



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

Application for Permit to Drill

APD Package Report

Date Printed: 10/16/2025 07:19 AM

APD ID: 10400105549	Well Status: AAPD
APD Received Date: 08/07/2025 09:49 AM	Well Name: RIVERBEND 12-13 FEDERAL
Operator: CIMAREX ENERGY COMPANY OF	Well Number: 7H

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
 - Well Plat: 2 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
 - Blowout Prevention Choke Diagram Attachment: 10 file(s)
 - Blowout Prevention BOP Diagram Attachment: 2 file(s)
 - Casing Design Assumptions and Worksheet(s): 2 file(s)
 - Hydrogen sulfide drilling operations plan: 2 file(s)
 - Proposed horizontal/directional/multi-lateral plan submission: 13 file(s)
 - Other Facets: 6 file(s)
 - Other Variances: 4 file(s)
- SUPO Report
- SUPO Attachments
 - Existing Road Map: 2 file(s)
 - Attach Well map: 2 file(s)
 - Production Facilities map: 2 file(s)
 - Water source and transportation map: 2 file(s)
 - Well Site Layout Diagram: 6 file(s)
 - Recontouring attachment: 2 file(s)
- PWD Report
- PWD Attachments
 - None
- Bond Report
- Bond Attachments

-- None

Form 3160-3
(October 2024)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2027

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM16104
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☒ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator CIMAREX ENERGY COMPANY OF COLORADO		8. Lease Name and Well No. RIVERBEND 12-13 FEDERAL COM 7H
3a. Address 6001 DEAUVILLE BLVD STE 300N, MIDLAND, TX 79706	3b. Phone No. (include area code) (432) 620-1936	9. API Well No. 30-015-57621
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW / 1147 FSL / 2382 FWL / LAT 32.155148 / LONG -104.041763 At proposed prod. zone SESE / 100 FSL / 338 FEL / LAT 32.122953 / LONG -104.033403		10. Field and Pool, or Exploratory WILLOW LAKE/BONE SPRING, SOUTHE
11. Sec., T. R. M. or Blk. and Survey or Area SEC 1/T25S/R28E/NMP		
14. Distance in miles and direction from nearest town or post office* 5 miles		12. County or Parish EDDY
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330 feet	16. No of acres in lease	17. Spacing Unit dedicated to this well 640.0
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20 feet	19. Proposed Depth 7589 feet / 18917 feet	20. BLM/BIA Bond No. in file FED: NMB001188
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2934 feet	22. Approximate date work will start* 12/30/2025	23. Estimated duration 30 days
24. Attachments		

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

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) CRYSTAL DENSON / Ph: (432) 620-1936	Date 08/07/2025
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 10/07/2025
Title Assistant Field Manager Lands & Minerals		
Office Carlsbad Field Office		

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

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 10/07/2025

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: SESW / 1147 FSL / 2382 FWL / TWSP: 25S / RANGE: 28E / SECTION: 1 / LAT: 32.155148 / LONG: -104.041763 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 338 FEL / TWSP: 25S / RANGE: 28E / SECTION: 12 / LAT: 32.151585 / LONG: -104.033372 (TVD: 7589 feet, MD: 8444 feet)

BHL: SESE / 100 FSL / 338 FEL / TWSP: 25S / RANGE: 28E / SECTION: 13 / LAT: 32.122953 / LONG: -104.033403 (TVD: 7589 feet, MD: 18917 feet)

BLM Point of Contact

Name: JANET D ESTES

Title: ADJUDICATOR

Phone: (575) 234-6233

Email: JESTES@BLM.GOV

CONFIDENTIAL

Riverbend 12-13 FEDERAL COM 7H

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:

- No H2S has been reported within one mile of the proposed project.

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

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR’S NAME:	CIMAREX ENERGY COMPANY OF COLORADO
LEASE NO.:	NMNM16104
COUNTY:	Eddy County, New Mexico

Wells:

- RIVERBEND 12-13 FEDERAL COM 3H**
- RIVERBEND 12-13 FEDERAL COM 4H**
- RIVERBEND 12-13 FEDERAL COM 5H**
- RIVERBEND 12-13 FEDERAL COM 6H**
- RIVERBEND 12-13 FEDERAL COM 7H**
- RIVERBEND 12-13 FEDERAL COM 8H**

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1. GENERAL PROVISIONS

The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

1.1. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the operator, or any person working on the operator's behalf, on the public or federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area (within 100ft) 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, in conjunction with a BLM Cultural Resource Specialist, to determine appropriate actions to prevent the loss of significant scientific values. The operator shall 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 operator.

Traditional Cultural Properties (TCPs) are protected by NHPA as codified in 36 CFR 800 for possessing traditional, religious, and cultural significance tied to a certain group of individuals. Though there are currently no designated TCPs within the project area or within a mile of the project area, but it is possible for a TCP to be designated after the approval of this project. **If a TCP is designated in the project area after the project's approval, the BLM Authorized Officer will notify the operator of the following conditions and the duration for which these conditions are required.**

1. Temporary halting of all construction, drilling, and production activities to lower noise.
2. Temporary shut-off of all artificial lights at night.

The operator is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA), specifically NAGPRA Subpart B regarding discoveries, to protect human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered during project work. 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 a BLM-CFO Authorized Officer will be notified immediately. The BLM will then be required to be notified, in writing, within 24 hours of the discovery. The written notification should include the geographic location by county and state, the contents of the discovery, and the steps taken to protect said discovery. You must also include any potential threats to the discovery and a conformation that all activity within 100ft of the discovery has ceased and work will not resume until written certification is issued. All work on the entire project must halt for a minimum of 3 days and work cannot resume until an Authorized Officer grants permission to do so.

Any paleontological resource discovered by the operator, or any person working on the operator's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The operator 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 operator.

1.2. RANGELAND RESOURCES

1.2.1. Cattleguards

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

1.2.2. Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

1.2.3. Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

1.3. 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, New Mexico Department of Agriculture, and BLM requirements and policies.

1.3.1 African Rue (*Peganum harmala*)

Spraying: The spraying of African Rue must be completed by a licensed or certified applicator. In order to attempt to kill or remove African Rue the proper mix of chemical is needed. The mix consists of 2% Arsenal (Imazapyr) and 2% Roundup (Glyphosate) along with a nonionic surfactant. Any other chemicals or combinations shall be approved by the BLM Noxious Weeds Coordinator prior to treatment. African Rue shall be sprayed in connection to any dirt working activities or disturbances to the site being sprayed. Spraying of African Rue shall be done on immature plants at initial growth through flowering and mature plants between budding and flowering stages. Spraying shall not be conducted after flowering when plant is fruiting. This will ensure optimal intake of chemical and decrease chances of developing herbicide resistance. After spraying, the operator or necessary parties must contact the Carlsbad Field Office to inspect the effectiveness of the application treatment to the plant species. No ground disturbing activities can take place until the inspection by the authorized officer is complete. The operator may contact the Environmental Protection Department or the BLM Noxious Weed Coordinator at (575) 234-5972 or BLM_NM_CFO_NoxiousWeeds@blm.gov.

Management Practices: In addition to spraying for African Rue, good management practices should be followed. All equipment should be washed off using a power washer in a designated containment area. The containment area shall be bermed to allow for containment of the seed to prevent it from entering any open areas of the nearby landscape. The containment area shall be excavated near or adjacent to the well pad at a depth of three feet and just large enough to get equipment inside it to be washed off. This will allow all seeds to be in a centrally located area that can be treated at a later date if the need arises.

1.4. LIGHT POLLUTION

1.4.1. Downfacing

All permanent lighting will be pointed straight down at the ground in order to prevent light spill beyond the edge of approved surface disturbance.

1.4.2. Shielding

All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source).

1.4.3. Lighting Color

Lighting shall be 3,500 Kelvin or less (Warm White) except during drilling, completion, and workover operations. No bluish-white lighting shall be used in permanent outdoor lighting.

2. SPECIAL REQUIREMENTS

2.1. CAVE/KARST

2.1.1. General Construction

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- This is a sensitive area and all spills or leaks will be reported to the BLM immediately for their immediate and proper treatment, as defined in NTL 3A for Major Undesirable Events.

2.1.2. Pad Construction

- The pad will be constructed and leveled by adding the necessary fill and caliche. No blasting will be used for any construction or leveling activities.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will be vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

2.1.3. Surface Flowlines Installation

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

2.1.4. Production Mitigation

- Tank battery locations and facilities will be bermed and lined with a 20-mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Secondary containment holding capacity must be large enough to contain 1 ½ times the content of the largest tank or 24-hour production, whichever is greater (displaced volume from all tanks within the berms MUST be subtracted from total volume of containment in calculating holding capacity).
- Implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

2.1.5. Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli. If the test results indicate a casing failure has occurred, contact a BLM Engineer immediately, and take remedial action to correct the problem.

2.1.6. Plugging and Abandonment Mitigation

Upon well abandonment in high cave karst areas, additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

2.3 WILDLIFE

2.3.2. Texas Hornshell Mussel

Oil and Gas Zone D - CCA Boundary requirements.

- Implement erosion control measures in accordance with the Reasonable and Prudent Practices for Stabilization ("RAPPS")
- Comply with SPCC requirements in accordance with 40 CFR Part 112;
- Comply with the United States Army Corp of Engineers (USACE) Nationwide 12 General Permit, where applicable;
- Utilize technologies (like underground borings for pipelines), where feasible;
- Educate personnel, agents, contractors, and subcontractors about the requirements of conservation measures, COAs, Stips and provide direction in accordance with the Permit.

2.4 SPECIAL STATUS PLANT SPECIES

2.5 VISUAL RESOURCE MANAGEMENT

2.5.1 VRM IV

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

3. CONSTRUCTION REQUIREMENTS

3.1 CONSTRUCTION NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at BLM_NM_CFO_Construction_Reclamation@blm.gov 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 COAs on the well site and they shall be made available upon request by the Authorized Officer.

3.2 TOPSOIL

The operator shall strip the topsoil (the A horizon) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. No more than the top 6 inches of topsoil shall be removed. 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 (the B horizon and below) 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.

3.3 CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No reserve pits will be used for drill cuttings. The operator shall properly dispose of drilling contents at an authorized disposal site.

3.4 FEDERAL MINERAL 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.

3.5 WELL PAD & SURFACING

Any surfacing material used to surface the well pad will be removed at the time of interim and final reclamation.

3.6 EXCLOSURE FENCING (CELLARS & PITS)

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

The operator will also install and maintain mesh netting for all open well cellars to prevent access to smaller wildlife before and after drilling operations until the well cellar is free of fluids and the operator. Use a maximum netting mesh size of 1 ½ inches. The netting must not have holes or gaps.

3.7 ON LEASE ACCESS ROAD

3.7.1 Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

3.7.2 Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements will be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

3.7.3 Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

3.7.4 Ditching

Ditching shall be required on both sides of the road.

3.7.5 Turnouts

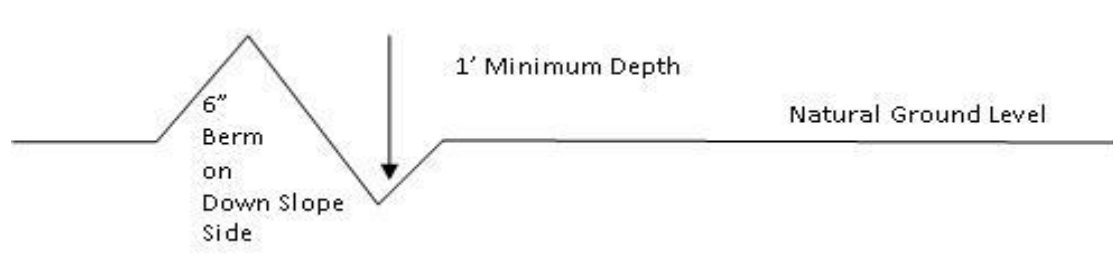
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

3.7.6 Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, leadoff ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4} + 100' = 200' \text{ lead-off ditch interval}$$

3.7.7 **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

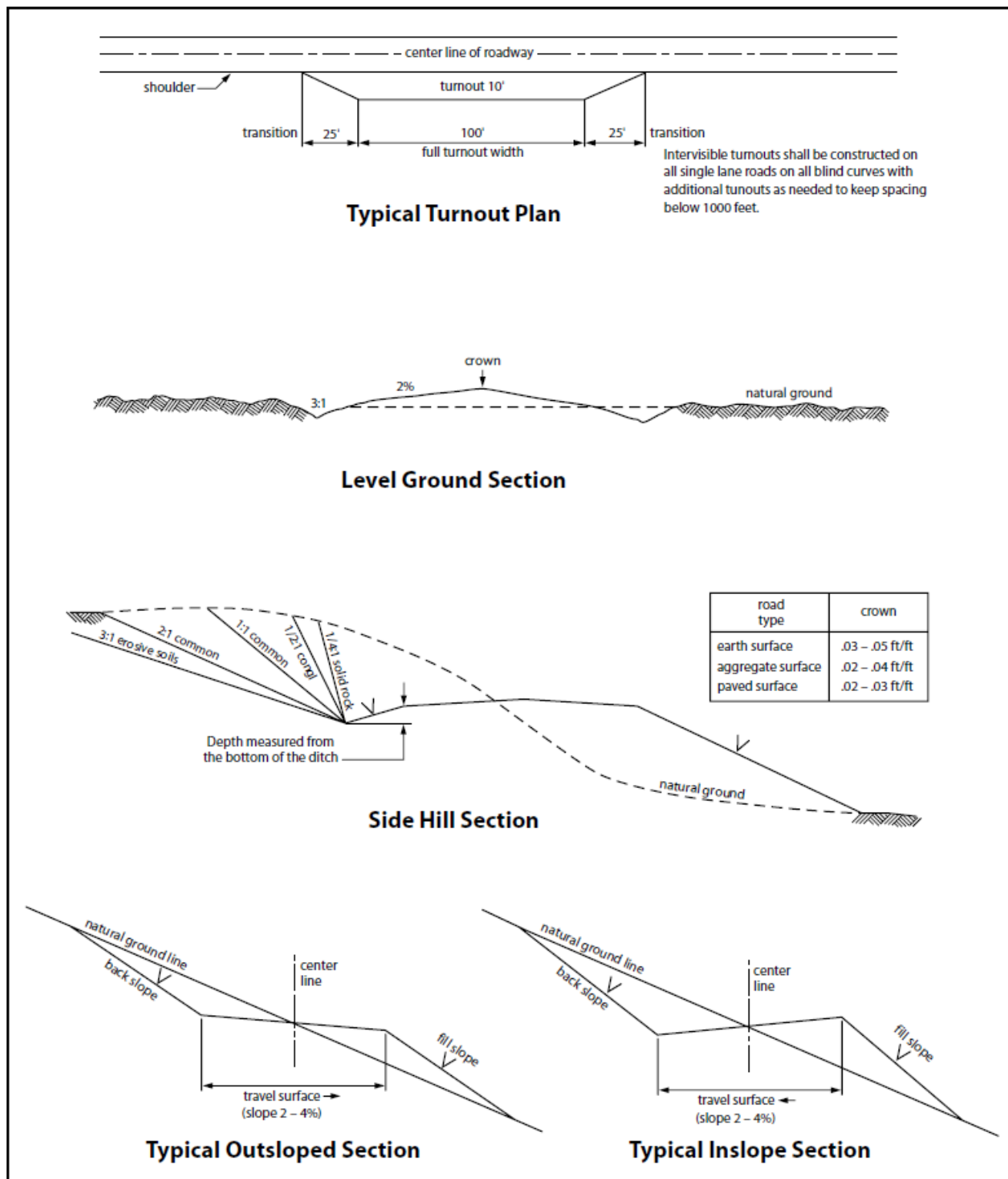


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

5. PRODUCTION (POST DRILLING)

5.1 WELL STRUCTURES & FACILITIES

5.1.1 Placement of Production Facilities

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

5.1.2 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.

5.1.3. 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.

5.1.4. 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.

5.1.5. 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.

6. RECLAMATION

Stipulations required by the Authorized Officer on specific actions may differ from the following general guidelines

6.1 ROAD AND SITE RECLAMATION

Any roads constructed during the life of the well will have the caliche removed or linear burial. If contaminants are indicated then testing will be required for chlorides and applicable contaminate anomalies for final disposal determination (disposed of in a manner approved by the Authorized Officer within Federal, State and Local statutes, regulations, and ordinances) and seeded to the specifications in sections 6.5 and 6.6.

6.2 EROSION CONTROL

Install erosion control berms, windrows, and hummocks. Windrows must be level and constructed perpendicular to down-slope drainage; steeper slopes will require greater windrow density. Topsoil between windrows must be ripped to a depth of at least 12", unless bedrock is encountered. Any large boulders pulled up during ripping must be deep-buried on location. Ripping must be perpendicular to down-slope. The surface must be left rough in order to catch and contain rainfall on-site. Any trenches resulting from erosion cause by run-off shall be addressed immediately.

6.3 INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations must 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 must work with BLM surface protection specialists (BLM_NM_CFO_Construction_Reclamation@blm.gov) to devise the best strategies to reduce the size of the location. Interim reclamation must allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche and any other surface material is required. 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 in section 6.6.

Upon completion of interim reclamation, the operator shall submit a Sundry Notice, Subsequent Report of Reclamation (Form 3160-5).

6.4 FINAL ABANDONMENT & RECLAMATION

Prior to surface abandonment, the operator shall submit a Notice of Intent Sundry Notice and reclamation plan.

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 will 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. After earthwork and seeding is completed, the operator is required to submit a Sundry Notice, Subsequent Report of Reclamation.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (BLM_NM_CFO_Construction_Reclamation@blm.gov).

6.5 SEEDING TECHNIQUES

Seeds shall be hydro-seeded, mechanically drilled, or broadcast, with the broadcast-seeded area raked, ripped or dragged to aid in covering the seed. The seed mixture shall be evenly and uniformly planted over the disturbed area.

6.6 SOIL SPECIFIC SEED MIXTURE

The lessee/permittee 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 will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed land application will be accomplished by mechanical planting 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 tend to drop the bottom of the drill and are planted first; the operator 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. The seeding will be repeated until a satisfactory BLM or Soil Conservation

District stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding or until several months of precipitation have occurred, enabling a full four months of growth, with one or more seed generations being established.

Seed Mixture 1 for Loamy Sites

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

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*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 of Colorado ▼
LOCATION:	Section 1, T.25 S., R.28 E., NMPM
COUNTY:	Eddy County, New Mexico ▼

WELL NAME & NO.:	Riverbend 12-13 Federal Com 4H
ATS/API ID:	ATS-25-2216
APD ID:	10400105541
Sundry ID:	N/a

WELL NAME & NO.:	Riverbend 12-13 Federal Com 5H
ATS/API ID:	ATS-25-2215
APD ID:	10400105546
Sundry ID:	N/a

WELL NAME & NO.:	Riverbend 12-13 Federal Com 7H
ATS/API ID:	ATS-25-2213
APD ID:	10400105549
Sundry ID:	N/a

WELL NAME & NO.:	Riverbend 12-13 Federal Com 8H
ATS/API ID:	ATS-25-2212
APD ID:	10400105550
Sundry ID:	N/a

COA

H2S	No		
Potash	None	None	
Cave/Karst Potential	Medium		
Cave/Karst Potential	☐ Critical		
Variance	☒ None	☒ Flex Hose	☒ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String ☐ 5 String	Capitan Reef None	☐ WIPP
Other	Pilot Hole None	☐ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter None	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☒ COM	☐ Unit
Special Requirements	☐ Batch Sundry	Waste Prevention Waste MP	
Special Requirements Variance	☐ BOPE Break Testing ☐ Offline BOPE Testing	☐ Offline Cementing	☐ 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 **350 feet** (a minimum of 70 feet 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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.
 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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)

☒ Eddy County

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

BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

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) 9/30/2025



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

Operator Certification Data Report

10/16/2025

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: CRYSTAL DENSON

Signed on: 09/25/2025

Title: Regulatory Analyst

Street Address: 6001 DEAUVILLE BLVD SUITE 300N

City: MIDLAND

State: TX

Zip: 76706

Phone: (432)620-1644

Email address: CRYSTAL.DENSON@COTERRA.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data

10/16/2025

APD ID: 10400105549

Submission Date: 08/07/2025

Highlighted data
reflects the most
recent changes
[Show Final Text](#)

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400105549

Tie to previous NOS? N

Submission Date: 08/07/2025

BLM Office: Carlsbad

User: CRYSTAL DENSON

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM16104

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO

APD Operator: CIMAREX ENERGY COMPANY OF COLORADO

Operator letter of

Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY OF COLORADO

Operator Address: 6001 DEAUVILLE BLVD STE 300N

Zip: 79706

Operator PO Box:

Operator City: MIDLAND

State: TX

Operator Phone: (432)620-1936

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILLOW LAKE

Pool Name: BONE SPRING,
SOUTHEAST

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Is the proposed well in an area containing other mineral resources?** USEABLE WATER,NATURAL GAS,OIL**Is the proposed well in a Helium production area?** N**Use Existing Well Pad?** N**New surface disturbance?****Type of Well Pad:** MULTIPLE WELL**Multiple Well Pad Name:**
Riverbend 12-13 Fed Com**Number:** 7H**Well Class:** HORIZONTAL**Number of Legs:** 1**Well Work Type:** Drill**Well Type:** CONVENTIONAL GAS WELL**Describe Well Type:****Well sub-Type:** INFILL**Describe sub-type:****Distance to town:** 5 Miles**Distance to nearest well:** 20 FT**Distance to lease line:** 330 FT**Reservoir well spacing assigned acres Measurement:** 640 Acres**Well plat:** RIVERBEND_12_13_FED_COM_W2E2___C102___Well_7H_20250826153748.pdf

RIVERBEND_12_13_FED_COM_W2E2___C102___Well_7H_20250925120920.pdf

Well work start Date: 12/30/2025**Duration:** 30 DAYS**Section 3 - Well Location Table****Survey Type:** RECTANGULAR**Describe Survey Type:****Datum:** NAD83**Vertical Datum:** NAVD88**Survey number:****Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	1147	FSL	2382	FWL	25S	28E	1	Aliquot SESW	32.155148	-104.041763	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 88128	2934			N
KOP Leg #1	100	FNL	338	FEL	25S	28E	12	Aliquot NENE	32.151585	-104.033372	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 16104	-4655	8444	7589	Y

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	100	FNL	338	FEL	25S	28E	12	Aliquot NENE	32.151585	- 104.033372	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 16104	- 4655	8444	7589	Y
EXIT Leg #1	100	FSL	338	FEL	25S	28E	13	Aliquot SESE	32.122953	- 104.033403	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 16104	- 4655	18917	7589	Y
BHL Leg #1	100	FSL	338	FEL	25S	28E	13	Aliquot SESE	32.122953	- 104.033403	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 16104	- 4655	18917	7589	Y

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:	☒ Initial Submittal
			☐ Amended Report
			☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code 96217	Pool Name WILLOW LAKE; BONE SPRING, SOUTHEAST
Property Code	Property Name RIVERBEND 12-13 FEDERAL COM	Well Number 7H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Ground Level Elevation 2934.2'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL N	Section 1	Township 25S	Range 28E	Lot	Ft. from N/S 1147 SOUTH	Ft. from E/W 2382 WEST	Latitude (NAD 83) 32.155148°	Longitude (NAD 83) -104.041763°	County EDDY
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Bottom Hole Location

UL P	Section 13	Township 25S	Range 28E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.122953°	Longitude (NAD 83) -104.033403°	County EDDY
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Dedicated Acres 640	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers.		Well setbacks are under Common Ownership: ☐ Yes ☐ No		

Kick Off Point (KOP)

UL A	Section 12	Township 25S	Range 28E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.151585°	Longitude (NAD 83) -104.033372°	County EDDY
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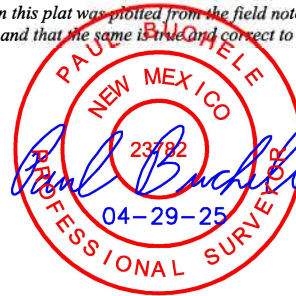
First Take Point (FTP)

UL A	Section 12	Township 25S	Range 28E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.151585°	Longitude (NAD 83) -104.033372°	County EDDY
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Last Take Point (LTP)

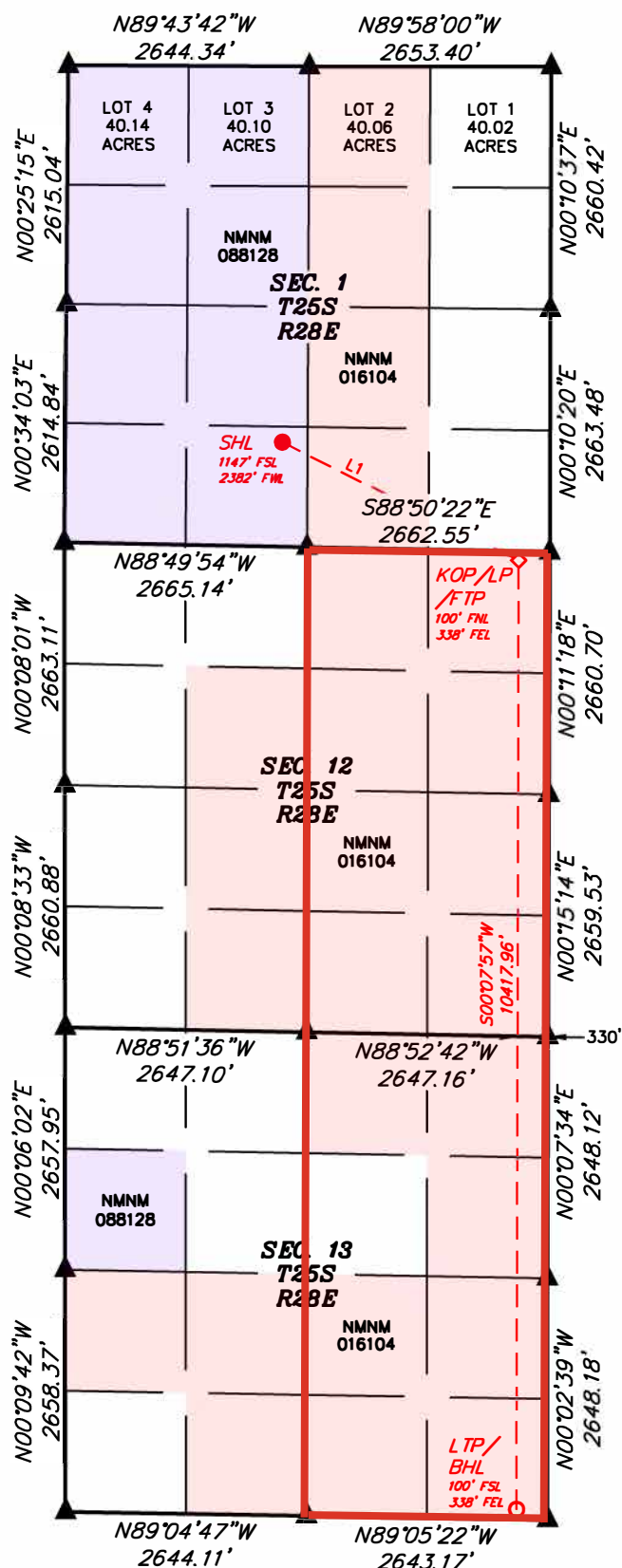
UL P	Section 13	Township 25S	Range 28E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.122953°	Longitude (NAD 83) -104.033403°	County EDDY
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Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation:
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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>Crystal Denson</i> 6/4/2025 Signature Date Crystal Denson Printed Name Crystal.Denson@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 August 12, 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 RIVERBEND 12-13 FEDERAL COM	Well Number 7H	Drawn By L.T.T. 04-29-25	Revised By
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- = SURFACE HOLE LOCATION
- ◆ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
- ◇ = LEASE PENETRATION POINT
- = LAST TAKE POINT/BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED

NAD 83 (SURFACE HOLE LOCATION)	
LATITUDE = 32°09'18.53" (32.155148°)	
LONGITUDE = -104°02'30.35" (-104.041763°)	
NAD 27 (SURFACE HOLE LOCATION)	
LATITUDE = 32°09'18.09" (32.155025°)	
LONGITUDE = -104°02'28.59" (-104.041274°)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 420300.29' E: 631568.46'	
STATE PLANE NAD 27 (N.M. EAST)	
N: 420242.01' E: 590384.27'	

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N: 419011.34' E: 634168.93'	
STATE PLANE NAD 27 (N.M. EAST)	
N: 418953.04' E: 592984.65'	

NAD 83 (LTP/BHL)	
LATITUDE = 32°07'22.63" (32.122953°)	
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NAD 27 (LTP/BHL)	
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STATE PLANE NAD 27 (N.M. EAST)	
N: 408537.55' E: 593003.83'	

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S63°23'40"E	2903.01'

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.



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:	☒ Initial Submittal
			☐ Amended Report
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Order Numbers.		Well setbacks are under Common Ownership: ☐ Yes ☐ No		

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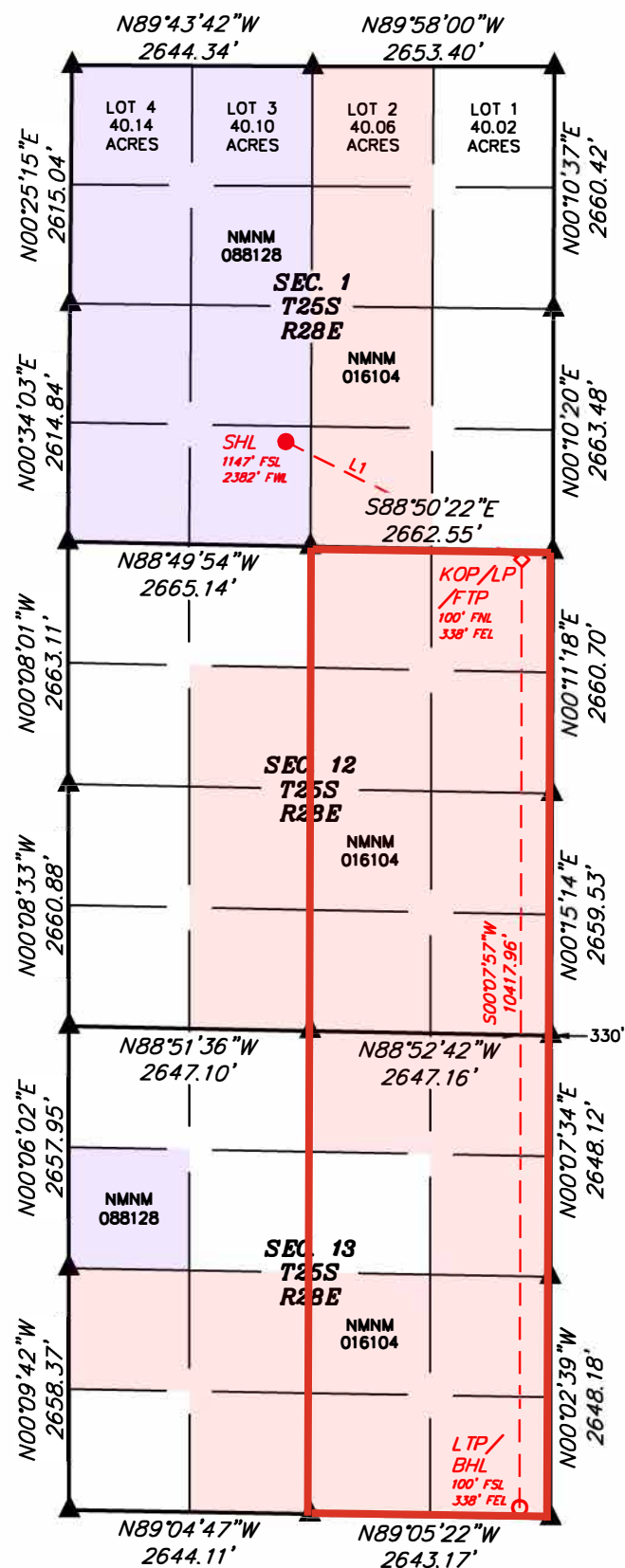
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U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

10/16/2025

APD ID: 10400105549

Submission Date: 08/07/2025

Highlighted data
reflects the most
recent changes

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

[Show Final Text](#)

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16546691	RUSTLER	0	407	407	ANHYDRITE	USEABLE WATER	N
16546692	TOP OF SALT	-1952	1952	1952	ANHYDRITE, SALT	NONE	N
16546693	LAMAR	-2632	2632	2632	ANHYDRITE, SALT	NONE	N
16546694	BELL CANYON	-2806	2806	2806	SANDSTONE	NONE	N
16546695	CHERRY CANYON	-3619	3619	3619	SANDSTONE	NONE	N
16546696	BRUSHY CANYON	-4817	4817	4817	SANDSTONE	NATURAL GAS, OIL	N
16546697	BONE SPRING LIME	-6411	6411	6411	LIMESTONE	NATURAL GAS, OIL	N
16546698	BONE SPRING 1ST	-7361	7361	7361	SANDSTONE	NATURAL GAS, OIL	N
16546702		0					N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M

Rating Depth: 18917

Equipment: A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

Requesting Variance? YES**Variance request:** See attached.

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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Choke Diagram Attachment:**

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250826153852.pdf

COTERRA_MBU_3T_CFL_20_X_13.38_X_9.58_X_7_X_4.5_20250826153852.pdf

10M_BOP_DIAGRAM_20250826153853.pdf

COTERRA_10K_PROD_TREE_20250826153853.pdf

CHOKE_HOSE_M15486_20250826153852.pdf

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250925121029.pdf

10M_BOPE_BLM_SUBMISSION_REV.0_20250925121029.pdf

CHOKE_HOSE_M15486_20250925121029.pdf

COTERRA_MBU_3T_CFL_20_X_13.38_X_9.58_X_7_X_4.5_20250925121029.pdf

COTERRA_10K_PROD_TREE_20250925121029.pdf

BOP Diagram Attachment:

10M_BOP_DIAGRAM_20250912154040.pdf

10M_BOP_DIAGRAM_20250925121006.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1190	0	1190	2934	1744	1190	J-55	48	ST&C	1.44	3.36	BUOY	5.64	BUOY	5.64
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2500	0	2500	2935	434	2500	J-55	36	LT&C	1.57	2.74	BUOY	5.1	BUOY	5.1
3	PRODUCTION	8.75	7.0	NEW	API	N	0	8219	0	7589	2935	-4655	8219	P-110	26	BUTT	1.66	2.66	BUOY	99.99	BUOY	99.99
4	COMPLETION SYSTEM	6	4.5	NEW	API	N	7309	18917	7309	7589	-4375	-4655	11608	HCP-110	11.6	BUTT	2.36	2.86	BUOY	99.99	BUOY	99.99

Casing Attachments

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Casing Attachments**

Casing ID: 1 **String** SURFACE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

7H_Casing_Assumptions_20250826153949.pdf

7H_Casing_Assumptions_20250925121057.pdf

Casing ID: 2 **String** INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

Casing ID: 3 **String** PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Casing Attachments****Casing ID:** 4 **String** COMPLETION SYSTEM**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):****Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	890	577	1.72	13.5	992	45	Class C	Bentonite
SURFACE	Tail		890	1190	154	1.34	14.8	206	45	Class C	LCM
INTERMEDIATE	Lead		0	2200	441	1.88	12.9	829	59	35:65 (POZ C)	Salt, Bentonite
INTERMEDIATE	Tail		2200	2500	146	1.34	14.8	195	59	Class C	LCM
PRODUCTION	Lead		2300	7219	312	3.64	10.3	1135	25	Tuned Light	LCM
PRODUCTION	Tail		7219	8219	152	1.36	14.8	206	25	Class C	Retarder
COMPLETION SYSTEM	Lead		8119	18917	777	1.3	14.2	1010	10	50:50(POZ H)	salt, Bentonite, Fluid Loss, Dispersant, SMS

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Section 5 - Circulating Medium****Mud System Type:** Closed**Will an air or gas system be Used?** NO**Description of the equipment for the circulating system in accordance with 43 CFR 3172:****Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:**

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1190	OTHER : Fresh Water	7.83	8.33							
1190	2500	OTHER : Brine water	9.5	10							
2500	8219	OTHER : Cut brine or OBM	9	9.5							
8219	1897 1	OIL-BASED MUD	9	9.5							

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H

Section 6 - Test, Logging, Coring

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

No DST Planned. Longs to be run on 5H.

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

DIRECTIONAL SURVEY,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3748**Anticipated Surface Pressure:** 2078**Anticipated Bottom Hole Temperature(F):** 148**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards description:****Contingency Plans geohazards****Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations**

H2S_PLAN_REV.0_20250826154048.pdf

H2S_PLAN_REV.0_20250925121145.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_Plot_20250826154151.pdf

7H_Drilling_Plans_20250826154151.pdf

_7_30_2025_5_19_48_PM__Coterra_Energy__Riverbend_12_13_Federal_Com_7H_Plan_1_20250826154151.pdf

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_20250826154151.pdf

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_AC_20250826154151.pdf

WELL_CONTROL_PLAN_REV.0_20250826154227.pdf

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_20250912065043.pdf

_7_30_2025_5_19_48_PM__Coterra_Energy__Riverbend_12_13_Federal_Com_7H_Plan_1_20250912065043.pdf

7H_Drilling_Plans_20250925121343.pdf

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_20250925121424.pdf

_7_30_2025_5_19_48_PM__Coterra_Energy__Riverbend_12_13_Federal_Com_7H_Plan_1_20250925121424.

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

pdf

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_AC_20250925121424.pdf

_7_30_2025_5_19_48_PM__Riverbend_12_13_Federal_Com_7H__Plan_1_Plot_20250925121424.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

RIVERBEND_12_13_FED_COM_W2E2_rig_layout_plat_20250826154250.pdf

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250826154250.pdf

Riverbend_12_13_7H_Natural_Gas_Plan_Cimarex_20250826154320.pdf

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250925121258.pdf

RIVERBEND_12_13_FED_COM_W2E2_rig_layout_plat_20250925121258.pdf

Riverbend_12_13_7H_Natural_Gas_Plan_Cimarex_20250925121311.pdf

Other Variance request(s)?: Y

Other Variance attachment:

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250731145043.pdf

CHOKE_HOSE_M15486_20250731145044.pdf

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250925121233.pdf

CHOKE_HOSE_M15486_20250925121233.pdf

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 #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

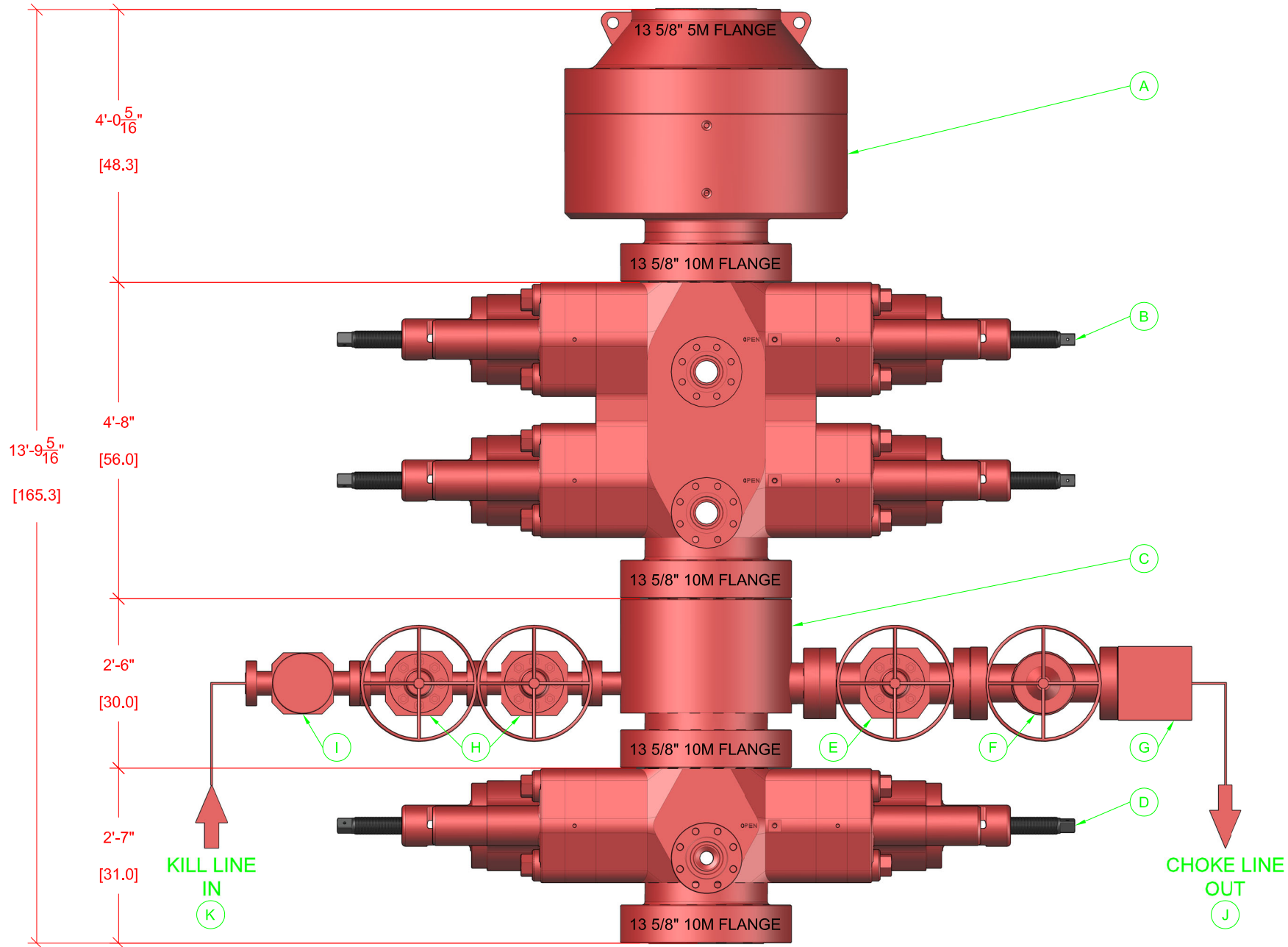
Variance Request #4: Utilize Co-Flex Choke Line

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.



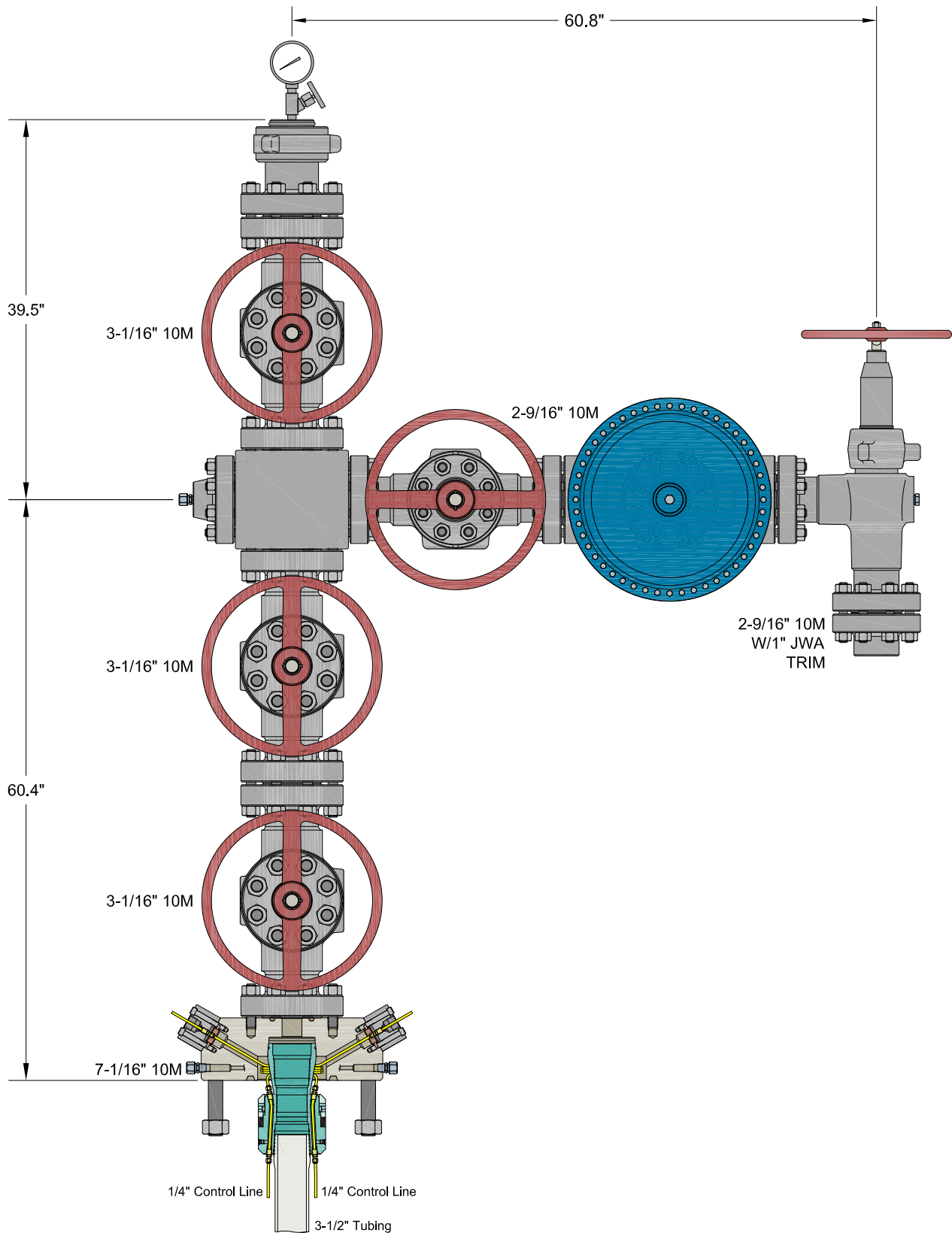
CIMAREX
HOBBS, NM

DRAWN	VJK	01FEB24
APPRV		
DRAWING NO. HBE0001053		



BOP EQUIPMENT INFORMATION

DESCRIPTION	MODEL	QTY	ITEM	DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1	G	STUDDED BLOCK	4 1/2" 10M	1
DOUBLE RAM BOP	13 5/8" 10M TYPE-U	1	H	GATE VALE	2 1/2" 10M FC MANUAL	2
MUD CROSS	13 5/8" 10M	1	I	CHECK VALVE	2 1/2" 10M	1
SINGLE RAM BOP	13 5/8" 10M TYPE-U	1	J	CHOKE HOSE	4 1/2" 10M	1
GATE VALVE	4 1/2" 10M FC MANUAL	1	K	KILL HOSE	2 1/2" 10M	1
HCR VALVE	4 1/2" 10M HCR	1	L			



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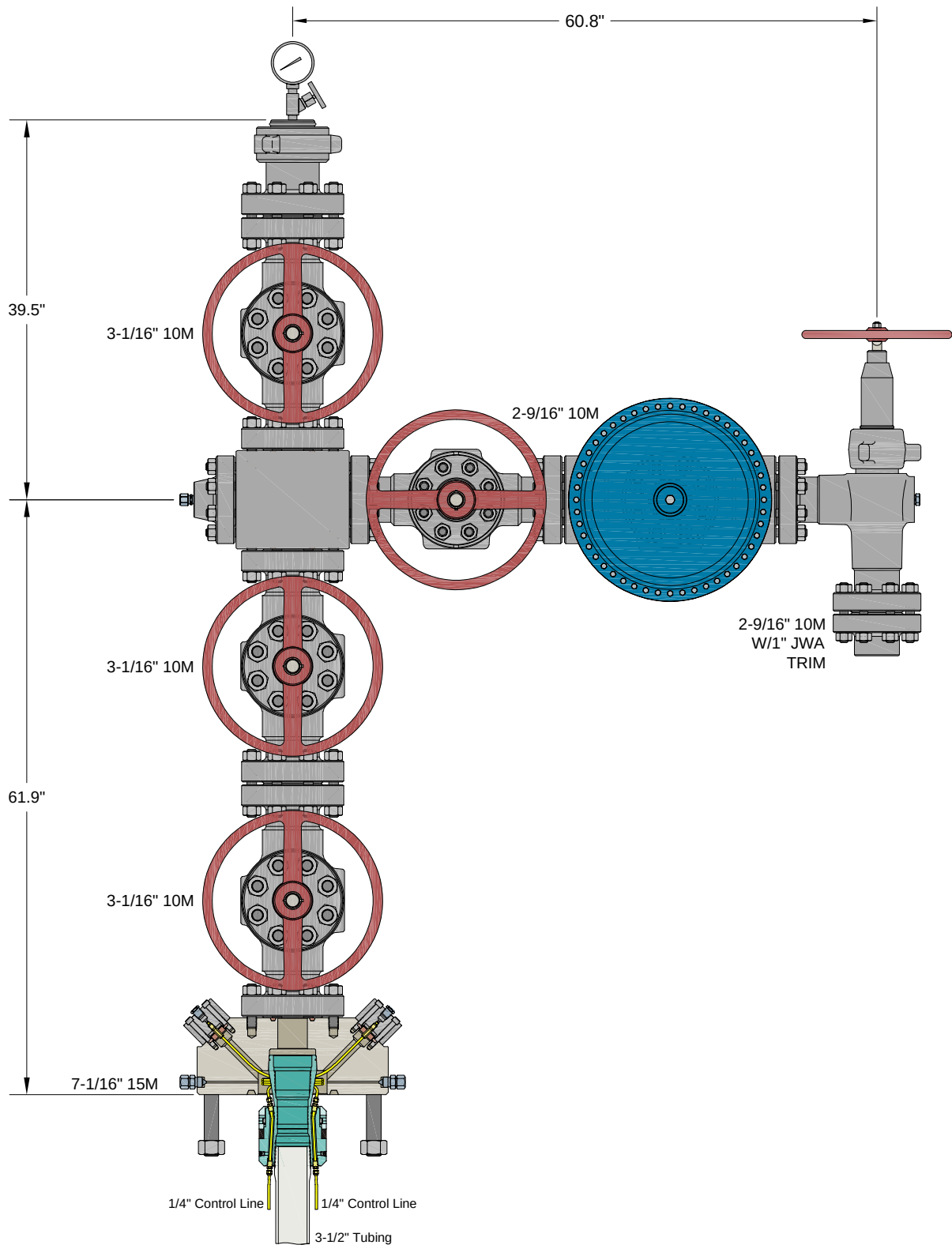
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CIMAREX
HOBBS, NM

7-1/16" 10M x 3-1/16" x 2-9/16" 10M Production Tree Assembly
With 7-1/16" 10M x 3-1/16" 10M T40-CCL Tubing Head Adapter
And 7-1/16" 3-1/2" T40-CCL Tubing Hanger

DRAWN	VJK	05SEP23
APPRV		
DRAWING NO.	HBE0001018	



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CIMAREX
HOBBS, NM

7-1/16" 15M x 3-1/16" x 2-9/16" 10M Production Tree Assembly
With 7-1/16" 15M x 3-1/16" 10M T40-CCL Tubing Head Adapter
And 7-1/16" 3-1/2" T40-CCL Tubing Hanger

DRAWN	VJK	13DEC23
APPRV		
DRAWING NO.	HBE0001018	

**Cactus****Quotation****Quote Number : HBE0001018**

Hobbs, NM
 4120 W Carlsbad Hwy
 Hobbs NM 88240
 Phone: 817-682-8336

Date: 09/08/2023

Valid For 30 Days

Page 1 of 5**Bill To:** 7050

CIMAREX
 ATTN: DAVID SHAW
 202 S CHEYENNE AVENUE SUITE 1000
 TULSA OK 74103
 US

Ship To: 1016

2023 PRICING REVIEW
 202 S Cheyenne Ave Ste 1000
 Tulsa OK 74103-3001
 US

	Quantity	Price	Ext Price
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CIMAREX

HOBBS, NM

PRODUCTION TREE ASSEMBLY
 7-1/16" 10M X 3-1/16" 10M X 2-9/16" 10M
 OPTIONAL 15M ADAPTER

QUOTATION SUMMARY:

- PRODUCTION TREE ASSEMBLY - \$49,338.02

CACTUS CONTACT:

RILEY STAFFORD / MIKE SPINKS

OFFICE: 405.708.7217 (RILEY) / 713.396.5762 (MIKE)

MOBILE: 405.445.2222 (RILEY) / 832.691.7724 (MIKE)

EMAIL: riley.stafford@cactuswellhead.com / mike.spinks@cactuswellhead.com

DUE TO VOLATILITY IN THE STEEL MARKET, PRICING FOR ITEMS MADE FROM NICKEL ALLOYS (EX. 410SS, 17-4PHSS, INCONEL, ETC.) WILL BE VALID FOR TWO WEEKS. CW WILL REVIEW AND ADJUST, IF NECESSARY, AT ORDER PLACEMENT.

PREMIUM THREADED CASING HANGERS/RUNNING TOOLS & CUSTOMER SPECIFIC EQUIPMENT ARE NON-CANCELABLE AND MAY REQUIRE A PURCHASE ORDER (PO) PRIOR TO MANUFACTURING.

SUPPLY CHAIN PRICING IS BASED UPON A 135 DAY DELIVERY ARO. EXPEDITED PRICING CAN BE PROVIDED UPON REQUEST. PRICES ARE F.O.B. CACTUS BOSSIER CITY, LA. THE FOLLOWING QUOTATION DOES NOT INCLUDE APPLICABLE MILEAGE AND SERVICE CHARGES THAT MAY BE CHARGED AT TIME OF INVOICING.

**Cactus****Quotation****Quote Number : HBE0001018**

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023

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Page 2 of 5

		Quantity	Price	Ext Price
PRODUCTION TREE ASSEMBLY				
1	124314P2 ADPT,TBGHD,CW,T40-CCL,7-1/16 10M STD X 3-1/16 10M STD,W/TWO #14 DHCV W/1/4 LP INLETS,10000 PSI MAX WP,TEMP PU,MATL EE,PSL2,PR2	1.00	4,830.00	4,830.00
2	120242MV VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)	1.00	4,343.00	4,343.00
3	120242MV VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)	1.00	4,343.00	4,343.00
4	128365 CRSS,STD,AOZE,3-1/16 10M X 2-9/16 10M,6A-LU-EE-3	1.00	2,650.00	2,650.00
5	120242MV VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)	1.00	4,343.00	4,343.00
6	142800 TREETCAP,NEWAY,BHTA,B15A,3-1/16 10M X 3-1/2 EU ILT,W/1/2 NPT & 3.06 MIN BORE,MONOGRAMMED,TEMP PU,MATL EE,PSL2	1.00	1,270.00	1,270.00
7	BX154 RING GASKET,BX154,3-1/16 10/15/20M	5.00	10.44	52.20
8	780077-20E1 STUD,ALL-THD W/2 HVY HEX NUTS,BLK,1-8UNC X 7,API 20E BSL-1 ASTM A193 GR B7 ALL THREAD STUD W/2 API 20E BSL-1 ASTM A194 GR 2H HEAVY HEX NUTS,NO PLATING	16.00	19.83	317.28
9	132879 FLG,BLIND,AOZE,3-1/16 10M X 1/2 NPT,W/HUB,TEMP LU,MATL EE,PSL3	1.00	495.00	495.00
10	100048 FTG,GRS,VENTED CAP,1/2 NPT,4140 -50F W/ELECTROLESS NICKEL COATING NACE,K-MONEL BALL,INCONEL X-750 SPRING	1.00	59.74	59.74
11	115900MV VLV,CW,SB100,2-9/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL2 PR2) QPQ TRIM, API 6A PR2 ANNEX F (BORE VENT HOLE)	1.00	3,285.00	3,285.00
12	128567 VLV/ACT,OMNI,FS-R,2-9/16 10M FE EE HF C/W MODEL DX-18 DIAPHRAGM PNEUMATIC ACTUATOR, FORGED BODY, REVERSE ACTING SLAB GATE, FLOATING SEATS & DIRECTIONAL FLOW BODY BUSHING (FLOW FROM RIGHT TO LEFT): MAT'L CLASS EE, HARDFACE TRIM, TEMP PU (-20 TO 250 F), PSL-2, PR-2; ACTUATOR: MATERIAL CLASS BB, TEMP P (-20F TO 180F) PR-2 (FC TYPE) W/MANUAL OVERRIDE,ACTUATOR REQUIRES 112 PSI TO OPEN AT FULL 10,000 PSI	1.00	8,292.00	8,292.00
13	130652 CHOKE,ADJ,HOE,H2,2-9/16 10M FE X FE ALLOY BDY,3" NOMINAL,W/ 2" SSTC TRIM,H2S SERVICE,API MONOGRAMMED,PSL-2 PR-2 TEMP-PU MATL-EE-1.5	1.00	7,500.00	7,500.00
14	120734 FLG,COMP,AOZE,2-9/16 10M X 2-7/8 EU,5000 PSI MAX WP,TEMP LU,PSL3,PR1	1.00	399.00	399.00

**Cactus****Quotation**

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Quote Number : HBE0001018

Date: 09/08/2023

Valid For 30 Days

Page 3 of 5

		Quantity	Price	Ext Price
15	BX153 RING GASKET,BX153,2-9/16 10/15/20M	5.00	11.54	57.70
16	780067-20E1 STUD,ALL-THD W/2 HVY HEX NUTS,BLK,7/8-9UNC X 6-1/2,API 20E BSL-1 ASTM A193 GR B7 ALL THREAD STUD W/2 API 20E BSL-1 ASTM A194 GR 2H HEAVY HEX NUTS,NO PLATING	24.00	14.70	352.80
17	135166 TBGHGR,CW,T40-CCL,7-1/16 X 3-1/2 EU API MOD BOX BTM X 3-1/2 EU BOX TOP,W/3 HBPV THD,W/ TWO 1/4 CCL & DOVETAIL SEAL,CF 124316P2,10000 PSI MAX WP,17-4PH SS,TEMP PU,MATL FF-0,5,PSL2,PR2	1.00	4,490.00	4,490.00
18	BX156 RING GASKET,BX156,7-1/16 10/15/20M	1.00	62.48	62.48
19	NVS NEEDLE VALVE,MFS,1/2 NPT MXF,10M PSI WP,CARBON STEEL BODY, 304/316SS STEM, TFE PACKING (NON-NACE)	1.00	61.16	61.16
20	PG10M PRESSURE GAUGE,10M,4-1/2 FACE, LIQUID FILLED,1/2 NPT	1.00	58.24	58.24
21	PRO Prorata Freight	0.75	2,768.56	2,076.42
				49,338.02

OPTIONAL 15M ADAPTER

22	124999P2 ADPT,TBGHD,CW,T40-CCL,7-1/16 15M STD X 3-1/16 10M STD,W/TWO #14 DHCW W/1/4 NPT INLET,10000 PSI MAX WP,TEMP PU,MAT'L EE,PSL2,PR2	0.00	7,423.00	0.00
				0.00

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PERMITTED ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

For Acceptance of this Quotation
Please Contact Ph: 713-626-8800
sales@cactuswellhead.com

Matl:	47,261.60
Labor:	0.00
Misc:	2,076.42
Sales Tax:	0.00
Total:	49,338.02


Cactus

Quotation

Quote Number : HBE0001018

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023
Valid For 30 Days
Page 4 of 5

CACTUS WELLHEAD, LLC PURCHASE TERMS AND CONDITIONS

1. **ACCEPTANCE:** Acceptance of Cactus Wellhead, LLC (herein: Company) Purchase Terms and Conditions (herein: CACTUS Purchase Terms) shall be deemed effective upon shipment of the Products and/or rendering of Services which are the subject of an order by Customer (defined as the party purchasing CACTUS Products and or Services referred on the invoice). Any proposal made by Customer for additional or different terms and conditions or any attempt by Customer to vary in any degree any of the terms and conditions of CACTUS Purchase Terms is hereby rejected.
2. **PRICING:** Each Product and Service shall be invoiced at (and Customer shall pay) the respective price shown on the reverse side hereof, or if no price is shown on the reverse side hereof, at the price shown in the current price list of Company. In addition, Customer shall pay any and all additional charges for mileage, transportation, freight, packing and other related charges, as well as any federal, state or local tax, excise, or charge applicable on the sale, transportation, or use of Products and Services, unless otherwise specified.
3. **TERMS OF PAYMENT:** Customer agrees to pay Company any and all payments due on or before thirty (30) days from invoice date at the designated address of Company. Amounts unpaid after such thirty (30) day period shall bear interest at the lesser of (i) one and one-half percent (1½%) per month or (ii) the maximum rate allowed by law. Customer shall also pay any and all of Company's attorney's fees and court costs if any amounts hereunder are collected by an attorney or through legal proceedings. Company reserves the right, among other remedies, either to terminate this agreement or to suspend further deliveries upon failure of Customer to make any payment as provided herein.
4. **LIMITED WARRANTY:** COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE MERCHANTABILITY, FITNESS FOR PURPOSE, DESCRIPTION, QUALITY, PRODUCTIVENESS, ACCURACY OR ANY OTHER MATTER WITH RESPECT TO PRODUCTS OR SERVICES, ALL SUCH WARRANTIES BEING HEREBY SPECIFICALLY AND EXPRESSLY DISCLAIMED BY COMPANY. COMPANY MAY OFFER TECHNICAL ADVICE OR ASSISTANCE WITH REGARD TO THE PRODUCTS AND SERVICES BASED ON LABORATORY AND/OR FIELD EXPERIENCE AND CUSTOMER UNDERSTANDS AND AGREES THAT SUCH ADVICE REPRESENTS ONLY GOOD FAITH OPINIONS AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE. THE SOLE AND EXPRESS WARRANTY PROVIDED BY COMPANY IS TO WARRANT THAT THE PRODUCTS SOLD AS LISTED ON THE REVERSE SIDE HEREOF COMPLY WITH COMPANY'S SOLE SPECIFICATION AT THE DATE AND TIME OF MANUFACTURE. COMPANY MAKES NO WARRANTY THAT SUCH PRODUCTS SHALL MEET SUCH SPECIFICATION AT ANY TIME AFTER SHIPMENT OF PRODUCTS. USE OF SUCH PRODUCTS IS SPECIFICALLY NOT WARRANTED.
5. **REMEDY:** The exclusive remedy for this warranty for Products shall be limited to, in Company's sole discretion and judgment, the replacement of defective part(s). F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer), or repair of defective part(s). The exclusive remedy for this warranty for Services shall be limited to the repeat of Services performed F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer). Any such repeat of Services or replacement or repair of Products shall not include any materials not sold by Company hereunder, and specifically excludes any obligation by Company related to other property of the Customer or any property of third parties. Provided, however, Company may in its sole discretion, decide to instead give Customer credit memorandum for the amounts already paid by Customer to Company for such Product or Service. IN ANY EVENT AND NOTWITHSTANDING THE LANGUAGE TO THE CONTRARY HEREIN, CUSTOMER ACKNOWLEDGES THAT ANY CLAIM IT MAY HAVE ARISING OUT OF OR IN CONNECTION WITH ANY ORIGINAL PRODUCTS AND SERVICES, ANY REPLACEMENT PRODUCTS OR REPEAT OF SERVICES AND THESE CACTUS PURCHASE TERMS SHALL BE LIMITED TO AND NOT EXCEED THE AMOUNT CUSTOMER HAS ACTUALLY PAID TO COMPANY FOR SUCH PRODUCTS AND/OR SERVICES PURSUANT HERETO. If Customer fails to make any such claim within thirty (30) days after completion of Service or delivery of Products, Customer hereby waives (to the extent permitted by applicable law) any and all claims it may or does have with respect to such Products and Services. Unless Customer is an authorized reseller of Company, Company's liability in connection with Products and Services shall extend only to Customer. CUSTOMER HEREBY INDEMNIFIES AND HOLDS COMPANY (AND ITS AGENTS, REPRESENTATIVES, OFFICERS DIRECTORS AND EMPLOYEES) HARMLESS FOR ANY LOSS, EXPENSE OR DAMAGE (WHETHER OF CUSTOMER OR OF ANY THIRD PARTY) ARISING FROM OR IN CONNECTION WITH PRODUCTS AND SERVICES, INCLUDING WITHOUT LIMITATION ANY FAILURE OF SUCH PRODUCTS AND SERVICES TO CONFORM TO CUSTOMER'S ORDER OR SPECIFICATION OR ANY OTHER STANDARD, OR ANY NEGLIGENCE OR BREACH OF WARRANTY BY COMPANY WITH RESPECT TO ANYTHING DONE OR FAILED TO HAVE BEEN DONE BY COMPANY, IF AND TO THE EXTENT THAT SUCH LOSS, EXPENSE OR DAMAGE EXCEEDS THE AMOUNT CUSTOMER HAS ACTUALLY PAID COMPANY PURSUANT HERETO FOR SUCH PRODUCTS OR SERVICES.
6. **INSPECTION:** The results of any inspection or testing reported by the Company to Customer represents only good faith opinions and are not to be construed as warranties or guarantees of the quality, classification, merchantability, fitness for purpose, condition, or liability of any equipment or material that has been inspected or tested by the Company.
7. **INSURANCE:** Each party agrees to maintain comprehensive general liability insurance in the amount of \$1,000,000 each occurrence, \$2,000,000 general aggregate, and Workers Compensation insurance per statutory requirements providing coverage for the indemnity obligations in this agreement. The Company (and such of its affiliates as it shall designate) including their officers, directors, members, shareholders, partners, joint ventures, employees, agents and representatives shall be named as additional insureds under the policies of Customer on a primary basis to the extent of its indemnification obligations set forth in these CACTUS Purchase Terms, and the policies shall also provide a waiver of subrogation rights in favor of the Company (and such of its affiliates as it shall designate) and their officers, directors, members, shareholders, employees, agents and representatives. The provisions of this Section 7 shall apply and the obligation to maintain insurance of each party in the coverages and amounts set forth herein shall remain in force regardless and independent of the validity or enforceability of the indemnity provisions of Section 8, below; the obligation to obtain insurance is a separate and independent obligation. If the insurance required herein is more or less than allowed by prevailing law, the indemnity obligations in Section 8 below shall be effective only to the maximum extent permitted under applicable law.
8. **INDEMNIFICATION:** The following indemnifications and releases of liability will apply to any Products or Services provided under this contract. COMPANY AND CUSTOMER EXPRESSLY AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE INDEMNITIES AND DISCLAIMERS OF WARRANTIES CONTAINED HEREIN ARE "CONSPICUOUS."
 - A. **Customer Indemnity Obligations.** Customer hereby releases Company from any liability for, and shall protect, defend, indemnify, and hold harmless Company, its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, insurers, and consultants (specifically excluding any member of Customer Group) of all of the foregoing, and its and their respective successors, heirs and assigns ("Company Group") from and against all costs (including the payment of reasonable attorneys' fees), losses, liabilities, demands, causes of action, damages, or claims of every type and character ("Claims"), arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of Customer its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, customers, insurers, invitees and consultants of all of the foregoing, and its and their respective successors, heirs and assigns ("Customer Group"), or (ii) loss of or damage to any property of any member of Customer Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.
 - B. **Company Indemnity Obligations.** Company hereby releases Customer from any liability for, and shall protect, defend, indemnify, and hold harmless Customer from and against all Claims arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of any member of Company Group, or (ii) loss of or damage to any property of any member of Company Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF CUSTOMER GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.
 - C. **Third Party Claims.** Notwithstanding the foregoing, to the extent of its negligence, Company and Customer shall each indemnify, defend and hold harmless from and against all Claims, of every type and character, which are asserted by third parties for bodily injury, death or loss or destruction of property or interests in property in any manner caused by, directly or indirectly resulting from, incident to, connected with or arising out of the work to be performed, Services to be rendered or Products or materials furnished to Customer. When personal injury, death or loss of or damage to property is the result of joint or concurrent negligence of Customer and Company, the indemnitor's duty of indemnification shall be in proportion to its allocable share of such negligence.
 - D. **Pollution.** Company agrees that it shall be totally responsible for, and shall protect, defend and indemnify, Customer for all losses, damages, claims, demands, costs, charges, and other expenses, including attorneys' fees, for any and all waste and/or hazardous substances which are in Company Group's exclusive possession and control and directly associated with Company Group's equipment and facilities, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF CUSTOMER GROUP. Customer shall assume all responsibility for, including control and removal of, and shall protect, defend and indemnify Company Group from and against all Claims arising directly or indirectly from all other pollution or contamination which may occur during the conduct of operations hereunder, including, but not limited to, that which may result from fire, blowout, cratering, seepage or any other uncontrolled flow of oil, gas, water or other substance, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF COMPANY GROUP.
 - E. **Wild Well.** Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group for any damages, expenses, losses, fines, penalties, costs, expert fees and attorneys' fees arising out of a fire, blow out, cratering, seepage or wild well, including regaining control thereof, debris removal and property restoration and remediation. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.
 - F. **Underground Damage.** Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group from and against any and all claims, liability and expenses resulting from operations related to the work under this agreement on account of injury to, destruction of, or loss or impairment of any property right in or to oil, gas or other mineral substance or water, if at the time of the act or omission causing such injury, destruction, loss or impairment said substance and not been reduced to physical possession above the surface of the earth, and for any loss or damage to any formation, strata, or reservoir beneath the surface of the earth. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.
 - G. The foregoing indemnities set forth in these CACTUS Purchase Terms are intended to be enforceable against the parties hereto in accordance with the express terms and scope hereof notwithstanding Texas' Express Negligence Rule or any similar directive that would prohibit or otherwise limit indemnities because of the negligence (whether sole, concurrent, active or passive, ordinary or gross) or other fault or strict liability of Company or Customer.
 - H. If a claim is asserted against one of the parties to this agreement which may give rise to a claim for indemnity against the other party hereto, the party against whom the claim is first asserted must notify the potential indemnitor in writing and give the potential indemnitor the right to defend or assist in the defense of the claim.
9. **RISK OF LOSS:**
 - A. Title and risk of loss shall pass to Customer upon delivery as specified in Article 11. Customer's receipt of any material delivered hereunder shall be an unqualified acceptance of, and a waiver by Customer of any and all claims with respect to, such material unless Customer gives Company written notice of claim within thirty (30) days after such receipt. Notwithstanding the foregoing, installation or use of materials or equipment shall unequivocally constitute irrevocable acceptance of said materials. Customer assumes all risk and liability for the results obtained by the use of any material or Products delivered hereunder in work performed by on behalf of Customer or in combination with other or substances. No claim of any kind, whether as to material delivered or for non-delivery of material, and whether or not based on negligence, shall be greater in amount than the purchase price of the


Cactus

Quotation

Quote Number : HBE0001018

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023
Valid For 30 Days
Page 5 of 5

material in respect of which such claim is made.

B. For Services, Company shall not be liable for loss or deterioration of any equipment and material of Customer under Company's control or stored on Company's premises after Company has completed its work if such loss or deterioration results from atmospheric condition, Act of God or other occurrence not within the reasonable control of Company.

10. **TERMINATION.** Company reserves the right to terminate the order at issue, or any part hereof, solely for its convenience at any time without cause with notice to Customer. Company shall have the right to cancel any unfilled order without notice to Customer in the event that Customer becomes insolvent, adjudicated bankrupt, petitions for or consents to any relief under any bankruptcy reorganization statute, violates a term of these CACTUS Purchase Terms, or is unable to meet its financial obligations in the normal course of business. In the event of such termination, Company shall immediately stop all work hereunder. Prior to delivery, Customer may terminate this order without cause upon thirty (30) day notice in writing to Company. In the event of such termination, Company at its sole option shall cease work up to thirty (30) days after such notice. Upon the cessation of work, Customer agrees to pay Company a reasonable termination charge consisting of a percentage of the Invoice price, such percentage to reflect the value of the Products, Services or work in progress completed upon the cessation of work. Customer shall also pay promptly to Company any costs incurred due to paying and settling claims of Company's vendors or subcontractors arising out of the termination of the order by Customer.

11. **DELIVERY.** Unless different terms are provided on the face of this order, all items are sold FOB Company's manufacturing facility in Bossier City, LA., and Customer shall bear the cost of transportation to any other named destination. Upon notification of Company of delivery, Customer shall become liable and shall bear all risk of loss associated with the Products at issues regardless of whether the Products are at a location controlled by Company and whether or not caused by the negligence of Company. In the case of Customer pick-up, the truck furnished by Customer is the destination and Company's obligations regarding shipments are fulfilled when the Products are loaded on the truck. Items to be shipped to any other destination outside of the United States are sold FOB port of shipment (Customer will deliver and bear the cost of transportation to the named port and will bear the cost of transportation thereafter to the final destination). The means of shipment and carrier to the point at which Company's liability for transportation costs ceases shall be chosen by Company. Excess packing, marking, shipping, and transportation charges resulting from compliance with Customer's request shall be for Customer's account. Unless otherwise agreed in writing, delivery time is not of the essence.

12. **RETURNS/REFUND.** Within ninety (90) days of delivery, Customer has the option to return any non-defective Products (any Products found to be defective will be subject to the warranty and remedies expressed in paragraphs four (4) and five (5) above). Customer shall bear all costs of shipment and/or transportation for such return and risk of loss for the returned Products shall remain with Customer until re-delivered to Company's Yard. Customer shall receive a full refund for any returns, less a twenty percent (20%) restocking fee. Company at all times reserves the right to designate certain Products as non-refundable in Company's Sales Quote or Sales Order. In addition, any made-to-order, special order, and/or Product manufactured to Customer specifications are NOT returnable.

13. **DELAYS.** If a specific shipping date is either not given or is estimated only, and is not promised on the face of this order or in a separate writing signed by Company, Company will not be responsible for delays in filling this order nor liable for any loss or damages resulting from such delays. If a specific shipping date is promised, Company will not be liable for delays resulting from causes beyond Company's control, including without limitation accidents to machinery, fire, flood, act of God or other casualty, vendor delays, labor disputes, labor shortages, lack of transportation facilities, priorities required by, requested by, or granted for the benefit of any governmental agency, or restrictions imposed by law or governmental regulation.

14. **LIMITATION OF DAMAGES.** Notwithstanding any other provision contained herein, Company shall not be liable to Customer Group or any third party for consequential (whether direct or indirect damages), indirect, incidental, special or punitive damages, howsoever arising, including, but not limited to loss of profits (whether direct or indirect damages), revenues, production or business opportunities, WHETHER OR NOT SUCH LOSSES ARE THE RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE (WHETHER SOLE, JOINT, CONCURRENT OR COMPARATIVE, ACTIVE OR PASSIVE, ORDINARY OR GROSS) OF COMPANY GROUP, OR ANY DEFECT IN THE PREMISES, PRE-EXISTING CONDITIONS, PATENT OR LATENT, BREACH OF STATUTORY DUTY, STRICT LIABILITY OR ANY OTHER THEORY OF LEGAL LIABILITY OF COMPANY GROUP (EXCLUDING ONLY LOSSES CAUSED BY THE WILLFUL MISCONDUCT OF COMPANY GROUP).

15. **SECURITY INTEREST.** Customer grants Company, and Company reserves, a security interest, covering all Customer's obligations under these terms (including any liability for breach of Customer's obligations), and applying to all of Customer's right, title, and interest in the Leased Equipment, together with all accessions thereto and any proceeds that may arise in connection with the sale or disposition thereof. Customer shall cooperate with Company in the filing of Financing Statements to perfect such security interest. Furthermore, Customer authorizes Company to execute and file Financing Statements without Customer's signature in any jurisdiction in which such procedure is authorized. Customer warrants, covenants and agrees that it will not, without prior written consent of Company, sell, contract to sell, lease, encumber, or dispose of the Leased Equipment or any interest in it until all obligations secured by this security interest have been fully satisfied.

16. **PATENT AND INTELLECTUAL PROPERTY.** The sale of any Products hereunder does not convey any intellectual property license by implication, estoppel or otherwise regarding the Products. Company retains the copyright in all documents, catalogs and plans supplied to Customer pursuant to or ancillary to the contract. Unless otherwise agreed in writing, Customer shall obtain no intellectual property interest in any Company Product.

17. **TAXES.** Unless otherwise specifically provided for herein, Customer shall be liable for all federal, state, or local taxes or import duties assessed by any governmental entity of any jurisdiction in connection with the Products or Services furnished hereunder.

18. **DECEPTIVE TRADE PRACTICES.** Customer acknowledges the application of Section 17.45(4) of the Texas Deceptive Trade Practices Act (Texas Business Commission Code §17.41 et. seq.) (the "Act") to any transaction contemplated hereby and represents that it is not a "consumer" for the purposes of the Act.

19. **NO WAIVER.** Failure to enforce any or all of the provisions in these CACTUS Purchase Terms in any particular instance shall not constitute or be deemed to constitute a waiver of or preclude subsequent enforcement of the same provision or any other provision of these CACTUS Purchase Terms. Should any provision of these CACTUS Purchase Terms be declared invalid or unenforceable all other provisions of these CACTUS Purchase Terms shall remain in full force and effect.

20. **CHOICE OF LAW.** THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND SHALL BE PERFORMABLE IN HARRIS COUNTY, TEXAS. WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPALS AND WAIVER OF SAME, EACH PARTY HERETO SUBMITS TO THE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS IN HARRIS COUNTY, TEXAS AND THE FEDERAL COURTS IN AND FOR THE SOUTHERN DISTRICT OF TEXAS SITTING IN HOUSTON, TEXAS IN CONNECTION WITH ANY DISPUTE ARISING UNDER THIS AGREEMENT OR ANY DOCUMENT OR INSTRUMENT ENTERED INTO IN CONNECTION HEREWITH.

21. **AUTHORITY.** Customer warrants and represents that the individual receiving this order at issue on behalf of Customer has the authority to enter into these CACTUS Purchase Terms on behalf of Customer, and that upon receipt these CACTUS Purchase Terms shall be binding upon Customer.

22. **FORCE MAJEURE.** If Company is unable to carry out its obligations hereunder by reason of force majeure, then upon Company's giving of notice and reasonably full particulars of such force majeure in writing to Customer, Company's obligations that are affected by force majeure shall be suspended during the continuance of the force majeure and Company shall not be liable to Customer for any damages incurred by the Customer as a result thereof.

23. **CONFIDENTIALITY.** Customer acknowledges the highly secret and valuable nature of all proprietary inventions, methods, processes, designs, know-how, and trade secrets embodied in the Company's equipment, Products and Services and its components (hereinafter referred to as "Confidential Data"). Accordingly, Customer agrees not to disclose or use any Confidential Data. Customer further agrees to take any and all necessary precautions to prevent disclosure of the Confidential Data associated with the Company's equipment, Products and Services and components thereof to persons other than those employees of Customer for whom such disclosure is necessary for performance of the work hereunder.

24. **COMPLIANCE.** Customer expressly agrees to comply with and abide by, all of the laws of the United States and of the State of Texas, including, but not limited to, OSHA, EPA and all rules and regulations now existing or that may be hereafter promulgated under and in accordance with any such law or laws, and hereby agrees to indemnify and hold Company harmless from any and all claims, demands, or damages incurred by Company arising from Customer's failure to comply with all laws and governmental regulations. The indemnities in this paragraph shall be in addition to any other indemnity obligations between Customer and Company, including any other indemnity obligations contained herein.



CERTIFICATE OF QUALITY

LTTY/QR-5.7.1-19B

No: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3"×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3 rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items		Inspection results			
Appearance Checking		In accordance with API Spec 16C 3 rd edition			
Size and Lengths		In accordance with API Spec 16C 3 rd edition			
Dimensions and Tolerances		In accordance with API Spec 16C 3 rd edition			
End Connections: 4-1/16"×10000psi Integral flange for sour gas service		In accordance with API Spec 6A 21 st edition			
End Connections: 4-1/16"×10000psi Integral flange for sour gas service		In accordance with API Spec 17D 3 rd edition			
Hydrostatic Testing		In accordance with API Spec 16C 3 rd edition			
product Marking		In accordance with API Spec 16C 3 rd edition			
Inspection conclusion	The inspected items meet standard requirements of API Spec 16C 3 rd edition				
Remarks	16C-0403 				
Approver	Jane C	Auditor	Alice D	Inspector	Leo W
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD					 LETONE



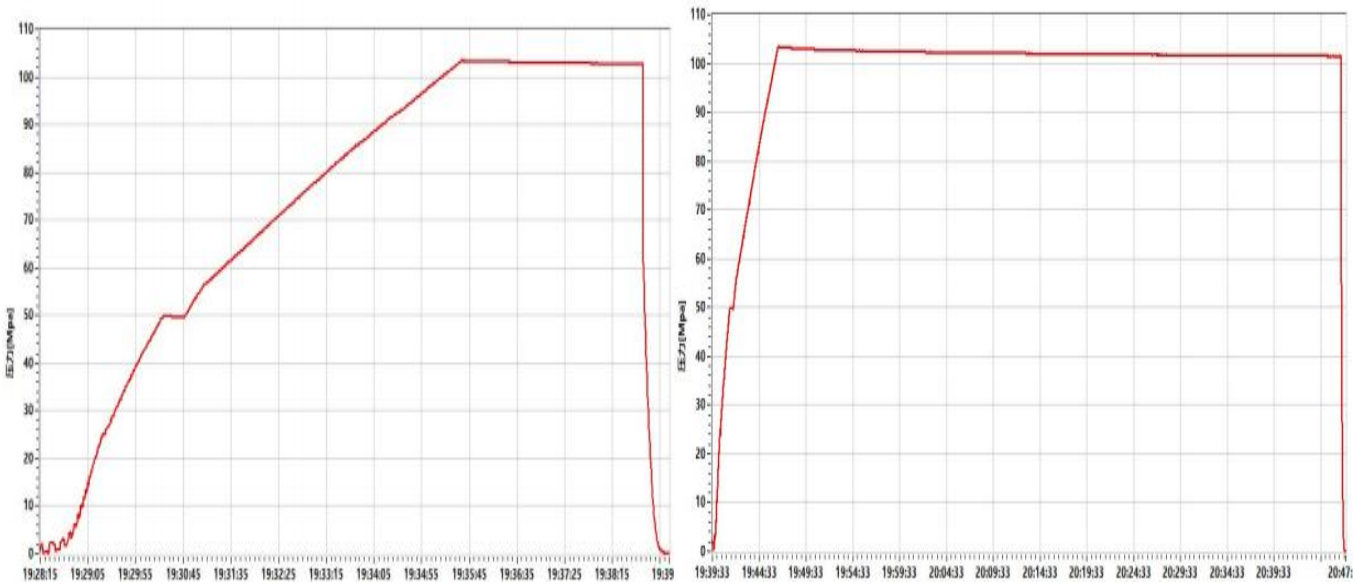
HYDROSTATIC TESTING REPORT

LTTY/QR-5.7.1-28

No: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3 rd edition
Product Specification	3″×10000psi×35ft （10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than $\pm 2\%$		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing:



Conclusion	The inspected items meet standard requirements of API Spec 16C 3 rd edition					16C-0403
Approver	Jane C	Auditor	Alice D	Inspector	Leo W	
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD						



CERTIFICATE OF CONFORMANCE

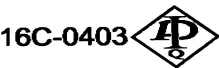
№:LT24090307

Product Name: Choke And Kill Hose
Product Specification: 3"×10000psi×35ft (10.67m)
Serial Number: VTC-7660257
customer number: PO890145-001
End Connections: 4-1/16"×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager: Jane C

Date:Sep 3, 2024



LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD



Standard New Mexico Variances

Variance Request #1: Skid Rig after Cementing Surface Casing

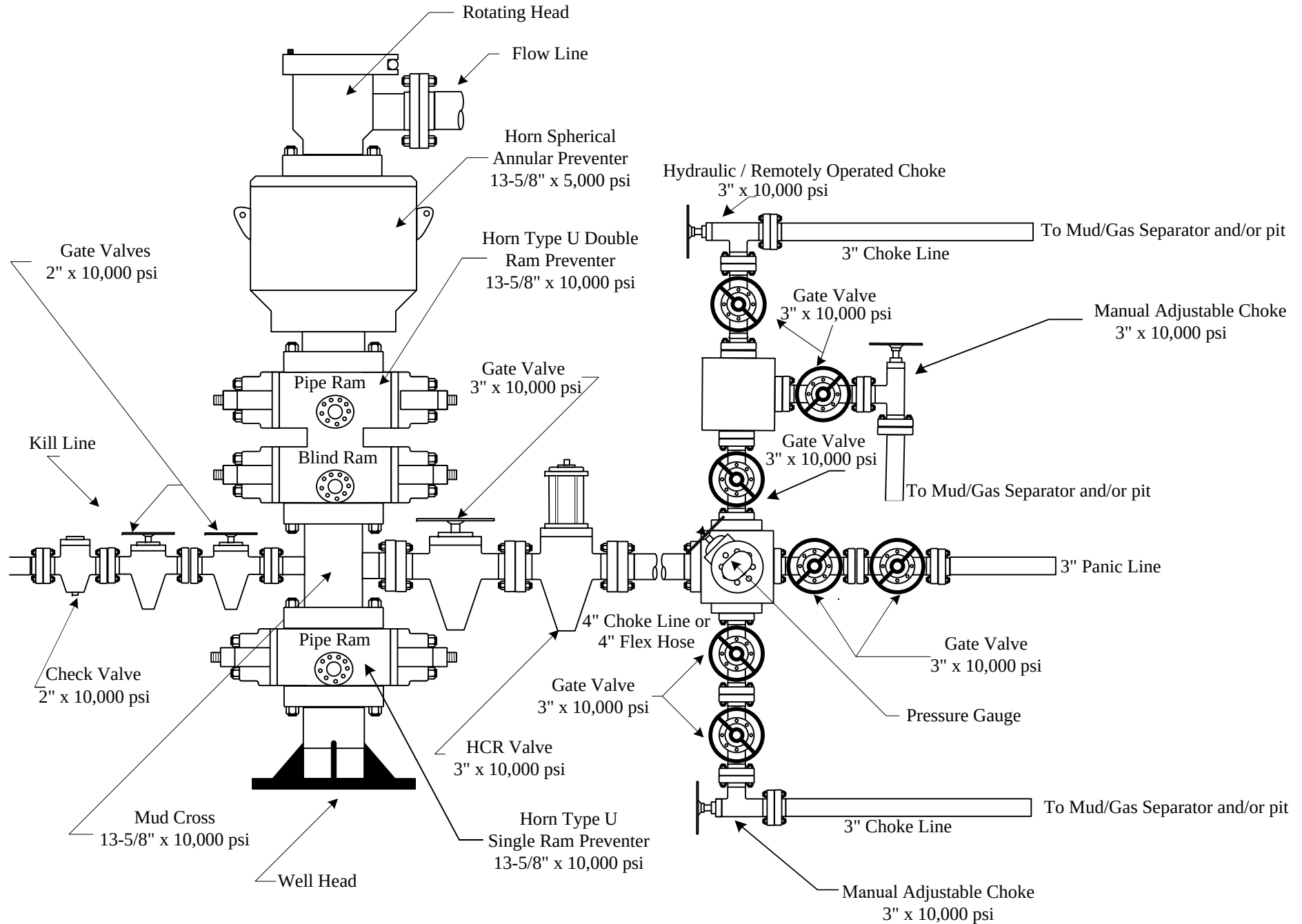
Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, 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 #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

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.





CERTIFICATE OF QUALITY

LTTY/QR-5.7.1-19B

No: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3"×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3 rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items		Inspection results			
Appearance Checking		In accordance with API Spec 16C 3 rd edition			
Size and Lengths		In accordance with API Spec 16C 3 rd edition			
Dimensions and Tolerances		In accordance with API Spec 16C 3 rd edition			
End Connections: 4-1/16"×10000psi Integral flange for sour gas service		In accordance with API Spec 6A 21 st edition			
End Connections: 4-1/16"×10000psi Integral flange for sour gas service		In accordance with API Spec 17D 3 rd edition			
Hydrostatic Testing		In accordance with API Spec 16C 3 rd edition			
product Marking		In accordance with API Spec 16C 3 rd edition			
Inspection conclusion		The inspected items meet standard requirements of API Spec 16C 3 rd edition			
Remarks		16C-0403 			
Approver	Jane C	Auditor	Alice D	Inspector	Leo W
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD					 LETONE



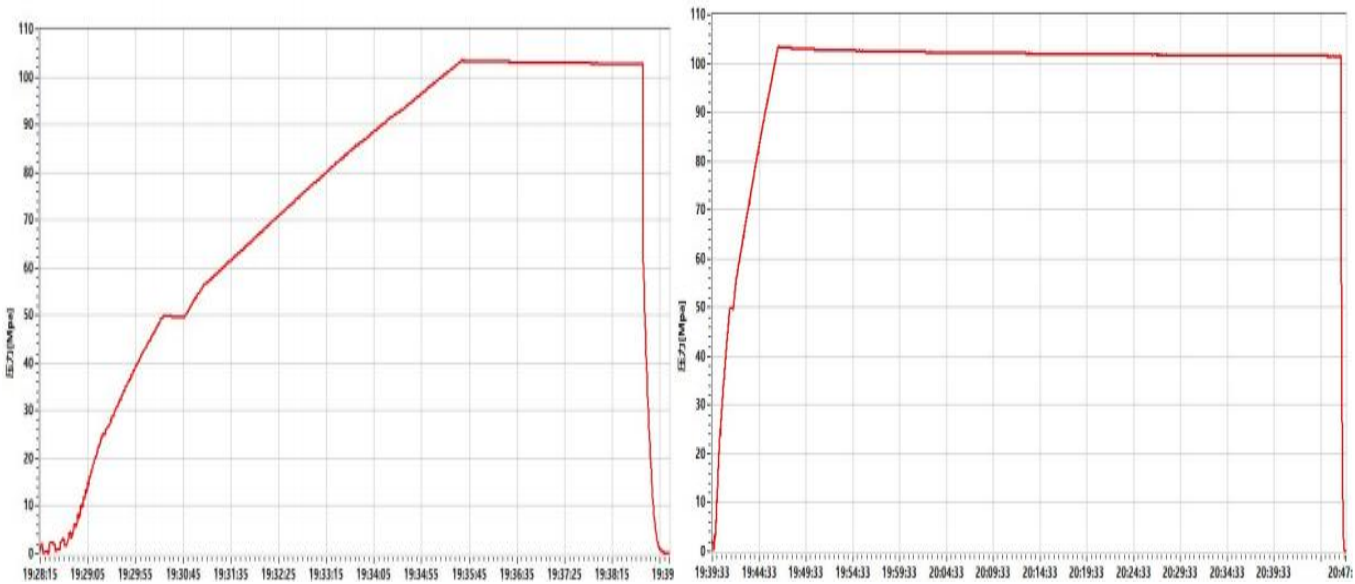
HYDROSTATIC TESTING REPORT

LTTY/QR-5.7.1-28

No: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3 rd edition
Product Specification	3″×10000psi×35ft （10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing:



Conclusion	The inspected items meet standard requirements of API Spec 16C 3 rd edition				16C-0403
Approver	Jane C	Auditor	Alice D	Inspector	Leo W
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD					



CERTIFICATE OF CONFORMANCE

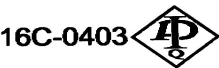
№:LT24090307

Product Name: Choke And Kill Hose
Product Specification: 3"×10000psi×35ft (10.67m)
Serial Number: VTC-7660257
customer number: PO890145-001
End Connections: 4-1/16"×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

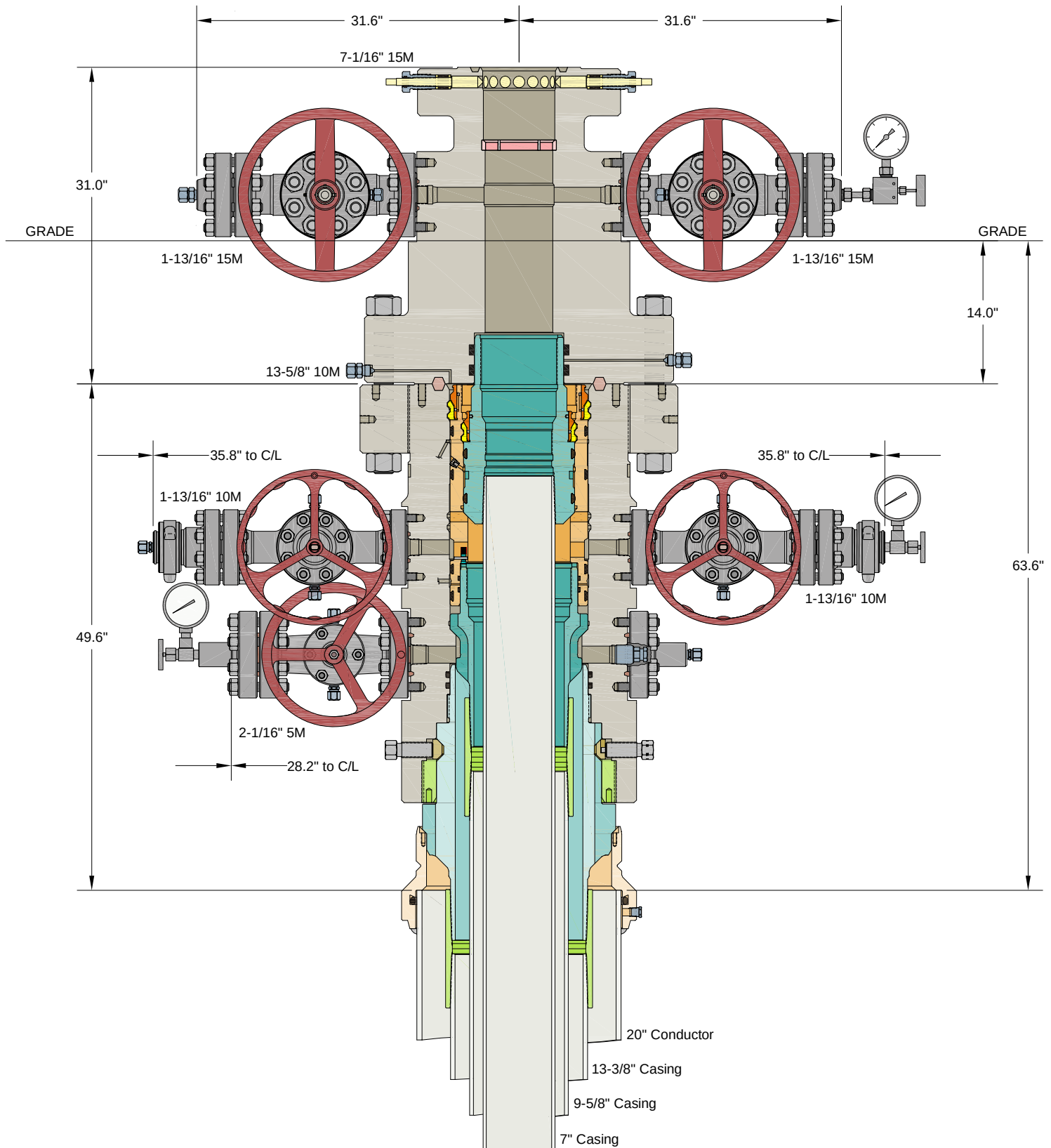
QC Manager: Jane C

Date:Sep 3, 2024



LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD





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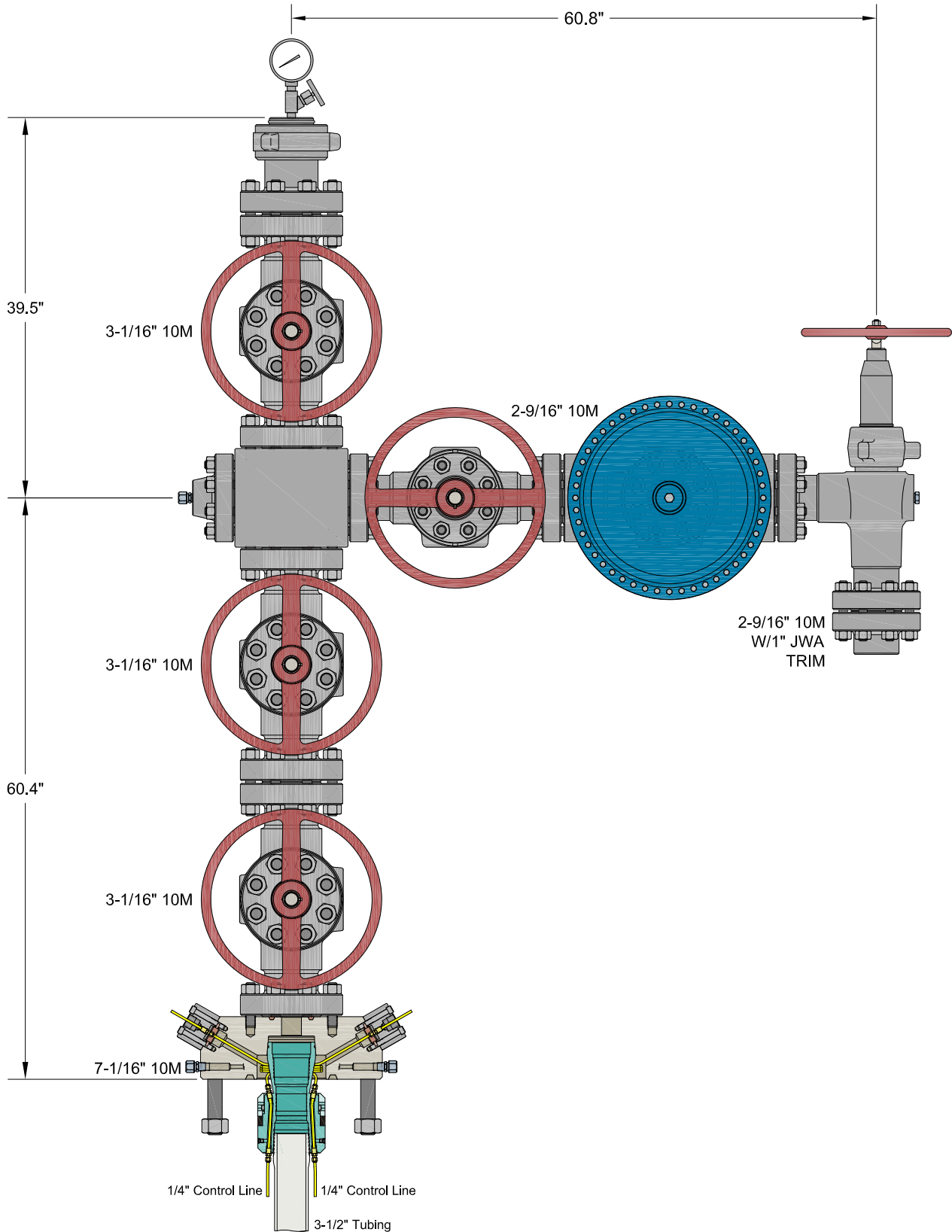
ALL DIMENSIONS APPROXIMATE

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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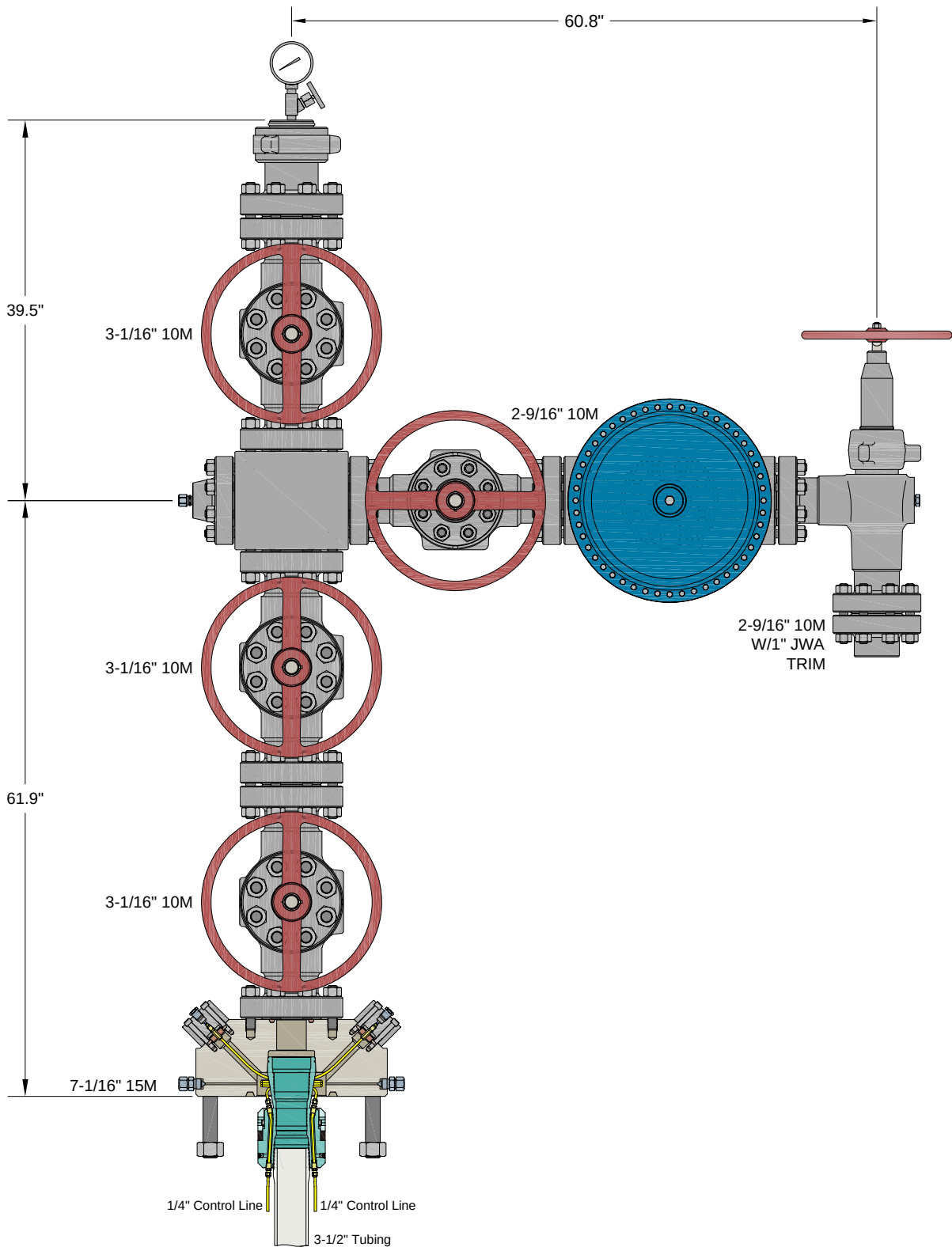
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CIMAREX
HOBBS, NM

7-1/16" 10M x 3-1/16" x 2-9/16" 10M Production Tree Assembly
With 7-1/16" 10M x 3-1/16" 10M T40-CCL Tubing Head Adapter
And 7-1/16" 3-1/2" T40-CCL Tubing Hanger

DRAWN	VJK	05SEP23
APPRV		
DRAWING NO.	HBE0001018	



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CIMAREX
HOBBS, NM

7-1/16" 15M x 3-1/16" x 2-9/16" 10M Production Tree Assembly
With 7-1/16" 15M x 3-1/16" 10M T40-CCL Tubing Head Adapter
And 7-1/16" 3-1/2" T40-CCL Tubing Hanger

DRAWN	VJK	13DEC23
APPRV		
DRAWING NO.	HBE0001018	



Cactus

Quotation

Quote Number : HBE0001018

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023
Valid For 30 Days

Page 1 of 5

Bill To: 7050

CIMAREX
ATTN: DAVID SHAW
202 S CHEYENNE AVENUE SUITE 1000
TULSA OK 74103
US

Ship To: 1016

2023 PRICING REVIEW
202 S Cheyenne Ave Ste 1000
Tulsa OK 74103-3001
US

Quantity	Price	Ext Price
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CIMAREX

HOBBS, NM

PRODUCTION TREE ASSEMBLY
7-1/16" 10M X 3-1/16" 10M X 2-9/16" 10M
OPTIONAL 15M ADAPTER

QUOTATION SUMMARY:

- PRODUCTION TREE ASSEMBLY - \$49,338.02

CACTUS CONTACT:
RILEY STAFFORD / MIKE SPINKS
OFFICE: 405.708.7217 (RILEY) / 713.396.5762 (MIKE)
MOBILE: 405.445.2222 (RILEY) / 832.691.7724 (MIKE)
EMAIL: riley.stafford@cactuswellhead.com / mike.spinks@cactuswellhead.com

DUE TO VOLATILITY IN THE STEEL MARKET, PRICING FOR ITEMS MADE FROM NICKEL ALLOYS (EX. 410SS, 17-4PHSS, INCONEL, ETC.) WILL BE VALID FOR TWO WEEKS. CW WILL REVIEW AND ADJUST, IF NECESSARY, AT ORDER PLACEMENT.

PREMIUM THREADED CASING HANGERS/RUNNING TOOLS & CUSTOMER SPECIFIC EQUIPMENT ARE NON-CANCELABLE AND MAY REQUIRE A PURCHASE ORDER (PO) PRIOR TO MANUFACTURING.

SUPPLY CHAIN PRICING IS BASED UPON A 135 DAY DELIVERY ARO. EXPEDITED PRICING CAN BE PROVIDED UPON REQUEST. PRICES ARE F.O.B. CACTUS BOSSIER CITY, LA. THE FOLLOWING QUOTATION DOES NOT INCLUDE APPLICABLE MILEAGE AND SERVICE CHARGES THAT MAY BE CHARGED AT TIME OF INVOICING.



Quotation

Quote Number : HBE0001018

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023

Valid For 30 Days

Page 2 of 5

		Quantity	Price	Ext Price
PRODUCTION TREE ASSEMBLY				
1	124314P2 ADPT,TBGHD,CW,T40-CCL,7-1/16 10M STD X 3-1/16 10M STD,W/TWO #14 DHCV W/1/4 LP INLETS,10000 PSI MAX WP,TEMP PU,MATL EE,PSL2,PR2	1.00	4,830.00	4,830.00
2	120242MV VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)	1.00	4,343.00	4,343.00
3	120242MV VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)	1.00	4,343.00	4,343.00
4	128365 CRSS,STD,AOZE,3-1/16 10M X 2-9/16 10M,6A-LU-EE-3	1.00	2,650.00	2,650.00
5	120242MV VLV,CW,SB100,3-1/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR1) QPQ TRIM, API 6A PR1 SECTION 10.5.2 (BORE VENT HOLE)	1.00	4,343.00	4,343.00
6	142800 TREETCAP,NEWAY,BHTA,B15A,3-1/16 10M X 3-1/2 EU ILT,W/1/2 NPT & 3.06 MIN BORE,MONOGRAMMED,TEMP PU,MATL EE,PSL2	1.00	1,270.00	1,270.00
7	BX154 RING GASKET,BX154,3-1/16 10/15/20M	5.00	10.44	52.20
8	780077-20E1 STUD,ALL-THD W/2 HVY HEX NUTS,BLK,1-8UNC X 7,API 20E BSL-1 ASTM A193 GR B7 ALL THREAD STUD W/2 API 20E BSL-1 ASTM A194 GR 2H HEAVY HEX NUTS,NO PLATING	16.00	19.83	317.28
9	132879 FLG,BLIND,AOZE,3-1/16 10M X 1/2 NPT,W/HUB,TEMP LU,MATL EE,PSL3	1.00	495.00	495.00
10	100048 FTG,GRS,VENTED CAP,1/2 NPT,4140 -50F W/ELECTROLESS NICKEL COATING NACE,K-MONEL BALL,INCONEL X-750 SPRING	1.00	59.74	59.74
11	115900MV VLV,CW,SB100,2-9/16 10M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL2 PR2) QPQ TRIM, API 6A PR2 ANNEX F (BORE VENT HOLE)	1.00	3,285.00	3,285.00
12	128567 VLV/ACT,OMNI,FS-R,2-9/16 10M FE EE HF C/W MODEL DX-18 DIAPHRAGM PNEUMATIC ACTUATOR, FORGED BODY, REVERSE ACTING SLAB GATE, FLOATING SEATS & DIRECTIONAL FLOW BODY BUSHING (FLOW FROM RIGHT TO LEFT): MAT'L CLASS EE, HARDFACE TRIM, TEMP PU (-20 TO 250 F), PSL-2, PR-2; ACTUATOR: MATERIAL CLASS BB, TEMP P (-20F TO 180F) PR-2 (FC TYPE) W/MANUAL OVERRIDE,ACTUATOR REQUIRES 112 PSI TO OPEN AT FULL 10,000 PSI	1.00	8,292.00	8,292.00
13	130652 CHOKE,ADJ,HOE,H2,2-9/16 10M FE X FE ALLOY BDY,3" NOMINAL,W/ 2" SSTC TRIM,H2S SERVICE,API MONOGRAMMED,PSL-2 PR-2 TEMP-PU MATL-EE-1.5	1.00	7,500.00	7,500.00
14	120734 FLG,COMP,AOZE,2-9/16 10M X 2-7/8 EU,5000 PSI MAX WP,TEMP LU,PSL3,PR1	1.00	399.00	399.00

**Cactus****Quotation****Quote Number : HBE0001018**

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023

Valid For 30 Days

Page 3 of 5

		Quantity	Price	Ext Price
15	BX153 RING GASKET,BX153,2-9/16 10/15/20M	5.00	11.54	57.70
16	780067-20E1 STUD,ALL-THD W/2 HVY HEX NUTS,BLK,7/8-9UNC X 6-1/2,API 20E BSL-1 ASTM A193 GR B7 ALL THREAD STUD W/2 API 20E BSL-1 ASTM A194 GR 2H HEAVY HEX NUTS,NO PLATING	24.00	14.70	352.80
17	135166 TBGHGR,CW,T40-CCL,7-1/16 X 3-1/2 EU API MOD BOX BTM X 3-1/2 EU BOX TOP,W/3 HBPV THD,W/ TWO 1/4 CCL & DOVETAIL SEAL,CF 124316P2,10000 PSI MAX WP,17-4PH SS,TEMP PU,MATL FF-0,5,PSL2,PR2	1.00	4,490.00	4,490.00
18	BX156 RING GASKET,BX156,7-1/16 10/15/20M	1.00	62.48	62.48
19	NVS NEEDLE VALVE,MFS,1/2 NPT MXF,10M PSI WP,CARBON STEEL BODY, 304/316SS STEM, TFE PACKING (NON-NACE)	1.00	61.16	61.16
20	PG10M PRESSURE GAUGE,10M,4-1/2 FACE, LIQUID FILLED,1/2 NPT	1.00	58.24	58.24
21	PRO Prorata Freight	0.75	2,768.56	2,076.42
				49,338.02

OPTIONAL 15M ADAPTER

22	124999P2 ADPT,TBGHD,CW,T40-CCL,7-1/16 15M STD X 3-1/16 10M STD,W/TWO #14 DHCW W/1/4 NPT INLET,10000 PSI MAX WP,TEMP PU,MAT'L EE,PSL2,PR2	0.00	7,423.00	0.00
				0.00

INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS
PERMITTED ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

For Acceptance of this Quotation
Please Contact Ph: 713-626-8800
sales@cactuswellhead.com

Matl:	47,261.60
Labor:	0.00
Misc:	2,076.42
Sales Tax:	0.00
Total:	49,338.02


Cactus

Quotation

Quote Number : HBE0001018

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023
Valid For 30 Days
Page 4 of 5

CACTUS WELLHEAD, LLC PURCHASE TERMS AND CONDITIONS

1. **ACCEPTANCE:** Acceptance of Cactus Wellhead, LLC (herein: Company) Purchase Terms and Conditions (herein: CACTUS Purchase Terms) shall be deemed effective upon shipment of the Products and/or rendering of Services which are the subject of an order by Customer (defined as the party purchasing CACTUS Products and or Services referred on the invoice). Any proposal made by Customer for additional or different terms and conditions or any attempt by Customer to vary in any degree any of the terms and conditions of CACTUS Purchase Terms is hereby rejected.
2. **PRICING:** Each Product and Service shall be invoiced at (and Customer shall pay) the respective price shown on the reverse side hereof, or if no price is shown on the reverse side hereof, at the price shown in the current price list of Company. In addition, Customer shall pay any and all additional charges for mileage, transportation, freight, packing and other related charges, as well as any federal, state or local tax, excise, or charge applicable on the sale, transportation, or use of Products and Services, unless otherwise specified.
3. **TERMS OF PAYMENT:** Customer agrees to pay Company any and all payments due on or before thirty (30) days from invoice date at the designated address of Company. Amounts unpaid after such thirty (30) day period shall bear interest at the lesser of (i) one and one-half percent (1½%) per month or (ii) the maximum rate allowed by law. Customer shall also pay any and all of Company's attorney's fees and court costs if any amounts hereunder are collected by an attorney or through legal proceedings. Company reserves the right, among other remedies, either to terminate this agreement or to suspend further deliveries upon failure of Customer to make any payment as provided herein.
4. **LIMITED WARRANTY:** COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE MERCHANTABILITY, FITNESS FOR PURPOSE, DESCRIPTION, QUALITY, PRODUCTIVENESS, ACCURACY OR ANY OTHER MATTER WITH RESPECT TO PRODUCTS OR SERVICES, ALL SUCH WARRANTIES BEING HEREBY SPECIFICALLY AND EXPRESSLY DISCLAIMED BY COMPANY. COMPANY MAY OFFER TECHNICAL ADVICE OR ASSISTANCE WITH REGARD TO THE PRODUCTS AND SERVICES BASED ON LABORATORY AND/OR FIELD EXPERIENCE AND CUSTOMER UNDERSTANDS AND AGREES THAT SUCH ADVICE REPRESENTS ONLY GOOD FAITH OPINIONS AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE. THE SOLE AND EXPRESS WARRANTY PROVIDED BY COMPANY IS TO WARRANT THAT THE PRODUCTS SOLD AS LISTED ON THE REVERSE SIDE HEREOF COMPLY WITH COMPANY'S SOLE SPECIFICATION AT THE DATE AND TIME OF MANUFACTURE. COMPANY MAKES NO WARRANTY THAT SUCH PRODUCTS SHALL MEET SUCH SPECIFICATION AT ANY TIME AFTER SHIPMENT OF PRODUCTS. USE OF SUCH PRODUCTS IS SPECIFICALLY NOT WARRANTED.
5. **REMEDY:** The exclusive remedy for this warranty for Products shall be limited to, in Company's sole discretion and judgment, the replacement of defective part(s). F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer), or repair of defective part(s). The exclusive remedy for this warranty for Services shall be limited to the repeat of Services performed F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer). Any such repeat of Services or replacement or repair of Products shall not include any materials not sold by Company hereunder, and specifically excludes any obligation by Company related to other property of the Customer or any property of third parties. Provided, however, Company may in its sole discretion, decide to instead give Customer credit memorandum for the amounts already paid by Customer to Company for such Product or Service. IN ANY EVENT AND NOTWITHSTANDING THE LANGUAGE TO THE CONTRARY HEREIN, CUSTOMER ACKNOWLEDGES THAT ANY CLAIM IT MAY HAVE ARISING OUT OF OR IN CONNECTION WITH ANY ORIGINAL PRODUCTS AND SERVICES, ANY REPLACEMENT PRODUCTS OR REPEAT OF SERVICES AND THESE CACTUS PURCHASE TERMS SHALL BE LIMITED TO AND NOT EXCEED THE AMOUNT CUSTOMER HAS ACTUALLY PAID TO COMPANY FOR SUCH PRODUCTS AND/OR SERVICES PURSUANT HERETO. If Customer fails to make any such claim within thirty (30) days after completion of Service or delivery of Products, Customer hereby waives (to the extent permitted by applicable law) any and all claims it may or does have with respect to such Products and Services. Unless Customer is an authorized reseller of Company, Company's liability in connection with Products and Services shall extend only to Customer. CUSTOMER HEREBY INDEMNIFIES AND HOLDS COMPANY (AND ITS AGENTS, REPRESENTATIVES, OFFICERS DIRECTORS AND EMPLOYEES) HARMLESS FOR ANY LOSS, EXPENSE OR DAMAGE (WHETHER OF CUSTOMER OR OF ANY THIRD PARTY) ARISING FROM OR IN CONNECTION WITH PRODUCTS AND SERVICES, INCLUDING WITHOUT LIMITATION ANY FAILURE OF SUCH PRODUCTS AND SERVICES TO CONFORM TO CUSTOMER'S ORDER OR SPECIFICATION OR ANY OTHER STANDARD, OR ANY NEGLIGENCE OR BREACH OF WARRANTY BY COMPANY WITH RESPECT TO ANYTHING DONE OR FAILED TO HAVE BEEN DONE BY COMPANY, IF AND TO THE EXTENT THAT SUCH LOSS, EXPENSE OR DAMAGE EXCEEDS THE AMOUNT CUSTOMER HAS ACTUALLY PAID COMPANY PURSUANT HERETO FOR SUCH PRODUCTS OR SERVICES.
6. **INSPECTION:** The results of any inspection or testing reported by the Company to Customer represents only good faith opinions and are not to be construed as warranties or guarantees of the quality, classification, merchantability, fitness for purpose, condition, or liability of any equipment or material that has been inspected or tested by the Company.
7. **INSURANCE:** Each party agrees to maintain comprehensive general liability insurance in the amount of \$1,000,000 each occurrence, \$2,000,000 general aggregate, and Workers Compensation insurance per statutory requirements providing coverage for the indemnity obligations in this agreement. The Company (and such of its affiliates as it shall designate) including their officers, directors, members, shareholders, partners, joint ventures, employees, agents and representatives shall be named as additional insureds under the policies of Customer on a primary basis to the extent of its indemnification obligations set forth in these CACTUS Purchase Terms, and the policies shall also provide a waiver of subrogation rights in favor of the Company (and such of its affiliates as it shall designate) and their officers, directors, members, shareholders, employees, agents and representatives. The provisions of this Section 7 shall apply and the obligation to maintain insurance of each party in the coverages and amounts set forth herein shall remain in force regardless and independent of the validity or enforceability of the indemnity provisions of Section 8, below; the obligation to obtain insurance is a separate and independent obligation. If the insurance required herein is more or less than allowed by prevailing law, the indemnity obligations in Section 8 below shall be effective only to the maximum extent permitted under applicable law.
8. **INDEMNIFICATION:** The following indemnifications and releases of liability will apply to any Products or Services provided under this contract. COMPANY AND CUSTOMER EXPRESSLY AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE INDEMNITIES AND DISCLAIMERS OF WARRANTIES CONTAINED HEREIN ARE "CONSPICUOUS."
 - A. **Customer Indemnity Obligations.** Customer hereby releases Company from any liability for, and shall protect, defend, indemnify, and hold harmless Company, its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, insurers, and consultants (specifically excluding any member of Customer Group) of all of the foregoing, and its and their respective successors, heirs and assigns ("Company Group") from and against all costs (including the payment of reasonable attorneys' fees), losses, liabilities, demands, causes of action, damages, or claims of every type and character ("Claims"), arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of Customer its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, customers, insurers, invitees and consultants of all of the foregoing, and its and their respective successors, heirs and assigns ("Customer Group"), or (ii) loss of or damage to any property of any member of Customer Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.
 - B. **Company Indemnity Obligations.** Company hereby releases Customer from any liability for, and shall protect, defend, indemnify, and hold harmless Customer from and against all Claims arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of any member of Company Group, or (ii) loss of or damage to any property of any member of Company Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF CUSTOMER GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.
 - C. **Third Party Claims.** Notwithstanding the foregoing, to the extent of its negligence, Company and Customer shall each indemnify, defend and hold harmless from and against all Claims, of every type and character, which are asserted by third parties for bodily injury, death or loss or destruction of property or interests in property in any manner caused by, directly or indirectly resulting from, incident to, connected with or arising out of the work to be performed, Services to be rendered or Products or materials furnished to Customer. When personal injury, death or loss of or damage to property is the result of joint or concurrent negligence of Customer and Company, the indemnitor's duty of indemnification shall be in proportion to its allocable share of such negligence.
 - D. **Pollution.** Company agrees that it shall be totally responsible for, and shall protect, defend and indemnify, Customer for all losses, damages, claims, demands, costs, charges, and other expenses, including attorneys' fees, for any and all waste and/or hazardous substances which are in Company Group's exclusive possession and control and directly associated with Company Group's equipment and facilities, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF CUSTOMER GROUP. Customer shall assume all responsibility for, including control and removal of, and shall protect, defend and indemnify Company Group from and against all Claims arising directly or indirectly from all other pollution or contamination which may occur during the conduct of operations hereunder, including, but not limited to, that which may result from fire, blowout, cratering, seepage or any other uncontrolled flow of oil, gas, water or other substance, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF COMPANY GROUP.
 - E. **Wild Well.** Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group for any damages, expenses, losses, fines, penalties, costs, expert fees and attorneys' fees arising out of a fire, blow out, cratering, seepage or wild well, including regaining control thereof, debris removal and property restoration and remediation. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.
 - F. **Underground Damage.** Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group from and against any and all claims, liability and expenses resulting from operations related to the work under this agreement on account of injury to, destruction of, or loss or impairment of any property right in or to oil, gas or other mineral substance or water, if at the time of the act or omission causing such injury, destruction, loss or impairment said substance and not been reduced to physical possession above the surface of the earth, and for any loss or damage to any formation, strata, or reservoir beneath the surface of the earth. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.
 - G. The foregoing indemnities set forth in these CACTUS Purchase Terms are intended to be enforceable against the parties hereto in accordance with the express terms and scope hereof notwithstanding Texas' Express Negligence Rule or any similar directive that would prohibit or otherwise limit indemnities because of the negligence (whether sole, concurrent, active or passive, ordinary or gross) or other fault or strict liability of Company or Customer.
 - H. If a claim is asserted against one of the parties to this agreement which may give rise to a claim for indemnity against the other party hereto, the party against whom the claim is first asserted must notify the potential indemnitor in writing and give the potential indemnitor the right to defend or assist in the defense of the claim.
9. **RISK OF LOSS:**
 - A. Title and risk of loss shall pass to Customer upon delivery as specified in Article 11. Customer's receipt of any material delivered hereunder shall be an unqualified acceptance of, and a waiver by Customer of any and all claims with respect to, such material unless Customer gives Company written notice of claim within thirty (30) days after such receipt. Notwithstanding the foregoing, installation or use of materials or equipment shall unequivocally constitute irrevocable acceptance of said materials. Customer assumes all risk and liability for the results obtained by the use of any material or Products delivered hereunder in work performed by on behalf of Customer or in combination with other or substances. No claim of any kind, whether as to material delivered or for non-delivery of material, and whether or not based on negligence, shall be greater in amount than the purchase price of the


Cactus

Quotation

Quote Number : HBE0001018

Hobbs, NM
4120 W Carlsbad Hwy
Hobbs NM 88240
Phone: 817-682-8336

Date: 09/08/2023
Valid For 30 Days
Page 5 of 5

material in respect of which such claim is made.

B. For Services, Company shall not be liable for loss or deterioration of any equipment and material of Customer under Company's control or stored on Company's premises after Company has completed its work if such loss or deterioration results from atmospheric condition, Act of God or other occurrence not within the reasonable control of Company.

10. **TERMINATION.** Company reserves the right to terminate the order at issue, or any part hereof, solely for its convenience at any time without cause with notice to Customer. Company shall have the right to cancel any unfilled order without notice to Customer in the event that Customer becomes insolvent, adjudicated bankrupt, petitions for or consents to any relief under any bankruptcy reorganization statute, violates a term of these CACTUS Purchase Terms, or is unable to meet its financial obligations in the normal course of business. In the event of such termination, Company shall immediately stop all work hereunder. Prior to delivery, Customer may terminate this order without cause upon thirty (30) day notice in writing to Company. In the event of such termination, Company at its sole option shall cease work up to thirty (30) days after such notice. Upon the cessation of work, Customer agrees to pay Company a reasonable termination charge consisting of a percentage of the Invoice price, such percentage to reflect the value of the Products, Services or work in progress completed upon the cessation of work. Customer shall also pay promptly to Company any costs incurred due to paying and settling claims of Company's vendors or subcontractors arising out of the termination of the order by Customer.

11. **DELIVERY.** Unless different terms are provided on the face of this order, all items are sold FOB Company's manufacturing facility in Bossier City, LA., and Customer shall bear the cost of transportation to any other named destination. Upon notification of Company of delivery, Customer shall become liable and shall bear all risk of loss associated with the Products at issues regardless of whether the Products are at a location controlled by Company and whether or not caused by the negligence of Company. In the case of Customer pick-up, the truck furnished by Customer is the destination and Company's obligations regarding shipments are fulfilled when the Products are loaded on the truck. Items to be shipped to any other destination outside of the United States are sold FOB port of shipment (Customer will deliver and bear the cost of transportation to the named port and will bear the cost of transportation thereafter to the final destination). The means of shipment and carrier to the point at which Company's liability for transportation costs ceases shall be chosen by Company. Excess packing, marking, shipping, and transportation charges resulting from compliance with Customer's request shall be for Customer's account. Unless otherwise agreed in writing, delivery time is not of the essence.

12. **RETURNS/REFUND.** Within ninety (90) days of delivery, Customer has the option to return any non-defective Products (any Products found to be defective will be subject to the warranty and remedies expressed in paragraphs four (4) and five (5) above). Customer shall bear all costs of shipment and/or transportation for such return and risk of loss for the returned Products shall remain with Customer until re-delivered to Company's Yard. Customer shall receive a full refund for any returns, less a twenty percent (20%) restocking fee. Company at all times reserves the right to designate certain Products as non-refundable in Company's Sales Quote or Sales Order. In addition, any made-to-order, special order, and/or Product manufactured to Customer specifications are NOT returnable.

13. **DELAYS.** If a specific shipping date is either not given or is estimated only, and is not promised on the face of this order or in a separate writing signed by Company, Company will not be responsible for delays in filling this order nor liable for any loss or damages resulting from such delays. If a specific shipping date is promised, Company will not be liable for delays resulting from causes beyond Company's control, including without limitation accidents to machinery, fire, flood, act of God or other casualty, vendor delays, labor disputes, labor shortages, lack of transportation facilities, priorities required by, requested by, or granted for the benefit of any governmental agency, or restrictions imposed by law or governmental regulation.

14. **LIMITATION OF DAMAGES.** Notwithstanding any other provision contained herein, Company shall not be liable to Customer Group or any third party for consequential (whether direct or indirect damages), indirect, incidental, special or punitive damages, howsoever arising, including, but not limited to loss of profits (whether direct or indirect damages), revenues, production or business opportunities, WHETHER OR NOT SUCH LOSSES ARE THE RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE (WHETHER SOLE, JOINT, CONCURRENT OR COMPARATIVE, ACTIVE OR PASSIVE, ORDINARY OR GROSS) OF COMPANY GROUP, OR ANY DEFECT IN THE PREMISES, PRE-EXISTING CONDITIONS, PATENT OR LATENT, BREACH OF STATUTORY DUTY, STRICT LIABILITY OR ANY OTHER THEORY OF LEGAL LIABILITY OF COMPANY GROUP (EXCLUDING ONLY LOSSES CAUSED BY THE WILLFUL MISCONDUCT OF COMPANY GROUP).

15. **SECURITY INTEREST.** Customer grants Company, and Company reserves, a security interest, covering all Customer's obligations under these terms (including any liability for breach of Customer's obligations), and applying to all of Customer's right, title, and interest in the Leased Equipment, together with all accessions thereto and any proceeds that may arise in connection with the sale or disposition thereof. Customer shall cooperate with Company in the filing of Financing Statements to perfect such security interest. Furthermore, Customer authorizes Company to execute and file Financing Statements without Customer's signature in any jurisdiction in which such procedure is authorized. Customer warrants, covenants and agrees that it will not, without prior written consent of Company, sell, contract to sell, lease, encumber, or dispose of the Leased Equipment or any interest in it until all obligations secured by this security interest have been fully satisfied.

16. **PATENT AND INTELLECTUAL PROPERTY.** The sale of any Products hereunder does not convey any intellectual property license by implication, estoppel or otherwise regarding the Products. Company retains the copyright in all documents, catalogs and plans supplied to Customer pursuant to or ancillary to the contract. Unless otherwise agreed in writing, Customer shall obtain no intellectual property interest in any Company Product.

17. **TAXES.** Unless otherwise specifically provided for herein, Customer shall be liable for all federal, state, or local taxes or import duties assessed by any governmental entity of any jurisdiction in connection with the Products or Services furnished hereunder.

18. **DECEPTIVE TRADE PRACTICES.** Customer acknowledges the application of Section 17.45(4) of the Texas Deceptive Trade Practices Act (Texas Business Commission Code §17.41 et. seq.) (the "Act") to any transaction contemplated hereby and represents that it is not a "consumer" for the purposes of the Act.

19. **NO WAIVER.** Failure to enforce any or all of the provisions in these CACTUS Purchase Terms in any particular instance shall not constitute or be deemed to constitute a waiver of or preclude subsequent enforcement of the same provision or any other provision of these CACTUS Purchase Terms. Should any provision of these CACTUS Purchase Terms be declared invalid or unenforceable all other provisions of these CACTUS Purchase Terms shall remain in full force and effect.

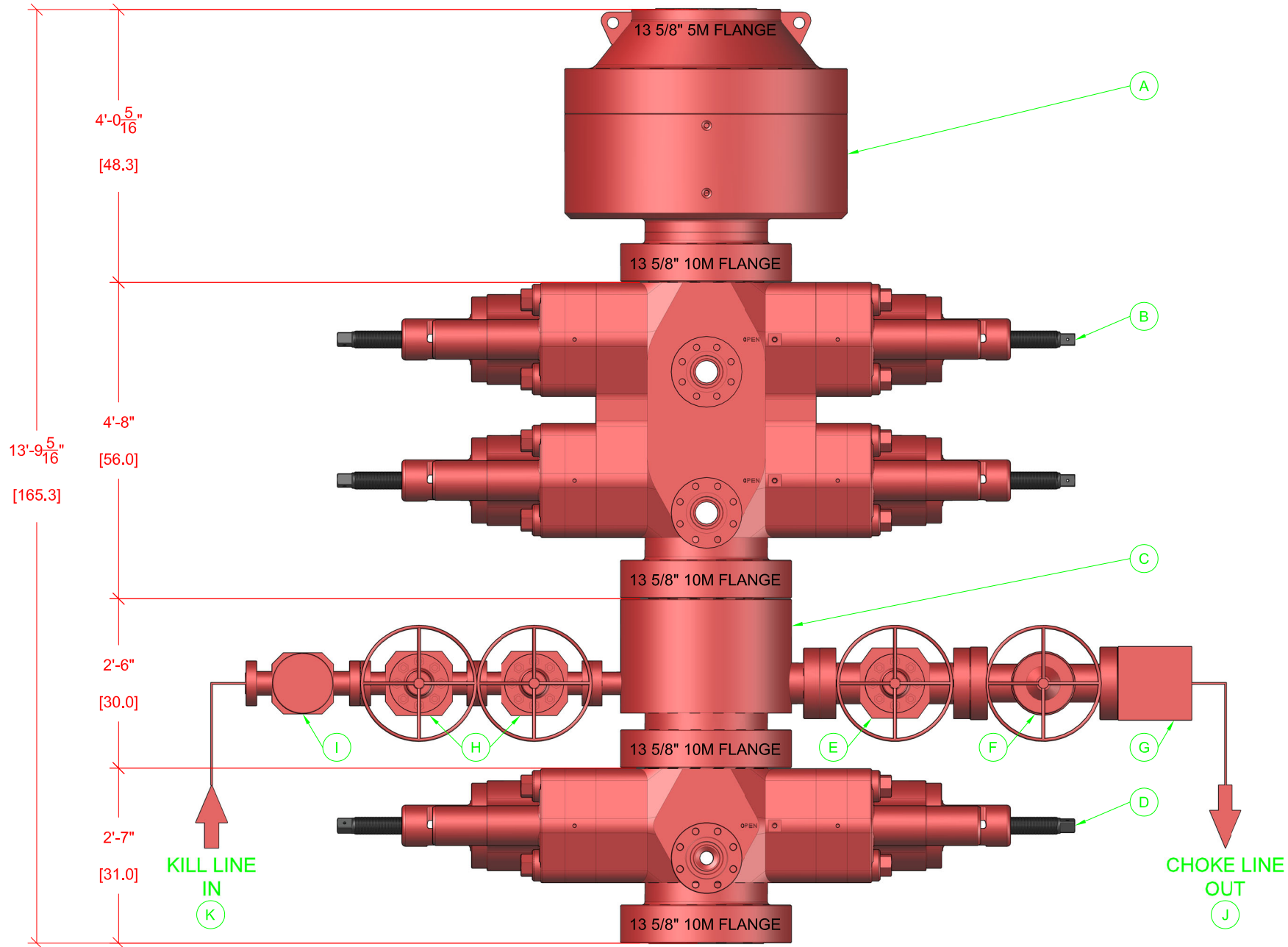
20. **CHOICE OF LAW.** THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND SHALL BE PERFORMABLE IN HARRIS COUNTY, TEXAS. WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPALS AND WAIVER OF SAME, EACH PARTY HERETO SUBMITS TO THE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS IN HARRIS COUNTY, TEXAS AND THE FEDERAL COURTS IN AND FOR THE SOUTHERN DISTRICT OF TEXAS SITTING IN HOUSTON, TEXAS IN CONNECTION WITH ANY DISPUTE ARISING UNDER THIS AGREEMENT OR ANY DOCUMENT OR INSTRUMENT ENTERED INTO IN CONNECTION HERewith.

21. **AUTHORITY.** Customer warrants and represents that the individual receiving this order at issue on behalf of Customer has the authority to enter into these CACTUS Purchase Terms on behalf of Customer, and that upon receipt these CACTUS Purchase Terms shall be binding upon Customer.

22. **FORCE MAJEURE.** If Company is unable to carry out its obligations hereunder by reason of force majeure, then upon Company's giving of notice and reasonably full particulars of such force majeure in writing to Customer, Company's obligations that are affected by force majeure shall be suspended during the continuance of the force majeure and Company shall not be liable to Customer for any damages incurred by the Customer as a result thereof.

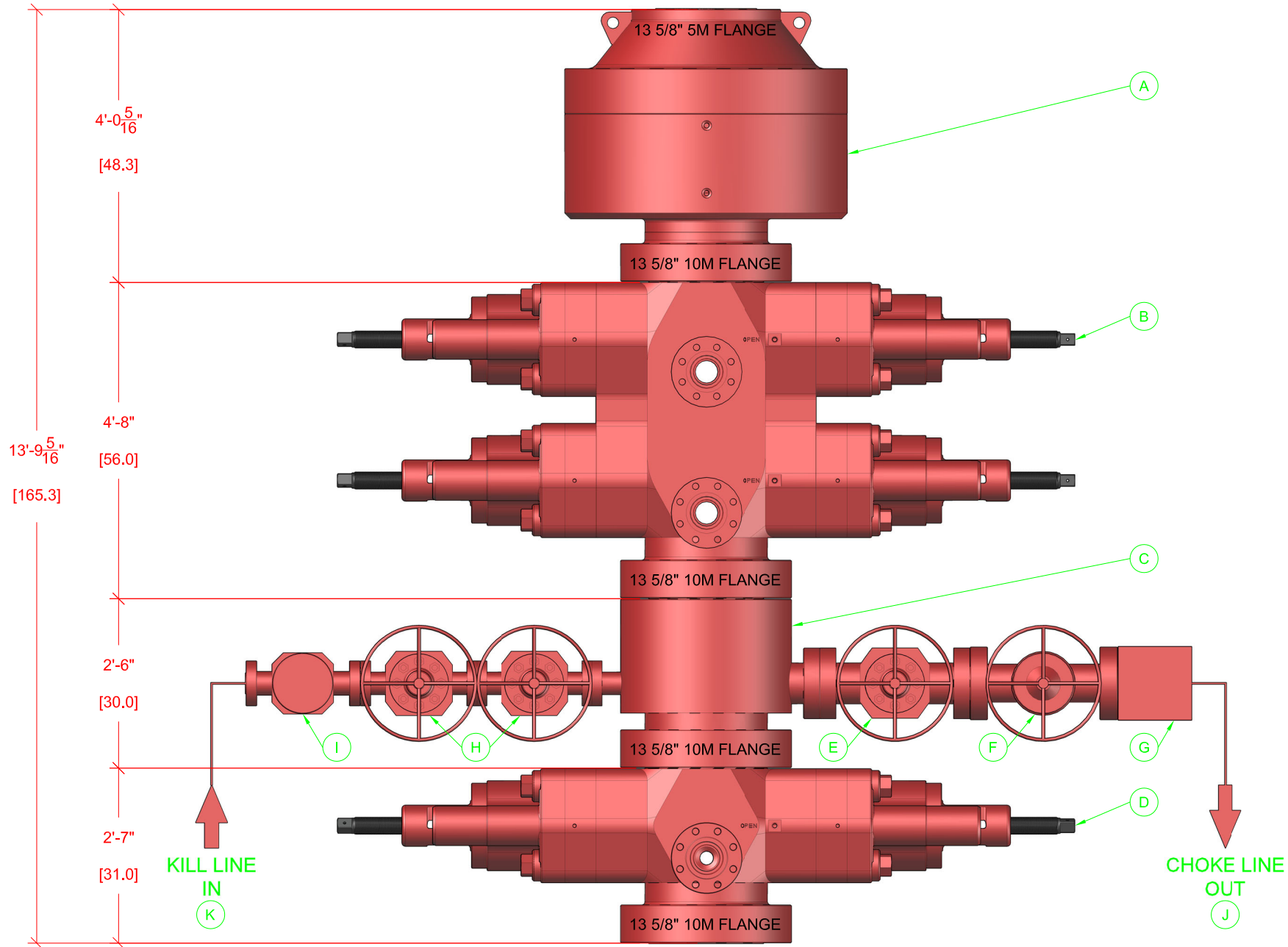
23. **CONFIDENTIALITY.** Customer acknowledges the highly secret and valuable nature of all proprietary inventions, methods, processes, designs, know-how, and trade secrets embodied in the Company's equipment, Products and Services and its components (hereinafter referred to as "Confidential Data"). Accordingly, Customer agrees not to disclose or use any Confidential Data. Customer further agrees to take any and all necessary precautions to prevent disclosure of the Confidential Data associated with the Company's equipment, Products and Services and components thereof to persons other than those employees of Customer for whom such disclosure is necessary for performance of the work hereunder.

24. **COMPLIANCE.** Customer expressly agrees to comply with and abide by, all of the laws of the United States and of the State of Texas, including, but not limited to, OSHA, EPA and all rules and regulations now existing or that may be hereafter promulgated under and in accordance with any such law or laws, and hereby agrees to indemnify and hold Company harmless from any and all claims, demands, or damages incurred by Company arising from Customer's failure to comply with all laws and governmental regulations. The indemnities in this paragraph shall be in addition to any other indemnity obligations between Customer and Company, including any other indemnity obligations contained herein.



BOP EQUIPMENT INFORMATION

DESCRIPTION	MODEL	QTY	ITEM	DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1	G	STUDDED BLOCK	4 1/2" 10M	1
DOUBLE RAM BOP	13 5/8" 10M TYPE-U	1	H	GATE VALE	2 1/2" 10M FC MANUAL	2
MUD CROSS	13 5/8" 10M	1	I	CHECK VALVE	2 1/2" 10M	1
SINGLE RAM BOP	13 5/8" 10M TYPE-U	1	J	CHOKE HOSE	4 1/2" 10M	1
GATE VALVE	4 1/2" 10M FC MANUAL	1	K	KILL HOSE	2 1/2" 10M	1
HCR VALVE	4 1/2" 10M HCR	1	L			



BOP EQUIPMENT INFORMATION

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ANNULAR BOP	13 5/8" 5M	1	G	STUDDED BLOCK	4 1/2" 10M	1
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SINGLE RAM BOP	13 5/8" 10M TYPE-U	1	J	CHOKE HOSE	4 1/2" 10M	1
GATE VALVE	4 1/2" 10M FC MANUAL	1	K	KILL HOSE	2 1/2" 10M	1
HCR VALVE	4 1/2" 10M HCR	1	L			

1. Geological Formations

TVD of target 7,589

Pilot Hole TD N/A

MD at TD 18,917

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2632	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
1st Bone Spring Sand - Target	7589	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	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2469	9-5/8"	36.00	J-55	LT&C	1.57	2.74	5.10
8 3/4	0	7309								
8 3/4	7309	8219	7589	7"	26.00	P-110	BT&C	1.66	2.66	114.01
6	7309	18917	7589	4-1/2"	11.60	HCP-110	BT&C	2.36	2.86	112.99
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

1. Geological Formations

TVD of target 7,589

Pilot Hole TD N/A

MD at TD 18,917

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2632	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
1st Bone Spring Sand - Target	7589	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	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2469	9-5/8"	36.00	J-55	LT&C	1.57	2.74	5.10
8 3/4	0	7309								
8 3/4	7309	8219	7589	7"	26.00	P-110	BT&C	1.66	2.66	114.01
6	7309	18917	7589	4-1/2"	11.60	HCP-110	BT&C	2.36	2.86	112.99
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

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.

