Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMLC061936 BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. ✓ DRILL REENTER 1a. Type of work: 1b. Type of Well: ✓ Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone CO 34 27 FEDERAL COM 709H 2. Name of Operator 9. API Well No. CHEVRON USA INCORPORATED <u>30-025-54287</u> 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory PO BOX 1392, BAKERSFIELD, CA 93302 (661) 633-4000 WC-025 G-09 S253309P/UPPER WOLFC 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 3/T25S/R32E/NMP At surface LOT 1 / 674 FNL / 487 FEL / LAT 32.164947 / LONG -103.655593 At proposed prod. zone NENE / 25 FNL / 750 FEL / LAT 32.19575 / LONG -103.656404 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13 State LEA NM 21 miles 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 487 feet location to nearest property or lease line, ft. 640.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 300 feet 12940 feet / 23829 feet FED: ES0022 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3509 feet 12/01/2024 130 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date CAROL ADLER / Ph: (432) 687-7866 (Electronic Submission) 09/28/2023 Title Sr Regulatory Affairs Coordinator Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) CODY LAYTON / Ph: (575) 234-5959 09/23/2024 Title Office Assistant Field Manager Lands & Minerals Carlsbad Field Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the

applicant to conduct operations thereon. Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction



General Information Phone: (505) 629-6116

Online Phone Directory Visit:

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

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

	C = 102
Revised July	y 9, 2024
Submit Elec	tronically
via OCD Pe	rmitting

	☑ Initial Submittal
ubmittal	A and ad Dance

0.1 20.1	
Submittal Type:	☐ Amended Report
71	☐ As Drilled

										· u		
					WELL LOCA	TION INFORMATIO	ON					
API N PEND	^{umber} 30-0	25-54287	Pool Code PENDING]	Pool Name WC-02 PENDING	25 G-(08 S22322	27D;UPR W	OLFCAMP		
Proper PEND	ty Code ING 33 (6921	Property No CO 34 27 F		L COM				Well Numb 709H	er		
OGRI 4323	D No.		Operator N CHEVRON	ame I U.S.A. I	NC.				Ground Lev 3509'	el Elevation		
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Fee				ederal		Mineral Owner: [☐ State	☐ Fee ☐ Triba	al 🛛 Federal			
					Surf	ace Location						
UL A	Section 3	Township 25 SOUTH	Range 32 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 674' NORTH	Ft. from E/W 487' EAST	Lati 32.1	tude 64947° N	Longitude 103.655593° W	County LEA		
					Bottom	Hole Location						
UL A	Section 27	Township 24 SOUTH	Range 32 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 25' NORTH	Ft. from E/W 750' EAST	Lati 32.1	tude 95750° N	Longitude 103.656404° W	County LEA		
Dedica 640	nted Acres	Infill or Defi INFILL	ning Well		g Well API 7 FEDERAL COM	Overlapping Spaci NO	ing Unit		dation Code ,C			
Order	Numbers. N	/A				Well setbacks are under Common Ownership: ⊠Yes □No						
					Kick O	ff Point (KOP)						
UL P	Section 34	Township 24 SOUTH	Range 32 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 25' SOUTH	Ft. from E/W 750' EAST	Lati 32.1	tude 66867° N	Longitude 103.656411° W	County LEA		
					First T	ake Point (FTP)						
UL P	Section 34	Township 24 SOUTH	Range 32 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 25' SOUTH	Ft. from E/W 750' EAST		tude .66867° N	Longitude 103.656411° W	County LEA		
	_				Last Ta	ke Point (LTP)						
UL A	Section 27	Township 24 SOUTH	Range 32 EAST, N.M.P.M.	Lot N/A	Ft. from N/S 100' NORTH	Ft. from E/W 750' EAST		tude 95544° N	Longitude 103.656404° W	County LEA		
Unitiz	ed Area or A	rea of Uniform	Interest	Spacing	Unit Type ⊠ Hor	izontal □ Vertical		Ground Floor	Elevation:			
CA PE	ENDING			- F112	,			3509'				

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Nicole	Taylor
Signature	

<u>1/24/2025</u>

<u>Nicole Taylor</u>

Printed Name nicole.taylor@chevron.com

Email Address Released to Imaging: 1/31/2025 3:22:26 PM

SURVEYOR CERTIFICATIONS

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.

1/15/2025

ESS/ONAL SUR

See Sheet 2 of 2 for plat.

Signature and Seal of Professional Surveyor

06/24/2023

Certificate Number

Date of Survey

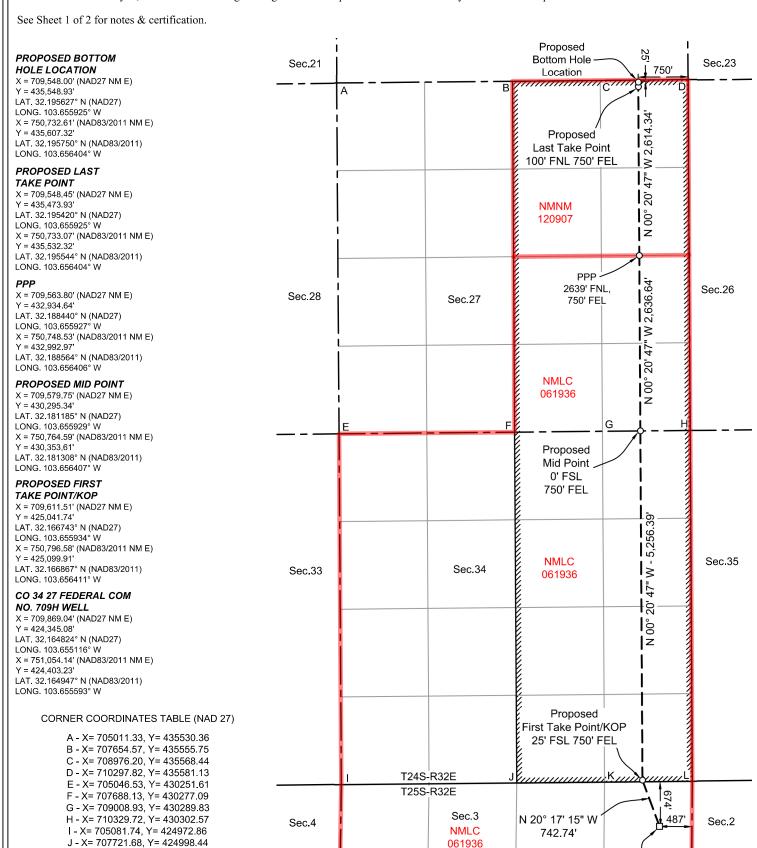
Proposed Surface

Location

ACREAGE DEDICATION PLATS

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

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



T:\2023\2236088\DWG\CO 34 27 FEDERAL COM 709H C-102.dwg

K - X= 709041 66, Y= 425011 22

L - X= 710361.63, Y= 425024.01

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: <u>Chevron USA Inc.</u> OGRID: <u>4323</u> Date: <u>8 / 7 / 2023</u>

If Other,	plea	se describe:							
III. Well	(s):	Provide the	followi		ion for each new inected to a centra		ell or set of wells p	proposed to be dril	led or proposed to
	We	ell Name		API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
CO 34 #207H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	673' FNL, 567' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #208H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	674' FNL, 507' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #209H	27	FEDERAL			UL:A, Sec 3, T25S-R32E	674' FNL, 447' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #307H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	673' FNL, 547' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #308H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	674' FNL, 467' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #309H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	774' FNL, 506' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #707H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	673' FNL, 587' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #708H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	527' FNL, 674' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #709H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	674' FNL, 487' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #807H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-	774' FNL, 486' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D
CO 34 #808H	27	FEDERAL	COM	Pending	UL:A, Sec 3, T25S-R32E	774' FNL, 466' FEL	1430 BBL/D	3640 MCF/D	4060 BBL/D

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or

proposed to be recompleted from a single well pad or connected to a central delivery point.

