

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

Sundry Print Reports

Well Name: CASCADE 28 FEDERAL Well Location: T25S / R33E / SEC 28 / County or Parish/State:

NENW /

Well Number: 30H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM043562 Unit or CA Name: Unit or CA Number:

US Well Number: 3002550104 Well Status: Approved Application for Operator: CIMAREX ENERGY

Permit to Drill COMPANY

Notice of Intent

Sundry ID: 2756101

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 10/11/2023 Time Sundry Submitted: 03:47

Date proposed operation will begin: 01/01/2024

Procedure Description: Cimarex Energy Co. respectfully requests to change the approved APD as follows: SHL/KOP Current: Unit C, Sec 28, T25S, R33E, 390 FNL & 1475 FWL SHL/KOP New: Unit C, Sec 28, T25S, R33E, 210 FNL & 1375 FWL LP/FTP Current: Unit C, Sec 28, T25S, R33E, 390 FNL & 840 FWL LP/FTP New: Unit C, Sec 28, T25S, R33E, 100 FNL & 1005 FWL BHL/LTP Current: Unit N, Sec 28, T25S, R33E 100 FSL, 840 FWL BHL/LTP New: Unit M, Sec 28, T25S, R33E, 100 FSL & 1005 FWL TVD/TD Current: 12,305 TVD & 16901 MD TVD/TD New: 12,590 TVD & 17,447 MD

NOI Attachments

Procedure Description

 $Cascade_28_Federal_30H_Sundry_Attachments_10112023_20231011154738.pdf$

Page 1 of 2

eceived by OCD: 2/8/2024 9:54:33 AM Well Name: CASCADE 28 FEDERAL Well Location: T25S / R33E / SEC 28 / County or Parish/State: Page 2 of

NENW /

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Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SHELLY BOWEN Signed on: OCT 11, 2023 03:47 PM

Name: CIMAREX ENERGY COMPANY

Title: Regulatory Analyst

Street Address: 6001 DEAUVILLE BLVD STE 300N

City: MIDLAND State: TX

Phone: (432) 620-1644

Email address: DL_PBUREGULATORY@COTERRA.COM

Field

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234 **BLM POC Email Address:** cwalls@blm.gov

Disposition: Approved **Disposition Date:** 02/07/2024

Signature: Chris Walls

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED)
OMB No. 1004-0137	
Expires: October 31, 20	2

BUR	EAU OF LAND MANAGEMENT	5. Lease Serial No.		
Do not use this t	IOTICES AND REPORTS ON V form for proposals to drill or to Use Form 3160-3 (APD) for su	6. If Indian, Allottee or	Tribe Name	
SUBMIT IN	TRIPLICATE - Other instructions on pag	ge 2	7. If Unit of CA/Agreen	ment, Name and/or No.
1. Type of Well	<u> </u>	<u> </u>		
Oil Well Gas V	Vell Other		8. Well Name and No.	
2. Name of Operator			9. API Well No.	
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or E	xploratory Area
4. Location of Well (Footage, Sec., T., K	2.,M., or Survey Description)		11. Country or Parish, S	State
12. CHE	CK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE OF N	NOTICE, REPORT OR OTH	ER DATA
TYPE OF SUBMISSION		TYPE OF	FACTION	
Notice of Intent	Acidize Deep	pen	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity
Subsequent Report	Casing Repair New	Construction	Recomplete Temporarily Abandon	Other
Final Abandonment Notice		Back	Water Disposal	
completed. Final Abandonment No is ready for final inspection.)	ons. If the operation results in a multiple cortices must be filed only after all requiremen			
14. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)			
		Title		
Signature		Date		
	THE SPACE FOR FED	ERAL OR STATE	OFICE USE	
Approved by		Title		ate
	hed. Approval of this notice does not warrar equitable title to those rights in the subject led duct operations thereon.	nt or		
Title 18 U.S.C Section 1001 and Title 4	3 U.S.C Section 1212, make it a crime for a	ny person knowingly and	d willfully to make to any der	partment or agency of the United States

any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Location of Well

 $0. \ SHL: NENW / \ 390 \ FNL / \ 1475 \ FWL / \ TWSP: \ 25S / \ RANGE: \ 33E / \ SECTION: \ 28 / \ LAT: \ 32.107737 / \ LONG: \ -103.583058 (\ TVD: \ 0 \ feet, \ MD: \ 0 \ feet)$ $PPP: \ NWNW / \ 390 \ FNL / \ 840 \ FWL / \ TWSP: \ 25S / \ RANGE: \ 33E / \ SECTION: \ 28 / \ LAT: \ 32.107743 / \ LONG: \ -103.583058 (\ TVD: \ 12305 \ feet, \ MD: \ 12836 \ feet)$ $BHL: \ SWSW / \ 100 \ FSL / \ 840 \ FWL / \ TWSP: \ 25S / \ RANGE: \ 33E / \ SECTION: \ 28 / \ LAT: \ 32.094577 / \ LONG: \ -103.583066 (\ TVD: \ 12305 \ feet, \ MD: \ 16901 \ feet)$



