



U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
 - Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
 - Blowout Prevention Choke Diagram Attachment: 6 file(s)
 - Blowout Prevention BOP Diagram Attachment: 3 file(s)
 - Casing Design Assumptions and Worksheet(s): 2 file(s)
 - Hydrogen sulfide drilling operations plan: 1 file(s)
 - Proposed horizontal/directional/multi-lateral plan submission: 7 file(s)
 - Other Facets: 3 file(s)
 - Other Variances: 2 file(s)
- SUPO Report
- SUPO Attachments
 - Existing Road Map: 1 file(s)
 - Attach Well map: 1 file(s)
 - Production Facilities map: 1 file(s)
 - Water source and transportation map: 1 file(s)
 - Construction Materials source location attachment: 1 file(s)
 - Well Site Layout Diagram: 4 file(s)
 - Recontouring attachment: 1 file(s)
 - Other SUPO Attachment: 1 file(s)
- PWD Report
- PWD Attachments
 - None

- Bond Report
- Bond Attachments
 - None

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 30-025-55205
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

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



(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

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

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM connects this information to an evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Operator Remarks

Location of Well

0. SHL: NWNE / 448 FNL / 1344 FEL / TWSP: 23S / RANGE: 32E / SECTION: 29 / LAT: 32.281561 / LONG: -103.692502 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 0 FNL / 330 FEL / TWSP: 23S / RANGE: 32E / SECTION: 32 / LAT: 32.268276 / LONG: -103.689213 (TVD: 10278 feet, MD: 10342 feet)

PPP: NWNE / 100 FNL / 330 FEL / TWSP: 23S / RANGE: 32E / SECTION: 29 / LAT: 32.282528 / LONG: -103.689223 (TVD: 10286 feet, MD: 10345 feet)

BHL: SENE / 2542 FNL / 330 FEL / TWSP: 23S / RANGE: 32E / SECTION: 32 / LAT: 32.261289 / LONG: -103.689208 (TVD: 10937 feet, MD: 18467 feet)

BLM Point of Contact

Name: JORDAN NAVARRETTE

Title: LIE

Phone: (575) 234-5972

Email: jnavarrette@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

James 29 FEDERAL COM 23H

APD - Geology COAs (Not in Potash or WIPP)

- For at least one well per pad (deepest well within initial development preferred) the record of the drilling rate (ROP) along with the Gamma Ray (GR) and Neutron (CNL) well logs run from TVD to surface in the vertical section of the hole shall be submitted to the BLM office as well as all other logs run on the full borehole 30 days from completion. Any other logs run on the wellbore, excluding cement remediation, should also be sent. Only digital copies of the logs in .TIF or .LAS formats are necessary; paper logs are no longer required. Logs shall be emailed to blm-cfo-geology@doimspp.onmicrosoft.com. Well completion report should have .pdf copies of any CBLs or Temp Logs run on the wellbore.
- Exceptions: In areas where there is extensive log coverage (in particular the salt zone adjacent to a pad), Operators are encouraged to contact BLM Geologists to discuss if additional GR and N logs are necessary on a pad. Operator may request a waiver of the GR and N log requirement due to good well control or other reasons to be approved by BLM Geologist prior to well completion. A waiver approved by BLM must be attached to completion well report to satisfy COAs.
- The top of the Rustler, top and bottom of the Salt, and the top of the Capitan Reef (if present) are to be recorded on the Completion Report.

Be aware that:

- H₂S has been reported within one mile of the proposed project. Measurements up to 500 ppm were recorded from the Delaware Group of the W Triste Draw and S Sand Dunes leases.

Questions? Contact Thomas Evans, BLM Geologist at 575-234-5965 or tvevans@blm.gov

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

WELL LOCATION INFORMATION

API Number 30-025-55205	Pool Code 53805	Pool Name SAND DUNES; BONE SPRING SOUTH
Property Code 337749	Property Name JAMES 29 FEDERAL COM	Well Number 23H
OGRID No. 215099	Operator Name CIMAREX ENERGY CO.	Ground Level Elevation 3,688.2'
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 B	Section 29	Township 23S	Range 32E	Lot	Ft. from N/S 448 NORTH	Ft. from E/W 1,344 EAST	Latitude (NAD 83) 32.281561°	Longitude (NAD 83) -103.692502°	County LEA
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Bottom Hole Location

UL H	Section 32	Township 23S	Range 32E	Lot	Ft. from N/S 2,542 NORTH	Ft. from E/W 330 EAST	Latitude (NAD 83) 32.261289°	Longitude (NAD 83) -103.689208°	County LEA
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Dedicated Acres 240	Infill or Defining Well Infill	Defining Well API 30-025-52012	Overlapping Spacing Unit (Y/N) N	Consolidation Code C
Order Numbers. NMNM106743738		Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Kick Off Point (KOP)

UL A	Section 29	Township 23S	Range 32E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 330 EAST	Latitude (NAD 83) 32.282528°	Longitude (NAD 83) -103.689223°	County LEA
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First Take Point (FTP)

UL A	Section 29	Township 23S	Range 32E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 330 EAST	Latitude (NAD 83) 32.282528°	Longitude (NAD 83) -103.689223°	County LEA
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Last Take Point (LTP)

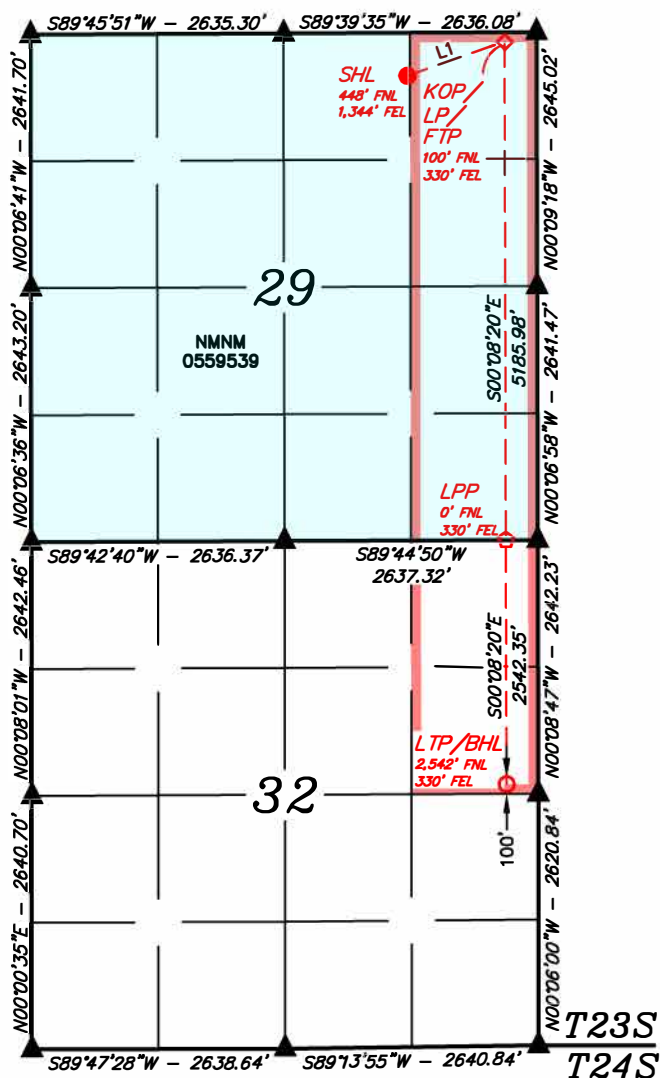
UL H	Section 32	Township 23S	Range 32E	Lot	Ft. from N/S 2,542 NORTH	Ft. from E/W 330 EAST	Latitude (NAD 83) 32.261289°	Longitude (NAD 83) -103.689208°	County LEA
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Unitized Area or Area of Uniform Interest NA	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3688.2
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OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>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.</i> <i>Shelly Bowen</i> 9/16/2025 Signature Date Shelly Bowen Printed Name shelly.bowen@coterra.com Email Address	SURVEYOR CERTIFICATIONS <i>I hereby certify that the well location shown on this plat was plotted from the 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>  Signature and Seal of Professional Surveyor 23782 May 23, 2024 Certificate Number Date of Survey
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Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

Property Name JAMES 29 FEDERAL COM	Well Number 23H	Drawn By D.J.S. 07-05-22	Revised By (UPDATE WELL NAME, WELL INFO & DSU)	REV: 7 N.R. 09-15-25
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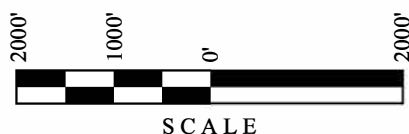
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N70°44'34"E	1072.84'

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°16'53.62" (32.281561°)
LONGITUDE = -103°41'33.01" (-103.692502°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°16'53.18" (32.281438°)
LONGITUDE = -103°41'31.27" (-103.692018°)
STATE PLANE NAD 83 (N.M. EAST)
N: 466756.20' E: 739379.90'
STATE PLANE NAD 27 (N.M. EAST)
N: 466696.79' E: 698196.43'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°16'57.10" (32.282528°)
LONGITUDE = -103°41'21.20" (-103.689223°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°16'56.66" (32.282405°)
LONGITUDE = -103°41'19.46" (-103.688740°)
STATE PLANE NAD 83 (N.M. EAST)
N: 467114.22' E: 740391.03'
STATE PLANE NAD 27 (N.M. EAST)
N: 467054.80' E: 699207.57'

NAD 83 (LPP)
LATITUDE = 32°16'05.79" (32.268276°)
LONGITUDE = -103°41'21.17" (-103.689213°)
NAD 27 (LPP)
LATITUDE = 32°16'05.35" (32.268153°)
LONGITUDE = -103°41'19.43" (-103.688730°)
STATE PLANE NAD 83 (N.M. EAST)
N: 461929.29' E: 740425.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 461870.01' E: 699241.75'

NAD 83 (LTP/BHL)
LATITUDE = 32°15'40.64" (32.261289°)
LONGITUDE = -103°41'21.15" (-103.689208°)
NAD 27 (LTP/BHL)
LATITUDE = 32°15'40.20" (32.261166°)
LONGITUDE = -103°41'19.41" (-103.688725°)
STATE PLANE NAD 83 (N.M. EAST)
N: 459387.46' E: 740442.17'
STATE PLANE NAD 27 (N.M. EAST)
N: 459328.25' E: 699258.50'

**NOTE:**

- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
- Colored areas within section lines represent Federal oil & gas leases.

- = SURFACE HOLE LOCATION
- ◆ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
- ◊ = LEASE PENETRATION POINT
- = BOTTOM HOLE LOCATION/ LAST TAKE POINT
- ▲ = SECTION CORNER LOCATED
- = DESIGNATED SPACING UNIT

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Cimarex Energy Company **OGRID:** 215099 **Date:** 11/18/2024

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

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
James 29 Federal Com 23H		Sec 29 T23S, R32E	448 FNL/1344 FEL	1140	1495	2656

IV. Central Delivery Point Name: James 20 East CTB Sales [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
James 29 Federal Com 23H		8/6/2025	8/25/2025	2/9/2026	2/26/2026	3/1/2026

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

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

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

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

If Operator checks this box, Operator will select one of the following:

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

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

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

Section 4 - Notices

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

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

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

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

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	<i>Shelly Bowen</i>
Printed Name:	Shelly Bowen
Title:	Senior Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	11/18/2024
Phone:	432/620-1644
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

From State of New Mexico, Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

Cimarex

VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
 - a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
 - a. Venting or flaring occurs due to an emergency or equipment malfunction.
 - b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
 - c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
 - d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
 - e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
 - f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
 - g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
 - h. Venting or flaring occurs as a result of normal dehydration unit operations.

- i. Venting or flaring occurs as a result of bradenhead testing.
 - j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
 - k. Venting or flaring occurs as a result of a packer leakage test.
 - l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
 - m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.
6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc...
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
 - a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
 - b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
 - a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
 - Always strive to kill well when performing downhole maintenance.
 - If vapors or trapped pressure is present and must be relieved then:
 - Initial blowdown to production facility:
 - Route vapors to LP flare if possible/applicable
 - Blowdown to portable gas buster tank:
 - Vent to existing or portable flare if applicable.
- **Stock tank servicing:**
 - Minimize time spent with thief hatches open.
 - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
 - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
 - Isolate the vent lines and overflows on the tank being serviced from other tanks.
- **Pressure vessel/compressor servicing and associated blowdowns:**
 - Route to flare where possible.
 - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
 - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
 - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.
- **Flare/combustor maintenance:**
 - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
 - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
 - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

Standard New Mexico Variances

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. Before skidding the rig, a TA cap is installed on the subject well.

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.

1. Geological Formations

TVD of target 10,937

Pilot Hole TD N/A

MD at TD 18,467

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1218	N/A	
Top Salt	1529	N/A	
Base Salt	2613	N/A	
Lamar	4796	N/A	
Bell Canyon	4893	N/A	
Cherry Canyon	5933	N/A	
Brushy Canyon	6962	Hydrocarbons	
Basal Brushy Canyon	8371	Hydrocarbons	
Bone Spring Lime	8695	Hydrocarbons	
Leonard	8799	Hydrocarbons	
Avalon Shale	9210	Hydrocarbons	
1st Bone Spring Sand	9795	Hydrocarbons	
2nd Bone Spring Sand	10461	Hydrocarbons	
2nd Bone Spring Sand - Target	10887	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	1281	1281	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.33	3.12	5.24
12 1/4	0	4874	4874	9-5/8"	40.00	HCK-55	LT&C	1.51	1.57	2.90
8 3/4	0	10345	10345							
8 3/4	10345	11095	10839	7"	29.00	P-110	BT&C	1.68	2.21	64.85
6	10245	18467	10937	4-1/2"	11.60	L-80	BT&C	1.18	1.44	33.26
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., James 29 Federal Com 23H

	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	621	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	167	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	912	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	285	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	348	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	125	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	551	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	4674	25
Completion System	10995	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		5M	Annular	5M	100% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		
8 3/4	13 5/8	5M	Annular	5M	100% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	5M	100% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		

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 1281'	Fresh Water	7.83 - 8.33	28	N/C
1281' to 4874'	Brine Water	9.50 - 10.30	30-32	N/C
4874' to 11095'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
11448' to 18467'	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	
	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
-------------------------	----------

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5402 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**

- After running the first string of casing, a 5M BOP/BOPE system with 5M annular will be installed. BOPs will be tested according to Onshore Order #2. BOPE will be tested to full rated pressure (5K for all BOPE, including the annular). For the low test, the system will be tested to 250 psi.
- All BOP equipment will be tested utilizing a conventional test plug.
- A remote kill line is included in the BOPE system
- 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.
- If well conditions dictate, conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Wellhead

- 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.
- A packoff will be installed after running and cementing the production casing. This packoff will be tested to 5K psi.