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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.
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Coterra: H2S Plan

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Coterra Energy

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

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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
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		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

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

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Coterra: H2S Plan

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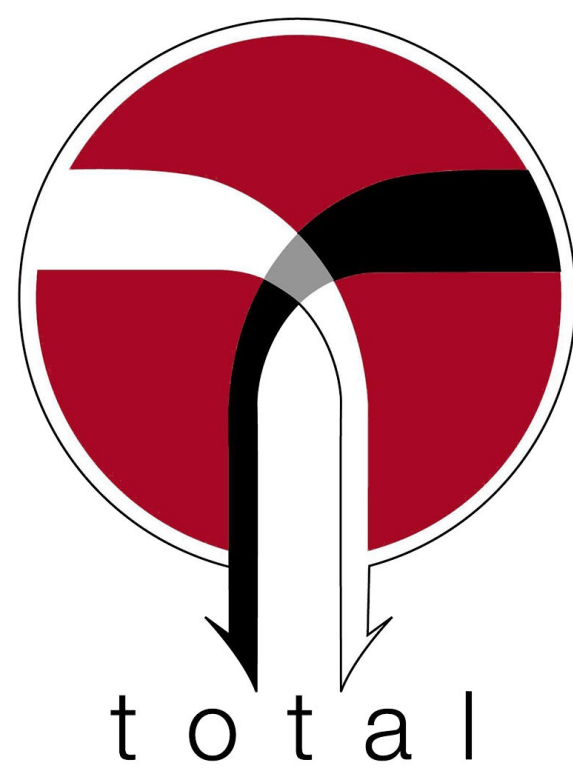
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Coterra Energy

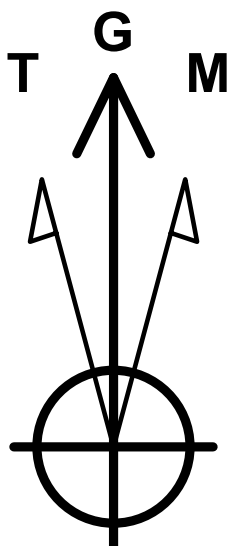
Site: Riverbend 12-13 Federal Com
Wellbore: OH
Design: Plan 1
Rig:

PROJECT DETAILS: Eddy County, NM (NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone



SHL

RKB Elevation: 2934' GL + 23 @ 2957.00usft



Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.26°

Magnetic Field
Strength: 47172.8nT
Dip Angle: 59.67°
Date: 8/19/2025
Model: HDGM2025

SECTION DETAILS

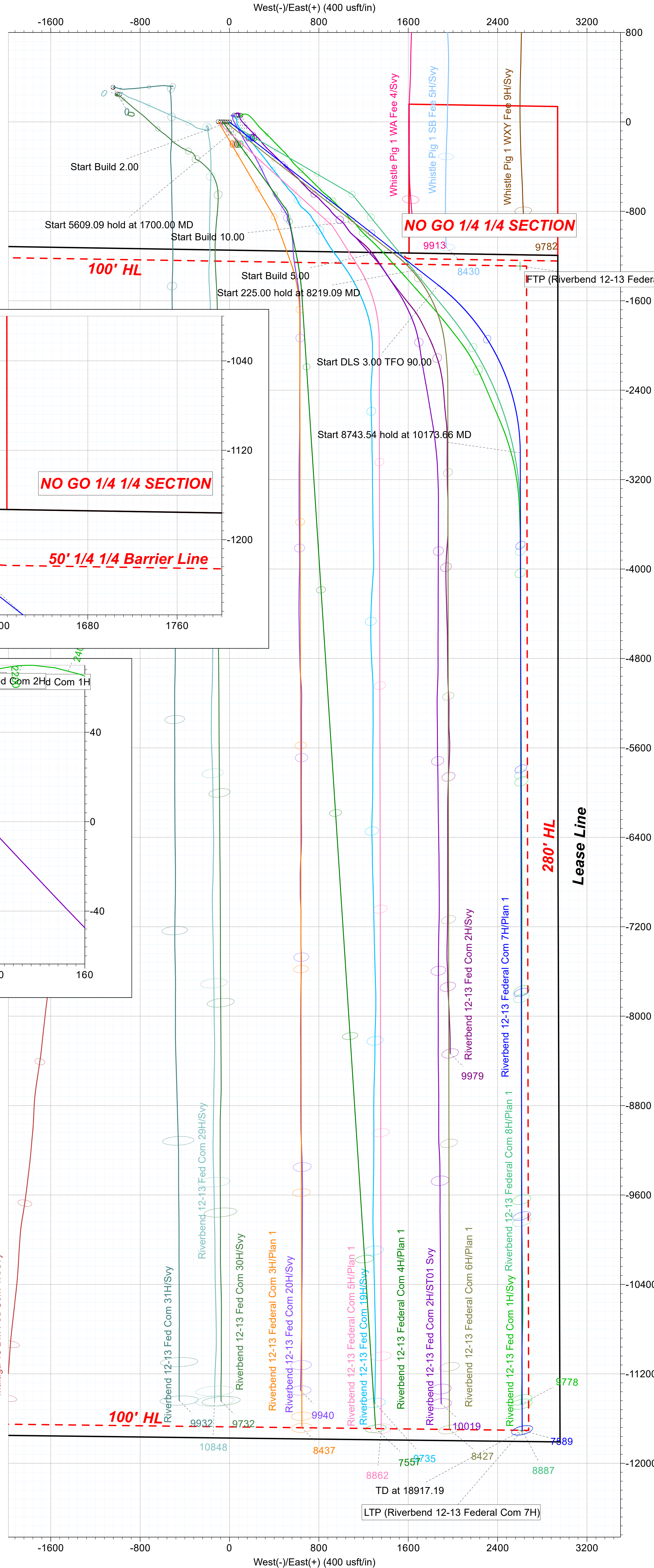
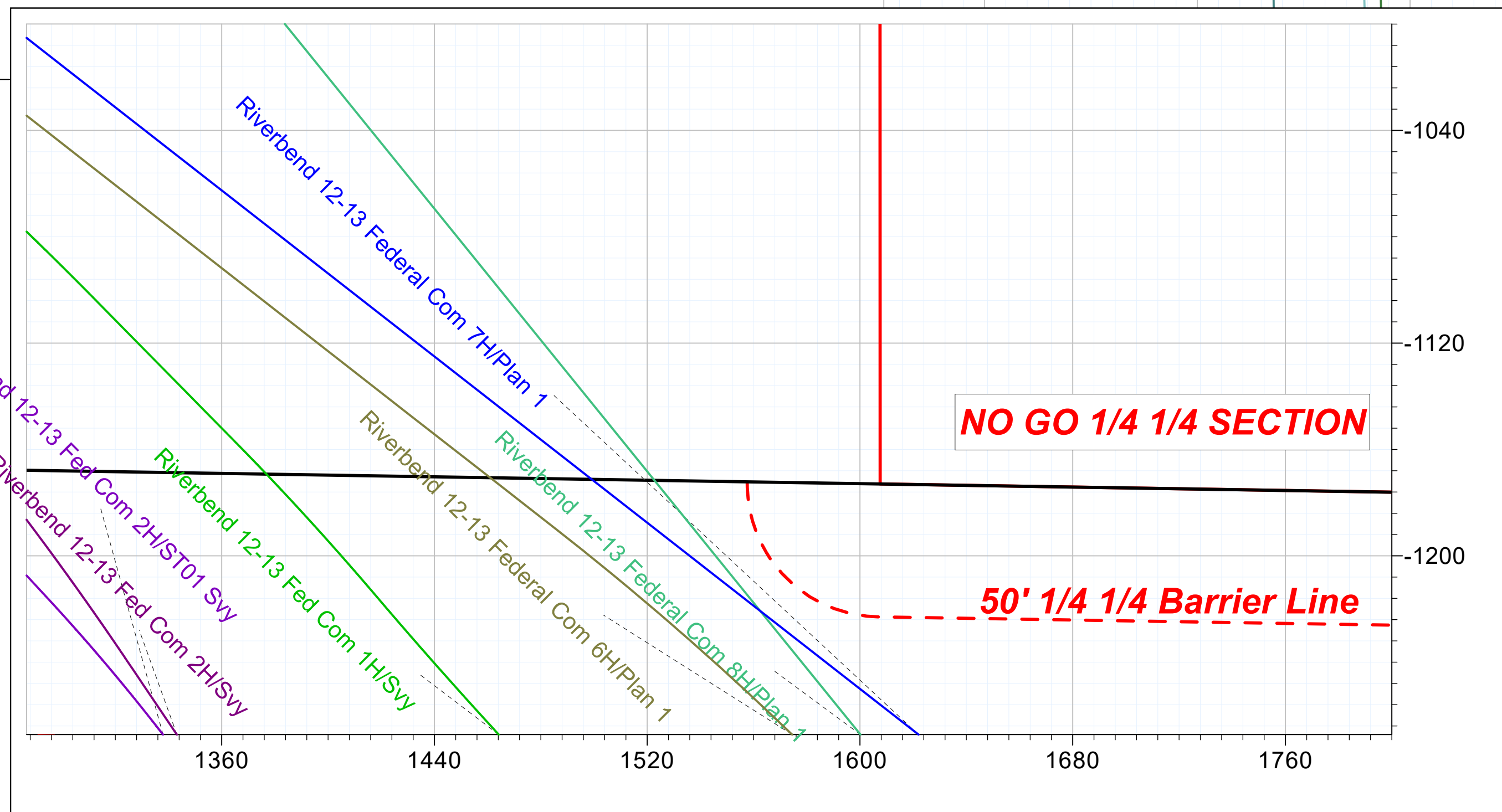
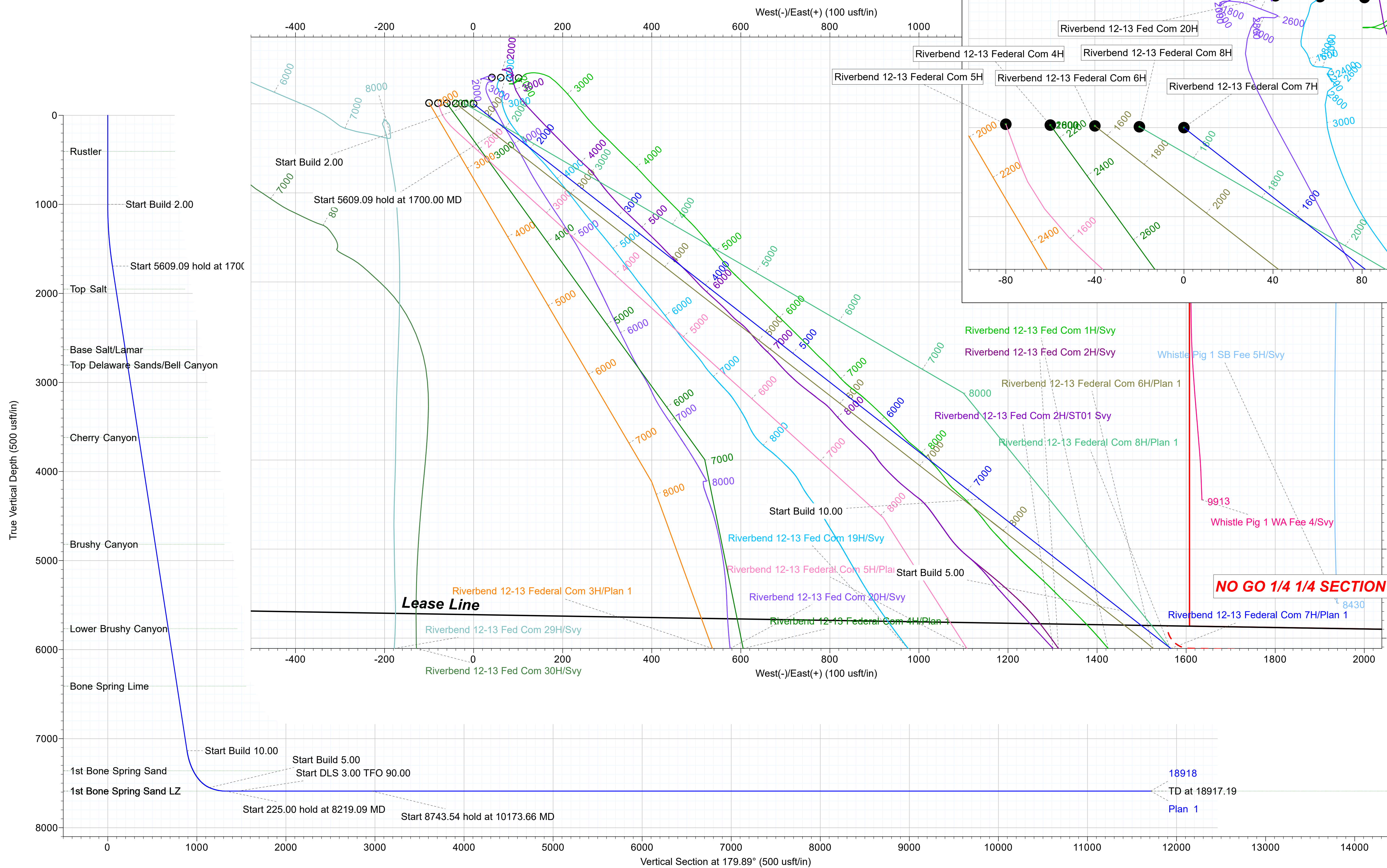
	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
	1700.00	14.00	128.00	1693.06	-52.39	67.06	2.00	128.00	52.52	
	7309.09	14.00	128.00	7135.53	-887.82	1136.36	0.00	0.00	890.00	
	7919.09	75.00	128.00	7550.36	-1138.79	1457.59	10.00	0.00	1141.59	
	8219.09	90.00	128.00	7589.40	-1321.39	1691.30	5.00	0.00	1324.63	
	8444.09	90.00	128.00	7589.40	-1459.91	1868.60	0.00	0.00	1463.50	
	10173.66	90.00	179.89	7589.36	-2961.13	2602.63	3.00	90.00	2966.12	
	18917.19	90.00	179.89	7589.00	-11704.65	2619.89	0.00	0.00	11709.66	

Formations

TVDP	MD	Formation
407.00	407.00	Rustler
1952.00	1966.87	Top Salt
2632.00	2667.69	Base Salt/Lamar
2806.00	2847.00	Delaware Sands/Bell Canyon
3619.00	3684.90	Cherry Canyon
4817.00	4919.58	Brushy Canyon
5766.00	5897.63	Lower Brushy Canyon
6411.00	6562.38	Bone Spring Lime
7361.00	7563.62	1st Bone Spring Sand
7589.00	8188.69	1st Bone Spring Sand LZ

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Riverbend 12-13 Federal Com 7H)	0.00	-1288.95	2600.47	419011.34	634168.93	32.1515851	-104.0333716
LTP (Riverbend 12-13 Federal Com 7H)	0.00	-11704.65	2619.89	408595.64	634188.35	32.1229532	-104.0334026



1. Geological Formations

TVD of target 7,589

Pilot Hole TD N/A

MD at TD 18,917

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2632	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
1st Bone Spring Sand - Target	7589	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	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2469	9-5/8"	36.00	J-55	LT&C	1.57	2.74	5.10
8 3/4	0	7309								
8 3/4	7309	8219	7589	7"	26.00	P-110	BT&C	1.66	2.66	114.01
6	7309	18917	7589	4-1/2"	11.60	HCP-110	BT&C	2.36	2.86	112.99
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., Riverbend 12-13 Federal Com 7H

	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	577	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	154	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	441	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	146	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	312	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	152	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	777	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	59
Production	2200	25
Completion System	8219	10

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

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		
8 3/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram	X	10M
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

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.	
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 1190'	Fresh Water	7.83 - 8.33	28	N/C
1190' to 2500'	Brine Water	9.50 - 10.00	30-32	N/C
2500' to 8219'	Cut Brine or OBM	9.00 - 9.50	27-70	N/C
8219' to 18917'	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	3748 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**

10M

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

BOPE Additional Information & Testing

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

Additional Well Control Notes

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

COMPANY Coterra Energy
 FIELD Eddy County, NM (NAD 83)
 SITE Riverbend 12-13 Federal Com
 WELL Riverbend 12-13 Federal Com 7H
 WELLPATH OH
 DESIGN Plan 1
 DEPTHUNT (usft)

WELL INFO

MAP DATUM North American Datum 1983
 MAP SYSTEM US State Plane 1983
 MAP ZONE New Mexico Eastern Zone
 WELL LAT 32.155148
 WELL LON -104.041763
 WELL EW MAI 631568.46
 WELL NS MAP 420300.29
 CONVERGENC 0.16
 MAGMODEL HDGM2025
 DECLINATION 6.42
 NORTH REF Grid
 GROUND ELE\ 2934
 KB ELEVN 2957
 VS AZI 179.89

SURVEY PROGRAM

1 0.00 - 18917.19 PLAN 1 : MWD+IFR1+MS

SURVEY LIST

Measured Depth MD	Inclination INC	Azimuth AZI	Course Length CL	True Vertical TVD	SubSea TVD SSTVD	Local N/-S NS
0.00	0.00	0.00	0.00	0.00	2957.00	0.00
100.00	0.00	0.00	100.00	100.00	2857.00	0.00
200.00	0.00	0.00	100.00	200.00	2757.00	0.00
300.00	0.00	0.00	100.00	300.00	2657.00	0.00
400.00	0.00	0.00	100.00	400.00	2557.00	0.00
500.00	0.00	0.00	100.00	500.00	2457.00	0.00
600.00	0.00	0.00	100.00	600.00	2357.00	0.00
700.00	0.00	0.00	100.00	700.00	2257.00	0.00
800.00	0.00	0.00	100.00	800.00	2157.00	0.00
900.00	0.00	0.00	100.00	900.00	2057.00	0.00
1000.00	0.00	0.00	100.00	1000.00	1957.00	0.00
1100.00	2.00	128.00	100.00	1099.98	1857.02	-1.07
1200.00	4.00	128.00	100.00	1199.84	1757.16	-4.30
1300.00	6.00	128.00	100.00	1299.45	1657.55	-9.66

1400.00	8.00	128.00	100.00	1398.70	1558.30	-17.17
1500.00	10.00	128.00	100.00	1497.47	1459.54	-26.80
1600.00	12.00	128.00	100.00	1595.62	1361.38	-38.54
1700.00	14.00	128.00	100.00	1693.06	1263.95	-52.39
1800.00	14.00	128.00	100.00	1790.09	1166.92	-67.29
1900.00	14.00	128.00	100.00	1887.11	1069.89	-82.18
2000.00	14.00	128.00	100.00	1984.14	972.86	-97.07
2100.00	14.00	128.00	100.00	2081.17	875.83	-111.97
2200.00	14.00	128.00	100.00	2178.20	778.80	-126.86
2300.00	14.00	128.00	100.00	2275.23	681.77	-141.76
2400.00	14.00	128.00	100.00	2372.26	584.74	-156.65
2500.00	14.00	128.00	100.00	2469.29	487.71	-171.54
2600.00	14.00	128.00	100.00	2566.32	390.68	-186.44
2700.00	14.00	128.00	100.00	2663.35	293.65	-201.33
2800.00	14.00	128.00	100.00	2760.38	196.62	-216.23
2900.00	14.00	128.00	100.00	2857.41	99.59	-231.12
3000.00	14.00	128.00	100.00	2954.44	2.56	-246.02
3100.00	14.00	128.00	100.00	3051.47	-94.47	-260.91
3200.00	14.00	128.00	100.00	3148.50	-191.50	-275.80
3300.00	14.00	128.00	100.00	3245.53	-288.53	-290.70
3400.00	14.00	128.00	100.00	3342.56	-385.56	-305.59
3500.00	14.00	128.00	100.00	3439.59	-482.59	-320.49
3600.00	14.00	128.00	100.00	3536.62	-579.62	-335.38
3700.00	14.00	128.00	100.00	3633.65	-676.65	-350.28
3800.00	14.00	128.00	100.00	3730.68	-773.68	-365.17
3900.00	14.00	128.00	100.00	3827.71	-870.71	-380.06
4000.00	14.00	128.00	100.00	3924.74	-967.74	-394.96
4100.00	14.00	128.00	100.00	4021.77	-1064.77	-409.85
4200.00	14.00	128.00	100.00	4118.79	-1161.79	-424.75
4300.00	14.00	128.00	100.00	4215.82	-1258.82	-439.64
4400.00	14.00	128.00	100.00	4312.85	-1355.85	-454.53
4500.00	14.00	128.00	100.00	4409.88	-1452.88	-469.43
4600.00	14.00	128.00	100.00	4506.91	-1549.91	-484.32
4700.00	14.00	128.00	100.00	4603.94	-1646.94	-499.22
4800.00	14.00	128.00	100.00	4700.97	-1743.97	-514.11
4900.00	14.00	128.00	100.00	4798.00	-1841.00	-529.01
5000.00	14.00	128.00	100.00	4895.03	-1938.03	-543.90
5100.00	14.00	128.00	100.00	4992.06	-2035.06	-558.79
5200.00	14.00	128.00	100.00	5089.09	-2132.09	-573.69
5300.00	14.00	128.00	100.00	5186.12	-2229.12	-588.58
5400.00	14.00	128.00	100.00	5283.15	-2326.15	-603.48
5500.00	14.00	128.00	100.00	5380.18	-2423.18	-618.37
5600.00	14.00	128.00	100.00	5477.21	-2520.21	-633.26
5700.00	14.00	128.00	100.00	5574.24	-2617.24	-648.16

5800.00	14.00	128.00	100.00	5671.27	-2714.27	-663.05
5900.00	14.00	128.00	100.00	5768.30	-2811.30	-677.95
6000.00	14.00	128.00	100.00	5865.33	-2908.33	-692.84
6100.00	14.00	128.00	100.00	5962.36	-3005.36	-707.74
6200.00	14.00	128.00	100.00	6059.39	-3102.39	-722.63
6300.00	14.00	128.00	100.00	6156.42	-3199.42	-737.52
6400.00	14.00	128.00	100.00	6253.45	-3296.45	-752.42
6500.00	14.00	128.00	100.00	6350.48	-3393.48	-767.31
6600.00	14.00	128.00	100.00	6447.50	-3490.50	-782.21
6700.00	14.00	128.00	100.00	6544.53	-3587.53	-797.10
6800.00	14.00	128.00	100.00	6641.56	-3684.56	-812.00
6900.00	14.00	128.00	100.00	6738.59	-3781.59	-826.89
7000.00	14.00	128.00	100.00	6835.62	-3878.62	-841.78
7100.00	14.00	128.00	100.00	6932.65	-3975.65	-856.68
7200.00	14.00	128.00	100.00	7029.68	-4072.68	-871.57
7309.09	14.00	128.00	109.09	7135.53	-4178.53	-887.82
7350.00	18.09	128.00	40.91	7174.84	-4217.84	-894.78
7400.00	23.09	128.00	50.00	7221.63	-4264.63	-905.60
7450.00	28.09	128.00	50.00	7266.71	-4309.71	-918.90
7500.00	33.09	128.00	50.00	7309.74	-4352.74	-934.56
7550.00	38.09	128.00	50.00	7350.39	-4393.39	-952.47
7600.00	43.09	128.00	50.00	7388.34	-4431.34	-972.49
7650.00	48.09	128.00	50.00	7423.32	-4466.32	-994.47
7700.00	53.09	128.00	50.00	7455.05	-4498.05	-1018.25
7750.00	58.09	128.00	50.00	7483.30	-4526.30	-1043.64
7800.00	63.09	128.00	50.00	7507.84	-4550.84	-1070.44
7850.00	68.09	128.00	50.00	7528.50	-4571.50	-1098.47
7900.00	73.09	128.00	50.00	7545.11	-4588.11	-1127.49
7919.09	75.00	128.00	19.09	7550.36	-4593.36	-1138.79
8000.00	79.05	128.00	80.91	7568.52	-4611.52	-1187.32
8100.00	84.05	128.00	100.00	7583.22	-4626.22	-1248.20
8200.00	89.05	128.00	100.00	7589.24	-4632.24	-1309.63
8219.09	90.00	128.00	19.09	7589.40	-4632.40	-1321.39
8300.00	90.00	128.00	80.91	7589.40	-4632.40	-1371.20
8400.00	90.00	128.00	100.00	7589.40	-4632.40	-1432.77
8444.09	90.00	128.00	44.09	7589.40	-4632.40	-1459.91
8500.00	90.00	129.68	55.91	7589.40	-4632.40	-1494.97
8600.00	90.00	132.68	100.00	7589.40	-4632.40	-1560.80
8700.00	90.00	135.68	100.00	7589.40	-4632.40	-1630.48
8800.00	90.00	138.68	100.00	7589.40	-4632.40	-1703.82
8900.00	90.00	141.68	100.00	7589.40	-4632.40	-1780.62
9000.00	90.00	144.68	100.00	7589.40	-4632.40	-1860.66
9100.00	90.00	147.68	100.00	7589.40	-4632.40	-1943.72
9200.00	90.00	150.68	100.00	7589.40	-4632.40	-2029.59

9300.00	90.00	153.68	100.00	7589.39	-4632.39	-2118.02
9400.00	90.00	156.68	100.00	7589.39	-4632.39	-2208.77
9500.00	90.00	159.68	100.00	7589.39	-4632.39	-2301.59
9600.00	90.00	162.68	100.00	7589.39	-4632.39	-2396.23
9700.00	90.00	165.68	100.00	7589.38	-4632.38	-2492.43
9800.00	90.00	168.68	100.00	7589.38	-4632.38	-2589.93
9900.00	90.00	171.68	100.00	7589.38	-4632.38	-2688.45
10000.00	90.00	174.68	100.00	7589.37	-4632.37	-2787.73
10100.00	90.00	177.68	100.00	7589.37	-4632.37	-2887.50
10173.66	90.00	179.89	73.66	7589.36	-4632.36	-2961.13
10200.00	90.00	179.89	26.34	7589.36	-4632.36	-2987.48
10300.00	90.00	179.89	100.00	7589.36	-4632.36	-3087.48
10400.00	90.00	179.89	100.00	7589.36	-4632.36	-3187.48
10500.00	90.00	179.89	100.00	7589.35	-4632.35	-3287.48
10600.00	90.00	179.89	100.00	7589.35	-4632.35	-3387.48
10700.00	90.00	179.89	100.00	7589.34	-4632.34	-3487.48
10800.00	90.00	179.89	100.00	7589.34	-4632.34	-3587.48
10900.00	90.00	179.89	100.00	7589.33	-4632.33	-3687.47
11000.00	90.00	179.89	100.00	7589.33	-4632.33	-3787.47
11100.00	90.00	179.89	100.00	7589.33	-4632.33	-3887.47
11200.00	90.00	179.89	100.00	7589.32	-4632.32	-3987.47
11300.00	90.00	179.89	100.00	7589.32	-4632.32	-4087.47
11400.00	90.00	179.89	100.00	7589.31	-4632.31	-4187.47
11500.00	90.00	179.89	100.00	7589.31	-4632.31	-4287.47
11600.00	90.00	179.89	100.00	7589.31	-4632.31	-4387.47
11700.00	90.00	179.89	100.00	7589.30	-4632.30	-4487.47
11800.00	90.00	179.89	100.00	7589.30	-4632.30	-4587.47
11900.00	90.00	179.89	100.00	7589.29	-4632.29	-4687.47
12000.00	90.00	179.89	100.00	7589.29	-4632.29	-4787.47
12100.00	90.00	179.89	100.00	7589.28	-4632.28	-4887.47
12200.00	90.00	179.89	100.00	7589.28	-4632.28	-4987.47
12300.00	90.00	179.89	100.00	7589.28	-4632.28	-5087.47
12400.00	90.00	179.89	100.00	7589.27	-4632.27	-5187.47
12500.00	90.00	179.89	100.00	7589.27	-4632.27	-5287.47
12600.00	90.00	179.89	100.00	7589.26	-4632.26	-5387.47
12700.00	90.00	179.89	100.00	7589.26	-4632.26	-5487.47
12800.00	90.00	179.89	100.00	7589.26	-4632.26	-5587.47
12900.00	90.00	179.89	100.00	7589.25	-4632.25	-5687.47
13000.00	90.00	179.89	100.00	7589.25	-4632.25	-5787.47
13100.00	90.00	179.89	100.00	7589.24	-4632.24	-5887.47
13200.00	90.00	179.89	100.00	7589.24	-4632.24	-5987.47
13300.00	90.00	179.89	100.00	7589.23	-4632.23	-6087.47
13400.00	90.00	179.89	100.00	7589.23	-4632.23	-6187.47
13500.00	90.00	179.89	100.00	7589.23	-4632.23	-6287.47

13600.00	90.00	179.89	100.00	7589.22	-4632.22	-6387.47
13700.00	90.00	179.89	100.00	7589.22	-4632.22	-6487.47
13800.00	90.00	179.89	100.00	7589.21	-4632.21	-6587.47
13900.00	90.00	179.89	100.00	7589.21	-4632.21	-6687.47
14000.00	90.00	179.89	100.00	7589.21	-4632.21	-6787.47
14100.00	90.00	179.89	100.00	7589.20	-4632.20	-6887.47
14200.00	90.00	179.89	100.00	7589.20	-4632.20	-6987.47
14300.00	90.00	179.89	100.00	7589.19	-4632.19	-7087.47
14400.00	90.00	179.89	100.00	7589.19	-4632.19	-7187.47
14500.00	90.00	179.89	100.00	7589.18	-4632.18	-7287.47
14600.00	90.00	179.89	100.00	7589.18	-4632.18	-7387.47
14700.00	90.00	179.89	100.00	7589.18	-4632.18	-7487.47
14800.00	90.00	179.89	100.00	7589.17	-4632.17	-7587.47
14900.00	90.00	179.89	100.00	7589.17	-4632.17	-7687.47
15000.00	90.00	179.89	100.00	7589.16	-4632.16	-7787.47
15100.00	90.00	179.89	100.00	7589.16	-4632.16	-7887.47
15200.00	90.00	179.89	100.00	7589.16	-4632.16	-7987.47
15300.00	90.00	179.89	100.00	7589.15	-4632.15	-8087.47
15400.00	90.00	179.89	100.00	7589.15	-4632.15	-8187.47
15500.00	90.00	179.89	100.00	7589.14	-4632.14	-8287.47
15600.00	90.00	179.89	100.00	7589.14	-4632.14	-8387.47
15700.00	90.00	179.89	100.00	7589.13	-4632.13	-8487.47
15800.00	90.00	179.89	100.00	7589.13	-4632.13	-8587.47
15900.00	90.00	179.89	100.00	7589.13	-4632.13	-8687.47
16000.00	90.00	179.89	100.00	7589.12	-4632.12	-8787.46
16100.00	90.00	179.89	100.00	7589.12	-4632.12	-8887.46
16200.00	90.00	179.89	100.00	7589.11	-4632.11	-8987.46
16300.00	90.00	179.89	100.00	7589.11	-4632.11	-9087.46
16400.00	90.00	179.89	100.00	7589.11	-4632.11	-9187.46
16500.00	90.00	179.89	100.00	7589.10	-4632.10	-9287.46
16600.00	90.00	179.89	100.00	7589.10	-4632.10	-9387.46
16700.00	90.00	179.89	100.00	7589.09	-4632.09	-9487.46
16800.00	90.00	179.89	100.00	7589.09	-4632.09	-9587.46
16900.00	90.00	179.89	100.00	7589.08	-4632.08	-9687.46
17000.00	90.00	179.89	100.00	7589.08	-4632.08	-9787.46
17100.00	90.00	179.89	100.00	7589.08	-4632.08	-9887.46
17200.00	90.00	179.89	100.00	7589.07	-4632.07	-9987.46
17300.00	90.00	179.89	100.00	7589.07	-4632.07	-10087.46
17400.00	90.00	179.89	100.00	7589.06	-4632.06	-10187.46
17500.00	90.00	179.89	100.00	7589.06	-4632.06	-10287.46
17600.00	90.00	179.89	100.00	7589.06	-4632.06	-10387.46
17700.00	90.00	179.89	100.00	7589.05	-4632.05	-10487.46
17800.00	90.00	179.89	100.00	7589.05	-4632.05	-10587.46
17900.00	90.00	179.89	100.00	7589.04	-4632.04	-10687.46

18000.00	90.00	179.89	100.00	7589.04	-4632.04	-10787.46
18100.00	90.00	179.89	100.00	7589.03	-4632.03	-10887.46
18200.00	90.00	179.89	100.00	7589.03	-4632.03	-10987.46
18300.00	90.00	179.89	100.00	7589.03	-4632.03	-11087.46
18400.00	90.00	179.89	100.00	7589.02	-4632.02	-11187.46
18500.00	90.00	179.89	100.00	7589.02	-4632.02	-11287.46
18600.00	90.00	179.89	100.00	7589.01	-4632.01	-11387.46
18700.00	90.00	179.89	100.00	7589.01	-4632.01	-11487.46
18800.00	90.00	179.89	100.00	7589.01	-4632.01	-11587.46
18900.00	90.00	179.89	100.00	7589.00	-4632.00	-11687.46
18917.19	90.00	179.89	17.19	7589.00	-4632.00	-11704.65

Local E/-W EW	Easting X	Northing Y	Latitude LAT	Longitude LON	Dogleg Severit DLS	Build Rate BLD
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
1.38	631569.84	420299.22	32.155145	-104.041759	2.00	2.00
5.50	631573.96	420295.99	32.155136	-104.041745	2.00	2.00
12.37	631580.83	420290.63	32.155121	-104.041723	2.00	2.00

21.97	631590.43	420283.13	32.155101	-104.041692	2.00	2.00
34.30	631602.76	420273.50	32.155074	-104.041652	2.00	2.00
49.33	631617.79	420261.75	32.155042	-104.041604	2.00	2.00
67.06	631635.52	420247.90	32.155003	-104.041547	2.00	2.00
86.12	631654.58	420233.01	32.154962	-104.041485	0.00	0.00
105.18	631673.64	420218.11	32.154921	-104.041424	0.00	0.00
124.25	631692.71	420203.22	32.154880	-104.041362	0.00	0.00
143.31	631711.77	420188.32	32.154839	-104.041301	0.00	0.00
162.38	631730.84	420173.43	32.154798	-104.041239	0.00	0.00
181.44	631749.90	420158.53	32.154757	-104.041178	0.00	0.00
200.50	631768.96	420143.64	32.154716	-104.041117	0.00	0.00
219.57	631788.03	420128.75	32.154675	-104.041055	0.00	0.00
238.63	631807.09	420113.85	32.154634	-104.040994	0.00	0.00
257.69	631826.15	420098.96	32.154593	-104.040932	0.00	0.00
276.76	631845.22	420084.06	32.154552	-104.040871	0.00	0.00
295.82	631864.28	420069.17	32.154510	-104.040809	0.00	0.00
314.89	631883.35	420054.28	32.154469	-104.040748	0.00	0.00
333.95	631902.41	420039.38	32.154428	-104.040686	0.00	0.00
353.01	631921.47	420024.49	32.154387	-104.040625	0.00	0.00
372.08	631940.54	420009.59	32.154346	-104.040563	0.00	0.00
391.14	631959.60	419994.70	32.154305	-104.040502	0.00	0.00
410.20	631978.66	419979.80	32.154264	-104.040440	0.00	0.00
429.27	631997.73	419964.91	32.154223	-104.040379	0.00	0.00
448.33	632016.79	419950.02	32.154182	-104.040317	0.00	0.00
467.40	632035.86	419935.12	32.154141	-104.040256	0.00	0.00
486.46	632054.92	419920.23	32.154100	-104.040194	0.00	0.00
505.52	632073.98	419905.33	32.154058	-104.040133	0.00	0.00
524.59	632093.05	419890.44	32.154017	-104.040072	0.00	0.00
543.65	632112.11	419875.54	32.153976	-104.040010	0.00	0.00
562.71	632131.17	419860.65	32.153935	-104.039949	0.00	0.00
581.78	632150.24	419845.76	32.153894	-104.039887	0.00	0.00
600.84	632169.30	419830.86	32.153853	-104.039826	0.00	0.00
619.90	632188.36	419815.97	32.153812	-104.039764	0.00	0.00
638.97	632207.43	419801.07	32.153771	-104.039703	0.00	0.00
658.03	632226.49	419786.18	32.153730	-104.039641	0.00	0.00
677.10	632245.56	419771.29	32.153689	-104.039580	0.00	0.00
696.16	632264.62	419756.39	32.153648	-104.039518	0.00	0.00
715.22	632283.68	419741.50	32.153607	-104.039457	0.00	0.00
734.29	632302.75	419726.60	32.153565	-104.039395	0.00	0.00
753.35	632321.81	419711.71	32.153524	-104.039334	0.00	0.00
772.41	632340.87	419696.81	32.153483	-104.039272	0.00	0.00
791.48	632359.94	419681.92	32.153442	-104.039211	0.00	0.00
810.54	632379.00	419667.03	32.153401	-104.039149	0.00	0.00
829.61	632398.07	419652.13	32.153360	-104.039088	0.00	0.00

848.67	632417.13	419637.24	32.153319	-104.039027	0.00	0.00
867.73	632436.19	419622.34	32.153278	-104.038965	0.00	0.00
886.80	632455.26	419607.45	32.153237	-104.038904	0.00	0.00
905.86	632474.32	419592.56	32.153196	-104.038842	0.00	0.00
924.92	632493.38	419577.66	32.153155	-104.038781	0.00	0.00
943.99	632512.45	419562.77	32.153114	-104.038719	0.00	0.00
963.05	632531.51	419547.87	32.153072	-104.038658	0.00	0.00
982.12	632550.58	419532.98	32.153031	-104.038596	0.00	0.00
1001.18	632569.64	419518.08	32.152990	-104.038535	0.00	0.00
1020.24	632588.70	419503.19	32.152949	-104.038473	0.00	0.00
1039.31	632607.77	419488.30	32.152908	-104.038412	0.00	0.00
1058.37	632626.83	419473.40	32.152867	-104.038350	0.00	0.00
1077.43	632645.89	419458.51	32.152826	-104.038289	0.00	0.00
1096.50	632664.96	419443.61	32.152785	-104.038227	0.00	0.00
1115.56	632684.02	419428.72	32.152744	-104.038166	0.00	0.00
1136.36	632704.82	419412.47	32.152699	-104.038099	0.00	0.00
1145.27	632713.73	419405.51	32.152680	-104.038070	10.00	10.00
1159.12	632727.58	419394.69	32.152650	-104.038026	10.00	10.00
1176.13	632744.59	419381.40	32.152613	-104.037971	10.00	10.00
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1303.30	632871.76	419282.04	32.152339	-104.037561	10.00	10.00
1335.79	632904.25	419256.65	32.152269	-104.037456	10.00	10.00
1370.11	632938.57	419229.85	32.152195	-104.037345	10.00	10.00
1405.97	632974.43	419201.82	32.152118	-104.037230	10.00	10.00
1443.12	633011.58	419172.80	32.152038	-104.037110	10.00	10.00
1457.59	633026.05	419161.50	32.152007	-104.037063	10.00	10.00
1519.70	633088.16	419112.97	32.151873	-104.036863	5.00	5.00
1597.62	633166.08	419052.09	32.151705	-104.036612	5.00	5.00
1676.26	633244.72	418990.66	32.151535	-104.036358	5.00	5.00
1691.30	633259.76	418978.90	32.151503	-104.036310	5.00	5.00
1755.06	633323.52	418929.09	32.151365	-104.036104	0.00	0.00
1833.86	633402.32	418867.52	32.151196	-104.035850	0.00	0.00
1868.60	633437.06	418840.38	32.151121	-104.035738	0.00	0.00
1912.15	633480.61	418805.32	32.151024	-104.035598	3.00	0.00
1987.41	633555.87	418739.49	32.150843	-104.035355	3.00	0.00
2059.12	633627.58	418669.81	32.150650	-104.035124	3.00	0.00
2127.08	633695.54	418596.47	32.150448	-104.034905	3.00	0.00
2191.12	633759.58	418519.68	32.150237	-104.034699	3.00	0.00
2251.04	633819.50	418439.64	32.150016	-104.034506	3.00	0.00
2306.70	633875.16	418356.57	32.149787	-104.034327	3.00	0.00
2357.93	633926.39	418270.70	32.149551	-104.034162	3.00	0.00

2404.60	633973.06	418182.27	32.149308	-104.034012	3.00	0.00
2446.58	634015.04	418091.52	32.149058	-104.033877	3.00	0.00
2483.75	634052.21	417998.70	32.148802	-104.033758	3.00	0.00
2516.01	634084.47	417904.06	32.148542	-104.033654	3.00	0.00
2543.27	634111.73	417807.86	32.148277	-104.033567	3.00	0.00
2565.46	634133.92	417710.36	32.148009	-104.033496	3.00	0.00
2582.52	634150.98	417611.84	32.147738	-104.033442	3.00	0.00
2594.40	634162.86	417512.56	32.147465	-104.033405	3.00	0.00
2601.07	634169.53	417412.79	32.147191	-104.033384	3.00	0.00
2602.63	634171.09	417339.16	32.146988	-104.033380	3.00	0.00
2602.68	634171.14	417312.81	32.146916	-104.033380	0.00	0.00
2602.88	634171.34	417212.81	32.146641	-104.033380	0.00	0.00
2603.08	634171.54	417112.82	32.146366	-104.033380	0.00	0.00
2603.28	634171.74	417012.82	32.146091	-104.033381	0.00	0.00
2603.47	634171.93	416912.82	32.145816	-104.033381	0.00	0.00
2603.67	634172.13	416812.82	32.145542	-104.033381	0.00	0.00
2603.87	634172.33	416712.82	32.145267	-104.033381	0.00	0.00
2604.06	634172.52	416612.82	32.144992	-104.033382	0.00	0.00
2604.26	634172.72	416512.82	32.144717	-104.033382	0.00	0.00
2604.46	634172.92	416412.82	32.144442	-104.033382	0.00	0.00
2604.66	634173.12	416312.82	32.144167	-104.033382	0.00	0.00
2604.85	634173.31	416212.82	32.143892	-104.033383	0.00	0.00
2605.05	634173.51	416112.82	32.143617	-104.033383	0.00	0.00
2605.25	634173.71	416012.82	32.143342	-104.033383	0.00	0.00
2605.45	634173.91	415912.82	32.143068	-104.033383	0.00	0.00
2605.64	634174.10	415812.82	32.142793	-104.033384	0.00	0.00
2605.84	634174.30	415712.82	32.142518	-104.033384	0.00	0.00
2606.04	634174.50	415612.82	32.142243	-104.033384	0.00	0.00
2606.24	634174.70	415512.82	32.141968	-104.033384	0.00	0.00
2606.43	634174.89	415412.82	32.141693	-104.033385	0.00	0.00
2606.63	634175.09	415312.82	32.141418	-104.033385	0.00	0.00
2606.83	634175.29	415212.82	32.141143	-104.033385	0.00	0.00
2607.03	634175.49	415112.82	32.140868	-104.033386	0.00	0.00
2607.22	634175.68	415012.82	32.140594	-104.033386	0.00	0.00
2607.42	634175.88	414912.82	32.140319	-104.033386	0.00	0.00
2607.62	634176.08	414812.82	32.140044	-104.033386	0.00	0.00
2607.82	634176.28	414712.82	32.139769	-104.033387	0.00	0.00
2608.01	634176.47	414612.82	32.139494	-104.033387	0.00	0.00
2608.21	634176.67	414512.82	32.139219	-104.033387	0.00	0.00
2608.41	634176.87	414412.82	32.138944	-104.033387	0.00	0.00
2608.60	634177.06	414312.82	32.138669	-104.033388	0.00	0.00
2608.80	634177.26	414212.82	32.138394	-104.033388	0.00	0.00
2609.00	634177.46	414112.82	32.138120	-104.033388	0.00	0.00
2609.20	634177.66	414012.82	32.137845	-104.033388	0.00	0.00

2609.39	634177.85	413912.82	32.137570	-104.033389	0.00	0.00
2609.59	634178.05	413812.82	32.137295	-104.033389	0.00	0.00
2609.79	634178.25	413712.82	32.137020	-104.033389	0.00	0.00
2609.99	634178.45	413612.82	32.136745	-104.033389	0.00	0.00
2610.18	634178.64	413512.82	32.136470	-104.033390	0.00	0.00
2610.38	634178.84	413412.82	32.136195	-104.033390	0.00	0.00
2610.58	634179.04	413312.82	32.135920	-104.033390	0.00	0.00
2610.78	634179.24	413212.82	32.135645	-104.033391	0.00	0.00
2610.97	634179.43	413112.82	32.135371	-104.033391	0.00	0.00
2611.17	634179.63	413012.82	32.135096	-104.033391	0.00	0.00
2611.37	634179.83	412912.82	32.134821	-104.033391	0.00	0.00
2611.57	634180.03	412812.82	32.134546	-104.033392	0.00	0.00
2611.76	634180.22	412712.82	32.134271	-104.033392	0.00	0.00
2611.96	634180.42	412612.82	32.133996	-104.033392	0.00	0.00
2612.16	634180.62	412512.82	32.133721	-104.033392	0.00	0.00
2612.36	634180.82	412412.82	32.133446	-104.033393	0.00	0.00
2612.55	634181.01	412312.82	32.133171	-104.033393	0.00	0.00
2612.75	634181.21	412212.82	32.132897	-104.033393	0.00	0.00
2612.95	634181.41	412112.82	32.132622	-104.033393	0.00	0.00
2613.15	634181.61	412012.83	32.132347	-104.033394	0.00	0.00
2613.34	634181.80	411912.83	32.132072	-104.033394	0.00	0.00
2613.54	634182.00	411812.83	32.131797	-104.033394	0.00	0.00
2613.74	634182.20	411712.83	32.131522	-104.033394	0.00	0.00
2613.93	634182.39	411612.83	32.131247	-104.033395	0.00	0.00
2614.13	634182.59	411512.83	32.130972	-104.033395	0.00	0.00
2614.33	634182.79	411412.83	32.130697	-104.033395	0.00	0.00
2614.53	634182.99	411312.83	32.130423	-104.033395	0.00	0.00
2614.72	634183.18	411212.83	32.130148	-104.033396	0.00	0.00
2614.92	634183.38	411112.83	32.129873	-104.033396	0.00	0.00
2615.12	634183.58	411012.83	32.129598	-104.033396	0.00	0.00
2615.32	634183.78	410912.83	32.129323	-104.033397	0.00	0.00
2615.51	634183.97	410812.83	32.129048	-104.033397	0.00	0.00
2615.71	634184.17	410712.83	32.128773	-104.033397	0.00	0.00
2615.91	634184.37	410612.83	32.128498	-104.033397	0.00	0.00
2616.11	634184.57	410512.83	32.128223	-104.033398	0.00	0.00
2616.30	634184.76	410412.83	32.127949	-104.033398	0.00	0.00
2616.50	634184.96	410312.83	32.127674	-104.033398	0.00	0.00
2616.70	634185.16	410212.83	32.127399	-104.033398	0.00	0.00
2616.90	634185.36	410112.83	32.127124	-104.033399	0.00	0.00
2617.09	634185.55	410012.83	32.126849	-104.033399	0.00	0.00
2617.29	634185.75	409912.83	32.126574	-104.033399	0.00	0.00
2617.49	634185.95	409812.83	32.126299	-104.033399	0.00	0.00
2617.69	634186.15	409712.83	32.126024	-104.033400	0.00	0.00
2617.88	634186.34	409612.83	32.125749	-104.033400	0.00	0.00

2618.08	634186.54	409512.83	32.125474	-104.033400	0.00	0.00
2618.28	634186.74	409412.83	32.125200	-104.033400	0.00	0.00
2618.47	634186.93	409312.83	32.124925	-104.033401	0.00	0.00
2618.67	634187.13	409212.83	32.124650	-104.033401	0.00	0.00
2618.87	634187.33	409112.83	32.124375	-104.033401	0.00	0.00
2619.07	634187.53	409012.83	32.124100	-104.033402	0.00	0.00
2619.26	634187.72	408912.83	32.123825	-104.033402	0.00	0.00
2619.46	634187.92	408812.83	32.123550	-104.033402	0.00	0.00
2619.66	634188.12	408712.83	32.123275	-104.033402	0.00	0.00
2619.86	634188.32	408612.83	32.123000	-104.033403	0.00	0.00
2619.89	634188.35	408595.64	32.122953	-104.033403	0.00	0.00

Turn Rate	Vertical Section
TRN	VS
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0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	1.08
0.00	4.31
0.00	9.69

0.00	17.21
0.00	26.86
0.00	38.64
0.00	52.52
0.00	67.45
0.00	82.38
0.00	97.31
0.00	112.24
0.00	127.17
0.00	142.10
0.00	157.04
0.00	171.97
0.00	186.90
0.00	201.83
0.00	216.76
0.00	231.69
0.00	246.62
0.00	261.55
0.00	276.48
0.00	291.41
0.00	306.34
0.00	321.27
0.00	336.20
0.00	351.14
0.00	366.07
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0.00	410.86
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0.00	440.72
0.00	455.65
0.00	470.58
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0.00	3692.47
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0.00	8892.47
0.00	8992.47
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0.00	9592.47
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0.00	10892.47
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0.00	11492.47
0.00	11592.47
0.00	11692.47
0.00	11709.66

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 7H

OH

Plan: Plan 1



Standard Plan Report

24 June, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Project	Eddy County, NM (NAD 83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Riverbend 12-13 Federal Com				
Site Position:		Northing:	420,302.20 usft	Latitude:	32.1551540
From:	Map	Easting:	631,468.50 usft	Longitude:	-104.0420860
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Riverbend 12-13 Federal Com 7H					
Well Position	+N/-S	0.00 usft	Northing:	420,300.29 usft	Latitude:	32.1551480
	+E/-W	0.00 usft	Easting:	631,568.46 usft	Longitude:	-104.0417630
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,934.00 usft
Grid Convergence:		0.16 °				

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	HDGM2025	8/19/2025	6.42	59.67	47,172.80000000	

Design	Plan 1					
Audit Notes:						
Version:		Phase:	PLAN	Tie On Depth:		0.00
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(usft)	(usft)	(usft)	(°)	
		0.00	0.00	0.00	179.89	

Survey Tool Program	Date	6/24/2025			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
0.00	18,917.19	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	14.00	128.00	1,693.06	-52.39	67.06	2.00	2.00	0.00	128.00	
7,309.09	14.00	128.00	7,135.53	-887.82	1,136.36	0.00	0.00	0.00	0.00	
7,919.09	75.00	128.00	7,550.36	-1,138.79	1,457.59	10.00	10.00	0.00	0.00	
8,219.09	90.00	128.00	7,589.40	-1,321.39	1,691.30	5.00	5.00	0.00	0.00	
8,444.09	90.00	128.00	7,589.40	-1,459.91	1,868.60	0.00	0.00	0.00	0.00	
10,173.66	90.00	179.89	7,589.36	-2,961.13	2,602.63	3.00	0.00	3.00	90.00	
18,917.19	90.00	179.89	7,589.00	-11,704.65	2,619.89	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
0.00	0.00	0.00	0.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
1,100.00	2.00	128.00	1,099.98	-1.07	1.38	420,299.22	631,569.84	32.1551450	-104.0417586	1.08	2.00	2.00	0.00
1,200.00	4.00	128.00	1,199.84	-4.30	5.50	420,295.99	631,573.96	32.1551361	-104.0417453	4.31	2.00	2.00	0.00
1,300.00	6.00	128.00	1,299.45	-9.66	12.37	420,290.63	631,580.83	32.1551213	-104.0417231	9.69	2.00	2.00	0.00
1,400.00	8.00	128.00	1,398.70	-17.16	21.97	420,283.13	631,590.43	32.1551006	-104.0416922	17.21	2.00	2.00	0.00
1,500.00	10.00	128.00	1,497.47	-26.80	34.30	420,273.49	631,602.76	32.1550741	-104.0416524	26.86	2.00	2.00	0.00
1,600.00	12.00	128.00	1,595.62	-38.54	49.33	420,261.75	631,617.79	32.1550417	-104.0416039	38.64	2.00	2.00	0.00
1,700.00	14.00	128.00	1,693.06	-52.39	67.06	420,247.90	631,635.52	32.1550035	-104.0415468	52.52	2.00	2.00	0.00
1,800.00	14.00	128.00	1,790.08	-67.28	86.12	420,233.01	631,654.58	32.1549624	-104.0414853	67.45	0.00	0.00	0.00
1,900.00	14.00	128.00	1,887.11	-82.18	105.18	420,218.11	631,673.64	32.1549213	-104.0414238	82.38	0.00	0.00	0.00
1,966.87	14.00	128.00	1,952.00	-92.14	117.93	420,208.15	631,686.39	32.1548938	-104.0413827	92.37	0.00	0.00	0.00
Top Salt													
2,000.00	14.00	128.00	1,984.14	-97.07	124.25	420,203.22	631,692.71	32.1548802	-104.0413624	97.31	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,100.00	14.00	128.00	2,081.17	-111.97	143.31	420,188.32	631,711.77	32.1548391	-104.0413009	112.24	0.00	0.00	0.00
2,200.00	14.00	128.00	2,178.20	-126.86	162.38	420,173.43	631,730.84	32.1547981	-104.0412394	127.17	0.00	0.00	0.00
2,300.00	14.00	128.00	2,275.23	-141.76	181.44	420,158.53	631,749.90	32.1547570	-104.0411780	142.10	0.00	0.00	0.00
2,400.00	14.00	128.00	2,372.26	-156.65	200.50	420,143.64	631,768.96	32.1547159	-104.0411165	157.03	0.00	0.00	0.00
2,500.00	14.00	128.00	2,469.29	-171.54	219.57	420,128.75	631,788.03	32.1546748	-104.0410550	171.97	0.00	0.00	0.00
2,600.00	14.00	128.00	2,566.32	-186.44	238.63	420,113.85	631,807.09	32.1546337	-104.0409935	186.90	0.00	0.00	0.00
2,667.69	14.00	128.00	2,632.00	-196.52	251.53	420,103.77	631,819.99	32.1546059	-104.0409519	197.00	0.00	0.00	0.00
Base Salt/Lamar													
2,700.00	14.00	128.00	2,663.35	-201.33	257.69	420,098.96	631,826.15	32.1545926	-104.0409321	201.83	0.00	0.00	0.00
2,800.00	14.00	128.00	2,760.38	-216.23	276.76	420,084.06	631,845.22	32.1545515	-104.0408706	216.76	0.00	0.00	0.00
2,847.02	14.00	128.00	2,806.00	-223.23	285.72	420,077.06	631,854.18	32.1545322	-104.0408417	223.78	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													
2,900.00	14.00	128.00	2,857.41	-231.12	295.82	420,069.17	631,864.28	32.1545105	-104.0408091	231.69	0.00	0.00	0.00
3,000.00	14.00	128.00	2,954.44	-246.02	314.89	420,054.27	631,883.35	32.1544694	-104.0407477	246.62	0.00	0.00	0.00
3,100.00	14.00	128.00	3,051.47	-260.91	333.95	420,039.38	631,902.41	32.1544283	-104.0406862	261.55	0.00	0.00	0.00
3,200.00	14.00	128.00	3,148.50	-275.80	353.01	420,024.49	631,921.47	32.1543872	-104.0406247	276.48	0.00	0.00	0.00
3,300.00	14.00	128.00	3,245.53	-290.70	372.08	420,009.59	631,940.54	32.1543461	-104.0405633	291.41	0.00	0.00	0.00
3,400.00	14.00	128.00	3,342.56	-305.59	391.14	419,994.70	631,959.60	32.1543050	-104.0405018	306.34	0.00	0.00	0.00
3,500.00	14.00	128.00	3,439.59	-320.49	410.20	419,979.80	631,978.66	32.1542639	-104.0404403	321.27	0.00	0.00	0.00
3,600.00	14.00	128.00	3,536.62	-335.38	429.27	419,964.91	631,997.73	32.1542229	-104.0403788	336.20	0.00	0.00	0.00
3,684.91	14.00	128.00	3,619.00	-348.03	445.45	419,952.26	632,013.91	32.1541880	-104.0403267	348.88	0.00	0.00	0.00
Cherry Canyon													
3,700.00	14.00	128.00	3,633.65	-350.27	448.33	419,950.02	632,016.79	32.1541818	-104.0403174	351.13	0.00	0.00	0.00
3,800.00	14.00	128.00	3,730.68	-365.17	467.39	419,935.12	632,035.85	32.1541407	-104.0402559	366.07	0.00	0.00	0.00
3,900.00	14.00	128.00	3,827.71	-380.06	486.46	419,920.23	632,054.92	32.1540996	-104.0401944	381.00	0.00	0.00	0.00
4,000.00	14.00	128.00	3,924.74	-394.96	505.52	419,905.33	632,073.98	32.1540585	-104.0401330	395.93	0.00	0.00	0.00
4,100.00	14.00	128.00	4,021.77	-409.85	524.59	419,890.44	632,093.05	32.1540174	-104.0400715	410.86	0.00	0.00	0.00
4,200.00	14.00	128.00	4,118.79	-424.75	543.65	419,875.54	632,112.11	32.1539764	-104.0400100	425.79	0.00	0.00	0.00
4,300.00	14.00	128.00	4,215.82	-439.64	562.71	419,860.65	632,131.17	32.1539353	-104.0399486	440.72	0.00	0.00	0.00
4,400.00	14.00	128.00	4,312.85	-454.53	581.78	419,845.76	632,150.24	32.1538942	-104.0398871	455.65	0.00	0.00	0.00
4,500.00	14.00	128.00	4,409.88	-469.43	600.84	419,830.86	632,169.30	32.1538531	-104.0398256	470.58	0.00	0.00	0.00
4,600.00	14.00	128.00	4,506.91	-484.32	619.90	419,815.97	632,188.36	32.1538120	-104.0397642	485.51	0.00	0.00	0.00
4,700.00	14.00	128.00	4,603.94	-499.22	638.97	419,801.07	632,207.43	32.1537709	-104.0397027	500.44	0.00	0.00	0.00
4,800.00	14.00	128.00	4,700.97	-514.11	658.03	419,786.18	632,226.49	32.1537298	-104.0396412	515.37	0.00	0.00	0.00
4,900.00	14.00	128.00	4,798.00	-529.01	677.10	419,771.29	632,245.56	32.1536888	-104.0395797	530.30	0.00	0.00	0.00
4,919.58	14.00	128.00	4,817.00	-531.92	680.83	419,768.37	632,249.29	32.1536807	-104.0395677	533.23	0.00	0.00	0.00
Brushy Canyon													
5,000.00	14.00	128.00	4,895.03	-543.90	696.16	419,756.39	632,264.62	32.1536477	-104.0395183	545.23	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.00	14.00	128.00	4,992.06	-558.79	715.22	419,741.50	632,283.68	32.1536066	-104.0394568	560.17	0.00	0.00	0.00
5,200.00	14.00	128.00	5,089.09	-573.69	734.29	419,726.60	632,302.75	32.1535655	-104.0393953	575.10	0.00	0.00	0.00
5,300.00	14.00	128.00	5,186.12	-588.58	753.35	419,711.71	632,321.81	32.1535244	-104.0393339	590.03	0.00	0.00	0.00
5,400.00	14.00	128.00	5,283.15	-603.48	772.41	419,696.81	632,340.87	32.1534833	-104.0392724	604.96	0.00	0.00	0.00
5,500.00	14.00	128.00	5,380.18	-618.37	791.48	419,681.92	632,359.94	32.1534422	-104.0392109	619.89	0.00	0.00	0.00
5,600.00	14.00	128.00	5,477.21	-633.26	810.54	419,667.03	632,379.00	32.1534012	-104.0391495	634.82	0.00	0.00	0.00
5,700.00	14.00	128.00	5,574.24	-648.16	829.61	419,652.13	632,398.07	32.1533601	-104.0390880	649.75	0.00	0.00	0.00
5,800.00	14.00	128.00	5,671.27	-663.05	848.67	419,637.24	632,417.13	32.1533190	-104.0390265	664.68	0.00	0.00	0.00
5,897.63	14.00	128.00	5,766.00	-677.59	867.28	419,622.70	632,435.74	32.1532789	-104.0389665	679.26	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	14.00	128.00	5,768.30	-677.95	867.73	419,622.34	632,436.19	32.1532779	-104.0389651	679.61	0.00	0.00	0.00
6,000.00	14.00	128.00	5,865.33	-692.84	886.80	419,607.45	632,455.26	32.1532368	-104.0389036	694.54	0.00	0.00	0.00
6,100.00	14.00	128.00	5,962.36	-707.74	905.86	419,592.55	632,474.32	32.1531957	-104.0388421	709.47	0.00	0.00	0.00
6,200.00	14.00	128.00	6,059.39	-722.63	924.92	419,577.66	632,493.38	32.1531546	-104.0387807	724.40	0.00	0.00	0.00
6,300.00	14.00	128.00	6,156.42	-737.52	943.99	419,562.77	632,512.45	32.1531135	-104.0387192	739.33	0.00	0.00	0.00
6,400.00	14.00	128.00	6,253.45	-752.42	963.05	419,547.87	632,531.51	32.1530725	-104.0386577	754.27	0.00	0.00	0.00
6,500.00	14.00	128.00	6,350.47	-767.31	982.11	419,532.98	632,550.57	32.1530314	-104.0385962	769.20	0.00	0.00	0.00
6,562.38	14.00	128.00	6,411.00	-776.60	994.01	419,523.69	632,562.47	32.1530057	-104.0385579	778.51	0.00	0.00	0.00
Bone Spring Lime													
6,600.00	14.00	128.00	6,447.50	-782.21	1,001.18	419,518.08	632,569.64	32.1529903	-104.0385348	784.13	0.00	0.00	0.00
6,700.00	14.00	128.00	6,544.53	-797.10	1,020.24	419,503.19	632,588.70	32.1529492	-104.0384733	799.06	0.00	0.00	0.00
6,800.00	14.00	128.00	6,641.56	-811.99	1,039.31	419,488.30	632,607.77	32.1529081	-104.0384118	813.99	0.00	0.00	0.00
6,900.00	14.00	128.00	6,738.59	-826.89	1,058.37	419,473.40	632,626.83	32.1528670	-104.0383504	828.92	0.00	0.00	0.00
7,000.00	14.00	128.00	6,835.62	-841.78	1,077.43	419,458.51	632,645.89	32.1528259	-104.0382889	843.85	0.00	0.00	0.00
7,100.00	14.00	128.00	6,932.65	-856.68	1,096.50	419,443.61	632,664.96	32.1527849	-104.0382274	858.78	0.00	0.00	0.00
7,200.00	14.00	128.00	7,029.68	-871.57	1,115.56	419,428.72	632,684.02	32.1527438	-104.0381660	873.71	0.00	0.00	0.00
7,309.09	14.00	128.00	7,135.53	-887.82	1,136.36	419,412.47	632,704.82	32.1526990	-104.0380989	890.00	0.00	0.00	0.00
7,350.00	18.09	128.00	7,174.84	-894.78	1,145.27	419,405.51	632,713.73	32.1526798	-104.0380702	896.98	10.00	10.00	0.00
7,400.00	23.09	128.00	7,221.63	-905.60	1,159.12	419,394.69	632,727.58	32.1526499	-104.0380255	907.83	10.00	10.00	0.00
7,450.00	28.09	128.00	7,266.71	-918.89	1,176.13	419,381.40	632,744.59	32.1526132	-104.0379707	921.15	10.00	10.00	0.00
7,500.00	33.09	128.00	7,309.74	-934.56	1,196.18	419,365.73	632,764.64	32.1525700	-104.0379060	936.85	10.00	10.00	0.00
7,550.00	38.09	128.00	7,350.39	-952.47	1,219.10	419,347.82	632,787.56	32.1525206	-104.0378321	954.80	10.00	10.00	0.00
7,563.62	39.45	128.00	7,361.00	-957.71	1,225.82	419,342.58	632,794.28	32.1525061	-104.0378105	960.07	10.00	10.00	0.00
1st Bone Spring Sand													
7,600.00	43.09	128.00	7,388.34	-972.49	1,244.73	419,327.80	632,813.19	32.1524654	-104.0377495	974.88	10.00	10.00	0.00
7,650.00	48.09	128.00	7,423.32	-994.47	1,272.86	419,305.82	632,841.32	32.1524047	-104.0376588	996.91	10.00	10.00	0.00
7,700.00	53.09	128.00	7,455.05	-1,018.25	1,303.30	419,282.04	632,871.76	32.1523392	-104.0375606	1,020.75	10.00	10.00	0.00
7,750.00	58.09	128.00	7,483.30	-1,043.64	1,335.79	419,256.65	632,904.25	32.1522691	-104.0374559	1,046.20	10.00	10.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,800.00	63.09	128.00	7,507.84	-1,070.44	1,370.11	419,229.85	632,938.57	32.1521952	-104.0373452	1,073.07	10.00	10.00	0.00
7,850.00	68.09	128.00	7,528.50	-1,098.47	1,405.97	419,201.82	632,974.43	32.1521179	-104.0372296	1,101.16	10.00	10.00	0.00
7,900.00	73.09	128.00	7,545.11	-1,127.49	1,443.12	419,172.80	633,011.58	32.1520378	-104.0371098	1,130.26	10.00	10.00	0.00
7,919.09	75.00	128.00	7,550.36	-1,138.79	1,457.59	419,161.50	633,026.05	32.1520066	-104.0370632	1,141.59	10.00	10.00	0.00
8,000.00	79.05	128.00	7,568.52	-1,187.32	1,519.70	419,112.97	633,088.16	32.1518728	-104.0368629	1,190.24	5.00	5.00	0.00
8,100.00	84.05	128.00	7,583.22	-1,248.20	1,597.62	419,052.09	633,166.08	32.1517048	-104.0366117	1,251.26	5.00	5.00	0.00
8,188.69	88.48	128.00	7,589.00	-1,302.67	1,667.35	418,997.62	633,235.81	32.1515545	-104.0363869	1,305.87	5.00	5.00	0.00
1st Bone Spring Sand LZ													
8,200.00	89.05	128.00	7,589.24	-1,309.63	1,676.26	418,990.66	633,244.72	32.1515353	-104.0363581	1,312.85	5.00	5.00	0.00
8,219.09	90.00	128.00	7,589.40	-1,321.39	1,691.30	418,978.90	633,259.76	32.1515029	-104.0363096	1,324.63	5.00	5.00	0.00
8,300.00	90.00	128.00	7,589.40	-1,371.20	1,755.06	418,929.09	633,323.52	32.1513655	-104.0361041	1,374.57	0.00	0.00	0.00
8,400.00	90.00	128.00	7,589.40	-1,432.77	1,833.86	418,867.52	633,402.32	32.1511957	-104.0358500	1,436.28	0.00	0.00	0.00
8,444.09	90.00	128.00	7,589.40	-1,459.91	1,868.60	418,840.38	633,437.06	32.1511208	-104.0357380	1,463.50	0.00	0.00	0.00
8,500.00	90.00	129.68	7,589.40	-1,494.97	1,912.15	418,805.32	633,480.61	32.1510241	-104.0355976	1,498.64	3.00	0.00	3.00
8,600.00	90.00	132.68	7,589.40	-1,560.80	1,987.41	418,739.49	633,555.87	32.1508425	-104.0353550	1,564.62	3.00	0.00	3.00
8,700.00	90.00	135.68	7,589.40	-1,630.48	2,059.12	418,669.81	633,627.58	32.1506505	-104.0351239	1,634.43	3.00	0.00	3.00
8,800.00	90.00	138.68	7,589.40	-1,703.82	2,127.08	418,596.47	633,695.54	32.1504483	-104.0349049	1,707.90	3.00	0.00	3.00
8,900.00	90.00	141.68	7,589.40	-1,780.62	2,191.12	418,519.67	633,759.58	32.1502367	-104.0346987	1,784.82	3.00	0.00	3.00
9,000.00	90.00	144.68	7,589.40	-1,860.66	2,251.04	418,439.63	633,819.50	32.1500163	-104.0345058	1,864.97	3.00	0.00	3.00
9,100.00	90.00	147.68	7,589.40	-1,943.72	2,306.70	418,356.57	633,875.16	32.1497875	-104.0343267	1,948.15	3.00	0.00	3.00
9,200.00	90.00	150.68	7,589.40	-2,029.59	2,357.93	418,270.70	633,926.39	32.1495511	-104.0341619	2,034.11	3.00	0.00	3.00
9,300.00	90.00	153.68	7,589.39	-2,118.02	2,404.60	418,182.27	633,973.06	32.1493076	-104.0340119	2,122.63	3.00	0.00	3.00
9,400.00	90.00	156.68	7,589.39	-2,208.77	2,446.58	418,091.52	634,015.04	32.1490578	-104.0338771	2,213.46	3.00	0.00	3.00
9,500.00	90.00	159.68	7,589.39	-2,301.59	2,483.75	417,998.70	634,052.21	32.1488024	-104.0337579	2,306.36	3.00	0.00	3.00
9,600.00	90.00	162.68	7,589.39	-2,396.23	2,516.01	417,904.06	634,084.47	32.1485420	-104.0336545	2,401.06	3.00	0.00	3.00
9,700.00	90.00	165.68	7,589.38	-2,492.43	2,543.27	417,807.86	634,111.73	32.1482773	-104.0335673	2,497.31	3.00	0.00	3.00
9,800.00	90.00	168.68	7,589.38	-2,589.93	2,565.46	417,710.36	634,133.92	32.1480092	-104.0334964	2,594.85	3.00	0.00	3.00
9,900.00	90.00	171.68	7,589.38	-2,688.45	2,582.52	417,611.84	634,150.98	32.1477382	-104.0334422	2,693.40	3.00	0.00	3.00
10,000.00	90.00	174.68	7,589.37	-2,787.73	2,594.40	417,512.56	634,162.86	32.1474652	-104.0334047	2,792.71	3.00	0.00	3.00
10,100.00	90.00	177.68	7,589.37	-2,887.50	2,601.07	417,412.79	634,169.53	32.1471909	-104.0333841	2,892.49	3.00	0.00	3.00
10,173.66	90.00	179.89	7,589.36	-2,961.13	2,602.63	417,339.16	634,171.09	32.1469885	-104.0333797	2,966.12	3.00	0.00	3.00
10,200.00	90.00	179.89	7,589.36	-2,987.48	2,602.68	417,312.81	634,171.14	32.1469161	-104.0333797	2,992.47	0.00	0.00	0.00
10,300.00	90.00	179.89	7,589.36	-3,087.48	2,602.88	417,212.81	634,171.34	32.1466412	-104.0333800	3,092.47	0.00	0.00	0.00
10,400.00	90.00	179.89	7,589.36	-3,187.48	2,603.08	417,112.81	634,171.54	32.1463663	-104.0333803	3,192.47	0.00	0.00	0.00
10,500.00	90.00	179.89	7,589.35	-3,287.48	2,603.27	417,012.81	634,171.73	32.1460914	-104.0333805	3,292.47	0.00	0.00	0.00
10,600.00	90.00	179.89	7,589.35	-3,387.48	2,603.47	416,912.82	634,171.93	32.1458165	-104.0333808	3,392.47	0.00	0.00	0.00
10,700.00	90.00	179.89	7,589.34	-3,487.47	2,603.67	416,812.82	634,172.13	32.1455416	-104.0333811	3,492.47	0.00	0.00	0.00
10,800.00	90.00	179.89	7,589.34	-3,587.47	2,603.87	416,712.82	634,172.33	32.1452667	-104.0333813	3,592.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,900.00	90.00	179.89	7,589.33	-3,687.47	2,604.06	416,612.82	634,172.52	32.1449918	-104.0333816	3,692.47	0.00	0.00	0.00
11,000.00	90.00	179.89	7,589.33	-3,787.47	2,604.26	416,512.82	634,172.72	32.1447169	-104.0333818	3,792.47	0.00	0.00	0.00
11,100.00	90.00	179.89	7,589.33	-3,887.47	2,604.46	416,412.82	634,172.92	32.1444420	-104.0333821	3,892.47	0.00	0.00	0.00
11,200.00	90.00	179.89	7,589.32	-3,987.47	2,604.66	416,312.82	634,173.12	32.1441671	-104.0333824	3,992.47	0.00	0.00	0.00
11,300.00	90.00	179.89	7,589.32	-4,087.47	2,604.85	416,212.82	634,173.31	32.1438923	-104.0333826	4,092.47	0.00	0.00	0.00
11,400.00	90.00	179.89	7,589.31	-4,187.47	2,605.05	416,112.82	634,173.51	32.1436174	-104.0333829	4,192.47	0.00	0.00	0.00
11,500.00	90.00	179.89	7,589.31	-4,287.47	2,605.25	416,012.82	634,173.71	32.1433425	-104.0333832	4,292.47	0.00	0.00	0.00
11,600.00	90.00	179.89	7,589.31	-4,387.47	2,605.45	415,912.82	634,173.91	32.1430676	-104.0333834	4,392.47	0.00	0.00	0.00
11,700.00	90.00	179.89	7,589.30	-4,487.47	2,605.64	415,812.82	634,174.10	32.1427927	-104.0333837	4,492.47	0.00	0.00	0.00
11,800.00	90.00	179.89	7,589.30	-4,587.47	2,605.84	415,712.82	634,174.30	32.1425178	-104.0333839	4,592.47	0.00	0.00	0.00
11,900.00	90.00	179.89	7,589.29	-4,687.47	2,606.04	415,612.82	634,174.50	32.1422429	-104.0333842	4,692.47	0.00	0.00	0.00
12,000.00	90.00	179.89	7,589.29	-4,787.47	2,606.24	415,512.82	634,174.70	32.1419680	-104.0333845	4,792.47	0.00	0.00	0.00
12,100.00	90.00	179.89	7,589.28	-4,887.47	2,606.43	415,412.82	634,174.89	32.1416931	-104.0333847	4,892.47	0.00	0.00	0.00
12,200.00	90.00	179.89	7,589.28	-4,987.47	2,606.63	415,312.82	634,175.09	32.1414182	-104.0333850	4,992.47	0.00	0.00	0.00
12,300.00	90.00	179.89	7,589.28	-5,087.47	2,606.83	415,212.82	634,175.29	32.1411433	-104.0333853	5,092.47	0.00	0.00	0.00
12,400.00	90.00	179.89	7,589.27	-5,187.47	2,607.03	415,112.82	634,175.49	32.1408685	-104.0333855	5,192.47	0.00	0.00	0.00
12,500.00	90.00	179.89	7,589.27	-5,287.47	2,607.22	415,012.82	634,175.68	32.1405936	-104.0333858	5,292.47	0.00	0.00	0.00
12,600.00	90.00	179.89	7,589.26	-5,387.47	2,607.42	414,912.82	634,175.88	32.1403187	-104.0333860	5,392.47	0.00	0.00	0.00
12,700.00	90.00	179.89	7,589.26	-5,487.47	2,607.62	414,812.82	634,176.08	32.1400438	-104.0333863	5,492.47	0.00	0.00	0.00
12,800.00	90.00	179.89	7,589.26	-5,587.47	2,607.81	414,712.82	634,176.27	32.1397689	-104.0333866	5,592.47	0.00	0.00	0.00
12,900.00	90.00	179.89	7,589.25	-5,687.47	2,608.01	414,612.82	634,176.47	32.1394940	-104.0333868	5,692.47	0.00	0.00	0.00
13,000.00	90.00	179.89	7,589.25	-5,787.47	2,608.21	414,512.82	634,176.67	32.1392191	-104.0333871	5,792.47	0.00	0.00	0.00
13,100.00	90.00	179.89	7,589.24	-5,887.47	2,608.41	414,412.82	634,176.87	32.1389442	-104.0333874	5,892.47	0.00	0.00	0.00
13,200.00	90.00	179.89	7,589.24	-5,987.47	2,608.60	414,312.82	634,177.06	32.1386693	-104.0333876	5,992.47	0.00	0.00	0.00
13,300.00	90.00	179.89	7,589.23	-6,087.47	2,608.80	414,212.82	634,177.26	32.1383944	-104.0333879	6,092.47	0.00	0.00	0.00
13,400.00	90.00	179.89	7,589.23	-6,187.47	2,609.00	414,112.82	634,177.46	32.1381195	-104.0333881	6,192.47	0.00	0.00	0.00
13,500.00	90.00	179.89	7,589.23	-6,287.47	2,609.20	414,012.82	634,177.66	32.1378446	-104.0333884	6,292.47	0.00	0.00	0.00
13,600.00	90.00	179.89	7,589.22	-6,387.47	2,609.39	413,912.82	634,177.85	32.1375698	-104.0333887	6,392.47	0.00	0.00	0.00
13,700.00	90.00	179.89	7,589.22	-6,487.47	2,609.59	413,812.82	634,178.05	32.1372949	-104.0333889	6,492.47	0.00	0.00	0.00
13,800.00	90.00	179.89	7,589.21	-6,587.47	2,609.79	413,712.82	634,178.25	32.1370200	-104.0333892	6,592.47	0.00	0.00	0.00
13,900.00	90.00	179.89	7,589.21	-6,687.47	2,609.99	413,612.82	634,178.45	32.1367451	-104.0333894	6,692.47	0.00	0.00	0.00
14,000.00	90.00	179.89	7,589.21	-6,787.47	2,610.18	413,512.82	634,178.64	32.1364702	-104.0333897	6,792.47	0.00	0.00	0.00
14,100.00	90.00	179.89	7,589.20	-6,887.47	2,610.38	413,412.82	634,178.84	32.1361953	-104.0333900	6,892.47	0.00	0.00	0.00
14,200.00	90.00	179.89	7,589.20	-6,987.47	2,610.58	413,312.82	634,179.04	32.1359204	-104.0333902	6,992.47	0.00	0.00	0.00
14,300.00	90.00	179.89	7,589.19	-7,087.47	2,610.78	413,212.82	634,179.24	32.1356455	-104.0333905	7,092.47	0.00	0.00	0.00
14,400.00	90.00	179.89	7,589.19	-7,187.47	2,610.97	413,112.82	634,179.43	32.1353706	-104.0333908	7,192.47	0.00	0.00	0.00
14,500.00	90.00	179.89	7,589.18	-7,287.47	2,611.17	413,012.82	634,179.63	32.1350957	-104.0333910	7,292.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,600.00	90.00	179.89	7,589.18	-7,387.47	2,611.37	412,912.82	634,179.83	32.1348208	-104.0333913	7,392.47	0.00	0.00	0.00
14,700.00	90.00	179.89	7,589.18	-7,487.47	2,611.57	412,812.82	634,180.03	32.1345459	-104.0333915	7,492.47	0.00	0.00	0.00
14,800.00	90.00	179.89	7,589.17	-7,587.47	2,611.76	412,712.82	634,180.22	32.1342711	-104.0333918	7,592.47	0.00	0.00	0.00
14,900.00	90.00	179.89	7,589.17	-7,687.47	2,611.96	412,612.82	634,180.42	32.1339962	-104.0333921	7,692.47	0.00	0.00	0.00
15,000.00	90.00	179.89	7,589.16	-7,787.47	2,612.16	412,512.82	634,180.62	32.1337213	-104.0333923	7,792.47	0.00	0.00	0.00
15,100.00	90.00	179.89	7,589.16	-7,887.47	2,612.36	412,412.82	634,180.81	32.1334464	-104.0333926	7,892.47	0.00	0.00	0.00
15,200.00	90.00	179.89	7,589.16	-7,987.47	2,612.55	412,312.82	634,181.01	32.1331715	-104.0333929	7,992.47	0.00	0.00	0.00
15,300.00	90.00	179.89	7,589.15	-8,087.47	2,612.75	412,212.82	634,181.21	32.1328966	-104.0333931	8,092.47	0.00	0.00	0.00
15,400.00	90.00	179.89	7,589.15	-8,187.47	2,612.95	412,112.82	634,181.41	32.1326217	-104.0333934	8,192.47	0.00	0.00	0.00
15,500.00	90.00	179.89	7,589.14	-8,287.47	2,613.14	412,012.82	634,181.60	32.1323468	-104.0333936	8,292.47	0.00	0.00	0.00
15,600.00	90.00	179.89	7,589.14	-8,387.47	2,613.34	411,912.82	634,181.80	32.1320719	-104.0333939	8,392.47	0.00	0.00	0.00
15,700.00	90.00	179.89	7,589.13	-8,487.47	2,613.54	411,812.83	634,182.00	32.1317970	-104.0333942	8,492.47	0.00	0.00	0.00
15,800.00	90.00	179.89	7,589.13	-8,587.46	2,613.74	411,712.83	634,182.20	32.1315221	-104.0333944	8,592.47	0.00	0.00	0.00
15,900.00	90.00	179.89	7,589.13	-8,687.46	2,613.93	411,612.83	634,182.39	32.1312472	-104.0333947	8,692.47	0.00	0.00	0.00
16,000.00	90.00	179.89	7,589.12	-8,787.46	2,614.13	411,512.83	634,182.59	32.1309724	-104.0333949	8,792.47	0.00	0.00	0.00
16,100.00	90.00	179.89	7,589.12	-8,887.46	2,614.33	411,412.83	634,182.79	32.1306975	-104.0333952	8,892.47	0.00	0.00	0.00
16,200.00	90.00	179.89	7,589.11	-8,987.46	2,614.53	411,312.83	634,182.99	32.1304226	-104.0333955	8,992.47	0.00	0.00	0.00
16,300.00	90.00	179.89	7,589.11	-9,087.46	2,614.72	411,212.83	634,183.18	32.1301477	-104.0333957	9,092.47	0.00	0.00	0.00
16,400.00	90.00	179.89	7,589.11	-9,187.46	2,614.92	411,112.83	634,183.38	32.1298728	-104.0333960	9,192.47	0.00	0.00	0.00
16,500.00	90.00	179.89	7,589.10	-9,287.46	2,615.12	411,012.83	634,183.58	32.1295979	-104.0333963	9,292.47	0.00	0.00	0.00
16,600.00	90.00	179.89	7,589.10	-9,387.46	2,615.32	410,912.83	634,183.78	32.1293230	-104.0333965	9,392.47	0.00	0.00	0.00
16,700.00	90.00	179.89	7,589.09	-9,487.46	2,615.51	410,812.83	634,183.97	32.1290481	-104.0333968	9,492.47	0.00	0.00	0.00
16,800.00	90.00	179.89	7,589.09	-9,587.46	2,615.71	410,712.83	634,184.17	32.1287732	-104.0333970	9,592.47	0.00	0.00	0.00
16,900.00	90.00	179.89	7,589.08	-9,687.46	2,615.91	410,612.83	634,184.37	32.1284983	-104.0333973	9,692.47	0.00	0.00	0.00
17,000.00	90.00	179.89	7,589.08	-9,787.46	2,616.11	410,512.83	634,184.57	32.1282234	-104.0333976	9,792.47	0.00	0.00	0.00
17,100.00	90.00	179.89	7,589.08	-9,887.46	2,616.30	410,412.83	634,184.76	32.1279485	-104.0333978	9,892.47	0.00	0.00	0.00
17,200.00	90.00	179.89	7,589.07	-9,987.46	2,616.50	410,312.83	634,184.96	32.1276736	-104.0333981	9,992.47	0.00	0.00	0.00
17,300.00	90.00	179.89	7,589.07	-10,087.46	2,616.70	410,212.83	634,185.16	32.1273988	-104.0333983	10,092.47	0.00	0.00	0.00
17,400.00	90.00	179.89	7,589.06	-10,187.46	2,616.90	410,112.83	634,185.36	32.1271239	-104.0333986	10,192.47	0.00	0.00	0.00
17,500.00	90.00	179.89	7,589.06	-10,287.46	2,617.09	410,012.83	634,185.55	32.1268490	-104.0333989	10,292.47	0.00	0.00	0.00
17,600.00	90.00	179.89	7,589.06	-10,387.46	2,617.29	409,912.83	634,185.75	32.1265741	-104.0333991	10,392.47	0.00	0.00	0.00
17,700.00	90.00	179.89	7,589.05	-10,487.46	2,617.49	409,812.83	634,185.95	32.1262992	-104.0333994	10,492.47	0.00	0.00	0.00
17,800.00	90.00	179.89	7,589.05	-10,587.46	2,617.68	409,712.83	634,186.14	32.1260243	-104.0333997	10,592.47	0.00	0.00	0.00
17,900.00	90.00	179.89	7,589.04	-10,687.46	2,617.88	409,612.83	634,186.34	32.1257494	-104.0333999	10,692.47	0.00	0.00	0.00
18,000.00	90.00	179.89	7,589.04	-10,787.46	2,618.08	409,512.83	634,186.54	32.1254745	-104.0334002	10,792.47	0.00	0.00	0.00
18,100.00	90.00	179.89	7,589.03	-10,887.46	2,618.28	409,412.83	634,186.74	32.1251996	-104.0334004	10,892.47	0.00	0.00	0.00
18,200.00	90.00	179.89	7,589.03	-10,987.46	2,618.47	409,312.83	634,186.93	32.1249247	-104.0334007	10,992.47	0.00	0.00	0.00
18,300.00	90.00	179.89	7,589.03	-11,087.46	2,618.67	409,212.83	634,187.13	32.1246498	-104.0334010	11,092.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,400.00	90.00	179.89	7,589.02	-11,187.46	2,618.87	409,112.83	634,187.33	32.1243749	-104.0334012	11,192.47	0.00	0.00	0.00
18,500.00	90.00	179.89	7,589.02	-11,287.46	2,619.07	409,012.83	634,187.53	32.1241000	-104.0334015	11,292.47	0.00	0.00	0.00
18,600.00	90.00	179.89	7,589.01	-11,387.46	2,619.26	408,912.83	634,187.72	32.1238252	-104.0334017	11,392.47	0.00	0.00	0.00
18,700.00	90.00	179.89	7,589.01	-11,487.46	2,619.46	408,812.83	634,187.92	32.1235503	-104.0334020	11,492.47	0.00	0.00	0.00
18,800.00	90.00	179.89	7,589.01	-11,587.46	2,619.66	408,712.83	634,188.12	32.1232754	-104.0334023	11,592.47	0.00	0.00	0.00
18,900.00	90.00	179.89	7,589.00	-11,687.46	2,619.86	408,612.83	634,188.32	32.1230005	-104.0334025	11,692.47	0.00	0.00	0.00
18,917.19	90.00	179.89	7,589.00	-11,704.65	2,619.89	408,595.64	634,188.35	32.1229532	-104.0334026	11,709.66	0.00	0.00	0.00

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Riverbend 12-13 F - plan misses target center by 2902.38usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-1,288.95	2,600.47	419,011.34	634,168.93	32.1515852	-104.0333716
LTP (Riverbend 12-13 F - plan misses target center by 7589.00usft at 18917.19usft MD (7589.00 TVD, -11704.65 N, 2619.89 E) - Point	0.00	0.00	0.00	-11,704.65	2,619.89	408,595.64	634,188.35	32.1229532	-104.0334026

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
407.00	407.00	Rustler			
1,966.87	1,952.00	Top Salt			
2,667.69	2,632.00	Base Salt/Lamar			
2,847.02	2,806.00	Top Delaware Sands/Bell Canyon			
3,684.91	3,619.00	Cherry Canyon			
4,919.58	4,817.00	Brushy Canyon			
5,897.63	5,766.00	Lower Brushy Canyon			
6,562.38	6,411.00	Bone Spring Lime			
7,563.62	7,361.00	1st Bone Spring Sand			
8,188.69	7,589.00	1st Bone Spring Sand LZ			

Checked By: _____ Approved By: _____ Date: _____

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 7H

OH
Plan 1



Anticollision Report

Minimum Magnetic Interference Warning level is 50' center to center

24 June, 2025

Total Report Version 1.60

COMPASS 5000.16 Build 97

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Max. Cent. Dist. of 1,000.00usft or Max. SF of 6	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Well	Riverbend 12-13 Federal Com 7H					
Well Position	+N/-S	0.00 usft	Northing:	420,300.29 usft	Latitude:	32.1551480
	+E/-W	0.00 usft	Easting:	631,568.46 usft	Longitude:	-104.0417630
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,934.00 usft
Grid Convergence:		0.16 °				

Survey Tool Program	Date	6/24/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	18,917.19	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Offset Listing									
Site Name	Ground Level KB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty		
Offset Well			Northing	Easting	Latitude	Longitude	Site	Well	
Coterra Energy - Riverbend 12-13 Federal Com									
Riverbend 12-13 Fed Com 19H -	2,934.70	2,957.70	420,359.13	631,629.58	32.1553093	-104.0415650	0.00	0.50	
Riverbend 12-13 Fed Com 1H -	2,934.60	2,957.60	420,358.36	631,669.56	32.1553069	-104.0414358	0.00	0.50	
Riverbend 12-13 Fed Com 20H -	2,935.00	2,958.00	420,359.51	631,609.59	32.1553105	-104.0416296	0.00	0.50	
Riverbend 12-13 Fed Com 29H -	2,937.20	2,960.20	420,547.64	630,584.99	32.1558352	-104.0449388	0.00	0.00	
Riverbend 12-13 Fed Com 2H -	2,934.60	2,957.60	420,358.74	631,649.57	32.1553081	-104.0415004	0.00	0.50	
Riverbend 12-13 Fed Com 30H -	2,937.60	2,960.60	420,548.00	630,564.98	32.1558364	-104.0450035	0.00	0.00	
Riverbend 12-13 Fed Com 31H -	2,937.50	2,960.50	420,608.75	630,526.15	32.1560036	-104.0451284	0.00	0.00	
Coterra Energy - Riverbend 12-13 Federal Com									
Riverbend 12-13 Federal Com 3H -	2,934.00	2,957.00	420,302.20	631,468.50	32.1551540	-104.0420860	0.00	0.00	
Riverbend 12-13 Federal Com 4H -	2,934.00	2,957.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	
Riverbend 12-13 Federal Com 5H -	2,934.00	2,957.00	420,301.82	631,488.49	32.1551528	-104.0420214	0.00	0.00	
Riverbend 12-13 Federal Com 6H -	2,934.00	2,957.00	420,301.06	631,528.48	32.1551504	-104.0418922	0.00	0.00	
Riverbend 12-13 Federal Com 8H -	2,934.00	2,957.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	
Coterra Energy - Riverbend 12-13 Federal Com									
Malaga 13 DM Fed Com 1H -	2,888.00	2,908.00	414,150.32	630,383.57	32.1382511	-104.0456449	0.50	0.50	
Whistle Pig 1 SB Fee 5H -	2,912.00	2,937.00	424,125.66	633,731.20	32.1656472	-104.0347402	0.50	0.00	
Whistle Pig 1 WA Fee 4 -	2,913.00	2,938.00	424,125.66	633,701.20	32.1656475	-104.0348371	0.50	0.00	
Whistle Pig 1 WXY Fee 9H -	2,912.00	2,937.00	424,125.66	633,761.20	32.1656470	-104.0346432	0.50	0.00	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Riverbend 12-13 Fed Com						
Riverbend 12-13 Fed Com 19H - OH - Svy	1,363.36	1,363.81	61.23	51.99	6.63	CC
Riverbend 12-13 Fed Com 19H - OH - Svy	1,400.00	1,400.25	61.37	51.88	6.47	ES
Riverbend 12-13 Fed Com 19H - OH - Svy	1,500.00	1,499.50	63.64	53.46	6.25	SF
Riverbend 12-13 Fed Com 1H - OH - Svy	764.66	765.88	92.09	87.04	18.24	CC
Riverbend 12-13 Fed Com 1H - OH - Svy	800.00	800.61	92.21	86.92	17.43	ES
Riverbend 12-13 Fed Com 1H - OH - Svy	6,700.00	6,712.87	346.09	296.90	7.04	SF
Riverbend 12-13 Fed Com 20H - OH - Svy	1,224.50	1,227.38	70.15	61.95	8.55	CC, ES
Riverbend 12-13 Fed Com 20H - OH - Svy	1,400.00	1,401.55	75.31	65.91	8.01	SF
Riverbend 12-13 Fed Com 29H - OH - Svy	781.09	784.32	1,009.05	1,004.00	200.13	CC
Riverbend 12-13 Fed Com 29H - OH - Svy	1,000.00	998.96	1,009.89	1,003.34	154.00	ES
Riverbend 12-13 Fed Com 29H - OH - Svy	18,800.00	21,947.00	4,268.90	4,037.52	18.45	SF
Riverbend 12-13 Fed Com 2H - OH - Svy	0.00	0.00	99.98			
Riverbend 12-13 Fed Com 2H - OH - Svy	1,400.00	1,402.31	108.34	98.90	11.48	ES
Riverbend 12-13 Fed Com 2H - OH - Svy	7,350.00	7,408.43	532.79	478.88	9.88	SF
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	0.00	0.00	99.98			
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	1,400.00	1,402.31	108.34	98.90	11.48	ES
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	7,350.00	7,408.43	532.79	478.88	9.88	SF
Riverbend 12-13 Fed Com 30H - OH - Svy	0.00	0.00	1,033.61			
Riverbend 12-13 Fed Com 30H - OH - Svy	100.00	95.98	1,033.98	1,033.55	2,402.53	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	1,133.29	1,183.37	1,059.84	1,052.07	136.53	CC, ES
Riverbend 12-13 Fed Com 31H - OH - Svy	18,700.00	21,398.00	3,861.90	3,614.49	15.61	SF
Riverbend 12-13 Federal Com						
Riverbend 12-13 Federal Com 3H - OH - Plan 1	0.00	0.00	99.98			
Riverbend 12-13 Federal Com 3H - OH - Plan 1	1,000.00	1,000.00	99.98	92.97	14.27	CC, ES
Riverbend 12-13 Federal Com 4H - OH - Plan 1	1,000.00	1,000.00	59.99	52.99	8.56	CC, ES
Riverbend 12-13 Federal Com 4H - OH - Plan 1	18,800.00	18,302.57	1,315.67	1,126.36	6.95	SF
Riverbend 12-13 Federal Com 5H - OH - Plan 1	1,000.00	1,000.00	79.98	72.98	11.42	CC, ES
Riverbend 12-13 Federal Com 5H - OH - Plan 1	7,309.09	7,317.00	338.40	283.35	6.15	SF
Riverbend 12-13 Federal Com 6H - OH - Plan 1	1,000.00	1,000.00	39.99	32.98	5.71	CC, ES
Riverbend 12-13 Federal Com 6H - OH - Plan 1	5,200.00	5,219.57	78.40	39.88	2.04	SF
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,000.00	1,000.00	19.99	12.99	2.85	CC, ES
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,100.00	1,099.98	21.42	13.71	2.78	SF
Riverbend 12-13 Offsets						
Malaga 13 DM Fed Com 1H - OH - Svy	13,402.03	7,572.68	3,830.99	3,748.18	46.27	CC, ES
Malaga 13 DM Fed Com 1H - OH - Svy	18,917.19	13,305.00	4,685.76	4,501.29	25.40	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	8,100.00	13,295.00	921.60	856.64	14.19	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	8,291.11	13,295.00	895.81	833.86	14.46	CC, ES
Whistle Pig 1 WA Fee 4 - OH - Svy	8,117.01	14,593.00	2,357.04	2,298.40	40.19	CC, ES
Whistle Pig 1 WA Fee 4 - OH - Svy	9,000.00	14,593.00	2,592.25	2,523.05	37.46	SF
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,620.61	14,503.00	2,379.64	2,315.34	37.01	CC, ES
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,900.00	14,503.00	2,403.81	2,338.69	36.92	SF

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Survey Program: 200-MWD+IFR1+MS											Offset Site Error:	0.00 usft
Reference											Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	
0.00	0.00	0.70	0.70	0.00	0.50	46.09	58.84	61.12	84.84			
100.00	100.00	101.31	101.30	0.28	0.53	46.10	58.58	60.87	84.48	83.68	0.80	105.367

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
200.00	200.00	201.88	201.88	0.63	0.60	46.12	46.12		57.80	60.12	83.41	82.18	1.23	67.752	
300.00	300.00	301.87	301.85	0.99	0.85	46.08	46.08		56.88	59.06	82.00	80.16	1.84	44.579	
400.00	400.00	401.55	401.53	1.35	1.15	45.93	45.93		56.19	58.03	80.78	78.28	2.51	32.244	
500.00	500.00	501.35	501.32	1.71	1.49	45.84	45.84		55.71	57.37	79.97	76.78	3.19	25.038	
600.00	600.00	601.65	601.62	2.07	1.83	46.01	46.01		54.88	56.85	79.03	75.13	3.89	20.294	
700.00	700.00	701.97	701.92	2.43	2.17	46.70	46.70		53.23	56.47	77.61	73.02	4.60	16.877	
800.00	800.00	801.96	801.90	2.79	2.52	47.46	47.46		51.38	55.99	76.00	70.69	5.31	14.323	
900.00	900.00	902.17	902.09	3.14	2.88	48.12	48.12		49.65	55.37	74.38	68.36	6.02	12.362	
1,000.00	1,000.00	1,002.82	1,002.70	3.50	3.23	48.93	48.93		47.35	54.34	72.10	65.37	6.73	10.713	
1,100.00	1,099.98	1,103.24	1,103.05	3.85	3.59	-78.76	-78.76		43.61	53.36	68.59	61.16	7.43	9.231	
1,200.00	1,199.84	1,202.58	1,202.30	4.18	3.94	-80.98	-80.98		39.47	52.68	64.38	56.26	8.12	7.931	
1,300.00	1,299.45	1,300.99	1,300.68	4.52	4.29	-87.30	-87.30		36.99	52.58	61.60	52.80	8.80	6.998	
1,363.36	1,362.38	1,363.81	1,363.49	4.74	4.51	-92.99	-92.99		35.97	53.28	61.23	51.99	9.24	6.628	CC
1,400.00	1,398.70	1,400.25	1,399.92	4.86	4.63	-96.73	-96.73		35.29	53.83	61.37	51.88	9.49	6.467	ES
1,500.00	1,497.47	1,499.50	1,499.13	5.21	4.98	-108.63	-108.63		33.28	55.27	63.64	53.46	10.18	6.250	SF
1,600.00	1,595.62	1,598.24	1,597.85	5.56	5.33	-122.08	-122.08		31.20	56.13	70.08	59.20	10.88	6.440	
1,700.00	1,693.06	1,695.86	1,695.44	5.92	5.68	-134.52	-134.52		29.12	56.80	82.17	70.59	11.58	7.094	
1,800.00	1,790.08	1,792.49	1,792.05	6.28	6.01	-143.80	-143.80		27.76	57.94	99.14	86.86	12.28	8.076	
1,900.00	1,887.11	1,889.27	1,888.82	6.65	6.35	-149.89	-149.89		27.32	59.65	118.59	105.63	12.96	9.150	
2,000.00	1,984.14	1,987.16	1,986.68	7.02	6.68	-154.01	-154.01		27.28	61.97	139.08	125.43	13.65	10.189	
2,100.00	2,081.17	2,085.72	2,085.19	7.39	7.02	-156.92	-156.92		26.77	65.06	159.31	144.96	14.35	11.101	
2,200.00	2,178.20	2,179.74	2,179.20	7.76	7.34	-159.48	-159.48		26.44	66.44	180.84	165.82	15.03	12.033	
2,300.00	2,275.23	2,276.44	2,275.88	8.14	7.68	-162.29	-162.29		25.75	65.06	203.97	188.24	15.73	12.969	
2,400.00	2,372.26	2,380.02	2,379.43	8.52	8.05	-164.66	-164.66		23.55	64.76	225.70	209.22	16.47	13.701	
2,500.00	2,469.29	2,478.80	2,478.15	8.90	8.40	-166.18	-166.18		20.71	66.82	245.68	228.49	17.19	14.288	
2,600.00	2,566.32	2,571.97	2,571.30	9.28	8.73	-167.26	-167.26		19.39	68.52	267.07	249.18	17.88	14.933	
2,700.00	2,663.35	2,664.10	2,663.41	9.67	9.05	-168.29	-168.29		18.65	68.90	289.89	271.33	18.56	15.619	
2,800.00	2,760.38	2,757.64	2,756.92	10.05	9.37	-169.55	-169.55		18.19	66.55	314.89	295.65	19.24	16.365	
2,900.00	2,857.41	2,870.46	2,869.63	10.44	9.77	-171.19	-171.19		14.31	63.89	337.87	317.81	20.06	16.842	
3,000.00	2,954.44	2,989.47	2,988.16	10.83	10.20	-173.10	-173.10		3.78	63.80	355.71	334.83	20.88	17.038	
3,100.00	3,051.47	3,113.68	3,110.98	11.22	10.65	-175.12	-175.12		-13.93	68.41	367.37	345.73	21.65	16.972	
3,200.00	3,148.50	3,228.01	3,223.10	11.60	11.06	-176.86	-176.86		-34.44	77.33	373.79	351.42	22.37	16.707	
3,300.00	3,245.53	3,340.97	3,333.14	11.99	11.47	-178.12	-178.12		-55.68	91.34	376.30	353.22	23.08	16.303	
3,400.00	3,342.56	3,445.65	3,434.67	12.38	11.84	-179.07	-179.07		-75.84	106.98	376.68	352.87	23.81	15.820	
3,455.21	3,396.12	3,500.61	3,487.88	12.60	12.04	-179.57	-179.57		-86.61	115.50	376.57	352.34	24.23	15.543	
3,500.00	3,439.59	3,539.86	3,525.99	12.77	12.19	-179.88	-179.88		-93.89	121.47	376.91	352.32	24.59	15.330	
3,600.00	3,536.62	3,632.52	3,616.42	13.17	12.52	179.58	179.58		-108.92	134.91	379.72	354.36	25.36	14.972	
3,700.00	3,633.65	3,731.87	3,713.57	13.56	12.88	179.14	179.14		-123.94	149.26	383.34	357.22	26.12	14.677	
3,800.00	3,730.68	3,827.57	3,807.20	13.95	13.23	178.68	178.68		-138.48	162.73	387.25	360.36	26.88	14.405	
3,900.00	3,827.71	3,924.55	3,902.33	14.34	13.59	178.15	178.15		-152.78	174.99	392.60	364.95	27.64	14.202	
4,000.00	3,924.74	4,024.75	4,000.62	14.74	13.96	177.59	177.59		-167.70	187.51	398.03	369.63	28.40	14.013	
4,100.00	4,021.77	4,123.94	4,097.90	15.13	14.32	177.02	177.02		-182.64	199.79	403.49	374.33	29.17	13.834	
4,200.00	4,118.79	4,223.79	4,195.85	15.52	14.70	176.43	176.43		-197.84	211.88	409.13	379.20	29.93	13.670	
4,300.00	4,215.82	4,323.98	4,294.09	15.92	15.07	175.82	175.82		-213.30	223.98	414.71	384.02	30.69	13.511	
4,400.00	4,312.85	4,423.98	4,392.13	16.31	15.44	175.22	175.22		-228.84	236.09	420.25	388.79	31.46	13.358	
4,500.00	4,409.88	4,527.44	4,493.47	16.70	15.83	174.58	174.58		-245.34	248.87	425.41	393.18	32.23	13.200	
4,600.00	4,506.91	4,630.88	4,594.57	17.10	16.21	173.94	173.94		-262.51	262.42	429.60	396.61	32.99	13.021	
4,700.00	4,603.94	4,726.05	4,687.67	17.49	16.57	173.41	173.41		-277.87	274.84	434.14	400.37	33.77	12.857	
4,800.00	4,700.97	4,824.63	4,784.23	17.89	16.94	172.93	172.93		-293.17	287.54	439.20	404.66	34.54	12.716	
4,900.00	4,798.00	4,917.45	4,875.35	18.28	17.29	172.52	172.52		-306.82	298.74	445.41	410.11	35.30	12.616	
5,000.00	4,895.03	5,014.72	4,971.01	18.68	17.65	172.11	172.11		-320.59	309.72	452.62	416.55	36.07	12.549	
5,100.00	4,992.06	5,112.42	5,067.18	19.07	18.02	171.71	171.71		-334.22	320.30	460.36	423.53	36.83	12.498	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Survey Program: 200-MWD+IFR1+MS						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance				Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	5,089.09	5,210.10	5,163.35	19.47	18.39	171.30	-347.85	330.56	468.41	430.81	37.60	12.458		
5,300.00	5,186.12	5,306.95	5,258.86	19.87	18.75	170.95	-360.69	340.14	477.35	438.99	38.36	12.444		
5,400.00	5,283.15	5,413.33	5,363.65	20.26	19.15	170.57	-375.21	351.36	485.55	446.41	39.15	12.403		
5,500.00	5,380.18	5,513.19	5,461.82	20.66	19.52	170.15	-389.78	362.38	492.88	452.96	39.92	12.347		
5,600.00	5,477.21	5,614.56	5,561.56	21.06	19.90	169.76	-404.27	373.26	500.65	459.96	40.69	12.303		
5,700.00	5,574.24	5,724.40	5,669.36	21.45	20.32	169.36	-420.65	386.54	506.94	465.46	41.48	12.220		
5,800.00	5,671.27	5,828.22	5,770.89	21.85	20.71	168.90	-437.50	400.18	511.67	469.40	42.26	12.106		
5,900.00	5,768.30	5,926.31	5,866.77	22.24	21.09	168.46	-453.68	413.08	516.30	473.26	43.04	11.995		
6,000.00	5,865.33	6,020.77	5,959.24	22.64	21.45	168.05	-468.82	425.00	521.66	477.85	43.81	11.906		
6,100.00	5,962.36	6,117.44	6,054.05	23.04	21.81	167.67	-483.75	436.52	527.95	483.36	44.59	11.841		
6,200.00	6,059.39	6,212.19	6,147.10	23.44	22.17	167.32	-498.02	447.29	534.94	489.58	45.35	11.795		
6,300.00	6,156.42	6,303.76	6,237.24	23.83	22.52	167.03	-511.04	456.86	543.15	497.05	46.10	11.782		
6,400.00	6,253.45	6,409.00	6,340.94	24.23	22.91	166.74	-525.43	467.59	551.85	504.96	46.89	11.769		
6,500.00	6,350.47	6,504.78	6,435.28	24.63	23.28	166.52	-538.42	477.85	560.13	512.48	47.65	11.755		
6,600.00	6,447.50	6,602.78	6,531.95	25.02	23.64	166.39	-550.67	488.24	568.97	520.55	48.42	11.751		
6,700.00	6,544.53	6,702.42	6,630.28	25.42	24.02	166.30	-562.75	498.84	577.93	528.75	49.19	11.750		
6,800.00	6,641.56	6,802.64	6,729.13	25.82	24.39	166.14	-575.55	509.32	586.81	536.84	49.96	11.745		
6,900.00	6,738.59	6,900.27	6,825.36	26.22	24.76	165.89	-588.98	518.81	595.93	545.21	50.73	11.748		
7,000.00	6,835.62	7,006.69	6,930.24	26.61	25.16	165.69	-603.10	530.03	604.52	552.99	51.53	11.732		
7,100.00	6,932.65	7,118.05	7,039.85	27.01	25.58	165.56	-617.67	543.26	612.00	559.66	52.33	11.694		
7,200.00	7,029.68	7,217.69	7,137.50	27.41	25.96	165.38	-632.27	556.61	617.38	564.27	53.11	11.624		
7,300.00	7,126.71	7,303.27	7,221.75	27.81	26.29	165.31	-643.19	566.88	624.83	570.99	53.84	11.605		
7,309.09	7,135.53	7,311.31	7,229.69	27.84	26.32	165.31	-644.15	567.78	625.61	571.70	53.91	11.605		
7,350.00	7,174.84	7,347.33	7,265.25	28.01	26.45	165.20	-648.35	571.69	630.69	576.48	54.21	11.635		
7,400.00	7,221.63	7,414.82	7,331.72	28.22	26.71	165.04	-657.23	579.11	640.36	585.69	54.67	11.714		
7,450.00	7,266.71	7,478.32	7,393.71	28.44	26.95	164.71	-668.51	587.01	652.46	597.36	55.10	11.842		
7,500.00	7,309.74	7,530.22	7,444.16	28.67	27.15	164.31	-678.74	593.67	668.08	612.58	55.51	12.036		
7,550.00	7,350.39	7,571.49	7,484.21	28.91	27.31	163.82	-687.16	598.93	687.54	631.65	55.90	12.300		
7,600.00	7,388.34	7,606.69	7,518.48	29.15	27.45	163.23	-694.05	603.10	711.32	655.05	56.26	12.643		
7,650.00	7,423.32	7,640.00	7,551.00	29.40	27.58	162.52	-700.27	606.74	739.19	682.59	56.60	13.060		
7,700.00	7,455.05	7,668.57	7,578.97	29.65	27.69	161.59	-705.38	609.60	770.90	714.00	56.90	13.548		
7,750.00	7,483.30	7,694.72	7,604.61	29.90	27.79	160.39	-709.88	611.96	806.15	748.98	57.17	14.102		
7,800.00	7,507.84	7,717.87	7,627.36	30.15	27.87	158.78	-713.72	613.85	844.56	787.16	57.40	14.714		
7,850.00	7,528.50	7,740.20	7,649.35	30.41	27.96	156.65	-717.30	615.51	885.75	828.14	57.61	15.376		
7,900.00	7,545.11	7,767.76	7,676.47	30.66	28.06	154.02	-721.72	617.57	929.12	871.28	57.84	16.065		
7,919.09	7,550.36	7,777.21	7,685.76	30.75	28.10	152.75	-723.24	618.30	946.17	888.25	57.91	16.337		
8,000.00	7,568.52	7,813.33	7,721.29	31.16	28.24	150.35	-729.12	621.20	1,019.99	961.79	58.20	17.526		
8,100.00	7,583.22	7,846.10	7,753.50	31.66	28.36	145.30	-734.46	623.99	1,113.84	1,055.38	58.46	19.052		
8,200.00	7,589.24	7,867.54	7,774.59	32.17	28.44	136.18	-737.80	625.89	1,210.10	1,151.47	58.64	20.637		
8,219.09	7,589.40	7,870.67	7,777.67	32.26	28.45	133.70	-738.28	626.17	1,228.70	1,170.03	58.67	20.944		
8,300.00	7,589.40	7,883.21	7,790.02	32.67	28.50	135.42	-740.15	627.32	1,307.66	1,248.90	58.77	22.252		
8,400.00	7,589.40	7,898.46	7,805.04	33.21	28.56	137.36	-742.37	628.73	1,405.41	1,346.52	58.89	23.865		
8,444.09	7,589.40	7,905.09	7,811.58	33.45	28.58	138.17	-743.31	629.36	1,448.55	1,389.61	58.94	24.575		
8,500.00	7,589.40	7,913.47	7,819.84	33.76	28.62	133.64	-744.47	630.16	1,503.17	1,444.16	59.01	25.473		
8,600.00	7,589.40	7,929.36	7,835.50	34.34	28.68	127.45	-746.63	631.70	1,600.33	1,541.19	59.14	27.061		
8,700.00	7,589.40	7,946.98	7,852.88	34.92	28.74	123.04	-748.96	633.46	1,696.66	1,637.38	59.28	28.623		
8,800.00	7,589.40	7,964.64	7,870.30	35.52	28.81	119.69	-751.23	635.27	1,792.05	1,732.64	59.41	30.162		
8,900.00	7,589.40	7,982.23	7,887.65	36.12	28.88	117.07	-753.44	637.12	1,886.40	1,826.85	59.55	31.677		
9,000.00	7,589.40	7,999.61	7,904.80	36.73	28.94	114.95	-755.57	639.01	1,979.63	1,919.94	59.69	33.167		
9,100.00	7,589.40	8,016.68	7,921.64	37.33	29.01	113.20	-757.60	640.91	2,071.64	2,011.82	59.82	34.632		
9,200.00	7,589.40	8,032.70	7,937.44	37.92	29.07	111.68	-759.47	642.72	2,162.36	2,102.42	59.94	36.073		
9,300.00	7,589.39	8,048.23	7,952.76	38.51	29.12	110.38	-761.24	644.51	2,251.73	2,191.66	60.06	37.489		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,400.00	7,589.39	8,063.25	7,967.59	39.09	29.18	109.25			-762.93	646.26	2,339.67	2,279.49	60.18	38.878	
9,500.00	7,589.39	8,077.72	7,981.86	39.65	29.23	108.25			-764.53	647.97	2,426.13	2,365.84	60.29	40.240	
9,600.00	7,589.39	11,034.85	9,756.75	40.19	40.55	152.07			-2,270.63	1,273.64	2,500.74	2,440.08	60.66	41.226	
9,700.00	7,589.38	11,295.84	9,757.39	40.72	41.51	150.13			-2,531.30	1,268.28	2,514.82	2,452.19	62.63	40.155	
9,800.00	7,589.38	11,370.12	9,757.21	41.23	41.80	149.55			-2,605.58	1,269.23	2,525.25	2,461.41	63.84	39.553	
9,900.00	7,589.38	11,494.41	9,757.18	41.72	42.31	149.00			-2,729.82	1,272.57	2,532.59	2,467.39	65.20	38.842	
10,000.00	7,589.37	11,577.69	9,757.19	42.18	42.66	148.73			-2,813.06	1,274.84	2,537.37	2,471.02	66.35	38.243	
10,100.00	7,589.37	11,664.71	9,756.90	42.63	43.03	148.55			-2,900.08	1,275.29	2,540.28	2,472.79	67.49	37.641	
10,173.66	7,589.36	11,765.87	9,757.00	42.94	43.46	148.55			-3,001.22	1,277.26	2,540.44	2,471.98	68.46	37.109	
10,200.00	7,589.36	11,810.97	9,756.66	43.05	43.66	148.56			-3,046.31	1,278.37	2,539.96	2,471.11	68.85	36.893	
10,300.00	7,589.36	11,884.06	9,755.74	43.47	43.99	148.57			-3,119.37	1,279.60	2,538.16	2,468.30	69.87	36.327	
10,400.00	7,589.36	11,957.76	9,755.24	43.90	44.32	148.57			-3,193.08	1,279.70	2,537.59	2,466.68	70.91	35.784	
10,414.11	7,589.35	11,968.97	9,755.26	43.96	44.37	148.57			-3,204.29	1,279.76	2,537.59	2,466.52	71.06	35.708	
10,500.00	7,589.35	12,037.50	9,755.89	44.33	44.69	148.59			-3,272.81	1,280.48	2,537.88	2,465.90	71.98	35.256	
10,600.00	7,589.35	12,139.34	9,757.76	44.78	45.16	148.63			-3,374.62	1,281.83	2,538.88	2,465.70	73.17	34.697	
10,700.00	7,589.34	12,259.31	9,758.31	45.23	45.73	148.66			-3,494.58	1,283.33	2,538.64	2,464.16	74.48	34.085	
10,738.26	7,589.34	12,292.75	9,758.49	45.41	45.89	148.67			-3,528.02	1,283.76	2,538.61	2,463.70	74.92	33.886	
10,800.00	7,589.34	12,354.03	9,758.91	45.69	46.19	148.69			-3,589.29	1,284.54	2,538.63	2,462.96	75.67	33.551	
10,900.00	7,589.33	12,440.61	9,759.72	46.16	46.61	148.72			-3,675.86	1,285.70	2,538.85	2,462.03	76.81	33.051	
11,000.00	7,589.33	12,594.35	9,761.71	46.64	47.38	148.80			-3,829.53	1,289.36	2,539.08	2,460.74	78.33	32.414	
11,076.52	7,589.33	12,631.73	9,762.00	47.01	47.57	148.82			-3,866.91	1,290.07	2,538.70	2,459.63	79.06	32.109	
11,100.00	7,589.33	12,647.21	9,762.14	47.12	47.65	148.83			-3,882.39	1,290.28	2,538.73	2,459.42	79.31	32.009	
11,200.00	7,589.32	12,707.64	9,762.80	47.61	47.95	148.83			-3,942.81	1,290.30	2,539.78	2,459.44	80.34	31.611	
11,300.00	7,589.32	12,765.95	9,763.70	48.11	48.25	148.81			-4,001.09	1,288.86	2,542.48	2,461.10	81.37	31.244	
11,400.00	7,589.31	12,864.71	9,763.77	48.61	48.74	148.69			-4,099.64	1,282.49	2,546.00	2,463.29	82.71	30.782	
11,500.00	7,589.31	12,959.02	9,763.64	49.12	49.21	148.55			-4,193.70	1,275.81	2,549.68	2,465.65	84.03	30.343	
11,600.00	7,589.31	13,075.62	9,764.61	49.64	49.81	148.44			-4,310.12	1,269.48	2,553.37	2,467.87	85.49	29.866	
11,700.00	7,589.30	13,215.85	9,765.11	50.16	50.54	148.35			-4,450.27	1,264.93	2,555.39	2,468.27	87.11	29.335	
11,800.00	7,589.30	13,333.60	9,766.52	50.69	51.18	148.36			-4,568.02	1,264.69	2,556.62	2,468.07	88.55	28.873	
11,900.00	7,589.29	13,476.74	9,768.38	51.23	51.98	148.43			-4,711.11	1,267.70	2,556.77	2,466.65	90.13	28.368	
12,000.00	7,589.29	13,592.06	9,769.55	51.77	52.63	148.54			-4,826.31	1,272.70	2,555.45	2,463.93	91.52	27.922	
12,100.00	7,589.28	13,682.24	9,771.25	52.31	53.15	148.65			-4,916.32	1,277.84	2,554.20	2,461.44	92.75	27.538	
12,200.00	7,589.28	13,777.40	9,773.60	52.86	53.70	148.79			-5,011.27	1,283.52	2,553.31	2,459.29	94.02	27.158	
12,292.17	7,589.28	13,848.49	9,773.93	53.38	54.11	148.81			-5,082.34	1,284.93	2,552.85	2,457.74	95.12	26.839	
12,300.00	7,589.28	13,854.11	9,773.96	53.42	54.14	148.82			-5,087.97	1,284.98	2,552.86	2,457.65	95.21	26.813	
12,400.00	7,589.27	13,947.99	9,774.37	53.98	54.68	148.82			-5,181.84	1,285.05	2,553.28	2,456.75	96.53	26.450	
12,500.00	7,589.27	14,039.35	9,774.69	54.55	55.21	148.82			-5,273.20	1,285.18	2,553.63	2,455.78	97.84	26.100	
12,600.00	7,589.26	14,135.49	9,775.96	55.12	55.77	148.84			-5,369.33	1,285.81	2,554.52	2,455.33	99.18	25.756	
12,700.00	7,589.26	14,256.88	9,775.87	55.70	56.48	148.82			-5,490.72	1,284.85	2,554.98	2,454.25	100.73	25.366	
12,800.00	7,589.26	14,400.47	9,772.27	56.28	57.33	148.72			-5,634.23	1,282.08	2,553.87	2,451.41	102.46	24.925	
12,900.00	7,589.25	14,497.11	9,770.18	56.86	57.91	148.69			-5,730.84	1,282.13	2,552.11	2,448.26	103.84	24.576	
13,000.00	7,589.25	14,584.90	9,768.92	57.45	58.44	148.68			-5,818.62	1,282.49	2,550.76	2,445.60	105.16	24.255	
13,100.00	7,589.24	14,683.13	9,767.91	58.04	59.03	148.67			-5,916.84	1,282.87	2,549.79	2,443.24	106.56	23.929	
13,200.00	7,589.24	14,772.08	9,766.35	58.64	59.57	148.64			-6,005.78	1,282.31	2,548.76	2,440.86	107.90	23.621	
13,251.93	7,589.24	14,808.42	9,765.73	58.95	59.79	148.62			-6,042.11	1,281.58	2,548.60	2,440.07	108.53	23.483	
13,300.00	7,589.23	14,849.34	9,765.08	59.24	60.04	148.59			-6,083.01	1,280.42	2,548.70	2,439.53	109.17	23.346	
13,400.00	7,589.23	14,948.71	9,763.27	59.84	60.64	148.50			-6,182.31	1,277.22	2,548.94	2,438.32	110.62	23.043	
13,500.00	7,589.23	15,055.47	9,761.69	60.45	61.30	148.42			-6,289.01	1,274.00	2,549.37	2,437.25	112.12	22.738	
13,600.00	7,589.22	15,214.56	9,760.88	61.06	62.29	148.45			-6,448.05	1,276.66	2,548.12	2,434.16	113.95	22.361	
13,700.00	7,589.22	15,298.00	9,760.00	61.68	62.81	148.47			-6,531.47	1,278.27	2,546.29	2,431.03	115.25	22.093	
13,800.00	7,589.21	15,372.95	9,759.54	62.30	63.28	148.48			-6,606.41	1,279.09	2,545.27	2,428.77	116.50	21.848	
13,900.00	7,589.21	15,494.51	9,759.92	62.92	64.06	148.53			-6,727.94	1,282.08	2,544.39	2,426.33	118.07	21.551	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,000.00	7,589.21	15,592.83	9,760.01	63.54	64.68	148.59			-6,826.21	1,285.10	2,542.97	2,423.50	119.47	21.286	
14,100.00	7,589.20	15,687.37	9,760.21	64.17	65.29	148.64			-6,920.71	1,287.99	2,541.67	2,420.82	120.84	21.033	
14,200.00	7,589.20	15,783.13	9,759.95	64.80	65.91	148.67			-7,016.45	1,289.84	2,540.53	2,418.29	122.24	20.782	
14,300.00	7,589.19	15,874.07	9,760.06	65.43	66.49	148.71			-7,107.37	1,291.69	2,539.69	2,416.08	123.61	20.546	
14,400.00	7,589.19	15,969.35	9,760.62	66.07	67.11	148.75			-7,202.62	1,293.93	2,539.08	2,414.08	125.00	20.312	
14,500.00	7,589.18	16,060.69	9,761.22	66.71	67.70	148.79			-7,293.94	1,295.56	2,538.82	2,412.45	126.37	20.090	
14,600.00	7,589.18	16,167.39	9,762.10	67.35	68.40	148.84			-7,400.60	1,298.10	2,538.38	2,410.52	127.86	19.853	
14,652.57	7,589.18	16,209.52	9,762.66	67.69	68.68	148.87			-7,442.72	1,299.29	2,538.27	2,409.74	128.53	19.748	
14,700.00	7,589.18	16,255.07	9,763.46	67.99	68.98	148.90			-7,488.24	1,300.57	2,538.34	2,409.14	129.20	19.647	
14,800.00	7,589.17	16,374.28	9,764.55	68.64	69.76	148.97			-7,607.40	1,303.63	2,537.88	2,407.11	130.78	19.406	
14,900.00	7,589.17	16,471.27	9,765.42	69.29	70.41	149.03			-7,704.35	1,306.52	2,537.22	2,405.03	132.19	19.194	
15,000.00	7,589.16	16,568.98	9,766.62	69.94	71.06	149.10			-7,802.00	1,309.61	2,536.76	2,403.15	133.61	18.986	
15,100.00	7,589.16	16,660.87	9,766.33	70.59	71.66	149.10			-7,893.89	1,310.03	2,536.36	2,401.34	135.01	18.786	
15,123.16	7,589.16	16,680.26	9,766.25	70.74	71.79	149.10			-7,913.28	1,309.97	2,536.34	2,401.02	135.32	18.743	
15,200.00	7,589.16	16,752.11	9,765.77	71.25	72.26	149.08			-7,985.12	1,309.08	2,536.46	2,400.04	136.42	18.593	
15,300.00	7,589.15	16,842.19	9,763.71	71.91	72.85	148.98			-8,075.10	1,305.33	2,536.77	2,398.92	137.85	18.402	
15,400.00	7,589.15	16,934.58	9,763.17	72.57	73.46	148.92			-8,167.45	1,303.03	2,537.64	2,398.37	139.28	18.220	
15,500.00	7,589.14	17,043.90	9,763.27	73.23	74.19	148.90			-8,276.77	1,301.92	2,538.35	2,397.51	140.84	18.023	
15,600.00	7,589.14	17,154.95	9,762.96	73.89	74.92	148.87			-8,387.81	1,300.93	2,538.67	2,396.26	142.41	17.826	
15,700.00	7,589.13	17,222.89	9,762.52	74.56	75.38	148.84			-8,455.73	1,299.70	2,539.24	2,395.61	143.63	17.679	
15,800.00	7,589.13	17,303.79	9,762.52	75.23	75.91	148.77			-8,536.57	1,296.48	2,541.32	2,396.36	144.96	17.531	
15,900.00	7,589.13	17,436.08	9,762.19	75.90	76.79	148.70			-8,668.81	1,292.92	2,542.56	2,395.81	146.75	17.326	
16,000.00	7,589.12	17,553.80	9,761.83	76.57	77.58	148.66			-8,786.52	1,291.43	2,543.06	2,394.67	148.39	17.137	
16,100.00	7,589.12	17,656.35	9,761.95	77.24	78.28	148.66			-8,889.06	1,291.52	2,543.22	2,393.33	149.90	16.967	
16,200.00	7,589.11	17,770.29	9,761.82	77.92	79.05	148.67			-9,003.01	1,292.40	2,542.81	2,391.32	151.49	16.785	
16,300.00	7,589.11	17,863.39	9,761.25	78.59	79.69	148.66			-9,096.10	1,292.22	2,542.49	2,389.57	152.93	16.626	
16,400.00	7,589.11	17,970.20	9,760.47	79.27	80.41	148.63			-9,202.91	1,291.77	2,542.19	2,387.72	154.48	16.457	
16,500.00	7,589.10	18,072.85	9,759.34	79.95	81.11	148.61			-9,305.55	1,291.42	2,541.53	2,385.54	155.99	16.292	
16,600.00	7,589.10	18,191.36	9,757.33	80.63	81.92	148.56			-9,424.04	1,290.17	2,540.78	2,383.13	157.65	16.117	
16,700.00	7,589.09	18,276.92	9,755.02	81.31	82.51	148.50			-9,509.54	1,288.53	2,539.61	2,380.56	159.05	15.967	
16,800.00	7,589.09	18,369.07	9,753.38	82.00	83.14	148.44			-9,601.67	1,286.95	2,539.08	2,378.59	160.50	15.820	
16,900.00	7,589.08	18,459.53	9,752.05	82.68	83.76	148.40			-9,692.11	1,285.50	2,538.78	2,376.85	161.93	15.678	
17,000.00	7,589.08	18,586.42	9,750.49	83.37	84.63	148.35			-9,818.97	1,284.22	2,538.42	2,374.77	163.66	15.511	
17,100.00	7,589.08	18,730.45	9,748.66	84.06	85.64	148.37			-9,962.97	1,286.58	2,536.66	2,371.19	165.47	15.330	
17,200.00	7,589.07	18,821.32	9,747.70	84.75	86.27	148.43			-10,053.74	1,290.64	2,533.56	2,366.68	166.89	15.181	
17,300.00	7,589.07	18,899.31	9,746.74	85.44	86.82	148.44			-10,131.72	1,291.99	2,531.67	2,363.45	168.22	15.050	
17,400.00	7,589.06	18,996.37	9,745.42	86.13	87.50	148.45			-10,228.75	1,293.14	2,530.00	2,360.30	169.70	14.909	
17,500.00	7,589.06	19,095.26	9,745.00	86.83	88.19	148.48			-10,327.62	1,295.22	2,528.64	2,357.46	171.18	14.772	
17,600.00	7,589.06	19,201.55	9,744.50	87.52	88.93	148.52			-10,433.88	1,298.08	2,526.93	2,354.22	172.71	14.631	
17,700.00	7,589.05	19,306.40	9,743.34	88.22	89.67	148.54			-10,538.70	1,299.97	2,525.16	2,350.91	174.25	14.492	
17,800.00	7,589.05	19,404.08	9,742.37	88.91	90.36	148.57			-10,636.35	1,302.19	2,523.23	2,347.51	175.72	14.359	
17,900.00	7,589.04	19,517.78	9,741.29	89.61	91.16	148.61			-10,750.00	1,305.08	2,521.21	2,343.89	177.32	14.219	
18,000.00	7,589.04	19,610.00	9,740.42	90.31	91.81	148.65			-10,842.18	1,307.76	2,518.99	2,340.24	178.75	14.092	
18,100.00	7,589.03	19,679.93	9,739.71	91.01	92.31	148.65			-10,912.10	1,308.72	2,517.53	2,337.50	180.03	13.984	
18,200.00	7,589.03	19,759.83	9,739.12	91.71	92.87	148.64			-10,991.99	1,308.52	2,517.12	2,335.74	181.37	13.878	
18,211.94	7,589.03	19,769.91	9,739.04	91.80	92.94	148.64			-11,002.08	1,308.41	2,517.11	2,335.57	181.54	13.865	
18,300.00	7,589.03	19,850.03	9,738.32	92.42	93.50	148.60			-11,082.19	1,307.10	2,517.28	2,334.47	182.81	13.770	
18,400.00	7,589.02	19,949.55	9,737.50	93.12	94.20	148.55			-11,181.69	1,305.26	2,517.65	2,333.32	184.33	13.658	
18,500.00	7,589.02	20,054.72	9,736.58	93.82	94.94	148.50			-11,286.83	1,303.48	2,517.90	2,331.99	185.90	13.544	
18,600.00	7,589.01	20,140.72	9,735.67	94.53	95.54	148.45			-11,372.81	1,301.63	2,518.24	2,330.93	187.31	13.445	
18,700.00	7,589.01	20,222.01	9,735.86	95.23	96.11	148.42			-11,454.09	1,300.30	2,519.38	2,330.73	188.65	13.355	
18,800.00	7,589.01	20,227.00	9,735.89	95.94	96.15	148.42			-11,459.07	1,300.22	2,522.60	2,333.45	189.15	13.336	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program: 200-MWD+IFR1+MS													Offset Well Error:	0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
18,900.00	7,589.00	20,227.00	9,735.89	96.65	96.15	148.42	-11,459.07	1,300.22	2,529.77	2,340.41	189.36	13.359		
18,917.19	7,589.00	20,227.00	9,735.89	96.77	96.15	148.42	-11,459.07	1,300.22	2,531.40	2,342.02	189.37	13.367		
18,917.96	7,589.00	20,227.00	9,735.89	97.01	96.15	148.42	-11,459.07	1,300.22	2,531.47	2,341.96	189.51	13.358		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.60	0.60	0.00	0.50	60.13	58.07	101.10	116.59				
100.00	100.00	101.31	101.30	0.28	0.53	60.25	57.71	100.95	116.29	115.48	0.80	145.057	
200.00	200.00	202.14	202.14	0.63	0.60	60.60	56.63	100.51	115.38	114.15	1.23	93.671	
300.00	300.00	309.39	309.22	0.99	0.88	61.42	52.72	96.79	110.55	108.67	1.88	58.795	
400.00	400.00	406.33	405.95	1.35	1.18	62.17	48.54	91.96	104.12	101.59	2.53	41.146	
500.00	500.00	504.97	504.50	1.71	1.51	62.39	46.24	88.39	99.83	96.61	3.21	31.065	
600.00	600.00	604.77	604.21	2.07	1.84	61.92	45.11	84.55	95.90	91.99	3.91	24.525	
700.00	700.00	703.07	702.46	2.43	2.18	61.13	44.74	81.16	92.70	88.09	4.60	20.132	
764.66	764.66	765.88	765.26	2.66	2.39	60.81	44.92	80.39	92.09	87.04	5.05	18.243	CC
800.00	800.00	800.61	799.99	2.79	2.51	60.76	45.04	80.46	92.21	86.92	5.29	17.434	ES
900.00	900.00	899.15	898.51	3.14	2.83	61.23	45.10	82.13	93.73	87.76	5.97	15.701	
1,000.00	1,000.00	999.20	998.52	3.50	3.16	62.09	45.02	85.00	96.21	89.55	6.66	14.447	
1,100.00	1,099.98	1,100.01	1,099.30	3.85	3.50	-65.94	44.48	87.22	97.19	89.84	7.35	13.232	
1,200.00	1,199.84	1,199.01	1,198.30	4.18	3.84	-68.35	44.59	88.87	96.67	88.65	8.01	12.062	
1,239.66	1,239.38	1,237.95	1,237.22	4.32	3.97	-69.98	45.06	89.74	96.59	88.31	8.28	11.666	
1,300.00	1,299.45	1,297.10	1,296.34	4.52	4.17	-73.09	46.14	91.40	96.82	88.14	8.68	11.150	
1,400.00	1,398.70	1,396.15	1,395.30	4.86	4.51	-79.77	48.41	94.81	98.09	88.72	9.36	10.474	
1,500.00	1,497.47	1,494.99	1,494.06	5.21	4.86	-87.98	50.52	98.37	100.49	90.44	10.05	9.994	
1,600.00	1,595.62	1,592.99	1,591.96	5.56	5.20	-97.48	52.88	101.84	105.51	94.76	10.75	9.817	
1,700.00	1,693.06	1,689.89	1,688.76	5.92	5.53	-107.46	55.74	105.26	114.79	103.34	11.44	10.032	
1,800.00	1,790.08	1,786.48	1,785.24	6.28	5.87	-116.65	59.09	108.65	128.48	116.35	12.14	10.586	
1,900.00	1,887.11	1,883.52	1,882.16	6.65	6.21	-124.17	62.69	111.71	145.12	132.29	12.84	11.307	
2,000.00	1,984.14	1,981.30	1,979.80	7.02	6.56	-129.86	66.14	115.57	163.52	149.98	13.54	12.077	
2,100.00	2,081.17	2,082.43	2,080.69	7.39	6.91	-133.80	68.48	122.04	181.70	167.43	14.27	12.736	
2,200.00	2,178.20	2,181.93	2,179.87	7.76	7.26	-136.55	69.70	129.98	199.22	184.23	14.99	13.294	
2,300.00	2,275.23	2,284.04	2,281.55	8.14	7.63	-138.67	69.86	139.24	215.86	200.14	15.72	13.734	
2,400.00	2,372.26	2,388.44	2,385.29	8.52	8.00	-140.13	67.93	150.76	230.36	213.90	16.46	13.999	
2,500.00	2,469.29	2,491.17	2,487.20	8.90	8.36	-141.26	64.09	163.11	242.92	225.73	17.19	14.134	
2,600.00	2,566.32	2,592.27	2,587.64	9.28	8.72	-142.80	58.65	173.25	254.50	236.59	17.91	14.206	
2,700.00	2,663.35	2,691.13	2,685.99	9.67	9.07	-144.65	52.45	181.11	266.00	247.36	18.64	14.271	
2,800.00	2,760.38	2,794.70	2,789.02	10.05	9.44	-146.57	45.33	188.88	277.34	257.97	19.37	14.318	
2,900.00	2,857.41	2,902.16	2,895.59	10.44	9.82	-148.25	35.49	198.57	286.27	266.17	20.10	14.240	
3,000.00	2,954.44	3,017.83	3,009.57	10.83	10.24	-149.67	21.16	211.95	291.46	270.66	20.81	14.009	
3,100.00	3,051.47	3,129.58	3,118.54	11.22	10.64	-150.83	2.21	227.80	291.40	269.92	21.49	13.562	
3,200.00	3,148.50	3,230.32	3,216.34	11.60	11.00	-151.89	-16.68	242.86	289.49	267.26	22.22	13.028	
3,300.00	3,245.53	3,327.76	3,310.95	11.99	11.36	-152.84	-34.66	257.75	287.80	264.82	22.98	12.524	
3,344.74	3,288.94	3,369.58	3,351.64	12.17	11.51	-153.21	-41.88	264.12	287.57	264.24	23.33	12.326	
3,400.00	3,342.56	3,422.62	3,403.36	12.38	11.71	-153.65	-50.50	272.15	287.85	264.09	23.75	12.118	
3,500.00	3,439.59	3,518.53	3,496.99	12.77	12.06	-154.37	-65.36	286.69	289.09	264.57	24.52	11.790	
3,600.00	3,536.62	3,612.94	3,589.59	13.17	12.41	-155.12	-78.16	299.84	292.67	267.38	25.29	11.574	
3,700.00	3,633.65	3,717.04	3,691.71	13.56	12.80	-155.97	-92.37	314.15	296.34	270.32	26.03	11.386	
3,800.00	3,730.68	3,822.96	3,795.17	13.95	13.19	-156.71	-108.47	330.19	298.00	271.24	26.76	11.135	
3,900.00	3,827.71	3,925.29	3,894.76	14.34	13.58	-157.26	-124.86	347.07	298.29	270.78	27.51	10.843	
4,000.00	3,924.74	4,027.03	3,993.63	14.74	13.96	-157.76	-141.48	364.34	298.07	269.81	28.26	10.547	
4,100.00	4,021.77	4,125.98	4,089.79	15.13	14.33	-158.41	-158.34	380.53	297.59	268.56	29.03	10.252	
4,125.11	4,046.13	4,150.61	4,113.74	15.23	14.42	-158.60	-162.53	384.38	297.57	268.35	29.22	10.183	
4,200.00	4,118.79	4,224.95	4,186.09	15.52	14.71	-159.16	-175.04	396.03	297.65	267.85	29.80	9.989	
4,300.00	4,215.82	4,322.79	4,281.38	15.92	15.08	-159.83	-191.00	411.47	298.19	267.62	30.57	9.754	
4,400.00	4,312.85	4,428.35	4,384.07	16.31	15.48	-160.48	-208.36	428.65	298.39	267.08	31.31	9.530	
4,500.00	4,409.88	4,537.60	4,489.58	16.70	15.90	-161.02	-228.48	448.58	295.80	263.78	32.01	9.240	
4,600.00	4,506.91	4,639.87	4,587.81	17.10	16.29	-161.41	-248.53	468.79	291.34	258.58	32.76	8.893	
4,700.00	4,603.94	4,739.25	4,683.13	17.49	16.68	-161.76	-268.27	488.82	286.46	252.92	33.54	8.540	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS		Rule Assigned:										Offset Site Error: 0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Offset Well Error: 0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
4,800.00	4,700.97	4,835.93	4,776.18	17.89	17.05	-162.42	-287.59	506.58	282.52	248.17	34.35	8.225
4,900.00	4,798.00	4,931.61	4,868.51	18.28	17.42	-163.31	-306.64	522.87	279.50	244.34	35.16	7.950
4,954.00	4,850.39	4,980.37	4,915.82	18.50	17.61	-163.85	-315.81	530.28	278.98	243.37	35.61	7.834
5,000.00	4,895.03	5,023.24	4,957.58	18.68	17.78	-164.37	-323.46	536.26	279.28	243.30	35.98	7.762
5,100.00	4,992.06	5,118.86	5,050.99	19.07	18.14	-165.50	-339.49	548.92	281.35	244.57	36.77	7.651
5,200.00	5,089.09	5,215.75	5,145.86	19.47	18.51	-166.61	-354.88	561.18	284.60	247.05	37.55	7.579
5,300.00	5,186.12	5,312.65	5,240.98	19.87	18.88	-167.65	-369.19	572.90	289.20	250.87	38.32	7.546
5,400.00	5,283.15	5,417.55	5,343.94	20.26	19.28	-168.41	-383.63	586.87	293.91	254.82	39.09	7.518
5,500.00	5,380.18	5,523.78	5,447.53	20.66	19.68	-169.00	-400.05	603.64	295.64	255.79	39.85	7.418
5,600.00	5,477.21	5,619.48	5,540.83	21.06	20.05	-169.51	-414.91	618.94	297.25	256.61	40.64	7.313
5,700.00	5,574.24	5,716.57	5,635.85	21.45	20.43	-170.00	-428.63	633.40	300.69	259.26	41.43	7.258
5,800.00	5,671.27	5,817.60	5,734.74	21.85	20.81	-170.49	-442.88	648.41	304.20	262.00	42.20	7.208
5,900.00	5,768.30	5,915.78	5,830.82	22.24	21.19	-170.97	-456.83	663.05	307.61	264.63	42.98	7.157
6,000.00	5,865.33	6,011.70	5,924.88	22.64	21.56	-171.47	-469.88	676.54	312.08	268.33	43.75	7.133
6,100.00	5,962.36	6,107.62	6,019.18	23.04	21.92	-171.94	-482.01	689.22	317.88	273.36	44.52	7.140
6,200.00	6,059.39	6,209.56	6,119.48	23.44	22.31	-172.42	-494.58	702.35	324.17	278.87	45.30	7.156
6,300.00	6,156.42	6,308.98	6,217.21	23.83	22.69	-172.93	-507.44	715.34	329.91	283.84	46.07	7.161
6,400.00	6,253.45	6,414.31	6,320.62	24.23	23.09	-173.45	-521.54	729.54	335.06	288.20	46.86	7.151
6,500.00	6,350.47	6,516.24	6,420.46	24.63	23.48	-173.93	-535.93	744.19	339.06	291.43	47.64	7.118
6,600.00	6,447.50	6,618.18	6,520.13	25.02	23.87	-174.45	-551.14	759.18	342.26	293.85	48.42	7.069
6,700.00	6,544.53	6,712.87	6,612.84	25.42	24.24	-174.92	-564.88	772.71	346.09	296.90	49.20	7.035 SF
6,800.00	6,641.56	6,807.08	6,705.40	25.82	24.59	-175.24	-576.79	785.58	351.71	301.75	49.96	7.040
6,900.00	6,738.59	6,906.92	6,803.61	26.22	24.97	-175.64	-589.37	798.46	357.94	307.20	50.74	7.055
7,000.00	6,835.62	7,008.80	6,903.82	26.61	25.36	-176.07	-602.32	811.46	364.22	312.70	51.52	7.070
7,100.00	6,932.65	7,114.06	7,007.02	27.01	25.77	-176.65	-617.59	825.45	368.87	316.57	52.31	7.052
7,200.00	7,029.68	7,205.79	7,098.98	27.41	26.12	-176.97	-630.02	838.37	373.67	320.61	53.07	7.041
7,300.00	7,126.71	7,314.64	7,204.24	27.81	26.53	-177.09	-641.69	852.72	381.19	327.32	53.86	7.077
7,309.09	7,135.53	7,329.09	7,218.37	27.84	26.59	-177.09	-643.51	855.14	381.49	327.56	53.93	7.074
7,350.00	7,174.84	7,398.33	7,285.38	28.01	26.86	-177.07	-654.05	868.94	382.62	328.50	54.12	7.070
7,400.00	7,221.63	7,468.91	7,352.19	28.22	27.14	-177.25	-668.95	886.08	383.99	329.71	54.28	7.075
7,450.00	7,266.71	7,515.50	7,396.08	28.44	27.33	-177.44	-679.49	897.57	389.22	334.48	54.74	7.110
7,500.00	7,309.74	7,560.14	7,438.28	28.67	27.51	-177.66	-689.51	908.18	399.19	343.97	55.22	7.229
7,550.00	7,350.39	7,601.77	7,477.80	28.91	27.68	-177.87	-698.57	917.60	414.06	358.36	55.70	7.433
7,600.00	7,388.34	7,638.00	7,512.35	29.15	27.83	-178.04	-706.18	925.41	433.72	377.53	56.19	7.719
7,650.00	7,423.32	7,679.33	7,551.93	29.40	27.99	-178.24	-714.51	933.89	457.90	401.31	56.59	8.091
7,700.00	7,455.05	7,714.46	7,585.71	29.65	28.13	-178.39	-721.26	940.77	486.36	429.37	56.98	8.535
7,750.00	7,483.30	7,744.59	7,614.79	29.90	28.25	-178.49	-726.80	946.40	518.79	461.45	57.34	9.047
7,800.00	7,507.84	7,769.46	7,638.90	30.15	28.35	-178.54	-731.12	950.70	555.03	497.38	57.65	9.628
7,850.00	7,528.50	7,791.06	7,659.93	30.41	28.43	-178.56	-734.67	954.15	594.65	536.75	57.91	10.269
7,900.00	7,545.11	7,809.32	7,677.76	30.66	28.50	-178.52	-737.52	956.86	637.16	579.04	58.11	10.964
7,919.09	7,550.36	7,826.00	7,694.09	30.75	28.57	-178.61	-740.01	959.17	654.17	595.95	58.22	11.237
8,000.00	7,568.52	7,841.31	7,709.10	31.16	28.63	-178.55	-742.22	961.20	727.76	669.33	58.43	12.456
8,100.00	7,583.22	7,869.76	7,737.03	31.66	28.74	-178.55	-746.25	964.88	822.07	763.39	58.68	14.010
8,200.00	7,589.24	7,890.26	7,757.17	32.17	28.82	-178.32	-749.07	967.46	919.03	860.18	58.85	15.616
8,219.09	7,589.40	7,893.29	7,760.14	32.26	28.83	-178.23	-749.48	967.84	937.78	878.90	58.88	15.927
8,300.00	7,589.40	7,905.35	7,772.00	32.67	28.87	-178.46	-751.10	969.32	1,017.36	958.38	58.98	17.248
8,400.00	7,589.40	7,920.00	7,786.41	33.21	28.93	-178.70	-753.04	971.10	1,115.77	1,056.67	59.11	18.877
8,444.09	7,589.40	7,933.56	7,799.75	33.45	28.98	-178.88	-754.82	972.77	1,159.16	1,099.95	59.21	19.578
8,500.00	7,589.40	7,952.55	7,818.41	33.76	29.05	-172.41	-757.32	975.27	1,214.10	1,154.76	59.35	20.458
8,600.00	7,589.40	7,990.54	7,855.67	34.34	29.20	160.27	-762.27	980.81	1,312.05	1,252.43	59.61	22.010
8,700.00	7,589.40	8,034.18	7,898.32	34.92	29.37	152.05	-767.94	988.05	1,409.34	1,349.44	59.90	23.528
8,800.00	7,589.40	8,060.06	7,923.59	35.52	29.47	144.65	-771.55	992.37	1,505.98	1,445.88	60.10	25.059

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,900.00	7,589.40	8,094.28	7,956.93	36.12	29.60	139.52			-776.52	998.26	1,601.79	1,541.46	60.34	26.548	
9,000.00	7,589.40	8,104.30	7,966.66	36.73	29.64	133.65			-778.10	1,000.02	1,696.72	1,636.27	60.45	28.070	
9,100.00	7,589.40	8,132.50	7,994.12	37.33	29.75	130.14			-782.33	1,004.85	1,790.80	1,730.14	60.65	29.525	
9,200.00	7,589.40	8,146.04	8,007.32	37.92	29.80	126.31			-784.37	1,007.09	1,884.01	1,823.23	60.78	30.998	
9,300.00	7,589.39	8,158.93	8,019.90	38.51	29.85	123.07			-786.28	1,009.18	1,976.25	1,915.35	60.90	32.452	
9,400.00	7,589.39	8,171.20	8,031.88	39.09	29.90	120.31			-788.09	1,011.11	2,067.40	2,006.39	61.01	33.886	
9,500.00	7,589.39	8,182.87	8,043.28	39.65	29.95	117.95			-789.79	1,012.90	2,157.40	2,096.29	61.12	35.299	
9,600.00	7,589.39	11,535.19	9,798.63	40.19	44.75	174.93			-2,468.61	2,333.23	2,217.38	2,167.80	49.57	44.730	
9,700.00	7,589.38	11,632.49	9,798.81	40.72	45.26	175.27			-2,558.15	2,371.32	2,216.49	2,165.87	50.62	43.788	
9,800.00	7,589.38	11,731.24	9,799.14	41.23	45.79	175.76			-2,648.93	2,410.19	2,215.40	2,163.77	51.62	42.913	
9,900.00	7,589.38	11,827.27	9,799.38	41.72	46.31	176.34			-2,737.72	2,446.74	2,214.12	2,161.50	52.63	42.073	
10,000.00	7,589.37	11,917.10	9,799.57	42.18	46.79	176.91			-2,822.03	2,477.74	2,212.94	2,159.28	53.65	41.245	
10,100.00	7,589.37	12,005.71	9,799.87	42.63	47.26	177.49			-2,906.36	2,504.93	2,212.07	2,157.38	54.69	40.449	
10,173.66	7,589.36	12,073.87	9,800.19	42.94	47.62	177.96			-2,971.85	2,523.81	2,211.65	2,156.22	55.44	39.895	
10,200.00	7,589.36	12,098.56	9,800.30	43.05	47.75	178.12			-2,995.70	2,530.19	2,211.54	2,155.84	55.71	39.701	
10,300.00	7,589.36	12,200.94	9,800.60	43.47	48.27	178.70			-3,095.51	2,552.90	2,211.22	2,154.48	56.74	38.970	
10,347.67	7,589.36	12,241.42	9,800.67	43.67	48.47	178.89			-3,135.33	2,560.20	2,211.13	2,153.84	57.29	38.597	
10,400.00	7,589.36	12,285.34	9,800.89	43.90	48.68	179.08			-3,178.62	2,567.61	2,211.24	2,153.34	57.89	38.194	
10,500.00	7,589.35	12,399.75	9,801.31	44.33	49.24	179.47			-3,291.98	2,582.90	2,211.45	2,152.44	59.02	37.471	
10,600.00	7,589.35	12,503.25	9,801.05	44.78	49.72	179.70			-3,395.08	2,591.77	2,211.15	2,150.92	60.23	36.711	
10,674.96	7,589.34	12,570.80	9,800.95	45.12	50.03	179.78			-3,462.54	2,595.31	2,211.02	2,149.83	61.19	36.133	
10,700.00	7,589.34	12,592.44	9,800.97	45.23	50.12	179.80			-3,484.17	2,596.06	2,211.04	2,149.52	61.52	35.941	
10,800.00	7,589.34	12,677.60	9,801.42	45.69	50.51	179.88			-3,569.28	2,599.12	2,211.56	2,148.73	62.83	35.197	
10,900.00	7,589.33	12,796.82	9,801.65	46.16	51.05	179.95			-3,688.45	2,602.09	2,211.71	2,147.59	64.12	34.492	
10,906.36	7,589.33	12,802.30	9,801.64	46.19	51.08	179.95			-3,693.93	2,602.16	2,211.71	2,147.50	64.21	34.446	
11,000.00	7,589.33	12,888.42	9,801.87	46.64	51.47	179.96			-3,780.05	2,602.75	2,211.96	2,146.48	65.47	33.784	
11,100.00	7,589.33	12,986.67	9,802.09	47.12	51.92	179.97			-3,878.30	2,603.43	2,212.18	2,145.35	66.83	33.103	
11,200.00	7,589.32	13,075.88	9,802.83	47.61	52.34	179.97			-3,967.51	2,603.56	2,213.00	2,144.80	68.20	32.447	
11,300.00	7,589.32	13,183.58	9,803.45	48.11	52.84	179.98			-4,075.20	2,603.98	2,213.56	2,143.99	69.57	31.818	
11,400.00	7,589.31	13,278.78	9,804.14	48.61	53.30	179.98			-4,170.39	2,604.28	2,214.29	2,143.34	70.95	31.208	
11,500.00	7,589.31	13,376.90	9,804.90	49.12	53.77	179.99			-4,268.51	2,604.65	2,215.07	2,142.73	72.34	30.619	
11,600.00	7,589.31	13,488.69	9,805.75	49.64	54.32	179.99			-4,380.30	2,605.03	2,215.85	2,142.12	73.73	30.053	
11,700.00	7,589.30	13,568.50	9,806.14	50.16	54.72	180.00			-4,460.11	2,605.43	2,216.40	2,141.26	75.14	29.496	
11,800.00	7,589.30	13,673.51	9,807.84	50.69	55.24	179.99			-4,565.10	2,605.45	2,218.05	2,141.50	76.55	28.974	
11,900.00	7,589.29	13,785.00	9,808.47	51.23	55.81	179.99			-4,676.59	2,605.77	2,218.60	2,140.64	77.96	28.457	
12,000.00	7,589.29	13,888.22	9,808.91	51.77	56.34	-180.00			-4,779.81	2,606.23	2,219.03	2,139.65	79.38	27.953	
12,100.00	7,589.28	14,002.74	9,809.07	52.31	56.94	-179.99			-4,894.32	2,606.90	2,219.19	2,138.39	80.80	27.464	
12,200.00	7,589.28	14,103.35	9,808.20	52.86	57.47	-179.98			-4,994.93	2,607.50	2,218.33	2,136.10	82.23	26.976	
12,217.09	7,589.28	14,113.05	9,808.18	52.96	57.52	-179.98			-5,004.63	2,607.59	2,218.30	2,135.82	82.48	26.895	
12,300.00	7,589.28	14,166.00	9,808.66	53.42	57.80	-179.96			-5,057.57	2,608.22	2,218.98	2,135.32	83.67	26.522	
12,400.00	7,589.27	14,301.46	9,809.45	53.98	58.53	-179.94			-5,193.03	2,609.20	2,219.58	2,134.48	85.10	26.082	
12,500.00	7,589.27	14,424.60	9,808.59	54.55	59.20	-179.92			-5,316.15	2,610.27	2,218.91	2,132.37	86.54	25.640	
12,600.00	7,589.26	14,524.11	9,807.20	55.12	59.75	-179.91			-5,415.65	2,610.92	2,217.52	2,129.53	87.99	25.203	
12,700.00	7,589.26	14,617.50	9,806.15	55.70	60.27	-179.90			-5,509.04	2,611.58	2,216.40	2,126.96	89.44	24.782	
12,800.00	7,589.26	14,716.42	9,805.23	56.28	60.82	-179.89			-5,607.94	2,612.22	2,215.47	2,124.58	90.89	24.375	
12,900.00	7,589.25	14,821.00	9,804.01	56.86	61.40	-179.88			-5,712.52	2,612.56	2,214.31	2,121.96	92.35	23.977	
13,000.00	7,589.25	14,899.34	9,803.39	57.45	61.85	-179.88			-5,790.86	2,612.80	2,213.55	2,119.73	93.81	23.595	
13,100.00	7,589.24	15,030.25	9,802.35	58.04	62.59	-179.88			-5,921.76	2,613.12	2,212.78	2,117.49	95.29	23.222	
13,200.00	7,589.24	15,122.14	9,801.00	58.64	63.12	-179.88			-6,013.64	2,613.48	2,211.32	2,114.56	96.76	22.854	
13,298.90	7,589.23	15,195.00	9,800.53	59.23	63.54	-179.87			-6,086.50	2,613.91	2,210.70	2,112.49	98.21	22.511	
13,300.00	7,589.23	15,195.00	9,800.53	59.24	63.54	-179.87			-6,086.50	2,613.91	2,210.70	2,112.48	98.22	22.507	
13,400.00	7,589.23	15,274.51	9,800.87	59.84	64.00	-179.86			-6,166.00	2,614.35	2,211.15	2,111.46	99.69	22.181	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,500.00	7,589.23	15,408.82	9,801.09	60.45	64.78	-179.85	-6,300.31	2,614.99	2,211.31	2,110.13	101.18	21.855	
13,600.00	7,589.22	15,517.57	9,800.43	61.06	65.42	-179.85	-6,409.05	2,615.41	2,210.72	2,108.06	102.66	21.533	
13,700.00	7,589.22	15,615.17	9,799.20	61.68	66.00	-179.84	-6,506.65	2,615.63	2,209.48	2,105.33	104.15	21.214	
13,800.00	7,589.21	15,706.53	9,798.83	62.30	66.54	-179.83	-6,598.01	2,616.21	2,209.05	2,103.42	105.63	20.913	
13,900.00	7,589.21	15,804.76	9,798.19	62.92	67.13	-179.83	-6,696.23	2,616.58	2,208.41	2,101.29	107.12	20.617	
14,000.00	7,589.21	15,904.69	9,798.01	63.54	67.73	-179.82	-6,796.16	2,617.10	2,208.23	2,099.62	108.61	20.332	
14,100.00	7,589.20	15,996.75	9,797.61	64.17	68.29	-179.81	-6,888.22	2,617.89	2,207.82	2,097.73	110.09	20.054	
14,103.21	7,589.20	15,999.29	9,797.61	64.19	68.30	-179.81	-6,890.76	2,617.90	2,207.82	2,097.68	110.14	20.046	
14,200.00	7,589.20	16,086.59	9,797.90	64.80	68.83	-179.81	-6,978.05	2,617.81	2,208.14	2,096.55	111.58	19.789	
14,300.00	7,589.19	16,199.61	9,798.18	65.43	69.52	-179.82	-7,091.07	2,617.70	2,208.40	2,095.30	113.10	19.527	
14,400.00	7,589.19	16,298.65	9,797.93	66.07	70.12	-179.83	-7,190.12	2,617.57	2,208.15	2,093.55	114.60	19.268	
14,500.00	7,589.18	16,404.65	9,797.72	66.71	70.77	-179.84	-7,296.11	2,617.29	2,207.96	2,091.85	116.11	19.016	
14,600.00	7,589.18	16,506.00	9,797.24	67.35	71.40	-179.86	-7,397.46	2,616.73	2,207.49	2,089.87	117.63	18.767	
14,700.00	7,589.18	16,599.89	9,796.91	67.99	71.98	-179.87	-7,491.35	2,616.59	2,207.14	2,088.01	119.13	18.527	
14,800.00	7,589.17	16,703.40	9,796.62	68.64	72.62	-179.87	-7,594.86	2,616.63	2,206.86	2,086.22	120.64	18.293	
14,900.00	7,589.17	16,798.23	9,796.42	69.29	73.22	-179.88	-7,689.69	2,616.41	2,206.66	2,084.51	122.15	18.065	
15,000.00	7,589.16	16,898.61	9,796.34	69.94	73.84	-179.90	-7,790.07	2,616.07	2,206.58	2,082.91	123.67	17.843	
15,100.00	7,589.16	17,008.09	9,796.04	70.59	74.53	-179.91	-7,899.54	2,615.66	2,206.31	2,081.12	125.20	17.623	
15,200.00	7,589.16	17,107.70	9,795.29	71.25	75.16	-179.93	-7,999.15	2,615.42	2,205.57	2,078.85	126.71	17.406	
15,300.00	7,589.15	17,210.02	9,794.99	71.91	75.81	-179.94	-8,101.47	2,614.97	2,205.29	2,077.05	128.24	17.197	
15,400.00	7,589.15	17,323.85	9,793.74	72.57	76.54	-179.95	-8,215.30	2,614.74	2,204.17	2,074.40	129.77	16.986	
15,500.00	7,589.14	17,414.56	9,792.73	73.23	77.12	-179.97	-8,306.00	2,614.43	2,203.06	2,071.78	131.28	16.781	
15,600.00	7,589.14	17,516.74	9,791.91	73.89	77.77	-179.98	-8,408.18	2,614.27	2,202.27	2,069.46	132.81	16.582	
15,700.00	7,589.13	17,617.93	9,790.91	74.56	78.43	-179.98	-8,509.36	2,614.25	2,201.28	2,066.95	134.33	16.387	
15,800.00	7,589.13	17,731.83	9,789.39	75.23	79.16	-179.99	-8,623.25	2,614.24	2,199.95	2,064.09	135.86	16.192	
15,900.00	7,589.13	17,827.44	9,787.90	75.90	79.79	-180.00	-8,718.85	2,614.11	2,198.39	2,061.01	137.39	16.002	
16,000.00	7,589.12	17,907.00	9,787.02	76.57	80.30	180.00	-8,798.40	2,614.00	2,197.32	2,058.42	138.90	15.820	
16,060.40	7,589.12	17,956.56	9,786.82	76.97	80.63	179.99	-8,847.96	2,614.02	2,197.10	2,057.29	139.81	15.715	
16,100.00	7,589.12	17,985.97	9,786.89	77.24	80.82	179.99	-8,877.37	2,614.11	2,197.19	2,056.80	140.40	15.650	
16,200.00	7,589.11	18,092.85	9,787.35	77.92	81.52	180.00	-8,984.25	2,614.40	2,197.64	2,055.71	141.93	15.484	
16,300.00	7,589.11	18,174.58	9,787.80	78.59	82.06	179.99	-9,065.98	2,614.37	2,198.20	2,054.77	143.43	15.326	
16,400.00	7,589.11	18,304.15	9,788.38	79.27	82.91	179.98	-9,195.54	2,614.00	2,198.69	2,053.68	145.01	15.163	
16,500.00	7,589.10	18,416.73	9,787.33	79.95	83.65	179.97	-9,308.12	2,614.04	2,197.73	2,051.18	146.55	14.997	
16,600.00	7,589.10	18,514.73	9,786.65	80.63	84.30	179.97	-9,406.12	2,614.06	2,197.03	2,048.96	148.08	14.837	
16,700.00	7,589.09	18,617.48	9,785.55	81.31	84.99	179.96	-9,508.86	2,614.11	2,195.96	2,046.35	149.61	14.678	
16,800.00	7,589.09	18,702.22	9,784.96	82.00	85.55	179.96	-9,593.60	2,614.34	2,195.28	2,044.15	151.12	14.526	
16,830.37	7,589.09	18,726.55	9,784.92	82.21	85.71	179.97	-9,617.93	2,614.51	2,195.24	2,043.66	151.58	14.482	
16,900.00	7,589.08	18,803.60	9,784.93	82.68	86.23	179.98	-9,694.97	2,615.24	2,195.26	2,042.61	152.65	14.381	
17,000.00	7,589.08	18,903.90	9,784.36	83.37	86.90	-180.00	-9,795.27	2,616.25	2,194.70	2,040.52	154.17	14.235	
17,100.00	7,589.08	19,010.23	9,784.00	84.06	87.62	-179.97	-9,901.59	2,617.48	2,194.37	2,038.67	155.70	14.093	
17,200.00	7,589.07	19,096.37	9,783.60	84.75	88.20	-179.95	-9,987.73	2,618.48	2,193.93	2,036.71	157.21	13.955	
17,200.86	7,589.07	19,097.06	9,783.60	84.76	88.21	-179.95	-9,988.41	2,618.49	2,193.93	2,036.70	157.22	13.954	
17,300.00	7,589.07	19,167.71	9,783.99	85.44	88.69	-179.93	-10,059.06	2,619.36	2,194.51	2,035.82	158.69	13.829	
17,400.00	7,589.06	19,270.31	9,785.85	86.13	89.38	-179.90	-10,161.63	2,620.68	2,196.34	2,036.12	160.22	13.708	
17,500.00	7,589.06	19,374.42	9,786.53	86.83	90.09	-179.87	-10,265.73	2,622.17	2,196.98	2,035.23	161.75	13.583	
17,600.00	7,589.06	19,491.29	9,787.07	87.52	90.89	-179.83	-10,382.58	2,623.71	2,197.43	2,034.13	163.30	13.456	
17,700.00	7,589.05	19,544.20	9,787.42	88.22	91.25	-179.82	-10,435.48	2,624.38	2,198.40	2,033.66	164.73	13.345	
17,800.00	7,589.05	19,745.03	9,791.07	88.91	92.63	-179.79	-10,636.21	2,625.74	2,201.97	2,035.57	166.41	13.232	
17,900.00	7,589.04	19,839.08	9,789.35	89.61	93.27	-179.80	-10,730.24	2,625.52	2,200.13	2,032.18	167.95	13.100	
18,000.00	7,589.04	19,942.69	9,787.16	90.31	93.97	-179.90	-10,833.77	2,622.17	2,198.01	2,028.49	169.53	12.966	
18,100.00	7,589.03	20,047.12	9,784.91	91.01	94.67	-179.97	-10,938.14	2,619.35	2,195.86	2,024.77	171.10	12.834	
18,200.00	7,589.03	20,154.61	9,782.25	91.71	95.40	179.97	-11,045.57	2,617.35	2,193.39	2,020.73	172.66	12.703	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy												
											Offset Site Error:	0.00 usft
											Offset Well Error:	0.50 usft
Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside		+N/-S	+E/-W	Between	Between	Minimum
Depth	Depth	Depth	Depth			Toolface		(usft)	(usft)	Centres	Ellipses	Separation
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)				(usft)	(usft)	Factor
18,300.00	7,589.03	20,222.03	9,780.91	92.42	95.87	179.95		-11,112.97	2,616.90	2,191.43	2,017.24	174.19
18,400.00	7,589.02	20,305.83	9,780.46	93.12	96.44	179.98		-11,196.77	2,618.02	2,190.86	2,015.15	175.71
18,500.00	7,589.02	20,410.53	9,779.92	93.82	97.16	179.94		-11,301.45	2,616.83	2,190.35	2,013.08	177.27
18,600.00	7,589.01	20,506.36	9,779.33	94.53	97.81	179.88		-11,397.26	2,614.81	2,189.74	2,010.91	178.83
18,683.25	7,589.01	20,580.00	9,779.07	95.12	98.31	179.81		-11,470.86	2,612.35	2,189.47	2,009.35	180.13
18,700.00	7,589.01	20,580.00	9,779.07	95.23	98.31	179.81		-11,470.86	2,612.35	2,189.54	2,009.19	180.35
18,800.00	7,589.01	20,580.00	9,779.07	95.94	98.31	179.81		-11,470.86	2,612.35	2,192.58	2,011.05	181.54
18,900.00	7,589.00	20,580.00	9,779.07	96.65	98.31	179.81		-11,470.86	2,612.35	2,200.17	2,017.75	182.42
18,917.19	7,589.00	20,580.00	9,779.07	96.77	98.31	179.81		-11,470.86	2,612.35	2,201.93	2,019.39	182.54
18,917.96	7,589.00	20,580.00	9,779.07	97.01	98.31	179.81		-11,470.86	2,612.35	2,202.01	2,019.24	182.77

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 198-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	1.00	1.00	0.00	0.50	34.78	59.22	41.13	72.10					
100.00	100.00	100.81	100.81	0.28	0.52	34.98	59.19	41.41	72.24	71.44	0.80	90.181		
200.00	200.00	200.62	200.61	0.63	0.60	35.56	59.10	42.24	72.64	71.41	1.23	59.059		
300.00	300.00	300.70	300.69	0.99	0.84	35.98	59.17	42.96	73.12	71.28	1.84	39.799		
400.00	400.00	400.60	400.59	1.35	1.15	36.07	59.49	43.33	73.60	71.10	2.50	29.414		
500.00	500.00	500.25	500.23	1.71	1.48	36.32	59.90	44.04	74.35	71.16	3.19	23.309		
600.00	600.00	600.04	600.01	2.07	1.82	36.98	60.46	45.53	75.69	71.80	3.89	19.466		
700.00	700.00	700.93	700.90	2.43	2.16	36.90	61.13	45.90	76.44	71.85	4.59	16.657		
800.00	800.00	801.52	801.47	2.79	2.50	35.36	62.02	44.01	76.05	70.77	5.28	14.398		
900.00	900.00	902.04	901.95	3.14	2.83	33.38	62.82	41.39	75.23	69.26	5.98	12.591		
1,000.00	1,000.00	1,002.68	1,002.53	3.50	3.17	31.16	62.89	38.03	73.51	66.84	6.67	11.017		
1,100.00	1,099.98	1,102.95	1,102.73	3.85	3.51	-100.69	62.40	34.21	71.48	64.13	7.36	9.716		
1,200.00	1,199.84	1,202.94	1,202.64	4.18	3.86	-107.15	61.28	30.55	70.22	62.19	8.03	8.741		
1,224.50	1,224.27	1,227.38	1,227.07	4.27	3.94	-109.15	60.94	29.65	70.15	61.95	8.20	8.555	CC, ES	
1,300.00	1,299.45	1,302.50	1,302.12	4.52	4.20	-116.28	59.80	26.78	70.96	62.24	8.72	8.140		
1,400.00	1,398.70	1,401.55	1,401.07	4.86	4.54	-127.33	58.13	22.65	75.31	65.91	9.41	8.007	SF	
1,500.00	1,497.47	1,500.01	1,499.44	5.21	4.89	-138.26	56.35	18.71	84.60	74.50	10.10	8.378		
1,600.00	1,595.62	1,597.56	1,596.94	5.56	5.23	-146.87	55.04	16.34	99.23	88.44	10.79	9.197		
1,700.00	1,693.06	1,694.44	1,693.82	5.92	5.57	-152.85	54.79	15.80	118.81	107.33	11.48	10.351		
1,800.00	1,790.08	1,791.07	1,790.45	6.28	5.90	-157.15	55.26	15.99	141.19	129.02	12.16	11.607		
1,900.00	1,887.11	1,888.07	1,887.45	6.65	6.24	-160.17	56.00	16.35	164.27	151.41	12.85	12.780		
2,000.00	1,984.14	1,987.51	1,986.87	7.02	6.58	-162.24	56.75	17.76	187.09	173.54	13.56	13.802		
2,100.00	2,081.17	2,089.68	2,088.96	7.39	6.94	-163.41	56.69	21.91	207.92	193.65	14.27	14.570		
2,200.00	2,178.20	2,186.23	2,185.41	7.76	7.27	-164.31	56.29	26.10	228.37	213.41	14.97	15.259		
2,300.00	2,275.23	2,285.29	2,284.41	8.14	7.61	-165.33	55.29	29.54	248.93	233.26	15.68	15.880		
2,400.00	2,372.26	2,385.91	2,384.93	8.52	7.96	-166.18	53.55	33.71	268.59	252.20	16.39	16.383		
2,500.00	2,469.29	2,484.32	2,483.20	8.90	8.31	-166.78	51.80	38.61	287.74	270.63	17.11	16.820		
2,600.00	2,566.32	2,577.00	2,575.79	9.28	8.63	-167.41	50.16	42.29	307.57	289.77	17.80	17.283		
2,700.00	2,663.35	2,659.59	2,658.36	9.67	8.92	-168.40	49.41	41.40	331.19	312.78	18.41	17.986		
2,800.00	2,760.38	2,752.87	2,751.57	10.05	9.24	-169.59	49.52	37.80	357.52	338.43	19.09	18.725		
2,900.00	2,857.41	2,853.75	2,852.38	10.44	9.59	-170.71	49.40	34.07	383.72	363.89	19.83	19.350		
3,000.00	2,954.44	2,960.48	2,959.05	10.83	9.96	-171.85	46.91	31.31	407.72	387.11	20.61	19.787		
3,100.00	3,051.47	3,065.50	3,063.95	11.22	10.33	-172.97	42.49	29.20	430.18	408.82	21.36	20.137		
3,200.00	3,148.50	3,170.27	3,168.47	11.60	10.69	-174.13	35.60	27.81	450.65	428.53	22.12	20.375		
3,300.00	3,245.53	3,285.65	3,283.52	11.99	11.09	-175.18	27.02	28.65	469.32	446.40	22.91	20.483		
3,400.00	3,342.56	3,401.49	3,398.70	12.38	11.50	-176.06	15.64	33.50	483.88	460.19	23.69	20.426		
3,500.00	3,439.59	3,515.02	3,511.12	12.77	11.89	-176.94		40.65	495.27	470.83	24.45	20.259		
3,600.00	3,536.62	3,628.45	3,623.01	13.17	12.29	-177.84	-14.74	49.59	504.24	479.04	25.19	20.015		
3,700.00	3,633.65	3,738.14	3,730.57	13.56	12.68	-178.85	-33.69	59.75	510.32	484.39	25.93	19.681		
3,800.00	3,730.68	3,850.44	3,840.28	13.95	13.08	-179.92	-54.70	71.22	514.92	488.26	26.66	19.313		
3,900.00	3,827.71	3,961.65	3,948.30	14.34	13.47	-179.01	-77.51	84.64	517.01	489.62	27.39	18.877		
4,000.00	3,924.74	4,052.00	4,036.13	14.74	13.80	-178.18	-95.60	95.63	519.44	491.28	28.16	18.447		
4,100.00	4,021.77	4,153.18	4,134.61	15.13	14.16	-177.24	-115.72	107.29	522.64	493.73	28.91	18.077		
4,200.00	4,118.79	4,253.10	4,231.62	15.52	14.53	-176.21	-136.76	118.63	525.44	495.77	29.67	17.709		
4,300.00	4,215.82	4,348.60	4,324.52	15.92	14.88	-175.27	-156.23	129.17	529.04	498.60	30.44	17.382		
4,400.00	4,312.85	4,459.31	4,432.04	16.31	15.28	-174.26	-178.93	142.60	531.79	500.61	31.18	17.053		
4,500.00	4,409.88	4,562.29	4,531.72	16.70	15.66	-173.31	-200.90	156.26	533.26	501.32	31.94	16.693		
4,600.00	4,506.91	4,660.74	4,627.06	17.10	16.02	-172.46	-221.54	169.55	534.85	502.14	32.71	16.349		
4,700.00	4,603.94	4,756.12	4,719.55	17.49	16.38	-171.69	-240.94	182.43	536.91	503.42	33.49	16.032		
4,800.00	4,700.97	4,852.80	4,813.60	17.89	16.74	-171.00	-259.47	194.97	540.12	505.85	34.26	15.764		
4,900.00	4,798.00	4,952.92	4,910.90	18.28	17.11	-170.21	-279.38	207.60	543.38	508.35	35.03	15.510		
5,000.00	4,895.03	5,043.91	4,999.43	18.68	17.45	-169.50	-297.26	218.70	547.26	511.45	35.81	15.283		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