Page 1 of 5

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
CO 34 27 FEDERAL COM #207H	Pending	3/5/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #208H	Pending	3/25/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #209H	Pending	4/14/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #307H	Pending	5/4/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #308H	Pending	5/24/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #309H	Pending	6/13/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #707H	Pending	7/3/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #708H	Pending	7/23/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #807H	Pending	7/23/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #808H	Pending	7/30/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
CO 34 27 FEDERAL COM #809H	Pending	7/30/2027	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

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	Available Maximum Daily Capacity
			Start Date	of System Segment Tie-in

		1		
production operation	ns to the existing or pla	nned interconnect of	· / ·	nticipated pipeline route(s) connecting the em(s), and the maximum daily capacity o nected.
	The natural gas gather from the well prior to t	· .	1 , 0	gather 100% of the anticipated natural gas
	•	-	- 17	ted to the same segment, or portion, of the line pressure caused by the new well(s).
☐ Attach Operator'	s plan to manage prod	uction in response to t	the increased line pressure.	
Section 2 as provide	•	Subsection D of 19.15	.27.9 NMAC, and attaches a f	SA 1978 for the information provided in full description of the specific information

(i)

Section 3 - Certifications <u>Effective May 25, 2021</u>

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

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

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

- (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: Cind	ly Herrera-Murillo
Printed Name:	y Herrera-Murillo Cindy Herrera-Murillo
Title:	Sr HSE Regulatory affairs Coordinator
E-mail Address:	eeof@chevron.com
Date:	09/01/2023
Phone:	575-263-0431
	OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

VI. Separation Equipment:

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

VII./VIII. Operational & Best Management Practices:

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

2. During Drilling Operations:

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

3. During Completions:

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

4. During Production:

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

5. Performance Standards

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

6. Measurement or Estimation of Vented and Flared Natural Gas

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

Well Name: CO 34 27 FEDERAL COM Well Number: 709H

Pressure Rating (PSI): 5M Rating Depth: 12940

Equipment: Chevron will have a minimum of a 5,000 psi rig stack for drill out below surface casing and a 10,000 psi rig stack for drilling the production hole section. See attached proposed schematics and 10,000 PSI Annular BOP Variance Request.

Requesting Variance? YES

Variance request: Chevron respectfully request to vary from the Onshore Order 2 where it states: "(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken." We propose to break test if able to finish the next hole section within 21 days of the previous full BOP test. No BOP components nor any break will ever surpass 21 days between testing. A break test will consist of a 250 psi low / 5,000 psi high for 10 min each test against the connection that was broken when skidding the rig. Upon the first nipple up of the pad a full BOP test will be performed. A full BOP test will be completed prior to drilling the production lateral sections unless the BOP connection was not broken prior to drilling that hole section (example: drilling straight from production into production liner hole section). A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized. Chevron respectfully requests a variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC Technologies and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal. All tests performed by third party.

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

Choke Diagram Attachment:

 $BLM_5M_Choke_Manifold_Diagram_20230913174300.pdf$

BLM_Choke_Hose_Test_Specs_and_Pressure_Test_Continental_20230921115324.pdf

1.03___WH___NM_Slim_Hole_DM100312151_20240508110904.pdf

BOP Diagram Attachment:

BLM_5M_BOP_20230913174309.pdf

BLM_5M_Intermediate_BOP_and_Choke_Manifold_NEW_20240328082446.pdf

MultiBowl_Wellhead_Specs_20240508110912.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	16	13.375	NEW	API	N	0	1125	0	1125	3509	2384	1125	J-55	54.5	ST&C	2.17	1.91	BUOY	14.8 3	BUOY	13.9 1

Well Name: CO 34 27 FEDERAL COM Well Number: 709H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	4799	0	4781	3470	-1272	4799	L-80	40	BUTT	1.42	1.71	BUOY	4.95	BUOY	4.79
3	PRODUCTI ON	8.75	7.0	NEW	API	N	0	12321	0	12303	3470	-8794	12321	P- 110	-	OTHER - Blue	1.4	1.9	BUOY	2.6	BUOY	2.6
4	PRODUCTI ON	6.12 5	5.0	NEW	API	Y	12121	12770	12103	12703	-8594	-9194	649	P- 110	-	OTHER - W513	1	1.81	BUOY	1.61	BUOY	2.54
5	PRODUCTI ON	6.12 5	4.5	NEW	API	N	12771	23829	12703	12940	-9194	-9431	11058	P- 110		OTHER - W521	1	1.81	BUOY	1.61	BUOY	2.54

Casing	Attachments
Casilia	Allacinicitis

Casing ID: 1 String	SURFACE
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Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375in_BTC_54.5ppf_J55_20230913093742.pdf

Casing ID: 2 String INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625in_BTC_40ppf_L80_20230913094029.pdf

Well Name: CO 34 27 FEDERAL COM Well Number: 709H

Casing ID: 3

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

7in_Blue_SD_29ppf_P110_20230913094117.pdf

Casing ID: 4

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

5in_18ppf_TSH_W513_box_x_4.5in_11.6ppf_TSH_W521_pin__Stewart_Tubular_May_13__2021__20230913094200.pdf

Casing Design Assumptions and Worksheet(s):

 $5 in_Wedge_513_18 ppf_P110_20230913094141.pdf$

Casing ID: 5

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

4.5in_Wedge_521_11.6ppf_P110_20230913094219.pdf

Section 4 - Cement

Well Name: CO 34 27 FEDERAL COM Well Number: 709H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	NA	NA
SURFACE	Tail		0	1125	599	1.63	13.6	977	25	Class C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Lead		0	3799	680	2.29	11.5	1557	25	Class C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Tail		3799	4799	263	1.63	12.6	429	25	Class C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		0	1132 1	564	3.52	10.5	1983	25	Class C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Tail		1132 1	1232 1	124	1.52	12.6	188	25	Class C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		1212 1	2382 9	907	1.52	12.6	1378	25	Class H	Extender, Antifoam, Retarder, Viscosifier

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

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

Circulating Medium Table

Well Name: CO 34 27 FEDERAL COM Well Number: 709H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1125	SPUD MUD	8.3	8.9							VIS: 26-36 FILTRATE: 15-25
1125	4799	OTHER : Brine	8.3	10							VIS: 26-36 FILTRATE: 15-25 -Saturated brine would be used through salt sections.
4799	1232 1	OTHER : WBM/Brine	8.5	9.5							Viscosity: 26-36 Filtrate: 15-25
1232	2382 9	OIL-BASED MUD	8.5	13							Viscosity: 50-70 Filtrate: 5-10 -Due to wellbore instability in the lateral, may exceed the MW weight window needed to maintain overburden stresses

Section 6 - Test, Logging, Coring

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

Production tests are not planned.

Logs run include: Gamma Ray Log, Directional Survey

Coring Operations are not planned.

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

GAMMA RAY LOG, DIRECTIONAL SURVEY,

Coring operation description for the well:

Coring Operations are not planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8747 Anticipated Surface Pressure: 5900

Anticipated Bottom Hole Temperature(F): 226

Anticipated abnormal pressures, temperatures, or potential geologic hazards? YES

Describe:

Pressure ramp begins in the bottom of the Third Bone Spring formation

Contingency Plans geoharzards description:

Casing design accounts for pressure ramp- Mud weighting agents available on location to increase drilling fluid density- BOP, choke, and well control drills- BOP functioned and pressure tested

Well Name: CO 34 27 FEDERAL COM Well Number: 709H

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Chevron_Standard_H2S_Contingency_Plan_2022_20230921115206.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Operational_Best_Management_Practices_20230921115224.pdf
DefPlan100ft_CO3427FederalComNo.709H_R0_20230925105304.pdf
CO_34_27_FEDERAL_COM_709H_9_Point_Plan_20230925105309.pdf
Gas_Management_Plan___CO_P305_20240325153254.pdf

Other proposed operations facets description:

-Authorization to use the spudder rig to spud the well and set surface and intermediate casing. The drilling rig will move in less than 90 days to continue drilling operations. Rig layouts attached.

***Drilling plan attached contains a contingency casing and cement program.

Batch drilling will be employed whereby the drilling rig may drill a specific hole section on all wells prior to moving to the next hole section.

Shallow rig may be utilized to drill surface or intermediate sections. The production section will not be drilled by the shallow rig.

Wait on cement duration for surface and intermediate string(s) will be based on time for tail slurry to develop 500 psi compressive strength and will follow rules as laid out in Onshore Order 2.