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.

Coterra: Well Control Plan



Well Control Plan

Warning Signs of a Kick

If a kick is ever suspected, perform flow check.

While Drilling:

1. Drilling break or increase in penetration rate
2. Increase of flow
3. Pit gain
4. Flow without pumping
5. Circulating pressure decrease and/or spm increase
6. Increase in gas cutting at the shakers
7. Decrease in cuttings at shakers

While Tripping:

1. Hole not taking the proper fill on trip out of hole
2. Hole returns too much mud on trip in hole
3. Flow without pumping

While Out of the Hole:

1. Flow
2. Pit gain

Well Control Procedures with Diverter

A TIW valve in the open position must be on the rig floor at all times.

If rotating head is installed:

1. Perform flow check.
2. If well is flowing, divert flow down flow line and through separator, before returning across shakers.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.

Coterra: Well Control Plan

4. If well becomes uncontrollable, close annular, which will open HCR to divert flow away from rig.

If rotating head is not installed:

1. Perform flow check.
2. If well is flowing uncontrollably, close annular, which will open HCR to divert flow away from rig.
3. Swap to 10 ppg brine and circulate around. Notify superintendent.
4. After 10 ppg is circulated around shut pumps off and perform flow check.

Well Control Procedures

Coterra follows a hard shut-in procedure. Choke will be in the closed position.

General Well Control

1. If in doubt, secure the well first, then inform your supervisor.
2. Never wait for approval to shut in the well.
3. Verify that the mud pump is off before you close the BOP.
4. Always check and verify the well is properly secured after shut in.
5. Always install TIW valve in the open position.
6. If TIW valve is installed and then closed, apply estimated DP shut-in pressure above valve before opening.
7. The weak link in the mud system and mud lines is the pressure relief valve or pop off valve on the mud pump.
8. Keep the TIW valve wrench in a designated location on the rig floor and in the open position.
9. Use a drill string float above the bit. Don't perforate or disable the float.
10. 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.

Hard Shut-In

1. Remote choke is closed.
2. Stop pumping and space out.
3. Check for flow.
4. To shut in, close annular or pipe ram if no annular is present.
5. Open the HCR valve.
6. Check systems, bump float. Record Initial Shut in Drill pipe pressure and Initial shut in casing pressure.

Coterra: Well Control Plan

Flow Check when on Bottom

1. Alert crew & stop rotating
2. Pick up and space out
3. Shut down pumps
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Drilling

1. After flow has been detected via flow check, kill pumps, shut in well and open HCR
2. Verify well is shut-in and flow has stopped
3. Notify supervisory personnel
4. Record data
5. Begin go forward planning

Flow Check while Tripping

1. Alert crew & pick up / space out
2. Stop pipe movement. Set slips with tool joint accessible at rotary table
3. Install open TIW safety valve and close valve
4. Observe well for flow
5. Shut-in if flowing

Shutting in while Tripping

1. Install open TIW safety valve and close valve
2. Shut-in the well
3. Verify well is shut-in and flow has stopped
4. Install IBOP
5. Notify supervisory personnel
6. Record data; SICP, shut-in time, kick depth, and pit gain
7. Begin go forward planning

Shutting in while Out of Hole

1. Sound alarm
2. Shut-in well: close blind rams.
3. Verify well is shut-in and monitor pressures.
4. Notify supervisory personnel
5. Record data; SICP, shut-in time, kick depth, and pit gain
6. Begin go forward planning

Information to Record while Shut-In

1. Shut in drill pipe pressure every 5 minutes

Coterra: Well Control Plan

2. Shut in casing pressure every 5 minutes
3. Pit gain
4. Total volume in pit system
5. Mud weight in suction pit
6. Current depth
7. Total depth
8. Time the well is shut in

H2S with Annular Diverter:

1. Kill Pumps, close annular, which will open HCR, to divert flow away from rig.
2. Muster and take head count.
3. Call ASSI to check location for H2S. Call Coterra superintendent.
4. After ASSI has checked for H2S the path forward will be decided from Coterra superintendent.

H2S with BOP's:

1. Kill pumps
2. Shut in annular with HCR open and chokes closed.
3. Muster and take head count.
4. Call ASSI to check location for H2S. Call Coterra superintendent.
5. After ASSI has checked for H2S. discuss path forward with Coterra superintendent

Procedure for Closing Blind Rams

- Open HCR valve (visually check that the HCR valve is open – stem in the valve is open, stem out the valve is closed).
- Verify all circulating pumps are off (mud pumps, trip tank pump, etc.)
- Ensure that the hydraulic choke is in the closed position.
- Close the blind rams and place the “blind rams closed, bleed pressure and remove hole cover before opening” sign on the console.
- Monitor the shut in casing pressure gauge periodically while the blinds are closed to ensure that wellbore pressure isn't building. If pressure build up is observed, monitor the shut in casing pressure more frequently & document. Notify rig management and Coterra representative of the pressure build up.
- Ensure that the inner bushings are locked into the master bushings if applicable.
- Install hole cover.

Procedure for Opening Blind Rams

- Make sure choke manifold is aligned correctly.
- Open the hydraulic choke to bleed any trapped pressure that may be under the blind rams. (Even if the casing pressure gauge is reading zero).

Coterra: Well Control Plan

- Confirm that no flow is discharging into the trip tank or possum bellies of the shale shaker (wherever the separator is discharging into).
- Remove hole cover.
- Confirm that the inner bushing are locked into the master bushings if applicable.
- Clear all personnel from the rig floor.
- Remove sign and open blind rams.
- Return the BOPE to its original operating alignment.

BOP Drills

- Drilling crews should conduct BOP drills weekly from BOP nipple up to TD for reaction time to properly simulate securing the well. Record BOP drills on that day's report.
- Standard precautions such as checking the accumulator for proper working pressure, function testing rams, and recording slow pump rates are performed on a daily basis or on trips..
- All supervisory personnel onsite need to be properly trained and currently hold certification from an approved blowout prevention school. Any deviation from this needs to be discussed prior to spud.
- Drillers should always notify the tool pusher and the drilling foreman before performing a blowout drill.

Choke Manifold Freeze Prevention

- When possible, blow out the choke & kill lines as well as the choke manifold with rig air to remove water based fluids.
- When clear water is being placed into the choke & kill line as well as the choke manifold, make sure that the water has a mixture of 30% methanol added.
- When applicable, choke & kill lines as well as choke manifold needs to be pumped through with the rig pump by the driller to ensure that the lines aren't plugged with settling barite or solids.



COTERRA

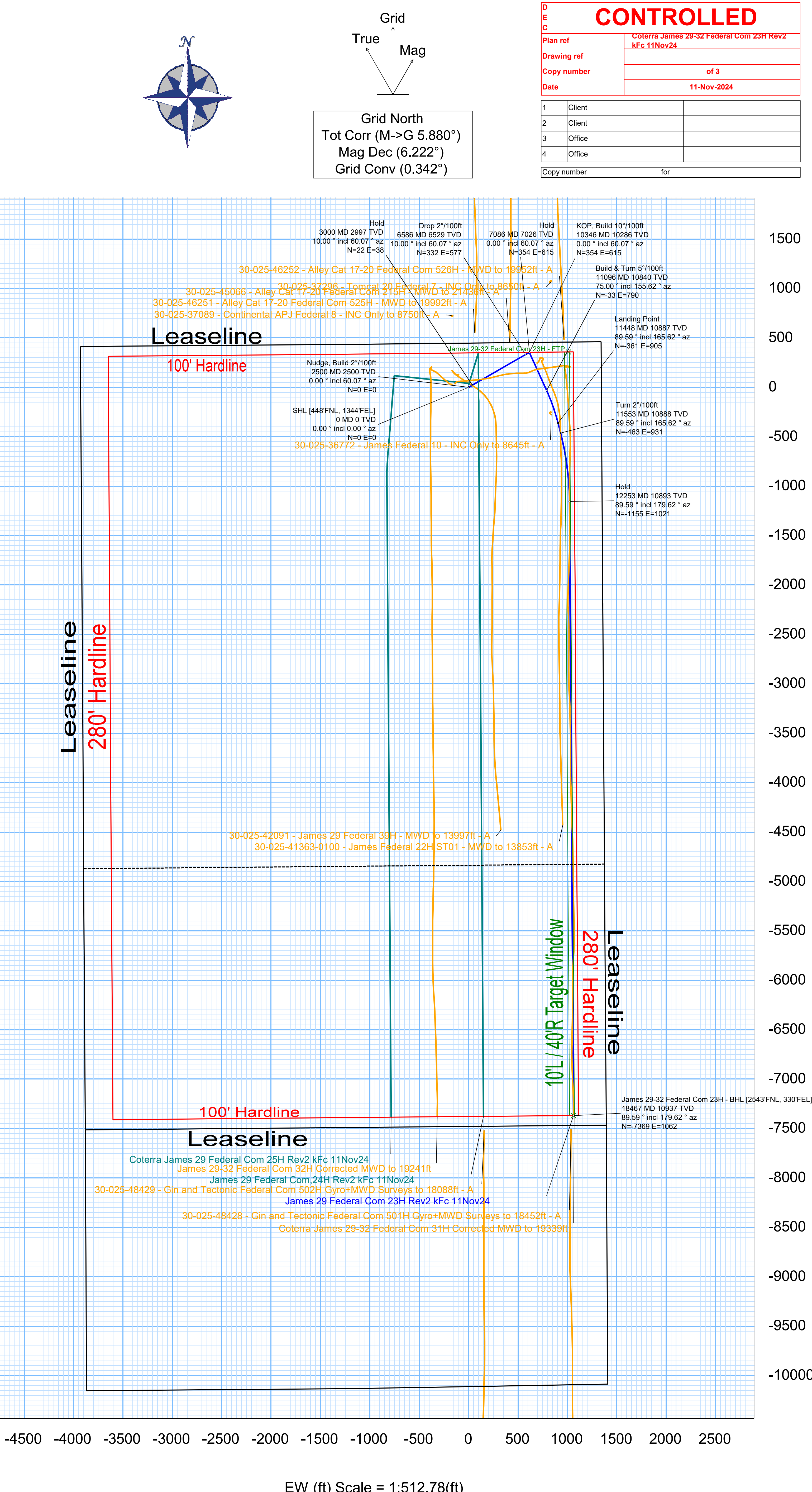
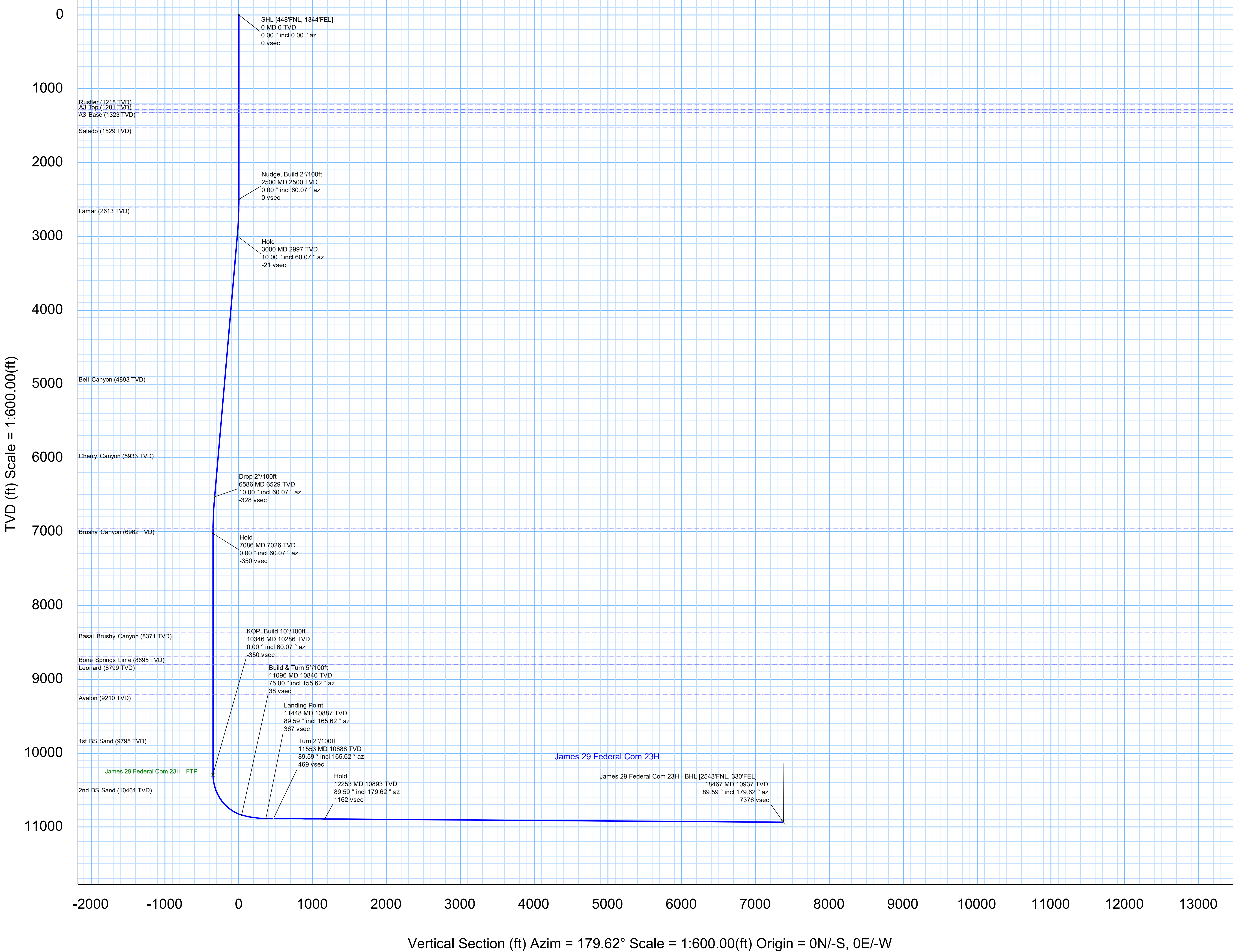
Rev2



