

Well Name: EMERALD FEDERAL COM	Well Location: T19S / R33E / SEC 6 / SWSE / 32.68305 / -103.697928	County or Parish/State: LEA / NM
Well Number: 515H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM077002	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002553574	Operator: AVANT OPERATING LLC	

Notice of Intent

Sundry ID: 2861093

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 07/07/2025

Time Sundry Submitted: 06:37

Date proposed operation will begin: 07/01/2025

Procedure Description: Coterra Energy Operating Co requests the following changes to the Emerald Fed Com 515H (API 30-025-53574): Name change from Emerald Fed Com 515H to Emerald Fed Com 505H SHL change from 350 FSL/1280 FWL to 300 FSL/1310 FEL BHL change from 100 FNL/1320 FWL to 100 FNL/2008FEL TVD change from 9700 to 9610 Please see attached for updated C102, drilling and directional plans.

NOI Attachments

Procedure Description

Emerald_505H_Sundry_Submittal_11032025_20251103124306.pdf

Well Name: EMERALD FEDERAL
COM

Well Location: T19S / R33E / SEC 6 /
SWSE / 32.68305 / -103.697928

County or Parish/State: LEA /
NM

Well Number: 515H

Type of Well: OIL WELL

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Lease Number: NMNM077002

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002553574

Operator: AVANT OPERATING LLC

Conditions of Approval

Additional

Emerald_Federal_Com_505H_Dr_COA_20251210075119.pdf

Sundry_ID_2861093_20251210075119.pdf

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: NOV 03, 2025 06:38 AM

Name: AVANT OPERATING LLC

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: 12/10/2025

Signature: Chris Walls

Form 3160-5
(October 2024)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**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.FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

SUBMIT IN TRIPPLICATE - Other instructions on page 2			7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> 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 Exploratory Area
4. Location of Well (Footage, Sec., T.R.M., or Survey Description)			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				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomplete 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 performed 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 determined 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: SWSE / 350 FSL / 1260 FEL / TWSP: 19S / RANGE: 33E / SECTION: 6 / LAT: 32.68305 / LONG: -103.697928 (TVD: 0 feet, MD: 0 feet)
PPP: SENE / 0 FSL / 1320 FWL / TWSP: 18S / RANGE: 33E / SECTION: 31 / LAT: 32.7046 / LONG: -103.698 (TVD: 9700 feet, MD: 18200 feet)
PPP: SESE / 100 FSL / 1320 FWL / TWSP: 19S / RANGE: 33E / SECTION: 6 / LAT: 32.682363 / LONG: -103.698 (TVD: 9700 feet, MD: 10086 feet)
BHL: NWNE / 100 FNL / 1254 FWL / TWSP: 18S / RANGE: 33E / SECTION: 31 / LAT: 32.71088 / LONG: -103.69808 (TVD: 9700 feet, MD: 20463 feet)

CONFIDENTIAL

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Avant Operating LLC	<input type="button" value="▼"/>
LOCATION:	Section 6, T.19 S., R.33 E., NMPM	<input type="button" value="▼"/>
COUNTY:	Lea County, New Mexico	<input type="button" value="▼"/>

WELL NAME & NO.:	Emerald Federal Com 505H
ATS/API ID:	3002553574
APD ID:	10400084367
Sundry ID:	2861093

COA

H2S	Yes <input type="button" value="▼"/>		
Potash	None <input type="button" value="▼"/>	None <input type="button" value="▼"/>	
Cave/Karst Potential	Low <input type="button" value="▼"/>		
Cave/Karst Potential	<input type="checkbox"/> Critical		
Variance	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Other
Wellhead	Conventional and Multibowl <input type="button" value="▼"/>		
Other	<input type="checkbox"/> 4 String <input type="checkbox"/> 5 String	Capitan Reef <input type="button" value="▼"/> None <input type="button" value="▼"/>	<input type="checkbox"/> WIPP
Other	Pilot Hole <input type="button" value="▼"/> None <input type="button" value="▼"/>	<input type="checkbox"/> Open Annulus	
Cementing	Contingency Squeeze <input type="button" value="▼"/> None <input type="button" value="▼"/>	Echo-Meter <input type="button" value="▼"/> None <input type="button" value="▼"/>	Primary Cement Squeeze <input type="button" value="▼"/> None <input type="button" value="▼"/>
Special Requirements	<input type="checkbox"/> Water Disposal/Injection	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements	<input type="checkbox"/> Batch Sundry	Waste Prevention <input type="button" value="▼"/> None <input type="button" value="▼"/>	
Special Requirements Variance	<input type="checkbox"/> Break Testing	<input type="checkbox"/> Offline Cementing	<input type="checkbox"/> Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** 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

1. The **13-3/8** inch surface casing shall be set at approximately **1500 feet** (a minimum of **25 feet (Lea County)**) into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

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

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

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.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 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 **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 43 CFR 3172.6(b)(9) 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 part 3170 Subpart 3171**
- 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.

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)

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

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.

A. CASING

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-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 43 CFR 3172.6(b)(9) 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- 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.

Long Vo (LVO) 12/3/2025

Emerald Federal Com 505H

13 3/8 surface csg in a			17 1/2 inch hole.	Design Factors				Surface			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j 55	stc	6.29	1.74	0.86	1,500	4	1.46	3.54	81,750
"B"			stc			0					0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,256											
Comparison of Proposed to Minimum Required Cement Volumes											
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg
17 1/2	0.6946	986	1617	1042	55	8.33	1872	2M			1.56

Burst Frac Gradient(s) for Segment(s) A, B = b All > 0.70, OK.

Site plan (page 100) Sfc Csg Test psig: 0.00, 1.00, 2.00 not found

9 5/8 casing inside the			13 3/8	Design Factors				Int 1			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	j 55	btc	2.65	0.81	0.83	5,942	1	1.50	1.37	237,680
"B"					0						0
w/8.4#/g mud, 30min Sfc Csg Test psig: 172											
The cement volume(s) are intended to achieve a top of 0 ft from surface or a											
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg
12 1/4	0.3132	1436	2542	1935	31	10.30	2628	3M			0.81
sum of sx											
# CuFt											
1436 2542											
t D V Tool(s):											
t by stage % :											
#VALUE! #VALUE!											
Class 'H' tail cmt yld > 1.20											
Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.66, b, c, d <0.70 a Problem!!											

Tail cmt			5 1/2 casing inside the	9 5/8	Design Factors				Prod 1			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	17.00	p 110	btc	3.34	1.58	2.24	19,975	2	4.05	2.85	339,575	
"B"					0						0	
"C"					0						0	
"D"					0						0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,114												
The cement volume(s) are intended to achieve a top of 5742 ft from surface or a												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			339,575	
8 3/4	0.2526	3488	5372	3597	49	9.50	200				overlap.	
Class 'C' tail cmt yld > 1.35												

#N/A			5 1/2	Design Factors				<Choose Casing>			
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:											
Cmt vol calc below includes this csg, TOC intended											
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	ft from surface or a	#N/A				overlap.
0	#N/A	#N/A	#N/A	0	#N/A	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg
#N/A											
Capitan Reef est top XXXX.											