Other proposed operations facets attachment:

CUSA_Spudder_Rig_Data_20230921115254.pdf Visio_6_well_rig_layout_20230905133021.pdf

Other Variance attachment:



CO 34 27 Federal Com No. 709H R0 mdv 29Aug23 Proposal Geodetic Report Def Plan

Chevron

Report Date:
Client:
Field:
Structure / Slot:
Well:
Borehole:
UBHH / APIre:
Survey Name:
Survey Date:
Ton / ARIO / DOI / ERD Ratio:
Coordinate Reference System:
Location Lat / Long:
Location Grid ME / DY.
CRS Grid Convergence Angle:
Grid Scale Pactor:
Version / Patch:

August 30, 2023 - 07:09 PM (UTC 0)
Chevron
NM. Lea County (NAD 27 EZ)
Chevron CO Pad 305 / CO 34 27 Federal Com No. 709H
CO 34 27 Federal Com No. 709H
OO 34 27 Federal Com No. 709H
August 30, 2023
112.164 7 / 11423.319 It / 6.373 / 0.883
NAD27 New Mooico State Plane, Eastern Zone, US Feet
32°953.36531*N , 103°39′18.41654"W
N 24345.000 ftUS / E. 709898.040 ftUS
0.361*
0.361*

Singer 1	Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°'")	Longitude
200 200	Surface										424,345.08	709,869.04	32°9'53.365306"N	103°39'18.416542"W
Self-19-1000		200.00	0.00	0.00	200.00	-3,337.00	0.00	0.00	0.00	0.00	424,345.08	709,869.04	32°9'53.365306"N	103°39'18.416542"W
May 19 19 19 19 19 19 19 19 19 19 19 19 19	Build 1.5°/100ft		0.00					0.00		0.00	424,345.08 424.345.08	709,869.04	32°9'53.365306"N '	103°39'18.416542"W 103°39'18.416542"W
1.00 1.00		500.00	1.50	0.00	499.99	-3,037.01	1.31	1.31	0.00	1.50	424,346.39	709,869.04	32°9'53.378259"N	103°39'18.416446"W
Marting (Marting) ***********************************	noid	700.00	3.00	0.00	699.77	-2,837.23	10.47	10.47	0.00	0.00	424,355.55	709,869.04	32°9'53.468895"N	103°39'18.415774"W
Rader (ELS)	Build/Turn 1.5°/100ft													
Lamp (100) 25 0 100 2	Rustler (RSLR)	893.49				-2,644.00	20.37	20.37			424,365.44	709,867.93	32°9'53.566899"N	103°39'18.427981"W
Sale GLOO) 1.54.0		1,000.00	3.79	309.20	999.32	-2,537.68	25.14	25.11	-5.11	1.50	424,370.19	709,863.93	32°9'53.614117"N	103°39'18.474121"W
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Saldo (SLDO)	1,194.39	6.06	287.23	1,193.00	-2,344.00	32.33	32.21	-19.89	1.50	424,377.29	709,849.15	32°9'53.685266"N	103°39'18.645506"W
1 - 1														
1,000	11-14	1,400.00	8.88	277.50	1,396.85	-2,140.15	37.78	37.50	-46.00	1.50	424,382.58	709,823.04	32°9'53.739223"N	103°39'18.948907"W
1.000 1.00	Hold	1,500.00	9.50	276.18	1,495.52	-2,041.48	39.71	39.33	-62.17	0.00	424,384.41	709,806.87	32°9'53.758337"N	103°39'19.136901"W
1,000		1,600.00 1,700.00	9.50 9.50	276.18 276.18	1,594.15 1.692.77	-1,942.85 -1.844.23	41.58 43.46	41.11 42.88	-78.58 -95.00	0.00		709,790.46 709,774.05	32°9'53.776957"N '	103°39'19.327677"W 103°39'19.518454"W
1		1,800.00	9.50	276.18	1,791.40	-1,745.60	45.34	44.66	-111.41	0.00	424,389.74	709,757.64	32°9'53.814198"N	103°39'19.709230"W
Part		2,000.00	9.50	276.18	1,988.66	-1,548.34	49.10	48.22	-144.23	0.00	424,393.30	709,724.82	32°9'53.851439"N	103°39'20.090784"W
2.6.0.0 74 276.5 256.5 1.45.7 1.45.7 1.50.7 1.45.7 1.50.7 1.45.7 1.50.7 1.45.	Drop .75°/100ft												32°9'53.869723"N	103°39'20.278119"W
2.60		2,200.00				-1,350.79 -1,251.74								
2.60		2,400.00	6.74	276.18	2,384.49	-1,152.51	55.62	54.39	-201.17	0.75	424,399.47	709,667.88	32°9'53.916039"N	103°39'20.752659"W
Page		2,600.00	5.24	276.18	2,583.40	-953.60	57.99	56.64	-221.92	0.75	424,401.72	709,647.13	32°9'53.939588"N	103°39'20.993948"W
1. 1. 1. 1. 1. 1. 1. 1.														
Lampr (LAMP) 1. 00000														
Carter (CRIV) 3,225.68		3,100.00	1.49	276.18	3,082.44	-454.56	61.33	59.80	-251.11	0.75	424,404.88	709,617.94	32°9'53.972708"N	103°39'21.333289"W
Med Vertrad	Castile (CSTL)													
1,000 1,00	Hold Vertical	3,298.96	0.00	276.18	3,281.38	-255.62		60.08	-253.69 -253.69	0.75	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
1,000.00		3,400.00	0.00	276.18	3,382.42	-154.58	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
1,000,000		3,600.00	0.00	276.18	3,582.42	45.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
1,000.00														
4,000.00		3,900.00	0.00	276.18	3,882.42	345.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
1.00		4,100.00	0.00	276.18	4,082.42	545.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Lama (LMAR)		4,600.00	0.00	276.18	4,582.42	1,045.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Bell Carryon (EEL)		4,800.00	0.00	276.18	4,782.42	1,245.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
4,900.00	Lamar (LMAR) Bell Canyon (BEL)													
5,100.00		4,900.00	0.00	276.18	4,882.42	1,345.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
5,000.00		5,100.00	0.00	276.18	5,082.42	1,545.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
5.500.00			0.00			1,645.42 1,745.42		60.08 60.08	-253.69 -253.69	0.00 0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N 32°9'53.975630"N	103°39'21.363230"W 103°39'21.363230"W
Cherry Carryon (CHR)		5,400.00	0.00	276.18	5,382.42	1,845.42	61.63 61.63	60.08	-253.69 -253.69	0.00	424,405.16 424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Chemy Camyon (Chem)		5,600.00	0.00	276.18	5,582.42	2,045.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Part	Cherry Canyon (CHR)	5,766.58	0.00	276.18	5,749.00	2,212.00	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Part														
Part		6,000.00	0.00	276.18	5,982.42	2,445.42		60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Free Property Free Propert		6,200.00	0.00	276.18	6,182.42	2,645.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
		6,400.00	0.00	276.18	6,382.42	2,845.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
6,700.00														
6,900		6,700.00	0.00	276.18	6,682.42	3,145.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Part		6,900.00	0.00	276.18	6,882.42	3,345.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Bushy Canyon (BCN) 7,267.58 0.00 276.18 7,250.00 3,713.00 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376830'N 103°39721.832320'W 7,400.00 0.00 276.18 7,382.42 3,845.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376830'N 103°39721.832320'W 7,500.00 0.00 276.18 7,482.42 3,845.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376830'N 103°39721.832320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376830'N 103°39721.832320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 7,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 8,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 8,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 8,882.42 4,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.00 0.00 276.18 8,882.42 5,445.42 61.63 60.08 253.69 0.00 424,405.16 709,615.36 32°953.376850'N 103°39721.332320'W 7,500.0		7,000.00 7,100.00	0.00	276.18 276.18	6,982.42 7,082.42	3,545.42		60.08	-253.69	0.00	424,405.16	709,615.36 709,615.36	32°9'53.975630"N	103°39'21.363230"W
7,300.00	Brushy Canyon (BCN)													
7,500.00 0.00 276.18 7,482.42 3,945.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,700.00 0.00 276.18 7,682.42 4,145.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,700.00 0.00 276.18 7,882.42 4,145.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 7,882.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 7,882.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 7,882.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,382.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,382.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,382.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,382.42 4,345.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,882.42 5,045.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103°39721.382320°W 7,900.00 0.00 276.18 8,	,.,.,.,													
Part		7,500.00	0.00	276.18	7,482.42	3,945.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
7,800.00 0.00 276.18 7,782.42 4,245.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 7,982.42 4,445.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,182.42 4,445.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,182.42 4,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,182.42 4,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,482.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,482.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,882.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,982.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.18 8,982.42 5,465.42 61.63 60.08 253.69 0.00 424.405.16 709.615.36 32°953.376507N 103°39721.382320°W 4,000.00 0.00 276.														
8,000,00		7,800.00	0.00	276.18	7,782.42	4,245.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
R		8,000.00	0.00	276.18	7,982.42	4,445.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
8,400,00		8,200.00	0.00	276.18	8,182.42	4,645.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Record R											424,405.16 424.405.16	709,615.36 709,615.36		
Bene Spring (BSL)		8,500.00	0.00	276.18	8,482.42	4,945.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Upper Avalon (AVU) 8,880.00 0,00 276.18 8,782.42 5,245.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 8,900.00 0,00 276.18 8,882.58 0,00 276.18 8,882.42 5,345.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,100.00 0,00 276.18 9,982.42 5,345.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,100.00 0,00 276.18 9,002.42 5,545.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,200.00 0,00 276.18 9,202.42 5,545.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,200.00 0,00 276.18 9,202.42 5,545.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,300.00 0,00 276.18 9,202.42 5,745.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,300.00 0,00 276.18 9,322.42 5,745.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,300.00 0,00 276.18 9,322.00 5,785.00 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,322.42 5,845.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,322.42 5,845.42 61.63 60.08 253.69 0,00 424.405.16 709,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,322.42 5,845.42 61.63 60.08 253.69 0,00 424.405.16 708,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,400.42 4,405.16 60.08 253.69 0,00 424.405.16 708,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,400.42 4,405.16 60.08 253.69 0,00 424.405.16 708,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,400.42 4,405.16 60.08 253.69 0,00 424.405.16 708,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,400.42 4,405.16 60.08 253.69 0,00 424.405.16 708,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00 276.18 9,400.42 4,405.16 60.08 253.69 0,00 424.405.16 708,615.38 22°953.976807N 103°39721.380230°W 9,400.00 0,00		8,700.00	0.00	276.18	8,682.42	5,145.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
8,900.00 0.00 276.18 8,824.2 5,345.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,000.00 0.00 276.18 9,002.42 5,545.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,000.00 0.00 276.18 9,022.42 5,545.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,000.00 0.00 276.18 9,252.42 5,745.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,000.00 0.00 276.18 9,327.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,328.242 5,745.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,382.42 5,845.42 61.63 60.08 -255.69 0.00 424,405.16 709,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,382.42 5,845.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,382.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.36 32°953.376630°N 103°39721.363230°N 9,400.00 0.00 276.18 9,882.42 6,465.42 61.63 60.08 -255.69 0.00 424,405.16 708,615.38 32°953.376630°N 103°39721.363230°	Bone Spring (BSL)													
9.00.0 0 0.0 276.18 9.82.42 5.446.42 616.3 60.08 253.69 0.0 42.4405.16 709.615.38 22°953.77680°N 103°3721 383230°N 9.000 10.00 276.18 9.10.00 0.00 276.18 9.18.42 5.646.42 61.63 60.08 253.69 0.00 42.4405.16 709.615.38 22°953.37680°N 103°3721 383230°N 9.00 10.00 276.18 9.18.42 5.646.42 61.63 60.08 253.69 0.00 42.4405.16 709.615.38 22°953.37680°N 103°3721 383230°N 9.00 10.00 276.18 9.200.00 10.00 276.18 9.200.00 10.00 276.18 9.200.00 10.	Upper Avalon (AVU)													
9.200.00 0.00 276.18 9.18.24 5.645.4 61.63 60.08 253.69 0.00 424.405.16 709.615.8 23°953.77680°N 103°37921.385230°N 103°37921.3		9,000.00	0.00	276.18	8,982.42	5,445.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
Lower Avalor (AVL) 9,300.00 0.00 276.18 9,282.42 5,745.42 61.63 60.08 -255.69 0.00 424.405.16 709,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,382.42 5,845.42 61.63 60.08 -255.69 0.00 424.405.16 709,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,382.42 5,845.42 61.63 60.08 -255.69 0.00 424.405.16 709,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,852.42 6,845.42 61.63 60.08 -255.69 0.00 424.405.16 709,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,852.42 6,845.42 61.63 60.08 -255.69 0.00 424.405.16 709,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,852.42 6,845.42 61.63 60.08 255.69 0.00 424.405.16 708,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,852.42 6,845.42 61.63 60.08 255.69 0.00 424.405.16 708,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 276.18 9,827.00 6,200.00 61.63 60.08 -255.69 0.00 424.405.16 708,615.36 32°953.376630*N 103°39721.385230*W 9,400.00 0.00 0.00 0.00 0.00 0.00 0.00 0.		9,200.00	0.00	276.18	9,182.42	5,645.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
9,400,00 0,00 276,18 9,82,42 5,845,42 61,63 60,08 253,68 0,00 424,405,16 708,15,38 22°953,375830°N 103°39721,383230°N 9,500,00 0,00 276,18 9,82,42 5,945,42 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,00 276,18 9,82,42 6,145,42 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,00 276,18 9,82,42 6,145,42 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,00 276,18 9,82,42 6,145,42 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,00 276,18 9,82,42 6,145,42 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,00 276,18 9,82,70 6,290,00 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,00 276,18 9,82,70 6,290,00 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,700 276,18 9,82,70 6,290,00 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,700 276,18 9,82,70 6,290,00 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,700 276,18 9,82,70 6,800,00 61,63 60,08 253,68 0,00 424,405,16 708,615,36 32°953,375830°N 103°39721,383230°N 9,700,00 0,700 276,18 9,800,00	Lower Avalon (AVI)	9,300.00	0.00	276.18	9,282.42	5,745.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
9,600,00 0,00 276,18 9,82,42 6,045,42 61,63 60,08 253,89 0,00 424,405,16 709,615,38 22°953,375830°N 103°3921,383230°N 9,700,00 0,00 276,18 9,782,42 6,145,42 61,63 60,08 253,69 0,00 424,405,16 709,615,36 22°953,375830°N 103°3921,383230°N 9,782,42 6,245,42 61,63 60,08 253,69 0,00 424,405,16 709,615,36 22°953,375830°N 103°3921,383230°N 9,782,42 6,245,42 61,63 60,08 253,69 0,00 424,405,16 709,615,36 22°953,375830°N 103°3921,383230°N 103°3921,38		9,400.00	0.00	276.18	9,382.42	5,845.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
9,800.00 0,00 276.18 9,782.42 6,245.42 61.63 60.08 2.55.89 0,00 424.405.16 709,615.38 32°953.975830°N 103°3921.383230°W First Bone Spring Upper (FBU) 9,844.58 0,00 276.18 9,827.00 6,290.00 16.63 60.08 2.253.69 0,00 424.405.16 709,615.38 32°953.975830°N 103°3921.383230°W 9,900.00 0,00 276.18 9,824.22 6,345.42 61.63 60.08 2.253.69 0,00 424.405.16 709,615.36 32°953.975830°N 103°3921.383230°W		9,600.00	0.00	276.18	9,582.42	6,045.42	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
First Bone Spring Upper (FBU) 9.844.55 0.00 276.18 9.827.00 6.290.00 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103*39721.3852307W 9.90.00 9.00.00 276.18 9.824.22 63.45.42 61.63 60.08 253.69 0.00 424.405.16 709.615.38 22°953.376807N 103*39721.3852307W		9,700.00 9,800.00			9,682.42 9,782.42	6,145.42 6,245.42		60.08 60.08	-253.69 -253.69				32°9'53.975630"N 32°9'53.975630"N	103°39'21.363230"W 103°39'21.363230"W
10,000.00 0.00 256.8 9,982.42 6.446.42 61.63 60.00 4.553.69 0.00 424.405.16 02995.37569507 1039921.3852207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 1039921.385207 10399	First Bone Spring Upper (FBU)	9,844.58	0.00	276.18	9,827.00	6,290.00	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W
		10,000.00	0.00		9,982.42	6,445.42		60.08	-253.69		424,405.16	709,615.36	32°9'53.975630"N	103°39'21.363230"W