Borehole: James 29 Federal Com 23H			Well: James 29 Federal Com 23H			Field: NM Lea County (NAD 83)			Structure: James 29 Federal Com 23H		
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Gravity & Magnetic Parameters						Surface Location		NAD83 New Mexico State Plane, Eastern Zone, US Feet			Miscellaneous				
Model:	HDGM 2024	Dip:	59.821°	Date:	11-Nov-2024	Lat:	N 32 16 53.62	Northing:	466756.2ftUS	Grid Conv:	0.3423°	Slot:	James 29 Federal Com 23H	TVD Ref:	RKB (3711.200 ft above MSL)
MagDec:	6.222°	FS:	47329.316nT	Gravity FS:	998.434mgn (9.80665 Based)	Lon:	W 103 41 33.01	Easting:	739379.9ftUS	Scale Fact:	0.99995401	Plan:	James 29 Federal Com 23H		

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [448°FNL, 1344°FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	1218.00	0.00	60.07	1218.00	0.00	0.00	0.00	0.00
A3 Top	1281.00	0.00	60.07	1281.00	0.00	0.00	0.00	0.00
A3 Base	1323.00	0.00	60.07	1323.00	0.00	0.00	0.00	0.00
Salado	1529.00	0.00	60.07	1529.00	0.00	0.00	0.00	0.00
Nudge, Build 2"/100ft	2500.00	0.00	60.07	2500.00	0.00	0.00	0.00	0.00
Lamar	2613.03	2.26	60.07	2613.00	-1.10	1.11	1.93	2.00
Hold	2999.91	10.00	60.07	2997.37	-21.45	21.70	37.71	2.00
Bell Canyon	4924.77	10.00	60.07	4893.00	-186.24	188.42	327.34	0.00
Cherry Canyon	5980.80	10.00	60.07	5933.00	-276.65	279.88	486.24	0.00
Drop 2"/100ft	6585.94	10.00	60.07	6528.95	-328.46	332.30	577.29	0.00
Brushy Canyon	7021.52	1.29	60.07	6962.00	-349.56	353.64	614.37	2.00
Hold	7085.85	0.00	60.07	7026.32	-349.91	354.00	615.00	2.00
Basal Brushy Canyon	8430.53	0.00	60.07	8371.00	-349.91	354.00	615.00	0.00
Bone Springs Lime	8754.53	0.00	60.07	8695.00	-349.91	354.00	615.00	0.00
Leonard	8858.53	0.00	60.07	8799.00	-349.91	354.00	615.00	0.00
Avalon	9269.53	0.00	60.07	9210.00	-349.91	354.00	615.00	0.00
1st BS Sand	9854.53	0.00	60.07	9795.00	-349.91	354.00	615.00	0.00
KOP, Build 10"/100ft	10345.85	0.00	60.07	10286.32	-349.91	354.00	615.00	0.00
2nd BS Sand	10523.35	17.75	155.62	10461.00	-324.99	329.16	626.26	10.00
Build & Turn 5"/100ft	11095.85	75.00	155.62	10839.75	38.04	-32.80	790.30	10.00
Landing Point	11448.27	89.59	165.62	10887.00	367.10	-361.10	905.22	5.00
Turn 2"/100ft	11553.27	89.59	165.62	10887.75	468.98	-462.81	931.30	0.00
Hold	12253.20	89.59	179.62	10892.77	1161.94	-1155.20	1020.99	2.00
James 29-32 Federal Com 23H - BHL [2543°FNL, 330°FEL]	18467.39	89.59	179.62	10937.00	7375.98	-7369.09	1062.32	0.00





Coterra James 29 Federal Com 23H Rev2 kFc 11Nov24 Proposal Geodetic

Report

Def Plan

Report Date: November 11, 2024 - 04:39 PM (UTC 0)
 Client: COTERRA
 Field: NM Lea County (NAD 83)
 Structure / Slot: Coterra James 29 Federal Com Pad / James 29 Federal Com 23H James
 Well: 29 Federal Com 23H
 Borehole: James 29 Federal Com 23H
 UBH / API#: Unknown / Unknown
 Survey Name: Coterra James 29 Federal Com 23H Rev2 kFc 11Nov24
 Survey Date: November 11, 2024
 Tort / AHD / DDI / ERD Ratio: 126.616 * / 8501.493 ft / 6.259 / 0.777
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: 32°16'53.61932"N, 103°41'33.00721"W
 Location Grid N/E Y/X: N 466756.200 RUS, E 739379.900 RUS
 CRS Grid Convergence Angle: 0.342°
 Grid Scale Factor: 0.99995401(Applied)
 Version / Patch: 2024.0.0.4

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 179.620 °(GRID North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3711.200 ft above MSL
 Sealed / Ground Elevation: 3688.200 ft above MSL
 Magnetic Declination: 6.222°
 Total Gravity Field Strength: 996.4335mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47329.316 nT
 Magnetic Dip Angle: 59.821°
 Declination Date: November 11, 2024
 Magnetic Declination Model: HDGM 2024
 North Reference: Grid North
 Grid Convergence Used: 0.342°
 Total Corr Mag North-Grid North: 5.88°
 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 [448FNL, 1344FEL]	0.00	0.00	0.00	0.00	-3,711.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200			
	100.00	0.00	60.07	100.00	-3,611.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	200.00	0.00	60.07	200.00	-3,511.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	300.00	0.00	60.07	300.00	-3,411.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	400.00	0.00	60.07	400.00	-3,311.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	500.00	0.00	60.07	500.00	-3,211.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	600.00	0.00	60.07	600.00	-3,111.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	700.00	0.00	60.07	700.00	-3,011.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	800.00	0.00	60.07	800.00	-2,911.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	900.00	0.00	60.07	900.00	-2,811.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
Rustler	1,000.00	0.00	60.07	1,000.00	-2,711.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,100.00	0.00	60.07	1,100.00	-2,611.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,200.00	0.00	60.07	1,200.00	-2,511.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,218.00	0.00	60.07	1,218.00	-2,493.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,281.00	0.00	60.07	1,281.00	-2,430.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,300.00	0.00	60.07	1,300.00	-2,411.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,323.00	0.00	60.07	1,323.00	-2,388.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,400.00	0.00	60.07	1,400.00	-2,311.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,500.00	0.00	60.07	1,500.00	-2,211.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,529.00	0.00	60.07	1,529.00	-2,182.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
Salado	1,600.00	0.00	60.07	1,600.00	-2,111.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,700.00	0.00	60.07	1,700.00	-2,011.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,800.00	0.00	60.07	1,800.00	-1,911.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	1,900.00	0.00	60.07	1,900.00	-1,811.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	2,000.00	0.00	60.07	2,000.00	-1,711.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	2,100.00	0.00	60.07	2,100.00	-1,611.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	2,200.00	0.00	60.07	2,200.00	-1,511.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	2,300.00	0.00	60.07	2,300.00	-1,411.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	2,400.00	0.00	60.07	2,400.00	-1,311.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
	2,500.00	0.00	60.07	2,500.00	-1,211.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
Nudge, Build 2°100ft	2,600.00	2.00	60.07	2,599.98	-1,111.22	-0.86	0.87	1.51	466,757.07	739,381.41	32.28156329	-103.69249709	2.00	2.00	0.00
	2,613.03	2.26	60.07	2,613.00	-1,098.20	-1.10	1.11	1.93	466,757.31	739,381.83	32.28156395	-103.69249573	2.00	2.00	0.00
	2,700.00	4.00	60.07	2,699.84	-1,011.36	-3.44	3.48	6.05	466,759.68	739,385.95	32.28157039	-103.69248237	2.00	2.00	0.00
	2,800.00	6.00	60.07	2,799.45	-911.75	-7.74	7.83	13.60	466,764.03	739,393.50	32.28158222	-103.69245784	2.00	2.00	0.00
	2,900.00	8.00	60.07	2,898.70	-812.50	-13.75	13.91	24.16	466,770.11	739,404.06	32.28159875	-103.69242355	2.00	2.00	0.00
	2,999.91	10.00	60.07	2,997.37	-713.83	-21.45	21.70	37.71	466,777.90	739,417.60	32.28161996	-103.69237958	2.00	2.00	0.00
	3,000.00	10.00	60.07	2,997.47	-713.73	-21.46	21.71	37.72	466,777.91	739,417.62	32.28161998	-103.69237954	0.00	0.00	0.00
	3,100.00	10.00	60.07	3,095.95	-615.25	-30.02	30.37	52.77	466,786.57	739,432.66	32.28164354	-103.69233089	0.00	0.00	0.00
	3,200.00	10.00	60.07	3,194.43	-516.77	-38.58	39.03	67.81	466,795.23	739,447.71	32.28166710	-103.69228184	0.00	0.00	0.00
	3,300.00	10.00	60.07	3,292.91	-418.29	-47.14	47.70	82.86	466,803.89	739,462.76	32.28169066	-103.69223298	0.00	0.00	0.00
Hold	3,400.00	10.00	60.07	3,391.39	-319.81	-55.71	56.36	97.91	466,812.55	739,477.80	32.28171422	-103.69218413	0.00	0.00	0.00
	3,500.00	10.00	60.07	3,489.87	-221.33	-64.27	65.02	112.95	466,821.21	739,492.85	32.28173777	-103.69213528	0.00	0.00	0.00
	3,600.00	10.00	60.07	3,588.35	-122.85	-72.83	73.68	128.00	466,829.88	739,507.90	32.28176133	-103.69208643	0.00	0.00	0.00
	3,700.00	10.00	60.07	3,686.83	-24.37	-81.39	82.34	143.05	466,838.54	739,522.94	32.28178489	-103.69203758	0.00	0.00	0.00
	3,800.00	10.00	60.07	3,785.32	74.12	-89.95	91.00	158.10	466,847.20	739,537.99	32.28180845	-103.69198872	0.00	0.00	0.00
	3,900.00	10.00	60.07	3,883.80	172.65	-98.51	173.60	199.60	466,855.86	739,553.03	32.28183201	-103.69193987	0.00	0.00	0.00
	4,000.00	10.00	60.07	3,982.28	271.08	-107.07	108.32	188.19	466,864.52	739,568.98	32.28185557	-103.69189102	0.00	0.00	0.00
	4,100.00	10.00	60.07	4,080.76	369.56	-115.63	116.98	203.24	466,873.18	739,583.13	32.28187913	-103.69184217	0.00	0.00	0.00
	4,200.00	10.00	60.07	4,179.24	468.04	-124.20	125.65	218.28	466,881.84	739,598.17	32.28190268	-103.69179332	0.00	0.00	0.00
	4,300.00	10.00	60.07	4,277.72	566.52	-132.76	134.31	233.33	466,890.50	739,613.22	32.28192624	-103.69174446	0.00	0.00	0.00
Bell Canyon	4,400.00	10.00	60.07	4,376.20	665.00	-141.32	142.97	248.38	466,899.16	739,628.27	32.28194980	-103.69169561	0.00	0.00	0.00
	4,500.00	10.00	60.07	4,474.69	763.49	-149.88	151.63	263.42	466,907.82	739,643.31	32.28197336	-103.69164676	0.00	0.00	0.00
	4,600.00	10.00	60.07	4,573.17	861.97	-158.44	160.29	278.47	466,916.48	739,658.36	32.28199692	-103.69159791	0.00	0.00	0.00
	4,700.00	10.00	60.07	4,671.65	960.45	-167.00	169.89	293.52	466,925.14	739,673.40	32.28202048	-103.69154905	0.00	0.00	0.00
	4,800.00	10.00	60.07	4,770.13	1,058.93	-175.56	177.61	308.56	466,933.80	739,688.45	32.28204403	-103.69150020	0.00	0.00	0.00
	4,900.00	10.00	60.07	4,868.61	1,157.41	-184.12	186.27	323.61	466,942.47	739,703.50	32.28206759	-103.69145135	0.00	0.00	0.00
	4,924.77	10.00	60.07	4,893.00	1,181.80	-186.24	188.42	327.34	466,944.61	739,707.22	32.28207343	-103.69143925	0.00	0.00	0.00
	5,000.00	10.00	60.07	4,967.09	1,255.89	-192.68	194.94	338.66	466,951.13	739,718.54	32.28209115	-103.69140250	0.00	0.00	0.00
	5,100.00	10.00	60.07	5,065.57	1,354.37	-201.25	203.60	353.71	466,959.79	739,733.59	32.28211471	-103.69135365	0.00	0.00	0.00
	5,200.00	10.00	60.07	5,164.05	1,452.85	-209.81	212.26	368.75	466,968.45	739,748.63	32.28213827	-103.69130479	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azin (°)	TVD (ft)	TVSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS ("100ft)	BR ("100ft)	TR ("100ft)
Avalon	8,900.00	0.00	60.07	8,840.47	5,129.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,000.00	0.00	60.07	8,940.47	5,229.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,100.00	0.00	60.07	9,040.47	5,329.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,200.00	0.00	60.07	9,140.47	5,429.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,269.53	0.00	60.07	9,210.00	5,498.80	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,300.00	0.00	60.07	9,240.47	5,529.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,400.00	0.00	60.07	9,340.47	5,629.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,500.00	0.00	60.07	9,440.47	5,729.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,600.00	0.00	60.07	9,540.47	5,829.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,700.00	0.00	60.07	9,640.47	5,929.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
1st BS Sand	9,800.00	0.00	60.07	9,740.47	6,029.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,854.53	0.00	60.07	9,795.00	6,083.80	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	9,900.00	0.00	60.07	9,840.47	6,129.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	10,000.00	0.00	60.07	9,940.47	6,229.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	10,100.00	0.00	60.07	10,040.47	6,329.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	10,200.00	0.00	60.07	10,140.47	6,429.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	10,300.00	0.00	60.07	10,240.47	6,529.27	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	10,345.85	0.00	60.07	10,286.32	6,575.12	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
	10,400.00	5.42	155.62	10,340.39	6,629.19	-347.58	351.67	616.06	467,107.85	739,995.93	32.28251739	-103.69050194	10.00	10.00	0.00
	10,500.00	15.42	155.62	10,438.62	6,727.42	-331.08	335.23	623.51	467,091.41	740,003.38	32.28247206	-103.69047814	10.00	10.00	0.00
KOP, Build 10"/100ft	10,523.35	155.62	155.62	10,461.00	6,749.80	-324.99	329.16	626.26	467,086.13	740,006.13	32.28245533	-103.69046953	10.00	10.00	0.00
	10,600.00	25.42	155.62	10,532.22	6,821.02	-299.26	303.49	637.89	467,059.68	740,017.76	32.2838461	-103.69043223	10.00	10.00	0.00
	10,700.00	35.42	155.62	10,618.35	6,907.15	-253.07	257.44	658.76	467,013.63	740,038.63	32.28225768	-103.69036559	10.00	10.00	0.00
	10,800.00	45.42	155.62	10,694.39	6,983.19	-193.91	198.46	685.49	466,954.65	740,065.36	32.28209514	-103.69028025	10.00	10.00	0.00
	10,900.00	55.42	155.62	10,758.03	7,046.83	-123.60	128.36	717.26	466,884.55	740,097.13	32.28190192	-103.69017881	10.00	10.00	0.00
	11,000.00	65.42	155.62	10,807.34	7,096.14	-44.25	49.25	753.11	466,805.45	740,132.98	32.28168390	-103.69006435	10.00	10.00	0.00
	11,095.85	75.00	155.62	10,839.75	7,128.55	38.04	-32.80	790.30	466,723.40	740,170.16	32.28145778	-103.68994564	10.00	10.00	0.00
	11,100.00	75.71	155.74	10,840.82	7,129.62	-36.45	-31.74	791.95	466,719.75	740,171.81	32.28147679	-103.68994036	5.00	4.10	2.97
	11,200.00	79.28	158.66	10,862.93	7,151.73	131.84	-126.34	829.71	466,629.87	740,209.57	32.28120002	-103.68981909	5.00	4.11	2.91
	11,300.00	83.42	161.49	10,877.96	7,166.76	224.98	-219.26	863.38	466,536.95	740,243.24	32.28094407	-103.68971280	5.00	4.14	2.84
Landing Point	11,400.00	87.58	164.28	10,885.80	7,174.60	320.42	-314.51	892.70	466,441.71	740,272.55	32.28068177	-103.68961979	5.00	4.16	2.79
	11,448.27	89.59	165.62	10,887.00	7,175.80	367.10	-361.10	905.22	466,395.11	740,285.08	32.28055350	-103.68958016	5.00	4.16	2.77
	11,500.00	89.59	165.62	10,887.37	7,176.17	417.29	-411.21	918.07	466,345.01	740,297.93	32.28041556	-103.68953957	0.00	0.00	0.00
	11,553.27	89.59	165.62	10,887.75	7,176.55	468.98	-462.81	931.30	466,293.41	740,311.16	32.28027352	-103.68949777	0.00	0.00	0.00
	11,600.00	89.59	166.55	10,888.08	7,176.88	514.41	-508.17	942.54	466,248.05	740,322.39	32.28014866	-103.68946253	2.00	0.00	2.00
	11,700.00	89.59	168.55	10,888.80	7,177.60	612.19	-605.81	964.09	466,150.42	740,343.94	32.27987993	-103.68939447	2.00	0.00	2.00
	11,800.00	89.59	170.55	10,889.52	7,178.32	710.65	-704.15	982.21	466,052.08	740,362.07	32.27960935	-103.68933773	2.00	0.00	2.00
	11,900.00	89.59	172.55	10,890.24	7,179.04	809.65	-803.06	996.90	465,953.18	740,376.75	32.27933725	-103.68929214	2.00	0.00	2.00
	12,000.00	89.59	174.55	10,890.96	7,179.76	909.08	-902.42	1,008.12	465,853.83	740,387.97	32.27906396	-103.68925775	2.00	0.00	2.00
	12,100.00	89.59	176.55	10,891.67	7,180.47	1,008.82	-1,002.11	1,015.87	465,754.14	740,395.72	32.27878983	-103.68923461	2.00	0.00	2.00
Turn 2"/100ft	12,200.00	89.59	178.55	10,892.39	7,181.19	1,108.75	-1,102.01	1,020.14	465,654.24	740,399.99	32.27851517	-103.68922275	2.00	0.00	2.00
	12,253.20	89.59	179.62	10,892.77	7,181.57	1,161.94	-1,155.20	1,020.99	465,601.06	740,400.84	32.27783897	-103.68922104	2.00	0.00	2.00
	12,300.00	89.59	179.62	10,893.10	7,181.90	1,208.75	-1,202.00	1,021.30	465,554.26	740,401.15	32.27762432	-103.68922094	0.00	0.00	0.00
	12,400.00	89.59	179.62	10,893.81	7,182.61	1,308.74	-1,301.99	1,021.96	465,454.27	740,401.81	32.27796547	-103.68922074	0.00	0.00	0.00
	12,500.00	89.59	179.62	10,894.52	7,183.32	1,408.74	-1,401.99	1,022.63	465,354.28	740,402.48	32.27769061	-103.68922053	0.00	0.00	0.00
	12,600.00	89.59	179.62	10,895.24	7,184.04	1,508.74	-1,501.98	1,023.29	465,254.29	740,403.14	32.27741576	-103.68922032	0.00	0.00	0.00
	12,700.00	89.59	179.62	10,895.95	7,184.75	1,608.74	-1,601.98	1,023.96	465,154.30	740,403.81	32.27714090	-103.68922011	0.00	0.00	0.00
	12,800.00	89.59	179.62	10,896.66	7,185.46	1,708.73	-1,701.98	1,024.62	465,054.31	740,404.47	32.27686605	-103.68921990	0.00	0.00	0.00
	12,900.00	89.59	179.62	10,897.37	7,186.17	1,808.73	-1,801.97	1,025.29	464,954.32	740,405.14	32.27659119	-103.68921969	0.00	0.00	0.00
	13,000.00	89.59	179.62	10,898.08	7,186.88	1,908.73	-1,901.97	1,025.95	464,854.33	740,405.80	32.27631633	-103.68921948	0.00	0.00	0.00
Hold	13,100.00	89.59	179.62	10,898.79	7,187.59	2,008.73	-2,001.96	1,026.62	464,754.33	740,406.47	32.27604148	-103.68921927	0.00	0.00	0.00
	13,200.00	89.59	179.62	10,899.51	7,188.31	2,108.72	-2,101.96	1,027.28	464,654.34	740,407.13	32.27576662	-103.68921906	0.00	0.00	0.00
	13,300.00	89.59	179.62	10,900.22	7,189.02	2,208.72	-2,201.95	1,027.95	464,554.35	740,407.80	32.27549177	-103.68921885	0.00	0.00	0.00
	13,400.00	89.59	179.62	10,900.93	7,189.73	2,308.72	-2,301.95	1,028.61	464,454.36	740,408.47	32.27521691	-103.68921864	0.00	0.00	0.00
	13,500.00	89.59	179.62	10,901.64	7,190.44	2,408.72	-2,401.94	1,029.28	464,354.						