C-102		State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024	
Submit Electronically Via OCD Permitting				Submittal Type:	<input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION

API Number 30-025-53574	Pool Code 13160	Pool Name Corbin South; Bone Spring		
Property Code 338306	Property Name EMERALD FEDERAL COM			Well Number 505H
OGRID No. 215099	Operator Name COTERRA ENERGY OPERATING CO.			Ground Level Elevation 3683.9
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		

Surface Location

UL P	Section 6	Township 19 S	Range 33 E	Lot	Ft. from N/S 300 FSL	Ft. from E/W 1310 FEL	Latitude 32.6829133° N	Longitude 103.6980259° W	County LEA
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Bottom Hole Location

UL B	Section 31	Township 18 S	Range 33 E	Lot	Ft. from N/S 100 FNL	Ft. from E/W 2008 FEL	Latitude 32.7108815° N	Longitude 103.7003170° W	County LEA
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Dedicated Acres 1302.98 Ac.	Infill or Defining Well Infill	Defining Well API 30-025-54190	Overlapping Spacing Unit (Y/N) N	Consolidation Code C, F
Order Numbers. R-23267-A		Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Kick Off Point (KOP)

UL O	Section 6	Township 19 S	Range 33 E	Lot	Ft. from N/S 100 FSL	Ft. from E/W 2008 FEL	Latitude 32.6823655° N	Longitude 103.7002950° W	County LEA
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First Take Point (FTP)

UL O	Section 6	Township 19 S	Range 33 E	Lot	Ft. from N/S 100 FSL	Ft. from E/W 2008 FEL	Latitude 32.6823655° N	Longitude 103.7002950° W	County LEA
----------------	---------------------	-------------------------	----------------------	-----	--------------------------------	---------------------------------	----------------------------------	------------------------------------	----------------------

Last Take Point (LTP)

UL B	Section 31	Township 18 S	Range 33 E	Lot	Ft. from N/S 100 FNL	Ft. from E/W 2008 FEL	Latitude 32.7108815° N	Longitude 103.7003170° W	County LEA
----------------	----------------------	-------------------------	----------------------	-----	--------------------------------	---------------------------------	----------------------------------	------------------------------------	----------------------

Unitized Area or Area of Uniform Interest NA	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3683.9
--	--	--

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 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.

Shelly Bowen

11/3/2025

Signature

Date

Shelly Bowen

Printed Name

shelly.bowen@coterra.com

E-mail Address

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. I further certify that United Field Services, Inc., located at 21 Road 3520 in Flora Vista, New Mexico is the company providing this information.

 Signature and Seal of Professional Surveyor	
14831	9/25/25
Certificate Number	Date of Field Survey
Date of Certification	

Note: 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.

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 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.

United Field Services, Inc., located at 21 Road 3520, Flora Vista, New Mexico, is the company providing this plat.

Plat Revised: 9/30/25

LEGEND:

- = SURFACE LOCATION (SHL)
- = KICK OFF POINT (KOP)
- △ = FTP/PPP-1
- ◊ = LANDING POINT (LP)
- = LTP/BHL
- ◐ = FOUND MONUMENT

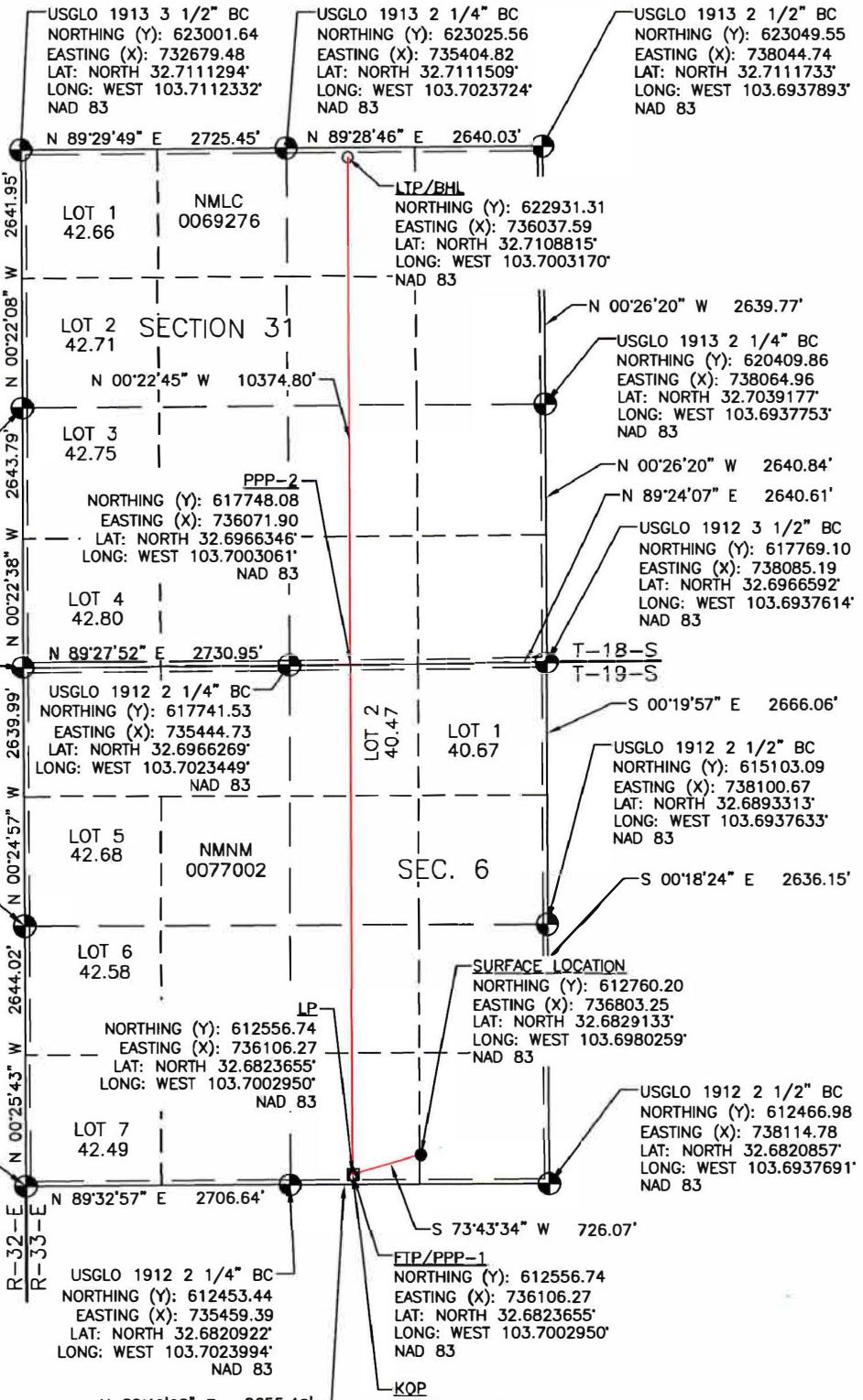
COTERRA ENERGY OPERATING CO.			
EMERALD FEDERAL COM 505H			
FOOTAGES		SEC	
SHL	300' FSL	1310' FEL	6
KOP	100' FSL	2008' FEL	6
FTP/PPP-1	100' FSL	2008' FEL	6
LP	100' FSL	2008' FEL	6
PPP-2	0' FSL	2013' FEL	31
LTP/BHL	100' FNL	2008' FEL	31

