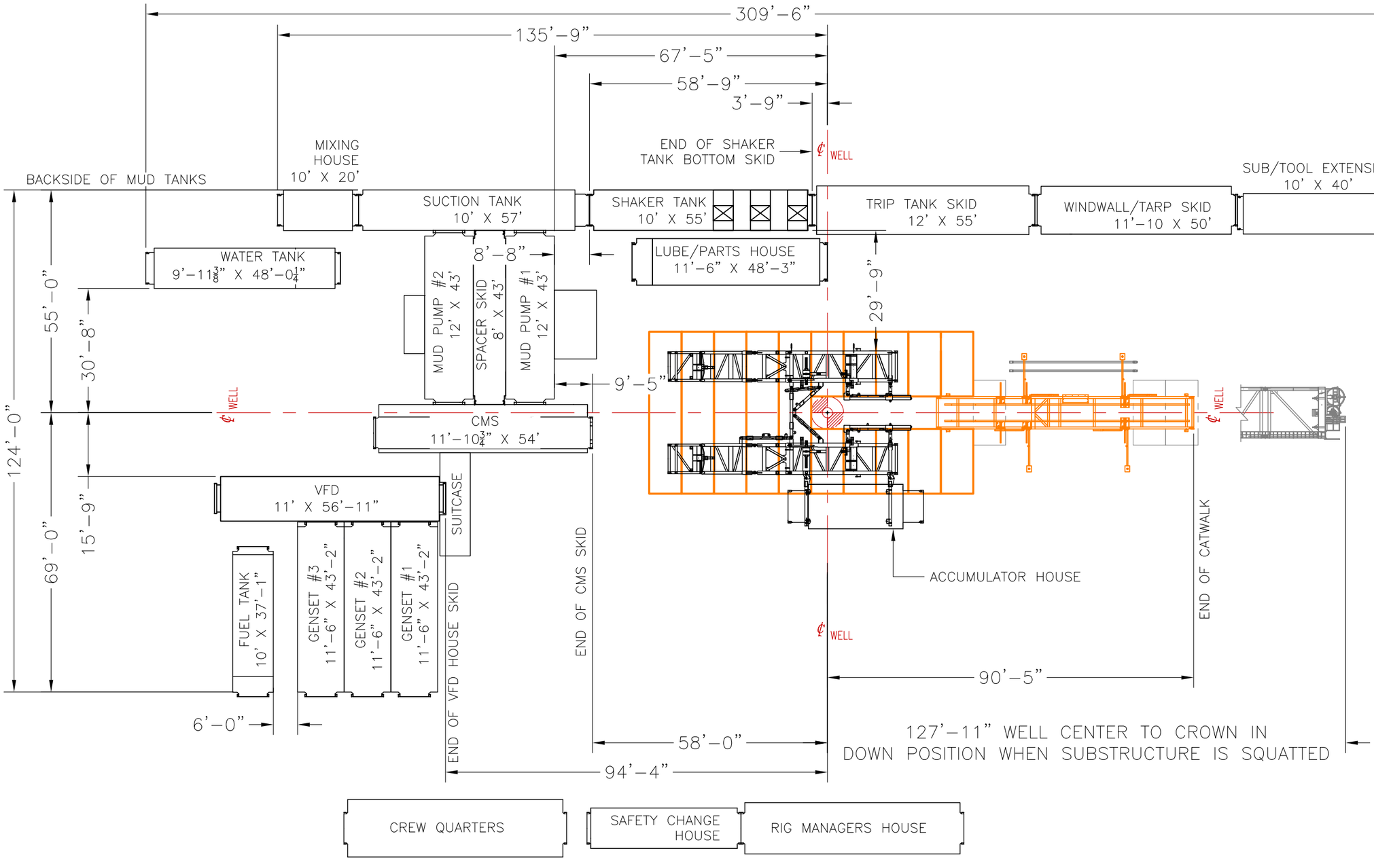
After the fracture treatment/completion operations, wells will be turned to permanent production facilities. Wells will have temporary sand catchers (separators) that will be installed at the well location to prevent sand from getting into the flowlines. These sand separators will be blown down periodically which will result in minimal venting of gas. Gas sales will start as soon as the wells start flowing through the production facilities unless there are operational issues with Enterprise's system at that time. Based on current information, it is Chevron's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- NGL Removal – On lease and trucked from condensate tanks
  - Plants are expensive and uneconomical to operate when gas volume declines.
  - Any residue gas that results in the future may be flared.