Coterra James 29 Federal Com 23H Rev2 kFc 11Nov24 Proposal Geodetic Report

Def Plan

Report Date:	November 11, 2024 - 04:40 PM (UTC 0)	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	COTERRA	Vertical Section Azimuth:	179.620 °(GRID North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Coterra James 29 Federal Com Pad / James 29 Federal Com James	TVD Reference Datum:	RKB
Well:	29 Federal Com 23H	TVD Reference Elevation:	3711.200 ft above MSL
Borehole:	James 29 Federal Com 23H	Seabed / Ground Elevation:	3688.200 ft above MSL
UBHI / API#:	Unknown / Unknown	Magnetic Declination:	6.222°
Survey Name:	Coterra James 29 Federal Com 23H Rev2 kFc 11Nov24 November	Total Gravity Field Strength:	986.4335mgm (9.80665 Based)
Survey Date:	11, 2024	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	126.616 ° / 8501.493 ft / 6.259 / 0.777	Total Magnetic Field Strength:	47329.316 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.821°
Location Lat / Long:	32°16'53.6193"N, 103°41'33.00721"W	Declination Date:	November 11, 2024
Location Grid N/E Y/X:	N 466756.200 RUS, E 739379.900 RUS	Magnetic Declination Model:	HDCM 2024
CRS Grid Convergence Angle:	0.342°	North Reference:	Grid North
Grid Scale Factor:	0.99995401(Applied)	Grid Convergence Used:	0.342°
Version / Patch:	2024.4.0.4	Total Corr Mag North->Grid North:	5.88°
		Local Coord Referenced To:	Well Head

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)
SHL [448FNL, 1344FEL]	0.00	0.00	0.00	0.00	-3,711.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
Nudge, Build 2"/100ft	2,500.00	0.00	60.07	2,500.00	-1,211.20	0.00	0.00	0.00	466,756.20	739,379.90	32.28156092	-103.69250200	0.00	0.00	0.00
Hold	2,999.91	10.00	60.07	2,997.37	-713.83	-21.45	21.70	37.71	466,777.90	739,417.60	32.28161996	-103.69237958	2.00	2.00	0.00
Drop 2"/100ft	6,585.94	10.00	60.07	6,528.95	2,817.75	-328.46	332.30	577.29	467,088.48	739,957.17	32.28246477	-103.69062773	0.00	0.00	0.00
Hold	7,085.85	0.00	60.07	7,026.32	3,315.12	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	2.00	-2.00	0.00
KOP, Build 10"/100ft	10,345.85	0.00	60.07	10,286.32	6,575.12	-349.91	354.00	615.00	467,110.18	739,994.87	32.28252380	-103.69050531	0.00	0.00	0.00
Build & Turn 5"/100ft	11,095.85	75.00	155.62	10,839.75	7,128.55	38.04	-32.80	790.30	466,723.40	740,170.16	32.28145778	-103.68994564	10.00	10.00	0.00
Landing Point	11,448.27	89.59	165.62	10,887.00	7,175.80	367.10	-361.10	905.22	466,395.11	740,265.08	32.28055350	-103.68958016	5.00	4.14	2.84
Turn 2"/100ft	11,553.27	89.59	165.62	10,887.75	7,176.55	468.98	-462.81	931.30	466,293.41	740,311.16	32.28027352	-103.68949777	0.00	0.00	0.00
Hold	12,253.20	89.59	179.62	10,892.77	7,181.57	1,161.94	-1,155.20	1,020.99	465,601.06	740,400.84	32.27836897	-103.68922104	2.00	0.00	2.00
James 29 Federal Com 23H - BHL [2543FNL, 330FEL]	18,467.39	89.59	179.62	10,937.00	7,225.80	7,375.98	-7,369.09	1,062.32	459,387.46	740,442.17	32.26128889	-103.68920799	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	10,300.000	1/100.000	-	-		A001Mb_MWD		James 29 Federal Com 23H / Coterra James 29
	1	10,300.000	18,467.387	1/100.000	-	-		A008Mb_MWD+IFR1+MS		James 29 Federal Com 23H / Coterra James 29

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

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Cimarex Energy Company
LEASE NO.:	NMNM0559539
COUNTY:	Lea

Wells:**James 29 Federal Com 23H**

Surface Hole Location: 448' FNL & 1344' FEL, Section 29, T. 23 S, R. 32 E.

Bottom Hole Location: 2542' FNL & 330' FEL, Section 32, T. 23 S, R. 32 E.

James 29 Federal Com 24H

Surface Hole Location: 428' FNL & 1345' FEL, Section 29, T. 23 S, R. 32 E.

Bottom Hole Location: 2543' FNL & 1243' FEL, Section 32, T. 23 S, R. 32 E.

James 29 Federal Com 25H

Surface Hole Location: 408' FNL & 1346' FEL, Section 29, T. 23 S, R. 32 E.

Bottom Hole Location: 2543' FSL & 2178' FEL, Section 32, T. 23 S, R. 32 E.

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Lesser Prairie Chicken
 - ROW Grant
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

BURIED/SURFACE LINE(S):

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

TEMPORARY USE FRESH WATER FRAC LINE(S):

Once the temporary use exceeds the timeline of 180 days and/or with a 90 day extension status; further analysis will be required if the applicant pursues to turn the temporary ROW into a permanent ROW.

CONSTRUCTION IN LESSER PRARIE PRAIRIE-CHICKEN HABITAT:

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1 through June 15 annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use

on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Upon abandonment, a low profile abandoned well marker will be installed to prevent raptor perching.

The proponent of the proposed action is a Participating Cooperator in the Candidate Conservation Agreement (CCA) for the lesser prairie-chicken (*Tympanuchus pallidicinctus*) and dunes sagebrush lizard (*Sceloporus arenicolus*).

The goal of the Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), Center of Excellence for Hazardous Materials Management (CEHMM) and the Participating Cooperator is to reduce and/or eliminate threats to the LPC. By agreeing to conduct the conservation measures described by the CCA, and contribute funding or providing in-kind services for conservation.

The Certificate of Participation (CP) associated with the CCA is voluntary between CEHMM, BLM, USFWS and the Participating Cooperator. Through the CP, the Participating Cooperator voluntarily commits to implement or fund specific conservation actions that will reduce and/or eliminate threats to the LPC. Funds contributed as part of the CP will be used to implement conservation measures and associated activities. The funds will be directed to the highest priority projects to restore or reclaim habitat at the sole discretion of BLM and USFWS.

The following Conservation Measures are to be accomplished in addition to those described in the CCA and Pecos District Special Status Species Resource Management Plan Amendment (RMPA):

To the extent determined by the BLM representative at the Plan of Development stage, all infrastructures supporting the development of a well (including roads, power lines, and pipelines) will be constructed within the same corridor.

On enrolled parcels that contain inactive wells, roads and/or facilities that are not reclaimed to current standards, the Participating Cooperator shall remediate and reclaim their facilities within three years of executing this CP, unless the Cooperator can demonstrate they will put the facilities back to beneficial use for the enrolled parcel(s). If an extension is requested by the Cooperator, they shall submit a detailed plan (including dates) and receive BLM approval prior to the three year deadline. All remediation and reclamation shall be performed in accordance with BLM requirements and be approved in advance by the Authorized Officer.

Utilize alternative techniques to minimize new surface disturbance when required and as determined by the BLM representative at the Plan of Development stage.

Install fence markings along fences owned, controlled, or constructed by the Participating Cooperator that cross through occupied habitat within two miles of an active LPC lek. Bury new powerlines that are within two (2) miles of LPC lek sites active at least once within the past 5 years (measured from the lek). The avoidance distance is subject to change based on new information received from peer reviewed science.

Bury new powerlines that are within one (1) mile of historic LPC lek sites where at least one LPC has been observed within the past three years (measured from the historic lek). The avoidance distance is subject to change based on new information received from peer reviewed science.