USGLO 1913 2 1/4" BC
NORTHING (Y): 620359.74
EASTING (X): 732696.49
LAT: NORTH 32.7038678'
LONG: WEST 103.7112282'
NAD 83

1/2" RB
NORTHING (Y): 617716.01
EASTING (X): 732713.90
LAT: NORTH 32.6966011'
LONG: WEST 103.7112221'
NAD 83

USGLO 1912 2 1/4" BC
NORTHING (Y): 615076.09
EASTING (X): 732733.06
LAT: NORTH 32.6893449'
LONG: WEST 103.7112101'
NAD 83

USGLO 1912 3 1/2" BC
NORTHING (Y): 612432.14
EASTING (X): 732752.84
LAT: NORTH 32.6820775'
LONG: WEST 103.7111962'
NAD 83



NOTE: BEARINGS AND DISTANCES
SHOWN ARE REFERENCED TO THE
NEW MEXICO COORDINATE SYSTEM,
EAST ZONE, NAD 83, UNLESS
OTHERWISE NOTED

1. Geological Formations

TVD of target 9,610
MD at TD 19,975

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1509	N/A	
Top of Salt	1795	N/A	
Base of Salt/Lamar	5917	N/A	
Top of Delaware Sands/Bell Canyon	6029	N/A	
Cherry Canyon	6196	N/A	
Brushy Canyon	6645	N/A	
Basal Brushy Canyon	7219	N/A	
Bone Spring Lime	7570	N/A	
Leonard/Avalon Sand	7653	N/A	
Avalon Shale	7855	N/A	
1st Bone Spring Sand	8775	N/A	
2nd Bone Spring Sand	9200	Hydrocarbons	
2nd Bone Spring Sand - Target	9806	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	1605	1605	13-3/8"	54.50	J-55	ST&C	1.63	3.94	5.88
12 1/4	0	5942	5942	9-5/8"	40.00	J-55	BT&C	1.50	1.24	2.65
8 3/4	0	9269								
8 3/4	9239	19975	9610	5-1/2"	17.00	P-110	BT&C	1.58	2.24	94.19
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

	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 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	# Skns	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	778	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	208	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	1144	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	292	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	358	10.30	3.64	22.18		Lead: Tuned Light + LCM
	3130	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	51
Production	5742	25

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

4. Pressure Control Equipment

<input checked="" type="checkbox"/>	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	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram		
			Other		
8 3/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

<input checked="" type="checkbox"/>	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.	
<input checked="" type="checkbox"/>	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.	
<input type="checkbox"/>	N Are anchors required by manufacturer?	

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1605'	Fresh Water	7.83 - 8.33	28	N/C
1605' to 5942'	Brine Water	9.80 - 10.30	30-32	N/C
5942' to 19975'	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
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	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.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	4747 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**

1. The multi-bowl wellhead will be installed by a vendor representative. A copy of the installation instructions has been sent to the BLM field office.
2. A packoff will be installed after running and cementing the production casing. This packoff will be tested to 10K psi.

