

Well Name: DOS EQUIS 12-13 FEDERAL COM	Well Location: T24S / R32E / SEC 12 / NENW /	County or Parish/State:
Well Number: 51H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM01917	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550123	Well Status: Approved Application for Permit to Drill	Operator: CIMAREX ENERGY COMPANY

Notice of Intent

Sundry ID: 2763420

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 11/28/2023

Time Sundry Submitted: 06:45

Date proposed operation will begin: 02/01/2024

Procedure Description: Casing change from previously approved APD. Bottom hole change from previously approved APD.

NOI Attachments

Procedure Description

Dos_Equis_12_13_51H_Sundry_Submittal_11282023_20231211130419.pdf

Conditions of Approval

Specialist Review

Dos_Equis_12_13_Fed_Com_51H_Dr_COA_20240227153809.pdf

12_24_32_C_Sundry_ID_2763420_Dos_Equis_12_13_Federal_Com_51H_Lea_NM01917_CIMAREX_ENERGY_COM
PANY_13_22g_2_27_2024_LV_20240227153809.pdf

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Well Number: 51H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM01917	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550123	Well Status: Approved Application for Permit to Drill	Operator: CIMAREX ENERGY COMPANY

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: DEC 11, 2023 01:04 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: LONG VO	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5759885402	BLM POC Email Address: LVO@BLM.GOV
Disposition: Approved	Disposition Date: 02/27/2024
Signature: Long Vo	

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2		5. Lease Serial No.
1. Type of Well ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
	Title	
Signature	Date	

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice 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.	Office	

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.

(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 / 195 FNL / 1500 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238919 / LONG: -103.631966 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 195 FNL / 1500 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238919 / LONG: -103.631836 (TVD: 9283 feet, MD: 9286 feet)

PPP: NENW / 0 FNL / 1540 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.208247 / LONG: -103.63185 (TVD: 9600 feet, MD: 14490 feet)

PPP: NESW / 2640 FNL / 1540 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.215528 / LONG: -103.631842 (TVD: 9600 feet, MD: 11842 feet)

BHL: SESW / 100 FSL / 1540 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.210691 / LONG: -103.631862 (TVD: 9600 feet, MD: 19665 feet)

CONFIDENTIAL

Cimarex Energy Co. respectfully requests to change the approved APD as follows:

Well Name	API	S/T/R	SHL Old	SHL New	S/T/R	BHL Old	BHL New	TVD Old	TVD New	MD Old	MD New
Dos Equis 12-13 Fed Com 52H	30-025-50124	12/24S/32E	195 FNL/ 1480 FWL	NO CHANGE	13/24S/32E	100 FSL/1520 FWL	100 FSL/660 FWL	9,600'	9,980'	19,753	20,072
Dos Equis 12-13 Fed Com 51H	30-025-50123	12/24S/32E	195 FNL/ 1500 FWL	NO CHANGE	13/24S/32E	100 FSL/1540 FWL	100 FSL/990 FWL	9,600'	11,550'	19,665	21,677
Dos Equis 12-13 Fed Com 50H	30-025-50122	12/24S/32E	195 FNL/ 1520 FWL	NO CHANGE	13/24S/32E	100 FSL/1560 FWL	100 FSL/1388 FWL	12,900'	10,620'	23,019	20,654
Dos Equis 12-13 Fed Com 49H	30-025-50121	12/24S/32E	195 FNL/ 1540 FWL	195 FNL/1540 FWL	13/24S/32E	100 FSL/1430 FWL	100 FSL/1980 FWL	12,300'	9,980'	22,376	20,256
Dos Equis 12-13 Fed Com 48H	30-025-50120	12/24S/32E	255 FNL/1580 FWL	195 FNL/1560 FWL	13/24S/32E	100 FSL/1386 FWL	100 FSL/2310 FWL	12,390'	11,550'	22,379	21,551
Dos Equis 12-13 Fed Com 77H	30-025-50136	12/24S/32E	300 FNL/ 2450 FEL	NO CHANGE	13/24S/32E	100 FSL/2130 FEL	100 FSL/2588 FEL	12,900'	10,620'	22,970	20,825
Dos Equis 12-13 Fed Com 76H	30-025-50126	12/24S/32E	300 FNL/ 2430 FEL	NO CHANGE	13/24S/32E	100 FSL/2100 FEL	100 FSL/1980 FEL	9,600'	9,980'	19,654	20,141
Dos Equis 12-13 Fed Com 75H	30-025-50125	12/24S/32E	300 FNL/ 2410 FEL	NO CHANGE	13/24S/32E	100 FSL/2000 FEL	100 FSL/1650 FEL	9,600'	11,550'	19,510	21,718
Dos Equis 12-13 Fed Com 89H	30-025-50138	12/24S/32E	300 FNL/ 1510 FEL	NO CHANGE	13/24S/32E	100 FSL/990 FEL	100FSL/1275 FEL	9,600'	10,620'	19,595	20,753
Dos Equis 12-13 Fed Com 88H	30-025-50206	12/24S/32E	300 FNL/ 1490 FEL	NO CHANGE	13/24S/32E	100 FSL/330 FEL	100 FSL/660 FEL	9,600'	9,980'	19,706	20,186
Dos Equis 12-13 Fed Com 87H	30-025-50137	12/24S/32E	360 FNL/ 1450 FEL	300 FNL/ 1470 FEL	13/24S/32E	100FSL /1386 FEL	100 FSL/330 FEL	12,340'	11,550'	22,258	21,803

1. Geological Formations

TVD of target 11,550

Pilot Hole TD N/A

MD at TD 21,678

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1163	N/A	
Top of Salt	1545	N/A	
Base of Salt	4907	N/A	
Bell Canyon	4947	Hydrocarbons	
Cherry Canyon	5874	Hydrocarbons	
Brushy Canyon	7310	Hydrocarbons	
Basal Brushy Canyon	8631	Hydrocarbons	
Bone Spring Lime	8850	Hydrocarbons	
Leonard	9031	Hydrocarbons	
Avalon	9283	Hydrocarbons	
1st Bone Spring Sand	9982	Hydrocarbons	
2nd Bone Spring Sand	10558	Hydrocarbons	
3rd Bone Spring Carb	11083	Hydrocarbons	
Harkey - Target	11550	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1213	1213	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.41	3.29	5.53
12 1/4	0	4943	4927	9-5/8"	40.00	HCK-55	LT&C	1.49	1.54	2.85
8 3/4	0	10984	10984	7"	29.00	L-80	LT&C	1.37	1.59	1.76
8 3/4	10984	11734	11511	7"	29.00	L-80	LT&C	1.30	1.51	38.41
6	10484	21678	11550	4-1/2"	11.60	P-110	BT&C	1.33	1.88	29.68
BLM Minimum Safety 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

Cimarex Energy Co., Dos Equis 12-13 Federal Com 51H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the 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?	Y

3. Cementing Program

Casing	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	588	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	158	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	929	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	289	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	383	10.30	3.64	22.18		Lead: Tuned Light + LCM
	125	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	738	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	50
Production	4743	25
Completion System	11534	10

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	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	50% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			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.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.				
X	A variance 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	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1213'	Fresh Water	7.83 - 8.33	28	N/C
1213' to 4943'	Brine Water	9.50 - 10.00	30-32	N/C
4943' to 11734'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
12034' to 21678'	OBM	9.00 - 9.50	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.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

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

Additional Logs Planned	Interval
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5705 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	H ₂ S is present
X	H ₂ S plan is attached

8. Other Facets of Operation**9. Wellhead**

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 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 5000 psi.

A solid steel body pack-off will be utilized after running and cementing the production casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

All casing strings will be tested as per Onshore Order No.2 to at least 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.

Variance Request #1: Skid Rig after Cementing Surface Casing

Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, and both lead and tail slurries have achieved 500 psi compressive strength. While cement cures, the surface casing of the subject well will be suspended in the well by a mandrel and landing ring system, which is independent from the rig and ensures that casing remains centered while the rig is active on other wells.