1. Geological Formations

TVD of target 12,590 Pilot Hole TD N/A

MD at TD 17,448 Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	994	N/A	
Top Salt	1328	N/A	
Lamar	4920	N/A	
Bell Canyon	4954	Hydrocarbons	
Cherry Canyon	6014	Hydrocarbons	
Brushy Canyon	7508	Hydrocarbons	
Bone Spring	9048	Hydrocarbons	
Upper Avalon Shale	9723	Hydrocarbons	
Wolfcamp	12169	Hydrocarbons	

2. Casing Program

	_	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1050	1050	10-3/4"	40.50	J-55	BT&C	3.47	6.88	14.79
9 7/8	0	12789	12576	7-5/8"	29.70	HCL-80	BT&C	2.46	1.17	1.83
6 3/4	0	12039	12039	5-1/2"	23.00	L-80	LT&C	1.43	1.26	2.16
6 3/4	11750	17448	12590	5"	18.00	P-110	BT&C	1.64	1.66	58.48
					BLM	Minimum Sa	fety Factor	1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Request Variance for 5-1/2" x 7-5/8" annular clearance. The portion that does not meet clearance will not be cemented

Cimarex Energy Co., Cascade 28 Federal 30H

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

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	408	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	109	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	1019	10.30	3.64	22.18		Lead: Tuned Light + LCM
	198	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Production	701	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
			-			

Casing String	тос	% Excess
Surface	0	45
Intermediate	0	49
Production	12589	25

Cimarex request the ability to perform casing integrity tests after plug bump of cement job.

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Туре		Tested To
9 7/8	13 5/8	5M	Annular	Х	50% of working pressure
			Blind Ram		
			Pipe Ram	Х	5M
			Double Ram	Х	
			Other		
6 3/4	13 5/8	10M	Annular	Х	50% of working pressure
			Blind Ram		
			Pipe Ram	Х	10M
			Double Ram	Х	
			Other		

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

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

	On E	nation integrity test will be performed per Onshore Order #2. xploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Х	A var	riance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Туре	Weight (ppg)	Viscosity	Water Loss
0' to 1050'	Fresh Water	7.83 - 8.33	28	N/C
1050' to 12789'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
12789' to 17448'	ОВМ	12.00 - 12.50	50-70	N/C

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

The Brine Emulsion is completely saturated brine fluid that ties diesel into itself to lower the weight of the fluid. The drilling fluid is completely salt saturated.

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

6. Logging and Testing Procedures

Logg	Logging, Coring and Testing						
	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.						
Х	No logs are planned based on well control or offset log information.						
	Drill stem test?						
	Coring?						

Additional Logs Planned	Interval
7 20 gs	

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	8183 psi
Abnormal Temperature	No

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

X H2S is present

X H2S plan is attached

8. Other Facets of Operation

9. Wellhead

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 10000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 10000 psi.

All casing strings will be tested as per Onshore Order No.2 to atleast 0.22 psi/ft or 1,500 whichever is greater and not to exceed 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

District I

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

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

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	•	² Pool Code 98094	Bobcat Draw;Upper Wolfca	mp
⁴ Property Code			operty Name DE 28 FEDERAL	⁶ Well Number 30H
⁷ OGRID №. 215099			perator Name EX ENERGY CO.	⁹ Elevation 3385.3'

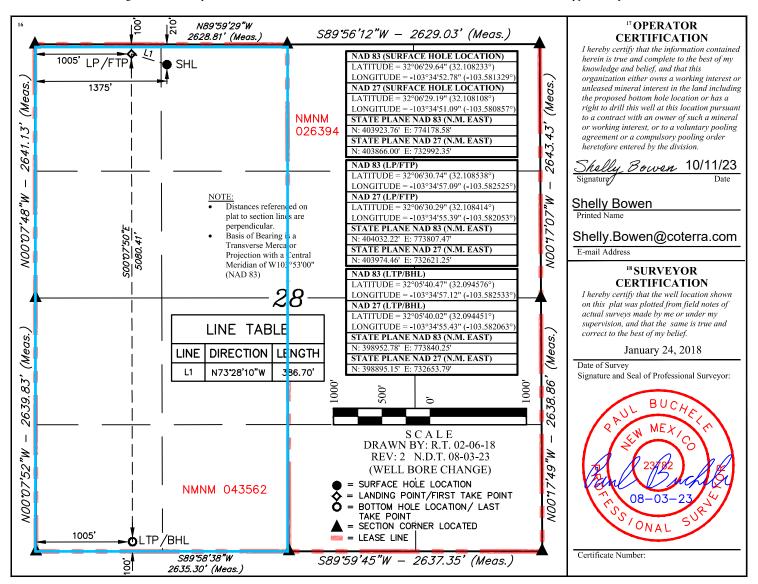
¹⁰ Surface Location

C 28 25S 33E 210 NORTH 1375 WEST LEA	UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0 20 200 200 200 200 200 200	С	28	25S	33Ē		210		1375	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no. M	Section 28	n	Township Range L 25S 33E		Lot Idn		from the	North/South line SOUTH	Feet from the 1005	East/West line WEST	County LEA
12 Dedicated Acres 320		¹³ Joi	int or Infill	14 Conso	olidation Code	1	15 Order No.				