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Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Survey Program: 198-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	4,992.06	5,135.52	5,089.07	19.07	17.79	168.93	-313.22	228.77	553.32	516.75	36.57	15.130	
5,200.00	5,089.09	5,233.36	5,184.81	19.47	18.16	168.26	-330.76	238.64	560.04	522.70	37.34	14.998	
5,300.00	5,186.12	5,332.99	5,282.29	19.87	18.53	167.52	-349.03	248.25	567.07	528.96	38.11	14.879	
5,400.00	5,283.15	5,438.85	5,385.73	20.26	18.93	166.74	-368.87	258.82	573.70	534.80	38.90	14.749	
5,500.00	5,380.18	5,542.49	5,486.51	20.66	19.32	165.79	-390.64	269.35	579.29	539.61	39.68	14.599	
5,600.00	5,477.21	5,632.49	5,574.19	21.06	19.66	165.05	-408.72	278.52	585.39	544.94	40.44	14.474	
5,700.00	5,574.24	5,748.66	5,687.38	21.45	20.10	164.13	-432.00	290.29	591.74	550.50	41.25	14.347	
5,800.00	5,671.27	5,863.09	5,797.44	21.85	20.54	162.82	-460.23	303.82	594.70	552.66	42.04	14.147	
5,900.00	5,768.30	5,959.03	5,889.46	22.24	20.91	161.67	-484.74	315.49	597.28	554.44	42.83	13.944	
6,000.00	5,865.33	6,057.83	5,984.38	22.64	21.29	160.55	-509.37	327.52	600.33	556.70	43.63	13.760	
6,100.00	5,962.36	6,155.17	6,078.05	23.04	21.67	159.52	-533.08	339.34	603.82	559.40	44.42	13.593	
6,200.00	6,059.39	6,250.93	6,170.34	23.44	22.04	158.54	-555.93	350.76	607.90	562.68	45.21	13.445	
6,300.00	6,156.42	6,347.92	6,264.14	23.83	22.41	157.67	-577.90	361.88	612.96	566.96	46.00	13.325	
6,400.00	6,253.45	6,451.56	6,364.50	24.23	22.81	156.86	-600.42	374.65	617.60	570.80	46.80	13.197	
6,500.00	6,350.47	6,543.13	6,453.38	24.63	23.16	156.25	-619.22	386.11	622.53	574.95	47.57	13.085	
6,600.00	6,447.50	6,626.98	6,535.15	25.02	23.49	155.75	-635.57	394.91	629.74	581.43	48.31	13.035	
6,700.00	6,544.53	6,716.38	6,622.74	25.42	23.83	155.30	-651.76	402.46	639.33	590.28	49.05	13.034	
6,800.00	6,641.56	6,821.64	6,726.06	25.82	24.23	154.89	-669.60	411.76	648.89	599.04	49.85	13.016	
6,900.00	6,738.59	6,921.12	6,823.81	26.22	24.60	154.63	-685.39	421.29	658.02	607.39	50.63	12.996	
7,000.00	6,835.62	7,024.31	6,925.36	26.61	24.99	154.45	-700.74	431.28	667.30	615.87	51.42	12.977	
7,100.00	6,932.65	7,123.61	7,032.60	27.01	25.41	154.19	-718.29	443.10	675.18	622.94	52.23	12.926	
7,200.00	7,029.68	7,222.00	7,119.25	27.41	25.74	153.96	-732.70	452.83	682.90	629.92	52.97	12.892	
7,300.00	7,126.71	7,316.43	7,212.32	27.81	26.10	153.86	-746.11	461.60	692.69	638.97	53.72	12.894	
7,309.09	7,135.53	7,326.16	7,221.90	27.84	26.14	153.85	-747.51	462.52	693.57	639.77	53.80	12.892	
7,350.00	7,174.84	7,373.43	7,268.42	28.01	26.32	153.61	-754.53	467.11	698.66	644.52	54.15	12.903	
7,400.00	7,221.63	7,438.74	7,332.39	28.22	26.56	153.30	-765.50	474.35	707.52	652.92	54.60	12.958	
7,450.00	7,266.71	7,488.75	7,381.17	28.44	26.76	152.91	-774.75	480.41	719.50	664.50	55.01	13.080	
7,500.00	7,309.74	7,535.15	7,426.40	28.67	26.94	152.45	-783.46	485.95	735.28	679.87	55.41	13.271	
7,550.00	7,350.39	7,575.02	7,465.30	28.91	27.09	151.85	-790.88	490.57	754.88	699.10	55.78	13.533	
7,600.00	7,388.34	7,611.81	7,501.29	29.15	27.23	151.11	-797.38	494.59	778.40	722.26	56.13	13.867	
7,650.00	7,423.32	7,637.00	7,525.98	29.40	27.33	149.97	-801.64	497.20	805.71	749.29	56.42	14.280	
7,700.00	7,455.05	7,675.99	7,564.28	29.65	27.47	148.90	-807.90	500.98	836.47	779.71	56.76	14.737	
7,750.00	7,483.30	7,703.26	7,591.13	29.90	27.58	147.24	-812.02	503.39	870.60	813.57	57.03	15.267	
7,800.00	7,507.84	7,731.00	7,618.48	30.15	27.68	145.18	-816.01	505.67	907.75	850.47	57.28	15.847	
7,850.00	7,528.50	7,748.96	7,636.22	30.41	27.75	142.11	-818.48	507.05	947.54	890.08	57.46	16.489	
7,900.00	7,545.11	7,767.18	7,654.23	30.66	27.82	138.14	-820.87	508.40	989.65	932.02	57.63	17.171	
7,919.09	7,550.36	7,773.22	7,660.20	30.75	27.84	136.26	-821.64	508.83	1,006.27	948.57	57.69	17.442	
8,000.00	7,568.52	7,795.17	7,681.94	31.16	27.92	132.19	-824.34	510.35	1,078.51	1,020.62	57.89	18.631	
8,100.00	7,583.22	7,825.00	7,711.51	31.66	28.03	125.71	-827.76	512.28	1,170.87	1,112.73	58.14	20.140	
8,200.00	7,589.24	7,825.00	7,711.51	32.17	28.03	112.78	-827.76	512.28	1,265.60	1,207.44	58.16	21.761	
8,219.09	7,589.40	7,825.00	7,711.51	32.26	28.03	109.77	-827.76	512.28	1,283.90	1,225.74	58.16	22.074	
8,300.00	7,589.40	7,825.00	7,711.51	32.67	28.03	109.77	-827.76	512.28	1,361.79	1,303.62	58.17	23.410	
8,400.00	7,589.40	7,844.67	7,731.03	33.21	28.10	112.60	-829.85	513.47	1,458.32	1,399.99	58.33	25.001	
8,444.09	7,589.40	7,847.98	7,734.32	33.45	28.12	113.07	-830.19	513.67	1,501.04	1,442.68	58.36	25.720	
8,500.00	7,589.40	7,852.11	7,738.41	33.76	28.13	111.21	-830.61	513.91	1,555.11	1,496.71	58.40	26.630	
8,600.00	7,589.40	7,859.32	7,745.58	34.34	28.16	108.56	-831.32	514.31	1,651.13	1,592.67	58.46	28.243	
8,700.00	7,589.40	7,866.31	7,752.52	34.92	28.18	106.51	-832.00	514.70	1,746.16	1,687.64	58.52	29.838	
8,800.00	7,589.40	7,873.06	7,759.24	35.52	28.21	104.88	-832.64	515.07	1,840.12	1,781.54	58.58	31.412	
8,900.00	7,589.40	7,879.57	7,765.71	36.12	28.23	103.55	-833.24	515.42	1,932.93	1,874.30	58.64	32.965	
9,000.00	7,589.40	7,885.84	7,771.94	36.73	28.26	102.45	-833.80	515.74	2,024.52	1,965.83	58.69	34.495	
9,100.00	7,589.40	7,891.84	7,777.92	37.33	28.28	101.52	-834.33	516.05	2,114.79	2,056.06	58.74	36.003	
9,200.00	7,589.40	7,897.60	7,783.64	37.92	28.30	100.72	-834.82	516.34	2,203.70	2,144.92	58.78	37.488	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 198-MWD+IFR1+MS						Rule Assigned:							Offset Well Error: 0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,300.00	7,589.39	7,920.00	7,805.95	38.51	28.38	100.86	-836.63	517.40	2,291.27	2,232.32	58.95	38.866		
9,400.00	7,589.39	7,920.00	7,805.95	39.09	28.38	99.95	-836.63	517.40	2,377.17	2,318.22	58.95	40.324		
9,500.00	7,589.39	7,920.00	7,805.95	39.65	28.38	99.17	-836.63	517.40	2,461.52	2,402.58	58.95	41.758		
9,600.00	7,589.39	7,920.00	7,805.95	40.19	28.38	98.49	-836.63	517.40	2,544.26	2,485.32	58.94	43.167		
9,700.00	7,589.38	7,920.00	7,805.95	40.72	28.38	97.90	-836.63	517.40	2,625.32	2,566.39	58.93	44.550		
9,800.00	7,589.38	7,920.00	7,805.95	41.23	28.38	97.38	-836.63	517.40	2,704.64	2,645.72	58.92	45.905		
9,900.00	7,589.38	7,920.00	7,805.95	41.72	28.38	96.92	-836.63	517.40	2,782.16	2,723.26	58.91	47.231		
10,000.00	7,589.37	7,920.00	7,805.95	42.18	28.38	96.51	-836.63	517.40	2,857.83	2,798.94	58.89	48.527		
10,100.00	7,589.37	7,920.00	7,805.95	42.63	28.38	96.15	-836.63	517.40	2,931.58	2,872.71	58.88	49.792		
10,173.66	7,589.36	7,920.00	7,805.95	42.94	28.38	95.91	-836.63	517.40	2,984.65	2,925.79	58.86	50.703		
10,200.00	7,589.36	7,943.67	7,829.53	43.05	28.47	96.56	-838.38	518.43	3,003.32	2,944.27	59.05	50.864		
10,300.00	7,589.36	7,947.28	7,833.12	43.47	28.48	96.65	-838.63	518.58	3,075.80	3,016.73	59.07	52.072		
10,400.00	7,589.36	12,116.34	9,952.13	43.90	43.33	140.02	-3,162.88	622.92	3,082.14	3,008.25	73.89	41.713		
10,500.00	7,589.35	12,209.14	9,953.38	44.33	43.76	140.04	-3,255.67	623.03	3,083.23	3,008.26	74.97	41.126		
10,600.00	7,589.35	12,318.66	9,954.56	44.78	44.27	140.05	-3,365.18	623.36	3,083.97	3,007.81	76.16	40.494		
10,700.00	7,589.34	12,577.00	9,952.40	45.23	45.51	140.05	-3,623.42	625.27	3,084.13	3,005.89	78.24	39.420		
10,800.00	7,589.34	12,632.81	9,949.94	45.69	45.79	140.03	-3,679.17	625.98	3,080.28	3,001.11	79.18	38.904		
10,900.00	7,589.33	12,680.72	9,948.76	46.16	46.03	140.01	-3,727.06	626.04	3,078.36	2,998.30	80.07	38.448		
11,000.00	7,589.33	12,766.00	9,947.75	46.64	46.45	140.01	-3,812.34	626.71	3,077.13	2,995.96	81.18	37.906		
11,100.00	7,589.33	12,860.00	9,947.74	47.12	46.93	140.02	-3,906.33	627.60	3,076.64	2,994.29	82.35	37.361		
11,114.85	7,589.33	12,860.00	9,947.74	47.19	46.93	140.02	-3,906.33	627.60	3,076.60	2,994.17	82.44	37.321		
11,200.00	7,589.32	12,934.94	9,947.68	47.61	47.31	140.01	-3,981.27	627.24	3,076.91	2,993.49	83.42	36.886		
11,300.00	7,589.32	13,025.67	9,946.38	48.11	47.78	139.96	-4,071.97	625.25	3,077.35	2,992.74	84.61	36.372		
11,400.00	7,589.31	13,161.87	9,944.24	48.61	48.49	139.90	-4,208.12	623.02	3,077.31	2,991.20	86.11	35.736		
11,449.36	7,589.31	13,194.59	9,943.91	48.86	48.66	139.89	-4,240.83	622.84	3,077.17	2,990.55	86.62	35.523		
11,500.00	7,589.31	13,236.00	9,943.40	49.12	48.88	139.88	-4,282.23	622.09	3,077.33	2,990.13	87.20	35.289		
11,600.00	7,589.31	13,352.84	9,943.21	49.64	49.51	139.87	-4,399.06	621.72	3,077.58	2,989.00	88.58	34.742		
11,700.00	7,589.30	13,470.98	9,943.67	50.16	50.15	139.90	-4,517.18	623.66	3,076.93	2,986.96	89.96	34.202		
11,800.00	7,589.30	13,573.66	9,943.55	50.69	50.71	139.91	-4,619.85	625.13	3,076.05	2,984.79	91.26	33.708		
11,900.00	7,589.29	13,684.55	9,943.84	51.23	51.33	139.95	-4,730.71	627.52	3,074.99	2,982.39	92.61	33.205		
12,000.00	7,589.29	13,762.64	9,944.46	51.77	51.77	139.98	-4,808.77	629.70	3,073.97	2,980.23	93.74	32.793		
12,100.00	7,589.28	13,981.55	9,946.07	52.31	53.03	140.16	-5,027.32	641.19	3,071.06	2,975.29	95.78	32.064		
12,200.00	7,589.28	14,035.74	9,946.02	52.86	53.34	140.21	-5,081.40	644.64	3,067.20	2,970.43	96.77	31.695		
12,300.00	7,589.28	14,080.00	9,946.19	53.42	53.60	140.23	-5,125.63	646.31	3,065.19	2,967.49	97.70	31.373		
12,398.78	7,589.27	14,144.60	9,945.89	53.98	53.98	140.23	-5,190.22	646.61	3,064.66	2,965.89	98.77	31.029		
12,400.00	7,589.27	14,145.41	9,945.87	53.98	53.98	140.23	-5,191.03	646.60	3,064.66	2,965.88	98.78	31.024		
12,500.00	7,589.27	14,217.64	9,944.62	54.55	54.40	140.19	-5,263.22	644.65	3,065.17	2,965.24	99.93	30.673		
12,600.00	7,589.26	14,310.10	9,945.79	55.12	54.94	140.20	-5,355.67	644.47	3,066.38	2,965.18	101.21	30.298		
12,700.00	7,589.26	14,409.74	9,947.17	55.70	55.53	140.21	-5,455.30	644.74	3,067.40	2,964.85	102.54	29.913		
12,800.00	7,589.26	14,519.79	9,948.47	56.28	56.19	140.22	-5,565.34	644.41	3,068.65	2,964.68	103.97	29.515		
12,900.00	7,589.25	14,613.18	9,949.34	56.86	56.75	140.23	-5,658.72	644.49	3,069.45	2,964.18	105.27	29.158		
13,000.00	7,589.25	14,762.98	9,948.82	57.45	57.65	140.21	-5,808.52	643.70	3,069.62	2,962.61	107.02	28.683		
13,056.48	7,589.24	14,802.39	9,948.48	57.78	57.89	140.20	-5,847.93	643.55	3,069.47	2,961.80	107.66	28.509		
13,100.00	7,589.24	14,829.00	9,948.35	58.04	58.05	140.20	-5,874.54	643.37	3,069.56	2,961.43	108.13	28.387		
13,200.00	7,589.24	14,924.00	9,948.76	58.64	58.63	140.20	-5,969.53	643.18	3,070.15	2,960.69	109.47	28.047		
13,300.00	7,589.23	15,045.72	9,948.93	59.24	59.38	140.19	-6,091.25	643.14	3,070.39	2,959.38	111.01	27.658		
13,400.00	7,589.23	15,206.00	9,948.03	59.84	60.37	140.19	-6,251.52	644.06	3,069.90	2,957.05	112.85	27.203		
13,500.00	7,589.23	15,271.84	9,946.85	60.45	60.78	140.18	-6,317.34	644.65	3,068.23	2,954.24	113.99	26.918		
13,554.06	7,589.22	15,300.00	9,946.66	60.78	60.96	140.18	-6,345.50	644.66	3,068.00	2,953.46	114.54	26.786		
13,600.00	7,589.22	15,335.35	9,946.61	61.06	61.18	140.18	-6,380.85	644.59	3,068.08	2,952.98	115.10	26.657		
13,700.00	7,589.22	15,435.76	9,946.75	61.68	61.81	140.17	-6,481.25	643.97	3,068.71	2,952.21	116.50	26.341		
13,763.15	7,589.22	15,508.36	9,944.00	62.07	62.26	140.09	-6,553.73	640.92	3,068.63	2,951.15	117.48	26.120		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 198-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
13,800.00	7,589.21	15,529.83	9,943.01	62.30	62.40	140.06	140.06		-6,575.14	639.68	3,068.73	2,950.85	117.89	26.031	
13,900.00	7,589.21	15,596.86	9,940.40	62.92	62.82	139.96	139.96		-6,641.99	635.39	3,069.93	2,950.88	119.05	25.787	
14,000.00	7,589.21	15,749.28	9,939.45	63.54	63.78	139.92	139.92		-6,794.35	633.18	3,070.44	2,949.54	120.90	25.397	
14,046.31	7,589.20	15,793.04	9,939.33	63.83	64.06	139.92	139.92		-6,838.11	633.33	3,070.30	2,948.77	121.53	25.264	
14,100.00	7,589.20	15,820.48	9,939.47	64.17	64.24	139.92	139.92		-6,865.55	633.33	3,070.55	2,948.47	122.07	25.153	
14,200.00	7,589.20	15,974.64	9,944.19	64.80	65.24	140.04	140.04		-7,019.50	638.50	3,071.06	2,947.17	123.88	24.790	
14,300.00	7,589.19	16,051.00	9,945.12	65.43	65.74	140.08	140.08		-7,095.82	640.17	3,070.68	2,945.57	125.10	24.545	
14,304.36	7,589.19	16,051.00	9,945.12	65.46	65.74	140.08	140.08		-7,095.82	640.17	3,070.67	2,945.54	125.13	24.540	
14,400.00	7,589.19	16,127.42	9,944.89	66.07	66.23	140.06	140.06		-7,172.23	639.53	3,071.06	2,944.73	126.34	24.309	
14,500.00	7,589.18	16,210.35	9,945.36	66.71	66.77	140.06	140.06		-7,255.16	639.11	3,071.96	2,944.34	127.62	24.072	
14,600.00	7,589.18	16,402.06	9,946.03	67.35	68.02	140.11	140.11		-7,446.82	642.13	3,071.07	2,941.30	129.77	23.666	
14,700.00	7,589.18	16,463.95	9,945.97	67.99	68.43	140.12	140.12		-7,508.70	643.55	3,069.74	2,938.85	130.89	23.452	
14,734.62	7,589.17	16,481.33	9,945.93	68.22	68.54	140.12	140.12		-7,526.07	643.61	3,069.65	2,938.40	131.25	23.388	
14,800.00	7,589.17	16,521.00	9,945.79	68.64	68.80	140.11	140.11		-7,565.74	643.12	3,070.01	2,938.04	131.97	23.263	
14,900.00	7,589.17	16,674.27	9,942.84	69.29	69.81	140.04	140.04		-7,718.95	640.79	3,069.46	2,935.59	133.87	22.929	
15,000.00	7,589.16	16,750.35	9,940.00	69.94	70.31	139.97	139.97		-7,794.94	638.27	3,068.88	2,933.75	135.14	22.710	
15,011.18	7,589.16	16,758.06	9,939.86	70.01	70.36	139.97	139.97		-7,802.64	638.12	3,068.87	2,933.61	135.27	22.687	
15,100.00	7,589.16	16,860.57	9,939.74	70.59	71.04	139.96	139.96		-7,905.15	637.88	3,069.10	2,932.44	136.66	22.457	
15,200.00	7,589.16	16,958.62	9,937.85	71.25	71.69	139.92	139.92		-8,003.17	636.98	3,068.36	2,930.25	138.10	22.218	
15,300.00	7,589.15	17,065.62	9,936.56	71.91	72.40	139.89	139.89		-8,110.16	636.13	3,068.09	2,928.48	139.61	21.975	
15,394.11	7,589.15	17,141.04	9,936.27	72.53	72.91	139.89	139.89		-8,185.58	636.46	3,067.70	2,926.88	140.82	21.784	
15,400.00	7,589.15	17,145.26	9,936.28	72.57	72.94	139.89	139.89		-8,189.80	636.48	3,067.70	2,926.81	140.89	21.773	
15,500.00	7,589.14	17,228.83	9,936.92	73.23	73.50	139.90	139.90		-8,273.37	636.84	3,068.11	2,925.91	142.20	21.576	
15,600.00	7,589.14	17,332.63	9,937.97	73.89	74.20	139.92	139.92		-8,377.16	637.34	3,068.72	2,925.04	143.68	21.358	
15,700.00	7,589.13	17,418.89	9,938.73	74.56	74.78	139.93	139.93		-8,463.41	637.69	3,069.28	2,924.27	145.01	21.166	
15,800.00	7,589.13	17,534.37	9,939.97	75.23	75.56	139.95	139.95		-8,578.88	638.21	3,069.94	2,923.35	146.59	20.942	
15,900.00	7,589.13	17,611.41	9,940.01	75.90	76.08	139.94	139.94		-8,655.92	638.01	3,070.38	2,922.53	147.85	20.767	
16,000.00	7,589.12	17,748.98	9,941.47	76.57	77.02	139.95	139.95		-8,793.48	637.40	3,071.86	2,922.23	149.64	20.529	
16,100.00	7,589.12	17,835.00	9,941.68	77.24	77.60	139.96	139.96		-8,879.49	638.03	3,071.76	2,920.78	150.97	20.346	
16,115.42	7,589.12	17,856.37	9,941.68	77.35	77.75	139.96	139.96		-8,900.86	638.10	3,071.72	2,920.47	151.25	20.309	
16,200.00	7,589.11	17,902.57	9,942.30	77.92	78.06	139.97	139.97		-8,947.06	638.34	3,072.41	2,920.27	152.15	20.194	
16,300.00	7,589.11	17,973.62	9,944.89	78.59	78.55	140.01	140.01		-9,018.05	639.25	3,074.46	2,921.13	153.33	20.051	
16,400.00	7,589.11	18,204.25	9,955.00	79.27	80.16	140.25	140.25		-9,248.25	648.12	3,076.48	2,920.61	155.87	19.737	
16,500.00	7,589.10	18,295.42	9,954.90	79.95	80.79	140.28	140.28		-9,339.37	650.78	3,074.68	2,917.41	157.26	19.551	
16,600.00	7,589.10	18,356.81	9,954.73	80.63	81.21	140.29	140.29		-9,400.76	651.65	3,073.70	2,915.29	158.41	19.403	
16,700.00	7,589.09	18,464.01	9,955.32	81.31	81.95	140.32	140.32		-9,507.94	653.00	3,073.46	2,913.52	159.94	19.216	
16,800.00	7,589.09	18,558.93	9,954.48	82.00	82.61	140.31	140.31		-9,602.85	653.53	3,072.58	2,911.20	161.38	19.040	
16,839.48	7,589.09	18,587.00	9,954.34	82.27	82.80	140.31	140.31		-9,630.92	653.46	3,072.53	2,910.67	161.86	18.983	
16,900.00	7,589.08	18,633.54	9,954.21	82.68	83.13	140.30	140.30		-9,677.46	653.15	3,072.72	2,910.09	162.63	18.893	
17,000.00	7,589.08	18,728.90	9,954.10	83.37	83.78	140.28	140.28		-9,772.81	652.29	3,073.33	2,909.26	164.07	18.731	
17,100.00	7,589.08	18,824.57	9,955.09	84.06	84.45	140.30	140.30		-9,868.47	652.78	3,073.93	2,908.42	165.51	18.573	
17,200.00	7,589.07	18,908.58	9,955.28	84.75	85.03	140.29	140.29		-9,952.48	651.90	3,074.91	2,908.07	166.85	18.430	
17,300.00	7,589.07	19,057.46	9,955.83	85.44	86.07	140.27	140.27		-10,101.36	650.62	3,076.11	2,907.35	168.77	18.227	
17,400.00	7,589.06	19,173.43	9,954.54	86.13	86.87	140.25	140.25		-10,217.31	650.63	3,075.36	2,904.98	170.39	18.049	
17,500.00	7,589.06	19,259.75	9,953.10	86.83	87.48	140.22	140.22		-10,303.62	649.91	3,074.74	2,902.98	171.76	17.901	
17,587.42	7,589.06	19,335.00	9,952.22	87.43	88.00	140.20	140.20		-10,378.86	649.23	3,074.58	2,901.61	172.96	17.776	
17,600.00	7,589.06	19,335.00	9,952.22	87.52	88.00	140.20	140.20		-10,378.86	649.23	3,074.60	2,901.56	173.04	17.768	
17,700.00	7,589.05	19,428.00	9,951.30	88.22	88.65	140.16	140.16		-10,471.84	647.63	3,075.08	2,900.61	174.47	17.625	
17,800.00	7,589.05	19,536.57	9,951.56	88.91	89.41	140.15	140.15		-10,580.40	646.97	3,075.79	2,899.76	176.04	17.472	
17,900.00	7,589.04	19,670.30	9,951.40	89.61	90.35	140.16	140.16		-10,714.12	647.75	3,075.41	2,897.59	177.82	17.295	
18,000.00	7,589.04	19,776.25	9,949.42	90.31	91.10	140.12	140.12		-10,820.04	647.01	3,074.55	2,895.19	179.37	17.141	
18,081.58	7,589.04	19,829.33	9,947.28	90.88	91.47	140.07	140.07		-10,873.04	645.10	3,074.07	2,893.72	180.35	17.045	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy														Offset Site Error:	0.00 usft
Survey Program: 198-MWD+IFR1+MS														Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Rule Assigned:	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
18,100.00	7,589.03	19,838.86	9,947.02	91.01	91.54	140.06	-10,882.57	644.79	3,074.09	2,893.55	180.55	17.026			
18,200.00	7,589.03	19,891.00	9,946.49	91.71	91.91	140.03	-10,934.68	643.38	3,075.17	2,893.57	181.60	16.934			
18,300.00	7,589.03	20,103.06	9,944.61	92.42	93.40	139.96	-11,146.64	639.91	3,076.21	2,892.11	184.10	16.709			
18,400.00	7,589.02	20,172.00	9,942.69	93.12	93.89	139.91	-11,215.54	638.57	3,075.29	2,889.94	185.35	16.592			
18,424.07	7,589.02	20,172.00	9,942.69	93.29	93.89	139.91	-11,215.54	638.57	3,075.20	2,889.70	185.50	16.578			
18,500.00	7,589.02	20,239.29	9,941.78	93.82	94.36	139.88	-11,282.82	637.33	3,075.40	2,888.83	186.57	16.484			
18,600.00	7,589.01	20,305.00	9,940.88	94.53	94.83	139.85	-11,348.50	636.11	3,075.87	2,888.12	187.75	16.383			
18,700.00	7,589.01	20,305.00	9,940.88	95.23	94.83	139.85	-11,348.50	636.11	3,078.89	2,890.69	188.20	16.360			
18,800.00	7,589.01	20,305.00	9,940.88	95.94	94.83	139.85	-11,348.50	636.11	3,085.15	2,896.66	188.49	16.368			
18,900.00	7,589.00	20,305.00	9,940.88	96.65	94.83	139.85	-11,348.50	636.11	3,094.64	2,906.02	188.62	16.407			
18,917.19	7,589.00	20,305.00	9,940.88	96.77	94.83	139.85	-11,348.50	636.11	3,096.59	2,907.96	188.63	16.417			
18,917.96	7,589.00	20,305.00	9,940.88	97.01	94.83	139.85	-11,348.50	636.11	3,096.68	2,907.91	188.76	16.405			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Survey Program: 236-MWD+HRGM		Rule Assigned:										Offset Site Error:	0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.00	0.00	3.26	3.26	0.00	0.01	-75.88	247.35	-983.47	1,014.10				
100.00	100.00	105.26	105.26	0.28	0.17	-75.87	247.55	-983.31	1,013.99	1,013.55	0.45	2,271.726	
200.00	200.00	207.25	207.25	0.63	0.34	-75.83	248.12	-982.85	1,013.69	1,012.72	0.97	1,045.242	
300.00	300.00	311.26	311.25	0.99	0.65	-75.78	248.78	-982.07	1,013.12	1,011.48	1.64	616.855	
400.00	400.00	413.75	413.74	1.35	1.01	-75.77	248.80	-981.03	1,012.14	1,009.77	2.37	427.884	
500.00	500.00	513.07	513.05	1.71	1.37	-75.76	248.74	-980.01	1,011.13	1,008.05	3.08	328.552	
600.00	600.00	612.96	612.94	2.07	1.73	-75.75	248.73	-979.02	1,010.17	1,006.38	3.79	266.337	
700.00	700.00	709.34	709.31	2.43	2.07	-75.73	248.77	-978.13	1,009.29	1,004.80	4.49	224.730	
781.09	781.09	784.32	784.29	2.72	2.33	-75.72	248.93	-977.86	1,009.05	1,004.00	5.04	200.132	CC
800.00	800.00	801.80	801.78	2.79	2.39	-75.71	248.98	-977.86	1,009.06	1,003.89	5.17	195.165	
900.00	900.00	898.63	898.60	3.14	2.72	-75.70	249.29	-978.18	1,009.45	1,003.59	5.86	172.266	
1,000.00	1,000.00	998.96	998.93	3.50	3.06	-75.71	249.27	-978.64	1,009.89	1,003.34	6.56	153.996	ES
1,100.00	1,099.98	1,098.65	1,098.62	3.85	3.40	156.29	248.98	-979.15	1,011.92	1,004.68	7.24	139.722	
1,200.00	1,199.84	1,197.92	1,197.89	4.18	3.74	156.35	248.89	-979.67	1,017.19	1,009.27	7.92	128.484	
1,300.00	1,299.45	1,296.52	1,296.48	4.52	4.08	156.47	248.86	-980.23	1,025.73	1,017.13	8.60	119.325	
1,400.00	1,398.70	1,392.64	1,392.60	4.86	4.41	156.61	248.70	-981.00	1,037.65	1,028.38	9.27	111.903	
1,500.00	1,497.47	1,487.69	1,487.65	5.21	4.74	156.80	248.65	-982.06	1,053.10	1,043.15	9.95	105.849	
1,600.00	1,595.62	1,592.18	1,592.13	5.56	5.11	157.07	248.72	-983.13	1,071.70	1,061.03	10.66	100.499	
1,700.00	1,693.06	1,686.37	1,686.31	5.92	5.44	157.35	249.08	-983.75	1,093.24	1,081.90	11.35	96.355	
1,800.00	1,790.08	1,783.08	1,783.02	6.28	5.78	157.86	249.84	-984.46	1,116.61	1,104.57	12.04	92.752	
1,900.00	1,887.11	1,879.69	1,879.63	6.65	6.12	158.36	250.95	-985.06	1,140.05	1,127.32	12.73	89.540	
2,000.00	1,984.14	2,002.70	2,002.62	7.02	6.56	159.02	252.92	-984.26	1,162.55	1,149.02	13.53	85.946	
2,100.00	2,081.17	2,115.62	2,115.47	7.39	6.95	159.64	254.86	-980.94	1,182.99	1,168.71	14.28	82.820	
2,200.00	2,178.20	2,221.44	2,221.20	7.76	7.32	160.22	256.76	-977.22	1,203.09	1,188.07	15.02	80.102	
2,300.00	2,275.23	2,328.07	2,327.71	8.14	7.69	160.77	258.22	-972.45	1,222.24	1,206.48	15.76	77.548	
2,400.00	2,372.26	2,417.03	2,416.59	8.52	8.00	161.20	259.03	-968.56	1,241.45	1,225.00	16.44	75.505	
2,500.00	2,469.29	2,501.10	2,500.61	8.90	8.30	161.58	259.68	-965.85	1,261.73	1,244.63	17.10	73.766	
2,600.00	2,566.32	2,584.66	2,584.15	9.28	8.59	161.92	260.29	-964.13	1,283.12	1,265.36	17.76	72.231	
2,700.00	2,663.35	2,674.26	2,673.74	9.67	8.91	162.27	261.12	-963.16	1,305.53	1,287.08	18.45	70.765	
2,800.00	2,760.38	2,768.75	2,768.22	10.05	9.24	162.64	262.12	-962.23	1,328.12	1,308.97	19.15	69.344	
2,900.00	2,857.41	2,859.02	2,858.49	10.44	9.56	162.92	262.09	-962.18	1,351.23	1,331.40	19.83	68.125	
3,000.00	2,954.44	2,977.80	2,977.26	10.83	9.96	163.25	261.21	-962.36	1,374.42	1,353.78	20.64	66.600	
3,100.00	3,051.47	3,153.10	3,152.36	11.22	10.57	163.62	255.52	-956.82	1,393.68	1,372.02	21.65	64.361	
3,200.00	3,148.50	3,353.91	3,351.89	11.60	11.28	163.94	242.03	-939.19	1,406.42	1,383.72	22.69	61.973	
3,300.00	3,245.53	3,507.67	3,503.49	11.99	11.84	164.18	228.59	-917.37	1,413.24	1,389.68	23.56	59.994	
3,400.00	3,342.56	3,636.14	3,629.67	12.38	12.31	164.48	218.38	-895.58	1,418.02	1,393.67	24.35	58.228	
3,500.00	3,439.59	3,760.58	3,751.31	12.77	12.79	164.82	208.77	-871.13	1,420.25	1,395.11	25.14	56.497	
3,600.00	3,536.62	3,867.70	3,855.81	13.17	13.20	165.13	200.51	-849.05	1,421.66	1,395.77	25.90	54.899	
3,700.00	3,633.65	3,970.18	3,955.68	13.56	13.61	165.43	192.40	-827.54	1,422.67	1,396.03	26.65	53.387	
3,800.00	3,730.68	4,054.89	4,038.33	13.95	13.95	165.67	185.66	-810.27	1,424.27	1,396.90	27.37	52.031	
3,900.00	3,827.71	4,158.52	4,139.52	14.34	14.36	165.93	177.14	-789.59	1,426.19	1,398.06	28.13	50.696	
4,000.00	3,924.74	4,240.00	4,219.14	14.74	14.69	166.14	170.34	-773.67	1,428.53	1,399.68	28.85	49.513	
4,100.00	4,021.77	4,334.00	4,311.21	15.13	15.08	166.36	162.64	-756.39	1,431.98	1,402.39	29.59	48.387	
4,200.00	4,118.79	4,422.66	4,398.20	15.52	15.44	166.56	155.48	-740.82	1,436.25	1,405.92	30.33	47.360	
4,300.00	4,215.82	4,526.26	4,499.84	15.92	15.86	166.79	147.24	-722.55	1,440.56	1,409.46	31.09	46.333	
4,400.00	4,312.85	4,638.73	4,610.05	16.31	16.32	167.05	138.04	-702.05	1,444.22	1,412.35	31.88	45.306	
4,500.00	4,409.88	4,741.69	4,710.83	16.70	16.75	167.29	129.56	-682.75	1,447.43	1,414.79	32.64	44.340	
4,600.00	4,506.91	4,842.67	4,809.63	17.10	17.18	167.53	121.14	-663.67	1,450.47	1,417.06	33.41	43.418	
4,700.00	4,603.94	4,940.58	4,905.44	17.49	17.59	167.75	112.98	-645.24	1,453.60	1,419.44	34.17	42.546	
4,800.00	4,700.97	5,038.69	5,001.47	17.89	18.01	167.97	104.78	-626.90	1,456.87	1,421.95	34.92	41.714	
4,900.00	4,798.00	5,135.03	5,095.80	18.28	18.41	168.19	96.79	-609.03	1,460.31	1,424.63	35.68	40.927	
5,000.00	4,895.03	5,224.81	5,183.78	18.68	18.80	168.39	89.45	-592.69	1,464.18	1,427.75	36.42	40.201	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program: 236-MWD+HRGM							Rule Assigned:						Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,100.00	4,992.06	5,312.52	5,269.89	19.07	19.17	168.59	82.80	-577.38	1,468.98	1,431.82	37.16	39.536		
5,200.00	5,089.09	5,408.41	5,364.11	19.47	19.57	168.80	75.58	-561.11	1,474.28	1,436.37	37.91	38.890		
5,300.00	5,186.12	5,501.96	5,456.07	19.87	19.96	169.01	68.67	-545.40	1,479.83	1,441.17	38.66	38.282		
5,400.00	5,283.15	5,600.02	5,552.58	20.26	20.37	169.23	61.77	-529.46	1,486.03	1,446.62	39.42	37.702		
5,500.00	5,380.18	5,722.27	5,672.65	20.66	20.89	169.49	52.43	-508.49	1,491.16	1,450.92	40.24	37.055		
5,600.00	5,477.21	5,828.68	5,776.97	21.06	21.35	169.72	43.95	-489.28	1,495.36	1,454.33	41.03	36.449		
5,700.00	5,574.24	5,927.00	5,873.33	21.45	21.78	169.94	36.21	-471.35	1,499.46	1,457.67	41.79	35.881		
5,800.00	5,671.27	6,021.80	5,966.28	21.85	22.19	170.15	28.89	-454.22	1,503.82	1,461.27	42.55	35.346		
5,900.00	5,768.30	6,115.34	6,058.07	22.24	22.59	170.37	21.88	-437.60	1,508.57	1,465.27	43.30	34.841		
6,000.00	5,865.33	6,208.71	6,149.76	22.64	22.99	170.57	15.02	-421.38	1,513.76	1,469.71	44.05	34.366		
6,100.00	5,962.36	6,332.66	6,271.35	23.04	23.53	170.85	5.68	-399.18	1,518.42	1,473.54	44.88	33.831		
6,200.00	6,059.39	6,422.69	6,359.57	23.44	23.92	171.05	-1.21	-382.61	1,522.59	1,476.96	45.63	33.369		
6,300.00	6,156.42	6,511.20	6,446.42	23.83	24.30	171.25	-7.83	-366.92	1,527.48	1,481.11	46.37	32.943		
6,400.00	6,253.45	6,609.32	6,542.80	24.23	24.73	171.43	-15.81	-350.34	1,532.80	1,485.67	47.13	32.521		
6,500.00	6,350.47	6,698.00	6,629.93	24.63	25.11	171.54	-24.09	-336.05	1,538.26	1,490.40	47.87	32.135		
6,600.00	6,447.50	6,780.11	6,710.73	25.02	25.46	171.62	-32.07	-323.86	1,544.68	1,496.11	48.58	31.798		
6,700.00	6,544.53	6,852.29	6,781.98	25.42	25.75	171.67	-38.81	-314.42	1,552.81	1,503.57	49.24	31.533		
6,800.00	6,641.56	6,929.30	6,858.18	25.82	26.07	171.71	-45.63	-305.67	1,562.63	1,512.72	49.91	31.306		
6,900.00	6,738.59	7,018.13	6,946.24	26.22	26.42	171.79	-52.13	-295.92	1,573.57	1,522.95	50.63	31.081		
7,000.00	6,835.62	7,127.32	7,054.43	26.61	26.86	172.04	-56.75	-281.99	1,584.55	1,533.12	51.43	30.809		
7,100.00	6,932.65	7,228.66	7,154.73	27.01	27.27	172.28	-60.80	-268.11	1,594.83	1,542.63	52.20	30.551		
7,200.00	7,029.68	7,317.74	7,242.93	27.41	27.63	172.52	-63.66	-255.93	1,605.56	1,552.64	52.92	30.339		
7,300.00	7,126.71	7,443.85	7,367.72	27.81	28.14	172.89	-66.77	-238.06	1,616.39	1,562.60	53.80	30.046		
7,309.09	7,135.53	7,458.48	7,382.17	27.84	28.20	172.93	-67.19	-235.78	1,617.24	1,563.35	53.89	30.010		
7,350.00	7,174.84	7,493.05	7,416.32	28.01	28.34	172.98	-68.25	-230.46	1,622.52	1,568.33	54.18	29.946		
7,400.00	7,221.63	7,537.09	7,459.83	28.22	28.52	172.99	-69.72	-223.88	1,632.98	1,578.43	54.55	29.933		
7,450.00	7,266.71	7,573.67	7,496.01	28.44	28.67	172.93	-71.02	-218.64	1,647.85	1,592.95	54.90	30.016		
7,500.00	7,309.74	7,606.81	7,528.83	28.67	28.81	172.80	-72.21	-214.19	1,667.15	1,611.92	55.23	30.188		
7,550.00	7,350.39	7,642.00	7,563.72	28.91	28.95	172.61	-73.45	-209.78	1,690.71	1,635.15	55.56	30.430		
7,600.00	7,388.34	7,671.96	7,593.45	29.15	29.07	172.32	-74.44	-206.19	1,718.26	1,662.40	55.86	30.759		
7,650.00	7,423.32	7,703.70	7,624.95	29.40	29.19	171.96	-75.33	-202.43	1,749.48	1,693.32	56.17	31.149		
7,700.00	7,455.05	7,737.00	7,658.02	29.65	29.32	171.50	-76.08	-198.53	1,784.12	1,727.65	56.47	31.596		
7,750.00	7,483.30	7,737.00	7,658.02	29.90	29.32	170.59	-76.08	-198.53	1,822.01	1,765.44	56.58	32.205		
7,800.00	7,507.84	7,766.30	7,687.13	30.15	29.43	169.68	-76.64	-195.36	1,862.62	1,805.79	56.83	32.775		
7,850.00	7,528.50	7,779.04	7,699.81	30.41	29.48	168.19	-76.87	-194.13	1,905.85	1,848.87	56.98	33.448		
7,900.00	7,545.11	7,789.53	7,710.26	30.66	29.52	165.95	-77.05	-193.18	1,951.19	1,894.09	57.10	34.172		
7,919.09	7,550.36	7,792.93	7,713.65	30.75	29.53	164.79	-77.11	-192.88	1,968.97	1,911.83	57.14	34.459		
8,000.00	7,568.52	7,805.05	7,725.73	31.16	29.58	161.57	-77.31	-191.88	2,045.82	1,988.55	57.27	35.721		
8,100.00	7,583.22	7,830.00	7,750.61	31.66	29.67	155.11	-77.69	-190.07	2,143.11	2,085.63	57.48	37.283		
8,200.00	7,589.24	7,830.00	7,750.61	32.17	29.67	137.61	-77.69	-190.07	2,241.85	2,184.33	57.52	38.976		
8,219.09	7,589.40	7,830.00	7,750.61	32.26	29.67	131.56	-77.69	-190.07	2,260.82	2,203.30	57.52	39.302		
8,300.00	7,589.40	7,830.00	7,750.61	32.67	29.67	131.56	-77.69	-190.07	2,341.30	2,283.75	57.54	40.687		
8,400.00	7,589.40	7,830.00	7,750.61	33.21	29.67	131.56	-77.69	-190.07	2,440.80	2,383.23	57.57	42.398		
8,444.09	7,589.40	7,830.00	7,750.61	33.45	29.67	131.56	-77.69	-190.07	2,484.68	2,427.10	57.58	43.152		
8,500.00	7,589.40	7,830.00	7,750.61	33.76	29.67	122.15	-77.69	-190.07	2,540.27	2,482.68	57.59	44.106		
8,600.00	7,589.40	7,830.00	7,750.61	34.34	29.67	112.28	-77.69	-190.07	2,639.32	2,581.70	57.62	45.805		
8,700.00	7,589.40	7,830.00	7,750.61	34.92	29.67	106.77	-77.69	-190.07	2,737.70	2,680.05	57.65	47.489		
8,800.00	7,589.40	7,830.00	7,750.61	35.52	29.67	103.34	-77.69	-190.07	2,835.22	2,777.54	57.68	49.155		
8,900.00	7,589.40	7,830.00	7,750.61	36.12	29.67	101.01	-77.69	-190.07	2,931.72	2,874.01	57.71	50.800		
9,000.00	7,589.40	7,830.00	7,750.61	36.73	29.67	99.34	-77.69	-190.07	3,027.04	2,969.30	57.74	52.422		
9,100.00	7,589.40	7,830.00	7,750.61	37.33	29.67	98.08	-77.69	-190.07	3,121.05	3,063.27	57.78	54.018		
9,200.00	7,589.40	7,830.00	7,750.61	37.92	29.67	97.11	-77.69	-190.07	3,213.60	3,155.79	57.81	55.586		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 236-MWD+HRGM						Rule Assigned:			Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance			Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,300.00	7,589.39	7,830.00	7,750.61	38.51	29.67	96.34	-77.69	-190.07	3,304.58	3,246.73	57.85	57.125	
9,400.00	7,589.39	7,830.00	7,750.61	39.09	29.67	95.72	-77.69	-190.07	3,393.88	3,335.99	57.88	58.632	
9,500.00	7,589.39	7,830.00	7,750.61	39.65	29.67	95.20	-77.69	-190.07	3,481.38	3,423.46	57.92	60.107	
9,600.00	7,589.39	7,830.00	7,750.61	40.19	29.67	94.77	-77.69	-190.07	3,567.00	3,509.05	57.96	61.547	
9,700.00	7,589.38	7,830.00	7,750.61	40.72	29.67	94.40	-77.69	-190.07	3,650.63	3,592.64	57.99	62.951	
9,800.00	7,589.38	7,830.00	7,750.61	41.23	29.67	94.09	-77.69	-190.07	3,732.20	3,674.17	58.03	64.318	
9,900.00	7,589.38	7,830.00	7,750.61	41.72	29.67	93.82	-77.69	-190.07	3,811.60	3,753.54	58.06	65.646	
10,000.00	7,589.37	7,830.00	7,750.61	42.18	29.67	93.58	-77.69	-190.07	3,888.78	3,830.68	58.10	66.935	
10,100.00	7,589.37	7,830.00	7,750.61	42.63	29.67	93.38	-77.69	-190.07	3,963.64	3,905.51	58.13	68.181	
10,173.66	7,589.36	7,830.00	7,750.61	42.94	29.67	93.24	-77.69	-190.07	4,017.26	3,959.11	58.16	69.073	
10,200.00	7,589.36	7,830.00	7,750.61	43.05	29.67	93.24	-77.69	-190.07	4,036.25	3,978.08	58.17	69.389	
10,300.00	7,589.36	7,830.00	7,750.61	43.47	29.67	93.24	-77.69	-190.07	4,109.06	4,050.85	58.21	70.589	
10,400.00	7,589.36	7,830.00	7,750.61	43.90	29.67	93.24	-77.69	-190.07	4,183.00	4,124.74	58.26	71.805	
10,500.00	7,589.35	13,762.92	10,797.42	44.33	63.76	139.21	-3,262.82	-161.84	4,232.92	4,143.89	89.03	47.544	
10,600.00	7,589.35	13,883.73	10,796.93	44.78	65.13	139.19	-3,383.62	-163.15	4,233.47	4,142.68	90.79	46.629	
10,700.00	7,589.34	13,993.83	10,796.10	45.23	66.40	139.18	-3,493.71	-163.97	4,233.51	4,141.07	92.44	45.795	
10,702.97	7,589.34	13,996.16	10,796.10	45.25	66.43	139.18	-3,496.04	-163.96	4,233.51	4,141.03	92.48	45.776	
10,800.00	7,589.34	14,075.00	10,795.89	45.69	67.35	139.17	-3,574.88	-164.35	4,233.75	4,139.98	93.77	45.150	
10,900.00	7,589.33	14,182.97	10,796.02	46.16	68.62	139.17	-3,682.84	-164.45	4,234.03	4,138.61	95.42	44.373	
11,000.00	7,589.33	14,262.00	10,796.29	46.64	69.55	139.16	-3,761.87	-164.74	4,234.63	4,137.90	96.74	43.775	
11,100.00	7,589.33	14,365.97	10,796.20	47.12	70.79	139.15	-3,865.84	-165.98	4,235.48	4,137.11	98.37	43.058	
11,200.00	7,589.32	14,451.00	10,796.06	47.61	71.80	139.13	-3,950.86	-167.11	4,236.35	4,136.57	99.78	42.456	
11,300.00	7,589.32	14,770.62	10,792.61	48.11	75.72	139.15	-4,270.35	-161.56	4,234.04	4,130.05	103.99	40.716	
11,400.00	7,589.31	14,873.99	10,790.00	48.61	77.02	139.17	-4,373.61	-157.44	4,229.65	4,124.01	105.64	40.037	
11,500.00	7,589.31	14,963.16	10,788.56	49.12	78.14	139.20	-4,462.67	-153.36	4,225.56	4,118.43	107.13	39.444	
11,600.00	7,589.31	15,012.00	10,787.65	49.64	78.76	139.21	-4,511.46	-151.32	4,221.86	4,113.71	108.14	39.039	
11,700.00	7,589.30	15,071.66	10,786.67	50.16	79.51	139.22	-4,571.09	-149.67	4,219.17	4,109.88	109.29	38.605	
11,800.00	7,589.30	15,106.00	10,786.32	50.69	79.95	139.22	-4,605.42	-149.35	4,218.05	4,107.92	110.13	38.302	
11,837.24	7,589.30	15,130.40	10,786.21	50.89	80.25	139.22	-4,629.82	-149.32	4,217.96	4,107.37	110.58	38.143	
11,900.00	7,589.29	15,160.65	10,786.29	51.23	80.63	139.22	-4,660.07	-149.35	4,218.20	4,107.00	111.21	37.931	
12,000.00	7,589.29	15,225.96	10,787.16	51.77	81.45	139.22	-4,725.37	-149.65	4,219.56	4,107.14	112.42	37.534	
12,100.00	7,589.28	15,403.71	10,787.37	52.31	83.69	139.20	-4,903.11	-151.23	4,220.46	4,105.37	115.09	36.672	
12,103.94	7,589.28	15,375.00	10,787.45	52.33	83.33	139.20	-4,874.41	-151.11	4,220.45	4,105.72	114.73	36.784	
12,200.00	7,589.28	15,432.25	10,787.46	52.86	84.06	139.20	-4,931.65	-151.56	4,221.21	4,105.37	115.84	36.439	
12,300.00	7,589.28	15,482.00	10,787.98	53.42	84.69	139.19	-4,981.39	-152.63	4,223.40	4,106.53	116.87	36.139	
12,400.00	7,589.27	15,537.00	10,788.82	53.98	85.38	139.18	-5,036.35	-154.44	4,226.72	4,108.77	117.95	35.834	
12,500.00	7,589.27	15,641.58	10,790.22	54.55	86.70	139.14	-5,140.84	-158.78	4,230.59	4,110.87	119.72	35.337	
12,600.00	7,589.26	15,807.55	10,793.04	55.12	88.82	139.13	-5,306.72	-161.77	4,233.04	4,110.74	122.30	34.612	
12,700.00	7,589.26	15,909.99	10,794.64	55.70	90.15	139.13	-5,409.14	-163.06	4,235.18	4,111.15	124.03	34.146	
12,800.00	7,589.26	16,176.93	10,799.44	56.28	93.65	139.24	-5,675.92	-156.65	4,234.96	4,107.12	127.83	33.129	
12,900.00	7,589.25	16,272.02	10,800.30	56.86	94.91	139.28	-5,770.93	-152.84	4,233.15	4,103.70	129.45	32.701	
13,000.00	7,589.25	16,363.32	10,800.11	57.45	96.11	139.30	-5,862.19	-150.20	4,231.26	4,100.21	131.04	32.289	
13,100.00	7,589.24	16,435.02	10,799.74	58.04	97.06	139.31	-5,933.88	-149.15	4,230.01	4,097.62	132.40	31.950	
13,200.00	7,589.24	16,540.00	10,799.29	58.64	98.45	139.32	-6,038.85	-147.69	4,228.91	4,094.73	134.18	31.517	
13,300.00	7,589.23	16,630.65	10,799.00	59.24	99.65	139.33	-6,129.50	-146.62	4,228.02	4,092.24	135.78	31.138	
13,400.00	7,589.23	16,761.35	10,798.38	59.84	101.39	139.34	-6,260.17	-144.56	4,226.76	4,088.85	137.91	30.648	
13,500.00	7,589.23	16,861.47	10,797.68	60.45	102.73	139.35	-6,360.28	-142.60	4,225.08	4,085.44	139.64	30.256	
13,600.00	7,589.22	16,922.53	10,797.25	61.06	103.54	139.36	-6,421.32	-141.74	4,223.84	4,082.96	140.87	29.983	
13,652.51	7,589.22	16,946.75	10,797.09	61.38	103.86	139.35	-6,445.54	-141.75	4,223.66	4,082.25	141.41	29.867	
13,700.00	7,589.22	16,986.00	10,796.87	61.68	104.38	139.35	-6,484.79	-142.26	4,223.88	4,081.74	142.14	29.717	
13,800.00	7,589.21	17,047.88	10,796.52	62.30	105.20	139.33	-6,546.66	-143.57	4,224.80	4,081.42	143.38	29.465	
13,900.00	7,589.21	17,180.81	10,795.83	62.92	106.97	139.30	-6,679.56	-145.75	4,225.64	4,080.03	145.61	29.020	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Survey Program: 236-MWD+HRGM													Offset Site Error: 0.00 usft		
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
14,000.00	7,589.21	17,235.76	10,795.59	63.54	107.70	139.28	-6,734.51	-146.72	4,226.54	4,079.78	146.76	28.799			
14,100.00	7,589.20	17,321.79	10,794.99	64.17	108.84	139.25	-6,820.49	-149.55	4,228.27	4,079.91	148.36	28.501			
14,200.00	7,589.20	17,413.66	10,794.04	64.80	110.06	139.20	-6,912.29	-152.84	4,229.97	4,079.93	150.04	28.192			
14,300.00	7,589.19	17,559.43	10,797.10	65.43	112.02	139.23	-7,058.01	-152.73	4,231.78	4,079.36	152.42	27.764			
14,400.00	7,589.19	17,691.50	10,799.92	66.07	113.82	139.28	-7,190.01	-149.57	4,231.89	4,077.31	154.58	27.377			
14,500.00	7,589.18	17,772.33	10,801.84	66.71	114.92	139.32	-7,270.79	-147.54	4,232.18	4,076.13	156.06	27.120			
14,600.00	7,589.18	17,857.59	10,804.18	67.35	116.08	139.36	-7,356.00	-145.64	4,232.93	4,075.34	157.59	26.860			
14,700.00	7,589.18	17,994.79	10,806.19	67.99	117.95	139.39	-7,493.16	-143.91	4,233.36	4,073.51	159.85	26.484			
14,800.00	7,589.17	18,114.00	10,806.30	68.64	119.58	139.41	-7,612.35	-141.73	4,232.22	4,070.35	161.87	26.146			
14,868.75	7,589.17	18,163.66	10,806.72	69.09	120.26	139.43	-7,661.99	-140.50	4,231.76	4,068.94	162.82	25.991			
14,900.00	7,589.17	18,176.62	10,806.95	69.29	120.43	139.43	-7,674.95	-140.25	4,231.83	4,068.71	163.12	25.943			
15,000.00	7,589.16	18,230.56	10,808.31	69.94	121.17	139.45	-7,728.87	-139.52	4,232.90	4,068.67	164.24	25.773			
15,100.00	7,589.16	18,315.12	10,810.28	70.59	122.33	139.47	-7,813.40	-139.21	4,234.57	4,068.79	165.78	25.543			
15,200.00	7,589.16	18,520.11	10,814.10	71.25	125.13	139.52	-8,018.30	-137.36	4,235.87	4,066.89	168.98	25.067			
15,300.00	7,589.15	18,612.06	10,815.20	71.91	126.40	139.54	-8,110.22	-135.55	4,235.61	4,064.97	170.64	24.822			
15,400.00	7,589.15	18,707.46	10,815.75	72.57	127.71	139.57	-8,205.59	-133.41	4,234.75	4,062.41	172.34	24.572			
15,421.10	7,589.15	18,715.97	10,815.80	72.71	127.82	139.57	-8,214.10	-133.31	4,234.72	4,062.18	172.54	24.543			
15,500.00	7,589.14	18,770.00	10,816.48	73.23	128.56	139.58	-8,268.13	-133.20	4,235.30	4,061.70	173.60	24.396			
15,600.00	7,589.14	18,889.47	10,816.37	73.89	130.20	139.56	-8,387.58	-134.24	4,235.99	4,060.31	175.68	24.111			
15,700.00	7,589.13	18,957.00	10,815.55	74.56	131.12	139.54	-8,455.09	-135.69	4,236.56	4,059.51	177.05	23.929			
15,800.00	7,589.13	19,075.02	10,814.10	75.23	132.73	139.50	-8,573.08	-138.38	4,237.24	4,058.09	179.15	23.652			
15,900.00	7,589.13	19,178.12	10,813.13	75.90	134.14	139.47	-8,676.15	-140.16	4,237.77	4,056.75	181.02	23.411			
16,000.00	7,589.12	19,278.84	10,811.81	76.57	135.52	139.44	-8,776.85	-141.80	4,237.97	4,055.10	182.86	23.175			
16,100.00	7,589.12	19,350.13	10,811.35	77.24	136.49	139.42	-8,848.13	-142.98	4,238.69	4,054.41	184.28	23.001			
16,200.00	7,589.11	19,427.00	10,811.54	77.92	137.55	139.41	-8,924.99	-144.30	4,240.10	4,054.33	185.77	22.825			
16,300.00	7,589.11	19,473.35	10,812.35	78.59	138.18	139.40	-8,971.32	-144.93	4,242.38	4,055.60	186.78	22.713			
16,400.00	7,589.11	19,520.00	10,814.11	79.27	138.83	139.42	-9,017.94	-145.22	4,245.84	4,058.07	187.76	22.613			
16,500.00	7,589.10	19,587.83	10,817.11	79.95	139.76	139.43	-9,085.70	-146.17	4,250.27	4,061.22	189.05	22.482			
16,600.00	7,589.10	19,877.47	10,827.84	80.63	143.78	139.55	-9,375.05	-143.39	4,251.98	4,058.42	193.56	21.967			
16,700.00	7,589.09	19,971.49	10,830.22	81.31	145.09	139.59	-9,469.01	-140.73	4,252.22	4,056.98	195.24	21.780			
16,800.00	7,589.09	20,048.34	10,832.46	82.00	146.16	139.63	-9,545.80	-138.96	4,253.07	4,056.40	196.68	21.625			
16,900.00	7,589.08	20,253.37	10,832.96	82.68	149.02	139.66	-9,750.76	-136.18	4,252.05	4,052.13	199.92	21.269			
17,000.00	7,589.08	20,300.01	10,832.83	83.37	149.67	139.66	-9,797.39	-135.60	4,251.25	4,050.25	201.00	21.150			
17,006.89	7,589.08	20,302.68	10,832.87	83.42	149.71	139.66	-9,800.07	-135.54	4,251.25	4,050.18	201.07	21.144			
17,100.00	7,589.08	20,363.00	10,835.11	84.06	150.55	139.70	-9,860.32	-133.82	4,252.05	4,049.80	202.25	21.024			
17,200.00	7,589.07	20,430.97	10,838.59	84.75	151.50	139.75	-9,928.15	-131.55	4,253.69	4,050.15	203.54	20.899			
17,300.00	7,589.07	20,522.69	10,841.44	85.44	152.78	139.79	-10,019.82	-130.07	4,255.16	4,049.97	205.19	20.738			
17,400.00	7,589.06	20,595.82	10,842.78	86.13	153.80	139.80	-10,092.93	-130.62	4,257.18	4,050.58	206.60	20.606			
17,500.00	7,589.06	20,772.37	10,847.48	86.83	156.26	139.85	-10,269.39	-129.24	4,259.01	4,049.53	209.48	20.332			
17,600.00	7,589.06	20,959.39	10,849.15	87.52	158.88	139.89	-10,456.36	-126.14	4,258.93	4,046.48	212.45	20.047			
17,700.00	7,589.05	21,035.07	10,849.87	88.22	159.94	139.92	-10,531.99	-123.59	4,257.65	4,043.75	213.90	19.905			
17,800.00	7,589.05	21,105.00	10,850.71	88.91	160.92	139.94	-10,601.90	-122.06	4,257.23	4,041.95	215.28	19.775			
17,900.00	7,589.04	21,220.20	10,851.83	89.61	162.54	139.97	-10,717.07	-119.87	4,256.89	4,039.61	217.28	19.592			
17,995.86	7,589.04	21,292.00	10,852.31	90.28	163.54	139.99	-10,788.86	-118.84	4,256.62	4,037.94	218.67	19.466			
18,000.00	7,589.04	21,292.00	10,852.31	90.31	163.54	139.99	-10,788.86	-118.84	4,256.62	4,037.93	218.69	19.464			
18,100.00	7,589.03	21,347.49	10,852.99	91.01	164.32	139.99	-10,844.35	-118.41	4,257.21	4,037.35	219.86	19.363			
18,200.00	7,589.03	21,412.30	10,854.62	91.71	165.23	140.01	-10,909.14	-118.06	4,258.86	4,037.72	221.14	19.258			
18,300.00	7,589.03	21,480.00	10,855.24	92.42	166.17	140.00	-10,976.82	-119.29	4,260.98	4,038.49	222.49	19.151			
18,400.00	7,589.02	21,574.00	10,854.79	93.12	167.46	139.95	-11,070.71	-123.65	4,263.73	4,039.44	224.29	19.010			
18,500.00	7,589.02	21,734.37	10,853.58	93.82	169.68	139.87	-11,230.92	-130.49	4,266.11	4,038.98	227.13	18.782			
18,600.00	7,589.01	21,905.00	10,851.50	94.53	172.05	139.82	-11,401.51	-133.49	4,266.24	4,036.20	230.05	18.545			
18,608.52	7,589.01	21,905.00	10,851.50	94.59	172.05	139.82	-11,401.51	-133.49	4,266.24	4,036.15	230.09	18.542			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Survey Program: 236-MWD+HRGM												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth	Depth	Depth	Depth	Reference	Offset		+N/-S	+E/-W	Between	Between	Separation	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(")	(usft)	(usft)	Centres	Ellipses	(usft)		
									(usft)	(usft)			
18,700.00	7,589.01	21,947.00	10,850.77	95.23	172.64	139.80	-11,443.49	-134.34	4,266.57	4,035.50	231.07	18.464	
18,800.00	7,589.01	21,947.00	10,850.77	95.94	172.64	139.80	-11,443.49	-134.34	4,268.90	4,037.52	231.38	18.450	SF
18,900.00	7,589.00	21,947.00	10,850.77	96.65	172.64	139.80	-11,443.49	-134.34	4,273.57	4,041.99	231.58	18.454	
18,917.19	7,589.00	21,947.00	10,850.77	96.77	172.64	139.80	-11,443.49	-134.34	4,274.61	4,043.01	231.60	18.457	
18,917.96	7,589.00	21,947.00	10,850.77	97.01	172.64	139.80	-11,443.49	-134.34	4,274.66	4,042.99	231.67	18.451	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
0.00	0.00	0.00	0.00	0.00	0.50	54.22	58.45	81.11	99.98				
100.00	100.00	99.58	99.58	0.28	0.52	54.29	58.65	81.59	100.49	99.69	0.80	125.371	
200.00	200.00	198.55	198.53	0.63	0.59	54.49	59.24	83.02	102.01	100.78	1.23	83.127	
300.00	300.00	298.36	298.32	0.99	0.84	54.33	60.70	84.56	104.12	102.29	1.83	56.925	
400.00	400.00	398.32	398.25	1.35	1.14	53.57	63.12	85.53	106.33	103.83	2.49	42.655	
500.00	500.00	498.12	498.01	1.71	1.47	52.66	65.83	86.28	108.56	105.38	3.18	34.142	
600.00	600.00	598.12	597.96	2.07	1.81	51.73	68.85	87.28	111.20	107.32	3.88	28.675	
700.00	700.00	699.52	699.31	2.43	2.16	50.26	72.02	86.62	112.66	108.07	4.58	24.576	
800.00	800.00	799.52	799.24	2.79	2.51	48.58	75.39	85.44	113.96	108.67	5.29	21.549	
900.00	900.00	900.02	899.69	3.14	2.86	47.11	78.21	84.19	114.91	108.91	6.00	19.161	
1,000.00	1,000.00	1,001.20	1,000.85	3.50	3.21	45.95	80.20	82.90	115.34	108.64	6.71	17.198	
1,100.00	1,099.98	1,102.90	1,102.53	3.85	3.56	-83.86	80.80	80.94	114.18	106.78	7.40	15.433	
1,200.00	1,199.84	1,203.26	1,202.86	4.18	3.90	-87.27	80.21	78.50	111.70	103.62	8.07	13.838	
1,300.00	1,299.45	1,303.22	1,302.77	4.52	4.24	-92.78	79.53	75.64	109.39	100.64	8.75	12.501	
1,393.89	1,392.65	1,396.27	1,395.77	4.84	4.56	-99.78	78.71	72.66	108.33	98.94	9.39	11.533	
1,400.00	1,398.70	1,402.31	1,401.81	4.86	4.58	-100.29	78.65	72.47	108.34	98.90	9.44	11.482	ES
1,500.00	1,497.47	1,500.82	1,500.26	5.21	4.92	-109.38	77.69	69.33	110.23	100.10	10.13	10.886	
1,600.00	1,595.62	1,597.80	1,597.21	5.56	5.26	-118.79	76.85	67.12	116.76	105.95	10.82	10.795	
1,700.00	1,693.06	1,694.84	1,694.24	5.92	5.59	-127.61	76.32	66.16	128.71	117.20	11.51	11.184	
1,800.00	1,790.08	1,790.75	1,790.15	6.28	5.93	-135.39	76.19	65.21	144.99	132.79	12.20	11.885	
1,900.00	1,887.11	1,887.17	1,886.56	6.65	6.27	-141.61	76.54	64.11	163.95	151.06	12.89	12.715	
2,000.00	1,984.14	1,986.49	1,985.87	7.02	6.61	-146.23	76.80	64.46	183.87	170.27	13.60	13.524	
2,100.00	2,081.17	2,088.27	2,087.58	7.39	6.96	-149.23	76.09	68.18	202.60	188.30	14.30	14.167	
2,200.00	2,178.20	2,186.12	2,185.31	7.76	7.29	-151.42	75.03	72.74	220.99	205.99	15.00	14.737	
2,300.00	2,275.23	2,286.35	2,285.44	8.14	7.63	-153.46	73.25	77.07	239.20	223.49	15.70	15.233	
2,400.00	2,372.26	2,388.29	2,387.21	8.52	7.98	-155.22	70.34	82.10	256.41	239.99	16.42	15.619	
2,500.00	2,469.29	2,485.94	2,484.62	8.90	8.31	-156.63	66.67	87.79	272.63	255.51	17.12	15.923	
2,600.00	2,566.32	2,572.09	2,570.70	9.28	8.61	-158.07	64.37	90.36	291.38	273.60	17.78	16.390	
2,700.00	2,663.35	2,665.82	2,664.42	9.67	8.93	-159.87	63.31	89.64	313.49	295.03	18.46	16.978	
2,800.00	2,760.38	2,772.86	2,771.43	10.05	9.31	-161.86	61.59	87.73	336.18	316.95	19.23	17.485	
2,900.00	2,857.41	2,904.06	2,901.96	10.44	9.76	-164.44	49.06	89.20	350.89	330.85	20.03	17.514	
3,000.00	2,954.44	3,033.42	3,029.26	10.83	10.21	-166.93	27.44	96.25	357.89	337.17	20.72	17.273	
3,100.00	3,051.47	3,151.09	3,143.49	11.22	10.61	-168.37	4.07	111.88	357.61	336.24	21.37	16.735	
3,200.00	3,148.50	3,251.04	3,240.06	11.60	10.96	-169.02	-15.01	129.20	355.50	333.40	22.10	16.085	
3,300.00	3,245.53	3,347.04	3,332.98	11.99	11.30	-169.58	-32.59	145.74	354.11	331.25	22.86	15.491	
3,354.33	3,298.24	3,398.72	3,383.13	12.21	11.48	-169.87	-41.63	154.37	353.90	330.63	23.27	15.206	
3,400.00	3,342.56	3,442.76	3,425.92	12.38	11.64	-170.11	-49.11	161.60	354.01	330.39	23.62	14.988	
3,500.00	3,439.59	3,533.62	3,514.44	12.77	11.96	-170.60	-63.78	175.90	355.40	331.00	24.40	14.567	
3,600.00	3,536.62	3,625.54	3,604.63	13.17	12.29	-171.08	-76.39	188.33	360.10	334.94	25.16	14.312	
3,700.00	3,633.65	3,726.15	3,703.44	13.56	12.65	-171.59	-89.86	201.71	365.28	339.37	25.91	14.100	
3,800.00	3,730.68	3,825.71	3,801.19	13.95	13.01	-172.11	-103.43	214.82	370.40	343.74	26.66	13.896	
3,900.00	3,827.71	3,925.34	3,899.04	14.34	13.38	-172.60	-116.78	227.97	375.68	348.27	27.41	13.708	
4,000.00	3,924.74	4,023.63	3,995.59	14.74	13.73	-172.97	-129.46	241.31	381.10	352.94	28.16	13.533	
4,100.00	4,021.77	4,119.17	4,089.58	15.13	14.08	-173.29	-141.11	253.94	387.29	358.37	28.91	13.395	
4,200.00	4,118.79	4,219.89	4,188.78	15.52	14.45	-173.74	-153.47	266.15	394.23	364.56	29.67	13.288	
4,300.00	4,215.82	4,320.00	4,287.28	15.92	14.82	-174.46	-167.56	277.20	400.70	370.28	30.42	13.170	
4,400.00	4,312.85	4,416.31	4,382.09	16.31	15.17	-175.18	-181.12	287.33	407.63	376.45	31.18	13.073	
4,500.00	4,409.88	4,528.66	4,492.54	16.70	15.58	-175.92	-197.19	300.12	413.86	381.92	31.94	12.957	
4,600.00	4,506.91	4,635.36	4,596.88	17.10	15.98	-176.53	-213.91	314.86	417.32	384.63	32.69	12.764	
4,700.00	4,603.94	4,734.91	4,694.14	17.49	16.35	-177.04	-229.63	329.16	420.34	386.88	33.46	12.562	
4,800.00	4,700.97	4,838.45	4,795.15	17.89	16.74	-177.43	-245.67	345.25	422.67	388.45	34.22	12.352	
4,900.00	4,798.00	4,936.37	4,890.67	18.28	17.10	-177.73	-260.55	360.85	424.92	389.93	34.99	12.144	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,895.03	5,029.89	4,982.07	18.68	17.45	-178.01	-274.22	375.15	428.07	392.31	35.76	11.969	
5,100.00	4,992.06	5,126.34	5,076.71	19.07	17.81	-178.28	-287.12	388.57	433.10	396.57	36.53	11.855	
5,200.00	5,089.09	5,228.08	5,176.35	19.47	18.19	-178.59	-301.44	403.30	437.24	399.94	37.30	11.723	
5,300.00	5,186.12	5,322.88	5,269.40	19.87	18.55	-178.87	-314.15	416.23	442.49	404.43	38.06	11.625	
5,400.00	5,283.15	5,430.79	5,375.30	20.26	18.95	-179.26	-329.12	430.62	447.75	408.91	38.83	11.530	
5,500.00	5,380.18	5,533.02	5,475.17	20.66	19.34	-179.62	-344.63	445.95	450.81	411.21	39.60	11.383	
5,600.00	5,477.21	5,623.99	5,564.26	21.06	19.68	-179.86	-357.36	459.22	455.00	414.62	40.37	11.269	
5,700.00	5,574.24	5,729.32	5,667.65	21.45	20.08	-179.88	-371.29	473.71	460.36	419.22	41.15	11.188	
5,800.00	5,671.27	5,835.03	5,770.97	21.85	20.48	-179.53	-387.21	489.37	463.68	421.77	41.92	11.062	
5,900.00	5,768.30	5,929.96	5,863.74	22.24	20.84	-179.14	-401.93	503.14	467.02	424.33	42.69	10.939	
6,000.00	5,865.33	6,029.52	5,961.20	22.64	21.21	-178.82	-416.48	517.34	471.12	427.65	43.47	10.838	
6,100.00	5,962.36	6,126.20	6,055.92	23.04	21.58	-178.64	-429.60	531.56	475.50	431.26	44.24	10.748	
6,200.00	6,059.39	6,217.53	6,145.63	23.44	21.92	-178.51	-441.12	544.28	481.12	436.12	45.00	10.692	
6,300.00	6,156.42	6,316.49	6,243.02	23.83	22.30	-178.36	-452.99	557.24	487.78	442.01	45.77	10.658	
6,400.00	6,253.45	6,425.04	6,349.60	24.23	22.71	-178.09	-467.53	571.77	493.35	446.80	46.55	10.598	
6,500.00	6,350.47	6,517.06	6,439.98	24.63	23.05	-177.85	-479.88	583.83	499.15	451.84	47.31	10.550	
6,600.00	6,447.50	6,614.77	6,536.13	25.02	23.42	-177.80	-491.07	597.13	505.73	457.65	48.08	10.519	
6,700.00	6,544.53	6,706.15	6,626.26	25.42	23.76	-177.76	-500.88	608.54	513.65	464.83	48.82	10.522	
6,800.00	6,641.56	6,820.09	6,738.48	25.82	24.19	-177.44	-515.38	621.87	521.07	471.44	49.63	10.499	
6,900.00	6,738.59	6,939.60	6,855.26	26.22	24.65	-176.87	-534.90	638.08	524.76	474.33	50.42	10.407	
7,000.00	6,835.62	7,027.79	6,941.20	26.61	24.98	-176.56	-549.20	651.68	527.15	475.95	51.20	10.295	
7,100.00	6,932.65	7,121.34	7,033.15	27.01	25.34	-176.41	-561.18	664.12	533.15	481.18	51.97	10.259	
7,200.00	7,029.68	7,264.64	7,172.65	27.41	25.89	-175.90	-584.89	686.40	535.38	482.68	52.70	10.159	
7,300.00	7,126.71	7,367.23	7,271.24	27.81	26.29	-175.42	-605.47	705.89	532.44	478.96	53.48	9.956	
7,309.09	7,135.53	7,374.72	7,278.44	27.84	26.32	-175.39	-606.91	707.35	532.17	478.62	53.56	9.936	
7,322.22	7,148.23	7,385.54	7,288.86	27.90	26.36	-175.36	-608.95	709.44	532.00	478.32	53.67	9.912	
7,350.00	7,174.84	7,408.43	7,310.95	28.01	26.45	-175.29	-613.12	713.79	532.79	478.88	53.91	9.882	SF
7,400.00	7,221.63	7,450.00	7,351.20	28.22	26.62	-175.19	-620.17	721.40	538.24	483.90	54.34	9.905	
7,450.00	7,266.71	7,497.54	7,397.35	28.44	26.80	-175.12	-627.70	729.97	548.42	493.67	54.75	10.017	
7,500.00	7,309.74	7,544.00	7,442.48	28.67	26.98	-175.08	-634.72	738.51	562.87	507.71	55.15	10.205	
7,550.00	7,350.39	7,586.81	7,484.10	28.91	27.14	-175.05	-640.91	746.35	581.62	526.07	55.55	10.470	
7,600.00	7,388.34	7,626.99	7,523.25	29.15	27.30	-175.01	-646.46	753.54	604.65	548.71	55.94	10.809	
7,650.00	7,423.32	7,660.71	7,556.16	29.40	27.43	-174.91	-650.92	759.36	631.83	575.53	56.29	11.224	
7,700.00	7,455.05	7,689.94	7,584.78	29.65	27.54	-174.74	-654.56	764.02	663.14	606.53	56.61	11.713	
7,750.00	7,483.30	7,716.29	7,610.66	29.90	27.64	-174.47	-657.66	767.91	698.24	641.34	56.89	12.273	
7,800.00	7,507.84	7,742.70	7,636.65	30.15	27.74	-174.11	-660.61	771.53	736.68	679.53	57.15	12.891	
7,850.00	7,528.50	7,771.70	7,665.21	30.41	27.85	-173.68	-663.75	775.51	777.81	720.41	57.40	13.552	
7,900.00	7,545.11	7,796.97	7,690.09	30.66	27.94	-173.04	-666.41	779.06	821.23	763.62	57.61	14.255	
7,919.09	7,550.36	7,805.59	7,698.57	30.75	27.98	-172.72	-667.31	780.28	838.35	780.66	57.68	14.533	
8,000.00	7,568.52	7,837.52	7,730.00	31.16	28.10	-172.16	-670.58	784.87	912.62	854.68	57.95	15.749	
8,100.00	7,583.22	7,868.08	7,760.08	31.66	28.21	-170.77	-673.85	789.13	1,007.27	949.07	58.20	17.307	
8,200.00	7,589.24	7,890.47	7,782.12	32.17	28.30	-167.84	-676.39	792.12	1,104.39	1,046.00	58.38	18.916	
8,219.09	7,589.40	7,893.80	7,785.41	32.26	28.31	-166.93	-676.77	792.56	1,123.14	1,064.73	58.41	19.228	
8,300.00	7,589.40	7,907.26	7,798.66	32.67	28.36	-167.69	-678.36	794.30	1,202.76	1,144.23	58.52	20.552	
8,400.00	7,589.40	7,921.00	7,812.19	33.21	28.41	-168.36	-680.02	796.03	1,301.18	1,242.54	58.64	22.190	
8,444.09	7,589.40	7,929.84	7,820.89	33.45	28.45	-168.74	-681.10	797.13	1,344.58	1,285.88	58.71	22.903	
8,500.00	7,589.40	7,937.83	7,828.76	33.76	28.48	-160.27	-682.08	798.10	1,399.60	1,340.83	58.78	23.813	
8,600.00	7,589.40	7,951.92	7,842.64	34.34	28.53	-147.60	-683.82	799.79	1,497.78	1,438.89	58.89	25.431	
8,700.00	7,589.40	7,965.76	7,856.28	34.92	28.58	-138.02	-685.53	801.41	1,595.51	1,536.50	59.01	27.037	
8,800.00	7,589.40	7,979.34	7,869.66	35.52	28.63	-130.87	-687.21	802.97	1,692.63	1,633.50	59.13	28.628	
8,900.00	7,589.40	7,992.67	7,882.80	36.12	28.68	-125.47	-688.87	804.45	1,788.99	1,729.75	59.24	30.201	
9,000.00	7,589.40	8,005.74	7,895.69	36.73	28.73	-121.31	-690.50	805.88	1,884.47	1,825.12	59.35	31.754	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Survey Program: 200-MWD+IFR1+MS		Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy		Offset Site Error: 0.00 usft	
Reference		Offset		Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)
Highside Toolface (°)	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum Separation (usft)	Separation Factor
+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Warning	
9,100.00	7,589.40	8,016.00	7,905.82	37.33	28.77
9,200.00	7,589.40	8,033.47	7,923.06	37.92	28.84
9,300.00	7,589.39	8,047.65	7,937.05	38.51	28.89
9,400.00	7,589.39	8,061.44	7,950.65	39.09	28.94
9,500.00	7,589.39	8,074.80	7,963.84	39.65	28.99
9,600.00	7,589.39	8,145.63	8,033.62	40.19	29.26
9,700.00	7,589.38	11,820.00	9,991.22	40.72	44.00
9,800.00	7,589.38	11,936.14	9,990.29	41.23	44.48
9,900.00	7,589.38	12,008.00	9,989.39	41.72	44.78
10,000.00	7,589.37	12,096.30	9,987.92	42.18	45.14
10,100.00	7,589.37	12,196.00	9,984.08	42.63	45.54
10,173.66	7,589.36	12,252.49	9,982.00	42.94	45.78
10,191.70	7,589.36	12,259.98	9,981.88	43.01	45.81
10,200.00	7,589.36	12,291.00	9,981.76	43.05	45.93
10,300.00	7,589.36	12,372.31	9,981.48	43.47	46.27
10,384.78	7,589.36	12,421.91	9,981.05	43.83	46.49
10,400.00	7,589.36	12,428.97	9,981.08	43.90	46.52
10,500.00	7,589.35	12,479.00	9,982.00	44.33	46.73
10,600.00	7,589.35	12,663.52	9,983.54	44.78	47.56
10,700.00	7,589.34	12,744.09	9,982.76	45.23	47.92
10,800.00	7,589.34	12,856.00	9,981.63	45.69	48.43
10,856.92	7,589.34	12,894.21	9,981.34	45.96	48.60
10,900.00	7,589.33	12,913.48	9,981.38	46.16	48.69
11,000.00	7,589.33	12,974.33	9,982.15	46.64	48.97
11,100.00	7,589.33	13,099.96	9,981.91	47.12	49.52
11,200.00	7,589.32	13,311.37	9,978.37	47.61	50.52
11,300.00	7,589.32	13,419.00	9,975.01	48.11	51.06
11,400.00	7,589.31	13,482.39	9,973.49	48.61	51.38
11,500.00	7,589.31	13,559.26	9,973.35	49.12	51.78
11,600.00	7,589.31	13,708.54	9,971.97	49.64	52.56
11,700.00	7,589.30	13,784.20	9,970.78	50.16	52.96
11,800.00	7,589.30	13,888.00	9,968.48	50.69	53.51
11,900.00	7,589.29	13,960.61	9,966.91	51.23	53.90
11,987.41	7,589.29	14,025.70	9,966.93	51.70	54.25
12,000.00	7,589.29	14,037.43	9,966.96	51.77	54.31
12,100.00	7,589.28	14,133.54	9,967.37	52.31	54.83
12,200.00	7,589.28	14,215.97	9,967.92	52.86	55.28
12,300.00	7,589.28	14,318.88	9,970.23	53.42	55.86
12,400.00	7,589.27	14,411.10	9,972.27	53.98	56.38
12,500.00	7,589.27	14,539.77	9,973.81	54.55	57.11
12,511.92	7,589.27	14,563.34	9,973.58	54.62	57.24
12,600.00	7,589.26	14,684.79	9,973.63	55.12	57.93
12,700.00	7,589.26	14,781.63	9,972.17	55.70	58.49
12,786.19	7,589.26	14,825.00	9,972.22	56.20	58.75
12,800.00	7,589.26	14,825.00	9,972.22	56.28	58.75
12,900.00	7,589.25	14,908.30	9,972.81	56.86	59.22
13,000.00	7,589.25	15,001.10	9,972.88	57.45	59.74
13,100.00	7,589.24	15,110.77	9,972.91	58.04	60.35
13,200.00	7,589.24	15,219.85	9,972.99	58.64	60.98
13,300.00	7,589.23	15,330.83	9,972.65	59.24	61.62
13,400.00	7,589.23	15,426.52	9,972.97	59.84	62.19
13,500.00	7,589.23	15,537.81	9,973.39	60.45	62.85

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Survey Program: 200-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.00	7,589.22	15,648.25	9,972.97	61.06	63.51	164.60	-6,397.90	1,952.89	2,471.94	2,363.34	108.60	22.761	
13,699.40	7,589.22	15,738.62	9,972.80	61.67	64.06	164.60	-6,488.26	1,953.31	2,471.70	2,361.70	110.01	22.468	
13,700.00	7,589.22	15,739.14	9,972.80	61.68	64.06	164.60	-6,488.79	1,953.32	2,471.70	2,361.69	110.02	22.467	
13,800.00	7,589.21	15,832.24	9,972.98	62.30	64.63	164.60	-6,581.88	1,953.52	2,471.88	2,360.44	111.45	22.180	
13,900.00	7,589.21	15,934.27	9,973.12	62.92	65.25	164.59	-6,683.91	1,953.19	2,472.16	2,359.23	112.93	21.890	
14,000.00	7,589.21	16,031.95	9,973.16	63.54	65.85	164.58	-6,781.59	1,952.73	2,472.38	2,357.98	114.40	21.612	
14,100.00	7,589.20	16,125.16	9,973.58	64.17	66.42	164.58	-6,874.80	1,952.94	2,472.81	2,356.97	115.84	21.347	
14,200.00	7,589.20	16,251.27	9,973.56	64.80	67.21	164.58	-7,000.91	1,953.02	2,472.83	2,355.37	117.46	21.052	
14,300.00	7,589.19	16,329.00	9,973.17	65.43	67.69	164.56	-7,078.64	1,952.66	2,472.58	2,353.76	118.83	20.809	
14,303.73	7,589.19	16,341.76	9,973.12	65.46	67.77	164.56	-7,091.40	1,952.56	2,472.55	2,353.62	118.93	20.789	
14,400.00	7,589.19	16,424.00	9,973.49	66.07	68.28	164.55	-7,173.63	1,952.07	2,473.13	2,352.85	120.29	20.560	
14,500.00	7,589.18	16,513.65	9,974.06	66.71	68.84	164.51	-7,263.27	1,950.49	2,474.24	2,352.51	121.73	20.326	
14,600.00	7,589.18	16,587.32	9,974.55	67.35	69.30	164.46	-7,336.89	1,948.19	2,475.78	2,352.70	123.07	20.116	
14,700.00	7,589.18	16,740.02	9,976.19	67.99	70.26	164.45	-7,489.56	1,947.50	2,477.09	2,352.20	124.88	19.835	
14,789.41	7,589.17	16,828.83	9,976.98	68.57	70.84	164.53	-7,578.28	1,951.27	2,476.89	2,350.72	126.18	19.630	
14,800.00	7,589.17	16,836.71	9,977.06	68.64	70.89	164.54	-7,586.16	1,951.55	2,476.90	2,350.58	126.32	19.609	
14,900.00	7,589.17	16,935.49	9,977.91	69.29	71.53	164.57	-7,684.92	1,952.96	2,477.40	2,349.61	127.79	19.387	
15,000.00	7,589.16	17,058.64	9,978.43	69.94	72.33	164.68	-7,807.97	1,957.68	2,476.79	2,347.42	129.37	19.145	
15,100.00	7,589.16	17,169.55	9,979.07	70.59	73.07	164.82	-7,918.68	1,964.27	2,475.84	2,344.98	130.86	18.920	
15,200.00	7,589.16	17,250.70	9,979.33	71.25	73.60	164.91	-7,999.74	1,968.05	2,474.99	2,342.77	132.22	18.719	
15,300.00	7,589.15	17,370.67	9,979.61	71.91	74.39	165.00	-8,119.62	1,972.54	2,474.34	2,340.55	133.79	18.494	
15,400.00	7,589.15	17,442.30	9,979.65	72.57	74.86	165.04	-8,191.23	1,974.42	2,473.74	2,338.62	135.12	18.308	
15,416.10	7,589.15	17,456.00	9,979.68	72.67	74.96	165.04	-8,204.93	1,974.54	2,473.73	2,338.39	135.34	18.277	
15,500.00	7,589.14	17,537.74	9,979.83	73.23	75.49	165.05	-8,286.66	1,975.03	2,473.81	2,337.22	136.59	18.111	
15,600.00	7,589.14	17,584.00	9,979.92	73.89	75.79	165.06	-8,332.92	1,975.30	2,474.48	2,336.72	137.76	17.963	
15,700.00	7,589.13	17,584.00	9,979.92	74.56	75.79	165.06	-8,332.92	1,975.30	2,478.75	2,340.23	138.52	17.894	
15,800.00	7,589.13	17,584.00	9,979.92	75.23	75.79	165.06	-8,332.92	1,975.30	2,487.05	2,347.91	139.13	17.875	
15,900.00	7,589.13	17,584.00	9,979.92	75.90	75.79	165.06	-8,332.92	1,975.30	2,499.32	2,359.72	139.59	17.904	
16,000.00	7,589.12	17,584.00	9,979.92	76.57	75.79	165.06	-8,332.92	1,975.30	2,515.50	2,375.61	139.90	17.981	
16,100.00	7,589.12	17,584.00	9,979.92	77.24	75.79	165.06	-8,332.92	1,975.30	2,535.54	2,395.48	140.05	18.104	
16,200.00	7,589.11	17,584.00	9,979.92	77.92	75.79	165.06	-8,332.92	1,975.30	2,559.32	2,419.25	140.07	18.272	
16,300.00	7,589.11	17,584.00	9,979.92	78.59	75.79	165.06	-8,332.92	1,975.30	2,586.75	2,446.80	139.95	18.483	
16,400.00	7,589.11	17,584.00	9,979.92	79.27	75.79	165.06	-8,332.92	1,975.30	2,617.72	2,478.01	139.71	18.737	
16,500.00	7,589.10	17,584.00	9,979.92	79.95	75.79	165.06	-8,332.92	1,975.30	2,652.10	2,512.75	139.36	19.031	
16,600.00	7,589.10	17,584.00	9,979.92	80.63	75.79	165.06	-8,332.92	1,975.30	2,689.77	2,550.87	138.90	19.365	
16,700.00	7,589.09	17,584.00	9,979.92	81.31	75.79	165.06	-8,332.92	1,975.30	2,730.57	2,592.22	138.35	19.737	
16,800.00	7,589.09	17,584.00	9,979.92	82.00	75.79	165.06	-8,332.92	1,975.30	2,774.38	2,636.66	137.72	20.145	
16,900.00	7,589.08	17,584.00	9,979.92	82.68	75.79	165.06	-8,332.92	1,975.30	2,821.06	2,684.04	137.02	20.588	
17,000.00	7,589.08	17,584.00	9,979.92	83.37	75.79	165.06	-8,332.92	1,975.30	2,870.46	2,734.19	136.27	21.065	
17,100.00	7,589.08	17,584.00	9,979.92	84.06	75.79	165.06	-8,332.92	1,975.30	2,922.45	2,786.99	135.47	21.573	
17,200.00	7,589.07	17,584.00	9,979.92	84.75	75.79	165.06	-8,332.92	1,975.30	2,976.90	2,842.27	134.63	22.113	
17,300.00	7,589.07	17,584.00	9,979.92	85.44	75.79	165.06	-8,332.92	1,975.30	3,033.66	2,899.91	133.75	22.681	
17,400.00	7,589.06	17,584.00	9,979.92	86.13	75.79	165.06	-8,332.92	1,975.30	3,092.62	2,959.75	132.86	23.277	
17,500.00	7,589.06	17,584.00	9,979.92	86.83	75.79	165.06	-8,332.92	1,975.30	3,153.64	3,021.69	131.96	23.899	
17,600.00	7,589.06	17,584.00	9,979.92	87.52	75.79	165.06	-8,332.92	1,975.30	3,216.62	3,085.58	131.04	24.546	
17,700.00	7,589.05	17,584.00	9,979.92	88.22	75.79	165.06	-8,332.92	1,975.30	3,281.44	3,151.31	130.13	25.217	
17,800.00	7,589.05	17,584.00	9,979.92	88.91	75.79	165.06	-8,332.92	1,975.30	3,347.98	3,218.77	129.21	25.911	
17,900.00	7,589.04	17,584.00	9,979.92	89.61	75.79	165.06	-8,332.92	1,975.30	3,416.16	3,287.86	128.30	26.626	
18,000.00	7,589.04	17,584.00	9,979.92	90.31	75.79	165.06	-8,332.92	1,975.30	3,485.88	3,358.48	127.40	27.361	
18,100.00	7,589.03	17,584.00	9,979.92	91.01	75.79	165.06	-8,332.92	1,975.30	3,557.04	3,430.52	126.52	28.115	
18,200.00	7,589.03	17,584.00	9,979.92	91.71	75.79	165.06	-8,332.92	1,975.30	3,629.56	3,503.92	125.64	28.887	
18,300.00	7,589.03	17,584.00	9,979.92	92.42	75.79	165.06	-8,332.92	1,975.30	3,703.36	3,578.57	124.79	29.677	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy												
											Offset Site Error:	0.00 usft
											Offset Well Error:	0.50 usft
Survey Program:		200-MWD+IFR1+MS								Rule Assigned:		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance				
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside		Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
18,400.00	7,589.02	17,584.00	9,979.92	93.12	75.79	165.06	-8,332.92	1,975.30	3,778.37	3,654.42	123.95	30.482
18,500.00	7,589.02	17,584.00	9,979.92	93.82	75.79	165.06	-8,332.92	1,975.30	3,854.51	3,731.37	123.14	31.302
18,600.00	7,589.01	17,584.00	9,979.92	94.53	75.79	165.06	-8,332.92	1,975.30	3,931.72	3,809.38	122.34	32.137
18,700.00	7,589.01	17,584.00	9,979.92	95.23	75.79	165.06	-8,332.92	1,975.30	4,009.94	3,888.37	121.57	32.985
18,800.00	7,589.01	17,584.00	9,979.92	95.94	75.79	165.06	-8,332.92	1,975.30	4,089.11	3,968.29	120.82	33.845
18,900.00	7,589.00	17,584.00	9,979.92	96.65	75.79	165.06	-8,332.92	1,975.30	4,169.17	4,049.08	120.09	34.718
18,917.19	7,589.00	17,584.00	9,979.92	96.77	75.79	165.06	-8,332.92	1,975.30	4,183.02	4,063.06	119.96	34.869
18,917.96	7,589.00	17,584.00	9,979.92	97.01	75.79	165.06	-8,332.92	1,975.30	4,183.64	4,060.91	122.73	34.088

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)		Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.50	54.22	58.45	81.11	99.98				
100.00	100.00	99.58	99.58	0.28	0.52	54.29	58.65	81.59	100.49	99.69	0.80	125.371	
200.00	200.00	198.55	198.53	0.63	0.59	54.49	59.24	83.02	102.01	100.78	1.23	83.127	
300.00	300.00	298.36	298.32	0.99	0.84	54.33	60.70	84.56	104.12	102.29	1.83	56.925	
400.00	400.00	398.32	398.25	1.35	1.14	53.57	63.12	85.53	106.33	103.83	2.49	42.655	
500.00	500.00	498.12	498.01	1.71	1.47	52.66	65.83	86.28	108.56	105.38	3.18	34.142	
600.00	600.00	598.12	597.96	2.07	1.81	51.73	68.85	87.28	111.20	107.32	3.88	28.675	
700.00	700.00	699.52	699.31	2.43	2.16	50.26	72.02	86.62	112.66	108.07	4.58	24.576	
800.00	800.00	799.52	799.24	2.79	2.51	48.58	75.39	85.44	113.96	108.67	5.29	21.549	
900.00	900.00	900.02	899.69	3.14	2.86	47.11	78.21	84.19	114.91	108.91	6.00	19.161	
1,000.00	1,000.00	1,001.20	1,000.85	3.50	3.21	45.95	80.20	82.90	115.34	108.64	6.71	17.198	
1,100.00	1,099.98	1,102.90	1,102.53	3.85	3.56	-83.86	80.80	80.94	114.18	106.78	7.40	15.433	
1,200.00	1,199.84	1,203.26	1,202.86	4.18	3.90	-87.27	80.21	78.50	111.70	103.62	8.07	13.838	
1,300.00	1,299.45	1,303.22	1,302.77	4.52	4.24	-92.78	79.53	75.64	109.39	100.64	8.75	12.501	
1,393.89	1,392.65	1,396.27	1,395.77	4.84	4.56	-99.78	78.71	72.66	108.33	98.94	9.39	11.533	
1,400.00	1,398.70	1,402.31	1,401.81	4.86	4.58	-100.29	78.65	72.47	108.34	98.90	9.44	11.482	ES
1,500.00	1,497.47	1,500.82	1,500.26	5.21	4.92	-109.38	77.69	69.33	110.23	100.10	10.13	10.886	
1,600.00	1,595.62	1,597.80	1,597.21	5.56	5.26	-118.79	76.85	67.12	116.76	105.95	10.82	10.795	
1,700.00	1,693.06	1,694.84	1,694.24	5.92	5.59	-127.61	76.32	66.16	128.71	117.20	11.51	11.184	
1,800.00	1,790.08	1,790.75	1,790.15	6.28	5.93	-135.39	76.19	65.21	144.99	132.79	12.20	11.885	
1,900.00	1,887.11	1,887.17	1,886.56	6.65	6.27	-141.61	76.54	64.11	163.95	151.06	12.89	12.715	
2,000.00	1,984.14	1,986.49	1,985.87	7.02	6.61	-146.23	76.80	64.46	183.87	170.27	13.60	13.524	
2,100.00	2,081.17	2,088.27	2,087.58	7.39	6.96	-149.23	76.09	68.18	202.60	188.30	14.30	14.167	
2,200.00	2,178.20	2,186.12	2,185.31	7.76	7.29	-151.42	75.03	72.74	220.99	205.99	15.00	14.737	
2,300.00	2,275.23	2,286.35	2,285.44	8.14	7.63	-153.46	73.25	77.07	239.20	223.49	15.70	15.233	
2,400.00	2,372.26	2,388.29	2,387.21	8.52	7.98	-155.22	70.34	82.10	256.41	239.99	16.42	15.619	
2,500.00	2,469.29	2,485.94	2,484.62	8.90	8.31	-156.63	66.67	87.79	272.63	255.51	17.12	15.923	
2,600.00	2,566.32	2,572.09	2,570.70	9.28	8.61	-158.07	64.37	90.36	291.38	273.60	17.78	16.390	
2,700.00	2,663.35	2,665.82	2,664.42	9.67	8.93	-159.87	63.31	89.64	313.49	295.03	18.46	16.978	
2,800.00	2,760.38	2,772.86	2,771.43	10.05	9.31	-161.86	61.59	87.73	336.18	316.95	19.23	17.485	
2,900.00	2,857.41	2,904.06	2,901.96	10.44	9.76	-164.44	49.06	89.20	350.89	330.85	20.03	17.514	
3,000.00	2,954.44	3,033.42	3,029.26	10.83	10.21	-166.93	27.44	96.25	357.89	337.17	20.72	17.273	
3,100.00	3,051.47	3,151.09	3,143.49	11.22	10.61	-168.37	4.07	111.88	357.61	336.24	21.37	16.735	
3,200.00	3,148.50	3,251.04	3,240.06	11.60	10.96	-169.02	-15.01	129.20	355.50	333.40	22.10	16.085	
3,300.00	3,245.53	3,347.04	3,332.98	11.99	11.30	-169.58	-32.59	145.74	354.11	331.25	22.86	15.491	
3,354.33	3,298.24	3,398.72	3,383.13	12.21	11.48	-169.87	-41.63	154.37	353.90	330.63	23.27	15.206	
3,400.00	3,342.56	3,442.76	3,425.92	12.38	11.64	-170.11	-49.11	161.60	354.01	330.39	23.62	14.988	
3,500.00	3,439.59	3,533.62	3,514.44	12.77	11.96	-170.60	-63.78	175.90	355.40	331.00	24.40	14.567	
3,600.00	3,536.62	3,625.54	3,604.63	13.17	12.29	-171.08	-76.39	188.33	360.10	334.94	25.16	14.312	
3,700.00	3,633.65	3,726.15	3,703.44	13.56	12.65	-171.59	-89.86	201.71	365.28	339.37	25.91	14.100	
3,800.00	3,730.68	3,825.71	3,801.19	13.95	13.01	-172.11	-103.43	214.82	370.40	343.74	26.66	13.896	
3,900.00	3,827.71	3,925.34	3,899.04	14.34	13.38	-172.60	-116.78	227.97	375.68	348.27	27.41	13.708	
4,000.00	3,924.74	4,023.63	3,995.59	14.74	13.73	-172.97	-129.46	241.31	381.10	352.94	28.16	13.533	
4,100.00	4,021.77	4,119.17	4,089.58	15.13	14.08	-173.29	-141.11	253.94	387.29	358.37	28.91	13.395	
4,200.00	4,118.79	4,219.89	4,188.78	15.52	14.45	-173.74	-153.47	266.15	394.23	364.56	29.67	13.288	
4,300.00	4,215.82	4,320.00	4,287.28	15.92	14.82	-174.46	-167.56	277.20	400.70	370.28	30.42	13.170	
4,400.00	4,312.85	4,416.31	4,382.09	16.31	15.17	-175.18	-181.12	287.33	407.63	376.45	31.18	13.073	
4,500.00	4,409.88	4,528.66	4,492.54	16.70	15.58	-175.92	-197.19	300.12	413.86	381.92	31.94	12.957	
4,600.00	4,506.91	4,635.36	4,598.88	17.10	15.98	-176.53	-213.91	314.86	417.32	384.63	32.69	12.764	
4,700.00	4,603.94	4,734.91	4,694.14	17.49	16.35	-177.04	-229.63	329.16	420.34	386.88	33.46	12.562	
4,800.00	4,700.97	4,838.45	4,795.15	17.89	16.74	-177.43	-245.67	345.25	422.67	388.45	34.22	12.352	
4,900.00	4,798.00	4,936.37	4,890.67	18.28	17.10	-177.73	-260.55	360.85	424.92	389.93	34.99	12.144	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy														Offset Site Error:	0.00 usft
Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS														Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)							
5,000.00	4,895.03	5,029.89	4,982.07	18.68	17.45	-178.01	-274.22	375.15	428.07	392.31	35.76	11.969			
5,100.00	4,992.06	5,126.34	5,076.71	19.07	17.81	-178.28	-287.12	388.57	433.10	396.57	36.53	11.855			
5,200.00	5,089.09	5,228.08	5,176.35	19.47	18.19	-178.59	-301.44	403.30	437.24	399.94	37.30	11.723			
5,300.00	5,186.12	5,322.88	5,269.40	19.87	18.55	-178.87	-314.15	416.23	442.49	404.43	38.06	11.625			
5,400.00	5,283.15	5,430.79	5,375.30	20.26	18.95	-179.26	-329.12	430.62	447.75	408.91	38.83	11.530			
5,500.00	5,380.18	5,533.02	5,475.17	20.66	19.34	-179.62	-344.63	445.95	450.81	411.21	39.60	11.383			
5,600.00	5,477.21	5,623.99	5,564.26	21.06	19.68	-179.86	-357.36	459.22	455.00	414.62	40.37	11.269			
5,700.00	5,574.24	5,729.32	5,667.65	21.45	20.08	-179.88	-371.29	473.71	460.36	419.22	41.15	11.188			
5,800.00	5,671.27	5,835.03	5,770.97	21.85	20.48	-179.53	-387.21	489.37	463.68	421.77	41.92	11.062			
5,900.00	5,768.30	5,929.96	5,863.74	22.24	20.84	-179.14	-401.93	503.14	467.02	424.33	42.69	10.939			
6,000.00	5,865.33	6,029.52	5,961.20	22.64	21.21	-178.82	-416.48	517.34	471.12	427.65	43.47	10.838			
6,100.00	5,962.36	6,126.20	6,055.92	23.04	21.58	-178.64	-429.60	531.56	475.50	431.26	44.24	10.748			
6,200.00	6,059.39	6,217.53	6,145.63	23.44	21.92	-178.51	-441.12	544.28	481.12	436.12	45.00	10.692			
6,300.00	6,156.42	6,316.49	6,243.02	23.83	22.30	-178.36	-452.99	557.24	487.78	442.01	45.77	10.658			
6,400.00	6,253.45	6,425.04	6,349.60	24.23	22.71	-178.09	-467.53	571.77	493.35	446.80	46.55	10.598			
6,500.00	6,350.47	6,517.06	6,439.98	24.63	23.05	-177.85	-479.88	583.83	499.15	451.84	47.31	10.550			
6,600.00	6,447.50	6,614.77	6,536.13	25.02	23.42	-177.80	-491.07	597.13	505.73	457.65	48.08	10.519			
6,700.00	6,544.53	6,706.15	6,626.26	25.42	23.76	-177.76	-500.88	608.54	513.65	464.83	48.82	10.522			
6,800.00	6,641.56	6,820.09	6,738.48	25.82	24.19	-177.44	-515.38	621.87	521.07	471.44	49.63	10.499			
6,900.00	6,738.59	6,939.60	6,855.26	26.22	24.65	-176.87	-534.90	638.08	524.76	474.33	50.42	10.407			
7,000.00	6,835.62	7,027.79	6,941.20	26.61	24.98	-176.56	-549.20	651.68	527.15	475.95	51.20	10.295			
7,100.00	6,932.65	7,121.34	7,033.15	27.01	25.34	-176.41	-561.18	664.12	533.15	481.18	51.97	10.259			
7,200.00	7,029.68	7,264.64	7,172.65	27.41	25.89	-175.90	-584.89	686.40	535.38	482.68	52.70	10.159			
7,300.00	7,126.71	7,367.23	7,271.24	27.81	26.29	-175.42	-605.47	705.89	532.44	478.96	53.48	9.956			
7,309.09	7,135.53	7,374.72	7,278.44	27.84	26.32	-175.39	-606.91	707.35	532.17	478.62	53.56	9.936			
7,322.22	7,148.23	7,385.54	7,288.86	27.90	26.36	-175.36	-608.95	709.44	532.00	478.32	53.67	9.912			
7,350.00	7,174.84	7,408.43	7,310.95	28.01	26.45	-175.29	-613.12	713.79	532.79	478.88	53.91	9.882	SF		
7,400.00	7,221.63	7,450.00	7,351.20	28.22	26.62	-175.19	-620.17	721.40	538.24	483.90	54.34	9.905			
7,450.00	7,266.71	7,497.54	7,397.35	28.44	26.80	-175.12	-627.70	729.97	548.42	493.67	54.75	10.017			
7,500.00	7,309.74	7,544.00	7,442.48	28.67	26.98	-175.08	-634.72	738.51	562.87	507.71	55.15	10.205			
7,550.00	7,350.39	7,586.81	7,484.10	28.91	27.14	-175.05	-640.91	746.35	581.62	526.07	55.55	10.470			
7,600.00	7,388.34	7,626.99	7,523.25	29.15	27.30	-175.01	-646.46	753.54	604.65	548.71	55.94	10.809			
7,650.00	7,423.32	7,660.71	7,556.16	29.40	27.43	-174.91	-650.92	759.36	631.83	575.53	56.29	11.224			
7,700.00	7,455.05	7,689.94	7,584.78	29.65	27.54	-174.74	-654.56	764.02	663.14	606.53	56.61	11.714			
7,750.00	7,483.30	7,716.29	7,610.66	29.90	27.64	-174.47	-657.66	767.91	698.24	641.34	56.89	12.273			
7,800.00	7,507.84	7,742.70	7,636.65	30.15	27.74	-174.11	-660.61	771.53	736.68	679.53	57.15	12.891			
7,850.00	7,528.50	7,771.70	7,665.21	30.41	27.85	-173.68	-663.75	775.51	777.81	720.41	57.40	13.552			
7,900.00	7,545.11	7,796.97	7,690.09	30.66	27.94	-173.04	-666.41	779.06	821.23	763.62	57.61	14.255			
7,919.09	7,550.36	7,805.59	7,698.57	30.75	27.98	-172.72	-667.31	780.28	838.35	780.66	57.68	14.533			
8,000.00	7,568.52	7,837.52	7,730.00	31.16	28.10	-172.16	-670.58	784.87	912.62	854.68	57.95	15.749			
8,100.00	7,583.22	7,868.08	7,760.08	31.66	28.21	-170.77	-673.85	789.13	1,007.27	949.07	58.20	17.307			
8,200.00	7,589.24	7,890.47	7,782.12	32.17	28.30	-167.84	-676.39	792.12	1,104.39	1,046.00	58.38	18.916			
8,219.09	7,589.40	7,893.80	7,785.41	32.26	28.31	-166.93	-676.77	792.56	1,123.14	1,064.73	58.41	19.228			
8,300.00	7,589.40	7,907.26	7,798.66	32.67	28.36	-167.69	-678.36	794.30	1,202.76	1,144.23	58.52	20.552			
8,400.00	7,589.40	7,921.00	7,812.19	33.21	28.41	-168.36	-680.02	796.03	1,301.18	1,242.54	58.64	22.190			
8,444.09	7,589.40	7,929.84	7,820.89	33.45	28.45	-168.74	-681.10	797.13	1,344.58	1,285.88	58.71	22.903			
8,500.00	7,589.40	7,937.83	7,828.76	33.76	28.48	-160.27	-682.08	798.10	1,399.60	1,340.83	58.78	23.813			
8,600.00	7,589.40	7,951.92	7,842.64	34.34	28.53	-147.60	-683.82	799.79	1,497.78	1,438.89	58.89	25.431			
8,700.00	7,589.40	7,965.76	7,856.28	34.92	28.58	-138.02	-685.53	801.41	1,595.51	1,536.50	59.01	27.037			
8,800.00	7,589.40	7,979.34	7,869.66	35.52	28.63	-130.87	-687.21	802.97	1,692.63	1,633.50	59.13	28.628			
8,900.00	7,589.40	7,992.67	7,882.80	36.12	28.68	-125.47	-688.87	804.45	1,788.99	1,729.75	59.24	30.201			
9,000.00	7,589.40	8,005.74	7,895.69	36.73	28.73	-121.31	-690.50	805.88	1,884.47	1,825.12	59.35	31.754			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS

Rule Assigned:

Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.00	7,589.40	8,016.00	7,905.82	37.33	28.77	117.84	-691.78	806.97	1,978.96	1,919.53	59.44	33.296	
9,200.00	7,589.40	8,033.47	7,923.06	37.92	28.84	115.55	-693.96	808.81	2,072.35	2,012.77	59.57	34.787	
9,300.00	7,589.39	8,047.65	7,937.05	38.51	28.89	113.49	-695.70	810.31	2,164.53	2,104.85	59.69	36.265	
9,400.00	7,589.39	8,061.44	7,950.65	39.09	28.94	111.77	-697.38	811.77	2,255.43	2,195.64	59.80	37.717	
9,500.00	7,589.39	8,074.80	7,963.84	39.65	28.99	110.31	-698.99	813.18	2,344.97	2,285.07	59.91	39.144	
9,600.00	7,589.39	8,145.63	8,033.62	40.19	29.26	111.69	-707.98	821.31	2,432.90	2,372.51	60.39	40.283	
9,700.00	7,589.38	8,260.26	8,145.96	40.72	29.70	114.56	-724.65	836.70	2,519.23	2,458.10	61.13	41.209	
9,800.00	7,589.38	11,883.19	10,026.19	41.23	41.63	162.80	-2,681.33	1,814.87	2,550.86	2,496.69	54.17	47.090	
9,900.00	7,589.38	11,969.06	10,027.48	41.72	41.96	162.74	-2,766.08	1,828.64	2,552.60	2,497.37	55.24	46.213	
10,000.00	7,589.37	12,047.65	10,028.43	42.18	42.26	162.74	-2,844.00	1,838.78	2,553.47	2,497.19	56.27	45.378	
10,100.00	7,589.37	12,133.63	10,029.90	42.63	42.60	162.83	-2,929.42	1,848.49	2,553.70	2,496.40	57.30	44.570	
10,173.66	7,589.36	12,215.18	10,030.74	42.94	42.92	163.00	-3,010.57	1,856.44	2,552.77	2,494.67	58.10	43.941	
10,200.00	7,589.36	12,237.97	10,030.84	43.05	43.01	163.04	-3,033.29	1,858.21	2,552.29	2,493.93	58.36	43.731	
10,300.00	7,589.36	12,327.35	10,030.77	43.47	43.36	163.13	-3,122.55	1,862.76	2,550.80	2,491.37	59.43	42.922	
10,400.00	7,589.36	12,420.02	10,030.76	43.90	43.73	163.21	-3,215.14	1,866.70	2,549.62	2,489.09	60.53	42.120	
10,500.00	7,589.35	12,509.83	10,030.77	44.33	44.09	163.27	-3,304.90	1,869.53	2,548.78	2,487.13	61.65	41.343	
10,600.00	7,589.35	12,601.69	10,030.51	44.78	44.46	163.27	-3,396.76	1,870.11	2,548.39	2,485.57	62.82	40.569	
10,700.00	7,589.34	12,702.53	10,029.90	45.23	44.87	163.26	-3,497.60	1,869.59	2,548.01	2,483.96	64.05	39.779	
10,800.00	7,589.34	12,799.14	10,029.60	45.69	45.28	163.25	-3,594.21	1,869.57	2,547.78	2,482.51	65.28	39.030	
10,900.00	7,589.33	12,901.93	10,029.18	46.16	45.72	163.24	-3,697.00	1,869.31	2,547.53	2,480.98	66.55	38.279	
11,000.00	7,589.33	12,999.71	10,028.86	46.64	46.14	163.23	-3,794.77	1,869.50	2,547.21	2,479.40	67.81	37.566	
11,100.00	7,589.33	13,099.09	10,028.64	47.12	46.58	163.23	-3,894.16	1,869.52	2,547.05	2,477.97	69.08	36.869	
11,200.00	7,589.32	13,194.94	10,028.20	47.61	47.01	163.21	-3,990.00	1,868.91	2,546.87	2,476.51	70.36	36.199	
11,210.42	7,589.32	13,204.39	10,028.16	47.66	47.06	163.21	-3,999.45	1,868.81	2,546.87	2,476.38	70.49	36.131	
11,300.00	7,589.32	13,293.19	10,027.86	48.11	47.46	163.18	-4,088.24	1,867.81	2,546.92	2,475.26	71.66	35.541	
11,400.00	7,589.31	13,404.61	10,027.52	48.61	47.98	163.16	-4,199.66	1,867.48	2,546.78	2,473.73	73.05	34.865	
11,500.00	7,589.31	13,502.85	10,027.11	49.12	48.45	163.16	-4,297.90	1,867.75	2,546.36	2,472.00	74.36	34.244	
11,600.00	7,589.31	13,619.56	10,026.25	49.64	49.01	163.16	-4,414.61	1,867.95	2,545.67	2,469.87	75.80	33.585	
11,700.00	7,589.30	13,713.92	10,025.15	50.16	49.47	163.14	-4,508.96	1,867.57	2,544.73	2,467.61	77.11	33.000	
11,800.00	7,589.30	13,794.00	10,024.54	50.69	49.87	163.11	-4,589.03	1,866.81	2,544.34	2,466.00	78.34	32.477	
11,900.00	7,589.29	13,909.73	10,023.93	51.23	50.45	163.10	-4,704.76	1,866.43	2,543.99	2,464.18	79.81	31.876	
12,000.00	7,589.29	14,000.56	10,023.37	51.77	50.91	163.09	-4,795.59	1,866.67	2,543.39	2,462.28	81.11	31.355	
12,017.99	7,589.29	14,012.00	10,023.35	51.87	50.97	163.10	-4,807.03	1,866.70	2,543.37	2,462.05	81.32	31.277	
12,100.00	7,589.28	14,077.00	10,023.86	52.31	51.30	163.10	-4,872.02	1,866.87	2,543.90	2,461.57	82.33	30.901	
12,200.00	7,589.28	14,174.53	10,024.57	52.86	51.81	163.07	-4,969.54	1,865.68	2,545.01	2,461.31	83.70	30.408	
12,300.00	7,589.28	14,277.82	10,023.74	53.42	52.34	162.97	-5,072.72	1,861.08	2,545.60	2,460.45	85.15	29.896	
12,400.00	7,589.27	14,358.00	10,023.93	53.98	52.75	162.91	-5,152.85	1,858.46	2,546.80	2,460.38	86.42	29.470	
12,500.00	7,589.27	14,460.38	10,025.60	54.55	53.30	162.92	-5,255.21	1,858.63	2,548.37	2,460.55	87.83	29.015	
12,600.00	7,589.26	14,564.78	10,027.36	55.12	53.87	162.96	-5,359.59	1,860.06	2,549.65	2,460.40	89.25	28.569	
12,700.00	7,589.26	14,665.97	10,028.68	55.70	54.43	162.98	-5,460.76	1,861.22	2,550.62	2,459.97	90.65	28.137	
12,800.00	7,589.26	14,749.23	10,030.09	56.28	54.89	163.00	-5,544.00	1,861.59	2,552.15	2,460.22	91.93	27.761	
12,900.00	7,589.25	14,905.03	10,032.01	56.86	55.76	163.04	-5,699.78	1,863.10	2,553.27	2,459.52	93.75	27.236	
13,000.00	7,589.25	15,005.54	10,031.79	57.45	56.33	163.07	-5,800.28	1,864.69	2,552.66	2,457.49	95.16	26.824	
13,100.00	7,589.24	15,109.00	10,031.44	58.04	56.92	163.09	-5,903.73	1,866.07	2,552.01	2,455.40	96.61	26.416	
13,200.00	7,589.24	15,204.00	10,031.17	58.64	57.47	163.10	-5,998.73	1,866.95	2,551.52	2,453.53	98.00	26.037	
13,300.00	7,589.23	15,301.01	10,031.21	59.24	58.03	163.11	-6,095.74	1,867.75	2,551.38	2,451.97	99.41	25.666	
13,400.00	7,589.23	15,409.54	10,031.04	59.84	58.67	163.14	-6,204.25	1,869.15	2,550.91	2,450.01	100.90	25.281	
13,500.00	7,589.23	15,511.68	10,030.86	60.45	59.27	163.17	-6,306.38	1,870.86	2,550.33	2,447.97	102.35	24.917	
13,600.00	7,589.22	15,618.26	10,030.33	61.06	59.90	163.20	-6,412.95	1,872.59	2,549.44	2,445.60	103.84	24.552	
13,700.00	7,589.22	15,713.63	10,029.84	61.68	60.47	163.22	-6,508.30	1,873.98	2,548.58	2,443.33	105.25	24.215	
13,800.00	7,589.21	15,805.08	10,029.69	62.30	61.02	163.25	-6,599.74	1,875.64	2,547.96	2,441.34	106.63	23.896	
13,900.00	7,589.21	15,900.39	10,029.50	62.92	61.60	163.26	-6,695.04	1,876.02	2,547.72	2,439.67	108.05	23.580	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,000.00	7,589.21	16,005.54	10,029.28	63.54	62.23	163.27	-6,800.19	1,876.78	2,547.37	2,437.82	109.54	23.254	
14,100.00	7,589.20	16,099.88	10,029.00	64.17	62.81	163.27	-6,894.53	1,877.40	2,546.96	2,436.00	110.96	22.953	
14,148.43	7,589.20	16,142.27	10,028.98	64.47	63.07	163.28	-6,936.92	1,877.56	2,546.91	2,435.29	111.62	22.817	
14,200.00	7,589.20	16,194.27	10,029.01	64.80	63.38	163.28	-6,988.92	1,877.74	2,546.92	2,434.53	112.38	22.663	
14,300.00	7,589.19	16,294.54	10,028.90	65.43	64.00	163.27	-7,089.19	1,877.63	2,546.91	2,433.05	113.86	22.369	
14,335.62	7,589.19	16,330.00	10,028.68	65.66	64.22	163.25	-7,124.64	1,876.96	2,546.91	2,432.52	114.39	22.266	
14,400.00	7,589.19	16,383.74	10,028.35	66.07	64.54	163.22	-7,178.36	1,875.59	2,547.04	2,431.78	115.26	22.098	
14,500.00	7,589.18	16,483.49	10,028.10	66.71	65.16	163.16	-7,278.07	1,872.97	2,547.62	2,430.87	116.76	21.820	
14,600.00	7,589.18	16,585.43	10,027.77	67.35	65.78	163.11	-7,380.00	1,871.00	2,547.94	2,429.67	118.27	21.544	
14,700.00	7,589.18	16,695.69	10,027.62	67.99	66.47	163.08	-7,490.25	1,869.90	2,548.17	2,428.33	119.84	21.263	
14,800.00	7,589.17	16,801.22	10,027.19	68.64	67.13	163.06	-7,595.78	1,869.34	2,547.99	2,426.62	121.37	20.993	
14,900.00	7,589.17	16,898.68	10,026.74	69.29	67.75	163.04	-7,693.23	1,868.79	2,547.78	2,424.93	122.84	20.740	
15,000.00	7,589.16	16,996.11	10,026.46	69.94	68.36	163.03	-7,790.66	1,868.46	2,547.66	2,423.35	124.31	20.494	
15,047.04	7,589.16	17,041.52	10,026.36	70.25	68.65	163.02	-7,836.08	1,868.29	2,547.65	2,422.65	125.00	20.381	
15,100.00	7,589.16	17,094.21	10,026.28	70.59	68.99	163.01	-7,888.77	1,868.08	2,547.66	2,421.87	125.79	20.254	
15,200.00	7,589.16	17,197.38	10,026.19	71.25	69.65	163.02	-7,991.93	1,868.51	2,547.52	2,420.21	127.30	20.011	
15,219.67	7,589.15	17,214.15	10,026.19	71.38	69.76	163.02	-8,008.71	1,868.58	2,547.51	2,419.93	127.57	19.969	
15,300.00	7,589.15	17,291.33	10,026.27	71.91	70.25	163.01	-8,085.88	1,868.44	2,547.66	2,418.92	128.75	19.788	
15,400.00	7,589.15	17,415.95	10,025.57	72.57	71.05	163.00	-8,210.50	1,868.46	2,547.16	2,416.71	130.45	19.527	
15,500.00	7,589.14	17,505.75	10,024.68	73.23	71.64	162.99	-8,300.30	1,868.21	2,546.37	2,414.51	131.86	19.311	
15,544.55	7,589.14	17,540.60	10,024.59	73.52	71.86	162.99	-8,335.15	1,868.27	2,546.26	2,413.81	132.45	19.225	
15,600.00	7,589.14	17,582.06	10,024.72	73.89	72.13	162.99	-8,376.61	1,868.53	2,546.37	2,413.22	133.16	19.123	
15,700.00	7,589.13	17,660.61	10,025.81	74.56	72.64	163.02	-8,455.14	1,869.53	2,547.37	2,412.91	134.46	18.945	
15,800.00	7,589.13	17,781.73	10,027.63	75.23	73.44	163.06	-8,576.23	1,871.25	2,548.48	2,412.35	136.13	18.721	
15,900.00	7,589.13	17,890.35	10,028.03	75.90	74.15	163.09	-8,684.84	1,872.66	2,548.50	2,410.80	137.70	18.508	
16,000.00	7,589.12	18,005.35	10,028.21	76.57	74.91	163.10	-8,799.84	1,873.11	2,548.62	2,409.30	139.33	18.293	
16,100.00	7,589.12	18,106.78	10,027.58	77.24	75.58	163.09	-8,901.27	1,873.11	2,548.09	2,407.24	140.84	18.091	
16,200.00	7,589.11	18,196.68	10,027.16	77.92	76.18	163.08	-8,991.17	1,872.84	2,547.80	2,405.53	142.27	17.908	
16,300.00	7,589.11	18,321.24	10,026.43	78.59	77.00	163.08	-9,115.72	1,873.54	2,547.11	2,403.13	143.98	17.691	
16,400.00	7,589.11	18,397.24	10,026.97	79.27	77.52	163.15	-9,191.63	1,876.98	2,546.53	2,401.27	145.26	17.530	
16,500.00	7,589.10	18,510.99	10,027.87	79.95	78.29	163.27	-9,305.24	1,882.40	2,545.95	2,399.10	146.85	17.337	
16,565.76	7,589.10	18,560.53	10,027.99	80.40	78.62	163.29	-9,354.77	1,883.44	2,545.74	2,398.04	147.70	17.236	
16,600.00	7,589.10	18,588.38	10,028.10	80.63	78.81	163.30	-9,382.61	1,883.69	2,545.80	2,397.64	148.16	17.182	
16,700.00	7,589.09	18,711.12	10,027.68	81.31	79.63	163.30	-9,505.36	1,884.18	2,545.37	2,395.50	149.87	16.984	
16,800.00	7,589.09	18,819.70	10,027.07	82.00	80.36	163.30	-9,613.93	1,884.63	2,544.80	2,393.34	151.45	16.802	
16,900.00	7,589.08	18,917.97	10,025.65	82.68	81.02	163.28	-9,712.19	1,884.32	2,543.58	2,390.61	152.96	16.629	
17,000.00	7,589.08	19,011.29	10,025.11	83.37	81.66	163.28	-9,805.51	1,884.71	2,542.94	2,388.52	154.42	16.468	
17,100.00	7,589.08	19,118.06	10,024.54	84.06	82.38	163.30	-9,912.27	1,885.98	2,542.15	2,386.16	155.99	16.297	
17,200.00	7,589.07	19,209.15	10,023.91	84.75	83.00	163.31	-10,003.36	1,886.67	2,541.34	2,383.91	157.43	16.143	
17,300.00	7,589.07	19,309.53	10,023.52	85.44	83.68	163.32	-10,103.73	1,887.29	2,540.85	2,381.91	158.95	15.985	
17,400.00	7,589.06	19,412.07	10,022.88	86.13	84.38	163.32	-10,206.27	1,887.67	2,540.21	2,379.72	160.49	15.828	
17,500.00	7,589.06	19,513.00	10,022.24	86.83	85.07	163.32	-10,307.19	1,888.30	2,539.48	2,377.46	162.02	15.674	
17,600.00	7,589.06	19,607.45	10,021.69	87.52	85.72	163.32	-10,401.65	1,888.79	2,538.84	2,375.35	163.49	15.529	
17,700.00	7,589.05	19,710.07	10,021.17	88.22	86.43	163.33	-10,504.26	1,889.20	2,538.30	2,373.27	165.04	15.380	
17,800.00	7,589.05	19,819.27	10,020.36	88.91	87.18	163.33	-10,613.45	1,889.72	2,537.51	2,370.88	166.64	15.228	
17,900.00	7,589.04	19,917.91	10,019.04	89.61	87.85	163.30	-10,712.08	1,889.12	2,536.47	2,368.31	168.16	15.084	
18,000.00	7,589.04	20,000.27	10,018.53	90.31	88.42	163.30	-10,794.44	1,889.29	2,535.89	2,366.36	169.53	14.958	
18,025.44	7,589.04	20,020.27	10,018.55	90.49	88.56	163.30	-10,814.44	1,889.46	2,535.86	2,365.99	169.87	14.928	
18,100.00	7,589.03	20,081.24	10,018.92	91.01	88.98	163.32	-10,875.41	1,890.14	2,536.09	2,365.21	170.88	14.841	
18,200.00	7,589.03	20,206.58	10,019.50	91.71	89.85	163.35	-11,000.73	1,891.71	2,536.26	2,363.63	172.62	14.692	
18,300.00	7,589.03	20,315.56	10,018.37	92.42	90.61	163.33	-11,109.70	1,891.66	2,535.32	2,361.09	174.23	14.551	
18,400.00	7,589.02	20,405.79	10,017.73	93.12	91.23	163.32	-11,199.93	1,891.50	2,534.74	2,359.06	175.68	14.428	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy													
Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.50 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning			
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
18,482.43	7,589.02	20,477.28	10,017.61	93.70	91.73	163.33	-11,271.42	1,892.01	2,534.50	2,357.66	176.84	14.332	
18,500.00	7,589.02	20,490.73	10,017.66	93.82	91.82	163.33	-11,284.87	1,892.17	2,534.52	2,357.45	177.07	14.314	
18,600.00	7,589.01	20,574.14	10,018.52	94.53	92.41	163.36	-11,368.26	1,893.48	2,535.10	2,356.66	178.44	14.207	
18,700.00	7,589.01	20,672.00	10,019.63	95.23	93.09	163.39	-11,466.11	1,894.46	2,535.96	2,356.02	179.94	14.093	
18,800.00	7,589.01	20,672.00	10,019.63	95.94	93.09	163.39	-11,466.11	1,894.46	2,538.83	2,358.41	180.42	14.072	
18,900.00	7,589.00	20,672.00	10,019.63	96.65	93.09	163.39	-11,466.11	1,894.46	2,545.63	2,364.95	180.68	14.089	
18,917.19	7,589.00	20,672.00	10,019.63	96.77	93.09	163.39	-11,466.11	1,894.46	2,547.20	2,366.49	180.71	14.096	
18,917.96	7,589.00	20,672.00	10,019.63	97.01	93.09	163.39	-11,466.11	1,894.46	2,547.27	2,366.39	180.87	14.083	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Survey Program: 213-MWD+HRGM		Rule Assigned:										Offset Site Error:	0.00 usft
Reference		Offset										Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-76.13	247.71	-1,003.48	1,033.61				
100.00	100.00	95.98	95.98	0.28	0.15	-76.14	247.77	-1,003.83	1,033.98	1,033.55	0.43	2,402.530	ES
200.00	200.00	188.62	188.61	0.63	0.30	-76.14	247.93	-1,004.83	1,035.08	1,034.14	0.94	1,104.554	
300.00	300.00	288.09	288.07	0.99	0.61	-76.16	247.93	-1,006.43	1,036.64	1,035.03	1.60	646.614	
400.00	400.00	389.06	389.03	1.35	0.97	-76.18	247.91	-1,007.91	1,038.05	1,035.73	2.32	446.945	
500.00	500.00	486.93	486.88	1.71	1.32	-76.16	248.62	-1,009.25	1,039.56	1,036.53	3.03	343.030	
600.00	600.00	585.93	585.87	2.07	1.68	-76.12	249.67	-1,010.63	1,041.16	1,037.42	3.74	278.248	
700.00	700.00	676.35	676.26	2.43	2.00	-76.19	249.03	-1,012.83	1,043.35	1,038.93	4.42	235.959	
800.00	800.00	770.55	770.39	2.79	2.34	-76.32	247.38	-1,016.04	1,046.25	1,041.13	5.12	204.495	
900.00	900.00	871.15	870.90	3.14	2.70	-76.46	245.59	-1,019.96	1,049.62	1,043.79	5.83	179.912	
1,000.00	1,000.00	995.02	994.69	3.50	3.14	-76.66	242.68	-1,023.31	1,051.73	1,045.10	6.63	158.549	
1,100.00	1,099.98	1,152.23	1,151.77	3.85	3.68	155.16	237.50	-1,021.29	1,051.23	1,043.72	7.51	139.997	
1,157.83	1,157.75	1,214.40	1,213.85	4.04	3.88	155.15	235.51	-1,018.69	1,050.82	1,042.91	7.91	132.874	
1,200.00	1,199.84	1,255.79	1,255.19	4.18	4.02	155.17	234.30	-1,016.86	1,051.11	1,042.92	8.19	128.361	
1,300.00	1,299.45	1,348.70	1,347.98	4.52	4.34	155.24	231.84	-1,012.93	1,054.31	1,045.47	8.84	119.218	
1,400.00	1,398.70	1,430.68	1,429.90	4.86	4.61	155.39	230.91	-1,010.12	1,061.84	1,052.37	9.47	112.134	
1,500.00	1,497.47	1,502.00	1,501.21	5.21	4.86	155.56	231.24	-1,009.06	1,074.79	1,064.73	10.06	106.824	
1,600.00	1,595.62	1,582.13	1,581.33	5.56	5.13	155.81	232.58	-1,009.37	1,093.01	1,082.33	10.68	102.300	
1,700.00	1,693.06	1,669.97	1,669.14	5.92	5.44	156.15	234.76	-1,010.74	1,115.73	1,104.39	11.34	98.404	
1,800.00	1,790.08	1,758.34	1,757.45	6.28	5.75	156.70	237.30	-1,012.62	1,140.76	1,128.76	11.99	95.105	
1,900.00	1,887.11	1,871.95	1,870.98	6.65	6.15	157.37	240.45	-1,014.97	1,165.86	1,153.11	12.75	91.438	
2,000.00	1,984.14	2,019.05	2,018.06	7.02	6.65	158.11	241.64	-1,013.86	1,187.82	1,174.20	13.62	87.186	
2,100.00	2,081.17	2,122.04	2,121.00	7.39	7.01	158.58	240.98	-1,010.55	1,207.18	1,192.84	14.34	84.181	
2,200.00	2,178.20	2,214.61	2,213.53	7.76	7.33	158.96	240.12	-1,008.29	1,227.25	1,212.22	15.02	81.683	
2,300.00	2,275.23	2,328.81	2,327.68	8.14	7.72	159.41	238.64	-1,005.10	1,246.98	1,231.19	15.79	78.974	
2,400.00	2,372.26	2,426.55	2,425.33	8.52	8.06	159.74	236.30	-1,001.62	1,265.68	1,249.18	16.50	76.706	
2,500.00	2,469.29	2,485.76	2,484.51	8.90	8.27	159.92	234.95	-1,000.28	1,285.84	1,268.78	17.07	75.339	
2,600.00	2,566.32	2,541.00	2,539.73	9.28	8.46	160.09	234.42	-1,001.13	1,309.59	1,291.99	17.60	74.401	
2,700.00	2,663.35	2,600.90	2,599.57	9.67	8.67	160.28	234.47	-1,003.97	1,336.51	1,318.37	18.14	73.671	
2,800.00	2,760.38	2,681.39	2,679.92	10.05	8.95	160.52	234.93	-1,008.58	1,364.81	1,346.04	18.77	72.706	
2,900.00	2,857.41	2,843.41	2,841.75	10.44	9.52	161.03	236.32	-1,015.60	1,392.37	1,372.58	19.79	70.354	
3,000.00	2,954.44	2,947.95	2,946.28	10.83	9.89	161.38	236.84	-1,016.66	1,416.44	1,395.90	20.54	68.959	
3,100.00	3,051.47	3,062.94	3,061.27	11.22	10.29	161.77	237.64	-1,016.79	1,439.82	1,418.49	21.33	67.489	
3,200.00	3,148.50	3,169.52	3,167.83	11.60	10.66	162.15	238.47	-1,015.39	1,461.94	1,439.85	22.09	66.185	
3,300.00	3,245.53	3,267.53	3,265.83	11.99	11.00	162.48	239.22	-1,013.96	1,483.98	1,461.17	22.81	65.065	
3,400.00	3,342.56	3,448.87	3,447.03	12.38	11.63	163.06	238.75	-1,007.31	1,504.05	1,480.19	23.86	63.047	
3,500.00	3,439.59	3,612.67	3,610.14	12.77	12.21	163.56	234.72	-993.11	1,518.36	1,493.57	24.80	61.227	
3,600.00	3,536.62	3,791.32	3,787.10	13.17	12.84	163.90	222.97	-971.77	1,528.27	1,502.53	25.74	59.365	
3,700.00	3,633.65	3,967.81	3,960.06	13.56	13.48	163.93	200.32	-945.21	1,532.74	1,506.11	26.63	57.547	
3,800.00	3,730.68	4,067.58	4,057.32	13.95	13.85	163.90	185.55	-928.55	1,535.03	1,507.65	27.38	56.069	
3,900.00	3,827.71	4,173.52	4,160.54	14.34	14.26	163.87	169.80	-910.67	1,537.11	1,508.98	28.13	54.635	
4,000.00	3,924.74	4,280.90	4,265.08	14.74	14.67	163.85	153.72	-892.07	1,538.73	1,509.84	28.90	53.250	
4,100.00	4,021.77	4,386.80	4,368.07	15.13	15.09	163.82	137.77	-873.28	1,539.93	1,510.27	29.66	51.921	
4,200.00	4,118.79	4,472.74	4,451.65	15.52	15.43	163.81	124.99	-857.96	1,541.15	1,510.76	30.39	50.712	
4,300.00	4,215.82	4,553.74	4,530.74	15.92	15.76	163.81	113.85	-844.47	1,543.83	1,512.72	31.11	49.623	
4,400.00	4,312.85	4,653.52	4,628.29	16.31	16.16	163.83	100.50	-828.27	1,547.10	1,515.24	31.87	48.546	
4,500.00	4,409.88	4,761.21	4,733.49	16.70	16.60	163.85	86.05	-810.35	1,549.97	1,517.33	32.64	47.481	
4,600.00	4,506.91	4,863.75	4,833.59	17.10	17.02	163.87	72.27	-792.95	1,552.52	1,519.11	33.41	46.467	
4,700.00	4,603.94	4,965.17	4,932.59	17.49	17.44	163.89	58.57	-775.66	1,554.98	1,520.80	34.18	45.497	
4,800.00	4,700.97	5,065.81	5,030.77	17.89	17.86	163.89	44.45	-758.63	1,557.35	1,522.40	34.95	44.565	
4,900.00	4,798.00	5,161.00	5,123.55	18.28	18.26	163.84	29.80	-743.17	1,559.83	1,524.12	35.70	43.687	
5,000.00	4,895.03	5,247.33	5,207.78	18.68	18.62	163.79	16.65	-729.60	1,562.88	1,526.43	36.45	42.883	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Survey Program: 213-MWD+HRGM

Offset Well Error: 0.00 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	4,992.06	5,336.20	5,294.71	19.07	19.00	163.76	3.95	-716.15	1,566.82	1,529.63	37.19	42.131	
5,200.00	5,089.09	5,433.07	5,389.57	19.47	19.41	163.74	-9.35	-701.73	1,571.23	1,533.28	37.95	41.400	
5,300.00	5,186.12	5,525.40	5,480.02	19.87	19.79	163.73	-21.85	-688.10	1,575.83	1,537.13	38.70	40.716	
5,400.00	5,283.15	5,624.60	5,577.33	20.26	20.21	163.74	-34.69	-673.71	1,580.90	1,541.43	39.47	40.051	
5,500.00	5,380.18	5,725.66	5,676.44	20.66	20.64	163.75	-47.72	-658.84	1,585.78	1,545.54	40.25	39.401	
5,600.00	5,477.21	5,824.30	5,773.19	21.06	21.06	163.76	-60.34	-644.32	1,590.71	1,549.69	41.02	38.783	
5,700.00	5,574.24	5,918.79	5,865.90	21.45	21.46	163.78	-72.19	-630.50	1,595.82	1,554.04	41.77	38.202	
5,800.00	5,671.27	6,009.26	5,954.77	21.85	21.84	163.81	-83.08	-617.54	1,601.40	1,558.88	42.52	37.664	
5,900.00	5,768.30	6,109.80	6,082.97	22.24	22.39	163.89	-98.03	-597.93	1,606.63	1,563.25	43.37	37.043	
6,000.00	5,865.33	6,262.99	6,203.42	22.64	22.93	163.96	-113.36	-577.20	1,609.65	1,565.44	44.20	36.416	
6,100.00	5,962.36	6,358.43	6,296.60	23.04	23.35	163.98	-126.24	-561.01	1,612.19	1,567.22	44.97	35.851	
6,200.00	6,059.39	6,440.82	6,377.11	23.44	23.71	163.97	-137.75	-547.82	1,615.47	1,569.76	45.70	35.346	
6,300.00	6,156.42	6,504.00	6,439.02	23.83	23.98	163.97	-145.97	-538.31	1,620.18	1,573.81	46.38	34.936	
6,400.00	6,253.45	6,581.05	6,514.79	24.23	24.31	163.99	-155.37	-527.96	1,626.66	1,579.58	47.07	34.555	
6,500.00	6,350.47	6,659.12	6,591.81	24.63	24.63	163.99	-164.40	-518.94	1,634.98	1,587.22	47.77	34.227	
6,600.00	6,447.50	6,824.56	6,754.72	25.02	25.33	164.01	-184.31	-498.29	1,642.58	1,593.82	48.76	33.686	
6,700.00	6,544.53	6,945.00	6,872.76	25.42	25.85	164.12	-197.62	-478.45	1,646.46	1,596.87	49.59	33.201	
6,800.00	6,641.56	7,044.34	6,970.07	25.82	26.28	164.21	-208.65	-461.79	1,650.12	1,599.75	50.36	32.764	
6,900.00	6,738.59	7,130.59	7,054.61	26.22	26.66	164.28	-218.34	-447.66	1,654.11	1,603.01	51.10	32.369	
7,000.00	6,835.62	7,208.15	7,130.80	26.61	26.99	164.36	-226.30	-435.59	1,659.24	1,607.44	51.81	32.028	
7,100.00	6,932.65	7,281.04	7,202.63	27.01	27.30	164.46	-232.84	-425.02	1,665.87	1,613.39	52.48	31.740	
7,200.00	7,029.68	7,356.00	7,276.73	27.41	27.61	164.59	-238.15	-415.05	1,674.29	1,621.14	53.16	31.498	
7,300.00	7,126.71	7,447.88	7,367.69	27.81	27.98	164.77	-243.75	-403.40	1,683.73	1,629.85	53.88	31.248	
7,309.09	7,135.53	7,456.58	7,376.31	27.84	28.01	164.78	-244.29	-402.29	1,684.59	1,630.64	53.95	31.225	
7,350.00	7,174.84	7,494.45	7,413.80	28.01	28.16	164.73	-246.61	-397.52	1,689.88	1,635.63	54.25	31.149	
7,400.00	7,221.63	7,540.01	7,458.93	28.22	28.35	164.59	-249.36	-391.83	1,700.21	1,645.59	54.62	31.126	
7,450.00	7,266.71	7,588.27	7,506.72	28.44	28.54	164.37	-252.24	-385.84	1,714.67	1,659.66	55.01	31.169	
7,500.00	7,309.74	7,635.37	7,553.37	28.67	28.73	164.05	-255.07	-379.98	1,733.08	1,677.68	55.40	31.285	
7,550.00	7,350.39	7,669.05	7,586.73	28.91	28.86	163.55	-257.05	-375.85	1,755.46	1,699.74	55.72	31.503	
7,600.00	7,388.34	7,700.13	7,617.55	29.15	28.99	162.88	-258.76	-372.20	1,781.79	1,725.76	56.03	31.800	
7,650.00	7,423.32	7,732.00	7,649.18	29.40	29.11	162.02	-260.41	-368.62	1,811.83	1,755.50	56.33	32.162	
7,700.00	7,455.05	7,758.39	7,675.38	29.65	29.22	160.86	-261.70	-365.77	1,845.29	1,788.69	56.60	32.603	
7,750.00	7,483.30	7,785.29	7,702.10	29.90	29.32	159.37	-262.99	-362.92	1,881.85	1,825.00	56.85	33.100	
7,800.00	7,507.84	7,809.19	7,725.85	30.15	29.41	157.40	-264.09	-360.46	1,921.21	1,864.13	57.08	33.658	
7,850.00	7,528.50	7,827.00	7,743.55	30.41	29.48	154.65	-264.90	-358.66	1,963.03	1,905.77	57.26	34.282	
7,900.00	7,545.11	7,827.00	7,743.55	30.66	29.48	150.32	-264.90	-358.66	2,007.10	1,949.77	57.33	35.009	
7,919.09	7,550.36	7,847.52	7,763.95	30.75	29.56	148.93	-265.78	-356.66	2,024.29	1,966.82	57.47	35.226	
8,000.00	7,568.52	7,863.80	7,780.15	31.16	29.62	144.13	-266.42	-355.13	2,099.13	2,041.50	57.63	36.425	
8,100.00	7,583.22	7,878.64	7,794.92	31.66	29.68	135.07	-266.97	-353.80	2,194.12	2,136.34	57.78	37.974	
8,200.00	7,589.24	7,887.79	7,804.03	32.17	29.71	120.14	-267.28	-353.00	2,291.06	2,233.19	57.87	39.586	
8,219.09	7,589.40	7,888.91	7,805.14	32.26	29.72	116.37	-267.32	-352.90	2,309.72	2,251.84	57.89	39.900	
8,300.00	7,589.40	7,893.16	7,809.38	32.67	29.73	116.83	-267.46	-352.54	2,388.94	2,331.00	57.94	41.234	
8,400.00	7,589.40	7,898.26	7,814.46	33.21	29.75	117.38	-267.63	-352.11	2,486.97	2,428.98	57.99	42.883	
8,444.09	7,589.40	7,900.46	7,816.64	33.45	29.76	117.61	-267.70	-351.93	2,530.24	2,472.22	58.02	43.610	
8,500.00	7,589.40	7,921.00	7,837.11	33.76	29.84	116.01	-268.31	-350.26	2,585.11	2,526.95	58.16	44.450	
8,600.00	7,589.40	7,921.00	7,837.11	34.34	29.84	111.04	-268.31	-350.26	2,682.32	2,624.13	58.19	46.098	
8,700.00	7,589.40	7,921.00	7,837.11	34.92	29.84	107.55	-268.31	-350.26	2,778.53	2,720.31	58.22	47.728	
8,800.00	7,589.40	7,921.00	7,837.11	35.52	29.84	104.97	-268.31	-350.26	2,873.59	2,815.34	58.25	49.336	
8,900.00	7,589.40	7,921.00	7,837.11	36.12	29.84	103.01	-268.31	-350.26	2,967.37	2,909.09	58.27	50.920	
9,000.00	7,589.40	7,921.00	7,837.11	36.73	29.84	101.48	-268.31	-350.26	3,059.73	3,001.43	58.30	52.479	
9,100.00	7,589.40	7,921.00	7,837.11	37.33	29.84	100.25	-268.31	-350.26	3,150.56	3,092.23	58.33	54.011	
9,200.00	7,589.40	7,935.63	7,851.69	37.92	29.89	99.80	-268.71	-349.12	3,239.71	3,181.26	58.45	55.425	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Survey Program: 213-MWD+HRGM		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,300.00	7,589.39	11,409.61	9,748.92	38.51	49.77	133.79	-2,116.92	-105.33	3,308.74	3,233.86	74.88	44.188	
9,400.00	7,589.39	11,519.07	9,750.14	39.09	50.85	132.56	-2,226.36	-104.39	3,340.82	3,264.18	76.64	43.593	
9,500.00	7,589.39	11,646.51	9,748.72	39.65	52.14	131.41	-2,353.79	-103.76	3,368.25	3,289.63	78.62	42.840	
9,600.00	7,589.39	11,749.91	9,747.26	40.19	53.21	130.55	-2,457.17	-102.68	3,391.49	3,311.15	80.33	42.219	
9,700.00	7,589.38	11,845.95	9,745.57	40.72	54.23	129.86	-2,553.19	-101.93	3,410.93	3,328.99	81.94	41.628	
9,800.00	7,589.38	11,951.49	9,743.69	41.23	55.36	129.30	-2,658.71	-100.71	3,426.19	3,342.53	83.65	40.958	
9,900.00	7,589.38	12,034.42	9,742.20	41.72	56.26	128.92	-2,741.63	-100.01	3,437.73	3,352.67	85.06	40.416	
10,000.00	7,589.37	12,128.37	9,741.03	42.18	57.30	128.64	-2,835.56	-99.36	3,445.69	3,359.10	86.58	39.796	
10,100.00	7,589.37	12,246.26	9,738.99	42.63	58.62	128.48	-2,953.44	-98.18	3,449.01	3,360.60	88.42	39.009	
10,173.66	7,589.36	12,315.89	9,737.79	42.94	59.41	128.46	-3,023.05	-97.53	3,448.91	3,359.39	89.52	38.526	
10,200.00	7,589.36	12,345.18	9,737.35	43.05	59.74	128.46	-3,052.34	-97.20	3,448.47	3,358.50	89.97	38.327	
10,300.00	7,589.36	12,462.07	9,735.54	43.47	61.08	128.45	-3,169.20	-95.50	3,446.53	3,354.75	91.79	37.550	
10,400.00	7,589.36	12,539.50	9,734.31	43.90	61.98	128.44	-3,246.61	-94.33	3,444.55	3,351.48	93.07	37.011	
10,500.00	7,589.35	12,614.92	9,734.01	44.33	62.87	128.45	-3,322.02	-93.31	3,443.39	3,349.06	94.32	36.506	
10,600.00	7,589.35	12,708.19	9,733.77	44.78	63.96	128.45	-3,415.29	-92.58	3,442.76	3,346.92	95.84	35.921	
10,700.00	7,589.34	12,803.31	9,733.71	45.23	65.09	128.46	-3,510.40	-91.55	3,442.03	3,344.64	97.40	35.341	
10,800.00	7,589.34	12,887.89	9,733.64	45.69	66.10	128.46	-3,594.98	-91.23	3,441.83	3,343.02	98.81	34.832	
10,864.21	7,589.34	12,950.00	9,733.95	45.99	66.84	128.47	-3,657.09	-90.79	3,441.77	3,341.94	99.84	34.474	
10,900.00	7,589.33	12,976.94	9,734.20	46.16	67.17	128.47	-3,684.03	-90.56	3,441.81	3,341.51	100.30	34.316	
11,000.00	7,589.33	13,044.00	9,735.03	46.64	67.98	128.48	-3,751.08	-90.38	3,442.53	3,341.07	101.46	33.929	
11,100.00	7,589.33	13,143.06	9,736.68	47.12	69.18	128.50	-3,850.13	-90.42	3,443.76	3,340.65	103.11	33.399	
11,200.00	7,589.32	13,257.83	9,738.60	47.61	70.59	128.53	-3,964.88	-90.11	3,444.74	3,339.73	105.00	32.806	
11,300.00	7,589.32	13,371.41	9,741.24	48.11	72.00	128.57	-4,078.42	-88.81	3,445.46	3,338.58	106.88	32.236	
11,400.00	7,589.31	13,462.07	9,742.84	48.61	73.13	128.60	-4,169.06	-87.70	3,445.79	3,337.36	108.43	31.779	
11,500.00	7,589.31	13,512.00	9,744.07	49.12	73.75	128.62	-4,218.97	-87.30	3,447.02	3,337.67	109.36	31.521	
11,600.00	7,589.31	13,575.32	9,745.77	49.64	74.54	128.64	-4,282.27	-87.68	3,449.47	3,338.98	110.49	31.220	
11,700.00	7,589.30	13,646.36	9,747.45	50.16	75.42	128.64	-4,353.26	-89.72	3,453.27	3,341.53	111.75	30.903	
11,800.00	7,589.30	13,739.50	9,749.28	50.69	76.58	128.63	-4,446.32	-92.92	3,457.34	3,343.97	113.37	30.496	
11,900.00	7,589.29	14,008.70	9,751.90	51.23	79.97	128.60	-4,715.41	-98.41	3,460.65	3,342.85	117.80	29.376	
12,000.00	7,589.29	14,112.29	9,751.46	51.77	81.30	128.60	-4,818.99	-97.68	3,460.00	3,340.37	119.62	28.925	
12,100.00	7,589.28	14,214.55	9,750.95	52.31	82.62	128.60	-4,921.25	-96.74	3,459.13	3,337.70	121.43	28.488	
12,200.00	7,589.28	14,300.67	9,750.93	52.86	83.73	128.61	-5,007.37	-95.86	3,458.47	3,335.49	122.98	28.122	
12,292.95	7,589.28	14,379.15	9,751.36	53.38	84.75	128.62	-5,085.84	-95.19	3,458.31	3,333.91	124.40	27.800	
12,300.00	7,589.28	14,385.95	9,751.41	53.42	84.84	128.62	-5,092.64	-95.14	3,458.31	3,333.79	124.52	27.773	
12,400.00	7,589.27	14,480.12	9,752.01	53.98	86.06	128.63	-5,186.80	-94.56	3,458.38	3,332.18	126.21	27.402	
12,500.00	7,589.27	14,580.21	9,752.82	54.55	87.37	128.65	-5,286.89	-94.07	3,458.67	3,330.68	127.99	27.022	
12,600.00	7,589.26	14,698.17	9,753.25	55.12	88.91	128.66	-5,404.85	-93.28	3,458.52	3,328.45	130.07	26.589	
12,700.00	7,589.26	14,803.73	9,752.63	55.70	90.30	128.65	-5,510.41	-92.97	3,458.07	3,326.10	131.97	26.203	
12,800.00	7,589.26	14,905.73	9,752.01	56.28	91.64	128.64	-5,612.40	-92.55	3,457.53	3,323.71	133.82	25.837	
12,900.00	7,589.25	15,011.17	9,751.54	56.86	93.03	128.64	-5,717.84	-91.85	3,456.90	3,321.18	135.72	25.470	
13,000.00	7,589.25	15,091.89	9,751.42	57.45	94.10	128.65	-5,798.56	-91.32	3,456.45	3,319.21	137.23	25.187	
13,100.00	7,589.24	15,221.26	9,751.28	58.04	95.82	128.65	-5,927.93	-90.15	3,455.82	3,316.30	139.53	24.768	
13,200.00	7,589.24	15,301.75	9,751.02	58.64	96.90	128.66	-6,008.41	-89.47	3,455.11	3,314.07	141.04	24.497	
13,300.00	7,589.23	15,404.64	9,750.57	59.24	98.27	128.65	-6,111.30	-88.90	3,454.56	3,311.64	142.93	24.170	
13,400.00	7,589.23	15,486.68	9,750.27	59.84	99.36	128.65	-6,193.33	-88.71	3,454.30	3,309.83	144.48	23.909	
13,500.00	7,589.23	15,613.64	9,749.88	60.45	101.06	128.65	-6,320.29	-87.81	3,453.67	3,306.91	146.76	23.533	
13,600.00	7,589.22	15,698.87	9,749.75	61.06	102.21	128.66	-6,405.51	-87.09	3,453.07	3,304.70	148.36	23.274	
13,700.00	7,589.22	15,793.61	9,749.98	61.68	103.48	128.66	-6,500.25	-86.57	3,452.94	3,302.82	150.12	23.001	
13,800.00	7,589.21	15,911.47	9,750.33	62.30	105.08	128.68	-6,618.10	-85.02	3,452.22	3,299.96	152.26	22.673	
13,900.00	7,589.21	16,004.83	9,750.25	62.92	106.34	128.69	-6,711.46	-84.18	3,451.61	3,297.61	154.01	22.412	
14,000.00	7,589.21	16,103.98	9,750.25	63.54	107.68	128.69	-6,810.60	-83.32	3,451.10	3,295.25	155.85	22.144	
14,100.00	7,589.20	16,195.69	9,750.12	64.17	108.92	128.70	-6,902.31	-82.72	3,450.66	3,293.08	157.58	21.899	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program: 213-MWD+HRGM													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
14,182.09	7,589.20	16,268.34	9,749.99	64.69	109.91	128.69	-6,974.96	-82.57	3,450.56	3,291.60	158.95	21.708		
14,200.00	7,589.20	16,284.62	9,750.02	64.80	110.13	128.70	-6,991.24	-82.51	3,450.56	3,291.30	159.26	21.666		
14,300.00	7,589.19	16,403.91	9,750.29	65.43	111.75	128.70	-7,110.54	-81.96	3,450.53	3,289.08	161.45	21.372		
14,400.00	7,589.19	16,511.51	9,749.26	66.07	113.21	128.69	-7,218.13	-81.63	3,449.84	3,286.38	163.46	21.105		
14,500.00	7,589.18	16,600.24	9,748.54	66.71	114.42	128.68	-7,306.85	-81.37	3,449.26	3,284.11	165.16	20.885		
14,600.00	7,589.18	16,698.11	9,747.85	67.35	115.75	128.67	-7,404.72	-81.28	3,448.90	3,281.89	167.01	20.651		
14,667.37	7,589.18	16,753.63	9,747.72	67.78	116.51	128.67	-7,460.24	-81.13	3,448.78	3,280.70	168.08	20.519		
14,700.00	7,589.18	16,780.10	9,747.70	67.99	116.87	128.67	-7,486.71	-81.13	3,448.81	3,280.22	168.59	20.457		
14,800.00	7,589.17	16,879.88	9,747.98	68.64	118.23	128.67	-7,586.49	-81.01	3,449.05	3,278.58	170.47	20.233		
14,900.00	7,589.17	17,003.54	9,748.32	69.29	119.93	128.68	-7,710.15	-80.25	3,448.90	3,276.16	172.75	19.965		
15,000.00	7,589.16	17,099.50	9,748.38	69.94	121.24	128.69	-7,806.10	-79.21	3,448.25	3,273.69	174.56	19.754		
15,031.18	7,589.16	17,117.45	9,748.46	70.14	121.49	128.69	-7,824.04	-79.06	3,448.19	3,273.27	174.93	19.712		
15,100.00	7,589.16	17,173.00	9,748.98	70.59	122.25	128.70	-7,879.60	-78.96	3,448.55	3,272.55	176.00	19.594		
15,200.00	7,589.16	17,304.94	9,749.32	71.25	124.07	128.71	-8,011.53	-78.50	3,448.64	3,270.21	178.43	19.328		
15,300.00	7,589.15	17,404.00	9,749.06	71.91	125.43	128.71	-8,110.59	-77.88	3,448.14	3,267.83	180.31	19.123		
15,400.00	7,589.15	17,503.61	9,748.89	72.57	126.80	128.71	-8,210.20	-77.13	3,447.61	3,265.40	182.20	18.922		
15,500.00	7,589.14	17,592.34	9,749.62	73.23	128.03	128.73	-8,298.91	-75.92	3,447.22	3,263.32	183.90	18.745		
15,533.75	7,589.14	17,620.11	9,749.80	73.45	128.41	128.74	-8,326.68	-75.69	3,447.19	3,262.75	184.43	18.691		
15,600.00	7,589.14	17,683.43	9,750.01	73.89	129.29	128.74	-8,390.00	-75.47	3,447.25	3,261.61	185.64	18.570		
15,700.00	7,589.13	17,786.62	9,750.36	74.56	130.71	128.75	-8,493.19	-75.01	3,447.27	3,259.68	187.59	18.376		
15,744.68	7,589.13	17,831.00	9,751.46	74.86	131.33	128.77	-8,537.54	-74.03	3,447.26	3,258.84	188.42	18.296		
15,800.00	7,589.13	17,863.93	9,752.37	75.23	131.78	128.79	-8,570.45	-73.37	3,447.44	3,258.37	189.07	18.234		
15,900.00	7,589.13	17,925.00	9,753.07	75.90	132.63	128.79	-8,631.51	-73.67	3,448.69	3,258.41	190.28	18.124		
16,000.00	7,589.12	17,993.52	9,753.17	76.57	133.57	128.78	-8,700.01	-75.47	3,450.96	3,259.33	191.63	18.008		
16,100.00	7,589.12	18,105.36	9,752.93	77.24	135.09	128.73	-8,811.79	-79.32	3,453.69	3,259.90	193.80	17.821		
16,200.00	7,589.11	18,191.99	9,752.65	77.92	136.28	128.70	-8,898.37	-82.15	3,456.20	3,260.71	195.49	17.680		
16,300.00	7,589.11	18,401.30	9,753.38	78.59	139.18	128.69	-9,107.64	-83.15	3,456.51	3,257.16	199.35	17.339		
16,400.00	7,589.11	18,498.16	9,751.92	79.27	140.52	128.66	-9,204.50	-83.75	3,456.20	3,254.96	201.24	17.174		
16,500.00	7,589.10	18,622.94	9,750.03	79.95	142.25	128.64	-9,329.26	-83.62	3,455.29	3,251.69	203.61	16.971		
16,600.00	7,589.10	18,728.51	9,748.35	80.63	143.72	128.62	-9,434.81	-83.38	3,454.27	3,248.63	205.64	16.797		
16,700.00	7,589.09	18,822.13	9,747.10	81.31	145.02	128.61	-9,528.42	-82.65	3,453.00	3,245.53	207.47	16.643		
16,800.00	7,589.09	18,911.56	9,746.81	82.00	146.27	128.61	-9,617.85	-81.80	3,452.21	3,243.00	209.22	16.501		
16,900.00	7,589.08	19,002.20	9,746.39	82.68	147.53	128.61	-9,708.49	-81.19	3,451.55	3,240.57	210.98	16.359		
17,000.00	7,589.08	19,105.57	9,745.59	83.37	148.97	128.60	-9,811.85	-81.19	3,451.24	3,238.25	212.98	16.204		
17,100.00	7,589.08	19,222.21	9,743.97	84.06	150.60	128.57	-9,928.48	-80.98	3,450.37	3,235.16	215.22	16.032		
17,200.00	7,589.07	19,312.06	9,742.24	84.75	151.85	128.55	-10,018.32	-81.11	3,449.45	3,232.45	217.00	15.896		
17,300.00	7,589.07	19,402.28	9,740.95	85.44	153.11	128.53	-10,108.52	-81.29	3,448.86	3,230.08	218.79	15.764		
17,400.00	7,589.06	19,533.75	9,739.49	86.13	154.95	128.51	-10,239.99	-80.87	3,448.13	3,226.85	221.27	15.583		
17,500.00	7,589.06	19,678.88	9,739.55	86.83	156.99	128.55	-10,385.04	-76.54	3,445.91	3,222.01	223.90	15.390		
17,600.00	7,589.06	19,756.68	9,739.71	87.52	158.09	128.58	-10,462.79	-73.72	3,443.41	3,217.95	225.45	15.273		
17,700.00	7,589.05	19,822.73	9,739.62	88.22	159.02	128.59	-10,528.82	-72.38	3,441.89	3,215.07	226.82	15.175		
17,800.00	7,589.05	19,895.00	9,739.22	88.91	160.03	128.59	-10,601.09	-72.01	3,441.28	3,213.00	228.28	15.075		
17,900.00	7,589.04	19,994.88	9,738.25	89.61	161.43	128.57	-10,700.97	-72.32	3,441.08	3,210.85	230.24	14.946		
18,000.00	7,589.04	20,087.49	9,737.51	90.31	162.72	128.56	-10,793.58	-72.59	3,440.96	3,208.90	232.06	14.828		
18,100.00	7,589.03	20,189.96	9,736.92	91.01	164.16	128.55	-10,896.04	-72.77	3,440.90	3,206.84	234.06	14.701		
18,200.00	7,589.03	20,292.62	9,736.27	91.71	165.60	128.54	-10,998.70	-72.95	3,440.79	3,204.73	236.06	14.576		
18,276.91	7,589.03	20,364.00	9,735.77	92.25	166.60	128.53	-11,070.08	-72.96	3,440.60	3,203.13	237.47	14.489		
18,300.00	7,589.03	20,364.00	9,735.77	92.42	166.60	128.53	-11,070.08	-72.96	3,440.67	3,203.17	237.50	14.487		
18,400.00	7,589.02	20,426.55	9,736.04	93.12	167.47	128.53	-11,132.63	-73.16	3,441.56	3,202.79	238.76	14.414		
18,500.00	7,589.02	20,535.81	9,737.64	93.82	169.00	128.53	-11,241.85	-74.73	3,443.80	3,202.92	240.87	14.297		
18,600.00	7,589.01	20,738.00	9,735.41	94.53	171.84	128.50	-11,444.02	-74.98	3,442.92	3,198.27	244.65	14.073		
18,651.15	7,589.01	20,738.00	9,735.41	94.89	171.84	128.50	-11,444.02	-74.98	3,442.54	3,197.77	244.77	14.064		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Survey Program: 213-MWD+HRGM												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth	Depth	Depth	Depth	Reference	Offset		+N/-S	+E/-W	Between	Between	Separation		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	Toolface	(usft)	(usft)	Centres	Ellipses	(usft)	Factor	
						(°)			(usft)	(usft)			
18,700.00	7,589.01	20,738.00	9,735.41	95.23	171.84	128.50	-11,444.02	-74.98	3,442.89	3,198.05	244.84	14.062	
18,800.00	7,589.01	20,738.00	9,735.41	95.94	171.84	128.50	-11,444.02	-74.98	3,445.76	3,200.91	244.85	14.073	
18,900.00	7,589.00	20,738.00	9,735.41	96.65	171.84	128.50	-11,444.02	-74.98	3,451.53	3,206.86	244.67	14.107	
18,917.19	7,589.00	20,738.00	9,735.41	96.77	171.84	128.50	-11,444.02	-74.98	3,452.81	3,208.19	244.62	14.115	
18,917.96	7,589.00	20,738.00	9,735.41	97.01	171.84	128.50	-11,444.02	-74.98	3,452.87	3,208.19	244.68	14.112	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy														Offset Site Error:	0.00 usft
Survey Program: 201-MWD+HRGM														Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	3.43	3.43	0.00	0.01	-73.51	308.46	-1,042.31	1,086.99						
100.00	100.00	101.33	101.33	0.28	0.16	-73.49	308.86	-1,042.30	1,087.10	1,086.66	0.44	2,487.551			
200.00	200.00	201.00	200.99	0.63	0.32	-73.43	310.04	-1,042.26	1,087.40	1,086.44	0.95	1,140.089			
300.00	300.00	309.52	309.50	0.99	0.71	-73.34	311.66	-1,041.69	1,087.33	1,085.63	1.70	639.783			
400.00	400.00	428.86	428.81	1.35	1.13	-73.25	313.02	-1,039.77	1,086.16	1,083.67	2.48	437.619			
500.00	500.00	540.63	540.52	1.71	1.52	-73.23	312.32	-1,036.14	1,082.82	1,079.59	3.23	335.009			
600.00	600.00	644.37	644.20	2.07	1.89	-73.22	311.38	-1,032.69	1,079.38	1,075.42	3.95	272.916			
700.00	700.00	746.06	745.81	2.43	2.25	-73.21	310.46	-1,028.80	1,075.46	1,070.78	4.67	230.120			
800.00	800.00	847.91	847.57	2.79	2.62	-73.19	309.67	-1,024.77	1,071.44	1,066.05	5.39	198.629			
900.00	900.00	948.77	948.35	3.14	2.98	-73.17	308.74	-1,020.69	1,067.30	1,061.19	6.11	174.619			
1,000.00	1,000.00	1,052.43	1,051.91	3.50	3.36	-73.17	307.41	-1,016.29	1,062.87	1,056.03	6.84	155.390			
1,100.00	1,099.98	1,150.66	1,150.04	3.85	3.71	158.88	306.06	-1,012.11	1,060.03	1,052.49	7.53	140.688			
1,133.29	1,133.24	1,183.37	1,182.72	3.96	3.83	158.90	305.61	-1,010.75	1,059.84	1,052.07	7.76	136.532	CC, ES		
1,200.00	1,199.84	1,247.46	1,246.75	4.18	4.06	158.97	304.75	-1,008.17	1,060.62	1,052.40	8.21	129.115			
1,300.00	1,299.45	1,341.63	1,340.85	4.52	4.40	159.09	303.58	-1,004.81	1,064.99	1,056.10	8.89	119.789			
1,400.00	1,398.70	1,440.52	1,439.68	4.86	4.76	159.25	302.40	-1,001.53	1,072.88	1,063.29	9.59	111.912			
1,500.00	1,497.47	1,538.20	1,537.31	5.21	5.11	159.45	301.24	-998.36	1,084.12	1,073.83	10.28	105.431			
1,600.00	1,595.62	1,631.72	1,630.78	5.56	5.45	159.68	300.32	-995.54	1,098.90	1,087.93	10.97	100.196			
1,700.00	1,693.06	1,721.99	1,721.02	5.92	5.77	159.93	299.78	-993.34	1,117.62	1,105.98	11.64	95.986			
1,800.00	1,790.08	1,815.82	1,814.83	6.28	6.11	160.34	299.40	-991.50	1,138.50	1,126.16	12.33	92.315			
1,900.00	1,887.11	1,917.41	1,916.40	6.65	6.47	160.79	299.33	-989.49	1,159.54	1,146.49	13.05	88.841			
2,000.00	1,984.14	2,034.00	2,032.93	7.02	6.89	161.27	298.66	-986.01	1,179.54	1,165.71	13.83	85.280			
2,100.00	2,081.17	2,137.70	2,136.53	7.39	7.27	161.69	297.77	-981.61	1,198.35	1,183.78	14.57	82.261			
2,200.00	2,178.20	2,252.78	2,251.48	7.76	7.69	162.16	296.81	-976.05	1,216.71	1,201.36	15.35	79.271			
2,300.00	2,275.23	2,380.39	2,378.78	8.14	8.16	162.66	294.86	-967.35	1,233.03	1,216.85	16.18	76.228			
2,400.00	2,372.26	2,497.73	2,496.62	8.52	8.59	163.13	292.50	-956.85	1,247.22	1,230.26	16.97	73.507			
2,500.00	2,469.29	2,591.66	2,589.05	8.90	8.94	163.58	292.34	-947.24	1,261.01	1,243.32	17.68	71.307			
2,600.00	2,566.32	2,677.12	2,674.12	9.28	9.26	164.00	292.72	-939.08	1,275.72	1,257.35	18.37	69.436			
2,700.00	2,663.35	2,770.11	2,766.75	9.67	9.61	164.45	293.39	-930.98	1,291.39	1,272.30	19.09	67.658			
2,800.00	2,760.38	2,870.76	2,867.01	10.05	9.98	164.92	294.14	-922.12	1,307.06	1,287.23	19.83	65.912			
2,900.00	2,857.41	2,970.60	2,966.45	10.44	10.35	165.37	294.70	-913.26	1,322.69	1,302.12	20.57	64.294			
3,000.00	2,954.44	3,070.37	3,065.82	10.83	10.73	165.81	295.21	-904.30	1,338.27	1,316.96	21.32	62.783			
3,100.00	3,051.47	3,176.26	3,171.25	11.22	11.12	166.28	295.89	-894.42	1,353.67	1,331.59	22.08	61.298			
3,200.00	3,148.50	3,311.32	3,305.42	11.60	11.63	166.91	296.92	-879.13	1,367.38	1,344.43	22.96	59.563			
3,300.00	3,245.53	3,408.98	3,402.29	11.99	12.01	167.38	297.66	-866.72	1,379.96	1,356.26	23.70	58.225			
3,400.00	3,342.56	3,499.97	3,492.56	12.38	12.36	167.81	298.46	-855.37	1,392.89	1,368.46	24.42	57.036			
3,500.00	3,439.59	3,583.99	3,576.02	12.77	12.68	168.19	299.29	-845.68	1,406.78	1,381.67	25.12	56.013			
3,600.00	3,536.62	3,680.26	3,671.71	13.17	13.04	168.62	300.44	-835.24	1,421.46	1,395.61	25.85	54.980			
3,700.00	3,633.65	3,812.12	3,802.52	13.56	13.55	169.23	302.07	-818.77	1,434.73	1,408.00	26.73	53.678			
3,800.00	3,730.68	3,914.63	3,904.04	13.95	13.95	169.72	303.34	-804.52	1,446.90	1,419.41	27.50	52.622			
3,900.00	3,827.71	4,009.32	3,997.82	14.34	14.32	170.16	304.56	-791.50	1,459.33	1,431.09	28.24	51.681			
4,000.00	3,924.74	4,107.93	4,095.50	14.74	14.71	170.62	305.90	-778.10	1,472.03	1,443.03	28.99	50.771			
4,100.00	4,021.77	4,208.90	4,195.50	15.13	15.10	171.09	307.40	-764.15	1,484.68	1,454.92	29.76	49.890			
4,200.00	4,118.79	4,308.23	4,293.84	15.52	15.50	171.54	308.96	-750.25	1,497.30	1,466.78	30.52	49.059			
4,300.00	4,215.82	4,405.45	4,390.09	15.92	15.88	171.98	310.48	-736.66	1,510.04	1,478.76	31.27	48.283			
4,400.00	4,312.85	4,503.89	4,487.55	16.31	16.27	172.42	312.10	-722.93	1,522.92	1,490.89	32.03	47.541			
4,500.00	4,409.88	4,604.61	4,587.25	16.70	16.67	172.87	313.82	-708.76	1,535.83	1,503.02	32.80	46.818			
4,600.00	4,506.91	4,705.61	4,687.21	17.10	17.07	173.31	315.56	-694.35	1,548.66	1,515.08	33.58	46.124			
4,700.00	4,603.94	4,802.55	4,783.14	17.49	17.45	173.73	317.17	-680.52	1,561.55	1,527.21	34.33	45.482			
4,800.00	4,700.97	4,899.83	4,879.45	17.89	17.84	174.14	318.65	-666.84	1,574.61	1,539.52	35.09	44.871			
4,900.00	4,798.00	4,999.20	4,977.82	18.28	18.23	174.54	320.04	-652.90	1,587.72	1,551.86	35.86	44.276			
5,000.00	4,895.03	5,089.43	5,067.20	18.68	18.59	174.89	321.18	-640.61	1,601.17	1,564.59	36.59	43.761			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