Management recommendations may be developed based on new information received from peer reviewed science to mitigate impacts from H₂S and/or the accumulation of sulfates in the soil related to production of gas containing H₂S on the LPC. Such management recommendations will be applied by the Participating Cooperator as Conservation Measures under this CP in

suitable and occupied LPC habitat where peer-reviewed science has shown that H2S levels threaten the LPC.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Carlsbad Canyon** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the

- trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
 - Special restoration stipulations or realignment may be required at such intersections, if any.
 - A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, siting valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
 - Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
 - All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

CONDITIONS OF APPROVAL FOR TEMPORARY FRESHWATER PIPELINES

Subject to the terms and conditions which are shown below, is hereby approved:

- Surface pipelines 6.5 inch to 16 inch OD may be in place for no more than 180 days not including installation.
- Surface pipeline will be in operation for no more than 180 days; a maximum of seven (7) days authorized for installation of the lay flat poly line prior to operation.
- Surface pipelines larger than 6.5 inch to-16-inch OD may be in place for no more than 180 days from date of authorization; 5/1/2018, unless a SF-299 is submitted within 30 days of this decision expiring requesting a long term buried fresh water pipeline, and processing of the SF-299 is not yet complete at the end of 30 days, in which case the line(s) may be left in place until a decision is made on the SF-299.
- All lines will be removed when no longer in use.
- Width of authorized use is 15-feet.
- No blading and/or earthwork will be allowed in order to place the pipeline except burying the line under crossings.
- The pipeline will be buried under all intersecting routes, including BLM-designated trails and access roads into caliche pits, rancher watering stations, etc. All such buried crossings will be removed when the pipeline is removed, unless otherwise approved by the Authorized Officer. Pipelines larger than 6.5-inch OD may utilize other crossing methodologies (but any fill placed over pipeline must be brought in from off-site).
- Pipeline crossings of fences should be avoided where possible. If a crossing is necessary, contact fence owner [usually the grazing permittee] prior to installation, and install by threading pipeline under the lowest wire of the fence; pipeline should never cross on top of any fence wires.
- The pipeline shall stay within 10 feet maximum of existing disturbance (e.g. lease road, pipeline right-of-way etc.); placement should be within 5 feet whenever possible.

- Placement of pumps or other high-maintenance equipment shall be installed along maintained lease roads.
- Gas or diesel pumps, generators, or compressors shall be placed on visquen matting [or 20 mil plastic] and in a containment structure capable of containing all potentially released fuels. Containments must be protected against wildlife deaths in accordance with oilfield best management practices.
- Due to potential damage to natural resources, no work is allowed during inclement weather.
- Pipeline will be marked with your company's name and contact number, at beginning and ending points, at all public-road crossings, and at intervals not exceeding every 0.6 mile, unless otherwise approved by the Authorized Officer.
- Should unforeseen damage occur to resources, BLM will require reclamation of the impacted land.
- No water may be released into the environment without BLM consent.
- Placement of surface pipelines along or under public roadways may require permits from the road authority.
- This authorization is limited to lands under BLM jurisdiction. If your proposed pipeline crosses lands under private ownership or under other agency jurisdiction, you are responsible for obtaining all necessary permits and approvals from those parties.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.

9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the corridor (unless the release or threatened release is wholly unrelated to the corridor holder's activity on the corridor), or resulting from the activity of the corridor holder on the corridor. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized corridor.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this corridor will be 30 feet:

- Blading of vegetation within the corridor will be allowed: maximum width of blading operations will not exceed 30 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the corridor will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the corridor (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this corridor and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|--|--|
| <input type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input checked="" type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the corridor and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

20. **Escape Ramps** - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

- c. Holder shall ensure safe passage for livestock and wildlife during construction of the welded pipe on surface prior to laying in the trench every quarter of a mile or at grazing permittees reasonable discretion.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

**PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Cimarex Energy Company
LOCATION:	Section 29, T.23 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	James 29 Federal Com 23H
ATS/API ID:	ATS-23-161
APD ID:	10400088855
Sundry ID:	N/a

WELL NAME & NO.:	James 29 Federal Com 24H
ATS/API ID:	ATS-23-162
APD ID:	10400088886
Sundry ID:	N/a

WELL NAME & NO.:	James 29 Federal Com 25H
ATS/API ID:	ATS-23-163
APD ID:	10400088887
Sundry ID:	N/a

COA

H2S	No		
Potash	None	None	
Cave/Karst Potential	Low		
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		
Other	<input type="checkbox"/> 4 String <input type="checkbox"/> 5 String	Capitan Reef None	<input type="checkbox"/> WIPP
Other	Pilot Hole None	<input type="checkbox"/> Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter None	Primary Cement Squeeze None
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 None	
Special Requirements Variance	<input type="checkbox"/> Break Testing	<input type="checkbox"/> Offline Cementing	<input type="checkbox"/> Casing Clearance

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1340 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.
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 **7** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
4. The minimum required fill of cement behind the **4-1/2** inch production liner is:
 - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.
Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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) 1/14/2025

Coterra: H2S Plan



H2S Drilling Operations Plan

Training

All company and contract personnel admitted on location must be trained by a qualified H2S safety instructor to do the following:

1. Characteristics of H2S
2. Physical effects and hazards
3. Principle and operation of H2S detectors, warning system, and briefing areas
4. Evacuation procedure, routes and first aid
5. Proper use of safety equipment & life support systems
6. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H2S Detection and Alarm Systems

1. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
2. An audio alarm system will be installed on the derrick floor and in the top doghouse

Windsock and/or wind streamers

1. Windsock at mudpit area should be high enough to be visible
2. Windsock on the rig floor and / or top of doghouse should be high enough to be visible

Condition Flags & Signs

1. Warning signs on access road to location
2. Flags are to be displayed on sign at the entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates

Coterra: H2S Plan

danger (H2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

Well Control Equipment

1. See the pressure control section of this submission.

Communication

1. While working under masks, chalkboards will be used for communication
2. Hand signals will be used where chalk board is inappropriate.
3. Two way radio will be used to communicate off location in case emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

Drillstem Testing

1. No DSTs or cores are planned at this time
2. Drilling contractor supervisor will be required to be familiar with the effects that H2S has on tubular goods and other mechanical equipment.
3. If H2S is encountered, mud system will be altered if necessary to maintain control of the well. A mud gas separator will be brought into service along with H2S scavenger if necessary.

Coterra: H2S Plan

H2S Contingency Plan

Emergency Procedures

In the event of an H2S release, the first responder(s) must:

1. Isolate the area and prevent entry by other persons into the 100 PPM ROE.
2. Evacuate any public places encompassed by the 100 PPM ROE.
3. Be equipped with H2S monitors and air packs in order to control the release.
4. Use the buddy system
5. Take precautions to avoid personal injury during this operation
6. Contact operator and/or local officials to aid in operation. See list of emergency contacts attached.
7. Have received training the detection of H2S, measures for protection against the gas, and equipment used for protection and emergency response

Ignition of the Gas Source

1. Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Contacting Authorities

1. Coterra personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours.
2. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Coterra's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

Coterra: H2S Plan

Emergency Contacts

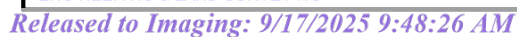
Coterra Energy

Charlie Pritchard: Drilling Operations Manager: 432 – 238 – 7084

Darrell Kelly: Vice President EHS: 281 – 589 – 5795

Third Party

PERMIAN REGION CONTACT NUMBERS					
CALL 911					
Air Ambulance Services					
	Reeves County Medical - Pecos, TX		432-447-3551		
	Aero Care - Midland, TX		800-627-2376		
	Tri State Care Flight - Artesia, NM		800-800-0900		
	Air Methods - Hobbs, NM		800-242-6199		
Fire / Police / Medical Care					
Sheriff's Office		Fire Departments		Hospital / Medical Care Facilities	
Andrews County	432-523-5545	Andrews	432-523-3111	Permian Regional Med.	432-523-2200
Reagan County	325-884-2929	Big Lake	325-884-3650	Reagan Memorial Hosp.	325-884-2561
Howard County	432-264-2244	Big Springs	432-264-2303	Scenic Mountain Med Ctr	432-263-1211
Terry County	806-637-2212	Brownfield	806-637-6633		
Crane County	432-558-3571	Crane	432-558-2361	Crane Memorial Hosp.	432-558-3555
Val Verde County	830-774-7513	Del Rio	830-774-8648	Val Verde Regional Med.	830-775-8566
		Denver City	806-592-3516	Yoakum County Hospital	806-592-2121
Pecos County	432-336-3521	Ft Stockton	432-336-8525		
Glasscock County	432-354-2361	Garden City			
Winkler County	432-586-3461	Kernit	432-586-2577	Winkler County Memorial	432-586-5864
		McCamey	432-652-8232	McCamey Hospital	432-652-8626
Loving County	432-377-2411	Mentone			
Irion County	325-835-2551	Mertzon			
Ward County	432-943-6703	Monahans	432-943-2211	Ward Memorial Hospital	432-943-2511
Ector County	432-335-3050	Odessa	432-335-4650	Odessa Regional Hosp.	432-582-8340
Crocket County	325-392-2661	Ozona	325-392-2626		
Reeves County	432-445-4901	Pecos	505-757-6511	Reeves County Hospital	432-447-3551
Yoakum County	806-456-2377	Plains	806-456-2288		
Garza County	806-495-3595	Post			
Upton County	432-693-2422	Rankin			
Coke County	915-453-2717	Robert Lee			
		Roscoe	325-766-3931		
Hockley County	806-894-3126	Levelland	806-894-3155	Covenant Health	806-894-4963
Tom Green County	325-655-8111	San Angelo	325-657-4355	San Angelo Comm. Med.	325-949-9511
Gaines County	432-758-9871	Seminole	432-758-3621	Memorial Hospital	432-758-5811
Terrell County	432-345-2525	Sanderson			
Scurry County	325-573-3551	Snyder	325-573-3546	DM Cogdell Memorial	325-573-6374
Sterling County	325-378-4771	Sterling City			
Nolan County	325-235-5471	Sweetwater	325-235-8130	Rolling Plains Memorial	325-235-1701
Culberson County	432-283-2060	Van Horn		Culberson Hospital	432-283-2760
New Mexico					
Lea County	505-396-3611	Knowles	505-392-7469	Lea Reg Med Ctr	575-492-5000
Eddy County	575-887-7551	Carlsbad	575-885-3125	Carlsbad Medical	575-887-4100
		Artesia	575-746-5050	Artesia Hospital	575-748-3333
Roosevelt County	575-356-4408				
Chaves County	575-624-7590				
Ground Ambulance Services					
	Reeves County Medical		Pecos, TX		432-447-3551





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

SUPO Data Report

02/06/2025

APD ID: 10400088855**Submission Date:** 10/30/2022**Operator Name:** CIMAREX ENERGY COMPANY**Well Name:** JAMES 29 FEDERAL COM**Well Number:** 23H**Well Type:** OIL WELL**Well Work Type:** Drill

Highlighted data
reflects the most
recent changes

[Show Final Text](#)

Section 1 - Existing Roads

Will existing roads be used? YES**Existing Road Map:**

JAMES_29_FEDERAL_COM_W2E2_Existing_Rd_Map_20221029115135.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT**Row(s) Exist?** NO

ROW ID(s)

ID:**Do the existing roads need to be improved?** NO**Existing Road Improvement Description:****Existing Road Improvement Attachment:**

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES**Attach Well map:**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: JAMES 29 FEDERAL COMWell Number: 23H

JAMES_29_FEDERAL_COM_W2E2_well_radius_20241118082612.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Will use the existing James Fed 38H CTB located at the James Fed 35H well pad on exhibit M.
Production Facilities map:
JAMES_29_FEDERAL_COM_W2E2_Flowline_map_20221029121257.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: MUNICIPAL

Water source use type:

SURFACE CASING
INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type:

WATER RIGHT

Permit Number:

Water source transport method:

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 5000

Source volume (acre-feet): 0.64446548

Source volume (gal): 210000

Water source and transportation
James_29_Federal__Temp_Fresh_water_route_20221029122734.pdf
Water source comments:
New water well? N

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Operator Name: CIMAREX ENERGY COMPANY**Well Name:** JAMES 29 FEDERAL COM**Well Number:** 23H**Well target aquifer:****Est. depth to top of aquifer(ft):****Est thickness of aquifer:****Aquifer comments:****Aquifer documentation:****Well depth (ft):****Well casing type:****Well casing outside diameter (in.):****Well casing inside diameter (in.):****New water well casing?****Used casing source:****Drilling method:****Drill material:****Grout material:****Grout depth:****Casing length (ft.):****Casing top depth (ft.):****Well Production type:****Completion Method:****Water well additional information:****State appropriation permit:****Additional information attachment:**

Section 6 - Construction Materials

Using any construction materials: YES**Construction Materials description:** Caliche will be obtained from the actual well site if available. If not available onsite caliche will be obtained from Swag caliche pit located in sec 29 NWNW.**Construction Materials source location**

James_29_Fed_Com_Caliche_Route_20221029122823.pdf

Section 7 - Methods for Handling

Waste type: DRILLING**Waste content description:** Drilling Fluids, drill cuttings, water and other waste produced from the well during drilling operations.**Amount of waste:** 15000 barrels**Waste disposal frequency :** Weekly**Safe containment description:** N/A**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY**Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** Haul to R360 Environmental Solutions, 4507 Carlsbad Hwy, Hobbs, NM 88240

Operator Name: CIMAREX ENERGY COMPANY

Well Name: JAMES 29 FEDERAL COM

Well Number: 23H

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 300 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE FACILITY

Disposal type description:

Disposal location description: A licensed 3rd party contractor will be used to haul and dispose human waste to City of Toyah TX waste water facility.