BOPE Additional Information & Testing

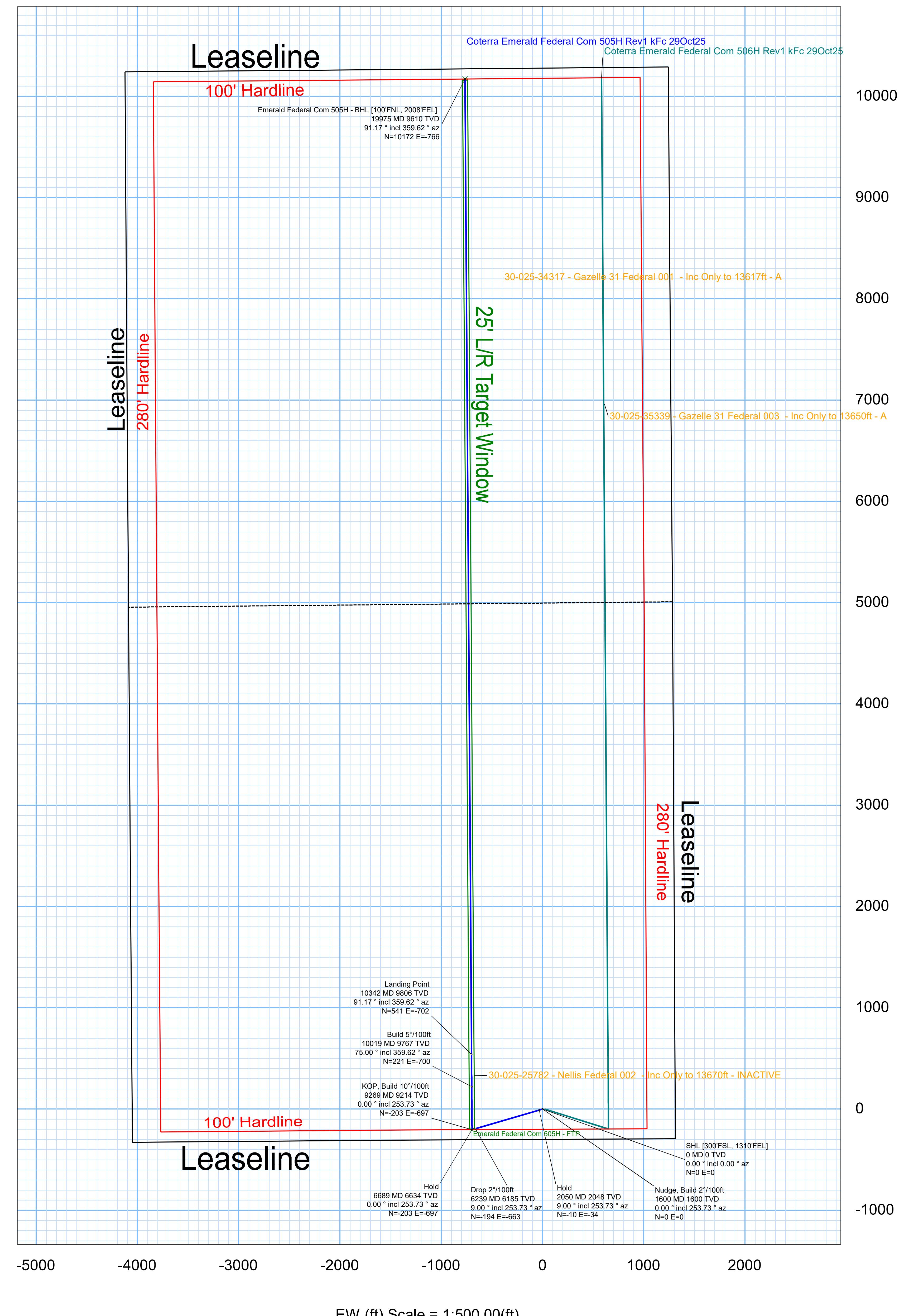
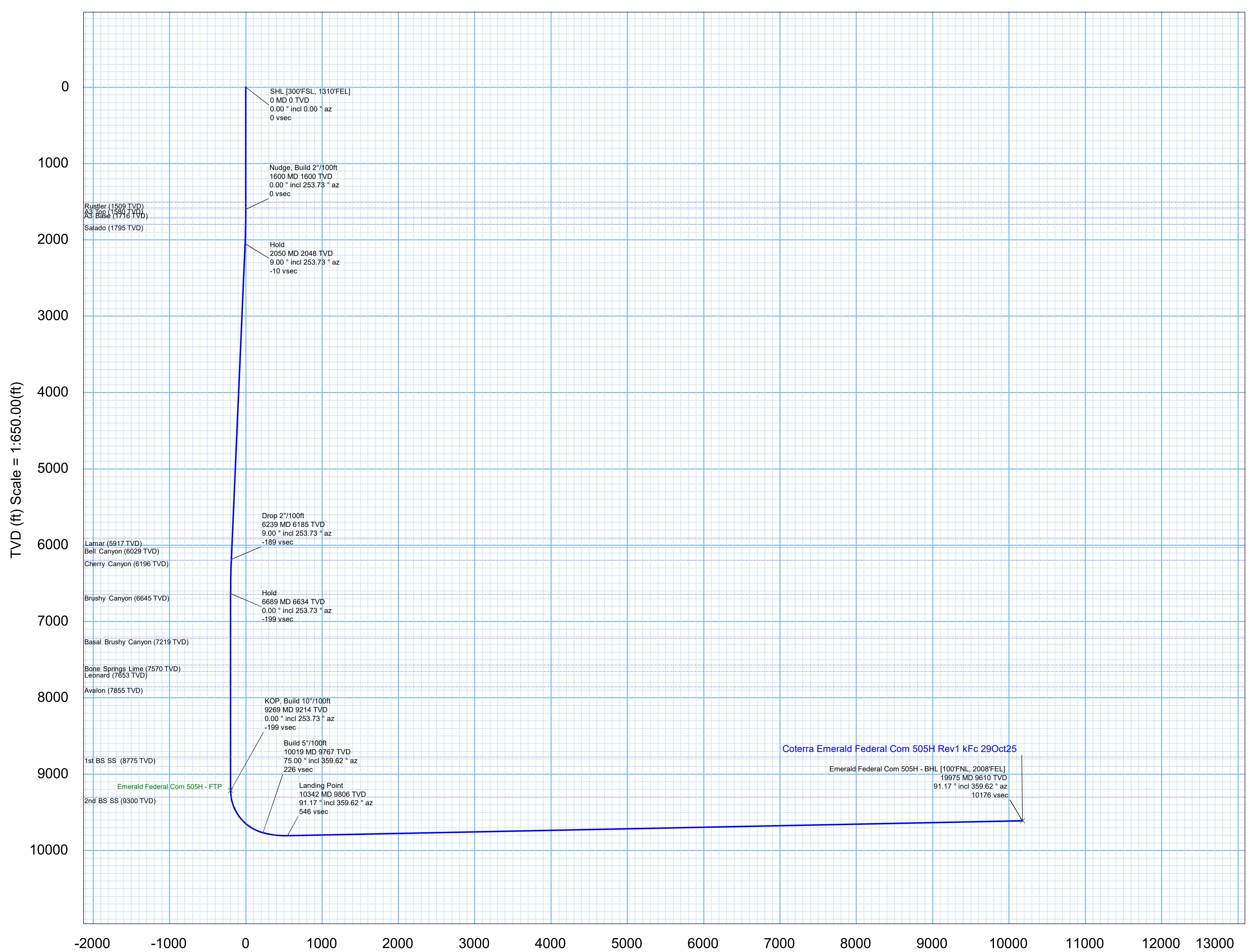
1. After running the first string of casing, a 10M BOP/BOPE system with 10M annular will be installed. BOPs will be tested according to Onshore Order #2. BOPE will be tested to full rated pressure (10K for all BOPE). For the low test, the system will be tested to 250 psi.
2. All BOP equipment will be tested utilizing a conventional test plug.
3. A remote kill line is included in the BOPE system
4. All casing strings will be tested per Onshore Order #2, to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of casing burst.
5. If well conditions dictate, conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Additional Well Control Notes

1. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

released to Imaging: 12/24/2025 9:54:05 AM

CORPORATE GOVERNANCE




Coterra Emerald Federal Com 505H Rev1 kFc 29Oct25 Proposal Geodetic Report
Def Plan