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Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Survey Program: 201-MWD+HRGM		Rule Assigned:										Offset Site Error: 0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.00	4,992.06	5,176.00	5,153.03	19.07	18.93	175.21	322.22	-629.31	1,615.16	1,577.86	37.30	43.301
5,200.00	5,089.09	5,262.60	5,238.97	19.47	19.27	175.51	323.26	-618.76	1,629.93	1,591.92	38.01	42.883
5,300.00	5,186.12	5,359.06	5,334.80	19.87	19.65	175.82	324.40	-607.76	1,645.37	1,606.61	38.76	42.450
5,400.00	5,283.15	5,463.72	5,438.79	20.26	20.05	176.13	325.13	-595.96	1,660.69	1,621.14	39.55	41.994
5,500.00	5,380.18	5,569.69	5,544.11	20.66	20.46	176.41	324.72	-584.26	1,675.65	1,635.31	40.34	41.541
5,600.00	5,477.21	5,675.60	5,649.35	21.06	20.87	176.66	323.61	-572.39	1,690.13	1,649.01	41.13	41.095
5,700.00	5,574.24	5,774.80	5,747.90	21.45	21.26	176.89	322.35	-561.22	1,704.47	1,662.58	41.89	40.691
5,800.00	5,671.27	5,871.95	5,844.44	21.85	21.64	177.11	321.12	-550.30	1,718.86	1,676.22	42.64	40.312
5,900.00	5,768.30	5,957.35	5,929.31	22.24	21.97	177.30	320.03	-540.95	1,733.54	1,690.21	43.34	40.001
6,000.00	5,865.33	6,023.00	5,994.67	22.64	22.22	177.42	319.23	-534.86	1,749.64	1,705.70	43.93	39.824
6,100.00	5,962.36	6,117.00	6,088.37	23.04	22.57	177.57	318.26	-527.34	1,766.85	1,722.18	44.66	39.560
6,200.00	6,059.39	6,190.03	6,161.21	23.44	22.84	177.68	317.84	-522.15	1,785.01	1,739.73	45.28	39.423
6,300.00	6,156.42	6,265.51	6,236.56	23.83	23.11	177.79	317.85	-517.61	1,804.42	1,758.52	45.90	39.311
6,400.00	6,253.45	6,342.00	6,312.94	24.23	23.39	177.89	318.31	-513.84	1,825.05	1,778.53	46.52	39.231
6,500.00	6,350.47	6,422.34	6,393.21	24.63	23.68	178.00	319.31	-510.61	1,846.76	1,799.60	47.16	39.161
6,600.00	6,447.50	6,508.77	6,479.60	25.02	23.98	178.10	320.15	-508.01	1,869.13	1,821.31	47.83	39.082
6,700.00	6,544.53	6,590.04	6,560.86	25.42	24.26	178.15	320.38	-506.74	1,892.25	1,843.79	48.46	39.050
6,800.00	6,641.56	6,686.05	6,656.87	25.82	24.59	178.18	320.19	-506.11	1,915.80	1,866.62	49.18	38.959
6,900.00	6,738.59	6,776.00	6,746.82	26.22	24.90	178.20	319.89	-505.75	1,939.48	1,889.63	49.85	38.905
7,000.00	6,835.62	6,870.00	6,840.82	26.61	25.20	178.22	319.79	-505.68	1,963.54	1,913.00	50.54	38.849
7,100.00	6,932.65	6,958.56	6,929.38	27.01	25.48	178.24	319.94	-505.85	1,987.96	1,936.77	51.19	38.834
7,200.00	7,029.68	7,051.83	7,022.65	27.41	25.77	178.26	320.15	-506.19	2,012.56	1,960.69	51.87	38.801
7,300.00	7,126.71	7,136.38	7,107.19	27.81	26.04	178.26	320.22	-506.99	2,037.53	1,985.04	52.49	38.819
7,309.09	7,135.53	7,143.99	7,114.80	27.84	26.06	178.26	320.21	-507.10	2,039.83	1,987.28	52.54	38.822
7,350.00	7,174.84	7,177.87	7,148.68	28.01	26.16	178.22	320.14	-507.71	2,051.64	1,998.85	52.80	38.860
7,400.00	7,221.63	7,218.09	7,188.89	28.22	26.29	178.15	320.06	-508.57	2,069.96	2,016.85	53.11	38.978
7,450.00	7,266.71	7,258.03	7,228.82	28.44	26.41	178.07	319.99	-509.56	2,092.39	2,038.97	53.42	39.167
7,500.00	7,309.74	7,299.89	7,270.66	28.67	26.54	177.96	319.89	-510.66	2,118.67	2,064.91	53.76	39.413
7,550.00	7,350.39	7,339.33	7,310.08	28.91	26.66	177.83	319.77	-511.75	2,148.56	2,094.49	54.08	39.732
7,600.00	7,388.34	7,375.17	7,345.91	29.15	26.77	177.66	319.62	-512.77	2,181.85	2,127.48	54.37	40.127
7,650.00	7,423.32	7,408.01	7,378.74	29.40	26.87	177.44	319.48	-513.75	2,218.28	2,163.63	54.65	40.591
7,700.00	7,455.05	7,438.52	7,409.23	29.65	26.96	177.16	319.32	-514.70	2,257.57	2,202.66	54.91	41.117
7,750.00	7,483.30	7,467.18	7,437.87	29.90	27.05	176.78	319.14	-515.60	2,299.39	2,244.24	55.15	41.697
7,800.00	7,507.84	7,491.95	7,462.63	30.15	27.13	176.25	318.95	-516.38	2,343.42	2,288.07	55.35	42.335
7,850.00	7,528.50	7,512.66	7,483.33	30.41	27.19	175.46	318.77	-517.04	2,389.33	2,333.81	55.53	43.029
7,900.00	7,545.11	7,529.13	7,499.79	30.66	27.24	174.17	318.61	-517.57	2,436.79	2,381.12	55.67	43.774
7,919.09	7,550.36	7,534.45	7,505.11	30.75	27.26	173.43	318.56	-517.74	2,455.24	2,399.52	55.71	44.069
8,000.00	7,568.52	7,552.64	7,523.29	31.16	27.32	171.05	318.37	-518.33	2,534.37	2,478.50	55.87	45.365
8,100.00	7,583.22	7,566.74	7,537.38	31.66	27.36	162.96	318.21	-518.78	2,633.48	2,577.49	55.99	47.033
8,200.00	7,589.24	7,571.39	7,542.03	32.17	27.37	85.68	318.15	-518.93	2,733.33	2,677.28	56.05	48.767
8,219.09	7,589.40	7,571.19	7,541.83	32.26	27.37	53.40	318.15	-518.92	2,752.41	2,696.36	56.05	49.105
8,300.00	7,589.40	7,569.60	7,540.24	32.67	27.37	52.54	318.17	-518.87	2,833.28	2,777.22	56.06	50.540
8,400.00	7,589.40	7,567.61	7,538.25	33.21	27.36	51.49	318.20	-518.81	2,933.24	2,877.17	56.07	52.313
8,444.09	7,589.40	7,566.74	7,537.38	33.45	27.36	51.03	318.21	-518.78	2,977.31	2,921.23	56.08	53.094
8,500.00	7,589.40	7,565.64	7,536.28	33.76	27.36	70.11	318.22	-518.74	3,033.17	2,977.08	56.08	54.084
8,600.00	7,589.40	7,563.81	7,534.45	34.34	27.35	79.56	318.24	-518.68	3,132.84	3,076.75	56.10	55.847
8,700.00	7,589.40	7,562.14	7,532.79	34.92	27.35	82.90	318.26	-518.63	3,232.03	3,175.91	56.11	57.598
8,800.00	7,589.40	7,560.64	7,531.29	35.52	27.34	84.60	318.28	-518.58	3,330.50	3,274.37	56.13	59.333
8,900.00	7,589.40	7,559.32	7,529.96	36.12	27.34	85.63	318.29	-518.54	3,428.06	3,371.91	56.15	61.049
9,000.00	7,589.40	7,558.17	7,528.82	36.73	27.33	86.33	318.31	-518.50	3,524.54	3,468.36	56.18	62.741
9,100.00	7,589.40	7,557.21	7,527.85	37.33	27.33	86.84	318.32	-518.47	3,619.76	3,563.56	56.20	64.408
9,200.00	7,589.40	12,044.86	9,947.86	37.92	49.53	133.01	-2,087.13	-504.78	3,707.33	3,631.59	75.74	48.946

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Survey Program:		201-MWD+HRGM					Rule Assigned:					Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)		
9,300.00	7,589.39	12,125.62	9,948.01	38.51	50.36	131.86	-2,167.87	-503.16	3,742.21	3,665.03	77.18	48.489			
9,400.00	7,589.39	12,213.00	9,948.40	39.09	51.27	130.83	-2,255.24	-501.45	3,773.78	3,695.11	78.67	47.968			
9,500.00	7,589.39	12,313.94	9,948.80	39.65	52.34	129.91	-2,356.16	-499.43	3,801.67	3,721.35	80.32	47.334			
9,600.00	7,589.39	12,376.00	9,949.13	40.19	53.01	129.25	-2,418.20	-497.97	3,825.76	3,744.25	81.51	46.938			
9,700.00	7,589.38	12,446.60	9,949.32	40.72	53.77	128.66	-2,488.79	-497.13	3,846.67	3,763.89	82.78	46.469			
9,800.00	7,589.38	12,505.61	9,949.17	41.23	54.42	128.19	-2,547.79	-497.76	3,864.87	3,780.97	83.90	46.065			
9,900.00	7,589.38	12,575.53	9,949.04	41.72	55.18	127.79	-2,617.70	-499.18	3,879.87	3,794.74	85.13	45.576			
10,000.00	7,589.37	12,662.50	9,949.25	42.18	56.14	127.47	-2,704.64	-501.20	3,891.29	3,804.74	86.55	44.960			
10,100.00	7,589.37	12,774.34	9,949.79	42.63	57.40	127.25	-2,816.46	-503.54	3,898.55	3,810.28	88.27	44.165			
10,173.66	7,589.36	12,850.22	9,950.14	42.94	58.25	127.18	-2,892.33	-504.98	3,901.12	3,811.67	89.45	43.612			
10,200.00	7,589.36	12,876.15	9,950.25	43.05	58.55	127.18	-2,918.26	-505.47	3,901.63	3,811.77	89.86	43.421			
10,300.00	7,589.36	12,972.81	9,950.62	43.47	59.66	127.17	-3,014.89	-507.38	3,903.59	3,812.20	91.38	42.717			
10,400.00	7,589.36	13,070.56	9,951.20	43.90	60.79	127.15	-3,112.62	-509.30	3,905.67	3,812.73	92.94	42.023			
10,500.00	7,589.35	13,174.70	9,951.94	44.33	62.02	127.14	-3,216.75	-511.15	3,907.68	3,813.08	94.60	41.308			
10,600.00	7,589.35	13,428.14	9,952.43	44.78	65.05	127.14	-3,470.16	-511.49	3,908.64	3,810.38	98.26	39.779			
10,700.00	7,589.34	13,520.44	9,952.07	45.23	66.18	127.15	-3,562.44	-509.64	3,906.95	3,807.15	99.80	39.147			
10,800.00	7,589.34	13,630.01	9,951.72	45.69	67.52	127.17	-3,671.98	-507.01	3,904.99	3,803.41	101.58	38.441			
10,900.00	7,589.33	13,722.01	9,951.30	46.16	68.66	127.18	-3,763.96	-504.95	3,903.10	3,799.96	103.15	37.841			
11,000.00	7,589.33	13,820.49	9,950.87	46.64	69.89	127.19	-3,862.41	-502.92	3,901.35	3,796.54	104.81	37.225			
11,100.00	7,589.33	13,922.07	9,950.48	47.12	71.16	127.21	-3,963.97	-500.69	3,899.53	3,793.02	106.52	36.609			
11,200.00	7,589.32	14,018.99	9,950.26	47.61	72.38	127.22	-4,060.86	-498.54	3,897.79	3,789.61	108.18	36.032			
11,300.00	7,589.32	14,112.11	9,950.04	48.11	73.56	127.24	-4,153.96	-496.55	3,896.10	3,786.31	109.79	35.486			
11,400.00	7,589.31	14,219.82	9,949.77	48.61	74.93	127.25	-4,261.65	-494.56	3,894.66	3,783.04	111.62	34.892			
11,500.00	7,589.31	14,320.19	9,949.55	49.12	76.22	127.27	-4,361.99	-492.07	3,892.71	3,779.35	113.35	34.341			
11,600.00	7,589.31	14,407.96	9,949.59	49.64	77.34	127.28	-4,449.74	-490.18	3,891.17	3,776.25	114.92	33.860			
11,700.00	7,589.30	14,498.22	9,949.89	50.16	78.51	127.30	-4,539.97	-488.23	3,889.82	3,773.29	116.52	33.383			
11,800.00	7,589.30	14,592.19	9,950.40	50.69	79.72	127.32	-4,633.93	-486.42	3,888.77	3,770.58	118.19	32.904			
11,900.00	7,589.29	14,667.13	9,950.77	51.23	80.69	127.34	-4,708.85	-485.08	3,887.87	3,768.29	119.58	32.512			
11,929.59	7,589.29	14,681.54	9,950.84	51.39	80.88	127.34	-4,723.26	-484.97	3,887.81	3,767.93	119.88	32.430			
12,000.00	7,589.29	14,736.00	9,951.09	51.77	81.59	127.34	-4,777.72	-485.17	3,888.25	3,767.35	120.90	32.161			
12,100.00	7,589.28	14,791.87	9,951.46	52.31	82.31	127.34	-4,833.59	-485.84	3,889.52	3,767.50	122.02	31.876			
12,200.00	7,589.28	14,865.70	9,952.26	52.86	83.27	127.34	-4,907.40	-486.68	3,891.29	3,767.89	123.41	31.533			
12,300.00	7,589.28	14,926.00	9,952.98	53.42	84.05	127.33	-4,967.69	-488.10	3,894.04	3,769.45	124.59	31.256			
12,400.00	7,589.27	15,115.00	9,956.70	53.98	86.52	127.34	-5,156.61	-491.28	3,897.25	3,769.52	127.73	30.512			
12,500.00	7,589.27	15,201.90	9,958.59	54.55	87.66	127.37	-5,243.49	-490.81	3,898.31	3,768.99	129.32	30.145			
12,600.00	7,589.26	15,284.38	9,960.35	55.12	88.75	127.39	-5,325.95	-490.86	3,899.82	3,768.97	130.85	29.803			
12,700.00	7,589.26	15,456.60	9,962.17	55.70	91.04	127.41	-5,498.16	-490.38	3,900.23	3,766.48	133.75	29.161			
12,740.87	7,589.26	15,493.00	9,962.37	55.93	91.52	127.41	-5,534.55	-490.13	3,900.20	3,765.78	134.42	29.015			
12,800.00	7,589.26	15,539.97	9,962.65	56.28	92.14	127.42	-5,581.52	-489.90	3,900.29	3,764.98	135.31	28.824			
12,900.00	7,589.25	15,630.64	9,963.22	56.86	93.35	127.42	-5,672.19	-489.90	3,900.82	3,763.82	136.99	28.474			
13,000.00	7,589.25	15,723.09	9,963.79	57.45	94.58	127.43	-5,764.64	-489.89	3,901.36	3,762.65	138.71	28.127			
13,100.00	7,589.24	15,854.28	9,964.09	58.04	96.33	127.42	-5,895.82	-490.60	3,902.21	3,761.19	141.02	27.671			
13,200.00	7,589.24	15,981.66	9,963.50	58.64	98.04	127.42	-6,023.20	-489.98	3,901.67	3,758.39	143.28	27.232			
13,300.00	7,589.23	16,085.05	9,962.93	59.24	99.43	127.42	-6,126.58	-489.11	3,900.82	3,755.64	145.18	26.869			
13,400.00	7,589.23	16,174.67	9,962.42	59.84	100.64	127.42	-6,216.20	-488.52	3,900.11	3,753.23	146.88	26.554			
13,500.00	7,589.23	16,266.01	9,961.89	60.45	101.87	127.41	-6,307.54	-488.23	3,899.66	3,751.06	148.60	26.242			
13,600.00	7,589.22	16,417.89	9,961.20	61.06	103.93	127.41	-6,459.42	-487.14	3,899.15	3,747.91	151.25	25.780			
13,700.00	7,589.22	16,515.00	9,960.48	61.68	105.25	127.42	-6,556.50	-485.25	3,897.32	3,744.26	153.07	25.462			
13,800.00	7,589.21	16,586.13	9,960.21	62.30	106.22	127.42	-6,627.62	-484.17	3,896.05	3,741.56	154.50	25.218			
13,900.00	7,589.21	16,659.82	9,960.00	62.92	107.22	127.42	-6,701.31	-483.74	3,895.56	3,739.60	155.96	24.977			
13,941.65	7,589.21	16,693.85	9,959.90	63.18	107.68	127.42	-6,735.34	-483.70	3,895.52	3,738.89	156.63	24.871			
14,000.00	7,589.21	16,741.86	9,959.77	63.54	108.33	127.42	-6,783.35	-483.79	3,895.60	3,738.04	157.56	24.724			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 201-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,100.00	7,589.20	16,815.00	9,959.69	64.17	109.32	127.41			-6,856.49	-484.13	3,896.10	3,737.08	159.02	24.501	
14,200.00	7,589.20	16,891.67	9,959.72	64.80	110.37	127.40			-6,933.16	-485.01	3,897.23	3,736.70	160.53	24.277	
14,300.00	7,589.19	16,999.19	9,959.76	65.43	111.82	127.39			-7,040.66	-486.90	3,898.82	3,736.28	162.54	23.987	
14,400.00	7,589.19	17,097.73	9,959.62	66.07	113.16	127.37			-7,139.18	-488.51	3,900.19	3,735.77	164.41	23.722	
14,500.00	7,589.18	17,242.13	9,959.35	66.71	115.13	127.35			-7,283.57	-489.87	3,900.97	3,733.96	167.02	23.357	
14,600.00	7,589.18	17,427.80	9,959.21	67.35	117.68	127.37			-7,469.22	-487.57	3,900.07	3,729.86	170.22	22.913	
14,700.00	7,589.18	17,546.63	9,957.82	67.99	119.32	127.37			-7,588.02	-485.11	3,897.87	3,725.48	172.39	22.610	
14,800.00	7,589.17	17,650.03	9,955.23	68.64	120.75	127.35			-7,691.37	-483.64	3,895.38	3,721.02	174.36	22.341	
14,900.00	7,589.17	17,720.25	9,952.67	69.29	121.72	127.32			-7,761.54	-483.52	3,893.21	3,717.37	175.84	22.140	
15,000.00	7,589.16	17,816.98	9,949.56	69.94	123.05	127.28			-7,858.23	-483.90	3,891.72	3,713.99	177.73	21.896	
15,100.00	7,589.16	17,904.74	9,946.86	70.59	124.26	127.25			-7,945.94	-483.94	3,890.08	3,710.59	179.48	21.674	
15,200.00	7,589.16	17,977.48	9,945.74	71.25	125.26	127.23			-8,018.68	-483.73	3,889.08	3,708.10	180.98	21.489	
15,300.00	7,589.15	18,066.01	9,944.61	71.91	126.48	127.22			-8,107.20	-484.08	3,888.76	3,706.03	182.73	21.282	
15,400.00	7,589.15	18,255.82	9,942.11	72.57	129.11	127.20			-8,296.96	-481.68	3,886.99	3,700.96	186.03	20.895	
15,500.00	7,589.14	18,335.84	9,941.99	73.23	130.23	127.22			-8,376.94	-479.19	3,884.58	3,696.95	187.63	20.703	
15,600.00	7,589.14	18,415.00	9,942.06	73.89	131.33	127.24			-8,456.07	-477.15	3,882.74	3,693.52	189.22	20.520	
15,700.00	7,589.13	18,549.09	9,941.82	74.56	133.20	127.27			-8,590.10	-473.10	3,880.28	3,688.65	191.63	20.249	
15,800.00	7,589.13	18,626.91	9,942.03	75.23	134.29	127.29			-8,667.89	-470.72	3,878.15	3,684.94	193.20	20.073	
15,900.00	7,589.13	18,727.50	9,942.34	75.90	135.69	127.32			-8,768.44	-467.85	3,876.22	3,681.11	195.11	19.867	
16,000.00	7,589.12	18,826.33	9,942.49	76.57	137.07	127.35			-8,867.22	-465.15	3,874.30	3,677.30	197.00	19.666	
16,100.00	7,589.12	18,936.88	9,942.11	77.24	138.62	127.36			-8,977.75	-462.52	3,872.37	3,673.30	199.08	19.452	
16,200.00	7,589.11	19,032.17	9,941.92	77.92	139.95	127.39			-9,072.99	-459.74	3,870.10	3,669.18	200.92	19.262	
16,300.00	7,589.11	19,117.45	9,942.59	78.59	141.14	127.41			-9,158.22	-457.14	3,868.30	3,665.70	202.60	19.094	
16,400.00	7,589.11	19,206.36	9,941.41	79.27	142.39	127.41			-9,247.12	-456.09	3,866.73	3,662.36	204.36	18.921	
16,500.00	7,589.10	19,290.53	9,939.75	79.95	143.56	127.39			-9,331.27	-455.98	3,865.57	3,659.51	206.07	18.759	
16,600.00	7,589.10	19,383.20	9,938.43	80.63	144.85	127.37			-9,423.93	-455.79	3,864.71	3,656.81	207.90	18.589	
16,700.00	7,589.09	19,474.16	9,937.40	81.31	146.12	127.36			-9,514.89	-455.57	3,863.99	3,654.29	209.70	18.426	
16,800.00	7,589.09	19,553.62	9,937.39	82.00	147.23	127.36			-9,594.35	-455.16	3,863.72	3,652.42	211.31	18.285	
16,900.00	7,589.08	19,733.00	9,937.91	82.68	149.74	127.39			-9,773.71	-453.16	3,863.57	3,649.10	214.47	18.014	
17,000.00	7,589.08	19,784.70	9,937.96	83.37	150.47	127.40			-9,825.40	-451.97	3,862.04	3,646.38	215.65	17.908	
17,074.08	7,589.08	19,827.00	9,938.20	83.88	151.06	127.40			-9,867.69	-451.61	3,861.83	3,645.25	216.58	17.831	
17,100.00	7,589.08	19,835.99	9,938.27	84.06	151.19	127.40			-9,876.68	-451.59	3,861.91	3,645.11	216.80	17.813	
17,200.00	7,589.07	19,942.95	9,938.62	84.75	152.68	127.40			-9,983.64	-451.54	3,862.23	3,643.37	218.85	17.647	
17,300.00	7,589.07	20,053.75	9,938.59	85.44	154.23	127.40			-10,094.44	-451.67	3,862.48	3,641.51	220.98	17.479	
17,400.00	7,589.06	20,182.32	9,937.41	86.13	156.03	127.39			-10,223.00	-451.54	3,861.97	3,638.58	223.39	17.288	
17,500.00	7,589.06	20,273.48	9,936.62	86.83	157.31	127.38			-10,314.16	-451.14	3,861.27	3,636.06	225.21	17.146	
17,600.00	7,589.06	20,376.94	9,936.14	87.52	158.76	127.38			-10,417.62	-450.63	3,860.76	3,633.55	227.21	16.992	
17,700.00	7,589.05	20,488.05	9,935.16	88.22	160.32	127.37			-10,528.73	-450.09	3,859.99	3,630.65	229.35	16.830	
17,800.00	7,589.05	20,569.72	9,934.44	88.91	161.47	127.36			-10,610.39	-449.79	3,859.33	3,628.32	231.01	16.706	
17,900.00	7,589.04	20,656.04	9,934.13	89.61	162.68	127.36			-10,696.71	-449.58	3,859.08	3,626.33	232.74	16.581	
17,923.06	7,589.04	20,676.00	9,934.13	89.77	162.96	127.36			-10,716.67	-449.54	3,859.07	3,625.93	233.14	16.553	
18,000.00	7,589.04	20,733.24	9,934.22	90.31	163.77	127.36			-10,773.91	-449.53	3,859.26	3,624.95	234.32	16.470	
18,100.00	7,589.03	20,850.04	9,934.62	91.01	165.41	127.36			-10,890.70	-449.77	3,859.83	3,623.28	236.54	16.318	
18,200.00	7,589.03	20,925.34	9,934.80	91.71	166.46	127.36			-10,966.00	-449.73	3,860.12	3,622.04	238.09	16.213	
18,300.00	7,589.03	21,035.04	9,935.13	92.42	168.00	127.35			-11,075.70	-450.42	3,860.99	3,620.79	240.20	16.074	
18,400.00	7,589.02	21,166.26	9,934.16	93.12	169.85	127.34			-11,206.91	-450.79	3,860.89	3,618.20	242.69	15.909	
18,460.03	7,589.02	21,212.99	9,933.69	93.54	170.50	127.33			-11,253.65	-450.95	3,860.79	3,617.13	243.65	15.845	
18,500.00	7,589.02	21,242.00	9,933.58	93.82	170.91	127.33			-11,282.65	-451.02	3,860.83	3,616.58	244.26	15.806	
18,600.00	7,589.01	21,336.00	9,934.40	94.53	172.23	127.34			-11,376.65	-450.66	3,861.22	3,615.11	246.10	15.689	
18,700.00	7,589.01	21,398.00	9,935.23	95.23	173.11	127.35			-11,438.64	-450.32	3,861.90	3,614.49	247.40	15.610	SF
18,800.00	7,589.01	21,398.00	9,935.23	95.94	173.11	127.35			-11,438.64	-450.32	3,864.61	3,617.05	247.57	15.610	
18,900.00	7,589.00	21,398.00	9,935.23	96.65	173.11	127.35			-11,438.64	-450.32	3,869.91	3,622.33	247.58	15.631	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy												Offset Site Error:	0.00 usft
Survey Program: 201-MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
18,917.19	7,589.00	21,398.00	9,935.23	96.77	173.11	127.35	-11,438.64	-450.32	3,871.08	3,623.52	247.57	15.637	
18,917.96	7,589.00	21,398.00	9,935.23	97.01	173.11	127.35	-11,438.64	-450.32	3,871.14	3,623.52	247.62	15.634	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS														Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	1.91	-99.96	99.98						
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	1.91	-99.96	99.98	99.43	0.55	181.105			
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	1.91	-99.96	99.98	98.71	1.27	78.786			
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	1.91	-99.96	99.98	97.99	1.99	50.343			
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	1.91	-99.96	99.98	97.28	2.70	36.990			
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	1.91	-99.96	99.98	96.56	3.42	29.235			
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	1.91	-99.96	99.98	95.84	4.14	24.168			
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	1.91	-99.96	99.98	95.12	4.85	20.598			
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	1.91	-99.96	99.98	94.41	5.57	17.947			
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	1.91	-99.96	99.98	93.69	6.29	15.901			
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	1.91	-99.96	99.98	92.97	7.00	14.273	CC, ES		
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	143.67	1.91	-99.96	101.38	93.67	7.71	13.154			
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	145.30	1.91	-99.96	105.64	97.24	8.40	12.578			
1,300.00	1,299.45	1,299.45	1,299.45	4.52	4.58	147.74	1.91	-99.96	112.92	103.83	9.09	12.416			
1,400.00	1,398.70	1,398.70	1,398.70	4.86	4.93	150.65	1.91	-99.96	123.41	113.62	9.79	12.603			
1,500.00	1,497.47	1,497.47	1,497.47	5.21	5.29	153.72	1.91	-99.96	137.29	126.80	10.49	13.085			
1,600.00	1,595.62	1,595.62	1,595.62	5.56	5.64	156.70	1.91	-99.96	154.67	143.48	11.19	13.820			
1,700.00	1,693.06	1,693.06	1,693.06	5.92	5.99	159.45	1.91	-99.96	175.62	163.73	11.89	14.767			
1,800.00	1,790.08	1,790.08	1,790.08	6.28	6.33	161.89	1.91	-99.96	198.53	185.94	12.59	15.766			
1,900.00	1,887.11	1,892.80	1,892.78	6.65	6.69	163.69	0.61	-99.20	220.59	207.29	13.30	16.586			
2,000.00	1,984.14	1,997.57	1,997.41	7.02	7.03	164.64	-3.96	-96.51	239.96	225.96	14.00	17.143			
2,100.00	2,081.17	2,103.58	2,103.02	7.39	7.38	164.92	-11.95	-91.82	256.45	241.76	14.70	17.449			
2,200.00	2,178.20	2,210.57	2,209.16	7.76	7.74	164.68	-23.41	-85.08	269.99	254.59	15.40	17.532			
2,300.00	2,275.23	2,317.42	2,314.61	8.14	8.10	163.97	-38.25	-76.36	280.58	264.48	16.10	17.424			
2,400.00	2,372.26	2,416.90	2,412.53	8.52	8.43	163.17	-53.38	-67.48	290.00	273.18	16.82	17.244			
2,500.00	2,469.29	2,516.37	2,510.45	8.90	8.77	162.42	-68.50	-58.59	299.47	281.93	17.54	17.076			
2,600.00	2,566.32	2,615.85	2,608.37	9.28	9.12	161.72	-83.62	-49.70	308.99	290.73	18.26	16.920			
2,700.00	2,663.35	2,715.32	2,706.28	9.67	9.46	161.06	-98.75	-40.82	318.55	299.56	18.99	16.774			
2,800.00	2,760.38	2,814.80	2,804.20	10.05	9.81	160.43	-113.87	-31.93	328.16	308.43	19.72	16.638			
2,900.00	2,857.41	2,914.28	2,902.12	10.44	10.16	159.85	-128.99	-23.05	337.80	317.34	20.46	16.510			
3,000.00	2,954.44	3,013.75	3,000.04	10.83	10.51	159.29	-144.12	-14.16	347.47	326.27	21.20	16.391			
3,100.00	3,051.47	3,113.23	3,097.96	11.22	10.87	158.77	-159.24	-5.28	357.17	335.23	21.94	16.278			
3,200.00	3,148.50	3,212.71	3,195.87	11.60	11.22	158.27	-174.36	3.61	366.90	344.22	22.69	16.173			
3,300.00	3,245.53	3,312.18	3,293.79	11.99	11.58	157.80	-189.49	12.49	376.66	353.23	23.43	16.074			
3,400.00	3,342.56	3,411.66	3,391.71	12.38	11.94	157.35	-204.61	21.38	386.44	362.26	24.18	15.980			
3,500.00	3,439.59	3,511.14	3,489.63	12.77	12.30	156.93	-219.74	30.27	396.24	371.31	24.93	15.892			
3,600.00	3,536.62	3,610.61	3,587.54	13.17	12.66	156.53	-234.86	39.15	406.06	380.38	25.69	15.809			
3,700.00	3,633.65	3,710.09	3,685.46	13.56	13.02	156.14	-249.98	48.04	415.91	389.47	26.44	15.730			
3,800.00	3,730.68	3,809.57	3,783.38	13.95	13.39	155.77	-265.11	56.92	425.77	398.57	27.20	15.656			
3,900.00	3,827.71	3,909.04	3,881.30	14.34	13.75	155.42	-280.23	65.81	435.64	407.69	27.95	15.585			
4,000.00	3,924.74	4,008.52	3,979.22	14.74	14.12	155.09	-295.35	74.69	445.54	416.82	28.71	15.518			
4,100.00	4,021.77	4,108.00	4,077.13	15.13	14.48	154.77	-310.48	83.58	455.44	425.97	29.47	15.454			
4,200.00	4,118.79	4,207.47	4,175.05	15.52	14.85	154.46	-325.60	92.47	465.36	435.13	30.23	15.393			
4,300.00	4,215.82	4,306.95	4,272.97	15.92	15.21	154.17	-340.72	101.35	475.29	444.30	30.99	15.336			
4,400.00	4,312.85	4,406.42	4,370.89	16.31	15.58	153.88	-355.85	110.24	485.24	453.48	31.75	15.281			
4,500.00	4,409.88	4,505.90	4,468.80	16.70	15.95	153.61	-370.97	119.12	495.19	462.68	32.52	15.228			
4,600.00	4,506.91	4,605.38	4,566.72	17.10	16.32	153.35	-386.09	128.01	505.16	471.88	33.28	15.178			
4,700.00	4,603.94	4,704.85	4,664.64	17.49	16.69	153.10	-401.22	136.89	515.14	481.09	34.05	15.130			
4,800.00	4,700.97	4,804.33	4,762.56	17.89	17.06	152.86	-416.34	145.78	525.12	490.31	34.81	15.084			
4,900.00	4,798.00	4,903.81	4,860.48	18.28	17.43	152.63	-431.46	154.67	535.12	499.54	35.58	15.040			
5,000.00	4,895.03	5,003.28	4,958.39	18.68	17.80	152.41	-446.59	163.55	545.12	508.77	36.35	14.998			
5,100.00	4,992.06	5,102.76	5,056.31	19.07	18.17	152.19	-461.71	172.44	555.13	518.02	37.11	14.958			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	5,202.24	5,154.23	19.47	18.54	151.98	-476.83	181.32	565.15	527.27	37.88	14.919	
5,300.00	5,186.12	5,301.71	5,252.15	19.87	18.91	151.78	-491.96	190.21	575.17	536.52	38.65	14.882	
5,400.00	5,283.15	5,401.19	5,350.06	20.26	19.28	151.59	-507.08	199.09	585.21	545.79	39.42	14.846	
5,500.00	5,380.18	5,500.67	5,447.98	20.66	19.66	151.40	-522.20	207.98	595.24	555.06	40.19	14.812	
5,600.00	5,477.21	5,600.14	5,545.90	21.06	20.03	151.22	-537.33	216.87	605.29	564.33	40.96	14.779	
5,700.00	5,574.24	5,699.62	5,643.82	21.45	20.40	151.05	-552.45	225.75	615.34	573.61	41.73	14.747	
5,800.00	5,671.27	5,799.09	5,741.74	21.85	20.78	150.88	-567.57	234.64	625.39	582.90	42.50	14.716	
5,900.00	5,768.30	5,898.57	5,839.65	22.24	21.15	150.72	-582.70	243.52	635.45	592.19	43.27	14.687	
6,000.00	5,865.33	5,998.05	5,937.57	22.64	21.52	150.56	-597.82	252.41	645.52	601.48	44.04	14.658	
6,100.00	5,962.36	6,097.52	6,035.49	23.04	21.90	150.40	-612.94	261.29	655.59	610.78	44.81	14.630	
6,200.00	6,059.39	6,197.00	6,133.41	23.44	22.27	150.25	-628.07	270.18	665.67	620.08	45.58	14.604	
6,300.00	6,156.42	6,296.48	6,231.32	23.83	22.64	150.11	-643.19	279.07	675.75	629.39	46.35	14.578	
6,400.00	6,253.45	6,395.95	6,329.24	24.23	23.02	149.97	-658.31	287.95	685.83	638.70	47.13	14.553	
6,500.00	6,350.47	6,495.43	6,427.16	24.63	23.39	149.83	-673.44	296.84	695.92	648.02	47.90	14.529	
6,600.00	6,447.50	6,594.91	6,525.08	25.02	23.77	149.70	-688.56	305.72	706.01	657.34	48.67	14.506	
6,700.00	6,544.53	6,694.38	6,623.00	25.42	24.14	149.57	-703.68	314.61	716.10	666.66	49.44	14.483	
6,800.00	6,641.56	6,793.86	6,720.91	25.82	24.52	149.45	-718.81	323.49	726.20	675.98	50.22	14.461	
6,900.00	6,738.59	6,893.34	6,818.83	26.22	24.89	149.33	-733.93	332.38	736.30	685.31	50.99	14.440	
7,000.00	6,835.62	6,992.81	6,916.75	26.61	25.27	149.21	-749.06	341.27	746.41	694.64	51.77	14.419	
7,100.00	6,932.65	7,092.29	7,014.67	27.01	25.64	149.09	-764.18	350.15	756.52	703.98	52.54	14.399	
7,200.00	7,029.68	7,191.77	7,112.58	27.41	26.02	148.98	-779.30	359.04	766.63	713.31	53.31	14.380	
7,300.00	7,126.71	7,291.24	7,210.50	27.81	26.39	148.87	-794.43	367.92	776.74	722.65	54.09	14.361	
7,309.09	7,135.53	7,300.29	7,219.41	27.84	26.43	148.86	-795.80	368.73	777.66	723.50	54.16	14.359	
7,350.00	7,174.84	7,340.83	7,259.31	28.01	26.58	148.59	-801.96	372.35	783.04	728.56	54.48	14.374	
7,400.00	7,221.63	7,389.77	7,307.49	28.22	26.77	148.23	-809.40	376.72	792.95	738.08	54.87	14.451	
7,450.00	7,266.71	7,431.54	7,348.64	28.44	26.92	147.77	-815.57	380.35	806.64	751.40	55.24	14.603	
7,500.00	7,309.74	7,470.80	7,387.41	28.67	27.07	147.21	-820.90	383.48	824.28	768.69	55.59	14.829	
7,550.00	7,350.39	7,508.08	7,424.30	28.91	27.21	146.50	-825.53	386.20	845.75	789.83	55.92	15.124	
7,600.00	7,388.34	7,543.00	7,458.91	29.15	27.34	145.60	-829.50	388.53	870.92	814.68	56.24	15.486	
7,650.00	7,423.32	7,575.23	7,490.92	29.40	27.46	144.42	-832.84	390.49	899.60	843.06	56.53	15.912	
7,700.00	7,455.05	7,600.00	7,515.53	29.65	27.55	142.71	-835.19	391.87	931.59	874.82	56.77	16.410	
7,750.00	7,483.30	7,630.61	7,545.99	29.90	27.66	140.81	-837.85	393.43	966.60	909.56	57.04	16.945	
7,800.00	7,507.84	7,653.37	7,568.65	30.15	27.74	138.08	-839.64	394.49	1,004.39	947.14	57.25	17.543	
7,850.00	7,528.50	7,672.69	7,587.90	30.41	27.81	134.45	-841.04	395.31	1,044.62	987.19	57.43	18.189	
7,900.00	7,545.11	7,688.49	7,603.65	30.66	27.87	129.59	-842.10	395.93	1,086.96	1,029.38	57.58	18.878	
7,919.09	7,550.36	7,700.00	7,615.13	30.75	27.91	127.82	-842.83	396.36	1,103.63	1,045.95	57.68	19.134	
8,000.00	7,568.52	7,711.62	7,626.73	31.16	27.95	122.27	-843.52	396.77	1,175.83	1,118.04	57.79	20.348	
8,100.00	7,583.22	7,727.24	7,642.31	31.66	28.01	113.47	-844.39	397.28	1,267.83	1,209.90	57.93	21.886	
8,200.00	7,589.24	7,735.82	7,650.88	32.17	28.04	101.18	-844.83	397.54	1,361.97	1,303.96	58.01	23.478	
8,219.09	7,589.40	8,838.65	8,411.67	32.26	32.23	137.50	-1,421.21	595.43	1,373.68	1,316.16	57.52	23.882	
8,300.00	7,589.40	8,884.19	8,418.65	32.67	32.40	136.66	-1,465.31	604.39	1,421.46	1,363.05	58.41	24.335	
8,400.00	7,589.40	8,937.52	8,425.45	33.21	32.58	135.61	-1,517.48	613.12	1,482.01	1,422.52	59.49	24.913	
8,444.09	7,589.40	8,960.02	8,427.86	33.45	32.66	135.16	-1,539.63	616.23	1,509.24	1,449.29	59.95	25.176	
8,500.00	7,589.40	9,000.00	8,431.49	33.76	32.80	133.44	-1,579.17	620.91	1,543.85	1,483.31	60.54	25.500	
8,600.00	7,589.40	9,037.77	8,434.13	34.34	32.93	131.20	-1,616.68	624.34	1,604.57	1,543.08	61.49	26.094	
8,700.00	7,589.40	9,100.00	8,436.80	34.92	33.14	128.70	-1,678.75	627.86	1,664.01	1,601.54	62.47	26.638	
8,800.00	7,589.40	9,135.51	8,437.39	35.52	33.26	126.83	-1,714.24	628.68	1,721.75	1,658.46	63.29	27.204	
8,900.00	7,589.40	9,204.99	8,437.43	36.12	33.48	124.64	-1,783.72	628.87	1,777.58	1,713.36	64.22	27.679	
9,000.00	7,589.40	9,285.14	8,437.43	36.73	33.75	122.61	-1,863.88	629.03	1,830.33	1,765.15	65.18	28.081	
9,100.00	7,589.40	9,368.32	8,437.43	37.33	34.04	120.86	-1,947.05	629.19	1,879.68	1,813.54	66.14	28.421	
9,200.00	7,589.40	9,454.29	8,437.42	37.92	34.35	119.34	-2,033.02	629.36	1,925.39	1,858.30	67.09	28.697	
9,300.00	7,589.39	9,542.81	8,437.42	38.51	34.68	118.03	-2,121.54	629.53	1,967.24	1,899.18	68.06	28.906	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS				Semi Major Axis			Offset Wellbore Centre			Rule Assigned:			Offset Well Error:	0.00 usft
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Tooface (")	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
9,400.00	7,589.39	9,633.64	8,437.41	39.09	35.02	116.92	-2,212.37	629.71	2,005.03	1,936.01	69.03	29.047		
9,500.00	7,589.39	9,726.54	8,437.41	39.65	35.38	115.99	-2,305.27	629.90	2,038.61	1,968.60	70.01	29.121		
9,600.00	7,589.39	9,821.24	8,437.41	40.19	35.76	115.21	-2,399.97	630.08	2,067.82	1,996.82	70.99	29.127		
9,700.00	7,589.38	9,917.49	8,437.40	40.72	36.16	114.57	-2,496.23	630.27	2,092.54	2,020.55	71.99	29.067		
9,800.00	7,589.38	10,015.03	8,437.40	41.23	36.58	114.07	-2,593.77	630.46	2,112.67	2,039.68	72.99	28.943		
9,900.00	7,589.38	10,113.59	8,437.39	41.72	37.00	113.70	-2,692.32	630.66	2,128.13	2,054.12	74.00	28.757		
10,000.00	7,589.37	10,212.89	8,437.39	42.18	37.45	113.44	-2,791.62	630.85	2,138.85	2,063.83	75.02	28.511		
10,100.00	7,589.37	10,312.67	8,437.38	42.63	37.90	113.31	-2,891.40	631.05	2,144.79	2,068.76	76.03	28.208		
10,173.66	7,589.36	10,386.31	8,437.38	42.94	38.24	113.27	-2,965.04	631.19	2,146.09	2,069.31	76.78	27.951		
10,200.00	7,589.36	10,412.65	8,437.38	43.05	38.36	113.27	-2,991.38	631.24	2,146.09	2,069.05	77.05	27.854		
10,300.00	7,589.36	10,512.65	8,437.38	43.47	38.84	113.27	-3,091.38	631.44	2,146.10	2,068.02	78.08	27.487		
10,400.00	7,589.36	10,612.65	8,437.37	43.90	39.32	113.27	-3,191.38	631.64	2,146.10	2,066.98	79.12	27.124		
10,500.00	7,589.35	10,712.65	8,437.37	44.33	39.81	113.27	-3,291.38	631.83	2,146.10	2,065.92	80.18	26.766		
10,600.00	7,589.35	10,812.65	8,437.36	44.78	40.31	113.27	-3,391.38	632.03	2,146.10	2,064.84	81.26	26.411		
10,700.00	7,589.34	10,912.65	8,437.36	45.23	40.82	113.27	-3,491.38	632.22	2,146.10	2,063.75	82.35	26.062		
10,800.00	7,589.34	11,012.65	8,437.35	45.69	41.34	113.27	-3,591.38	632.42	2,146.10	2,062.65	83.45	25.717		
10,900.00	7,589.33	11,112.65	8,437.35	46.16	41.86	113.27	-3,691.38	632.62	2,146.10	2,061.53	84.57	25.377		
11,000.00	7,589.33	11,212.65	8,437.34	46.64	42.39	113.27	-3,791.38	632.81	2,146.10	2,060.40	85.70	25.042		
11,100.00	7,589.33	11,312.65	8,437.34	47.12	42.93	113.27	-3,891.38	633.01	2,146.10	2,059.26	86.84	24.712		
11,200.00	7,589.32	11,412.65	8,437.34	47.61	43.47	113.27	-3,991.38	633.21	2,146.10	2,058.10	88.00	24.388		
11,300.00	7,589.32	11,512.65	8,437.33	48.11	44.02	113.27	-4,091.38	633.40	2,146.10	2,056.94	89.17	24.069		
11,400.00	7,589.31	11,612.65	8,437.33	48.61	44.58	113.27	-4,191.38	633.60	2,146.10	2,055.76	90.34	23.755		
11,500.00	7,589.31	11,712.65	8,437.32	49.12	45.14	113.27	-4,291.38	633.80	2,146.11	2,054.57	91.53	23.446		
11,600.00	7,589.31	11,812.65	8,437.32	49.64	45.71	113.27	-4,391.38	633.99	2,146.11	2,053.38	92.73	23.143		
11,700.00	7,589.30	11,912.65	8,437.31	50.16	46.29	113.27	-4,491.38	634.19	2,146.11	2,052.17	93.94	22.846		
11,800.00	7,589.30	12,012.65	8,437.31	50.69	46.87	113.27	-4,591.38	634.38	2,146.11	2,050.95	95.16	22.553		
11,900.00	7,589.29	12,112.65	8,437.31	51.23	47.45	113.27	-4,691.38	634.58	2,146.11	2,049.72	96.39	22.266		
12,000.00	7,589.29	12,212.65	8,437.30	51.77	48.04	113.27	-4,791.38	634.78	2,146.11	2,048.49	97.62	21.984		
12,100.00	7,589.28	12,312.65	8,437.30	52.31	48.64	113.27	-4,891.38	634.97	2,146.11	2,047.24	98.87	21.707		
12,200.00	7,589.28	12,412.65	8,437.29	52.86	49.24	113.27	-4,991.38	635.17	2,146.11	2,045.99	100.12	21.436		
12,300.00	7,589.28	12,512.65	8,437.29	53.42	49.84	113.27	-5,091.38	635.37	2,146.11	2,044.73	101.38	21.169		
12,400.00	7,589.27	12,612.65	8,437.28	53.98	50.45	113.27	-5,191.38	635.56	2,146.11	2,043.46	102.65	20.907		
12,500.00	7,589.27	12,712.65	8,437.28	54.55	51.06	113.27	-5,291.38	635.76	2,146.11	2,042.19	103.92	20.651		
12,600.00	7,589.26	12,812.65	8,437.27	55.12	51.68	113.27	-5,391.38	635.96	2,146.11	2,040.91	105.21	20.399		
12,700.00	7,589.26	12,912.65	8,437.27	55.70	52.30	113.27	-5,491.38	636.15	2,146.12	2,039.62	106.50	20.152		
12,800.00	7,589.26	13,012.65	8,437.27	56.28	52.92	113.27	-5,591.38	636.35	2,146.12	2,038.33	107.79	19.910		
12,900.00	7,589.25	13,112.65	8,437.26	56.86	53.55	113.27	-5,691.38	636.55	2,146.12	2,037.02	109.09	19.672		
13,000.00	7,589.25	13,212.65	8,437.26	57.45	54.18	113.27	-5,791.38	636.74	2,146.12	2,035.72	110.40	19.439		
13,100.00	7,589.24	13,312.65	8,437.25	58.04	54.82	113.27	-5,891.38	636.94	2,146.12	2,034.40	111.72	19.211		
13,200.00	7,589.24	13,412.65	8,437.25	58.64	55.45	113.27	-5,991.38	637.13	2,146.12	2,033.09	113.03	18.986		
13,300.00	7,589.23	13,512.65	8,437.24	59.24	56.09	113.27	-6,091.38	637.33	2,146.12	2,031.76	114.36	18.766		
13,400.00	7,589.23	13,612.65	8,437.24	59.84	56.74	113.27	-6,191.38	637.53	2,146.12	2,030.43	115.69	18.551		
13,500.00	7,589.23	13,712.65	8,437.24	60.45	57.39	113.27	-6,291.38	637.72	2,146.12	2,029.10	117.03	18.339		
13,600.00	7,589.22	13,812.65	8,437.23	61.06	58.04	113.27	-6,391.38	637.92	2,146.12	2,027.76	118.37	18.131		
13,700.00	7,589.22	13,912.65	8,437.23	61.68	58.69	113.27	-6,491.38	638.12	2,146.12	2,026.41	119.71	17.928		
13,800.00	7,589.21	14,012.65	8,437.22	62.30	59.34	113.27	-6,591.38	638.31	2,146.12	2,025.06	121.06	17.728		
13,900.00	7,589.21	14,112.65	8,437.22	62.92	60.00	113.27	-6,691.38	638.51	2,146.13	2,023.71	122.41	17.532		
14,000.00	7,589.21	14,212.65	8,437.21	63.54	60.66	113.27	-6,791.38	638.71	2,146.13	2,022.35	123.77	17.339		
14,100.00	7,589.20	14,312.65	8,437.21	64.17	61.32	113.27	-6,891.38	638.90	2,146.13	2,020.99	125.13	17.151		
14,200.00	7,589.20	14,412.65	8,437.21	64.80	61.99	113.27	-6,991.38	639.10	2,146.13	2,019.63	126.50	16.965		
14,300.00	7,589.19	14,512.65	8,437.20	65.43	62.66	113.27	-7,091.38	639.29	2,146.13	2,018.26	127.87	16.783		
14,400.00	7,589.19	14,612.65	8,437.20	66.07	63.33	113.27	-7,191.38	639.49	2,146.13	2,016.88	129.25	16.605		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft	
Reference				Offset		Semi Major Axis				Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
14,500.00	7,589.18	14,712.65	8,437.19	66.71	64.00	113.27	-7,291.38	639.69	2,146.13	2,015.51	130.62	16.430			
14,600.00	7,589.18	14,812.65	8,437.19	67.35	64.67	113.27	-7,391.38	639.88	2,146.13	2,014.13	132.00	16.258			
14,700.00	7,589.18	14,912.65	8,437.18	67.99	65.35	113.27	-7,491.38	640.08	2,146.13	2,012.74	133.39	16.089			
14,800.00	7,589.17	15,012.65	8,437.18	68.64	66.03	113.27	-7,591.38	640.28	2,146.13	2,011.36	134.78	15.924			
14,900.00	7,589.17	15,112.65	8,437.17	69.29	66.71	113.27	-7,691.38	640.47	2,146.13	2,009.97	136.17	15.761			
15,000.00	7,589.16	15,212.65	8,437.17	69.94	67.39	113.27	-7,791.38	640.67	2,146.13	2,008.57	137.56	15.601			
15,100.00	7,589.16	15,312.65	8,437.17	70.59	68.07	113.27	-7,891.38	640.87	2,146.14	2,007.18	138.96	15.444			
15,200.00	7,589.16	15,412.65	8,437.16	71.25	68.76	113.27	-7,991.38	641.06	2,146.14	2,005.78	140.36	15.290			
15,300.00	7,589.15	15,512.65	8,437.16	71.91	69.44	113.27	-8,091.37	641.26	2,146.14	2,004.37	141.76	15.139			
15,400.00	7,589.15	15,612.65	8,437.15	72.57	70.13	113.27	-8,191.37	641.46	2,146.14	2,002.97	143.17	14.990			
15,500.00	7,589.14	15,712.65	8,437.15	73.23	70.82	113.27	-8,291.37	641.65	2,146.14	2,001.56	144.58	14.844			
15,600.00	7,589.14	15,812.65	8,437.14	73.89	71.51	113.27	-8,391.37	641.85	2,146.14	2,000.15	145.99	14.701			
15,700.00	7,589.13	15,912.65	8,437.14	74.56	72.20	113.27	-8,491.37	642.04	2,146.14	1,998.74	147.40	14.560			
15,800.00	7,589.13	16,012.65	8,437.14	75.23	72.90	113.27	-8,591.37	642.24	2,146.14	1,997.32	148.82	14.421			
15,900.00	7,589.13	16,112.65	8,437.13	75.90	73.59	113.27	-8,691.37	642.44	2,146.14	1,995.91	150.24	14.285			
16,000.00	7,589.12	16,212.65	8,437.13	76.57	74.29	113.27	-8,791.37	642.63	2,146.14	1,994.49	151.66	14.151			
16,100.00	7,589.12	16,312.65	8,437.12	77.24	74.99	113.27	-8,891.37	642.83	2,146.14	1,993.06	153.08	14.020			
16,200.00	7,589.11	16,412.65	8,437.12	77.92	75.69	113.27	-8,991.37	643.03	2,146.14	1,991.64	154.51	13.890			
16,300.00	7,589.11	16,512.65	8,437.11	78.59	76.39	113.27	-9,091.37	643.22	2,146.15	1,990.21	155.93	13.763			
16,400.00	7,589.11	16,612.65	8,437.11	79.27	77.09	113.27	-9,191.37	643.42	2,146.15	1,988.78	157.36	13.638			
16,500.00	7,589.10	16,712.65	8,437.10	79.95	77.79	113.27	-9,291.37	643.62	2,146.15	1,987.35	158.79	13.515			
16,600.00	7,589.10	16,812.65	8,437.10	80.63	78.50	113.27	-9,391.37	643.81	2,146.15	1,985.92	160.23	13.394			
16,700.00	7,589.09	16,912.65	8,437.10	81.31	79.20	113.27	-9,491.37	644.01	2,146.15	1,984.49	161.66	13.276			
16,800.00	7,589.09	17,012.65	8,437.09	82.00	79.91	113.27	-9,591.37	644.20	2,146.15	1,983.05	163.10	13.159			
16,900.00	7,589.08	17,112.65	8,437.09	82.68	80.62	113.27	-9,691.37	644.40	2,146.15	1,981.61	164.54	13.043			
17,000.00	7,589.08	17,212.65	8,437.08	83.37	81.33	113.27	-9,791.37	644.60	2,146.15	1,980.17	165.98	12.930			
17,100.00	7,589.08	17,312.65	8,437.08	84.06	82.04	113.27	-9,891.37	644.79	2,146.15	1,978.73	167.42	12.819			
17,200.00	7,589.07	17,412.65	8,437.07	84.75	82.75	113.27	-9,991.37	644.99	2,146.15	1,977.29	168.87	12.709			
17,300.00	7,589.07	17,512.65	8,437.07	85.44	83.46	113.27	-10,091.37	645.19	2,146.15	1,975.84	170.31	12.601			
17,400.00	7,589.06	17,612.65	8,437.07	86.13	84.17	113.27	-10,191.37	645.38	2,146.16	1,974.40	171.76	12.495			
17,500.00	7,589.06	17,712.65	8,437.06	86.83	84.88	113.27	-10,291.37	645.58	2,146.16	1,972.95	173.21	12.391			
17,600.00	7,589.06	17,812.65	8,437.06	87.52	85.60	113.27	-10,391.37	645.78	2,146.16	1,971.50	174.66	12.288			
17,700.00	7,589.05	17,912.65	8,437.05	88.22	86.31	113.27	-10,491.37	645.97	2,146.16	1,970.05	176.11	12.186			
17,800.00	7,589.05	18,012.65	8,437.05	88.91	87.03	113.27	-10,591.37	646.17	2,146.16	1,968.60	177.56	12.087			
17,900.00	7,589.04	18,112.65	8,437.04	89.61	87.75	113.27	-10,691.37	646.37	2,146.16	1,967.14	179.02	11.989			
18,000.00	7,589.04	18,212.65	8,437.04	90.31	88.46	113.27	-10,791.37	646.56	2,146.16	1,965.69	180.47	11.892			
18,100.00	7,589.03	18,312.65	8,437.03	91.01	89.18	113.27	-10,891.37	646.76	2,146.16	1,964.23	181.93	11.797			
18,200.00	7,589.03	18,412.65	8,437.03	91.71	89.90	113.27	-10,991.37	646.95	2,146.16	1,962.77	183.39	11.703			
18,300.00	7,589.03	18,512.65	8,437.03	92.42	90.62	113.27	-11,091.37	647.15	2,146.16	1,961.31	184.85	11.610			
18,400.00	7,589.02	18,612.65	8,437.02	93.12	91.34	113.27	-11,191.37	647.35	2,146.16	1,959.85	186.31	11.519			
18,500.00	7,589.02	18,712.65	8,437.02	93.82	92.06	113.27	-11,291.37	647.54	2,146.16	1,958.39	187.77	11.430			
18,600.00	7,589.01	18,812.65	8,437.01	94.53	92.79	113.27	-11,391.37	647.74	2,146.17	1,956.93	189.24	11.341			
18,700.00	7,589.01	18,912.65	8,437.01	95.23	93.51	113.27	-11,491.37	647.94	2,146.17	1,955.46	190.70	11.254			
18,800.00	7,589.01	19,012.65	8,437.00	95.94	94.23	113.27	-11,591.37	648.13	2,146.17	1,954.00	192.17	11.168			
18,807.77	7,589.00	19,020.42	8,437.00	96.00	94.29	113.27	-11,599.14	648.15	2,146.17	1,953.89	192.28	11.162			
18,900.00	7,589.00	19,103.82	8,437.00	96.65	94.91	113.27	-11,682.53	648.31	2,146.19	1,952.68	193.50	11.091			
18,917.19	7,589.00	19,103.82	8,437.00	96.77	94.91	113.27	-11,682.53	648.31	2,146.33	1,952.83	193.50	11.092			
18,917.96	7,589.00	19,103.82	8,437.00	97.01	94.91	113.27	-11,682.53	648.31	2,146.33	1,952.84	193.50	11.092			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS		Offset Site Error:		0.00 usft	
Reference		Offset		Offset Well Error:		0.00 usft	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Semi Major Axis Reference	Offset	Highside Toolface	Offset Wellbore Centre
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)
							+E/-W (usft)
							Distance
							Between Centres (usft)
							Between Ellipses (usft)
							Minimum Separation (usft)
							Separation Factor
							Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.90	1.15
100.00	100.00	100.00	100.00	0.28	0.28	-88.90	-59.98
200.00	200.00	200.00	200.00	0.63	0.63	-88.90	59.99
300.00	300.00	300.00	300.00	0.99	0.99	-88.90	58.72
400.00	400.00	400.00	400.00	1.35	1.35	-88.90	59.99
500.00	500.00	500.00	500.00	1.71	1.71	-88.90	58.01
							1.99
							2.70
							22.195
							3.42
							17.542
600.00	600.00	600.00	600.00	2.07	2.07	-88.90	59.99
700.00	700.00	700.00	700.00	2.43	2.43	-88.90	55.85
800.00	800.00	800.00	800.00	2.79	2.79	-88.90	55.14
900.00	900.00	900.00	900.00	3.14	3.14	-88.90	58.72
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.90	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	144.06	59.99
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	146.69	55.85
1,300.00	1,299.45	1,299.45	1,299.45	4.52	4.58	150.36	55.14
1,400.00	1,398.70	1,398.70	1,398.70	4.86	4.93	154.38	58.72
1,500.00	1,497.47	1,497.47	1,497.47	5.21	5.29	158.21	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
1,600.00	1,595.62	1,595.62	1,595.62	5.56	5.64	161.58	59.99
1,700.00	1,693.06	1,693.06	1,693.06	5.92	5.99	164.41	55.85
1,800.00	1,790.08	1,790.08	1,790.08	6.28	6.33	166.72	55.14
1,900.00	1,887.11	1,887.11	1,887.11	6.65	6.68	168.44	58.72
2,000.00	1,984.14	1,984.14	1,984.14	7.02	7.03	169.77	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
2,100.00	2,081.17	2,081.17	2,081.17	7.39	7.39	170.74	59.99
2,200.00	2,178.20	2,178.20	2,178.20	7.76	7.74	171.19	55.85
2,300.00	2,275.23	2,301.28	2,300.72	8.14	8.09	171.21	55.14
2,400.00	2,372.26	2,409.86	2,408.46	8.52	8.46	170.88	58.72
2,500.00	2,469.29	2,519.20	2,516.36	8.90	8.82	170.22	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
2,600.00	2,566.32	2,629.00	2,623.96	9.28	9.19	169.25	59.99
2,700.00	2,663.35	2,730.24	2,722.65	9.67	9.54	168.18	55.85
2,800.00	2,760.38	2,830.01	2,819.90	10.05	9.88	167.14	55.14
2,900.00	2,857.41	2,929.78	2,917.16	10.44	10.23	166.13	58.72
3,000.00	2,954.44	3,029.55	3,014.41	10.83	10.58	165.15	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
3,100.00	3,051.47	3,129.32	3,111.66	11.22	10.94	164.20	59.99
3,200.00	3,148.50	3,229.09	3,208.91	11.60	11.29	163.27	55.85
3,300.00	3,245.53	3,328.86	3,306.16	11.99	11.65	162.37	55.14
3,400.00	3,342.56	3,428.63	3,403.42	12.38	12.01	161.49	58.72
3,500.00	3,439.59	3,528.40	3,500.67	12.77	12.37	160.63	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
3,600.00	3,536.62	3,628.16	3,597.92	13.17	12.74	159.80	59.99
3,700.00	3,633.65	3,727.93	3,695.17	13.56	13.11	159.00	55.85
3,800.00	3,730.68	3,827.70	3,792.42	13.95	13.47	158.21	55.14
3,900.00	3,827.71	3,927.47	3,889.68	14.34	13.84	157.45	58.72
4,000.00	3,924.74	4,027.24	3,986.93	14.74	14.21	156.70	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
4,100.00	4,021.77	4,127.01	4,084.18	15.13	14.58	155.98	59.99
4,200.00	4,118.79	4,226.78	4,181.43	15.52	14.96	155.28	55.85
4,300.00	4,215.82	4,326.55	4,278.69	15.92	15.33	154.60	55.14
4,400.00	4,312.85	4,426.32	4,375.94	16.31	15.70	153.93	58.72
4,500.00	4,409.88	4,526.09	4,473.19	16.70	16.08	153.28	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
4,600.00	4,506.91	4,625.86	4,570.44	17.10	16.46	152.65	59.99
4,700.00	4,603.94	4,725.63	4,667.69	17.49	16.83	152.04	55.85
4,800.00	4,700.97	4,825.40	4,764.95	17.89	17.21	151.44	55.14
4,900.00	4,798.00	4,925.17	4,862.20	18.28	17.59	150.86	58.72
5,000.00	4,895.03	5,024.94	4,959.45	18.68	17.97	150.30	59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES
5,100.00	4,992.06	5,124.71	5,056.70	19.07	18.35	149.75	59.99
							55.85
							55.14
							58.72
							59.99
							54.42
							53.70
							6.29
							9.541
							7.00
							8.565
							CC, ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error: 0.00 usft	
Reference				Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.00	5,089.09	5,224.48	5,153.95	19.47	18.73	149.21	-523.88	320.01	422.27	384.21	38.06	11.095		
5,300.00	5,186.12	5,324.25	5,251.21	19.87	19.11	148.69	-541.92	333.07	427.85	389.01	38.84	11.016		
5,400.00	5,283.15	5,424.02	5,348.46	20.26	19.49	148.18	-559.96	346.12	433.45	393.83	39.62	10.940		
5,500.00	5,380.18	5,523.79	5,445.71	20.66	19.87	147.69	-578.00	359.18	439.09	398.69	40.41	10.867		
5,600.00	5,477.21	5,623.56	5,542.96	21.06	20.25	147.20	-596.04	372.24	444.77	403.58	41.19	10.798		
5,700.00	5,574.24	5,723.33	5,640.21	21.45	20.64	146.73	-614.09	385.30	450.47	408.50	41.97	10.732		
5,800.00	5,671.27	5,823.10	5,737.47	21.85	21.02	146.27	-632.13	398.36	456.20	413.45	42.76	10.669		
5,900.00	5,768.30	5,922.87	5,834.72	22.24	21.40	145.83	-650.17	411.41	461.96	418.42	43.54	10.609		
6,000.00	5,865.33	6,022.63	5,931.97	22.64	21.79	145.39	-668.21	424.47	467.75	423.43	44.33	10.552		
6,100.00	5,962.36	6,122.40	6,029.22	23.04	22.17	144.96	-686.25	437.53	473.57	428.45	45.11	10.497		
6,200.00	6,059.39	6,222.17	6,126.47	23.44	22.55	144.55	-704.29	450.59	479.41	433.51	45.90	10.445		
6,300.00	6,156.42	6,321.94	6,223.73	23.83	22.94	144.14	-722.34	463.64	485.28	438.59	46.69	10.394		
6,400.00	6,253.45	6,421.23	6,320.51	24.23	23.32	143.75	-740.29	476.64	491.16	443.69	47.47	10.346		
6,500.00	6,350.47	6,511.85	6,409.14	24.63	23.67	143.53	-755.54	487.68	498.05	449.83	48.22	10.329		
6,600.00	6,447.50	6,600.00	6,495.90	25.02	24.00	143.57	-768.19	496.83	506.86	457.93	48.93	10.359		
6,700.00	6,544.53	6,691.33	6,586.24	25.42	24.34	143.86	-779.01	504.66	517.58	467.94	49.64	10.427		
6,800.00	6,641.56	6,780.28	6,674.60	25.82	24.67	144.37	-787.30	510.66	530.25	479.94	50.31	10.541		
6,900.00	6,738.59	6,868.49	6,762.49	26.22	24.98	145.08	-793.33	515.02	544.91	493.96	50.95	10.696		
7,000.00	6,835.62	6,955.79	6,849.66	26.61	25.29	145.96	-797.13	517.77	561.61	510.06	51.55	10.894		
7,100.00	6,932.65	7,042.05	6,935.90	27.01	25.59	146.98	-798.77	518.96	580.44	528.32	52.12	11.136		
7,200.00	7,029.68	7,169.33	7,062.62	27.41	26.03	147.74	-807.93	520.87	599.00	545.81	53.18	11.263		
7,300.00	7,126.71	7,312.01	7,198.38	27.81	26.58	145.60	-849.75	529.38	610.58	556.29	54.29	11.246		
7,309.09	7,135.53	7,324.41	7,209.60	27.84	26.63	145.28	-854.93	530.43	611.32	556.94	54.39	11.240		
7,350.00	7,174.84	7,378.62	7,257.20	28.01	26.84	143.44	-880.29	535.59	615.39	560.60	54.79	11.232		
7,400.00	7,221.63	7,441.34	7,308.94	28.22	27.10	140.88	-914.98	542.65	622.69	567.43	55.27	11.267		
7,450.00	7,266.71	7,500.17	7,353.69	28.44	27.34	138.04	-952.38	550.26	632.78	577.03	55.74	11.352		
7,500.00	7,309.74	7,555.27	7,391.84	28.67	27.56	134.95	-991.30	558.17	645.76	589.55	56.21	11.488		
7,550.00	7,350.39	7,606.90	7,423.97	28.91	27.77	131.64	-1,030.88	566.23	661.67	605.01	56.66	11.677		
7,600.00	7,388.34	7,655.42	7,450.74	29.15	27.96	128.11	-1,070.52	574.29	680.43	623.34	57.09	11.919		
7,650.00	7,423.32	7,701.19	7,472.77	29.40	28.14	124.36	-1,109.81	582.29	701.89	644.41	57.48	12.211		
7,700.00	7,455.05	7,744.57	7,490.64	29.65	28.31	120.40	-1,148.54	590.17	725.81	667.98	57.83	12.551		
7,750.00	7,483.30	7,785.94	7,504.85	29.90	28.46	116.21	-1,186.61	597.91	751.92	693.77	58.14	12.932		
7,800.00	7,507.84	7,816.16	7,513.43	30.15	28.58	112.12	-1,214.99	603.68	779.95	721.59	58.36	13.364		
7,850.00	7,528.50	7,852.27	7,522.29	30.41	28.71	107.64	-1,249.35	610.40	809.77	751.16	58.61	13.816		
7,900.00	7,545.11	7,880.59	7,528.56	30.66	28.81	103.21	-1,276.52	615.34	841.25	782.45	58.80	14.306		
7,919.09	7,550.36	7,900.00	7,532.50	30.75	28.88	101.39	-1,295.25	618.56	853.68	794.74	58.95	14.483		
8,000.00	7,568.52	7,935.11	7,538.90	31.16	29.01	97.59	-1,329.34	624.01	907.36	848.17	59.19	15.330		
8,100.00	7,583.22	8,000.00	7,548.24	31.66	29.24	92.82	-1,392.93	632.88	976.16	916.48	59.68	16.357		
8,200.00	7,589.24	8,036.48	7,552.07	32.17	29.36	88.07	-1,428.95	637.16	1,046.58	986.61	59.97	17.453		
8,219.09	7,589.40	8,045.68	7,552.87	32.26	29.40	87.17	-1,438.06	638.16	1,060.21	1,000.17	60.04	17.658		
8,300.00	7,589.40	8,083.98	7,555.50	32.67	29.53	87.47	-1,476.08	641.97	1,118.53	1,058.17	60.35	18.533		
8,400.00	7,589.40	8,129.83	7,557.16	33.21	29.68	87.70	-1,521.74	645.79	1,191.83	1,131.12	60.71	19.632		
8,444.09	7,589.40	8,153.26	7,557.37	33.45	29.76	87.76	-1,545.11	647.42	1,224.57	1,163.69	60.89	20.112		
8,500.00	7,589.40	8,185.44	7,557.37	33.76	29.87	87.89	-1,577.22	649.51	1,265.72	1,204.59	61.13	20.706		
8,600.00	7,589.40	8,256.02	7,557.37	34.34	30.11	88.10	-1,647.66	654.10	1,336.52	1,274.85	61.67	21.671		
8,700.00	7,589.40	8,330.22	7,557.36	34.92	30.37	88.28	-1,721.69	658.92	1,403.53	1,341.27	62.26	22.542		
8,800.00	7,589.40	8,407.82	7,557.36	35.52	30.65	88.42	-1,799.13	663.96	1,466.57	1,403.68	62.90	23.318		
8,900.00	7,589.40	8,488.61	7,557.36	36.12	30.96	88.54	-1,879.75	669.21	1,525.46	1,461.89	63.57	23.995		
9,000.00	7,589.40	8,572.38	7,557.35	36.73	31.28	88.64	-1,963.34	674.66	1,580.05	1,515.76	64.29	24.575		
9,100.00	7,589.40	8,658.89	7,557.35	37.33	31.63	88.72	-2,049.67	680.28	1,630.18	1,565.12	65.06	25.058		
9,200.00	7,589.40	8,747.90	7,557.35	37.92	31.99	88.78	-2,138.49	686.07	1,675.71	1,609.86	65.85	25.446		
9,300.00	7,589.39	8,839.18	7,557.35	38.51	32.38	88.84	-2,229.58	692.00	1,716.53	1,649.84	66.69	25.739		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS						Rule Assigned:		Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance					
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Major Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
9,400.00	7,589.39	8,932.47	7,557.34	39.09	32.78	88.89	-2,322.67	698.07	1,752.51	1,684.95	67.56	25.942	
9,500.00	7,589.39	9,027.51	7,557.34	39.65	33.21	88.93	-2,417.51	704.24	1,783.56	1,715.11	68.45	26.056	
9,600.00	7,589.39	9,124.05	7,557.33	40.19	33.65	88.96	-2,513.84	710.52	1,809.60	1,740.23	69.37	26.086	
9,700.00	7,589.38	9,221.81	7,557.33	40.72	34.11	88.98	-2,611.41	716.88	1,830.55	1,760.23	70.31	26.035	
9,800.00	7,589.38	9,320.55	7,557.33	41.23	34.58	89.00	-2,709.93	723.29	1,846.35	1,775.08	71.27	25.906	
9,900.00	7,589.38	9,419.97	7,557.32	41.72	35.06	89.01	-2,809.14	729.76	1,856.97	1,784.73	72.24	25.705	
10,000.00	7,589.37	9,519.81	7,557.32	42.18	35.56	89.01	-2,908.77	736.25	1,862.37	1,789.15	73.22	25.435	
10,100.00	7,589.37	9,619.80	7,557.32	42.63	36.07	89.01	-3,008.55	742.75	1,862.53	1,788.33	74.20	25.100	
10,173.66	7,589.36	9,693.38	7,557.31	42.94	36.45	89.01	-3,081.97	747.53	1,859.31	1,784.38	74.93	24.814	
10,200.00	7,589.36	9,719.67	7,557.31	43.05	36.58	89.01	-3,108.21	749.24	1,857.65	1,782.46	75.19	24.706	
10,300.00	7,589.36	9,819.47	7,557.31	43.47	37.11	89.01	-3,207.80	755.73	1,851.35	1,775.16	76.19	24.299	
10,400.00	7,589.36	9,919.28	7,557.31	43.90	37.64	89.00	-3,307.39	762.21	1,845.04	1,767.84	77.21	23.898	
10,500.00	7,589.35	10,019.08	7,557.30	44.33	38.18	89.00	-3,406.98	768.70	1,838.74	1,760.50	78.24	23.502	
10,600.00	7,589.35	10,118.88	7,557.30	44.78	38.73	89.00	-3,506.57	775.19	1,832.44	1,753.15	79.29	23.111	
10,700.00	7,589.34	10,218.68	7,557.29	45.23	39.29	88.99	-3,606.16	781.68	1,826.14	1,745.78	80.35	22.726	
10,800.00	7,589.34	10,318.48	7,557.29	45.69	39.85	88.99	-3,705.75	788.16	1,819.83	1,738.40	81.43	22.347	
10,900.00	7,589.33	10,418.28	7,557.29	46.16	40.42	88.99	-3,805.34	794.65	1,813.53	1,731.00	82.53	21.975	
11,000.00	7,589.33	10,518.08	7,557.28	46.64	41.00	88.98	-3,904.93	801.14	1,807.23	1,723.59	83.64	21.608	
11,100.00	7,589.33	10,617.88	7,557.28	47.12	41.58	88.98	-4,004.52	807.62	1,800.93	1,716.17	84.76	21.248	
11,200.00	7,589.32	10,717.68	7,557.28	47.61	42.17	88.97	-4,104.11	814.11	1,794.63	1,708.73	85.89	20.894	
11,300.00	7,589.32	10,817.49	7,557.27	48.11	42.76	88.97	-4,203.70	820.60	1,788.32	1,701.28	87.04	20.546	
11,400.00	7,589.31	10,917.29	7,557.27	48.61	43.36	88.97	-4,303.29	827.09	1,782.02	1,693.82	88.20	20.205	
11,500.00	7,589.31	11,017.09	7,557.27	49.12	43.97	88.96	-4,402.88	833.57	1,775.72	1,686.35	89.37	19.870	
11,600.00	7,589.31	11,116.89	7,557.26	49.64	44.58	88.96	-4,502.47	840.06	1,769.42	1,678.87	90.55	19.542	
11,700.00	7,589.30	11,216.69	7,557.26	50.16	45.19	88.96	-4,602.06	846.55	1,763.11	1,671.38	91.74	19.219	
11,800.00	7,589.30	11,316.49	7,557.26	50.69	45.81	88.95	-4,701.65	853.04	1,756.81	1,663.87	92.94	18.903	
11,900.00	7,589.29	11,416.29	7,557.25	51.23	46.44	88.95	-4,801.24	859.52	1,750.51	1,656.36	94.15	18.593	
12,000.00	7,589.29	11,516.09	7,557.25	51.77	47.07	88.95	-4,900.83	866.01	1,744.21	1,648.84	95.37	18.289	
12,100.00	7,589.28	11,615.89	7,557.24	52.31	47.70	88.94	-5,000.42	872.50	1,737.90	1,641.31	96.60	17.991	
12,200.00	7,589.28	11,715.70	7,557.24	52.86	48.34	88.94	-5,100.01	878.99	1,731.60	1,633.77	97.83	17.699	
12,300.00	7,589.28	11,815.50	7,557.24	53.42	48.98	88.93	-5,199.60	885.47	1,725.30	1,626.22	99.08	17.413	
12,400.00	7,589.27	11,915.30	7,557.23	53.98	49.62	88.93	-5,299.19	891.96	1,719.00	1,618.66	100.33	17.133	
12,500.00	7,589.27	12,015.10	7,557.23	54.55	50.27	88.93	-5,398.78	898.45	1,712.70	1,611.10	101.59	16.858	
12,600.00	7,589.26	12,114.90	7,557.23	55.12	50.92	88.92	-5,498.37	904.94	1,706.39	1,603.53	102.86	16.589	
12,700.00	7,589.26	12,214.70	7,557.22	55.70	51.58	88.92	-5,597.96	911.42	1,700.09	1,595.95	104.14	16.325	
12,800.00	7,589.26	12,314.50	7,557.22	56.28	52.23	88.91	-5,697.55	917.91	1,693.79	1,588.37	105.42	16.067	
12,900.00	7,589.25	12,414.30	7,557.22	56.86	52.89	88.91	-5,797.14	924.40	1,687.49	1,580.78	106.71	15.814	
13,000.00	7,589.25	12,514.11	7,557.21	57.45	53.56	88.91	-5,896.73	930.89	1,681.18	1,573.18	108.00	15.566	
13,100.00	7,589.24	12,613.91	7,557.21	58.04	54.23	88.90	-5,996.32	937.37	1,674.88	1,565.58	109.31	15.323	
13,200.00	7,589.24	12,713.71	7,557.20	58.64	54.89	88.90	-6,095.91	943.86	1,668.58	1,557.97	110.61	15.085	
13,300.00	7,589.23	12,813.51	7,557.20	59.24	55.57	88.89	-6,195.50	950.35	1,662.28	1,550.35	111.93	14.851	
13,400.00	7,589.23	12,913.31	7,557.20	59.84	56.24	88.89	-6,295.09	956.84	1,655.98	1,542.73	113.25	14.623	
13,500.00	7,589.23	13,013.11	7,557.19	60.45	56.92	88.89	-6,394.68	963.32	1,649.67	1,535.10	114.57	14.399	
13,600.00	7,589.22	13,112.91	7,557.19	61.06	57.60	88.88	-6,494.27	969.81	1,643.37	1,527.47	115.90	14.179	
13,700.00	7,589.22	13,212.71	7,557.19	61.68	58.28	88.88	-6,593.86	976.30	1,637.07	1,519.84	117.23	13.964	
13,800.00	7,589.21	13,312.51	7,557.18	62.30	58.96	88.87	-6,693.45	982.79	1,630.77	1,512.19	118.57	13.753	
13,900.00	7,589.21	13,412.32	7,557.18	62.92	59.65	88.87	-6,793.04	989.27	1,624.46	1,504.55	119.92	13.547	
14,000.00	7,589.21	13,512.12	7,557.18	63.54	60.34	88.86	-6,892.63	995.76	1,618.16	1,496.90	121.26	13.344	
14,100.00	7,589.20	13,611.92	7,557.17	64.17	61.03	88.86	-6,992.22	1,002.25	1,611.86	1,489.24	122.62	13.146	
14,200.00	7,589.20	13,711.72	7,557.17	64.80	61.72	88.85	-7,091.81	1,008.74	1,605.56	1,481.58	123.97	12.951	
14,300.00	7,589.19	13,811.52	7,557.16	65.43	62.41	88.85	-7,191.40	1,015.22	1,599.26	1,473.92	125.33	12.760	
14,400.00	7,589.19	13,911.32	7,557.16	66.07	63.11	88.85	-7,290.99	1,021.71	1,592.95	1,466.26	126.70	12.573	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,500.00	7,589.18	14,011.12	7,557.16	66.71	63.81	88.84	-7,390.58	1,028.20	1,586.65	1,458.58	128.07	12.389	
14,600.00	7,589.18	14,110.92	7,557.15	67.35	64.51	88.84	-7,490.17	1,034.68	1,580.35	1,450.91	129.44	12.209	
14,700.00	7,589.18	14,210.72	7,557.15	67.99	65.21	88.83	-7,589.76	1,041.17	1,574.05	1,443.23	130.81	12.033	
14,800.00	7,589.17	14,310.53	7,557.15	68.64	65.91	88.83	-7,689.35	1,047.66	1,567.75	1,435.55	132.19	11.859	
14,900.00	7,589.17	14,410.33	7,557.14	69.29	66.61	88.82	-7,788.94	1,054.15	1,561.44	1,427.87	133.58	11.689	
15,000.00	7,589.16	14,510.13	7,557.14	69.94	67.32	88.82	-7,888.53	1,060.63	1,555.14	1,420.18	134.96	11.523	
15,100.00	7,589.16	14,609.93	7,557.14	70.59	68.03	88.81	-7,988.12	1,067.12	1,548.84	1,412.49	136.35	11.359	
15,200.00	7,589.16	14,709.73	7,557.13	71.25	68.73	88.81	-8,087.71	1,073.61	1,542.54	1,404.79	137.74	11.199	
15,300.00	7,589.15	14,809.53	7,557.13	71.91	69.44	88.80	-8,187.30	1,080.10	1,536.24	1,397.10	139.14	11.041	
15,400.00	7,589.15	14,909.33	7,557.12	72.57	70.15	88.80	-8,286.89	1,086.58	1,529.93	1,389.40	140.54	10.886	
15,500.00	7,589.14	15,009.13	7,557.12	73.23	70.87	88.79	-8,386.48	1,093.07	1,523.63	1,381.69	141.94	10.735	
15,600.00	7,589.14	15,108.93	7,557.12	73.89	71.58	88.79	-8,486.07	1,099.56	1,517.33	1,373.99	143.34	10.585	
15,700.00	7,589.13	15,208.74	7,557.11	74.56	72.29	88.78	-8,585.66	1,106.05	1,511.03	1,366.28	144.75	10.439	
15,800.00	7,589.13	15,308.54	7,557.11	75.23	73.01	88.78	-8,685.25	1,112.53	1,504.73	1,358.57	146.15	10.295	
15,900.00	7,589.13	15,408.34	7,557.11	75.90	73.73	88.77	-8,784.84	1,119.02	1,498.42	1,350.86	147.57	10.154	
16,000.00	7,589.12	15,508.14	7,557.10	76.57	74.44	88.77	-8,884.43	1,125.51	1,492.12	1,343.14	148.98	10.016	
16,100.00	7,589.12	15,607.94	7,557.10	77.24	75.16	88.76	-8,984.02	1,132.00	1,485.82	1,335.42	150.40	9.879	
16,200.00	7,589.11	15,707.74	7,557.10	77.92	75.88	88.76	-9,083.61	1,138.48	1,479.52	1,327.70	151.81	9.746	
16,300.00	7,589.11	15,807.54	7,557.09	78.59	76.60	88.75	-9,183.20	1,144.97	1,473.22	1,319.98	153.23	9.614	
16,400.00	7,589.11	15,907.34	7,557.09	79.27	77.33	88.75	-9,282.79	1,151.46	1,466.91	1,312.26	154.66	9.485	
16,500.00	7,589.10	16,007.15	7,557.08	79.95	78.05	88.74	-9,382.38	1,157.95	1,460.61	1,304.53	156.08	9.358	
16,600.00	7,589.10	16,106.95	7,557.08	80.63	78.77	88.74	-9,481.97	1,164.43	1,454.31	1,296.80	157.51	9.233	
16,700.00	7,589.09	16,206.75	7,557.08	81.31	79.50	88.73	-9,581.56	1,170.92	1,448.01	1,289.07	158.94	9.111	
16,800.00	7,589.09	16,306.55	7,557.07	82.00	80.22	88.73	-9,681.15	1,177.41	1,441.71	1,281.34	160.37	8.990	
16,900.00	7,589.08	16,406.35	7,557.07	82.68	80.95	88.72	-9,780.74	1,183.90	1,435.40	1,273.61	161.80	8.872	
17,000.00	7,589.08	16,506.15	7,557.07	83.37	81.68	88.71	-9,880.33	1,190.38	1,429.10	1,265.87	163.23	8.755	
17,100.00	7,589.08	16,605.95	7,557.06	84.06	82.40	88.71	-9,979.92	1,196.87	1,422.80	1,258.13	164.67	8.640	
17,200.00	7,589.07	16,705.75	7,557.06	84.75	83.13	88.70	-10,079.52	1,203.36	1,416.50	1,250.39	166.11	8.528	
17,300.00	7,589.07	16,805.55	7,557.06	85.44	83.86	88.70	-10,179.11	1,209.85	1,410.20	1,242.65	167.54	8.417	
17,400.00	7,589.06	16,905.36	7,557.05	86.13	84.59	88.69	-10,278.70	1,216.33	1,403.90	1,234.91	168.99	8.308	
17,500.00	7,589.06	17,005.16	7,557.05	86.83	85.32	88.69	-10,378.29	1,222.82	1,397.59	1,227.17	170.43	8.200	
17,600.00	7,589.06	17,104.96	7,557.04	87.52	86.06	88.68	-10,477.88	1,229.31	1,391.29	1,219.42	171.87	8.095	
17,700.00	7,589.05	17,204.76	7,557.04	88.22	86.79	88.67	-10,577.47	1,235.79	1,384.99	1,211.67	173.32	7.991	
17,800.00	7,589.05	17,304.56	7,557.04	88.91	87.52	88.67	-10,677.06	1,242.28	1,378.69	1,203.92	174.76	7.889	
17,900.00	7,589.04	17,404.36	7,557.03	89.61	88.26	88.66	-10,776.65	1,248.77	1,372.39	1,196.17	176.21	7.788	
18,000.00	7,589.04	17,504.16	7,557.03	90.31	88.99	88.65	-10,876.24	1,255.26	1,366.09	1,188.42	177.66	7.689	
18,100.00	7,589.03	17,603.96	7,557.03	91.01	89.73	88.65	-10,975.83	1,261.74	1,359.78	1,180.67	179.11	7.592	
18,200.00	7,589.03	17,703.76	7,557.02	91.71	90.46	88.64	-11,075.42	1,268.23	1,353.48	1,172.92	180.57	7.496	
18,300.00	7,589.03	17,803.57	7,557.02	92.42	91.20	88.64	-11,175.01	1,274.72	1,347.18	1,165.16	182.02	7.401	
18,400.00	7,589.02	17,903.37	7,557.02	93.12	91.93	88.63	-11,274.60	1,281.21	1,340.88	1,157.40	183.48	7.308	
18,500.00	7,589.02	18,003.17	7,557.01	93.82	92.67	88.62	-11,374.19	1,287.69	1,334.58	1,149.65	184.93	7.217	
18,600.00	7,589.01	18,102.97	7,557.01	94.53	93.41	88.62	-11,473.78	1,294.18	1,328.28	1,141.89	186.39	7.126	
18,700.00	7,589.01	18,202.77	7,557.00	95.23	94.15	88.61	-11,573.37	1,300.67	1,321.97	1,134.13	187.85	7.037	
18,800.00	7,589.01	18,302.57	7,557.00	95.94	94.89	88.60	-11,672.96	1,307.16	1,315.67	1,126.36	189.31	6.950	SF
18,899.23	7,589.00	18,318.93	7,557.00	96.64	95.01	88.60	-11,689.28	1,308.22	1,312.03	1,123.31	188.71	6.952	
18,900.00	7,589.00	18,318.93	7,557.00	96.65	95.01	88.60	-11,689.28	1,308.22	1,312.03	1,123.32	188.70	6.953	
18,917.19	7,589.00	18,318.93	7,557.00	96.77	95.01	88.60	-11,689.28	1,308.22	1,312.15	1,123.70	188.45	6.963	
18,917.96	7,589.00	18,318.93	7,557.00	97.01	95.01	88.60	-11,689.28	1,308.22	1,312.16	1,123.74	188.42	6.964	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS										Rule Assigned:		Offset Well Error:		0.00 usft
Reference				Offset		Semi Major Axis				Distance		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-88.90	1.53	-79.97	79.98					
100.00	100.00	100.00	100.00	0.28	0.28	-88.90	1.53	-79.97	79.98	79.43	0.55	144.887		
200.00	200.00	200.00	200.00	0.63	0.63	-88.90	1.53	-79.97	79.98	78.72	1.27	63.030		
300.00	300.00	300.00	300.00	0.99	0.99	-88.90	1.53	-79.97	79.98	78.00	1.99	40.276		
400.00	400.00	400.00	400.00	1.35	1.35	-88.90	1.53	-79.97	79.98	77.28	2.70	29.592		
500.00	500.00	500.00	500.00	1.71	1.71	-88.90	1.53	-79.97	79.98	76.56	3.42	23.389		
600.00	600.00	600.00	600.00	2.07	2.07	-88.90	1.53	-79.97	79.98	75.85	4.14	19.335		
700.00	700.00	700.00	700.00	2.43	2.43	-88.90	1.53	-79.97	79.98	75.13	4.85	16.479		
800.00	800.00	800.00	800.00	2.79	2.79	-88.90	1.53	-79.97	79.98	74.41	5.57	14.358		
900.00	900.00	900.00	900.00	3.14	3.14	-88.90	1.53	-79.97	79.98	73.70	6.29	12.721		
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.90	1.53	-79.97	79.98	72.98	7.00	11.419	CC, ES	
1,100.00	1,099.98	1,101.01	1,100.98	3.85	3.85	142.66	-0.14	-79.36	80.75	73.06	7.69	10.497		
1,200.00	1,199.84	1,201.95	1,201.79	4.18	4.18	141.40	-5.16	-77.54	83.06	74.71	8.35	9.942		
1,300.00	1,299.45	1,302.79	1,302.22	4.52	4.52	139.44	-13.49	-74.50	87.00	77.97	9.03	9.639		
1,400.00	1,398.70	1,404.68	1,403.37	4.86	4.86	137.18	-24.90	-69.88	92.29	82.59	9.70	9.510		
1,500.00	1,497.47	1,507.80	1,505.40	5.21	5.22	135.80	-37.47	-61.85	97.06	86.67	10.39	9.343		
1,600.00	1,595.62	1,611.13	1,607.19	5.56	5.57	135.32	-50.79	-50.17	100.92	89.85	11.07	9.114		
1,700.00	1,693.06	1,713.08	1,707.12	5.92	5.93	135.69	-64.58	-35.42	104.15	92.38	11.77	8.851		
1,800.00	1,790.08	1,812.99	1,804.94	6.28	6.29	136.63	-78.19	-20.38	108.08	95.60	12.48	8.658		
1,900.00	1,887.11	1,912.90	1,902.77	6.65	6.65	137.50	-91.81	-5.33	112.03	98.83	13.21	8.483		
2,000.00	1,984.14	2,012.80	2,000.59	7.02	7.02	138.31	-105.43	9.71	116.01	102.08	13.94	8.324		
2,100.00	2,081.17	2,112.71	2,098.42	7.39	7.38	139.06	-119.05	24.76	120.01	105.34	14.67	8.179		
2,200.00	2,178.20	2,212.62	2,196.25	7.76	7.75	139.77	-132.67	39.80	124.03	108.62	15.41	8.047		
2,300.00	2,275.23	2,312.53	2,294.07	8.14	8.12	140.43	-146.29	54.84	128.07	111.91	16.16	7.925		
2,400.00	2,372.26	2,412.43	2,391.90	8.52	8.49	141.06	-159.90	69.89	132.12	115.21	16.91	7.813		
2,500.00	2,469.29	2,512.34	2,489.72	8.90	8.87	141.64	-173.52	84.93	136.19	118.53	17.66	7.710		
2,600.00	2,566.32	2,612.25	2,587.55	9.28	9.24	142.19	-187.14	99.98	140.27	121.85	18.42	7.616		
2,700.00	2,663.35	2,712.16	2,685.37	9.67	9.62	142.71	-200.76	115.02	144.36	125.19	19.18	7.528		
2,800.00	2,760.38	2,812.07	2,783.20	10.05	9.99	143.20	-214.38	130.07	148.47	128.53	19.94	7.446		
2,900.00	2,857.41	2,911.97	2,881.02	10.44	10.37	143.67	-227.99	145.11	152.58	131.88	20.70	7.371		
3,000.00	2,954.44	3,011.88	2,978.85	10.83	10.75	144.11	-241.61	160.15	156.71	135.24	21.47	7.300		
3,100.00	3,051.47	3,111.79	3,076.67	11.22	11.13	144.53	-255.23	175.20	160.84	138.61	22.23	7.234		
3,200.00	3,148.50	3,211.70	3,174.50	11.60	11.50	144.92	-268.85	190.24	164.98	141.98	23.00	7.173		
3,300.00	3,245.53	3,311.61	3,272.32	11.99	11.88	145.30	-282.47	205.29	169.13	145.36	23.77	7.115		
3,400.00	3,342.56	3,411.51	3,370.15	12.38	12.26	145.66	-296.09	220.33	173.28	148.74	24.54	7.061		
3,500.00	3,439.59	3,511.42	3,467.97	12.77	12.64	146.00	-309.70	235.37	177.45	152.13	25.31	7.010		
3,600.00	3,536.62	3,611.33	3,565.80	13.17	13.03	146.33	-323.32	250.42	181.62	155.53	26.08	6.963		
3,700.00	3,633.65	3,711.24	3,663.63	13.56	13.41	146.64	-336.94	265.46	185.79	158.93	26.86	6.917		
3,800.00	3,730.68	3,811.14	3,761.45	13.95	13.79	146.94	-350.56	280.51	189.97	162.34	27.63	6.875		
3,900.00	3,827.71	3,911.05	3,859.28	14.34	14.17	147.22	-364.18	295.55	194.15	165.74	28.41	6.835		
4,000.00	3,924.74	4,010.96	3,957.10	14.74	14.55	147.50	-377.80	310.59	198.34	169.16	29.18	6.796		
4,100.00	4,021.77	4,110.87	4,054.93	15.13	14.94	147.76	-391.41	325.64	202.53	172.57	29.96	6.760		
4,200.00	4,118.79	4,210.78	4,152.75	15.52	15.32	148.01	-405.03	340.68	206.73	175.99	30.74	6.726		
4,300.00	4,215.82	4,310.68	4,250.58	15.92	15.70	148.25	-418.65	355.73	210.93	179.42	31.51	6.693		
4,400.00	4,312.85	4,410.59	4,348.40	16.31	16.09	148.48	-432.27	370.77	215.13	182.84	32.29	6.662		
4,500.00	4,409.88	4,510.50	4,446.23	16.70	16.47	148.71	-445.89	385.82	219.34	186.27	33.07	6.633		
4,600.00	4,506.91	4,610.41	4,544.05	17.10	16.85	148.92	-459.50	400.86	223.55	189.70	33.85	6.604		
4,700.00	4,603.94	4,710.32	4,641.88	17.49	17.24	149.13	-473.12	415.90	227.77	193.14	34.63	6.577		
4,800.00	4,700.97	4,810.22	4,739.70	17.89	17.62	149.33	-486.74	430.95	231.98	196.58	35.41	6.552		
4,900.00	4,798.00	4,910.13	4,837.53	18.28	18.01	149.52	-500.36	445.99	236.20	200.01	36.19	6.527		
5,000.00	4,895.03	5,010.04	4,935.36	18.68	18.39	149.70	-513.98	461.04	240.43	203.46	36.97	6.503		
5,100.00	4,992.06	5,109.95	5,033.18	19.07	18.77	149.88	-527.60	476.08	244.65	206.90	37.75	6.481		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,089.09	5,209.85	5,131.01	19.47	19.16	150.06	-541.21	491.12	248.88	210.35	38.53	6.459	
5,300.00	5,186.12	5,309.76	5,228.83	19.87	19.54	150.22	-554.83	506.17	253.11	213.79	39.31	6.438	
5,400.00	5,283.15	5,409.67	5,326.66	20.26	19.93	150.38	-568.45	521.21	257.34	217.24	40.09	6.418	
5,500.00	5,380.18	5,509.58	5,424.48	20.66	20.31	150.54	-582.07	536.26	261.57	220.69	40.88	6.399	
5,600.00	5,477.21	5,609.49	5,522.31	21.06	20.70	150.69	-595.69	551.30	265.80	224.15	41.66	6.381	
5,700.00	5,574.24	5,709.39	5,620.13	21.45	21.08	150.84	-609.31	566.34	270.04	227.60	42.44	6.363	
5,800.00	5,671.27	5,809.30	5,717.96	21.85	21.47	150.98	-622.92	581.39	274.28	231.06	43.22	6.346	
5,900.00	5,768.30	5,909.21	5,815.78	22.24	21.86	151.12	-636.54	596.43	278.52	234.51	44.01	6.329	
6,000.00	5,865.33	6,009.12	5,913.61	22.64	22.24	151.25	-650.16	611.48	282.76	237.97	44.79	6.313	
6,100.00	5,962.36	6,109.03	6,011.43	23.04	22.63	151.38	-663.78	626.52	287.00	241.43	45.57	6.298	
6,200.00	6,059.39	6,208.93	6,109.26	23.44	23.01	151.51	-677.40	641.56	291.25	244.89	46.35	6.283	
6,300.00	6,156.42	6,308.84	6,207.08	23.83	23.40	151.63	-691.02	656.61	295.49	248.36	47.14	6.269	
6,400.00	6,253.45	6,408.75	6,304.91	24.23	23.78	151.75	-704.63	671.65	299.74	251.82	47.92	6.255	
6,500.00	6,350.47	6,508.66	6,402.74	24.63	24.17	151.86	-718.25	686.70	303.99	255.28	48.70	6.241	
6,600.00	6,447.50	6,608.56	6,500.56	25.02	24.56	151.98	-731.87	701.74	308.24	258.75	49.49	6.228	
6,700.00	6,544.53	6,708.47	6,598.39	25.42	24.94	152.09	-745.49	716.79	312.49	262.22	50.27	6.216	
6,800.00	6,641.56	6,808.38	6,696.21	25.82	25.33	152.19	-759.11	731.83	316.74	265.69	51.06	6.204	
6,900.00	6,738.59	6,908.29	6,794.04	26.22	25.71	152.30	-772.72	746.87	320.99	269.15	51.84	6.192	
7,000.00	6,835.62	7,008.20	6,891.86	26.61	26.10	152.40	-786.34	761.92	325.25	272.62	52.63	6.180	
7,100.00	6,932.65	7,108.10	6,989.69	27.01	26.49	152.50	-799.96	776.96	329.50	276.09	53.41	6.169	
7,200.00	7,029.68	7,208.01	7,087.51	27.41	26.87	152.59	-813.58	792.01	333.76	279.57	54.19	6.159	
7,300.00	7,126.71	7,307.92	7,185.34	27.81	27.26	152.68	-827.20	807.05	338.02	283.04	54.98	6.148	
7,309.09	7,135.53	7,317.00	7,194.23	27.84	27.29	152.69	-828.44	808.42	338.40	283.35	55.05	6.147	SF
7,350.00	7,174.84	7,357.78	7,234.16	28.01	27.45	152.70	-833.99	814.56	341.44	286.07	55.37	6.166	
7,400.00	7,221.63	7,407.16	7,282.51	28.22	27.64	152.85	-840.72	821.99	348.67	292.90	55.77	6.252	
7,450.00	7,266.71	7,455.67	7,330.01	28.44	27.83	153.10	-847.34	829.30	359.75	303.58	56.17	6.405	
7,500.00	7,309.74	7,502.96	7,376.31	28.67	28.01	153.42	-853.78	836.42	374.68	318.11	56.57	6.624	
7,550.00	7,350.39	7,548.65	7,421.05	28.91	28.19	153.75	-860.01	843.30	393.41	336.45	56.95	6.908	
7,600.00	7,388.34	7,592.40	7,463.89	29.15	28.36	154.03	-865.97	849.89	415.87	358.55	57.33	7.255	
7,650.00	7,423.32	7,633.88	7,504.51	29.40	28.52	154.19	-871.63	856.13	441.98	384.30	57.68	7.662	
7,700.00	7,455.05	7,672.78	7,542.59	29.65	28.67	154.16	-876.93	861.99	471.58	413.56	58.02	8.128	
7,750.00	7,483.30	7,708.79	7,577.85	29.90	28.81	153.88	-881.84	867.41	504.48	446.15	58.33	8.649	
7,800.00	7,507.84	7,741.64	7,610.02	30.15	28.94	153.24	-886.32	872.36	540.46	481.85	58.61	9.221	
7,850.00	7,528.50	7,770.00	7,637.78	30.41	29.05	152.05	-890.18	876.62	579.26	520.40	58.85	9.842	
7,900.00	7,545.11	7,791.35	7,658.72	30.66	29.13	149.92	-893.01	879.75	620.71	561.66	59.05	10.512	
7,919.09	7,550.36	7,800.00	7,667.21	30.75	29.16	148.95	-894.13	880.98	637.17	578.05	59.12	10.777	
8,000.00	7,568.52	7,825.13	7,691.89	31.16	29.26	146.99	-897.27	884.46	709.14	649.80	59.34	11.951	
8,100.00	7,583.22	7,850.68	7,717.03	31.66	29.35	142.64	-900.32	887.83	801.71	742.16	59.55	13.464	
8,200.00	7,589.24	7,868.48	7,734.57	32.17	29.42	134.42	-902.36	890.08	897.26	837.57	59.69	15.033	
8,219.09	7,589.40	7,871.03	7,737.09	32.26	29.43	132.16	-902.64	890.39	915.76	856.05	59.71	15.337	
8,300.00	7,589.40	7,881.08	7,747.00	32.67	29.47	133.99	-903.75	891.62	994.42	934.63	59.78	16.634	
8,400.00	7,589.40	7,900.00	7,765.68	33.21	29.54	137.16	-905.78	893.86	1,091.96	1,032.03	59.93	18.222	
8,444.09	7,589.40	7,900.00	7,765.68	33.45	29.54	137.16	-905.78	893.86	1,135.01	1,075.08	59.93	18.940	
8,500.00	7,589.40	7,900.00	7,765.68	33.76	29.54	131.87	-905.78	893.86	1,189.59	1,129.66	59.93	19.850	
8,600.00	7,589.40	7,900.00	7,765.68	34.34	29.54	124.17	-905.78	893.86	1,286.84	1,226.92	59.92	21.475	
8,700.00	7,589.40	7,925.21	7,790.60	34.92	29.64	121.60	-908.36	896.71	1,383.17	1,323.05	60.12	23.008	
8,800.00	7,589.40	7,934.97	7,800.25	35.52	29.67	117.88	-909.31	897.76	1,478.83	1,418.64	60.19	24.569	
8,900.00	7,589.40	9,665.08	8,858.17	36.12	36.57	151.42	-1,807.84	1,331.72	1,532.67	1,476.73	55.94	27.399	
9,000.00	7,589.40	9,735.91	8,861.16	36.73	36.83	149.29	-1,878.32	1,337.84	1,565.76	1,508.12	57.64	27.164	
9,100.00	7,589.40	9,809.00	8,862.20	37.33	37.08	147.18	-1,951.36	1,340.07	1,598.27	1,538.95	59.32	26.945	
9,200.00	7,589.40	9,889.15	8,862.20	37.92	37.36	145.09	-2,031.51	1,340.22	1,629.65	1,568.71	60.95	26.738	
9,300.00	7,589.39	9,977.67	8,862.19	38.51	37.66	143.13	-2,120.03	1,340.38	1,659.09	1,596.57	62.52	26.536	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error: 0.00 usft		
Reference				Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
9,400.00	7,589.39	10,068.49	8,862.19	39.09	37.99	141.39	-2,210.85	1,340.55	1,686.22	1,622.19	64.02	26.338			
9,500.00	7,589.39	10,161.39	8,862.19	39.65	38.33	139.88	-2,303.75	1,340.72	1,710.71	1,645.25	65.46	26.133			
9,600.00	7,589.39	10,256.09	8,862.19	40.19	38.69	138.59	-2,398.45	1,340.90	1,732.31	1,665.47	66.85	25.915			
9,700.00	7,589.38	10,352.34	8,862.19	40.72	39.07	137.52	-2,494.70	1,341.08	1,750.80	1,682.62	68.18	25.678			
9,800.00	7,589.38	10,449.87	8,862.18	41.23	39.45	136.67	-2,592.23	1,341.26	1,765.99	1,696.52	69.47	25.420			
9,900.00	7,589.38	10,548.43	8,862.18	41.72	39.86	136.02	-2,690.79	1,341.44	1,777.73	1,707.01	70.72	25.139			
10,000.00	7,589.37	10,647.73	8,862.18	42.18	40.27	135.57	-2,790.09	1,341.63	1,785.91	1,713.99	71.92	24.831			
10,100.00	7,589.37	10,747.51	8,862.18	42.63	40.70	135.33	-2,889.87	1,341.81	1,790.47	1,717.38	73.09	24.498			
10,173.66	7,589.36	10,821.15	8,862.18	42.94	41.02	135.27	-2,963.51	1,341.95	1,791.47	1,717.55	73.92	24.236			
10,200.00	7,589.36	10,847.49	8,862.18	43.05	41.14	135.27	-2,989.85	1,342.00	1,791.47	1,717.26	74.21	24.140			
10,300.00	7,589.36	10,947.49	8,862.17	43.47	41.58	135.27	-3,089.85	1,342.19	1,791.48	1,716.14	75.34	23.779			
10,400.00	7,589.36	11,047.49	8,862.17	43.90	42.04	135.27	-3,189.85	1,342.37	1,791.49	1,715.01	76.48	23.424			
10,500.00	7,589.35	11,147.49	8,862.17	44.33	42.50	135.27	-3,289.85	1,342.56	1,791.50	1,713.87	77.64	23.076			
10,600.00	7,589.35	11,247.49	8,862.17	44.78	42.97	135.27	-3,389.85	1,342.75	1,791.51	1,712.71	78.80	22.733			
10,700.00	7,589.34	11,347.49	8,862.17	45.23	43.45	135.27	-3,489.85	1,342.93	1,791.52	1,711.53	79.99	22.398			
10,800.00	7,589.34	11,447.49	8,862.16	45.69	43.94	135.27	-3,589.85	1,343.12	1,791.53	1,710.35	81.18	22.068			
10,900.00	7,589.33	11,547.49	8,862.16	46.16	44.44	135.27	-3,689.85	1,343.30	1,791.54	1,709.15	82.39	21.745			
11,000.00	7,589.33	11,647.49	8,862.16	46.64	44.94	135.27	-3,789.85	1,343.49	1,791.55	1,707.94	83.61	21.429			
11,100.00	7,589.33	11,747.49	8,862.16	47.12	45.45	135.27	-3,889.85	1,343.68	1,791.56	1,706.72	84.83	21.118			
11,200.00	7,589.32	11,847.49	8,862.16	47.61	45.96	135.27	-3,989.85	1,343.86	1,791.57	1,705.49	86.07	20.814			
11,300.00	7,589.32	11,947.49	8,862.15	48.11	46.49	135.27	-4,089.85	1,344.05	1,791.58	1,704.25	87.32	20.517			
11,400.00	7,589.31	12,047.49	8,862.15	48.61	47.01	135.27	-4,189.85	1,344.24	1,791.59	1,703.00	88.58	20.225			
11,500.00	7,589.31	12,147.49	8,862.15	49.12	47.55	135.27	-4,289.85	1,344.42	1,791.59	1,701.75	89.85	19.940			
11,600.00	7,589.31	12,247.49	8,862.15	49.64	48.09	135.27	-4,389.85	1,344.61	1,791.60	1,700.48	91.13	19.661			
11,700.00	7,589.30	12,347.49	8,862.15	50.16	48.64	135.27	-4,489.85	1,344.80	1,791.61	1,699.20	92.41	19.388			
11,800.00	7,589.30	12,447.49	8,862.14	50.69	49.19	135.27	-4,589.85	1,344.98	1,791.62	1,697.92	93.70	19.120			
11,900.00	7,589.29	12,547.49	8,862.14	51.23	49.75	135.27	-4,689.85	1,345.17	1,791.63	1,696.63	95.00	18.858			
12,000.00	7,589.29	12,647.49	8,862.14	51.77	50.31	135.27	-4,789.85	1,345.35	1,791.64	1,695.33	96.31	18.602			
12,100.00	7,589.28	12,747.49	8,862.14	52.31	50.88	135.27	-4,889.85	1,345.54	1,791.65	1,694.02	97.63	18.352			
12,200.00	7,589.28	12,847.49	8,862.14	52.86	51.45	135.27	-4,989.85	1,345.73	1,791.66	1,692.71	98.95	18.107			
12,300.00	7,589.28	12,947.49	8,862.13	53.42	52.03	135.27	-5,089.85	1,345.91	1,791.67	1,691.39	100.28	17.867			
12,400.00	7,589.27	13,047.49	8,862.13	53.98	52.61	135.27	-5,189.85	1,346.10	1,791.68	1,690.06	101.61	17.632			
12,500.00	7,589.27	13,147.49	8,862.13	54.55	53.20	135.27	-5,289.85	1,346.29	1,791.69	1,688.73	102.96	17.403			
12,600.00	7,589.26	13,247.49	8,862.13	55.12	53.79	135.27	-5,389.85	1,346.47	1,791.70	1,687.39	104.30	17.178			
12,700.00	7,589.26	13,347.49	8,862.13	55.70	54.39	135.27	-5,489.85	1,346.66	1,791.71	1,686.05	105.66	16.958			
12,800.00	7,589.26	13,447.49	8,862.12	56.28	54.99	135.27	-5,589.85	1,346.84	1,791.72	1,684.70	107.01	16.743			
12,900.00	7,589.25	13,547.49	8,862.12	56.86	55.59	135.27	-5,689.85	1,347.03	1,791.73	1,683.35	108.38	16.532			
13,000.00	7,589.25	13,647.49	8,862.12	57.45	56.20	135.27	-5,789.85	1,347.22	1,791.73	1,681.99	109.74	16.326			
13,100.00	7,589.24	13,747.49	8,862.12	58.04	56.81	135.27	-5,889.85	1,347.40	1,791.74	1,680.63	111.12	16.125			
13,200.00	7,589.24	13,847.49	8,862.12	58.64	57.43	135.27	-5,989.85	1,347.59	1,791.75	1,679.26	112.50	15.927			
13,300.00	7,589.23	13,947.49	8,862.11	59.24	58.04	135.27	-6,089.85	1,347.78	1,791.76	1,677.88	113.88	15.734			
13,400.00	7,589.23	14,047.49	8,862.11	59.84	58.67	135.27	-6,189.84	1,347.96	1,791.77	1,676.51	115.26	15.545			
13,500.00	7,589.23	14,147.49	8,862.11	60.45	59.29	135.27	-6,289.84	1,348.15	1,791.78	1,675.13	116.66	15.360			
13,600.00	7,589.22	14,247.49	8,862.11	61.06	59.92	135.27	-6,389.84	1,348.34	1,791.79	1,673.74	118.05	15.178			
13,700.00	7,589.22	14,347.49	8,862.11	61.68	60.55	135.27	-6,489.84	1,348.52	1,791.80	1,672.35	119.45	15.001			
13,800.00	7,589.21	14,447.49	8,862.10	62.30	61.19	135.27	-6,589.84	1,348.71	1,791.81	1,670.96	120.85	14.827			
13,900.00	7,589.21	14,547.49	8,862.10	62.92	61.82	135.27	-6,689.84	1,348.89	1,791.82	1,669.56	122.26	14.656			
14,000.00	7,589.21	14,647.49	8,862.10	63.54	62.46	135.27	-6,789.84	1,349.08	1,791.83	1,668.16	123.67	14.489			
14,100.00	7,589.20	14,747.49	8,862.10	64.17	63.11	135.27	-6,889.84	1,349.27	1,791.84	1,666.76	125.08	14.326			
14,200.00	7,589.20	14,847.49	8,862.10	64.80	63.75	135.27	-6,989.84	1,349.45	1,791.85	1,665.35	126.49	14.165			
14,300.00	7,589.19	14,947.49	8,862.09	65.43	64.40	135.27	-7,089.84	1,349.64	1,791.86	1,663.94	127.91	14.008			
14,400.00	7,589.19	15,047.49	8,862.09	66.07	65.05	135.27	-7,189.84	1,349.83	1,791.87	1,662.53	129.34	13.854			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS				Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.00 usft	
Reference		Offset		Reference	Offset	Highside Toolface (")			Distance		Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)	
14,500.00	7,589.18	15,147.49	8,862.09	66.71	65.70	135.27	-7,289.84	1,350.01	1,791.87	1,661.11	130.76	13.703		
14,600.00	7,589.18	15,247.49	8,862.09	67.35	66.36	135.27	-7,389.84	1,350.20	1,791.88	1,659.69	132.19	13.555		
14,700.00	7,589.18	15,347.49	8,862.09	67.99	67.02	135.27	-7,489.84	1,350.38	1,791.89	1,658.27	133.62	13.410		
14,800.00	7,589.17	15,447.49	8,862.08	68.64	67.68	135.26	-7,589.84	1,350.57	1,791.90	1,656.85	135.05	13.268		
14,900.00	7,589.17	15,547.49	8,862.08	69.29	68.34	135.26	-7,689.84	1,350.76	1,791.91	1,655.42	136.49	13.129		
15,000.00	7,589.16	15,647.49	8,862.08	69.94	69.00	135.26	-7,789.84	1,350.94	1,791.92	1,653.99	137.93	12.992		
15,100.00	7,589.16	15,747.49	8,862.08	70.59	69.67	135.26	-7,889.84	1,351.13	1,791.93	1,652.56	139.37	12.857		
15,200.00	7,589.16	15,847.49	8,862.08	71.25	70.34	135.26	-7,989.84	1,351.32	1,791.94	1,651.13	140.81	12.726		
15,300.00	7,589.15	15,947.49	8,862.07	71.91	71.01	135.26	-8,089.84	1,351.50	1,791.95	1,649.69	142.26	12.596		
15,400.00	7,589.15	16,047.49	8,862.07	72.57	71.68	135.26	-8,189.84	1,351.69	1,791.96	1,648.25	143.71	12.470		
15,500.00	7,589.14	16,147.49	8,862.07	73.23	72.35	135.26	-8,289.84	1,351.88	1,791.97	1,646.81	145.16	12.345		
15,600.00	7,589.14	16,247.49	8,862.07	73.89	73.03	135.26	-8,389.84	1,352.06	1,791.98	1,645.37	146.61	12.223		
15,700.00	7,589.13	16,347.49	8,862.07	74.56	73.70	135.26	-8,489.84	1,352.25	1,791.99	1,643.92	148.06	12.103		
15,800.00	7,589.13	16,447.49	8,862.06	75.23	74.38	135.26	-8,589.84	1,352.43	1,792.00	1,642.48	149.52	11.985		
15,900.00	7,589.13	16,547.49	8,862.06	75.90	75.06	135.26	-8,689.84	1,352.62	1,792.00	1,641.03	150.98	11.869		
16,000.00	7,589.12	16,647.49	8,862.06	76.57	75.74	135.26	-8,789.84	1,352.81	1,792.01	1,639.58	152.44	11.756		
16,100.00	7,589.12	16,747.49	8,862.06	77.24	76.43	135.26	-8,889.84	1,352.99	1,792.02	1,638.13	153.90	11.644		
16,200.00	7,589.11	16,847.49	8,862.05	77.92	77.11	135.26	-8,989.84	1,353.18	1,792.03	1,636.67	155.36	11.535		
16,300.00	7,589.11	16,947.49	8,862.05	78.59	77.80	135.26	-9,089.84	1,353.37	1,792.04	1,635.22	156.83	11.427		
16,400.00	7,589.11	17,047.49	8,862.05	79.27	78.49	135.26	-9,189.84	1,353.55	1,792.05	1,633.76	158.29	11.321		
16,500.00	7,589.10	17,147.49	8,862.05	79.95	79.18	135.26	-9,289.84	1,353.74	1,792.06	1,632.30	159.76	11.217		
16,600.00	7,589.10	17,247.49	8,862.05	80.63	79.87	135.26	-9,389.84	1,353.92	1,792.07	1,630.84	161.23	11.115		
16,700.00	7,589.09	17,347.49	8,862.04	81.31	80.56	135.26	-9,489.84	1,354.11	1,792.08	1,629.38	162.70	11.014		
16,800.00	7,589.09	17,447.49	8,862.04	82.00	81.25	135.26	-9,589.84	1,354.30	1,792.09	1,627.91	164.17	10.916		
16,900.00	7,589.08	17,547.49	8,862.04	82.68	81.95	135.26	-9,689.84	1,354.48	1,792.10	1,626.45	165.65	10.819		
17,000.00	7,589.08	17,647.49	8,862.04	83.37	82.64	135.26	-9,789.84	1,354.67	1,792.11	1,624.98	167.12	10.723		
17,100.00	7,589.08	17,747.49	8,862.04	84.06	83.34	135.26	-9,889.84	1,354.86	1,792.12	1,623.51	168.60	10.629		
17,200.00	7,589.07	17,847.49	8,862.03	84.75	84.04	135.26	-9,989.84	1,355.04	1,792.13	1,622.05	170.08	10.537		
17,300.00	7,589.07	17,947.49	8,862.03	85.44	84.74	135.26	-10,089.84	1,355.23	1,792.14	1,620.58	171.56	10.446		
17,400.00	7,589.06	18,047.49	8,862.03	86.13	85.44	135.26	-10,189.84	1,355.42	1,792.14	1,619.10	173.04	10.357		
17,500.00	7,589.06	18,147.49	8,862.03	86.83	86.14	135.26	-10,289.84	1,355.60	1,792.15	1,617.63	174.52	10.269		
17,600.00	7,589.06	18,247.49	8,862.03	87.52	86.84	135.26	-10,389.84	1,355.79	1,792.16	1,616.16	176.01	10.182		
17,700.00	7,589.05	18,347.49	8,862.02	88.22	87.55	135.26	-10,489.84	1,355.97	1,792.17	1,614.68	177.49	10.097		
17,800.00	7,589.05	18,447.49	8,862.02	88.91	88.25	135.26	-10,589.84	1,356.16	1,792.18	1,613.21	178.98	10.013		
17,900.00	7,589.04	18,547.49	8,862.02	89.61	88.96	135.26	-10,689.84	1,356.35	1,792.19	1,611.73	180.46	9.931		
18,000.00	7,589.04	18,647.49	8,862.02	90.31	89.66	135.26	-10,789.84	1,356.53	1,792.20	1,610.25	181.95	9.850		
18,100.00	7,589.03	18,747.49	8,862.02	91.01	90.37	135.26	-10,889.84	1,356.72	1,792.21	1,608.77	183.44	9.770		
18,200.00	7,589.03	18,847.49	8,862.01	91.71	91.08	135.26	-10,989.84	1,356.91	1,792.22	1,607.29	184.93	9.691		
18,300.00	7,589.03	18,947.49	8,862.01	92.42	91.79	135.26	-11,089.84	1,357.09	1,792.23	1,605.81	186.42	9.614		
18,400.00	7,589.02	19,047.49	8,862.01	93.12	92.50	135.26	-11,189.84	1,357.28	1,792.24	1,604.32	187.91	9.538		
18,500.00	7,589.02	19,147.49	8,862.01	93.82	93.21	135.26	-11,289.84	1,357.46	1,792.25	1,602.84	189.41	9.462		
18,600.00	7,589.01	19,247.49	8,862.01	94.53	93.92	135.26	-11,389.84	1,357.65	1,792.26	1,601.36	190.90	9.388		
18,700.00	7,589.01	19,347.49	8,862.00	95.23	94.63	135.26	-11,489.84	1,357.84	1,792.27	1,599.87	192.39	9.316		
18,800.00	7,589.01	19,447.49	8,862.00	95.94	95.35	135.26	-11,589.84	1,358.02	1,792.28	1,598.39	193.89	9.244		
18,900.00	7,589.00	19,547.49	8,862.00	96.65	96.06	135.26	-11,689.84	1,358.21	1,792.28	1,596.90	195.39	9.173		
18,917.19	7,589.00	19,548.26	8,862.00	96.77	96.14	135.26	-11,690.60	1,358.21	1,792.36	1,596.93	195.44	9.171		
18,917.96	7,589.00	19,548.26	8,862.00	97.01	96.14	135.26	-11,690.60	1,358.21	1,792.37	1,596.93	195.44	9.171		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS								Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)			
0.00	0.00	0.00	0.00	0.00	0.00	-88.90	0.77	-39.98	39.99							
100.00	100.00	100.00	100.00	0.28	0.28	-88.90	0.77	-39.98	39.99	39.44	0.55	72.435				
200.00	200.00	200.00	200.00	0.63	0.63	-88.90	0.77	-39.98	39.99	38.72	1.27	31.511				
300.00	300.00	300.00	300.00	0.99	0.99	-88.90	0.77	-39.98	39.99	38.00	1.99	20.135				
400.00	400.00	400.00	400.00	1.35	1.35	-88.90	0.77	-39.98	39.99	37.28	2.70	14.794				
500.00	500.00	500.00	500.00	1.71	1.71	-88.90	0.77	-39.98	39.99	36.57	3.42	11.693				
600.00	600.00	600.00	600.00	2.07	2.07	-88.90	0.77	-39.98	39.99	35.85	4.14	9.666				
700.00	700.00	700.00	700.00	2.43	2.43	-88.90	0.77	-39.98	39.99	35.13	4.85	8.239				
800.00	800.00	800.00	800.00	2.79	2.79	-88.90	0.77	-39.98	39.99	34.42	5.57	7.178				
900.00	900.00	900.00	900.00	3.14	3.14	-88.90	0.77	-39.98	39.99	33.70	6.29	6.360				
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.90	0.77	-39.98	39.99	32.98	7.00	5.709	CC, ES			
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	144.54	0.77	-39.98	41.40	33.69	7.71	5.371				
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	148.29	0.77	-39.98	45.76	37.36	8.40	5.448				
1,300.00	1,299.45	1,299.45	1,299.45	4.52	4.58	153.14	0.77	-39.98	53.38	44.28	9.09	5.869				
1,400.00	1,398.70	1,398.70	1,398.70	4.86	4.93	157.95	0.77	-39.98	64.49	54.70	9.79	6.586				
1,500.00	1,497.47	1,500.06	1,500.04	5.21	5.28	161.81	-0.31	-38.60	77.61	67.12	10.48	7.403				
1,600.00	1,595.62	1,601.97	1,601.80	5.56	5.62	164.55	-3.61	-34.37	90.91	79.75	11.16	8.149				
1,700.00	1,693.06	1,704.39	1,703.82	5.92	5.97	166.57	-9.18	-27.25	104.29	92.47	11.83	8.818				
1,800.00	1,790.08	1,807.55	1,806.17	6.28	6.32	167.99	-17.05	-17.17	115.99	103.49	12.50	9.281				
1,900.00	1,887.11	1,911.47	1,908.76	6.65	6.67	168.83	-27.27	-4.10	124.20	111.04	13.16	9.436				
2,000.00	1,984.14	2,015.89	2,011.16	7.02	7.04	169.26	-39.83	11.99	128.87	115.05	13.83	9.320				
2,100.00	2,081.17	2,120.53	2,112.96	7.39	7.40	169.35	-54.72	31.05	129.96	115.48	14.49	8.972				
2,200.00	2,178.20	2,221.83	2,210.85	7.76	7.76	169.22	-70.77	51.59	128.39	113.20	15.19	8.450				
2,300.00	2,275.23	2,321.82	2,307.42	8.14	8.12	169.07	-86.71	71.98	126.68	110.75	15.93	7.953				
2,400.00	2,372.26	2,421.80	2,404.00	8.52	8.49	168.92	-102.64	92.38	124.96	108.30	16.67	7.497				
2,500.00	2,469.29	2,521.79	2,500.58	8.90	8.86	168.77	-118.57	112.77	123.25	105.84	17.41	7.077				
2,600.00	2,566.32	2,621.77	2,597.16	9.28	9.23	168.61	-134.50	133.16	121.54	103.37	18.17	6.691				
2,700.00	2,663.35	2,721.76	2,693.74	9.67	9.60	168.44	-150.43	153.55	119.83	100.91	18.92	6.333				
2,800.00	2,760.38	2,821.74	2,790.31	10.05	9.98	168.27	-166.37	173.95	118.12	98.44	19.68	6.002				
2,900.00	2,857.41	2,921.73	2,886.89	10.44	10.36	168.10	-182.30	194.34	116.41	95.97	20.44	5.694				
3,000.00	2,954.44	3,021.71	2,983.47	10.83	10.74	167.92	-198.23	214.73	114.71	93.50	21.21	5.408				
3,100.00	3,051.47	3,121.70	3,080.05	11.22	11.12	167.73	-214.16	235.12	113.00	91.02	21.98	5.141				
3,200.00	3,148.50	3,221.68	3,176.63	11.60	11.50	167.54	-230.09	255.51	111.29	88.54	22.75	4.892				
3,300.00	3,245.53	3,321.67	3,273.20	11.99	11.89	167.34	-246.03	275.91	109.59	86.07	23.52	4.659				
3,400.00	3,342.56	3,421.65	3,369.78	12.38	12.28	167.14	-261.96	296.30	107.89	83.59	24.30	4.440				
3,500.00	3,439.59	3,521.63	3,466.36	12.77	12.66	166.93	-277.89	316.69	106.19	81.11	25.08	4.235				
3,600.00	3,536.62	3,621.62	3,562.94	13.17	13.05	166.72	-293.82	337.08	104.49	78.63	25.86	4.041				
3,700.00	3,633.65	3,721.60	3,659.52	13.56	13.44	166.49	-309.76	357.47	102.79	76.15	26.64	3.859				
3,800.00	3,730.68	3,821.59	3,756.09	13.95	13.83	166.26	-325.69	377.87	101.09	73.68	27.42	3.687				
3,900.00	3,827.71	3,921.57	3,852.67	14.34	14.22	166.02	-341.62	398.26	99.40	71.20	28.20	3.524				
4,000.00	3,924.74	4,021.56	3,949.25	14.74	14.61	165.77	-357.55	418.65	97.71	68.72	28.99	3.371				
4,100.00	4,021.77	4,121.54	4,045.83	15.13	15.01	165.52	-373.48	439.04	96.02	66.24	29.77	3.225				
4,200.00	4,118.79	4,221.53	4,142.40	15.52	15.40	165.25	-389.42	459.43	94.33	63.77	30.56	3.086				
4,300.00	4,215.82	4,321.51	4,238.98	15.92	15.79	164.98	-405.35	479.83	92.64	61.29	31.35	2.955				
4,400.00	4,312.85	4,421.50	4,335.56	16.31	16.19	164.69	-421.28	500.22	90.96	58.82	32.14	2.830				
4,500.00	4,409.88	4,521.48	4,432.14	16.70	16.58	164.40	-437.21	520.61	89.27	56.34	32.93	2.711				
4,600.00	4,506.91	4,621.47	4,528.72	17.10	16.98	164.09	-453.14	541.00	87.60	53.87	33.72	2.597				
4,700.00	4,603.94	4,721.45	4,625.29	17.49	17.37	163.77	-469.08	561.40	85.92	51.40	34.52	2.489				
4,800.00	4,700.97	4,821.44	4,721.87	17.89	17.77	163.44	-485.01	581.79	84.24	48.93	35.31	2.386				
4,900.00	4,798.00	4,921.42	4,818.45	18.28	18.17	163.10	-500.94	602.18	82.57	46.47	36.10	2.287				
5,000.00	4,895.03	5,021.41	4,915.03	18.68	18.56	162.74	-516.87	622.57	80.90	44.01	36.90	2.193				
5,100.00	4,992.06	5,121.39	5,011.61	19.07	18.96	162.36	-532.80	642.96	79.24	41.55	37.69	2.102				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,180.71	5,070.37	5,200.77	5,088.39	19.39	19.28	162.16	-545.18	658.81	78.34	39.97	38.36	2.042	
5,200.00	5,089.09	5,219.57	5,106.66	19.47	19.35	162.17	-547.94	662.35	78.40	39.88	38.53	2.035	SF
5,300.00	5,186.12	5,318.49	5,203.05	19.87	19.73	162.59	-561.57	679.84	80.12	40.80	39.32	2.038	
5,400.00	5,283.15	5,418.47	5,300.55	20.26	20.12	163.05	-575.17	697.30	82.13	42.03	40.10	2.048	
5,500.00	5,380.18	5,518.44	5,398.04	20.66	20.51	163.49	-588.78	714.76	84.15	43.26	40.89	2.058	
5,600.00	5,477.21	5,618.42	5,495.54	21.06	20.90	163.91	-602.38	732.21	86.17	44.50	41.67	2.068	
5,700.00	5,574.24	5,718.40	5,593.04	21.45	21.29	164.31	-615.98	749.67	88.20	45.75	42.45	2.078	
5,800.00	5,671.27	5,818.38	5,690.54	21.85	21.68	164.69	-629.58	767.13	90.23	46.99	43.23	2.087	
5,900.00	5,768.30	5,918.35	5,788.04	22.24	22.07	165.05	-643.18	784.59	92.26	48.24	44.02	2.096	
6,000.00	5,865.33	6,018.33	5,885.53	22.64	22.46	165.40	-656.78	802.04	94.30	49.50	44.80	2.105	
6,100.00	5,962.36	6,118.31	5,983.03	23.04	22.85	165.74	-670.38	819.50	96.34	50.75	45.58	2.113	
6,200.00	6,059.39	6,218.29	6,080.53	23.44	23.24	166.06	-683.98	836.96	98.38	52.02	46.37	2.122	
6,300.00	6,156.42	6,318.26	6,178.03	23.83	23.63	166.36	-697.58	854.41	100.43	53.28	47.15	2.130	
6,400.00	6,253.45	6,418.24	6,275.52	24.23	24.02	166.66	-711.18	871.87	102.48	54.54	47.93	2.138	
6,500.00	6,350.47	6,518.22	6,373.02	24.63	24.41	166.94	-724.78	889.33	104.53	55.81	48.72	2.146	
6,600.00	6,447.50	6,618.20	6,470.52	25.02	24.81	167.22	-738.38	906.79	106.58	57.08	49.50	2.153	
6,700.00	6,544.53	6,718.17	6,568.02	25.42	25.20	167.48	-751.98	924.24	108.64	58.35	50.29	2.160	
6,800.00	6,641.56	6,818.15	6,665.51	25.82	25.59	167.73	-765.58	941.70	110.70	59.63	51.07	2.168	
6,900.00	6,738.59	6,918.13	6,763.01	26.22	25.98	167.97	-779.18	959.16	112.76	60.91	51.86	2.175	
7,000.00	6,835.62	7,018.11	6,860.51	26.61	26.37	168.21	-792.78	976.61	114.83	62.18	52.64	2.181	
7,100.00	6,932.65	7,118.09	6,958.01	27.01	26.76	168.44	-806.38	994.07	116.89	63.46	53.43	2.188	
7,200.00	7,029.68	7,218.06	7,055.51	27.41	27.15	168.65	-819.98	1,011.53	118.96	64.75	54.21	2.194	
7,300.00	7,126.71	7,318.04	7,153.00	27.81	27.54	168.87	-833.58	1,028.99	121.03	66.03	55.00	2.201	
7,309.09	7,135.53	7,327.13	7,161.87	27.84	27.58	168.88	-834.82	1,030.57	121.21	66.15	55.07	2.201	
7,350.00	7,174.84	7,367.96	7,201.69	28.01	27.74	169.05	-840.38	1,037.70	123.49	68.10	55.39	2.229	
7,400.00	7,221.63	7,417.49	7,249.98	28.22	27.93	169.51	-847.11	1,046.35	130.16	74.37	55.79	2.333	
7,450.00	7,266.71	7,466.23	7,297.51	28.44	28.12	170.14	-853.74	1,054.86	141.07	84.88	56.19	2.511	
7,500.00	7,309.74	7,513.82	7,343.92	28.67	28.31	170.86	-860.22	1,063.17	156.16	99.58	56.58	2.760	
7,550.00	7,350.39	7,559.89	7,388.86	28.91	28.49	171.57	-866.49	1,071.22	175.33	118.37	56.97	3.078	
7,600.00	7,388.34	7,604.11	7,431.98	29.15	28.66	172.21	-872.50	1,078.94	198.46	141.12	57.34	3.461	
7,650.00	7,423.32	7,646.12	7,472.95	29.40	28.83	172.75	-878.22	1,086.27	225.38	167.67	57.70	3.906	
7,700.00	7,455.05	7,685.62	7,511.46	29.65	28.98	173.18	-883.59	1,093.17	255.87	197.82	58.05	4.408	
7,750.00	7,483.30	7,722.29	7,547.22	29.90	29.12	173.47	-888.58	1,099.57	289.71	231.34	58.36	4.964	
7,800.00	7,507.84	7,755.86	7,579.97	30.15	29.26	173.63	-893.14	1,105.43	326.63	267.98	58.65	5.569	
7,850.00	7,528.50	7,786.08	7,609.43	30.41	29.37	173.63	-897.26	1,110.71	366.36	307.44	58.91	6.219	
7,900.00	7,545.11	7,812.72	7,635.41	30.66	29.48	173.45	-900.88	1,115.36	408.58	349.44	59.14	6.909	
7,919.09	7,550.36	7,821.90	7,644.36	30.75	29.51	173.31	-902.13	1,116.96	425.29	366.07	59.22	7.181	
8,000.00	7,568.52	7,857.06	7,678.65	31.16	29.65	173.39	-906.91	1,123.10	498.05	438.54	59.51	8.369	
8,100.00	7,583.22	7,893.28	7,713.97	31.66	29.79	173.03	-911.84	1,129.43	591.14	531.33	59.80	9.885	
8,200.00	7,589.24	7,921.24	7,741.24	32.17	29.90	171.91	-915.64	1,134.31	687.05	627.02	60.03	11.445	
8,219.09	7,589.40	7,925.62	7,745.51	32.26	29.92	171.55	-916.24	1,135.08	705.62	645.56	60.07	11.748	
8,300.00	7,589.40	7,943.53	7,762.98	32.67	29.99	172.39	-918.67	1,138.20	784.48	724.28	60.21	13.030	
8,400.00	7,589.40	8,961.86	8,381.83	33.21	34.73	176.29	-1,366.55	1,665.75	812.76	772.56	40.20	20.218	
8,444.09	7,589.40	9,010.92	8,391.07	33.45	34.98	175.51	-1,404.50	1,695.43	822.03	781.54	40.49	20.302	
8,500.00	7,589.40	9,072.18	8,401.69	33.76	35.28	174.08	-1,453.68	1,730.36	833.40	792.43	40.98	20.339	
8,600.00	7,589.40	9,179.36	8,417.71	34.34	35.81	171.44	-1,544.15	1,785.48	852.72	810.58	42.15	20.233	
8,700.00	7,589.40	9,283.12	8,429.99	34.92	36.31	168.75	-1,636.44	1,831.19	870.96	827.27	43.70	19.932	
8,800.00	7,589.40	9,383.17	8,438.75	35.52	36.77	166.02	-1,729.11	1,867.78	888.41	842.81	45.59	19.486	
8,900.00	7,589.40	9,479.35	8,444.24	36.12	37.19	163.28	-1,820.94	1,895.77	905.32	857.55	47.77	18.953	
9,000.00	7,589.40	9,571.61	8,446.78	36.73	37.57	160.56	-1,910.93	1,915.81	921.96	871.81	50.15	18.386	
9,100.00	7,589.40	9,656.19	8,447.04	37.33	37.90	157.99	-1,994.52	1,928.66	938.64	886.01	52.63	17.833	
9,200.00	7,589.40	9,736.61	8,447.00	37.92	38.21	155.66	-2,074.37	1,938.21	955.86	900.83	55.03	17.371	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error: 0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance			Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,300.00	7,589.39	9,816.89	8,446.94	38.51	38.51	153.50	-2,154.32	1,945.50	973.38	916.11	57.27	16.995	
9,400.00	7,589.39	9,900.00	8,446.84	39.09	38.83	151.44	-2,237.26	1,950.69	990.92	931.53	59.39	16.686	
9,500.00	7,589.39	9,977.12	8,446.71	39.65	39.12	149.66	-2,314.33	1,953.36	1,008.20	946.86	61.34	16.435	
9,600.00	7,589.39	10,061.68	8,446.54	40.19	39.43	147.92	-2,398.89	1,954.03	1,024.96	961.76	63.20	16.219	
9,700.00	7,589.38	10,157.92	8,446.34	40.72	39.80	146.30	-2,495.13	1,954.18	1,039.91	974.94	64.97	16.007	
9,800.00	7,589.38	10,255.45	8,446.13	41.23	40.17	145.01	-2,592.65	1,954.33	1,052.39	985.79	66.60	15.801	
9,900.00	7,589.38	10,353.99	8,445.93	41.72	40.56	144.02	-2,691.20	1,954.48	1,062.13	994.01	68.12	15.592	
10,000.00	7,589.37	10,453.29	8,445.72	42.18	40.97	143.34	-2,790.50	1,954.63	1,068.95	999.42	69.53	15.374	
10,100.00	7,589.37	10,553.07	8,445.51	42.63	41.38	142.97	-2,890.28	1,954.78	1,072.69	1,001.86	70.84	15.143	
10,173.66	7,589.36	10,626.70	8,445.35	42.94	41.69	142.88	-2,963.91	1,954.89	1,073.45	1,001.71	71.74	14.964	
10,200.00	7,589.36	10,653.05	8,445.30	43.05	41.81	142.88	-2,990.26	1,954.93	1,073.41	1,001.36	72.05	14.898	
10,300.00	7,589.36	10,753.05	8,445.09	43.47	42.24	142.87	-3,090.26	1,955.08	1,073.28	1,000.03	73.25	14.653	
10,400.00	7,589.36	10,853.05	8,444.88	43.90	42.69	142.86	-3,190.25	1,955.23	1,073.14	998.68	74.46	14.413	
10,500.00	7,589.35	10,953.05	8,444.67	44.33	43.14	142.86	-3,290.25	1,955.38	1,073.00	997.32	75.68	14.178	
10,600.00	7,589.35	11,053.05	8,444.46	44.78	43.60	142.85	-3,390.25	1,955.53	1,072.87	995.95	76.92	13.949	
10,700.00	7,589.34	11,153.05	8,444.25	45.23	44.07	142.84	-3,490.25	1,955.69	1,072.73	994.57	78.16	13.724	
10,800.00	7,589.34	11,253.05	8,444.04	45.69	44.54	142.83	-3,590.25	1,955.84	1,072.59	993.17	79.42	13.505	
10,900.00	7,589.33	11,353.05	8,443.83	46.16	45.03	142.82	-3,690.25	1,955.99	1,072.46	991.77	80.69	13.291	
11,000.00	7,589.33	11,453.05	8,443.62	46.64	45.52	142.81	-3,790.25	1,956.14	1,072.32	990.35	81.97	13.082	
11,100.00	7,589.33	11,553.05	8,443.41	47.12	46.02	142.80	-3,890.25	1,956.29	1,072.18	988.93	83.26	12.878	
11,200.00	7,589.32	11,653.05	8,443.20	47.61	46.52	142.80	-3,990.25	1,956.44	1,072.05	987.50	84.55	12.679	
11,300.00	7,589.32	11,753.05	8,442.99	48.11	47.03	142.79	-4,090.25	1,956.59	1,071.91	986.05	85.86	12.485	
11,400.00	7,589.31	11,853.05	8,442.78	48.61	47.55	142.78	-4,190.25	1,956.75	1,071.78	984.60	87.17	12.295	
11,500.00	7,589.31	11,953.05	8,442.57	49.12	48.08	142.77	-4,290.25	1,956.90	1,071.64	983.15	88.49	12.110	
11,600.00	7,589.31	12,053.05	8,442.35	49.64	48.61	142.76	-4,390.25	1,957.05	1,071.50	981.68	89.82	11.929	
11,700.00	7,589.30	12,153.04	8,442.14	50.16	49.15	142.75	-4,490.25	1,957.20	1,071.37	980.21	91.16	11.753	
11,800.00	7,589.30	12,253.04	8,441.93	50.69	49.69	142.74	-4,590.25	1,957.35	1,071.23	978.73	92.50	11.581	
11,900.00	7,589.29	12,353.04	8,441.72	51.23	50.24	142.74	-4,690.25	1,957.50	1,071.09	977.24	93.85	11.413	
12,000.00	7,589.29	12,453.04	8,441.51	51.77	50.79	142.73	-4,790.25	1,957.66	1,070.96	975.75	95.21	11.249	
12,100.00	7,589.28	12,553.04	8,441.30	52.31	51.35	142.72	-4,890.25	1,957.81	1,070.82	974.25	96.57	11.088	
12,200.00	7,589.28	12,653.04	8,441.09	52.86	51.92	142.71	-4,990.24	1,957.96	1,070.69	972.75	97.94	10.932	
12,300.00	7,589.28	12,753.04	8,440.88	53.42	52.48	142.70	-5,090.24	1,958.11	1,070.55	971.24	99.31	10.780	
12,400.00	7,589.27	12,853.04	8,440.67	53.98	53.06	142.69	-5,190.24	1,958.26	1,070.41	969.72	100.69	10.631	
12,500.00	7,589.27	12,953.04	8,440.46	54.55	53.64	142.68	-5,290.24	1,958.41	1,070.28	968.20	102.08	10.485	
12,600.00	7,589.26	13,053.04	8,440.25	55.12	54.22	142.68	-5,390.24	1,958.56	1,070.14	966.68	103.47	10.343	
12,700.00	7,589.26	13,153.04	8,440.04	55.70	54.81	142.67	-5,490.24	1,958.72	1,070.01	965.15	104.86	10.204	
12,800.00	7,589.26	13,253.04	8,439.83	56.28	55.40	142.66	-5,590.24	1,958.87	1,069.87	963.61	106.26	10.069	
12,900.00	7,589.25	13,353.04	8,439.62	56.86	55.99	142.65	-5,690.24	1,959.02	1,069.73	962.07	107.66	9.936	
13,000.00	7,589.25	13,453.04	8,439.41	57.45	56.59	142.64	-5,790.24	1,959.17	1,069.60	960.53	109.07	9.807	
13,100.00	7,589.24	13,553.04	8,439.20	58.04	57.20	142.63	-5,890.24	1,959.32	1,069.46	958.98	110.48	9.680	
13,200.00	7,589.24	13,653.04	8,438.99	58.64	57.81	142.62	-5,990.24	1,959.47	1,069.33	957.43	111.89	9.557	
13,300.00	7,589.23	13,753.04	8,438.78	59.24	58.42	142.61	-6,090.24	1,959.63	1,069.19	955.88	113.31	9.436	
13,400.00	7,589.23	13,853.04	8,438.57	59.84	59.03	142.61	-6,190.24	1,959.78	1,069.06	954.32	114.73	9.318	
13,500.00	7,589.23	13,953.04	8,438.36	60.45	59.65	142.60	-6,290.24	1,959.93	1,068.92	952.76	116.16	9.202	
13,600.00	7,589.22	14,053.04	8,438.15	61.06	60.27	142.59	-6,390.24	1,960.08	1,068.78	951.19	117.59	9.089	
13,700.00	7,589.22	14,153.04	8,437.94	61.68	60.89	142.58	-6,490.24	1,960.23	1,068.65	949.63	119.02	8.979	
13,800.00	7,589.21	14,253.04	8,437.73	62.30	61.52	142.57	-6,590.24	1,960.38	1,068.51	948.06	120.46	8.870	
13,900.00	7,589.21	14,353.04	8,437.52	62.92	62.15	142.56	-6,690.24	1,960.53	1,068.38	946.48	121.90	8.765	
14,000.00	7,589.21	14,453.04	8,437.31	63.54	62.78	142.55	-6,790.23	1,960.69	1,068.24	944.90	123.34	8.661	
14,100.00	7,589.20	14,553.04	8,437.10	64.17	63.42	142.55	-6,890.23	1,960.84	1,068.11	943.32	124.78	8.560	
14,200.00	7,589.20	14,653.04	8,436.89	64.80	64.06	142.54	-6,990.23	1,960.99	1,067.97	941.74	126.23	8.461	
14,300.00	7,589.19	14,753.04	8,436.68	65.43	64.70	142.53	-7,090.23	1,961.14	1,067.83	940.16	127.68	8.364	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,400.00	7,589.19	14,853.04	8,436.47	66.07	65.35	142.52	-7,190.23	1,961.29	1,067.70	938.57	129.13	8.268	
14,500.00	7,589.18	14,953.04	8,436.26	66.71	65.99	142.51	-7,290.23	1,961.44	1,067.56	936.98	130.58	8.175	
14,600.00	7,589.18	15,053.04	8,436.05	67.35	66.64	142.50	-7,390.23	1,961.59	1,067.43	935.39	132.04	8.084	
14,700.00	7,589.18	15,153.04	8,435.84	67.99	67.29	142.49	-7,490.23	1,961.75	1,067.29	933.79	133.50	7.995	
14,800.00	7,589.17	15,253.04	8,435.63	68.64	67.95	142.48	-7,590.23	1,961.90	1,067.16	932.20	134.96	7.907	
14,900.00	7,589.17	15,353.04	8,435.42	69.29	68.60	142.48	-7,690.23	1,962.05	1,067.02	930.60	136.42	7.821	
15,000.00	7,589.16	15,453.04	8,435.21	69.94	69.26	142.47	-7,790.23	1,962.20	1,066.89	929.00	137.89	7.737	
15,100.00	7,589.16	15,553.04	8,435.00	70.59	69.92	142.46	-7,890.23	1,962.35	1,066.75	927.40	139.36	7.655	
15,200.00	7,589.16	15,653.04	8,434.79	71.25	70.58	142.45	-7,990.23	1,962.50	1,066.62	925.79	140.82	7.574	
15,300.00	7,589.15	15,753.04	8,434.58	71.91	71.25	142.44	-8,090.23	1,962.66	1,066.48	924.18	142.30	7.495	
15,400.00	7,589.15	15,853.04	8,434.37	72.57	71.92	142.43	-8,190.23	1,962.81	1,066.34	922.58	143.77	7.417	
15,500.00	7,589.14	15,953.04	8,434.16	73.23	72.58	142.42	-8,290.23	1,962.96	1,066.21	920.97	145.24	7.341	
15,600.00	7,589.14	16,053.04	8,433.95	73.89	73.25	142.42	-8,390.23	1,963.11	1,066.07	919.36	146.72	7.266	
15,700.00	7,589.13	16,153.04	8,433.74	74.56	73.93	142.41	-8,490.23	1,963.26	1,065.94	917.74	148.20	7.193	
15,800.00	7,589.13	16,253.04	8,433.53	75.23	74.60	142.40	-8,590.22	1,963.41	1,065.80	916.13	149.68	7.121	
15,900.00	7,589.13	16,353.04	8,433.32	75.90	75.28	142.39	-8,690.22	1,963.56	1,065.67	914.51	151.16	7.050	
16,000.00	7,589.12	16,453.04	8,433.11	76.57	75.95	142.38	-8,790.22	1,963.72	1,065.53	912.89	152.64	6.981	
16,100.00	7,589.12	16,553.04	8,432.90	77.24	76.63	142.37	-8,890.22	1,963.87	1,065.40	911.27	154.12	6.913	
16,200.00	7,589.11	16,653.03	8,432.69	77.92	77.31	142.36	-8,990.22	1,964.02	1,065.26	909.65	155.61	6.846	
16,300.00	7,589.11	16,753.03	8,432.48	78.59	77.99	142.35	-9,090.22	1,964.17	1,065.13	908.03	157.10	6.780	
16,400.00	7,589.11	16,853.03	8,432.27	79.27	78.68	142.35	-9,190.22	1,964.32	1,064.99	906.41	158.58	6.716	
16,500.00	7,589.10	16,953.03	8,432.06	79.95	79.36	142.34	-9,290.22	1,964.47	1,064.86	904.78	160.07	6.652	
16,600.00	7,589.10	17,053.03	8,431.85	80.63	80.05	142.33	-9,390.22	1,964.63	1,064.72	903.16	161.56	6.590	
16,700.00	7,589.09	17,153.03	8,431.64	81.31	80.74	142.32	-9,490.22	1,964.78	1,064.59	901.53	163.06	6.529	
16,800.00	7,589.09	17,253.03	8,431.43	82.00	81.43	142.31	-9,590.22	1,964.93	1,064.45	899.90	164.55	6.469	
16,900.00	7,589.08	17,353.03	8,431.22	82.68	82.12	142.30	-9,690.22	1,965.08	1,064.32	898.27	166.04	6.410	
17,000.00	7,589.08	17,453.03	8,431.01	83.37	82.81	142.29	-9,790.22	1,965.23	1,064.18	896.64	167.54	6.352	
17,100.00	7,589.08	17,553.03	8,430.80	84.06	83.50	142.28	-9,890.22	1,965.38	1,064.05	895.01	169.04	6.295	
17,200.00	7,589.07	17,653.03	8,430.59	84.75	84.19	142.28	-9,990.22	1,965.53	1,063.91	893.38	170.53	6.239	
17,300.00	7,589.07	17,753.03	8,430.38	85.44	84.89	142.27	-10,090.22	1,965.69	1,063.78	891.75	172.03	6.184	
17,400.00	7,589.06	17,853.03	8,430.17	86.13	85.59	142.26	-10,190.22	1,965.84	1,063.64	890.11	173.53	6.129	
17,500.00	7,589.06	17,953.03	8,429.96	86.83	86.28	142.25	-10,290.22	1,965.99	1,063.51	888.48	175.03	6.076	
17,600.00	7,589.06	18,053.03	8,429.75	87.52	86.98	142.24	-10,390.21	1,966.14	1,063.37	886.84	176.54	6.024	
17,700.00	7,589.05	18,153.03	8,429.54	88.22	87.68	142.23	-10,490.21	1,966.29	1,063.24	885.20	178.04	5.972	
17,800.00	7,589.05	18,253.03	8,429.33	88.91	88.38	142.22	-10,590.21	1,966.44	1,063.11	883.56	179.54	5.921	
17,900.00	7,589.04	18,353.03	8,429.12	89.61	89.09	142.21	-10,690.21	1,966.59	1,062.97	881.92	181.05	5.871	
18,000.00	7,589.04	18,453.03	8,428.91	90.31	89.79	142.21	-10,790.21	1,966.75	1,062.84	880.28	182.55	5.822	
18,100.00	7,589.03	18,553.03	8,428.70	91.01	90.49	142.20	-10,890.21	1,966.90	1,062.70	878.64	184.06	5.774	
18,200.00	7,589.03	18,653.03	8,428.49	91.71	91.20	142.19	-10,990.21	1,967.05	1,062.57	877.00	185.56	5.726	
18,300.00	7,589.03	18,753.03	8,428.28	92.42	91.90	142.18	-11,090.21	1,967.20	1,062.43	875.36	187.07	5.679	
18,400.00	7,589.02	18,853.03	8,428.07	93.12	92.61	142.17	-11,190.21	1,967.35	1,062.30	873.72	188.58	5.633	
18,500.00	7,589.02	18,953.03	8,427.86	93.82	93.32	142.16	-11,290.21	1,967.50	1,062.16	872.07	190.09	5.588	
18,600.00	7,589.01	19,053.03	8,427.64	94.53	94.03	142.15	-11,390.21	1,967.66	1,062.03	870.43	191.60	5.543	
18,700.00	7,589.01	19,153.03	8,427.43	95.23	94.74	142.14	-11,490.21	1,967.81	1,061.89	868.78	193.11	5.499	
18,800.00	7,589.01	19,253.03	8,427.22	95.94	95.45	142.14	-11,590.21	1,967.96	1,061.76	867.14	194.62	5.455	
18,900.00	7,589.00	19,353.03	8,427.01	96.65	96.16	142.13	-11,690.21	1,968.11	1,061.63	865.49	196.13	5.413	
18,908.23	7,589.00	19,359.83	8,427.00	96.71	96.21	142.13	-11,697.01	1,968.12	1,061.61	865.38	196.24	5.410	
18,917.19	7,589.00	19,359.83	8,427.00	96.77	96.21	142.13	-11,697.01	1,968.12	1,061.65	865.43	196.22	5.410	
18,917.96	7,589.00	19,359.83	8,427.00	97.01	96.21	142.13	-11,697.01	1,968.12	1,061.66	865.43	196.23	5.410	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS		Offset Site Error:		0.00 usft	
Reference		Offset		Offset Well Error:		0.00 usft	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Semi Major Axis Reference	Offset	Highside Toolface	Offset Wellbore Centre
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)
							+E/-W (usft)
							Distance
							Between Centres (usft)
							Between Ellipses (usft)
							Minimum Separation (usft)
							Separation Factor
							Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.88	0.39
100.00	100.00	100.00	100.00	0.28	0.28	-88.88	-19.99
200.00	200.00	200.00	200.00	0.63	0.63	-88.88	19.99
300.00	300.00	300.00	300.00	0.99	0.99	-88.88	19.99
400.00	400.00	400.00	400.00	1.35	1.35	-88.88	19.99
500.00	500.00	500.00	500.00	1.71	1.71	-88.88	19.99
600.00	600.00	600.00	600.00	2.07	2.07	-88.88	19.99
700.00	700.00	700.00	700.00	2.43	2.43	-88.88	19.99
800.00	800.00	800.00	800.00	2.79	2.79	-88.88	19.99
900.00	900.00	900.00	900.00	3.14	3.14	-88.88	19.99
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.88	19.99
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	145.90	21.42
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	152.36	25.92
1,300.00	1,299.45	1,300.57	1,300.55	4.52	4.57	158.53	32.18
1,400.00	1,398.70	1,401.55	1,401.38	4.86	4.91	163.37	38.56
1,500.00	1,497.47	1,502.76	1,502.20	5.21	5.25	167.43	45.02
1,600.00	1,595.62	1,604.21	1,602.87	5.56	5.60	171.01	51.55
1,700.00	1,693.06	1,705.89	1,703.27	5.92	5.95	174.27	58.17
1,800.00	1,790.08	1,807.88	1,803.33	6.28	6.31	177.22	63.14
1,900.00	1,887.11	1,907.84	1,901.03	6.65	6.66	179.85	66.39
2,000.00	1,984.14	2,007.74	1,998.67	7.02	7.02	-177.76	72.19
2,100.00	2,081.17	2,107.64	2,096.32	7.39	7.38	-175.60	73.26
2,200.00	2,178.20	2,207.55	2,193.96	7.76	7.75	-173.65	76.85
2,300.00	2,275.23	2,307.45	2,291.61	8.14	8.11	-171.86	80.52
2,400.00	2,372.26	2,407.35	2,389.25	8.52	8.48	-170.24	84.26
2,500.00	2,469.29	2,507.25	2,486.90	8.90	8.85	-168.75	88.06
2,600.00	2,566.32	2,607.16	2,584.54	9.28	9.22	-167.38	91.91
2,700.00	2,663.35	2,707.06	2,682.19	9.67	9.59	-166.13	95.81
2,800.00	2,760.38	2,806.96	2,779.83	10.05	9.97	-164.98	99.76
2,900.00	2,857.41	2,906.86	2,877.48	10.44	10.34	-163.91	103.74
3,000.00	2,954.44	3,006.77	2,975.12	10.83	10.72	-162.92	107.76
3,100.00	3,051.47	3,106.67	3,072.77	11.22	11.10	-162.01	111.80
3,200.00	3,148.50	3,206.57	3,170.41	11.60	11.48	-161.16	115.87
3,300.00	3,245.53	3,306.48	3,268.06	11.99	11.85	-160.36	119.97
3,400.00	3,342.56	3,406.38	3,365.70	12.38	12.23	-159.62	124.08
3,500.00	3,439.59	3,506.28	3,463.35	12.77	12.61	-158.93	128.22
3,600.00	3,536.62	3,606.18	3,561.00	13.17	12.99	-158.28	132.37
3,700.00	3,633.65	3,706.09	3,658.64	13.56	13.38	-157.67	136.54
3,800.00	3,730.68	3,805.99	3,756.29	13.95	13.76	-157.09	140.73
3,900.00	3,827.71	3,905.89	3,853.93	14.34	14.14	-156.55	144.93
4,000.00	3,924.74	4,005.80	3,951.58	14.74	14.52	-156.04	149.14
4,100.00	4,021.77	4,105.70	4,049.22	15.13	14.90	-155.56	153.36
4,200.00	4,118.79	4,205.60	4,146.87	15.52	15.29	-155.10	157.59
4,300.00	4,215.82	4,305.50	4,244.51	15.92	15.67	-154.67	161.83
4,400.00	4,312.85	4,405.41	4,342.16	16.31	16.05	-154.26	166.08
4,500.00	4,409.88	4,505.31	4,439.80	16.70	16.44	-153.87	170.34
4,600.00	4,506.91	4,605.21	4,537.45	17.10	16.82	-153.49	174.60
4,700.00	4,603.94	4,705.11	4,635.09	17.49	17.21	-153.14	178.87
4,800.00	4,700.97	4,805.02	4,732.74	17.89	17.59	-152.80	183.15
4,900.00	4,798.00	4,904.92	4,830.38	18.28	17.98	-152.48	187.44
5,000.00	4,895.03	5,004.82	4,928.03	18.68	18.36	-152.18	191.73
5,100.00	4,992.06	5,104.73	5,025.67	19.07	18.75	-151.88	196.02