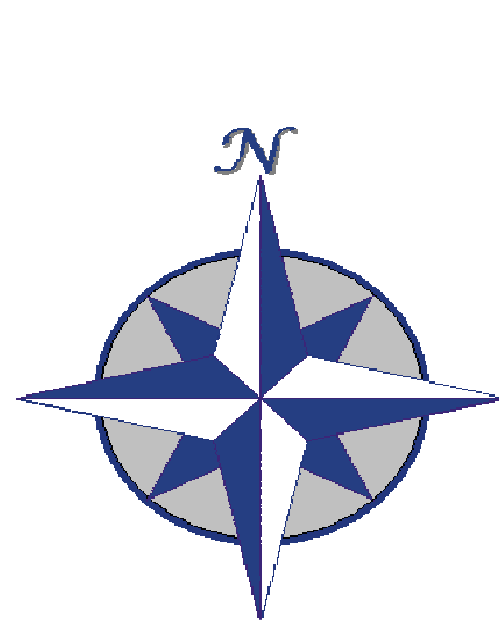
Variance Request #4: Utilize Co-Flex Choke Line

Coterra requests approval to utilize a co-flex choke line between the BOP and choke manifold. Certification for the proposed co-flex choke line is attached. The choke line is not required by the manufacturer to be anchored. In the event the specific co-flex choke line is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

Borehole: Dos Equis 12-13 Federal Com 51H		Well: Dos Equis 12-13 Federal Com 51H		Field: NM Lea County (NAD 83)		Structure: Coterra Dos Equis 12-13 Federal Com Pad 3	
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Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	HDGM 2022	Dip:	59.793°	Date:	17-Nov-2023	Lat:	N 32 14 20.11	Northing:	451360.15ftUS	Grid Conv:	0.3742°
MagDec:	6.214°	FS:	47447.577nT	Gravity FS:	998.438mgn (9.80665 Based)	Lon:	W 103 37 55.08	Easting:	758189.74ftUS	Scale Fact:	0.99996295
				NAD83 New Mexico State Plane, Eastern Zone, US Feet				TVD Ref: RKB (3631.200 ft above MSL)			
								Plan: Dos Equis 12-13 Federal Com 51H Rev0 kFc 17Nov23			

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [195' FNL, 1500' FWL]	0.00	0.00	182.51	0.00	0.00	0.00	0.00	
Rustler	1163.00	0.00	280.14	1163.00	0.00	0.00	0.00	0.00
Top Salt	1545.00	0.00	280.14	1545.00	0.00	0.00	0.00	0.00
Nudge, Build 2°/100ft	1800.00	0.00	280.14	1800.00	0.00	0.00	0.00	0.00
Hold	2099.98	6.00	280.14	2099.44	-2.85	2.76	-15.45	2.00
Lamar	4923.01	6.00	280.14	4907.00	-56.45	54.69	-305.91	0.00
Bell Canyon	4963.23	6.00	280.14	4947.00	-57.21	55.43	-310.05	0.00
Cherry Canyon	5895.34	6.00	280.14	5874.00	-74.91	72.57	-405.96	0.00
Drop 2°/100ft	6759.21	6.00	280.14	6733.14	-91.31	88.46	-494.84	0.00
Hold	7059.20	0.00	280.14	7032.58	-94.16	91.22	-510.29	2.00
Brushy Canyon	7336.62	0.00	280.14	7310.00	-94.16	91.22	-510.29	0.00
Basal Brushy Canyon	8657.62	0.00	280.14	8631.00	-94.16	91.22	-510.29	0.00
Bone Spring Lime	8876.62	0.00	280.14	8850.00	-94.16	91.22	-510.29	0.00
Leonard	9057.62	0.00	280.14	9031.00	-94.16	91.22	-510.29	0.00
Avalon	9309.62	0.00	280.14	9283.00	-94.16	91.22	-510.29	0.00
1st BS SS	10008.62	0.00	280.14	9982.00	-94.16	91.22	-510.29	0.00
2nd BS SS	10584.62	0.00	280.14	10558.00	-94.16	91.22	-510.29	0.00
KOP, Build 10°/100ft	10984.20	0.00	280.14	10957.58	-94.16	91.22	-510.29	0.00
3rd BS Carb	11110.64	12.64	179.67	11083.00	-80.27	77.33	-510.21	10.00
Build 5°/100ft	11734.20	75.00	179.67	11511.01	-330.50	-333.43	-507.85	10.00
Landing Point	12034.20	90.00	179.67	11550.06	627.10	-630.02	-506.14	5.00
Pool NMNM0001917 exit to NMNM0002889 enter	13855.00	90.00	179.67	11550.05	2447.89	-2450.79	-495.66	0.00
Section 12-13 Line Cross, Pool NMNM0002889 exit to NMNM0553548 enter	16507.00	90.00	179.67	11550.03	5099.89	-5102.74	-480.39	0.00
Pool NMNM0553548 exit to NMNM0553642 enter	19137.00	90.00	179.67	11550.02	7729.89	-7732.70	-465.25	0.00
Pool NMNM0553642 exit to NMNM116574 enter	20457.00	90.00	179.67	11550.01	9049.89	-9052.68	-457.65	0.00
Dos Equis 12-13 Federal Com 51H - BHL [100' FSL, 990' FWL]	21677.99	90.00	179.67	11550.00	10270.89	-10273.65	-450.62	0.00



Grid
True
Mag

Grid North
Tot Corr (M->G 5.839°)
Mag Dec (6.214°)
Grid Conv (0.374°)