Report Date: October 29, 2025 - 08:04 PM (UTC 0)
Client: Coterra
Fwd: NM Los County (NAD 83)
Structure / Slot: Coterra - Emerald Federal Com Pad (east) / Emerald Federal Com 505H
Well: Emerald Federal Com 505H
Borehole: Emerald Federal Com 505H
UBHI / API#: Unknown / Unknown
Survey Name: Coterra Emerald Federal Com 505H Rev1 kFc 29Oct25
Survey Date: October 29, 2025
Total Grid PDI / ERD Ratio: 103.91 / 1.132 (1.413 / 1.382 / 1.132)
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: 32°40'58.48775"N, 103°41'52.89321"W
Location Grid NIE YX: N182760.200 ftUS, E 736803.250 ftUS
CRS Grid Convergence Angle: 0.343°
Grid Scale Factor: 0.99995284(Applied)
Version / Patch: 2025.1.0.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Averaging: 300.000 ft (GRID North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKG
TVD Reference Elevation: 3706.900 ft above MSL
Seabed / Ground Elevation: 3683.900 ft above MSL
Magnetic Declination: 6.231°
Total Gravity Field Strength: 998.5099mgn (9.80665 Based)
Gravity Model: GARM
Total Gravity Field Strength: 998.5099mgn (9.80665 nT)
Magnetic Dip Angle: 69.415°
Declination Date: October 29, 2025
Magnetic Declination Model: HDGM 2025
North Reference: Grid North
Grid Convergence Used: 0.343°
Total Corr Mag North->Grid North: 5.888°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (*100ft)	BR (*100ft)	TR (*100ft)
SHL [300'FSL, 1310'FEL]	0.00	0.00	0.00	0.00	-3,706.90	0.00	0.00	0.00	612,760.20	736,803.25	32,682,913.26	-103,698,025.89	0.00	0.00	0.00
Nudge, Build 2'/100ft	1,600.00	0.00	253.73	1,600.00	-2,106.90	0.00	0.00	0.00	612,760.20	736,803.25	32,682,913.26	-103,698,025.89	2.00	2.00	0.00
Hold	2,050.17	9.00	253.73	2,050.32	-1,059.58	-9.07	-33.88	-9.07	612,750.31	736,769.37	32,682,886.00	-103,698,134.00	0.00	0.00	0.00
Drop 2'/100ft	6,238.90	9.00	253.73	6,185.44	2,454.46	-99.19	-193.58	-99.19	612,750.31	736,140.15	32,682,392.12	-103,700,447.5	2.00	2.00	0.00
Hold	6,689.07	0.00	253.73	6,633.78	2,398.86	-198.84	-203.47	-198.84	612,556.74	736,025.56	32,682,395.69	-103,700,255.68	2.00	2.00	0.00
KOP, Build 10'/100ft	9,269.07	0.00	253.73	9,213.76	5,506.86	-198.84	-203.47	-198.84	612,556.74	736,106.27	32,682,365.50	-103,700,255.68	0.00	0.00	0.00
Build 5'/100ft	10,019.07	75.00	359.62	9,767.19	6,060.29	225.82	221.19	-699.83	612,981.38	736,103.45	32,683,532.67	-103,700,295.98	10.00	10.00	0.00
Landing Point	10,342.39	91.17	359.62	9,806.00	6,099.10	545.72	541.08	-701.95	613,301.25	736,101.33	32,684,411.90	-103,700,296.66	5.00	5.00	0.00
Emerald Federal Com 505H - BHL [100'FNL, 2008'FEL]	19,975.12	91.17	359.62	9,610.00	5,903.10	10,176.46	10,171.61	-765.70	622,931.31	736,037.59	32,710,881.46	-103,700,317.03	0.00	0.00	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 4 *** 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	9,200.000	1/100,000	.5 - 12.25 - 8.75 3.375 - 9.625 - 7			A001Mb_MWD		Emerald Federal Com 505H / Coterra Emerald Fed
	1	9,200.000	19,975.124	1/100,000	8.75 - 6	7 - 4.5		A008Mb_MWD+IFR1+MS		Emerald Federal Com 505H / Coterra Emerald Fed

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,300.000	17.500	13.375	
4,937.425	12.250	9.625	
9,568.795	8.750	7.000	
19,975.124	6.000	4.500	