FOR INFORMATION ONLY

WELDING NOTE & TOLERANCES UNLESS OTHERWISE SPECIFIED.

GENERAL WELDING NOTE:
ALL ACCESSIBLE CONTACT SURFACES SHALL BE JOINED WITH CONTINOUS 45 DEGREE FILLET WELDS. WELD SIZE TO BE 1/16 INCH SMALLER THAN THINNER MEMBER JOINED UP TO 5/16 INCH THICKNESS AND 1/8 INCH SMALLER THAN THINNER MEMBER JOINED UP TO 3/4 INCH THICKNESS
WELDMENT TOLERANCES = +/- 1/16

MACHINING TOLERANCES
1 PLACE DECIMAL = ±.1
2 PLACE DECIMAL = ±.03
3 PLACE DECIMAL = ±.015
FRACTIONAL TOLERANCES = 1/64
INSIDE MACHINED CORNER RADII = ± .031
CHAMFER OUTSIDE CORNERS .03 X 45 DEG
ANGLE TOLERANCES = ±1 DEGREE
MACHINED SURFACE FINISH 125 RMS
ALL UNSPECIFIED DIMENSIONS ARE IN INCHES

REV	DATE	DESCRIPTION	DRWN BY	CHK BY	APRVD ENG.
0	05/22/2018	ISSUE FOR INFORMATION	JN		

PATTERSON-UTI DRILLING COMPANY LLC

APEX-XK 1500 WALKING RIG

RIG 812
RIG UP DIAGRAM

DWG No. R812-GA.001 | SHT 2 OF 11 | REV. 0

Chevron U.S.A. Inc. (CUSA)
SUNDRY ATTACHMENT: SPUDDER RIG

DATA OPERATOR NAME: Chevron U.S.A. Inc.

1. SUMMARY OF REQUEST:

CUSA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
   - **a.** After drilling the surface hole section, the spudder rig will run casing and cement following all the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
   - **b.** The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.

2. The wellhead will be installed and then tested offline after the WOC time has been reached.

3. An abandonment cap at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on one wing-valve.
   - **a.** A means for intervention will be maintained while the drilling rig is not over the well.