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS		Offset Site Error:		0.00 usft	
Reference		Offset		Offset Well Error:		0.00 usft	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Semi Major Axis Reference	Offset	Highside Toolface	Offset Wellbore Centre
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)
							+E/-W (usft)
							Distance
							Between Centres (usft)
							Between Ellipses (usft)
							Minimum Separation (usft)
							Separation Factor
							Warning
9,400.00	7,589.39	10,789.77	8,887.47	39.09	41.96	173.69	-2,271.55
9,500.00	7,589.39	10,884.93	8,887.47	39.65	42.48	173.93	-2,357.85
9,600.00	7,589.39	10,980.18	8,887.47	40.19	43.00	174.26	-2,445.50
9,700.00	7,589.38	11,075.54	8,887.47	40.72	43.51	174.67	-2,534.46
9,800.00	7,589.38	11,171.04	8,887.47	41.23	44.02	175.16	-2,624.64
9,900.00	7,589.38	11,266.71	8,887.46	41.72	44.53	175.74	-2,715.97
10,000.00	7,589.37	11,362.57	8,887.46	42.18	45.03	176.40	-2,808.40
10,100.00	7,589.37	11,458.66	8,887.46	42.63	45.52	177.13	-2,901.84
10,173.66	7,589.36	11,529.60	8,887.45	42.94	45.88	177.73	-2,971.28
10,200.00	7,589.36	11,555.04	8,887.45	43.05	46.01	177.93	-2,996.27
10,300.00	7,589.36	11,652.34	8,887.45	43.47	46.49	178.64	-3,092.20
10,400.00	7,589.36	11,750.64	8,887.44	43.90	46.97	179.21	-3,189.62
10,500.00	7,589.35	11,849.73	8,887.44	44.33	47.44	179.63	-3,288.22
10,600.00	7,589.35	11,949.36	8,887.43	44.78	47.90	179.91	-3,387.64
10,700.00	7,589.34	12,049.30	8,887.43	45.23	48.35	-179.97	-3,487.53
10,800.00	7,589.34	12,149.31	8,887.42	45.69	48.79	-179.96	-3,587.54
10,900.00	7,589.33	12,249.31	8,887.42	46.16	49.24	-179.96	-3,687.54
11,000.00	7,589.33	12,349.31	8,887.41	46.64	49.69	-179.97	-3,787.54
11,100.00	7,589.33	12,449.31	8,887.41	47.12	50.15	-179.97	-3,887.54
11,200.00	7,589.32	12,549.31	8,887.40	47.61	50.62	-179.97	-3,987.54
11,300.00	7,589.32	12,649.31	8,887.40	48.11	51.10	-179.97	-4,087.54
11,400.00	7,589.31	12,749.31	8,887.39	48.61	51.58	-179.97	-4,187.54
11,500.00	7,589.31	12,849.31	8,887.39	49.12	52.06	-179.97	-4,287.54
11,600.00	7,589.31	12,949.31	8,887.38	49.64	52.56	-179.97	-4,387.54
11,700.00	7,589.30	13,049.31	8,887.38	50.16	53.06	-179.97	-4,487.54
11,800.00	7,589.30	13,149.31	8,887.37	50.69	53.56	-179.97	-4,587.54
11,900.00	7,589.29	13,249.31	8,887.37	51.23	54.08	-179.97	-4,687.54
12,000.00	7,589.29	13,349.31	8,887.36	51.77	54.59	-179.97	-4,787.54
12,100.00	7,589.28	13,449.31	8,887.36	52.31	55.12	-179.97	-4,887.54
12,200.00	7,589.28	13,549.31	8,887.35	52.86	55.64	-179.97	-4,987.54
12,300.00	7,589.28	13,649.31	8,887.35	53.42	56.18	-179.97	-5,087.54
12,400.00	7,589.27	13,749.31	8,887.34	53.98	56.72	-179.97	-5,187.54
12,500.00	7,589.27	13,849.31	8,887.34	54.55	57.26	-179.97	-5,287.54
12,600.00	7,589.26	13,949.31	8,887.33	55.12	57.81	-179.97	-5,387.54
12,700.00	7,589.26	14,049.31	8,887.33	55.70	58.36	-179.97	-5,487.54
12,800.00	7,589.26	14,149.31	8,887.32	56.28	58.92	-179.97	-5,587.54
12,900.00	7,589.25	14,249.31	8,887.31	56.86	59.48	-179.97	-5,687.54
13,000.00	7,589.25	14,349.31	8,887.31	57.45	60.05	-179.97	-5,787.54
13,100.00	7,589.24	14,449.31	8,887.30	58.04	60.62	-179.97	-5,887.54
13,200.00	7,589.24	14,549.31	8,887.30	58.64	61.19	-179.98	-5,987.54
13,300.00	7,589.23	14,649.31	8,887.29	59.24	61.77	-179.98	-6,087.54
13,400.00	7,589.23	14,749.31	8,887.29	59.84	62.36	-179.98	-6,187.54
13,500.00	7,589.23	14,849.31	8,887.28	60.45	62.94	-179.98	-6,287.54
13,600.00	7,589.22	14,949.31	8,887.28	61.06	63.53	-179.98	-6,387.54
13,700.00	7,589.22	15,049.31	8,887.27	61.68	64.13	-179.98	-6,487.54
13,800.00	7,589.21	15,149.31	8,887.27	62.30	64.72	-179.98	-6,587.54
13,900.00	7,589.21	15,249.31	8,887.26	62.92	65.32	-179.98	-6,687.54
14,000.00	7,589.21	15,349.31	8,887.26	63.54	65.93	-179.98	-6,787.54
14,100.00	7,589.20	15,449.31	8,887.25	64.17	66.54	-179.98	-6,887.54
14,200.00	7,589.20	15,549.31	8,887.25	64.80	67.15	-179.98	-6,987.54
14,300.00	7,589.19	15,649.31	8,887.24	65.43	67.76	-179.98	-7,087.53
14,400.00	7,589.19	15,749.31	8,887.24	66.07	68.38	-179.98	-7,187.53

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS				Rule Assigned:						Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Separation	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Factor	
14,500.00	7,589.18	15,849.31	8,887.23	66.71	69.00	-179.98	-7,287.53	2,611.61	1,298.05	1,180.73	117.32	11.064	
14,600.00	7,589.18	15,949.31	8,887.23	67.35	69.62	-179.98	-7,387.53	2,611.80	1,298.05	1,179.21	118.84	10.923	
14,700.00	7,589.18	16,049.31	8,887.22	67.99	70.25	-179.98	-7,487.53	2,611.98	1,298.04	1,177.69	120.36	10.785	
14,800.00	7,589.17	16,149.31	8,887.22	68.64	70.87	-179.98	-7,587.53	2,612.17	1,298.04	1,176.16	121.88	10.650	
14,900.00	7,589.17	16,249.31	8,887.21	69.29	71.50	-179.98	-7,687.53	2,612.36	1,298.04	1,174.64	123.40	10.519	
15,000.00	7,589.16	16,349.31	8,887.20	69.94	72.14	-179.98	-7,787.53	2,612.55	1,298.04	1,173.12	124.92	10.391	
15,100.00	7,589.16	16,449.31	8,887.20	70.59	72.77	-179.98	-7,887.53	2,612.73	1,298.04	1,171.59	126.45	10.265	
15,200.00	7,589.16	16,549.31	8,887.19	71.25	73.41	-179.98	-7,987.53	2,612.92	1,298.04	1,170.07	127.97	10.143	
15,300.00	7,589.15	16,649.31	8,887.19	71.91	74.05	-179.98	-8,087.53	2,613.11	1,298.04	1,168.54	129.50	10.024	
15,400.00	7,589.15	16,749.31	8,887.18	72.57	74.70	-179.98	-8,187.53	2,613.30	1,298.04	1,167.01	131.03	9.907	
15,500.00	7,589.14	16,849.31	8,887.18	73.23	75.34	-179.99	-8,287.53	2,613.48	1,298.04	1,165.48	132.55	9.793	
15,600.00	7,589.14	16,949.31	8,887.17	73.89	75.99	-179.99	-8,387.53	2,613.67	1,298.04	1,163.95	134.08	9.681	
15,700.00	7,589.13	17,049.31	8,887.17	74.56	76.64	-179.99	-8,487.53	2,613.86	1,298.03	1,162.42	135.61	9.572	
15,800.00	7,589.13	17,149.31	8,887.16	75.23	77.29	-179.99	-8,587.53	2,614.05	1,298.03	1,160.89	137.14	9.465	
15,900.00	7,589.13	17,249.31	8,887.16	75.90	77.94	-179.99	-8,687.53	2,614.23	1,298.03	1,159.36	138.68	9.360	
16,000.00	7,589.12	17,349.31	8,887.15	76.57	78.60	-179.99	-8,787.53	2,614.42	1,298.03	1,157.82	140.21	9.258	
16,100.00	7,589.12	17,449.31	8,887.15	77.24	79.26	-179.99	-8,887.53	2,614.61	1,298.03	1,156.29	141.74	9.158	
16,200.00	7,589.11	17,549.31	8,887.14	77.92	79.92	-179.99	-8,987.53	2,614.80	1,298.03	1,154.75	143.28	9.060	
16,300.00	7,589.11	17,649.31	8,887.14	78.59	80.58	-179.99	-9,087.53	2,614.98	1,298.03	1,153.22	144.81	8.964	
16,400.00	7,589.11	17,749.31	8,887.13	79.27	81.24	-179.99	-9,187.53	2,615.17	1,298.03	1,151.68	146.35	8.870	
16,500.00	7,589.10	17,849.31	8,887.13	79.95	81.91	-179.99	-9,287.53	2,615.36	1,298.03	1,150.14	147.88	8.777	
16,600.00	7,589.10	17,949.31	8,887.12	80.63	82.57	-179.99	-9,387.53	2,615.55	1,298.02	1,148.60	149.42	8.687	
16,700.00	7,589.09	18,049.31	8,887.12	81.31	83.24	-179.99	-9,487.53	2,615.73	1,298.02	1,147.06	150.96	8.599	
16,800.00	7,589.09	18,149.31	8,887.11	82.00	83.91	-179.99	-9,587.53	2,615.92	1,298.02	1,145.53	152.50	8.512	
16,900.00	7,589.08	18,249.31	8,887.11	82.68	84.58	-179.99	-9,687.53	2,616.11	1,298.02	1,143.99	154.04	8.427	
17,000.00	7,589.08	18,349.31	8,887.10	83.37	85.26	-179.99	-9,787.53	2,616.30	1,298.02	1,142.44	155.58	8.343	
17,100.00	7,589.08	18,449.31	8,887.10	84.06	85.93	-179.99	-9,887.53	2,616.48	1,298.02	1,140.90	157.12	8.262	
17,200.00	7,589.07	18,549.31	8,887.09	84.75	86.61	-179.99	-9,987.53	2,616.67	1,298.02	1,139.36	158.66	8.181	
17,300.00	7,589.07	18,649.31	8,887.08	85.44	87.29	-179.99	-10,087.53	2,616.86	1,298.02	1,137.82	160.20	8.103	
17,400.00	7,589.06	18,749.31	8,887.08	86.13	87.96	-179.99	-10,187.53	2,617.05	1,298.02	1,136.28	161.74	8.025	
17,500.00	7,589.06	18,849.31	8,887.07	86.83	88.65	-179.99	-10,287.53	2,617.23	1,298.02	1,134.73	163.28	7.949	
17,600.00	7,589.06	18,949.31	8,887.07	87.52	89.33	-179.99	-10,387.53	2,617.42	1,298.01	1,133.19	164.83	7.875	
17,700.00	7,589.05	19,049.31	8,887.06	88.22	90.01	-179.99	-10,487.53	2,617.61	1,298.01	1,131.64	166.37	7.802	
17,800.00	7,589.05	19,149.31	8,887.06	88.91	90.70	-180.00	-10,587.53	2,617.80	1,298.01	1,130.10	167.91	7.730	
17,900.00	7,589.04	19,249.31	8,887.05	89.61	91.38	-180.00	-10,687.53	2,617.98	1,298.01	1,128.55	169.46	7.660	
18,000.00	7,589.04	19,349.31	8,887.05	90.31	92.07	-180.00	-10,787.53	2,618.17	1,298.01	1,127.01	171.00	7.591	
18,100.00	7,589.03	19,449.31	8,887.04	91.01	92.76	-180.00	-10,887.53	2,618.36	1,298.01	1,125.46	172.55	7.523	
18,200.00	7,589.03	19,549.31	8,887.04	91.71	93.45	-180.00	-10,987.53	2,618.55	1,298.01	1,123.91	174.09	7.456	
18,300.00	7,589.03	19,649.31	8,887.03	92.42	94.14	-180.00	-11,087.53	2,618.73	1,298.01	1,122.37	175.64	7.390	
18,400.00	7,589.02	19,749.31	8,887.03	93.12	94.83	-180.00	-11,187.53	2,618.92	1,298.01	1,120.82	177.19	7.326	
18,500.00	7,589.02	19,849.31	8,887.02	93.82	95.52	-180.00	-11,287.53	2,619.11	1,298.00	1,119.27	178.73	7.262	
18,600.00	7,589.01	19,949.31	8,887.02	94.53	96.22	-180.00	-11,387.53	2,619.30	1,298.00	1,117.72	180.28	7.200	
18,700.00	7,589.01	20,049.31	8,887.01	95.23	96.91	-180.00	-11,487.53	2,619.48	1,298.00	1,116.17	181.83	7.139	
18,800.00	7,589.01	20,149.31	8,887.01	95.94	97.61	-180.00	-11,587.53	2,619.67	1,298.00	1,114.62	183.38	7.078	
18,900.00	7,589.00	20,249.31	8,887.00	96.65	98.30	-180.00	-11,687.53	2,619.86	1,298.00	1,113.07	184.93	7.019	
18,912.98	7,589.00	20,262.29	8,887.00	96.74	98.39	-180.00	-11,700.51	2,619.88	1,298.00	1,112.87	185.13	7.011	
18,917.19	7,589.00	20,266.44	8,887.00	96.77	98.42	180.00	-11,704.65	2,619.89	1,298.00	1,112.81	185.19	7.009	
18,917.96	7,589.00	20,266.44	8,887.00	97.01	98.42	180.00	-11,704.65	2,619.89	1,298.00	1,112.80	185.20	7.009	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD										Rule Assigned:		Offset Site Error:	0.50 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.71	-169.09	-6,149.97	-1,184.89	6,263.27				
100.00	100.00	44.97	44.97	0.28	0.71	-169.09	-6,149.99	-1,184.91	6,263.10	6,262.11	0.99	6,352.399	
200.00	200.00	139.38	139.38	0.63	0.76	-169.09	-6,150.12	-1,185.12	6,263.27	6,261.88	1.39	4,491.230	
300.00	300.00	249.92	249.91	0.99	0.97	-169.08	-6,150.00	-1,186.47	6,263.40	6,261.43	1.97	3,184.715	
400.00	400.00	363.82	363.79	1.35	1.29	-169.06	-6,149.44	-1,188.71	6,263.29	6,260.65	2.64	2,375.002	
500.00	500.00	451.47	451.42	1.71	1.55	-169.04	-6,148.94	-1,190.49	6,263.13	6,259.86	3.26	1,919.220	
600.00	600.00	575.00	574.92	2.07	1.95	-169.02	-6,148.30	-1,192.58	6,262.94	6,258.92	4.02	1,559.288	
700.00	700.00	770.11	770.01	2.43	2.59	-169.01	-6,145.42	-1,193.57	6,261.39	6,256.37	5.02	1,247.780	
800.00	800.00	875.64	875.52	2.79	2.95	-169.00	-6,143.22	-1,193.91	6,259.40	6,253.66	5.73	1,092.076	
900.00	900.00	1,021.80	1,021.62	3.14	3.45	-168.99	-6,139.47	-1,195.00	6,257.02	6,250.43	6.59	949.788	
1,000.00	1,000.00	1,100.00	1,099.78	3.50	3.72	-168.97	-6,137.15	-1,196.17	6,254.41	6,247.19	7.22	866.786	
1,100.00	1,099.98	1,158.81	1,158.56	3.85	3.92	63.10	-6,135.65	-1,197.34	6,251.52	6,243.76	7.76	805.188	
1,200.00	1,199.84	1,200.00	1,199.73	4.18	4.07	63.19	-6,134.87	-1,198.29	6,247.83	6,239.59	8.24	758.065	
1,300.00	1,299.45	1,260.77	1,260.48	4.52	4.28	63.33	-6,134.16	-1,199.80	6,243.31	6,234.52	8.79	710.175	
1,400.00	1,398.70	1,300.00	1,299.69	4.86	4.41	63.47	-6,134.02	-1,200.82	6,238.08	6,228.81	9.27	672.957	
1,500.00	1,497.47	1,381.02	1,380.69	5.21	4.69	63.70	-6,134.22	-1,203.04	6,231.88	6,221.98	9.90	629.679	
1,600.00	1,595.62	1,451.34	1,450.98	5.56	4.93	63.96	-6,134.75	-1,205.09	6,224.67	6,214.18	10.49	593.318	
1,700.00	1,693.06	1,525.67	1,525.26	5.92	5.19	64.27	-6,135.59	-1,207.46	6,216.41	6,205.31	11.10	559.798	
1,800.00	1,790.08	1,607.06	1,606.59	6.28	5.48	64.46	-6,136.72	-1,210.13	6,207.77	6,196.02	11.75	528.445	
1,900.00	1,887.11	1,691.61	1,691.08	6.65	5.77	64.65	-6,138.05	-1,213.07	6,199.43	6,187.03	12.40	499.761	
2,000.00	1,884.14	1,779.60	1,779.01	7.02	6.08	64.85	-6,139.60	-1,216.03	6,191.36	6,178.28	13.08	473.434	
2,100.00	2,081.17	1,885.51	1,884.87	7.39	6.45	65.09	-6,141.72	-1,218.59	6,183.40	6,169.59	13.81	447.598	
2,200.00	2,178.20	2,016.22	2,015.54	7.76	6.90	65.36	-6,144.34	-1,219.65	6,175.18	6,160.55	14.64	421.823	
2,300.00	2,275.23	2,136.17	2,135.48	8.14	7.31	65.60	-6,146.46	-1,219.19	6,166.56	6,151.14	15.43	399.663	
2,400.00	2,372.26	2,264.12	2,263.37	8.52	7.75	65.83	-6,148.79	-1,216.48	6,157.69	6,141.44	16.25	378.915	
2,500.00	2,469.29	2,354.32	2,353.49	8.90	8.07	65.98	-6,150.45	-1,212.98	6,148.50	6,131.55	16.95	362.843	
2,600.00	2,566.32	2,438.43	2,437.48	9.28	8.36	66.12	-6,152.53	-1,208.94	6,139.71	6,122.09	17.62	348.410	
2,700.00	2,663.35	2,547.87	2,546.81	9.67	8.75	66.30	-6,154.92	-1,204.74	6,130.94	6,112.56	18.39	333.444	
2,800.00	2,760.38	2,658.52	2,657.41	10.05	9.13	66.50	-6,156.66	-1,202.21	6,122.01	6,102.86	19.15	319.626	
2,900.00	2,857.41	2,773.78	2,772.65	10.44	9.53	66.72	-6,158.04	-1,200.29	6,112.94	6,093.00	19.94	306.623	
3,000.00	2,954.44	2,874.58	2,873.43	10.83	9.89	66.92	-6,159.00	-1,198.64	6,103.70	6,083.03	20.67	295.289	
3,100.00	3,051.47	2,971.60	2,970.43	11.22	10.22	67.11	-6,159.92	-1,197.11	6,094.55	6,073.16	21.39	284.895	
3,200.00	3,148.50	3,074.09	3,072.92	11.60	10.58	67.31	-6,160.76	-1,195.89	6,085.44	6,063.31	22.13	274.943	
3,300.00	3,245.53	3,177.73	3,176.55	11.99	10.94	67.52	-6,161.41	-1,194.98	6,076.30	6,053.42	22.88	265.581	
3,400.00	3,342.56	3,263.77	3,262.58	12.38	11.24	67.69	-6,161.97	-1,194.19	6,067.24	6,043.67	23.57	257.456	
3,500.00	3,439.59	3,342.04	3,340.85	12.77	11.51	67.85	-6,162.69	-1,193.47	6,058.52	6,034.29	24.23	250.069	
3,600.00	3,536.62	3,424.31	3,423.10	13.17	11.80	68.02	-6,163.70	-1,192.88	6,050.20	6,025.29	24.90	242.952	
3,700.00	3,633.65	3,527.69	3,526.49	13.56	12.16	68.23	-6,164.88	-1,192.58	6,041.99	6,016.34	25.65	235.547	
3,800.00	3,730.68	3,630.25	3,629.03	13.95	12.51	68.45	-6,165.88	-1,192.48	6,033.75	6,007.35	26.40	228.580	
3,900.00	3,827.71	3,725.64	3,724.43	14.34	12.85	68.65	-6,166.76	-1,192.40	6,025.56	5,998.44	27.12	222.192	
4,000.00	3,924.74	3,815.32	3,814.09	14.74	13.16	68.84	-6,167.66	-1,192.44	6,017.56	5,989.73	27.82	216.289	
4,100.00	4,021.77	3,915.27	3,914.05	15.13	13.51	69.06	-6,168.66	-1,192.58	6,009.66	5,981.10	28.56	210.419	
4,200.00	4,118.79	4,014.19	4,012.96	15.52	13.85	69.27	-6,169.57	-1,192.85	6,001.80	5,972.51	29.30	204.868	
4,300.00	4,215.82	4,108.10	4,106.86	15.92	14.18	69.48	-6,170.41	-1,193.24	5,994.05	5,964.04	30.01	199.702	
4,400.00	4,312.85	4,203.36	4,202.11	16.31	14.51	69.69	-6,171.26	-1,193.76	5,986.42	5,955.69	30.74	194.750	
4,500.00	4,409.88	4,296.75	4,295.50	16.70	14.84	69.89	-6,172.08	-1,194.45	5,978.93	5,947.47	31.46	190.066	
4,600.00	4,506.91	4,379.25	4,378.00	17.10	15.12	70.08	-6,172.92	-1,195.13	5,971.67	5,939.53	32.14	185.810	
4,700.00	4,603.94	4,463.98	4,462.72	17.49	15.42	70.27	-6,173.99	-1,195.79	5,964.72	5,931.90	32.83	181.697	
4,800.00	4,700.97	4,552.86	4,551.59	17.89	15.73	70.46	-6,175.28	-1,196.51	5,958.04	5,924.51	33.53	177.684	
4,900.00	4,798.00	4,646.02	4,644.73	18.28	16.06	70.67	-6,176.72	-1,197.27	5,951.54	5,917.29	34.25	173.766	
5,000.00	4,895.03	4,734.30	4,732.99	18.68	16.36	70.87	-6,178.17	-1,197.92	5,945.20	5,910.24	34.95	170.093	
5,100.00	4,992.06	4,813.96	4,812.64	19.07	16.64	71.04	-6,179.75	-1,198.35	5,939.19	5,903.56	35.63	166.712	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD										Rule Assigned:		Offset Site Error:	0.50 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	4,900.00	4,898.65	19.47	16.94	71.23	-6,181.73	-1,198.77	5,933.54	5,897.22	36.32	163.366	
5,300.00	5,186.12	4,990.42	4,989.05	19.87	17.26	71.43	-6,183.96	-1,199.20	5,928.13	5,891.10	37.03	160.086	
5,400.00	5,283.15	5,080.68	5,079.27	20.26	17.57	71.62	-6,186.26	-1,199.60	5,922.87	5,885.13	37.74	156.936	
5,500.00	5,380.18	5,220.43	5,218.98	20.66	18.06	71.93	-6,189.54	-1,200.06	5,917.49	5,878.87	38.62	153.219	
5,600.00	5,477.21	5,304.11	5,302.65	21.06	18.36	72.11	-6,191.33	-1,200.27	5,911.96	5,872.65	39.31	150.397	
5,700.00	5,574.24	5,400.00	5,398.51	21.45	18.69	72.32	-6,193.38	-1,200.53	5,906.52	5,866.48	40.04	147.518	
5,800.00	5,671.27	5,489.84	5,488.33	21.85	19.00	72.52	-6,195.33	-1,200.89	5,901.25	5,860.50	40.75	144.820	
5,900.00	5,768.30	5,584.58	5,583.05	22.24	19.34	72.73	-6,197.49	-1,201.34	5,896.18	5,854.71	41.48	142.161	
6,000.00	5,865.33	5,678.97	5,677.41	22.64	19.67	72.94	-6,199.71	-1,201.68	5,891.23	5,849.03	42.20	139.600	
6,100.00	5,962.36	5,779.94	5,778.35	23.04	20.02	73.16	-6,202.07	-1,202.11	5,886.38	5,843.44	42.95	137.055	
6,200.00	6,059.39	5,923.92	5,922.30	23.44	20.52	73.48	-6,204.89	-1,202.26	5,881.14	5,837.30	43.84	134.137	
6,300.00	6,156.42	6,016.38	6,014.75	23.83	20.85	73.68	-6,206.50	-1,202.11	5,875.71	5,831.15	44.56	131.849	
6,400.00	6,253.45	6,123.88	6,122.23	24.23	21.22	73.92	-6,208.26	-1,201.95	5,870.28	5,824.95	45.33	129.488	
6,500.00	6,350.47	6,221.17	6,219.51	24.63	21.56	74.13	-6,209.79	-1,201.79	5,864.87	5,818.80	46.07	127.302	
6,600.00	6,447.50	6,318.68	6,317.01	25.02	21.90	74.35	-6,211.32	-1,201.62	5,859.54	5,812.73	46.81	125.183	
6,700.00	6,544.53	6,424.16	6,422.48	25.42	22.27	74.58	-6,212.98	-1,201.44	5,854.31	5,806.74	47.57	123.063	
6,800.00	6,641.56	6,554.28	6,552.59	25.82	22.73	74.88	-6,213.80	-1,202.37	5,848.61	5,800.19	48.42	120.794	
6,900.00	6,738.59	6,641.46	6,639.75	26.22	23.03	75.10	-6,213.75	-1,204.12	5,842.91	5,793.79	49.12	118.950	
7,000.00	6,835.62	6,737.34	6,735.53	26.61	23.37	75.36	-6,212.99	-1,208.35	5,837.58	5,787.72	49.85	117.094	
7,100.00	6,932.65	6,886.19	6,884.18	27.01	23.89	75.78	-6,210.55	-1,215.58	5,831.78	5,781.01	50.76	114.881	
7,200.00	7,029.68	7,031.32	7,029.21	27.41	24.40	76.16	-6,207.86	-1,220.08	5,825.25	5,773.59	51.66	112.770	
7,300.00	7,126.71	7,166.78	7,164.62	27.81	24.87	76.51	-6,205.10	-1,222.72	5,818.29	5,765.77	52.51	110.796	
7,309.09	7,135.53	7,182.38	7,180.22	27.84	24.92	76.55	-6,204.77	-1,222.86	5,817.62	5,765.01	52.60	110.597	
7,350.00	7,174.84	7,233.58	7,231.41	28.01	25.10	77.02	-6,203.69	-1,223.09	5,814.19	5,761.25	52.94	109.823	
7,400.00	7,221.63	7,287.18	7,284.99	28.22	25.28	77.71	-6,202.60	-1,223.08	5,809.10	5,755.76	53.34	108.912	
7,450.00	7,266.71	7,334.38	7,332.18	28.44	25.45	78.50	-6,201.65	-1,222.93	5,803.11	5,749.39	53.72	108.022	
7,500.00	7,309.74	7,377.93	7,375.73	28.67	25.60	79.39	-6,200.75	-1,222.81	5,796.34	5,742.24	54.10	107.137	
7,550.00	7,350.39	7,420.89	7,418.67	28.91	25.75	80.38	-6,199.85	-1,222.72	5,788.89	5,734.41	54.49	106.245	
7,600.00	7,388.34	7,463.07	7,460.85	29.15	25.89	81.46	-6,198.96	-1,222.56	5,780.86	5,725.99	54.87	105.349	
7,650.00	7,423.32	7,501.98	7,499.75	29.40	26.03	82.59	-6,198.14	-1,222.35	5,772.35	5,717.10	55.25	104.470	
7,700.00	7,455.05	7,500.00	7,497.77	29.65	26.02	83.46	-6,198.18	-1,222.36	5,763.60	5,708.09	55.51	103.832	
7,750.00	7,483.30	7,534.99	7,532.75	29.90	26.14	84.65	-6,197.54	-1,222.13	5,754.60	5,698.72	55.88	102.978	
7,800.00	7,507.84	7,548.98	7,546.74	30.15	26.19	85.68	-6,197.34	-1,222.03	5,745.60	5,689.41	56.19	102.256	
7,850.00	7,528.50	7,560.82	7,558.57	30.41	26.23	86.70	-6,197.19	-1,221.95	5,736.65	5,680.17	56.49	101.556	
7,900.00	7,545.11	7,570.39	7,568.14	30.66	26.26	87.68	-6,197.09	-1,221.87	5,727.84	5,671.07	56.78	100.882	
7,919.09	7,550.36	7,573.42	7,571.18	30.75	26.28	88.05	-6,197.06	-1,221.85	5,724.53	5,667.65	56.88	100.634	
8,000.00	7,568.52	7,600.00	7,597.76	31.16	26.37	89.00	-6,196.86	-1,221.63	5,711.08	5,653.70	57.39	99.519	
8,100.00	7,583.22	7,600.00	7,597.76	31.66	26.37	89.77	-6,196.86	-1,221.63	5,695.74	5,637.83	57.91	98.363	
8,200.00	7,589.24	7,600.00	7,597.76	32.17	26.37	90.46	-6,196.86	-1,221.63	5,682.08	5,623.65	58.42	97.259	
8,219.09	7,589.40	7,600.00	7,597.76	32.26	26.37	90.58	-6,196.86	-1,221.63	5,679.67	5,621.15	58.52	97.056	
8,300.00	7,589.40	7,600.00	7,597.76	32.67	26.37	90.58	-6,196.86	-1,221.63	5,670.18	5,611.23	58.94	96.195	
8,400.00	7,589.40	7,600.00	7,597.76	33.21	26.37	90.58	-6,196.86	-1,221.63	5,660.02	5,600.53	59.49	95.137	
8,444.09	7,589.40	7,600.00	7,597.76	33.45	26.37	90.58	-6,196.86	-1,221.63	5,656.10	5,596.36	59.74	94.675	
8,500.00	7,589.40	7,600.00	7,597.76	33.76	26.37	90.58	-6,196.86	-1,221.63	5,650.80	5,590.74	60.06	94.080	
8,600.00	7,589.40	7,600.00	7,597.76	34.34	26.37	90.59	-6,196.86	-1,221.63	5,638.63	5,577.98	60.65	92.967	
8,700.00	7,589.40	7,600.00	7,597.76	34.92	26.37	90.59	-6,196.86	-1,221.63	5,623.02	5,561.77	61.25	91.802	
8,800.00	7,589.40	7,600.00	7,597.76	35.52	26.37	90.60	-6,196.86	-1,221.63	5,603.97	5,542.12	61.86	90.594	
8,900.00	7,589.40	7,600.00	7,597.76	36.12	26.37	90.61	-6,196.86	-1,221.63	5,581.52	5,519.05	62.47	89.349	
9,000.00	7,589.40	7,600.00	7,597.76	36.73	26.37	90.62	-6,196.86	-1,221.63	5,555.66	5,492.58	63.08	88.076	
9,100.00	7,589.40	7,600.00	7,597.76	37.33	26.37	90.63	-6,196.86	-1,221.63	5,526.44	5,462.76	63.68	86.778	
9,200.00	7,589.40	7,600.00	7,597.76	37.92	26.37	90.64	-6,196.86	-1,221.63	5,493.88	5,429.59	64.28	85.462	
9,300.00	7,589.39	7,600.00	7,597.76	38.51	26.37	90.65	-6,196.86	-1,221.63	5,458.00	5,393.13	64.87	84.132	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD										Rule Assigned:		Offset Site Error:	0.50 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,400.00	7,589.39	7,600.00	7,597.76	39.09	26.37	90.66	-6,196.86	-1,221.63	5,418.85	5,353.39	65.45	82.790	
9,500.00	7,589.39	7,600.00	7,597.76	39.65	26.37	90.68	-6,196.86	-1,221.63	5,376.45	5,310.43	66.02	81.441	
9,600.00	7,589.39	7,600.00	7,597.76	40.19	26.37	90.70	-6,196.86	-1,221.63	5,330.85	5,264.29	66.56	80.085	
9,700.00	7,589.38	7,600.00	7,597.76	40.72	26.37	90.72	-6,196.86	-1,221.63	5,282.10	5,215.00	67.09	78.726	
9,800.00	7,589.38	7,600.00	7,597.76	41.23	26.37	90.74	-6,196.86	-1,221.63	5,230.23	5,162.62	67.60	77.365	
9,900.00	7,589.38	7,600.00	7,597.76	41.72	26.37	90.77	-6,196.86	-1,221.63	5,175.30	5,107.21	68.09	76.001	
10,000.00	7,589.37	7,600.00	7,597.76	42.18	26.37	90.80	-6,196.86	-1,221.63	5,117.37	5,048.81	68.56	74.637	
10,100.00	7,589.37	7,600.00	7,597.76	42.63	26.37	90.83	-6,196.86	-1,221.63	5,056.50	4,987.49	69.01	73.272	
10,173.66	7,589.36	7,600.00	7,597.76	42.94	26.37	90.86	-6,196.86	-1,221.63	5,009.81	4,940.48	69.32	72.267	
10,200.00	7,589.36	7,600.00	7,597.76	43.05	26.37	90.86	-6,196.86	-1,221.63	4,992.87	4,923.44	69.43	71.908	
10,300.00	7,589.36	7,600.00	7,597.76	43.47	26.37	90.86	-6,196.86	-1,221.63	4,929.34	4,859.49	69.86	70.564	
10,400.00	7,589.36	7,600.00	7,597.76	43.90	26.37	90.86	-6,196.86	-1,221.63	4,867.04	4,796.75	70.29	69.245	
10,500.00	7,589.35	7,600.00	7,597.76	44.33	26.37	90.86	-6,196.86	-1,221.63	4,806.01	4,735.28	70.73	67.952	
10,600.00	7,589.35	7,600.00	7,597.76	44.78	26.37	90.86	-6,196.86	-1,221.63	4,746.30	4,675.12	71.17	66.686	
10,700.00	7,589.34	7,600.00	7,597.76	45.23	26.37	90.86	-6,196.86	-1,221.63	4,687.96	4,616.33	71.63	65.449	
10,800.00	7,589.34	7,600.00	7,597.76	45.69	26.37	90.86	-6,196.86	-1,221.63	4,631.05	4,558.96	72.09	64.240	
10,900.00	7,589.33	7,600.00	7,597.76	46.16	26.37	90.86	-6,196.86	-1,221.63	4,575.61	4,503.06	72.56	63.062	
11,000.00	7,589.33	7,600.00	7,597.76	46.64	26.37	90.86	-6,196.86	-1,221.63	4,521.71	4,448.68	73.03	61.915	
11,100.00	7,589.33	7,600.00	7,597.76	47.12	26.37	90.86	-6,196.86	-1,221.63	4,469.40	4,395.89	73.51	60.800	
11,200.00	7,589.32	7,589.83	7,587.59	47.61	26.33	90.71	-6,196.92	-1,221.72	4,418.71	4,344.76	73.95	59.754	
11,300.00	7,589.32	7,589.26	7,587.02	48.11	26.33	90.70	-6,196.92	-1,221.72	4,369.74	4,295.31	74.43	58.709	
11,400.00	7,589.31	7,588.67	7,586.43	48.61	26.33	90.69	-6,196.93	-1,221.73	4,322.53	4,247.61	74.91	57.700	
11,500.00	7,589.31	7,588.07	7,585.83	49.12	26.33	90.68	-6,196.93	-1,221.73	4,277.13	4,201.74	75.40	56.727	
11,600.00	7,589.31	7,587.45	7,585.21	49.64	26.32	90.67	-6,196.94	-1,221.74	4,233.62	4,157.73	75.88	55.791	
11,700.00	7,589.30	7,586.82	7,584.58	50.16	26.32	90.66	-6,196.94	-1,221.74	4,192.03	4,115.66	76.37	54.894	
11,800.00	7,589.30	7,586.17	7,583.93	50.69	26.32	90.65	-6,196.95	-1,221.75	4,152.44	4,075.59	76.84	54.037	
11,900.00	7,589.29	7,585.50	7,583.26	51.23	26.32	90.64	-6,196.95	-1,221.75	4,114.89	4,037.58	77.32	53.220	
12,000.00	7,589.29	7,584.81	7,582.57	51.77	26.31	90.63	-6,196.96	-1,221.76	4,079.46	4,001.67	77.79	52.444	
12,100.00	7,589.28	7,584.11	7,581.86	52.31	26.31	90.62	-6,196.96	-1,221.76	4,046.18	3,967.93	78.25	51.711	
12,200.00	7,589.28	7,583.38	7,581.14	52.86	26.31	90.61	-6,196.97	-1,221.77	4,015.12	3,936.42	78.70	51.020	
12,300.00	7,589.28	7,582.63	7,580.39	53.42	26.31	90.60	-6,196.97	-1,221.78	3,986.33	3,907.19	79.14	50.373	
12,400.00	7,589.27	7,581.86	7,579.62	53.98	26.30	90.59	-6,196.98	-1,221.78	3,959.85	3,880.29	79.56	49.770	
12,500.00	7,589.27	7,581.07	7,578.82	54.55	26.30	90.58	-6,196.99	-1,221.79	3,935.74	3,855.76	79.98	49.212	
12,600.00	7,589.26	7,580.25	7,578.01	55.12	26.30	90.57	-6,196.99	-1,221.80	3,914.03	3,833.66	80.37	48.699	
12,700.00	7,589.26	7,579.41	7,577.17	55.70	26.30	90.55	-6,197.00	-1,221.80	3,894.77	3,814.02	80.75	48.232	
12,800.00	7,589.26	7,578.54	7,576.30	56.28	26.29	90.54	-6,197.01	-1,221.81	3,878.00	3,796.89	81.11	47.812	
12,900.00	7,589.25	7,577.65	7,575.40	56.86	26.29	90.53	-6,197.02	-1,221.82	3,863.74	3,782.29	81.45	47.437	
13,000.00	7,589.25	7,576.72	7,574.48	57.45	26.29	90.51	-6,197.02	-1,221.82	3,852.02	3,770.25	81.77	47.110	
13,100.00	7,589.24	7,575.77	7,573.52	58.04	26.28	90.50	-6,197.03	-1,221.83	3,842.87	3,760.81	82.06	46.830	
13,200.00	7,589.24	7,574.78	7,572.54	58.64	26.28	90.48	-6,197.04	-1,221.84	3,836.31	3,753.98	82.33	46.596	
13,300.00	7,589.23	7,573.76	7,571.52	59.24	26.28	90.47	-6,197.05	-1,221.85	3,832.34	3,749.77	82.58	46.409	
13,400.00	7,589.23	7,572.70	7,570.46	59.84	26.27	90.45	-6,197.06	-1,221.86	3,830.99	3,748.19	82.80	46.270	
13,402.03	7,589.23	7,572.68	7,570.44	59.86	26.27	90.45	-6,197.06	-1,221.86	3,830.99	3,748.18	82.80	46.268	CC, ES
13,500.00	7,589.23	7,571.61	7,569.37	60.45	26.27	90.44	-6,197.07	-1,221.86	3,832.24	3,749.25	82.99	46.177	
13,600.00	7,589.22	7,570.48	7,568.24	61.06	26.27	90.42	-6,197.08	-1,221.87	3,836.10	3,752.94	83.16	46.131	
13,700.00	7,589.22	7,569.31	7,567.07	61.68	26.26	90.40	-6,197.10	-1,221.88	3,842.55	3,759.26	83.30	46.131	
13,800.00	7,589.21	7,568.09	7,565.85	62.30	26.26	90.38	-6,197.11	-1,221.89	3,851.60	3,768.19	83.41	46.176	
13,900.00	7,589.21	7,566.83	7,564.59	62.92	26.25	90.36	-6,197.12	-1,221.90	3,863.21	3,779.71	83.50	46.268	
14,000.00	7,589.21	7,565.52	7,563.28	63.54	26.25	90.34	-6,197.14	-1,221.91	3,877.37	3,793.81	83.56	46.404	
14,100.00	7,589.20	7,564.16	7,561.92	64.17	26.24	90.32	-6,197.15	-1,221.92	3,894.04	3,810.45	83.59	46.584	
14,200.00	7,589.20	7,562.75	7,560.50	64.80	26.24	90.30	-6,197.17	-1,221.93	3,913.20	3,829.60	83.60	46.808	
14,300.00	7,589.19	7,561.27	7,559.03	65.43	26.23	90.28	-6,197.18	-1,221.94	3,934.81	3,851.22	83.59	47.075	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD												Offset Site Error:	0.50 usft
Rule Assigned:												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,400.00	7,589.19	7,559.74	7,557.50	66.07	26.23	90.26	-6,197.20	-1,221.96	3,958.82	3,875.27	83.55	47.384	
14,500.00	7,589.18	7,558.14	7,555.90	66.71	26.22	90.23	-6,197.22	-1,221.97	3,985.20	3,901.72	83.49	47.735	
14,600.00	7,589.18	7,556.47	7,554.23	67.35	26.22	90.21	-6,197.24	-1,221.98	4,013.90	3,930.50	83.40	48.126	
14,700.00	7,589.18	7,554.73	7,552.49	67.99	26.21	90.18	-6,197.26	-1,221.99	4,044.87	3,961.57	83.30	48.557	
14,800.00	7,589.17	7,552.91	7,550.66	68.64	26.20	90.16	-6,197.29	-1,222.01	4,078.05	3,994.87	83.18	49.027	
14,900.00	7,589.17	7,551.00	7,548.76	69.29	26.20	90.13	-6,197.31	-1,222.02	4,113.40	4,030.36	83.04	49.535	
15,000.00	7,589.16	7,549.00	7,546.76	69.94	26.19	90.10	-6,197.34	-1,222.03	4,150.85	4,067.97	82.88	50.080	
15,100.00	7,589.16	7,546.91	7,544.67	70.59	26.18	90.07	-6,197.37	-1,222.05	4,190.36	4,107.65	82.71	50.661	
15,200.00	7,589.16	7,544.71	7,542.47	71.25	26.18	90.03	-6,197.40	-1,222.07	4,231.86	4,149.33	82.53	51.278	
15,300.00	7,589.15	7,542.40	7,540.16	71.91	26.17	90.00	-6,197.43	-1,222.08	4,275.30	4,192.97	82.33	51.928	
15,400.00	7,589.15	7,539.97	7,537.73	72.57	26.16	89.96	-6,197.47	-1,222.10	4,320.61	4,238.49	82.12	52.612	
15,500.00	7,589.14	9,616.26	8,292.93	73.23	37.72	100.09	-7,749.71	-1,619.65	4,332.71	4,225.81	106.90	40.529	
15,600.00	7,589.14	9,669.54	8,294.69	73.89	38.33	100.09	-7,802.52	-1,626.44	4,345.95	4,237.97	107.97	40.250	
15,700.00	7,589.13	9,842.14	8,299.35	74.56	40.37	100.10	-7,973.70	-1,648.00	4,359.03	4,248.00	111.02	39.263	
15,800.00	7,589.13	9,965.34	8,301.18	75.23	41.88	100.09	-8,096.09	-1,662.03	4,370.68	4,257.36	113.31	38.572	
15,900.00	7,589.13	10,112.05	8,301.09	75.90	43.72	100.06	-8,241.94	-1,677.81	4,381.40	4,265.36	116.04	37.759	
16,000.00	7,589.12	10,176.60	8,300.49	76.57	44.55	100.03	-8,306.12	-1,684.66	4,391.98	4,274.58	117.40	37.411	
16,100.00	7,589.12	10,215.00	8,300.19	77.24	45.05	100.02	-8,344.25	-1,689.24	4,403.80	4,285.50	118.30	37.225	
16,200.00	7,589.11	10,255.10	8,300.06	77.92	45.57	100.00	-8,384.00	-1,694.53	4,416.97	4,297.74	119.23	37.046	
16,300.00	7,589.11	10,310.46	8,300.29	78.59	46.31	99.99	-8,438.77	-1,702.56	4,431.43	4,311.01	120.42	36.798	
16,400.00	7,589.11	10,824.90	8,302.43	79.27	53.31	99.90	-8,949.86	-1,755.44	4,442.71	4,312.90	129.80	34.226	
16,500.00	7,589.10	10,852.00	8,302.00	79.95	53.69	99.89	-8,976.90	-1,757.14	4,449.00	4,318.36	130.64	34.057	
16,600.00	7,589.10	10,889.65	8,301.83	80.63	54.22	99.88	-9,014.44	-1,760.01	4,456.78	4,325.14	131.63	33.858	
16,700.00	7,589.09	10,937.36	8,302.33	81.31	54.89	99.87	-9,061.95	-1,764.42	4,466.08	4,333.29	132.79	33.632	
16,800.00	7,589.09	11,085.39	8,302.59	82.00	57.00	99.85	-9,209.39	-1,777.57	4,474.96	4,339.18	135.78	32.957	
16,900.00	7,589.08	11,135.70	8,302.12	82.68	57.72	99.83	-9,259.48	-1,782.16	4,484.07	4,347.07	137.00	32.730	
17,000.00	7,589.08	11,171.00	8,301.88	83.37	58.22	99.82	-9,294.59	-1,785.83	4,494.48	4,356.55	137.93	32.586	
17,100.00	7,589.08	11,234.00	8,301.88	84.06	59.14	99.80	-9,357.17	-1,793.13	4,506.07	4,366.70	139.37	32.332	
17,200.00	7,589.07	11,350.81	8,301.68	84.75	60.84	99.77	-9,473.15	-1,807.04	4,517.99	4,376.15	141.84	31.853	
17,300.00	7,589.07	11,405.10	8,301.21	85.44	61.64	99.75	-9,527.04	-1,813.50	4,529.91	4,386.79	143.12	31.652	
17,400.00	7,589.06	11,489.00	8,301.00	86.13	62.87	99.72	-9,610.26	-1,824.20	4,542.64	4,397.67	144.97	31.335	
17,500.00	7,589.06	11,552.00	8,300.78	86.83	63.81	99.70	-9,672.67	-1,832.75	4,556.07	4,409.66	146.41	31.118	
17,600.00	7,589.06	11,575.27	8,300.72	87.52	64.15	99.70	-9,695.67	-1,836.29	4,570.72	4,423.68	147.05	31.083	
17,700.00	7,589.05	12,106.52	8,306.66	88.22	72.09	99.65	-10,223.51	-1,890.31	4,580.13	4,422.60	157.53	29.075	
17,800.00	7,589.05	12,173.09	8,304.59	88.91	73.10	99.62	-10,289.89	-1,894.83	4,586.48	4,427.35	159.13	28.822	
17,900.00	7,589.04	12,226.99	8,302.49	89.61	73.91	99.58	-10,343.59	-1,898.96	4,593.63	4,433.13	160.50	28.621	
18,000.00	7,589.04	12,273.02	8,300.44	90.31	74.61	99.55	-10,389.39	-1,903.05	4,601.87	4,440.17	161.70	28.459	
18,100.00	7,589.03	12,314.00	8,299.00	91.01	75.23	99.52	-10,430.15	-1,907.12	4,611.33	4,448.55	162.79	28.327	
18,200.00	7,589.03	12,354.90	8,298.50	91.71	75.85	99.51	-10,470.80	-1,911.56	4,622.06	4,458.20	163.86	28.208	
18,300.00	7,589.03	12,456.38	8,301.16	92.42	77.41	99.52	-10,571.60	-1,922.94	4,633.75	4,467.63	166.12	27.894	
18,400.00	7,589.02	12,563.56	8,303.07	93.12	79.05	99.51	-10,678.13	-1,934.56	4,644.93	4,476.43	168.50	27.567	
18,500.00	7,589.02	12,670.90	8,303.50	93.82	80.70	99.50	-10,784.81	-1,946.48	4,656.15	4,485.26	170.89	27.247	
18,600.00	7,589.01	12,957.94	8,305.01	94.53	85.12	99.46	-11,070.74	-1,971.06	4,664.40	4,487.65	176.74	26.391	
18,700.00	7,589.01	13,061.66	8,305.72	95.23	86.72	99.46	-11,174.21	-1,978.12	4,671.43	4,492.36	179.07	26.087	
18,800.00	7,589.01	13,139.00	8,306.56	95.94	87.92	99.46	-11,251.37	-1,983.40	4,678.54	4,497.63	180.90	25.862	
18,900.00	7,589.00	13,305.00	8,304.53	96.65	90.49	99.41	-11,417.00	-1,994.12	4,684.70	4,500.30	184.40	25.405	
18,917.19	7,589.00	13,305.00	8,304.53	96.77	90.49	99.41	-11,417.00	-1,994.12	4,685.76	4,501.29	184.47	25.401	SF
18,917.96	7,589.00	13,305.00	8,304.53	97.01	90.49	99.41	-11,417.00	-1,994.12	4,685.80	4,501.35	184.46	25.403	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Survey Program: 89-MWD+HRGM		Rule Assigned:										Offset Site Error: 0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.50	29.48	3,825.37	2,162.74	4,394.46			
100.00	100.00	54.42	54.42	0.28	0.51	29.48	3,825.54	2,162.75	4,394.65	4,393.87	0.78	5,625.082
200.00	200.00	143.04	143.03	0.63	0.59	29.48	3,826.35	2,162.85	4,395.48	4,394.26	1.22	3,595.503
300.00	300.00	246.85	246.84	0.99	0.84	29.48	3,827.10	2,163.11	4,396.23	4,394.40	1.84	2,392.900
400.00	400.00	385.00	384.99	1.35	1.27	29.48	3,827.64	2,163.73	4,396.88	4,394.26	2.62	1,679.112
499.44	499.44	479.45	479.44	1.71	1.57	29.49	3,827.14	2,164.08	4,396.62	4,393.34	3.28	1,340.166
500.00	500.00	479.86	479.85	1.71	1.57	29.49	3,827.14	2,164.08	4,396.62	4,393.33	3.28	1,338.800
600.00	600.00	562.25	562.24	2.07	1.85	29.49	3,827.23	2,164.34	4,396.86	4,392.93	3.92	1,121.501
700.00	700.00	657.68	657.66	2.43	2.18	29.49	3,827.67	2,164.51	4,397.35	4,392.74	4.61	954.304
800.00	800.00	750.14	750.12	2.79	2.50	29.49	3,828.22	2,164.60	4,397.91	4,392.63	5.29	831.730
900.00	900.00	846.34	846.32	3.14	2.84	29.48	3,829.04	2,164.60	4,398.66	4,392.68	5.98	735.296
1,000.00	1,000.00	935.28	935.25	3.50	3.15	29.47	3,829.95	2,164.57	4,399.53	4,392.87	6.65	661.331
1,100.00	1,099.98	1,040.39	1,040.36	3.85	3.52	-98.54	3,831.35	2,164.25	4,400.81	4,393.44	7.37	597.451
1,200.00	1,199.84	1,146.00	1,145.96	4.18	3.89	-98.59	3,832.59	2,163.89	4,402.44	4,394.37	8.07	545.409
1,300.00	1,299.45	1,288.45	1,288.40	4.52	4.39	-98.73	3,833.45	2,163.09	4,404.00	4,395.09	8.91	494.501
1,400.00	1,398.70	1,396.22	1,396.17	4.86	4.76	-98.88	3,833.50	2,162.22	4,405.51	4,395.90	9.62	458.066
1,500.00	1,497.47	1,487.10	1,487.04	5.21	5.07	-99.03	3,833.57	2,161.48	4,407.66	4,397.38	10.28	428.841
1,600.00	1,595.62	1,611.88	1,611.79	5.56	5.50	-99.32	3,834.29	2,158.69	4,410.16	4,399.10	11.06	398.582
1,700.00	1,693.06	1,701.92	1,701.73	5.92	5.82	-99.57	3,835.61	2,154.82	4,413.18	4,401.44	11.74	375.977
1,800.00	1,790.08	1,790.93	1,790.66	6.28	6.14	-99.89	3,837.02	2,151.20	4,416.85	4,404.44	12.41	355.797
1,900.00	1,887.11	1,881.57	1,881.24	6.65	6.46	-100.22	3,838.17	2,148.08	4,420.72	4,407.62	13.10	337.452
2,000.00	1,984.14	1,943.00	1,942.63	7.02	6.67	-100.43	3,839.17	2,146.03	4,425.17	4,411.48	13.69	323.317
2,100.00	2,081.17	2,016.03	2,015.60	7.39	6.93	-100.69	3,840.75	2,143.88	4,430.39	4,416.07	14.32	309.428
2,200.00	2,178.20	2,097.65	2,097.18	7.76	7.23	-100.97	3,842.76	2,142.19	4,436.36	4,421.38	14.98	296.100
2,300.00	2,275.23	2,177.38	2,176.86	8.14	7.51	-101.25	3,844.96	2,140.51	4,442.75	4,427.10	15.64	284.012
2,400.00	2,372.26	2,274.67	2,273.94	8.52	7.86	-101.62	3,849.25	2,135.84	4,449.59	4,433.22	16.37	271.813
2,500.00	2,469.29	2,371.39	2,370.44	8.90	8.21	-102.00	3,853.47	2,130.87	4,456.47	4,439.37	17.10	260.654
2,600.00	2,566.32	2,470.92	2,469.90	9.28	8.57	-102.34	3,856.52	2,128.50	4,463.52	4,445.68	17.84	250.266
2,700.00	2,663.35	2,548.74	2,547.63	9.67	8.85	-102.62	3,859.22	2,126.20	4,470.85	4,452.36	18.49	241.735
2,800.00	2,760.38	2,634.04	2,632.64	10.05	9.16	-102.96	3,863.75	2,121.01	4,478.74	4,459.56	19.18	233.453
2,900.00	2,857.41	2,736.40	2,734.56	10.44	9.53	-103.38	3,869.75	2,113.55	4,486.86	4,466.92	19.94	225.001
3,000.00	2,954.44	2,831.32	2,829.04	10.83	9.88	-103.78	3,875.31	2,106.31	4,495.06	4,474.39	20.67	217.445
3,100.00	3,051.47	2,878.27	2,875.73	11.22	10.05	-103.98	3,878.37	2,102.50	4,503.96	4,482.74	21.22	212.240
3,200.00	3,148.50	2,929.00	2,926.09	11.60	10.24	-104.20	3,882.55	2,098.05	4,514.20	4,492.42	21.78	207.239
3,300.00	3,245.53	2,982.68	2,979.26	11.99	10.44	-104.44	3,887.73	2,092.79	4,525.56	4,503.21	22.36	202.433
3,400.00	3,342.56	3,063.57	3,059.16	12.38	10.74	-104.83	3,896.39	2,083.64	4,537.69	4,514.65	23.04	196.957
3,500.00	3,439.59	3,175.20	3,169.38	12.77	11.17	-105.36	3,908.37	2,070.61	4,550.03	4,526.18	23.85	190.775
3,600.00	3,536.62	3,239.41	3,232.78	13.17	11.41	-105.66	3,915.18	2,063.03	4,562.57	4,538.10	24.47	186.464
3,700.00	3,633.65	3,287.00	3,279.64	13.56	11.60	-105.90	3,920.84	2,057.01	4,576.23	4,551.21	25.02	182.928
3,800.00	3,730.68	3,334.70	3,326.51	13.95	11.78	-106.14	3,927.10	2,050.69	4,591.08	4,565.52	25.56	179.594
3,900.00	3,827.71	3,386.13	3,376.91	14.34	11.99	-106.40	3,934.50	2,043.65	4,607.16	4,581.04	26.12	176.357
4,000.00	3,924.74	3,506.25	3,494.57	14.74	12.46	-107.01	3,951.88	2,026.86	4,623.60	4,596.61	26.99	171.306
4,100.00	4,021.77	12,539.11	8,407.34	15.13	68.15	-90.75	-365.57	1,937.66	4,626.86	4,579.39	47.47	97.467
4,200.00	4,118.79	12,553.97	8,407.58	15.52	68.34	-90.20	-380.43	1,937.41	4,528.81	4,480.99	47.82	94.702
4,300.00	4,215.82	12,572.00	8,407.86	15.92	68.57	-89.52	-398.45	1,937.11	4,430.79	4,382.59	48.20	91.918
4,400.00	4,312.85	12,587.69	8,408.10	16.31	68.78	-88.91	-414.14	1,936.87	4,332.80	4,284.22	48.58	89.197
4,500.00	4,409.88	12,607.34	8,408.38	16.70	69.03	-88.12	-433.79	1,936.58	4,234.83	4,185.84	48.98	86.452
4,600.00	4,506.91	12,626.76	8,408.63	17.10	69.28	-87.31	-453.21	1,936.31	4,136.88	4,087.48	49.40	83.742
4,700.00	4,603.94	12,645.95	8,408.86	17.49	69.53	-86.48	-472.39	1,936.06	4,038.95	3,989.13	49.82	81.066
4,800.00	4,700.97	12,664.91	8,409.06	17.89	69.78	-85.63	-491.35	1,935.82	3,941.06	3,890.81	50.25	78.425
4,900.00	4,798.00	12,683.67	8,409.25	18.28	70.02	-84.76	-510.10	1,935.59	3,843.19	3,792.50	50.69	75.817
5,000.00	4,895.03	12,702.24	8,409.42	18.68	70.27	-83.86	-528.67	1,935.35	3,745.36	3,694.23	51.14	73.242

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Survey Program: 89-MWD+HRGM													Offset Site Error: 0.50 usft		
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,100.00	4,992.06	12,720.63	8,409.58	19.07	70.51	-82.94	-547.06	1,935.11	3,647.57	3,595.98	51.59	70.699			
5,200.00	5,089.09	12,738.85	8,409.72	19.47	70.74	-82.00	-565.27	1,934.86	3,549.83	3,497.77	52.06	68.188			
5,300.00	5,186.12	12,757.28	8,409.85	19.87	70.98	-81.02	-583.70	1,934.61	3,452.13	3,399.59	52.54	65.705			
5,400.00	5,283.15	12,776.22	8,409.95	20.26	71.23	-79.97	-602.64	1,934.37	3,354.48	3,301.44	53.04	63.246			
5,500.00	5,380.18	12,794.81	8,410.02	20.66	71.47	-78.90	-621.23	1,934.17	3,256.89	3,203.34	53.55	60.820			
5,600.00	5,477.21	12,813.05	8,410.05	21.06	71.71	-77.81	-639.47	1,934.01	3,159.36	3,105.28	54.07	58.426			
5,700.00	5,574.24	12,830.96	8,410.05	21.45	71.95	-76.70	-657.38	1,933.89	3,061.90	3,007.28	54.62	56.063			
5,800.00	5,671.27	12,848.53	8,410.02	21.85	72.18	-75.58	-674.95	1,933.80	2,964.52	2,909.35	55.17	53.731			
5,900.00	5,768.30	12,860.28	8,410.01	22.24	72.33	-74.81	-686.70	1,933.74	2,867.26	2,811.55	55.71	51.468			
6,000.00	5,865.33	12,873.98	8,409.99	22.64	72.51	-73.88	-700.40	1,933.67	2,770.11	2,713.83	56.28	49.216			
6,100.00	5,962.36	12,887.74	8,409.98	23.04	72.69	-72.93	-714.16	1,933.61	2,673.10	2,616.22	56.89	46.990			
6,200.00	6,059.39	12,901.55	8,409.97	23.44	72.87	-71.96	-727.97	1,933.55	2,576.24	2,518.73	57.52	44.791			
6,300.00	6,156.42	12,915.43	8,409.97	23.83	73.06	-70.95	-741.85	1,933.50	2,479.55	2,421.37	58.18	42.617			
6,400.00	6,253.45	12,929.42	8,409.96	24.23	73.24	-69.92	-755.84	1,933.45	2,383.05	2,324.16	58.88	40.470			
6,500.00	6,350.47	12,945.30	8,409.96	24.63	73.45	-68.71	-771.72	1,933.40	2,286.75	2,227.10	59.64	38.341			
6,600.00	6,447.50	12,961.02	8,409.93	25.02	73.66	-67.48	-787.44	1,933.37	2,190.67	2,130.22	60.45	36.241			
6,700.00	6,544.53	12,976.59	8,409.90	25.42	73.86	-66.23	-803.01	1,933.35	2,094.85	2,033.54	61.31	34.170			
6,800.00	6,641.56	12,992.02	8,409.85	25.82	74.06	-64.96	-818.43	1,933.35	1,999.33	1,937.10	62.23	32.130			
6,900.00	6,738.59	13,007.29	8,409.78	26.22	74.27	-63.67	-833.71	1,933.36	1,904.15	1,840.93	63.22	30.121			
7,000.00	6,835.62	13,018.00	8,409.73	26.61	74.41	-62.75	-844.42	1,933.37	1,809.37	1,745.11	64.26	28.159			
7,100.00	6,932.65	13,034.31	8,409.65	27.01	74.62	-61.31	-860.73	1,933.42	1,715.07	1,649.63	65.44	26.210			
7,200.00	7,029.68	13,047.05	8,409.59	27.41	74.79	-60.17	-873.46	1,933.48	1,621.34	1,554.63	66.70	24.307			
7,300.00	7,126.71	13,059.88	8,409.53	27.81	74.96	-59.00	-886.30	1,933.56	1,528.28	1,460.18	68.10	22.441			
7,309.09	7,135.53	13,061.05	8,409.52	27.84	74.98	-58.90	-887.47	1,933.57	1,519.86	1,451.62	68.24	22.273			
7,350.00	7,174.84	13,067.11	8,409.50	28.01	75.06	-67.63	-893.53	1,933.62	1,481.78	1,412.95	68.83	21.527			
7,400.00	7,221.63	13,076.62	8,409.46	28.22	75.18	-79.78	-903.04	1,933.71	1,434.87	1,365.36	69.50	20.644			
7,450.00	7,266.71	13,088.42	8,409.41	28.44	75.34	-92.80	-914.83	1,933.83	1,387.80	1,317.70	70.10	19.797			
7,500.00	7,309.74	13,102.43	8,409.36	28.67	75.52	-105.49	-928.84	1,934.00	1,340.88	1,270.28	70.60	18.992			
7,550.00	7,350.39	13,118.01	8,409.31	28.91	75.73	-116.84	-944.42	1,934.22	1,294.43	1,223.43	70.99	18.233			
7,600.00	7,388.34	13,135.27	8,409.27	29.15	75.96	-126.37	-961.68	1,934.51	1,248.78	1,177.53	71.25	17.526			
7,650.00	7,423.32	13,154.45	8,409.26	29.40	76.22	-134.13	-980.85	1,934.87	1,204.31	1,132.94	71.37	16.875			
7,700.00	7,455.05	13,175.42	8,409.28	29.65	76.49	-140.40	-1,001.82	1,935.33	1,161.40	1,090.08	71.32	16.284			
7,750.00	7,483.30	13,197.00	8,409.34	29.90	76.78	-145.45	-1,023.40	1,935.86	1,120.48	1,049.39	71.09	15.761			
7,800.00	7,507.84	13,222.30	8,409.44	30.15	77.12	-149.69	-1,048.69	1,936.58	1,082.00	1,011.31	70.69	15.306			
7,850.00	7,528.50	13,249.75	8,409.58	30.41	77.48	-153.27	-1,076.12	1,937.48	1,046.40	976.29	70.10	14.926			
7,900.00	7,545.11	13,280.07	8,409.74	30.66	77.89	-156.42	-1,106.43	1,938.48	1,014.10	944.77	69.33	14.626			
7,919.09	7,550.36	13,291.87	8,409.80	30.75	78.05	-157.50	-1,118.22	1,938.88	1,002.74	933.75	68.99	14.535			
8,000.00	7,568.52	13,295.00	8,409.82	31.16	78.09	-158.58	-1,121.35	1,938.98	960.20	893.01	67.18	14.292			
8,100.00	7,583.22	13,295.00	8,409.82	31.66	78.09	-159.33	-1,121.35	1,938.98	921.60	856.64	64.96	14.188	SF		
8,200.00	7,589.24	13,295.00	8,409.82	32.17	78.09	-159.71	-1,121.35	1,938.98	900.58	837.51	63.07	14.278			
8,219.09	7,589.40	13,295.00	8,409.82	32.26	78.09	-159.75	-1,121.35	1,938.98	898.70	835.92	62.78	14.315			
8,291.11	7,589.40	13,295.00	8,409.82	32.63	78.09	-159.75	-1,121.35	1,938.98	895.81	833.86	61.94	14.461	CC, ES		
8,300.00	7,589.40	13,295.00	8,409.82	32.67	78.09	-159.75	-1,121.35	1,938.98	895.85	833.98	61.87	14.479			
8,400.00	7,589.40	13,295.00	8,409.82	33.21	78.09	-159.75	-1,121.35	1,938.98	902.40	840.84	61.56	14.658			
8,444.09	7,589.40	13,295.00	8,409.82	33.45	78.09	-159.75	-1,121.35	1,938.98	908.78	847.06	61.72	14.725			
8,500.00	7,589.40	13,295.00	8,409.82	33.76	78.09	-160.07	-1,121.35	1,938.98	920.12	857.95	62.16	14.802			
8,600.00	7,589.40	13,295.00	8,409.82	34.34	78.09	-160.95	-1,121.35	1,938.98	949.61	886.08	63.53	14.946			
8,700.00	7,589.40	13,295.00	8,409.82	34.92	78.09	-162.20	-1,121.35	1,938.98	989.93	924.55	65.38	15.142			
8,800.00	7,589.40	13,295.00	8,409.82	35.52	78.09	-163.85	-1,121.35	1,938.98	1,039.69	972.32	67.38	15.431			
8,900.00	7,589.40	13,295.00	8,409.82	36.12	78.09	-165.91	-1,121.35	1,938.98	1,097.50	1,028.20	69.31	15.836			
9,000.00	7,589.40	13,295.00	8,409.82	36.73	78.09	-168.38	-1,121.35	1,938.98	1,162.01	1,090.99	71.02	16.363			
9,100.00	7,589.40	13,295.00	8,409.82	37.33	78.09	-171.28	-1,121.35	1,938.98	1,232.00	1,159.56	72.44	17.007			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Offset Well Error: 0.00 usft

Survey Program: 89-MWD+HRGM		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,200.00	7,589.40	13,295.00	8,409.82	37.92	78.09	-174.59	-1,121.35	1,938.98	1,306.42	1,232.86	73.56	17.759	
9,300.00	7,589.39	13,295.00	8,409.82	38.51	78.09	-178.32	-1,121.35	1,938.98	1,384.37	1,309.97	74.40	18.608	
9,400.00	7,589.39	13,295.00	8,409.82	39.09	78.09	177.57	-1,121.35	1,938.98	1,465.08	1,390.11	74.97	19.542	
9,500.00	7,589.39	13,295.00	8,409.82	39.65	78.09	173.15	-1,121.35	1,938.98	1,547.93	1,472.61	75.31	20.553	
9,600.00	7,589.39	13,295.00	8,409.82	40.19	78.09	168.48	-1,121.35	1,938.98	1,632.37	1,556.90	75.46	21.631	
9,700.00	7,589.38	13,295.00	8,409.82	40.72	78.09	163.66	-1,121.35	1,938.98	1,717.96	1,642.51	75.45	22.769	
9,800.00	7,589.38	13,295.00	8,409.82	41.23	78.09	158.80	-1,121.35	1,938.98	1,804.31	1,729.02	75.30	23.962	
9,900.00	7,589.38	13,295.00	8,409.82	41.72	78.09	154.00	-1,121.35	1,938.98	1,891.11	1,816.08	75.04	25.203	
10,000.00	7,589.37	13,295.00	8,409.82	42.18	78.09	149.35	-1,121.35	1,938.98	1,978.07	1,903.39	74.68	26.487	
10,100.00	7,589.37	13,295.00	8,409.82	42.63	78.09	144.93	-1,121.35	1,938.98	2,064.95	1,990.70	74.25	27.810	
10,173.66	7,589.36	13,295.00	8,409.82	42.94	78.09	141.85	-1,121.35	1,938.98	2,128.76	2,054.86	73.90	28.807	
10,200.00	7,589.36	13,295.00	8,409.82	43.05	78.09	141.85	-1,121.35	1,938.98	2,151.58	2,077.81	73.77	29.167	
10,300.00	7,589.36	13,295.00	8,409.82	43.47	78.09	141.85	-1,121.35	1,938.98	2,238.93	2,165.63	73.30	30.543	
10,400.00	7,589.36	13,295.00	8,409.82	43.90	78.09	141.85	-1,121.35	1,938.98	2,327.29	2,254.42	72.88	31.935	
10,500.00	7,589.35	13,295.00	8,409.82	44.33	78.09	141.85	-1,121.35	1,938.98	2,416.57	2,344.08	72.48	33.340	
10,600.00	7,589.35	13,295.00	8,409.82	44.78	78.09	141.85	-1,121.35	1,938.98	2,506.65	2,434.52	72.12	34.755	
10,700.00	7,589.34	13,295.00	8,409.82	45.23	78.09	141.85	-1,121.35	1,938.98	2,597.46	2,525.66	71.79	36.180	
10,800.00	7,589.34	13,295.00	8,409.82	45.69	78.09	141.85	-1,121.35	1,938.98	2,688.92	2,617.43	71.49	37.612	
10,900.00	7,589.33	13,295.00	8,409.82	46.16	78.09	141.85	-1,121.35	1,938.98	2,780.97	2,709.75	71.21	39.052	
11,000.00	7,589.33	13,295.00	8,409.82	46.64	78.09	141.85	-1,121.35	1,938.98	2,873.55	2,802.59	70.96	40.497	
11,100.00	7,589.33	13,295.00	8,409.82	47.12	78.09	141.85	-1,121.35	1,938.98	2,966.61	2,895.88	70.72	41.947	
11,200.00	7,589.32	13,295.00	8,409.82	47.61	78.09	141.85	-1,121.35	1,938.98	3,060.11	2,989.60	70.51	43.401	
11,300.00	7,589.32	13,295.00	8,409.82	48.11	78.09	141.85	-1,121.35	1,938.98	3,154.00	3,083.69	70.31	44.857	
11,400.00	7,589.31	13,295.00	8,409.82	48.61	78.09	141.85	-1,121.35	1,938.98	3,248.27	3,178.14	70.13	46.317	
11,500.00	7,589.31	13,295.00	8,409.82	49.12	78.09	141.85	-1,121.35	1,938.98	3,342.86	3,272.90	69.97	47.779	
11,600.00	7,589.31	13,295.00	8,409.82	49.64	78.09	141.85	-1,121.35	1,938.98	3,437.76	3,367.95	69.81	49.242	
11,700.00	7,589.30	13,295.00	8,409.82	50.16	78.09	141.85	-1,121.35	1,938.98	3,532.95	3,463.27	69.67	50.706	
11,800.00	7,589.30	13,295.00	8,409.82	50.69	78.09	141.85	-1,121.35	1,938.98	3,628.39	3,558.84	69.55	52.171	
11,900.00	7,589.29	13,295.00	8,409.82	51.23	78.09	141.85	-1,121.35	1,938.98	3,724.07	3,654.64	69.43	53.637	
12,000.00	7,589.29	13,295.00	8,409.82	51.77	78.09	141.85	-1,121.35	1,938.98	3,819.97	3,750.65	69.32	55.102	
12,100.00	7,589.28	13,295.00	8,409.82	52.31	78.09	141.85	-1,121.35	1,938.98	3,916.08	3,846.85	69.23	56.568	
12,200.00	7,589.28	13,295.00	8,409.82	52.86	78.09	141.85	-1,121.35	1,938.98	4,012.38	3,943.24	69.14	58.033	
12,300.00	7,589.28	13,295.00	8,409.82	53.42	78.09	141.85	-1,121.35	1,938.98	4,108.85	4,039.80	69.06	59.498	
12,400.00	7,589.27	13,295.00	8,409.82	53.98	78.09	141.85	-1,121.35	1,938.98	4,205.49	4,136.51	68.99	60.961	
12,500.00	7,589.27	13,295.00	8,409.82	54.55	78.09	141.85	-1,121.35	1,938.98	4,302.29	4,233.37	68.92	62.424	
12,600.00	7,589.26	13,295.00	8,409.82	55.12	78.09	141.85	-1,121.35	1,938.98	4,399.22	4,330.36	68.86	63.886	
12,700.00	7,589.26	13,295.00	8,409.82	55.70	78.09	141.85	-1,121.35	1,938.98	4,496.29	4,427.49	68.81	65.346	
12,800.00	7,589.26	13,295.00	8,409.82	56.28	78.09	141.85	-1,121.35	1,938.98	4,593.49	4,524.73	68.76	66.805	
12,900.00	7,589.25	13,295.00	8,409.82	56.86	78.09	141.85	-1,121.35	1,938.98	4,690.81	4,622.09	68.72	68.262	
13,000.00	7,589.25	13,295.00	8,409.82	57.45	78.09	141.85	-1,121.35	1,938.98	4,788.23	4,719.55	68.68	69.718	
13,100.00	7,589.24	13,295.00	8,409.82	58.04	78.09	141.85	-1,121.35	1,938.98	4,885.76	4,817.11	68.65	71.172	
13,200.00	7,589.24	13,295.00	8,409.82	58.64	78.09	141.85	-1,121.35	1,938.98	4,983.39	4,914.77	68.62	72.624	
13,300.00	7,589.23	13,295.00	8,409.82	59.24	78.09	141.85	-1,121.35	1,938.98	5,081.11	5,012.51	68.60	74.073	
13,400.00	7,589.23	13,295.00	8,409.82	59.84	78.09	141.85	-1,121.35	1,938.98	5,178.91	5,110.34	68.58	75.521	
13,500.00	7,589.23	13,295.00	8,409.82	60.45	78.09	141.85	-1,121.35	1,938.98	5,276.80	5,208.24	68.56	76.967	
13,600.00	7,589.22	13,295.00	8,409.82	61.06	78.09	141.85	-1,121.35	1,938.98	5,374.77	5,306.22	68.55	78.410	
13,700.00	7,589.22	13,295.00	8,409.82	61.68	78.09	141.85	-1,121.35	1,938.98	5,472.81	5,404.27	68.54	79.851	
13,800.00	7,589.21	13,295.00	8,409.82	62.30	78.09	141.85	-1,121.35	1,938.98	5,570.92	5,502.38	68.53	81.290	
13,900.00	7,589.21	13,295.00	8,409.82	62.92	78.09	141.85	-1,121.35	1,938.98	5,669.09	5,600.56	68.53	82.726	
14,000.00	7,589.21	13,295.00	8,409.82	63.54	78.09	141.85	-1,121.35	1,938.98	5,767.33	5,698.80	68.53	84.160	
14,100.00	7,589.20	13,295.00	8,409.82	64.17	78.09	141.85	-1,121.35	1,938.98	5,865.63	5,797.10	68.53	85.591	
14,200.00	7,589.20	13,295.00	8,409.82	64.80	78.09	141.85	-1,121.35	1,938.98	5,963.98	5,895.45	68.54	87.020	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Survey Program: 89-MWD+HRGM									Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
14,300.00	7,589.19	13,295.00	8,409.82	65.43	78.09	141.85	-1,121.35	1,938.98	6,062.39	5,993.85	68.54	88.446			
14,400.00	7,589.19	13,295.00	8,409.82	66.07	78.09	141.85	-1,121.35	1,938.98	6,160.85	6,092.30	68.55	89.869			
14,500.00	7,589.18	13,295.00	8,409.82	66.71	78.09	141.85	-1,121.35	1,938.98	6,259.36	6,190.79	68.57	91.289			
14,600.00	7,589.18	13,295.00	8,409.82	67.35	78.09	141.85	-1,121.35	1,938.98	6,357.91	6,289.33	68.58	92.706			
14,700.00	7,589.18	13,295.00	8,409.82	67.99	78.09	141.85	-1,121.35	1,938.98	6,456.51	6,387.91	68.60	94.121			
14,800.00	7,589.17	13,295.00	8,409.82	68.64	78.09	141.85	-1,121.35	1,938.98	6,555.15	6,486.54	68.62	95.533			
14,900.00	7,589.17	13,295.00	8,409.82	69.29	78.09	141.85	-1,121.35	1,938.98	6,653.84	6,585.20	68.64	96.941			
15,000.00	7,589.16	13,295.00	8,409.82	69.94	78.09	141.85	-1,121.35	1,938.98	6,752.56	6,683.90	68.66	98.347			
15,100.00	7,589.16	13,295.00	8,409.82	70.59	78.09	141.85	-1,121.35	1,938.98	6,851.32	6,782.63	68.69	99.750			
15,200.00	7,589.16	13,295.00	8,409.82	71.25	78.09	141.85	-1,121.35	1,938.98	6,950.11	6,881.40	68.71	101.149			
15,300.00	7,589.15	13,295.00	8,409.82	71.91	78.09	141.85	-1,121.35	1,938.98	7,048.94	6,980.20	68.74	102.545			
15,400.00	7,589.15	13,295.00	8,409.82	72.57	78.09	141.85	-1,121.35	1,938.98	7,147.80	7,079.03	68.77	103.939			
15,500.00	7,589.14	13,295.00	8,409.82	73.23	78.09	141.85	-1,121.35	1,938.98	7,246.69	7,177.89	68.80	105.329			
15,600.00	7,589.14	13,295.00	8,409.82	73.89	78.09	141.85	-1,121.35	1,938.98	7,345.61	7,276.78	68.83	106.716			
15,700.00	7,589.13	13,295.00	8,409.82	74.56	78.09	141.85	-1,121.35	1,938.98	7,444.56	7,375.69	68.87	108.099			
15,800.00	7,589.13	13,295.00	8,409.82	75.23	78.09	141.85	-1,121.35	1,938.98	7,543.54	7,474.64	68.90	109.479			
15,900.00	7,589.13	13,295.00	8,409.82	75.90	78.09	141.85	-1,121.35	1,938.98	7,642.54	7,573.60	68.94	110.856			
16,000.00	7,589.12	13,295.00	8,409.82	76.57	78.09	141.85	-1,121.35	1,938.98	7,741.57	7,672.60	68.98	112.230			
16,100.00	7,589.12	13,295.00	8,409.82	77.24	78.09	141.85	-1,121.35	1,938.98	7,840.63	7,771.61	69.02	113.600			
16,200.00	7,589.11	13,295.00	8,409.82	77.92	78.09	141.85	-1,121.35	1,938.98	7,939.71	7,870.65	69.06	114.967			
16,300.00	7,589.11	13,295.00	8,409.82	78.59	78.09	141.85	-1,121.35	1,938.98	8,038.81	7,969.71	69.10	116.331			
16,400.00	7,589.11	13,295.00	8,409.82	79.27	78.09	141.85	-1,121.35	1,938.98	8,137.93	8,068.79	69.15	117.691			
16,500.00	7,589.10	13,295.00	8,409.82	79.95	78.09	141.85	-1,121.35	1,938.98	8,237.08	8,167.89	69.19	119.047			
16,600.00	7,589.10	13,295.00	8,409.82	80.63	78.09	141.85	-1,121.35	1,938.98	8,336.24	8,267.00	69.24	120.400			
16,700.00	7,589.09	13,295.00	8,409.82	81.31	78.09	141.85	-1,121.35	1,938.98	8,435.43	8,366.14	69.29	121.750			
16,800.00	7,589.09	13,295.00	8,409.82	82.00	78.09	141.85	-1,121.35	1,938.98	8,534.63	8,465.30	69.33	123.096			
16,900.00	7,589.08	13,295.00	8,409.82	82.68	78.09	141.85	-1,121.35	1,938.98	8,633.85	8,564.47	69.38	124.438			
17,000.00	7,589.08	13,295.00	8,409.82	83.37	78.09	141.85	-1,121.35	1,938.98	8,733.09	8,663.66	69.43	125.777			
17,100.00	7,589.08	13,295.00	8,409.82	84.06	78.09	141.85	-1,121.35	1,938.98	8,832.35	8,762.87	69.48	127.112			
17,200.00	7,589.07	13,295.00	8,409.82	84.75	78.09	141.85	-1,121.35	1,938.98	8,931.62	8,862.09	69.54	128.444			
17,300.00	7,589.07	13,295.00	8,409.82	85.44	78.09	141.85	-1,121.35	1,938.98	9,030.91	8,961.32	69.59	129.772			
17,400.00	7,589.06	13,295.00	8,409.82	86.13	78.09	141.85	-1,121.35	1,938.98	9,130.22	9,060.57	69.65	131.096			
17,500.00	7,589.06	13,295.00	8,409.82	86.83	78.09	141.85	-1,121.35	1,938.98	9,229.54	9,159.84	69.70	132.417			
17,600.00	7,589.06	13,295.00	8,409.82	87.52	78.09	141.85	-1,121.35	1,938.98	9,328.87	9,259.12	69.76	133.733			
17,700.00	7,589.05	13,295.00	8,409.82	88.22	78.09	141.85	-1,121.35	1,938.98	9,428.22	9,358.41	69.81	135.047			
17,800.00	7,589.05	13,295.00	8,409.82	88.91	78.09	141.85	-1,121.35	1,938.98	9,527.58	9,457.71	69.87	136.356			
17,900.00	7,589.04	13,295.00	8,409.82	89.61	78.09	141.85	-1,121.35	1,938.98	9,626.96	9,557.03	69.93	137.662			
18,000.00	7,589.04	13,295.00	8,409.82	90.31	78.09	141.85	-1,121.35	1,938.98	9,726.35	9,656.36	69.99	138.964			
18,100.00	7,589.03	13,295.00	8,409.82	91.01	78.09	141.85	-1,121.35	1,938.98	9,825.75	9,755.70	70.05	140.262			
18,200.00	7,589.03	13,295.00	8,409.82	91.71	78.09	141.85	-1,121.35	1,938.98	9,925.16	9,855.05	70.11	141.557			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Survey Program: 145-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	29.14	3,825.37	2,132.73	4,379.77				
100.00	100.00	54.94	54.93	0.28	0.51	0.28	0.51	29.14	3,825.51	2,132.81	4,379.97	4,379.18	0.78	5,593.667	
200.00	200.00	145.00	144.99	0.63	0.55	0.63	0.55	29.14	3,826.37	2,133.28	4,381.01	4,379.83	1.18	3,714.765	
300.00	300.00	262.05	262.04	0.99	0.81	0.99	0.81	29.14	3,827.03	2,133.89	4,381.78	4,379.98	1.80	2,437.142	
400.00	400.00	334.00	333.99	1.35	1.02	1.35	1.02	29.15	3,827.54	2,134.33	4,382.65	4,380.28	2.37	1,849.687	
500.00	500.00	437.98	437.95	1.71	1.35	1.71	1.35	29.15	3,828.45	2,135.25	4,383.86	4,380.79	3.06	1,430.518	
600.00	600.00	540.73	540.70	2.07	1.70	2.07	1.70	29.15	3,829.01	2,135.93	4,384.65	4,380.88	3.77	1,162.972	
700.00	700.00	621.01	620.98	2.43	1.98	2.43	1.98	29.15	3,829.93	2,136.28	4,385.85	4,381.44	4.40	995.883	
800.00	800.00	721.64	721.60	2.79	2.32	2.79	2.32	29.14	3,831.44	2,136.40	4,387.22	4,382.11	5.11	858.565	
900.00	900.00	814.35	814.29	3.14	2.65	3.14	2.65	29.14	3,832.80	2,136.57	4,388.59	4,382.80	5.79	757.786	
1,000.00	1,000.00	909.10	909.03	3.50	2.98	3.50	2.98	29.12	3,834.67	2,136.52	4,390.28	4,383.80	6.48	677.408	
1,100.00	1,099.98	1,038.11	1,038.00	3.85	3.43	3.85	3.43	-98.91	3,837.48	2,134.98	4,391.88	4,384.61	7.27	603.745	
1,200.00	1,199.84	1,163.76	1,163.53	4.18	3.86	4.18	3.86	-99.03	3,840.70	2,130.60	4,393.22	4,385.17	8.04	546.158	
1,300.00	1,299.45	1,250.83	1,250.49	4.52	4.17	4.52	4.17	-99.15	3,843.30	2,127.07	4,395.24	4,386.56	8.69	505.992	
1,400.00	1,398.70	1,401.35	1,400.85	4.86	4.69	4.86	4.69	-99.43	3,846.69	2,121.19	4,397.34	4,387.78	9.56	460.168	
1,500.00	1,497.47	1,484.43	1,483.86	5.21	4.99	5.21	4.99	-99.60	3,848.04	2,118.11	4,399.62	4,389.43	10.19	431.552	
1,600.00	1,595.62	1,629.12	1,628.41	5.56	5.50	5.56	5.50	-99.98	3,850.33	2,112.13	4,402.40	4,391.34	11.06	398.216	
1,700.00	1,693.06	1,727.49	1,726.63	5.92	5.84	5.92	5.84	-100.27	3,851.60	2,106.77	4,405.03	4,393.27	11.76	374.577	
1,800.00	1,790.08	1,800.31	1,799.33	6.28	6.10	6.28	6.10	-100.55	3,852.83	2,102.95	4,408.60	4,396.22	12.38	356.073	
1,900.00	1,887.11	1,888.01	1,886.93	6.65	6.41	6.65	6.41	-100.87	3,854.43	2,099.04	4,412.79	4,399.73	13.06	337.907	
2,000.00	1,984.14	2,049.37	2,048.20	7.02	6.98	7.02	6.98	-101.43	3,855.08	2,094.01	4,416.60	4,402.61	13.99	315.619	
2,100.00	2,081.17	2,163.09	2,161.89	7.39	7.37	7.39	7.37	-101.80	3,853.46	2,091.81	4,419.41	4,404.66	14.75	299.546	
2,200.00	2,178.20	2,273.59	2,272.32	7.76	7.76	7.76	7.76	-102.17	3,852.32	2,088.32	4,422.21	4,406.70	15.51	285.091	
2,300.00	2,275.23	2,406.46	2,405.10	8.14	8.22	8.14	8.22	-102.61	3,850.00	2,084.07	4,424.51	4,408.16	16.35	270.640	
2,400.00	2,372.26	2,479.00	2,477.61	8.52	8.47	8.52	8.47	-102.84	3,848.34	2,082.58	4,426.91	4,409.94	16.98	260.751	
2,500.00	2,469.29	2,550.09	2,548.68	8.90	8.72	8.90	8.72	-103.07	3,847.00	2,081.22	4,429.92	4,412.31	17.60	251.629	
2,600.00	2,566.32	2,636.52	2,635.06	9.28	9.02	9.28	9.02	-103.36	3,846.30	2,078.47	4,433.48	4,415.19	18.29	242.384	
2,700.00	2,663.35	2,725.13	2,723.60	9.67	9.34	9.67	9.34	-103.66	3,845.94	2,075.24	4,437.36	4,418.37	18.99	233.690	
2,800.00	2,760.38	2,809.96	2,808.35	10.05	9.64	10.05	9.64	-103.96	3,846.06	2,071.49	4,441.59	4,421.92	19.67	225.748	
2,900.00	2,857.41	2,840.00	2,838.34	10.44	9.75	10.44	9.75	-104.08	3,846.37	2,069.72	4,446.64	4,426.48	20.16	220.515	
3,000.00	2,954.44	2,943.45	2,941.39	10.83	10.13	10.83	10.13	-104.50	3,849.19	2,061.20	4,452.00	4,431.07	20.93	212.694	
3,100.00	3,051.47	3,004.95	3,002.42	11.22	10.36	11.22	10.36	-104.78	3,852.28	2,054.29	4,458.56	4,437.02	21.54	206.980	
3,200.00	3,148.50	3,109.00	3,105.11	11.60	10.74	11.60	10.74	-105.30	3,859.93	2,039.44	4,466.42	4,444.11	22.31	200.180	
3,300.00	3,245.53	3,131.49	3,127.21	11.99	10.83	11.99	10.83	-105.41	3,861.92	2,035.79	4,474.60	4,451.83	22.77	196.484	
3,400.00	3,342.56	3,220.22	3,214.30	12.38	11.17	12.38	11.17	-105.88	3,870.02	2,020.85	4,483.70	4,460.20	23.50	190.813	
3,500.00	3,439.59	3,318.15	3,310.33	12.77	11.55	12.77	11.55	-106.41	3,879.09	2,003.96	4,493.18	4,468.91	24.26	185.173	
3,600.00	3,536.62	3,427.27	3,417.25	13.17	11.98	13.17	11.98	-107.00	3,888.99	1,984.51	4,502.68	4,477.60	25.08	179.504	
3,700.00	3,633.65	3,528.81	3,516.74	13.56	12.39	13.56	12.39	-107.54	3,897.94	1,966.26	4,512.32	4,486.44	25.88	174.383	
3,800.00	3,730.68	3,641.59	3,627.34	13.95	12.84	13.95	12.84	-108.14	3,907.35	1,946.32	4,522.03	4,495.31	26.72	169.253	
3,900.00	3,827.71	3,734.00	3,718.06	14.34	13.21	14.34	13.21	-108.62	3,914.58	1,930.32	4,531.76	4,504.29	27.48	164.939	
4,000.00	3,924.74	3,823.00	3,805.37	14.74	13.57	14.74	13.57	-109.08	3,921.72	1,914.58	4,541.94	4,513.72	28.22	160.938	
4,100.00	4,021.77	3,926.31	3,906.54	15.13	14.00	15.13	14.00	-109.63	3,930.23	1,895.46	4,552.45	4,523.42	29.04	156.791	
4,200.00	4,118.79	4,030.63	4,008.54	15.52	14.44	15.52	14.44	-110.19	3,938.67	1,875.33	4,563.02	4,533.16	29.86	152.817	
4,300.00	4,215.82	4,134.54	4,110.05	15.92	14.88	15.92	14.88	-110.76	3,946.93	1,854.69	4,573.70	4,543.01	30.69	149.048	
4,400.00	4,312.85	4,238.32	4,211.38	16.31	15.32	16.31	15.32	-111.32	3,954.93	1,833.74	4,584.50	4,552.98	31.52	145.454	
4,500.00	4,409.88	4,342.01	4,312.59	16.70	15.77	16.70	15.77	-111.88	3,962.68	1,812.56	4,595.43	4,563.08	32.35	142.051	
4,600.00	4,506.91	4,445.60	4,413.66	17.10	16.22	17.10	16.22	-112.44	3,970.15	1,791.14	4,606.48	4,573.30	33.18	138.824	
4,700.00	4,603.94	4,611.40	4,575.74	17.49	16.93	17.49	16.93	-113.32	3,980.27	1,757.71	4,617.09	4,582.79	34.30	134.625	
4,800.00	4,700.97	4,896.00	4,856.17	17.89	18.10	17.89	18.10	-114.67	3,986.44	1,710.13	4,625.17	4,589.31	35.87	128.959	
4,900.00	4,798.00	4,947.68	4,907.40	18.28	18.30	18.28	18.30	-114.89	3,986.10	1,703.31	4,632.03	4,595.58	36.46	127.057	
5,000.00	4,895.03	4,985.00	4,944.44	18.68	18.45	18.68	18.45	-115.04	3,986.30	1,698.80	4,640.33	4,603.34	36.99	125.460	
5,100.00	4,992.06	4,985.00	4,944.44	19.07	18.45	19.07	18.45	-115.04	3,986.30	1,698.80	4,650.38	4,613.03	37.36	124.486	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Offset Well Error: 0.00 usft

Survey Program: 145-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	5,061.08	5,020.05	19.47	18.74	-115.35			3,987.90	1,690.60	4,661.02	4,622.99	38.03	122.568	
5,300.00	5,186.12	5,098.86	5,057.64	19.87	18.88	-115.49			3,989.30	1,687.00	4,673.40	4,634.86	38.54	121.266	
5,400.00	5,283.15	5,164.00	5,122.46	20.26	19.13	-115.74			3,992.65	1,681.54	4,687.32	4,648.16	39.16	119.699	
5,500.00	5,380.18	14,247.49	9,899.86	20.66	72.96	-132.35			-544.82	1,612.90	4,613.00	4,562.38	50.62	91.129	
5,600.00	5,477.21	14,308.25	9,899.93	21.06	73.73	-132.53			-605.48	1,616.25	4,514.29	4,463.05	51.24	88.100	
5,700.00	5,574.24	14,338.12	9,899.69	21.45	74.11	-132.58			-635.27	1,618.38	4,415.49	4,363.85	51.65	85.496	
5,800.00	5,671.27	14,368.75	9,899.30	21.85	74.50	-132.63			-665.82	1,620.72	4,316.63	4,264.57	52.06	82.918	
5,900.00	5,768.30	14,398.01	9,898.79	22.24	74.87	-132.66			-694.97	1,623.10	4,217.72	4,165.26	52.47	80.391	
6,000.00	5,865.33	14,389.55	9,898.90	22.64	74.77	-132.64			-686.54	1,622.45	4,118.81	4,066.21	52.60	78.307	
6,100.00	5,962.36	14,397.00	9,898.81	23.04	74.86	-132.66			-693.97	1,623.02	4,019.97	3,967.12	52.85	76.063	
6,200.00	6,059.39	14,397.00	9,898.81	23.44	74.86	-132.66			-693.97	1,623.02	3,921.18	3,868.12	53.05	73.912	
6,300.00	6,156.42	14,593.00	9,893.67	23.83	77.38	-133.37			-889.38	1,635.59	3,822.41	3,767.72	54.68	69.900	
6,400.00	6,253.45	14,593.00	9,893.67	24.23	77.38	-133.37			-889.38	1,635.59	3,723.03	3,668.15	54.88	67.836	
6,500.00	6,350.47	14,593.00	9,893.67	24.63	77.38	-133.37			-889.38	1,635.59	3,623.69	3,568.61	55.09	65.783	
6,600.00	6,447.50	14,593.00	9,893.67	25.02	77.38	-133.37			-889.38	1,635.59	3,524.39	3,469.10	55.29	63.743	
6,700.00	6,544.53	14,593.00	9,893.67	25.42	77.38	-133.37			-889.38	1,635.59	3,425.13	3,369.63	55.50	61.715	
6,800.00	6,641.56	14,593.00	9,893.67	25.82	77.38	-133.37			-889.38	1,635.59	3,325.91	3,270.20	55.71	59.699	
6,900.00	6,738.59	14,593.00	9,893.67	26.22	77.38	-133.37			-889.38	1,635.59	3,226.74	3,170.81	55.93	57.697	
7,000.00	6,835.62	14,593.00	9,893.67	26.61	77.38	-133.37			-889.38	1,635.59	3,127.62	3,071.48	56.14	55.707	
7,100.00	6,932.65	14,593.00	9,893.67	27.01	77.38	-133.37			-889.38	1,635.59	3,028.56	2,972.19	56.37	53.729	
7,200.00	7,029.68	14,593.00	9,893.67	27.41	77.38	-133.37			-889.38	1,635.59	2,929.57	2,872.97	56.59	51.766	
7,300.00	7,126.71	14,593.00	9,893.67	27.81	77.38	-133.37			-889.38	1,635.59	2,830.64	2,773.82	56.82	49.815	
7,309.09	7,135.53	14,593.00	9,893.67	27.84	77.38	-133.37			-889.38	1,635.59	2,821.65	2,764.81	56.84	49.638	
7,350.00	7,174.84	14,593.00	9,893.67	28.01	77.38	-147.80			-889.38	1,635.59	2,781.39	2,724.46	56.93	48.857	
7,400.00	7,221.63	14,593.00	9,893.67	28.22	77.38	-156.94			-889.38	1,635.59	2,732.94	2,675.93	57.01	47.937	
7,450.00	7,266.71	14,593.00	9,893.67	28.44	77.38	-162.01			-889.38	1,635.59	2,685.71	2,628.65	57.07	47.061	
7,500.00	7,309.74	14,593.00	9,893.67	28.67	77.38	-165.15			-889.38	1,635.59	2,640.15	2,583.04	57.10	46.234	
7,550.00	7,350.39	14,593.00	9,893.67	28.91	77.38	-167.25			-889.38	1,635.59	2,596.68	2,539.56	57.12	45.458	
7,600.00	7,388.34	14,593.00	9,893.67	29.15	77.38	-168.74			-889.38	1,635.59	2,555.76	2,498.63	57.13	44.735	
7,650.00	7,423.32	14,593.00	9,893.67	29.40	77.38	-169.82			-889.38	1,635.59	2,517.83	2,460.69	57.14	44.066	
7,700.00	7,455.05	14,593.00	9,893.67	29.65	77.38	-170.63			-889.38	1,635.59	2,483.32	2,426.17	57.15	43.452	
7,750.00	7,483.30	14,593.00	9,893.67	29.90	77.38	-171.24			-889.38	1,635.59	2,452.65	2,395.47	57.18	42.892	
7,800.00	7,507.84	14,593.00	9,893.67	30.15	77.38	-171.71			-889.38	1,635.59	2,426.20	2,368.96	57.24	42.387	
7,850.00	7,528.50	14,593.00	9,893.67	30.41	77.38	-172.05			-889.38	1,635.59	2,404.31	2,346.98	57.33	41.936	
7,900.00	7,545.11	14,593.00	9,893.67	30.66	77.38	-172.30			-889.38	1,635.59	2,387.27	2,329.80	57.47	41.539	
7,919.09	7,550.36	14,593.00	9,893.67	30.75	77.38	-172.37			-889.38	1,635.59	2,382.10	2,324.57	57.53	41.404	
8,000.00	7,568.52	14,593.00	9,893.67	31.16	77.38	-172.48			-889.38	1,635.59	2,365.84	2,307.95	57.89	40.865	
8,100.00	7,583.22	14,593.00	9,893.67	31.66	77.38	-172.54			-889.38	1,635.59	2,357.23	2,298.71	58.52	40.283	
8,117.01	7,584.86	14,593.00	9,893.67	31.75	77.38	-172.54			-889.38	1,635.59	2,357.04	2,298.40	58.64	40.194	CC, ES
8,200.00	7,589.24	14,593.00	9,893.67	32.17	77.38	-172.51			-889.38	1,635.59	2,361.48	2,302.16	59.32	39.811	
8,219.09	7,589.40	14,593.00	9,893.67	32.26	77.38	-172.49			-889.38	1,635.59	2,363.75	2,304.26	59.49	39.735	
8,300.00	7,589.40	14,593.00	9,893.67	32.67	77.38	-172.49			-889.38	1,635.59	2,375.71	2,315.44	60.27	39.418	
8,400.00	7,589.40	14,593.00	9,893.67	33.21	77.38	-172.49			-889.38	1,635.59	2,394.19	2,332.82	61.37	39.014	
8,444.09	7,589.40	14,593.00	9,893.67	33.45	77.38	-172.49			-889.38	1,635.59	2,403.61	2,341.72	61.89	38.835	
8,500.00	7,589.40	14,593.00	9,893.67	33.76	77.38	-172.90			-889.38	1,635.59	2,416.77	2,354.18	62.59	38.614	
8,600.00	7,589.40	14,593.00	9,893.67	34.34	77.38	-173.73			-889.38	1,635.59	2,443.80	2,379.91	63.89	38.251	
8,700.00	7,589.40	14,593.00	9,893.67	34.92	77.38	-174.72			-889.38	1,635.59	2,475.11	2,409.88	65.23	37.943	
8,800.00	7,589.40	14,593.00	9,893.67	35.52	77.38	-175.85			-889.38	1,635.59	2,510.47	2,443.88	66.58	37.704	
8,900.00	7,589.40	14,593.00	9,893.67	36.12	77.38	-177.12			-889.38	1,635.59	2,549.61	2,481.69	67.91	37.543	
9,000.00	7,589.40	14,593.00	9,893.67	36.73	77.38	-178.53			-889.38	1,635.59	2,592.25	2,523.05	69.19	37.464	SF
9,100.00	7,589.40	14,593.00	9,893.67	37.33	77.38	179.92			-889.38	1,635.59	2,638.11	2,567.70	70.41	37.469	
9,200.00	7,589.40	14,593.00	9,893.67	37.92	77.38	178.24			-889.38	1,635.59	2,686.90	2,615.36	71.54	37.557	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Survey Program: 145-MWD+HRGM		Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy		Offset Site Error: 0.50 usft	
Reference		Offset		Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)
Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)
Separation Factor	Warning				
9,300.00	7,589.39	14,593.00	9,893.67	38.51	77.38
9,400.00	7,589.39	14,593.00	9,893.67	39.09	77.38
9,500.00	7,589.39	14,593.00	9,893.67	39.65	77.38
9,600.00	7,589.39	14,593.00	9,893.67	40.19	77.38
9,700.00	7,589.38	14,593.00	9,893.67	40.72	77.38
9,800.00	7,589.38	14,593.00	9,893.67	41.23	77.38
9,900.00	7,589.38	14,593.00	9,893.67	41.72	77.38
10,000.00	7,589.37	14,593.00	9,893.67	42.18	77.38
10,100.00	7,589.37	14,593.00	9,893.67	42.63	77.38
10,173.66	7,589.36	14,593.00	9,893.67	42.94	77.38
10,200.00	7,589.36	14,593.00	9,893.67	43.05	77.38
10,300.00	7,589.36	14,593.00	9,893.67	43.47	77.38
10,400.00	7,589.36	14,593.00	9,893.67	43.90	77.38
10,500.00	7,589.35	14,593.00	9,893.67	44.33	77.38
10,600.00	7,589.35	14,593.00	9,893.67	44.78	77.38
10,700.00	7,589.34	14,593.00	9,893.67	45.23	77.38
10,800.00	7,589.34	14,593.00	9,893.67	45.69	77.38
10,900.00	7,589.33	14,593.00	9,893.67	46.16	77.38
11,000.00	7,589.33	14,593.00	9,893.67	46.64	77.38
11,100.00	7,589.33	14,593.00	9,893.67	47.12	77.38
11,200.00	7,589.32	14,593.00	9,893.67	47.61	77.38
11,300.00	7,589.32	14,593.00	9,893.67	48.11	77.38
11,400.00	7,589.31	14,593.00	9,893.67	48.61	77.38
11,500.00	7,589.31	14,593.00	9,893.67	49.12	77.38
11,600.00	7,589.31	14,593.00	9,893.67	49.64	77.38
11,700.00	7,589.30	14,593.00	9,893.67	50.16	77.38
11,800.00	7,589.30	14,593.00	9,893.67	50.69	77.38
11,900.00	7,589.29	14,593.00	9,893.67	51.23	77.38
12,000.00	7,589.29	14,593.00	9,893.67	51.77	77.38
12,100.00	7,589.28	14,593.00	9,893.67	52.31	77.38
12,200.00	7,589.28	14,593.00	9,893.67	52.86	77.38
12,300.00	7,589.28	14,593.00	9,893.67	53.42	77.38
12,400.00	7,589.27	14,593.00	9,893.67	53.98	77.38
12,500.00	7,589.27	14,593.00	9,893.67	54.55	77.38
12,600.00	7,589.26	14,593.00	9,893.67	55.12	77.38
12,700.00	7,589.26	14,593.00	9,893.67	55.70	77.38
12,800.00	7,589.26	14,593.00	9,893.67	56.28	77.38
12,900.00	7,589.25	14,593.00	9,893.67	56.86	77.38
13,000.00	7,589.25	14,593.00	9,893.67	57.45	77.38
13,100.00	7,589.24	14,593.00	9,893.67	58.04	77.38
13,200.00	7,589.24	14,593.00	9,893.67	58.64	77.38
13,300.00	7,589.23	14,593.00	9,893.67	59.24	77.38
13,400.00	7,589.23	14,593.00	9,893.67	59.84	77.38
13,500.00	7,589.23	14,593.00	9,893.67	60.45	77.38
13,600.00	7,589.22	14,593.00	9,893.67	61.06	77.38
13,700.00	7,589.22	14,593.00	9,893.67	61.68	77.38
13,800.00	7,589.21	14,593.00	9,893.67	62.30	77.38
13,900.00	7,589.21	14,593.00	9,893.67	62.92	77.38
14,000.00	7,589.21	14,593.00	9,893.67	63.54	77.38
14,100.00	7,589.20	14,593.00	9,893.67	64.17	77.38
14,200.00	7,589.20	14,593.00	9,893.67	64.80	77.38
14,300.00	7,589.19	14,593.00	9,893.67	65.43	77.38

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Survey Program: 145-MWD+HRGM							Rule Assigned:					Offset Site Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Factor		
14,400.00	7,589.19	14,593.00	9,893.67	66.07	77.38	157.49	-889.38	1,635.59	6,783.50	6,704.16	79.34	85.500		
14,500.00	7,589.18	14,593.00	9,893.67	66.71	77.38	157.49	-889.38	1,635.59	6,876.47	6,797.11	79.36	86.646		
14,600.00	7,589.18	14,593.00	9,893.67	67.35	77.38	157.49	-889.38	1,635.59	6,969.64	6,890.25	79.39	87.793		
14,700.00	7,589.18	14,593.00	9,893.67	67.99	77.38	157.49	-889.38	1,635.59	7,063.00	6,983.58	79.41	88.940		
14,800.00	7,589.17	14,593.00	9,893.67	68.64	77.38	157.49	-889.38	1,635.59	7,156.53	7,077.09	79.44	90.088		
14,900.00	7,589.17	14,593.00	9,893.67	69.29	77.38	157.49	-889.38	1,635.59	7,250.24	7,170.77	79.47	91.237		
15,000.00	7,589.16	14,593.00	9,893.67	69.94	77.38	157.49	-889.38	1,635.59	7,344.11	7,264.62	79.49	92.386		
15,100.00	7,589.16	14,593.00	9,893.67	70.59	77.38	157.49	-889.38	1,635.59	7,438.15	7,358.62	79.52	93.536		
15,200.00	7,589.16	14,593.00	9,893.67	71.25	77.38	157.49	-889.38	1,635.59	7,532.33	7,452.78	79.55	94.685		
15,300.00	7,589.15	14,593.00	9,893.67	71.91	77.38	157.49	-889.38	1,635.59	7,626.67	7,547.09	79.58	95.835		
15,400.00	7,589.15	14,593.00	9,893.67	72.57	77.38	157.49	-889.38	1,635.59	7,721.14	7,641.53	79.61	96.984		
15,500.00	7,589.14	14,593.00	9,893.67	73.23	77.38	157.49	-889.38	1,635.59	7,815.76	7,736.12	79.64	98.134		
15,600.00	7,589.14	14,593.00	9,893.67	73.89	77.38	157.49	-889.38	1,635.59	7,910.51	7,830.83	79.68	99.283		
15,700.00	7,589.13	14,593.00	9,893.67	74.56	77.38	157.49	-889.38	1,635.59	8,005.38	7,925.67	79.71	100.431		
15,800.00	7,589.13	14,593.00	9,893.67	75.23	77.38	157.49	-889.38	1,635.59	8,100.38	8,020.64	79.74	101.580		
15,900.00	7,589.13	14,593.00	9,893.67	75.90	77.38	157.49	-889.38	1,635.59	8,195.50	8,115.72	79.78	102.727		
16,000.00	7,589.12	14,593.00	9,893.67	76.57	77.38	157.49	-889.38	1,635.59	8,290.73	8,210.91	79.82	103.874		
16,100.00	7,589.12	14,593.00	9,893.67	77.24	77.38	157.49	-889.38	1,635.59	8,386.07	8,306.22	79.85	105.021		
16,200.00	7,589.11	14,593.00	9,893.67	77.92	77.38	157.49	-889.38	1,635.59	8,481.52	8,401.63	79.89	106.166		
16,300.00	7,589.11	14,593.00	9,893.67	78.59	77.38	157.49	-889.38	1,635.59	8,577.08	8,497.15	79.93	107.311		
16,400.00	7,589.11	14,593.00	9,893.67	79.27	77.38	157.49	-889.38	1,635.59	8,672.73	8,592.77	79.97	108.454		
16,500.00	7,589.10	14,593.00	9,893.67	79.95	77.38	157.49	-889.38	1,635.59	8,768.48	8,688.48	80.01	109.597		
16,600.00	7,589.10	14,593.00	9,893.67	80.63	77.38	157.49	-889.38	1,635.59	8,864.33	8,784.28	80.05	110.739		
16,700.00	7,589.09	14,593.00	9,893.67	81.31	77.38	157.49	-889.38	1,635.59	8,960.26	8,880.18	80.09	111.880		
16,800.00	7,589.09	14,593.00	9,893.67	82.00	77.38	157.49	-889.38	1,635.59	9,056.29	8,976.16	80.13	113.019		
16,900.00	7,589.08	14,593.00	9,893.67	82.68	77.38	157.49	-889.38	1,635.59	9,152.40	9,072.22	80.17	114.157		
17,000.00	7,589.08	14,593.00	9,893.67	83.37	77.38	157.49	-889.38	1,635.59	9,248.59	9,168.37	80.22	115.294		
17,100.00	7,589.08	14,593.00	9,893.67	84.06	77.38	157.49	-889.38	1,635.59	9,344.86	9,264.60	80.26	116.430		
17,200.00	7,589.07	14,593.00	9,893.67	84.75	77.38	157.49	-889.38	1,635.59	9,441.21	9,360.90	80.31	117.564		
17,300.00	7,589.07	14,593.00	9,893.67	85.44	77.38	157.49	-889.38	1,635.59	9,537.63	9,457.28	80.35	118.696		
17,400.00	7,589.06	14,593.00	9,893.67	86.13	77.38	157.49	-889.38	1,635.59	9,634.13	9,553.73	80.40	119.827		
17,500.00	7,589.06	14,593.00	9,893.67	86.83	77.38	157.49	-889.38	1,635.59	9,730.70	9,650.25	80.45	120.957		
17,600.00	7,589.06	14,593.00	9,893.67	87.52	77.38	157.49	-889.38	1,635.59	9,827.34	9,746.84	80.50	122.085		
17,700.00	7,589.05	14,593.00	9,893.67	88.22	77.38	157.49	-889.38	1,635.59	9,924.04	9,843.49	80.54	123.211		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Offset Well Error: 0.00 usft

Survey Program: 55-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	29.82	3,825.37	2,192.73	4,409.30				
100.00	100.00	55.00	54.99	0.28	0.51	0.28	0.51	29.83	3,825.14	2,193.42	4,409.46	4,408.69	0.78	5,658.661	
200.00	200.00	119.80	119.79	0.63	0.58	0.63	0.58	29.84	3,825.41	2,194.15	4,410.41	4,409.20	1.21	3,645.552	
300.00	300.00	261.79	261.73	0.99	0.93	0.99	0.93	29.80	3,828.09	2,192.15	4,411.36	4,409.44	1.92	2,297.208	
400.00	400.00	334.00	333.94	1.35	1.15	1.35	1.15	29.79	3,828.94	2,191.82	4,412.14	4,409.63	2.50	1,762.061	
500.00	500.00	563.86	563.76	1.71	1.92	1.71	1.92	29.76	3,829.19	2,189.06	4,411.54	4,407.92	3.63	1,216.424	
600.00	600.00	660.73	660.61	2.07	2.25	2.07	2.25	29.74	3,828.35	2,186.77	4,409.61	4,405.30	4.31	1,021.943	
700.00	700.00	729.05	728.91	2.43	2.48	2.43	2.48	29.72	3,827.85	2,185.47	4,408.07	4,403.16	4.91	898.022	
800.00	800.00	781.00	780.86	2.79	2.66	2.79	2.66	29.72	3,827.67	2,185.05	4,407.44	4,401.99	5.45	809.181	
821.46	821.46	800.64	800.50	2.86	2.73	2.86	2.73	29.72	3,827.66	2,185.01	4,407.41	4,401.82	5.59	788.351	
900.00	900.00	846.24	846.10	3.14	2.89	3.14	2.89	29.72	3,827.80	2,185.13	4,407.72	4,401.69	6.03	731.233	
1,000.00	1,000.00	938.44	938.30	3.50	3.20	3.50	3.20	29.72	3,828.60	2,185.65	4,408.74	4,402.04	6.70	657.809	
1,100.00	1,099.98	1,060.06	1,059.91	3.85	3.62	3.85	3.62	-98.29	3,829.48	2,185.84	4,409.70	4,402.24	7.47	590.639	
1,200.00	1,199.84	1,125.82	1,125.66	4.18	3.84	4.18	3.84	-98.30	3,829.71	2,186.62	4,411.33	4,403.31	8.02	549.770	
1,300.00	1,299.45	1,190.18	1,190.01	4.52	4.07	4.52	4.07	-98.30	3,830.04	2,188.13	4,414.21	4,405.63	8.58	514.337	
1,400.00	1,398.70	1,246.00	1,245.80	4.86	4.26	4.86	4.26	-98.28	3,830.66	2,189.77	4,418.46	4,409.35	9.12	484.731	
1,500.00	1,497.47	1,317.10	1,316.84	5.21	4.50	5.21	4.50	-98.29	3,831.85	2,192.34	4,424.04	4,414.33	9.71	455.751	
1,600.00	1,595.62	1,390.15	1,389.80	5.56	4.76	5.56	4.76	-98.31	3,833.32	2,195.62	4,430.85	4,420.54	10.31	429.725	
1,700.00	1,693.06	1,497.08	1,496.57	5.92	5.13	5.92	5.13	-98.42	3,835.42	2,201.17	4,438.54	4,427.50	11.04	401.995	
1,800.00	1,790.08	1,618.96	1,618.30	6.28	5.56	6.28	5.56	-98.75	3,837.49	2,206.75	4,446.05	4,434.22	11.83	375.746	
1,900.00	1,887.11	1,735.46	1,734.71	6.65	5.97	6.65	5.97	-99.07	3,839.42	2,210.94	4,453.17	4,440.56	12.61	353.161	
2,000.00	1,984.14	1,825.79	1,824.99	7.02	6.29	7.02	6.29	-99.33	3,840.96	2,213.70	4,460.19	4,446.89	13.30	335.423	
2,100.00	2,081.17	1,901.49	1,900.61	7.39	6.56	7.39	6.56	-99.54	3,842.33	2,216.55	4,467.73	4,453.79	13.94	320.609	
2,200.00	2,178.20	1,987.06	1,986.08	7.76	6.87	7.76	6.87	-99.77	3,843.92	2,220.56	4,475.81	4,461.20	14.61	306.325	
2,300.00	2,275.23	2,101.78	2,100.60	8.14	7.28	8.14	7.28	-100.05	3,845.19	2,227.17	4,483.82	4,468.43	15.40	291.216	
2,400.00	2,372.26	2,223.41	2,221.99	8.52	7.71	8.52	7.71	-100.34	3,845.47	2,234.79	4,491.35	4,475.14	16.21	277.069	
2,500.00	2,469.29	2,318.00	2,316.40	8.90	8.05	8.90	8.05	-100.56	3,845.51	2,240.57	4,498.76	4,481.83	16.93	265.773	
2,600.00	2,566.32	2,389.77	2,387.99	9.28	8.31	9.28	8.31	-100.72	3,845.64	2,245.60	4,506.74	4,489.17	17.56	256.611	
2,700.00	2,663.35	2,472.26	2,470.23	9.67	8.61	9.67	8.61	-100.90	3,845.80	2,252.13	4,515.20	4,496.96	18.24	247.550	
2,800.00	2,760.38	2,550.93	2,548.66	10.05	8.89	10.05	8.89	-101.07	3,846.29	2,258.29	4,524.07	4,505.17	18.90	239.327	
2,900.00	2,857.41	2,657.28	2,654.78	10.44	9.28	10.44	9.28	-101.33	3,847.97	2,265.04	4,533.23	4,513.56	19.67	230.443	
3,000.00	2,954.44	2,729.20	2,726.55	10.83	9.54	10.83	9.54	-101.50	3,849.08	2,269.48	4,542.41	4,522.10	20.31	223.640	
3,100.00	3,051.47	2,754.00	2,751.28	11.22	9.63	11.22	9.63	-101.56	3,849.56	2,271.21	4,552.74	4,531.98	20.77	219.207	
3,200.00	3,148.50	2,804.49	2,801.58	11.60	9.81	11.60	9.81	-101.67	3,851.01	2,275.31	4,564.29	4,542.96	21.32	214.042	
3,300.00	3,245.53	2,843.00	2,839.87	11.99	9.96	11.99	9.96	-101.76	3,852.67	2,279.04	4,577.42	4,555.59	21.83	209.693	
3,400.00	3,342.56	2,843.00	2,839.87	12.38	9.96	12.38	9.96	-101.76	3,852.67	2,279.04	4,592.20	4,570.03	22.17	207.108	
3,500.00	3,439.59	2,898.63	2,895.06	12.77	10.16	12.77	10.16	-101.87	3,856.00	2,285.29	4,608.05	4,585.30	22.74	202.633	
3,600.00	3,536.62	2,932.00	2,928.06	13.17	10.29	13.17	10.29	-101.94	3,858.55	2,289.48	4,625.56	4,602.35	23.21	199.275	
3,700.00	3,633.65	2,971.02	2,966.57	13.56	10.44	13.56	10.44	-102.01	3,861.91	2,294.77	4,644.41	4,620.71	23.70	195.934	
3,800.00	3,730.68	3,022.00	3,016.77	13.95	10.63	13.95	10.63	-102.10	3,866.74	2,302.24	4,664.47	4,640.22	24.24	192.394	
3,900.00	3,827.71	3,075.73	3,069.56	14.34	10.84	14.34	10.84	-102.19	3,872.16	2,310.63	4,685.49	4,660.70	24.80	188.959	
4,000.00	3,924.74	3,155.66	3,147.99	14.74	11.15	14.74	11.15	-102.33	3,880.42	2,323.65	4,707.14	4,681.67	25.47	184.844	
4,100.00	4,021.77	3,260.60	3,250.97	15.13	11.56	15.13	11.56	-102.50	3,891.43	2,340.54	4,728.88	4,702.63	26.25	180.148	
4,200.00	4,118.79	3,375.19	3,363.54	15.52	12.01	15.52	12.01	-102.69	3,903.27	2,358.45	4,750.35	4,723.27	27.08	175.417	
4,300.00	4,215.82	3,469.00	3,455.74	15.92	12.38	15.92	12.38	-102.86	3,912.99	2,372.71	4,771.71	4,743.89	27.82	171.538	
4,400.00	4,312.85	3,642.15	3,626.33	16.31	13.07	16.31	13.07	-103.17	3,929.90	2,397.07	4,791.95	4,763.04	28.92	165.722	
4,500.00	4,409.88	3,714.23	3,697.42	16.70	13.36	16.70	13.36	-103.30	3,936.65	2,406.83	4,811.93	4,782.37	29.56	162.807	
4,600.00	4,506.91	3,767.93	3,750.25	17.10	13.57	17.10	13.57	-103.39	3,941.91	2,414.90	4,832.82	4,802.71	30.11	160.494	
4,700.00	4,603.94	3,826.00	3,807.26	17.49	13.81	17.49	13.81	-103.48	3,947.96	2,424.15	4,854.63	4,823.95	30.69	158.197	
4,800.00	4,700.97	3,903.77	3,883.50	17.89	14.13	17.89	14.13	-103.60	3,956.36	2,437.00	4,877.07	4,845.71	31.36	155.538	
4,900.00	4,798.00	3,988.78	3,966.81	18.28	14.48	18.28	14.48	-103.73	3,965.70	2,451.14	4,899.76	4,867.70	32.06	152.831	
5,000.00	4,895.03	4,139.20	4,114.36	18.68	15.10	18.68	15.10	-103.97	3,982.25	2,475.21	4,922.37	4,889.29	33.08	148.813	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Offset Site Error: 0.50 usft

Offset Well Error: 0.00 usft

Survey Program: 55-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	4,992.06	4,512.20	4,482.43	19.07	16.61	-104.57			4,011.29	2,527.66	4,940.68	4,905.57	35.10	140.743	
5,200.00	5,089.09	4,600.69	4,570.05	19.47	16.97	-104.71			4,016.30	2,538.90	4,957.18	4,921.35	35.83	138.360	
5,300.00	5,186.12	4,602.73	9,758.34	19.87	71.27	-80.54			-422.82	2,613.92	4,957.59	4,904.79	52.80	93.894	
5,400.00	5,283.15	14,037.37	9,758.61	20.26	71.46	-80.06			-437.44	2,614.56	4,861.10	4,807.84	53.25	91.282	
5,500.00	5,380.18	14,052.74	9,758.89	20.66	71.65	-79.54			-452.79	2,615.27	4,764.69	4,710.97	53.72	88.688	
5,600.00	5,477.21	14,068.09	9,759.16	21.06	71.85	-79.01			-468.12	2,616.01	4,668.39	4,614.18	54.21	86.123	
5,700.00	5,574.24	14,153.27	9,760.11	21.45	72.94	-75.94			-553.19	2,620.16	4,572.14	4,516.92	55.22	82.802	
5,800.00	5,671.27	14,169.38	9,760.18	21.85	73.14	-75.33			-569.29	2,620.85	4,475.78	4,420.05	55.73	80.313	
5,900.00	5,768.30	14,247.36	9,760.10	22.24	74.14	-72.26			-647.21	2,623.65	4,379.36	4,322.64	56.71	77.221	
6,000.00	5,865.33	14,259.38	9,760.04	22.64	74.30	-71.76			-659.22	2,624.01	4,282.99	4,225.77	57.22	74.853	
6,100.00	5,962.36	14,271.48	9,759.98	23.04	74.45	-71.26			-671.32	2,624.39	4,186.75	4,129.01	57.74	72.508	
6,200.00	6,059.39	14,283.68	9,759.93	23.44	74.61	-70.75			-683.51	2,624.78	4,090.65	4,032.37	58.28	70.187	
6,300.00	6,156.42	14,302.00	9,759.86	23.83	74.84	-69.97			-701.82	2,625.37	3,994.70	3,935.82	58.88	67.840	
6,400.00	6,253.45	14,302.00	9,759.86	24.23	74.84	-69.97			-701.82	2,625.37	3,898.90	3,839.53	59.37	65.671	
6,500.00	6,350.47	14,302.00	9,759.86	24.63	74.84	-69.97			-701.82	2,625.37	3,803.32	3,743.44	59.88	63.519	
6,600.00	6,447.50	14,302.00	9,759.86	25.02	74.84	-69.97			-701.82	2,625.37	3,707.97	3,647.56	60.41	61.385	
6,700.00	6,544.53	14,329.64	9,759.83	25.42	75.20	-68.77			-729.44	2,626.37	3,612.67	3,551.51	61.16	59.068	
6,800.00	6,641.56	14,337.91	9,759.85	25.82	75.31	-68.40			-737.71	2,626.70	3,517.69	3,455.90	61.80	56.922	
6,900.00	6,738.59	14,346.38	9,759.88	26.22	75.42	-68.02			-746.17	2,627.05	3,422.97	3,360.50	62.46	54.799	
7,000.00	6,835.62	14,355.04	9,759.93	26.61	75.53	-67.63			-754.82	2,627.42	3,328.51	3,265.35	63.16	52.699	
7,100.00	6,932.65	14,363.91	9,760.00	27.01	75.64	-67.23			-763.68	2,627.82	3,234.34	3,170.45	63.89	50.623	
7,200.00	7,029.68	14,372.99	9,760.08	27.41	75.76	-66.82			-772.75	2,628.24	3,140.48	3,075.83	64.66	48.572	
7,300.00	7,126.71	14,396.00	9,760.35	27.81	76.06	-65.75			-795.73	2,629.39	3,047.02	2,981.46	65.56	46.475	
7,309.09	7,135.53	14,396.00	9,760.35	27.84	76.06	-65.75			-795.73	2,629.39	3,038.53	2,972.90	65.63	46.297	
7,350.00	7,174.84	14,396.00	9,760.35	28.01	76.06	-76.14			-795.73	2,629.39	3,000.19	2,934.26	65.93	45.505	
7,400.00	7,221.63	14,396.00	9,760.35	28.22	76.06	-90.00			-795.73	2,629.39	2,953.10	2,886.85	66.26	44.572	
7,450.00	7,266.71	14,396.00	9,760.35	28.44	76.06	-103.61			-795.73	2,629.39	2,906.11	2,839.58	66.53	43.681	
7,500.00	7,309.74	14,413.17	9,760.61	28.67	76.28	-115.41			-812.87	2,630.33	2,859.51	2,792.63	66.88	42.758	
7,550.00	7,350.39	14,424.94	9,760.81	28.91	76.43	-125.25			-824.62	2,631.01	2,813.68	2,746.56	67.12	41.918	
7,600.00	7,388.34	14,446.00	9,761.22	29.15	76.71	-133.11			-845.64	2,632.31	2,769.00	2,701.62	67.37	41.099	
7,650.00	7,423.32	14,457.41	9,761.46	29.40	76.85	-139.20			-857.02	2,633.05	2,725.77	2,658.28	67.49	40.389	
7,700.00	7,455.05	14,483.76	9,762.01	29.65	77.20	-144.12			-883.31	2,634.75	2,684.34	2,616.70	67.64	39.685	
7,750.00	7,483.30	14,503.00	9,762.41	29.90	77.45	-147.95			-902.51	2,635.99	2,645.06	2,577.39	67.67	39.085	
7,800.00	7,507.84	14,503.00	9,762.41	30.15	77.45	-150.69			-902.51	2,635.99	2,608.51	2,541.00	67.51	38.637	
7,850.00	7,528.50	14,503.00	9,762.41	30.41	77.45	-152.81			-902.51	2,635.99	2,575.17	2,507.87	67.30	38.265	
7,900.00	7,545.11	14,503.00	9,762.41	30.66	77.45	-154.45			-902.51	2,635.99	2,545.40	2,478.37	67.04	37.969	
7,919.09	7,550.36	14,503.00	9,762.41	30.75	77.45	-154.98			-902.51	2,635.99	2,535.06	2,468.14	66.93	37.879	
8,000.00	7,568.52	14,503.00	9,762.41	31.16	77.45	-155.92			-902.51	2,635.99	2,495.70	2,429.25	66.46	37.555	
8,100.00	7,583.22	14,503.00	9,762.41	31.66	77.45	-156.77			-902.51	2,635.99	2,456.45	2,390.58	65.87	37.292	
8,200.00	7,589.24	14,503.00	9,762.41	32.17	77.45	-157.35			-902.51	2,635.99	2,428.34	2,363.03	65.31	37.180	
8,219.09	7,589.40	14,503.00	9,762.41	32.26	77.45	-157.43			-902.51	2,635.99	2,424.29	2,359.08	65.21	37.176	
8,300.00	7,589.40	14,503.00	9,762.41	32.67	77.45	-157.43			-902.51	2,635.99	2,409.36	2,344.52	64.84	37.161	
8,400.00	7,589.40	14,503.00	9,762.41	33.21	77.45	-157.43			-902.51	2,635.99	2,394.55	2,330.06	64.50	37.127	
8,444.09	7,589.40	14,503.00	9,762.41	33.45	77.45	-157.43			-902.51	2,635.99	2,389.33	2,324.94	64.39	37.108	
8,500.00	7,589.40	14,503.00	9,762.41	33.76	77.45	-157.28			-902.51	2,635.99	2,384.17	2,319.87	64.30	37.080	
8,600.00	7,589.40	14,503.00	9,762.41	34.34	77.45	-157.16			-902.51	2,635.99	2,379.77	2,315.49	64.28	37.023	
8,620.61	7,589.40	14,503.00	9,762.41	34.46	77.45	-157.16			-902.51	2,635.99	2,379.64	2,315.34	64.30	37.011	CC, ES
8,700.00	7,589.40	14,503.00	9,762.41	34.92	77.45	-157.21			-902.51	2,635.99	2,381.60	2,317.18	64.42	36.968	
8,800.00	7,589.40	14,503.00	9,762.41	35.52	77.45	-157.43			-902.51	2,635.99	2,389.64	2,324.93	64.71	36.928	
8,900.00	7,589.40	14,503.00	9,762.41	36.12	77.45	-157.83			-902.51	2,635.99	2,403.81	2,338.69	65.12	36.916	SF
9,000.00	7,589.40	14,503.00	9,762.41	36.73	77.45	-158.40			-902.51	2,635.99	2,423.95	2,358.34	65.61	36.944	
9,100.00	7,589.40	14,503.00	9,762.41	37.33	77.45	-159.16			-902.51	2,635.99	2,449.87	2,383.70	66.17	37.022	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Survey Program:		55-MWD+HRGM								Rule Assigned:				Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
9,200.00	7,589.40	14,503.00	9,762.41	37.92	77.45	-160.09	-902.51	2,635.99	2,481.32	2,414.54	66.78	37.157					
9,300.00	7,589.39	14,503.00	9,762.41	38.51	77.45	-161.20	-902.51	2,635.99	2,518.00	2,450.60	67.41	37.354					
9,400.00	7,589.39	14,503.00	9,762.41	39.09	77.45	-162.51	-902.51	2,635.99	2,559.60	2,491.56	68.04	37.618					
9,500.00	7,589.39	14,503.00	9,762.41	39.65	77.45	-164.00	-902.51	2,635.99	2,605.76	2,537.09	68.66	37.949					
9,600.00	7,589.39	14,503.00	9,762.41	40.19	77.45	-165.69	-902.51	2,635.99	2,656.12	2,586.86	69.27	38.346					
9,700.00	7,589.38	14,503.00	9,762.41	40.72	77.45	-167.58	-902.51	2,635.99	2,710.32	2,640.48	69.84	38.808					
9,800.00	7,589.38	14,503.00	9,762.41	41.23	77.45	-169.65	-902.51	2,635.99	2,767.99	2,697.61	70.38	39.330					
9,900.00	7,589.38	14,503.00	9,762.41	41.72	77.45	-171.92	-902.51	2,635.99	2,828.76	2,757.88	70.88	39.909					
10,000.00	7,589.37	14,503.00	9,762.41	42.18	77.45	-174.37	-902.51	2,635.99	2,892.27	2,820.92	71.35	40.538					
10,100.00	7,589.37	14,503.00	9,762.41	42.63	77.45	-176.99	-902.51	2,635.99	2,958.18	2,886.41	71.78	41.213					
10,173.66	7,589.36	14,503.00	9,762.41	42.94	77.45	-179.02	-902.51	2,635.99	3,008.07	2,936.00	72.07	41.736					
10,200.00	7,589.36	14,503.00	9,762.41	43.05	77.45	-179.02	-902.51	2,635.99	3,026.17	2,953.99	72.18	41.927					
10,300.00	7,589.36	14,503.00	9,762.41	43.47	77.45	-179.02	-902.51	2,635.99	3,095.91	3,023.36	72.55	42.674					
10,400.00	7,589.36	14,503.00	9,762.41	43.90	77.45	-179.02	-902.51	2,635.99	3,167.28	3,094.39	72.89	43.452					
10,500.00	7,589.35	14,503.00	9,762.41	44.33	77.45	-179.02	-902.51	2,635.99	3,240.16	3,166.95	73.21	44.257					
10,600.00	7,589.35	14,503.00	9,762.41	44.78	77.45	-179.02	-902.51	2,635.99	3,314.46	3,240.95	73.51	45.089					
10,700.00	7,589.34	14,503.00	9,762.41	45.23	77.45	-179.02	-902.51	2,635.99	3,390.08	3,316.30	73.79	45.944					
10,800.00	7,589.34	14,503.00	9,762.41	45.69	77.45	-179.02	-902.51	2,635.99	3,466.94	3,392.89	74.05	46.821					
10,900.00	7,589.33	14,503.00	9,762.41	46.16	77.45	-179.02	-902.51	2,635.99	3,544.95	3,470.66	74.29	47.718					
11,000.00	7,589.33	14,503.00	9,762.41	46.64	77.45	-179.02	-902.51	2,635.99	3,624.04	3,549.52	74.52	48.634					
11,100.00	7,589.33	14,503.00	9,762.41	47.12	77.45	-179.02	-902.51	2,635.99	3,704.14	3,629.41	74.73	49.568					
11,200.00	7,589.32	14,503.00	9,762.41	47.61	77.45	-179.02	-902.51	2,635.99	3,785.19	3,710.26	74.93	50.518					
11,300.00	7,589.32	14,503.00	9,762.41	48.11	77.45	-179.02	-902.51	2,635.99	3,867.12	3,792.01	75.12	51.482					
11,400.00	7,589.31	14,503.00	9,762.41	48.61	77.45	-179.02	-902.51	2,635.99	3,949.89	3,874.60	75.29	52.460					
11,500.00	7,589.31	14,503.00	9,762.41	49.12	77.45	-179.02	-902.51	2,635.99	4,033.44	3,957.98	75.46	53.451					
11,600.00	7,589.31	14,503.00	9,762.41	49.64	77.45	-179.02	-902.51	2,635.99	4,117.72	4,042.11	75.62	54.454					
11,700.00	7,589.30	14,503.00	9,762.41	50.16	77.45	-179.02	-902.51	2,635.99	4,202.70	4,126.93	75.77	55.468					
11,800.00	7,589.30	14,503.00	9,762.41	50.69	77.45	-179.02	-902.51	2,635.99	4,288.31	4,212.40	75.91	56.492					
11,900.00	7,589.29	14,503.00	9,762.41	51.23	77.45	-179.02	-902.51	2,635.99	4,374.54	4,298.50	76.05	57.525					
12,000.00	7,589.29	14,503.00	9,762.41	51.77	77.45	-179.02	-902.51	2,635.99	4,461.35	4,385.17	76.18	58.567					
12,100.00	7,589.28	14,503.00	9,762.41	52.31	77.45	-179.02	-902.51	2,635.99	4,548.70	4,472.40	76.30	59.617					
12,200.00	7,589.28	14,503.00	9,762.41	52.86	77.45	-179.02	-902.51	2,635.99	4,636.55	4,560.14	76.42	60.675					
12,300.00	7,589.28	14,503.00	9,762.41	53.42	77.45	-179.02	-902.51	2,635.99	4,724.90	4,648.37	76.53	61.739					
12,400.00	7,589.27	14,503.00	9,762.41	53.98	77.45	-179.02	-902.51	2,635.99	4,813.69	4,737.05	76.64	62.811					
12,500.00	7,589.27	14,503.00	9,762.41	54.55	77.45	-179.02	-902.51	2,635.99	4,902.92	4,826.18	76.74	63.888					
12,600.00	7,589.26	14,503.00	9,762.41	55.12	77.45	-179.02	-902.51	2,635.99	4,992.56	4,915.71	76.84	64.970					
12,700.00	7,589.26	14,503.00	9,762.41	55.70	77.45	-179.02	-902.51	2,635.99	5,082.58	5,005.64	76.94	66.058					
12,800.00	7,589.26	14,503.00	9,762.41	56.28	77.45	-179.02	-902.51	2,635.99	5,172.97	5,095.94	77.04	67.151					
12,900.00	7,589.25	14,503.00	9,762.41	56.86	77.45	-179.02	-902.51	2,635.99	5,263.71	5,186.58	77.13	68.248					
13,000.00	7,589.25	14,503.00	9,762.41	57.45	77.45	-179.02	-902.51	2,635.99	5,354.78	5,277.56	77.22	69.349					
13,100.00	7,589.24	14,503.00	9,762.41	58.04	77.45	-179.02	-902.51	2,635.99	5,446.16	5,368.85	77.30	70.454					
13,200.00	7,589.24	14,503.00	9,762.41	58.64	77.45	-179.02	-902.51	2,635.99	5,537.83	5,460.45	77.39	71.562					
13,300.00	7,589.23	14,503.00	9,762.41	59.24	77.45	-179.02	-902.51	2,635.99	5,629.80	5,552.33	77.47	72.673					
13,400.00	7,589.23	14,503.00	9,762.41	59.84	77.45	-179.02	-902.51	2,635.99	5,722.03	5,644.48	77.55	73.788					
13,500.00	7,589.23	14,503.00	9,762.41	60.45	77.45	-179.02	-902.51	2,635.99	5,814.52	5,736.89	77.63	74.905					
13,600.00	7,589.22	14,503.00	9,762.41	61.06	77.45	-179.02	-902.51	2,635.99	5,907.25	5,829.55	77.70	76.024					
13,700.00	7,589.22	14,503.00	9,762.41	61.68	77.45	-179.02	-902.51	2,635.99	6,000.22	5,922.44	77.78	77.146					
13,800.00	7,589.21	14,503.00	9,762.41	62.30	77.45	-179.02	-902.51	2,635.99	6,093.41	6,015.56	77.85	78.270					
13,900.00	7,589.21	14,503.00	9,762.41	62.92	77.45	-179.02	-902.51	2,635.99	6,186.81	6,108.88	77.92	79.395					
14,000.00	7,589.21	14,503.00	9,762.41	63.54	77.45	-179.02	-902.51	2,635.99	6,280.41	6,202.42	78.00	80.522					
14,100.00	7,589.20	14,503.00	9,762.41	64.17	77.45	-179.02	-902.51	2,635.99	6,374.21	6,296.15	78.07	81.651					
14,200.00	7,589.20	14,503.00	9,762.41	64.80	77.45	-179.02	-902.51	2,635.99	6,468.20	6,390.06	78.14	82.781					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Survey Program: 55-MWD+HRGM										Rule Assigned:		Offset Site Error:	0.50 usft
												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,300.00	7,589.19	14,503.00	9,762.41	65.43	77.45	-179.02	-902.51	2,635.99	6,562.36	6,484.16	78.21	83.912	
14,400.00	7,589.19	14,503.00	9,762.41	66.07	77.45	-179.02	-902.51	2,635.99	6,656.70	6,578.42	78.27	85.044	
14,500.00	7,589.18	14,503.00	9,762.41	66.71	77.45	-179.02	-902.51	2,635.99	6,751.19	6,672.85	78.34	86.177	
14,600.00	7,589.18	14,503.00	9,762.41	67.35	77.45	-179.02	-902.51	2,635.99	6,845.84	6,767.44	78.41	87.310	
14,700.00	7,589.18	14,503.00	9,762.41	67.99	77.45	-179.02	-902.51	2,635.99	6,940.65	6,862.17	78.47	88.444	
14,800.00	7,589.17	14,503.00	9,762.41	68.64	77.45	-179.02	-902.51	2,635.99	7,035.59	6,957.05	78.54	89.579	
14,900.00	7,589.17	14,503.00	9,762.41	69.29	77.45	-179.02	-902.51	2,635.99	7,130.68	7,052.07	78.61	90.714	
15,000.00	7,589.16	14,503.00	9,762.41	69.94	77.45	-179.02	-902.51	2,635.99	7,225.90	7,147.22	78.67	91.849	
15,100.00	7,589.16	14,503.00	9,762.41	70.59	77.45	-179.02	-902.51	2,635.99	7,321.24	7,242.51	78.74	92.984	
15,200.00	7,589.16	14,503.00	9,762.41	71.25	77.45	-179.02	-902.51	2,635.99	7,416.71	7,337.91	78.80	94.119	
15,300.00	7,589.15	14,503.00	9,762.41	71.91	77.45	-179.02	-902.51	2,635.99	7,512.29	7,433.43	78.87	95.254	
15,400.00	7,589.15	14,503.00	9,762.41	72.57	77.45	-179.02	-902.51	2,635.99	7,607.99	7,529.06	78.93	96.389	
15,500.00	7,589.14	14,503.00	9,762.41	73.23	77.45	-179.02	-902.51	2,635.99	7,703.80	7,624.81	78.99	97.524	
15,600.00	7,589.14	14,503.00	9,762.41	73.89	77.45	-179.02	-902.51	2,635.99	7,799.72	7,720.66	79.06	98.658	
15,700.00	7,589.13	14,503.00	9,762.41	74.56	77.45	-179.02	-902.51	2,635.99	7,895.73	7,816.61	79.12	99.792	
15,800.00	7,589.13	14,503.00	9,762.41	75.23	77.45	-179.02	-902.51	2,635.99	7,991.84	7,912.66	79.19	100.926	
15,900.00	7,589.13	14,503.00	9,762.41	75.90	77.45	-179.02	-902.51	2,635.99	8,088.05	8,008.80	79.25	102.058	
16,000.00	7,589.12	14,503.00	9,762.41	76.57	77.45	-179.02	-902.51	2,635.99	8,184.35	8,105.04	79.31	103.190	
16,100.00	7,589.12	14,503.00	9,762.41	77.24	77.45	-179.02	-902.51	2,635.99	8,280.73	8,201.36	79.38	104.322	
16,200.00	7,589.11	14,503.00	9,762.41	77.92	77.45	-179.02	-902.51	2,635.99	8,377.20	8,297.76	79.44	105.452	
16,300.00	7,589.11	14,503.00	9,762.41	78.59	77.45	-179.02	-902.51	2,635.99	8,473.76	8,394.25	79.50	106.582	
16,400.00	7,589.11	14,503.00	9,762.41	79.27	77.45	-179.02	-902.51	2,635.99	8,570.39	8,490.82	79.57	107.711	
16,500.00	7,589.10	14,503.00	9,762.41	79.95	77.45	-179.02	-902.51	2,635.99	8,667.10	8,587.46	79.63	108.839	
16,600.00	7,589.10	14,503.00	9,762.41	80.63	77.45	-179.02	-902.51	2,635.99	8,763.88	8,684.18	79.70	109.965	
16,700.00	7,589.09	14,503.00	9,762.41	81.31	77.45	-179.02	-902.51	2,635.99	8,860.73	8,780.97	79.76	111.091	
16,800.00	7,589.09	14,503.00	9,762.41	82.00	77.45	-179.02	-902.51	2,635.99	8,957.65	8,877.83	79.83	112.215	
16,900.00	7,589.08	14,503.00	9,762.41	82.68	77.45	-179.02	-902.51	2,635.99	9,054.64	8,974.75	79.89	113.338	
17,000.00	7,589.08	14,503.00	9,762.41	83.37	77.45	-179.02	-902.51	2,635.99	9,151.70	9,071.74	79.96	114.460	
17,100.00	7,589.08	14,503.00	9,762.41	84.06	77.45	-179.02	-902.51	2,635.99	9,248.81	9,168.79	80.02	115.581	
17,200.00	7,589.07	14,503.00	9,762.41	84.75	77.45	-179.02	-902.51	2,635.99	9,345.99	9,265.91	80.09	116.700	
17,300.00	7,589.07	14,503.00	9,762.41	85.44	77.45	-179.02	-902.51	2,635.99	9,443.23	9,363.08	80.15	117.818	
17,400.00	7,589.06	14,503.00	9,762.41	86.13	77.45	-179.02	-902.51	2,635.99	9,540.52	9,460.30	80.22	118.934	
17,500.00	7,589.06	14,503.00	9,762.41	86.83	77.45	-179.02	-902.51	2,635.99	9,637.87	9,557.59	80.28	120.049	
17,600.00	7,589.06	14,503.00	9,762.41	87.52	77.45	-179.02	-902.51	2,635.99	9,735.27	9,654.92	80.35	121.163	
17,700.00	7,589.05	14,503.00	9,762.41	88.22	77.45	-179.02	-902.51	2,635.99	9,832.73	9,752.31	80.42	122.274	
17,800.00	7,589.05	14,503.00	9,762.41	88.91	77.45	-179.02	-902.51	2,635.99	9,930.23	9,849.75	80.48	123.385	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 2934' GL + 23 @ 2957.00usft

Offset Depths are relative to Offset Datum

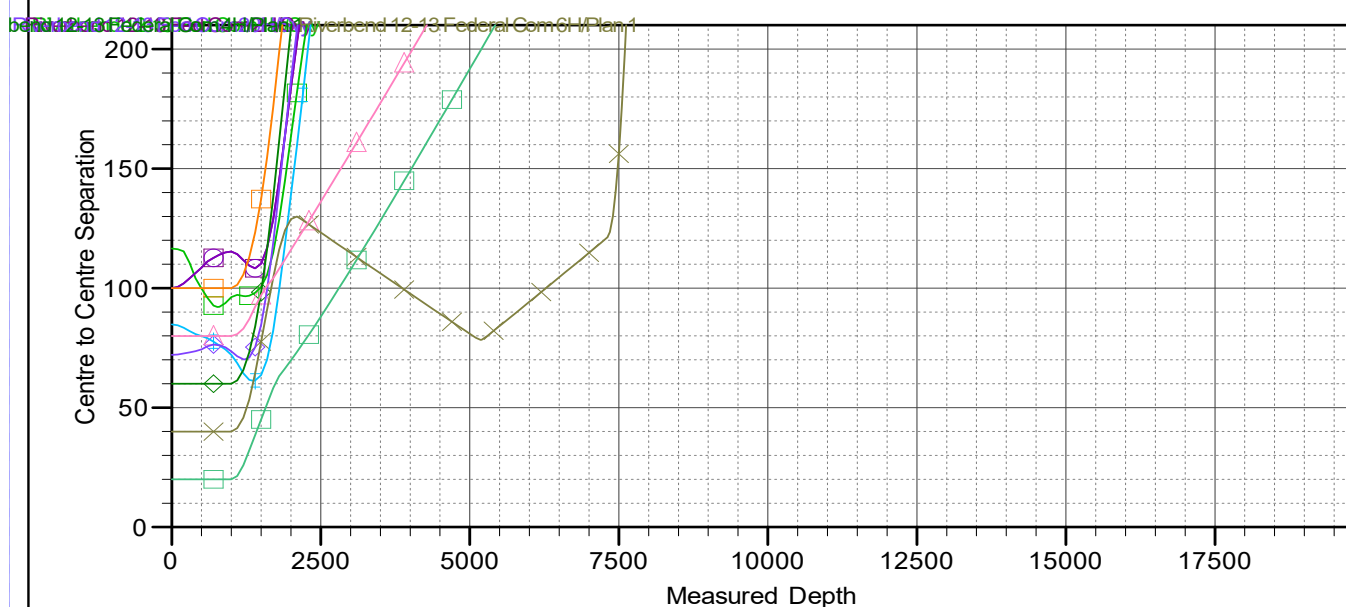
Central Meridian is -104.3333333

Coordinates are relative to: Riverbend 12-13 Federal Com 7H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.16°