Coterra Emerald Federal Com 505H Rev1 kFc 29Oct25 Proposal Geodetic Report

Def Plan

Report Date:	October 29, 2025 - 08:04 PM (UTC 0)	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	COTERRA	Vertical Section Asimuth:	359.620 °(GRID North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Coterra - Emerald Federal Com Pad (east) / Emerald Federal Com 505H	TVD Reference Datum:	RKB
Well:	Emerald Federal Com 505H	TVD Reference Elevation:	3706.900 ft above MSL
Boresite:	Emerald Federal Com 505H	Seabed / Ground Elevation:	3683.900 ft above MSL
UBHI / API#:	Unknown / Unknown	Magnetic Declination:	6.231°
Survey Name:	Coterra Emerald Federal Com 505H Rev1 kFc 29Oct25	Total Gravity Field Strength:	998.5099mgn (9.80665 Based)
Survey Date:	October 29, 2025	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	109.173 / 11101.413 ft / 6.392 / 1.132	Total Magnetic Field Strength:	47454.153 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	60.415°
Location Lat / Long:	32°40'58.48775"N, 103°41'52.89321"W	Declination Date:	October 29, 2025
Location Grid N/E Y/Z:	N 612760.200 NUS, E 736803.250 ftUS	Magnetic Declination Model:	HDGM 2025
CRS Grid Convergence Angle:	0.343°	North Reference:	Grid North
Grid Scale Factor:	0.99995284(Applied)	Grid Convergence Used:	0.343°
Version / Patch:	2025.1.0	Total Corr Mag North->Grid North:	5.888°
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS ('/100ft)	BR ('/100ft)	TR ('/100ft)
SHL [300'FSL, 1310'FEL]	0.00	0.00	0.00	0.00	-3,706.90	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	100.00	0.00	253.73	100.00	-3,608.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	200.00	0.00	253.73	200.00	-3,508.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	300.00	0.00	253.73	300.00	-3,408.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	400.00	0.00	253.73	400.00	-3,308.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	500.00	0.00	253.73	500.00	-3,208.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	600.00	0.00	253.73	600.00	-3,108.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	700.00	0.00	253.73	700.00	-3,008.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	800.00	0.00	253.73	800.00	-2,908.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	900.00	0.00	253.73	900.00	-2,808.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,000.00	0.00	253.73	1,000.00	-2,708.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,100.00	0.00	253.73	1,100.00	-2,608.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,200.00	0.00	253.73	1,200.00	-2,508.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,300.00	0.00	253.73	1,300.00	-2,408.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,400.00	0.00	253.73	1,400.00	-2,308.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,500.00	0.00	253.73	1,500.00	-2,208.00	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
Rustler□	1,509.00	0.00	253.73	1,509.00	-2,107.90	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
A3 Top□	1,580.00	0.00	253.73	1,580.00	-2,126.90	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
Nudge, Build 2°/100ft	1,600.00	0.00	253.73	1,600.00	-2,106.90	0.00	0.00	0.00	612,760.20	736,803.25	32.68291326	-103.69802589	0.00	0.00	0.00
	1,700.00	2.00	253.73	1,699.98	-2,006.92	-0.48	-0.49	-1.68	612,759.71	736,803.25	32.68291326	-103.69802589	2.00	2.00	0.00
A3 Base□	1,716.03	2.32	253.73	1,716.00	-1,990.90	-0.64	-0.66	-2.26	612,759.54	736,803.25	32.68291326	-103.69802589	2.32	2.32	0.00
Salado□	1,795.15	3.90	253.73	1,795.00	-1,911.90	-1.82	-1.86	-6.38	612,758.34	736,803.25	32.68291326	-103.69802589	3.90	3.90	0.00
	1,800.00	4.00	253.73	1,799.84	-1,907.06	-1.91	-1.96	-6.70	612,758.24	736,803.25	32.68291326	-103.69802589	4.00	4.00	0.00
	1,900.00	6.00	253.73	1,899.45	-1,807.45	-4.30	-4.40	-15.06	612,758.80	736,803.25	32.68291326	-103.69802589	6.00	6.00	0.00
	2,000.00	8.00	253.73	1,998.70	-1,708.20	-7.63	-7.81	-26.76	612,759.29	736,803.25	32.68291326	-103.69802589	8.00	8.00	0.00
Hold	2,050.17	9.00	253.73	2,048.32	-1,658.58	-9.67	-9.89	-33.88	612,750.31	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,100.00	9.00	253.73	2,097.54	-1,609.36	-11.80	-12.08	-41.37	612,748.12	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,200.00	9.00	253.73	2,196.30	-1,510.60	-16.09	-16.46	-56.39	612,743.74	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,300.00	9.00	253.73	2,295.07	-1,411.83	-20.37	-20.85	-71.41	612,739.55	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,400.00	9.00	253.73	2,393.84	-1,313.06	-24.66	-25.23	-86.44	612,734.97	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,500.00	9.00	253.73	2,492.61	-1,214.29	-28.94	-29.62	-101.46	612,730.58	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,600.00	9.00	253.73	2,591.38	-1,115.52	-33.23	-34.00	-116.48	612,726.20	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,700.00	9.00	253.73	2,690.14	-1,016.76	-37.51	-38.39	-131.50	612,721.81	736,803.25	32.68291326	-103.69802589	9.00	9.00	0.00
	2,800.00	9.00	253.73	2,788.91	-917.99	-41.80	-42.77	-146.53	612,717.43	736,803.25	32.68286664	-103.69802589	9.00	9.00	0.00
	2,900.00	9.00	253.73	2,887.68	-819.22	-46.09	-47.16	-161.55	612,714.01	736,803.25	32.68278631	-103.69802589	9.00	9.00	0.00
	3,000.00	9.00	253.73	2,986.45	-720.45	-50.37	-51.54	-176.57	612,708.66	736,803.25	32.68277450	-103.69802589	9.00	9.00	0.00
	3,100.00	9.00	253.73	3,085.21	-621.69	-54.66	-55.93	-191.59	612,704.27	736,803.25	32.68276220	-103.69802589	9.00	9.00	0.00
	3,200.00	9.00	253.73	3,183.98	-522.92	-58.94	-60.31	-206.62	612,699.89	736,803.25	32.68275080	-103.69802589	9.00	9.00	0.00
	3,300.00	9.00	253.73	3,282.75	-424.15	-63.23	-64.70	-221.64	612,695.95	736,803.25	32.68273900	-103.69802589	9.00	9.00	0.00
	3,400.00	9.00	253.73	3,382.52	-325.38	-67.51	-69.08	-236.66	612,691.12	736,803.25	32.68273363	-103.69802589	9.00	9.00	0.00
	3,500.00	9.00	253.73	3,480.29	-228.61	-71.80	-73.47	-251.68	612,686.82	736,803.25	32.68272828	-103.69802589	9.00	9.00	0.00
	3,600.00	9.00	253.73	3,579.05	-176.06	-77.86	-78.76	-268.70	612,682.62	736,803.25	32.68272037	-103.69802589	9.00	9.00	0.00
	3,700.00	9.00	253.73	3,776.59	-66.69	-84.66	-85.63	-285.75	612,682.59	736,803.25	32.68271980	-103.69802589	9.00	9.00	0.00
	3,800.00	9.00	253.73	3,873.30	-168.46	-88.94	-91.01	-311.17	612,682.49	736,803.25	32.68271849	-103.69802589	9.00	9.00	0.00
	3,900.00	9.00	253.73	3,974.13	-267.23	-93.23	-95.40	-326.79	612,684.81	736,803.25	32.68265645	-103.69802589	9.00	9.00	0.00
	4,000.00	9.00	253.73	4,072.89	365.09	-97.51	-99.78	-341.82	612,660.42	736,803.25	32.68264464	-103.69802589	9.00	9.00	0.00
	4,100.00	9.00	253.73	4,171.66	464.76	-101.80	-104.17	-356.84	612,656.04	736,803.25	32.68264433	-103.69802589	9.00	9.00	0.00
	4,200.00	9.00	253.73	4,270.43	563.53	-106.08	-108.55	-371.86	612,651.65	736,803.25	32.68264131	-103.69802589	9.00	9.00	0.00
	4,300.00	9.00	253.73	4,369.20	663.20	-110.37	-112.47	-386.88	612,647.27	736,803.25	32.68264022	-103.69802589	9.00	9.00	0.00
	4,400.00	9.00	253.73	4,467.97	761.07	-114.66	-117.32	-391.91	612,642.88	736,803.25	32.68259742	-103.69802589	9.00	9.00	0.00
	4,500.00	9.00	253.73	5,556.88	1,649.98	-153.23	-156.79	-537.11	612,640.23	73					