4. Spudder rig operations are expected to take 2-3 days per well on the pad.

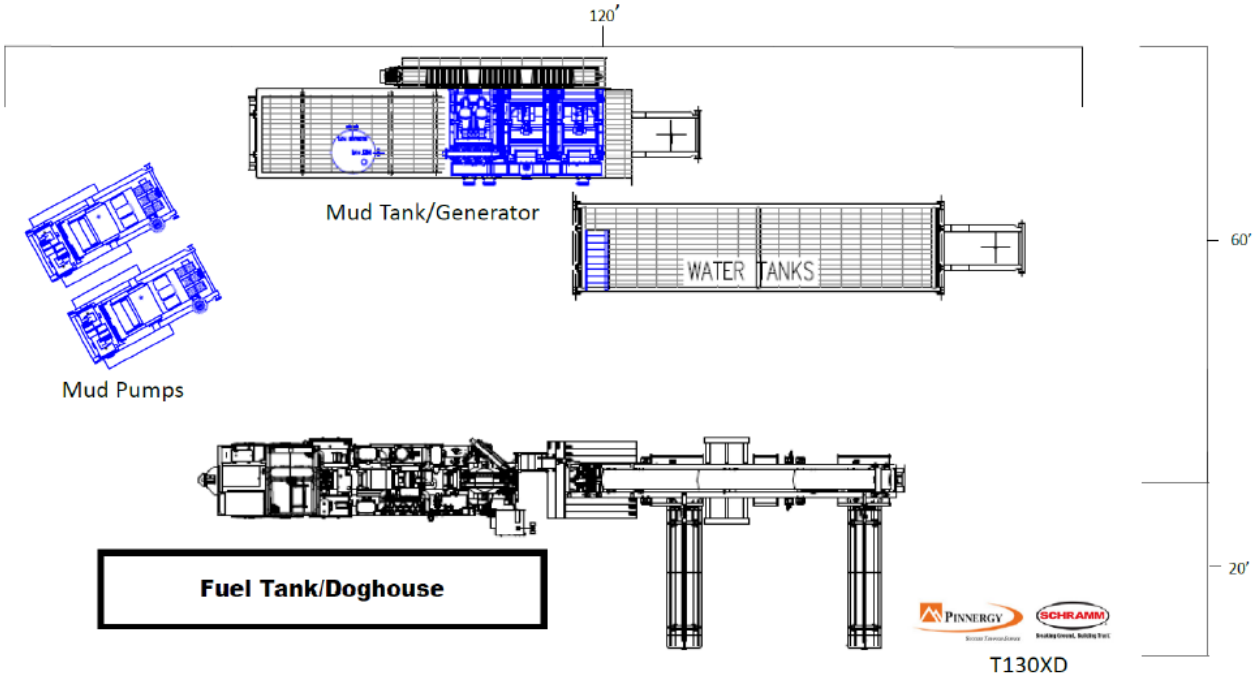
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.

6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
   - **a.** The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
   - **b.** The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.

7. CUSA will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.

8. Once the rig is removed, CUSA will secure the wellhead area by placing a guard rail around the cellar area.

Surface Rig Layout



H_2S Preparedness and Contingency Plan Summary

Training

MCBU Drilling and Completions H_2S 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_2S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H_2S, who are not required to perform work in H_2S areas, will be provided with an awareness level of H_2S training prior to entering any H_2S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H_2S
2. Health hazards of H_2S
3. Personal protective equipment
4. Information regarding potential sources of H_2S
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_2S Training

Employees and contractors required to work in areas that may contain H_2S will be provided with Advanced Level H_2S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H_2S training will include:

1. H_2S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H_2S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H_2S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H_2S environments. 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_2S training;
6. Proficiency examination covering all course material.

Advanced H_2S training courses will be instructed by personnel who have successfully completed an appropriate H_2S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