Ladder Plot



LEGEND

Riverbend 12-13 Fed Com 1H, OH, Svy V0	Riverbend 12-13 Fed Com 20H, OH, Svy V0	Riverbend 12-13 Federal Com 4H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 31H, OH, Svy V0	Riverbend 12-13 Fed Com 29H, OH, Svy V0	Riverbend 12-13 Federal Com 6H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 30H, OH, Svy V0	Whistle Pig 1 SB Fee 5H, OH, Svy V0	Riverbend 12-13 Federal Com 3H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 19H, OH, Svy V0	Whistle Pig 1 WA Fee 4, OH, Svy V0	Riverbend 12-13 Federal Com 5H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 2H, OH, Svy V0	Malaga 13 DM Fed Com 1H, OH, Svy V0	Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 2H, ST01, ST01 Svy V0	Whistle Pig 1 WXY Fee 9H, OH, Svy V0	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

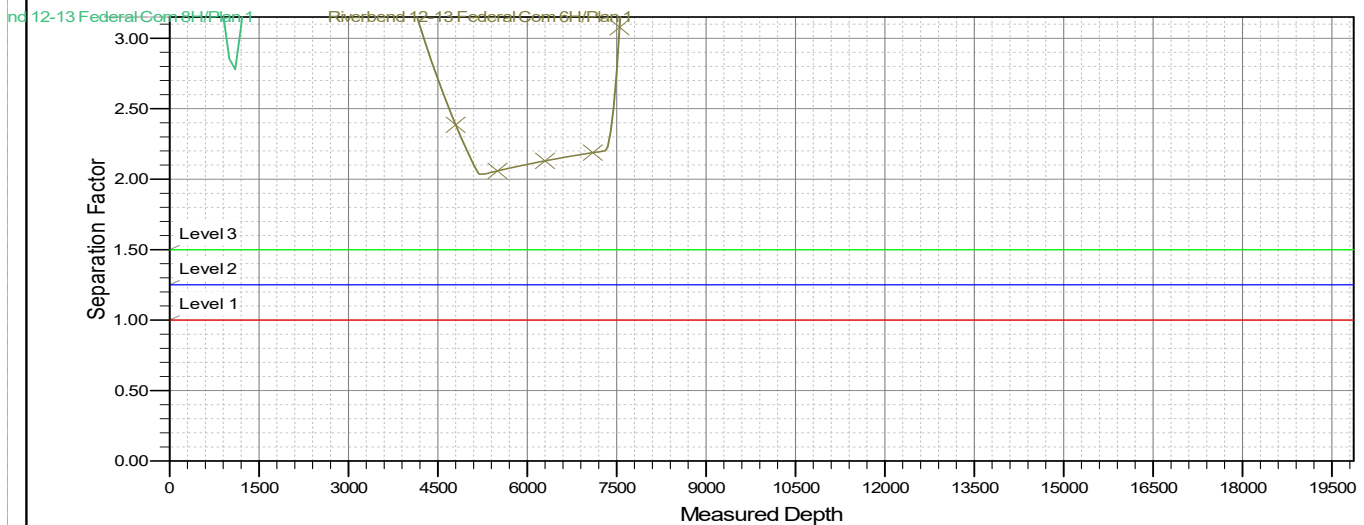
Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 2934' GL + 23 @ 2957.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Riverbend 12-13 Federal Com 7H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

Separation Factor Plot



LEGEND

Riverbend 12-13 Fed Com 1H, OH, Svy V0	Riverbend 12-13 Fed Com 20H, OH, Svy V0	Riverbend 12-13 Federal Com 4H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 31H, OH, Svy V0	Riverbend 12-13 Fed Com 29H, OH, Svy V0	Riverbend 12-13 Federal Com 6H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 30H, OH, Svy V0	Whistle Pig 1 SB Fee 5H, OH, Svy V0	Riverbend 12-13 Federal Com 3H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 19H, OH, Svy V0	Whistle Pig 1 WA Fee 4, OH, Svy V0	Riverbend 12-13 Federal Com 5H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 2H, OH, Svy V0	Malaga 13 DM Fed Com 1H, OH, Svy V0	Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 2H, ST01, ST01 Svy V0	Whistle Pig 1 WXY Fee 9H, OH, Svy V0	

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 Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 7H

OH

Plan: Plan 1



Standard Plan Report

24 June, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Project	Eddy County, NM (NAD 83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Riverbend 12-13 Federal Com				
Site Position:		Northing:	420,302.20 usft	Latitude:	32.1551540
From:	Map	Easting:	631,468.50 usft	Longitude:	-104.0420860
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Riverbend 12-13 Federal Com 7H					
Well Position	+N/-S	0.00 usft	Northing:	420,300.29 usft	Latitude:	32.1551480
	+E/-W	0.00 usft	Easting:	631,568.46 usft	Longitude:	-104.0417630
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,934.00 usft
Grid Convergence:		0.16 °				

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	HDGM2025	8/19/2025	6.42	59.67	47,172.80000000	

Design	Plan 1					
Audit Notes:						
Version:		Phase:	PLAN	Tie On Depth:		0.00
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(usft)	(usft)	(usft)	(°)	
		0.00	0.00	0.00	179.89	

Survey Tool Program	Date	6/24/2025			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
0.00	18,917.19	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	14.00	128.00	1,693.06	-52.39	67.06	2.00	2.00	0.00	128.00	
7,309.09	14.00	128.00	7,135.53	-887.82	1,136.36	0.00	0.00	0.00	0.00	
7,919.09	75.00	128.00	7,550.36	-1,138.79	1,457.59	10.00	10.00	0.00	0.00	
8,219.09	90.00	128.00	7,589.40	-1,321.39	1,691.30	5.00	5.00	0.00	0.00	
8,444.09	90.00	128.00	7,589.40	-1,459.91	1,868.60	0.00	0.00	0.00	0.00	
10,173.66	90.00	179.89	7,589.36	-2,961.13	2,602.63	3.00	0.00	3.00	90.00	
18,917.19	90.00	179.89	7,589.00	-11,704.65	2,619.89	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
0.00	0.00	0.00	0.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
1,100.00	2.00	128.00	1,099.98	-1.07	1.38	420,299.22	631,569.84	32.1551450	-104.0417586	1.08	2.00	2.00	0.00
1,200.00	4.00	128.00	1,199.84	-4.30	5.50	420,295.99	631,573.96	32.1551361	-104.0417453	4.31	2.00	2.00	0.00
1,300.00	6.00	128.00	1,299.45	-9.66	12.37	420,290.63	631,580.83	32.1551213	-104.0417231	9.69	2.00	2.00	0.00
1,400.00	8.00	128.00	1,398.70	-17.16	21.97	420,283.13	631,590.43	32.1551006	-104.0416922	17.21	2.00	2.00	0.00
1,500.00	10.00	128.00	1,497.47	-26.80	34.30	420,273.49	631,602.76	32.1550741	-104.0416524	26.86	2.00	2.00	0.00
1,600.00	12.00	128.00	1,595.62	-38.54	49.33	420,261.75	631,617.79	32.1550417	-104.0416039	38.64	2.00	2.00	0.00
1,700.00	14.00	128.00	1,693.06	-52.39	67.06	420,247.90	631,635.52	32.1550035	-104.0415468	52.52	2.00	2.00	0.00
1,800.00	14.00	128.00	1,790.08	-67.28	86.12	420,233.01	631,654.58	32.1549624	-104.0414853	67.45	0.00	0.00	0.00
1,900.00	14.00	128.00	1,887.11	-82.18	105.18	420,218.11	631,673.64	32.1549213	-104.0414238	82.38	0.00	0.00	0.00
1,966.87	14.00	128.00	1,952.00	-92.14	117.93	420,208.15	631,686.39	32.1548938	-104.0413827	92.37	0.00	0.00	0.00
Top Salt													
2,000.00	14.00	128.00	1,984.14	-97.07	124.25	420,203.22	631,692.71	32.1548802	-104.0413624	97.31	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,100.00	14.00	128.00	2,081.17	-111.97	143.31	420,188.32	631,711.77	32.1548391	-104.0413009	112.24	0.00	0.00	0.00
2,200.00	14.00	128.00	2,178.20	-126.86	162.38	420,173.43	631,730.84	32.1547981	-104.0412394	127.17	0.00	0.00	0.00
2,300.00	14.00	128.00	2,275.23	-141.76	181.44	420,158.53	631,749.90	32.1547570	-104.0411780	142.10	0.00	0.00	0.00
2,400.00	14.00	128.00	2,372.26	-156.65	200.50	420,143.64	631,768.96	32.1547159	-104.0411165	157.03	0.00	0.00	0.00
2,500.00	14.00	128.00	2,469.29	-171.54	219.57	420,128.75	631,788.03	32.1546748	-104.0410550	171.97	0.00	0.00	0.00
2,600.00	14.00	128.00	2,566.32	-186.44	238.63	420,113.85	631,807.09	32.1546337	-104.0409935	186.90	0.00	0.00	0.00
2,667.69	14.00	128.00	2,632.00	-196.52	251.53	420,103.77	631,819.99	32.1546059	-104.0409519	197.00	0.00	0.00	0.00
Base Salt/Lamar													
2,700.00	14.00	128.00	2,663.35	-201.33	257.69	420,098.96	631,826.15	32.1545926	-104.0409321	201.83	0.00	0.00	0.00
2,800.00	14.00	128.00	2,760.38	-216.23	276.76	420,084.06	631,845.22	32.1545515	-104.0408706	216.76	0.00	0.00	0.00
2,847.02	14.00	128.00	2,806.00	-223.23	285.72	420,077.06	631,854.18	32.1545322	-104.0408417	223.78	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													
2,900.00	14.00	128.00	2,857.41	-231.12	295.82	420,069.17	631,864.28	32.1545105	-104.0408091	231.69	0.00	0.00	0.00
3,000.00	14.00	128.00	2,954.44	-246.02	314.89	420,054.27	631,883.35	32.1544694	-104.0407477	246.62	0.00	0.00	0.00
3,100.00	14.00	128.00	3,051.47	-260.91	333.95	420,039.38	631,902.41	32.1544283	-104.0406862	261.55	0.00	0.00	0.00
3,200.00	14.00	128.00	3,148.50	-275.80	353.01	420,024.49	631,921.47	32.1543872	-104.0406247	276.48	0.00	0.00	0.00
3,300.00	14.00	128.00	3,245.53	-290.70	372.08	420,009.59	631,940.54	32.1543461	-104.0405633	291.41	0.00	0.00	0.00
3,400.00	14.00	128.00	3,342.56	-305.59	391.14	419,994.70	631,959.60	32.1543050	-104.0405018	306.34	0.00	0.00	0.00
3,500.00	14.00	128.00	3,439.59	-320.49	410.20	419,979.80	631,978.66	32.1542639	-104.0404403	321.27	0.00	0.00	0.00
3,600.00	14.00	128.00	3,536.62	-335.38	429.27	419,964.91	631,997.73	32.1542229	-104.0403788	336.20	0.00	0.00	0.00
3,684.91	14.00	128.00	3,619.00	-348.03	445.45	419,952.26	632,013.91	32.1541880	-104.0403267	348.88	0.00	0.00	0.00
Cherry Canyon													
3,700.00	14.00	128.00	3,633.65	-350.27	448.33	419,950.02	632,016.79	32.1541818	-104.0403174	351.13	0.00	0.00	0.00
3,800.00	14.00	128.00	3,730.68	-365.17	467.39	419,935.12	632,035.85	32.1541407	-104.0402559	366.07	0.00	0.00	0.00
3,900.00	14.00	128.00	3,827.71	-380.06	486.46	419,920.23	632,054.92	32.1540996	-104.0401944	381.00	0.00	0.00	0.00
4,000.00	14.00	128.00	3,924.74	-394.96	505.52	419,905.33	632,073.98	32.1540585	-104.0401330	395.93	0.00	0.00	0.00
4,100.00	14.00	128.00	4,021.77	-409.85	524.59	419,890.44	632,093.05	32.1540174	-104.0400715	410.86	0.00	0.00	0.00
4,200.00	14.00	128.00	4,118.79	-424.75	543.65	419,875.54	632,112.11	32.1539764	-104.0400100	425.79	0.00	0.00	0.00
4,300.00	14.00	128.00	4,215.82	-439.64	562.71	419,860.65	632,131.17	32.1539353	-104.0399486	440.72	0.00	0.00	0.00
4,400.00	14.00	128.00	4,312.85	-454.53	581.78	419,845.76	632,150.24	32.1538942	-104.0398871	455.65	0.00	0.00	0.00
4,500.00	14.00	128.00	4,409.88	-469.43	600.84	419,830.86	632,169.30	32.1538531	-104.0398256	470.58	0.00	0.00	0.00
4,600.00	14.00	128.00	4,506.91	-484.32	619.90	419,815.97	632,188.36	32.1538120	-104.0397642	485.51	0.00	0.00	0.00
4,700.00	14.00	128.00	4,603.94	-499.22	638.97	419,801.07	632,207.43	32.1537709	-104.0397027	500.44	0.00	0.00	0.00
4,800.00	14.00	128.00	4,700.97	-514.11	658.03	419,786.18	632,226.49	32.1537298	-104.0396412	515.37	0.00	0.00	0.00
4,900.00	14.00	128.00	4,798.00	-529.01	677.10	419,771.29	632,245.56	32.1536888	-104.0395797	530.30	0.00	0.00	0.00
4,919.58	14.00	128.00	4,817.00	-531.92	680.83	419,768.37	632,249.29	32.1536807	-104.0395677	533.23	0.00	0.00	0.00
Brushy Canyon													
5,000.00	14.00	128.00	4,895.03	-543.90	696.16	419,756.39	632,264.62	32.1536477	-104.0395183	545.23	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.00	14.00	128.00	4,992.06	-558.79	715.22	419,741.50	632,283.68	32.1536066	-104.0394568	560.17	0.00	0.00	0.00
5,200.00	14.00	128.00	5,089.09	-573.69	734.29	419,726.60	632,302.75	32.1535655	-104.0393953	575.10	0.00	0.00	0.00
5,300.00	14.00	128.00	5,186.12	-588.58	753.35	419,711.71	632,321.81	32.1535244	-104.0393339	590.03	0.00	0.00	0.00
5,400.00	14.00	128.00	5,283.15	-603.48	772.41	419,696.81	632,340.87	32.1534833	-104.0392724	604.96	0.00	0.00	0.00
5,500.00	14.00	128.00	5,380.18	-618.37	791.48	419,681.92	632,359.94	32.1534422	-104.0392109	619.89	0.00	0.00	0.00
5,600.00	14.00	128.00	5,477.21	-633.26	810.54	419,667.03	632,379.00	32.1534012	-104.0391495	634.82	0.00	0.00	0.00
5,700.00	14.00	128.00	5,574.24	-648.16	829.61	419,652.13	632,398.07	32.1533601	-104.0390880	649.75	0.00	0.00	0.00
5,800.00	14.00	128.00	5,671.27	-663.05	848.67	419,637.24	632,417.13	32.1533190	-104.0390265	664.68	0.00	0.00	0.00
5,897.63	14.00	128.00	5,766.00	-677.59	867.28	419,622.70	632,435.74	32.1532789	-104.0389665	679.26	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	14.00	128.00	5,768.30	-677.95	867.73	419,622.34	632,436.19	32.1532779	-104.0389651	679.61	0.00	0.00	0.00
6,000.00	14.00	128.00	5,865.33	-692.84	886.80	419,607.45	632,455.26	32.1532368	-104.0389036	694.54	0.00	0.00	0.00
6,100.00	14.00	128.00	5,962.36	-707.74	905.86	419,592.55	632,474.32	32.1531957	-104.0388421	709.47	0.00	0.00	0.00
6,200.00	14.00	128.00	6,059.39	-722.63	924.92	419,577.66	632,493.38	32.1531546	-104.0387807	724.40	0.00	0.00	0.00
6,300.00	14.00	128.00	6,156.42	-737.52	943.99	419,562.77	632,512.45	32.1531135	-104.0387192	739.33	0.00	0.00	0.00
6,400.00	14.00	128.00	6,253.45	-752.42	963.05	419,547.87	632,531.51	32.1530725	-104.0386577	754.27	0.00	0.00	0.00
6,500.00	14.00	128.00	6,350.47	-767.31	982.11	419,532.98	632,550.57	32.1530314	-104.0385962	769.20	0.00	0.00	0.00
6,562.38	14.00	128.00	6,411.00	-776.60	994.01	419,523.69	632,562.47	32.1530057	-104.0385579	778.51	0.00	0.00	0.00
Bone Spring Lime													
6,600.00	14.00	128.00	6,447.50	-782.21	1,001.18	419,518.08	632,569.64	32.1529903	-104.0385348	784.13	0.00	0.00	0.00
6,700.00	14.00	128.00	6,544.53	-797.10	1,020.24	419,503.19	632,588.70	32.1529492	-104.0384733	799.06	0.00	0.00	0.00
6,800.00	14.00	128.00	6,641.56	-811.99	1,039.31	419,488.30	632,607.77	32.1529081	-104.0384118	813.99	0.00	0.00	0.00
6,900.00	14.00	128.00	6,738.59	-826.89	1,058.37	419,473.40	632,626.83	32.1528670	-104.0383504	828.92	0.00	0.00	0.00
7,000.00	14.00	128.00	6,835.62	-841.78	1,077.43	419,458.51	632,645.89	32.1528259	-104.0382889	843.85	0.00	0.00	0.00
7,100.00	14.00	128.00	6,932.65	-856.68	1,096.50	419,443.61	632,664.96	32.1527849	-104.0382274	858.78	0.00	0.00	0.00
7,200.00	14.00	128.00	7,029.68	-871.57	1,115.56	419,428.72	632,684.02	32.1527438	-104.0381660	873.71	0.00	0.00	0.00
7,309.09	14.00	128.00	7,135.53	-887.82	1,136.36	419,412.47	632,704.82	32.1526990	-104.0380989	890.00	0.00	0.00	0.00
7,350.00	18.09	128.00	7,174.84	-894.78	1,145.27	419,405.51	632,713.73	32.1526798	-104.0380702	896.98	10.00	10.00	0.00
7,400.00	23.09	128.00	7,221.63	-905.60	1,159.12	419,394.69	632,727.58	32.1526499	-104.0380255	907.83	10.00	10.00	0.00
7,450.00	28.09	128.00	7,266.71	-918.89	1,176.13	419,381.40	632,744.59	32.1526132	-104.0379707	921.15	10.00	10.00	0.00
7,500.00	33.09	128.00	7,309.74	-934.56	1,196.18	419,365.73	632,764.64	32.1525700	-104.0379060	936.85	10.00	10.00	0.00
7,550.00	38.09	128.00	7,350.39	-952.47	1,219.10	419,347.82	632,787.56	32.1525206	-104.0378321	954.80	10.00	10.00	0.00
7,563.62	39.45	128.00	7,361.00	-957.71	1,225.82	419,342.58	632,794.28	32.1525061	-104.0378105	960.07	10.00	10.00	0.00
1st Bone Spring Sand													
7,600.00	43.09	128.00	7,388.34	-972.49	1,244.73	419,327.80	632,813.19	32.1524654	-104.0377495	974.88	10.00	10.00	0.00
7,650.00	48.09	128.00	7,423.32	-994.47	1,272.86	419,305.82	632,841.32	32.1524047	-104.0376588	996.91	10.00	10.00	0.00
7,700.00	53.09	128.00	7,455.05	-1,018.25	1,303.30	419,282.04	632,871.76	32.1523392	-104.0375606	1,020.75	10.00	10.00	0.00
7,750.00	58.09	128.00	7,483.30	-1,043.64	1,335.79	419,256.65	632,904.25	32.1522691	-104.0374559	1,046.20	10.00	10.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,800.00	63.09	128.00	7,507.84	-1,070.44	1,370.11	419,229.85	632,938.57	32.1521952	-104.0373452	1,073.07	10.00	10.00	0.00
7,850.00	68.09	128.00	7,528.50	-1,098.47	1,405.97	419,201.82	632,974.43	32.1521179	-104.0372296	1,101.16	10.00	10.00	0.00
7,900.00	73.09	128.00	7,545.11	-1,127.49	1,443.12	419,172.80	633,011.58	32.1520378	-104.0371098	1,130.26	10.00	10.00	0.00
7,919.09	75.00	128.00	7,550.36	-1,138.79	1,457.59	419,161.50	633,026.05	32.1520066	-104.0370632	1,141.59	10.00	10.00	0.00
8,000.00	79.05	128.00	7,568.52	-1,187.32	1,519.70	419,112.97	633,088.16	32.1518728	-104.0368629	1,190.24	5.00	5.00	0.00
8,100.00	84.05	128.00	7,583.22	-1,248.20	1,597.62	419,052.09	633,166.08	32.1517048	-104.0366117	1,251.26	5.00	5.00	0.00
8,188.69	88.48	128.00	7,589.00	-1,302.67	1,667.35	418,997.62	633,235.81	32.1515545	-104.0363869	1,305.87	5.00	5.00	0.00
1st Bone Spring Sand LZ													
8,200.00	89.05	128.00	7,589.24	-1,309.63	1,676.26	418,990.66	633,244.72	32.1515353	-104.0363581	1,312.85	5.00	5.00	0.00
8,219.09	90.00	128.00	7,589.40	-1,321.39	1,691.30	418,978.90	633,259.76	32.1515029	-104.0363096	1,324.63	5.00	5.00	0.00
8,300.00	90.00	128.00	7,589.40	-1,371.20	1,755.06	418,929.09	633,323.52	32.1513655	-104.0361041	1,374.57	0.00	0.00	0.00
8,400.00	90.00	128.00	7,589.40	-1,432.77	1,833.86	418,867.52	633,402.32	32.1511957	-104.0358500	1,436.28	0.00	0.00	0.00
8,444.09	90.00	128.00	7,589.40	-1,459.91	1,868.60	418,840.38	633,437.06	32.1511208	-104.0357380	1,463.50	0.00	0.00	0.00
8,500.00	90.00	129.68	7,589.40	-1,494.97	1,912.15	418,805.32	633,480.61	32.1510241	-104.0355976	1,498.64	3.00	0.00	3.00
8,600.00	90.00	132.68	7,589.40	-1,560.80	1,987.41	418,739.49	633,555.87	32.1508425	-104.0353550	1,564.62	3.00	0.00	3.00
8,700.00	90.00	135.68	7,589.40	-1,630.48	2,059.12	418,669.81	633,627.58	32.1506505	-104.0351239	1,634.43	3.00	0.00	3.00
8,800.00	90.00	138.68	7,589.40	-1,703.82	2,127.08	418,596.47	633,695.54	32.1504483	-104.0349049	1,707.90	3.00	0.00	3.00
8,900.00	90.00	141.68	7,589.40	-1,780.62	2,191.12	418,519.67	633,759.58	32.1502367	-104.0346987	1,784.82	3.00	0.00	3.00
9,000.00	90.00	144.68	7,589.40	-1,860.66	2,251.04	418,439.63	633,819.50	32.1500163	-104.0345058	1,864.97	3.00	0.00	3.00
9,100.00	90.00	147.68	7,589.40	-1,943.72	2,306.70	418,356.57	633,875.16	32.1497875	-104.0343267	1,948.15	3.00	0.00	3.00
9,200.00	90.00	150.68	7,589.40	-2,029.59	2,357.93	418,270.70	633,926.39	32.1495511	-104.0341619	2,034.11	3.00	0.00	3.00
9,300.00	90.00	153.68	7,589.39	-2,118.02	2,404.60	418,182.27	633,973.06	32.1493076	-104.0340119	2,122.63	3.00	0.00	3.00
9,400.00	90.00	156.68	7,589.39	-2,208.77	2,446.58	418,091.52	634,015.04	32.1490578	-104.0338771	2,213.46	3.00	0.00	3.00
9,500.00	90.00	159.68	7,589.39	-2,301.59	2,483.75	417,998.70	634,052.21	32.1488024	-104.0337579	2,306.36	3.00	0.00	3.00
9,600.00	90.00	162.68	7,589.39	-2,396.23	2,516.01	417,904.06	634,084.47	32.1485420	-104.0336545	2,401.06	3.00	0.00	3.00
9,700.00	90.00	165.68	7,589.38	-2,492.43	2,543.27	417,807.86	634,111.73	32.1482773	-104.0335673	2,497.31	3.00	0.00	3.00
9,800.00	90.00	168.68	7,589.38	-2,589.93	2,565.46	417,710.36	634,133.92	32.1480092	-104.0334964	2,594.85	3.00	0.00	3.00
9,900.00	90.00	171.68	7,589.38	-2,688.45	2,582.52	417,611.84	634,150.98	32.1477382	-104.0334422	2,693.40	3.00	0.00	3.00
10,000.00	90.00	174.68	7,589.37	-2,787.73	2,594.40	417,512.56	634,162.86	32.1474652	-104.0334047	2,792.71	3.00	0.00	3.00
10,100.00	90.00	177.68	7,589.37	-2,887.50	2,601.07	417,412.79	634,169.53	32.1471909	-104.0333841	2,892.49	3.00	0.00	3.00
10,173.66	90.00	179.89	7,589.36	-2,961.13	2,602.63	417,339.16	634,171.09	32.1469885	-104.0333797	2,966.12	3.00	0.00	3.00
10,200.00	90.00	179.89	7,589.36	-2,987.48	2,602.68	417,312.81	634,171.14	32.1469161	-104.0333797	2,992.47	0.00	0.00	0.00
10,300.00	90.00	179.89	7,589.36	-3,087.48	2,602.88	417,212.81	634,171.34	32.1466412	-104.0333800	3,092.47	0.00	0.00	0.00
10,400.00	90.00	179.89	7,589.36	-3,187.48	2,603.08	417,112.81	634,171.54	32.1463663	-104.0333803	3,192.47	0.00	0.00	0.00
10,500.00	90.00	179.89	7,589.35	-3,287.48	2,603.27	417,012.81	634,171.73	32.1460914	-104.0333805	3,292.47	0.00	0.00	0.00
10,600.00	90.00	179.89	7,589.35	-3,387.48	2,603.47	416,912.82	634,171.93	32.1458165	-104.0333808	3,392.47	0.00	0.00	0.00
10,700.00	90.00	179.89	7,589.34	-3,487.47	2,603.67	416,812.82	634,172.13	32.1455416	-104.0333811	3,492.47	0.00	0.00	0.00
10,800.00	90.00	179.89	7,589.34	-3,587.47	2,603.87	416,712.82	634,172.33	32.1452667	-104.0333813	3,592.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,900.00	90.00	179.89	7,589.33	-3,687.47	2,604.06	416,612.82	634,172.52	32.1449918	-104.0333816	3,692.47	0.00	0.00	0.00
11,000.00	90.00	179.89	7,589.33	-3,787.47	2,604.26	416,512.82	634,172.72	32.1447169	-104.0333818	3,792.47	0.00	0.00	0.00
11,100.00	90.00	179.89	7,589.33	-3,887.47	2,604.46	416,412.82	634,172.92	32.1444420	-104.0333821	3,892.47	0.00	0.00	0.00
11,200.00	90.00	179.89	7,589.32	-3,987.47	2,604.66	416,312.82	634,173.12	32.1441671	-104.0333824	3,992.47	0.00	0.00	0.00
11,300.00	90.00	179.89	7,589.32	-4,087.47	2,604.85	416,212.82	634,173.31	32.1438923	-104.0333826	4,092.47	0.00	0.00	0.00
11,400.00	90.00	179.89	7,589.31	-4,187.47	2,605.05	416,112.82	634,173.51	32.1436174	-104.0333829	4,192.47	0.00	0.00	0.00
11,500.00	90.00	179.89	7,589.31	-4,287.47	2,605.25	416,012.82	634,173.71	32.1433425	-104.0333832	4,292.47	0.00	0.00	0.00
11,600.00	90.00	179.89	7,589.31	-4,387.47	2,605.45	415,912.82	634,173.91	32.1430676	-104.0333834	4,392.47	0.00	0.00	0.00
11,700.00	90.00	179.89	7,589.30	-4,487.47	2,605.64	415,812.82	634,174.10	32.1427927	-104.0333837	4,492.47	0.00	0.00	0.00
11,800.00	90.00	179.89	7,589.30	-4,587.47	2,605.84	415,712.82	634,174.30	32.1425178	-104.0333839	4,592.47	0.00	0.00	0.00
11,900.00	90.00	179.89	7,589.29	-4,687.47	2,606.04	415,612.82	634,174.50	32.1422429	-104.0333842	4,692.47	0.00	0.00	0.00
12,000.00	90.00	179.89	7,589.29	-4,787.47	2,606.24	415,512.82	634,174.70	32.1419680	-104.0333845	4,792.47	0.00	0.00	0.00
12,100.00	90.00	179.89	7,589.28	-4,887.47	2,606.43	415,412.82	634,174.89	32.1416931	-104.0333847	4,892.47	0.00	0.00	0.00
12,200.00	90.00	179.89	7,589.28	-4,987.47	2,606.63	415,312.82	634,175.09	32.1414182	-104.0333850	4,992.47	0.00	0.00	0.00
12,300.00	90.00	179.89	7,589.28	-5,087.47	2,606.83	415,212.82	634,175.29	32.1411433	-104.0333853	5,092.47	0.00	0.00	0.00
12,400.00	90.00	179.89	7,589.27	-5,187.47	2,607.03	415,112.82	634,175.49	32.1408685	-104.0333855	5,192.47	0.00	0.00	0.00
12,500.00	90.00	179.89	7,589.27	-5,287.47	2,607.22	415,012.82	634,175.68	32.1405936	-104.0333858	5,292.47	0.00	0.00	0.00
12,600.00	90.00	179.89	7,589.26	-5,387.47	2,607.42	414,912.82	634,175.88	32.1403187	-104.0333860	5,392.47	0.00	0.00	0.00
12,700.00	90.00	179.89	7,589.26	-5,487.47	2,607.62	414,812.82	634,176.08	32.1400438	-104.0333863	5,492.47	0.00	0.00	0.00
12,800.00	90.00	179.89	7,589.26	-5,587.47	2,607.81	414,712.82	634,176.27	32.1397689	-104.0333866	5,592.47	0.00	0.00	0.00
12,900.00	90.00	179.89	7,589.25	-5,687.47	2,608.01	414,612.82	634,176.47	32.1394940	-104.0333868	5,692.47	0.00	0.00	0.00
13,000.00	90.00	179.89	7,589.25	-5,787.47	2,608.21	414,512.82	634,176.67	32.1392191	-104.0333871	5,792.47	0.00	0.00	0.00
13,100.00	90.00	179.89	7,589.24	-5,887.47	2,608.41	414,412.82	634,176.87	32.1389442	-104.0333874	5,892.47	0.00	0.00	0.00
13,200.00	90.00	179.89	7,589.24	-5,987.47	2,608.60	414,312.82	634,177.06	32.1386693	-104.0333876	5,992.47	0.00	0.00	0.00
13,300.00	90.00	179.89	7,589.23	-6,087.47	2,608.80	414,212.82	634,177.26	32.1383944	-104.0333879	6,092.47	0.00	0.00	0.00
13,400.00	90.00	179.89	7,589.23	-6,187.47	2,609.00	414,112.82	634,177.46	32.1381195	-104.0333881	6,192.47	0.00	0.00	0.00
13,500.00	90.00	179.89	7,589.23	-6,287.47	2,609.20	414,012.82	634,177.66	32.1378446	-104.0333884	6,292.47	0.00	0.00	0.00
13,600.00	90.00	179.89	7,589.22	-6,387.47	2,609.39	413,912.82	634,177.85	32.1375698	-104.0333887	6,392.47	0.00	0.00	0.00
13,700.00	90.00	179.89	7,589.22	-6,487.47	2,609.59	413,812.82	634,178.05	32.1372949	-104.0333889	6,492.47	0.00	0.00	0.00
13,800.00	90.00	179.89	7,589.21	-6,587.47	2,609.79	413,712.82	634,178.25	32.1370200	-104.0333892	6,592.47	0.00	0.00	0.00
13,900.00	90.00	179.89	7,589.21	-6,687.47	2,609.99	413,612.82	634,178.45	32.1367451	-104.0333894	6,692.47	0.00	0.00	0.00
14,000.00	90.00	179.89	7,589.21	-6,787.47	2,610.18	413,512.82	634,178.64	32.1364702	-104.0333897	6,792.47	0.00	0.00	0.00
14,100.00	90.00	179.89	7,589.20	-6,887.47	2,610.38	413,412.82	634,178.84	32.1361953	-104.0333900	6,892.47	0.00	0.00	0.00
14,200.00	90.00	179.89	7,589.20	-6,987.47	2,610.58	413,312.82	634,179.04	32.1359204	-104.0333902	6,992.47	0.00	0.00	0.00
14,300.00	90.00	179.89	7,589.19	-7,087.47	2,610.78	413,212.82	634,179.24	32.1356455	-104.0333905	7,092.47	0.00	0.00	0.00
14,400.00	90.00	179.89	7,589.19	-7,187.47	2,610.97	413,112.82	634,179.43	32.1353706	-104.0333908	7,192.47	0.00	0.00	0.00
14,500.00	90.00	179.89	7,589.18	-7,287.47	2,611.17	413,012.82	634,179.63	32.1350957	-104.0333910	7,292.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,600.00	90.00	179.89	7,589.18	-7,387.47	2,611.37	412,912.82	634,179.83	32.1348208	-104.0333913	7,392.47	0.00	0.00	0.00
14,700.00	90.00	179.89	7,589.18	-7,487.47	2,611.57	412,812.82	634,180.03	32.1345459	-104.0333915	7,492.47	0.00	0.00	0.00
14,800.00	90.00	179.89	7,589.17	-7,587.47	2,611.76	412,712.82	634,180.22	32.1342711	-104.0333918	7,592.47	0.00	0.00	0.00
14,900.00	90.00	179.89	7,589.17	-7,687.47	2,611.96	412,612.82	634,180.42	32.1339962	-104.0333921	7,692.47	0.00	0.00	0.00
15,000.00	90.00	179.89	7,589.16	-7,787.47	2,612.16	412,512.82	634,180.62	32.1337213	-104.0333923	7,792.47	0.00	0.00	0.00
15,100.00	90.00	179.89	7,589.16	-7,887.47	2,612.36	412,412.82	634,180.81	32.1334464	-104.0333926	7,892.47	0.00	0.00	0.00
15,200.00	90.00	179.89	7,589.16	-7,987.47	2,612.55	412,312.82	634,181.01	32.1331715	-104.0333929	7,992.47	0.00	0.00	0.00
15,300.00	90.00	179.89	7,589.15	-8,087.47	2,612.75	412,212.82	634,181.21	32.1328966	-104.0333931	8,092.47	0.00	0.00	0.00
15,400.00	90.00	179.89	7,589.15	-8,187.47	2,612.95	412,112.82	634,181.41	32.1326217	-104.0333934	8,192.47	0.00	0.00	0.00
15,500.00	90.00	179.89	7,589.14	-8,287.47	2,613.14	412,012.82	634,181.60	32.1323468	-104.0333936	8,292.47	0.00	0.00	0.00
15,600.00	90.00	179.89	7,589.14	-8,387.47	2,613.34	411,912.82	634,181.80	32.1320719	-104.0333939	8,392.47	0.00	0.00	0.00
15,700.00	90.00	179.89	7,589.13	-8,487.47	2,613.54	411,812.83	634,182.00	32.1317970	-104.0333942	8,492.47	0.00	0.00	0.00
15,800.00	90.00	179.89	7,589.13	-8,587.46	2,613.74	411,712.83	634,182.20	32.1315221	-104.0333944	8,592.47	0.00	0.00	0.00
15,900.00	90.00	179.89	7,589.13	-8,687.46	2,613.93	411,612.83	634,182.39	32.1312472	-104.0333947	8,692.47	0.00	0.00	0.00
16,000.00	90.00	179.89	7,589.12	-8,787.46	2,614.13	411,512.83	634,182.59	32.1309724	-104.0333949	8,792.47	0.00	0.00	0.00
16,100.00	90.00	179.89	7,589.12	-8,887.46	2,614.33	411,412.83	634,182.79	32.1306975	-104.0333952	8,892.47	0.00	0.00	0.00
16,200.00	90.00	179.89	7,589.11	-8,987.46	2,614.53	411,312.83	634,182.99	32.1304226	-104.0333955	8,992.47	0.00	0.00	0.00
16,300.00	90.00	179.89	7,589.11	-9,087.46	2,614.72	411,212.83	634,183.18	32.1301477	-104.0333957	9,092.47	0.00	0.00	0.00
16,400.00	90.00	179.89	7,589.11	-9,187.46	2,614.92	411,112.83	634,183.38	32.1298728	-104.0333960	9,192.47	0.00	0.00	0.00
16,500.00	90.00	179.89	7,589.10	-9,287.46	2,615.12	411,012.83	634,183.58	32.1295979	-104.0333963	9,292.47	0.00	0.00	0.00
16,600.00	90.00	179.89	7,589.10	-9,387.46	2,615.32	410,912.83	634,183.78	32.1293230	-104.0333965	9,392.47	0.00	0.00	0.00
16,700.00	90.00	179.89	7,589.09	-9,487.46	2,615.51	410,812.83	634,183.97	32.1290481	-104.0333968	9,492.47	0.00	0.00	0.00
16,800.00	90.00	179.89	7,589.09	-9,587.46	2,615.71	410,712.83	634,184.17	32.1287732	-104.0333970	9,592.47	0.00	0.00	0.00
16,900.00	90.00	179.89	7,589.08	-9,687.46	2,615.91	410,612.83	634,184.37	32.1284983	-104.0333973	9,692.47	0.00	0.00	0.00
17,000.00	90.00	179.89	7,589.08	-9,787.46	2,616.11	410,512.83	634,184.57	32.1282234	-104.0333976	9,792.47	0.00	0.00	0.00
17,100.00	90.00	179.89	7,589.08	-9,887.46	2,616.30	410,412.83	634,184.76	32.1279485	-104.0333978	9,892.47	0.00	0.00	0.00
17,200.00	90.00	179.89	7,589.07	-9,987.46	2,616.50	410,312.83	634,184.96	32.1276736	-104.0333981	9,992.47	0.00	0.00	0.00
17,300.00	90.00	179.89	7,589.07	-10,087.46	2,616.70	410,212.83	634,185.16	32.1273988	-104.0333983	10,092.47	0.00	0.00	0.00
17,400.00	90.00	179.89	7,589.06	-10,187.46	2,616.90	410,112.83	634,185.36	32.1271239	-104.0333986	10,192.47	0.00	0.00	0.00
17,500.00	90.00	179.89	7,589.06	-10,287.46	2,617.09	410,012.83	634,185.55	32.1268490	-104.0333989	10,292.47	0.00	0.00	0.00
17,600.00	90.00	179.89	7,589.06	-10,387.46	2,617.29	409,912.83	634,185.75	32.1265741	-104.0333991	10,392.47	0.00	0.00	0.00
17,700.00	90.00	179.89	7,589.05	-10,487.46	2,617.49	409,812.83	634,185.95	32.1262992	-104.0333994	10,492.47	0.00	0.00	0.00
17,800.00	90.00	179.89	7,589.05	-10,587.46	2,617.68	409,712.83	634,186.14	32.1260243	-104.0333997	10,592.47	0.00	0.00	0.00
17,900.00	90.00	179.89	7,589.04	-10,687.46	2,617.88	409,612.83	634,186.34	32.1257494	-104.0333999	10,692.47	0.00	0.00	0.00
18,000.00	90.00	179.89	7,589.04	-10,787.46	2,618.08	409,512.83	634,186.54	32.1254745	-104.0334002	10,792.47	0.00	0.00	0.00
18,100.00	90.00	179.89	7,589.03	-10,887.46	2,618.28	409,412.83	634,186.74	32.1251996	-104.0334004	10,892.47	0.00	0.00	0.00
18,200.00	90.00	179.89	7,589.03	-10,987.46	2,618.47	409,312.83	634,186.93	32.1249247	-104.0334007	10,992.47	0.00	0.00	0.00
18,300.00	90.00	179.89	7,589.03	-11,087.46	2,618.67	409,212.83	634,187.13	32.1246498	-104.0334010	11,092.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,400.00	90.00	179.89	7,589.02	-11,187.46	2,618.87	409,112.83	634,187.33	32.1243749	-104.0334012	11,192.47	0.00	0.00	0.00
18,500.00	90.00	179.89	7,589.02	-11,287.46	2,619.07	409,012.83	634,187.53	32.1241000	-104.0334015	11,292.47	0.00	0.00	0.00
18,600.00	90.00	179.89	7,589.01	-11,387.46	2,619.26	408,912.83	634,187.72	32.1238252	-104.0334017	11,392.47	0.00	0.00	0.00
18,700.00	90.00	179.89	7,589.01	-11,487.46	2,619.46	408,812.83	634,187.92	32.1235503	-104.0334020	11,492.47	0.00	0.00	0.00
18,800.00	90.00	179.89	7,589.01	-11,587.46	2,619.66	408,712.83	634,188.12	32.1232754	-104.0334023	11,592.47	0.00	0.00	0.00
18,900.00	90.00	179.89	7,589.00	-11,687.46	2,619.86	408,612.83	634,188.32	32.1230005	-104.0334025	11,692.47	0.00	0.00	0.00
18,917.19	90.00	179.89	7,589.00	-11,704.65	2,619.89	408,595.64	634,188.35	32.1229532	-104.0334026	11,709.66	0.00	0.00	0.00

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Riverbend 12-13 F - plan misses target center by 2902.38usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-1,288.95	2,600.47	419,011.34	634,168.93	32.1515852	-104.0333716
LTP (Riverbend 12-13 F - plan misses target center by 7589.00usft at 18917.19usft MD (7589.00 TVD, -11704.65 N, 2619.89 E) - Point	0.00	0.00	0.00	-11,704.65	2,619.89	408,595.64	634,188.35	32.1229532	-104.0334026

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
407.00	407.00	Rustler			
1,966.87	1,952.00	Top Salt			
2,667.69	2,632.00	Base Salt/Lamar			
2,847.02	2,806.00	Top Delaware Sands/Bell Canyon			
3,684.91	3,619.00	Cherry Canyon			
4,919.58	4,817.00	Brushy Canyon			
5,897.63	5,766.00	Lower Brushy Canyon			
6,562.38	6,411.00	Bone Spring Lime			
7,563.62	7,361.00	1st Bone Spring Sand			
8,188.69	7,589.00	1st Bone Spring Sand LZ			

Checked By: _____ Approved By: _____ Date: _____

COMPANY Coterra Energy
 FIELD Eddy County, NM (NAD 83)
 SITE Riverbend 12-13 Federal Com
 WELL Riverbend 12-13 Federal Com 7H
 WELLPATH OH
 DESIGN Plan 1
 DEPTHUNT (usft)

WELL INFO

MAP DATUM North American Datum 1983
 MAP SYSTEM US State Plane 1983
 MAP ZONE New Mexico Eastern Zone
 WELL LAT 32.155148
 WELL LON -104.041763
 WELL EW MAI 631568.46
 WELL NS MAP 420300.29
 CONVERGENC 0.16
 MAGMODEL HDGM2025
 DECLINATION 6.42
 NORTH REF Grid
 GROUND ELE\ 2934
 KB ELEVN 2957
 VS AZI 179.89

SURVEY PROGRAM

1 0.00 - 18917.19 PLAN 1 : MWD+IFR1+MS

SURVEY LIST

Measured Depth MD	Inclination INC	Azimuth AZI	Course Length CL	True Vertical TVD	SubSea TVD SSTVD	Local N/-S NS
0.00	0.00	0.00	0.00	0.00	2957.00	0.00
100.00	0.00	0.00	100.00	100.00	2857.00	0.00
200.00	0.00	0.00	100.00	200.00	2757.00	0.00
300.00	0.00	0.00	100.00	300.00	2657.00	0.00
400.00	0.00	0.00	100.00	400.00	2557.00	0.00
500.00	0.00	0.00	100.00	500.00	2457.00	0.00
600.00	0.00	0.00	100.00	600.00	2357.00	0.00
700.00	0.00	0.00	100.00	700.00	2257.00	0.00
800.00	0.00	0.00	100.00	800.00	2157.00	0.00
900.00	0.00	0.00	100.00	900.00	2057.00	0.00
1000.00	0.00	0.00	100.00	1000.00	1957.00	0.00
1100.00	2.00	128.00	100.00	1099.98	1857.02	-1.07
1200.00	4.00	128.00	100.00	1199.84	1757.16	-4.30
1300.00	6.00	128.00	100.00	1299.45	1657.55	-9.66

1400.00	8.00	128.00	100.00	1398.70	1558.30	-17.17
1500.00	10.00	128.00	100.00	1497.47	1459.54	-26.80
1600.00	12.00	128.00	100.00	1595.62	1361.38	-38.54
1700.00	14.00	128.00	100.00	1693.06	1263.95	-52.39
1800.00	14.00	128.00	100.00	1790.09	1166.92	-67.29
1900.00	14.00	128.00	100.00	1887.11	1069.89	-82.18
2000.00	14.00	128.00	100.00	1984.14	972.86	-97.07
2100.00	14.00	128.00	100.00	2081.17	875.83	-111.97
2200.00	14.00	128.00	100.00	2178.20	778.80	-126.86
2300.00	14.00	128.00	100.00	2275.23	681.77	-141.76
2400.00	14.00	128.00	100.00	2372.26	584.74	-156.65
2500.00	14.00	128.00	100.00	2469.29	487.71	-171.54
2600.00	14.00	128.00	100.00	2566.32	390.68	-186.44
2700.00	14.00	128.00	100.00	2663.35	293.65	-201.33
2800.00	14.00	128.00	100.00	2760.38	196.62	-216.23
2900.00	14.00	128.00	100.00	2857.41	99.59	-231.12
3000.00	14.00	128.00	100.00	2954.44	2.56	-246.02
3100.00	14.00	128.00	100.00	3051.47	-94.47	-260.91
3200.00	14.00	128.00	100.00	3148.50	-191.50	-275.80
3300.00	14.00	128.00	100.00	3245.53	-288.53	-290.70
3400.00	14.00	128.00	100.00	3342.56	-385.56	-305.59
3500.00	14.00	128.00	100.00	3439.59	-482.59	-320.49
3600.00	14.00	128.00	100.00	3536.62	-579.62	-335.38
3700.00	14.00	128.00	100.00	3633.65	-676.65	-350.28
3800.00	14.00	128.00	100.00	3730.68	-773.68	-365.17
3900.00	14.00	128.00	100.00	3827.71	-870.71	-380.06
4000.00	14.00	128.00	100.00	3924.74	-967.74	-394.96
4100.00	14.00	128.00	100.00	4021.77	-1064.77	-409.85
4200.00	14.00	128.00	100.00	4118.79	-1161.79	-424.75
4300.00	14.00	128.00	100.00	4215.82	-1258.82	-439.64
4400.00	14.00	128.00	100.00	4312.85	-1355.85	-454.53
4500.00	14.00	128.00	100.00	4409.88	-1452.88	-469.43
4600.00	14.00	128.00	100.00	4506.91	-1549.91	-484.32
4700.00	14.00	128.00	100.00	4603.94	-1646.94	-499.22
4800.00	14.00	128.00	100.00	4700.97	-1743.97	-514.11
4900.00	14.00	128.00	100.00	4798.00	-1841.00	-529.01
5000.00	14.00	128.00	100.00	4895.03	-1938.03	-543.90
5100.00	14.00	128.00	100.00	4992.06	-2035.06	-558.79
5200.00	14.00	128.00	100.00	5089.09	-2132.09	-573.69
5300.00	14.00	128.00	100.00	5186.12	-2229.12	-588.58
5400.00	14.00	128.00	100.00	5283.15	-2326.15	-603.48
5500.00	14.00	128.00	100.00	5380.18	-2423.18	-618.37
5600.00	14.00	128.00	100.00	5477.21	-2520.21	-633.26
5700.00	14.00	128.00	100.00	5574.24	-2617.24	-648.16

5800.00	14.00	128.00	100.00	5671.27	-2714.27	-663.05
5900.00	14.00	128.00	100.00	5768.30	-2811.30	-677.95
6000.00	14.00	128.00	100.00	5865.33	-2908.33	-692.84
6100.00	14.00	128.00	100.00	5962.36	-3005.36	-707.74
6200.00	14.00	128.00	100.00	6059.39	-3102.39	-722.63
6300.00	14.00	128.00	100.00	6156.42	-3199.42	-737.52
6400.00	14.00	128.00	100.00	6253.45	-3296.45	-752.42
6500.00	14.00	128.00	100.00	6350.48	-3393.48	-767.31
6600.00	14.00	128.00	100.00	6447.50	-3490.50	-782.21
6700.00	14.00	128.00	100.00	6544.53	-3587.53	-797.10
6800.00	14.00	128.00	100.00	6641.56	-3684.56	-812.00
6900.00	14.00	128.00	100.00	6738.59	-3781.59	-826.89
7000.00	14.00	128.00	100.00	6835.62	-3878.62	-841.78
7100.00	14.00	128.00	100.00	6932.65	-3975.65	-856.68
7200.00	14.00	128.00	100.00	7029.68	-4072.68	-871.57
7309.09	14.00	128.00	109.09	7135.53	-4178.53	-887.82
7350.00	18.09	128.00	40.91	7174.84	-4217.84	-894.78
7400.00	23.09	128.00	50.00	7221.63	-4264.63	-905.60
7450.00	28.09	128.00	50.00	7266.71	-4309.71	-918.90
7500.00	33.09	128.00	50.00	7309.74	-4352.74	-934.56
7550.00	38.09	128.00	50.00	7350.39	-4393.39	-952.47
7600.00	43.09	128.00	50.00	7388.34	-4431.34	-972.49
7650.00	48.09	128.00	50.00	7423.32	-4466.32	-994.47
7700.00	53.09	128.00	50.00	7455.05	-4498.05	-1018.25
7750.00	58.09	128.00	50.00	7483.30	-4526.30	-1043.64
7800.00	63.09	128.00	50.00	7507.84	-4550.84	-1070.44
7850.00	68.09	128.00	50.00	7528.50	-4571.50	-1098.47
7900.00	73.09	128.00	50.00	7545.11	-4588.11	-1127.49
7919.09	75.00	128.00	19.09	7550.36	-4593.36	-1138.79
8000.00	79.05	128.00	80.91	7568.52	-4611.52	-1187.32
8100.00	84.05	128.00	100.00	7583.22	-4626.22	-1248.20
8200.00	89.05	128.00	100.00	7589.24	-4632.24	-1309.63
8219.09	90.00	128.00	19.09	7589.40	-4632.40	-1321.39
8300.00	90.00	128.00	80.91	7589.40	-4632.40	-1371.20
8400.00	90.00	128.00	100.00	7589.40	-4632.40	-1432.77
8444.09	90.00	128.00	44.09	7589.40	-4632.40	-1459.91
8500.00	90.00	129.68	55.91	7589.40	-4632.40	-1494.97
8600.00	90.00	132.68	100.00	7589.40	-4632.40	-1560.80
8700.00	90.00	135.68	100.00	7589.40	-4632.40	-1630.48
8800.00	90.00	138.68	100.00	7589.40	-4632.40	-1703.82
8900.00	90.00	141.68	100.00	7589.40	-4632.40	-1780.62
9000.00	90.00	144.68	100.00	7589.40	-4632.40	-1860.66
9100.00	90.00	147.68	100.00	7589.40	-4632.40	-1943.72
9200.00	90.00	150.68	100.00	7589.40	-4632.40	-2029.59

9300.00	90.00	153.68	100.00	7589.39	-4632.39	-2118.02
9400.00	90.00	156.68	100.00	7589.39	-4632.39	-2208.77
9500.00	90.00	159.68	100.00	7589.39	-4632.39	-2301.59
9600.00	90.00	162.68	100.00	7589.39	-4632.39	-2396.23
9700.00	90.00	165.68	100.00	7589.38	-4632.38	-2492.43
9800.00	90.00	168.68	100.00	7589.38	-4632.38	-2589.93
9900.00	90.00	171.68	100.00	7589.38	-4632.38	-2688.45
10000.00	90.00	174.68	100.00	7589.37	-4632.37	-2787.73
10100.00	90.00	177.68	100.00	7589.37	-4632.37	-2887.50
10173.66	90.00	179.89	73.66	7589.36	-4632.36	-2961.13
10200.00	90.00	179.89	26.34	7589.36	-4632.36	-2987.48
10300.00	90.00	179.89	100.00	7589.36	-4632.36	-3087.48
10400.00	90.00	179.89	100.00	7589.36	-4632.36	-3187.48
10500.00	90.00	179.89	100.00	7589.35	-4632.35	-3287.48
10600.00	90.00	179.89	100.00	7589.35	-4632.35	-3387.48
10700.00	90.00	179.89	100.00	7589.34	-4632.34	-3487.48
10800.00	90.00	179.89	100.00	7589.34	-4632.34	-3587.48
10900.00	90.00	179.89	100.00	7589.33	-4632.33	-3687.47
11000.00	90.00	179.89	100.00	7589.33	-4632.33	-3787.47
11100.00	90.00	179.89	100.00	7589.33	-4632.33	-3887.47
11200.00	90.00	179.89	100.00	7589.32	-4632.32	-3987.47
11300.00	90.00	179.89	100.00	7589.32	-4632.32	-4087.47
11400.00	90.00	179.89	100.00	7589.31	-4632.31	-4187.47
11500.00	90.00	179.89	100.00	7589.31	-4632.31	-4287.47
11600.00	90.00	179.89	100.00	7589.31	-4632.31	-4387.47
11700.00	90.00	179.89	100.00	7589.30	-4632.30	-4487.47
11800.00	90.00	179.89	100.00	7589.30	-4632.30	-4587.47
11900.00	90.00	179.89	100.00	7589.29	-4632.29	-4687.47
12000.00	90.00	179.89	100.00	7589.29	-4632.29	-4787.47
12100.00	90.00	179.89	100.00	7589.28	-4632.28	-4887.47
12200.00	90.00	179.89	100.00	7589.28	-4632.28	-4987.47
12300.00	90.00	179.89	100.00	7589.28	-4632.28	-5087.47
12400.00	90.00	179.89	100.00	7589.27	-4632.27	-5187.47
12500.00	90.00	179.89	100.00	7589.27	-4632.27	-5287.47
12600.00	90.00	179.89	100.00	7589.26	-4632.26	-5387.47
12700.00	90.00	179.89	100.00	7589.26	-4632.26	-5487.47
12800.00	90.00	179.89	100.00	7589.26	-4632.26	-5587.47
12900.00	90.00	179.89	100.00	7589.25	-4632.25	-5687.47
13000.00	90.00	179.89	100.00	7589.25	-4632.25	-5787.47
13100.00	90.00	179.89	100.00	7589.24	-4632.24	-5887.47
13200.00	90.00	179.89	100.00	7589.24	-4632.24	-5987.47
13300.00	90.00	179.89	100.00	7589.23	-4632.23	-6087.47
13400.00	90.00	179.89	100.00	7589.23	-4632.23	-6187.47
13500.00	90.00	179.89	100.00	7589.23	-4632.23	-6287.47

13600.00	90.00	179.89	100.00	7589.22	-4632.22	-6387.47
13700.00	90.00	179.89	100.00	7589.22	-4632.22	-6487.47
13800.00	90.00	179.89	100.00	7589.21	-4632.21	-6587.47
13900.00	90.00	179.89	100.00	7589.21	-4632.21	-6687.47
14000.00	90.00	179.89	100.00	7589.21	-4632.21	-6787.47
14100.00	90.00	179.89	100.00	7589.20	-4632.20	-6887.47
14200.00	90.00	179.89	100.00	7589.20	-4632.20	-6987.47
14300.00	90.00	179.89	100.00	7589.19	-4632.19	-7087.47
14400.00	90.00	179.89	100.00	7589.19	-4632.19	-7187.47
14500.00	90.00	179.89	100.00	7589.18	-4632.18	-7287.47
14600.00	90.00	179.89	100.00	7589.18	-4632.18	-7387.47
14700.00	90.00	179.89	100.00	7589.18	-4632.18	-7487.47
14800.00	90.00	179.89	100.00	7589.17	-4632.17	-7587.47
14900.00	90.00	179.89	100.00	7589.17	-4632.17	-7687.47
15000.00	90.00	179.89	100.00	7589.16	-4632.16	-7787.47
15100.00	90.00	179.89	100.00	7589.16	-4632.16	-7887.47
15200.00	90.00	179.89	100.00	7589.16	-4632.16	-7987.47
15300.00	90.00	179.89	100.00	7589.15	-4632.15	-8087.47
15400.00	90.00	179.89	100.00	7589.15	-4632.15	-8187.47
15500.00	90.00	179.89	100.00	7589.14	-4632.14	-8287.47
15600.00	90.00	179.89	100.00	7589.14	-4632.14	-8387.47
15700.00	90.00	179.89	100.00	7589.13	-4632.13	-8487.47
15800.00	90.00	179.89	100.00	7589.13	-4632.13	-8587.47
15900.00	90.00	179.89	100.00	7589.13	-4632.13	-8687.47
16000.00	90.00	179.89	100.00	7589.12	-4632.12	-8787.46
16100.00	90.00	179.89	100.00	7589.12	-4632.12	-8887.46
16200.00	90.00	179.89	100.00	7589.11	-4632.11	-8987.46
16300.00	90.00	179.89	100.00	7589.11	-4632.11	-9087.46
16400.00	90.00	179.89	100.00	7589.11	-4632.11	-9187.46
16500.00	90.00	179.89	100.00	7589.10	-4632.10	-9287.46
16600.00	90.00	179.89	100.00	7589.10	-4632.10	-9387.46
16700.00	90.00	179.89	100.00	7589.09	-4632.09	-9487.46
16800.00	90.00	179.89	100.00	7589.09	-4632.09	-9587.46
16900.00	90.00	179.89	100.00	7589.08	-4632.08	-9687.46
17000.00	90.00	179.89	100.00	7589.08	-4632.08	-9787.46
17100.00	90.00	179.89	100.00	7589.08	-4632.08	-9887.46
17200.00	90.00	179.89	100.00	7589.07	-4632.07	-9987.46
17300.00	90.00	179.89	100.00	7589.07	-4632.07	-10087.46
17400.00	90.00	179.89	100.00	7589.06	-4632.06	-10187.46
17500.00	90.00	179.89	100.00	7589.06	-4632.06	-10287.46
17600.00	90.00	179.89	100.00	7589.06	-4632.06	-10387.46
17700.00	90.00	179.89	100.00	7589.05	-4632.05	-10487.46
17800.00	90.00	179.89	100.00	7589.05	-4632.05	-10587.46
17900.00	90.00	179.89	100.00	7589.04	-4632.04	-10687.46

18000.00	90.00	179.89	100.00	7589.04	-4632.04	-10787.46
18100.00	90.00	179.89	100.00	7589.03	-4632.03	-10887.46
18200.00	90.00	179.89	100.00	7589.03	-4632.03	-10987.46
18300.00	90.00	179.89	100.00	7589.03	-4632.03	-11087.46
18400.00	90.00	179.89	100.00	7589.02	-4632.02	-11187.46
18500.00	90.00	179.89	100.00	7589.02	-4632.02	-11287.46
18600.00	90.00	179.89	100.00	7589.01	-4632.01	-11387.46
18700.00	90.00	179.89	100.00	7589.01	-4632.01	-11487.46
18800.00	90.00	179.89	100.00	7589.01	-4632.01	-11587.46
18900.00	90.00	179.89	100.00	7589.00	-4632.00	-11687.46
18917.19	90.00	179.89	17.19	7589.00	-4632.00	-11704.65

Local E/-W EW	Easting X	Northing Y	Latitude LAT	Longitude LON	Dogleg Severit DLS	Build Rate BLD
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
1.38	631569.84	420299.22	32.155145	-104.041759	2.00	2.00
5.50	631573.96	420295.99	32.155136	-104.041745	2.00	2.00
12.37	631580.83	420290.63	32.155121	-104.041723	2.00	2.00

21.97	631590.43	420283.13	32.155101	-104.041692	2.00	2.00
34.30	631602.76	420273.50	32.155074	-104.041652	2.00	2.00
49.33	631617.79	420261.75	32.155042	-104.041604	2.00	2.00
67.06	631635.52	420247.90	32.155003	-104.041547	2.00	2.00
86.12	631654.58	420233.01	32.154962	-104.041485	0.00	0.00
105.18	631673.64	420218.11	32.154921	-104.041424	0.00	0.00
124.25	631692.71	420203.22	32.154880	-104.041362	0.00	0.00
143.31	631711.77	420188.32	32.154839	-104.041301	0.00	0.00
162.38	631730.84	420173.43	32.154798	-104.041239	0.00	0.00
181.44	631749.90	420158.53	32.154757	-104.041178	0.00	0.00
200.50	631768.96	420143.64	32.154716	-104.041117	0.00	0.00
219.57	631788.03	420128.75	32.154675	-104.041055	0.00	0.00
238.63	631807.09	420113.85	32.154634	-104.040994	0.00	0.00
257.69	631826.15	420098.96	32.154593	-104.040932	0.00	0.00
276.76	631845.22	420084.06	32.154552	-104.040871	0.00	0.00
295.82	631864.28	420069.17	32.154510	-104.040809	0.00	0.00
314.89	631883.35	420054.28	32.154469	-104.040748	0.00	0.00
333.95	631902.41	420039.38	32.154428	-104.040686	0.00	0.00
353.01	631921.47	420024.49	32.154387	-104.040625	0.00	0.00
372.08	631940.54	420009.59	32.154346	-104.040563	0.00	0.00
391.14	631959.60	419994.70	32.154305	-104.040502	0.00	0.00
410.20	631978.66	419979.80	32.154264	-104.040440	0.00	0.00
429.27	631997.73	419964.91	32.154223	-104.040379	0.00	0.00
448.33	632016.79	419950.02	32.154182	-104.040317	0.00	0.00
467.40	632035.86	419935.12	32.154141	-104.040256	0.00	0.00
486.46	632054.92	419920.23	32.154100	-104.040194	0.00	0.00
505.52	632073.98	419905.33	32.154058	-104.040133	0.00	0.00
524.59	632093.05	419890.44	32.154017	-104.040072	0.00	0.00
543.65	632112.11	419875.54	32.153976	-104.040010	0.00	0.00
562.71	632131.17	419860.65	32.153935	-104.039949	0.00	0.00
581.78	632150.24	419845.76	32.153894	-104.039887	0.00	0.00
600.84	632169.30	419830.86	32.153853	-104.039826	0.00	0.00
619.90	632188.36	419815.97	32.153812	-104.039764	0.00	0.00
638.97	632207.43	419801.07	32.153771	-104.039703	0.00	0.00
658.03	632226.49	419786.18	32.153730	-104.039641	0.00	0.00
677.10	632245.56	419771.29	32.153689	-104.039580	0.00	0.00
696.16	632264.62	419756.39	32.153648	-104.039518	0.00	0.00
715.22	632283.68	419741.50	32.153607	-104.039457	0.00	0.00
734.29	632302.75	419726.60	32.153565	-104.039395	0.00	0.00
753.35	632321.81	419711.71	32.153524	-104.039334	0.00	0.00
772.41	632340.87	419696.81	32.153483	-104.039272	0.00	0.00
791.48	632359.94	419681.92	32.153442	-104.039211	0.00	0.00
810.54	632379.00	419667.03	32.153401	-104.039149	0.00	0.00
829.61	632398.07	419652.13	32.153360	-104.039088	0.00	0.00

848.67	632417.13	419637.24	32.153319	-104.039027	0.00	0.00
867.73	632436.19	419622.34	32.153278	-104.038965	0.00	0.00
886.80	632455.26	419607.45	32.153237	-104.038904	0.00	0.00
905.86	632474.32	419592.56	32.153196	-104.038842	0.00	0.00
924.92	632493.38	419577.66	32.153155	-104.038781	0.00	0.00
943.99	632512.45	419562.77	32.153114	-104.038719	0.00	0.00
963.05	632531.51	419547.87	32.153072	-104.038658	0.00	0.00
982.12	632550.58	419532.98	32.153031	-104.038596	0.00	0.00
1001.18	632569.64	419518.08	32.152990	-104.038535	0.00	0.00
1020.24	632588.70	419503.19	32.152949	-104.038473	0.00	0.00
1039.31	632607.77	419488.30	32.152908	-104.038412	0.00	0.00
1058.37	632626.83	419473.40	32.152867	-104.038350	0.00	0.00
1077.43	632645.89	419458.51	32.152826	-104.038289	0.00	0.00
1096.50	632664.96	419443.61	32.152785	-104.038227	0.00	0.00
1115.56	632684.02	419428.72	32.152744	-104.038166	0.00	0.00
1136.36	632704.82	419412.47	32.152699	-104.038099	0.00	0.00
1145.27	632713.73	419405.51	32.152680	-104.038070	10.00	10.00
1159.12	632727.58	419394.69	32.152650	-104.038026	10.00	10.00
1176.13	632744.59	419381.40	32.152613	-104.037971	10.00	10.00
1196.18	632764.64	419365.74	32.152570	-104.037906	10.00	10.00
1219.10	632787.56	419347.83	32.152521	-104.037832	10.00	10.00
1244.73	632813.19	419327.80	32.152465	-104.037750	10.00	10.00
1272.87	632841.33	419305.82	32.152405	-104.037659	10.00	10.00
1303.30	632871.76	419282.04	32.152339	-104.037561	10.00	10.00
1335.79	632904.25	419256.65	32.152269	-104.037456	10.00	10.00
1370.11	632938.57	419229.85	32.152195	-104.037345	10.00	10.00
1405.97	632974.43	419201.82	32.152118	-104.037230	10.00	10.00
1443.12	633011.58	419172.80	32.152038	-104.037110	10.00	10.00
1457.59	633026.05	419161.50	32.152007	-104.037063	10.00	10.00
1519.70	633088.16	419112.97	32.151873	-104.036863	5.00	5.00
1597.62	633166.08	419052.09	32.151705	-104.036612	5.00	5.00
1676.26	633244.72	418990.66	32.151535	-104.036358	5.00	5.00
1691.30	633259.76	418978.90	32.151503	-104.036310	5.00	5.00
1755.06	633323.52	418929.09	32.151365	-104.036104	0.00	0.00
1833.86	633402.32	418867.52	32.151196	-104.035850	0.00	0.00
1868.60	633437.06	418840.38	32.151121	-104.035738	0.00	0.00
1912.15	633480.61	418805.32	32.151024	-104.035598	3.00	0.00
1987.41	633555.87	418739.49	32.150843	-104.035355	3.00	0.00
2059.12	633627.58	418669.81	32.150650	-104.035124	3.00	0.00
2127.08	633695.54	418596.47	32.150448	-104.034905	3.00	0.00
2191.12	633759.58	418519.68	32.150237	-104.034699	3.00	0.00
2251.04	633819.50	418439.64	32.150016	-104.034506	3.00	0.00
2306.70	633875.16	418356.57	32.149787	-104.034327	3.00	0.00
2357.93	633926.39	418270.70	32.149551	-104.034162	3.00	0.00

2404.60	633973.06	418182.27	32.149308	-104.034012	3.00	0.00
2446.58	634015.04	418091.52	32.149058	-104.033877	3.00	0.00
2483.75	634052.21	417998.70	32.148802	-104.033758	3.00	0.00
2516.01	634084.47	417904.06	32.148542	-104.033654	3.00	0.00
2543.27	634111.73	417807.86	32.148277	-104.033567	3.00	0.00
2565.46	634133.92	417710.36	32.148009	-104.033496	3.00	0.00
2582.52	634150.98	417611.84	32.147738	-104.033442	3.00	0.00
2594.40	634162.86	417512.56	32.147465	-104.033405	3.00	0.00
2601.07	634169.53	417412.79	32.147191	-104.033384	3.00	0.00
2602.63	634171.09	417339.16	32.146988	-104.033380	3.00	0.00
2602.68	634171.14	417312.81	32.146916	-104.033380	0.00	0.00
2602.88	634171.34	417212.81	32.146641	-104.033380	0.00	0.00
2603.08	634171.54	417112.82	32.146366	-104.033380	0.00	0.00
2603.28	634171.74	417012.82	32.146091	-104.033381	0.00	0.00
2603.47	634171.93	416912.82	32.145816	-104.033381	0.00	0.00
2603.67	634172.13	416812.82	32.145542	-104.033381	0.00	0.00
2603.87	634172.33	416712.82	32.145267	-104.033381	0.00	0.00
2604.06	634172.52	416612.82	32.144992	-104.033382	0.00	0.00
2604.26	634172.72	416512.82	32.144717	-104.033382	0.00	0.00
2604.46	634172.92	416412.82	32.144442	-104.033382	0.00	0.00
2604.66	634173.12	416312.82	32.144167	-104.033382	0.00	0.00
2604.85	634173.31	416212.82	32.143892	-104.033383	0.00	0.00
2605.05	634173.51	416112.82	32.143617	-104.033383	0.00	0.00
2605.25	634173.71	416012.82	32.143342	-104.033383	0.00	0.00
2605.45	634173.91	415912.82	32.143068	-104.033383	0.00	0.00
2605.64	634174.10	415812.82	32.142793	-104.033384	0.00	0.00
2605.84	634174.30	415712.82	32.142518	-104.033384	0.00	0.00
2606.04	634174.50	415612.82	32.142243	-104.033384	0.00	0.00
2606.24	634174.70	415512.82	32.141968	-104.033384	0.00	0.00
2606.43	634174.89	415412.82	32.141693	-104.033385	0.00	0.00
2606.63	634175.09	415312.82	32.141418	-104.033385	0.00	0.00
2606.83	634175.29	415212.82	32.141143	-104.033385	0.00	0.00
2607.03	634175.49	415112.82	32.140868	-104.033386	0.00	0.00
2607.22	634175.68	415012.82	32.140594	-104.033386	0.00	0.00
2607.42	634175.88	414912.82	32.140319	-104.033386	0.00	0.00
2607.62	634176.08	414812.82	32.140044	-104.033386	0.00	0.00
2607.82	634176.28	414712.82	32.139769	-104.033387	0.00	0.00
2608.01	634176.47	414612.82	32.139494	-104.033387	0.00	0.00
2608.21	634176.67	414512.82	32.139219	-104.033387	0.00	0.00
2608.41	634176.87	414412.82	32.138944	-104.033387	0.00	0.00
2608.60	634177.06	414312.82	32.138669	-104.033388	0.00	0.00
2608.80	634177.26	414212.82	32.138394	-104.033388	0.00	0.00
2609.00	634177.46	414112.82	32.138120	-104.033388	0.00	0.00
2609.20	634177.66	414012.82	32.137845	-104.033388	0.00	0.00

2609.39	634177.85	413912.82	32.137570	-104.033389	0.00	0.00
2609.59	634178.05	413812.82	32.137295	-104.033389	0.00	0.00
2609.79	634178.25	413712.82	32.137020	-104.033389	0.00	0.00
2609.99	634178.45	413612.82	32.136745	-104.033389	0.00	0.00
2610.18	634178.64	413512.82	32.136470	-104.033390	0.00	0.00
2610.38	634178.84	413412.82	32.136195	-104.033390	0.00	0.00
2610.58	634179.04	413312.82	32.135920	-104.033390	0.00	0.00
2610.78	634179.24	413212.82	32.135645	-104.033391	0.00	0.00
2610.97	634179.43	413112.82	32.135371	-104.033391	0.00	0.00
2611.17	634179.63	413012.82	32.135096	-104.033391	0.00	0.00
2611.37	634179.83	412912.82	32.134821	-104.033391	0.00	0.00
2611.57	634180.03	412812.82	32.134546	-104.033392	0.00	0.00
2611.76	634180.22	412712.82	32.134271	-104.033392	0.00	0.00
2611.96	634180.42	412612.82	32.133996	-104.033392	0.00	0.00
2612.16	634180.62	412512.82	32.133721	-104.033392	0.00	0.00
2612.36	634180.82	412412.82	32.133446	-104.033393	0.00	0.00
2612.55	634181.01	412312.82	32.133171	-104.033393	0.00	0.00
2612.75	634181.21	412212.82	32.132897	-104.033393	0.00	0.00
2612.95	634181.41	412112.82	32.132622	-104.033393	0.00	0.00
2613.15	634181.61	412012.83	32.132347	-104.033394	0.00	0.00
2613.34	634181.80	411912.83	32.132072	-104.033394	0.00	0.00
2613.54	634182.00	411812.83	32.131797	-104.033394	0.00	0.00
2613.74	634182.20	411712.83	32.131522	-104.033394	0.00	0.00
2613.93	634182.39	411612.83	32.131247	-104.033395	0.00	0.00
2614.13	634182.59	411512.83	32.130972	-104.033395	0.00	0.00
2614.33	634182.79	411412.83	32.130697	-104.033395	0.00	0.00
2614.53	634182.99	411312.83	32.130423	-104.033395	0.00	0.00
2614.72	634183.18	411212.83	32.130148	-104.033396	0.00	0.00
2614.92	634183.38	411112.83	32.129873	-104.033396	0.00	0.00
2615.12	634183.58	411012.83	32.129598	-104.033396	0.00	0.00
2615.32	634183.78	410912.83	32.129323	-104.033397	0.00	0.00
2615.51	634183.97	410812.83	32.129048	-104.033397	0.00	0.00
2615.71	634184.17	410712.83	32.128773	-104.033397	0.00	0.00
2615.91	634184.37	410612.83	32.128498	-104.033397	0.00	0.00
2616.11	634184.57	410512.83	32.128223	-104.033398	0.00	0.00
2616.30	634184.76	410412.83	32.127949	-104.033398	0.00	0.00
2616.50	634184.96	410312.83	32.127674	-104.033398	0.00	0.00
2616.70	634185.16	410212.83	32.127399	-104.033398	0.00	0.00
2616.90	634185.36	410112.83	32.127124	-104.033399	0.00	0.00
2617.09	634185.55	410012.83	32.126849	-104.033399	0.00	0.00
2617.29	634185.75	409912.83	32.126574	-104.033399	0.00	0.00
2617.49	634185.95	409812.83	32.126299	-104.033399	0.00	0.00
2617.69	634186.15	409712.83	32.126024	-104.033400	0.00	0.00
2617.88	634186.34	409612.83	32.125749	-104.033400	0.00	0.00

2618.08	634186.54	409512.83	32.125474	-104.033400	0.00	0.00
2618.28	634186.74	409412.83	32.125200	-104.033400	0.00	0.00
2618.47	634186.93	409312.83	32.124925	-104.033401	0.00	0.00
2618.67	634187.13	409212.83	32.124650	-104.033401	0.00	0.00
2618.87	634187.33	409112.83	32.124375	-104.033401	0.00	0.00
2619.07	634187.53	409012.83	32.124100	-104.033402	0.00	0.00
2619.26	634187.72	408912.83	32.123825	-104.033402	0.00	0.00
2619.46	634187.92	408812.83	32.123550	-104.033402	0.00	0.00
2619.66	634188.12	408712.83	32.123275	-104.033402	0.00	0.00
2619.86	634188.32	408612.83	32.123000	-104.033403	0.00	0.00
2619.89	634188.35	408595.64	32.122953	-104.033403	0.00	0.00

Turn Rate	Vertical Section
TRN	VS
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	1.08
0.00	4.31
0.00	9.69

0.00	17.21
0.00	26.86
0.00	38.64
0.00	52.52
0.00	67.45
0.00	82.38
0.00	97.31
0.00	112.24
0.00	127.17
0.00	142.10
0.00	157.04
0.00	171.97
0.00	186.90
0.00	201.83
0.00	216.76
0.00	231.69
0.00	246.62
0.00	261.55
0.00	276.48
0.00	291.41
0.00	306.34
0.00	321.27
0.00	336.20
0.00	351.14
0.00	366.07
0.00	381.00
0.00	395.93
0.00	410.86
0.00	425.79
0.00	440.72
0.00	455.65
0.00	470.58
0.00	485.51
0.00	500.44
0.00	515.37
0.00	530.30
0.00	545.24
0.00	560.17
0.00	575.10
0.00	590.03
0.00	604.96
0.00	619.89
0.00	634.82
0.00	649.75

0.00	664.68
0.00	679.61
0.00	694.54
0.00	709.47
0.00	724.40
0.00	739.34
0.00	754.27
0.00	769.20
0.00	784.13
0.00	799.06
0.00	813.99
0.00	828.92
0.00	843.85
0.00	858.78
0.00	873.71
0.00	890.00
0.00	896.98
0.00	907.83
0.00	921.15
0.00	936.85
0.00	954.80
0.00	974.88
0.00	996.91
0.00	1020.75
0.00	1046.20
0.00	1073.07
0.00	1101.16
0.00	1130.26
0.00	1141.59
0.00	1190.24
0.00	1251.26
0.00	1312.85
0.00	1324.63
0.00	1374.57
0.00	1436.28
0.00	1463.50
3.00	1498.64
3.00	1564.62
3.00	1634.43
3.00	1707.90
3.00	1784.82
3.00	1864.97
3.00	1948.15
3.00	2034.11

3.00	2122.63
3.00	2213.46
3.00	2306.36
3.00	2401.06
3.00	2497.31
3.00	2594.85
3.00	2693.40
3.00	2792.71
3.00	2892.49
3.00	2966.12
0.00	2992.47
0.00	3092.47
0.00	3192.47
0.00	3292.47
0.00	3392.47
0.00	3492.47
0.00	3592.47
0.00	3692.47
0.00	3792.47
0.00	3892.47
0.00	3992.47
0.00	4092.47
0.00	4192.47
0.00	4292.47
0.00	4392.47
0.00	4492.47
0.00	4592.47
0.00	4692.47
0.00	4792.47
0.00	4892.47
0.00	4992.47
0.00	5092.47
0.00	5192.47
0.00	5292.47
0.00	5392.47
0.00	5492.47
0.00	5592.47
0.00	5692.47
0.00	5792.47
0.00	5892.47
0.00	5992.47
0.00	6092.47
0.00	6192.47
0.00	6292.47

0.00	6392.47
0.00	6492.47
0.00	6592.47
0.00	6692.47
0.00	6792.47
0.00	6892.47
0.00	6992.47
0.00	7092.47
0.00	7192.47
0.00	7292.47
0.00	7392.47
0.00	7492.47
0.00	7592.47
0.00	7692.47
0.00	7792.47
0.00	7892.47
0.00	7992.47
0.00	8092.47
0.00	8192.47
0.00	8292.47
0.00	8392.47
0.00	8492.47
0.00	8592.47
0.00	8692.47
0.00	8792.47
0.00	8892.47
0.00	8992.47
0.00	9092.47
0.00	9192.47
0.00	9292.47
0.00	9392.47
0.00	9492.47
0.00	9592.47
0.00	9692.47
0.00	9792.47
0.00	9892.47
0.00	9992.47
0.00	10092.47
0.00	10192.47
0.00	10292.47
0.00	10392.47
0.00	10492.47
0.00	10592.47
0.00	10692.47

0.00	10792.47
0.00	10892.47
0.00	10992.47
0.00	11092.47
0.00	11192.47
0.00	11292.47
0.00	11392.47
0.00	11492.47
0.00	11592.47
0.00	11692.47
0.00	11709.66

1. Geological Formations

TVD of target 7,589

Pilot Hole TD N/A

MD at TD 18,917

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	407	N/A	
Top Salt	1952	N/A	
Base Salt/Lamar	2632	N/A	
Top Delaware Sands/Bell Canyon	2806	N/A	
Cherry Canyon	3619	N/A	
Brushy Canyon	4817	N/A	
Lower Brushy Canyon	5766	N/A	
Bone Spring Lime	6411	N/A	
1st Bone Spring Sand	7361	Hydrocarbons	
1st Bone Spring Sand - Target	7589	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	1190	1190	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.44	3.36	5.64
12 1/4	0	2500	2469	9-5/8"	36.00	J-55	LT&C	1.57	2.74	5.10
8 3/4	0	7309								
8 3/4	7309	8219	7589	7"	26.00	P-110	BT&C	1.66	2.66	114.01
6	7309	18917	7589	4-1/2"	11.60	HCP-110	BT&C	2.36	2.86	112.99
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., Riverbend 12-13 Federal Com 7H

	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	577	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	154	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	441	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	146	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	312	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	152	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	777	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	59
Production	2200	25
Completion System	8219	10

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

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		
8 3/4	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram	X	10M
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	10M	Annular	X	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

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.	
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 1190'	Fresh Water	7.83 - 8.33	28	N/C
1190' to 2500'	Brine Water	9.50 - 10.00	30-32	N/C
2500' to 8219'	Cut Brine or OBM	9.00 - 9.50	27-70	N/C
8219' to 18917'	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	3748 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**

10M

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

BOPE Additional Information & Testing

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

Additional Well Control Notes

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

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 7H

OH

Plan: Plan 1



Standard Plan Report

24 June, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Project	Eddy County, NM (NAD 83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Riverbend 12-13 Federal Com				
Site Position:		Northing:	420,302.20 usft	Latitude:	32.1551540
From:	Map	Easting:	631,468.50 usft	Longitude:	-104.0420860
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Riverbend 12-13 Federal Com 7H					
Well Position	+N/-S	0.00 usft	Northing:	420,300.29 usft	Latitude:	32.1551480
	+E/-W	0.00 usft	Easting:	631,568.46 usft	Longitude:	-104.0417630
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,934.00 usft
Grid Convergence:		0.16 °				

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	HDGM2025	8/19/2025	6.42	59.67	47,172.80000000	

Design	Plan 1					
Audit Notes:						
Version:		Phase:	PLAN	Tie On Depth:		0.00
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(usft)	(usft)	(usft)	(°)	
		0.00	0.00	0.00	179.89	

Survey Tool Program	Date	6/24/2025			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
0.00	18,917.19	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	14.00	128.00	1,693.06	-52.39	67.06	2.00	2.00	0.00	128.00	
7,309.09	14.00	128.00	7,135.53	-887.82	1,136.36	0.00	0.00	0.00	0.00	
7,919.09	75.00	128.00	7,550.36	-1,138.79	1,457.59	10.00	10.00	0.00	0.00	
8,219.09	90.00	128.00	7,589.40	-1,321.39	1,691.30	5.00	5.00	0.00	0.00	
8,444.09	90.00	128.00	7,589.40	-1,459.91	1,868.60	0.00	0.00	0.00	0.00	
10,173.66	90.00	179.89	7,589.36	-2,961.13	2,602.63	3.00	0.00	3.00	90.00	
18,917.19	90.00	179.89	7,589.00	-11,704.65	2,619.89	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
0.00	0.00	0.00	0.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,300.29	631,568.46	32.1551480	-104.0417630	0.00	0.00	0.00	0.00
1,100.00	2.00	128.00	1,099.98	-1.07	1.38	420,299.22	631,569.84	32.1551450	-104.0417586	1.08	2.00	2.00	0.00
1,200.00	4.00	128.00	1,199.84	-4.30	5.50	420,295.99	631,573.96	32.1551361	-104.0417453	4.31	2.00	2.00	0.00
1,300.00	6.00	128.00	1,299.45	-9.66	12.37	420,290.63	631,580.83	32.1551213	-104.0417231	9.69	2.00	2.00	0.00
1,400.00	8.00	128.00	1,398.70	-17.16	21.97	420,283.13	631,590.43	32.1551006	-104.0416922	17.21	2.00	2.00	0.00
1,500.00	10.00	128.00	1,497.47	-26.80	34.30	420,273.49	631,602.76	32.1550741	-104.0416524	26.86	2.00	2.00	0.00
1,600.00	12.00	128.00	1,595.62	-38.54	49.33	420,261.75	631,617.79	32.1550417	-104.0416039	38.64	2.00	2.00	0.00
1,700.00	14.00	128.00	1,693.06	-52.39	67.06	420,247.90	631,635.52	32.1550035	-104.0415468	52.52	2.00	2.00	0.00
1,800.00	14.00	128.00	1,790.08	-67.28	86.12	420,233.01	631,654.58	32.1549624	-104.0414853	67.45	0.00	0.00	0.00
1,900.00	14.00	128.00	1,887.11	-82.18	105.18	420,218.11	631,673.64	32.1549213	-104.0414238	82.38	0.00	0.00	0.00
1,966.87	14.00	128.00	1,952.00	-92.14	117.93	420,208.15	631,686.39	32.1548938	-104.0413827	92.37	0.00	0.00	0.00
Top Salt													
2,000.00	14.00	128.00	1,984.14	-97.07	124.25	420,203.22	631,692.71	32.1548802	-104.0413624	97.31	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,100.00	14.00	128.00	2,081.17	-111.97	143.31	420,188.32	631,711.77	32.1548391	-104.0413009	112.24	0.00	0.00	0.00
2,200.00	14.00	128.00	2,178.20	-126.86	162.38	420,173.43	631,730.84	32.1547981	-104.0412394	127.17	0.00	0.00	0.00
2,300.00	14.00	128.00	2,275.23	-141.76	181.44	420,158.53	631,749.90	32.1547570	-104.0411780	142.10	0.00	0.00	0.00
2,400.00	14.00	128.00	2,372.26	-156.65	200.50	420,143.64	631,768.96	32.1547159	-104.0411165	157.03	0.00	0.00	0.00
2,500.00	14.00	128.00	2,469.29	-171.54	219.57	420,128.75	631,788.03	32.1546748	-104.0410550	171.97	0.00	0.00	0.00
2,600.00	14.00	128.00	2,566.32	-186.44	238.63	420,113.85	631,807.09	32.1546337	-104.0409935	186.90	0.00	0.00	0.00
2,667.69	14.00	128.00	2,632.00	-196.52	251.53	420,103.77	631,819.99	32.1546059	-104.0409519	197.00	0.00	0.00	0.00
Base Salt/Lamar													
2,700.00	14.00	128.00	2,663.35	-201.33	257.69	420,098.96	631,826.15	32.1545926	-104.0409321	201.83	0.00	0.00	0.00
2,800.00	14.00	128.00	2,760.38	-216.23	276.76	420,084.06	631,845.22	32.1545515	-104.0408706	216.76	0.00	0.00	0.00
2,847.02	14.00	128.00	2,806.00	-223.23	285.72	420,077.06	631,854.18	32.1545322	-104.0408417	223.78	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													
2,900.00	14.00	128.00	2,857.41	-231.12	295.82	420,069.17	631,864.28	32.1545105	-104.0408091	231.69	0.00	0.00	0.00
3,000.00	14.00	128.00	2,954.44	-246.02	314.89	420,054.27	631,883.35	32.1544694	-104.0407477	246.62	0.00	0.00	0.00
3,100.00	14.00	128.00	3,051.47	-260.91	333.95	420,039.38	631,902.41	32.1544283	-104.0406862	261.55	0.00	0.00	0.00
3,200.00	14.00	128.00	3,148.50	-275.80	353.01	420,024.49	631,921.47	32.1543872	-104.0406247	276.48	0.00	0.00	0.00
3,300.00	14.00	128.00	3,245.53	-290.70	372.08	420,009.59	631,940.54	32.1543461	-104.0405633	291.41	0.00	0.00	0.00
3,400.00	14.00	128.00	3,342.56	-305.59	391.14	419,994.70	631,959.60	32.1543050	-104.0405018	306.34	0.00	0.00	0.00
3,500.00	14.00	128.00	3,439.59	-320.49	410.20	419,979.80	631,978.66	32.1542639	-104.0404403	321.27	0.00	0.00	0.00
3,600.00	14.00	128.00	3,536.62	-335.38	429.27	419,964.91	631,997.73	32.1542229	-104.0403788	336.20	0.00	0.00	0.00
3,684.91	14.00	128.00	3,619.00	-348.03	445.45	419,952.26	632,013.91	32.1541880	-104.0403267	348.88	0.00	0.00	0.00
Cherry Canyon													
3,700.00	14.00	128.00	3,633.65	-350.27	448.33	419,950.02	632,016.79	32.1541818	-104.0403174	351.13	0.00	0.00	0.00
3,800.00	14.00	128.00	3,730.68	-365.17	467.39	419,935.12	632,035.85	32.1541407	-104.0402559	366.07	0.00	0.00	0.00
3,900.00	14.00	128.00	3,827.71	-380.06	486.46	419,920.23	632,054.92	32.1540996	-104.0401944	381.00	0.00	0.00	0.00
4,000.00	14.00	128.00	3,924.74	-394.96	505.52	419,905.33	632,073.98	32.1540585	-104.0401330	395.93	0.00	0.00	0.00
4,100.00	14.00	128.00	4,021.77	-409.85	524.59	419,890.44	632,093.05	32.1540174	-104.0400715	410.86	0.00	0.00	0.00
4,200.00	14.00	128.00	4,118.79	-424.75	543.65	419,875.54	632,112.11	32.1539764	-104.0400100	425.79	0.00	0.00	0.00
4,300.00	14.00	128.00	4,215.82	-439.64	562.71	419,860.65	632,131.17	32.1539353	-104.0399486	440.72	0.00	0.00	0.00
4,400.00	14.00	128.00	4,312.85	-454.53	581.78	419,845.76	632,150.24	32.1538942	-104.0398871	455.65	0.00	0.00	0.00
4,500.00	14.00	128.00	4,409.88	-469.43	600.84	419,830.86	632,169.30	32.1538531	-104.0398256	470.58	0.00	0.00	0.00
4,600.00	14.00	128.00	4,506.91	-484.32	619.90	419,815.97	632,188.36	32.1538120	-104.0397642	485.51	0.00	0.00	0.00
4,700.00	14.00	128.00	4,603.94	-499.22	638.97	419,801.07	632,207.43	32.1537709	-104.0397027	500.44	0.00	0.00	0.00
4,800.00	14.00	128.00	4,700.97	-514.11	658.03	419,786.18	632,226.49	32.1537298	-104.0396412	515.37	0.00	0.00	0.00
4,900.00	14.00	128.00	4,798.00	-529.01	677.10	419,771.29	632,245.56	32.1536888	-104.0395797	530.30	0.00	0.00	0.00
4,919.58	14.00	128.00	4,817.00	-531.92	680.83	419,768.37	632,249.29	32.1536807	-104.0395677	533.23	0.00	0.00	0.00
Brushy Canyon													
5,000.00	14.00	128.00	4,895.03	-543.90	696.16	419,756.39	632,264.62	32.1536477	-104.0395183	545.23	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.00	14.00	128.00	4,992.06	-558.79	715.22	419,741.50	632,283.68	32.1536066	-104.0394568	560.17	0.00	0.00	0.00
5,200.00	14.00	128.00	5,089.09	-573.69	734.29	419,726.60	632,302.75	32.1535655	-104.0393953	575.10	0.00	0.00	0.00
5,300.00	14.00	128.00	5,186.12	-588.58	753.35	419,711.71	632,321.81	32.1535244	-104.0393339	590.03	0.00	0.00	0.00
5,400.00	14.00	128.00	5,283.15	-603.48	772.41	419,696.81	632,340.87	32.1534833	-104.0392724	604.96	0.00	0.00	0.00
5,500.00	14.00	128.00	5,380.18	-618.37	791.48	419,681.92	632,359.94	32.1534422	-104.0392109	619.89	0.00	0.00	0.00
5,600.00	14.00	128.00	5,477.21	-633.26	810.54	419,667.03	632,379.00	32.1534012	-104.0391495	634.82	0.00	0.00	0.00
5,700.00	14.00	128.00	5,574.24	-648.16	829.61	419,652.13	632,398.07	32.1533601	-104.0390880	649.75	0.00	0.00	0.00
5,800.00	14.00	128.00	5,671.27	-663.05	848.67	419,637.24	632,417.13	32.1533190	-104.0390265	664.68	0.00	0.00	0.00
5,897.63	14.00	128.00	5,766.00	-677.59	867.28	419,622.70	632,435.74	32.1532789	-104.0389665	679.26	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	14.00	128.00	5,768.30	-677.95	867.73	419,622.34	632,436.19	32.1532779	-104.0389651	679.61	0.00	0.00	0.00
6,000.00	14.00	128.00	5,865.33	-692.84	886.80	419,607.45	632,455.26	32.1532368	-104.0389036	694.54	0.00	0.00	0.00
6,100.00	14.00	128.00	5,962.36	-707.74	905.86	419,592.55	632,474.32	32.1531957	-104.0388421	709.47	0.00	0.00	0.00
6,200.00	14.00	128.00	6,059.39	-722.63	924.92	419,577.66	632,493.38	32.1531546	-104.0387807	724.40	0.00	0.00	0.00
6,300.00	14.00	128.00	6,156.42	-737.52	943.99	419,562.77	632,512.45	32.1531135	-104.0387192	739.33	0.00	0.00	0.00
6,400.00	14.00	128.00	6,253.45	-752.42	963.05	419,547.87	632,531.51	32.1530725	-104.0386577	754.27	0.00	0.00	0.00
6,500.00	14.00	128.00	6,350.47	-767.31	982.11	419,532.98	632,550.57	32.1530314	-104.0385962	769.20	0.00	0.00	0.00
6,562.38	14.00	128.00	6,411.00	-776.60	994.01	419,523.69	632,562.47	32.1530057	-104.0385579	778.51	0.00	0.00	0.00
Bone Spring Lime													
6,600.00	14.00	128.00	6,447.50	-782.21	1,001.18	419,518.08	632,569.64	32.1529903	-104.0385348	784.13	0.00	0.00	0.00
6,700.00	14.00	128.00	6,544.53	-797.10	1,020.24	419,503.19	632,588.70	32.1529492	-104.0384733	799.06	0.00	0.00	0.00
6,800.00	14.00	128.00	6,641.56	-811.99	1,039.31	419,488.30	632,607.77	32.1529081	-104.0384118	813.99	0.00	0.00	0.00
6,900.00	14.00	128.00	6,738.59	-826.89	1,058.37	419,473.40	632,626.83	32.1528670	-104.0383504	828.92	0.00	0.00	0.00
7,000.00	14.00	128.00	6,835.62	-841.78	1,077.43	419,458.51	632,645.89	32.1528259	-104.0382889	843.85	0.00	0.00	0.00
7,100.00	14.00	128.00	6,932.65	-856.68	1,096.50	419,443.61	632,664.96	32.1527849	-104.0382274	858.78	0.00	0.00	0.00
7,200.00	14.00	128.00	7,029.68	-871.57	1,115.56	419,428.72	632,684.02	32.1527438	-104.0381660	873.71	0.00	0.00	0.00
7,309.09	14.00	128.00	7,135.53	-887.82	1,136.36	419,412.47	632,704.82	32.1526990	-104.0380989	890.00	0.00	0.00	0.00
7,350.00	18.09	128.00	7,174.84	-894.78	1,145.27	419,405.51	632,713.73	32.1526798	-104.0380702	896.98	10.00	10.00	0.00
7,400.00	23.09	128.00	7,221.63	-905.60	1,159.12	419,394.69	632,727.58	32.1526499	-104.0380255	907.83	10.00	10.00	0.00
7,450.00	28.09	128.00	7,266.71	-918.89	1,176.13	419,381.40	632,744.59	32.1526132	-104.0379707	921.15	10.00	10.00	0.00
7,500.00	33.09	128.00	7,309.74	-934.56	1,196.18	419,365.73	632,764.64	32.1525700	-104.0379060	936.85	10.00	10.00	0.00
7,550.00	38.09	128.00	7,350.39	-952.47	1,219.10	419,347.82	632,787.56	32.1525206	-104.0378321	954.80	10.00	10.00	0.00
7,563.62	39.45	128.00	7,361.00	-957.71	1,225.82	419,342.58	632,794.28	32.1525061	-104.0378105	960.07	10.00	10.00	0.00
1st Bone Spring Sand													
7,600.00	43.09	128.00	7,388.34	-972.49	1,244.73	419,327.80	632,813.19	32.1524654	-104.0377495	974.88	10.00	10.00	0.00
7,650.00	48.09	128.00	7,423.32	-994.47	1,272.86	419,305.82	632,841.32	32.1524047	-104.0376588	996.91	10.00	10.00	0.00
7,700.00	53.09	128.00	7,455.05	-1,018.25	1,303.30	419,282.04	632,871.76	32.1523392	-104.0375606	1,020.75	10.00	10.00	0.00
7,750.00	58.09	128.00	7,483.30	-1,043.64	1,335.79	419,256.65	632,904.25	32.1522691	-104.0374559	1,046.20	10.00	10.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,800.00	63.09	128.00	7,507.84	-1,070.44	1,370.11	419,229.85	632,938.57	32.1521952	-104.0373452	1,073.07	10.00	10.00	0.00
7,850.00	68.09	128.00	7,528.50	-1,098.47	1,405.97	419,201.82	632,974.43	32.1521179	-104.0372296	1,101.16	10.00	10.00	0.00
7,900.00	73.09	128.00	7,545.11	-1,127.49	1,443.12	419,172.80	633,011.58	32.1520378	-104.0371098	1,130.26	10.00	10.00	0.00
7,919.09	75.00	128.00	7,550.36	-1,138.79	1,457.59	419,161.50	633,026.05	32.1520066	-104.0370632	1,141.59	10.00	10.00	0.00
8,000.00	79.05	128.00	7,568.52	-1,187.32	1,519.70	419,112.97	633,088.16	32.1518728	-104.0368629	1,190.24	5.00	5.00	0.00
8,100.00	84.05	128.00	7,583.22	-1,248.20	1,597.62	419,052.09	633,166.08	32.1517048	-104.0366117	1,251.26	5.00	5.00	0.00
8,188.69	88.48	128.00	7,589.00	-1,302.67	1,667.35	418,997.62	633,235.81	32.1515545	-104.0363869	1,305.87	5.00	5.00	0.00
1st Bone Spring Sand LZ													
8,200.00	89.05	128.00	7,589.24	-1,309.63	1,676.26	418,990.66	633,244.72	32.1515353	-104.0363581	1,312.85	5.00	5.00	0.00
8,219.09	90.00	128.00	7,589.40	-1,321.39	1,691.30	418,978.90	633,259.76	32.1515029	-104.0363096	1,324.63	5.00	5.00	0.00
8,300.00	90.00	128.00	7,589.40	-1,371.20	1,755.06	418,929.09	633,323.52	32.1513655	-104.0361041	1,374.57	0.00	0.00	0.00
8,400.00	90.00	128.00	7,589.40	-1,432.77	1,833.86	418,867.52	633,402.32	32.1511957	-104.0358500	1,436.28	0.00	0.00	0.00
8,444.09	90.00	128.00	7,589.40	-1,459.91	1,868.60	418,840.38	633,437.06	32.1511208	-104.0357380	1,463.50	0.00	0.00	0.00
8,500.00	90.00	129.68	7,589.40	-1,494.97	1,912.15	418,805.32	633,480.61	32.1510241	-104.0355976	1,498.64	3.00	0.00	3.00
8,600.00	90.00	132.68	7,589.40	-1,560.80	1,987.41	418,739.49	633,555.87	32.1508425	-104.0353550	1,564.62	3.00	0.00	3.00
8,700.00	90.00	135.68	7,589.40	-1,630.48	2,059.12	418,669.81	633,627.58	32.1506505	-104.0351239	1,634.43	3.00	0.00	3.00
8,800.00	90.00	138.68	7,589.40	-1,703.82	2,127.08	418,596.47	633,695.54	32.1504483	-104.0349049	1,707.90	3.00	0.00	3.00
8,900.00	90.00	141.68	7,589.40	-1,780.62	2,191.12	418,519.67	633,759.58	32.1502367	-104.0346987	1,784.82	3.00	0.00	3.00
9,000.00	90.00	144.68	7,589.40	-1,860.66	2,251.04	418,439.63	633,819.50	32.1500163	-104.0345058	1,864.97	3.00	0.00	3.00
9,100.00	90.00	147.68	7,589.40	-1,943.72	2,306.70	418,356.57	633,875.16	32.1497875	-104.0343267	1,948.15	3.00	0.00	3.00
9,200.00	90.00	150.68	7,589.40	-2,029.59	2,357.93	418,270.70	633,926.39	32.1495511	-104.0341619	2,034.11	3.00	0.00	3.00
9,300.00	90.00	153.68	7,589.39	-2,118.02	2,404.60	418,182.27	633,973.06	32.1493076	-104.0340119	2,122.63	3.00	0.00	3.00
9,400.00	90.00	156.68	7,589.39	-2,208.77	2,446.58	418,091.52	634,015.04	32.1490578	-104.0338771	2,213.46	3.00	0.00	3.00
9,500.00	90.00	159.68	7,589.39	-2,301.59	2,483.75	417,998.70	634,052.21	32.1488024	-104.0337579	2,306.36	3.00	0.00	3.00
9,600.00	90.00	162.68	7,589.39	-2,396.23	2,516.01	417,904.06	634,084.47	32.1485420	-104.0336545	2,401.06	3.00	0.00	3.00
9,700.00	90.00	165.68	7,589.38	-2,492.43	2,543.27	417,807.86	634,111.73	32.1482773	-104.0335673	2,497.31	3.00	0.00	3.00
9,800.00	90.00	168.68	7,589.38	-2,589.93	2,565.46	417,710.36	634,133.92	32.1480092	-104.0334964	2,594.85	3.00	0.00	3.00
9,900.00	90.00	171.68	7,589.38	-2,688.45	2,582.52	417,611.84	634,150.98	32.1477382	-104.0334422	2,693.40	3.00	0.00	3.00
10,000.00	90.00	174.68	7,589.37	-2,787.73	2,594.40	417,512.56	634,162.86	32.1474652	-104.0334047	2,792.71	3.00	0.00	3.00
10,100.00	90.00	177.68	7,589.37	-2,887.50	2,601.07	417,412.79	634,169.53	32.1471909	-104.0333841	2,892.49	3.00	0.00	3.00
10,173.66	90.00	179.89	7,589.36	-2,961.13	2,602.63	417,339.16	634,171.09	32.1469885	-104.0333797	2,966.12	3.00	0.00	3.00
10,200.00	90.00	179.89	7,589.36	-2,987.48	2,602.68	417,312.81	634,171.14	32.1469161	-104.0333797	2,992.47	0.00	0.00	0.00
10,300.00	90.00	179.89	7,589.36	-3,087.48	2,602.88	417,212.81	634,171.34	32.1466412	-104.0333800	3,092.47	0.00	0.00	0.00
10,400.00	90.00	179.89	7,589.36	-3,187.48	2,603.08	417,112.81	634,171.54	32.1463663	-104.0333803	3,192.47	0.00	0.00	0.00
10,500.00	90.00	179.89	7,589.35	-3,287.48	2,603.27	417,012.81	634,171.73	32.1460914	-104.0333805	3,292.47	0.00	0.00	0.00
10,600.00	90.00	179.89	7,589.35	-3,387.48	2,603.47	416,912.82	634,171.93	32.1458165	-104.0333808	3,392.47	0.00	0.00	0.00
10,700.00	90.00	179.89	7,589.34	-3,487.47	2,603.67	416,812.82	634,172.13	32.1455416	-104.0333811	3,492.47	0.00	0.00	0.00
10,800.00	90.00	179.89	7,589.34	-3,587.47	2,603.87	416,712.82	634,172.33	32.1452667	-104.0333813	3,592.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,900.00	90.00	179.89	7,589.33	-3,687.47	2,604.06	416,612.82	634,172.52	32.1449918	-104.0333816	3,692.47	0.00	0.00	0.00
11,000.00	90.00	179.89	7,589.33	-3,787.47	2,604.26	416,512.82	634,172.72	32.1447169	-104.0333818	3,792.47	0.00	0.00	0.00
11,100.00	90.00	179.89	7,589.33	-3,887.47	2,604.46	416,412.82	634,172.92	32.1444420	-104.0333821	3,892.47	0.00	0.00	0.00
11,200.00	90.00	179.89	7,589.32	-3,987.47	2,604.66	416,312.82	634,173.12	32.1441671	-104.0333824	3,992.47	0.00	0.00	0.00
11,300.00	90.00	179.89	7,589.32	-4,087.47	2,604.85	416,212.82	634,173.31	32.1438923	-104.0333826	4,092.47	0.00	0.00	0.00
11,400.00	90.00	179.89	7,589.31	-4,187.47	2,605.05	416,112.82	634,173.51	32.1436174	-104.0333829	4,192.47	0.00	0.00	0.00
11,500.00	90.00	179.89	7,589.31	-4,287.47	2,605.25	416,012.82	634,173.71	32.1433425	-104.0333832	4,292.47	0.00	0.00	0.00
11,600.00	90.00	179.89	7,589.31	-4,387.47	2,605.45	415,912.82	634,173.91	32.1430676	-104.0333834	4,392.47	0.00	0.00	0.00
11,700.00	90.00	179.89	7,589.30	-4,487.47	2,605.64	415,812.82	634,174.10	32.1427927	-104.0333837	4,492.47	0.00	0.00	0.00
11,800.00	90.00	179.89	7,589.30	-4,587.47	2,605.84	415,712.82	634,174.30	32.1425178	-104.0333839	4,592.47	0.00	0.00	0.00
11,900.00	90.00	179.89	7,589.29	-4,687.47	2,606.04	415,612.82	634,174.50	32.1422429	-104.0333842	4,692.47	0.00	0.00	0.00
12,000.00	90.00	179.89	7,589.29	-4,787.47	2,606.24	415,512.82	634,174.70	32.1419680	-104.0333845	4,792.47	0.00	0.00	0.00
12,100.00	90.00	179.89	7,589.28	-4,887.47	2,606.43	415,412.82	634,174.89	32.1416931	-104.0333847	4,892.47	0.00	0.00	0.00
12,200.00	90.00	179.89	7,589.28	-4,987.47	2,606.63	415,312.82	634,175.09	32.1414182	-104.0333850	4,992.47	0.00	0.00	0.00
12,300.00	90.00	179.89	7,589.28	-5,087.47	2,606.83	415,212.82	634,175.29	32.1411433	-104.0333853	5,092.47	0.00	0.00	0.00
12,400.00	90.00	179.89	7,589.27	-5,187.47	2,607.03	415,112.82	634,175.49	32.1408685	-104.0333855	5,192.47	0.00	0.00	0.00
12,500.00	90.00	179.89	7,589.27	-5,287.47	2,607.22	415,012.82	634,175.68	32.1405936	-104.0333858	5,292.47	0.00	0.00	0.00
12,600.00	90.00	179.89	7,589.26	-5,387.47	2,607.42	414,912.82	634,175.88	32.1403187	-104.0333860	5,392.47	0.00	0.00	0.00
12,700.00	90.00	179.89	7,589.26	-5,487.47	2,607.62	414,812.82	634,176.08	32.1400438	-104.0333863	5,492.47	0.00	0.00	0.00
12,800.00	90.00	179.89	7,589.26	-5,587.47	2,607.81	414,712.82	634,176.27	32.1397689	-104.0333866	5,592.47	0.00	0.00	0.00
12,900.00	90.00	179.89	7,589.25	-5,687.47	2,608.01	414,612.82	634,176.47	32.1394940	-104.0333868	5,692.47	0.00	0.00	0.00
13,000.00	90.00	179.89	7,589.25	-5,787.47	2,608.21	414,512.82	634,176.67	32.1392191	-104.0333871	5,792.47	0.00	0.00	0.00
13,100.00	90.00	179.89	7,589.24	-5,887.47	2,608.41	414,412.82	634,176.87	32.1389442	-104.0333874	5,892.47	0.00	0.00	0.00
13,200.00	90.00	179.89	7,589.24	-5,987.47	2,608.60	414,312.82	634,177.06	32.1386693	-104.0333876	5,992.47	0.00	0.00	0.00
13,300.00	90.00	179.89	7,589.23	-6,087.47	2,608.80	414,212.82	634,177.26	32.1383944	-104.0333879	6,092.47	0.00	0.00	0.00
13,400.00	90.00	179.89	7,589.23	-6,187.47	2,609.00	414,112.82	634,177.46	32.1381195	-104.0333881	6,192.47	0.00	0.00	0.00
13,500.00	90.00	179.89	7,589.23	-6,287.47	2,609.20	414,012.82	634,177.66	32.1378446	-104.0333884	6,292.47	0.00	0.00	0.00
13,600.00	90.00	179.89	7,589.22	-6,387.47	2,609.39	413,912.82	634,177.85	32.1375698	-104.0333887	6,392.47	0.00	0.00	0.00
13,700.00	90.00	179.89	7,589.22	-6,487.47	2,609.59	413,812.82	634,178.05	32.1372949	-104.0333889	6,492.47	0.00	0.00	0.00
13,800.00	90.00	179.89	7,589.21	-6,587.47	2,609.79	413,712.82	634,178.25	32.1370200	-104.0333892	6,592.47	0.00	0.00	0.00
13,900.00	90.00	179.89	7,589.21	-6,687.47	2,609.99	413,612.82	634,178.45	32.1367451	-104.0333894	6,692.47	0.00	0.00	0.00
14,000.00	90.00	179.89	7,589.21	-6,787.47	2,610.18	413,512.82	634,178.64	32.1364702	-104.0333897	6,792.47	0.00	0.00	0.00
14,100.00	90.00	179.89	7,589.20	-6,887.47	2,610.38	413,412.82	634,178.84	32.1361953	-104.0333900	6,892.47	0.00	0.00	0.00
14,200.00	90.00	179.89	7,589.20	-6,987.47	2,610.58	413,312.82	634,179.04	32.1359204	-104.0333902	6,992.47	0.00	0.00	0.00
14,300.00	90.00	179.89	7,589.19	-7,087.47	2,610.78	413,212.82	634,179.24	32.1356455	-104.0333905	7,092.47	0.00	0.00	0.00
14,400.00	90.00	179.89	7,589.19	-7,187.47	2,610.97	413,112.82	634,179.43	32.1353706	-104.0333908	7,192.47	0.00	0.00	0.00
14,500.00	90.00	179.89	7,589.18	-7,287.47	2,611.17	413,012.82	634,179.63	32.1350957	-104.0333910	7,292.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,600.00	90.00	179.89	7,589.18	-7,387.47	2,611.37	412,912.82	634,179.83	32.1348208	-104.0333913	7,392.47	0.00	0.00	0.00
14,700.00	90.00	179.89	7,589.18	-7,487.47	2,611.57	412,812.82	634,180.03	32.1345459	-104.0333915	7,492.47	0.00	0.00	0.00
14,800.00	90.00	179.89	7,589.17	-7,587.47	2,611.76	412,712.82	634,180.22	32.1342711	-104.0333918	7,592.47	0.00	0.00	0.00
14,900.00	90.00	179.89	7,589.17	-7,687.47	2,611.96	412,612.82	634,180.42	32.1339962	-104.0333921	7,692.47	0.00	0.00	0.00
15,000.00	90.00	179.89	7,589.16	-7,787.47	2,612.16	412,512.82	634,180.62	32.1337213	-104.0333923	7,792.47	0.00	0.00	0.00
15,100.00	90.00	179.89	7,589.16	-7,887.47	2,612.36	412,412.82	634,180.81	32.1334464	-104.0333926	7,892.47	0.00	0.00	0.00
15,200.00	90.00	179.89	7,589.16	-7,987.47	2,612.55	412,312.82	634,181.01	32.1331715	-104.0333929	7,992.47	0.00	0.00	0.00
15,300.00	90.00	179.89	7,589.15	-8,087.47	2,612.75	412,212.82	634,181.21	32.1328966	-104.0333931	8,092.47	0.00	0.00	0.00
15,400.00	90.00	179.89	7,589.15	-8,187.47	2,612.95	412,112.82	634,181.41	32.1326217	-104.0333934	8,192.47	0.00	0.00	0.00
15,500.00	90.00	179.89	7,589.14	-8,287.47	2,613.14	412,012.82	634,181.60	32.1323468	-104.0333936	8,292.47	0.00	0.00	0.00
15,600.00	90.00	179.89	7,589.14	-8,387.47	2,613.34	411,912.82	634,181.80	32.1320719	-104.0333939	8,392.47	0.00	0.00	0.00
15,700.00	90.00	179.89	7,589.13	-8,487.47	2,613.54	411,812.83	634,182.00	32.1317970	-104.0333942	8,492.47	0.00	0.00	0.00
15,800.00	90.00	179.89	7,589.13	-8,587.46	2,613.74	411,712.83	634,182.20	32.1315221	-104.0333944	8,592.47	0.00	0.00	0.00
15,900.00	90.00	179.89	7,589.13	-8,687.46	2,613.93	411,612.83	634,182.39	32.1312472	-104.0333947	8,692.47	0.00	0.00	0.00
16,000.00	90.00	179.89	7,589.12	-8,787.46	2,614.13	411,512.83	634,182.59	32.1309724	-104.0333949	8,792.47	0.00	0.00	0.00
16,100.00	90.00	179.89	7,589.12	-8,887.46	2,614.33	411,412.83	634,182.79	32.1306975	-104.0333952	8,892.47	0.00	0.00	0.00
16,200.00	90.00	179.89	7,589.11	-8,987.46	2,614.53	411,312.83	634,182.99	32.1304226	-104.0333955	8,992.47	0.00	0.00	0.00
16,300.00	90.00	179.89	7,589.11	-9,087.46	2,614.72	411,212.83	634,183.18	32.1301477	-104.0333957	9,092.47	0.00	0.00	0.00
16,400.00	90.00	179.89	7,589.11	-9,187.46	2,614.92	411,112.83	634,183.38	32.1298728	-104.0333960	9,192.47	0.00	0.00	0.00
16,500.00	90.00	179.89	7,589.10	-9,287.46	2,615.12	411,012.83	634,183.58	32.1295979	-104.0333963	9,292.47	0.00	0.00	0.00
16,600.00	90.00	179.89	7,589.10	-9,387.46	2,615.32	410,912.83	634,183.78	32.1293230	-104.0333965	9,392.47	0.00	0.00	0.00
16,700.00	90.00	179.89	7,589.09	-9,487.46	2,615.51	410,812.83	634,183.97	32.1290481	-104.0333968	9,492.47	0.00	0.00	0.00
16,800.00	90.00	179.89	7,589.09	-9,587.46	2,615.71	410,712.83	634,184.17	32.1287732	-104.0333970	9,592.47	0.00	0.00	0.00
16,900.00	90.00	179.89	7,589.08	-9,687.46	2,615.91	410,612.83	634,184.37	32.1284983	-104.0333973	9,692.47	0.00	0.00	0.00
17,000.00	90.00	179.89	7,589.08	-9,787.46	2,616.11	410,512.83	634,184.57	32.1282234	-104.0333976	9,792.47	0.00	0.00	0.00
17,100.00	90.00	179.89	7,589.08	-9,887.46	2,616.30	410,412.83	634,184.76	32.1279485	-104.0333978	9,892.47	0.00	0.00	0.00
17,200.00	90.00	179.89	7,589.07	-9,987.46	2,616.50	410,312.83	634,184.96	32.1276736	-104.0333981	9,992.47	0.00	0.00	0.00
17,300.00	90.00	179.89	7,589.07	-10,087.46	2,616.70	410,212.83	634,185.16	32.1273988	-104.0333983	10,092.47	0.00	0.00	0.00
17,400.00	90.00	179.89	7,589.06	-10,187.46	2,616.90	410,112.83	634,185.36	32.1271239	-104.0333986	10,192.47	0.00	0.00	0.00
17,500.00	90.00	179.89	7,589.06	-10,287.46	2,617.09	410,012.83	634,185.55	32.1268490	-104.0333989	10,292.47	0.00	0.00	0.00
17,600.00	90.00	179.89	7,589.06	-10,387.46	2,617.29	409,912.83	634,185.75	32.1265741	-104.0333991	10,392.47	0.00	0.00	0.00
17,700.00	90.00	179.89	7,589.05	-10,487.46	2,617.49	409,812.83	634,185.95	32.1262992	-104.0333994	10,492.47	0.00	0.00	0.00
17,800.00	90.00	179.89	7,589.05	-10,587.46	2,617.68	409,712.83	634,186.14	32.1260243	-104.0333997	10,592.47	0.00	0.00	0.00
17,900.00	90.00	179.89	7,589.04	-10,687.46	2,617.88	409,612.83	634,186.34	32.1257494	-104.0333999	10,692.47	0.00	0.00	0.00
18,000.00	90.00	179.89	7,589.04	-10,787.46	2,618.08	409,512.83	634,186.54	32.1254745	-104.0334002	10,792.47	0.00	0.00	0.00
18,100.00	90.00	179.89	7,589.03	-10,887.46	2,618.28	409,412.83	634,186.74	32.1251996	-104.0334004	10,892.47	0.00	0.00	0.00
18,200.00	90.00	179.89	7,589.03	-10,987.46	2,618.47	409,312.83	634,186.93	32.1249247	-104.0334007	10,992.47	0.00	0.00	0.00
18,300.00	90.00	179.89	7,589.03	-11,087.46	2,618.67	409,212.83	634,187.13	32.1246498	-104.0334010	11,092.47	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Well:	Riverbend 12-13 Federal Com 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,400.00	90.00	179.89	7,589.02	-11,187.46	2,618.87	409,112.83	634,187.33	32.1243749	-104.0334012	11,192.47	0.00	0.00	0.00
18,500.00	90.00	179.89	7,589.02	-11,287.46	2,619.07	409,012.83	634,187.53	32.1241000	-104.0334015	11,292.47	0.00	0.00	0.00
18,600.00	90.00	179.89	7,589.01	-11,387.46	2,619.26	408,912.83	634,187.72	32.1238252	-104.0334017	11,392.47	0.00	0.00	0.00
18,700.00	90.00	179.89	7,589.01	-11,487.46	2,619.46	408,812.83	634,187.92	32.1235503	-104.0334020	11,492.47	0.00	0.00	0.00
18,800.00	90.00	179.89	7,589.01	-11,587.46	2,619.66	408,712.83	634,188.12	32.1232754	-104.0334023	11,592.47	0.00	0.00	0.00
18,900.00	90.00	179.89	7,589.00	-11,687.46	2,619.86	408,612.83	634,188.32	32.1230005	-104.0334025	11,692.47	0.00	0.00	0.00
18,917.19	90.00	179.89	7,589.00	-11,704.65	2,619.89	408,595.64	634,188.35	32.1229532	-104.0334026	11,709.66	0.00	0.00	0.00

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Riverbend 12-13 F - plan misses target center by 2902.38usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-1,288.95	2,600.47	419,011.34	634,168.93	32.1515852	-104.0333716
LTP (Riverbend 12-13 F - plan misses target center by 7589.00usft at 18917.19usft MD (7589.00 TVD, -11704.65 N, 2619.89 E) - Point	0.00	0.00	0.00	-11,704.65	2,619.89	408,595.64	634,188.35	32.1229532	-104.0334026

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
407.00	407.00	Rustler			
1,966.87	1,952.00	Top Salt			
2,667.69	2,632.00	Base Salt/Lamar			
2,847.02	2,806.00	Top Delaware Sands/Bell Canyon			
3,684.91	3,619.00	Cherry Canyon			
4,919.58	4,817.00	Brushy Canyon			
5,897.63	5,766.00	Lower Brushy Canyon			
6,562.38	6,411.00	Bone Spring Lime			
7,563.62	7,361.00	1st Bone Spring Sand			
8,188.69	7,589.00	1st Bone Spring Sand LZ			

Checked By: _____ Approved By: _____ Date: _____

COMPANY Coterra Energy
 FIELD Eddy County, NM (NAD 83)
 SITE Riverbend 12-13 Federal Com
 WELL Riverbend 12-13 Federal Com 7H
 WELLPATH OH
 DESIGN Plan 1
 DEPTHUNT (usft)

WELL INFO

MAP DATUM North American Datum 1983
 MAP SYSTEM US State Plane 1983
 MAP ZONE New Mexico Eastern Zone
 WELL LAT 32.155148
 WELL LON -104.041763
 WELL EW MAI 631568.46
 WELL NS MAP 420300.29
 CONVERGENC 0.16
 MAGMODEL HDGM2025
 DECLINATION 6.42
 NORTH REF Grid
 GROUND ELE\ 2934
 KB ELEVN 2957
 VS AZI 179.89

SURVEY PROGRAM

1 0.00 - 18917.19 PLAN 1 : MWD+IFR1+MS

SURVEY LIST

Measured Depth MD	Inclination INC	Azimuth AZI	Course Length CL	True Vertical TVD	SubSea TVD SSTVD	Local N/-S NS
0.00	0.00	0.00	0.00	0.00	2957.00	0.00
100.00	0.00	0.00	100.00	100.00	2857.00	0.00
200.00	0.00	0.00	100.00	200.00	2757.00	0.00
300.00	0.00	0.00	100.00	300.00	2657.00	0.00
400.00	0.00	0.00	100.00	400.00	2557.00	0.00
500.00	0.00	0.00	100.00	500.00	2457.00	0.00
600.00	0.00	0.00	100.00	600.00	2357.00	0.00
700.00	0.00	0.00	100.00	700.00	2257.00	0.00
800.00	0.00	0.00	100.00	800.00	2157.00	0.00
900.00	0.00	0.00	100.00	900.00	2057.00	0.00
1000.00	0.00	0.00	100.00	1000.00	1957.00	0.00
1100.00	2.00	128.00	100.00	1099.98	1857.02	-1.07
1200.00	4.00	128.00	100.00	1199.84	1757.16	-4.30
1300.00	6.00	128.00	100.00	1299.45	1657.55	-9.66

1400.00	8.00	128.00	100.00	1398.70	1558.30	-17.17
1500.00	10.00	128.00	100.00	1497.47	1459.54	-26.80
1600.00	12.00	128.00	100.00	1595.62	1361.38	-38.54
1700.00	14.00	128.00	100.00	1693.06	1263.95	-52.39
1800.00	14.00	128.00	100.00	1790.09	1166.92	-67.29
1900.00	14.00	128.00	100.00	1887.11	1069.89	-82.18
2000.00	14.00	128.00	100.00	1984.14	972.86	-97.07
2100.00	14.00	128.00	100.00	2081.17	875.83	-111.97
2200.00	14.00	128.00	100.00	2178.20	778.80	-126.86
2300.00	14.00	128.00	100.00	2275.23	681.77	-141.76
2400.00	14.00	128.00	100.00	2372.26	584.74	-156.65
2500.00	14.00	128.00	100.00	2469.29	487.71	-171.54
2600.00	14.00	128.00	100.00	2566.32	390.68	-186.44
2700.00	14.00	128.00	100.00	2663.35	293.65	-201.33
2800.00	14.00	128.00	100.00	2760.38	196.62	-216.23
2900.00	14.00	128.00	100.00	2857.41	99.59	-231.12
3000.00	14.00	128.00	100.00	2954.44	2.56	-246.02
3100.00	14.00	128.00	100.00	3051.47	-94.47	-260.91
3200.00	14.00	128.00	100.00	3148.50	-191.50	-275.80
3300.00	14.00	128.00	100.00	3245.53	-288.53	-290.70
3400.00	14.00	128.00	100.00	3342.56	-385.56	-305.59
3500.00	14.00	128.00	100.00	3439.59	-482.59	-320.49
3600.00	14.00	128.00	100.00	3536.62	-579.62	-335.38
3700.00	14.00	128.00	100.00	3633.65	-676.65	-350.28
3800.00	14.00	128.00	100.00	3730.68	-773.68	-365.17
3900.00	14.00	128.00	100.00	3827.71	-870.71	-380.06
4000.00	14.00	128.00	100.00	3924.74	-967.74	-394.96
4100.00	14.00	128.00	100.00	4021.77	-1064.77	-409.85
4200.00	14.00	128.00	100.00	4118.79	-1161.79	-424.75
4300.00	14.00	128.00	100.00	4215.82	-1258.82	-439.64
4400.00	14.00	128.00	100.00	4312.85	-1355.85	-454.53
4500.00	14.00	128.00	100.00	4409.88	-1452.88	-469.43
4600.00	14.00	128.00	100.00	4506.91	-1549.91	-484.32
4700.00	14.00	128.00	100.00	4603.94	-1646.94	-499.22
4800.00	14.00	128.00	100.00	4700.97	-1743.97	-514.11
4900.00	14.00	128.00	100.00	4798.00	-1841.00	-529.01
5000.00	14.00	128.00	100.00	4895.03	-1938.03	-543.90
5100.00	14.00	128.00	100.00	4992.06	-2035.06	-558.79
5200.00	14.00	128.00	100.00	5089.09	-2132.09	-573.69
5300.00	14.00	128.00	100.00	5186.12	-2229.12	-588.58
5400.00	14.00	128.00	100.00	5283.15	-2326.15	-603.48
5500.00	14.00	128.00	100.00	5380.18	-2423.18	-618.37
5600.00	14.00	128.00	100.00	5477.21	-2520.21	-633.26
5700.00	14.00	128.00	100.00	5574.24	-2617.24	-648.16

5800.00	14.00	128.00	100.00	5671.27	-2714.27	-663.05
5900.00	14.00	128.00	100.00	5768.30	-2811.30	-677.95
6000.00	14.00	128.00	100.00	5865.33	-2908.33	-692.84
6100.00	14.00	128.00	100.00	5962.36	-3005.36	-707.74
6200.00	14.00	128.00	100.00	6059.39	-3102.39	-722.63
6300.00	14.00	128.00	100.00	6156.42	-3199.42	-737.52
6400.00	14.00	128.00	100.00	6253.45	-3296.45	-752.42
6500.00	14.00	128.00	100.00	6350.48	-3393.48	-767.31
6600.00	14.00	128.00	100.00	6447.50	-3490.50	-782.21
6700.00	14.00	128.00	100.00	6544.53	-3587.53	-797.10
6800.00	14.00	128.00	100.00	6641.56	-3684.56	-812.00
6900.00	14.00	128.00	100.00	6738.59	-3781.59	-826.89
7000.00	14.00	128.00	100.00	6835.62	-3878.62	-841.78
7100.00	14.00	128.00	100.00	6932.65	-3975.65	-856.68
7200.00	14.00	128.00	100.00	7029.68	-4072.68	-871.57
7309.09	14.00	128.00	109.09	7135.53	-4178.53	-887.82
7350.00	18.09	128.00	40.91	7174.84	-4217.84	-894.78
7400.00	23.09	128.00	50.00	7221.63	-4264.63	-905.60
7450.00	28.09	128.00	50.00	7266.71	-4309.71	-918.90
7500.00	33.09	128.00	50.00	7309.74	-4352.74	-934.56
7550.00	38.09	128.00	50.00	7350.39	-4393.39	-952.47
7600.00	43.09	128.00	50.00	7388.34	-4431.34	-972.49
7650.00	48.09	128.00	50.00	7423.32	-4466.32	-994.47
7700.00	53.09	128.00	50.00	7455.05	-4498.05	-1018.25
7750.00	58.09	128.00	50.00	7483.30	-4526.30	-1043.64
7800.00	63.09	128.00	50.00	7507.84	-4550.84	-1070.44
7850.00	68.09	128.00	50.00	7528.50	-4571.50	-1098.47
7900.00	73.09	128.00	50.00	7545.11	-4588.11	-1127.49
7919.09	75.00	128.00	19.09	7550.36	-4593.36	-1138.79
8000.00	79.05	128.00	80.91	7568.52	-4611.52	-1187.32
8100.00	84.05	128.00	100.00	7583.22	-4626.22	-1248.20
8200.00	89.05	128.00	100.00	7589.24	-4632.24	-1309.63
8219.09	90.00	128.00	19.09	7589.40	-4632.40	-1321.39
8300.00	90.00	128.00	80.91	7589.40	-4632.40	-1371.20
8400.00	90.00	128.00	100.00	7589.40	-4632.40	-1432.77
8444.09	90.00	128.00	44.09	7589.40	-4632.40	-1459.91
8500.00	90.00	129.68	55.91	7589.40	-4632.40	-1494.97
8600.00	90.00	132.68	100.00	7589.40	-4632.40	-1560.80
8700.00	90.00	135.68	100.00	7589.40	-4632.40	-1630.48
8800.00	90.00	138.68	100.00	7589.40	-4632.40	-1703.82
8900.00	90.00	141.68	100.00	7589.40	-4632.40	-1780.62
9000.00	90.00	144.68	100.00	7589.40	-4632.40	-1860.66
9100.00	90.00	147.68	100.00	7589.40	-4632.40	-1943.72
9200.00	90.00	150.68	100.00	7589.40	-4632.40	-2029.59

9300.00	90.00	153.68	100.00	7589.39	-4632.39	-2118.02
9400.00	90.00	156.68	100.00	7589.39	-4632.39	-2208.77
9500.00	90.00	159.68	100.00	7589.39	-4632.39	-2301.59
9600.00	90.00	162.68	100.00	7589.39	-4632.39	-2396.23
9700.00	90.00	165.68	100.00	7589.38	-4632.38	-2492.43
9800.00	90.00	168.68	100.00	7589.38	-4632.38	-2589.93
9900.00	90.00	171.68	100.00	7589.38	-4632.38	-2688.45
10000.00	90.00	174.68	100.00	7589.37	-4632.37	-2787.73
10100.00	90.00	177.68	100.00	7589.37	-4632.37	-2887.50
10173.66	90.00	179.89	73.66	7589.36	-4632.36	-2961.13
10200.00	90.00	179.89	26.34	7589.36	-4632.36	-2987.48
10300.00	90.00	179.89	100.00	7589.36	-4632.36	-3087.48
10400.00	90.00	179.89	100.00	7589.36	-4632.36	-3187.48
10500.00	90.00	179.89	100.00	7589.35	-4632.35	-3287.48
10600.00	90.00	179.89	100.00	7589.35	-4632.35	-3387.48
10700.00	90.00	179.89	100.00	7589.34	-4632.34	-3487.48
10800.00	90.00	179.89	100.00	7589.34	-4632.34	-3587.48
10900.00	90.00	179.89	100.00	7589.33	-4632.33	-3687.47
11000.00	90.00	179.89	100.00	7589.33	-4632.33	-3787.47
11100.00	90.00	179.89	100.00	7589.33	-4632.33	-3887.47
11200.00	90.00	179.89	100.00	7589.32	-4632.32	-3987.47
11300.00	90.00	179.89	100.00	7589.32	-4632.32	-4087.47
11400.00	90.00	179.89	100.00	7589.31	-4632.31	-4187.47
11500.00	90.00	179.89	100.00	7589.31	-4632.31	-4287.47
11600.00	90.00	179.89	100.00	7589.31	-4632.31	-4387.47
11700.00	90.00	179.89	100.00	7589.30	-4632.30	-4487.47
11800.00	90.00	179.89	100.00	7589.30	-4632.30	-4587.47
11900.00	90.00	179.89	100.00	7589.29	-4632.29	-4687.47
12000.00	90.00	179.89	100.00	7589.29	-4632.29	-4787.47
12100.00	90.00	179.89	100.00	7589.28	-4632.28	-4887.47
12200.00	90.00	179.89	100.00	7589.28	-4632.28	-4987.47
12300.00	90.00	179.89	100.00	7589.28	-4632.28	-5087.47
12400.00	90.00	179.89	100.00	7589.27	-4632.27	-5187.47
12500.00	90.00	179.89	100.00	7589.27	-4632.27	-5287.47
12600.00	90.00	179.89	100.00	7589.26	-4632.26	-5387.47
12700.00	90.00	179.89	100.00	7589.26	-4632.26	-5487.47
12800.00	90.00	179.89	100.00	7589.26	-4632.26	-5587.47
12900.00	90.00	179.89	100.00	7589.25	-4632.25	-5687.47
13000.00	90.00	179.89	100.00	7589.25	-4632.25	-5787.47
13100.00	90.00	179.89	100.00	7589.24	-4632.24	-5887.47
13200.00	90.00	179.89	100.00	7589.24	-4632.24	-5987.47
13300.00	90.00	179.89	100.00	7589.23	-4632.23	-6087.47
13400.00	90.00	179.89	100.00	7589.23	-4632.23	-6187.47
13500.00	90.00	179.89	100.00	7589.23	-4632.23	-6287.47

13600.00	90.00	179.89	100.00	7589.22	-4632.22	-6387.47
13700.00	90.00	179.89	100.00	7589.22	-4632.22	-6487.47
13800.00	90.00	179.89	100.00	7589.21	-4632.21	-6587.47
13900.00	90.00	179.89	100.00	7589.21	-4632.21	-6687.47
14000.00	90.00	179.89	100.00	7589.21	-4632.21	-6787.47
14100.00	90.00	179.89	100.00	7589.20	-4632.20	-6887.47
14200.00	90.00	179.89	100.00	7589.20	-4632.20	-6987.47
14300.00	90.00	179.89	100.00	7589.19	-4632.19	-7087.47
14400.00	90.00	179.89	100.00	7589.19	-4632.19	-7187.47
14500.00	90.00	179.89	100.00	7589.18	-4632.18	-7287.47
14600.00	90.00	179.89	100.00	7589.18	-4632.18	-7387.47
14700.00	90.00	179.89	100.00	7589.18	-4632.18	-7487.47
14800.00	90.00	179.89	100.00	7589.17	-4632.17	-7587.47
14900.00	90.00	179.89	100.00	7589.17	-4632.17	-7687.47
15000.00	90.00	179.89	100.00	7589.16	-4632.16	-7787.47
15100.00	90.00	179.89	100.00	7589.16	-4632.16	-7887.47
15200.00	90.00	179.89	100.00	7589.16	-4632.16	-7987.47
15300.00	90.00	179.89	100.00	7589.15	-4632.15	-8087.47
15400.00	90.00	179.89	100.00	7589.15	-4632.15	-8187.47
15500.00	90.00	179.89	100.00	7589.14	-4632.14	-8287.47
15600.00	90.00	179.89	100.00	7589.14	-4632.14	-8387.47
15700.00	90.00	179.89	100.00	7589.13	-4632.13	-8487.47
15800.00	90.00	179.89	100.00	7589.13	-4632.13	-8587.47
15900.00	90.00	179.89	100.00	7589.13	-4632.13	-8687.47
16000.00	90.00	179.89	100.00	7589.12	-4632.12	-8787.46
16100.00	90.00	179.89	100.00	7589.12	-4632.12	-8887.46
16200.00	90.00	179.89	100.00	7589.11	-4632.11	-8987.46
16300.00	90.00	179.89	100.00	7589.11	-4632.11	-9087.46
16400.00	90.00	179.89	100.00	7589.11	-4632.11	-9187.46
16500.00	90.00	179.89	100.00	7589.10	-4632.10	-9287.46
16600.00	90.00	179.89	100.00	7589.10	-4632.10	-9387.46
16700.00	90.00	179.89	100.00	7589.09	-4632.09	-9487.46
16800.00	90.00	179.89	100.00	7589.09	-4632.09	-9587.46
16900.00	90.00	179.89	100.00	7589.08	-4632.08	-9687.46
17000.00	90.00	179.89	100.00	7589.08	-4632.08	-9787.46
17100.00	90.00	179.89	100.00	7589.08	-4632.08	-9887.46
17200.00	90.00	179.89	100.00	7589.07	-4632.07	-9987.46
17300.00	90.00	179.89	100.00	7589.07	-4632.07	-10087.46
17400.00	90.00	179.89	100.00	7589.06	-4632.06	-10187.46
17500.00	90.00	179.89	100.00	7589.06	-4632.06	-10287.46
17600.00	90.00	179.89	100.00	7589.06	-4632.06	-10387.46
17700.00	90.00	179.89	100.00	7589.05	-4632.05	-10487.46
17800.00	90.00	179.89	100.00	7589.05	-4632.05	-10587.46
17900.00	90.00	179.89	100.00	7589.04	-4632.04	-10687.46

18000.00	90.00	179.89	100.00	7589.04	-4632.04	-10787.46
18100.00	90.00	179.89	100.00	7589.03	-4632.03	-10887.46
18200.00	90.00	179.89	100.00	7589.03	-4632.03	-10987.46
18300.00	90.00	179.89	100.00	7589.03	-4632.03	-11087.46
18400.00	90.00	179.89	100.00	7589.02	-4632.02	-11187.46
18500.00	90.00	179.89	100.00	7589.02	-4632.02	-11287.46
18600.00	90.00	179.89	100.00	7589.01	-4632.01	-11387.46
18700.00	90.00	179.89	100.00	7589.01	-4632.01	-11487.46
18800.00	90.00	179.89	100.00	7589.01	-4632.01	-11587.46
18900.00	90.00	179.89	100.00	7589.00	-4632.00	-11687.46
18917.19	90.00	179.89	17.19	7589.00	-4632.00	-11704.65

Local E/-W EW	Easting X	Northing Y	Latitude LAT	Longitude LON	Dogleg Severit DLS	Build Rate BLD
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
0.00	631568.46	420300.29	32.155148	-104.041763	0.00	0.00
1.38	631569.84	420299.22	32.155145	-104.041759	2.00	2.00
5.50	631573.96	420295.99	32.155136	-104.041745	2.00	2.00
12.37	631580.83	420290.63	32.155121	-104.041723	2.00	2.00

21.97	631590.43	420283.13	32.155101	-104.041692	2.00	2.00
34.30	631602.76	420273.50	32.155074	-104.041652	2.00	2.00
49.33	631617.79	420261.75	32.155042	-104.041604	2.00	2.00
67.06	631635.52	420247.90	32.155003	-104.041547	2.00	2.00
86.12	631654.58	420233.01	32.154962	-104.041485	0.00	0.00
105.18	631673.64	420218.11	32.154921	-104.041424	0.00	0.00
124.25	631692.71	420203.22	32.154880	-104.041362	0.00	0.00
143.31	631711.77	420188.32	32.154839	-104.041301	0.00	0.00
162.38	631730.84	420173.43	32.154798	-104.041239	0.00	0.00
181.44	631749.90	420158.53	32.154757	-104.041178	0.00	0.00
200.50	631768.96	420143.64	32.154716	-104.041117	0.00	0.00
219.57	631788.03	420128.75	32.154675	-104.041055	0.00	0.00
238.63	631807.09	420113.85	32.154634	-104.040994	0.00	0.00
257.69	631826.15	420098.96	32.154593	-104.040932	0.00	0.00
276.76	631845.22	420084.06	32.154552	-104.040871	0.00	0.00
295.82	631864.28	420069.17	32.154510	-104.040809	0.00	0.00
314.89	631883.35	420054.28	32.154469	-104.040748	0.00	0.00
333.95	631902.41	420039.38	32.154428	-104.040686	0.00	0.00
353.01	631921.47	420024.49	32.154387	-104.040625	0.00	0.00
372.08	631940.54	420009.59	32.154346	-104.040563	0.00	0.00
391.14	631959.60	419994.70	32.154305	-104.040502	0.00	0.00
410.20	631978.66	419979.80	32.154264	-104.040440	0.00	0.00
429.27	631997.73	419964.91	32.154223	-104.040379	0.00	0.00
448.33	632016.79	419950.02	32.154182	-104.040317	0.00	0.00
467.40	632035.86	419935.12	32.154141	-104.040256	0.00	0.00
486.46	632054.92	419920.23	32.154100	-104.040194	0.00	0.00
505.52	632073.98	419905.33	32.154058	-104.040133	0.00	0.00
524.59	632093.05	419890.44	32.154017	-104.040072	0.00	0.00
543.65	632112.11	419875.54	32.153976	-104.040010	0.00	0.00
562.71	632131.17	419860.65	32.153935	-104.039949	0.00	0.00
581.78	632150.24	419845.76	32.153894	-104.039887	0.00	0.00
600.84	632169.30	419830.86	32.153853	-104.039826	0.00	0.00
619.90	632188.36	419815.97	32.153812	-104.039764	0.00	0.00
638.97	632207.43	419801.07	32.153771	-104.039703	0.00	0.00
658.03	632226.49	419786.18	32.153730	-104.039641	0.00	0.00
677.10	632245.56	419771.29	32.153689	-104.039580	0.00	0.00
696.16	632264.62	419756.39	32.153648	-104.039518	0.00	0.00
715.22	632283.68	419741.50	32.153607	-104.039457	0.00	0.00
734.29	632302.75	419726.60	32.153565	-104.039395	0.00	0.00
753.35	632321.81	419711.71	32.153524	-104.039334	0.00	0.00
772.41	632340.87	419696.81	32.153483	-104.039272	0.00	0.00
791.48	632359.94	419681.92	32.153442	-104.039211	0.00	0.00
810.54	632379.00	419667.03	32.153401	-104.039149	0.00	0.00
829.61	632398.07	419652.13	32.153360	-104.039088	0.00	0.00

848.67	632417.13	419637.24	32.153319	-104.039027	0.00	0.00
867.73	632436.19	419622.34	32.153278	-104.038965	0.00	0.00
886.80	632455.26	419607.45	32.153237	-104.038904	0.00	0.00
905.86	632474.32	419592.56	32.153196	-104.038842	0.00	0.00
924.92	632493.38	419577.66	32.153155	-104.038781	0.00	0.00
943.99	632512.45	419562.77	32.153114	-104.038719	0.00	0.00
963.05	632531.51	419547.87	32.153072	-104.038658	0.00	0.00
982.12	632550.58	419532.98	32.153031	-104.038596	0.00	0.00
1001.18	632569.64	419518.08	32.152990	-104.038535	0.00	0.00
1020.24	632588.70	419503.19	32.152949	-104.038473	0.00	0.00
1039.31	632607.77	419488.30	32.152908	-104.038412	0.00	0.00
1058.37	632626.83	419473.40	32.152867	-104.038350	0.00	0.00
1077.43	632645.89	419458.51	32.152826	-104.038289	0.00	0.00
1096.50	632664.96	419443.61	32.152785	-104.038227	0.00	0.00
1115.56	632684.02	419428.72	32.152744	-104.038166	0.00	0.00
1136.36	632704.82	419412.47	32.152699	-104.038099	0.00	0.00
1145.27	632713.73	419405.51	32.152680	-104.038070	10.00	10.00
1159.12	632727.58	419394.69	32.152650	-104.038026	10.00	10.00
1176.13	632744.59	419381.40	32.152613	-104.037971	10.00	10.00
1196.18	632764.64	419365.74	32.152570	-104.037906	10.00	10.00
1219.10	632787.56	419347.83	32.152521	-104.037832	10.00	10.00
1244.73	632813.19	419327.80	32.152465	-104.037750	10.00	10.00
1272.87	632841.33	419305.82	32.152405	-104.037659	10.00	10.00
1303.30	632871.76	419282.04	32.152339	-104.037561	10.00	10.00
1335.79	632904.25	419256.65	32.152269	-104.037456	10.00	10.00
1370.11	632938.57	419229.85	32.152195	-104.037345	10.00	10.00
1405.97	632974.43	419201.82	32.152118	-104.037230	10.00	10.00
1443.12	633011.58	419172.80	32.152038	-104.037110	10.00	10.00
1457.59	633026.05	419161.50	32.152007	-104.037063	10.00	10.00
1519.70	633088.16	419112.97	32.151873	-104.036863	5.00	5.00
1597.62	633166.08	419052.09	32.151705	-104.036612	5.00	5.00
1676.26	633244.72	418990.66	32.151535	-104.036358	5.00	5.00
1691.30	633259.76	418978.90	32.151503	-104.036310	5.00	5.00
1755.06	633323.52	418929.09	32.151365	-104.036104	0.00	0.00
1833.86	633402.32	418867.52	32.151196	-104.035850	0.00	0.00
1868.60	633437.06	418840.38	32.151121	-104.035738	0.00	0.00
1912.15	633480.61	418805.32	32.151024	-104.035598	3.00	0.00
1987.41	633555.87	418739.49	32.150843	-104.035355	3.00	0.00
2059.12	633627.58	418669.81	32.150650	-104.035124	3.00	0.00
2127.08	633695.54	418596.47	32.150448	-104.034905	3.00	0.00
2191.12	633759.58	418519.68	32.150237	-104.034699	3.00	0.00
2251.04	633819.50	418439.64	32.150016	-104.034506	3.00	0.00
2306.70	633875.16	418356.57	32.149787	-104.034327	3.00	0.00
2357.93	633926.39	418270.70	32.149551	-104.034162	3.00	0.00

2404.60	633973.06	418182.27	32.149308	-104.034012	3.00	0.00
2446.58	634015.04	418091.52	32.149058	-104.033877	3.00	0.00
2483.75	634052.21	417998.70	32.148802	-104.033758	3.00	0.00
2516.01	634084.47	417904.06	32.148542	-104.033654	3.00	0.00
2543.27	634111.73	417807.86	32.148277	-104.033567	3.00	0.00
2565.46	634133.92	417710.36	32.148009	-104.033496	3.00	0.00
2582.52	634150.98	417611.84	32.147738	-104.033442	3.00	0.00
2594.40	634162.86	417512.56	32.147465	-104.033405	3.00	0.00
2601.07	634169.53	417412.79	32.147191	-104.033384	3.00	0.00
2602.63	634171.09	417339.16	32.146988	-104.033380	3.00	0.00
2602.68	634171.14	417312.81	32.146916	-104.033380	0.00	0.00
2602.88	634171.34	417212.81	32.146641	-104.033380	0.00	0.00
2603.08	634171.54	417112.82	32.146366	-104.033380	0.00	0.00
2603.28	634171.74	417012.82	32.146091	-104.033381	0.00	0.00
2603.47	634171.93	416912.82	32.145816	-104.033381	0.00	0.00
2603.67	634172.13	416812.82	32.145542	-104.033381	0.00	0.00
2603.87	634172.33	416712.82	32.145267	-104.033381	0.00	0.00
2604.06	634172.52	416612.82	32.144992	-104.033382	0.00	0.00
2604.26	634172.72	416512.82	32.144717	-104.033382	0.00	0.00
2604.46	634172.92	416412.82	32.144442	-104.033382	0.00	0.00
2604.66	634173.12	416312.82	32.144167	-104.033382	0.00	0.00
2604.85	634173.31	416212.82	32.143892	-104.033383	0.00	0.00
2605.05	634173.51	416112.82	32.143617	-104.033383	0.00	0.00
2605.25	634173.71	416012.82	32.143342	-104.033383	0.00	0.00
2605.45	634173.91	415912.82	32.143068	-104.033383	0.00	0.00
2605.64	634174.10	415812.82	32.142793	-104.033384	0.00	0.00
2605.84	634174.30	415712.82	32.142518	-104.033384	0.00	0.00
2606.04	634174.50	415612.82	32.142243	-104.033384	0.00	0.00
2606.24	634174.70	415512.82	32.141968	-104.033384	0.00	0.00
2606.43	634174.89	415412.82	32.141693	-104.033385	0.00	0.00
2606.63	634175.09	415312.82	32.141418	-104.033385	0.00	0.00
2606.83	634175.29	415212.82	32.141143	-104.033385	0.00	0.00
2607.03	634175.49	415112.82	32.140868	-104.033386	0.00	0.00
2607.22	634175.68	415012.82	32.140594	-104.033386	0.00	0.00
2607.42	634175.88	414912.82	32.140319	-104.033386	0.00	0.00
2607.62	634176.08	414812.82	32.140044	-104.033386	0.00	0.00
2607.82	634176.28	414712.82	32.139769	-104.033387	0.00	0.00
2608.01	634176.47	414612.82	32.139494	-104.033387	0.00	0.00
2608.21	634176.67	414512.82	32.139219	-104.033387	0.00	0.00
2608.41	634176.87	414412.82	32.138944	-104.033387	0.00	0.00
2608.60	634177.06	414312.82	32.138669	-104.033388	0.00	0.00
2608.80	634177.26	414212.82	32.138394	-104.033388	0.00	0.00
2609.00	634177.46	414112.82	32.138120	-104.033388	0.00	0.00
2609.20	634177.66	414012.82	32.137845	-104.033388	0.00	0.00

2609.39	634177.85	413912.82	32.137570	-104.033389	0.00	0.00
2609.59	634178.05	413812.82	32.137295	-104.033389	0.00	0.00
2609.79	634178.25	413712.82	32.137020	-104.033389	0.00	0.00
2609.99	634178.45	413612.82	32.136745	-104.033389	0.00	0.00
2610.18	634178.64	413512.82	32.136470	-104.033390	0.00	0.00
2610.38	634178.84	413412.82	32.136195	-104.033390	0.00	0.00
2610.58	634179.04	413312.82	32.135920	-104.033390	0.00	0.00
2610.78	634179.24	413212.82	32.135645	-104.033391	0.00	0.00
2610.97	634179.43	413112.82	32.135371	-104.033391	0.00	0.00
2611.17	634179.63	413012.82	32.135096	-104.033391	0.00	0.00
2611.37	634179.83	412912.82	32.134821	-104.033391	0.00	0.00
2611.57	634180.03	412812.82	32.134546	-104.033392	0.00	0.00
2611.76	634180.22	412712.82	32.134271	-104.033392	0.00	0.00
2611.96	634180.42	412612.82	32.133996	-104.033392	0.00	0.00
2612.16	634180.62	412512.82	32.133721	-104.033392	0.00	0.00
2612.36	634180.82	412412.82	32.133446	-104.033393	0.00	0.00
2612.55	634181.01	412312.82	32.133171	-104.033393	0.00	0.00
2612.75	634181.21	412212.82	32.132897	-104.033393	0.00	0.00
2612.95	634181.41	412112.82	32.132622	-104.033393	0.00	0.00
2613.15	634181.61	412012.83	32.132347	-104.033394	0.00	0.00
2613.34	634181.80	411912.83	32.132072	-104.033394	0.00	0.00
2613.54	634182.00	411812.83	32.131797	-104.033394	0.00	0.00
2613.74	634182.20	411712.83	32.131522	-104.033394	0.00	0.00
2613.93	634182.39	411612.83	32.131247	-104.033395	0.00	0.00
2614.13	634182.59	411512.83	32.130972	-104.033395	0.00	0.00
2614.33	634182.79	411412.83	32.130697	-104.033395	0.00	0.00
2614.53	634182.99	411312.83	32.130423	-104.033395	0.00	0.00
2614.72	634183.18	411212.83	32.130148	-104.033396	0.00	0.00
2614.92	634183.38	411112.83	32.129873	-104.033396	0.00	0.00
2615.12	634183.58	411012.83	32.129598	-104.033396	0.00	0.00
2615.32	634183.78	410912.83	32.129323	-104.033397	0.00	0.00
2615.51	634183.97	410812.83	32.129048	-104.033397	0.00	0.00
2615.71	634184.17	410712.83	32.128773	-104.033397	0.00	0.00
2615.91	634184.37	410612.83	32.128498	-104.033397	0.00	0.00
2616.11	634184.57	410512.83	32.128223	-104.033398	0.00	0.00
2616.30	634184.76	410412.83	32.127949	-104.033398	0.00	0.00
2616.50	634184.96	410312.83	32.127674	-104.033398	0.00	0.00
2616.70	634185.16	410212.83	32.127399	-104.033398	0.00	0.00
2616.90	634185.36	410112.83	32.127124	-104.033399	0.00	0.00
2617.09	634185.55	410012.83	32.126849	-104.033399	0.00	0.00
2617.29	634185.75	409912.83	32.126574	-104.033399	0.00	0.00
2617.49	634185.95	409812.83	32.126299	-104.033399	0.00	0.00
2617.69	634186.15	409712.83	32.126024	-104.033400	0.00	0.00
2617.88	634186.34	409612.83	32.125749	-104.033400	0.00	0.00

2618.08	634186.54	409512.83	32.125474	-104.033400	0.00	0.00
2618.28	634186.74	409412.83	32.125200	-104.033400	0.00	0.00
2618.47	634186.93	409312.83	32.124925	-104.033401	0.00	0.00
2618.67	634187.13	409212.83	32.124650	-104.033401	0.00	0.00
2618.87	634187.33	409112.83	32.124375	-104.033401	0.00	0.00
2619.07	634187.53	409012.83	32.124100	-104.033402	0.00	0.00
2619.26	634187.72	408912.83	32.123825	-104.033402	0.00	0.00
2619.46	634187.92	408812.83	32.123550	-104.033402	0.00	0.00
2619.66	634188.12	408712.83	32.123275	-104.033402	0.00	0.00
2619.86	634188.32	408612.83	32.123000	-104.033403	0.00	0.00
2619.89	634188.35	408595.64	32.122953	-104.033403	0.00	0.00

Turn Rate	Vertical Section
TRN	VS
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	1.08
0.00	4.31
0.00	9.69

0.00	17.21
0.00	26.86
0.00	38.64
0.00	52.52
0.00	67.45
0.00	82.38
0.00	97.31
0.00	112.24
0.00	127.17
0.00	142.10
0.00	157.04
0.00	171.97
0.00	186.90
0.00	201.83
0.00	216.76
0.00	231.69
0.00	246.62
0.00	261.55
0.00	276.48
0.00	291.41
0.00	306.34
0.00	321.27
0.00	336.20
0.00	351.14
0.00	366.07
0.00	381.00
0.00	395.93
0.00	410.86
0.00	425.79
0.00	440.72
0.00	455.65
0.00	470.58
0.00	485.51
0.00	500.44
0.00	515.37
0.00	530.30
0.00	545.24
0.00	560.17
0.00	575.10
0.00	590.03
0.00	604.96
0.00	619.89
0.00	634.82
0.00	649.75

0.00	664.68
0.00	679.61
0.00	694.54
0.00	709.47
0.00	724.40
0.00	739.34
0.00	754.27
0.00	769.20
0.00	784.13
0.00	799.06
0.00	813.99
0.00	828.92
0.00	843.85
0.00	858.78
0.00	873.71
0.00	890.00
0.00	896.98
0.00	907.83
0.00	921.15
0.00	936.85
0.00	954.80
0.00	974.88
0.00	996.91
0.00	1020.75
0.00	1046.20
0.00	1073.07
0.00	1101.16
0.00	1130.26
0.00	1141.59
0.00	1190.24
0.00	1251.26
0.00	1312.85
0.00	1324.63
0.00	1374.57
0.00	1436.28
0.00	1463.50
3.00	1498.64
3.00	1564.62
3.00	1634.43
3.00	1707.90
3.00	1784.82
3.00	1864.97
3.00	1948.15
3.00	2034.11

3.00	2122.63
3.00	2213.46
3.00	2306.36
3.00	2401.06
3.00	2497.31
3.00	2594.85
3.00	2693.40
3.00	2792.71
3.00	2892.49
3.00	2966.12
0.00	2992.47
0.00	3092.47
0.00	3192.47
0.00	3292.47
0.00	3392.47
0.00	3492.47
0.00	3592.47
0.00	3692.47
0.00	3792.47
0.00	3892.47
0.00	3992.47
0.00	4092.47
0.00	4192.47
0.00	4292.47
0.00	4392.47
0.00	4492.47
0.00	4592.47
0.00	4692.47
0.00	4792.47
0.00	4892.47
0.00	4992.47
0.00	5092.47
0.00	5192.47
0.00	5292.47
0.00	5392.47
0.00	5492.47
0.00	5592.47
0.00	5692.47
0.00	5792.47
0.00	5892.47
0.00	5992.47
0.00	6092.47
0.00	6192.47
0.00	6292.47

0.00	6392.47
0.00	6492.47
0.00	6592.47
0.00	6692.47
0.00	6792.47
0.00	6892.47
0.00	6992.47
0.00	7092.47
0.00	7192.47
0.00	7292.47
0.00	7392.47
0.00	7492.47
0.00	7592.47
0.00	7692.47
0.00	7792.47
0.00	7892.47
0.00	7992.47
0.00	8092.47
0.00	8192.47
0.00	8292.47
0.00	8392.47
0.00	8492.47
0.00	8592.47
0.00	8692.47
0.00	8792.47
0.00	8892.47
0.00	8992.47
0.00	9092.47
0.00	9192.47
0.00	9292.47
0.00	9392.47
0.00	9492.47
0.00	9592.47
0.00	9692.47
0.00	9792.47
0.00	9892.47
0.00	9992.47
0.00	10092.47
0.00	10192.47
0.00	10292.47
0.00	10392.47
0.00	10492.47
0.00	10592.47
0.00	10692.47

0.00	10792.47
0.00	10892.47
0.00	10992.47
0.00	11092.47
0.00	11192.47
0.00	11292.47
0.00	11392.47
0.00	11492.47
0.00	11592.47
0.00	11692.47
0.00	11709.66

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 7H

OH
Plan 1



Anticollision Report

Minimum Magnetic Interference Warning level is 50' center to center

24 June, 2025

Total Report Version 1.60

COMPASS 5000.16 Build 97

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Max. Cent. Dist. of 1,000.00usft or Max. SF of 6	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Well	Riverbend 12-13 Federal Com 7H					
Well Position	+N/-S	0.00 usft	Northing:	420,300.29 usft	Latitude:	32.1551480
	+E/-W	0.00 usft	Easting:	631,568.46 usft	Longitude:	-104.0417630
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,934.00 usft
Grid Convergence:		0.16 °				