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Eastng (ftUS)	Latitude (°)	Longitude (°)	DLS (ft)	BR (ft)	TR (ft)
1st BS SS □	8,800.00	0.00	253.73	8,744.69	5,037.79	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
	8,830.31	0.00	253.73	8,775.00	5,068.10	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
	8,900.00	0.00	253.73	8,844.69	5,137.79	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
	9,000.00	0.00	253.73	8,944.69	5,237.79	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
	9,100.00	0.00	253.73	9,044.69	5,337.79	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
	9,200.00	0.00	253.73	9,144.69	5,437.79	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
KOP, Build 10'/100ft	9,269.07	0.00	253.73	9,213.76	5,506.86	-198.84	-203.47	-697.01	612,556.74	738,106.27	32,682,36550	-103,702,9506	0.00	0.00	0.00
	9,300.00	3.09	359.62	9,244.67	5,537.77	-198.01	-202.64	-697.02	612,557.57	738,106.26	32,682,36550	-103,702,9506	10.00	10.00	0.00
	9,355.64	8.66	359.62	9,300.00	5,593.10	-192.32	-196.94	-697.06	612,563.27	738,106.23	32,682,3344	-103,702,9507	10.00	10.00	0.00
	9,400.00	13.09	359.62	9,343.55	5,636.65	-183.95	-188.58	-697.11	612,571.63	738,106.17	32,682,04643	-103,702,9509	10.00	10.00	0.00
	9,500.00	23.09	359.62	9,438.49	5,731.59	-152.93	-167.52	-697.32	612,602.65	738,105.97	32,682,49168	-103,702,9516	10.00	10.00	0.00
	9,600.00	33.09	359.62	9,526.59	5,819.19	-105.90	-110.53	-697.53	612,649.69	738,105.65	32,682,62098	-103,702,9526	10.00	10.00	0.00
2nd BS SS□	9,700.00	43.09	359.62	9,605.20	5,888.30	-44.29	-48.92	-698.04	612,711.29	738,105.24	32,682,79209	-103,702,9539	10.00	10.00	0.00
	9,800.00	53.09	359.62	9,671.90	5,960.00	30.04	25.41	-698.53	612,765.61	738,104.75	32,682,99458	-103,702,9555	10.00	10.00	0.00
	9,900.00	63.09	359.62	9,734.69	6,017.79	114.83	110.19	-699.09	612,870.53	738,104.19	32,683,22760	-103,702,9574	10.00	10.00	0.00
	10,000.00	73.09	359.62	9,761.95	6,065.05	207.49	202.85	-699.71	612,963.04	738,103.58	32,683,32044	-103,702,9584	10.00	10.00	0.00
	10,071.07	75.00	359.62	9,767.19	6,089.19	223.22	221.19	-699.83	612,993.38	738,103.45	32,683,53267	-103,702,9588	10.00	10.00	0.00
	10,100.00	79.05	359.62	9,785.96	6,078.46	304.67	300.03	-700.35	613,060.22	738,102.93	32,683,74937	-103,702,9615	5.00	5.00	0.00
Build 5'/100ft	10,200.00	84.05	359.62	9,800.06	6,036.13	403.55	398.91	-701.01	613,159.09	738,102.28	32,684,02115	-103,702,9636	5.00	5.00	0.00
	10,300.00	88.05	359.62	9,808.06	6,009.18	503.34	498.70	-701.67	613,258.87	738,101.61	32,684,25040	-103,702,9657	5.00	5.00	0.00
	10,342.39	91.17	359.62	9,808.06	6,009.10	545.72	541.08	-701.95	613,301.25	738,101.33	32,684,41190	-103,702,9666	5.00	5.00	0.00
	10,400.00	91.17	359.62	9,804.83	6,007.03	603.32	598.68	-702.33	613,358.85	738,100.95	32,684,57021	-103,702,9678	0.00	0.00	0.00
	10,500.00	91.17	359.62	9,802.80	6,005.90	703.30	698.66	-702.99	613,458.82	738,100.29	32,684,84500	-103,702,9700	0.00	0.00	0.00
	10,600.00	91.17	359.62	9,808.76	6,003.86	803.28	798.63	-703.66	613,558.79	738,099.63	32,685,11979	-103,702,9721	0.00	0.00	0.00
Landing Point	10,700.00	91.17	359.62	9,816.95	6,005.05	207.49	202.85	-699.71	613,663.04	738,099.58	32,685,30264	-103,702,9744	0.00	0.00	0.00
	10,761.07	91.17	359.62	9,817.19	6,008.22	223.22	221.19	-699.83	613,693.38	738,100.45	32,685,53267	-103,702,9758	0.00	0.00	0.00
	10,800.00	91.17	359.62	9,818.36	6,008.18	304.67	300.03	-700.35	613,760.22	738,102.93	32,686,37493	-103,702,9857	5.00	5.00	0.00
	10,842.39	91.17	359.62	9,818.36	6,008.10	503.34	498.70	-701.67	613,258.87	738,101.61	32,686,42540	-103,702,9867	5.00	5.00	0.00
	10,900.00	91.17	359.62	9,819.59	6,009.10	545.72	541.08	-701.95	613,301.25	738,101.33	32,686,44190	-103,702,9866	5.00	5.00	0.00
	11,000.00	91.17	359.62	9,821.66	6,008.72	603.32	598.68	-702.33	613,358.85	738,100.95	32,686,57021	-103,702,9878	0.00	0.00	0.00
11,200.00	11,000.00	91.17	359.62	9,822.86	6,008.52	1,498.47	1,488.29	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,200.00	91.17	359.62	9,823.06	6,008.52	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,300.00	91.17	359.62	9,824.26	6,008.72	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,400.00	91.17	359.62	9,824.46	6,008.72	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,500.00	91.17	359.62	9,824.66	6,008.72	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,600.00	91.17	359.62	9,824.86	6,008.72	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
11,700.00	11,600.00	91.17	359.62	9,825.06	6,008.72	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,700.00	91.17	359.62	9,825.26	6,008.72	1,503.14	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,800.00	91.17	359.62	9,825.46	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	11,900.00	91.17	359.62	9,825.66	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	12,000.00	91.17	359.62	9,825.86	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	12,200.00	91.17	359.62	9,826.26	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
12,400.00	12,200.00	91.17	359.62	9,826.46	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	12,400.00	91.17	359.62	9,826.66	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	12,600.00	91.17	359.62	9,826.86	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	12,800.00	91.17	359.62	9,827.06	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	12,900.00	91.17	359.62	9,827.26	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	13,000.00	91.17	359.62	9,827.46	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
13,200.00	13,000.00	91.17	359.62	9,827.66	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	13,200.00	91.17	359.62	9,827.86	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	13,400.00	91.17	359.62	9,828.06	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	13,600.00	91.17	359.62	9,828.26	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	13,800.00	91.17	359.62	9,828.46	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,687,04330	-103,702,9886	0.00	0.00	0.00
	14,000.00	91.17	359.62	9,828.66	6,008.72	1,503.03	1,498.47	-702.99	614,258.60	738,099.00	32,6				

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)
	1	0.000	9,200.000	1/100.000	.5 – 12.25 – 8.75	3.375 – 9.625 – 7			A001Mb_MWD						Emerald Federal Com 505H / Coterra Emerald Fed
	1	9,200.000	19,975.124	1/100.000		8.75 – 6	7 – 4.5		A008Mb_MWD+IFR1+MS						Emerald Federal Com 505H / Coterra Emerald Fed
EOU Geometry:															
End MD (ft)		Hole Size (in)		Casing Size (in)					Name						
1,300.000		17.500		13.375											
4,937.425		12.250		9.625											
9,568.795		8.750		7.000											
19,975.124		6.000		4.500											



Coterra Emerald Federal Com 505H Rev1 kFc 29Oct25 Anti-Collision Summary Report

Analysis Date-24hr Time:	October 29, 2025 - 08:05 PM (UTC 0)	Analysis Method:	3D Least Distance
Client:	COTERRA	Reference Trajectory:	Coterra Emerald Federal Com 505H Rev1 kFc 29Oct25 (Def
Field:	NM Lea County (NAD 83)	Depth Interval:	Every 10.00 Measured Depth (ft)
Structure:	Coterra - Emerald Federal Com Pad (east)	Rule Set:	NAL Procedure: D&M AntiCollision Standard S002
Slot:	Emerald Federal Com 505H	Min Pts:	Absolute minima indicated.
Well:	Emerald Federal Com 505H	Engine Version:	2025.1.0.1
Borehole:	Emerald Federal Com 505H	Database \ Project:	Emerald Federal Com 505H-COTERRA
Scan MD Range:	0.00ft ~ 19975.12ft		

Trajectory Error Model: ISCWSA Rev 4 *** 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

4 out of 9 are selected

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Breaking Rule	Reference Trajectory		Risk Level			Alert
	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.