CONTROLLED

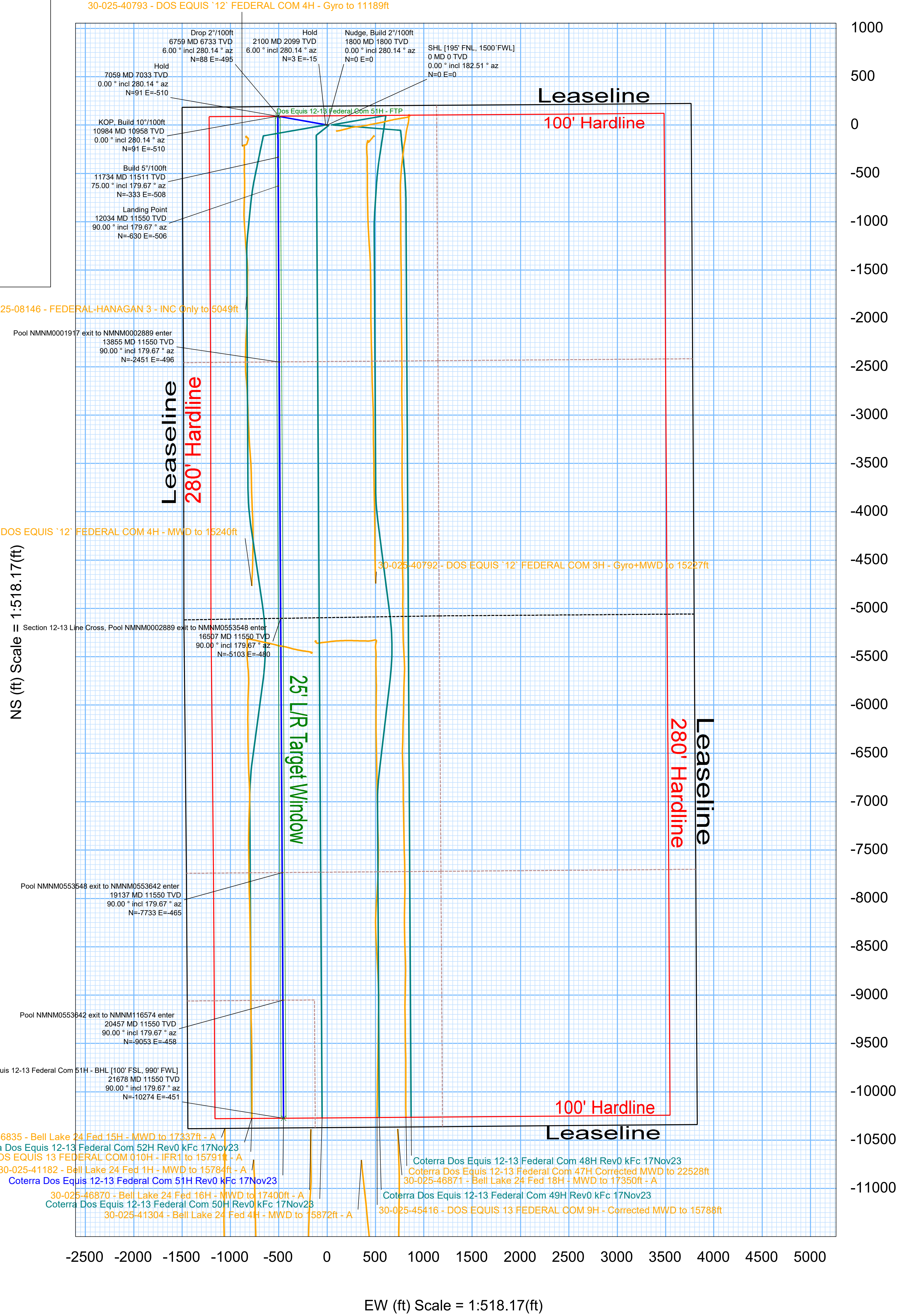
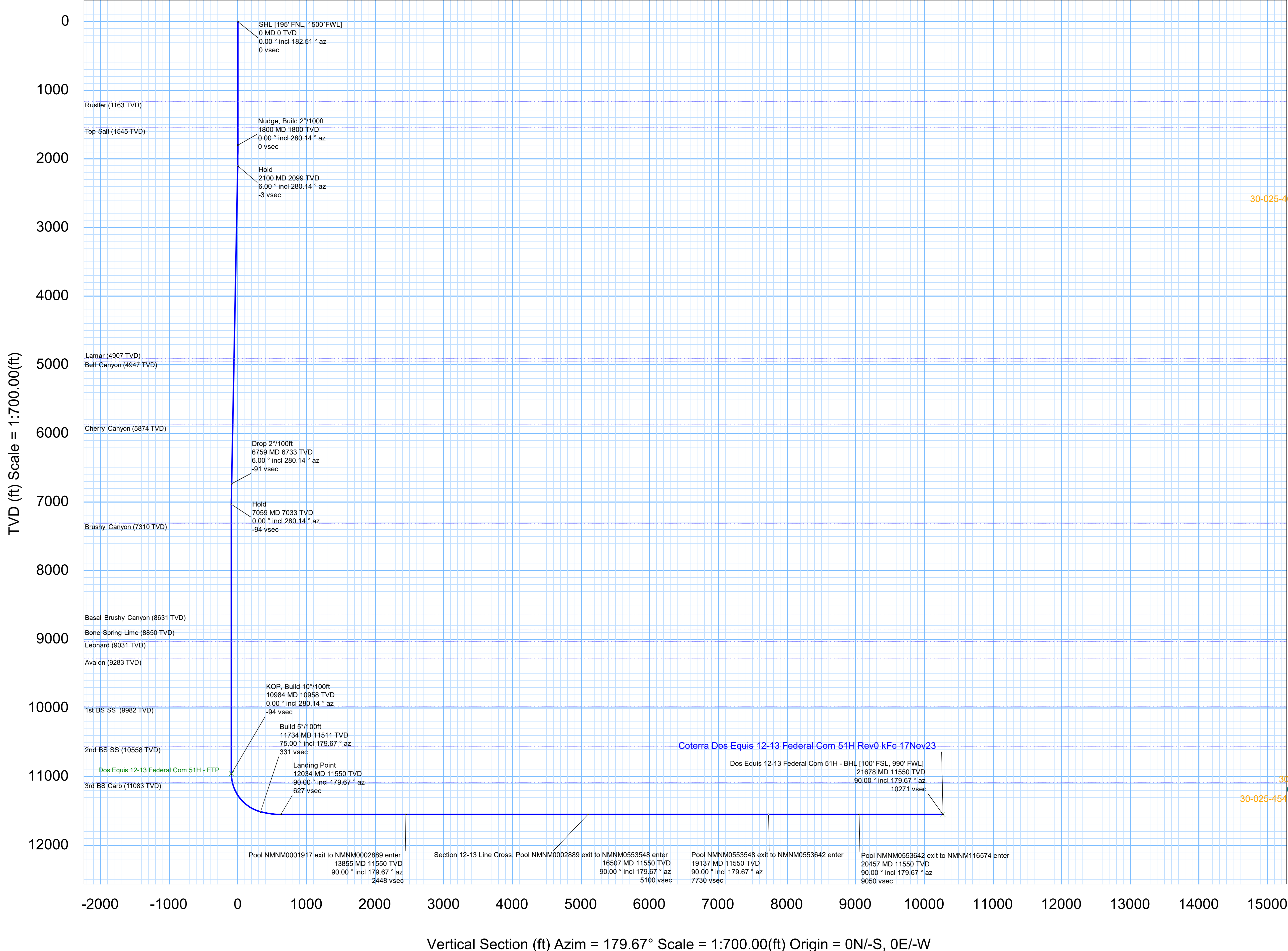
Coterra Dos Equis 12-13 Federal Com 51H Rev0 kFc 17Nov23