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 32500 pounds

Waste disposal frequency : Weekly

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

Disposal location description: A licensed 3rd party hauls trash to Lea County Landfill

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.) Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Operator Name: CIMAREX ENERGY COMPANY**Well Name:** JAMES 29 FEDERAL COM**Well Number:** 23H**Description of cuttings location****Cuttings area length (ft.)****Cuttings area width (ft.)****Cuttings area depth (ft.)****Cuttings area volume (cu. yd.)****Is at least 50% of the cuttings area in cut?****WCuttings area liner****Cuttings area liner specifications and installation description****Section 8 - Ancillary****Are you requesting any Ancillary Facilities?:** N**Ancillary Facilities****Comments:****Section 9 - Well Site****Well Site Layout Diagram:**

JAMES_29_FEDERAL_COM_W2E2_reclamation_plat_20241118082653.pdf

JAMES_29_FEDERAL_COM_W2E2_archaeology_layout_20241118082653.pdf

JAMES_29_FEDERAL_COM_W2E2_surface_use_plat_20241118082653.pdf

JAMES_29_FEDERAL_COM_W2E2_location_layout_20241118082654.pdf

Comments:**Section 10 - Plans for Surface Reclamation****Type of disturbance:** New Surface Disturbance**Multiple Well Pad Name:** James 29-32 Federal Com**Multiple Well Pad Number:** E2W2**Recontouring**

JAMES_29_FEDERAL_COM_W2E2_reclamation_plat_20241118082720.pdf

Drainage/Erosion control construction: To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

Drainage/Erosion control reclamation: All disturbed and re-contoured areas would be reseeded according

Operator Name: CIMAREX ENERGY COMPANY

Well Name: JAMES 29 FEDERAL COM

Well Number: 23H

to specifications. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Well pad proposed disturbance (acres): 4.32	Well pad interim reclamation (acres): 1.513	Well pad long term disturbance (acres): 2.807
Road proposed disturbance (acres):	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 4.32	Total interim reclamation: 1.513	Total long term disturbance: 2.807

Disturbance Comments:

Reconstruction method: After well plugging, all disturbed areas would be returned to the original contour or a contour that blends with the surrounding landform including roads unless the surface owner requests that they be left intact. In consultation with the surface owners it will be determined if any gravel or similar materials used to reinforce an area are to be removed, buried, or left in place during final reclamation. Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated. As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching, or fertilizing. Reclamation, Re-vegetation, and Drainage: All disturbed and re-contoured areas would be reseeded using techniques outlined under Phase I and II of this plan or as specified by the land owner. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Topsoil redistribution: The original stock piled topsoil, if any, will be spread evenly over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pad, production facilities, roads, pipelines, and power line corridors as close as possible to the original topography. The location will then be seeded

Soil treatment: The soil surface would be prepared to provide a seedbed for reestablishment of desirable vegetation. Establish control of erosion and invasion of non-native plants to reestablish plant community.

Existing Vegetation at the well pad: N/A

Existing Vegetation at the well pad

Existing Vegetation Community at the road: N/A

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: N/A

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances

Non native seed used? N

Operator Name: CIMAREX ENERGY COMPANY**Well Name:** JAMES 29 FEDERAL COM**Well Number:** 23H**Non native seed description:****Seedling transplant description:****Will seedlings be transplanted for this project?** N**Seedling transplant description****Will seed be harvested for use in site reclamation?** N**Seed harvest description:****Seed harvest description attachment:****Seed****Seed Table****Seed Summary****Total pounds/Acre:****Seed Type****Pounds/Acre****Seed reclamation****Operator Contact/Responsible Official****First Name:** Laci**Last Name:** Luig**Phone:** (432)571-7810**Email:** laci.luig@coterra.com**Seedbed prep:****Seed BMP:****Seed method:****Existing invasive species?** N**Existing invasive species treatment description:****Existing invasive species treatment****Weed treatment plan description:** N/A**Weed treatment plan****Monitoring plan description:** N/A**Monitoring plan****Success standards:** N/A**Pit closure description:** N/A**Pit closure attachment:**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: JAMES 29 FEDERAL COM

Well Number: 23H

Section 11 - Surface Ownership

Disturbance type: OTHER

Describe: CTB

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: CIMAREX ENERGY COMPANY**Well Name:** JAMES 29 FEDERAL COM**Well Number:** 23H**USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Disturbance type:** PIPELINE**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:****Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Section 12 - Other****Right of Way needed?** N**Use APD as ROW?****ROW Type(s):****ROW**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: JAMES 29 FEDERAL COM

Well Number: 23H

SUPO Additional Information: Please attached SUPO with additional attachments.

Use a previously conducted onsite? Y

Previous Onsite information: 6/17/2022 with Caroline Kaufman- BLM and Todd Miller - Coterra. 10/16/2024 with Brendan Harris - BLM, Shelly Bowen and Casey Jones - Coterra

Other SUPO

JAMES_29_FEDERAL_COM_W2E2_surface_use_plat_20241118082914.pdf



COTERRA

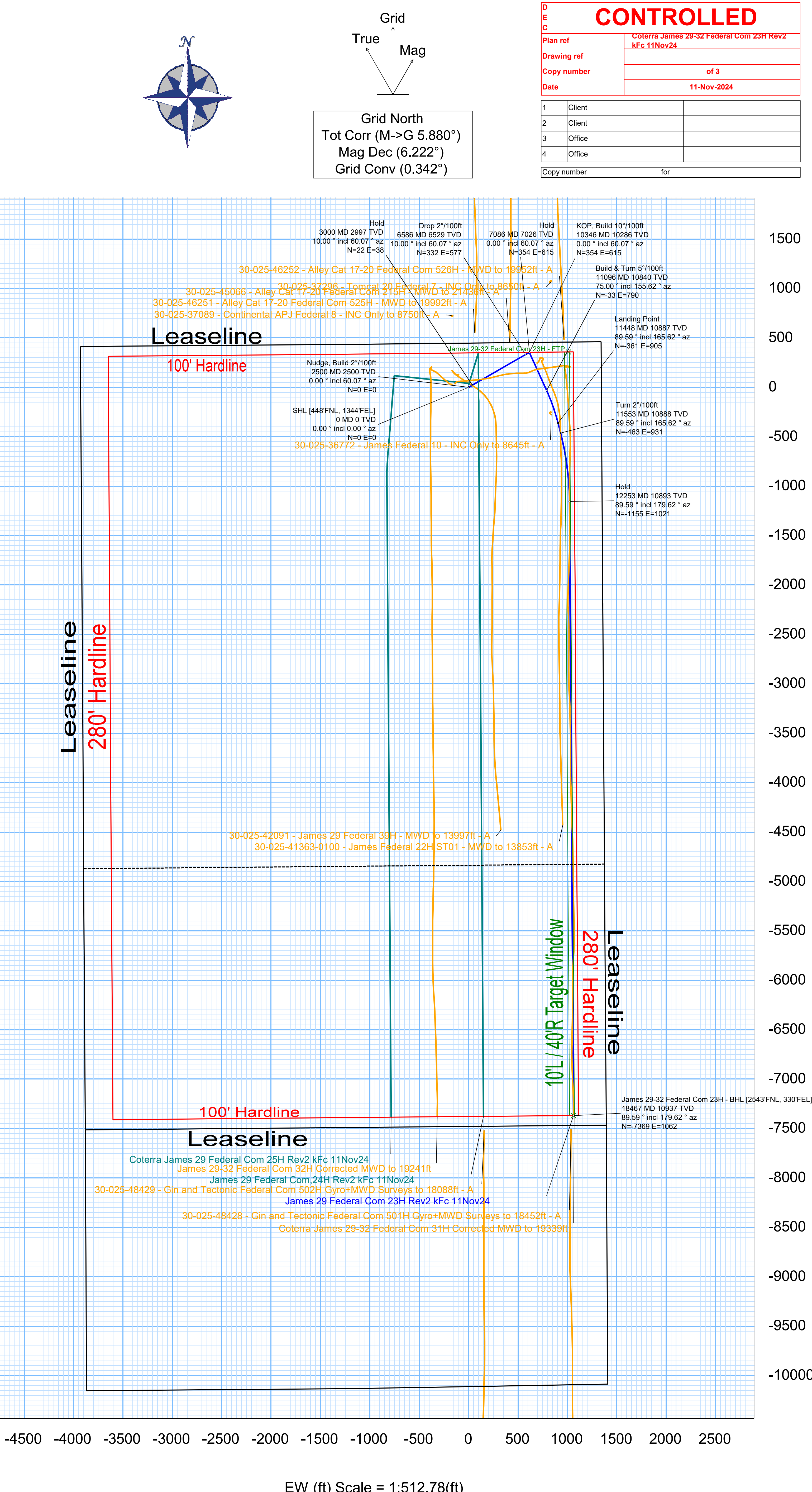
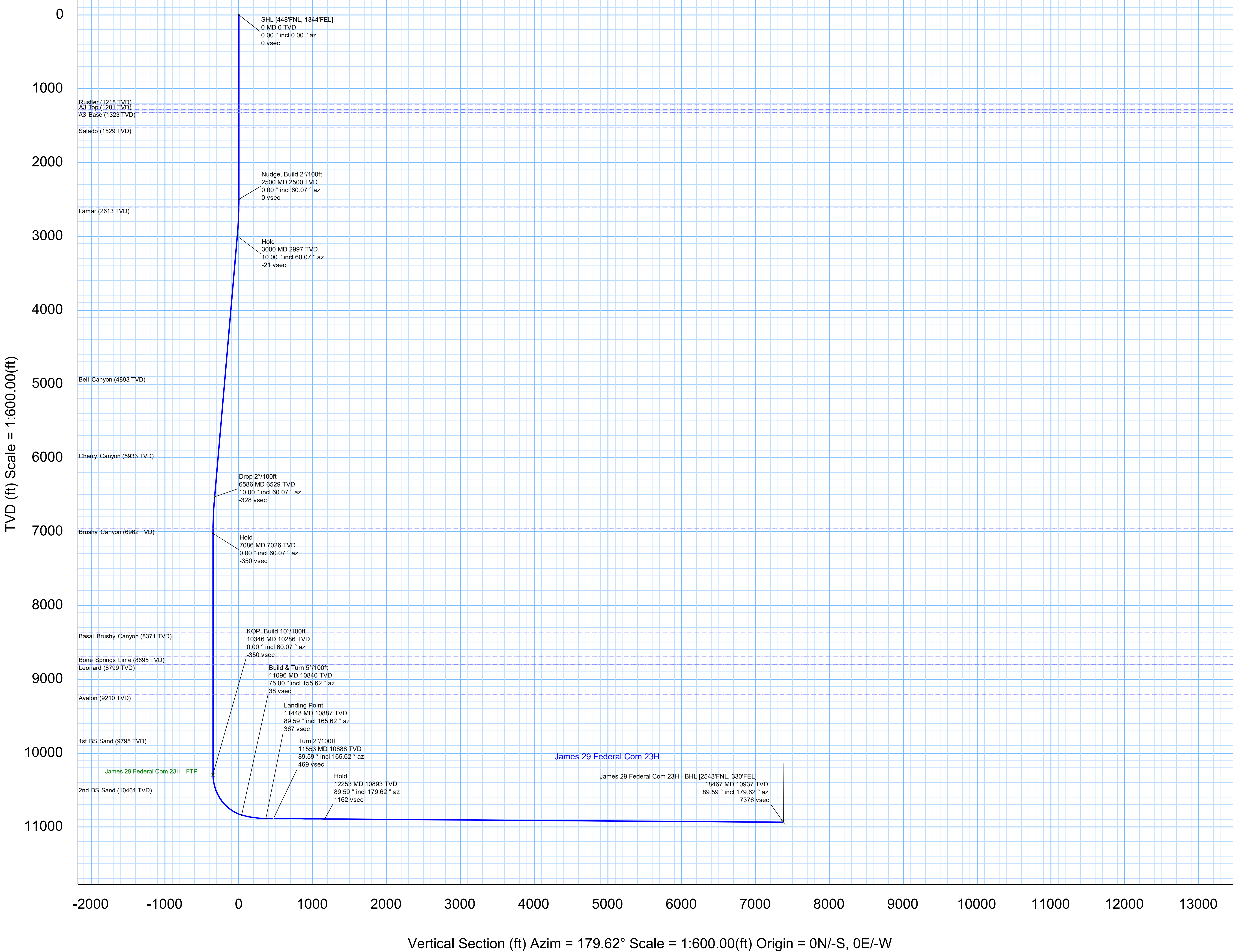
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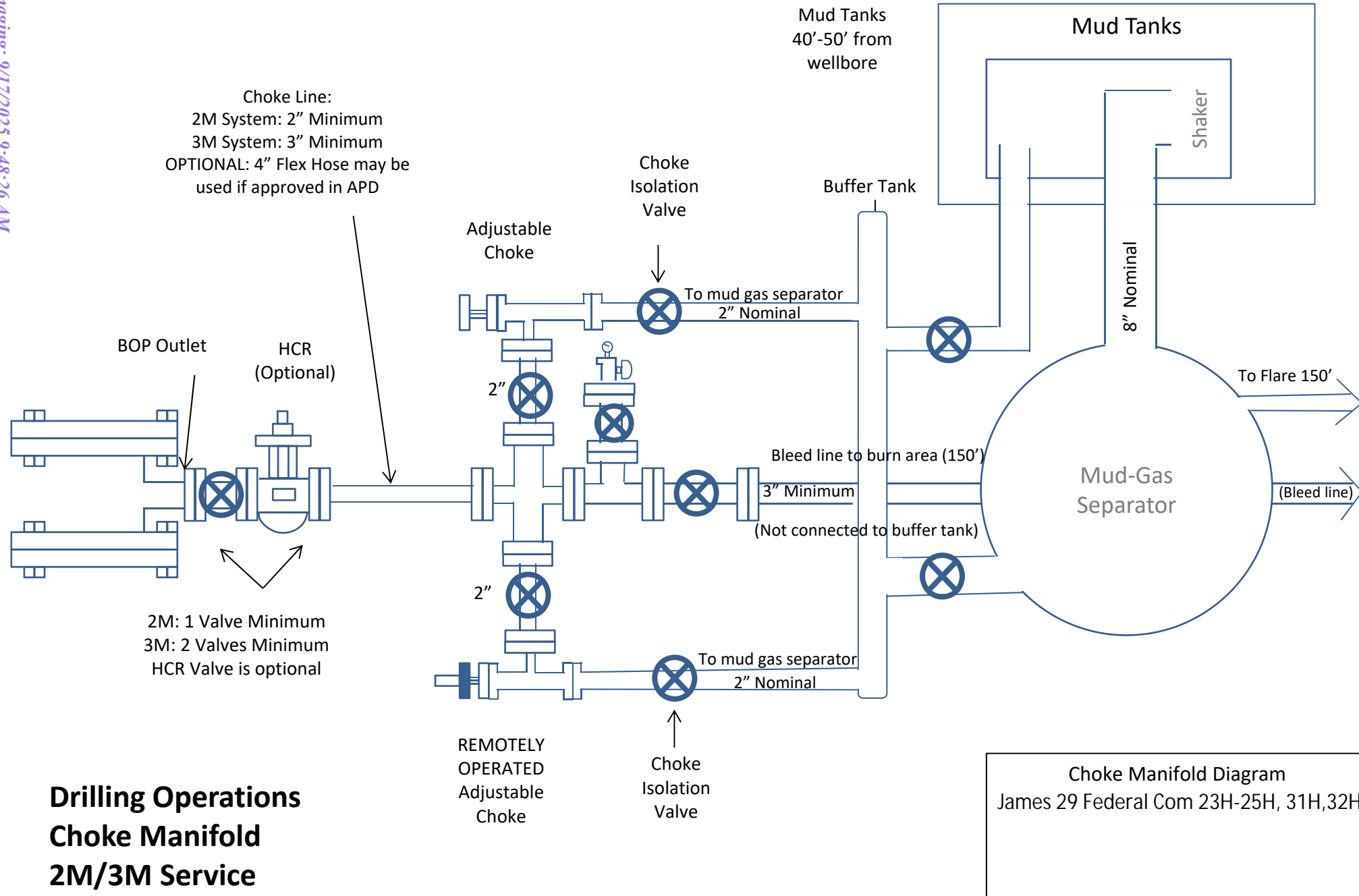