Comments	MD (ft)	Incl	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude	
First Bone Spring Lower (FBL)	10,056.58	0.00	276.18	10,039.00	6,502.00	61.63	60.08	-253.69	0.00	424,405.16	709,615.36	32°9'53.975630"N	I 103°39'21.363230"W
	10,100.00 10,200.00	0.00	276.18 276.18	10,082.42 10,182.42	6,545.42 6,645.42	61.63 61.63	60.08 60.08 60.08	-253.69 -253.69	0.00 0.00 0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
Second Bone Spring Upper (SBL	10,300.00 10,400.00 10,446.58	0.00 0.00 0.00	276.18 276.18 276.18	10,282.42 10,382.42 10,429.00	6,745.42 6,845.42 6.892.00	61.63 61.63 61.63	60.08 60.08	-253.69 -253.69 -253.69	0.00	424,405.16 424,405.16 424.405.16	709,615.36 709,615.36 709.615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W I 103°39'21.363230"W
Second Bone Spring Opper (SBC	10,500.00	0.00	276.18 276.18	10,482.42	6,945.42 7,045.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230'W I 103°39'21.363230'W
	10,700.00	0.00	276.18 276.18	10,682.42 10,782.42	7,145.42 7,245.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
Second Bone Spring Lower (SBL	10,900.00 10,959.58	0.00	276.18 276.18	10,882.42 10,942.00	7,345.42 7,405.00	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00 0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N 32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
	11,000.00 11,100.00	0.00	276.18 276.18	10,982.42 11,082.42	7,445.42 7,545.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00 0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
	11,200.00 11,300.00	0.00	276.18 276.18	11,182.42 11,282.42	7,645.42 7,745.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00 0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
	11,400.00 11,500.00	0.00	276.18 276.18	11,382.42 11,482.42	7,845.42 7,945.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
Third Bone Spring (TBS)	11,600.00 11,684.58 11,700.00	0.00 0.00 0.00	276.18 276.18 276.18	11,582.42 11,667.00 11,682.42	8,045.42 8,130.00 8,145.42	61.63 61.63 61.63	60.08 60.08 60.08	-253.69 -253.69 -253.69	0.00 0.00 0.00	424,405.16 424,405.16 424,405.16	709,615.36 709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W I 103°39'21.363230"W
	11,800.00 11,900.00	0.00	276.18 276.18 276.18	11,782.42 11,782.42 11.882.42	8,245.42 8,345.42	61.63 61.63	60.08 60.08	-253.69 -253.69 -253.69	0.00	424,405.16 424,405.16 424.405.16	709,615.36 709,615.36 709.615.36	32°9'53.975630"N	I 103°39'21.363230'W I 103°39'21.363230'W
	12,000.00 12,100.00	0.00	276.18 276.18	11,982.42	8,445.42 8,545.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
Wolfcamp A (WCA)	12,108.58 12,200.00	0.00	276.18 276.18	12,091.00 12,182.42	8,554.00 8,645.42	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
Build 9°/100ft	12,300.00 12,320.96	0.00	276.18 276.18	12,282.42 12,303.38	8,745.42 8,766.38	61.63 61.63	60.08 60.08	-253.69 -253.69	0.00 0.00	424,405.16 424,405.16	709,615.36 709,615.36	32°9'53.975630"N 32°9'53.975630"N	I 103°39'21.363230"W I 103°39'21.363230"W
	12,400.00 12,500.00	7.11 16.11	359.65 359.65	12,382.22 12,480.07	8,845.22 8,943.07	66.53 86.64	64.98 85.09	-253.72 -253.84	9.00 9.00	424,410.06 424,430.17	709,615.33 709,615.21	32°9'54.223126"N	I 103°39'21.363216"W I 103°39'21.363157"W
	12,600.00 12,700.00	25.11 34.11	359.65 359.65	12,573.57 12,660.42	9,036.57 9,123.42	121.81 171.17	120.26 169.62	-254.05 -254.35	9.00 9.00	424,465.33 424,514.70	709,615.00 709,614.70	32°9'55.059640"N	I 103°39'21.363055"W I 103°39'21.362912"W
	12,800.00 12,900.00 13,000.00	43.11 52.11 61.11	359.65 359.65 359.65	12,738.48 12,805.82 12,860.79	9,201.48 9,268.82 9,323.79	233.52 307.30 390.71	231.96 305.75 389.16	-254.73 -255.17 -255.68	9.00 9.00 9.00	424,577.03 424,650.82 424,734.22	709,614.32 709,613.88 709,613.37	32°9'56.406703"N	I 103°39'21.362731"W I 103°39'21.362517"W I 103°39'21.362274"W
	13,100.00 13,200.00	70.11 79.11	359.65 359.65	12,902.04 12,928.54	9,365.04 9,391.54	481.70 578.02	480.14 576.46	-256.23 -256.81	9.00 9.00	424,825.20 424,921.51	709,612.82 709,612.24	32°9'58.132455"N	I 103°39'21.362010"W I 103°39'21.361730"W
Landing Point	13,300.00 13,320.96	88.11 90.00	359.65 359.65	12,939.65	9,402.65 9.403.00	677.29 698.25	675.73 696.69	-257.41 -257.54	9.00 9.00	425,020.78 425.041.74	709,611.64 709,611.51	32°10'0.067967"N	I 103°39'21.361441"W I 103°39'21.361381"W
FTP Cross	13,321.00 13,400.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	698.29 777.29	696.73 775.73	-257.54 -258.02	0.00 0.00	425,041.78 425,120.77	709,611.51 709,611.04		I 103°39'21.361380"W I 103°39'21.361151"W
	13,500.00 13,600.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	877.29 977.29	875.73 975.72	-258.62 -259.22	0.00 0.00	425,220.77 425,320.76	709,610.43 709,609.83	32°10'3.036596"N	I 103°39'21.360860"W I 103°39'21.360569"W
	13,700.00 13,800.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	1,077.29 1,177.29	1,075.72 1,175.72	-259.83 -260.43	0.00 0.00	425,420.76 425,520.75	709,609.22 709,608.62	32°10'5.015706"N	I 103°39'21.360278"W I 103°39'21.359987"W
	13,900.00 14,000.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	1,277.29 1,377.29	1,275.72 1,375.72	-261.04 -261.64	0.00	425,620.74 425,720.74	709,608.01 709,607.41	32°10'6.994817"N	I 103°39'21.359696"W I 103°39'21.359405"W
	14,100.00 14,200.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	1,477.29 1,577.29 1,677.29	1,475.71 1,575.71 1,675.71	-262.25 -262.85 -263.46	0.00 0.00 0.00	425,820.73 425,920.73	709,606.80 709,606.20 709,605.60	32°10'8.973927"N	I 103°39'21.359114"W I 103°39'21.358823"W I 103°39'21.358532"W
	14,300.00 14,400.00 14,500.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	1,777.29 1,777.29 1,877.29	1,775.71 1,875.71	-264.06 -264.66	0.00 0.00 0.00	426,020.72 426,120.71 426,220.71	709,604.99 709,604.39	32°10'10.953038"N	I 103°39'21.358240"W I 103°39'21.357949"W
	14,600.00 14,700.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	1,977.29 2,077.29	1,975.71 2,075.70	-265.27 -265.87	0.00	426,320.70 426,420.70	709,603.78 709,603.18	32°10'12.932148"N	I 103°39'21.357658"W I 103°39'21.357366"W
	14,800.00 14,900.00	90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	2,177.29 2,277.29	2,175.70 2,275.70	-266.48 -267.08	0.00	426,520.69 426,620.68	709,602.57 709,601.97	32°10'14.911258"N	I 103°39'21.357075"W I 103°39'21.356783"W
	15,000.00 15,100.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	2,377.29 2,477.29	2,375.70 2,475.70	-267.69 -268.29	0.00 0.00	426,720.68 426,820.67	709,601.36 709,600.76		I 103°39'21.356492"W I 103°39'21.356200"W
	15,200.00 15,300.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	2,577.29 2,677.29	2,575.69 2,675.69	-268.90 -269.50	0.00 0.00	426,920.66 427,020.66	709,600.16 709,599.55	32°10'19.859032"N	I 103°39'21.355908"W I 103°39'21.355616"W
	15,400.00 15,500.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	2,777.29 2,877.29	2,775.69 2,875.69	-270.11 -270.71	0.00 0.00	427,120.65 427,220.65	709,598.95 709,598.34	32°10'21.838141"N	I 103°39'21.355324"W I 103°39'21.355033"W
	15,600.00 15,700.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	2,977.29 3,077.29	2,975.69 3,075.68	-271.31 -271.92	0.00	427,320.64 427,420.63	709,597.74 709,597.13	32°10'23.817250"N	I 103°39'21.354741"W I 103°39'21.354449"W
	15,800.00 15,900.00 16,000.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	3,177.29 3,277.29 3,377.29	3,175.68 3,275.68 3,375.68	-272.52 -273.13 -273.73	0.00 0.00 0.00	427,520.63 427,620.62 427,720.62	709,596.53 709,595.92 709,595.32	32°10'25.796359"N	I 103°39'21.354156"W I 103°39'21.353864"W I 103°39'21.353572"W
	16,100.00 16,100.00 16,200.00	90.00 90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	3,477.29 3,477.29 3,577.29	3,475.68 3,475.68 3,575.68	-274.34 -274.94	0.00	427,720.62 427,820.61 427,920.60	709,595.32 709,594.72 709,594.11	32°10'27.775468"N	I 103°39'21.353572'W I 103°39'21.353280"W I 103°39'21.352987"W
	16,300.00 16,400.00	90.00 90.00	359.65 359.65	12,940.00	9,403.00 9,403.00	3,677.29 3,777.29	3,675.67 3,775.67	-275.55 -276.15	0.00	428,020.60 428,120.59	709,593.51 709,592.90	32°10'29.754577"N	I 103°39'21.352695"W I 103°39'21.352403"W
	16,500.00 16,600.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	3,877.29 3,977.29	3,875.67 3,975.67	-276.75 -277.36	0.00	428,220.59 428,320.58	709,592.30 709,591.69		I 103°39'21.352110"W I 103°39'21.351818"W