of 3

21-Nov-2023

1	Client	
2	Client	
3	Office	
4	Office	

Copy number for



Schlumberger

Coterra Dos Equis 12-13 Federal Com 51H Rev0 kFc 17Nov23 Proposal

Geodetic Report

Def Plan

Report Date: November 21, 2023 - 04:01 PM (UTC 0)
Client: COTERRA
Field: NM Lea County (NAD 83)
Structure / Slot: Coterra Dos Equis 12-13 Federal Com Pad 3 / Dos Equis 12-13 Federal
Well: Dos Equis 12-13 Federal Com 51H
Borehole: Dos Equis 12-13 Federal Com 51H
UBH / API#: Unknown / Unknown
Survey Name: Coterra Dos Equis 12-13 Federal Com 51H Rev0 kFc 17Nov23
Survey Date: November 21, 2023
Tort / AHD / DDI / ERD Ratio: 102.000 " / 10883.426 ft / 6.319 / 0.942
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: 32°14'20.10685"N, 103°37'55.07700"W
Location Grid N/E Y/X: N 451360.150 RUS, E 758189.740 RUS
CRS Grid Convergence Angle: 0.374"
Grid Scale Factor: 0.99996295
Version / Patch: 2023.1.0.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.670 °(GRID North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3631.200 ft above MSL
Sealed / Ground Elevation: 3608.200 ft above MSL
Magnetic Declination: 6.214°
Total Gravity Field Strength: 998.4383mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47447.577 nT
Magnetic Dip Angle: 59.793°
Declination Date: November 17, 2023
Magnetic Declination Model: HDGM 2022
North Reference: Grid North
Grid Convergence Used: 0.374"
Total Corr Mag North->Grid North: 5.839°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSECC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
SHL [195' FNL, 1500' FWL]	0.00	0.00	182.51	0.00	-3.631.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583			
	100.00	0.00	280.14	100.00	-3.531.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	200.00	0.00	280.14	200.00	-3.431.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	300.00	0.00	280.14	300.00	-3.331.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	400.00	0.00	280.14	400.00	-3.231.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	500.00	0.00	280.14	500.00	-3.131.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	600.00	0.00	280.14	600.00	-3.031.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	700.00	0.00	280.14	700.00	-2.931.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	800.00	0.00	280.14	800.00	-2.831.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	900.00	0.00	280.14	900.00	-2.731.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,000.00	0.00	280.14	1,000.00	-2.631.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,100.00	0.00	280.14	1,100.00	-2.531.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
Rustler	1,163.00	0.00	280.14	1,163.00	-2.468.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,200.00	0.00	280.14	1,200.00	-2.431.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,300.00	0.00	280.14	1,300.00	-2.331.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,400.00	0.00	280.14	1,400.00	-2.231.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,500.00	0.00	280.14	1,500.00	-2.131.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
Top Salt	1,545.00	0.00	280.14	1,545.00	-2.086.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,600.00	0.00	280.14	1,600.00	-2.031.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
Nudge, Build 2°/100ft	1,700.00	0.00	280.14	1,700.00	-1.931.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,800.00	0.00	280.14	1,800.00	-1.831.20	0.00	0.00	0.00	451,360.15	758,189.74	32.23891851	-103.63196583	0.00	0.00	0.00
	1,900.00	2.00	280.14	1,899.98	-1.731.22	-0.32	0.31	-1.72	451,360.46	758,188.02	32.23891939	-103.63197138	2.00	2.00	0.00
	2,000.01	4.00	280.14	1,999.84	-1.631.36	-1.27	1.23	-6.87	451,361.38	758,182.87	32.23892201	-103.63198802	2.00	2.00	0.00
Hold	2,099.98	6.00	280.14	2,099.44	-1,531.76	-2.85	2.76	-15.45	451,362.91	758,174.29	32.23892638	-103.63201573	2.00	2.00	0.00
	2,100.00	6.00	280.14	2,099.45	-1,531.75	-2.85	2.76	-15.45	451,362.91	758,174.29	32.23892638	-103.63201574	0.00	0.00	0.00
	2,200.00	6.00	280.14	2,198.90	-1,432.30	-4.75	4.60	-25.74	451,364.75	758,164.00	32.23891851	-103.63204897	0.00	0.00	0.00
	2,300.00	6.00	280.14	2,298.36	-1,332.84	-6.65	6.44	-36.03	451,366.59	758,153.71	32.23893686	-103.63208221	0.00	0.00	0.00
	2,400.00	6.00	280.14	2,297.81	-1,233.39	-8.55	8.28	-46.32	451,368.43	758,143.43	32.23894210	-103.63211544	0.00	0.00	0.00
	2,500.00	6.00	280.14	2,497.26	-1,133.94	-10.45	10.12	-56.61	451,370.27	758,133.14	32.23894734	-103.63214868	0.00	0.00	0.00
	2,600.00	6.00	280.14	2,596.71	-1,034.49	-12.34	11.96	-66.89	451,372.11	758,122.85	32.23895258	-103.63218192	0.00	0.00	0.00
	2,700.00	6.00	280.14	2,696.17	-935.03	-14.24	13.80	-77.18	451,373.95	758,112.56	32.23895783	-103.63221515	0.00	0.00	0.00
	2,800.00	6.00	280.14	2,795.62	-835.58	-16.14	15.64	-87.47	451,375.79	758,102.27	32.23896307	-103.63224839	0.00	0.00	0.00
	2,900.00	6.00	280.14	2,895.07	-736.13	-18.04	17.48	-97.76	451,377.63	758,091.98	32.23896831	-103.63228163	0.00	0.00	0.00
	3,000.00	6.00	280.14	2,994.52	-636.68	-19.94	19.32	-108.05	451,379.47	758,081.69	32.23897355	-103.63231486	0.00	0.00	0.00
	3,100.00	6.00	280.14	3,093.97	-537.23	-21.84	21.16	-118.34	451,381.30	758,071.40	32.23897879	-103.63234810	0.00	0.00	0.00
	3,200.00	6.00	280.14	3,193.43	-437.77	-23.74	22.99	-128.63	451,383.14	758,061.12	32.23898403	-103.63238133	0.00	0.00	0.00
	3,300.00	6.00	280.14	3,292.88	-338.32	-25.63	24.83	-138.92	451,384.98	758,050.83	32.23898927	-103.63241457	0.00	0.00	0.00
	3,400.00	6.00	280.14	3,392.33	-238.87	-27.53	26.67	-149.21	451,386.82	758,040.54	32.23899451	-103.63244781	0.00	0.00	0.00
	3,500.00	6.00	280.14	3,491.78	-139.42	-29.43	28.51	-159.50	451,388.65	758,030.25	32.23899975	-103.63248104	0.00	0.00	0.00
	3,600.00	6.00	280.14	3,591.24	-39.96	-31.33	30.35	-169.79	451,390.50	758,019.96	32.23900499	-103.63251428	0.00	0.00	0.00
	3,700.00	6.00	280.14	3,690.69	59.49	-33.23	32.19	-180.08	451,392.34	758,009.67	32.23901023	-103.63254751	0.00	0.00	0.00
	3,800.00	6.00	280.14	3,790.14	158.94	-35.13	34.03	-190.36	451,394.18	757,999.38	32.23901547	-103.63258075	0.00	0.00	0.00
	3,900.00	6.00	280.14	3,889.59	258.39	-37.03	35.87	-200.65	451,396.02	757,989.09	32.23902071	-103.63261399	0.00	0.00	0.00
	4,000.00	6.00	280.14	3,989.04	357.84	-38.92	37.71	-210.94	451,397.86	757,978.81	32.23902595	-103.63264722	0.00	0.00	0.00
	4,100.00	6.00	280.14	4,088.50	457.30	-40.82	39.55	-221.23	451,399.70	757,968.52	32.23903119	-103.63268046	0.00	0.00	0.00
	4,200.00	6.00	280.14	4,187.95	556.75	-42.72	41.39	-231.52	451,401.54	757,958.23	32.23903643	-103.63271370	0.00	0.00	0.00
	4,300.00	6.00	280.14	4,287.40	656.20	-44.62	43.23	-241.81	451,403.38	757,947.94	32.23904167	-103.63274693	0.00	0.00	0.00
	4,400.00	6.00	280.14	4,386.85	755.65	-46.52	45.07	-252.10	451,405.22	757,937.65	32.23904691	-103.63278017	0.00	0.00	0.00
	4,500.00	6.00	280.14	4,486.31	855.11	-48.42	46.91	-262.39	451,407.05	757,927.36	32.23905215	-103.63281340	0.00	0.00	0.00
	4,600.00	6.00	280.14	4,585.76	954.56	-50.32	48.75	-272.68	451,408.89	757,917.07	32.23905739	-103.63284664	0.00	0.00	0.00
	4,700.00	6.00	280.14	4,685.21	1,054.01	-52.21	50.59	-282.97	451,410.73	757,906.78	32.23906263	-103.63287988	0.00	0.00	0.00
	4,800.00	6.00	280.14	4,784.66	1,153.46	-54.11	52.42	-293.26	451,412.57	757,896.50	32.23906787	-103.63291311	0.00	0.00	0.00
	4,900.00	6.00	280.14	4,884.11	1,252.91	-56.01	54.26	-303.55	451,414.41	757,886.21	32.23907311	-103.63294635	0.00	0.00	0.00
Lamar	4,923.01	6.00	280.14	4,907.00	1,275.88	-56.45	54.69	-305.91	451,415.84	757,883.94	32.23907835	-103.63297958	0.00	0.00	0.00
Bel Canyon	4,963.23	6.00	280.14	4,947.00	1,315.80	-57.21	55.43	-310.05	451,415.58	757,879.70	32.23907642	-103.63296736	0.00	0.00	0.00
	5,000.00	6.00	280.14	4,983.57	1,352.37	-57.91	56.10	-313.83	451,416.25	757,875.92	32.23907835	-103.63297958	0.00	0.00	0.00
	5,100.00	6.00	280.14	5,083.02	1,451.82	-59.81	57.94	-324.12	451,418.09	757,865.63	32.23908359	-103.63301282	0.00	0.00	0.00
	5,200.00	6.00	280.14	5,182.47	1,551.27	-61.71	59.78	-334.41	451,419.93	757,855.34	32.23908883	-103.63304606	0.00	0.00	0.00
	5,300.00	6.00	280.14	5,281.92	1,650.72	-63.61	61.62	-344.70	451,421.77	757,845.05	32.23909407	-103.63307929	0.00	0.00	0.00
	5,400.00	6.00													