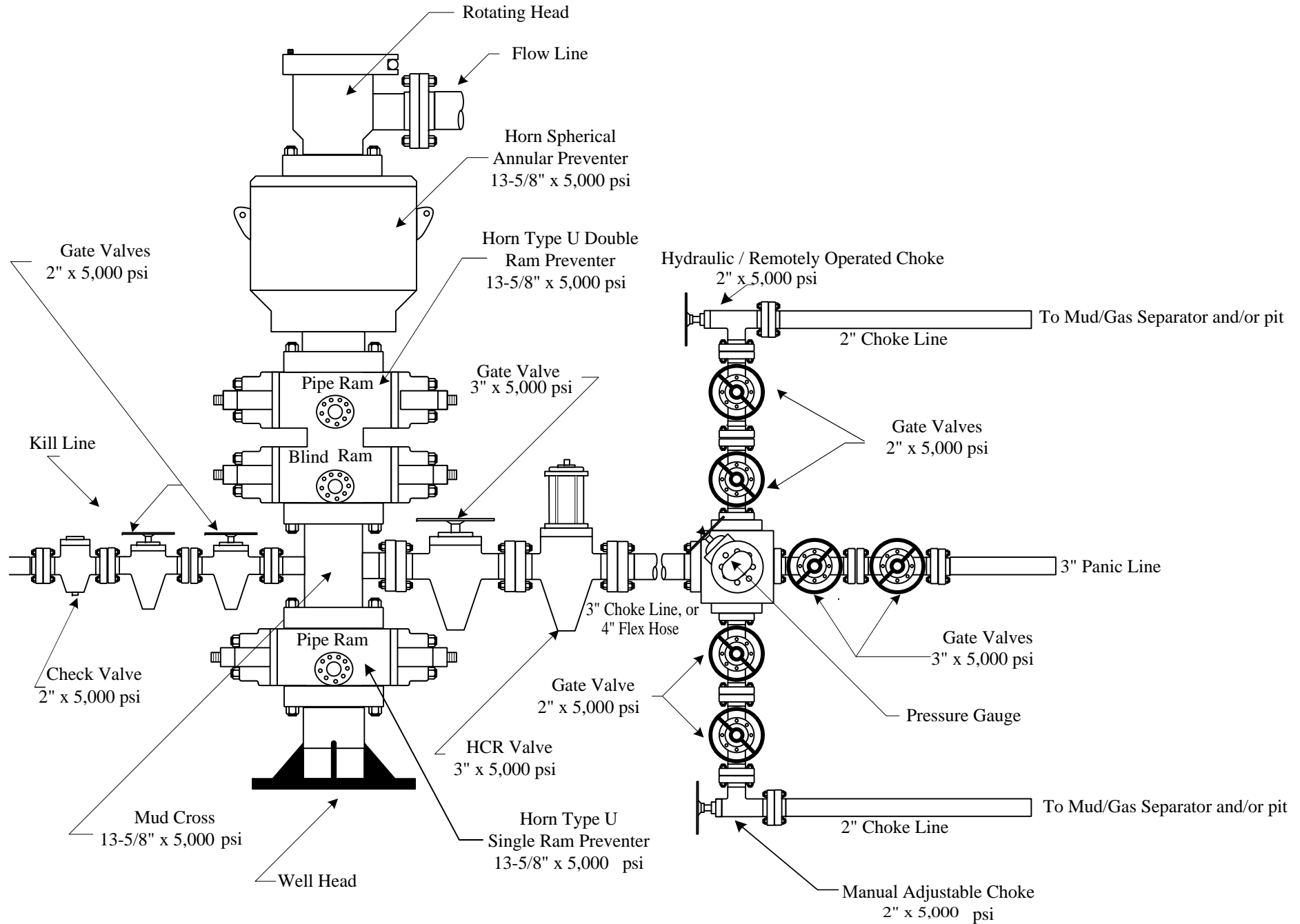
Borehole: James 29 Federal Com 23H			Well: James 29 Federal Com 23H			Field: NM Lea County (NAD 83)			Structure: James 29 Federal Com 23H		
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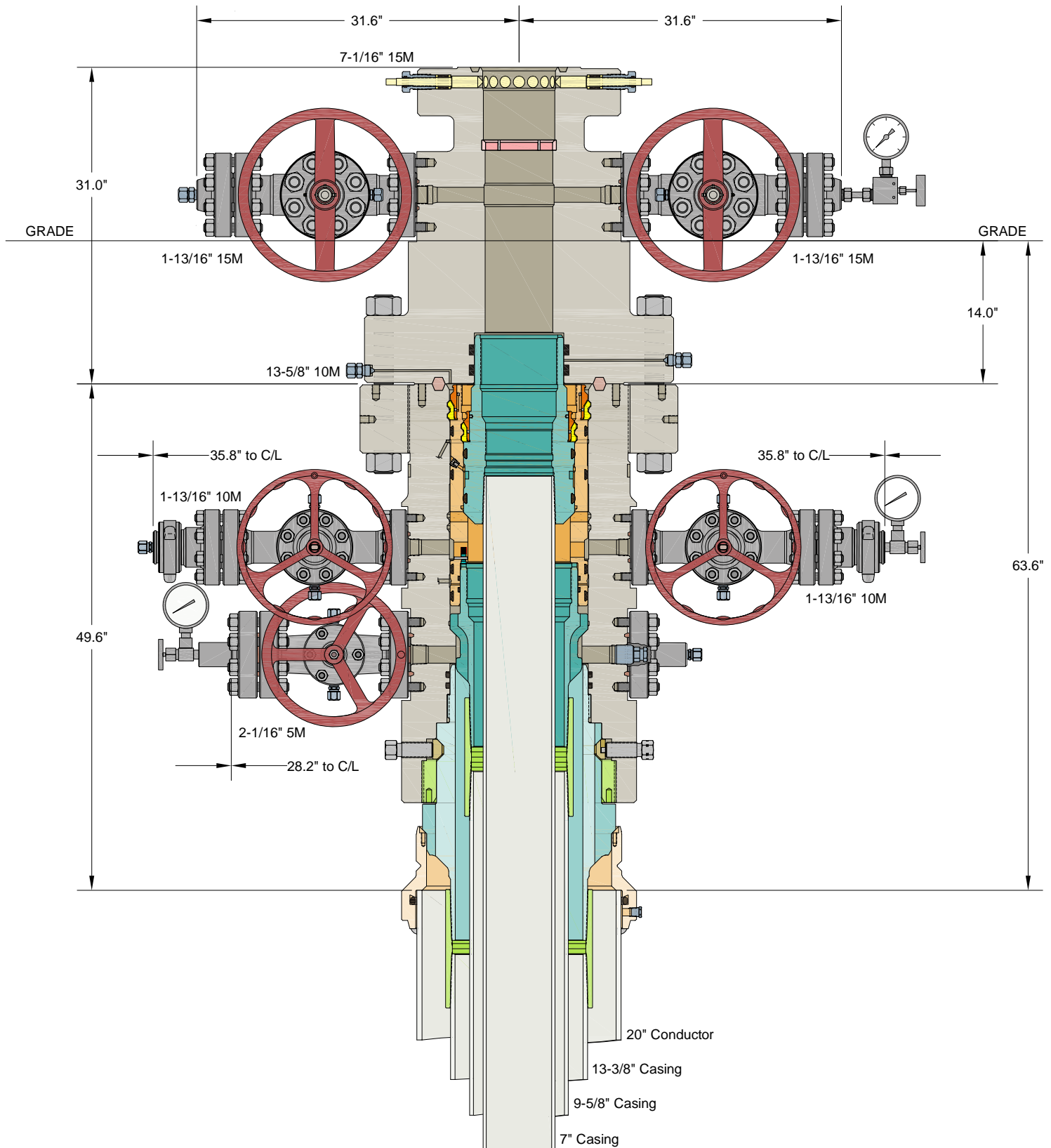
Gravity & Magnetic Parameters						Surface Location		NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2024	Dip:	59.821°	Date:	11-Nov-2024	Lat:	N 32 16 53.62	Northing:	466756.2ftUS	Grid Conv:	0.3423°	Slot:	James 29 Federal Com 23H	TVD Ref:	RKB (3711.200 ft above MSL)
MagDec:	6.222°	FS:	47329.316nT	Gravity FS:	998.434mgn (9.80665 Based)	Lon:	W 103 41 33.01	Easting:	739379.9ftUS	Scale Fact:	0.99995401	Plan:	James 29 Federal Com 23H		

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [448°FNL, 1344°FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	1218.00	0.00	60.07	1218.00	0.00	0.00	0.00	0.00
A3 Top	1281.00	0.00	60.07	1281.00	0.00	0.00	0.00	0.00
A3 Base	1323.00	0.00	60.07	1323.00	0.00	0.00	0.00	0.00
Salado	1529.00	0.00	60.07	1529.00	0.00	0.00	0.00	0.00
Nudge, Build 2"/100ft	2500.00	0.00	60.07	2500.00	0.00	0.00	0.00	0.00
Lamar	2613.03	2.26	60.07	2613.00	-1.10	1.11	1.93	2.00
Hold	2999.91	10.00	60.07	2997.37	-21.45	21.70	37.71	2.00
Bell Canyon	4924.77	10.00	60.07	4893.00	-186.24	188.42	327.34	0.00
Cherry Canyon	5980.80	10.00	60.07	5933.00	-276.65	279.88	486.24	0.00
Drop 2"/100ft	6585.94	10.00	60.07	6528.95	-328.46	332.30	577.29	0.00
Brushy Canyon	7021.52	1.29	60.07	6962.00	-349.56	353.64	614.37	2.00
Hold	7085.85	0.00	60.07	7026.32	-349.91	354.00	615.00	2.00
Basal Brushy Canyon	8430.53	0.00	60.07	8371.00	-349.91	354.00	615.00	0.00
Bone Springs Lime	8754.53	0.00	60.07	8695.00	-349.91	354.00	615.00	0.00
Leonard	8858.53	0.00	60.07	8799.00	-349.91	354.00	615.00	0.00
Avalon	9269.53	0.00	60.07	9210.00	-349.91	354.00	615.00	0.00
1st BS Sand	9854.53	0.00	60.07	9795.00	-349.91	354.00	615.00	0.00
KOP, Build 10"/100ft	10345.85	0.00	60.07	10286.32	-349.91	354.00	615.00	0.00
2nd BS Sand	10523.35	17.75	155.62	10461.00	-324.99	329.16	626.26	10.00
Build & Turn 5"/100ft	11095.85	75.00	155.62	10839.75	38.04	-32.80	790.30	10.00
Landing Point	11448.27	89.59	165.62	10887.00	367.10	-361.10	905.22	5.00
Turn 2"/100ft	11553.27	89.59	165.62	10887.75	468.98	-462.81	931.30	0.00
Hold	12253.20	89.59	179.62	10892.77	1161.94	-1155.20	1020.99	2.00
James 29-32 Federal Com 23H - BHL [2543°FNL, 330°FEL]	18467.39	89.59	179.62	10937.00	7375.98	-7369.09	1062.32	0.00









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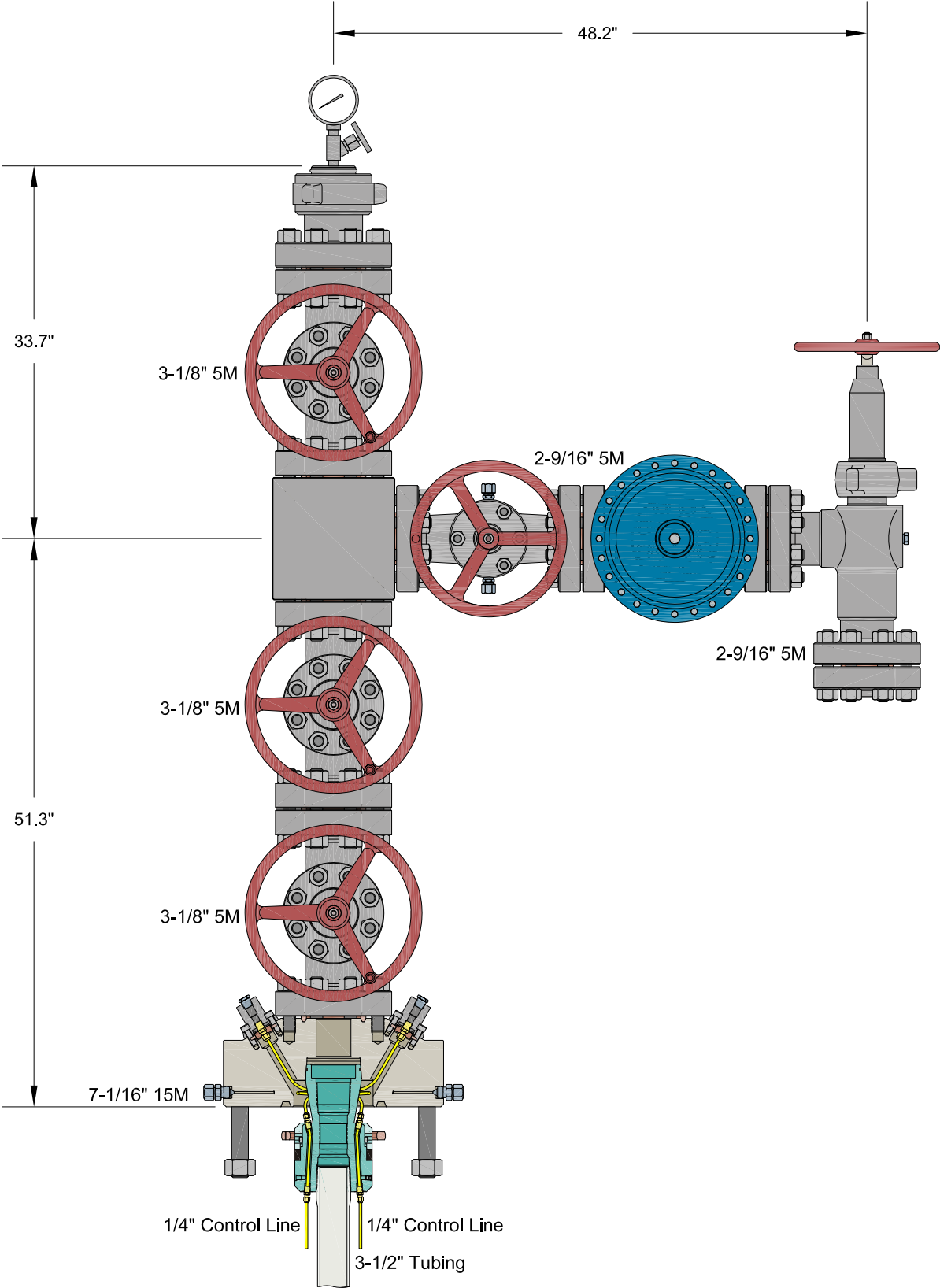
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CIMAREX
HOBBS, NM