	16,700.00 16,800.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	4,077.29 4,177.29	4,075.67 4,175.66	-277.96 -278.57	0.00 0.00	428,420.57 428,520.57	709,591.09 709,590.48	32°10'34.702347"N	I 103°39'21.351525"W I 103°39'21.351232"W
	16,900.00 17,000.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	4,277.29 4,377.29	4,275.66 4,375.66	-279.17 -279.78	0.00 0.00	428,620.56 428,720.56	709,589.88 709,589.28	32°10'36.681455"N	I 103°39'21.350940"W I 103°39'21.350647"W
	17,100.00 17,200.00 17,300.00	90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00 9.403.00	4,477.29 4,577.29	4,475.66 4,575.66	-280.38 -280.99	0.00 0.00	428,820.55 428,920.54 429.020.54	709,588.67 709,588.07 709,587.46	32°10'38.660563"N	I 103°39'21.350354"W I 103°39'21.350061"W I 103°39'21.349768"W
	17,400.00 17,400.00 17,500.00	90.00 90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9.403.00	4,677.29 4,777.29 4.877.29	4,675.66 4,775.65 4,875.65	-281.59 -282.19 -282.80	0.00 0.00 0.00	429,020.54 429,120.53 429,220.53	709,587.46 709,586.86 709,586.25	32°10'40.639671"N	I 103°39'21.349475"W I 103°39'21.349475"W I 103°39'21.349182"W
	17,600.00 17,700.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	4,977.29 5,077.29	4,975.65 5,075.65	-283.40 -284.01	0.00	429,320.52 429,420.51	709,585.65 709,585.04	32°10'42.618778"N	I 103°39'21.348889"W I 103°39'21.348596"W
	17,800.00 17,900.00	90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	5,177.29 5,277.29	5,175.65 5,275.64	-284.61 -285.22	0.00	429,520.51 429,620.50	709,584.44 709,583.84	32°10'44.597886"N	I 103°39'21.348302"W I 103°39'21.348009"W
	18,000.00 18,100.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	5,377.29 5,477.29	5,375.64 5,475.64	-285.82 -286.43	0.00 0.00	429,720.49 429,820.49	709,583.23 709,582.63	32°10'46.576993"N 32°10'47.566546"N	I 103°39'21.347716"W I 103°39'21.347422"W
	18,200.00 18,300.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	5,577.29 5,677.29	5,575.64 5,675.64	-287.03 -287.63	0.00 0.00	429,920.48 430,020.48	709,582.02 709,581.42	32°10'49.545653"N	I 103°39'21.347129"W I 103°39'21.346835"W
	18,400.00 18,500.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	5,777.29 5,877.29	5,775.64 5,875.63	-288.24 -288.84	0.00	430,120.47 430,220.46	709,580.81 709,580.21	32°10'51.524760"N	I 103°39'21.346542"W I 103°39'21.346248"W
MP	18,577.58 18,600.00 18,700.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	5,954.87 5,977.29 6,077.29	5,953.21 5,975.63 6,075.63	-289.31 -289.45 -290.05	0.00 0.00 0.00	430,298.04 430,320.46 430,420.45	709,579.74 709,579.60 709,579.00	32°10'52.514313"N	I 103°39'21.346020"W I 103°39'21.345954"W I 103°39'21.345661"W
	18,800.00 18,900.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9.403.00	6,177.29 6,277.29	6,175.63 6,275.63	-290.66 -291.26	0.00	430,520.45 430,620.44	709,579.00 709,578.40 709,577.79	32°10'54.493420"N	I 103°39'21.345367"W I 103°39'21.345073"W
	19,000.00 19,100.00	90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	6,377.29 6,477.29	6,375.62 6,475.62	-291.87 -292.47	0.00	430,720.43 430,820.43	709,577.19 709,576.58	32°10'56.472526"N	I 103°39'21.344779"W I 103°39'21.344485"W
	19,200.00 19,300.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	6,577.29 6,677.29	6,575.62 6,675.62	-293.07 -293.68	0.00 0.00	430,920.42 431,020.42	709,575.98 709,575.37	32°10'59.441185"N	I 103°39'21.344191"W I 103°39'21.343897"W
	19,400.00 19,500.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	6,777.29 6,877.29	6,775.62 6,875.62	-294.28 -294.89	0.00	431,120.41 431,220.40	709,574.77 709,574.16	32°11'1.420291"N	I 103°39'21.343603"W I 103°39'21.343308"W
	19,600.00 19,700.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	6,977.29 7,077.29	6,975.61 7,075.61	-295.49 -296.10	0.00 0.00	431,320.40 431,420.39	709,573.56 709,572.96	32°11'3.399397"N	I 103°39'21.343014"W I 103°39'21.342720"W
	19,800.00 19,900.00 20,000.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	7,177.29 7,277.29 7,377.29	7,175.61 7,275.61 7,375.61	-296.70 -297.31 -297.91	0.00 0.00 0.00	431,520.39 431,620.38 431,720.37	709,572.35 709,571.75 709,571.14	32°11'5.378502"N	I 103°39'21.342425"W I 103°39'21.342131"W I 103°39'21.341836"W
	20,100.00 20,100.00 20,200.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	7,477.29 7,477.29 7,577.29	7,475.60 7,575.60	-298.51 -299.12	0.00 0.00 0.00	431,820.37 431,920.36	709,571.14 709,570.54 709,569.93	32°11'7.357608"N	I 103°39'21.341542"W I 103°39'21.341247"W
	20,300.00 20,400.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	7,677.29 7,777.29	7,675.60 7,775.60	-299.72 -300.33	0.00	432,020.35 432,120.35	709,569.33 709,568.72	32°11'9.336713"N	I 103°39'21.340953"W I 103°39'21.340658"W
	20,500.00	90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	7,877.29 7,977.29	7,875.60 7.975.60	-300.93 -301.54	0.00	432,220.34 432,320.34	709,568.12 709,567.52	32°11'11.315818"N	I 103°39'21.340363"W I 103°39'21.340068"W
	20,700.00 20,800.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	8,077.29 8,177.29	8,075.59 8,175.59	-302.14 -302.75	0.00 0.00	432,420.33 432,520.32	709,566.91 709,566.31		I 103°39'21.339773"W I 103°39'21.339478"W
	20,900.00 21,000.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	8,277.29 8,377.29	8,275.59 8,375.59	-303.35 -303.95	0.00 0.00	432,620.32 432,720.31	709,565.70 709,565.10	32°11'16.263579"N	I 103°39'21.339183"W I 103°39'21.338888"W
	21,100.00 21,200.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	8,477.29 8,577.29	8,475.59 8,575.58	-304.56 -305.16	0.00 0.00	432,820.31 432,920.30	709,564.49 709,563.89	32°11'18.242684"N	I 103°39'21.338593"W I 103°39'21.338298"W
PPP, Hold to TD	21,214.34 21,300.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	8,591.63 8,677.29	8,589.92 8,675.58	-305.25 -305.77 -306.37	0.00 0.00 0.00	432,934.64 433,020.29	709,563.80 709,563.28	32°11'19.232236"N	I 103°39'21.338255"W I 103°39'21.338001"W
	21,400.00 21,500.00 21,600.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	8,777.29 8,877.29 8,977.29	8,775.58 8,875.58 8,975.58	-306.37 -306.98 -307.58	0.00 0.00 0.00	433,120.29 433,220.28 433,320.28	709,562.68 709,562.08 709,561.47	32°11'21.211340"N	I 103°39'21.337705"W I 103°39'21.337408"W I 103°39'21.337112"W
	21,700.00 21,800.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	9,077.29 9,177.29	9,075.58 9,175.57	-308.19 -308.79	0.00 0.00 0.00	433,420.27 433,520.26	709,560.87 709,560.26	32°11'23.190444"N	I 103°39'21.336815"W I 103°39'21.336815"W I 103°39'21.336518"W
	21,900.00 22,000.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	9,277.29 9,377.29	9,275.57 9,375.57	-309.39 -310.00	0.00 0.00	433,620.26 433,720.25	709,559.66 709,559.05	32°11'25.169548"N 32°11'26.159100"N	I 103°39'21.336222"W I 103°39'21.335925"W
	22,100.00 22,200.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	9,477.29 9,577.29	9,475.57 9,575.57	-310.60 -311.21	0.00 0.00	433,820.25 433,920.24	709,558.45 709,557.85	32°11'27.148651"N 32°11'28.138203"N	I 103°39'21.335628"W I 103°39'21.335331"W
	22,300.00 22,400.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	9,677.29 9,777.29	9,675.56 9,775.56	-311.81 -312.42	0.00	434,020.23 434,120.23	709,557.24 709,556.64	32°11'30.117307"N	I 103°39'21.335034"W I 103°39'21.334737"W
	22,500.00 22,600.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00	9,403.00 9,403.00	9,877.29 9,977.29	9,875.56 9,975.56	-313.02 -313.62	0.00 0.00	434,220.22 434,320.22	709,556.03 709,555.43	32°11'32.096410"N	I 103°39'21.334440"W I 103°39'21.334143"W
	22,700.00 22,800.00 22,900.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9.403.00	10,077.29 10,177.29 10,277.29	10,075.56 10,175.56 10,275.55	-314.23 -314.83 -315.44	0.00 0.00 0.00	434,420.21 434,520.20 434.620.20	709,554.82 709,554.22 709,553.62	32°11'34.075513"N	I 103°39'21.333845"W I 103°39'21.333548"W I 103°39'21.333251"W
	22,900.00 23,000.00 23,100.00	90.00 90.00 90.00	359.65 359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9.403.00	10,277.29 10,377.29 10,477.29	10,275.55 10,375.55 10.475.55	-315.44 -316.04 -316.65	0.00 0.00 0.00	434,620.20 434,720.19 434,820.18	709,553.62 709,553.01 709,552.41	32°11'36.054616"N	I 103°39'21.333251"W I 103°39'21.332953"W I 103°39'21.332656"W
	23,200.00 23,200.00 23,300.00	90.00 90.00	359.65 359.65	12,940.00 12,940.00 12,940.00	9,403.00 9,403.00 9,403.00	10,577.29 10,577.29 10,677.29	10,475.55 10,575.55 10,675.55	-317.25 -317.86	0.00 0.00 0.00	434,920.18 435,020.17	709,552.41 709,551.80 709,551.20	32°11'38.033718"N	I 103°39'21.332358"W I 103°39'21.332061"W
	-,			,	.,	.,	.,			,	,		