H_2S Preparedness and Contingency Plan Summary

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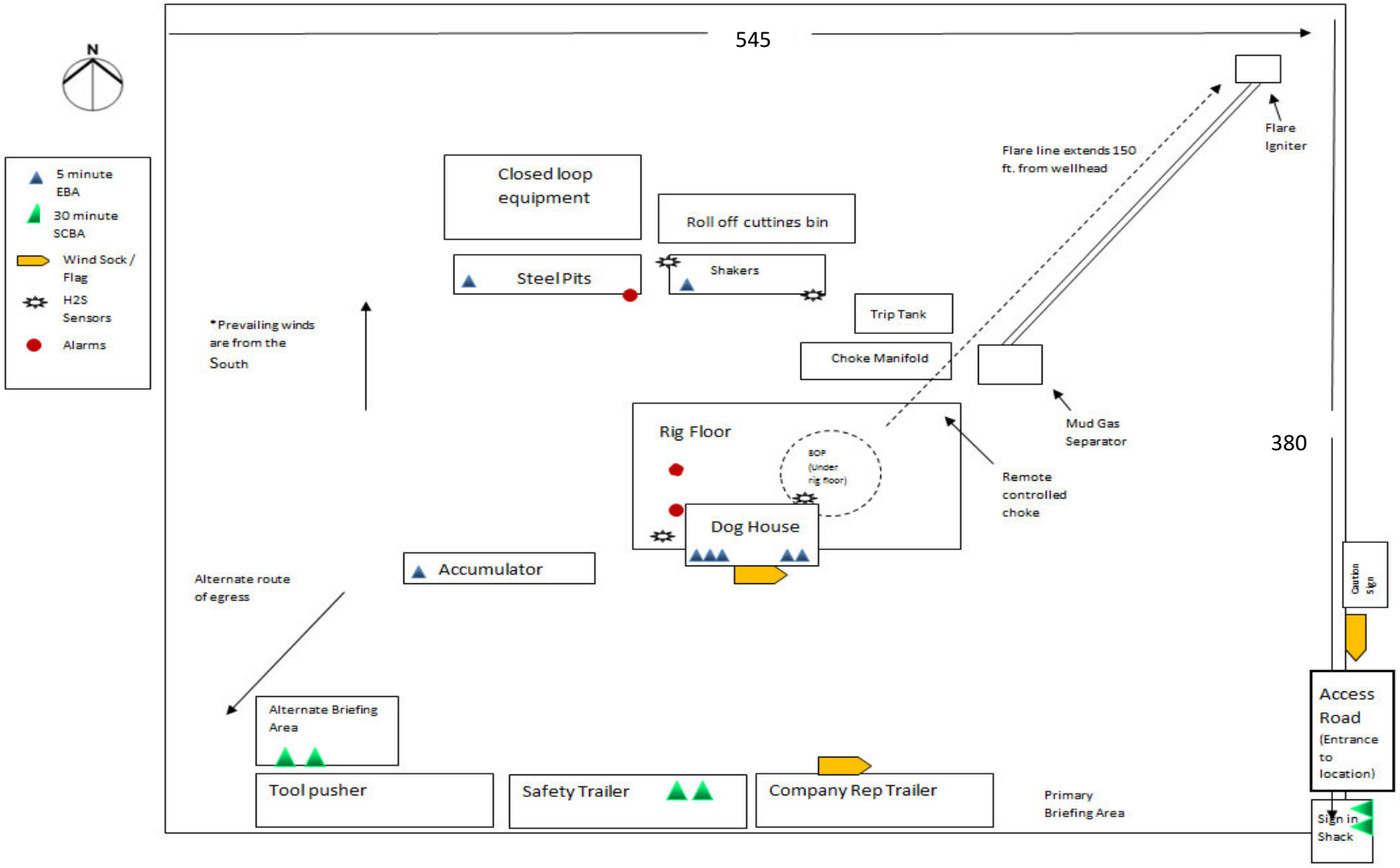


6. **MUD PROGRAM**

From	To	Type	Weight	Viscosity	Filtrate	Notes
0'	450'	Fresh water mud	8.3 - 9.1	28-30	N/C	
450'	2,321'	Brine	8.9 - 10.5	26-36	15-25	
2,321'	8,600'	WBM/Brine	8.7 - 9.6	26-36	15-25	
8,600'	22,582'	OBM	9.2 - 13.0	50-70	5-10	Due to wellbore stability, the mud program may exceed the MW weight window needed to maintain overburden of pore pressure.

A closed system will be used consisting of above ground steel tanks. 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. 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.

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.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. **TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing
Mudlogs	2 man mudlog	Surface casing shoe through prod hole TD	While drilling or circulating
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling

c. Conventional whole core samples are not planned.
d. A directional survey will be run.

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

a. No abnormal pressure or temperatures are expected. Estimated BHP is: **2,250** psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