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
Avalon	9,100.00	0.00	280.14	9,073.38	5,442.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,200.00	0.00	280.14	9,173.38	5,542.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,300.00	0.00	280.14	9,273.38	5,642.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,309.62	0.00	280.14	9,283.00	5,651.80	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,400.00	0.00	280.14	9,373.38	5,742.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,500.00	0.00	280.14	9,473.38	5,842.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,600.00	0.00	280.14	9,573.38	5,942.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,700.00	0.00	280.14	9,673.38	6,042.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,800.00	0.00	280.14	9,773.38	6,142.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	9,900.00	0.00	280.14	9,873.38	6,242.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
1st BS SS	10,000.00	0.00	280.14	9,973.38	6,342.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,008.62	0.00	280.14	9,982.00	6,350.80	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,100.00	0.00	280.14	10,073.38	6,442.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,200.00	0.00	280.14	10,173.38	6,542.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,300.00	0.00	280.14	10,273.38	6,642.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,400.00	0.00	280.14	10,373.38	6,742.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,500.00	0.00	280.14	10,473.38	6,842.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,584.62	0.00	280.14	10,558.00	6,926.80	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,600.00	0.00	280.14	10,573.38	6,942.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,700.00	0.00	280.14	10,673.38	7,042.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
KOP, Build 10"/100ft	10,800.00	0.00	280.14	10,773.38	7,142.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,900.00	0.00	280.14	10,873.38	7,242.18	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	10,984.20	0.00	280.14	10,957.58	7,326.38	-94.16	91.22	-510.29	451,451.37	757,679.47	32.23917840	-103.63361418	0.00	0.00	0.00
	11,000.00	1.58	179.67	10,973.38	7,342.18	-93.94	91.01	-510.29	451,451.15	757,679.47	32.23917780	-103.63361418	10.00	10.00	0.00
	11,100.00	11.58	179.67	11,072.60	7,441.40	-82.50	79.56	-510.22	451,439.71	757,679.54	32.23914634	-103.63361421	10.00	10.00	0.00
	11,110.64	12.64	179.67	11,083.00	7,451.80	-80.27	77.33	-510.21	451,437.48	757,679.55	32.23914021	-103.63361421	10.00	10.00	0.00
	11,200.00	21.58	179.67	11,168.32	7,537.12	-54.00	51.06	-510.08	451,411.21	757,679.70	32.23906801	-103.63361428	10.00	10.00	0.00
	11,300.00	31.58	179.67	11,257.63	7,626.43	-9.31	63.37	-509.80	451,366.52	757,679.96	32.23894517	-103.63361439	10.00	10.00	0.00
	11,400.00	41.58	179.67	11,337.83	7,706.63	50.21	-53.14	-509.46	451,307.01	757,680.30	32.23878158	-103.63361453	10.00	10.00	0.00
	11,500.00	51.58	179.67	11,406.48	7,775.28	122.75	-125.68	-509.04	451,234.47	757,680.72	32.23858219	-103.63361471	10.00	10.00	0.00
3rd BS Carb	11,600.00	61.58	179.67	11,461.49	7,830.29	206.11	-209.04	-508.56	451,151.11	757,681.20	32.23835306	-103.63361491	10.00	10.00	0.00
	11,700.00	71.58	179.67	11,501.18	7,869.98	297.76	-300.69	-508.03	451,059.47	757,681.73	32.23810116	-103.63361514	10.00	10.00	0.00
	11,734.20	75.00	179.67	11,511.01	7,879.81	330.50	-333.43	-507.85	451,026.73	757,681.91	32.23801114	-103.63361522	10.00	10.00	0.00
	11,800.00	78.29	179.67	11,526.21	7,895.01	394.52	-397.45	-507.48	450,962.72	757,682.28	32.23783519	-103.63361538	5.00	5.00	0.00
	11,900.00	83.29	179.67	11,542.21	7,911.01	493.20	-496.13	-507.05	450,884.04	757,682.85	32.23756396	-103.63361562	5.00	5.00	0.00
	12,000.00	88.29	179.67	11,549.55	7,918.35	592.90	-595.82	-506.33	450,764.35	757,683.43	32.23728992	-103.63361586	5.00	5.00	0.00
	12,034.20	90.00	179.67	11,550.06	7,918.86	627.10	-630.02	-506.14	450,730.15	757,683.62	32.23719592	-103.63361595	5.00	5.00	0.00
	12,100.00	90.00	179.67	11,550.06	7,918.86	692.89	-695.82	-505.76	450,664.36	757,684.00	32.23701507	-103.63361611	0.00	0.00	0.00
	12,200.00	90.00	179.67	11,550.06	7,918.86	792.89	-795.82	-505.18	450,564.37	757,684.58	32.23674020	-103.63361635	0.00	0.00	0.00
	12,300.00	90.00	179.67	11,550.06	7,918.86	892.89	-895.81	-504.61	450,464.37	757,685.15	32.23646534	-103.63361660	0.00	0.00	0.00
Landing Point	12,400.00	90.00	179.67	11,550.06	7,918.86	992.89	-995.81	-504.03	450,364.38	757,685.73	32.23619048	-103.63361684	0.00	0.00	0.00
	12,500.00	90.00	179.67	11,550.06	7,918.86	1,092.89	-1,095.81	-503.46	450,264.38	757,686.30	32.23591561	-103.63361709	0.00	0.00	0.00
	12,600.00	90.00	179.67	11,550.06	7,918.86	1,192.89	-1,195.81	-502.88	450,164.39	757,686.88	32.23564075	-103.63361733	0.00	0.00	0.00
	12,700.00	90.00	179.67	11,550.06	7,918.86	1,292.89	-1,295.81	-502.30	450,064.39	757,687.46	32.23536588	-103.63361758	0.00	0.00	0.00
	12,800.00	90.00	179.67	11,550.06	7,918.86	1,392.89	-1,395.81	-501.73	449,964.40	757,688.03	32.23509102	-103.63361782	0.00	0.00	0.00
	12,900.00	90.00	179.67	11,550.06	7,918.86	1,492.89	-1,495.80	-501.15	449,864.40	757,688.61	32.23481615	-103.63361807	0.00	0.00	0.00
	13,000.00	90.00	179.67	11,550.05	7,918.85	1,592.89	-1,595.80	-500.58	449,764.41	757,689.18	32.23454129	-103.63361831	0.00	0.00	0.00
	13,100.00	90.00	179.67	11,550.05	7,918.85	1,692.89	-1,695.80	-500.00	449,664.42	757,689.76	32.23426642	-103.63361856	0.00	0.00	0.00
	13,200.00	90.00	179.67	11,550.05	7,918.85	1,792.89	-1,795.80	-499.43	449,564.42	757,690.33	32.23399156	-103.63361880	0.00	0.00	0.00
	13,300.00	90.00	179.67	11,550.05	7,918.85	1,892.89	-1,895.80	-498.85	449,464.43	757,690.90	32.23371669	-103.63361904	0.00	0.00	0.00
Pool MNM00001917 exit to NM	13,400.00	90.00	179.67	11,550.05	7,918.85	1,992.89	-1,995.80	-498.27	449,364.43	757,691.48	32.23344183	-103.63361929	0.00	0.00	0.00
	13,500.00	90.00	179.67	11,550.05	7,918.85	2,092.89	-2,095.79	-497.70	449,264.44	757,692.06	32.23316696	-103.63361953	0.00	0.00	0.00
	13,600.00	90.00	179.67	11,550.05	7,918.85	2,192.89	-2,195.79	-497.12	44						

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
	20,900.00	90.00	179.67	11,550.00	7,918.80	9,492.89	-9,495.67	-455.10	441,864.85	757,734.66	32.21282694	-103.63363760	0.00	0.00	0.00
	21,000.00	90.00	179.67	11,550.00	7,918.80	9,592.89	-9,595.67	-454.52	441,764.86	757,735.24	32.21255207	-103.63363784	0.00	0.00	0.00
	21,100.00	90.00	179.67	11,550.00	7,918.80	9,692.89	-9,695.67	-453.95	441,664.86	757,735.81	32.21227721	-103.63363808	0.00	0.00	0.00
	21,200.00	90.00	179.67	11,550.00	7,918.80	9,792.89	-9,795.67	-453.37	441,564.87	757,736.39	32.21200234	-103.63363833	0.00	0.00	0.00
	21,300.00	90.00	179.67	11,550.00	7,918.80	9,892.89	-9,895.66	-452.79	441,464.87	757,736.96	32.21172748	-103.63363857	0.00	0.00	0.00
	21,400.00	90.00	179.67	11,550.00	7,918.80	9,992.89	-9,995.66	-452.22	441,364.88	757,737.54	32.21145261	-103.63363881	0.00	0.00	0.00
	21,500.00	90.00	179.67	11,550.00	7,918.80	10,092.89	-10,095.66	-451.64	441,264.88	757,738.12	32.21117775	-103.63363906	0.00	0.00	0.00
	21,600.00	90.00	179.67	11,550.00	7,918.80	10,192.89	-10,195.66	-451.07	441,164.89	757,738.69	32.21090288	-103.63363930	0.00	0.00	0.00
Dos Equis 12-13 Federal Com 51	21,677.99	90.00	179.67	11,550.00	7,918.80	10,270.89	-10,273.65	-450.62	441,086.90	757,739.14	32.21068850	-103.63363949	0.00	0.00	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Code	Vendor / Tool	Borehole / Survey
	1	0.000	10,900.000	1/100.000	—	—		A001Mb_MWD		Dos Equis 12-13 Federal Com 51H / Coterra Dos E
	1	10,900.000	21,677.993	1/100.000	—	—		A008Mb_MWD+IFR1+MS		Dos Equis 12-13 Federal Com 51H / Coterra Dos E

A default hole/casing size was used for A/C calculation because the wellbore size is not defined correctly.