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°'")	Longitude (° ' ")
	23,400.00	90.00	359.65	12,940.00	9,403.00	10,777.29	10,775.54	-318.46	0.00	435,120.17	709,550.59	32°11'40.012821"N	103°39'21.331763"W
	23,500.00	90.00	359.65	12,940.00	9,403.00	10,877.29	10,875.54	-319.06	0.00	435,220.16	709,549.99	32°11'41.002372"N	103°39'21.331465"W
	23,600.00	90.00	359.65	12,940.00	9,403.00	10,977.29	10,975.54	-319.67	0.00	435,320.15	709,549.39	32°11'41.991923"N	103°39'21.331168"W
	23,700.00	90.00	359.65	12,940.00	9,403.00	11,077.29	11,075.54	-320.27	0.00	435,420.15	709,548.78	32°11'42.981474"N	103°39'21.330870"W
LTP Cross	23,753.61	90.00	359.65	12,940.00	9,403.00	11,130.90	11,129.15	-320.60	0.00	435,473.76	709,548.46	32°11'43.511972"N	103°39'21.330710"W
	23,800.00	90.00	359.65	12,940.00	9,403.00	11,177.29	11,175.54	-320.88	0.00	435,520.14	709,548.18	32°11'43.971025"N	103°39'21.330572"W
CO 34 27 Federal Com No. 709l	23,828.79	90.00	359.65	12,940.00	9,403.00	11,206.08	11,204.33	-321.05	0.00	435,548.93	709,548.00	32°11'44.255910"N	103°39'21.330486"W