30-025-25782 - Nellis Federal 002 - Inc Only to 13670ft - INACTIVE (DefinitiveSurvey) - Fail Major

754.26	32.81	750.86	721.45	532.17			0.00	0.00				Surface
753.83	32.81	750.43	721.02	531.42			20.00	20.00				MinPt-SF
753.81	32.81	750.41	721.00	531.49			23.00	23.00				WRP
621.27	187.98	495.37	433.30	4.99		OSF 5.00	3100.00	3085.21	OSF<=5.00			Enter Alert
508.65	332.57	286.40	176.09	2.30		OSF 5.00	5380.00	5337.12				MinPt-CICt
525.78	382.63	270.15	143.15	2.06		OSF 5.00	6230.00	6176.65				MinPt-EOU
536.24	536.34	178.15	-0.10	1.50		OSF 1.50	8550.00	8494.69		OSF<=1.50		Enter Minor
414.37	626.30	-3.67	-211.93	0.99		OSF 1.00	9650.00	9567.24			OSF<=1.00	Enter Major
24.01	643.42	-405.44	-619.42	0.05		OSF 1.00	10132.71	9791.12				MinPts
427.10	645.00	-3.40	-217.90	0.99		OSF 1.00	10560.00	9801.58			OSF>1.00	Exit Major
636.84	644.67	206.56	-7.83	1.48		OSF 1.50	10770.00	9797.30			OSF>1.50	Exit Minor
2136.21	642.39	1707.45	1493.81	5.00		OSF 5.00	12270.00	9766.78	OSF>5.00			Exit Alert
9839.63	632.37	9417.55	9207.26	23.39			19975.12	9610.00				TD

30-025-34317 - Gazelle 31 Federal 001 - Inc Only to 13617ft - A (DefinitiveSurvey) - Fail Major

8282.52	32.81	8279.02	8249.71	5463.28			0.00	0.00				Surface
8282.52	32.81	8278.84	8249.71	4864.08			23.00	23.00				WRP
8282.52	86.21	8224.46	8196.31	147.08			1600.00	1600.00				MinPt-CICt
8366.81	249.88	8199.63	8116.93	50.57			3950.00	3924.74				MinPt-EOU
8408.02	316.54	8196.40	8091.47	40.06			4890.00	4853.16				MinPt-EOU
2144.39	646.14	1713.13	1498.25	4.99		OSF 5.00	15960.00	9691.70	OSF<=5.00			Enter Alert
645.28	651.40	210.51	-6.13	1.49		OSF 1.50	17540.00	9659.55		OSF<=1.50		Enter Minor
436.88	660.91	-4.22	-224.02	0.99		OSF 1.00	17830.00	9653.65			OSF<=1.00	Enter Major
362.44	670.08	-84.78	-307.64	0.81		OSF 1.00	18073.98	9648.68				MinPts
438.03	663.12	-4.55	-225.09	0.99		OSF 1.00	18320.00	9643.68			OSF>1.00	Exit Major
646.97	653.21	210.99	-6.25	1.49		OSF 1.50	18610.00	9637.78		OSF>1.50	Exit Minor	Exit Minor
1935.00	643.93	1505.21	1291.07	4.51		OSF 5.00	19975.12	9610.00				TD

Coterra Emerald Federal Com 506H Rev1 kFc 29Oct25 (DefinitivePlan) - Fail Minor

20.02	16.42	16.73	3.60	9.37		CtCt 15.00m	0.00	0.00				Enter Alert
20.02	16.42	16.73	3.60	9.37		CtCt 15.00m	23.00	23.00				WRP
20.02	20.00	6.26	0.03	1.50		OSF 5.00	1290.00	1290.00				MinPts
20.02	20.14	6.27	-0.12	1.49		OSF 1.50	1320.00	1320.00	OSF<=1.50			Enter Minor
20.06	24.31	3.49	-4.28	1.22		OSF 1.50	1600.00	1600.00				MinPt-CICt
20.15	24.59	3.43	-4.44	1.22		OSF 1.50	1610.00	1610.00				MinPt-EOU
25.64	26.15	7.89	-0.50	1.47		OSF 1.50	1730.00	1729.96		OSF>1.50		MinPts
100.37	31.12	79.29	69.24	4.95		OSF 5.00	2100.00	2097.54	OSF>5.00			Exit Minor
1348.04	137.92	1255.77	1210.13	14.76			9290.00	9234.68				Exit Alert
1348.05	137.93	1255.77	1210.12	14.75			9370.00	9314.17				MinPt-EOU
1348.06	260.60	1174.00	1087.46	7.78			16420.00	9682.34				MinPt-CICt
1348.10	363.20	1105.64	984.90	5.58			19975.12	9610.00				MinPts

30-025-35339 - Gazelle 31 Federal 003 - Inc Only to 13650ft - A (DefinitiveSurvey) - Warning Alert

6990.14	32.81	6986.70	6957.33	4778.14			0.00	0.00				Surface
6990.14	32.81	6986.52	6957.33	4274.61			23.00	23.00				WRP
6990.14	106.10	6918.82	6884.04	100.47			1600.00	1600.00				MinPt-CICt
6994.43	119.70	6914.04	6874.72	88.93			1860.00	1859.64				MinPt-EOU
6998.83	124.91	6914.97	6873.92	85.22			1970.00	1968.97				MinPt-ADP
7120.12	270.72	6939.06	6849.41	39.70			3990.00	3964.25				MinPt-EOU
7178.17	344.82	6947.70	6833.34	31.38			4890.00	4853.16				MinPt-ADP
2290.29	689.03	1830.44	1601.26	4.99		OSF 5.00	14910.00	9713.06	OSF<=5.00			Enter Alert
1354.39	701.89	885.96	652.50	2.90		OSF 5.00	16757.29	9675.48				MinPt-CICt
1354.39	701.90	885.96	652.49	2.90		OSF 5.00	16760.00	9675.42				MinPts
1354.45	701.95	885.98	652.50	2.90		OSF 5.00	16770.00	9675.22				MinPt-SF
2302.75	693.08	1840.19	1609.67	4.99		OSF 5.00	18620.00	9637.57	OSF>5.00			Exit Alert
3490.64	687.94	3031.51	2802.70	7.62			19975.12	9610.00				TD

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 533916

CONDITIONS

Operator: Avant Operating, LLC 6001 Deauville Blvd Midland, TX 79706	OGRID: 330396
	Action Number: 533916
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.	12/24/2025
matthew.gomez	If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing, if a CBL is unable to indicate sufficient cement coverage due to a lighter cement, a USI log may also be required. If strata isolation is not achieved, remediation will be required before further operations may commence.	12/24/2025
matthew.gomez	All conducted logs must be submitted to the OCD.	12/24/2025
matthew.gomez	Cement must be in place for at least eight hours and achieve a minimum compressive strength of 500 PSI before performing any further operations on the well.	12/24/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	12/24/2025
matthew.gomez	All previous COA's still apply.	12/24/2025