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

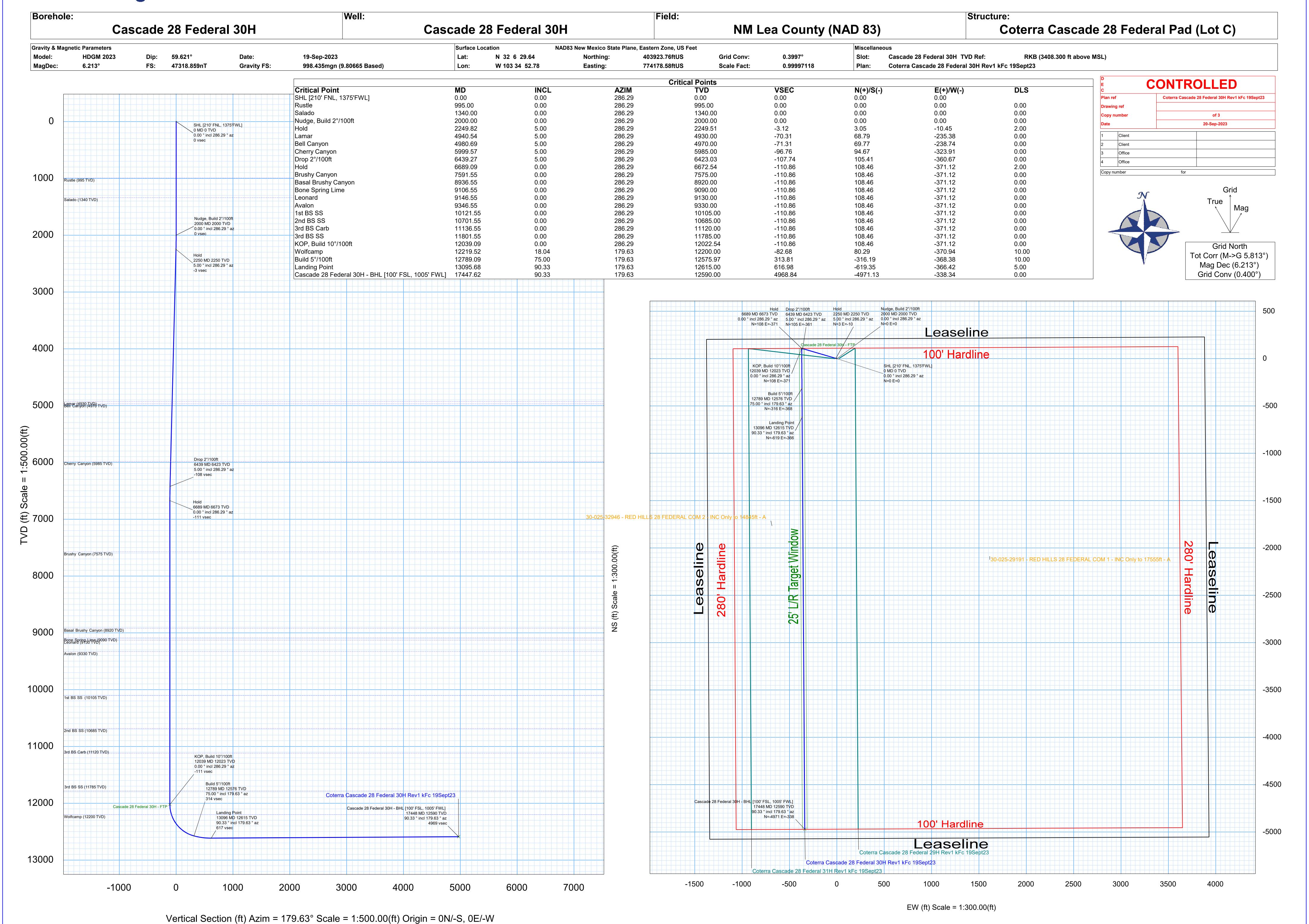


Schlumberger

COTERRA

Rev 1





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

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

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

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

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

CONDITIONS

Action 312552

CONDITIONS

Operator:	OGRID:
CIMAREX ENERGY CO.	215099
6001 Deauville Blvd	Action Number:
Midland, TX 79706	312552
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
pkautz	None	3/15/2024