AFMSS

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

Drilling Plan Data Report

05/27/2021

APD ID: 10400064222 **Submission Date:** 10/27/2020

Operator Name: CHEVRON USA INCORPORATED

Well Name: CICADA UNIT **Well Number:** 43H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1097703	CASTILE	3143	1091	1091	ANHYDRITE, SALT	NONE	N
1097705	LAMAR	831	2312	2334	LIMESTONE, SANDSTONE	NONE	N
1097706	BELL CANYON	797	2346	2369	LIMESTONE, SANDSTONE	NONE	N
1097707	CHERRY CANYON	-35	3178	3217	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
1097708	BRUSHY CANYON	-1194	4337	4388	LIMESTONE, SANDSTONE, SHALE	NONE	N
1097709	BONE SPRING LIME	-2853	5996	6047	SHALE, SILTSTONE	NONE	N
1097710	AVALON SAND	-2945	6088	6139	SHALE	NONE	N
1097711	BONE SPRING 1ST	-3720	6863	6914	SANDSTONE, SHALE	NONE	N
1097712	BONE SPRING 2ND	-4250	7393	7444	SANDSTONE, SHALE	NONE	N
1097713	BONE SPRING 3RD	-5507	8650	8701	LIMESTONE, SANDSTONE, SHALE	NONE	N
1097714	WOLFCAMP	-6217	9360	22782	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 9360

Equipment: Chevron will have a minimum of a 5,000 psi rig stack for drill out below surface casing. 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 below). Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.
Requesting Variance? YES

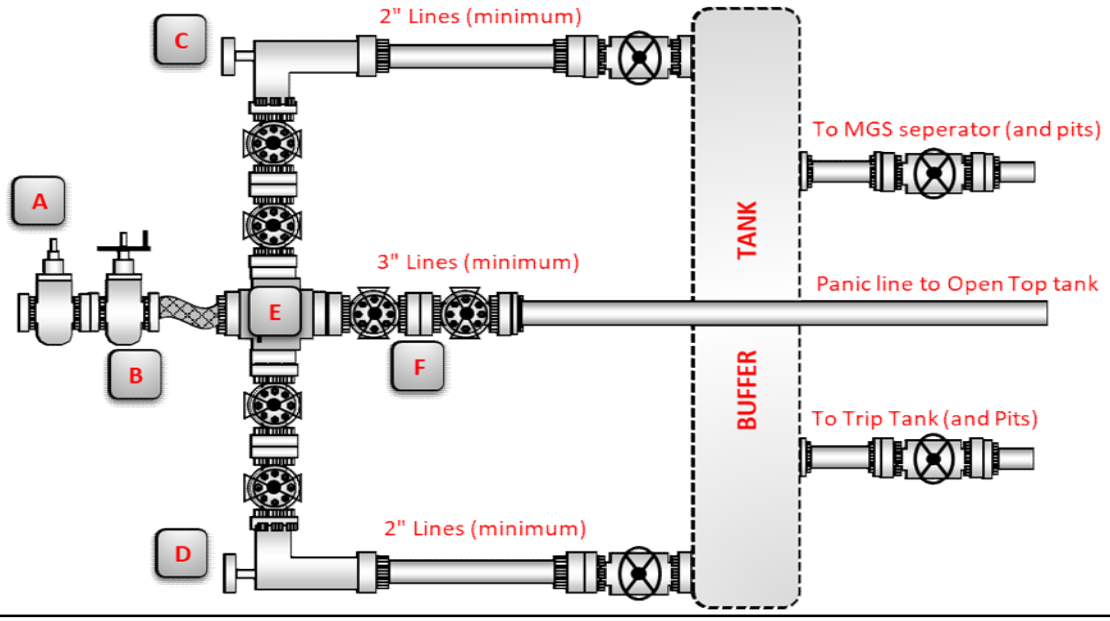
Variance request: Chevron is requesting the following variances: -A variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not 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

CHOKE MANIFOLD SCHEMATIC

Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

Choke Manifold

Part	Size	Pressure Rating	Description
A	3"	10,000	HCR (remotely operated)
B	3"	10,000	HCR (manually operated)
C	2"	10,000	Remotely operated choke
D	2"	10,000	Adjustable choke
E	3"	10,000	Crown valve with pressure gage
F	3"	10,000	Panic line valves



Choke Manifold 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.
Adjustable chokes may be remotely operated but will have backup hand pump for hydraulic actuation in case of loss of rig air or power.
Flare and panic lines will terminate a minimum of 150' from the wellhead. These lines will terminate at a location as per approved APD.
All valves (except chokes) on choke line, kill line and choke manifold will be full opening and will allow straight through flow. This excludes any valves between the mud gas separator and shale shakers.
All manual valves will have hand wheels installed.
Flare systems will have an effective method for ignition.
All connections will be flanged, welded or clamped
If buffer tank is used, a valve will be used on all lines at any entry or exit point to or from the buffer tank.