20" x 13-3/8" x 9-5/8" x 7" MBU-3T-CFL-R-DBLO-SF Wellhead Sys.
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head
And 9-5/8" Fluted & 7" One Piece Mandrel Casing Hangers

DRAWN	VJK	01FEB24
APPRV		
DRAWING NO.	HBE0001053	



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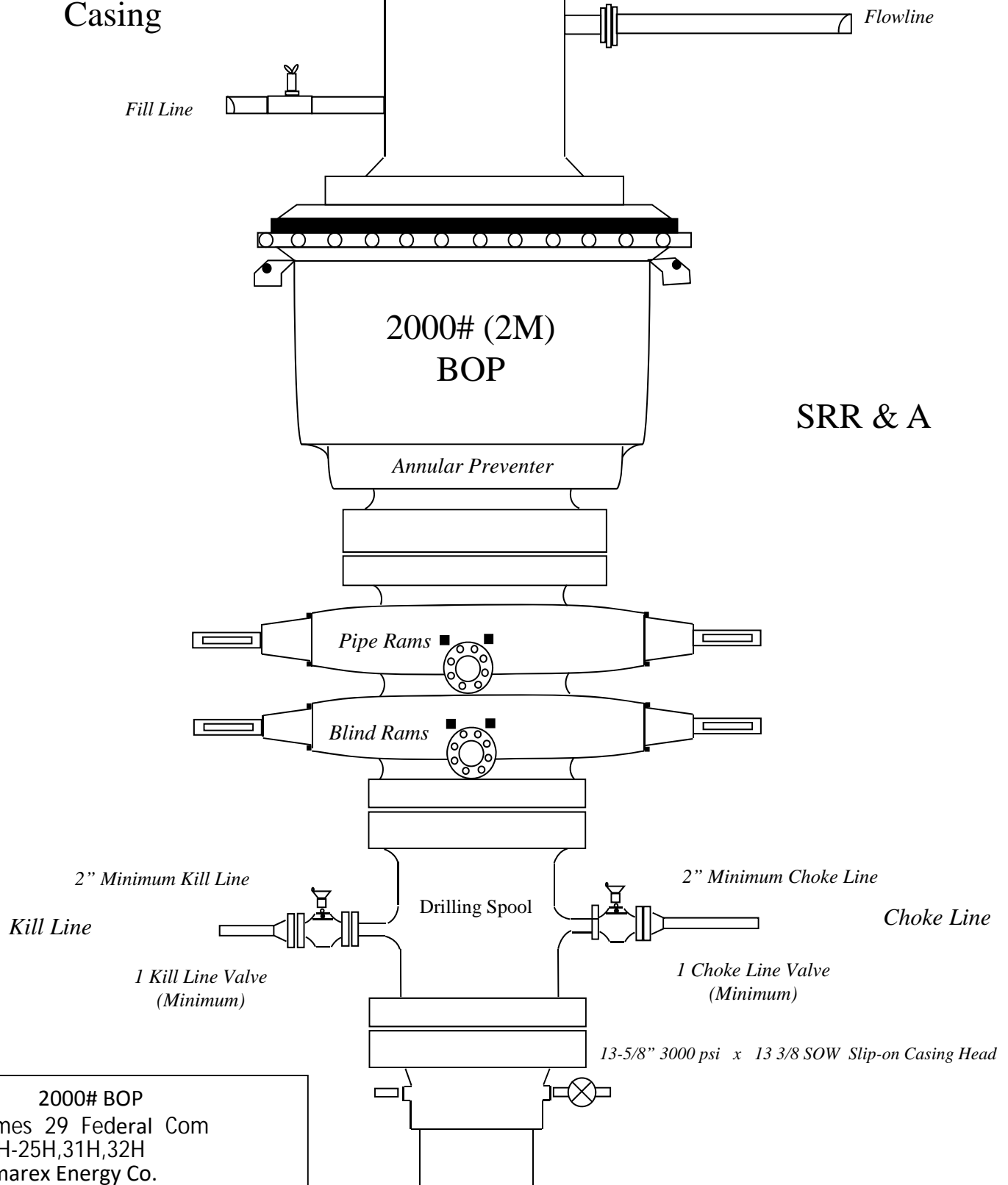
CACTUS WELLHEAD LLC

CIMAREX
HOBBS, NM

7-1/16" 15M x 3-1/8" x 2-9/16" 5M Production Tree Assembly
With 7-1/16" 15M x 3-1/8" 5M T40-CCL Tubing Head Adapter
And 7-1/16" x 3-1/2" T40-CCL Tubing Hanger

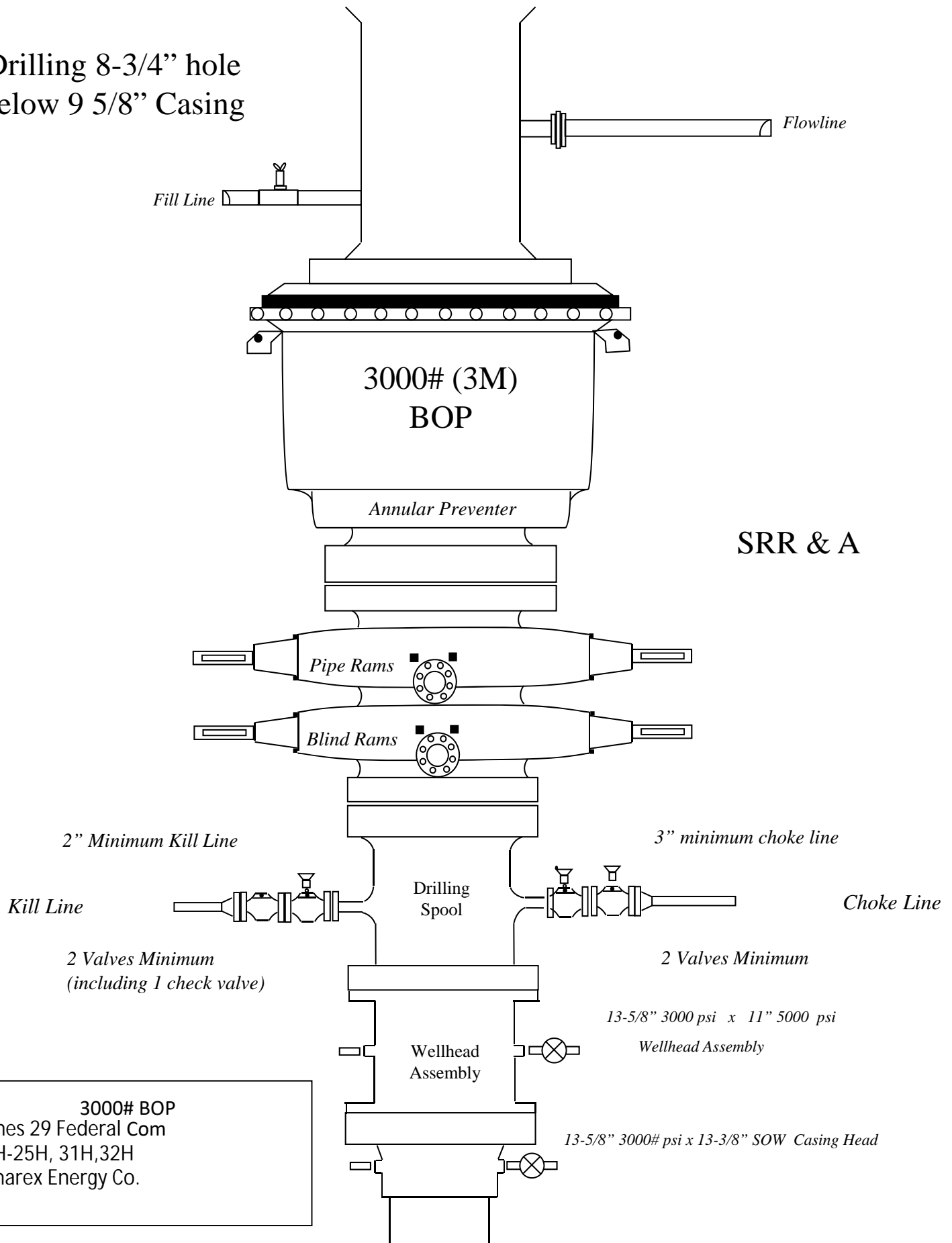
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APPRV		
DRAWING NO.	HBE0001017	

Drilling 12 1/4" hole
below 13 3/8"
Casing

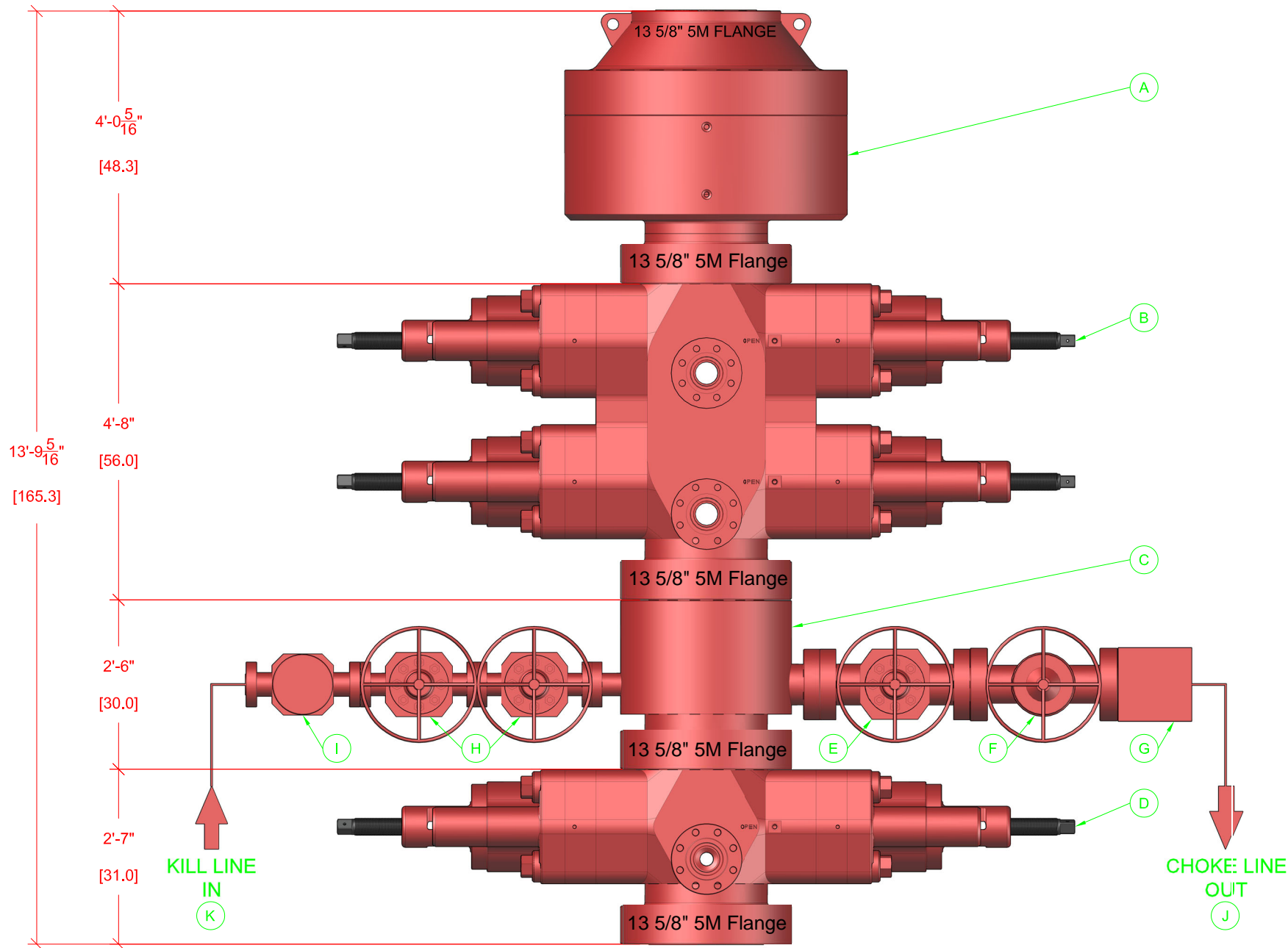


2000# BOP
James 29 Federal Com
23H-25H,31H,32H
Cimarex Energy Co.

Drilling 8-3/4" hole
below 9 5/8" Casing



3000# BOP
James 29 Federal Com
23H-25H, 31H, 32H
Cimarex Energy Co.



BOP EQUIPMENT INFORMATION

DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1
DOUBLE RAM BOP	13 5/8" 5M TYPE-U	1
MUD CROSS	13 5/8" 5M	1
SINGLE RAM BOP	13 5/8" 5M TYPE-U	1
GATE VALVE	4 1/2" 5M FC MANUAL	1

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

ACKNOWLEDGMENTS

Action 506432

ACKNOWLEDGMENTS

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 506432
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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CONDITIONS

Action 506432

CONDITIONS

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 506432
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
klinarte	Cement is required to circulate on both surface and intermediate1 strings of casing.	9/16/2025
klinarte	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	9/16/2025
matthew.gomez	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention.	9/17/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	9/17/2025
matthew.gomez	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	9/17/2025
matthew.gomez	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	9/17/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	9/17/2025