Survey Type:

Survey Tool Code Description

> 0.000 23,873.757 1/100.00025 - 8.75 - 6.125 3.625 - 7 - 6.125 B001Mb_MWD+HRGM

CO 34 27 Federal Com No. 709H / CO 34 27 Federal Com No. 709H R0 mdv 29Aug23

EOU Geometry:	
End MD (ft)	

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
914.521	17.500	13.375	
4,400.580	12.250	9.625	
9,176.580	8.750	7.000	
23,828.789	6.125		

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: CHEVRON USA INCORPORATED
WELL NAME & NO.: CO 34 27 FED COM 709H
SURFACE HOLE FOOTAGE: 674'/N & 487'/E
BOTTOM HOLE FOOTAGE 25'/N & 750'/E
LOCATION: Section 3, T.25 S., R.32 E., NMP
COUNTY: Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

Primary Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately 1125 (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 16 inch or 17.5 inch in diameter.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **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.

If **17.5 inch** hole is utilized:

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- 3. The minimum required fill of cement behind the 7 inch intermediate casing is:
 - Cement should tie-back at least 200 feet into previous casing string.
 Operator shall provide method of verification.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.
- 4. The minimum required fill of cement behind the 5 X 4-1/2 inch production liner is:
 - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

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

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

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3170.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

GENERAL REQUIREMENTS

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

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

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

BLM_NM_CFO_DrillingNotifications@BLM.GOV (575) 361-2822

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - 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 **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive

- strength of 500 psi for all cement blends, 2) until cement has been in place at least $\underline{24}$ 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.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal

- or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR part 3170 Subpart 3172.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JS 4/9/2024



Training

MCBU Drilling and Completions H₂S 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 H₂S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H₂S, who are not required to perform work in H₂S areas, will be provided with an awareness level of H₂S training prior to entering any H₂S areas. At a minimum, awareness level training will include:

- 1. Physical and chemical properties of H₂S
- 2. Health hazards of H₂S
- 3. Personal protective equipment
- 4. Information regarding potential sources of H₂S
- 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 H₂S Training

Employees and contractors required to work in areas that may contain H₂S will be provided with Advanced Level H₂S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H₂S training will include:

- 1. H₂S safe work practice procedures;
- 2. Emergency contingency plan procedures;
- 3. Methods to detect the presence or release of H₂S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H₂S equipment.
- 4. Basic overview of respiratory protective equipment suitable for use in H₂S 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 H₂S 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.



H₂S Training Certification

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

Briefing Area

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

H₂S 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.