BLOWOUT PREVENTER SCHEMATIC

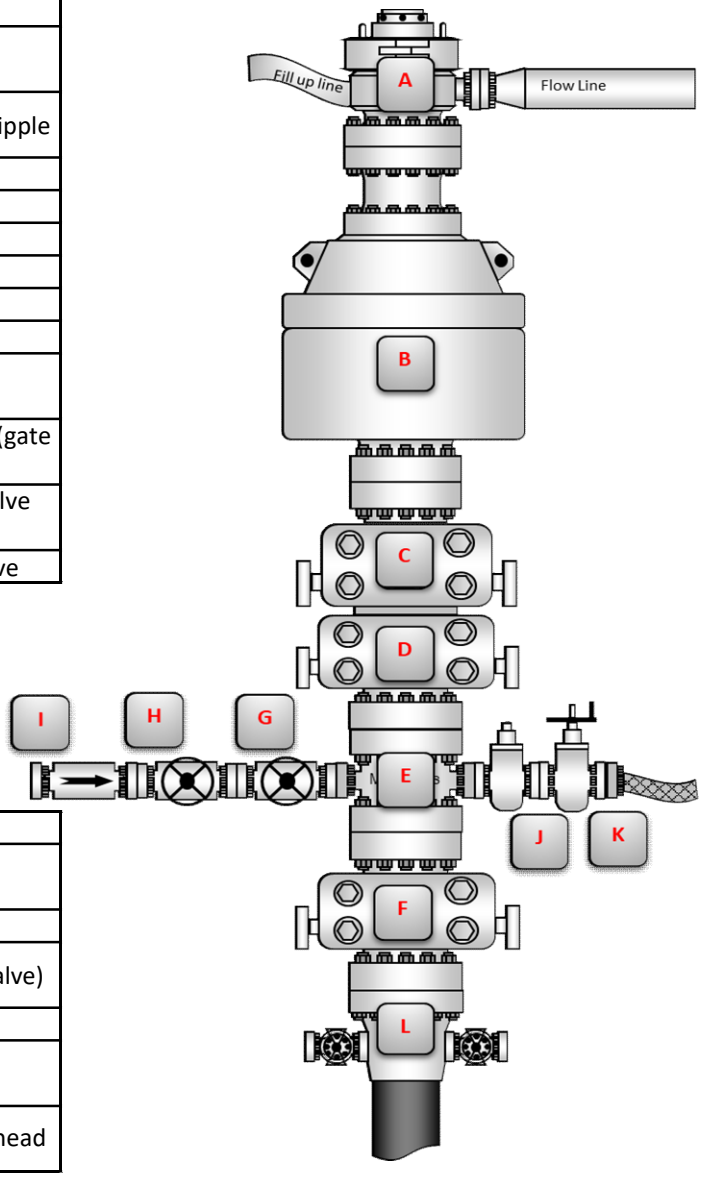
Operation:	Intermediate & Production Drilling Operations
Minimum System operation pressure	5,000 psi

BOP Stack

Part	Size	Pressure Rating	Description
A	13-5/8"	N/A	Rotating Head/Bell nipple
B	13-5/8"	5,000	Annular
C	13-5/8"	10,000	Blind Ram
D	13-5/8"	10,000	Pipe Ram
E	13-5/8"	10,000	Mud Cross
F	13-5/8"	10,000	Pipe Ram

Kill Line

Part	Size	Pressure Rating	Description
G	2"	10,000	Inside Kill Line Valve (gate valve)
H	2"	10,000	Outside Kill Line Valve (gate valve)
I	2"	10,000	Kill Line Check valve



Choke line

Part	Size	Pressure Rating	Description
J	3"	10,000	HCR (gate valve)
K	3"	10,000	Manual HCR (gate valve)

Wellhead

Part	Size	Pressure Rating	Description
L	13-5/8"	5,000	FMC Multibowl 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.
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.