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,215.000	14.500	10.750	
	9.875	7.625	
	8.750	7.625	
21,677.993	6.750	5.000	



Coterra Dos Equis 12-13 Federal Com 51H Rev0 kFc 17Nov23 Anti-Collision Summary Report

Analysis Date-24hr Time: November 21, 2023 - 04:01 PM (UTC 0)
Client: COTERRA
Field: NM Lea County (NAD 83)
Structure: Coterra Dos Equis 12-13 Federal Com Pad 3
Slot: Dos Equis 12-13 Federal Com 51H
Well: Dos Equis 12-13 Federal Com 51H
Borehole: Dos Equis 12-13 Federal Com 51H
Scan MD Range: 0.00ft ~ 21677.99ft

Analysis Method: 3D Least Distance
Reference Trajectory: Coterra Dos Equis 12-13 Federal Com 51H Rev0 kFc 17Nov23 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: Absolute minima indicated.
Engine Version: 2023.1.0.1
Database 1 Project: Dos Equis 12-13 Federal Com 51H-COTERRA

Trajectory Error Model: ISCSWA0 3 - D 95 % Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria

Bounding box scan: minimum Ct-Ct separation <= 2000ft
Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

16 out of 17 are selected

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted in red: Sep-Factor <= 1.5

Result highlighted in boxed, red and bold: all local minima indicated.

Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23 (DefinitivePlan)

Fail Major

20.00	16.50	17.50	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
20.00	16.50	17.50	3.50	N/A	MAS = 5.03 (m)	23.00	23.00					WRP	
20.00	20.07	5.79	-0.06	1.49	OSF1.50	1230.00	1230.00		OSF<1.50			Enter Minor	
20.00	28.63	0.08	-8.63	1.00	OSF1.50	1800.00	1800.00					MinPt-CtCt	
20.02	28.78	0.00	-8.76	1.00	OSF1.50	1810.00	1810.00					Enter Major	
20.16	29.08	-0.06	-8.92	1.00	OSF1.50	1830.00	1830.00					MinPts	
20.28	29.23	-0.04	-8.95	1.00	OSF1.50	1840.00	1840.00		OSF>1.00			Exit Major	
32.58	32.63	10.00	-0.05	1.50	OSF1.50	2070.00	2069.60		OSF>1.50			Exit Minor	
35.55	33.07	12.66	2.47	1.62	OSF1.50	2100.00	2099.45					MinPts	
168.12	52.21	132.48	115.91	5.00	OSF1.50	3390.00	3382.39		OSF>5.00			Exit Alert	
444.38	135.07	353.50	309.31	5.00	OSF1.50	8990.00	8963.38		OSF<5.00			Enter Alert	
444.38	152.38	341.96	292.00	4.42	OSF1.50	10180.00	10153.38					MinPt-CtCt	
444.39	152.46	341.92	291.93	4.42	OSF1.50	10190.00	10163.38					MinPts	
444.57	152.56	342.03	292.01	4.42	OSF1.50	10210.00	10183.38					MinPt-SF	
494.67	150.85	393.27	343.81	4.98	OSF1.50	10580.00	10553.38		OSF>5.00			Exit Alert	
893.21	112.67	817.27	780.55	12.13	OSF1.50	12240.00	11550.06					MinPt-CtCt	
893.43	269.96	712.62	623.47	5.00	OSF1.50	18980.00	11550.02		OSF<5.00			Enter Alert	
893.51	352.72	657.53	540.80	3.82	OSF1.50	21677.99	11550.00					MinPts	

Coterra Dos Equis 12-13 Federal Com 52H Rev0 kFc 17Nov23 (DefinitivePlan)

Fail Minor

19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	23.00	23.00					WRP	
19.99	20.07	5.78	-0.07	1.49	OSF1.50	1230.00	1230.00		OSF<1.50			Enter Minor	
19.99	25.63	2.07	-5.64	1.13	OSF1.50	1600.00	1600.00					MinPt-CtCt	
20.14	26.07	1.93	-5.92	1.12	OSF1.50	1630.00	1630.00					MinPts	
20.26	26.22	1.95	-5.95	1.12	OSF1.50	1640.00	1640.00					MinPt-ADP	
28.90	28.93	8.78	-0.03	1.50	OSF1.50	1830.00	1830.00		OSF>1.50			Exit Minor	
252.57	146.47	154.10	106.11	2.61	OSF1.50	9540.00	9513.38					MinPts	
252.73	146.57	154.18	106.16	2.61	OSF1.50	9550.00	9523.38					MinPt-SF	
435.24	134.28	344.89	300.97	4.93	OSF1.50	10120.00	10093.38		OSF>5.00			Exit Alert	
1478.15	101.60	1409.59	1376.55	22.34	OSF1.50	12220.00	11550.06					MinPt-CtCt	
1478.23	101.79	1409.54	1376.44	22.29	OSF1.50	12240.00	11550.06					MinPt-EOU	
1478.33	101.89	1409.57	1376.44	22.27	OSF1.50	12250.00	11550.06					MinPt-ADP	
1458.75	198.89	1325.32	1259.86	11.12	OSF1.50	16770.00	11550.03					MinPt-CtCt	
1466.09	217.40	1320.35	1248.69	10.22	OSF1.50	17390.00	11550.03					MinPt-EOU	
1486.91	350.58	1252.42	1136.39	6.40	OSF1.50	21677.99	11550.00					MinPts	

Coterra Dos Equis 12-13 Federal Com 49H Rev0 kFc 17Nov23 (DefinitivePlan)

Warning Alert

39.99	32.49	37.49	7.50	N/A	MAS = 9.90 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
39.99	32.49	37.49	7.50	N/A	MAS = 9.90 (m)	23.00	23.00					WRP	
39.99	32.49	20.07	7.50	2.15	MAS = 9.90 (m)	1800.00	1800.00					MinPts	
40.03	32.49	20.01	7.53	2.14	MAS = 9.90 (m)	1810.00	1810.00					MinPt-EOU	
40.30	32.49	20.09	7.81	2.13	MAS = 9.90 (m)	1830.00	1830.00					MinPt-SF	
70.54	32.84	47.81	37.70	3.36	OSF1.50	2100.00	2099.45					MinPts	
113.00	35.65	88.39	77.34	5.00	OSF1.50	2300.00	2298.36		OSF>5.00			Exit Alert	
1103.42	146.93	1004.63	956.49	11.43	OSF1.50	9940.00	9913.38					MinPt-CtCt	
1103.47	147.11	1004.56	956.36	11.42	OSF1.50	9960.00	9933.38					MinPts	
1105.27	147.63	1006.02	957.65	11.40	OSF1.50	10030.00	10003.38					MinPt-SF	
1755.75	170.42	1641.30	1585.33	15.66	OSF1.50	15160.00	11550.04					MinPt-CtCt	
1756.46	172.67	1640.52	1583.80	15.46	OSF1.50	15260.00	11550.04					MinPt-EOU	
1757.60	174.04	1640.74	1583.55	15.35	OSF1.50	15320.00	11550.04					MinPt-ADP	
1755.66	357.20	1516.69	1398.46	7.41	OSF1.50	21670.00	11550.00					MinPt-CtCt	
1755.66	357.43	1516.54	1398.23	7.41	OSF1.50	21677.99	11550.00					MinPts	

Coterra Dos Equis 12-13 Federal Com 48H Rev0 kFc 17Nov23 (DefinitivePlan)