H₂S Detection and Monitoring System

- a) H₂S monitoring system (sensor head, warning light and siren) placed throughout rig.
 - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
 - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



Well Control Equipment

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

Mud Program

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

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

Public Safety - Emergency Assistance

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

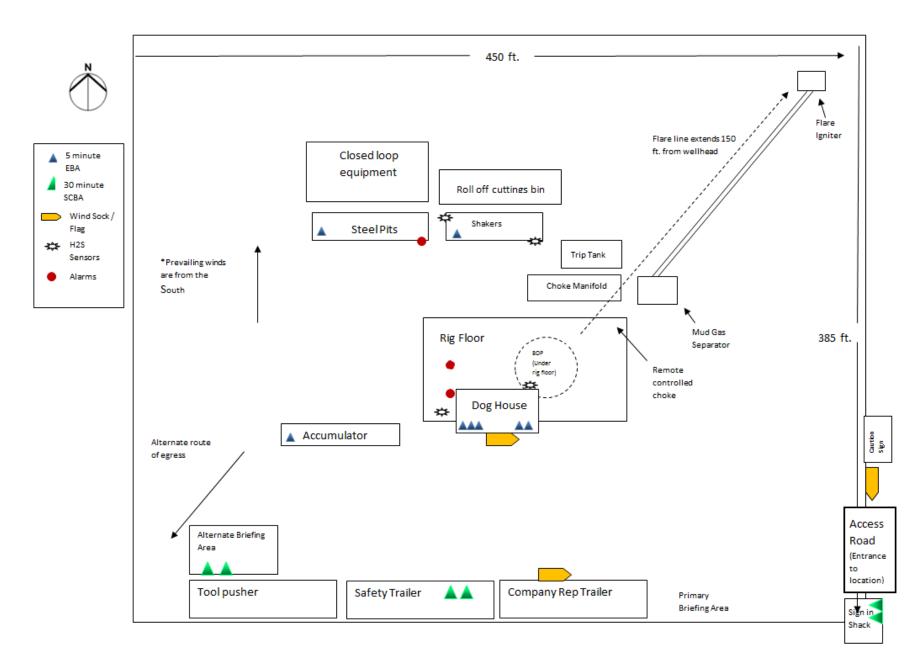


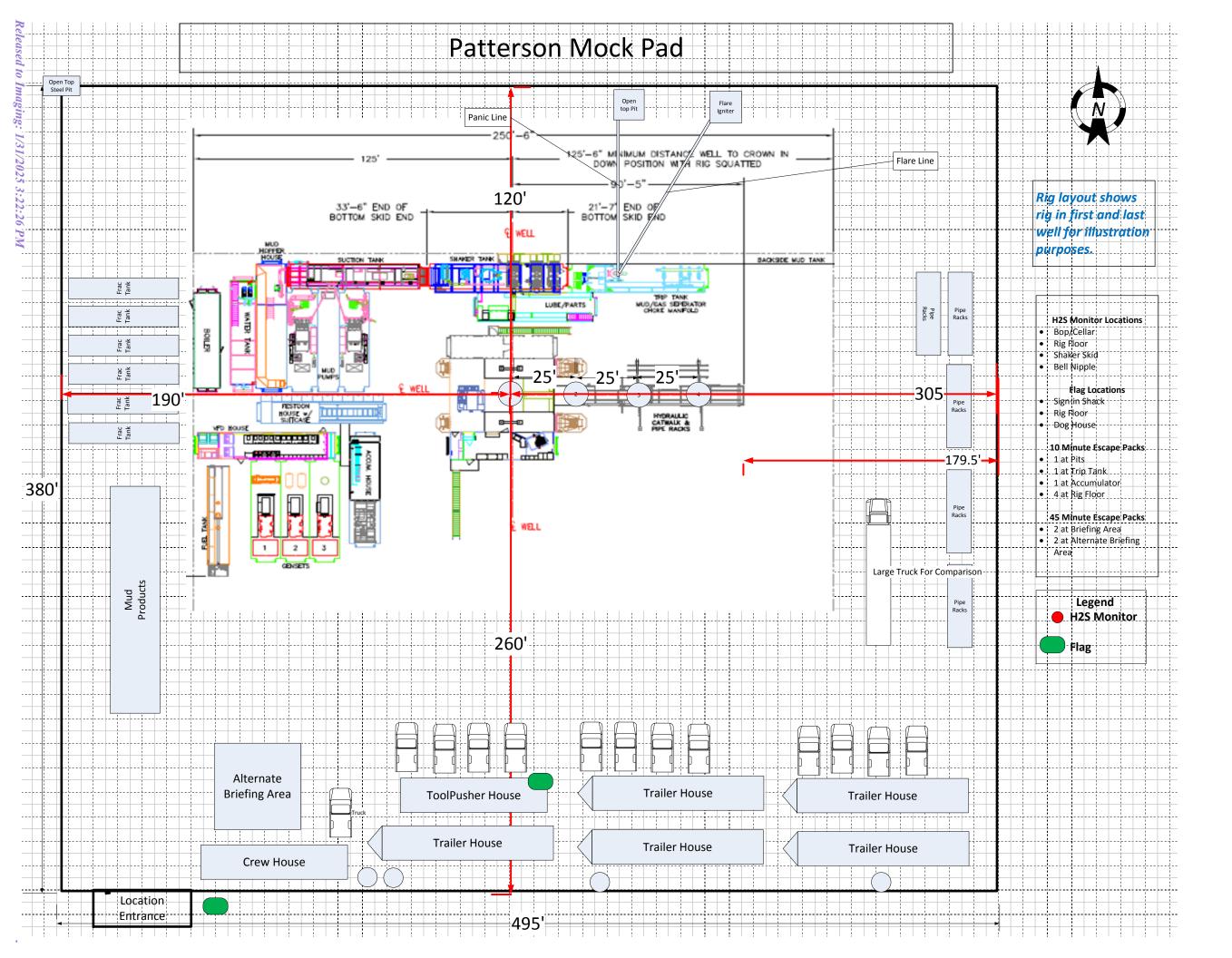
Chevron MCBU D&C Emergency Notifications

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

	Name	Title	Office Number	Cell Phone
1.	TBD	Drilling Engineer		
2.	Sergio Hernandez	Superintendent	713 372 1402	
5.	Dennis Mchugh	Drilling Manager	(713) 372-4496	
6.	Kyle Eastman	Operations Manager	713-372-5863	
7.	TBD	D&C HES		
8.	TBD	Completion Engineer		







Well Name: CO 34 27 FEDERAL COM



APD ID: 10400094711

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

Drilling Plan Data Report

Submission Date: 09/28/2023

Operator Name: CHEVRON USA INCORPORATED

Well Number: 709H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation			True Vertical	Measured		Mineral Resources	Producing
ID	Formation Name	Elevation	Truc Vertical	Depth	Lithologies	William Resources	Formatio
14189960	RUSTLER	3508	893	893	SANDSTONE	NONE	N
14189961	SALADO	2315	1193	1194	ANHYDRITE, SALT	NONE	N
14189962	CASTILE	292	3216	3234	ANHYDRITE, SALT	NONE	N
14189963	LAMAR	-1293	4801	4819	LIMESTONE, SHALE	NONE	N
14189964	BELL CANYON	-1325	4833	4851	SANDSTONE, SHALE	NONE	N
14189965	CHERRY CANYON	-2241	5749	5767	SANDSTONE, SILTSTONE	NONE	N
14189966	BRUSHY CANYON	-3742	7250	7268	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
14189968	BONE SPRING LIME	-5260	8768	8786	SHALE, SILTSTONE	NONE	N
14189969	AVALON SAND	-5373	8881	9338	SHALE	NONE	N
14189970	BONE SPRING 1ST	-6319	9827	10057	SANDSTONE, SHALE	NONE	N
14189972	BONE SPRING 2ND	-6921	10429	10960	SANDSTONE, SHALE	NONE	N
14189973	BONE SPRING 3RD	-8159	11667	11685	SANDSTONE, SHALE	NONE	N
14189971	WOLFCAMP	-8583	12091	12109	SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

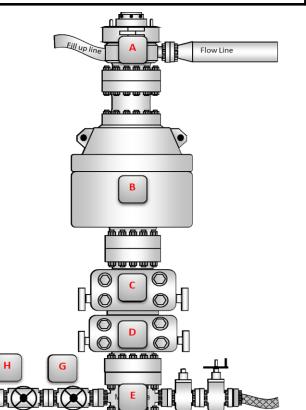
BLOWOUT PREVENTER SCHEMATIC

Operation: Intermediate(s)

Minimum System operation pressure

5,000 psi

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



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

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

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

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

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

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

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

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

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

General Information Phone: (505) 629-6116

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

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

CONDITIONS

Action 424592

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC	4323
6301 Deauville Blvd	Action Number:
Midland, TX 79706	424592
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ntaylor	Cement is required to circulate on both surface and intermediate1 strings of casing.	1/24/2025
ntaylor	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	1/24/2025
pkautz	Operator is out of compliance with rule 5.9 inactive wells. Operator cannot produce this well until back in compliance with 5.9	1/31/2025
pkautz	File As Drilled C-102 and a directional Survey with C-104 completion packet.	1/31/2025
pkautz	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.	1/31/2025
pkautz	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.	1/31/2025