BLOWOUT PREVENTER SCHEMATIC

Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

Minimum Requirements

Closing Unit and Accumulator Checklist

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

☐ **Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.**

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
☐	1500 psi	1500 psi	750 psi	800 psi	700 psi
☐	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
☐	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

☐ **Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. This test will be performed with test pressure recorded and kept on location through the end of the well**

☐ **Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. Usable fluid volume will be recorded. Reservior capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.**

☐ **Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.**

☐ **Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. It is recommended to check that air line to accumulator pump is "ON" during each tour change.**

☐ **With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. Test pressure and closing time will be recorded and kept on location through the end of the well.**

☐ **Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used)**

☐ **Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.**

☐ **Record accumulator tests in drilling reports and IADC sheet**

BLOWOUT PREVENTER SCHEMATIC	
Operation:	Intermediate & Production
Minimum System operation pressure	5,000 psi

BOPE 5K Test Checklist

The following items must be checked off prior to beginning test:

- ☐ BLM will be given at least 4 hour notice prior to beginning BOPE testing.
- ☐ Valve on casing head below test plug will be open.
- ☐ Test will be performed using clear water.

The following items must be performed during the BOPE testing:

- ☐ BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 day intervals. **Test pressure and times will be recorded by a 3rd party on a test charge and kept on location through the end of the well.**
- ☐ Test plug will be used.
- ☐ Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).
- ☐ Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).
- ☐ Valves will be tested fromt eh working pressure side with all downstream valves open. The check valve will be held open to test the kill line valve(s).
- ☐ Each pressure test will be held for 10 minutes with no allowable leak off.
- ☐ Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOPE test.
- ☐ Record BOP tests and pressures in drilling reports and IADC sheet.

Hose Data Sheet

CRI Order No.	541802
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500606483 COM757207
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C** → FSL2
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155ST/ST INLAID R.GR. SOUR
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE C/W BX155 ST/ST INLAID R.GR. SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	No
Safety wire rope	Yes
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