Warning Alert

59.99	32.81	57.49	27.19	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
59.99	32.81	57.49	27.19	81131.67	MAS = 10.00 (m)	23.00	23.00					WRP	
59.99	32.81	45.98	27.19	4.99	MAS = 10.00 (m)	1210.00	1210.00		OSF<5.00			Enter Alert	
59.99	32.81	45.18	27.19	4.67	MAS = 10.00 (m)	1290.00	1290.00					MinPts	
60.15	32.81	44.94	27.34	4.54	MAS = 10.00 (m)	1330.00	1330.00					MinPt-EOU	
62.45	32.81	46.38	29.65	4.42	MAS = 10.00 (m)	1420.00	1420.00					MinPt-SF	
80.83	32.81	62.60	48.02	4.98	MAS = 10.00 (m)	1650.00	1650.00		OSF>5.00			Exit Alert	
167.11	32.81	144.63	134.30	8.24	MAS = 10.00 (m)	2100.00	2099.45					MinPts	
1278.62	155.12	1174.37	1123.50	12.54	OSF1.50	10984.20	10957.58					MinPt-EOU	
1278.62	155.13	1174.37	1123.50	12.54	OSF1.50	10990.00	10963.38					MinPt-ADP	
1278.81	155.18	1174.52	1123.62	12.54	OSF1.50	11070.00	11043.06					MinPt-SF	
1319.82	366.93	1074.37	952.89	5.42	OSF1.50	21677.99	11550.00					MinPts	

30-025-40793 - DOS EQUIS 12 FEDERAL COM 4H - Gyro to 11189ft (DefinitiveSurvey)

Warning Alert

842.01	32.81	839.51	809.21	89129.74	MAS = 10.00 (m)	0.00	0.00					MinPts	
842.02	32.81	839.51	809.21	89129.74	MAS = 10.00 (m)	23.00	23.00					WRP	
387.01	106.62	315.10	280.39	5.54	OSF1.50	7009.86	6983.24					MinPt-CtCt	
387.23	107.21	314.92	280.02	5.51	OSF1.50	7050.00	7023.38					MinPt-EOU	
389.53	109.67	315.59	279.95	5.42	OSF1.50	7220.00	7193.38					MinPt-ADP	
410.53	124.96	326.39	285.57	5.00	OSF1.50	8270.00	8243.38		OSF<5.00			Enter Alert	
410.81	125.40	326.35	285.41	4.98	OSF1.50	8300.00	8273.38					MinPt-EOU	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
414.06	129.33	327.01	284.74	4.87		OSF1.50	8570.00	8543.38				MinPt-ADP	
426.87	139.85	332.80	287.01	4.63		OSF1.50	9290.00	9263.38				MinPt-ADP	
471.22	163.26	361.55	307.96	4.37		OSF1.50	10900.00	10873.38				MinPt-SF	
439.63	164.09	329.41	275.54	4.06		OSF1.50	11310.00	11266.11				MinPt-SF	
436.61	162.27	327.59	274.33	4.08		OSF1.50	11350.00	11299.03				MinPt-ADP	
436.19	161.74	327.53	274.45	4.09		OSF1.50	11360.00	11307.01				MinPt-EOU	
435.77	159.97	328.29	275.80	4.13		OSF1.50	11390.00	11330.30				MinPt-CtCt	
477.71	145.22	380.06	332.49	4.99		OSF1.50	11640.00	11479.28	OSF<5.00			Exit Alert	
10068.88	180.46	9947.74	9888.42	84.85		OSF1.50	21677.99	11550.00				TD	
30-025-40793 - DOS EQUIS `12' FEDERAL COM 4H - MWD to 15240ft (DefinitiveSurvey)													Warning Alert
842.01	32.81	839.51	809.21	#####		MAS = 10.00 (m)	0.00	0.00				MinPts	
842.02	32.81	839.51	809.21	89129.74		MAS = 10.00 (m)	23.00	23.00				WRP	
387.01	106.62	315.10	280.39	5.54		OSF1.50	7009.86	6983.24				MinPt-CtCt	
387.23	107.21	314.92	280.02	5.51		OSF1.50	7050.00	7023.38				MinPt-EOU	
389.53	109.67	315.58	279.86	5.42		OSF1.50	7220.00	7193.38				MinPt-ADP	
410.53	124.96	326.39	285.57	5.00		OSF1.50	8270.00	8243.38	OSF<5.00			Enter Alert	
410.81	125.40	326.38	285.41	4.98		OSF1.50	8300.00	8273.38				MinPt-EOU	
414.06	129.33	327.01	284.74	4.87		OSF1.50	8570.00	8543.38				MinPt-ADP	
426.87	139.85	332.80	287.01	4.63		OSF1.50	9290.00	9263.38				MinPt-ADP	
453.46	155.11	349.22	298.35	4.43		OSF1.50	10340.00	10313.38				MinPt-SF	
507.63	154.89	403.52	352.74	4.97		OSF1.50	10710.00	10683.38	OSF<5.00			Exit Alert	
714.53	120.83	633.14	593.69	9.03		OSF1.50	12210.00	11550.06				MinPt-CtCt	
714.57	120.96	633.10	593.61	9.02		OSF1.50	12220.00	11550.06				MinPt-EOU	
714.65	121.07	633.10	593.58	9.01		OSF1.50	12230.00	11550.06				MinPt-ADP	
697.70	126.96	612.23	570.74	8.38		OSF1.50	12940.00	11550.06				MinPt-CtCt	
699.21	130.87	611.13	568.34	8.14		OSF1.50	13170.00	11550.05				MinPt-EOU	
700.51	132.40	611.42	568.12	8.06		OSF1.50	13260.00	11550.05				MinPt-ADP	
703.11	135.14	612.18	567.97	7.92		OSF1.50	13410.00	11550.05				MinPt-ADP	
712.28	143.60	615.71	568.68	7.55		OSF1.50	13750.00	11550.05				MinPt-EOU	
700.80	155.62	596.22	545.18	6.84		OSF1.50	14340.00	11550.05				MinPt-CtCt	
683.82	185.50	559.32	498.32	5.58		OSF1.50	15620.00	11550.04				MinPt-CtCt	
688.87	198.64	555.61	490.23	5.25		OSF1.50	16040.00	11550.04				MinPt-EOU	
692.56	203.86	555.82	488.70	5.14		OSF1.50	16190.00	11550.03				MinPt-ADP	
694.06	204.58	556.84	489.48	5.13		OSF1.50	16220.00	11550.03				MinPt-SF	
5551.12	181.97	5428.97	5369.15	46.37		OSF1.50	21677.99	11550.00				TD	
30-025-45417 - DOS EQUIS 13 FEDERAL COM 010H - IFR1 to 15791ft - A (DefinitiveSurvey)													Warning Alert
5460.12	32.81	5457.58	5427.32	113519.10		MAS = 10.00 (m)	0.00	0.00				MinPts	
5460.14	32.81	5457.52	5427.33	46194.75		MAS = 10.00 (m)	23.00	23.00				WRP	
5462.97	32.81	5452.45	5430.17	680.65		MAS = 10.00 (m)	880.00	880.00				MinPts	
5452.95	32.81	5432.44	5420.15	302.50		MAS = 10.00 (m)	1880.00	1879.99				MinPts	
5453.13	32.81	5432.27	5420.32	296.91		MAS = 10.00 (m)	1930.00	1929.96				MinPt-EOU	
5467.59	38.93	5440.81	5428.66	225.01		OSF1.50	2540.00	2537.04				MinPt-ADP	
5475.85	43.29	5446.15	5432.55	201.25		OSF1.50	2830.00	2825.45				MinPts	
5485.88	47.96	5453.08	5437.92	180.93		OSF1.50	3130.00	3123.81				MinPts	
5496.65	60.75	5455.32	5435.90	141.47		OSF1.50	3940.00	3929.37				MinPt-EOU	
5497.30	61.53	5455.44	5435.77	139.63		OSF1.50	4000.00	3989.04				MinPt-ADP	
5507.62	67.73	5461.63	5439.89	126.59		OSF1.50	4420.00	4406.74				MinPts	
5515.49	74.96	5464.68	5440.53	114.12		OSF1.50	4860.00	4844.33				MinPt-EOU	
5417.56	142.68	5321.60	5274.87	57.94		OSF1.50	9360.00	9333.38				MinPt-CtCt	
5418.72	146.43	5320.27	5272.29	56.45		OSF1.50	9640.00	9613.38				MinPt-EOU	
5420.40	150.27	5319.39	5270.14	55.00		OSF1.50	9880.00	9853.38				MinPt-CtCt	
5417.34	155.76	5312.67	5261.58	53.00		OSF1.50	10260.00	10233.38				MinPt-CtCt	
5417.59	156.51	5312.42	5261.08	52.74		OSF1.50	10330.00	10303.38				MinPt-EOU	
5417.94	156.94	5312.48	5261.00	52.60		OSF1.50	10370.00	10343.38				MinPt-ADP	
5418.65	157.70	5312.69	5260.95	52.35		OSF1.50	10430.00	10403.38				MinPt-ADP	
5440.94	162.19	5331.98	5278.75	51.08		OSF1.50	10980.00	10953.38				MinPt-SF	
634.50	192.12	505.59	442.38	5.00		OSF1.50	17540.00	11550.03	OSF<5.00			Enter Alert	
617.74	209.19	477.45	408.55	4.47		OSF1.50	18340.00	11550.02				MinPt-CtCt	
618.38	210.94	476.92	407.43	4.43		OSF1.50	18410.00	11550.02				MinPt-EOU	
621.08	228.06	468.21	393.02	4.11		OSF1.50	19110.00	11550.02				MinPt-CtCt	
614.20	252.22	445.22	361.98	3.67		OSF1.50	20080.00	11550.01				MinPt-CtCt	
614.13	257.71	441.49	356.42	3.59		OSF1.50	20290.00	11550.01				MinPt-CtCt	
614.97	260.24	440.64	354.73	3.56		OSF1.50	20380.00	11550.01				MinPt-EOU	
611.81	279.97	424.33	331.84	3.29		OSF1.50	21121.35	11550.00				MinPt-CtCt	
614.77	295.73	416.79	319.05	3.13		OSF1.50	21677.99	11550.00				MinPts	
30-025-41182 - Bell Lake 24 Fed 1H - MWD to 15784ft - A (DefinitiveSurvey)													Warning Alert
15379.27	120.92	15297.83	15258.35	194.77		OSF1.50	0.00	0.00				Surface	
15362.80	121.01	15281.30	15241.80	194.43		OSF1.50	23.00	23.00				WRP	
13953.60	120.88	13872.18	13832.72	176.77		OSF1.50	2099.98	2099.44				MinPt-SF	
837.09	255.57	665.87	581.52	4.95		OSF1.50	21540.00	11550.00	OSF<5.00			Enter Alert	
750.81	273.02	567.96	477.75	4.15		OSF1.50	21677.99	11550.00				MinPts	
30-025-41304 - Bell Lake 24 Fed 4H - MWD to 15872ft - A (DefinitiveSurvey)													Warning Alert
15429.97	131.19	15341.68	15298.78	179.82		OSF1.50	0.00	0.00				Surface	
15413.42	131.28	15325.07	15282.14	179.50		OSF1.50	23.00	23.00				WRP	
13997.46	132.35	13908.40	13865.11	161.67		OSF1.50	2099.98	2099.44				MinPt-SF	
1023.14	310.32	815.43	712.83	4.97		OSF1.50	21660.00	11550.00	OSF<5.00			Enter Alert	
1015.27	312.77	805.93	702.50	4.90		OSF1.50	21677.99	11550.00				MinPts	
30-025-46835 - Bell Lake 24 Fed 15H - MWD to 17337ft - A (DefinitiveSurvey)													Warning Alert
15460.87	32.81	15458.37	15428.07	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
15460.85	32.81	15458.35	15428.04	6935287.03		MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
15460.85	32.81	15458.34	15428.04	7311583.88		MAS = 10.00 (m)	23.00	23.00				WRP	
14630.23	140.36	14535.83	14489.87	159.15		OSF1.50	2099.98	2099.44				MinPt-SF	
1050.66	317.21	838.35	733.45	5.00		OSF1.50	21490.00	11550.00	OSF<5.00			Enter Alert	
1015.44	324.49	798.28	690.95	4.72		OSF1.50	21677.99	11550.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 4TH Corrected MWD to 22528ft (DefinitiveSurvey)													Pass
116.60	32.81	114.10	83.79	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
116.60	32.81	114.10	83.79	111719.13		MAS = 10.00 (m)	23.00	23.00				WRP	
115.866													

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Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	5428.50	60.70	5387.52	5367.81	137.61	OSF1.50	5420.00	5401.27				MinPt-CtCt	
	5428.81	61.63	5387.21	5367.18	135.49	OSF1.50	5500.00	5480.83				MinPt-EOU	
	5429.10	61.98	5387.27	5367.12	134.71	OSF1.50	5530.00	5510.66				MinPt-ADP	
	5510.63	97.59	5445.06	5413.04	86.04	OSF1.50	8820.00	8793.38				MinPt-CtCt	
	5510.20	101.33	5442.13	5408.87	82.81	OSF1.50	9180.00	9153.38				MinPt-CtCt	
	5508.89	107.54	5436.68	5401.35	77.94	OSF1.50	9770.00	9743.38				MinPt-CtCt	
	5509.11	108.24	5436.44	5400.87	77.43	OSF1.50	9840.00	9813.38				MinPt-EOU	
	5509.44	108.64	5436.50	5400.80	77.14	OSF1.50	9880.00	9853.38				MinPt-ADP	
	5538.35	120.21	5457.41	5418.14	70.49	OSF1.50	10984.20	10957.58				MinPt-SF	
	1114.33	187.85	986.96	927.08	9.24	OSF1.50	17630.00	11550.03				MinPt-CtCt	
	1115.68	189.73	986.44	925.95	9.15	OSF1.50	17720.00	11550.02				MinPt-EOU	
	1117.22	191.59	986.74	925.64	9.07	OSF1.50	17810.00	11550.02				MinPt-ADP	
	1119.11	195.82	985.83	923.29	8.88	OSF1.50	18020.00	11550.02				MinPt-CtCt	
	1091.91	234.22	933.05	857.68	7.19	OSF1.50	19705.95	11550.01				MinPt-CtCt	
	1092.97	237.09	932.19	855.88	7.11	OSF1.50	19820.00	11550.01				MinPt-EOU	
	1094.64	239.08	932.53	855.56	7.06	OSF1.50	19900.00	11550.01				MinPt-ADP	
	1094.57	284.56	902.16	810.02	5.90	OSF1.50	21677.99	11550.00				MinPts	
30-025-46871 - Bell Lake 24 Fed 18H - MWD to 17350ft - A (DefinitiveSurvey)													Pass
	15459.45	32.81	15456.95	15426.64	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	15459.43	32.81	15456.92	15426.62	5404355.60	MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
	15459.42	32.81	15456.92	15426.61	6418745.28	MAS = 10.00 (m)	23.00	23.00				WRP	
	15458.71	32.81	15452.31	15425.90	3968.51	MAS = 10.00 (m)	490.00	490.00				MinPts	
	15458.69	32.81	15450.80	15425.88	2868.06	MAS = 10.00 (m)	640.00	640.00				MinPts	
	14598.03	141.51	14502.86	14456.52	157.50	OSF1.50	2099.98	2099.44				MinPt-SF	
	1419.83	357.01	1180.99	1062.82	6.00	OSF1.50	21677.99	11550.00				MinPts	
30-025-08146 - FEDERAL-HANAGAN 3 - INC Only to 5049ft (DefinitiveSurvey)													Pass
	1961.17	32.81	1959.36	1928.36	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1961.06	32.81	1959.23	1928.25	117970.01	MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
	1960.99	32.81	1959.18	1928.18	241785.53	MAS = 10.00 (m)	23.00	23.00				WRP	
	1902.97	322.15	1687.60	1580.82	8.90	OSF1.50	5110.00	5092.96				MinPts	
	6484.00	97.95	6418.10	6386.06	101.14	OSF1.50	13180.00	11550.05				MinPt-CtCt	
	6484.20	98.54	6417.91	6385.67	100.52	OSF1.50	13230.00	11550.05				MinPt-EOU	
	6484.64	99.06	6418.00	6385.58	99.99	OSF1.50	13270.00	11550.05				MinPt-ADP	
	8733.82	276.85	8548.65	8456.96	47.62	OSF1.50	19030.00	11550.02				MinPt-SF	
	10690.17	319.56	10476.52	10370.61	50.46	OSF1.50	21677.99	11550.00				TD	

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

CONDITIONS

Action 321100

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 321100
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	5/3/2024