CONTITECH RUBBER Industrial Kft.	No: QC-DB- 617 / 2015
	Page: 7 / 71

ATTACHMENT OF QUALITY CONTROL
INSPECTION AND TEST CERTIFICATE
No: 1609, 1610

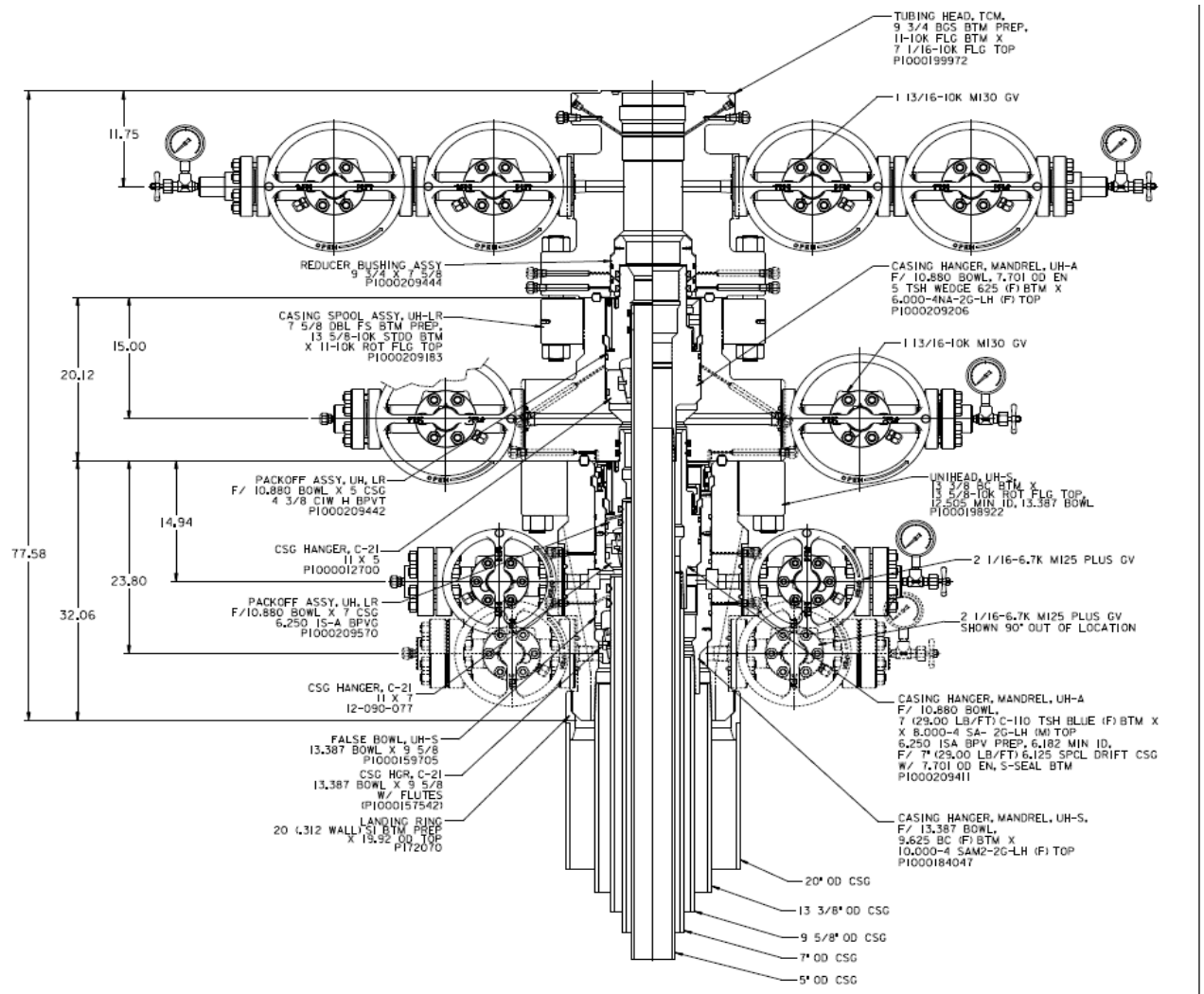
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)

	Cursor A	Cursor B	Difference
Data No.	324	1374	720
Absolute Time	2015/09/03 13:37:00.000	2015/09/03 14:07:00.000	01:00:00.000
Trig Channel	Value A	Value B	Value B-A
Pressure[bar]	1567.69	1520.38	-8.31
Ambient Temperature[°C]	27.80	28.27	0.47

File Name : 008177_7130_7130_4.GEV,...,008187_7130_7130_7.GEV
File Message :
Device Type : 7130_7130_1
Serial No. : GX10
Data Count : SSP03039
Print Group : 1304
Print Range : Press-Temp
Comment : 2015/09/03 12:50:50.000 - 2015/09/03 14:38:25.000

Sampling Int. : 5.000 sec
Start Time : 2015/09/03 12:50:50.000
Stop Time : 2015/09/03 14:38:25.000

1/1



PRODUCTION MODE

6650 PSI UH-S

CHEVRON

20 X 13 3/8 X 9 5/8 X 7 X 5

NEW MEXICO SLIM HOLE

QUOTE# 20395747
CASE# 00026966
FIII378
DB01016339d
REF: DM100312054
DM100276064

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 38473

COMMENTS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 38473
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 7/29/2021	7/29/2021

District I
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Energy, Minerals and Natural Resources
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1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 38473

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 38473
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	7/29/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/29/2021
kpickford	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	7/29/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	7/29/2021
kpickford	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	7/29/2021