Survey Tool Program	Date	6/24/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	18,917.19	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Offset Listing									
Site Name			Map Coordinates		Geographical Coordinates		Surface Uncertainty		
Offset Well	Ground Level	KB Height	Northing	Easting	Latitude	Longitude	Site	Well	
Coterra Energy - Riverbend 12-13 Federal Com									
Riverbend 12-13 Fed Com 19H -	2,934.70	2,957.70	420,359.13	631,629.58	32.1553093	-104.0415650	0.00	0.50	
Riverbend 12-13 Fed Com 1H -	2,934.60	2,957.60	420,358.36	631,669.56	32.1553069	-104.0414358	0.00	0.50	
Riverbend 12-13 Fed Com 20H -	2,935.00	2,958.00	420,359.51	631,609.59	32.1553105	-104.0416296	0.00	0.50	
Riverbend 12-13 Fed Com 29H -	2,937.20	2,960.20	420,547.64	630,584.99	32.1558352	-104.0449388	0.00	0.00	
Riverbend 12-13 Fed Com 2H -	2,934.60	2,957.60	420,358.74	631,649.57	32.1553081	-104.0415004	0.00	0.50	
Riverbend 12-13 Fed Com 30H -	2,937.60	2,960.60	420,548.00	630,564.98	32.1558364	-104.0450035	0.00	0.00	
Riverbend 12-13 Fed Com 31H -	2,937.50	2,960.50	420,608.75	630,526.15	32.1560036	-104.0451284	0.00	0.00	
Coterra Energy - Riverbend 12-13 Federal Com									
Riverbend 12-13 Federal Com 3H -	2,934.00	2,957.00	420,302.20	631,468.50	32.1551540	-104.0420860	0.00	0.00	
Riverbend 12-13 Federal Com 4H -	2,934.00	2,957.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	
Riverbend 12-13 Federal Com 5H -	2,934.00	2,957.00	420,301.82	631,488.49	32.1551528	-104.0420214	0.00	0.00	
Riverbend 12-13 Federal Com 6H -	2,934.00	2,957.00	420,301.06	631,528.48	32.1551504	-104.0418922	0.00	0.00	
Riverbend 12-13 Federal Com 8H -	2,934.00	2,957.00	420,300.68	631,548.47	32.1551492	-104.0418276	0.00	0.00	
Coterra Energy - Riverbend 12-13 Federal Com									
Malaga 13 DM Fed Com 1H -	2,888.00	2,908.00	414,150.32	630,383.57	32.1382511	-104.0456449	0.50	0.50	
Whistle Pig 1 SB Fee 5H -	2,912.00	2,937.00	424,125.66	633,731.20	32.1656472	-104.0347402	0.50	0.00	
Whistle Pig 1 WA Fee 4 -	2,913.00	2,938.00	424,125.66	633,701.20	32.1656475	-104.0348371	0.50	0.00	
Whistle Pig 1 WXY Fee 9H -	2,912.00	2,937.00	424,125.66	633,761.20	32.1656470	-104.0346432	0.50	0.00	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Riverbend 12-13 Fed Com						
Riverbend 12-13 Fed Com 19H - OH - Svy	1,363.36	1,363.81	61.23	51.99	6.63	CC
Riverbend 12-13 Fed Com 19H - OH - Svy	1,400.00	1,400.25	61.37	51.88	6.47	ES
Riverbend 12-13 Fed Com 19H - OH - Svy	1,500.00	1,499.50	63.64	53.46	6.25	SF
Riverbend 12-13 Fed Com 1H - OH - Svy	764.66	765.88	92.09	87.04	18.24	CC
Riverbend 12-13 Fed Com 1H - OH - Svy	800.00	800.61	92.21	86.92	17.43	ES
Riverbend 12-13 Fed Com 1H - OH - Svy	6,700.00	6,712.87	346.09	296.90	7.04	SF
Riverbend 12-13 Fed Com 20H - OH - Svy	1,224.50	1,227.38	70.15	61.95	8.55	CC, ES
Riverbend 12-13 Fed Com 20H - OH - Svy	1,400.00	1,401.55	75.31	65.91	8.01	SF
Riverbend 12-13 Fed Com 29H - OH - Svy	781.09	784.32	1,009.05	1,004.00	200.13	CC
Riverbend 12-13 Fed Com 29H - OH - Svy	1,000.00	998.96	1,009.89	1,003.34	154.00	ES
Riverbend 12-13 Fed Com 29H - OH - Svy	18,800.00	21,947.00	4,268.90	4,037.52	18.45	SF
Riverbend 12-13 Fed Com 2H - OH - Svy	0.00	0.00	99.98			
Riverbend 12-13 Fed Com 2H - OH - Svy	1,400.00	1,402.31	108.34	98.90	11.48	ES
Riverbend 12-13 Fed Com 2H - OH - Svy	7,350.00	7,408.43	532.79	478.88	9.88	SF
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	0.00	0.00	99.98			
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	1,400.00	1,402.31	108.34	98.90	11.48	ES
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	7,350.00	7,408.43	532.79	478.88	9.88	SF
Riverbend 12-13 Fed Com 30H - OH - Svy	0.00	0.00	1,033.61			
Riverbend 12-13 Fed Com 30H - OH - Svy	100.00	95.98	1,033.98	1,033.55	2,402.53	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	1,133.29	1,183.37	1,059.84	1,052.07	136.53	CC, ES
Riverbend 12-13 Fed Com 31H - OH - Svy	18,700.00	21,398.00	3,861.90	3,614.49	15.61	SF
Riverbend 12-13 Federal Com						
Riverbend 12-13 Federal Com 3H - OH - Plan 1	0.00	0.00	99.98			
Riverbend 12-13 Federal Com 3H - OH - Plan 1	1,000.00	1,000.00	99.98	92.97	14.27	CC, ES
Riverbend 12-13 Federal Com 4H - OH - Plan 1	1,000.00	1,000.00	59.99	52.99	8.56	CC, ES
Riverbend 12-13 Federal Com 4H - OH - Plan 1	18,800.00	18,302.57	1,315.67	1,126.36	6.95	SF
Riverbend 12-13 Federal Com 5H - OH - Plan 1	1,000.00	1,000.00	79.98	72.98	11.42	CC, ES
Riverbend 12-13 Federal Com 5H - OH - Plan 1	7,309.09	7,317.00	338.40	283.35	6.15	SF
Riverbend 12-13 Federal Com 6H - OH - Plan 1	1,000.00	1,000.00	39.99	32.98	5.71	CC, ES
Riverbend 12-13 Federal Com 6H - OH - Plan 1	5,200.00	5,219.57	78.40	39.88	2.04	SF
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,000.00	1,000.00	19.99	12.99	2.85	CC, ES
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,100.00	1,099.98	21.42	13.71	2.78	SF
Riverbend 12-13 Offsets						
Malaga 13 DM Fed Com 1H - OH - Svy	13,402.03	7,572.68	3,830.99	3,748.18	46.27	CC, ES
Malaga 13 DM Fed Com 1H - OH - Svy	18,917.19	13,305.00	4,685.76	4,501.29	25.40	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	8,100.00	13,295.00	921.60	856.64	14.19	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	8,291.11	13,295.00	895.81	833.86	14.46	CC, ES
Whistle Pig 1 WA Fee 4 - OH - Svy	8,117.01	14,593.00	2,357.04	2,298.40	40.19	CC, ES
Whistle Pig 1 WA Fee 4 - OH - Svy	9,000.00	14,593.00	2,592.25	2,523.05	37.46	SF
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,620.61	14,503.00	2,379.64	2,315.34	37.01	CC, ES
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,900.00	14,503.00	2,403.81	2,338.69	36.92	SF

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Offset Site Error:	0.00 usft
Reference										Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference	Semi Major Axis Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Warning
				(usft)	(usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	
0.00	0.00	0.70	0.70	0.00	0.50	46.09	58.84	61.12	84.84		
100.00	100.00	101.31	101.30	0.28	0.53	46.10	58.58	60.87	84.48	83.68	0.80 105.367

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
200.00	200.00	201.88	201.88	0.63	0.60	46.12	57.80	60.12	83.41	82.18	1.23	67.752	
300.00	300.00	301.87	301.85	0.99	0.85	46.08	56.88	59.06	82.00	80.16	1.84	44.579	
400.00	400.00	401.55	401.53	1.35	1.15	45.93	56.19	58.03	80.78	78.28	2.51	32.244	
500.00	500.00	501.35	501.32	1.71	1.49	45.84	55.71	57.37	79.97	76.78	3.19	25.038	
600.00	600.00	601.65	601.62	2.07	1.83	46.01	54.88	56.85	79.03	75.13	3.89	20.294	
700.00	700.00	701.97	701.92	2.43	2.17	46.70	53.23	56.47	77.61	73.02	4.60	16.877	
800.00	800.00	801.96	801.90	2.79	2.52	47.46	51.38	55.99	76.00	70.69	5.31	14.323	
900.00	900.00	902.17	902.09	3.14	2.88	48.12	49.65	55.37	74.38	68.36	6.02	12.362	
1,000.00	1,000.00	1,002.82	1,002.70	3.50	3.23	48.93	47.35	54.34	72.10	65.37	6.73	10.713	
1,100.00	1,099.98	1,103.24	1,103.05	3.85	3.59	-78.76	43.61	53.36	68.59	61.16	7.43	9.231	
1,200.00	1,199.84	1,202.58	1,202.30	4.18	3.94	-80.98	39.47	52.68	64.38	56.26	8.12	7.931	
1,300.00	1,299.45	1,300.99	1,300.68	4.52	4.29	-87.30	36.99	52.58	61.60	52.80	8.80	6.998	
1,363.36	1,362.38	1,363.81	1,363.49	4.74	4.51	-92.99	35.97	53.28	61.23	51.99	9.24	6.628	CC
1,400.00	1,398.70	1,400.25	1,399.92	4.86	4.63	-96.73	35.29	53.83	61.37	51.88	9.49	6.467	ES
1,500.00	1,497.47	1,499.50	1,499.13	5.21	4.98	-108.63	33.28	55.27	63.64	53.46	10.18	6.250	SF
1,600.00	1,595.62	1,598.24	1,597.85	5.56	5.33	-122.08	31.20	56.13	70.08	59.20	10.88	6.440	
1,700.00	1,693.06	1,695.86	1,695.44	5.92	5.68	-134.52	29.12	56.80	82.17	70.59	11.58	7.094	
1,800.00	1,790.08	1,792.49	1,792.05	6.28	6.01	-143.80	27.76	57.94	99.14	86.86	12.28	8.076	
1,900.00	1,887.11	1,889.27	1,888.82	6.65	6.35	-149.89	27.32	59.65	118.59	105.63	12.96	9.150	
2,000.00	1,984.14	1,987.16	1,986.68	7.02	6.68	-154.01	27.28	61.97	139.08	125.43	13.65	10.189	
2,100.00	2,081.17	2,085.72	2,085.19	7.39	7.02	-156.92	26.77	65.06	159.31	144.96	14.35	11.101	
2,200.00	2,178.20	2,179.74	2,179.20	7.76	7.34	-159.48	26.44	66.44	180.84	165.82	15.03	12.033	
2,300.00	2,275.23	2,276.44	2,275.88	8.14	7.68	-162.29	25.75	65.06	203.97	188.24	15.73	12.969	
2,400.00	2,372.26	2,380.02	2,379.43	8.52	8.05	-164.66	23.55	64.76	225.70	209.22	16.47	13.701	
2,500.00	2,469.29	2,478.80	2,478.15	8.90	8.40	-166.18	20.71	66.82	245.68	228.49	17.19	14.288	
2,600.00	2,566.32	2,571.97	2,571.30	9.28	8.73	-167.26	19.39	68.52	267.07	249.18	17.88	14.933	
2,700.00	2,663.35	2,664.10	2,663.41	9.67	9.05	-168.29	18.65	68.90	289.89	271.33	18.56	15.619	
2,800.00	2,760.38	2,757.64	2,756.92	10.05	9.37	-169.55	18.19	66.55	314.89	295.65	19.24	16.365	
2,900.00	2,857.41	2,870.46	2,869.63	10.44	9.77	-171.19	14.31	63.89	337.87	317.81	20.06	16.842	
3,000.00	2,954.44	2,989.47	2,988.16	10.83	10.20	-173.10	3.78	63.80	355.71	334.83	20.88	17.038	
3,100.00	3,051.47	3,113.68	3,110.98	11.22	10.65	-175.12	-13.93	68.41	367.37	345.73	21.65	16.972	
3,200.00	3,148.50	3,228.01	3,223.10	11.60	11.06	-176.86	-34.44	77.33	373.79	351.42	22.37	16.707	
3,300.00	3,245.53	3,340.97	3,333.14	11.99	11.47	-178.12	-55.68	91.34	376.30	353.22	23.08	16.303	
3,400.00	3,342.56	3,445.65	3,434.67	12.38	11.84	-179.07	-75.84	106.98	376.68	352.87	23.81	15.820	
3,455.21	3,396.12	3,500.61	3,487.88	12.60	12.04	-179.57	-86.61	115.50	376.57	352.34	24.23	15.543	
3,500.00	3,439.59	3,539.86	3,525.99	12.77	12.19	-179.88	-93.89	121.47	376.91	352.32	24.59	15.330	
3,600.00	3,536.62	3,632.52	3,616.42	13.17	12.52	179.58	-108.92	134.91	379.72	354.36	25.36	14.972	
3,700.00	3,633.65	3,731.87	3,713.57	13.56	12.88	179.14	-123.94	149.26	383.34	357.22	26.12	14.677	
3,800.00	3,730.68	3,827.57	3,807.20	13.95	13.23	178.68	-138.48	162.73	387.25	360.36	26.88	14.405	
3,900.00	3,827.71	3,924.55	3,902.33	14.34	13.59	178.15	-152.78	174.99	392.60	364.95	27.64	14.202	
4,000.00	3,924.74	4,024.75	4,000.62	14.74	13.96	177.59	-167.70	187.51	398.03	369.63	28.40	14.013	
4,100.00	4,021.77	4,123.94	4,097.90	15.13	14.32	177.02	-182.64	199.79	403.49	374.33	29.17	13.834	
4,200.00	4,118.79	4,223.79	4,195.85	15.52	14.70	176.43	-197.84	211.88	409.13	379.20	29.93	13.670	
4,300.00	4,215.82	4,323.98	4,294.09	15.92	15.07	175.82	-213.30	223.98	414.71	384.02	30.69	13.511	
4,400.00	4,312.85	4,423.98	4,392.13	16.31	15.44	175.22	-228.84	236.09	420.25	388.79	31.46	13.358	
4,500.00	4,409.88	4,527.44	4,493.47	16.70	15.83	174.58	-245.34	248.87	425.41	393.18	32.23	13.200	
4,600.00	4,506.91	4,630.88	4,594.57	17.10	16.21	173.94	-262.51	262.42	429.60	396.61	32.99	13.021	
4,700.00	4,603.94	4,726.05	4,687.67	17.49	16.57	173.41	-277.87	274.84	434.14	400.37	33.77	12.857	
4,800.00	4,700.97	4,824.63	4,784.23	17.89	16.94	172.93	-293.17	287.54	439.20	404.66	34.54	12.716	
4,900.00	4,798.00	4,917.45	4,875.35	18.28	17.29	172.52	-306.82	298.74	445.41	410.11	35.30	12.616	
5,000.00	4,895.03	5,014.72	4,971.01	18.68	17.65	172.11	-320.59	309.72	452.62	416.55	36.07	12.549	
5,100.00	4,992.06	5,112.42	5,067.18	19.07	18.02	171.71	-334.22	320.30	460.36	423.53	36.83	12.498	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	5,210.10	5,163.35	19.47	18.39	171.30	-347.85	330.56	468.41	430.81	37.60	12.458	
5,300.00	5,186.12	5,306.95	5,258.86	19.87	18.75	170.95	-360.69	340.14	477.35	438.99	38.36	12.444	
5,400.00	5,283.15	5,413.33	5,363.65	20.26	19.15	170.57	-375.21	351.36	485.55	446.41	39.15	12.403	
5,500.00	5,380.18	5,513.19	5,461.82	20.66	19.52	170.15	-389.78	362.38	492.88	452.96	39.92	12.347	
5,600.00	5,477.21	5,614.56	5,561.56	21.06	19.90	169.76	-404.27	373.26	500.65	459.96	40.69	12.303	
5,700.00	5,574.24	5,724.40	5,669.36	21.45	20.32	169.36	-420.65	386.54	506.94	465.46	41.48	12.220	
5,800.00	5,671.27	5,828.22	5,770.89	21.85	20.71	168.90	-437.50	400.18	511.67	469.40	42.26	12.106	
5,900.00	5,768.30	5,926.31	5,866.77	22.24	21.09	168.46	-453.68	413.08	516.30	473.26	43.04	11.995	
6,000.00	5,865.33	6,020.77	5,959.24	22.64	21.45	168.05	-468.82	425.00	521.66	477.85	43.81	11.906	
6,100.00	5,962.36	6,117.44	6,054.05	23.04	21.81	167.67	-483.75	436.52	527.95	483.36	44.59	11.841	
6,200.00	6,059.39	6,212.19	6,147.10	23.44	22.17	167.32	-498.02	447.29	534.94	489.58	45.35	11.795	
6,300.00	6,156.42	6,303.76	6,237.24	23.83	22.52	167.03	-511.04	456.86	543.15	497.05	46.10	11.782	
6,400.00	6,253.45	6,409.00	6,340.94	24.23	22.91	166.74	-525.43	467.59	551.85	504.96	46.89	11.769	
6,500.00	6,350.47	6,504.78	6,435.28	24.63	23.28	166.52	-538.42	477.85	560.13	512.48	47.65	11.755	
6,600.00	6,447.50	6,602.78	6,531.95	25.02	23.64	166.39	-550.67	488.24	568.97	520.55	48.42	11.751	
6,700.00	6,544.53	6,702.42	6,630.28	25.42	24.02	166.30	-562.75	498.84	577.93	528.75	49.19	11.750	
6,800.00	6,641.56	6,802.64	6,729.13	25.82	24.39	166.14	-575.55	509.32	586.81	536.84	49.96	11.745	
6,900.00	6,738.59	6,900.27	6,825.36	26.22	24.76	165.89	-588.98	518.81	595.93	545.21	50.73	11.748	
7,000.00	6,835.62	7,006.69	6,930.24	26.61	25.16	165.69	-603.10	530.03	604.52	552.99	51.53	11.732	
7,100.00	6,932.65	7,118.05	7,039.85	27.01	25.58	165.56	-617.67	543.26	612.00	559.66	52.33	11.694	
7,200.00	7,029.68	7,217.69	7,137.50	27.41	25.96	165.38	-632.27	556.61	617.38	564.27	53.11	11.624	
7,300.00	7,126.71	7,303.27	7,221.75	27.81	26.29	165.31	-643.19	566.88	624.83	570.99	53.84	11.605	
7,309.09	7,135.53	7,311.31	7,229.69	27.84	26.32	165.31	-644.15	567.78	625.61	571.70	53.91	11.605	
7,350.00	7,174.84	7,347.33	7,265.25	28.01	26.45	165.20	-648.35	571.69	630.69	576.48	54.21	11.635	
7,400.00	7,221.63	7,414.82	7,331.72	28.22	26.71	165.04	-657.23	579.11	640.36	585.69	54.67	11.714	
7,450.00	7,266.71	7,478.32	7,393.71	28.44	26.95	164.71	-668.51	587.01	652.46	597.36	55.10	11.842	
7,500.00	7,309.74	7,530.22	7,444.16	28.67	27.15	164.31	-678.74	593.67	668.08	612.58	55.51	12.036	
7,550.00	7,350.39	7,571.49	7,484.21	28.91	27.31	163.82	-687.16	598.93	687.54	631.65	55.90	12.300	
7,600.00	7,388.34	7,606.69	7,518.48	29.15	27.45	163.23	-694.05	603.10	711.32	655.05	56.26	12.643	
7,650.00	7,423.32	7,640.00	7,551.00	29.40	27.58	162.52	-700.27	606.74	739.19	682.59	56.60	13.060	
7,700.00	7,455.05	7,668.57	7,578.97	29.65	27.69	161.59	-705.38	609.60	770.90	714.00	56.90	13.548	
7,750.00	7,483.30	7,694.72	7,604.61	29.90	27.79	160.39	-709.88	611.96	806.15	748.98	57.17	14.102	
7,800.00	7,507.84	7,717.87	7,627.36	30.15	27.87	158.78	-713.72	613.85	844.56	787.16	57.40	14.714	
7,850.00	7,528.50	7,740.20	7,649.35	30.41	27.96	156.65	-717.30	615.51	885.75	828.14	57.61	15.376	
7,900.00	7,545.11	7,767.76	7,676.47	30.66	28.06	154.02	-721.72	617.57	929.12	871.28	57.84	16.065	
7,919.09	7,550.36	7,777.21	7,685.76	30.75	28.10	152.75	-723.24	618.30	946.17	888.25	57.91	16.337	
8,000.00	7,568.52	7,813.33	7,721.29	31.16	28.24	150.35	-729.12	621.20	1,019.99	961.79	58.20	17.526	
8,100.00	7,583.22	7,846.10	7,753.50	31.66	28.36	145.30	-734.46	623.99	1,113.84	1,055.38	58.46	19.052	
8,200.00	7,589.24	7,867.54	7,774.59	32.17	28.44	136.18	-737.80	625.89	1,210.10	1,151.47	58.64	20.637	
8,219.09	7,589.40	7,870.67	7,777.67	32.26	28.45	133.70	-738.28	626.17	1,228.70	1,170.03	58.67	20.944	
8,300.00	7,589.40	7,883.21	7,790.02	32.67	28.50	135.42	-740.15	627.32	1,307.66	1,248.90	58.77	22.252	
8,400.00	7,589.40	7,898.46	7,805.04	33.21	28.56	137.36	-742.37	628.73	1,405.41	1,346.52	58.89	23.865	
8,444.09	7,589.40	7,905.09	7,811.58	33.45	28.58	138.17	-743.31	629.36	1,448.55	1,389.61	58.94	24.575	
8,500.00	7,589.40	7,913.47	7,819.84	33.76	28.62	133.64	-744.47	630.16	1,503.17	1,444.16	59.01	25.473	
8,600.00	7,589.40	7,929.36	7,835.50	34.34	28.68	127.45	-746.63	631.70	1,600.33	1,541.19	59.14	27.061	
8,700.00	7,589.40	7,946.98	7,852.88	34.92	28.74	123.04	-748.96	633.46	1,696.66	1,637.38	59.28	28.623	
8,800.00	7,589.40	7,964.64	7,870.30	35.52	28.81	119.69	-751.23	635.27	1,792.05	1,732.64	59.41	30.162	
8,900.00	7,589.40	7,982.23	7,887.65	36.12	28.88	117.07	-753.44	637.12	1,886.40	1,826.85	59.55	31.677	
9,000.00	7,589.40	7,999.61	7,904.80	36.73	28.94	114.95	-755.57	639.01	1,979.63	1,919.94	59.69	33.167	
9,100.00	7,589.40	8,016.68	7,921.64	37.33	29.01	113.20	-757.60	640.91	2,071.64	2,011.82	59.82	34.632	
9,200.00	7,589.40	8,032.70	7,937.44	37.92	29.07	111.68	-759.47	642.72	2,162.36	2,102.42	59.94	36.073	
9,300.00	7,589.39	8,048.23	7,952.76	38.51	29.12	110.38	-761.24	644.51	2,251.73	2,191.66	60.06	37.489	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,400.00	7,589.39	8,063.25	7,967.59	39.09	29.18	109.25			-762.93	646.26	2,339.67	2,279.49	60.18	38.878	
9,500.00	7,589.39	8,077.72	7,981.86	39.65	29.23	108.25			-764.53	647.97	2,426.13	2,365.84	60.29	40.240	
9,600.00	7,589.39	11,034.85	9,756.75	40.19	40.55	152.07			-2,270.63	1,273.64	2,500.74	2,440.08	60.66	41.226	
9,700.00	7,589.38	11,295.84	9,757.39	40.72	41.51	150.13			-2,531.30	1,268.28	2,514.82	2,452.19	62.63	40.155	
9,800.00	7,589.38	11,370.12	9,757.21	41.23	41.80	149.55			-2,605.58	1,269.23	2,525.25	2,461.41	63.84	39.553	
9,900.00	7,589.38	11,494.41	9,757.18	41.72	42.31	149.00			-2,729.82	1,272.57	2,532.59	2,467.39	65.20	38.842	
10,000.00	7,589.37	11,577.69	9,757.19	42.18	42.66	148.73			-2,813.06	1,274.84	2,537.37	2,471.02	66.35	38.243	
10,100.00	7,589.37	11,664.71	9,756.90	42.63	43.03	148.55			-2,900.08	1,275.29	2,540.28	2,472.79	67.49	37.641	
10,173.66	7,589.36	11,765.87	9,757.00	42.94	43.46	148.55			-3,001.22	1,277.26	2,540.44	2,471.98	68.46	37.109	
10,200.00	7,589.36	11,810.97	9,756.66	43.05	43.66	148.56			-3,046.31	1,278.37	2,539.96	2,471.11	68.85	36.893	
10,300.00	7,589.36	11,884.06	9,755.74	43.47	43.99	148.57			-3,119.37	1,279.60	2,538.16	2,468.30	69.87	36.327	
10,400.00	7,589.36	11,957.76	9,755.24	43.90	44.32	148.57			-3,193.08	1,279.70	2,537.59	2,466.68	70.91	35.784	
10,414.11	7,589.35	11,968.97	9,755.26	43.96	44.37	148.57			-3,204.29	1,279.76	2,537.59	2,466.52	71.06	35.708	
10,500.00	7,589.35	12,037.50	9,755.89	44.33	44.69	148.59			-3,272.81	1,280.48	2,537.88	2,465.90	71.98	35.256	
10,600.00	7,589.35	12,139.34	9,757.76	44.78	45.16	148.63			-3,374.62	1,281.83	2,538.88	2,465.70	73.17	34.697	
10,700.00	7,589.34	12,259.31	9,758.31	45.23	45.73	148.66			-3,494.58	1,283.33	2,538.64	2,464.16	74.48	34.085	
10,738.26	7,589.34	12,292.75	9,758.49	45.41	45.89	148.67			-3,528.02	1,283.76	2,538.61	2,463.70	74.92	33.886	
10,800.00	7,589.34	12,354.03	9,758.91	45.69	46.19	148.69			-3,589.29	1,284.54	2,538.63	2,462.96	75.67	33.551	
10,900.00	7,589.33	12,440.61	9,759.72	46.16	46.61	148.72			-3,675.86	1,285.70	2,538.85	2,462.03	76.81	33.051	
11,000.00	7,589.33	12,594.35	9,761.71	46.64	47.38	148.80			-3,829.53	1,289.36	2,539.08	2,460.74	78.33	32.414	
11,076.52	7,589.33	12,631.73	9,762.00	47.01	47.57	148.82			-3,866.91	1,290.07	2,538.70	2,459.63	79.06	32.109	
11,100.00	7,589.33	12,647.21	9,762.14	47.12	47.65	148.83			-3,882.39	1,290.28	2,538.73	2,459.42	79.31	32.009	
11,200.00	7,589.32	12,707.64	9,762.80	47.61	47.95	148.83			-3,942.81	1,290.30	2,539.78	2,459.44	80.34	31.611	
11,300.00	7,589.32	12,765.95	9,763.70	48.11	48.25	148.81			-4,001.09	1,288.86	2,542.48	2,461.10	81.37	31.244	
11,400.00	7,589.31	12,864.71	9,763.77	48.61	48.74	148.69			-4,099.64	1,282.49	2,546.00	2,463.29	82.71	30.782	
11,500.00	7,589.31	12,959.02	9,763.64	49.12	49.21	148.55			-4,193.70	1,275.81	2,549.68	2,465.65	84.03	30.343	
11,600.00	7,589.31	13,075.62	9,764.61	49.64	49.81	148.44			-4,310.12	1,269.48	2,553.37	2,467.87	85.49	29.866	
11,700.00	7,589.30	13,215.85	9,765.11	50.16	50.54	148.35			-4,450.27	1,264.93	2,555.39	2,468.27	87.11	29.335	
11,800.00	7,589.30	13,333.60	9,766.52	50.69	51.18	148.36			-4,568.02	1,264.69	2,556.62	2,468.07	88.55	28.873	
11,900.00	7,589.29	13,476.74	9,768.38	51.23	51.98	148.43			-4,711.11	1,267.70	2,556.77	2,466.65	90.13	28.368	
12,000.00	7,589.29	13,592.06	9,769.55	51.77	52.63	148.54			-4,826.31	1,272.70	2,555.45	2,463.93	91.52	27.922	
12,100.00	7,589.28	13,682.24	9,771.25	52.31	53.15	148.65			-4,916.32	1,277.84	2,554.20	2,461.44	92.75	27.538	
12,200.00	7,589.28	13,777.40	9,773.60	52.86	53.70	148.79			-5,011.27	1,283.52	2,553.31	2,459.29	94.02	27.158	
12,292.17	7,589.28	13,848.49	9,773.93	53.38	54.11	148.81			-5,082.34	1,284.93	2,552.85	2,457.74	95.12	26.839	
12,300.00	7,589.28	13,854.11	9,773.96	53.42	54.14	148.82			-5,087.97	1,284.98	2,552.86	2,457.65	95.21	26.813	
12,400.00	7,589.27	13,947.99	9,774.37	53.98	54.68	148.82			-5,181.84	1,285.05	2,553.28	2,456.75	96.53	26.450	
12,500.00	7,589.27	14,039.35	9,774.69	54.55	55.21	148.82			-5,273.20	1,285.18	2,553.63	2,455.78	97.84	26.100	
12,600.00	7,589.26	14,135.49	9,775.96	55.12	55.77	148.84			-5,369.33	1,285.81	2,554.52	2,455.33	99.18	25.756	
12,700.00	7,589.26	14,256.88	9,775.87	55.70	56.48	148.82			-5,490.72	1,284.85	2,554.98	2,454.25	100.73	25.366	
12,800.00	7,589.26	14,400.47	9,772.27	56.28	57.33	148.72			-5,634.23	1,282.08	2,553.87	2,451.41	102.46	24.925	
12,900.00	7,589.25	14,497.11	9,770.18	56.86	57.91	148.69			-5,730.84	1,282.13	2,552.11	2,448.26	103.84	24.576	
13,000.00	7,589.25	14,584.90	9,768.92	57.45	58.44	148.68			-5,818.62	1,282.49	2,550.76	2,445.60	105.16	24.255	
13,100.00	7,589.24	14,683.13	9,767.91	58.04	59.03	148.67			-5,916.84	1,282.87	2,549.79	2,443.24	106.56	23.929	
13,200.00	7,589.24	14,772.08	9,766.35	58.64	59.57	148.64			-6,005.78	1,282.31	2,548.76	2,440.86	107.90	23.621	
13,251.93	7,589.24	14,808.42	9,765.73	58.95	59.79	148.62			-6,042.11	1,281.58	2,548.60	2,440.07	108.53	23.483	
13,300.00	7,589.23	14,849.34	9,765.08	59.24	60.04	148.59			-6,083.01	1,280.42	2,548.70	2,439.53	109.17	23.346	
13,400.00	7,589.23	14,948.71	9,763.27	59.84	60.64	148.50			-6,182.31	1,277.22	2,548.94	2,438.32	110.62	23.043	
13,500.00	7,589.23	15,055.47	9,761.69	60.45	61.30	148.42			-6,289.01	1,274.00	2,549.37	2,437.25	112.12	22.738	
13,600.00	7,589.22	15,214.56	9,760.88	61.06	62.29	148.45			-6,448.05	1,276.66	2,548.12	2,434.16	113.95	22.361	
13,700.00	7,589.22	15,298.00	9,760.00	61.68	62.81	148.47			-6,531.47	1,278.27	2,546.29	2,431.03	115.25	22.093	
13,800.00	7,589.21	15,372.95	9,759.54	62.30	63.28	148.48			-6,606.41	1,279.09	2,545.27	2,428.77	116.50	21.848	
13,900.00	7,589.21	15,494.51	9,759.92	62.92	64.06	148.53			-6,727.94	1,282.08	2,544.39	2,426.33	118.07	21.551	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,000.00	7,589.21	15,592.83	9,760.01	63.54	64.68	148.59			-6,826.21	1,285.10	2,542.97	2,423.50	119.47	21.286	
14,100.00	7,589.20	15,687.37	9,760.21	64.17	65.29	148.64			-6,920.71	1,287.99	2,541.67	2,420.82	120.84	21.033	
14,200.00	7,589.20	15,783.13	9,759.95	64.80	65.91	148.67			-7,016.45	1,289.84	2,540.53	2,418.29	122.24	20.782	
14,300.00	7,589.19	15,874.07	9,760.06	65.43	66.49	148.71			-7,107.37	1,291.69	2,539.69	2,416.08	123.61	20.546	
14,400.00	7,589.19	15,969.35	9,760.62	66.07	67.11	148.75			-7,202.62	1,293.93	2,539.08	2,414.08	125.00	20.312	
14,500.00	7,589.18	16,060.69	9,761.22	66.71	67.70	148.79			-7,293.94	1,295.56	2,538.82	2,412.45	126.37	20.090	
14,600.00	7,589.18	16,167.39	9,762.10	67.35	68.40	148.84			-7,400.60	1,298.10	2,538.38	2,410.52	127.86	19.853	
14,652.57	7,589.18	16,209.52	9,762.66	67.69	68.68	148.87			-7,442.72	1,299.29	2,538.27	2,409.74	128.53	19.748	
14,700.00	7,589.18	16,255.07	9,763.46	67.99	68.98	148.90			-7,488.24	1,300.57	2,538.34	2,409.14	129.20	19.647	
14,800.00	7,589.17	16,374.28	9,764.55	68.64	69.76	148.97			-7,607.40	1,303.63	2,537.88	2,407.11	130.78	19.406	
14,900.00	7,589.17	16,471.27	9,765.42	69.29	70.41	149.03			-7,704.35	1,306.52	2,537.22	2,405.03	132.19	19.194	
15,000.00	7,589.16	16,568.98	9,766.62	69.94	71.06	149.10			-7,802.00	1,309.61	2,536.76	2,403.15	133.61	18.986	
15,100.00	7,589.16	16,660.87	9,766.33	70.59	71.66	149.10			-7,893.89	1,310.03	2,536.36	2,401.34	135.01	18.786	
15,123.16	7,589.16	16,680.26	9,766.25	70.74	71.79	149.10			-7,913.28	1,309.97	2,536.34	2,401.02	135.32	18.743	
15,200.00	7,589.16	16,752.11	9,765.77	71.25	72.26	149.08			-7,985.12	1,309.08	2,536.46	2,400.04	136.42	18.593	
15,300.00	7,589.15	16,842.19	9,763.71	71.91	72.85	148.98			-8,075.10	1,305.33	2,536.77	2,398.92	137.85	18.402	
15,400.00	7,589.15	16,934.58	9,763.17	72.57	73.46	148.92			-8,167.45	1,303.03	2,537.64	2,398.37	139.28	18.220	
15,500.00	7,589.14	17,043.90	9,763.27	73.23	74.19	148.90			-8,276.77	1,301.92	2,538.35	2,397.51	140.84	18.023	
15,600.00	7,589.14	17,154.95	9,762.96	73.89	74.92	148.87			-8,387.81	1,300.93	2,538.67	2,396.26	142.41	17.826	
15,700.00	7,589.13	17,222.89	9,762.52	74.56	75.38	148.84			-8,455.73	1,299.70	2,539.24	2,395.61	143.63	17.679	
15,800.00	7,589.13	17,303.79	9,762.52	75.23	75.91	148.77			-8,536.57	1,296.48	2,541.32	2,396.36	144.96	17.531	
15,900.00	7,589.13	17,436.08	9,762.19	75.90	76.79	148.70			-8,668.81	1,292.92	2,542.56	2,395.81	146.75	17.326	
16,000.00	7,589.12	17,553.80	9,761.83	76.57	77.58	148.66			-8,786.52	1,291.43	2,543.06	2,394.67	148.39	17.137	
16,100.00	7,589.12	17,656.35	9,761.95	77.24	78.28	148.66			-8,889.06	1,291.52	2,543.22	2,393.33	149.90	16.967	
16,200.00	7,589.11	17,770.29	9,761.82	77.92	79.05	148.67			-9,003.01	1,292.40	2,542.81	2,391.32	151.49	16.785	
16,300.00	7,589.11	17,863.39	9,761.25	78.59	79.69	148.66			-9,096.10	1,292.22	2,542.49	2,389.57	152.93	16.626	
16,400.00	7,589.11	17,970.20	9,760.47	79.27	80.41	148.63			-9,202.91	1,291.77	2,542.19	2,387.72	154.48	16.457	
16,500.00	7,589.10	18,072.85	9,759.34	79.95	81.11	148.61			-9,305.55	1,291.42	2,541.53	2,385.54	155.99	16.292	
16,600.00	7,589.10	18,191.36	9,757.33	80.63	81.92	148.56			-9,424.04	1,290.17	2,540.78	2,383.13	157.65	16.117	
16,700.00	7,589.09	18,276.92	9,755.02	81.31	82.51	148.50			-9,509.54	1,288.53	2,539.61	2,380.56	159.05	15.967	
16,800.00	7,589.09	18,369.07	9,753.38	82.00	83.14	148.44			-9,601.67	1,286.95	2,539.08	2,378.59	160.50	15.820	
16,900.00	7,589.08	18,459.53	9,752.05	82.68	83.76	148.40			-9,692.11	1,285.50	2,538.78	2,376.85	161.93	15.678	
17,000.00	7,589.08	18,586.42	9,750.49	83.37	84.63	148.35			-9,818.97	1,284.22	2,538.42	2,374.77	163.66	15.511	
17,100.00	7,589.08	18,730.45	9,748.66	84.06	85.64	148.37			-9,962.97	1,286.58	2,536.66	2,371.19	165.47	15.330	
17,200.00	7,589.07	18,821.32	9,747.70	84.75	86.27	148.43			-10,053.74	1,290.64	2,533.56	2,366.68	166.89	15.181	
17,300.00	7,589.07	18,899.31	9,746.74	85.44	86.82	148.44			-10,131.72	1,291.99	2,531.67	2,363.45	168.22	15.050	
17,400.00	7,589.06	18,996.37	9,745.42	86.13	87.50	148.45			-10,228.75	1,293.14	2,530.00	2,360.30	169.70	14.909	
17,500.00	7,589.06	19,095.26	9,745.00	86.83	88.19	148.48			-10,327.62	1,295.22	2,528.64	2,357.46	171.18	14.772	
17,600.00	7,589.06	19,201.55	9,744.50	87.52	88.93	148.52			-10,433.88	1,298.08	2,526.93	2,354.22	172.71	14.631	
17,700.00	7,589.05	19,306.40	9,743.34	88.22	89.67	148.54			-10,538.70	1,299.97	2,525.16	2,350.91	174.25	14.492	
17,800.00	7,589.05	19,404.08	9,742.37	88.91	90.36	148.57			-10,636.35	1,302.19	2,523.23	2,347.51	175.72	14.359	
17,900.00	7,589.04	19,517.78	9,741.29	89.61	91.16	148.61			-10,750.00	1,305.08	2,521.21	2,343.89	177.32	14.219	
18,000.00	7,589.04	19,610.00	9,740.42	90.31	91.81	148.65			-10,842.18	1,307.76	2,518.99	2,340.24	178.75	14.092	
18,100.00	7,589.03	19,679.93	9,739.71	91.01	92.31	148.65			-10,912.10	1,308.72	2,517.53	2,337.50	180.03	13.984	
18,200.00	7,589.03	19,759.83	9,739.12	91.71	92.87	148.64			-10,991.99	1,308.52	2,517.12	2,335.74	181.37	13.878	
18,211.94	7,589.03	19,769.91	9,739.04	91.80	92.94	148.64			-11,002.08	1,308.41	2,517.11	2,335.57	181.54	13.865	
18,300.00	7,589.03	19,850.03	9,738.32	92.42	93.50	148.60			-11,082.19	1,307.10	2,517.28	2,334.47	182.81	13.770	
18,400.00	7,589.02	19,949.55	9,737.50	93.12	94.20	148.55			-11,181.69	1,305.26	2,517.65	2,333.32	184.33	13.658	
18,500.00	7,589.02	20,054.72	9,736.58	93.82	94.94	148.50			-11,286.83	1,303.48	2,517.90	2,331.99	185.90	13.544	
18,600.00	7,589.01	20,140.72	9,735.67	94.53	95.54	148.45			-11,372.81	1,301.63	2,518.24	2,330.93	187.31	13.445	
18,700.00	7,589.01	20,222.01	9,735.86	95.23	96.11	148.42			-11,454.09	1,300.30	2,519.38	2,330.73	188.65	13.355	
18,800.00	7,589.01	20,227.00	9,735.89	95.94	96.15	148.42			-11,459.07	1,300.22	2,522.60	2,333.45	189.15	13.336	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 19H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program: 200-MWD+IFR1+MS													Offset Well Error:	0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
18,900.00	7,589.00	20,227.00	9,735.89	96.65	96.15	148.42	-11,459.07	1,300.22	2,529.77	2,340.41	189.36	13.359		
18,917.19	7,589.00	20,227.00	9,735.89	96.77	96.15	148.42	-11,459.07	1,300.22	2,531.40	2,342.02	189.37	13.367		
18,917.96	7,589.00	20,227.00	9,735.89	97.01	96.15	148.42	-11,459.07	1,300.22	2,531.47	2,341.96	189.51	13.358		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.60	0.60	0.00	0.50	60.13	58.07	101.10	116.59				
100.00	100.00	101.31	101.30	0.28	0.53	60.25	57.71	100.95	116.29	115.48	0.80	145.057	
200.00	200.00	202.14	202.14	0.63	0.60	60.60	56.63	100.51	115.38	114.15	1.23	93.671	
300.00	300.00	309.39	309.22	0.99	0.88	61.42	52.72	96.79	110.55	108.67	1.88	58.795	
400.00	400.00	406.33	405.95	1.35	1.18	62.17	48.54	91.96	104.12	101.59	2.53	41.146	
500.00	500.00	504.97	504.50	1.71	1.51	62.39	46.24	88.39	99.83	96.61	3.21	31.065	
600.00	600.00	604.77	604.21	2.07	1.84	61.92	45.11	84.55	95.90	91.99	3.91	24.525	
700.00	700.00	703.07	702.46	2.43	2.18	61.13	44.74	81.16	92.70	88.09	4.60	20.132	
764.66	764.66	765.88	765.26	2.66	2.39	60.81	44.92	80.39	92.09	87.04	5.05	18.243	CC
800.00	800.00	800.61	799.99	2.79	2.51	60.76	45.04	80.46	92.21	86.92	5.29	17.434	ES
900.00	900.00	899.15	898.51	3.14	2.83	61.23	45.10	82.13	93.73	87.76	5.97	15.701	
1,000.00	1,000.00	999.20	998.52	3.50	3.16	62.09	45.02	85.00	96.21	89.55	6.66	14.447	
1,100.00	1,099.98	1,100.01	1,099.30	3.85	3.50	-65.94	44.48	87.22	97.19	89.84	7.35	13.232	
1,200.00	1,199.84	1,199.01	1,198.30	4.18	3.84	-68.35	44.59	88.87	96.67	88.65	8.01	12.062	
1,239.66	1,239.38	1,237.95	1,237.22	4.32	3.97	-69.98	45.06	89.74	96.59	88.31	8.28	11.666	
1,300.00	1,299.45	1,297.10	1,296.34	4.52	4.17	-73.09	46.14	91.40	96.82	88.14	8.68	11.150	
1,400.00	1,398.70	1,396.15	1,395.30	4.86	4.51	-79.77	48.41	94.81	98.09	88.72	9.36	10.474	
1,500.00	1,497.47	1,494.99	1,494.06	5.21	4.86	-87.98	50.52	98.37	100.49	90.44	10.05	9.994	
1,600.00	1,595.62	1,592.99	1,591.96	5.56	5.20	-97.48	52.88	101.84	105.51	94.76	10.75	9.817	
1,700.00	1,693.06	1,689.89	1,688.76	5.92	5.53	-107.46	55.74	105.26	114.79	103.34	11.44	10.032	
1,800.00	1,790.08	1,786.48	1,785.24	6.28	5.87	-116.65	59.09	108.65	128.48	116.35	12.14	10.586	
1,900.00	1,887.11	1,883.52	1,882.16	6.65	6.21	-124.17	62.69	111.71	145.12	132.29	12.84	11.307	
2,000.00	1,984.14	1,981.30	1,979.80	7.02	6.56	-129.86	66.14	115.57	163.52	149.98	13.54	12.077	
2,100.00	2,081.17	2,082.43	2,080.69	7.39	6.91	-133.80	68.48	122.04	181.70	167.43	14.27	12.736	
2,200.00	2,178.20	2,181.93	2,179.87	7.76	7.26	-136.55	69.70	129.98	199.22	184.23	14.99	13.294	
2,300.00	2,275.23	2,284.04	2,281.55	8.14	7.63	-138.67	69.86	139.24	215.86	200.14	15.72	13.734	
2,400.00	2,372.26	2,388.44	2,385.29	8.52	8.00	-140.13	67.93	150.76	230.36	213.90	16.46	13.999	
2,500.00	2,469.29	2,491.17	2,487.20	8.90	8.36	-141.26	64.09	163.11	242.92	225.73	17.19	14.134	
2,600.00	2,566.32	2,592.27	2,587.64	9.28	8.72	-142.80	58.65	173.25	254.50	236.59	17.91	14.206	
2,700.00	2,663.35	2,691.13	2,685.99	9.67	9.07	-144.65	52.45	181.11	266.00	247.36	18.64	14.271	
2,800.00	2,760.38	2,794.70	2,789.02	10.05	9.44	-146.57	45.33	188.88	277.34	257.97	19.37	14.318	
2,900.00	2,857.41	2,902.16	2,895.59	10.44	9.82	-148.25	35.49	198.57	286.27	266.17	20.10	14.240	
3,000.00	2,954.44	3,017.83	3,009.57	10.83	10.24	-149.67	21.16	211.95	291.46	270.66	20.81	14.009	
3,100.00	3,051.47	3,129.58	3,118.54	11.22	10.64	-150.83	2.21	227.80	291.40	269.92	21.49	13.562	
3,200.00	3,148.50	3,230.32	3,216.34	11.60	11.00	-151.89	-16.68	242.86	289.49	267.26	22.22	13.028	
3,300.00	3,245.53	3,327.76	3,310.95	11.99	11.36	-152.84	-34.66	257.75	287.80	264.82	22.98	12.524	
3,344.74	3,288.94	3,369.58	3,351.64	12.17	11.51	-153.21	-41.88	264.12	287.57	264.24	23.33	12.326	
3,400.00	3,342.56	3,422.62	3,403.36	12.38	11.71	-153.65	-50.50	272.15	287.85	264.09	23.75	12.118	
3,500.00	3,439.59	3,518.53	3,496.99	12.77	12.06	-154.37	-65.36	286.69	289.09	264.57	24.52	11.790	
3,600.00	3,536.62	3,612.94	3,589.59	13.17	12.41	-155.12	-78.16	299.84	292.67	267.38	25.29	11.574	
3,700.00	3,633.65	3,717.04	3,691.71	13.56	12.80	-155.97	-92.37	314.15	296.34	270.32	26.03	11.386	
3,800.00	3,730.68	3,822.96	3,795.17	13.95	13.19	-156.71	-108.47	330.19	298.00	271.24	26.76	11.135	
3,900.00	3,827.71	3,925.29	3,894.76	14.34	13.58	-157.26	-124.86	347.07	298.29	270.78	27.51	10.843	
4,000.00	3,924.74	4,027.03	3,993.63	14.74	13.96	-157.76	-141.48	364.34	298.07	269.81	28.26	10.547	
4,100.00	4,021.77	4,125.98	4,089.79	15.13	14.33	-158.41	-158.34	380.53	297.59	268.56	29.03	10.252	
4,125.11	4,046.13	4,150.61	4,113.74	15.23	14.42	-158.60	-162.53	384.38	297.57	268.35	29.22	10.183	
4,200.00	4,118.79	4,224.95	4,186.09	15.52	14.71	-159.16	-175.04	396.03	297.65	267.85	29.80	9.989	
4,300.00	4,215.82	4,322.79	4,281.38	15.92	15.08	-159.83	-191.00	411.47	298.19	267.62	30.57	9.754	
4,400.00	4,312.85	4,428.35	4,384.07	16.31	15.48	-160.48	-208.36	428.65	298.39	267.08	31.31	9.530	
4,500.00	4,409.88	4,537.60	4,489.58	16.70	15.90	-161.02	-228.48	448.58	295.80	263.78	32.01	9.240	
4,600.00	4,506.91	4,639.87	4,587.81	17.10	16.29	-161.41	-248.53	468.79	291.34	258.58	32.76	8.893	
4,700.00	4,603.94	4,739.25	4,683.13	17.49	16.68	-161.76	-268.27	488.82	286.46	252.92	33.54	8.540	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,800.00	4,700.97	4,835.93	4,776.18	17.89	17.05	-162.42	-287.59	506.58	282.52	248.17	34.35	8.225	
4,900.00	4,798.00	4,931.61	4,868.51	18.28	17.42	-163.31	-306.64	522.87	279.50	244.34	35.16	7.950	
4,954.00	4,850.39	4,980.37	4,915.82	18.50	17.61	-163.85	-315.81	530.28	278.98	243.37	35.61	7.834	
5,000.00	4,895.03	5,023.24	4,957.58	18.68	17.78	-164.37	-323.46	536.26	279.28	243.30	35.98	7.762	
5,100.00	4,992.06	5,118.86	5,050.99	19.07	18.14	-165.50	-339.49	548.92	281.35	244.57	36.77	7.651	
5,200.00	5,089.09	5,215.75	5,145.86	19.47	18.51	-166.61	-354.88	561.18	284.60	247.05	37.55	7.579	
5,300.00	5,186.12	5,312.65	5,240.98	19.87	18.88	-167.65	-369.19	572.90	289.20	250.87	38.32	7.546	
5,400.00	5,283.15	5,417.55	5,343.94	20.26	19.28	-168.41	-383.63	586.87	293.91	254.82	39.09	7.518	
5,500.00	5,380.18	5,523.78	5,447.53	20.66	19.68	-169.00	-400.05	603.64	295.64	255.79	39.85	7.418	
5,600.00	5,477.21	5,619.48	5,540.83	21.06	20.05	-169.51	-414.91	618.94	297.25	256.61	40.64	7.313	
5,700.00	5,574.24	5,716.57	5,635.85	21.45	20.43	-170.00	-428.63	633.40	300.69	259.26	41.43	7.258	
5,800.00	5,671.27	5,817.60	5,734.74	21.85	20.81	-170.49	-442.88	648.41	304.20	262.00	42.20	7.208	
5,900.00	5,768.30	5,915.78	5,830.82	22.24	21.19	-170.97	-456.83	663.05	307.61	264.63	42.98	7.157	
6,000.00	5,865.33	6,011.70	5,924.88	22.64	21.56	-171.47	-469.88	676.54	312.08	268.33	43.75	7.133	
6,100.00	5,962.36	6,107.62	6,019.18	23.04	21.92	-171.94	-482.01	689.22	317.88	273.36	44.52	7.140	
6,200.00	6,059.39	6,209.56	6,119.48	23.44	22.31	-172.42	-494.58	702.35	324.17	278.87	45.30	7.156	
6,300.00	6,156.42	6,308.98	6,217.21	23.83	22.69	-172.93	-507.44	715.34	329.91	283.84	46.07	7.161	
6,400.00	6,253.45	6,414.31	6,320.62	24.23	23.09	-173.45	-521.54	729.54	335.06	288.20	46.86	7.151	
6,500.00	6,350.47	6,516.24	6,420.46	24.63	23.48	-173.93	-535.93	744.19	339.06	291.43	47.64	7.118	
6,600.00	6,447.50	6,618.18	6,520.13	25.02	23.87	-174.45	-551.14	759.18	342.26	293.85	48.42	7.069	
6,700.00	6,544.53	6,712.87	6,612.84	25.42	24.24	-174.92	-564.88	772.71	346.09	296.90	49.20	7.035	SF
6,800.00	6,641.56	6,807.08	6,705.40	25.82	24.59	-175.24	-576.79	785.58	351.71	301.75	49.96	7.040	
6,900.00	6,738.59	6,906.92	6,803.61	26.22	24.97	-175.64	-589.37	798.46	357.94	307.20	50.74	7.055	
7,000.00	6,835.62	7,008.80	6,903.82	26.61	25.36	-176.07	-602.32	811.46	364.22	312.70	51.52	7.070	
7,100.00	6,932.65	7,114.06	7,007.02	27.01	25.77	-176.65	-617.59	825.45	368.87	316.57	52.31	7.052	
7,200.00	7,029.68	7,205.79	7,098.98	27.41	26.12	-176.97	-630.02	838.37	373.67	320.61	53.07	7.041	
7,300.00	7,126.71	7,314.64	7,204.24	27.81	26.53	-177.09	-641.69	852.72	381.19	327.32	53.86	7.077	
7,309.09	7,135.53	7,329.09	7,218.37	27.84	26.59	-177.09	-643.51	855.14	381.49	327.56	53.93	7.074	
7,350.00	7,174.84	7,398.33	7,285.38	28.01	26.86	-177.07	-654.05	868.94	382.62	328.50	54.12	7.070	
7,400.00	7,221.63	7,468.91	7,352.19	28.22	27.14	-177.25	-668.95	886.08	383.99	329.71	54.28	7.075	
7,450.00	7,266.71	7,515.50	7,396.08	28.44	27.33	-177.44	-679.49	897.57	389.22	334.48	54.74	7.110	
7,500.00	7,309.74	7,560.14	7,438.28	28.67	27.51	-177.66	-689.51	908.18	399.19	343.97	55.22	7.229	
7,550.00	7,350.39	7,601.77	7,477.80	28.91	27.68	-177.87	-698.57	917.60	414.06	358.36	55.70	7.433	
7,600.00	7,388.34	7,638.00	7,512.35	29.15	27.83	-178.04	-706.18	925.41	433.72	377.53	56.19	7.719	
7,650.00	7,423.32	7,679.33	7,551.93	29.40	27.99	-178.24	-714.51	933.89	457.90	401.31	56.59	8.091	
7,700.00	7,455.05	7,714.46	7,585.71	29.65	28.13	-178.39	-721.26	940.77	486.36	429.37	56.98	8.535	
7,750.00	7,483.30	7,744.59	7,614.79	29.90	28.25	-178.49	-726.80	946.40	518.79	461.45	57.34	9.047	
7,800.00	7,507.84	7,769.46	7,638.90	30.15	28.35	-178.54	-731.12	950.70	555.03	497.38	57.65	9.628	
7,850.00	7,528.50	7,791.06	7,659.93	30.41	28.43	-178.56	-734.67	954.15	594.65	536.75	57.91	10.269	
7,900.00	7,545.11	7,809.32	7,677.76	30.66	28.50	-178.52	-737.52	956.86	637.16	579.04	58.11	10.964	
7,919.09	7,550.36	7,826.00	7,694.09	30.75	28.57	-178.61	-740.01	959.17	654.17	595.95	58.22	11.237	
8,000.00	7,568.52	7,841.31	7,709.10	31.16	28.63	-178.55	-742.22	961.20	727.76	669.33	58.43	12.456	
8,100.00	7,583.22	7,869.76	7,737.03	31.66	28.74	-178.55	-746.25	964.88	822.07	763.39	58.68	14.010	
8,200.00	7,589.24	7,890.26	7,757.17	32.17	28.82	-178.32	-749.07	967.46	919.03	860.18	58.85	15.616	
8,219.09	7,589.40	7,893.29	7,760.14	32.26	28.83	-178.23	-749.48	967.84	937.78	878.90	58.88	15.927	
8,300.00	7,589.40	7,905.35	7,772.00	32.67	28.87	-178.46	-751.10	969.32	1,017.36	958.38	58.98	17.248	
8,400.00	7,589.40	7,920.00	7,786.41	33.21	28.93	-178.70	-753.04	971.10	1,115.77	1,056.67	59.11	18.877	
8,444.09	7,589.40	7,933.56	7,799.75	33.45	28.98	-178.88	-754.82	972.77	1,159.16	1,099.95	59.21	19.578	
8,500.00	7,589.40	7,952.55	7,818.41	33.76	29.05	-172.41	-757.32	975.27	1,214.10	1,154.76	59.35	20.458	
8,600.00	7,589.40	7,990.54	7,855.67	34.34	29.20	160.27	-762.27	980.81	1,312.05	1,252.43	59.61	22.010	
8,700.00	7,589.40	8,034.18	7,898.32	34.92	29.37	152.05	-767.94	988.05	1,409.34	1,349.44	59.90	23.528	
8,800.00	7,589.40	8,060.06	7,923.59	35.52	29.47	144.65	-771.55	992.37	1,505.98	1,445.88	60.10	25.059	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS		Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy		Offset Site Error: 0.00 usft	
Reference		Offset		Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)
Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)
Separation Factor	Warning				
8,900.00	7,589.40	8,094.28	7,956.93	36.12	29.60
9,000.00	7,589.40	8,104.30	7,966.66	36.73	29.64
9,100.00	7,589.40	8,132.50	7,994.12	37.33	29.75
9,200.00	7,589.40	8,146.04	8,007.32	37.92	29.80
9,300.00	7,589.39	8,158.93	8,019.90	38.51	29.85
9,400.00	7,589.39	8,171.20	8,031.88	39.09	29.90
9,500.00	7,589.39	8,182.87	8,043.28	39.65	29.95
9,600.00	7,589.39	11,535.19	9,798.63	40.19	44.75
9,700.00	7,589.38	11,632.49	9,798.81	40.72	45.26
9,800.00	7,589.38	11,731.24	9,799.14	41.23	45.79
9,900.00	7,589.38	11,827.27	9,799.38	41.72	46.31
10,000.00	7,589.37	11,917.10	9,799.57	42.18	46.79
10,100.00	7,589.37	12,005.71	9,799.87	42.63	47.26
10,173.66	7,589.36	12,073.87	9,800.19	42.94	47.62
10,200.00	7,589.36	12,098.56	9,800.30	43.05	47.75
10,300.00	7,589.36	12,200.94	9,800.60	43.47	48.27
10,347.67	7,589.36	12,241.42	9,800.67	43.67	48.47
10,400.00	7,589.36	12,285.34	9,800.89	43.90	48.68
10,500.00	7,589.35	12,399.75	9,801.31	44.33	49.24
10,600.00	7,589.35	12,503.25	9,801.05	44.78	49.72
10,674.96	7,589.34	12,570.80	9,800.95	45.12	50.03
10,700.00	7,589.34	12,592.44	9,800.97	45.23	50.12
10,800.00	7,589.34	12,677.60	9,801.42	45.69	50.51
10,900.00	7,589.33	12,796.82	9,801.65	46.16	51.05
10,906.36	7,589.33	12,802.30	9,801.64	46.19	51.08
11,000.00	7,589.33	12,888.42	9,801.87	46.64	51.47
11,100.00	7,589.33	12,986.67	9,802.09	47.12	51.92
11,200.00	7,589.32	13,075.88	9,802.83	47.61	52.34
11,300.00	7,589.32	13,183.58	9,803.45	48.11	52.84
11,400.00	7,589.31	13,278.78	9,804.14	48.61	53.30
11,500.00	7,589.31	13,376.90	9,804.90	49.12	53.77
11,600.00	7,589.31	13,488.69	9,805.75	49.64	54.32
11,700.00	7,589.30	13,568.50	9,806.14	50.16	54.72
11,800.00	7,589.30	13,673.51	9,807.84	50.69	55.24
11,900.00	7,589.29	13,785.00	9,808.47	51.23	55.81
12,000.00	7,589.29	13,888.22	9,808.91	51.77	56.34
12,100.00	7,589.28	14,002.74	9,809.07	52.31	56.94
12,200.00	7,589.28	14,103.35	9,808.20	52.86	57.47
12,217.09	7,589.28	14,113.05	9,808.18	52.96	57.52
12,300.00	7,589.28	14,166.00	9,808.66	53.42	57.80
12,400.00	7,589.27	14,301.46	9,809.45	53.98	58.53
12,500.00	7,589.27	14,424.60	9,808.59	54.55	59.20
12,600.00	7,589.26	14,524.11	9,807.20	55.12	59.75
12,700.00	7,589.26	14,617.50	9,806.15	55.70	60.27
12,800.00	7,589.26	14,716.42	9,805.23	56.28	60.82
12,900.00	7,589.25	14,821.00	9,804.01	56.86	61.40
13,000.00	7,589.25	14,899.34	9,803.39	57.45	61.85
13,100.00	7,589.24	15,030.25	9,802.35	58.04	62.59
13,200.00	7,589.24	15,122.14	9,801.00	58.64	63.12
13,298.90	7,589.23	15,195.00	9,800.53	59.23	63.54
13,300.00	7,589.23	15,195.00	9,800.53	59.24	63.54
13,400.00	7,589.23	15,274.51	9,800.87	59.84	64.00

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,500.00	7,589.23	15,408.82	9,801.09	60.45	64.78	-179.85	-6,300.31	2,614.99	2,211.31	2,110.13	101.18	21.855	
13,600.00	7,589.22	15,517.57	9,800.43	61.06	65.42	-179.85	-6,409.05	2,615.41	2,210.72	2,108.06	102.66	21.533	
13,700.00	7,589.22	15,615.17	9,799.20	61.68	66.00	-179.84	-6,506.65	2,615.63	2,209.48	2,105.33	104.15	21.214	
13,800.00	7,589.21	15,706.53	9,798.83	62.30	66.54	-179.83	-6,598.01	2,616.21	2,209.05	2,103.42	105.63	20.913	
13,900.00	7,589.21	15,804.76	9,798.19	62.92	67.13	-179.83	-6,696.23	2,616.58	2,208.41	2,101.29	107.12	20.617	
14,000.00	7,589.21	15,904.69	9,798.01	63.54	67.73	-179.82	-6,796.16	2,617.10	2,208.23	2,099.62	108.61	20.332	
14,100.00	7,589.20	15,996.75	9,797.61	64.17	68.29	-179.81	-6,888.22	2,617.89	2,207.82	2,097.73	110.09	20.054	
14,103.21	7,589.20	15,999.29	9,797.61	64.19	68.30	-179.81	-6,890.76	2,617.90	2,207.82	2,097.68	110.14	20.046	
14,200.00	7,589.20	16,086.59	9,797.90	64.80	68.83	-179.81	-6,978.05	2,617.81	2,208.14	2,096.55	111.58	19.789	
14,300.00	7,589.19	16,199.61	9,798.18	65.43	69.52	-179.82	-7,091.07	2,617.70	2,208.40	2,095.30	113.10	19.527	
14,400.00	7,589.19	16,298.65	9,797.93	66.07	70.12	-179.83	-7,190.12	2,617.57	2,208.15	2,093.55	114.60	19.268	
14,500.00	7,589.18	16,404.65	9,797.72	66.71	70.77	-179.84	-7,296.11	2,617.29	2,207.96	2,091.85	116.11	19.016	
14,600.00	7,589.18	16,506.00	9,797.24	67.35	71.40	-179.86	-7,397.46	2,616.73	2,207.49	2,089.87	117.63	18.767	
14,700.00	7,589.18	16,599.89	9,796.91	67.99	71.98	-179.87	-7,491.35	2,616.59	2,207.14	2,088.01	119.13	18.527	
14,800.00	7,589.17	16,703.40	9,796.62	68.64	72.62	-179.87	-7,594.86	2,616.63	2,206.86	2,086.22	120.64	18.293	
14,900.00	7,589.17	16,798.23	9,796.42	69.29	73.22	-179.88	-7,689.69	2,616.41	2,206.66	2,084.51	122.15	18.065	
15,000.00	7,589.16	16,898.61	9,796.34	69.94	73.84	-179.90	-7,790.07	2,616.07	2,206.58	2,082.91	123.67	17.843	
15,100.00	7,589.16	17,008.09	9,796.04	70.59	74.53	-179.91	-7,899.54	2,615.66	2,206.31	2,081.12	125.20	17.623	
15,200.00	7,589.16	17,107.70	9,795.29	71.25	75.16	-179.93	-7,999.15	2,615.42	2,205.57	2,078.85	126.71	17.406	
15,300.00	7,589.15	17,210.02	9,794.99	71.91	75.81	-179.94	-8,101.47	2,614.97	2,205.29	2,077.05	128.24	17.197	
15,400.00	7,589.15	17,323.85	9,793.74	72.57	76.54	-179.95	-8,215.30	2,614.74	2,204.17	2,074.40	129.77	16.986	
15,500.00	7,589.14	17,414.56	9,792.73	73.23	77.12	-179.97	-8,306.00	2,614.43	2,203.06	2,071.78	131.28	16.781	
15,600.00	7,589.14	17,516.74	9,791.91	73.89	77.77	-179.98	-8,408.18	2,614.27	2,202.27	2,069.46	132.81	16.582	
15,700.00	7,589.13	17,617.93	9,790.91	74.56	78.43	-179.98	-8,509.36	2,614.25	2,201.28	2,066.95	134.33	16.387	
15,800.00	7,589.13	17,731.83	9,789.39	75.23	79.16	-179.99	-8,623.25	2,614.24	2,199.95	2,064.09	135.86	16.192	
15,900.00	7,589.13	17,827.44	9,787.90	75.90	79.79	-180.00	-8,718.85	2,614.11	2,198.39	2,061.01	137.39	16.002	
16,000.00	7,589.12	17,907.00	9,787.02	76.57	80.30	180.00	-8,798.40	2,614.00	2,197.32	2,058.42	138.90	15.820	
16,060.40	7,589.12	17,956.56	9,786.82	76.97	80.63	179.99	-8,847.96	2,614.02	2,197.10	2,057.29	139.81	15.715	
16,100.00	7,589.12	17,985.97	9,786.89	77.24	80.82	179.99	-8,877.37	2,614.11	2,197.19	2,056.80	140.40	15.650	
16,200.00	7,589.11	18,092.85	9,787.35	77.92	81.52	180.00	-8,984.25	2,614.40	2,197.64	2,055.71	141.93	15.484	
16,300.00	7,589.11	18,174.58	9,787.80	78.59	82.06	179.99	-9,065.98	2,614.37	2,198.20	2,054.77	143.43	15.326	
16,400.00	7,589.11	18,304.15	9,788.38	79.27	82.91	179.98	-9,195.54	2,614.00	2,198.69	2,053.68	145.01	15.163	
16,500.00	7,589.10	18,416.73	9,787.33	79.95	83.65	179.97	-9,308.12	2,614.04	2,197.73	2,051.18	146.55	14.997	
16,600.00	7,589.10	18,514.73	9,786.65	80.63	84.30	179.97	-9,406.12	2,614.06	2,197.03	2,048.96	148.08	14.837	
16,700.00	7,589.09	18,617.48	9,785.55	81.31	84.99	179.96	-9,508.86	2,614.11	2,195.96	2,046.35	149.61	14.678	
16,800.00	7,589.09	18,702.22	9,784.96	82.00	85.55	179.96	-9,593.60	2,614.34	2,195.28	2,044.15	151.12	14.526	
16,830.37	7,589.09	18,726.55	9,784.92	82.21	85.71	179.97	-9,617.93	2,614.51	2,195.24	2,043.66	151.58	14.482	
16,900.00	7,589.08	18,803.60	9,784.93	82.68	86.23	179.98	-9,694.97	2,615.24	2,195.26	2,042.61	152.65	14.381	
17,000.00	7,589.08	18,903.90	9,784.36	83.37	86.90	-180.00	-9,795.27	2,616.25	2,194.70	2,040.52	154.17	14.235	
17,100.00	7,589.08	19,010.23	9,784.00	84.06	87.62	-179.97	-9,901.59	2,617.48	2,194.37	2,038.67	155.70	14.093	
17,200.00	7,589.07	19,096.37	9,783.60	84.75	88.20	-179.95	-9,987.73	2,618.48	2,193.93	2,036.71	157.21	13.955	
17,200.86	7,589.07	19,097.06	9,783.60	84.76	88.21	-179.95	-9,988.41	2,618.49	2,193.93	2,036.70	157.22	13.954	
17,300.00	7,589.07	19,167.71	9,783.99	85.44	88.69	-179.93	-10,059.06	2,619.36	2,194.51	2,035.82	158.69	13.829	
17,400.00	7,589.06	19,270.31	9,785.85	86.13	89.38	-179.90	-10,161.63	2,620.68	2,196.34	2,036.12	160.22	13.708	
17,500.00	7,589.06	19,374.42	9,786.53	86.83	90.09	-179.87	-10,265.73	2,622.17	2,196.98	2,035.23	161.75	13.583	
17,600.00	7,589.06	19,491.29	9,787.07	87.52	90.89	-179.83	-10,382.58	2,623.71	2,197.43	2,034.13	163.30	13.456	
17,700.00	7,589.05	19,544.20	9,787.42	88.22	91.25	-179.82	-10,435.48	2,624.38	2,198.40	2,033.66	164.73	13.345	
17,800.00	7,589.05	19,745.03	9,791.07	88.91	92.63	-179.79	-10,636.21	2,625.74	2,201.97	2,035.57	166.41	13.232	
17,900.00	7,589.04	19,839.08	9,789.35	89.61	93.27	-179.80	-10,730.24	2,625.52	2,200.13	2,032.18	167.95	13.100	
18,000.00	7,589.04	19,942.69	9,787.16	90.31	93.97	-179.90	-10,833.77	2,622.17	2,198.01	2,028.49	169.53	12.966	
18,100.00	7,589.03	20,047.12	9,784.91	91.01	94.67	-179.97	-10,938.14	2,619.35	2,195.86	2,024.77	171.10	12.834	
18,200.00	7,589.03	20,154.61	9,782.25	91.71	95.40	179.97	-11,045.57	2,617.35	2,193.39	2,020.73	172.66	12.703	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 1H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program:		200-MWD+IFR1+MS				Rule Assigned:		Offset Well Error:						0.50 usft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
18,300.00	7,589.03	20,222.03	9,780.91	92.42	95.87	179.95	-11,112.97	2,616.90	2,191.43	2,017.24	174.19	12.580		
18,400.00	7,589.02	20,305.83	9,780.46	93.12	96.44	179.98	-11,196.77	2,618.02	2,190.86	2,015.15	175.71	12.469		
18,500.00	7,589.02	20,410.53	9,779.92	93.82	97.16	179.94	-11,301.45	2,616.83	2,190.35	2,013.08	177.27	12.356		
18,600.00	7,589.01	20,506.36	9,779.33	94.53	97.81	179.88	-11,397.26	2,614.81	2,189.74	2,010.91	178.83	12.245		
18,683.25	7,589.01	20,580.00	9,779.07	95.12	98.31	179.81	-11,470.86	2,612.35	2,189.47	2,009.35	180.13	12.155		
18,700.00	7,589.01	20,580.00	9,779.07	95.23	98.31	179.81	-11,470.86	2,612.35	2,189.54	2,009.19	180.35	12.140		
18,800.00	7,589.01	20,580.00	9,779.07	95.94	98.31	179.81	-11,470.86	2,612.35	2,192.58	2,011.05	181.54	12.078		
18,900.00	7,589.00	20,580.00	9,779.07	96.65	98.31	179.81	-11,470.86	2,612.35	2,200.17	2,017.75	182.42	12.061		
18,917.19	7,589.00	20,580.00	9,779.07	96.77	98.31	179.81	-11,470.86	2,612.35	2,201.93	2,019.39	182.54	12.063		
18,917.96	7,589.00	20,580.00	9,779.07	97.01	98.31	179.81	-11,470.86	2,612.35	2,202.01	2,019.24	182.77	12.048		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Survey Program: 198-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.00	1.00	0.00	0.50	34.78	59.22	41.13	72.10				
100.00	100.00	100.81	100.81	0.28	0.52	34.98	59.19	41.41	72.24	71.44	0.80	90.181	
200.00	200.00	200.62	200.61	0.63	0.60	35.56	59.10	42.24	72.64	71.41	1.23	59.059	
300.00	300.00	300.70	300.69	0.99	0.84	35.98	59.17	42.96	73.12	71.28	1.84	39.799	
400.00	400.00	400.60	400.59	1.35	1.15	36.07	59.49	43.33	73.60	71.10	2.50	29.414	
500.00	500.00	500.25	500.23	1.71	1.48	36.32	59.90	44.04	74.35	71.16	3.19	23.309	
600.00	600.00	600.04	600.01	2.07	1.82	36.98	60.46	45.53	75.69	71.80	3.89	19.466	
700.00	700.00	700.93	700.90	2.43	2.16	36.90	61.13	45.90	76.44	71.85	4.59	16.657	
800.00	800.00	801.52	801.47	2.79	2.50	35.36	62.02	44.01	76.05	70.77	5.28	14.398	
900.00	900.00	902.04	901.95	3.14	2.83	33.38	62.82	41.39	75.23	69.26	5.98	12.591	
1,000.00	1,000.00	1,002.68	1,002.53	3.50	3.17	31.16	62.89	38.03	73.51	66.84	6.67	11.017	
1,100.00	1,099.98	1,102.95	1,102.73	3.85	3.51	-100.69	62.40	34.21	71.48	64.13	7.36	9.716	
1,200.00	1,199.84	1,202.94	1,202.64	4.18	3.86	-107.15	61.28	30.55	70.22	62.19	8.03	8.741	
1,224.50	1,224.27	1,227.38	1,227.07	4.27	3.94	-109.15	60.94	29.65	70.15	61.95	8.20	8.555	CC, ES
1,300.00	1,299.45	1,302.50	1,302.12	4.52	4.20	-116.28	59.80	26.78	70.96	62.24	8.72	8.140	
1,400.00	1,398.70	1,401.55	1,401.07	4.86	4.54	-127.33	58.13	22.65	75.31	65.91	9.41	8.007	SF
1,500.00	1,497.47	1,500.01	1,499.44	5.21	4.89	-138.26	56.35	18.71	84.60	74.50	10.10	8.378	
1,600.00	1,595.62	1,597.56	1,596.94	5.56	5.23	-146.87	55.04	16.34	99.23	88.44	10.79	9.197	
1,700.00	1,693.06	1,694.44	1,693.82	5.92	5.57	-152.85	54.79	15.80	118.81	107.33	11.48	10.351	
1,800.00	1,790.08	1,791.07	1,790.45	6.28	5.90	-157.15	55.26	15.99	141.19	129.02	12.16	11.607	
1,900.00	1,887.11	1,888.07	1,887.45	6.65	6.24	-160.17	56.00	16.35	164.27	151.41	12.85	12.780	
2,000.00	1,984.14	1,987.51	1,986.87	7.02	6.58	-162.24	56.75	17.76	187.09	173.54	13.56	13.802	
2,100.00	2,081.17	2,089.68	2,088.96	7.39	6.94	-163.41	56.69	21.91	207.92	193.65	14.27	14.570	
2,200.00	2,178.20	2,186.23	2,185.41	7.76	7.27	-164.31	56.29	26.10	228.37	213.41	14.97	15.259	
2,300.00	2,275.23	2,285.29	2,284.41	8.14	7.61	-165.33	55.29	29.54	248.93	233.26	15.68	15.880	
2,400.00	2,372.26	2,385.91	2,384.93	8.52	7.96	-166.18	53.55	33.71	268.59	252.20	16.39	16.383	
2,500.00	2,469.29	2,484.32	2,483.20	8.90	8.31	-166.78	51.80	38.61	287.74	270.63	17.11	16.820	
2,600.00	2,566.32	2,577.00	2,575.79	9.28	8.63	-167.41	50.16	42.29	307.57	289.77	17.80	17.283	
2,700.00	2,663.35	2,659.59	2,658.36	9.67	8.92	-168.40	49.41	41.40	331.19	312.78	18.41	17.986	
2,800.00	2,760.38	2,752.87	2,751.57	10.05	9.24	-169.59	49.52	37.80	357.52	338.43	19.09	18.725	
2,900.00	2,857.41	2,853.75	2,852.38	10.44	9.59	-170.71	49.40	34.07	383.72	363.89	19.83	19.350	
3,000.00	2,954.44	2,960.48	2,959.05	10.83	9.96	-171.85	46.91	31.31	407.72	387.11	20.61	19.787	
3,100.00	3,051.47	3,065.50	3,063.95	11.22	10.33	-172.97	42.49	29.20	430.18	408.82	21.36	20.137	
3,200.00	3,148.50	3,170.27	3,168.47	11.60	10.69	-174.13	35.60	27.81	450.65	428.53	22.12	20.375	
3,300.00	3,245.53	3,285.65	3,283.52	11.99	11.09	-175.18	27.02	28.65	469.32	446.40	22.91	20.483	
3,400.00	3,342.56	3,401.49	3,398.70	12.38	11.50	-176.06	15.64	33.50	483.88	460.19	23.69	20.426	
3,500.00	3,439.59	3,515.02	3,511.12	12.77	11.89	-176.94		40.65	495.27	470.83	24.45	20.259	
3,600.00	3,536.62	3,628.45	3,623.01	13.17	12.29	-177.84	-14.74	49.59	504.24	479.04	25.19	20.015	
3,700.00	3,633.65	3,738.14	3,730.57	13.56	12.68	-178.85	-33.69	59.75	510.32	484.39	25.93	19.681	
3,800.00	3,730.68	3,850.44	3,840.28	13.95	13.08	-179.92	-54.70	71.22	514.92	488.26	26.66	19.313	
3,900.00	3,827.71	3,961.65	3,948.30	14.34	13.47	-179.01	-77.51	84.64	517.01	489.62	27.39	18.877	
4,000.00	3,924.74	4,052.00	4,036.13	14.74	13.80	-178.18	-95.60	95.63	519.44	491.28	28.16	18.447	
4,100.00	4,021.77	4,153.18	4,134.61	15.13	14.16	-177.24	-115.72	107.29	522.64	493.73	28.91	18.077	
4,200.00	4,118.79	4,253.10	4,231.62	15.52	14.53	-176.21	-136.76	118.63	525.44	495.77	29.67	17.709	
4,300.00	4,215.82	4,348.60	4,324.52	15.92	14.88	-175.27	-156.23	129.17	529.04	498.60	30.44	17.382	
4,400.00	4,312.85	4,459.31	4,432.04	16.31	15.28	-174.26	-178.93	142.60	531.79	500.61	31.18	17.053	
4,500.00	4,409.88	4,562.29	4,531.72	16.70	15.66	-173.31	-200.90	156.26	533.26	501.32	31.94	16.693	
4,600.00	4,506.91	4,660.74	4,627.06	17.10	16.02	-172.46	-221.54	169.55	534.85	502.14	32.71	16.349	
4,700.00	4,603.94	4,756.12	4,719.55	17.49	16.38	-171.69	-240.94	182.43	536.91	503.42	33.49	16.032	
4,800.00	4,700.97	4,852.80	4,813.60	17.89	16.74	-171.00	-259.47	194.97	540.12	505.85	34.26	15.764	
4,900.00	4,798.00	4,952.92	4,910.90	18.28	17.11	-170.21	-279.38	207.60	543.38	508.35	35.03	15.510	
5,000.00	4,895.03	5,043.91	4,999.43	18.68	17.45	-169.50	-297.26	218.70	547.26	511.45	35.81	15.283	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 198-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	4,992.06	5,135.52	5,089.07	19.07	17.79	168.93			-313.22	228.77	553.32	516.75	36.57	15.130	
5,200.00	5,089.09	5,233.36	5,184.81	19.47	18.16	168.26			-330.76	238.64	560.04	522.70	37.34	14.998	
5,300.00	5,186.12	5,332.99	5,282.29	19.87	18.53	167.52			-349.03	248.25	567.07	528.96	38.11	14.879	
5,400.00	5,283.15	5,438.85	5,385.73	20.26	18.93	166.74			-368.87	258.82	573.70	534.80	38.90	14.749	
5,500.00	5,380.18	5,542.49	5,486.51	20.66	19.32	165.79			-390.64	269.35	579.29	539.61	39.68	14.599	
5,600.00	5,477.21	5,632.49	5,574.19	21.06	19.66	165.05			-408.72	278.52	585.39	544.94	40.44	14.474	
5,700.00	5,574.24	5,748.66	5,687.38	21.45	20.10	164.13			-432.00	290.29	591.74	550.50	41.25	14.347	
5,800.00	5,671.27	5,863.09	5,797.44	21.85	20.54	162.82			-460.23	303.82	594.70	552.66	42.04	14.147	
5,900.00	5,768.30	5,959.03	5,889.46	22.24	20.91	161.67			-484.74	315.49	597.28	554.44	42.83	13.944	
6,000.00	5,865.33	6,057.83	5,984.38	22.64	21.29	160.55			-509.37	327.52	600.33	556.70	43.63	13.760	
6,100.00	5,962.36	6,155.17	6,078.05	23.04	21.67	159.52			-533.08	339.34	603.82	559.40	44.42	13.593	
6,200.00	6,059.39	6,250.93	6,170.34	23.44	22.04	158.54			-555.93	350.76	607.90	562.68	45.21	13.445	
6,300.00	6,156.42	6,347.92	6,264.14	23.83	22.41	157.67			-577.90	361.88	612.96	566.96	46.00	13.325	
6,400.00	6,253.45	6,451.56	6,364.50	24.23	22.81	156.86			-600.42	374.65	617.60	570.80	46.80	13.197	
6,500.00	6,350.47	6,543.13	6,453.38	24.63	23.16	156.25			-619.22	386.11	622.53	574.95	47.57	13.085	
6,600.00	6,447.50	6,626.98	6,535.15	25.02	23.49	155.75			-635.57	394.91	629.74	581.43	48.31	13.035	
6,700.00	6,544.53	6,716.38	6,622.74	25.42	23.83	155.30			-651.76	402.46	639.33	590.28	49.05	13.034	
6,800.00	6,641.56	6,821.64	6,726.06	25.82	24.23	154.89			-669.60	411.76	648.89	599.04	49.85	13.016	
6,900.00	6,738.59	6,921.12	6,823.81	26.22	24.60	154.63			-685.39	421.29	658.02	607.39	50.63	12.996	
7,000.00	6,835.62	7,024.31	6,925.36	26.61	24.99	154.45			-700.74	431.28	667.30	615.87	51.42	12.977	
7,100.00	6,932.65	7,133.61	7,032.60	27.01	25.41	154.19			-718.29	443.10	675.18	622.94	52.23	12.926	
7,200.00	7,029.68	7,222.00	7,119.25	27.41	25.74	153.96			-732.70	452.83	682.90	629.92	52.97	12.892	
7,300.00	7,126.71	7,316.43	7,212.32	27.81	26.10	153.86			-746.11	461.60	692.69	638.97	53.72	12.894	
7,309.09	7,135.53	7,326.16	7,221.90	27.84	26.14	153.85			-747.51	462.52	693.57	639.77	53.80	12.892	
7,350.00	7,174.84	7,373.43	7,268.42	28.01	26.32	153.61			-754.53	467.11	698.66	644.52	54.15	12.903	
7,400.00	7,221.63	7,438.74	7,332.39	28.22	26.56	153.30			-765.50	474.35	707.52	652.92	54.60	12.958	
7,450.00	7,266.71	7,488.75	7,381.17	28.44	26.76	152.91			-774.75	480.41	719.50	664.50	55.01	13.080	
7,500.00	7,309.74	7,535.15	7,426.40	28.67	26.94	152.45			-783.46	485.95	735.28	679.87	55.41	13.271	
7,550.00	7,350.39	7,575.02	7,465.30	28.91	27.09	151.85			-790.88	490.57	754.88	699.10	55.78	13.533	
7,600.00	7,388.34	7,611.81	7,501.29	29.15	27.23	151.11			-797.38	494.59	778.40	722.26	56.13	13.867	
7,650.00	7,423.32	7,637.00	7,525.98	29.40	27.33	149.97			-801.64	497.20	805.71	749.29	56.42	14.280	
7,700.00	7,455.05	7,675.99	7,564.28	29.65	27.47	148.90			-807.90	500.98	836.47	779.71	56.76	14.737	
7,750.00	7,483.30	7,703.26	7,591.13	29.90	27.58	147.24			-812.02	503.39	870.60	813.57	57.03	15.267	
7,800.00	7,507.84	7,731.00	7,618.48	30.15	27.68	145.18			-816.01	505.67	907.75	850.47	57.28	15.847	
7,850.00	7,528.50	7,748.96	7,636.22	30.41	27.75	142.11			-818.48	507.05	947.54	890.08	57.46	16.489	
7,900.00	7,545.11	7,767.18	7,654.23	30.66	27.82	138.14			-820.87	508.40	989.65	932.02	57.63	17.171	
7,919.09	7,550.36	7,773.22	7,660.20	30.75	27.84	136.26			-821.64	508.83	1,006.27	948.57	57.69	17.442	
8,000.00	7,568.52	7,795.17	7,681.94	31.16	27.92	132.19			-824.34	510.35	1,078.51	1,020.62	57.89	18.631	
8,100.00	7,583.22	7,825.00	7,711.51	31.66	28.03	125.71			-827.76	512.28	1,170.87	1,112.73	58.14	20.140	
8,200.00	7,589.24	7,825.00	7,711.51	32.17	28.03	112.78			-827.76	512.28	1,265.60	1,207.44	58.16	21.761	
8,219.09	7,589.40	7,825.00	7,711.51	32.26	28.03	109.77			-827.76	512.28	1,283.90	1,225.74	58.16	22.074	
8,300.00	7,589.40	7,825.00	7,711.51	32.67	28.03	109.77			-827.76	512.28	1,361.79	1,303.62	58.17	23.410	
8,400.00	7,589.40	7,844.67	7,731.03	33.21	28.10	112.60			-829.85	513.47	1,458.32	1,399.99	58.33	25.001	
8,444.09	7,589.40	7,847.98	7,734.32	33.45	28.12	113.07			-830.19	513.67	1,501.04	1,442.68	58.36	25.720	
8,500.00	7,589.40	7,852.11	7,738.41	33.76	28.13	111.21			-830.61	513.91	1,555.11	1,496.71	58.40	26.630	
8,600.00	7,589.40	7,859.32	7,745.58	34.34	28.16	108.56			-831.32	514.31	1,651.13	1,592.67	58.46	28.243	
8,700.00	7,589.40	7,866.31	7,752.52	34.92	28.18	106.51			-832.00	514.70	1,746.16	1,687.64	58.52	29.838	
8,800.00	7,589.40	7,873.06	7,759.24	35.52	28.21	104.88			-832.64	515.07	1,840.12	1,781.54	58.58	31.412	
8,900.00	7,589.40	7,879.57	7,765.71	36.12	28.23	103.55			-833.24	515.42	1,932.93	1,874.30	58.64	32.965	
9,000.00	7,589.40	7,885.84	7,771.94	36.73	28.26	102.45			-833.80	515.74	2,024.52	1,965.83	58.69	34.495	
9,100.00	7,589.40	7,891.84	7,777.92	37.33	28.28	101.52			-834.33	516.05	2,114.79	2,056.06	58.74	36.003	
9,200.00	7,589.40	7,897.60	7,783.64	37.92	28.30	100.72			-834.82	516.34	2,203.70	2,144.92	58.78	37.488	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 198-MWD+IFR1+MS						Rule Assigned:							Offset Well Error: 0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,300.00	7,589.39	7,920.00	7,805.95	38.51	28.38	100.86	-836.63	517.40	2,291.27	2,232.32	58.95	38.866		
9,400.00	7,589.39	7,920.00	7,805.95	39.09	28.38	99.95	-836.63	517.40	2,377.17	2,318.22	58.95	40.324		
9,500.00	7,589.39	7,920.00	7,805.95	39.65	28.38	99.17	-836.63	517.40	2,461.52	2,402.58	58.95	41.758		
9,600.00	7,589.39	7,920.00	7,805.95	40.19	28.38	98.49	-836.63	517.40	2,544.26	2,485.32	58.94	43.167		
9,700.00	7,589.38	7,920.00	7,805.95	40.72	28.38	97.90	-836.63	517.40	2,625.32	2,566.39	58.93	44.550		
9,800.00	7,589.38	7,920.00	7,805.95	41.23	28.38	97.38	-836.63	517.40	2,704.64	2,645.72	58.92	45.905		
9,900.00	7,589.38	7,920.00	7,805.95	41.72	28.38	96.92	-836.63	517.40	2,782.16	2,723.26	58.91	47.231		
10,000.00	7,589.37	7,920.00	7,805.95	42.18	28.38	96.51	-836.63	517.40	2,857.83	2,798.94	58.89	48.527		
10,100.00	7,589.37	7,920.00	7,805.95	42.63	28.38	96.15	-836.63	517.40	2,931.58	2,872.71	58.88	49.792		
10,173.66	7,589.36	7,920.00	7,805.95	42.94	28.38	95.91	-836.63	517.40	2,984.65	2,925.79	58.86	50.703		
10,200.00	7,589.36	7,943.67	7,829.53	43.05	28.47	96.56	-838.38	518.43	3,003.32	2,944.27	59.05	50.864		
10,300.00	7,589.36	7,947.28	7,833.12	43.47	28.48	96.65	-838.63	518.58	3,075.80	3,016.73	59.07	52.072		
10,400.00	7,589.36	12,116.34	9,952.13	43.90	43.33	140.02	-3,162.88	622.92	3,082.14	3,008.25	73.89	41.713		
10,500.00	7,589.35	12,209.14	9,953.38	44.33	43.76	140.04	-3,255.67	623.03	3,083.23	3,008.26	74.97	41.126		
10,600.00	7,589.35	12,318.66	9,954.56	44.78	44.27	140.05	-3,365.18	623.36	3,083.97	3,007.81	76.16	40.494		
10,700.00	7,589.34	12,577.00	9,952.40	45.23	45.51	140.05	-3,623.42	625.27	3,084.13	3,005.89	78.24	39.420		
10,800.00	7,589.34	12,632.81	9,949.94	45.69	45.79	140.03	-3,679.17	625.98	3,080.28	3,001.11	79.18	38.904		
10,900.00	7,589.33	12,680.72	9,948.76	46.16	46.03	140.01	-3,727.06	626.04	3,078.36	2,998.30	80.07	38.448		
11,000.00	7,589.33	12,766.00	9,947.75	46.64	46.45	140.01	-3,812.34	626.71	3,077.13	2,995.96	81.18	37.906		
11,100.00	7,589.33	12,860.00	9,947.74	47.12	46.93	140.02	-3,906.33	627.60	3,076.64	2,994.29	82.35	37.361		
11,114.85	7,589.33	12,860.00	9,947.74	47.19	46.93	140.02	-3,906.33	627.60	3,076.60	2,994.17	82.44	37.321		
11,200.00	7,589.32	12,934.94	9,947.68	47.61	47.31	140.01	-3,981.27	627.24	3,076.91	2,993.49	83.42	36.886		
11,300.00	7,589.32	13,025.67	9,946.38	48.11	47.78	139.96	-4,071.97	625.25	3,077.35	2,992.74	84.61	36.372		
11,400.00	7,589.31	13,161.87	9,944.24	48.61	48.49	139.90	-4,208.12	623.02	3,077.31	2,991.20	86.11	35.736		
11,449.36	7,589.31	13,194.59	9,943.91	48.86	48.66	139.89	-4,240.83	622.84	3,077.17	2,990.55	86.62	35.523		
11,500.00	7,589.31	13,236.00	9,943.40	49.12	48.88	139.88	-4,282.23	622.09	3,077.33	2,990.13	87.20	35.289		
11,600.00	7,589.31	13,352.84	9,943.21	49.64	49.51	139.87	-4,399.06	621.72	3,077.58	2,989.00	88.58	34.742		
11,700.00	7,589.30	13,470.98	9,943.67	50.16	50.15	139.90	-4,517.18	623.66	3,076.93	2,986.96	89.96	34.202		
11,800.00	7,589.30	13,573.66	9,943.55	50.69	50.71	139.91	-4,619.85	625.13	3,076.05	2,984.79	91.26	33.708		
11,900.00	7,589.29	13,684.55	9,943.84	51.23	51.33	139.95	-4,730.71	627.52	3,074.99	2,982.39	92.61	33.205		
12,000.00	7,589.29	13,762.64	9,944.46	51.77	51.77	139.98	-4,808.77	629.70	3,073.97	2,980.23	93.74	32.793		
12,100.00	7,589.28	13,981.55	9,946.07	52.31	53.03	140.16	-5,027.32	641.19	3,071.06	2,975.29	95.78	32.064		
12,200.00	7,589.28	14,035.74	9,946.02	52.86	53.34	140.21	-5,081.40	644.64	3,067.20	2,970.43	96.77	31.695		
12,300.00	7,589.28	14,080.00	9,946.19	53.42	53.60	140.23	-5,125.63	646.31	3,065.19	2,967.49	97.70	31.373		
12,398.78	7,589.27	14,144.60	9,945.89	53.98	53.98	140.23	-5,190.22	646.61	3,064.66	2,965.89	98.77	31.029		
12,400.00	7,589.27	14,145.41	9,945.87	53.98	53.98	140.23	-5,191.03	646.60	3,064.66	2,965.88	98.78	31.024		
12,500.00	7,589.27	14,217.64	9,944.62	54.55	54.40	140.19	-5,263.22	644.65	3,065.17	2,965.24	99.93	30.673		
12,600.00	7,589.26	14,310.10	9,945.79	55.12	54.94	140.20	-5,355.67	644.47	3,066.38	2,965.18	101.21	30.298		
12,700.00	7,589.26	14,409.74	9,947.17	55.70	55.53	140.21	-5,455.30	644.74	3,067.40	2,964.85	102.54	29.913		
12,800.00	7,589.26	14,519.79	9,948.47	56.28	56.19	140.22	-5,565.34	644.41	3,068.65	2,964.68	103.97	29.515		
12,900.00	7,589.25	14,613.18	9,949.34	56.86	56.75	140.23	-5,658.72	644.49	3,069.45	2,964.18	105.27	29.158		
13,000.00	7,589.25	14,762.98	9,948.82	57.45	57.65	140.21	-5,808.52	643.70	3,069.62	2,962.61	107.02	28.683		
13,056.48	7,589.24	14,802.39	9,948.48	57.78	57.89	140.20	-5,847.93	643.55	3,069.47	2,961.80	107.66	28.509		
13,100.00	7,589.24	14,829.00	9,948.35	58.04	58.05	140.20	-5,874.54	643.37	3,069.56	2,961.43	108.13	28.387		
13,200.00	7,589.24	14,924.00	9,948.76	58.64	58.63	140.20	-5,969.53	643.18	3,070.15	2,960.69	109.47	28.047		
13,300.00	7,589.23	15,045.72	9,948.93	59.24	59.38	140.19	-6,091.25	643.14	3,070.39	2,959.38	111.01	27.658		
13,400.00	7,589.23	15,206.00	9,948.03	59.84	60.37	140.19	-6,251.52	644.06	3,069.90	2,957.05	112.85	27.203		
13,500.00	7,589.23	15,271.84	9,946.85	60.45	60.78	140.18	-6,317.34	644.65	3,068.23	2,954.24	113.99	26.918		
13,554.06	7,589.22	15,300.00	9,946.66	60.78	60.96	140.18	-6,345.50	644.66	3,068.00	2,953.46	114.54	26.786		
13,600.00	7,589.22	15,335.35	9,946.61	61.06	61.18	140.18	-6,380.85	644.59	3,068.08	2,952.98	115.10	26.657		
13,700.00	7,589.22	15,435.76	9,946.75	61.68	61.81	140.17	-6,481.25	643.97	3,068.71	2,952.21	116.50	26.341		
13,763.15	7,589.22	15,508.36	9,944.00	62.07	62.26	140.09	-6,553.73	640.92	3,068.63	2,951.15	117.48	26.120		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy

Survey Program: 198-MWD+IFR1+MS						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,800.00	7,589.21	15,529.83	9,943.01	62.30	62.40	140.06	-6,575.14	639.68	3,068.73	2,950.85	117.89	26.031		
13,900.00	7,589.21	15,596.86	9,940.40	62.92	62.82	139.96	-6,641.99	635.39	3,069.93	2,950.88	119.05	25.787		
14,000.00	7,589.21	15,749.28	9,939.45	63.54	63.78	139.92	-6,794.35	633.18	3,070.44	2,949.54	120.90	25.397		
14,046.31	7,589.20	15,793.04	9,939.33	63.83	64.06	139.92	-6,838.11	633.33	3,070.30	2,948.77	121.53	25.264		
14,100.00	7,589.20	15,820.48	9,939.47	64.17	64.24	139.92	-6,865.55	633.33	3,070.55	2,948.47	122.07	25.153		
14,200.00	7,589.20	15,974.64	9,944.19	64.80	65.24	140.04	-7,019.50	638.50	3,071.06	2,947.17	123.88	24.790		
14,300.00	7,589.19	16,051.00	9,945.12	65.43	65.74	140.08	-7,095.82	640.17	3,070.68	2,945.57	125.10	24.545		
14,304.36	7,589.19	16,051.00	9,945.12	65.46	65.74	140.08	-7,095.82	640.17	3,070.67	2,945.54	125.13	24.540		
14,400.00	7,589.19	16,127.42	9,944.89	66.07	66.23	140.06	-7,172.23	639.53	3,071.06	2,944.73	126.34	24.309		
14,500.00	7,589.18	16,210.35	9,945.36	66.71	66.77	140.06	-7,255.16	639.11	3,071.96	2,944.34	127.62	24.072		
14,600.00	7,589.18	16,402.06	9,946.03	67.35	68.02	140.11	-7,446.82	642.13	3,071.07	2,941.30	129.77	23.666		
14,700.00	7,589.18	16,463.95	9,945.97	67.99	68.43	140.12	-7,508.70	643.55	3,069.74	2,938.85	130.89	23.452		
14,734.62	7,589.17	16,481.33	9,945.93	68.22	68.54	140.12	-7,526.07	643.61	3,069.65	2,938.40	131.25	23.388		
14,800.00	7,589.17	16,521.00	9,945.79	68.64	68.80	140.11	-7,565.74	643.12	3,070.01	2,938.04	131.97	23.263		
14,900.00	7,589.17	16,674.27	9,942.84	69.29	69.81	140.04	-7,718.95	640.79	3,069.46	2,935.59	133.87	22.929		
15,000.00	7,589.16	16,750.35	9,940.00	69.94	70.31	139.97	-7,794.94	638.27	3,068.88	2,933.75	135.14	22.710		
15,011.18	7,589.16	16,758.06	9,939.86	70.01	70.36	139.97	-7,802.64	638.12	3,068.87	2,933.61	135.27	22.687		
15,100.00	7,589.16	16,860.57	9,939.74	70.59	71.04	139.96	-7,905.15	637.88	3,069.10	2,932.44	136.66	22.457		
15,200.00	7,589.16	16,958.62	9,937.85	71.25	71.69	139.92	-8,003.17	636.98	3,068.36	2,930.25	138.10	22.218		
15,300.00	7,589.15	17,065.62	9,936.56	71.91	72.40	139.89	-8,110.16	636.13	3,068.09	2,928.48	139.61	21.975		
15,394.11	7,589.15	17,141.04	9,936.27	72.53	72.91	139.89	-8,185.58	636.46	3,067.70	2,926.88	140.82	21.784		
15,400.00	7,589.15	17,145.26	9,936.28	72.57	72.94	139.89	-8,189.80	636.48	3,067.70	2,926.81	140.89	21.773		
15,500.00	7,589.14	17,228.83	9,936.92	73.23	73.50	139.90	-8,273.37	636.84	3,068.11	2,925.91	142.20	21.576		
15,600.00	7,589.14	17,332.63	9,937.97	73.89	74.20	139.92	-8,377.16	637.34	3,068.72	2,925.04	143.68	21.358		
15,700.00	7,589.13	17,418.89	9,938.73	74.56	74.78	139.93	-8,463.41	637.69	3,069.28	2,924.27	145.01	21.166		
15,800.00	7,589.13	17,534.37	9,939.97	75.23	75.56	139.95	-8,578.88	638.21	3,069.94	2,923.35	146.59	20.942		
15,900.00	7,589.13	17,611.41	9,940.01	75.90	76.08	139.94	-8,655.92	638.01	3,070.38	2,922.53	147.85	20.767		
16,000.00	7,589.12	17,748.98	9,941.47	76.57	77.02	139.95	-8,793.48	637.40	3,071.86	2,922.23	149.64	20.529		
16,100.00	7,589.12	17,835.00	9,941.68	77.24	77.60	139.96	-8,879.49	638.03	3,071.76	2,920.78	150.97	20.346		
16,115.42	7,589.12	17,856.37	9,941.68	77.35	77.75	139.96	-8,900.86	638.10	3,071.72	2,920.47	151.25	20.309		
16,200.00	7,589.11	17,902.57	9,942.30	77.92	78.06	139.97	-8,947.06	638.34	3,072.41	2,920.27	152.15	20.194		
16,300.00	7,589.11	17,973.62	9,944.89	78.59	78.55	140.01	-9,018.05	639.25	3,074.46	2,921.13	153.33	20.051		
16,400.00	7,589.11	18,204.25	9,955.00	79.27	80.16	140.25	-9,248.25	648.12	3,076.48	2,920.61	155.87	19.737		
16,500.00	7,589.10	18,295.42	9,954.90	79.95	80.79	140.28	-9,339.37	650.78	3,074.68	2,917.41	157.26	19.551		
16,600.00	7,589.10	18,356.81	9,954.73	80.63	81.21	140.29	-9,400.76	651.65	3,073.70	2,915.29	158.41	19.403		
16,700.00	7,589.09	18,464.01	9,955.32	81.31	81.95	140.32	-9,507.94	653.00	3,073.46	2,913.52	159.94	19.216		
16,800.00	7,589.09	18,558.93	9,954.48	82.00	82.61	140.31	-9,602.85	653.53	3,072.58	2,911.20	161.38	19.040		
16,839.48	7,589.09	18,587.00	9,954.34	82.27	82.80	140.31	-9,630.92	653.46	3,072.53	2,910.67	161.86	18.983		
16,900.00	7,589.08	18,633.54	9,954.21	82.68	83.13	140.30	-9,677.46	653.15	3,072.72	2,910.09	162.63	18.893		
17,000.00	7,589.08	18,728.90	9,954.10	83.37	83.78	140.28	-9,772.81	652.29	3,073.33	2,909.26	164.07	18.731		
17,100.00	7,589.08	18,824.57	9,955.09	84.06	84.45	140.30	-9,868.47	652.78	3,073.93	2,908.42	165.51	18.573		
17,200.00	7,589.07	18,908.58	9,955.28	84.75	85.03	140.29	-9,952.48	651.90	3,074.91	2,908.07	166.85	18.430		
17,300.00	7,589.07	19,057.46	9,955.83	85.44	86.07	140.27	-10,101.36	650.62	3,076.11	2,907.35	168.77	18.227		
17,400.00	7,589.06	19,173.43	9,954.54	86.13	86.87	140.25	-10,217.31	650.63	3,075.36	2,904.98	170.39	18.049		
17,500.00	7,589.06	19,259.75	9,953.10	86.83	87.48	140.22	-10,303.62	649.91	3,074.74	2,902.98	171.76	17.901		
17,587.42	7,589.06	19,335.00	9,952.22	87.43	88.00	140.20	-10,378.86	649.23	3,074.58	2,901.61	172.96	17.776		
17,600.00	7,589.06	19,335.00	9,952.22	87.52	88.00	140.20	-10,378.86	649.23	3,074.60	2,901.56	173.04	17.768		
17,700.00	7,589.05	19,428.00	9,951.30	88.22	88.65	140.16	-10,471.84	647.63	3,075.08	2,900.61	174.47	17.625		
17,800.00	7,589.05	19,536.57	9,951.56	88.91	89.41	140.15	-10,580.40	646.97	3,075.79	2,899.76	176.04	17.472		
17,900.00	7,589.04	19,670.30	9,951.40	89.61	90.35	140.16	-10,714.12	647.75	3,075.41	2,897.59	177.82	17.295		
18,000.00	7,589.04	19,776.25	9,949.42	90.31	91.10	140.12	-10,820.04	647.01	3,074.55	2,895.19	179.37	17.141		
18,081.58	7,589.04	19,829.33	9,947.28	90.88	91.47	140.07	-10,873.04	645.10	3,074.07	2,893.72	180.35	17.045		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 20H - OH - Svy														Offset Site Error:	0.00 usft
Survey Program: 198-MWD+IFR1+MS														Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Rule Assigned:	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
18,100.00	7,589.03	19,838.86	9,947.02	91.01	91.54	140.06	-10,882.57	644.79	3,074.09	2,893.55	180.55	17.026			
18,200.00	7,589.03	19,891.00	9,946.49	91.71	91.91	140.03	-10,934.68	643.38	3,075.17	2,893.57	181.60	16.934			
18,300.00	7,589.03	20,103.06	9,944.61	92.42	93.40	139.96	-11,146.64	639.91	3,076.21	2,892.11	184.10	16.709			
18,400.00	7,589.02	20,172.00	9,942.69	93.12	93.89	139.91	-11,215.54	638.57	3,075.29	2,889.94	185.35	16.592			
18,424.07	7,589.02	20,172.00	9,942.69	93.29	93.89	139.91	-11,215.54	638.57	3,075.20	2,889.70	185.50	16.578			
18,500.00	7,589.02	20,239.29	9,941.78	93.82	94.36	139.88	-11,282.82	637.33	3,075.40	2,888.83	186.57	16.484			
18,600.00	7,589.01	20,305.00	9,940.88	94.53	94.83	139.85	-11,348.50	636.11	3,075.87	2,888.12	187.75	16.383			
18,700.00	7,589.01	20,305.00	9,940.88	95.23	94.83	139.85	-11,348.50	636.11	3,078.89	2,890.69	188.20	16.360			
18,800.00	7,589.01	20,305.00	9,940.88	95.94	94.83	139.85	-11,348.50	636.11	3,085.15	2,896.66	188.49	16.368			
18,900.00	7,589.00	20,305.00	9,940.88	96.65	94.83	139.85	-11,348.50	636.11	3,094.64	2,906.02	188.62	16.407			
18,917.19	7,589.00	20,305.00	9,940.88	96.77	94.83	139.85	-11,348.50	636.11	3,096.59	2,907.96	188.63	16.417			
18,917.96	7,589.00	20,305.00	9,940.88	97.01	94.83	139.85	-11,348.50	636.11	3,096.68	2,907.91	188.76	16.405			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Survey Program: 236-MWD+HRGM												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	3.26	3.26	0.00	0.01	-75.88	247.35	-983.47	1,014.10				
100.00	100.00	105.26	105.26	0.28	0.17	-75.87	247.55	-983.31	1,013.99	1,013.55	0.45	2,271.726	
200.00	200.00	207.25	207.25	0.63	0.34	-75.83	248.12	-982.85	1,013.69	1,012.72	0.97	1,045.242	
300.00	300.00	311.26	311.25	0.99	0.65	-75.78	248.78	-982.07	1,013.12	1,011.48	1.64	616.855	
400.00	400.00	413.75	413.74	1.35	1.01	-75.77	248.80	-981.03	1,012.14	1,009.77	2.37	427.884	
500.00	500.00	513.07	513.05	1.71	1.37	-75.76	248.74	-980.01	1,011.13	1,008.05	3.08	328.552	
600.00	600.00	612.96	612.94	2.07	1.73	-75.75	248.73	-979.02	1,010.17	1,006.38	3.79	266.337	
700.00	700.00	709.34	709.31	2.43	2.07	-75.73	248.77	-978.13	1,009.29	1,004.80	4.49	224.730	
781.09	781.09	784.32	784.29	2.72	2.33	-75.72	248.93	-977.86	1,009.05	1,004.00	5.04	200.132	CC
800.00	800.00	801.80	801.78	2.79	2.39	-75.71	248.98	-977.86	1,009.06	1,003.89	5.17	195.165	
900.00	900.00	898.63	898.60	3.14	2.72	-75.70	249.29	-978.18	1,009.45	1,003.59	5.86	172.266	
1,000.00	1,000.00	998.96	998.93	3.50	3.06	-75.71	249.27	-978.64	1,009.89	1,003.34	6.56	153.996	ES
1,100.00	1,099.98	1,098.65	1,098.62	3.85	3.40	156.29	248.98	-979.15	1,011.92	1,004.68	7.24	139.722	
1,200.00	1,199.84	1,197.92	1,197.89	4.18	3.74	156.35	248.89	-979.67	1,017.19	1,009.27	7.92	128.484	
1,300.00	1,299.45	1,296.52	1,296.48	4.52	4.08	156.47	248.86	-980.23	1,025.73	1,017.13	8.60	119.325	
1,400.00	1,398.70	1,392.64	1,392.60	4.86	4.41	156.61	248.70	-981.00	1,037.65	1,028.38	9.27	111.903	
1,500.00	1,497.47	1,487.69	1,487.65	5.21	4.74	156.80	248.65	-982.06	1,053.10	1,043.15	9.95	105.849	
1,600.00	1,595.62	1,592.18	1,592.13	5.56	5.11	157.07	248.72	-983.13	1,071.70	1,061.03	10.66	100.499	
1,700.00	1,693.06	1,686.37	1,686.31	5.92	5.44	157.35	249.08	-983.75	1,093.24	1,081.90	11.35	96.355	
1,800.00	1,790.08	1,783.08	1,783.02	6.28	5.78	157.86	249.84	-984.46	1,116.61	1,104.57	12.04	92.752	
1,900.00	1,887.11	1,879.69	1,879.63	6.65	6.12	158.36	250.95	-985.06	1,140.05	1,127.32	12.73	89.540	
2,000.00	1,984.14	2,002.70	2,002.62	7.02	6.56	159.02	252.92	-984.26	1,162.55	1,149.02	13.53	85.946	
2,100.00	2,081.17	2,115.62	2,115.47	7.39	6.95	159.64	254.86	-980.94	1,182.99	1,168.71	14.28	82.820	
2,200.00	2,178.20	2,221.44	2,221.20	7.76	7.32	160.22	256.76	-977.22	1,203.09	1,188.07	15.02	80.102	
2,300.00	2,275.23	2,328.07	2,327.71	8.14	7.69	160.77	258.22	-972.45	1,222.24	1,206.48	15.76	77.548	
2,400.00	2,372.26	2,417.03	2,416.59	8.52	8.00	161.20	259.03	-968.56	1,241.45	1,225.00	16.44	75.505	
2,500.00	2,469.29	2,501.10	2,500.61	8.90	8.30	161.58	259.68	-965.85	1,261.73	1,244.63	17.10	73.766	
2,600.00	2,566.32	2,584.66	2,584.15	9.28	8.59	161.92	260.29	-964.13	1,283.12	1,265.36	17.76	72.231	
2,700.00	2,663.35	2,674.26	2,673.74	9.67	8.91	162.27	261.12	-963.16	1,305.53	1,287.08	18.45	70.765	
2,800.00	2,760.38	2,768.75	2,768.22	10.05	9.24	162.64	262.12	-962.23	1,328.12	1,308.97	19.15	69.344	
2,900.00	2,857.41	2,859.02	2,858.49	10.44	9.56	162.92	262.09	-962.18	1,351.23	1,331.40	19.83	68.125	
3,000.00	2,954.44	2,977.80	2,977.26	10.83	9.96	163.25	261.21	-962.36	1,374.42	1,353.78	20.64	66.600	
3,100.00	3,051.47	3,153.10	3,152.36	11.22	10.57	163.62	255.52	-956.82	1,393.68	1,372.02	21.65	64.361	
3,200.00	3,148.50	3,353.91	3,351.89	11.60	11.28	163.94	242.03	-939.19	1,406.42	1,383.72	22.69	61.973	
3,300.00	3,245.53	3,507.67	3,503.49	11.99	11.84	164.18	228.59	-917.37	1,413.24	1,389.68	23.56	59.994	
3,400.00	3,342.56	3,636.14	3,629.67	12.38	12.31	164.48	218.38	-895.58	1,418.02	1,393.67	24.35	58.228	
3,500.00	3,439.59	3,760.58	3,751.31	12.77	12.79	164.82	208.77	-871.13	1,420.25	1,395.11	25.14	56.497	
3,600.00	3,536.62	3,867.70	3,855.81	13.17	13.20	165.13	200.51	-849.05	1,421.66	1,395.77	25.90	54.899	
3,700.00	3,633.65	3,970.18	3,955.68	13.56	13.61	165.43	192.40	-827.54	1,422.67	1,396.03	26.65	53.387	
3,800.00	3,730.68	4,054.89	4,038.33	13.95	13.95	165.67	185.66	-810.27	1,424.27	1,396.90	27.37	52.031	
3,900.00	3,827.71	4,158.52	4,139.52	14.34	14.36	165.93	177.14	-789.59	1,426.19	1,398.06	28.13	50.696	
4,000.00	3,924.74	4,240.00	4,219.14	14.74	14.69	166.14	170.34	-773.67	1,428.53	1,399.68	28.85	49.513	
4,100.00	4,021.77	4,334.00	4,311.21	15.13	15.08	166.36	162.64	-756.39	1,431.98	1,402.39	29.59	48.387	
4,200.00	4,118.79	4,422.66	4,398.20	15.52	15.44	166.56	155.48	-740.82	1,436.25	1,405.92	30.33	47.360	
4,300.00	4,215.82	4,526.26	4,499.84	15.92	15.86	166.79	147.24	-722.55	1,440.56	1,409.46	31.09	46.333	
4,400.00	4,312.85	4,638.73	4,610.05	16.31	16.32	167.05	138.04	-702.05	1,444.22	1,412.35	31.88	45.306	
4,500.00	4,409.88	4,741.69	4,710.83	16.70	16.75	167.29	129.56	-682.75	1,447.43	1,414.79	32.64	44.340	
4,600.00	4,506.91	4,842.67	4,809.63	17.10	17.18	167.53	121.14	-663.67	1,450.47	1,417.06	33.41	43.418	
4,700.00	4,603.94	4,940.58	4,905.44	17.49	17.59	167.75	112.98	-645.24	1,453.60	1,419.44	34.17	42.546	
4,800.00	4,700.97	5,038.69	5,001.47	17.89	18.01	167.97	104.78	-626.90	1,456.87	1,421.95	34.92	41.714	
4,900.00	4,798.00	5,135.03	5,095.80	18.28	18.41	168.19	96.79	-609.03	1,460.31	1,424.63	35.68	40.927	
5,000.00	4,895.03	5,224.81	5,183.78	18.68	18.80	168.39	89.45	-592.69	1,464.18	1,427.75	36.42	40.201	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 236-MWD+HRGM							Rule Assigned:				Offset Well Error: 0.00 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
5,100.00	4,992.06	5,312.52	5,269.89	19.07	19.17	168.59	82.80	-577.38	1,468.98	1,431.82	37.16	39.536	
5,200.00	5,089.09	5,408.41	5,364.11	19.47	19.57	168.80	75.58	-561.11	1,474.28	1,436.37	37.91	38.890	
5,300.00	5,186.12	5,501.96	5,456.07	19.87	19.96	169.01	68.67	-545.40	1,479.83	1,441.17	38.66	38.282	
5,400.00	5,283.15	5,600.02	5,552.58	20.26	20.37	169.23	61.77	-529.46	1,486.03	1,446.62	39.42	37.702	
5,500.00	5,380.18	5,722.27	5,672.65	20.66	20.89	169.49	52.43	-508.49	1,491.16	1,450.92	40.24	37.055	
5,600.00	5,477.21	5,828.68	5,776.97	21.06	21.35	169.72	43.95	-489.28	1,495.36	1,454.33	41.03	36.449	
5,700.00	5,574.24	5,927.00	5,873.33	21.45	21.78	169.94	36.21	-471.35	1,499.46	1,457.67	41.79	35.881	
5,800.00	5,671.27	6,021.80	5,966.28	21.85	22.19	170.15	28.89	-454.22	1,503.82	1,461.27	42.55	35.346	
5,900.00	5,768.30	6,115.34	6,058.07	22.24	22.59	170.37	21.88	-437.60	1,508.57	1,465.27	43.30	34.841	
6,000.00	5,865.33	6,208.71	6,149.76	22.64	22.99	170.57	15.02	-421.38	1,513.76	1,469.71	44.05	34.366	
6,100.00	5,962.36	6,332.66	6,271.35	23.04	23.53	170.85	5.68	-399.18	1,518.42	1,473.54	44.88	33.831	
6,200.00	6,059.39	6,422.69	6,359.57	23.44	23.92	171.05	-1.21	-382.61	1,522.59	1,476.96	45.63	33.369	
6,300.00	6,156.42	6,511.20	6,446.42	23.83	24.30	171.25	-7.83	-366.92	1,527.48	1,481.11	46.37	32.943	
6,400.00	6,253.45	6,609.32	6,542.80	24.23	24.73	171.43	-15.81	-350.34	1,532.80	1,485.67	47.13	32.521	
6,500.00	6,350.47	6,698.00	6,629.93	24.63	25.11	171.54	-24.09	-336.05	1,538.26	1,490.40	47.87	32.135	
6,600.00	6,447.50	6,780.11	6,710.73	25.02	25.46	171.62	-32.07	-323.86	1,544.68	1,496.11	48.58	31.798	
6,700.00	6,544.53	6,852.29	6,781.98	25.42	25.75	171.67	-38.81	-314.42	1,552.81	1,503.57	49.24	31.533	
6,800.00	6,641.56	6,929.30	6,858.18	25.82	26.07	171.71	-45.63	-305.67	1,562.63	1,512.72	49.91	31.306	
6,900.00	6,738.59	7,018.13	6,946.24	26.22	26.42	171.79	-52.13	-295.92	1,573.57	1,522.95	50.63	31.081	
7,000.00	6,835.62	7,127.32	7,054.43	26.61	26.86	172.04	-56.75	-281.99	1,584.55	1,533.12	51.43	30.809	
7,100.00	6,932.65	7,228.66	7,154.73	27.01	27.27	172.28	-60.80	-268.11	1,594.83	1,542.63	52.20	30.551	
7,200.00	7,029.68	7,317.74	7,242.93	27.41	27.63	172.52	-63.66	-255.93	1,605.56	1,552.64	52.92	30.339	
7,300.00	7,126.71	7,443.85	7,367.72	27.81	28.14	172.89	-66.77	-238.06	1,616.39	1,562.60	53.80	30.046	
7,309.09	7,135.53	7,458.48	7,382.17	27.84	28.20	172.93	-67.19	-235.78	1,617.24	1,563.35	53.89	30.010	
7,350.00	7,174.84	7,493.05	7,416.32	28.01	28.34	172.98	-68.25	-230.46	1,622.52	1,568.33	54.18	29.946	
7,400.00	7,221.63	7,537.09	7,459.83	28.22	28.52	172.99	-69.72	-223.88	1,632.98	1,578.43	54.55	29.933	
7,450.00	7,266.71	7,573.67	7,496.01	28.44	28.67	172.93	-71.02	-218.64	1,647.85	1,592.95	54.90	30.016	
7,500.00	7,309.74	7,606.81	7,528.83	28.67	28.81	172.80	-72.21	-214.19	1,667.15	1,611.92	55.23	30.188	
7,550.00	7,350.39	7,642.00	7,563.72	28.91	28.95	172.61	-73.45	-209.78	1,690.71	1,635.15	55.56	30.430	
7,600.00	7,388.34	7,671.96	7,593.45	29.15	29.07	172.32	-74.44	-206.19	1,718.26	1,662.40	55.86	30.759	
7,650.00	7,423.32	7,703.70	7,624.95	29.40	29.19	171.96	-75.33	-202.43	1,749.48	1,693.32	56.17	31.149	
7,700.00	7,455.05	7,737.00	7,658.02	29.65	29.32	171.50	-76.08	-198.53	1,784.12	1,727.65	56.47	31.596	
7,750.00	7,483.30	7,737.00	7,658.02	29.90	29.32	170.59	-76.08	-198.53	1,822.01	1,765.44	56.58	32.205	
7,800.00	7,507.84	7,766.30	7,687.13	30.15	29.43	169.68	-76.64	-195.36	1,862.62	1,805.79	56.83	32.775	
7,850.00	7,528.50	7,779.04	7,699.81	30.41	29.48	168.19	-76.87	-194.13	1,905.85	1,848.87	56.98	33.448	
7,900.00	7,545.11	7,789.53	7,710.26	30.66	29.52	165.95	-77.05	-193.18	1,951.19	1,894.09	57.10	34.172	
7,919.09	7,550.36	7,792.93	7,713.65	30.75	29.53	164.79	-77.11	-192.88	1,968.97	1,911.83	57.14	34.459	
8,000.00	7,568.52	7,805.05	7,725.73	31.16	29.58	161.57	-77.31	-191.88	2,045.82	1,988.55	57.27	35.721	
8,100.00	7,583.22	7,830.00	7,750.61	31.66	29.67	155.11	-77.69	-190.07	2,143.11	2,085.63	57.48	37.283	
8,200.00	7,589.24	7,830.00	7,750.61	32.17	29.67	137.61	-77.69	-190.07	2,241.85	2,184.33	57.52	38.976	
8,219.09	7,589.40	7,830.00	7,750.61	32.26	29.67	131.56	-77.69	-190.07	2,260.82	2,203.30	57.52	39.302	
8,300.00	7,589.40	7,830.00	7,750.61	32.67	29.67	131.56	-77.69	-190.07	2,341.30	2,283.75	57.54	40.687	
8,400.00	7,589.40	7,830.00	7,750.61	33.21	29.67	131.56	-77.69	-190.07	2,440.80	2,383.23	57.57	42.398	
8,444.09	7,589.40	7,830.00	7,750.61	33.45	29.67	131.56	-77.69	-190.07	2,484.68	2,427.10	57.58	43.152	
8,500.00	7,589.40	7,830.00	7,750.61	33.76	29.67	122.15	-77.69	-190.07	2,540.27	2,482.68	57.59	44.106	
8,600.00	7,589.40	7,830.00	7,750.61	34.34	29.67	112.28	-77.69	-190.07	2,639.32	2,581.70	57.62	45.805	
8,700.00	7,589.40	7,830.00	7,750.61	34.92	29.67	106.77	-77.69	-190.07	2,737.70	2,680.05	57.65	47.489	
8,800.00	7,589.40	7,830.00	7,750.61	35.52	29.67	103.34	-77.69	-190.07	2,835.22	2,777.54	57.68	49.155	
8,900.00	7,589.40	7,830.00	7,750.61	36.12	29.67	101.01	-77.69	-190.07	2,931.72	2,874.01	57.71	50.800	
9,000.00	7,589.40	7,830.00	7,750.61	36.73	29.67	99.34	-77.69	-190.07	3,027.04	2,969.30	57.74	52.422	
9,100.00	7,589.40	7,830.00	7,750.61	37.33	29.67	98.08	-77.69	-190.07	3,121.05	3,063.27	57.78	54.018	
9,200.00	7,589.40	7,830.00	7,750.61	37.92	29.67	97.11	-77.69	-190.07	3,213.60	3,155.79	57.81	55.586	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program: 236-MWD+HRGM				Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,300.00	7,589.39	7,830.00	7,750.61	38.51	29.67	96.34	-77.69	-190.07	3,304.58	3,246.73	57.85	57.125		
9,400.00	7,589.39	7,830.00	7,750.61	39.09	29.67	95.72	-77.69	-190.07	3,393.88	3,335.99	57.88	58.632		
9,500.00	7,589.39	7,830.00	7,750.61	39.65	29.67	95.20	-77.69	-190.07	3,481.38	3,423.46	57.92	60.107		
9,600.00	7,589.39	7,830.00	7,750.61	40.19	29.67	94.77	-77.69	-190.07	3,567.00	3,509.05	57.96	61.547		
9,700.00	7,589.38	7,830.00	7,750.61	40.72	29.67	94.40	-77.69	-190.07	3,650.63	3,592.64	57.99	62.951		
9,800.00	7,589.38	7,830.00	7,750.61	41.23	29.67	94.09	-77.69	-190.07	3,732.20	3,674.17	58.03	64.318		
9,900.00	7,589.38	7,830.00	7,750.61	41.72	29.67	93.82	-77.69	-190.07	3,811.60	3,753.54	58.06	65.646		
10,000.00	7,589.37	7,830.00	7,750.61	42.18	29.67	93.58	-77.69	-190.07	3,888.78	3,830.68	58.10	66.935		
10,100.00	7,589.37	7,830.00	7,750.61	42.63	29.67	93.38	-77.69	-190.07	3,963.64	3,905.51	58.13	68.181		
10,173.66	7,589.36	7,830.00	7,750.61	42.94	29.67	93.24	-77.69	-190.07	4,017.26	3,959.11	58.16	69.073		
10,200.00	7,589.36	7,830.00	7,750.61	43.05	29.67	93.24	-77.69	-190.07	4,036.25	3,978.08	58.17	69.389		
10,300.00	7,589.36	7,830.00	7,750.61	43.47	29.67	93.24	-77.69	-190.07	4,109.06	4,050.85	58.21	70.589		
10,400.00	7,589.36	7,830.00	7,750.61	43.90	29.67	93.24	-77.69	-190.07	4,183.00	4,124.74	58.26	71.805		
10,500.00	7,589.35	13,762.92	10,797.42	44.33	63.76	139.21	-3,262.82	-161.84	4,232.92	4,143.89	89.03	47.544		
10,600.00	7,589.35	13,883.73	10,796.93	44.78	65.13	139.19	-3,383.62	-163.15	4,233.47	4,142.68	90.79	46.629		
10,700.00	7,589.34	13,993.83	10,796.10	45.23	66.40	139.18	-3,493.71	-163.97	4,233.51	4,141.07	92.44	45.795		
10,702.97	7,589.34	13,996.16	10,796.10	45.25	66.43	139.18	-3,496.04	-163.96	4,233.51	4,141.03	92.48	45.776		
10,800.00	7,589.34	14,075.00	10,795.89	45.69	67.35	139.17	-3,574.88	-164.35	4,233.75	4,139.98	93.77	45.150		
10,900.00	7,589.33	14,182.97	10,796.02	46.16	68.62	139.17	-3,682.84	-164.45	4,234.03	4,138.61	95.42	44.373		
11,000.00	7,589.33	14,262.00	10,796.29	46.64	69.55	139.16	-3,761.87	-164.74	4,234.63	4,137.90	96.74	43.775		
11,100.00	7,589.33	14,365.97	10,796.20	47.12	70.79	139.15	-3,865.84	-165.98	4,235.48	4,137.11	98.37	43.058		
11,200.00	7,589.32	14,451.00	10,796.06	47.61	71.80	139.13	-3,950.86	-167.11	4,236.35	4,136.57	99.78	42.456		
11,300.00	7,589.32	14,770.62	10,792.61	48.11	75.72	139.15	-4,270.35	-161.56	4,234.04	4,130.05	103.99	40.716		
11,400.00	7,589.31	14,873.99	10,790.00	48.61	77.02	139.17	-4,373.61	-157.44	4,229.65	4,124.01	105.64	40.037		
11,500.00	7,589.31	14,963.16	10,788.56	49.12	78.14	139.20	-4,462.67	-153.36	4,225.56	4,118.43	107.13	39.444		
11,600.00	7,589.31	15,012.00	10,787.65	49.64	78.76	139.21	-4,511.46	-151.32	4,221.86	4,113.71	108.14	39.039		
11,700.00	7,589.30	15,071.66	10,786.67	50.16	79.51	139.22	-4,571.09	-149.67	4,219.17	4,109.88	109.29	38.605		
11,800.00	7,589.30	15,106.00	10,786.32	50.69	79.95	139.22	-4,605.42	-149.35	4,218.05	4,107.92	110.13	38.302		
11,837.24	7,589.30	15,130.40	10,786.21	50.89	80.25	139.22	-4,629.82	-149.32	4,217.96	4,107.37	110.58	38.143		
11,900.00	7,589.29	15,160.65	10,786.29	51.23	80.63	139.22	-4,660.07	-149.35	4,218.20	4,107.00	111.21	37.931		
12,000.00	7,589.29	15,225.96	10,787.16	51.77	81.45	139.22	-4,725.37	-149.65	4,219.56	4,107.14	112.42	37.534		
12,100.00	7,589.28	15,403.71	10,787.37	52.31	83.69	139.20	-4,903.11	-151.23	4,220.46	4,105.37	115.09	36.672		
12,103.94	7,589.28	15,375.00	10,787.45	52.33	83.33	139.20	-4,874.41	-151.11	4,220.45	4,105.72	114.73	36.784		
12,200.00	7,589.28	15,432.25	10,787.46	52.86	84.06	139.20	-4,931.65	-151.56	4,221.21	4,105.37	115.84	36.439		
12,300.00	7,589.28	15,482.00	10,787.98	53.42	84.69	139.19	-4,981.39	-152.63	4,223.40	4,106.53	116.87	36.139		
12,400.00	7,589.27	15,537.00	10,788.82	53.98	85.38	139.18	-5,036.35	-154.44	4,226.72	4,108.77	117.95	35.834		
12,500.00	7,589.27	15,641.58	10,790.22	54.55	86.70	139.14	-5,140.84	-158.78	4,230.59	4,110.87	119.72	35.337		
12,600.00	7,589.26	15,807.55	10,793.04	55.12	88.82	139.13	-5,306.72	-161.77	4,233.04	4,110.74	122.30	34.612		
12,700.00	7,589.26	15,909.99	10,794.64	55.70	90.15	139.13	-5,409.14	-163.06	4,235.18	4,111.15	124.03	34.146		
12,800.00	7,589.26	16,176.93	10,799.44	56.28	93.65	139.24	-5,675.92	-156.65	4,234.96	4,107.12	127.83	33.129		
12,900.00	7,589.25	16,272.02	10,800.30	56.86	94.91	139.28	-5,770.93	-152.84	4,233.15	4,103.70	129.45	32.701		
13,000.00	7,589.25	16,363.32	10,800.11	57.45	96.11	139.30	-5,862.19	-150.20	4,231.26	4,100.21	131.04	32.289		
13,100.00	7,589.24	16,435.02	10,799.74	58.04	97.06	139.31	-5,933.88	-149.15	4,230.01	4,097.62	132.40	31.950		
13,200.00	7,589.24	16,540.00	10,799.29	58.64	98.45	139.32	-6,038.85	-147.69	4,228.91	4,094.73	134.18	31.517		
13,300.00	7,589.23	16,630.65	10,799.00	59.24	99.65	139.33	-6,129.50	-146.62	4,228.02	4,092.24	135.78	31.138		
13,400.00	7,589.23	16,761.35	10,798.38	59.84	101.39	139.34	-6,260.17	-144.56	4,226.76	4,088.85	137.91	30.648		
13,500.00	7,589.23	16,861.47	10,797.68	60.45	102.73	139.35	-6,360.28	-142.60	4,225.08	4,085.44	139.64	30.256		
13,600.00	7,589.22	16,922.53	10,797.25	61.06	103.54	139.36	-6,421.32	-141.74	4,223.84	4,082.96	140.87	29.983		
13,652.51	7,589.22	16,946.75	10,797.09	61.38	103.86	139.35	-6,445.54	-141.75	4,223.66	4,082.25	141.41	29.867		
13,700.00	7,589.22	16,986.00	10,796.87	61.68	104.38	139.35	-6,484.79	-142.26	4,223.88	4,081.74	142.14	29.717		
13,800.00	7,589.21	17,047.88	10,796.52	62.30	105.20	139.33	-6,546.66	-143.57	4,224.80	4,081.42	143.38	29.465		
13,900.00	7,589.21	17,180.81	10,795.83	62.92	106.97	139.30	-6,679.56	-145.75	4,225.64	4,080.03	145.61	29.020		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Survey Program: 236-MWD+HRGM													Offset Site Error: 0.00 usft		
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
14,000.00	7,589.21	17,235.76	10,795.59	63.54	107.70	139.28	-6,734.51	-146.72	4,226.54	4,079.78	146.76	28.799			
14,100.00	7,589.20	17,321.79	10,794.99	64.17	108.84	139.25	-6,820.49	-149.55	4,228.27	4,079.91	148.36	28.501			
14,200.00	7,589.20	17,413.66	10,794.04	64.80	110.06	139.20	-6,912.29	-152.84	4,229.97	4,079.93	150.04	28.192			
14,300.00	7,589.19	17,559.43	10,797.10	65.43	112.02	139.23	-7,058.01	-152.73	4,231.78	4,079.36	152.42	27.764			
14,400.00	7,589.19	17,691.50	10,799.92	66.07	113.82	139.28	-7,190.01	-149.57	4,231.89	4,077.31	154.58	27.377			
14,500.00	7,589.18	17,772.33	10,801.84	66.71	114.92	139.32	-7,270.79	-147.54	4,232.18	4,076.13	156.06	27.120			
14,600.00	7,589.18	17,857.59	10,804.18	67.35	116.08	139.36	-7,356.00	-145.64	4,232.93	4,075.34	157.59	26.860			
14,700.00	7,589.18	17,994.79	10,806.19	67.99	117.95	139.39	-7,493.16	-143.91	4,233.36	4,073.51	159.85	26.484			
14,800.00	7,589.17	18,114.00	10,806.30	68.64	119.58	139.41	-7,612.35	-141.73	4,232.22	4,070.35	161.87	26.146			
14,868.75	7,589.17	18,163.66	10,806.72	69.09	120.26	139.43	-7,661.99	-140.50	4,231.76	4,068.94	162.82	25.991			
14,900.00	7,589.17	18,176.62	10,806.95	69.29	120.43	139.43	-7,674.95	-140.25	4,231.83	4,068.71	163.12	25.943			
15,000.00	7,589.16	18,230.56	10,808.31	69.94	121.17	139.45	-7,728.87	-139.52	4,232.90	4,068.67	164.24	25.773			
15,100.00	7,589.16	18,315.12	10,810.28	70.59	122.33	139.47	-7,813.40	-139.21	4,234.57	4,068.79	165.78	25.543			
15,200.00	7,589.16	18,520.11	10,814.10	71.25	125.13	139.52	-8,018.30	-137.36	4,235.87	4,066.89	168.98	25.067			
15,300.00	7,589.15	18,612.06	10,815.20	71.91	126.40	139.54	-8,110.22	-135.55	4,235.61	4,064.97	170.64	24.822			
15,400.00	7,589.15	18,707.46	10,815.75	72.57	127.71	139.57	-8,205.59	-133.41	4,234.75	4,062.41	172.34	24.572			
15,421.10	7,589.15	18,715.97	10,815.80	72.71	127.82	139.57	-8,214.10	-133.31	4,234.72	4,062.18	172.54	24.543			
15,500.00	7,589.14	18,770.00	10,816.48	73.23	128.56	139.58	-8,268.13	-133.20	4,235.30	4,061.70	173.60	24.396			
15,600.00	7,589.14	18,889.47	10,816.37	73.89	130.20	139.56	-8,387.58	-134.24	4,235.99	4,060.31	175.68	24.111			
15,700.00	7,589.13	18,957.00	10,815.55	74.56	131.12	139.54	-8,455.09	-135.69	4,236.56	4,059.51	177.05	23.929			
15,800.00	7,589.13	19,075.02	10,814.10	75.23	132.73	139.50	-8,573.08	-138.38	4,237.24	4,058.09	179.15	23.652			
15,900.00	7,589.13	19,178.12	10,813.13	75.90	134.14	139.47	-8,676.15	-140.16	4,237.77	4,056.75	181.02	23.411			
16,000.00	7,589.12	19,278.84	10,811.81	76.57	135.52	139.44	-8,776.85	-141.80	4,237.97	4,055.10	182.86	23.175			
16,100.00	7,589.12	19,350.13	10,811.35	77.24	136.49	139.42	-8,848.13	-142.98	4,238.69	4,054.41	184.28	23.001			
16,200.00	7,589.11	19,427.00	10,811.54	77.92	137.55	139.41	-8,924.99	-144.30	4,240.10	4,054.33	185.77	22.825			
16,300.00	7,589.11	19,473.35	10,812.35	78.59	138.18	139.40	-8,971.32	-144.93	4,242.38	4,055.60	186.78	22.713			
16,400.00	7,589.11	19,520.00	10,814.11	79.27	138.83	139.42	-9,017.94	-145.22	4,245.84	4,058.07	187.76	22.613			
16,500.00	7,589.10	19,587.83	10,817.11	79.95	139.76	139.43	-9,085.70	-146.17	4,250.27	4,061.22	189.05	22.482			
16,600.00	7,589.10	19,877.47	10,827.84	80.63	143.78	139.55	-9,375.05	-143.39	4,251.98	4,058.42	193.56	21.967			
16,700.00	7,589.09	19,971.49	10,830.22	81.31	145.09	139.59	-9,469.01	-140.73	4,252.22	4,056.98	195.24	21.780			
16,800.00	7,589.09	20,048.34	10,832.46	82.00	146.16	139.63	-9,545.80	-138.96	4,253.07	4,056.40	196.68	21.625			
16,900.00	7,589.08	20,253.37	10,832.96	82.68	149.02	139.66	-9,750.76	-136.18	4,252.05	4,052.13	199.92	21.269			
17,000.00	7,589.08	20,300.01	10,832.83	83.37	149.67	139.66	-9,797.39	-135.60	4,251.25	4,050.25	201.00	21.150			
17,006.89	7,589.08	20,302.68	10,832.87	83.42	149.71	139.66	-9,800.07	-135.54	4,251.25	4,050.18	201.07	21.144			
17,100.00	7,589.08	20,363.00	10,835.11	84.06	150.55	139.70	-9,860.32	-133.82	4,252.05	4,049.80	202.25	21.024			
17,200.00	7,589.07	20,430.97	10,838.59	84.75	151.50	139.75	-9,928.15	-131.55	4,253.69	4,050.15	203.54	20.899			
17,300.00	7,589.07	20,522.69	10,841.44	85.44	152.78	139.79	-10,019.82	-130.07	4,255.16	4,049.97	205.19	20.738			
17,400.00	7,589.06	20,595.82	10,842.78	86.13	153.80	139.80	-10,092.93	-130.62	4,257.18	4,050.58	206.60	20.606			
17,500.00	7,589.06	20,772.37	10,847.48	86.83	156.26	139.85	-10,269.39	-129.24	4,259.01	4,049.53	209.48	20.332			
17,600.00	7,589.06	20,959.39	10,849.15	87.52	158.88	139.89	-10,456.36	-126.14	4,258.93	4,046.48	212.45	20.047			
17,700.00	7,589.05	21,035.07	10,849.87	88.22	159.94	139.92	-10,531.99	-123.59	4,257.65	4,043.75	213.90	19.905			
17,800.00	7,589.05	21,105.00	10,850.71	88.91	160.92	139.94	-10,601.90	-122.06	4,257.23	4,041.95	215.28	19.775			
17,900.00	7,589.04	21,220.20	10,851.83	89.61	162.54	139.97	-10,717.07	-119.87	4,256.89	4,039.61	217.28	19.592			
17,995.86	7,589.04	21,292.00	10,852.31	90.28	163.54	139.99	-10,788.86	-118.84	4,256.62	4,037.94	218.67	19.466			
18,000.00	7,589.04	21,292.00	10,852.31	90.31	163.54	139.99	-10,788.86	-118.84	4,256.62	4,037.93	218.69	19.464			
18,100.00	7,589.03	21,347.49	10,852.99	91.01	164.32	139.99	-10,844.35	-118.41	4,257.21	4,037.35	219.86	19.363			
18,200.00	7,589.03	21,412.30	10,854.62	91.71	165.23	140.01	-10,909.14	-118.06	4,258.86	4,037.72	221.14	19.258			
18,300.00	7,589.03	21,480.00	10,855.24	92.42	166.17	140.00	-10,976.82	-119.29	4,260.98	4,038.49	222.49	19.151			
18,400.00	7,589.02	21,574.00	10,854.79	93.12	167.46	139.95	-11,070.71	-123.65	4,263.73	4,039.44	224.29	19.010			
18,500.00	7,589.02	21,734.37	10,853.58	93.82	169.68	139.87	-11,230.92	-130.49	4,266.11	4,038.98	227.13	18.782			
18,600.00	7,589.01	21,905.00	10,851.50	94.53	172.05	139.82	-11,401.51	-133.49	4,266.24	4,036.20	230.05	18.545			
18,608.52	7,589.01	21,905.00	10,851.50	94.59	172.05	139.82	-11,401.51	-133.49	4,266.24	4,036.15	230.09	18.542			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 29H - OH - Svy

Survey Program: 236-MWD+HRGM												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth	Depth	Depth	Depth	Reference	Offset		+N/-S	+E/-W	Between	Between	Separation	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(")	(usft)	(usft)	Centres	Ellipses	(usft)		
									(usft)	(usft)			
18,700.00	7,589.01	21,947.00	10,850.77	95.23	172.64	139.80	-11,443.49	-134.34	4,266.57	4,035.50	231.07	18.464	
18,800.00	7,589.01	21,947.00	10,850.77	95.94	172.64	139.80	-11,443.49	-134.34	4,268.90	4,037.52	231.38	18.450	SF
18,900.00	7,589.00	21,947.00	10,850.77	96.65	172.64	139.80	-11,443.49	-134.34	4,273.57	4,041.99	231.58	18.454	
18,917.19	7,589.00	21,947.00	10,850.77	96.77	172.64	139.80	-11,443.49	-134.34	4,274.61	4,043.01	231.60	18.457	
18,917.96	7,589.00	21,947.00	10,850.77	97.01	172.64	139.80	-11,443.49	-134.34	4,274.66	4,042.99	231.67	18.451	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.50	54.22	58.45	81.11	99.98				
100.00	100.00	99.58	99.58	0.28	0.52	54.29	58.65	81.59	100.49	99.69	0.80	125.371	
200.00	200.00	198.55	198.53	0.63	0.59	54.49	59.24	83.02	102.01	100.78	1.23	83.127	
300.00	300.00	298.36	298.32	0.99	0.84	54.33	60.70	84.56	104.12	102.29	1.83	56.925	
400.00	400.00	398.32	398.25	1.35	1.14	53.57	63.12	85.53	106.33	103.83	2.49	42.655	
500.00	500.00	498.12	498.01	1.71	1.47	52.66	65.83	86.28	108.56	105.38	3.18	34.142	
600.00	600.00	598.12	597.96	2.07	1.81	51.73	68.85	87.28	111.20	107.32	3.88	28.675	
700.00	700.00	699.52	699.31	2.43	2.16	50.26	72.02	86.62	112.66	108.07	4.58	24.576	
800.00	800.00	799.52	799.24	2.79	2.51	48.58	75.39	85.44	113.96	108.67	5.29	21.549	
900.00	900.00	900.02	899.69	3.14	2.86	47.11	78.21	84.19	114.91	108.91	6.00	19.161	
1,000.00	1,000.00	1,001.20	1,000.85	3.50	3.21	45.95	80.20	82.90	115.34	108.64	6.71	17.198	
1,100.00	1,099.98	1,102.90	1,102.53	3.85	3.56	-83.86	80.80	80.94	114.18	106.78	7.40	15.433	
1,200.00	1,199.84	1,203.26	1,202.86	4.18	3.90	-87.27	80.21	78.50	111.70	103.62	8.07	13.838	
1,300.00	1,299.45	1,303.22	1,302.77	4.52	4.24	-92.78	79.53	75.64	109.39	100.64	8.75	12.501	
1,393.89	1,392.65	1,396.27	1,395.77	4.84	4.56	-99.78	78.71	72.66	108.33	98.94	9.39	11.533	
1,400.00	1,398.70	1,402.31	1,401.81	4.86	4.58	-100.29	78.65	72.47	108.34	98.90	9.44	11.482	ES
1,500.00	1,497.47	1,500.82	1,500.26	5.21	4.92	-109.38	77.69	69.33	110.23	100.10	10.13	10.886	
1,600.00	1,595.62	1,597.80	1,597.21	5.56	5.26	-118.79	76.85	67.12	116.76	105.95	10.82	10.795	
1,700.00	1,693.06	1,694.84	1,694.24	5.92	5.59	-127.61	76.32	66.16	128.71	117.20	11.51	11.184	
1,800.00	1,790.08	1,790.75	1,790.15	6.28	5.93	-135.39	76.19	65.21	144.99	132.79	12.20	11.885	
1,900.00	1,887.11	1,887.17	1,886.56	6.65	6.27	-141.61	76.54	64.11	163.95	151.06	12.89	12.715	
2,000.00	1,984.14	1,986.49	1,985.87	7.02	6.61	-146.23	76.80	64.46	183.87	170.27	13.60	13.524	
2,100.00	2,081.17	2,088.27	2,087.58	7.39	6.96	-149.23	76.09	68.18	202.60	188.30	14.30	14.167	
2,200.00	2,178.20	2,186.12	2,185.31	7.76	7.29	-151.42	75.03	72.74	220.99	205.99	15.00	14.737	
2,300.00	2,275.23	2,286.35	2,285.44	8.14	7.63	-153.46	73.25	77.07	239.20	223.49	15.70	15.233	
2,400.00	2,372.26	2,388.29	2,387.21	8.52	7.98	-155.22	70.34	82.10	256.41	239.99	16.42	15.619	
2,500.00	2,469.29	2,485.94	2,484.62	8.90	8.31	-156.63	66.67	87.79	272.63	255.51	17.12	15.923	
2,600.00	2,566.32	2,572.09	2,570.70	9.28	8.61	-158.07	64.37	90.36	291.38	273.60	17.78	16.390	
2,700.00	2,663.35	2,665.82	2,664.42	9.67	8.93	-159.87	63.31	89.64	313.49	295.03	18.46	16.978	
2,800.00	2,760.38	2,772.86	2,771.43	10.05	9.31	-161.86	61.59	87.73	336.18	316.95	19.23	17.485	
2,900.00	2,857.41	2,904.06	2,901.96	10.44	9.76	-164.44	49.06	89.20	350.89	330.85	20.03	17.514	
3,000.00	2,954.44	3,033.42	3,029.26	10.83	10.21	-166.93	27.44	96.25	357.89	337.17	20.72	17.273	
3,100.00	3,051.47	3,151.09	3,143.49	11.22	10.61	-168.37	4.07	111.88	357.61	336.24	21.37	16.735	
3,200.00	3,148.50	3,251.04	3,240.06	11.60	10.96	-169.02	-15.01	129.20	355.50	333.40	22.10	16.085	
3,300.00	3,245.53	3,347.04	3,332.98	11.99	11.30	-169.58	-32.59	145.74	354.11	331.25	22.86	15.491	
3,354.33	3,298.24	3,398.72	3,383.13	12.21	11.48	-169.87	-41.63	154.37	353.90	330.63	23.27	15.206	
3,400.00	3,342.56	3,442.76	3,425.92	12.38	11.64	-170.11	-49.11	161.60	354.01	330.39	23.62	14.988	
3,500.00	3,439.59	3,533.62	3,514.44	12.77	11.96	-170.60	-63.78	175.90	355.40	331.00	24.40	14.567	
3,600.00	3,536.62	3,625.54	3,604.63	13.17	12.29	-171.08	-76.39	188.33	360.10	334.94	25.16	14.312	
3,700.00	3,633.65	3,726.15	3,703.44	13.56	12.65	-171.59	-89.86	201.71	365.28	339.37	25.91	14.100	
3,800.00	3,730.68	3,825.71	3,801.19	13.95	13.01	-172.11	-103.43	214.82	370.40	343.74	26.66	13.896	
3,900.00	3,827.71	3,925.34	3,899.04	14.34	13.38	-172.60	-116.78	227.97	375.68	348.27	27.41	13.708	
4,000.00	3,924.74	4,023.63	3,995.59	14.74	13.73	-172.97	-129.46	241.31	381.10	352.94	28.16	13.533	
4,100.00	4,021.77	4,119.17	4,089.58	15.13	14.08	-173.29	-141.11	253.94	387.29	358.37	28.91	13.395	
4,200.00	4,118.79	4,219.89	4,188.78	15.52	14.45	-173.74	-153.47	266.15	394.23	364.56	29.67	13.288	
4,300.00	4,215.82	4,320.00	4,287.28	15.92	14.82	-174.46	-167.56	277.20	400.70	370.28	30.42	13.170	
4,400.00	4,312.85	4,416.31	4,382.09	16.31	15.17	-175.18	-181.12	287.33	407.63	376.45	31.18	13.073	
4,500.00	4,409.88	4,528.66	4,492.54	16.70	15.58	-175.92	-197.19	300.12	413.86	381.92	31.94	12.957	
4,600.00	4,506.91	4,635.36	4,598.88	17.10	15.98	-176.53	-213.91	314.86	417.32	384.63	32.69	12.764	
4,700.00	4,603.94	4,734.91	4,694.14	17.49	16.35	-177.04	-229.63	329.16	420.34	386.88	33.46	12.562	
4,800.00	4,700.97	4,838.45	4,795.15	17.89	16.74	-177.43	-245.67	345.25	422.67	388.45	34.22	12.352	
4,900.00	4,798.00	4,936.37	4,890.67	18.28	17.10	-177.73	-260.55	360.85	424.92	389.93	34.99	12.144	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy														Offset Site Error:	0.00 usft
Survey Program: 200-MWD+IFR1+MS														Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)							
5,000.00	4,895.03	5,029.89	4,982.07	18.68	17.45	-178.01	-274.22	375.15	428.07	392.31	35.76	11.969			
5,100.00	4,992.06	5,126.34	5,076.71	19.07	17.81	-178.28	-287.12	388.57	433.10	396.57	36.53	11.855			
5,200.00	5,089.09	5,228.08	5,176.35	19.47	18.19	-178.59	-301.44	403.30	437.24	399.94	37.30	11.723			
5,300.00	5,186.12	5,322.88	5,269.40	19.87	18.55	-178.87	-314.15	416.23	442.49	404.43	38.06	11.625			
5,400.00	5,283.15	5,430.79	5,375.30	20.26	18.95	-179.26	-329.12	430.62	447.75	408.91	38.83	11.530			
5,500.00	5,380.18	5,533.02	5,475.17	20.66	19.34	-179.62	-344.63	445.95	450.81	411.21	39.60	11.383			
5,600.00	5,477.21	5,623.99	5,564.26	21.06	19.68	-179.86	-357.36	459.22	455.00	414.62	40.37	11.269			
5,700.00	5,574.24	5,729.32	5,667.65	21.45	20.08	-179.88	-371.29	473.71	460.36	419.22	41.15	11.188			
5,800.00	5,671.27	5,835.03	5,770.97	21.85	20.48	-179.53	-387.21	489.37	463.68	421.77	41.92	11.062			
5,900.00	5,768.30	5,929.96	5,863.74	22.24	20.84	-179.14	-401.93	503.14	467.02	424.33	42.69	10.939			
6,000.00	5,865.33	6,029.52	5,961.20	22.64	21.21	-178.82	-416.48	517.34	471.12	427.65	43.47	10.838			
6,100.00	5,962.36	6,126.20	6,055.92	23.04	21.58	-178.64	-429.60	531.56	475.50	431.26	44.24	10.748			
6,200.00	6,059.39	6,217.53	6,145.63	23.44	21.92	-178.51	-441.12	544.28	481.12	436.12	45.00	10.692			
6,300.00	6,156.42	6,316.49	6,243.02	23.83	22.30	-178.36	-452.99	557.24	487.78	442.01	45.77	10.658			
6,400.00	6,253.45	6,425.04	6,349.60	24.23	22.71	-178.09	-467.53	571.77	493.35	446.80	46.55	10.598			
6,500.00	6,350.47	6,517.06	6,439.98	24.63	23.05	-177.85	-479.88	583.83	499.15	451.84	47.31	10.550			
6,600.00	6,447.50	6,614.77	6,536.13	25.02	23.42	-177.80	-491.07	597.13	505.73	457.65	48.08	10.519			
6,700.00	6,544.53	6,706.15	6,626.26	25.42	23.76	-177.76	-500.88	608.54	513.65	464.83	48.82	10.522			
6,800.00	6,641.56	6,820.09	6,738.48	25.82	24.19	-177.44	-515.38	621.87	521.07	471.44	49.63	10.499			
6,900.00	6,738.59	6,939.60	6,855.26	26.22	24.65	-176.87	-534.90	638.08	524.76	474.33	50.42	10.407			
7,000.00	6,835.62	7,027.79	6,941.20	26.61	24.98	-176.56	-549.20	651.68	527.15	475.95	51.20	10.295			
7,100.00	6,932.65	7,121.34	7,033.15	27.01	25.34	-176.41	-561.18	664.12	533.15	481.18	51.97	10.259			
7,200.00	7,029.68	7,264.64	7,172.65	27.41	25.89	-175.90	-584.89	686.40	535.38	482.68	52.70	10.159			
7,300.00	7,126.71	7,367.23	7,271.24	27.81	26.29	-175.42	-605.47	705.89	532.44	478.96	53.48	9.956			
7,309.09	7,135.53	7,374.72	7,278.44	27.84	26.32	-175.39	-606.91	707.35	532.17	478.62	53.56	9.936			
7,322.22	7,148.23	7,385.54	7,288.86	27.90	26.36	-175.36	-608.95	709.44	532.00	478.32	53.67	9.912			
7,350.00	7,174.84	7,408.43	7,310.95	28.01	26.45	-175.29	-613.12	713.79	532.79	478.88	53.91	9.882	SF		
7,400.00	7,221.63	7,450.00	7,351.20	28.22	26.62	-175.19	-620.17	721.40	538.24	483.90	54.34	9.905			
7,450.00	7,266.71	7,497.54	7,397.35	28.44	26.80	-175.12	-627.70	729.97	548.42	493.67	54.75	10.017			
7,500.00	7,309.74	7,544.00	7,442.48	28.67	26.98	-175.08	-634.72	738.51	562.87	507.71	55.15	10.205			
7,550.00	7,350.39	7,586.81	7,484.10	28.91	27.14	-175.05	-640.91	746.35	581.62	526.07	55.55	10.470			
7,600.00	7,388.34	7,626.99	7,523.25	29.15	27.30	-175.01	-646.46	753.54	604.65	548.71	55.94	10.809			
7,650.00	7,423.32	7,660.71	7,556.16	29.40	27.43	-174.91	-650.92	759.36	631.83	575.53	56.29	11.224			
7,700.00	7,455.05	7,689.94	7,584.78	29.65	27.54	-174.74	-654.56	764.02	663.14	606.53	56.61	11.713			
7,750.00	7,483.30	7,716.29	7,610.66	29.90	27.64	-174.47	-657.66	767.91	698.24	641.34	56.89	12.273			
7,800.00	7,507.84	7,742.70	7,636.65	30.15	27.74	-174.11	-660.61	771.53	736.68	679.53	57.15	12.891			
7,850.00	7,528.50	7,771.70	7,665.21	30.41	27.85	-173.68	-663.75	775.51	777.81	720.41	57.40	13.552			
7,900.00	7,545.11	7,796.97	7,690.09	30.66	27.94	-173.04	-666.41	779.06	821.23	763.62	57.61	14.255			
7,919.09	7,550.36	7,805.59	7,698.57	30.75	27.98	-172.72	-667.31	780.28	838.35	780.66	57.68	14.533			
8,000.00	7,568.52	7,837.52	7,730.00	31.16	28.10	-172.16	-670.58	784.87	912.62	854.68	57.95	15.749			
8,100.00	7,583.22	7,868.08	7,760.08	31.66	28.21	-170.77	-673.85	789.13	1,007.27	949.07	58.20	17.307			
8,200.00	7,589.24	7,890.47	7,782.12	32.17	28.30	-167.84	-676.39	792.12	1,104.39	1,046.00	58.38	18.916			
8,219.09	7,589.40	7,893.80	7,785.41	32.26	28.31	-166.93	-676.77	792.56	1,123.14	1,064.73	58.41	19.228			
8,300.00	7,589.40	7,907.26	7,798.66	32.67	28.36	-167.69	-678.36	794.30	1,202.76	1,144.23	58.52	20.552			
8,400.00	7,589.40	7,921.00	7,812.19	33.21	28.41	-168.36	-680.02	796.03	1,301.18	1,242.54	58.64	22.190			
8,444.09	7,589.40	7,929.84	7,820.89	33.45	28.45	-168.74	-681.10	797.13	1,344.58	1,285.88	58.71	22.903			
8,500.00	7,589.40	7,937.83	7,828.76	33.76	28.48	-160.27	-682.08	798.10	1,399.60	1,340.83	58.78	23.813			
8,600.00	7,589.40	7,951.92	7,842.64	34.34	28.53	-147.60	-683.82	799.79	1,497.78	1,438.89	58.89	25.431			
8,700.00	7,589.40	7,965.76	7,856.28	34.92	28.58	-138.02	-685.53	801.41	1,595.51	1,536.50	59.01	27.037			
8,800.00	7,589.40	7,979.34	7,869.66	35.52	28.63	-130.87	-687.21	802.97	1,692.63	1,633.50	59.13	28.628			
8,900.00	7,589.40	7,992.67	7,882.80	36.12	28.68	-125.47	-688.87	804.45	1,788.99	1,729.75	59.24	30.201			
9,000.00	7,589.40	8,005.74	7,895.69	36.73	28.73	-121.31	-690.50	805.88	1,884.47	1,825.12	59.35	31.754			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy													Offset Site Error:	0.00 usft
Survey Program:		200-MWD+IFR1+MS		Semi Major Axis		Offset Wellbore Centre			Distance		Rule Assigned:		Offset Well Error:	0.50 usft
Reference	Offset	Reference	Offset	Highside					Between	Between	Minimum	Separation	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)	Tooface (")	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
9,100.00	7,589.40	8,016.00	7,905.82	37.33	28.77	117.84	-691.78	806.97	1,978.96	1,919.53	59.44	33.296		
9,200.00	7,589.40	8,033.47	7,923.06	37.92	28.84	115.55	-693.96	808.81	2,072.35	2,012.77	59.57	34.787		
9,300.00	7,589.39	8,047.65	7,937.05	38.51	28.89	113.49	-695.70	810.31	2,164.53	2,104.85	59.69	36.265		
9,400.00	7,589.39	8,061.44	7,950.65	39.09	28.94	111.77	-697.38	811.77	2,255.43	2,195.64	59.80	37.717		
9,500.00	7,589.39	8,074.80	7,963.84	39.65	28.99	110.31	-698.99	813.18	2,344.97	2,285.07	59.91	39.144		
9,600.00	7,589.39	8,145.63	8,033.62	40.19	29.26	111.69	-707.98	821.31	2,432.90	2,372.51	60.39	40.283		
9,700.00	7,589.38	11,820.00	9,991.22	40.72	44.00	165.64	-2,572.78	1,929.09	2,479.84	2,424.38	55.46	44.714		
9,800.00	7,589.38	11,936.14	9,990.29	41.23	44.48	165.26	-2,688.27	1,941.27	2,482.09	2,425.30	56.79	43.704		
9,900.00	7,589.38	12,008.00	9,989.39	41.72	44.78	165.07	-2,759.93	1,946.54	2,483.30	2,425.27	58.03	42.791		
10,000.00	7,589.37	12,096.30	9,987.92	42.18	45.14	164.87	-2,848.18	1,948.91	2,484.04	2,424.73	59.31	41.881		
10,100.00	7,589.37	12,196.00	9,984.08	42.63	45.54	164.71	-2,947.80	1,948.57	2,482.17	2,421.55	60.62	40.948		
10,173.66	7,589.36	12,252.49	9,982.00	42.94	45.78	164.70	-3,004.24	1,948.13	2,480.34	2,418.84	61.49	40.336		
10,191.70	7,589.36	12,259.98	9,981.88	43.01	45.81	164.69	-3,011.73	1,948.11	2,480.07	2,418.39	61.68	40.209		
10,200.00	7,589.36	12,291.00	9,981.76	43.05	45.93	164.69	-3,042.75	1,948.18	2,480.34	2,418.49	61.85	40.100		
10,300.00	7,589.36	12,372.31	9,981.48	43.47	46.27	164.70	-3,124.06	1,948.75	2,479.64	2,416.61	63.02	39.344		
10,384.78	7,589.36	12,421.91	9,981.05	43.83	46.49	164.71	-3,173.65	1,949.24	2,478.87	2,414.91	63.96	38.754		
10,400.00	7,589.36	12,428.97	9,981.08	43.90	46.52	164.71	-3,180.71	1,949.31	2,478.90	2,414.77	64.13	38.656		
10,500.00	7,589.35	12,479.00	9,982.00	44.33	46.73	164.73	-3,230.73	1,949.94	2,480.31	2,415.10	65.22	38.032		
10,600.00	7,589.35	12,663.52	9,983.54	44.78	47.56	164.86	-3,415.12	1,955.98	2,479.78	2,413.08	66.70	37.179		
10,700.00	7,589.34	12,744.09	9,982.76	45.23	47.92	164.84	-3,495.67	1,955.40	2,479.10	2,411.17	67.93	36.496		
10,800.00	7,589.34	12,856.00	9,981.63	45.69	48.43	164.82	-3,607.57	1,955.14	2,478.19	2,408.91	69.28	35.773		
10,856.92	7,589.34	12,894.21	9,981.34	45.96	48.60	164.83	-3,645.77	1,955.55	2,477.75	2,407.80	69.95	35.423		
10,900.00	7,589.33	12,913.48	9,981.38	46.16	48.69	164.82	-3,665.05	1,955.39	2,477.96	2,407.53	70.43	35.185		
11,000.00	7,589.33	12,974.33	9,982.15	46.64	48.97	164.78	-3,725.85	1,953.27	2,479.98	2,408.36	71.62	34.628		
11,100.00	7,589.33	13,099.96	9,981.91	47.12	49.52	164.55	-3,851.07	1,943.32	2,481.94	2,408.78	73.16	33.927		
11,200.00	7,589.32	13,311.37	9,978.37	47.61	50.52	164.37	-4,062.27	1,936.70	2,481.22	2,406.19	75.04	33.066		
11,300.00	7,589.32	13,419.00	9,975.01	48.11	51.06	164.39	-4,169.83	1,938.81	2,477.72	2,401.31	76.41	32.428		
11,400.00	7,589.31	13,482.39	9,973.49	48.61	51.38	164.41	-4,233.19	1,940.19	2,474.99	2,397.39	77.60	31.896		
11,500.00	7,589.31	13,559.26	9,973.35	49.12	51.78	164.46	-4,310.02	1,942.72	2,473.91	2,395.08	78.83	31.382		
11,600.00	7,589.31	13,708.54	9,971.97	49.64	52.56	164.54	-4,459.23	1,946.89	2,472.46	2,392.09	80.38	30.761		
11,700.00	7,589.30	13,784.20	9,970.78	50.16	52.96	164.58	-4,534.84	1,949.10	2,470.20	2,388.57	81.63	30.262		
11,800.00	7,589.30	13,888.00	9,968.48	50.69	53.51	164.60	-4,638.60	1,950.82	2,467.66	2,384.64	83.02	29.724		
11,900.00	7,589.29	13,960.61	9,966.91	51.23	53.90	164.60	-4,711.19	1,951.20	2,465.68	2,381.39	84.29	29.253		
11,987.41	7,589.29	14,025.70	9,966.93	51.70	54.25	164.61	-4,776.27	1,951.93	2,465.44	2,380.04	85.40	28.870		
12,000.00	7,589.29	14,037.43	9,966.96	51.77	54.31	164.61	-4,788.00	1,952.08	2,465.44	2,379.87	85.57	28.813		
12,100.00	7,589.28	14,133.54	9,967.37	52.31	54.83	164.64	-4,884.10	1,953.25	2,465.58	2,378.64	86.94	28.360		
12,200.00	7,589.28	14,215.97	9,967.92	52.86	55.28	164.66	-4,966.52	1,954.20	2,466.01	2,377.76	88.25	27.943		
12,300.00	7,589.28	14,318.88	9,970.23	53.42	55.86	164.75	-5,069.33	1,958.05	2,467.25	2,377.62	89.63	27.526		
12,400.00	7,589.27	14,411.10	9,972.27	53.98	56.38	164.89	-5,161.35	1,963.64	2,467.88	2,376.93	90.95	27.135		
12,500.00	7,589.27	14,539.77	9,973.81	54.55	57.11	164.91	-5,289.99	1,964.54	2,469.05	2,376.55	92.50	26.692		
12,511.92	7,589.27	14,563.34	9,973.58	54.62	57.24	164.90	-5,313.55	1,964.02	2,469.02	2,376.28	92.73	26.625		
12,600.00	7,589.26	14,684.79	9,973.63	55.12	57.93	164.93	-5,434.95	1,965.67	2,469.10	2,374.97	94.14	26.229		
12,700.00	7,589.26	14,781.63	9,972.17	55.70	58.49	165.02	-5,531.66	1,970.17	2,466.51	2,371.00	95.51	25.825		
12,786.19	7,589.26	14,825.00	9,972.22	56.20	58.75	165.04	-5,575.01	1,971.06	2,465.99	2,369.46	96.53	25.546		
12,800.00	7,589.26	14,825.00	9,972.22	56.28	58.75	165.04	-5,575.01	1,971.06	2,466.03	2,369.37	96.66	25.512		
12,900.00	7,589.25	14,908.30	9,972.81	56.86	59.22	165.01	-5,658.29	1,969.77	2,467.13	2,369.10	98.03	25.168		
13,000.00	7,589.25	15,001.10	9,972.88	57.45	59.74	164.90	-5,750.99	1,965.29	2,468.51	2,369.03	99.48	24.814		
13,100.00	7,589.24	15,110.77	9,972.91	58.04	60.35	164.78	-5,860.52	1,959.84	2,469.90	2,368.86	101.04	24.446		
13,200.00	7,589.24	15,219.85	9,972.99	58.64	60.98	164.69	-5,969.54	1,956.21	2,470.90	2,368.33	102.57	24.089		
13,300.00	7,589.23	15,330.83	9,972.65	59.24	61.62	164.62	-6,080.48	1,953.36	2,471.32	2,367.20	104.12	23.736		
13,400.00	7,589.23	15,426.52	9,972.97	59.84	62.19	164.61	-6,176.17	1,953.06	2,471.79	2,366.23	105.56	23.417		
13,500.00	7,589.23	15,537.81	9,973.39	60.45	62.85	164.61	-6,287.46	1,953.19	2,472.19	2,365.11	107.08	23.088		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy

Survey Program: 200-MWD+IFR1+MS										Rule Assigned:		Offset Well Error:		0.00 usft
Reference Offset				Semi Major Axis		Offset Wellbore Centre			Distance			Warning		0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,600.00	7,589.22	15,648.25	9,972.97	61.06	63.51	164.60	-6,397.90	1,952.89	2,471.94	2,363.34	108.60	22.761		
13,699.40	7,589.22	15,738.62	9,972.80	61.67	64.06	164.60	-6,488.26	1,953.31	2,471.70	2,361.70	110.01	22.468		
13,700.00	7,589.22	15,739.14	9,972.80	61.68	64.06	164.60	-6,488.79	1,953.32	2,471.70	2,361.69	110.02	22.467		
13,800.00	7,589.21	15,832.24	9,972.98	62.30	64.63	164.60	-6,581.88	1,953.52	2,471.88	2,360.44	111.45	22.180		
13,900.00	7,589.21	15,934.27	9,973.12	62.92	65.25	164.59	-6,683.91	1,953.19	2,472.16	2,359.23	112.93	21.890		
14,000.00	7,589.21	16,031.95	9,973.16	63.54	65.85	164.58	-6,781.59	1,952.73	2,472.38	2,357.98	114.40	21.612		
14,100.00	7,589.20	16,125.16	9,973.58	64.17	66.42	164.58	-6,874.80	1,952.94	2,472.81	2,356.97	115.84	21.347		
14,200.00	7,589.20	16,251.27	9,973.56	64.80	67.21	164.58	-7,000.91	1,953.02	2,472.83	2,355.37	117.46	21.052		
14,300.00	7,589.19	16,329.00	9,973.17	65.43	67.69	164.56	-7,078.64	1,952.66	2,472.58	2,353.76	118.83	20.809		
14,303.73	7,589.19	16,341.76	9,973.12	65.46	67.77	164.56	-7,091.40	1,952.56	2,472.55	2,353.62	118.93	20.789		
14,400.00	7,589.19	16,424.00	9,973.49	66.07	68.28	164.55	-7,173.63	1,952.07	2,473.13	2,352.85	120.29	20.560		
14,500.00	7,589.18	16,513.65	9,974.06	66.71	68.84	164.51	-7,263.27	1,950.49	2,474.24	2,352.51	121.73	20.326		
14,600.00	7,589.18	16,587.32	9,974.55	67.35	69.30	164.46	-7,336.89	1,948.19	2,475.78	2,352.70	123.07	20.116		
14,700.00	7,589.18	16,740.02	9,976.19	67.99	70.26	164.45	-7,489.56	1,947.50	2,477.09	2,352.20	124.88	19.835		
14,789.41	7,589.17	16,828.83	9,976.98	68.57	70.84	164.53	-7,578.28	1,951.27	2,476.89	2,350.72	126.18	19.630		
14,800.00	7,589.17	16,836.71	9,977.06	68.64	70.89	164.54	-7,586.16	1,951.55	2,476.90	2,350.58	126.32	19.609		
14,900.00	7,589.17	16,935.49	9,977.91	69.29	71.53	164.57	-7,684.92	1,952.96	2,477.40	2,349.61	127.79	19.387		
15,000.00	7,589.16	17,058.64	9,978.43	69.94	72.33	164.68	-7,807.97	1,957.68	2,476.79	2,347.42	129.37	19.145		
15,100.00	7,589.16	17,169.55	9,979.07	70.59	73.07	164.82	-7,918.68	1,964.27	2,475.84	2,344.98	130.86	18.920		
15,200.00	7,589.16	17,250.70	9,979.33	71.25	73.60	164.91	-7,999.74	1,968.05	2,474.99	2,342.77	132.22	18.719		
15,300.00	7,589.15	17,370.67	9,979.61	71.91	74.39	165.00	-8,119.62	1,972.54	2,474.34	2,340.55	133.79	18.494		
15,400.00	7,589.15	17,442.30	9,979.65	72.57	74.86	165.04	-8,191.23	1,974.42	2,473.74	2,338.62	135.12	18.308		
15,416.10	7,589.15	17,456.00	9,979.68	72.67	74.96	165.04	-8,204.93	1,974.54	2,473.73	2,338.39	135.34	18.277		
15,500.00	7,589.14	17,537.74	9,979.83	73.23	75.49	165.05	-8,286.66	1,975.03	2,473.81	2,337.22	136.59	18.111		
15,600.00	7,589.14	17,584.00	9,979.92	73.89	75.79	165.06	-8,332.92	1,975.30	2,474.48	2,336.72	137.76	17.963		
15,700.00	7,589.13	17,584.00	9,979.92	74.56	75.79	165.06	-8,332.92	1,975.30	2,478.75	2,340.23	138.52	17.894		
15,800.00	7,589.13	17,584.00	9,979.92	75.23	75.79	165.06	-8,332.92	1,975.30	2,487.05	2,347.91	139.13	17.875		
15,900.00	7,589.13	17,584.00	9,979.92	75.90	75.79	165.06	-8,332.92	1,975.30	2,499.32	2,359.72	139.59	17.904		
16,000.00	7,589.12	17,584.00	9,979.92	76.57	75.79	165.06	-8,332.92	1,975.30	2,515.50	2,375.61	139.90	17.981		
16,100.00	7,589.12	17,584.00	9,979.92	77.24	75.79	165.06	-8,332.92	1,975.30	2,535.54	2,395.48	140.05	18.104		
16,200.00	7,589.11	17,584.00	9,979.92	77.92	75.79	165.06	-8,332.92	1,975.30	2,559.32	2,419.25	140.07	18.272		
16,300.00	7,589.11	17,584.00	9,979.92	78.59	75.79	165.06	-8,332.92	1,975.30	2,586.75	2,446.80	139.95	18.483		
16,400.00	7,589.11	17,584.00	9,979.92	79.27	75.79	165.06	-8,332.92	1,975.30	2,617.72	2,478.01	139.71	18.737		
16,500.00	7,589.10	17,584.00	9,979.92	79.95	75.79	165.06	-8,332.92	1,975.30	2,652.10	2,512.75	139.36	19.031		
16,600.00	7,589.10	17,584.00	9,979.92	80.63	75.79	165.06	-8,332.92	1,975.30	2,689.77	2,550.87	138.90	19.365		
16,700.00	7,589.09	17,584.00	9,979.92	81.31	75.79	165.06	-8,332.92	1,975.30	2,730.57	2,592.22	138.35	19.737		
16,800.00	7,589.09	17,584.00	9,979.92	82.00	75.79	165.06	-8,332.92	1,975.30	2,774.38	2,636.66	137.72	20.145		
16,900.00	7,589.08	17,584.00	9,979.92	82.68	75.79	165.06	-8,332.92	1,975.30	2,821.06	2,684.04	137.02	20.588		
17,000.00	7,589.08	17,584.00	9,979.92	83.37	75.79	165.06	-8,332.92	1,975.30	2,870.46	2,734.19	136.27	21.065		
17,100.00	7,589.08	17,584.00	9,979.92	84.06	75.79	165.06	-8,332.92	1,975.30	2,922.45	2,786.99	135.47	21.573		
17,200.00	7,589.07	17,584.00	9,979.92	84.75	75.79	165.06	-8,332.92	1,975.30	2,976.90	2,842.27	134.63	22.113		
17,300.00	7,589.07	17,584.00	9,979.92	85.44	75.79	165.06	-8,332.92	1,975.30	3,033.66	2,899.91	133.75	22.681		
17,400.00	7,589.06	17,584.00	9,979.92	86.13	75.79	165.06	-8,332.92	1,975.30	3,092.62	2,959.75	132.86	23.277		
17,500.00	7,589.06	17,584.00	9,979.92	86.83	75.79	165.06	-8,332.92	1,975.30	3,153.64	3,021.69	131.96	23.899		
17,600.00	7,589.06	17,584.00	9,979.92	87.52	75.79	165.06	-8,332.92	1,975.30	3,216.62	3,085.58	131.04	24.546		
17,700.00	7,589.05	17,584.00	9,979.92	88.22	75.79	165.06	-8,332.92	1,975.30	3,281.44	3,151.31	130.13	25.217		
17,800.00	7,589.05	17,584.00	9,979.92	88.91	75.79	165.06	-8,332.92	1,975.30	3,347.98	3,218.77	129.21	25.911		
17,900.00	7,589.04	17,584.00	9,979.92	89.61	75.79	165.06	-8,332.92	1,975.30	3,416.16	3,287.86	128.30	26.626		
18,000.00	7,589.04	17,584.00	9,979.92	90.31	75.79	165.06	-8,332.92	1,975.30	3,485.88	3,358.48	127.40	27.361		
18,100.00	7,589.03	17,584.00	9,979.92	91.01	75.79	165.06	-8,332.92	1,975.30	3,557.04	3,430.52	126.52	28.115		
18,200.00	7,589.03	17,584.00	9,979.92	91.71	75.79	165.06	-8,332.92	1,975.30	3,629.56	3,503.92	125.64	28.887		
18,300.00	7,589.03	17,584.00	9,979.92	92.42	75.79	165.06	-8,332.92	1,975.30	3,703.36	3,578.57	124.79	29.677		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - OH - Svy													Offset Site Error:	0.00 usft	
Survey Program:		200-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:	0.50 usft
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside				Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface		+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)		(usft)	(usft)	(usft)	(usft)	(usft)			
18,400.00	7,589.02	17,584.00	9,979.92	93.12	75.79	165.06		-8,332.92	1,975.30	3,778.37	3,654.42	123.95	30.482		
18,500.00	7,589.02	17,584.00	9,979.92	93.82	75.79	165.06		-8,332.92	1,975.30	3,854.51	3,731.37	123.14	31.302		
18,600.00	7,589.01	17,584.00	9,979.92	94.53	75.79	165.06		-8,332.92	1,975.30	3,931.72	3,809.38	122.34	32.137		
18,700.00	7,589.01	17,584.00	9,979.92	95.23	75.79	165.06		-8,332.92	1,975.30	4,009.94	3,888.37	121.57	32.985		
18,800.00	7,589.01	17,584.00	9,979.92	95.94	75.79	165.06		-8,332.92	1,975.30	4,089.11	3,968.29	120.82	33.845		
18,900.00	7,589.00	17,584.00	9,979.92	96.65	75.79	165.06		-8,332.92	1,975.30	4,169.17	4,049.08	120.09	34.718		
18,917.19	7,589.00	17,584.00	9,979.92	96.77	75.79	165.06		-8,332.92	1,975.30	4,183.02	4,063.06	119.96	34.869		
18,917.96	7,589.00	17,584.00	9,979.92	97.01	75.79	165.06		-8,332.92	1,975.30	4,183.64	4,060.91	122.73	34.088		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS														Offset Site Error: 0.00 usft	
Reference						Offset			Semi Major Axis		Rule Assigned:		Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.50	54.22	58.45	81.11	99.98						
100.00	100.00	99.58	99.58	0.28	0.52	54.29	58.65	81.59	100.49	99.69	0.80	125.371			
200.00	200.00	198.55	198.53	0.63	0.59	54.49	59.24	83.02	102.01	100.78	1.23	83.127			
300.00	300.00	298.36	298.32	0.99	0.84	54.33	60.70	84.56	104.12	102.29	1.83	56.925			
400.00	400.00	398.32	398.25	1.35	1.14	53.57	63.12	85.53	106.33	103.83	2.49	42.655			
500.00	500.00	498.12	498.01	1.71	1.47	52.66	65.83	86.28	108.56	105.38	3.18	34.142			
600.00	600.00	598.12	597.96	2.07	1.81	51.73	68.85	87.28	111.20	107.32	3.88	28.675			
700.00	700.00	699.52	699.31	2.43	2.16	50.26	72.02	86.62	112.66	108.07	4.58	24.576			
800.00	800.00	799.52	799.24	2.79	2.51	48.58	75.39	85.44	113.96	108.67	5.29	21.549			
900.00	900.00	900.02	899.69	3.14	2.86	47.11	78.21	84.19	114.91	108.91	6.00	19.161			
1,000.00	1,000.00	1,001.20	1,000.85	3.50	3.21	45.95	80.20	82.90	115.34	108.64	6.71	17.198			
1,100.00	1,099.98	1,102.90	1,102.53	3.85	3.56	-83.86	80.80	80.94	114.18	106.78	7.40	15.433			
1,200.00	1,199.84	1,203.26	1,202.86	4.18	3.90	-87.27	80.21	78.50	111.70	103.62	8.07	13.838			
1,300.00	1,299.45	1,303.22	1,302.77	4.52	4.24	-92.78	79.53	75.64	109.39	100.64	8.75	12.501			
1,393.89	1,392.65	1,396.27	1,395.77	4.84	4.56	-99.78	78.71	72.66	108.33	98.94	9.39	11.533			
1,400.00	1,398.70	1,402.31	1,401.81	4.86	4.58	-100.29	78.65	72.47	108.34	98.90	9.44	11.482	ES		
1,500.00	1,497.47	1,500.82	1,500.26	5.21	4.92	-109.38	77.69	69.33	110.23	100.10	10.13	10.886			
1,600.00	1,595.62	1,597.80	1,597.21	5.56	5.26	-118.79	76.85	67.12	116.76	105.95	10.82	10.795			
1,700.00	1,693.06	1,694.84	1,694.24	5.92	5.59	-127.61	76.32	66.16	128.71	117.20	11.51	11.184			
1,800.00	1,790.08	1,790.75	1,790.15	6.28	5.93	-135.39	76.19	65.21	144.99	132.79	12.20	11.885			
1,900.00	1,887.11	1,887.17	1,886.56	6.65	6.27	-141.61	76.54	64.11	163.95	151.06	12.89	12.715			
2,000.00	1,984.14	1,986.49	1,985.87	7.02	6.61	-146.23	76.80	64.46	183.87	170.27	13.60	13.524			
2,100.00	2,081.17	2,088.27	2,087.58	7.39	6.96	-149.23	76.09	68.18	202.60	188.30	14.30	14.167			
2,200.00	2,178.20	2,186.12	2,185.31	7.76	7.29	-151.42	75.03	72.74	220.99	205.99	15.00	14.737			
2,300.00	2,275.23	2,286.35	2,285.44	8.14	7.63	-153.46	73.25	77.07	239.20	223.49	15.70	15.233			
2,400.00	2,372.26	2,388.29	2,387.21	8.52	7.98	-155.22	70.34	82.10	256.41	239.99	16.42	15.619			
2,500.00	2,469.29	2,485.94	2,484.62	8.90	8.31	-156.63	66.67	87.79	272.63	255.51	17.12	15.923			
2,600.00	2,566.32	2,572.09	2,570.70	9.28	8.61	-158.07	64.37	90.36	291.38	273.60	17.78	16.390			
2,700.00	2,663.35	2,665.82	2,664.42	9.67	8.93	-159.87	63.31	89.64	313.49	295.03	18.46	16.978			
2,800.00	2,760.38	2,772.86	2,771.43	10.05	9.31	-161.86	61.59	87.73	336.18	316.95	19.23	17.485			
2,900.00	2,857.41	2,904.06	2,901.96	10.44	9.76	-164.44	49.06	89.20	350.89	330.85	20.03	17.514			
3,000.00	2,954.44	3,033.42	3,029.26	10.83	10.21	-166.93	27.44	96.25	357.89	337.17	20.72	17.273			
3,100.00	3,051.47	3,151.09	3,143.49	11.22	10.61	-168.37	4.07	111.88	357.61	336.24	21.37	16.735			
3,200.00	3,148.50	3,251.04	3,240.06	11.60	10.96	-169.02	-15.01	129.20	355.50	333.40	22.10	16.085			
3,300.00	3,245.53	3,347.04	3,332.98	11.99	11.30	-169.58	-32.59	145.74	354.11	331.25	22.86	15.491			
3,354.33	3,298.24	3,398.72	3,383.13	12.21	11.48	-169.87	-41.63	154.37	353.90	330.63	23.27	15.206			
3,400.00	3,342.56	3,442.76	3,425.92	12.38	11.64	-170.11	-49.11	161.60	354.01	330.39	23.62	14.988			
3,500.00	3,439.59	3,533.62	3,514.44	12.77	11.96	-170.60	-63.78	175.90	355.40	331.00	24.40	14.567			
3,600.00	3,536.62	3,625.54	3,604.63	13.17	12.29	-171.08	-76.39	188.33	360.10	334.94	25.16	14.312			
3,700.00	3,633.65	3,726.15	3,703.44	13.56	12.65	-171.59	-89.86	201.71	365.28	339.37	25.91	14.100			
3,800.00	3,730.68	3,825.71	3,801.19	13.95	13.01	-172.11	-103.43	214.82	370.40	343.74	26.66	13.896			
3,900.00	3,827.71	3,925.34	3,899.04	14.34	13.38	-172.60	-116.78	227.97	375.68	348.27	27.41	13.708			
4,000.00	3,924.74	4,023.63	3,995.59	14.74	13.73	-172.97	-129.46	241.31	381.10	352.94	28.16	13.533			
4,100.00	4,021.77	4,119.17	4,089.58	15.13	14.08	-173.29	-141.11	253.94	387.29	358.37	28.91	13.395			
4,200.00	4,118.79	4,219.89	4,188.78	15.52	14.45	-173.74	-153.47	266.15	394.23	364.56	29.67	13.288			
4,300.00	4,215.82	4,320.00	4,287.28	15.92	14.82	-174.46	-167.56	277.20	400.70	370.28	30.42	13.170			
4,400.00	4,312.85	4,416.31	4,382.09	16.31	15.17	-175.18	-181.12	287.33	407.63	376.45	31.18	13.073			
4,500.00	4,409.88	4,528.66	4,492.54	16.70	15.58	-175.92	-197.19	300.12	413.86	381.92	31.94	12.957			
4,600.00	4,506.91	4,635.36	4,596.88	17.10	15.98	-176.53	-213.91	314.86	417.32	384.63	32.69	12.764			
4,700.00	4,603.94	4,734.91	4,694.14	17.49	16.35	-177.04	-229.63	329.16	420.34	386.88	33.46	12.562			
4,800.00	4,700.97	4,838.45	4,795.15	17.89	16.74	-177.43	-245.67	345.25	422.67	388.45	34.22	12.352			
4,900.00	4,798.00	4,936.37	4,890.67	18.28	17.10	-177.73	-260.55	360.85	424.92	389.93	34.99	12.144			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,895.03	5,029.89	4,982.07	18.68	17.45	-178.01	-274.22	375.15	428.07	392.31	35.76	11.969	
5,100.00	4,992.06	5,126.34	5,076.71	19.07	17.81	-178.28	-287.12	388.57	433.10	396.57	36.53	11.855	
5,200.00	5,089.09	5,228.08	5,176.35	19.47	18.19	-178.59	-301.44	403.30	437.24	399.94	37.30	11.723	
5,300.00	5,186.12	5,322.88	5,269.40	19.87	18.55	-178.87	-314.15	416.23	442.49	404.43	38.06	11.625	
5,400.00	5,283.15	5,430.79	5,375.30	20.26	18.95	-179.26	-329.12	430.62	447.75	408.91	38.83	11.530	
5,500.00	5,380.18	5,533.02	5,475.17	20.66	19.34	-179.62	-344.63	445.95	450.81	411.21	39.60	11.383	
5,600.00	5,477.21	5,623.99	5,564.26	21.06	19.68	-179.86	-357.36	459.22	455.00	414.62	40.37	11.269	
5,700.00	5,574.24	5,729.32	5,667.65	21.45	20.08	-179.88	-371.29	473.71	460.36	419.22	41.15	11.188	
5,800.00	5,671.27	5,835.03	5,770.97	21.85	20.48	-179.53	-387.21	489.37	463.68	421.77	41.92	11.062	
5,900.00	5,768.30	5,929.96	5,863.74	22.24	20.84	-179.14	-401.93	503.14	467.02	424.33	42.69	10.939	
6,000.00	5,865.33	6,029.52	5,961.20	22.64	21.21	-178.82	-416.48	517.34	471.12	427.65	43.47	10.838	
6,100.00	5,962.36	6,126.20	6,055.92	23.04	21.58	-178.64	-429.60	531.56	475.50	431.26	44.24	10.748	
6,200.00	6,059.39	6,217.53	6,145.63	23.44	21.92	-178.51	-441.12	544.28	481.12	436.12	45.00	10.692	
6,300.00	6,156.42	6,316.49	6,243.02	23.83	22.30	-178.36	-452.99	557.24	487.78	442.01	45.77	10.658	
6,400.00	6,253.45	6,425.04	6,349.60	24.23	22.71	-178.09	-467.53	571.77	493.35	446.80	46.55	10.598	
6,500.00	6,350.47	6,517.06	6,439.98	24.63	23.05	-177.85	-479.88	583.83	499.15	451.84	47.31	10.550	
6,600.00	6,447.50	6,614.77	6,536.13	25.02	23.42	-177.80	-491.07	597.13	505.73	457.65	48.08	10.519	
6,700.00	6,544.53	6,706.15	6,626.26	25.42	23.76	-177.76	-500.88	608.54	513.65	464.83	48.82	10.522	
6,800.00	6,641.56	6,820.09	6,738.48	25.82	24.19	-177.44	-515.38	621.87	521.07	471.44	49.63	10.499	
6,900.00	6,738.59	6,939.60	6,855.26	26.22	24.65	-176.87	-534.90	638.08	524.76	474.33	50.42	10.407	
7,000.00	6,835.62	7,027.79	6,941.20	26.61	24.98	-176.56	-549.20	651.68	527.15	475.95	51.20	10.295	
7,100.00	6,932.65	7,121.34	7,033.15	27.01	25.34	-176.41	-561.18	664.12	533.15	481.18	51.97	10.259	
7,200.00	7,029.68	7,264.64	7,172.65	27.41	25.89	-175.90	-584.89	686.40	535.38	482.68	52.70	10.159	
7,300.00	7,126.71	7,367.23	7,271.24	27.81	26.29	-175.42	-605.47	705.89	532.44	478.96	53.48	9.956	
7,309.09	7,135.53	7,374.72	7,278.44	27.84	26.32	-175.39	-606.91	707.35	532.17	478.62	53.56	9.936	
7,322.22	7,148.23	7,385.54	7,288.86	27.90	26.36	-175.36	-608.95	709.44	532.00	478.32	53.67	9.912	
7,350.00	7,174.84	7,408.43	7,310.95	28.01	26.45	-175.29	-613.12	713.79	532.79	478.88	53.91	9.882	SF
7,400.00	7,221.63	7,450.00	7,351.20	28.22	26.62	-175.19	-620.17	721.40	538.24	483.90	54.34	9.905	
7,450.00	7,266.71	7,497.54	7,397.35	28.44	26.80	-175.12	-627.70	729.97	548.42	493.67	54.75	10.017	
7,500.00	7,309.74	7,544.00	7,442.48	28.67	26.98	-175.08	-634.72	738.51	562.87	507.71	55.15	10.205	
7,550.00	7,350.39	7,586.81	7,484.10	28.91	27.14	-175.05	-640.91	746.35	581.62	526.07	55.55	10.470	
7,600.00	7,388.34	7,626.99	7,523.25	29.15	27.30	-175.01	-646.46	753.54	604.65	548.71	55.94	10.809	
7,650.00	7,423.32	7,660.71	7,556.16	29.40	27.43	-174.91	-650.92	759.36	631.83	575.53	56.29	11.224	
7,700.00	7,455.05	7,689.94	7,584.78	29.65	27.54	-174.74	-654.56	764.02	663.14	606.53	56.61	11.714	
7,750.00	7,483.30	7,716.29	7,610.66	29.90	27.64	-174.47	-657.66	767.91	698.24	641.34	56.89	12.273	
7,800.00	7,507.84	7,742.70	7,636.65	30.15	27.74	-174.11	-660.61	771.53	736.68	679.53	57.15	12.891	
7,850.00	7,528.50	7,771.70	7,665.21	30.41	27.85	-173.68	-663.75	775.51	777.81	720.41	57.40	13.552	
7,900.00	7,545.11	7,796.97	7,690.09	30.66	27.94	-173.04	-666.41	779.06	821.23	763.62	57.61	14.255	
7,919.09	7,550.36	7,805.59	7,698.57	30.75	27.98	-172.72	-667.31	780.28	838.35	780.66	57.68	14.533	
8,000.00	7,568.52	7,837.52	7,730.00	31.16	28.10	-172.16	-670.58	784.87	912.62	854.68	57.95	15.749	
8,100.00	7,583.22	7,868.08	7,760.08	31.66	28.21	-170.77	-673.85	789.13	1,007.27	949.07	58.20	17.307	
8,200.00	7,589.24	7,890.47	7,782.12	32.17	28.30	-167.84	-676.39	792.12	1,104.39	1,046.00	58.38	18.916	
8,219.09	7,589.40	7,893.80	7,785.41	32.26	28.31	-166.93	-676.77	792.56	1,123.14	1,064.73	58.41	19.228	
8,300.00	7,589.40	7,907.26	7,798.66	32.67	28.36	-167.69	-678.36	794.30	1,202.76	1,144.23	58.52	20.552	
8,400.00	7,589.40	7,921.00	7,812.19	33.21	28.41	-168.36	-680.02	796.03	1,301.18	1,242.54	58.64	22.190	
8,444.09	7,589.40	7,929.84	7,820.89	33.45	28.45	-168.74	-681.10	797.13	1,344.58	1,285.88	58.71	22.903	
8,500.00	7,589.40	7,937.83	7,828.76	33.76	28.48	-160.27	-682.08	798.10	1,399.60	1,340.83	58.78	23.813	
8,600.00	7,589.40	7,951.92	7,842.64	34.34	28.53	-147.60	-683.82	799.79	1,497.78	1,438.89	58.89	25.431	
8,700.00	7,589.40	7,965.76	7,856.28	34.92	28.58	-138.02	-685.53	801.41	1,595.51	1,536.50	59.01	27.037	
8,800.00	7,589.40	7,979.34	7,869.66	35.52	28.63	-130.87	-687.21	802.97	1,692.63	1,633.50	59.13	28.628	
8,900.00	7,589.40	7,992.67	7,882.80	36.12	28.68	-125.47	-688.87	804.45	1,788.99	1,729.75	59.24	30.201	
9,000.00	7,589.40	8,005.74	7,895.69	36.73	28.73	-121.31	-690.50	805.88	1,884.47	1,825.12	59.35	31.754	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,100.00	7,589.40	8,016.00	7,905.82	37.33	28.77	117.84	-691.78	806.97	1,978.96	1,919.53	59.44	33.296	
9,200.00	7,589.40	8,033.47	7,923.06	37.92	28.84	115.55	-693.96	808.81	2,072.35	2,012.77	59.57	34.787	
9,300.00	7,589.39	8,047.65	7,937.05	38.51	28.89	113.49	-695.70	810.31	2,164.53	2,104.85	59.69	36.265	
9,400.00	7,589.39	8,061.44	7,950.65	39.09	28.94	111.77	-697.38	811.77	2,255.43	2,195.64	59.80	37.717	
9,500.00	7,589.39	8,074.80	7,963.84	39.65	28.99	110.31	-698.99	813.18	2,344.97	2,285.07	59.91	39.144	
9,600.00	7,589.39	8,145.63	8,033.62	40.19	29.26	111.69	-707.98	821.31	2,432.90	2,372.51	60.39	40.283	
9,700.00	7,589.38	8,260.26	8,145.96	40.72	29.70	114.56	-724.65	836.70	2,519.23	2,458.10	61.13	41.209	
9,800.00	7,589.38	11,883.19	10,026.19	41.23	41.63	162.80	-2,681.33	1,814.87	2,550.86	2,496.69	54.17	47.090	
9,900.00	7,589.38	11,969.06	10,027.48	41.72	41.96	162.74	-2,766.08	1,828.64	2,552.60	2,497.37	55.24	46.213	
10,000.00	7,589.37	12,047.65	10,028.43	42.18	42.26	162.74	-2,844.00	1,838.78	2,553.47	2,497.19	56.27	45.378	
10,100.00	7,589.37	12,133.63	10,029.90	42.63	42.60	162.83	-2,929.42	1,848.49	2,553.70	2,496.40	57.30	44.570	
10,173.66	7,589.36	12,215.18	10,030.74	42.94	42.92	163.00	-3,010.57	1,856.44	2,552.77	2,494.67	58.10	43.941	
10,200.00	7,589.36	12,237.97	10,030.84	43.05	43.01	163.04	-3,033.29	1,858.21	2,552.29	2,493.93	58.36	43.731	
10,300.00	7,589.36	12,327.35	10,030.77	43.47	43.36	163.13	-3,122.55	1,862.76	2,550.80	2,491.37	59.43	42.922	
10,400.00	7,589.36	12,420.02	10,030.76	43.90	43.73	163.21	-3,215.14	1,866.70	2,549.62	2,489.09	60.53	42.120	
10,500.00	7,589.35	12,509.83	10,030.77	44.33	44.09	163.27	-3,304.90	1,869.53	2,548.78	2,487.13	61.65	41.343	
10,600.00	7,589.35	12,601.69	10,030.51	44.78	44.46	163.27	-3,396.76	1,870.11	2,548.39	2,485.57	62.82	40.569	
10,700.00	7,589.34	12,702.53	10,029.90	45.23	44.87	163.26	-3,497.60	1,869.59	2,548.01	2,483.96	64.05	39.779	
10,800.00	7,589.34	12,799.14	10,029.60	45.69	45.28	163.25	-3,594.21	1,869.57	2,547.78	2,482.51	65.28	39.030	
10,900.00	7,589.33	12,901.93	10,029.18	46.16	45.72	163.24	-3,697.00	1,869.31	2,547.53	2,480.98	66.55	38.279	
11,000.00	7,589.33	12,999.71	10,028.86	46.64	46.14	163.23	-3,794.77	1,869.50	2,547.21	2,479.40	67.81	37.566	
11,100.00	7,589.33	13,099.09	10,028.64	47.12	46.58	163.23	-3,894.16	1,869.52	2,547.05	2,477.97	69.08	36.869	
11,200.00	7,589.32	13,194.94	10,028.20	47.61	47.01	163.21	-3,990.00	1,868.91	2,546.87	2,476.51	70.36	36.199	
11,210.42	7,589.32	13,204.39	10,028.16	47.66	47.06	163.21	-3,999.45	1,868.81	2,546.87	2,476.38	70.49	36.131	
11,300.00	7,589.32	13,293.19	10,027.86	48.11	47.46	163.18	-4,088.24	1,867.81	2,546.92	2,475.26	71.66	35.541	
11,400.00	7,589.31	13,404.61	10,027.52	48.61	47.98	163.16	-4,199.66	1,867.48	2,546.78	2,473.73	73.05	34.865	
11,500.00	7,589.31	13,502.85	10,027.11	49.12	48.45	163.16	-4,297.90	1,867.75	2,546.36	2,472.00	74.36	34.244	
11,600.00	7,589.31	13,619.56	10,026.25	49.64	49.01	163.16	-4,414.61	1,867.95	2,545.67	2,469.87	75.80	33.585	
11,700.00	7,589.30	13,713.92	10,025.15	50.16	49.47	163.14	-4,508.96	1,867.57	2,544.73	2,467.61	77.11	33.000	
11,800.00	7,589.30	13,794.00	10,024.54	50.69	49.87	163.11	-4,589.03	1,866.81	2,544.34	2,466.00	78.34	32.477	
11,900.00	7,589.29	13,909.73	10,023.93	51.23	50.45	163.10	-4,704.76	1,866.43	2,543.99	2,464.18	79.81	31.876	
12,000.00	7,589.29	14,000.56	10,023.37	51.77	50.91	163.09	-4,795.59	1,866.67	2,543.39	2,462.28	81.11	31.355	
12,017.99	7,589.29	14,012.00	10,023.35	51.87	50.97	163.10	-4,807.03	1,866.70	2,543.37	2,462.05	81.32	31.277	
12,100.00	7,589.28	14,077.00	10,023.86	52.31	51.30	163.10	-4,872.02	1,866.87	2,543.90	2,461.57	82.33	30.901	
12,200.00	7,589.28	14,174.53	10,024.57	52.86	51.81	163.07	-4,969.54	1,865.68	2,545.01	2,461.31	83.70	30.408	
12,300.00	7,589.28	14,277.82	10,023.74	53.42	52.34	162.97	-5,072.72	1,861.08	2,545.60	2,460.45	85.15	29.896	
12,400.00	7,589.27	14,358.00	10,023.93	53.98	52.75	162.91	-5,152.85	1,858.46	2,546.80	2,460.38	86.42	29.470	
12,500.00	7,589.27	14,460.38	10,025.60	54.55	53.30	162.92	-5,255.21	1,858.63	2,548.37	2,460.55	87.83	29.015	
12,600.00	7,589.26	14,564.78	10,027.36	55.12	53.87	162.96	-5,359.59	1,860.06	2,549.65	2,460.40	89.25	28.569	
12,700.00	7,589.26	14,665.97	10,028.68	55.70	54.43	162.98	-5,460.76	1,861.22	2,550.62	2,459.97	90.65	28.137	
12,800.00	7,589.26	14,749.23	10,030.09	56.28	54.89	163.00	-5,544.00	1,861.59	2,552.15	2,460.22	91.93	27.761	
12,900.00	7,589.25	14,905.03	10,032.01	56.86	55.76	163.04	-5,699.78	1,863.10	2,553.27	2,459.52	93.75	27.236	
13,000.00	7,589.25	15,005.54	10,031.79	57.45	56.33	163.07	-5,800.28	1,864.69	2,552.66	2,457.49	95.16	26.824	
13,100.00	7,589.24	15,109.00	10,031.44	58.04	56.92	163.09	-5,903.73	1,866.07	2,552.01	2,455.40	96.61	26.416	
13,200.00	7,589.24	15,204.00	10,031.17	58.64	57.47	163.10	-5,998.73	1,866.95	2,551.52	2,453.53	98.00	26.037	
13,300.00	7,589.23	15,301.01	10,031.21	59.24	58.03	163.11	-6,095.74	1,867.75	2,551.38	2,451.97	99.41	25.666	
13,400.00	7,589.23	15,409.54	10,031.04	59.84	58.67	163.14	-6,204.25	1,869.15	2,550.91	2,450.01	100.90	25.281	
13,500.00	7,589.23	15,511.68	10,030.86	60.45	59.27	163.17	-6,306.38	1,870.86	2,550.33	2,447.97	102.35	24.917	
13,600.00	7,589.22	15,618.26	10,030.33	61.06	59.90	163.20	-6,412.95	1,872.59	2,549.44	2,445.60	103.84	24.552	
13,700.00	7,589.22	15,713.63	10,029.84	61.68	60.47	163.22	-6,508.30	1,873.98	2,548.58	2,443.33	105.25	24.215	
13,800.00	7,589.21	15,805.08	10,029.69	62.30	61.02	163.25	-6,599.74	1,875.64	2,547.96	2,441.34	106.63	23.896	
13,900.00	7,589.21	15,900.39	10,029.50	62.92	61.60	163.26	-6,695.04	1,876.02	2,547.72	2,439.67	108.05	23.580	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy

Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,000.00	7,589.21	16,005.54	10,029.28	63.54	62.23	163.27	-6,800.19	1,876.78	2,547.37	2,437.82	109.54	23.254	
14,100.00	7,589.20	16,099.88	10,029.00	64.17	62.81	163.27	-6,894.53	1,877.40	2,546.96	2,436.00	110.96	22.953	
14,148.43	7,589.20	16,142.27	10,028.98	64.47	63.07	163.28	-6,936.92	1,877.56	2,546.91	2,435.29	111.62	22.817	
14,200.00	7,589.20	16,194.27	10,029.01	64.80	63.38	163.28	-6,988.92	1,877.74	2,546.92	2,434.53	112.38	22.663	
14,300.00	7,589.19	16,294.54	10,028.90	65.43	64.00	163.27	-7,089.19	1,877.63	2,546.91	2,433.05	113.86	22.369	
14,335.62	7,589.19	16,330.00	10,028.68	65.66	64.22	163.25	-7,124.64	1,876.96	2,546.91	2,432.52	114.39	22.266	
14,400.00	7,589.19	16,383.74	10,028.35	66.07	64.54	163.22	-7,178.36	1,875.59	2,547.04	2,431.78	115.26	22.098	
14,500.00	7,589.18	16,483.49	10,028.10	66.71	65.16	163.16	-7,278.07	1,872.97	2,547.62	2,430.87	116.76	21.820	
14,600.00	7,589.18	16,585.43	10,027.77	67.35	65.78	163.11	-7,380.00	1,871.00	2,547.94	2,429.67	118.27	21.544	
14,700.00	7,589.18	16,695.69	10,027.62	67.99	66.47	163.08	-7,490.25	1,869.90	2,548.17	2,428.33	119.84	21.263	
14,800.00	7,589.17	16,801.22	10,027.19	68.64	67.13	163.06	-7,595.78	1,869.34	2,547.99	2,426.62	121.37	20.993	
14,900.00	7,589.17	16,898.68	10,026.74	69.29	67.75	163.04	-7,693.23	1,868.79	2,547.78	2,424.93	122.84	20.740	
15,000.00	7,589.16	16,996.11	10,026.46	69.94	68.36	163.03	-7,790.66	1,868.46	2,547.66	2,423.35	124.31	20.494	
15,047.04	7,589.16	17,041.52	10,026.36	70.25	68.65	163.02	-7,836.08	1,868.29	2,547.65	2,422.65	125.00	20.381	
15,100.00	7,589.16	17,094.21	10,026.28	70.59	68.99	163.01	-7,888.77	1,868.08	2,547.66	2,421.87	125.79	20.254	
15,200.00	7,589.16	17,197.38	10,026.19	71.25	69.65	163.02	-7,991.93	1,868.51	2,547.52	2,420.21	127.30	20.011	
15,219.67	7,589.15	17,214.15	10,026.19	71.38	69.76	163.02	-8,008.71	1,868.58	2,547.51	2,419.93	127.57	19.969	
15,300.00	7,589.15	17,291.33	10,026.27	71.91	70.25	163.01	-8,085.88	1,868.44	2,547.66	2,418.92	128.75	19.788	
15,400.00	7,589.15	17,415.95	10,025.57	72.57	71.05	163.00	-8,210.50	1,868.46	2,547.16	2,416.71	130.45	19.527	
15,500.00	7,589.14	17,505.75	10,024.68	73.23	71.64	162.99	-8,300.30	1,868.21	2,546.37	2,414.51	131.86	19.311	
15,544.55	7,589.14	17,540.60	10,024.59	73.52	71.86	162.99	-8,335.15	1,868.27	2,546.26	2,413.81	132.45	19.225	
15,600.00	7,589.14	17,582.06	10,024.72	73.89	72.13	162.99	-8,376.61	1,868.53	2,546.37	2,413.22	133.16	19.123	
15,700.00	7,589.13	17,660.61	10,025.81	74.56	72.64	163.02	-8,455.14	1,869.53	2,547.37	2,412.91	134.46	18.945	
15,800.00	7,589.13	17,781.73	10,027.63	75.23	73.44	163.06	-8,576.23	1,871.25	2,548.48	2,412.35	136.13	18.721	
15,900.00	7,589.13	17,890.35	10,028.03	75.90	74.15	163.09	-8,684.84	1,872.66	2,548.50	2,410.80	137.70	18.508	
16,000.00	7,589.12	18,005.35	10,028.21	76.57	74.91	163.10	-8,799.84	1,873.11	2,548.62	2,409.30	139.33	18.293	
16,100.00	7,589.12	18,106.78	10,027.58	77.24	75.58	163.09	-8,901.27	1,873.11	2,548.09	2,407.24	140.84	18.091	
16,200.00	7,589.11	18,196.68	10,027.16	77.92	76.18	163.08	-8,991.17	1,872.84	2,547.80	2,405.53	142.27	17.908	
16,300.00	7,589.11	18,321.24	10,026.43	78.59	77.00	163.08	-9,115.72	1,873.54	2,547.11	2,403.13	143.98	17.691	
16,400.00	7,589.11	18,397.24	10,026.97	79.27	77.52	163.15	-9,191.63	1,876.98	2,546.53	2,401.27	145.26	17.530	
16,500.00	7,589.10	18,510.99	10,027.87	79.95	78.29	163.27	-9,305.24	1,882.40	2,545.95	2,399.10	146.85	17.337	
16,565.76	7,589.10	18,560.53	10,027.99	80.40	78.62	163.29	-9,354.77	1,883.44	2,545.74	2,398.04	147.70	17.236	
16,600.00	7,589.10	18,588.38	10,028.10	80.63	78.81	163.30	-9,382.61	1,883.69	2,545.80	2,397.64	148.16	17.182	
16,700.00	7,589.09	18,711.12	10,027.68	81.31	79.63	163.30	-9,505.36	1,884.18	2,545.37	2,395.50	149.87	16.984	
16,800.00	7,589.09	18,819.70	10,027.07	82.00	80.36	163.30	-9,613.93	1,884.63	2,544.80	2,393.34	151.45	16.802	
16,900.00	7,589.08	18,917.97	10,025.65	82.68	81.02	163.28	-9,712.19	1,884.32	2,543.58	2,390.61	152.96	16.629	
17,000.00	7,589.08	19,011.29	10,025.11	83.37	81.66	163.28	-9,805.51	1,884.71	2,542.94	2,388.52	154.42	16.468	
17,100.00	7,589.08	19,118.06	10,024.54	84.06	82.38	163.30	-9,912.27	1,885.98	2,542.15	2,386.16	155.99	16.297	
17,200.00	7,589.07	19,209.15	10,023.91	84.75	83.00	163.31	-10,003.36	1,886.67	2,541.34	2,383.91	157.43	16.143	
17,300.00	7,589.07	19,309.53	10,023.52	85.44	83.68	163.32	-10,103.73	1,887.29	2,540.85	2,381.91	158.95	15.985	
17,400.00	7,589.06	19,412.07	10,022.88	86.13	84.38	163.32	-10,206.27	1,887.67	2,540.21	2,379.72	160.49	15.828	
17,500.00	7,589.06	19,513.00	10,022.24	86.83	85.07	163.32	-10,307.19	1,888.30	2,539.48	2,377.46	162.02	15.674	
17,600.00	7,589.06	19,607.45	10,021.69	87.52	85.72	163.32	-10,401.65	1,888.79	2,538.84	2,375.35	163.49	15.529	
17,700.00	7,589.05	19,710.07	10,021.17	88.22	86.43	163.33	-10,504.26	1,889.20	2,538.30	2,373.27	165.04	15.380	
17,800.00	7,589.05	19,819.27	10,020.36	88.91	87.18	163.33	-10,613.45	1,889.72	2,537.51	2,370.88	166.64	15.228	
17,900.00	7,589.04	19,917.91	10,019.04	89.61	87.85	163.30	-10,712.08	1,889.12	2,536.47	2,368.31	168.16	15.084	
18,000.00	7,589.04	20,000.27	10,018.53	90.31	88.42	163.30	-10,794.44	1,889.29	2,535.89	2,366.36	169.53	14.958	
18,025.44	7,589.04	20,020.27	10,018.55	90.49	88.56	163.30	-10,814.44	1,889.46	2,535.86	2,365.99	169.87	14.928	
18,100.00	7,589.03	20,081.24	10,018.92	91.01	88.98	163.32	-10,875.41	1,890.14	2,536.09	2,365.21	170.88	14.841	
18,200.00	7,589.03	20,206.58	10,019.50	91.71	89.85	163.35	-11,000.73	1,891.71	2,536.26	2,363.63	172.62	14.692	
18,300.00	7,589.03	20,315.56	10,018.37	92.42	90.61	163.33	-11,109.70	1,891.66	2,535.32	2,361.09	174.23	14.551	
18,400.00	7,589.02	20,405.79	10,017.73	93.12	91.23	163.32	-11,199.93	1,891.50	2,534.74	2,359.06	175.68	14.428	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy													
Survey Program: 200-MWD+IFR1+MS, 10055-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.50 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	Separation	Factor	
Depth	Depth	Depth	Depth			Toolface	(usft)	(usft)	Centres	Ellipses	(usft)		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)			(usft)	(usft)			
18,482.43	7,589.02	20,477.28	10,017.61	93.70	91.73	163.33	-11,271.42	1,892.01	2,534.50	2,357.66	176.84	14.332	
18,500.00	7,589.02	20,490.73	10,017.66	93.82	91.82	163.33	-11,284.87	1,892.17	2,534.52	2,357.45	177.07	14.314	
18,600.00	7,589.01	20,574.14	10,018.52	94.53	92.41	163.36	-11,368.26	1,893.48	2,535.10	2,356.66	178.44	14.207	
18,700.00	7,589.01	20,672.00	10,019.63	95.23	93.09	163.39	-11,466.11	1,894.46	2,535.96	2,356.02	179.94	14.093	
18,800.00	7,589.01	20,672.00	10,019.63	95.94	93.09	163.39	-11,466.11	1,894.46	2,538.83	2,358.41	180.42	14.072	
18,900.00	7,589.00	20,672.00	10,019.63	96.65	93.09	163.39	-11,466.11	1,894.46	2,545.63	2,364.95	180.68	14.089	
18,917.19	7,589.00	20,672.00	10,019.63	96.77	93.09	163.39	-11,466.11	1,894.46	2,547.20	2,366.49	180.71	14.096	
18,917.96	7,589.00	20,672.00	10,019.63	97.01	93.09	163.39	-11,466.11	1,894.46	2,547.27	2,366.39	180.87	14.083	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Survey Program: 213-MWD+HRGM													Offset Site Error: 0.00 usft		
Reference				Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-76.13	247.71	-1,003.48	1,033.61						
100.00	100.00	95.98	95.98	0.28	0.15	-76.14	247.77	-1,003.83	1,033.98	1,033.55	0.43	2,402.530	ES		
200.00	200.00	188.62	188.61	0.63	0.30	-76.14	247.93	-1,004.83	1,035.08	1,034.14	0.94	1,104.554			
300.00	300.00	288.09	288.07	0.99	0.61	-76.16	247.93	-1,006.43	1,036.64	1,035.03	1.60	646.614			
400.00	400.00	389.06	389.03	1.35	0.97	-76.18	247.91	-1,007.91	1,038.05	1,035.73	2.32	446.945			
500.00	500.00	486.93	486.88	1.71	1.32	-76.16	248.62	-1,009.25	1,039.56	1,036.53	3.03	343.030			
600.00	600.00	585.93	585.87	2.07	1.68	-76.12	249.67	-1,010.63	1,041.16	1,037.42	3.74	278.248			
700.00	700.00	676.35	676.26	2.43	2.00	-76.19	249.03	-1,012.83	1,043.35	1,038.93	4.42	235.959			
800.00	800.00	770.55	770.39	2.79	2.34	-76.32	247.38	-1,016.04	1,046.25	1,041.13	5.12	204.495			
900.00	900.00	871.15	870.90	3.14	2.70	-76.46	245.59	-1,019.96	1,049.62	1,043.79	5.83	179.912			
1,000.00	1,000.00	995.02	994.69	3.50	3.14	-76.66	242.68	-1,023.31	1,051.73	1,045.10	6.63	158.549			
1,100.00	1,099.98	1,152.23	1,151.77	3.85	3.68	155.16	237.50	-1,021.29	1,051.23	1,043.72	7.51	139.997			
1,157.83	1,157.75	1,214.40	1,213.85	4.04	3.88	155.15	235.51	-1,018.69	1,050.82	1,042.91	7.91	132.874			
1,200.00	1,199.84	1,255.79	1,255.19	4.18	4.02	155.17	234.30	-1,016.86	1,051.11	1,042.92	8.19	128.361			
1,300.00	1,299.45	1,348.70	1,347.98	4.52	4.34	155.24	231.84	-1,012.93	1,054.31	1,045.47	8.84	119.218			
1,400.00	1,398.70	1,430.68	1,429.90	4.86	4.61	155.39	230.91	-1,010.12	1,061.84	1,052.37	9.47	112.134			
1,500.00	1,497.47	1,502.00	1,501.21	5.21	4.86	155.56	231.24	-1,009.06	1,074.79	1,064.73	10.06	106.824			
1,600.00	1,595.62	1,582.13	1,581.33	5.56	5.13	155.81	232.58	-1,009.37	1,093.01	1,082.33	10.68	102.300			
1,700.00	1,693.06	1,669.97	1,669.14	5.92	5.44	156.15	234.76	-1,010.74	1,115.73	1,104.39	11.34	98.404			
1,800.00	1,790.08	1,758.34	1,757.45	6.28	5.75	156.70	237.30	-1,012.62	1,140.76	1,128.76	11.99	95.105			
1,900.00	1,887.11	1,871.95	1,870.98	6.65	6.15	157.37	240.45	-1,014.97	1,165.86	1,153.11	12.75	91.438			
2,000.00	1,984.14	2,019.05	2,018.06	7.02	6.65	158.11	241.64	-1,013.86	1,187.82	1,174.20	13.62	87.186			
2,100.00	2,081.17	2,122.04	2,121.00	7.39	7.01	158.58	240.98	-1,010.55	1,207.18	1,192.84	14.34	84.181			
2,200.00	2,178.20	2,214.61	2,213.53	7.76	7.33	158.96	240.12	-1,008.29	1,227.25	1,212.22	15.02	81.683			
2,300.00	2,275.23	2,328.81	2,327.68	8.14	7.72	159.41	238.64	-1,005.10	1,246.98	1,231.19	15.79	78.974			
2,400.00	2,372.26	2,426.55	2,425.33	8.52	8.06	159.74	236.30	-1,001.62	1,265.68	1,249.18	16.50	76.706			
2,500.00	2,469.29	2,485.76	2,484.51	8.90	8.27	159.92	234.95	-1,000.28	1,285.84	1,268.78	17.07	75.339			
2,600.00	2,566.32	2,541.00	2,539.73	9.28	8.46	160.09	234.42	-1,001.13	1,309.59	1,291.99	17.60	74.401			
2,700.00	2,663.35	2,600.90	2,599.57	9.67	8.67	160.28	234.47	-1,003.97	1,336.51	1,318.37	18.14	73.671			
2,800.00	2,760.38	2,681.39	2,679.92	10.05	8.95	160.52	234.93	-1,008.58	1,364.81	1,346.04	18.77	72.706			
2,900.00	2,857.41	2,843.41	2,841.75	10.44	9.52	161.03	236.32	-1,015.60	1,392.37	1,372.58	19.79	70.354			
3,000.00	2,954.44	2,947.95	2,946.28	10.83	9.89	161.38	236.84	-1,016.66	1,416.44	1,395.90	20.54	68.959			
3,100.00	3,051.47	3,062.94	3,061.27	11.22	10.29	161.77	237.64	-1,016.79	1,439.82	1,418.49	21.33	67.489			
3,200.00	3,148.50	3,169.52	3,167.83	11.60	10.66	162.15	238.47	-1,015.39	1,461.94	1,439.85	22.09	66.185			
3,300.00	3,245.53	3,267.53	3,265.83	11.99	11.00	162.48	239.22	-1,013.96	1,483.98	1,461.17	22.81	65.065			
3,400.00	3,342.56	3,448.87	3,447.03	12.38	11.63	163.06	238.75	-1,007.31	1,504.05	1,480.19	23.86	63.047			
3,500.00	3,439.59	3,612.67	3,610.14	12.77	12.21	163.56	234.72	-993.11	1,518.36	1,493.57	24.80	61.227			
3,600.00	3,536.62	3,791.32	3,787.10	13.17	12.84	163.90	222.97	-971.77	1,528.27	1,502.53	25.74	59.365			
3,700.00	3,633.65	3,967.81	3,960.06	13.56	13.48	163.93	200.32	-945.21	1,532.74	1,506.11	26.63	57.547			
3,800.00	3,730.68	4,067.58	4,057.32	13.95	13.85	163.90	185.55	-928.55	1,535.03	1,507.65	27.38	56.069			
3,900.00	3,827.71	4,173.52	4,160.54	14.34	14.26	163.87	169.80	-910.67	1,537.11	1,508.98	28.13	54.635			
4,000.00	3,924.74	4,280.90	4,265.08	14.74	14.67	163.85	153.72	-892.07	1,538.73	1,509.84	28.90	53.250			
4,100.00	4,021.77	4,386.80	4,368.07	15.13	15.09	163.82	137.77	-873.28	1,539.93	1,510.27	29.66	51.921			
4,200.00	4,118.79	4,472.74	4,451.65	15.52	15.43	163.81	124.99	-857.96	1,541.15	1,510.76	30.39	50.712			
4,300.00	4,215.82	4,553.74	4,530.74	15.92	15.76	163.81	113.85	-844.47	1,543.83	1,512.72	31.11	49.623			
4,400.00	4,312.85	4,653.52	4,628.29	16.31	16.16	163.83	100.50	-828.27	1,547.10	1,515.24	31.87	48.546			
4,500.00	4,409.88	4,761.21	4,733.49	16.70	16.60	163.85	86.05	-810.35	1,549.97	1,517.33	32.64	47.481			
4,600.00	4,506.91	4,863.75	4,833.59	17.10	17.02	163.87	72.27	-792.95	1,552.52	1,519.11	33.41	46.467			
4,700.00	4,603.94	4,965.17	4,932.59	17.49	17.44	163.89	58.57	-775.66	1,554.98	1,520.80	34.18	45.497			
4,800.00	4,700.97	5,065.81	5,030.77	17.89	17.86	163.89	44.45	-758.63	1,557.35	1,522.40	34.95	44.565			
4,900.00	4,798.00	5,161.00	5,123.55	18.28	18.26	163.84	29.80	-743.17	1,559.83	1,524.12	35.70	43.687			
5,000.00	4,895.03	5,247.33	5,207.78	18.68	18.62	163.79	16.65	-729.60	1,562.88	1,526.43	36.45	42.883			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy														Offset Site Error:	0.00 usft		
Survey Program: 213-MWD+HRGM			Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Rule Assigned:		Distance	Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
5,100.00	4,992.06	5,336.20	5,294.71	19.07	19.00	163.76	3.95	-716.15	1,566.82	1,529.63	37.19	42.131					
5,200.00	5,089.09	5,433.07	5,389.57	19.47	19.41	163.74	-9.35	-701.73	1,571.23	1,533.28	37.95	41.400					
5,300.00	5,186.12	5,525.40	5,480.02	19.87	19.79	163.73	-21.85	-688.10	1,575.83	1,537.13	38.70	40.716					
5,400.00	5,283.15	5,624.60	5,577.33	20.26	20.21	163.74	-34.69	-673.71	1,580.90	1,541.43	39.47	40.051					
5,500.00	5,380.18	5,725.66	5,676.44	20.66	20.64	163.75	-47.72	-658.84	1,585.78	1,545.54	40.25	39.401					
5,600.00	5,477.21	5,824.30	5,773.19	21.06	21.06	163.76	-60.34	-644.32	1,590.71	1,549.69	41.02	38.783					
5,700.00	5,574.24	5,918.79	5,865.90	21.45	21.46	163.78	-72.19	-630.50	1,595.82	1,554.04	41.77	38.202					
5,800.00	5,671.27	6,009.26	5,954.77	21.85	21.84	163.81	-83.08	-617.54	1,601.40	1,558.88	42.52	37.664					
5,900.00	5,768.30	6,139.80	6,082.97	22.24	22.39	163.89	-98.03	-597.93	1,606.63	1,563.25	43.37	37.043					
6,000.00	5,865.33	6,262.99	6,203.42	22.64	22.93	163.96	-113.36	-577.20	1,609.65	1,565.44	44.20	36.416					
6,100.00	5,962.36	6,358.43	6,296.60	23.04	23.35	163.98	-126.24	-561.01	1,612.19	1,567.22	44.97	35.851					
6,200.00	6,059.39	6,440.82	6,377.11	23.44	23.71	163.97	-137.75	-547.82	1,615.47	1,569.76	45.70	35.346					
6,300.00	6,156.42	6,504.00	6,439.02	23.83	23.98	163.97	-145.97	-538.31	1,620.18	1,573.81	46.38	34.936					
6,400.00	6,253.45	6,581.05	6,514.79	24.23	24.31	163.99	-155.37	-527.96	1,626.66	1,579.58	47.07	34.555					
6,500.00	6,350.47	6,659.12	6,591.81	24.63	24.63	163.99	-164.40	-518.94	1,634.98	1,587.22	47.77	34.227					
6,600.00	6,447.50	6,824.56	6,754.72	25.02	25.33	164.01	-184.31	-498.29	1,642.58	1,593.82	48.76	33.686					
6,700.00	6,544.53	6,945.00	6,872.76	25.42	25.85	164.12	-197.62	-478.45	1,646.46	1,596.87	49.59	33.201					
6,800.00	6,641.56	7,044.34	6,970.07	25.82	26.28	164.21	-208.65	-461.79	1,650.12	1,599.75	50.36	32.764					
6,900.00	6,738.59	7,130.59	7,054.61	26.22	26.66	164.28	-218.34	-447.66	1,654.11	1,603.01	51.10	32.369					
7,000.00	6,835.62	7,208.15	7,130.80	26.61	26.99	164.36	-226.30	-435.59	1,659.24	1,607.44	51.81	32.028					
7,100.00	6,932.65	7,281.04	7,202.63	27.01	27.30	164.46	-232.84	-425.02	1,665.87	1,613.39	52.48	31.740					
7,200.00	7,029.68	7,356.00	7,276.73	27.41	27.61	164.59	-238.15	-415.05	1,674.29	1,621.14	53.16	31.498					
7,300.00	7,126.71	7,447.88	7,367.69	27.81	27.98	164.77	-243.75	-403.40	1,683.73	1,629.85	53.88	31.248					
7,309.09	7,135.53	7,456.58	7,376.31	27.84	28.01	164.78	-244.29	-402.29	1,684.59	1,630.64	53.95	31.225					
7,350.00	7,174.84	7,494.45	7,413.80	28.01	28.16	164.73	-246.61	-397.52	1,689.88	1,635.63	54.25	31.149					
7,400.00	7,221.63	7,540.01	7,458.93	28.22	28.35	164.59	-249.36	-391.83	1,700.21	1,645.59	54.62	31.126					
7,450.00	7,266.71	7,588.27	7,506.72	28.44	28.54	164.37	-252.24	-385.84	1,714.67	1,659.66	55.01	31.169					
7,500.00	7,309.74	7,635.37	7,553.37	28.67	28.73	164.05	-255.07	-379.98	1,733.08	1,677.68	55.40	31.285					
7,550.00	7,350.39	7,669.05	7,586.73	28.91	28.86	163.55	-257.05	-375.85	1,755.46	1,699.74	55.72	31.503					
7,600.00	7,388.34	7,700.13	7,617.55	29.15	28.99	162.88	-258.76	-372.20	1,781.79	1,725.76	56.03	31.800					
7,650.00	7,423.32	7,732.00	7,649.18	29.40	29.11	162.02	-260.41	-368.62	1,811.83	1,755.50	56.33	32.162					
7,700.00	7,455.05	7,758.39	7,675.38	29.65	29.22	160.86	-261.70	-365.77	1,845.29	1,788.69	56.60	32.603					
7,750.00	7,483.30	7,785.29	7,702.10	29.90	29.32	159.37	-262.99	-362.92	1,881.85	1,825.00	56.85	33.100					
7,800.00	7,507.84	7,809.19	7,725.85	30.15	29.41	157.40	-264.09	-360.46	1,921.21	1,864.13	57.08	33.658					
7,850.00	7,528.50	7,827.00	7,743.55	30.41	29.48	154.65	-264.90	-358.66	1,963.03	1,905.77	57.26	34.282					
7,900.00	7,545.11	7,827.00	7,743.55	30.66	29.48	150.32	-264.90	-358.66	2,007.10	1,949.77	57.33	35.009					
7,919.09	7,550.36	7,847.52	7,763.95	30.75	29.56	148.93	-265.78	-356.66	2,024.29	1,966.82	57.47	35.226					
8,000.00	7,568.52	7,863.80	7,780.15	31.16	29.62	144.13	-266.42	-355.13	2,099.13	2,041.50	57.63	36.425					
8,100.00	7,583.22	7,878.64	7,794.92	31.66	29.68	135.07	-266.97	-353.80	2,194.12	2,136.34	57.78	37.974					
8,200.00	7,589.24	7,887.79	7,804.03	32.17	29.71	120.14	-267.28	-353.00	2,291.06	2,233.19	57.87	39.586					
8,219.09	7,589.40	7,888.91	7,805.14	32.26	29.72	116.37	-267.32	-352.90	2,309.72	2,251.84	57.89	39.900					
8,300.00	7,589.40	7,893.16	7,809.38	32.67	29.73	116.83	-267.46	-352.54	2,388.94	2,331.00	57.94	41.234					
8,400.00	7,589.40	7,898.26	7,814.46	33.21	29.75	117.38	-267.63	-352.11	2,486.97	2,428.98	57.99	42.883					
8,444.09	7,589.40	7,900.46	7,816.64	33.45	29.76	117.61	-267.70	-351.93	2,530.24	2,472.22	58.02	43.610					
8,500.00	7,589.40	7,921.00	7,837.11	33.76	29.84	116.01	-268.31	-350.26	2,585.11	2,526.95	58.16	44.450					
8,600.00	7,589.40	7,921.00	7,837.11	34.34	29.84	111.04	-268.31	-350.26	2,682.32	2,624.13	58.19	46.098					
8,700.00	7,589.40	7,921.00	7,837.11	34.92	29.84	107.55	-268.31	-350.26	2,778.53	2,720.31	58.22	47.728					
8,800.00	7,589.40	7,921.00	7,837.11	35.52	29.84	104.97	-268.31	-350.26	2,873.59	2,815.34	58.25	49.336					
8,900.00	7,589.40	7,921.00	7,837.11	36.12	29.84	103.01	-268.31	-350.26	2,967.37	2,909.09	58.27	50.920					
9,000.00	7,589.40	7,921.00	7,837.11	36.73	29.84	101.48	-268.31	-350.26	3,059.73	3,001.43	58.30	52.479					
9,100.00	7,589.40	7,921.00	7,837.11	37.33	29.84	100.25	-268.31	-350.26	3,150.56	3,092.23	58.33	54.011					
9,200.00	7,589.40	7,935.63	7,851.69	37.92	29.89	99.80	-268.71	-349.12	3,239.71	3,181.26	58.45	55.425					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Survey Program: 213-MWD+HRGM

Rule Assigned:

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,300.00	7,589.39	11,409.61	9,748.92	38.51	49.77	133.79	-2,116.92	-105.33	3,308.74	3,233.86	74.88	44.188	
9,400.00	7,589.39	11,519.07	9,750.14	39.09	50.85	132.56	-2,226.36	-104.39	3,340.82	3,264.18	76.64	43.593	
9,500.00	7,589.39	11,646.51	9,748.72	39.65	52.14	131.41	-2,353.79	-103.76	3,368.25	3,289.63	78.62	42.840	
9,600.00	7,589.39	11,749.91	9,747.26	40.19	53.21	130.55	-2,457.17	-102.68	3,391.49	3,311.15	80.33	42.219	
9,700.00	7,589.38	11,845.95	9,745.57	40.72	54.23	129.86	-2,553.19	-101.93	3,410.93	3,328.99	81.94	41.628	
9,800.00	7,589.38	11,951.49	9,743.69	41.23	55.36	129.30	-2,658.71	-100.71	3,426.19	3,342.53	83.65	40.958	
9,900.00	7,589.38	12,034.42	9,742.20	41.72	56.26	128.92	-2,741.63	-100.01	3,437.73	3,352.67	85.06	40.416	
10,000.00	7,589.37	12,128.37	9,741.03	42.18	57.30	128.64	-2,835.56	-99.36	3,445.69	3,359.10	86.58	39.796	
10,100.00	7,589.37	12,246.26	9,738.99	42.63	58.62	128.48	-2,953.44	-98.18	3,449.01	3,360.60	88.42	39.009	
10,173.66	7,589.36	12,315.89	9,737.79	42.94	59.41	128.46	-3,023.05	-97.53	3,448.91	3,359.39	89.52	38.526	
10,200.00	7,589.36	12,345.18	9,737.35	43.05	59.74	128.46	-3,052.34	-97.20	3,448.47	3,358.50	89.97	38.327	
10,300.00	7,589.36	12,462.07	9,735.54	43.47	61.08	128.45	-3,169.20	-95.50	3,446.53	3,354.75	91.79	37.550	
10,400.00	7,589.36	12,539.50	9,734.31	43.90	61.98	128.44	-3,246.61	-94.33	3,444.55	3,351.48	93.07	37.011	
10,500.00	7,589.35	12,614.92	9,734.01	44.33	62.87	128.45	-3,322.02	-93.31	3,443.39	3,349.06	94.32	36.506	
10,600.00	7,589.35	12,708.19	9,733.77	44.78	63.96	128.45	-3,415.29	-92.58	3,442.76	3,346.92	95.84	35.921	
10,700.00	7,589.34	12,803.31	9,733.71	45.23	65.09	128.46	-3,510.40	-91.55	3,442.03	3,344.64	97.40	35.341	
10,800.00	7,589.34	12,887.89	9,733.64	45.69	66.10	128.46	-3,594.98	-91.23	3,441.83	3,343.02	98.81	34.832	
10,864.21	7,589.34	12,950.00	9,733.95	45.99	66.84	128.47	-3,657.09	-90.79	3,441.77	3,341.94	99.84	34.474	
10,900.00	7,589.33	12,976.94	9,734.20	46.16	67.17	128.47	-3,684.03	-90.56	3,441.81	3,341.51	100.30	34.316	
11,000.00	7,589.33	13,044.00	9,735.03	46.64	67.98	128.48	-3,751.08	-90.38	3,442.53	3,341.07	101.46	33.929	
11,100.00	7,589.33	13,143.06	9,736.68	47.12	69.18	128.50	-3,850.13	-90.42	3,443.76	3,340.65	103.11	33.399	
11,200.00	7,589.32	13,257.83	9,738.60	47.61	70.59	128.53	-3,964.88	-90.11	3,444.74	3,339.73	105.00	32.806	
11,300.00	7,589.32	13,371.41	9,741.24	48.11	72.00	128.57	-4,078.42	-88.81	3,445.46	3,338.58	106.88	32.236	
11,400.00	7,589.31	13,462.07	9,742.84	48.61	73.13	128.60	-4,169.06	-87.70	3,445.79	3,337.36	108.43	31.779	
11,500.00	7,589.31	13,512.00	9,744.07	49.12	73.75	128.62	-4,218.97	-87.30	3,447.02	3,337.67	109.36	31.521	
11,600.00	7,589.31	13,575.32	9,745.77	49.64	74.54	128.64	-4,282.27	-87.68	3,449.47	3,338.98	110.49	31.220	
11,700.00	7,589.30	13,646.36	9,747.45	50.16	75.42	128.64	-4,353.26	-89.72	3,453.27	3,341.53	111.75	30.903	
11,800.00	7,589.30	13,739.50	9,749.28	50.69	76.58	128.63	-4,446.32	-92.92	3,457.34	3,343.97	113.37	30.496	
11,900.00	7,589.29	14,008.70	9,751.90	51.23	79.97	128.60	-4,715.41	-98.41	3,460.65	3,342.85	117.80	29.376	
12,000.00	7,589.29	14,112.29	9,751.46	51.77	81.30	128.60	-4,818.99	-97.68	3,460.00	3,340.37	119.62	28.925	
12,100.00	7,589.28	14,214.55	9,750.95	52.31	82.62	128.60	-4,921.25	-96.74	3,459.13	3,337.70	121.43	28.488	
12,200.00	7,589.28	14,300.67	9,750.93	52.86	83.73	128.61	-5,007.37	-95.86	3,458.47	3,335.49	122.98	28.122	
12,292.95	7,589.28	14,379.15	9,751.36	53.38	84.75	128.62	-5,085.84	-95.19	3,458.31	3,333.91	124.40	27.800	
12,300.00	7,589.28	14,385.95	9,751.41	53.42	84.84	128.62	-5,092.64	-95.14	3,458.31	3,333.79	124.52	27.773	
12,400.00	7,589.27	14,480.12	9,752.01	53.98	86.06	128.63	-5,186.80	-94.56	3,458.38	3,332.18	126.21	27.402	
12,500.00	7,589.27	14,580.21	9,752.82	54.55	87.37	128.65	-5,286.89	-94.07	3,458.67	3,330.68	127.99	27.022	
12,600.00	7,589.26	14,698.17	9,753.25	55.12	88.91	128.66	-5,404.85	-93.28	3,458.52	3,328.45	130.07	26.589	
12,700.00	7,589.26	14,803.73	9,752.63	55.70	90.30	128.65	-5,510.41	-92.97	3,458.07	3,326.10	131.97	26.203	
12,800.00	7,589.26	14,905.73	9,752.01	56.28	91.64	128.64	-5,612.40	-92.55	3,457.53	3,323.71	133.82	25.837	
12,900.00	7,589.25	15,011.17	9,751.54	56.86	93.03	128.64	-5,717.84	-91.85	3,456.90	3,321.18	135.72	25.470	
13,000.00	7,589.25	15,091.89	9,751.42	57.45	94.10	128.65	-5,798.56	-91.32	3,456.45	3,319.21	137.23	25.187	
13,100.00	7,589.24	15,221.26	9,751.28	58.04	95.82	128.65	-5,927.93	-90.15	3,455.82	3,316.30	139.53	24.768	
13,200.00	7,589.24	15,301.75	9,751.02	58.64	96.90	128.66	-6,008.41	-89.47	3,455.11	3,314.07	141.04	24.497	
13,300.00	7,589.23	15,404.64	9,750.57	59.24	98.27	128.65	-6,111.30	-88.90	3,454.56	3,311.64	142.93	24.170	
13,400.00	7,589.23	15,486.68	9,750.27	59.84	99.36	128.65	-6,193.33	-88.71	3,454.30	3,309.83	144.48	23.909	
13,500.00	7,589.23	15,613.64	9,749.88	60.45	101.06	128.65	-6,320.29	-87.81	3,453.67	3,306.91	146.76	23.533	
13,600.00	7,589.22	15,698.87	9,749.75	61.06	102.21	128.66	-6,405.51	-87.09	3,453.07	3,304.70	148.36	23.274	
13,700.00	7,589.22	15,793.61	9,749.98	61.68	103.48	128.66	-6,500.25	-86.57	3,452.94	3,302.82	150.12	23.001	
13,800.00	7,589.21	15,911.47	9,750.33	62.30	105.08	128.68	-6,618.10	-85.02	3,452.22	3,299.96	152.26	22.673	
13,900.00	7,589.21	16,004.83	9,750.25	62.92	106.34	128.69	-6,711.46	-84.18	3,451.61	3,297.61	154.01	22.412	
14,000.00	7,589.21	16,103.98	9,750.25	63.54	107.68	128.69	-6,810.60	-83.32	3,451.10	3,295.25	155.85	22.144	
14,100.00	7,589.20	16,195.69	9,750.12	64.17	108.92	128.70	-6,902.31	-82.72	3,450.66	3,293.08	157.58	21.899	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 213-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,182.09	7,589.20	16,268.34	9,749.99	64.69	109.91	128.69		128.69	-6,974.96	-82.57	3,450.56	3,291.60	158.95	21.708	
14,200.00	7,589.20	16,284.62	9,750.02	64.80	110.13	128.70		128.70	-6,991.24	-82.51	3,450.56	3,291.30	159.26	21.666	
14,300.00	7,589.19	16,403.91	9,750.29	65.43	111.75	128.70		128.70	-7,110.54	-81.96	3,450.53	3,289.08	161.45	21.372	
14,400.00	7,589.19	16,511.51	9,749.26	66.07	113.21	128.69		128.69	-7,218.13	-81.63	3,449.84	3,286.38	163.46	21.105	
14,500.00	7,589.18	16,600.24	9,748.54	66.71	114.42	128.68		128.68	-7,306.85	-81.37	3,449.26	3,284.11	165.16	20.885	
14,600.00	7,589.18	16,698.11	9,747.85	67.35	115.75	128.67		128.67	-7,404.72	-81.28	3,448.90	3,281.89	167.01	20.651	
14,667.37	7,589.18	16,753.63	9,747.72	67.78	116.51	128.67		128.67	-7,460.24	-81.13	3,448.78	3,280.70	168.08	20.519	
14,700.00	7,589.18	16,780.10	9,747.70	67.99	116.87	128.67		128.67	-7,486.71	-81.13	3,448.81	3,280.22	168.59	20.457	
14,800.00	7,589.17	16,879.88	9,747.98	68.64	118.23	128.67		128.67	-7,586.49	-81.01	3,449.05	3,278.58	170.47	20.233	
14,900.00	7,589.17	17,003.54	9,748.32	69.29	119.93	128.68		128.68	-7,710.15	-80.25	3,448.90	3,276.16	172.75	19.965	
15,000.00	7,589.16	17,099.50	9,748.38	69.94	121.24	128.69		128.69	-7,806.10	-79.21	3,448.25	3,273.69	174.56	19.754	
15,031.18	7,589.16	17,117.45	9,748.46	70.14	121.49	128.69		128.69	-7,824.04	-79.06	3,448.19	3,273.27	174.93	19.712	
15,100.00	7,589.16	17,173.00	9,748.98	70.59	122.25	128.70		128.70	-7,879.60	-78.96	3,448.55	3,272.55	176.00	19.594	
15,200.00	7,589.16	17,304.94	9,749.32	71.25	124.07	128.71		128.71	-8,011.53	-78.50	3,448.64	3,270.21	178.43	19.328	
15,300.00	7,589.15	17,404.00	9,749.06	71.91	125.43	128.71		128.71	-8,110.59	-77.88	3,448.14	3,267.83	180.31	19.123	
15,400.00	7,589.15	17,503.61	9,748.89	72.57	126.80	128.71		128.71	-8,210.20	-77.13	3,447.61	3,265.40	182.20	18.922	
15,500.00	7,589.14	17,592.34	9,749.62	73.23	128.03	128.73		128.73	-8,298.91	-75.92	3,447.22	3,263.32	183.90	18.745	
15,533.75	7,589.14	17,620.11	9,749.80	73.45	128.41	128.74		128.74	-8,326.68	-75.69	3,447.19	3,262.75	184.43	18.691	
15,600.00	7,589.14	17,683.43	9,750.01	73.89	129.29	128.74		128.74	-8,390.00	-75.47	3,447.25	3,261.61	185.64	18.570	
15,700.00	7,589.13	17,786.62	9,750.36	74.56	130.71	128.75		128.75	-8,493.19	-75.01	3,447.27	3,259.68	187.59	18.376	
15,744.68	7,589.13	17,831.00	9,751.46	74.86	131.33	128.77		128.77	-8,537.54	-74.03	3,447.26	3,258.84	188.42	18.296	
15,800.00	7,589.13	17,863.93	9,752.37	75.23	131.78	128.79		128.79	-8,570.45	-73.37	3,447.44	3,258.37	189.07	18.234	
15,900.00	7,589.13	17,925.00	9,753.07	75.90	132.63	128.79		128.79	-8,631.51	-73.67	3,448.69	3,258.41	190.28	18.124	
16,000.00	7,589.12	17,993.52	9,753.17	76.57	133.57	128.78		128.78	-8,700.01	-75.47	3,450.96	3,259.33	191.63	18.008	
16,100.00	7,589.12	18,105.36	9,752.93	77.24	135.09	128.73		128.73	-8,811.79	-79.32	3,453.69	3,259.90	193.80	17.821	
16,200.00	7,589.11	18,191.99	9,752.65	77.92	136.28	128.70		128.70	-8,898.37	-82.15	3,456.20	3,260.71	195.49	17.680	
16,300.00	7,589.11	18,401.30	9,753.38	78.59	139.18	128.69		128.69	-9,107.64	-83.15	3,456.51	3,257.16	199.35	17.339	
16,400.00	7,589.11	18,498.16	9,751.92	79.27	140.52	128.66		128.66	-9,204.50	-83.75	3,456.20	3,254.96	201.24	17.174	
16,500.00	7,589.10	18,622.94	9,750.03	79.95	142.25	128.64		128.64	-9,329.26	-83.62	3,455.29	3,251.69	203.61	16.971	
16,600.00	7,589.10	18,728.51	9,748.35	80.63	143.72	128.62		128.62	-9,434.81	-83.38	3,454.27	3,248.63	205.64	16.797	
16,700.00	7,589.09	18,822.13	9,747.10	81.31	145.02	128.61		128.61	-9,528.42	-82.65	3,453.00	3,245.53	207.47	16.643	
16,800.00	7,589.09	18,911.56	9,746.81	82.00	146.27	128.61		128.61	-9,617.85	-81.80	3,452.21	3,243.00	209.22	16.501	
16,900.00	7,589.08	19,002.20	9,746.39	82.68	147.53	128.61		128.61	-9,708.49	-81.19	3,451.55	3,240.57	210.98	16.359	
17,000.00	7,589.08	19,105.57	9,745.59	83.37	148.97	128.60		128.60	-9,811.85	-81.19	3,451.24	3,238.25	212.98	16.204	
17,100.00	7,589.08	19,222.21	9,743.97	84.06	150.60	128.57		128.57	-9,928.48	-80.98	3,450.37	3,235.16	215.22	16.032	
17,200.00	7,589.07	19,312.06	9,742.24	84.75	151.85	128.55		128.55	-10,018.32	-81.11	3,449.45	3,232.45	217.00	15.896	
17,300.00	7,589.07	19,402.28	9,740.95	85.44	153.11	128.53		128.53	-10,108.52	-81.29	3,448.86	3,230.08	218.79	15.764	
17,400.00	7,589.06	19,533.75	9,739.49	86.13	154.95	128.51		128.51	-10,239.99	-80.87	3,448.13	3,226.85	221.27	15.583	
17,500.00	7,589.06	19,678.88	9,739.55	86.83	156.99	128.55		128.55	-10,385.04	-76.54	3,445.91	3,222.01	223.90	15.390	
17,600.00	7,589.06	19,756.68	9,739.71	87.52	158.09	128.58		128.58	-10,462.79	-73.72	3,443.41	3,217.95	225.45	15.273	
17,700.00	7,589.05	19,822.73	9,739.62	88.22	159.02	128.59		128.59	-10,528.82	-72.38	3,441.89	3,215.07	226.82	15.175	
17,800.00	7,589.05	19,895.00	9,739.22	88.91	160.03	128.59		128.59	-10,601.09	-72.01	3,441.28	3,213.00	228.28	15.075	
17,900.00	7,589.04	19,994.88	9,738.25	89.61	161.43	128.57		128.57	-10,700.97	-72.32	3,441.08	3,210.85	230.24	14.946	
18,000.00	7,589.04	20,087.49	9,737.51	90.31	162.72	128.56		128.56	-10,793.58	-72.59	3,440.96	3,208.90	232.06	14.828	
18,100.00	7,589.03	20,189.96	9,736.92	91.01	164.16	128.55		128.55	-10,896.04	-72.77	3,440.90	3,206.84	234.06	14.701	
18,200.00	7,589.03	20,292.62	9,736.27	91.71	165.60	128.54		128.54	-10,998.70	-72.95	3,440.79	3,204.73	236.06	14.576	
18,276.91	7,589.03	20,364.00	9,735.77	92.25	166.60	128.53		128.53	-11,070.08	-72.96	3,440.60	3,203.13	237.47	14.489	
18,300.00	7,589.03	20,364.00	9,735.77	92.42	166.60	128.53		128.53	-11,070.08	-72.96	3,440.67	3,203.17	237.50	14.487	
18,400.00	7,589.02	20,426.55	9,736.04	93.12	167.47	128.53		128.53	-11,132.63	-73.16	3,441.56	3,202.79	238.76	14.414	
18,500.00	7,589.02	20,535.81	9,737.64	93.82	169.00	128.53		128.53	-11,241.85	-74.73	3,443.80	3,202.92	240.87	14.297	
18,600.00	7,589.01	20,738.00	9,735.41	94.53	171.84	128.50		128.50	-11,444.02	-74.98	3,442.92	3,198.27	244.65	14.073	
18,651.15	7,589.01	20,738.00	9,735.41	94.89	171.84	128.50		128.50	-11,444.02	-74.98	3,442.54	3,197.77	244.77	14.064	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 30H - OH - Svy

Survey Program: 213-MWD+HRGM												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth	Depth	Depth	Depth	Reference	Offset		+N/-S	+E/-W	Between	Between	Separation		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(")	(usft)	(usft)	Centres	Ellipses	(usft)	Factor	
									(usft)	(usft)			
18,700.00	7,589.01	20,738.00	9,735.41	95.23	171.84	128.50	-11,444.02	-74.98	3,442.89	3,198.05	244.84	14.062	
18,800.00	7,589.01	20,738.00	9,735.41	95.94	171.84	128.50	-11,444.02	-74.98	3,445.76	3,200.91	244.85	14.073	
18,900.00	7,589.00	20,738.00	9,735.41	96.65	171.84	128.50	-11,444.02	-74.98	3,451.53	3,206.86	244.67	14.107	
18,917.19	7,589.00	20,738.00	9,735.41	96.77	171.84	128.50	-11,444.02	-74.98	3,452.81	3,208.19	244.62	14.115	
18,917.96	7,589.00	20,738.00	9,735.41	97.01	171.84	128.50	-11,444.02	-74.98	3,452.87	3,208.19	244.68	14.112	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Survey Program: 201-MWD+HRGM		Rule Assigned:										Offset Site Error: 0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
0.00	0.00	3.43	3.43	0.00	0.01	-73.51	308.46	-1,042.31	1,086.99			
100.00	100.00	101.33	101.33	0.28	0.16	-73.49	308.86	-1,042.30	1,087.10	1,086.66	0.44	2,487.551
200.00	200.00	201.00	200.99	0.63	0.32	-73.43	310.04	-1,042.26	1,087.40	1,086.44	0.95	1,140.089
300.00	300.00	309.52	309.50	0.99	0.71	-73.34	311.66	-1,041.69	1,087.33	1,085.63	1.70	639.783
400.00	400.00	428.86	428.81	1.35	1.13	-73.25	313.02	-1,039.77	1,086.16	1,083.67	2.48	437.619
500.00	500.00	540.63	540.52	1.71	1.52	-73.23	312.32	-1,036.14	1,082.82	1,079.59	3.23	335.009
600.00	600.00	644.37	644.20	2.07	1.89	-73.22	311.38	-1,032.69	1,079.38	1,075.42	3.95	272.916
700.00	700.00	746.06	745.81	2.43	2.25	-73.21	310.46	-1,028.80	1,075.46	1,070.78	4.67	230.120
800.00	800.00	847.91	847.57	2.79	2.62	-73.19	309.67	-1,024.77	1,071.44	1,066.05	5.39	198.629
900.00	900.00	948.77	948.35	3.14	2.98	-73.17	308.74	-1,020.69	1,067.30	1,061.19	6.11	174.619
1,000.00	1,000.00	1,052.43	1,051.91	3.50	3.36	-73.17	307.41	-1,016.29	1,062.87	1,056.03	6.84	155.390
1,100.00	1,099.98	1,150.66	1,150.04	3.85	3.71	158.88	306.06	-1,012.11	1,060.03	1,052.49	7.53	140.688
1,133.29	1,133.24	1,183.37	1,182.72	3.96	3.83	158.90	305.61	-1,010.75	1,059.84	1,052.07	7.76	136.532 CC, ES
1,200.00	1,199.84	1,247.46	1,246.75	4.18	4.06	158.97	304.75	-1,008.17	1,060.62	1,052.40	8.21	129.115
1,300.00	1,299.45	1,341.63	1,340.85	4.52	4.40	159.09	303.58	-1,004.81	1,064.99	1,056.10	8.89	119.789
1,400.00	1,398.70	1,440.52	1,439.68	4.86	4.76	159.25	302.40	-1,001.53	1,072.88	1,063.29	9.59	111.912
1,500.00	1,497.47	1,538.20	1,537.31	5.21	5.11	159.45	301.24	-998.36	1,084.12	1,073.83	10.28	105.431
1,600.00	1,595.62	1,631.72	1,630.78	5.56	5.45	159.68	300.32	-995.54	1,098.90	1,087.93	10.97	100.196
1,700.00	1,693.06	1,721.99	1,721.02	5.92	5.77	159.93	299.78	-993.34	1,117.62	1,105.98	11.64	95.986
1,800.00	1,790.08	1,815.82	1,814.83	6.28	6.11	160.34	299.40	-991.50	1,138.50	1,126.16	12.33	92.315
1,900.00	1,887.11	1,917.41	1,916.40	6.65	6.47	160.79	299.33	-989.49	1,159.54	1,146.49	13.05	88.841
2,000.00	1,984.14	2,034.00	2,032.93	7.02	6.89	161.27	298.66	-986.01	1,179.54	1,165.71	13.83	85.280
2,100.00	2,081.17	2,137.70	2,136.53	7.39	7.27	161.69	297.77	-981.61	1,198.35	1,183.78	14.57	82.261
2,200.00	2,178.20	2,252.78	2,251.48	7.76	7.69	162.16	296.81	-976.05	1,216.71	1,201.36	15.35	79.271
2,300.00	2,275.23	2,380.39	2,378.78	8.14	8.16	162.66	294.86	-967.35	1,233.03	1,216.85	16.18	76.228
2,400.00	2,372.26	2,497.73	2,496.62	8.52	8.59	163.13	292.50	-956.85	1,247.22	1,230.26	16.97	73.507
2,500.00	2,469.29	2,591.66	2,589.05	8.90	8.94	163.58	292.34	-947.24	1,261.01	1,243.32	17.68	71.307
2,600.00	2,566.32	2,677.12	2,674.12	9.28	9.26	164.00	292.72	-939.08	1,275.72	1,257.35	18.37	69.436
2,700.00	2,663.35	2,770.11	2,766.75	9.67	9.61	164.45	293.39	-930.98	1,291.39	1,272.30	19.09	67.658
2,800.00	2,760.38	2,870.76	2,867.01	10.05	9.98	164.92	294.14	-922.12	1,307.06	1,287.23	19.83	65.912
2,900.00	2,857.41	2,970.60	2,966.45	10.44	10.35	165.37	294.70	-913.26	1,322.69	1,302.12	20.57	64.294
3,000.00	2,954.44	3,070.37	3,065.82	10.83	10.73	165.81	295.21	-904.30	1,338.27	1,316.96	21.32	62.783
3,100.00	3,051.47	3,176.26	3,171.25	11.22	11.12	166.28	295.89	-894.42	1,353.67	1,331.59	22.08	61.298
3,200.00	3,148.50	3,311.32	3,305.42	11.60	11.63	166.91	296.92	-879.13	1,367.38	1,344.43	22.96	59.563
3,300.00	3,245.53	3,408.98	3,402.29	11.99	12.01	167.38	297.66	-866.72	1,379.96	1,356.26	23.70	58.225
3,400.00	3,342.56	3,499.97	3,492.56	12.38	12.36	167.81	298.46	-855.37	1,392.89	1,368.46	24.42	57.036
3,500.00	3,439.59	3,583.99	3,576.02	12.77	12.68	168.19	299.29	-845.68	1,406.78	1,381.67	25.12	56.013
3,600.00	3,536.62	3,680.26	3,671.71	13.17	13.04	168.62	300.44	-835.24	1,421.46	1,395.61	25.85	54.980
3,700.00	3,633.65	3,812.12	3,802.52	13.56	13.55	169.23	302.07	-818.77	1,434.73	1,408.00	26.73	53.678
3,800.00	3,730.68	3,914.63	3,904.04	13.95	13.95	169.72	303.34	-804.52	1,446.90	1,419.41	27.50	52.622
3,900.00	3,827.71	4,009.32	3,997.82	14.34	14.32	170.16	304.56	-791.50	1,459.33	1,431.09	28.24	51.681
4,000.00	3,924.74	4,107.93	4,095.50	14.74	14.71	170.62	305.90	-778.10	1,472.03	1,443.03	28.99	50.771
4,100.00	4,021.77	4,208.90	4,195.50	15.13	15.10	171.09	307.40	-764.15	1,484.68	1,454.92	29.76	49.890
4,200.00	4,118.79	4,308.23	4,293.84	15.52	15.50	171.54	308.96	-750.25	1,497.30	1,466.78	30.52	49.059
4,300.00	4,215.82	4,405.45	4,390.09	15.92	15.88	171.98	310.48	-736.66	1,510.04	1,478.76	31.27	48.283
4,400.00	4,312.85	4,503.89	4,487.55	16.31	16.27	172.42	312.10	-722.93	1,522.92	1,490.89	32.03	47.541
4,500.00	4,409.88	4,604.61	4,587.25	16.70	16.67	172.87	313.82	-708.76	1,535.83	1,503.02	32.80	46.818
4,600.00	4,506.91	4,705.61	4,687.21	17.10	17.07	173.31	315.56	-694.35	1,548.66	1,515.08	33.58	46.124
4,700.00	4,603.94	4,802.55	4,783.14	17.49	17.45	173.73	317.17	-680.52	1,561.55	1,527.21	34.33	45.482
4,800.00	4,700.97	4,899.83	4,879.45	17.89	17.84	174.14	318.65	-666.84	1,574.61	1,539.52	35.09	44.871
4,900.00	4,798.00	4,999.20	4,977.82	18.28	18.23	174.54	320.04	-652.90	1,587.72	1,551.86	35.86	44.276
5,000.00	4,895.03	5,089.43	5,067.20	18.68	18.59	174.89	321.18	-640.61	1,601.17	1,564.59	36.59	43.761

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Survey Program:		201-MWD+HRGM				Rule Assigned:							Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,100.00	4,992.06	5,176.00	5,153.03	19.07	18.93	175.21	322.22	-629.31	1,615.16	1,577.86	37.30	43.301			
5,200.00	5,089.09	5,262.60	5,238.97	19.47	19.27	175.51	323.26	-618.76	1,629.93	1,591.92	38.01	42.883			
5,300.00	5,186.12	5,359.06	5,334.80	19.87	19.65	175.82	324.40	-607.76	1,645.37	1,606.61	38.76	42.450			
5,400.00	5,283.15	5,463.72	5,438.79	20.26	20.05	176.13	325.13	-595.96	1,660.69	1,621.14	39.55	41.994			
5,500.00	5,380.18	5,569.69	5,544.11	20.66	20.46	176.41	324.72	-584.26	1,675.65	1,635.31	40.34	41.541			
5,600.00	5,477.21	5,675.60	5,649.35	21.06	20.87	176.66	323.61	-572.39	1,690.13	1,649.01	41.13	41.095			
5,700.00	5,574.24	5,774.80	5,747.90	21.45	21.26	176.89	322.35	-561.22	1,704.47	1,662.58	41.89	40.691			
5,800.00	5,671.27	5,871.95	5,844.44	21.85	21.64	177.11	321.12	-550.30	1,718.86	1,676.22	42.64	40.312			
5,900.00	5,768.30	5,957.35	5,929.31	22.24	21.97	177.30	320.03	-540.95	1,733.54	1,690.21	43.34	40.001			
6,000.00	5,865.33	6,023.00	5,994.67	22.64	22.22	177.42	319.23	-534.86	1,749.64	1,705.70	43.93	39.824			
6,100.00	5,962.36	6,117.00	6,088.37	23.04	22.57	177.57	318.26	-527.34	1,766.85	1,722.18	44.66	39.560			
6,200.00	6,059.39	6,190.03	6,161.21	23.44	22.84	177.68	317.84	-522.15	1,785.01	1,739.73	45.28	39.423			
6,300.00	6,156.42	6,265.51	6,236.56	23.83	23.11	177.79	317.85	-517.61	1,804.42	1,758.52	45.90	39.311			
6,400.00	6,253.45	6,342.00	6,312.94	24.23	23.39	177.89	318.31	-513.84	1,825.05	1,778.53	46.52	39.231			
6,500.00	6,350.47	6,422.34	6,393.21	24.63	23.68	178.00	319.31	-510.61	1,846.76	1,799.60	47.16	39.161			
6,600.00	6,447.50	6,508.77	6,479.60	25.02	23.98	178.10	320.15	-508.01	1,869.13	1,821.31	47.83	39.082			
6,700.00	6,544.53	6,590.04	6,560.86	25.42	24.26	178.15	320.38	-506.74	1,892.25	1,843.79	48.46	39.050			
6,800.00	6,641.56	6,686.05	6,656.87	25.82	24.59	178.18	320.19	-506.11	1,915.80	1,866.62	49.18	38.959			
6,900.00	6,738.59	6,776.00	6,746.82	26.22	24.90	178.20	319.89	-505.75	1,939.48	1,889.63	49.85	38.905			
7,000.00	6,835.62	6,870.00	6,840.82	26.61	25.20	178.22	319.79	-505.68	1,963.54	1,913.00	50.54	38.849			
7,100.00	6,932.65	6,958.56	6,929.38	27.01	25.48	178.24	319.94	-505.85	1,987.96	1,936.77	51.19	38.834			
7,200.00	7,029.68	7,051.83	7,022.65	27.41	25.77	178.26	320.15	-506.19	2,012.56	1,960.69	51.87	38.801			
7,300.00	7,126.71	7,136.38	7,107.19	27.81	26.04	178.26	320.22	-506.99	2,037.53	1,985.04	52.49	38.819			
7,309.09	7,135.53	7,143.99	7,114.80	27.84	26.06	178.26	320.21	-507.10	2,039.83	1,987.28	52.54	38.822			
7,350.00	7,174.84	7,177.87	7,148.68	28.01	26.16	178.22	320.14	-507.71	2,051.64	1,998.85	52.80	38.860			
7,400.00	7,221.63	7,218.09	7,188.89	28.22	26.29	178.15	320.06	-508.57	2,069.96	2,016.85	53.11	38.978			
7,450.00	7,266.71	7,258.03	7,228.82	28.44	26.41	178.07	319.99	-509.56	2,092.39	2,038.97	53.42	39.167			
7,500.00	7,309.74	7,299.89	7,270.66	28.67	26.54	177.96	319.89	-510.66	2,118.67	2,064.91	53.76	39.413			
7,550.00	7,350.39	7,339.33	7,310.08	28.91	26.66	177.83	319.77	-511.75	2,148.56	2,094.49	54.08	39.732			
7,600.00	7,388.34	7,375.17	7,345.91	29.15	26.77	177.66	319.62	-512.77	2,181.85	2,127.48	54.37	40.127			
7,650.00	7,423.32	7,408.01	7,378.74	29.40	26.87	177.44	319.48	-513.75	2,218.28	2,163.63	54.65	40.591			
7,700.00	7,455.05	7,438.52	7,409.23	29.65	26.96	177.16	319.32	-514.70	2,257.57	2,202.66	54.91	41.117			
7,750.00	7,483.30	7,467.18	7,437.87	29.90	27.05	176.78	319.14	-515.60	2,299.39	2,244.24	55.15	41.697			
7,800.00	7,507.84	7,491.95	7,462.63	30.15	27.13	176.25	318.95	-516.38	2,343.42	2,288.07	55.35	42.335			
7,850.00	7,528.50	7,512.66	7,483.33	30.41	27.19	175.46	318.77	-517.04	2,389.33	2,333.81	55.53	43.029			
7,900.00	7,545.11	7,529.13	7,499.79	30.66	27.24	174.17	318.61	-517.57	2,436.79	2,381.12	55.67	43.774			
7,919.09	7,550.36	7,534.45	7,505.11	30.75	27.26	173.43	318.56	-517.74	2,455.24	2,399.52	55.71	44.069			
8,000.00	7,568.52	7,552.64	7,523.29	31.16	27.32	171.05	318.37	-518.33	2,534.37	2,478.50	55.87	45.365			
8,100.00	7,583.22	7,566.74	7,537.38	31.66	27.36	162.96	318.21	-518.78	2,633.48	2,577.49	55.99	47.033			
8,200.00	7,589.24	7,571.39	7,542.03	32.17	27.37	85.68	318.15	-518.93	2,733.33	2,677.28	56.05	48.767			
8,219.09	7,589.40	7,571.19	7,541.83	32.26	27.37	53.40	318.15	-518.92	2,752.41	2,696.36	56.05	49.105			
8,300.00	7,589.40	7,569.60	7,540.24	32.67	27.37	52.54	318.17	-518.87	2,833.28	2,777.22	56.06	50.540			
8,400.00	7,589.40	7,567.61	7,538.25	33.21	27.36	51.49	318.20	-518.81	2,933.24	2,877.17	56.07	52.313			
8,444.09	7,589.40	7,566.74	7,537.38	33.45	27.36	51.03	318.21	-518.78	2,977.31	2,921.23	56.08	53.094			
8,500.00	7,589.40	7,565.64	7,536.28	33.76	27.36	70.11	318.22	-518.74	3,033.17	2,977.08	56.08	54.084			
8,600.00	7,589.40	7,563.81	7,534.45	34.34	27.35	79.56	318.24	-518.68	3,132.84	3,076.75	56.10	55.847			
8,700.00	7,589.40	7,562.14	7,532.79	34.92	27.35	82.90	318.26	-518.63	3,232.03	3,175.91	56.11	57.598			
8,800.00	7,589.40	7,560.64	7,531.29	35.52	27.34	84.60	318.28	-518.58	3,330.50	3,274.37	56.13	59.333			
8,900.00	7,589.40	7,559.32	7,529.96	36.12	27.34	85.63	318.29	-518.54	3,428.06	3,371.91	56.15	61.049			
9,000.00	7,589.40	7,558.17	7,528.82	36.73	27.33	86.33	318.31	-518.50	3,524.54	3,468.36	56.18	62.741			
9,100.00	7,589.40	7,557.21	7,527.85	37.33	27.33	86.84	318.32	-518.47	3,619.76	3,563.56	56.20	64.408			
9,200.00	7,589.40	12,044.86	9,947.86	37.92	49.53	133.01	-2,087.13	-504.78	3,707.33	3,631.59	75.74	48.946			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Survey Program:		201-MWD+HRGM							Rule Assigned:			Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis					Distance						
Measured Depth	Vertical	Measured	Vertical	Reference	Major	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation		
Depth	Depth	Depth	Depth		Offset		Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)		(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
9,300.00	7,589.39	12,125.62	9,948.01	38.51	50.36		131.86	-2,167.87	-503.16	3,742.21	3,665.03	77.18	48.489		
9,400.00	7,589.39	12,213.00	9,948.40	39.09	51.27		130.83	-2,255.24	-501.45	3,773.78	3,695.11	78.67	47.968		
9,500.00	7,589.39	12,313.94	9,948.80	39.65	52.34		129.91	-2,356.16	-499.43	3,801.67	3,721.35	80.32	47.334		
9,600.00	7,589.39	12,376.00	9,949.13	40.19	53.01		129.25	-2,418.20	-497.97	3,825.76	3,744.25	81.51	46.938		
9,700.00	7,589.38	12,446.60	9,949.32	40.72	53.77		128.66	-2,488.79	-497.13	3,846.67	3,763.89	82.78	46.469		
9,800.00	7,589.38	12,505.61	9,949.17	41.23	54.42		128.19	-2,547.79	-497.76	3,864.87	3,780.97	83.90	46.065		
9,900.00	7,589.38	12,575.53	9,949.04	41.72	55.18		127.79	-2,617.70	-499.18	3,879.87	3,794.74	85.13	45.576		
10,000.00	7,589.37	12,662.50	9,949.25	42.18	56.14		127.47	-2,704.64	-501.20	3,891.29	3,804.74	86.55	44.960		
10,100.00	7,589.37	12,774.34	9,949.79	42.63	57.40		127.25	-2,816.46	-503.54	3,898.55	3,810.28	88.27	44.165		
10,173.66	7,589.36	12,850.22	9,950.14	42.94	58.25		127.18	-2,892.33	-504.98	3,901.12	3,811.67	89.45	43.612		
10,200.00	7,589.36	12,876.15	9,950.25	43.05	58.55		127.18	-2,918.26	-505.47	3,901.63	3,811.77	89.86	43.421		
10,300.00	7,589.36	12,972.81	9,950.62	43.47	59.66		127.17	-3,014.89	-507.38	3,903.59	3,812.20	91.38	42.717		
10,400.00	7,589.36	13,070.56	9,951.20	43.90	60.79		127.15	-3,112.62	-509.30	3,905.67	3,812.73	92.94	42.023		
10,500.00	7,589.35	13,174.70	9,951.94	44.33	62.02		127.14	-3,216.75	-511.15	3,907.68	3,813.08	94.60	41.308		
10,600.00	7,589.35	13,428.14	9,952.43	44.78	65.05		127.14	-3,470.16	-511.49	3,908.64	3,810.38	98.26	39.779		
10,700.00	7,589.34	13,520.44	9,952.07	45.23	66.18		127.15	-3,562.44	-509.64	3,906.95	3,807.15	99.80	39.147		
10,800.00	7,589.34	13,630.01	9,951.72	45.69	67.52		127.17	-3,671.98	-507.01	3,904.99	3,803.41	101.58	38.441		
10,900.00	7,589.33	13,722.01	9,951.30	46.16	68.66		127.18	-3,763.96	-504.95	3,903.10	3,799.96	103.15	37.841		
11,000.00	7,589.33	13,820.49	9,950.87	46.64	69.89		127.19	-3,862.41	-502.92	3,901.35	3,796.54	104.81	37.225		
11,100.00	7,589.33	13,922.07	9,950.48	47.12	71.16		127.21	-3,963.97	-500.69	3,899.53	3,793.02	106.52	36.609		
11,200.00	7,589.32	14,018.99	9,950.26	47.61	72.38		127.22	-4,060.86	-498.54	3,897.79	3,789.61	108.18	36.032		
11,300.00	7,589.32	14,112.11	9,950.04	48.11	73.56		127.24	-4,153.96	-496.55	3,896.10	3,786.31	109.79	35.486		
11,400.00	7,589.31	14,219.82	9,949.77	48.61	74.93		127.25	-4,261.65	-494.56	3,894.66	3,783.04	111.62	34.892		
11,500.00	7,589.31	14,320.19	9,949.55	49.12	76.22		127.27	-4,361.99	-492.07	3,892.71	3,779.35	113.35	34.341		
11,600.00	7,589.31	14,407.96	9,949.59	49.64	77.34		127.28	-4,449.74	-490.18	3,891.17	3,776.25	114.92	33.860		
11,700.00	7,589.30	14,498.22	9,949.89	50.16	78.51		127.30	-4,539.97	-488.23	3,889.82	3,773.29	116.52	33.383		
11,800.00	7,589.30	14,592.19	9,950.40	50.69	79.72		127.32	-4,633.93	-486.42	3,888.77	3,770.58	118.19	32.904		
11,900.00	7,589.29	14,667.13	9,950.77	51.23	80.69		127.34	-4,708.85	-485.08	3,887.87	3,768.29	119.58	32.512		
11,929.59	7,589.29	14,681.54	9,950.84	51.39	80.88		127.34	-4,723.26	-484.97	3,887.81	3,767.93	119.88	32.430		
12,000.00	7,589.29	14,736.00	9,951.09	51.77	81.59		127.34	-4,777.72	-485.17	3,888.25	3,767.35	120.90	32.161		
12,100.00	7,589.28	14,791.87	9,951.46	52.31	82.31		127.34	-4,833.59	-485.84	3,889.52	3,767.50	122.02	31.876		
12,200.00	7,589.28	14,865.70	9,952.26	52.86	83.27		127.34	-4,907.40	-486.68	3,891.29	3,767.89	123.41	31.533		
12,300.00	7,589.28	14,926.00	9,952.98	53.42	84.05		127.33	-4,967.69	-488.10	3,894.04	3,769.45	124.59	31.256		
12,400.00	7,589.27	15,115.00	9,956.70	53.98	86.52		127.34	-5,156.61	-491.28	3,897.25	3,769.52	127.73	30.512		
12,500.00	7,589.27	15,201.90	9,958.59	54.55	87.66		127.37	-5,243.49	-490.81	3,898.31	3,768.99	129.32	30.145		
12,600.00	7,589.26	15,284.38	9,960.35	55.12	88.75		127.39	-5,325.95	-490.86	3,899.82	3,768.97	130.85	29.803		
12,700.00	7,589.26	15,456.60	9,962.17	55.70	91.04		127.41	-5,498.16	-490.38	3,900.23	3,766.48	133.75	29.161		
12,740.87	7,589.26	15,493.00	9,962.37	55.93	91.52		127.41	-5,534.55	-490.13	3,900.20	3,765.78	134.42	29.015		
12,800.00	7,589.26	15,539.97	9,962.65	56.28	92.14		127.42	-5,581.52	-489.90	3,900.29	3,764.98	135.31	28.824		
12,900.00	7,589.25	15,630.64	9,963.22	56.86	93.35		127.42	-5,672.19	-489.90	3,900.82	3,763.82	136.99	28.474		
13,000.00	7,589.25	15,723.09	9,963.79	57.45	94.58		127.43	-5,764.64	-489.89	3,901.36	3,762.65	138.71	28.127		
13,100.00	7,589.24	15,854.28	9,964.09	58.04	96.33		127.42	-5,895.82	-490.60	3,902.21	3,761.19	141.02	27.671		
13,200.00	7,589.24	15,981.66	9,963.50	58.64	98.04		127.42	-6,023.20	-489.98	3,901.67	3,758.39	143.28	27.232		
13,300.00	7,589.23	16,085.05	9,962.93	59.24	99.43		127.42	-6,126.58	-489.11	3,900.82	3,755.64	145.18	26.869		
13,400.00	7,589.23	16,174.67	9,962.42	59.84	100.64		127.42	-6,216.20	-488.52	3,900.11	3,753.23	146.88	26.554		
13,500.00	7,589.23	16,266.01	9,961.89	60.45	101.87		127.41	-6,307.54	-488.23	3,899.66	3,751.06	148.60	26.242		
13,600.00	7,589.22	16,417.89	9,961.20	61.06	103.93		127.41	-6,459.42	-487.14	3,899.15	3,747.91	151.25	25.780		
13,700.00	7,589.22	16,515.00	9,960.48	61.68	105.25		127.42	-6,556.50	-485.25	3,897.32	3,744.26	153.07	25.462		
13,800.00	7,589.21	16,586.13	9,960.21	62.30	106.22		127.42	-6,627.62	-484.17	3,896.05	3,741.56	154.50	25.218		
13,900.00	7,589.21	16,659.82	9,960.00	62.92	107.22		127.42	-6,701.31	-483.74	3,895.56	3,739.60	155.96	24.977		
13,941.65	7,589.21	16,693.85	9,959.90	63.18	107.68		127.42	-6,735.34	-483.70	3,895.52	3,738.89	156.63	24.871		
14,000.00	7,589.21	16,741.86	9,959.77	63.54	108.33		127.42	-6,783.35	-483.79	3,895.60	3,738.04	157.56	24.724		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 201-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,100.00	7,589.20	16,815.00	9,959.69	64.17	109.32	127.41			-6,856.49	-484.13	3,896.10	3,737.08	159.02	24.501	
14,200.00	7,589.20	16,891.67	9,959.72	64.80	110.37	127.40			-6,933.16	-485.01	3,897.23	3,736.70	160.53	24.277	
14,300.00	7,589.19	16,999.19	9,959.76	65.43	111.82	127.39			-7,040.66	-486.90	3,898.82	3,736.28	162.54	23.987	
14,400.00	7,589.19	17,097.73	9,959.62	66.07	113.16	127.37			-7,139.18	-488.51	3,900.19	3,735.77	164.41	23.722	
14,500.00	7,589.18	17,242.13	9,959.35	66.71	115.13	127.35			-7,283.57	-489.87	3,900.97	3,733.96	167.02	23.357	
14,600.00	7,589.18	17,427.80	9,959.21	67.35	117.68	127.37			-7,469.22	-487.57	3,900.07	3,729.86	170.22	22.913	
14,700.00	7,589.18	17,546.63	9,957.82	67.99	119.32	127.37			-7,588.02	-485.11	3,897.87	3,725.48	172.39	22.610	
14,800.00	7,589.17	17,650.03	9,955.23	68.64	120.75	127.35			-7,691.37	-483.64	3,895.38	3,721.02	174.36	22.341	
14,900.00	7,589.17	17,720.25	9,952.67	69.29	121.72	127.32			-7,761.54	-483.52	3,893.21	3,717.37	175.84	22.140	
15,000.00	7,589.16	17,816.98	9,949.56	69.94	123.05	127.28			-7,858.23	-483.90	3,891.72	3,713.99	177.73	21.896	
15,100.00	7,589.16	17,904.74	9,946.86	70.59	124.26	127.25			-7,945.94	-483.94	3,890.08	3,710.59	179.48	21.674	
15,200.00	7,589.16	17,977.48	9,945.74	71.25	125.26	127.23			-8,018.68	-483.73	3,889.08	3,708.10	180.98	21.489	
15,300.00	7,589.15	18,066.01	9,944.61	71.91	126.48	127.22			-8,107.20	-484.08	3,888.76	3,706.03	182.73	21.282	
15,400.00	7,589.15	18,255.82	9,942.11	72.57	129.11	127.20			-8,296.96	-481.68	3,886.99	3,700.96	186.03	20.895	
15,500.00	7,589.14	18,335.84	9,941.99	73.23	130.23	127.22			-8,376.94	-479.19	3,884.58	3,696.95	187.63	20.703	
15,600.00	7,589.14	18,415.00	9,942.06	73.89	131.33	127.24			-8,456.07	-477.15	3,882.74	3,693.52	189.22	20.520	
15,700.00	7,589.13	18,549.09	9,941.82	74.56	133.20	127.27			-8,590.10	-473.10	3,880.28	3,688.65	191.63	20.249	
15,800.00	7,589.13	18,626.91	9,942.03	75.23	134.29	127.29			-8,667.89	-470.72	3,878.15	3,684.94	193.20	20.073	
15,900.00	7,589.13	18,727.50	9,942.34	75.90	135.69	127.32			-8,768.44	-467.85	3,876.22	3,681.11	195.11	19.867	
16,000.00	7,589.12	18,826.33	9,942.49	76.57	137.07	127.35			-8,867.22	-465.15	3,874.30	3,677.30	197.00	19.666	
16,100.00	7,589.12	18,936.88	9,942.11	77.24	138.62	127.36			-8,977.75	-462.52	3,872.37	3,673.30	199.08	19.452	
16,200.00	7,589.11	19,032.17	9,941.92	77.92	139.95	127.39			-9,072.99	-459.74	3,870.10	3,669.18	200.92	19.262	
16,300.00	7,589.11	19,117.45	9,942.59	78.59	141.14	127.41			-9,158.22	-457.14	3,868.30	3,665.70	202.60	19.094	
16,400.00	7,589.11	19,206.36	9,941.41	79.27	142.39	127.41			-9,247.12	-456.09	3,866.73	3,662.36	204.36	18.921	
16,500.00	7,589.10	19,290.53	9,939.75	79.95	143.56	127.39			-9,331.27	-455.98	3,865.57	3,659.51	206.07	18.759	
16,600.00	7,589.10	19,383.20	9,938.43	80.63	144.85	127.37			-9,423.93	-455.79	3,864.71	3,656.81	207.90	18.589	
16,700.00	7,589.09	19,474.16	9,937.40	81.31	146.12	127.36			-9,514.89	-455.57	3,863.99	3,654.29	209.70	18.426	
16,800.00	7,589.09	19,553.62	9,937.39	82.00	147.23	127.36			-9,594.35	-455.16	3,863.72	3,652.42	211.31	18.285	
16,900.00	7,589.08	19,733.00	9,937.91	82.68	149.74	127.39			-9,773.71	-453.16	3,863.57	3,649.10	214.47	18.014	
17,000.00	7,589.08	19,784.70	9,937.96	83.37	150.47	127.40			-9,825.40	-451.97	3,862.04	3,646.38	215.65	17.908	
17,074.08	7,589.08	19,827.00	9,938.20	83.88	151.06	127.40			-9,867.69	-451.61	3,861.83	3,645.25	216.58	17.831	
17,100.00	7,589.08	19,835.99	9,938.27	84.06	151.19	127.40			-9,876.68	-451.59	3,861.91	3,645.11	216.80	17.813	
17,200.00	7,589.07	19,942.95	9,938.62	84.75	152.68	127.40			-9,983.64	-451.54	3,862.23	3,643.37	218.85	17.647	
17,300.00	7,589.07	20,053.75	9,938.59	85.44	154.23	127.40			-10,094.44	-451.67	3,862.48	3,641.51	220.98	17.479	
17,400.00	7,589.06	20,182.32	9,937.41	86.13	156.03	127.39			-10,223.00	-451.54	3,861.97	3,638.58	223.39	17.288	
17,500.00	7,589.06	20,273.48	9,936.62	86.83	157.31	127.38			-10,314.16	-451.14	3,861.27	3,636.06	225.21	17.146	
17,600.00	7,589.06	20,376.94	9,936.14	87.52	158.76	127.38			-10,417.62	-450.63	3,860.76	3,633.55	227.21	16.992	
17,700.00	7,589.05	20,488.05	9,935.16	88.22	160.32	127.37			-10,528.73	-450.09	3,859.99	3,630.65	229.35	16.830	
17,800.00	7,589.05	20,569.72	9,934.44	88.91	161.47	127.36			-10,610.39	-449.79	3,859.33	3,628.32	231.01	16.706	
17,900.00	7,589.04	20,656.04	9,934.13	89.61	162.68	127.36			-10,696.71	-449.58	3,859.08	3,626.33	232.74	16.581	
17,923.06	7,589.04	20,676.00	9,934.13	89.77	162.96	127.36			-10,716.67	-449.54	3,859.07	3,625.93	233.14	16.553	
18,000.00	7,589.04	20,733.24	9,934.22	90.31	163.77	127.36			-10,773.91	-449.53	3,859.26	3,624.95	234.32	16.470	
18,100.00	7,589.03	20,850.04	9,934.62	91.01	165.41	127.36			-10,890.70	-449.77	3,859.83	3,623.28	236.54	16.318	
18,200.00	7,589.03	20,925.34	9,934.80	91.71	166.46	127.36			-10,966.00	-449.73	3,860.12	3,622.04	238.09	16.213	
18,300.00	7,589.03	21,035.04	9,935.13	92.42	168.00	127.35			-11,075.70	-450.42	3,860.99	3,620.79	240.20	16.074	
18,400.00	7,589.02	21,166.26	9,934.16	93.12	169.85	127.34			-11,206.91	-450.79	3,860.89	3,618.20	242.69	15.909	
18,460.03	7,589.02	21,212.99	9,933.69	93.54	170.50	127.33			-11,253.65	-450.95	3,860.79	3,617.13	243.65	15.845	
18,500.00	7,589.02	21,242.00	9,933.58	93.82	170.91	127.33			-11,282.65	-451.02	3,860.83	3,616.58	244.26	15.806	
18,600.00	7,589.01	21,336.00	9,934.40	94.53	172.23	127.34			-11,376.65	-450.66	3,861.22	3,615.11	246.10	15.689	
18,700.00	7,589.01	21,398.00	9,935.23	95.23	173.11	127.35			-11,438.64	-450.32	3,861.90	3,614.49	247.40	15.610	SF
18,800.00	7,589.01	21,398.00	9,935.23	95.94	173.11	127.35			-11,438.64	-450.32	3,864.61	3,617.05	247.57	15.610	
18,900.00	7,589.00	21,398.00	9,935.23	96.65	173.11	127.35			-11,438.64	-450.32	3,869.91	3,622.33	247.58	15.631	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Fed Com - Riverbend 12-13 Fed Com 31H - OH - Svy												Offset Site Error:	0.00 usft
Survey Program: 201-MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation Factor	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
18,917.19	7,589.00	21,398.00	9,935.23	96.77	173.11	127.35	-11,438.64	-450.32	3,871.08	3,623.52	247.57	15.637	
18,917.96	7,589.00	21,398.00	9,935.23	97.01	173.11	127.35	-11,438.64	-450.32	3,871.14	3,623.52	247.62	15.634	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS				Rule Assigned:										Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface Tooface (")	Offset Wellbore Centre		Distance				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	1.91	-99.96	99.98							
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	1.91	-99.96	99.98	99.43	0.55	181.105				
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	1.91	-99.96	99.98	98.71	1.27	78.786				
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	1.91	-99.96	99.98	97.99	1.99	50.343				
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	1.91	-99.96	99.98	97.28	2.70	36.990				
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	1.91	-99.96	99.98	96.56	3.42	29.235				
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	1.91	-99.96	99.98	95.84	4.14	24.168				
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	1.91	-99.96	99.98	95.12	4.85	20.598				
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	1.91	-99.96	99.98	94.41	5.57	17.947				
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	1.91	-99.96	99.98	93.69	6.29	15.901				
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	1.91	-99.96	99.98	92.97	7.00	14.273	CC, ES			
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	143.67	1.91	-99.96	101.38	93.67	7.71	13.154				
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	145.30	1.91	-99.96	105.64	97.24	8.40	12.578				
1,300.00	1,299.45	1,299.45	1,299.45	4.52	4.58	147.74	1.91	-99.96	112.92	103.83	9.09	12.416				
1,400.00	1,398.70	1,398.70	1,398.70	4.86	4.93	150.65	1.91	-99.96	123.41	113.62	9.79	12.603				
1,500.00	1,497.47	1,497.47	1,497.47	5.21	5.29	153.72	1.91	-99.96	137.29	126.80	10.49	13.085				
1,600.00	1,595.62	1,595.62	1,595.62	5.56	5.64	156.70	1.91	-99.96	154.67	143.48	11.19	13.820				
1,700.00	1,693.06	1,693.06	1,693.06	5.92	5.99	159.45	1.91	-99.96	175.62	163.73	11.89	14.767				
1,800.00	1,790.08	1,790.08	1,790.08	6.28	6.33	161.89	1.91	-99.96	198.53	185.94	12.59	15.766				
1,900.00	1,887.11	1,892.80	1,892.78	6.65	6.69	163.69	0.61	-99.20	220.59	207.29	13.30	16.586				
2,000.00	1,984.14	1,997.57	1,997.41	7.02	7.03	164.64	-3.96	-96.51	239.96	225.96	14.00	17.143				
2,100.00	2,081.17	2,103.58	2,103.02	7.39	7.38	164.92	-11.95	-91.82	256.45	241.76	14.70	17.449				
2,200.00	2,178.20	2,210.57	2,209.16	7.76	7.74	164.68	-23.41	-85.08	269.99	254.59	15.40	17.532				
2,300.00	2,275.23	2,317.42	2,314.61	8.14	8.10	163.97	-38.25	-76.36	280.58	264.48	16.10	17.424				
2,400.00	2,372.26	2,416.90	2,412.53	8.52	8.43	163.17	-53.38	-67.48	290.00	273.18	16.82	17.244				
2,500.00	2,469.29	2,516.37	2,510.45	8.90	8.77	162.42	-68.50	-58.59	299.47	281.93	17.54	17.076				
2,600.00	2,566.32	2,615.85	2,608.37	9.28	9.12	161.72	-83.62	-49.70	308.99	290.73	18.26	16.920				
2,700.00	2,663.35	2,715.32	2,706.28	9.67	9.46	161.06	-98.75	-40.82	318.55	299.56	18.99	16.774				
2,800.00	2,760.38	2,814.80	2,804.20	10.05	9.81	160.43	-113.87	-31.93	328.16	308.43	19.72	16.638				
2,900.00	2,857.41	2,914.28	2,902.12	10.44	10.16	159.85	-128.99	-23.05	337.80	317.34	20.46	16.510				
3,000.00	2,954.44	3,013.75	3,000.04	10.83	10.51	159.29	-144.12	-14.16	347.47	326.27	21.20	16.391				
3,100.00	3,051.47	3,113.23	3,097.96	11.22	10.87	158.77	-159.24	-5.28	357.17	335.23	21.94	16.278				
3,200.00	3,148.50	3,212.71	3,195.87	11.60	11.22	158.27	-174.36	3.61	366.90	344.22	22.69	16.173				
3,300.00	3,245.53	3,312.18	3,293.79	11.99	11.58	157.80	-189.49	12.49	376.66	353.23	23.43	16.074				
3,400.00	3,342.56	3,411.66	3,391.71	12.38	11.94	157.35	-204.61	21.38	386.44	362.26	24.18	15.980				
3,500.00	3,439.59	3,511.14	3,489.63	12.77	12.30	156.93	-219.74	30.27	396.24	371.31	24.93	15.892				
3,600.00	3,536.62	3,610.61	3,587.54	13.17	12.66	156.53	-234.86	39.15	406.06	380.38	25.69	15.809				
3,700.00	3,633.65	3,710.09	3,685.46	13.56	13.02	156.14	-249.98	48.04	415.91	389.47	26.44	15.730				
3,800.00	3,730.68	3,809.57	3,783.38	13.95	13.39	155.77	-265.11	56.92	425.77	398.57	27.20	15.656				
3,900.00	3,827.71	3,909.04	3,881.30	14.34	13.75	155.42	-280.23	65.81	435.64	407.69	27.95	15.585				
4,000.00	3,924.74	4,008.52	3,979.22	14.74	14.12	155.09	-295.35	74.69	445.54	416.82	28.71	15.518				
4,100.00	4,021.77	4,108.00	4,077.13	15.13	14.48	154.77	-310.48	83.58	455.44	425.97	29.47	15.454				
4,200.00	4,118.79	4,207.47	4,175.05	15.52	14.85	154.46	-325.60	92.47	465.36	435.13	30.23	15.393				
4,300.00	4,215.82	4,306.95	4,272.97	15.92	15.21	154.17	-340.72	101.35	475.29	444.30	30.99	15.336				
4,400.00	4,312.85	4,406.42	4,370.89	16.31	15.58	153.88	-355.85	110.24	485.24	453.48	31.75	15.281				
4,500.00	4,409.88	4,505.90	4,468.80	16.70	15.95	153.61	-370.97	119.12	495.19	462.68	32.52	15.228				
4,600.00	4,506.91	4,605.38	4,566.72	17.10	16.32	153.35	-386.09	128.01	505.16	471.88	33.28	15.178				
4,700.00	4,603.94	4,704.85	4,664.64	17.49	16.69	153.10	-401.22	136.89	515.14	481.09	34.05	15.130				
4,800.00	4,700.97	4,804.33	4,762.56	17.89	17.06	152.86	-416.34	145.78	525.12	490.31	34.81	15.084				
4,900.00	4,798.00	4,903.81	4,860.48	18.28	17.43	152.63	-431.46	154.67	535.12	499.54	35.58	15.040				
5,000.00	4,895.03	5,003.28	4,958.39	18.68	17.80	152.41	-446.59	163.55	545.12	508.77	36.35	14.998				
5,100.00	4,992.06	5,102.76	5,056.31	19.07	18.17	152.19	-461.71	172.44	555.13	518.02	37.11	14.958				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	5,202.24	5,154.23	19.47	18.54	151.98	-476.83	181.32	565.15	527.27	37.88	14.919	
5,300.00	5,186.12	5,301.71	5,252.15	19.87	18.91	151.78	-491.96	190.21	575.17	536.52	38.65	14.882	
5,400.00	5,283.15	5,401.19	5,350.06	20.26	19.28	151.59	-507.08	199.09	585.21	545.79	39.42	14.846	
5,500.00	5,380.18	5,500.67	5,447.98	20.66	19.66	151.40	-522.20	207.98	595.24	555.06	40.19	14.812	
5,600.00	5,477.21	5,600.14	5,545.90	21.06	20.03	151.22	-537.33	216.87	605.29	564.33	40.96	14.779	
5,700.00	5,574.24	5,699.62	5,643.82	21.45	20.40	151.05	-552.45	225.75	615.34	573.61	41.73	14.747	
5,800.00	5,671.27	5,799.09	5,741.74	21.85	20.78	150.88	-567.57	234.64	625.39	582.90	42.50	14.716	
5,900.00	5,768.30	5,898.57	5,839.65	22.24	21.15	150.72	-582.70	243.52	635.45	592.19	43.27	14.687	
6,000.00	5,865.33	5,998.05	5,937.57	22.64	21.52	150.56	-597.82	252.41	645.52	601.48	44.04	14.658	
6,100.00	5,962.36	6,097.52	6,035.49	23.04	21.90	150.40	-612.94	261.29	655.59	610.78	44.81	14.630	
6,200.00	6,059.39	6,197.00	6,133.41	23.44	22.27	150.25	-628.07	270.18	665.67	620.08	45.58	14.604	
6,300.00	6,156.42	6,296.48	6,231.32	23.83	22.64	150.11	-643.19	279.07	675.75	629.39	46.35	14.578	
6,400.00	6,253.45	6,395.95	6,329.24	24.23	23.02	149.97	-658.31	287.95	685.83	638.70	47.13	14.553	
6,500.00	6,350.47	6,495.43	6,427.16	24.63	23.39	149.83	-673.44	296.84	695.92	648.02	47.90	14.529	
6,600.00	6,447.50	6,594.91	6,525.08	25.02	23.77	149.70	-688.56	305.72	706.01	657.34	48.67	14.506	
6,700.00	6,544.53	6,694.38	6,623.00	25.42	24.14	149.57	-703.68	314.61	716.10	666.66	49.44	14.483	
6,800.00	6,641.56	6,793.86	6,720.91	25.82	24.52	149.45	-718.81	323.49	726.20	675.98	50.22	14.461	
6,900.00	6,738.59	6,893.34	6,818.83	26.22	24.89	149.33	-733.93	332.38	736.30	685.31	50.99	14.440	
7,000.00	6,835.62	6,992.81	6,916.75	26.61	25.27	149.21	-749.06	341.27	746.41	694.64	51.77	14.419	
7,100.00	6,932.65	7,092.29	7,014.67	27.01	25.64	149.09	-764.18	350.15	756.52	703.98	52.54	14.399	
7,200.00	7,029.68	7,191.77	7,112.58	27.41	26.02	148.98	-779.30	359.04	766.63	713.31	53.31	14.380	
7,300.00	7,126.71	7,291.24	7,210.50	27.81	26.39	148.87	-794.43	367.92	776.74	722.65	54.09	14.361	
7,309.09	7,135.53	7,300.29	7,219.41	27.84	26.43	148.86	-795.80	368.73	777.66	723.50	54.16	14.359	
7,350.00	7,174.84	7,340.83	7,259.31	28.01	26.58	148.59	-801.96	372.35	783.04	728.56	54.48	14.374	
7,400.00	7,221.63	7,389.77	7,307.49	28.22	26.77	148.23	-809.40	376.72	792.95	738.08	54.87	14.451	
7,450.00	7,266.71	7,431.54	7,348.64	28.44	26.92	147.77	-815.57	380.35	806.64	751.40	55.24	14.603	
7,500.00	7,309.74	7,470.80	7,387.41	28.67	27.07	147.21	-820.90	383.48	824.28	768.69	55.59	14.829	
7,550.00	7,350.39	7,508.08	7,424.30	28.91	27.21	146.50	-825.53	386.20	845.75	789.83	55.92	15.124	
7,600.00	7,388.34	7,543.00	7,458.91	29.15	27.34	145.60	-829.50	388.53	870.92	814.68	56.24	15.486	
7,650.00	7,423.32	7,575.23	7,490.92	29.40	27.46	144.42	-832.84	390.49	899.60	843.06	56.53	15.912	
7,700.00	7,455.05	7,600.00	7,515.53	29.65	27.55	142.71	-835.19	391.87	931.59	874.82	56.77	16.410	
7,750.00	7,483.30	7,630.61	7,545.99	29.90	27.66	140.81	-837.85	393.43	966.60	909.56	57.04	16.945	
7,800.00	7,507.84	7,653.37	7,568.65	30.15	27.74	138.08	-839.64	394.49	1,004.39	947.14	57.25	17.543	
7,850.00	7,528.50	7,672.69	7,587.90	30.41	27.81	134.45	-841.04	395.31	1,044.62	987.19	57.43	18.189	
7,900.00	7,545.11	7,688.49	7,603.65	30.66	27.87	129.59	-842.10	395.93	1,086.96	1,029.38	57.58	18.878	
7,919.09	7,550.36	7,700.00	7,615.13	30.75	27.91	127.82	-842.83	396.36	1,103.63	1,045.95	57.68	19.134	
8,000.00	7,568.52	7,711.62	7,626.73	31.16	27.95	122.27	-843.52	396.77	1,175.83	1,118.04	57.79	20.348	
8,100.00	7,583.22	7,727.24	7,642.31	31.66	28.01	113.47	-844.39	397.28	1,267.83	1,209.90	57.93	21.886	
8,200.00	7,589.24	7,735.82	7,650.88	32.17	28.04	101.18	-844.83	397.54	1,361.97	1,303.96	58.01	23.478	
8,219.09	7,589.40	8,838.65	8,411.67	32.26	32.23	137.50	-1,421.21	595.43	1,373.68	1,316.16	57.52	23.882	
8,300.00	7,589.40	8,884.19	8,418.65	32.67	32.40	136.66	-1,465.31	604.39	1,421.46	1,363.05	58.41	24.335	
8,400.00	7,589.40	8,937.52	8,425.45	33.21	32.58	135.61	-1,517.48	613.12	1,482.01	1,422.52	59.49	24.913	
8,444.09	7,589.40	8,960.02	8,427.86	33.45	32.66	135.16	-1,539.63	616.23	1,509.24	1,449.29	59.95	25.176	
8,500.00	7,589.40	9,000.00	8,431.49	33.76	32.80	133.44	-1,579.17	620.91	1,543.85	1,483.31	60.54	25.500	
8,600.00	7,589.40	9,037.77	8,434.13	34.34	32.93	131.20	-1,616.68	624.34	1,604.57	1,543.08	61.49	26.094	
8,700.00	7,589.40	9,100.00	8,436.80	34.92	33.14	128.70	-1,678.75	627.86	1,664.01	1,601.54	62.47	26.638	
8,800.00	7,589.40	9,135.51	8,437.39	35.52	33.26	126.83	-1,714.24	628.68	1,721.75	1,658.46	63.29	27.204	
8,900.00	7,589.40	9,204.99	8,437.43	36.12	33.48	124.64	-1,783.72	628.87	1,777.58	1,713.36	64.22	27.679	
9,000.00	7,589.40	9,285.14	8,437.43	36.73	33.75	122.61	-1,863.88	629.03	1,830.33	1,765.15	65.18	28.081	
9,100.00	7,589.40	9,368.32	8,437.43	37.33	34.04	120.86	-1,947.05	629.19	1,879.68	1,813.54	66.14	28.421	
9,200.00	7,589.40	9,454.29	8,437.42	37.92	34.35	119.34	-2,033.02	629.36	1,925.39	1,858.30	67.09	28.697	
9,300.00	7,589.39	9,542.81	8,437.42	38.51	34.68	118.03	-2,121.54	629.53	1,967.24	1,899.18	68.06	28.906	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS							Rule Assigned:							Offset Well Error:		0.00 usft
Reference				Semi Major Axis		Highside Toolface										

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 3H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,500.00	7,589.18	14,712.65	8,437.19	66.71	64.00	113.27	-7,291.38	639.69	2,146.13	2,015.51	130.62	16.430	
14,600.00	7,589.18	14,812.65	8,437.19	67.35	64.67	113.27	-7,391.38	639.88	2,146.13	2,014.13	132.00	16.258	
14,700.00	7,589.18	14,912.65	8,437.18	67.99	65.35	113.27	-7,491.38	640.08	2,146.13	2,012.74	133.39	16.089	
14,800.00	7,589.17	15,012.65	8,437.18	68.64	66.03	113.27	-7,591.38	640.28	2,146.13	2,011.36	134.78	15.924	
14,900.00	7,589.17	15,112.65	8,437.17	69.29	66.71	113.27	-7,691.38	640.47	2,146.13	2,009.97	136.17	15.761	
15,000.00	7,589.16	15,212.65	8,437.17	69.94	67.39	113.27	-7,791.38	640.67	2,146.13	2,008.57	137.56	15.601	
15,100.00	7,589.16	15,312.65	8,437.17	70.59	68.07	113.27	-7,891.38	640.87	2,146.14	2,007.18	138.96	15.444	
15,200.00	7,589.16	15,412.65	8,437.16	71.25	68.76	113.27	-7,991.38	641.06	2,146.14	2,005.78	140.36	15.290	
15,300.00	7,589.15	15,512.65	8,437.16	71.91	69.44	113.27	-8,091.37	641.26	2,146.14	2,004.37	141.76	15.139	
15,400.00	7,589.15	15,612.65	8,437.15	72.57	70.13	113.27	-8,191.37	641.46	2,146.14	2,002.97	143.17	14.990	
15,500.00	7,589.14	15,712.65	8,437.15	73.23	70.82	113.27	-8,291.37	641.65	2,146.14	2,001.56	144.58	14.844	
15,600.00	7,589.14	15,812.65	8,437.14	73.89	71.51	113.27	-8,391.37	641.85	2,146.14	2,000.15	145.99	14.701	
15,700.00	7,589.13	15,912.65	8,437.14	74.56	72.20	113.27	-8,491.37	642.04	2,146.14	1,998.74	147.40	14.560	
15,800.00	7,589.13	16,012.65	8,437.14	75.23	72.90	113.27	-8,591.37	642.24	2,146.14	1,997.32	148.82	14.421	
15,900.00	7,589.13	16,112.65	8,437.13	75.90	73.59	113.27	-8,691.37	642.44	2,146.14	1,995.91	150.24	14.285	
16,000.00	7,589.12	16,212.65	8,437.13	76.57	74.29	113.27	-8,791.37	642.63	2,146.14	1,994.49	151.66	14.151	
16,100.00	7,589.12	16,312.65	8,437.12	77.24	74.99	113.27	-8,891.37	642.83	2,146.14	1,993.06	153.08	14.020	
16,200.00	7,589.11	16,412.65	8,437.12	77.92	75.69	113.27	-8,991.37	643.03	2,146.14	1,991.64	154.51	13.890	
16,300.00	7,589.11	16,512.65	8,437.11	78.59	76.39	113.27	-9,091.37	643.22	2,146.15	1,990.21	155.93	13.763	
16,400.00	7,589.11	16,612.65	8,437.11	79.27	77.09	113.27	-9,191.37	643.42	2,146.15	1,988.78	157.36	13.638	
16,500.00	7,589.10	16,712.65	8,437.10	79.95	77.79	113.27	-9,291.37	643.62	2,146.15	1,987.35	158.79	13.515	
16,600.00	7,589.10	16,812.65	8,437.10	80.63	78.50	113.27	-9,391.37	643.81	2,146.15	1,985.92	160.23	13.394	
16,700.00	7,589.09	16,912.65	8,437.10	81.31	79.20	113.27	-9,491.37	644.01	2,146.15	1,984.49	161.66	13.276	
16,800.00	7,589.09	17,012.65	8,437.09	82.00	79.91	113.27	-9,591.37	644.20	2,146.15	1,983.05	163.10	13.159	
16,900.00	7,589.08	17,112.65	8,437.09	82.68	80.62	113.27	-9,691.37	644.40	2,146.15	1,981.61	164.54	13.043	
17,000.00	7,589.08	17,212.65	8,437.08	83.37	81.33	113.27	-9,791.37	644.60	2,146.15	1,980.17	165.98	12.930	
17,100.00	7,589.08	17,312.65	8,437.08	84.06	82.04	113.27	-9,891.37	644.79	2,146.15	1,978.73	167.42	12.819	
17,200.00	7,589.07	17,412.65	8,437.07	84.75	82.75	113.27	-9,991.37	644.99	2,146.15	1,977.29	168.87	12.709	
17,300.00	7,589.07	17,512.65	8,437.07	85.44	83.46	113.27	-10,091.37	645.19	2,146.15	1,975.84	170.31	12.601	
17,400.00	7,589.06	17,612.65	8,437.07	86.13	84.17	113.27	-10,191.37	645.38	2,146.16	1,974.40	171.76	12.495	
17,500.00	7,589.06	17,712.65	8,437.06	86.83	84.88	113.27	-10,291.37	645.58	2,146.16	1,972.95	173.21	12.391	
17,600.00	7,589.06	17,812.65	8,437.06	87.52	85.60	113.27	-10,391.37	645.78	2,146.16	1,971.50	174.66	12.288	
17,700.00	7,589.05	17,912.65	8,437.05	88.22	86.31	113.27	-10,491.37	645.97	2,146.16	1,970.05	176.11	12.186	
17,800.00	7,589.05	18,012.65	8,437.05	88.91	87.03	113.27	-10,591.37	646.17	2,146.16	1,968.60	177.56	12.087	
17,900.00	7,589.04	18,112.65	8,437.04	89.61	87.75	113.27	-10,691.37	646.37	2,146.16	1,967.14	179.02	11.989	
18,000.00	7,589.04	18,212.65	8,437.04	90.31	88.46	113.27	-10,791.37	646.56	2,146.16	1,965.69	180.47	11.892	
18,100.00	7,589.03	18,312.65	8,437.03	91.01	89.18	113.27	-10,891.37	646.76	2,146.16	1,964.23	181.93	11.797	
18,200.00	7,589.03	18,412.65	8,437.03	91.71	89.90	113.27	-10,991.37	646.95	2,146.16	1,962.77	183.39	11.703	
18,300.00	7,589.03	18,512.65	8,437.03	92.42	90.62	113.27	-11,091.37	647.15	2,146.16	1,961.31	184.85	11.610	
18,400.00	7,589.02	18,612.65	8,437.02	93.12	91.34	113.27	-11,191.37	647.35	2,146.16	1,959.85	186.31	11.519	
18,500.00	7,589.02	18,712.65	8,437.02	93.82	92.06	113.27	-11,291.37	647.54	2,146.16	1,958.39	187.77	11.430	
18,600.00	7,589.01	18,812.65	8,437.01	94.53	92.79	113.27	-11,391.37	647.74	2,146.17	1,956.93	189.24	11.341	
18,700.00	7,589.01	18,912.65	8,437.01	95.23	93.51	113.27	-11,491.37	647.94	2,146.17	1,955.46	190.70	11.254	
18,800.00	7,589.01	19,012.65	8,437.00	95.94	94.23	113.27	-11,591.37	648.13	2,146.17	1,954.00	192.17	11.168	
18,807.77	7,589.00	19,020.42	8,437.00	96.00	94.29	113.27	-11,599.14	648.15	2,146.17	1,953.89	192.28	11.162	
18,900.00	7,589.00	19,103.82	8,437.00	96.65	94.91	113.27	-11,682.53	648.31	2,146.19	1,952.68	193.50	11.091	
18,917.19	7,589.00	19,103.82	8,437.00	96.77	94.91	113.27	-11,682.53	648.31	2,146.33	1,952.83	193.50	11.092	
18,917.96	7,589.00	19,103.82	8,437.00	97.01	94.91	113.27	-11,682.53	648.31	2,146.33	1,952.84	193.50	11.092	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.90	1.15	-59.98	59.99				
100.00	100.00	100.00	100.00	0.28	0.28	-88.90	1.15	-59.98	59.99	59.44	0.55	108.670	
200.00	200.00	200.00	200.00	0.63	0.63	-88.90	1.15	-59.98	59.99	58.72	1.27	47.275	
300.00	300.00	300.00	300.00	0.99	0.99	-88.90	1.15	-59.98	59.99	58.01	1.99	30.208	
400.00	400.00	400.00	400.00	1.35	1.35	-88.90	1.15	-59.98	59.99	57.29	2.70	22.195	
500.00	500.00	500.00	500.00	1.71	1.71	-88.90	1.15	-59.98	59.99	56.57	3.42	17.542	
600.00	600.00	600.00	600.00	2.07	2.07	-88.90	1.15	-59.98	59.99	55.85	4.14	14.502	
700.00	700.00	700.00	700.00	2.43	2.43	-88.90	1.15	-59.98	59.99	55.14	4.85	12.360	
800.00	800.00	800.00	800.00	2.79	2.79	-88.90	1.15	-59.98	59.99	54.42	5.57	10.769	
900.00	900.00	900.00	900.00	3.14	3.14	-88.90	1.15	-59.98	59.99	53.70	6.29	9.541	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.90	1.15	-59.98	59.99	52.99	7.00	8.565	CC, ES
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	144.06	1.15	-59.98	61.40	53.69	7.71	7.966	
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	146.69	1.15	-59.98	65.71	57.31	8.40	7.823	
1,300.00	1,299.45	1,299.45	1,299.45	4.52	4.58	150.36	1.15	-59.98	73.15	64.06	9.09	8.043	
1,400.00	1,398.70	1,398.70	1,398.70	4.86	4.93	154.38	1.15	-59.98	83.97	74.18	9.79	8.575	
1,500.00	1,497.47	1,497.47	1,497.47	5.21	5.29	158.21	1.15	-59.98	98.33	87.84	10.49	9.372	
1,600.00	1,595.62	1,595.62	1,595.62	5.56	5.64	161.58	1.15	-59.98	116.29	105.10	11.19	10.390	
1,700.00	1,693.06	1,693.06	1,693.06	5.92	5.99	164.41	1.15	-59.98	137.86	125.97	11.89	11.591	
1,800.00	1,790.08	1,790.08	1,790.08	6.28	6.33	166.72	1.15	-59.98	161.33	148.74	12.59	12.812	
1,900.00	1,887.11	1,887.11	1,887.11	6.65	6.68	168.44	1.15	-59.98	184.99	171.70	13.29	13.918	
2,000.00	1,984.14	1,984.14	1,984.14	7.02	7.03	169.77	1.15	-59.98	208.78	194.78	14.00	14.918	
2,100.00	2,081.17	2,087.59	2,087.58	7.39	7.39	170.74	0.07	-59.19	231.52	216.80	14.72	15.731	
2,200.00	2,178.20	2,193.76	2,193.62	7.76	7.74	171.19	-4.16	-56.14	251.08	235.65	15.43	16.273	
2,300.00	2,275.23	2,301.28	2,300.72	8.14	8.09	171.21	-11.67	-50.70	267.32	251.18	16.14	16.565	
2,400.00	2,372.26	2,409.86	2,408.46	8.52	8.46	170.88	-22.56	-42.82	280.17	263.33	16.84	16.635	
2,500.00	2,469.29	2,519.20	2,516.36	8.90	8.82	170.22	-36.86	-32.47	289.62	272.08	17.54	16.511	
2,600.00	2,566.32	2,629.00	2,623.96	9.28	9.19	169.25	-54.56	-19.66	295.68	277.44	18.23	16.217	
2,700.00	2,663.35	2,730.24	2,722.65	9.67	9.54	168.18	-72.84	-6.43	299.65	280.70	18.95	15.809	
2,800.00	2,760.38	2,830.01	2,819.90	10.05	9.88	167.14	-90.88	6.63	303.69	284.00	19.69	15.427	
2,900.00	2,857.41	2,929.78	2,917.16	10.44	10.23	166.13	-108.92	19.68	307.82	287.40	20.42	15.073	
3,000.00	2,954.44	3,029.55	3,014.41	10.83	10.58	165.15	-126.96	32.74	312.05	290.89	21.16	14.745	
3,100.00	3,051.47	3,129.32	3,111.66	11.22	10.94	164.20	-145.00	45.80	316.37	294.46	21.91	14.440	
3,200.00	3,148.50	3,229.09	3,208.91	11.60	11.29	163.27	-163.04	58.86	320.77	298.11	22.66	14.157	
3,300.00	3,245.53	3,328.86	3,306.16	11.99	11.65	162.37	-181.09	71.91	325.25	301.84	23.41	13.894	
3,400.00	3,342.56	3,428.63	3,403.42	12.38	12.01	161.49	-199.13	84.97	329.81	305.65	24.16	13.649	
3,500.00	3,439.59	3,528.40	3,500.67	12.77	12.37	160.63	-217.17	98.03	334.45	309.53	24.92	13.420	
3,600.00	3,536.62	3,628.16	3,597.92	13.17	12.74	159.80	-235.21	111.09	339.16	313.48	25.68	13.206	
3,700.00	3,633.65	3,727.93	3,695.17	13.56	13.11	159.00	-253.25	124.14	343.94	317.50	26.44	13.006	
3,800.00	3,730.68	3,827.70	3,792.42	13.95	13.47	158.21	-271.29	137.20	348.79	321.58	27.21	12.819	
3,900.00	3,827.71	3,927.47	3,889.68	14.34	13.84	157.45	-289.34	150.26	353.70	325.72	27.98	12.643	
4,000.00	3,924.74	4,027.24	3,986.93	14.74	14.21	156.70	-307.38	163.32	358.67	329.92	28.74	12.478	
4,100.00	4,021.77	4,127.01	4,084.18	15.13	14.58	155.98	-325.42	176.37	363.70	334.18	29.51	12.323	
4,200.00	4,118.79	4,226.78	4,181.43	15.52	14.96	155.28	-343.46	189.43	368.78	338.50	30.28	12.177	
4,300.00	4,215.82	4,326.55	4,278.69	15.92	15.33	154.60	-361.50	202.49	373.92	342.86	31.06	12.040	
4,400.00	4,312.85	4,426.32	4,375.94	16.31	15.70	153.93	-379.54	215.55	379.11	347.28	31.83	11.910	
4,500.00	4,409.88	4,526.09	4,473.19	16.70	16.08	153.28	-397.59	228.61	384.35	351.75	32.61	11.788	
4,600.00	4,506.91	4,625.86	4,570.44	17.10	16.46	152.65	-415.63	241.66	389.64	356.26	33.38	11.672	
4,700.00	4,603.94	4,725.63	4,667.69	17.49	16.83	152.04	-433.67	254.72	394.98	360.82	34.16	11.563	
4,800.00	4,700.97	4,825.40	4,764.95	17.89	17.21	151.44	-451.71	267.78	400.35	365.42	34.94	11.459	
4,900.00	4,798.00	4,925.17	4,862.20	18.28	17.59	150.86	-469.75	280.84	405.78	370.06	35.72	11.361	
5,000.00	4,895.03	5,024.94	4,959.45	18.68	17.97	150.30	-487.79	293.89	411.24	374.74	36.50	11.268	
5,100.00	4,992.06	5,124.71	5,056.70	19.07	18.35	149.75	-505.84	306.95	416.74	379.46	37.28	11.179	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS			Rule Assigned:							Offset Well Error:		0.00 usft	
Reference		Offset			Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Factor			
5,200.00	5,089.09	5,224.48	5,153.95	19.47	18.73	149.21	-523.88	320.01	422.27	384.21	38.06	11.095			
5,300.00	5,186.12	5,324.25	5,251.21	19.87	19.11	148.69	-541.92	333.07	427.85	389.01	38.84	11.016			
5,400.00	5,283.15	5,424.02	5,348.46	20.26	19.49	148.18	-559.96	346.12	433.45	393.83	39.62	10.940			
5,500.00	5,380.18	5,523.79	5,445.71	20.66	19.87	147.69	-578.00	359.18	439.09	398.69	40.41	10.867			
5,600.00	5,477.21	5,623.56	5,542.96	21.06	20.25	147.20	-596.04	372.24	444.77	403.58	41.19	10.798			
5,700.00	5,574.24	5,723.33	5,640.21	21.45	20.64	146.73	-614.09	385.30	450.47	408.50	41.97	10.732			
5,800.00	5,671.27	5,823.10	5,737.47	21.85	21.02	146.27	-632.13	398.36	456.20	413.45	42.76	10.669			
5,900.00	5,768.30	5,922.87	5,834.72	22.24	21.40	145.83	-650.17	411.41	461.96	418.42	43.54	10.609			
6,000.00	5,865.33	6,022.63	5,931.97	22.64	21.79	145.39	-668.21	424.47	467.75	423.43	44.33	10.552			
6,100.00	5,962.36	6,122.40	6,029.22	23.04	22.17	144.96	-686.25	437.53	473.57	428.45	45.11	10.497			
6,200.00	6,059.39	6,222.17	6,126.47	23.44	22.55	144.55	-704.29	450.59	479.41	433.51	45.90	10.445			
6,300.00	6,156.42	6,321.94	6,223.73	23.83	22.94	144.14	-722.34	463.64	485.28	438.59	46.69	10.394			
6,400.00	6,253.45	6,421.23	6,320.51	24.23	23.32	143.75	-740.29	476.64	491.16	443.69	47.47	10.346			
6,500.00	6,350.47	6,511.85	6,409.14	24.63	23.67	143.53	-755.54	487.68	498.05	449.83	48.22	10.329			
6,600.00	6,447.50	6,600.00	6,495.90	25.02	24.00	143.57	-768.19	496.83	506.86	457.93	48.93	10.359			
6,700.00	6,544.53	6,691.33	6,586.24	25.42	24.34	143.86	-779.01	504.66	517.58	467.94	49.64	10.427			
6,800.00	6,641.56	6,780.28	6,674.60	25.82	24.67	144.37	-787.30	510.66	530.25	479.94	50.31	10.541			
6,900.00	6,738.59	6,868.49	6,762.49	26.22	24.98	145.08	-793.33	515.02	544.91	493.96	50.95	10.696			
7,000.00	6,835.62	6,955.79	6,849.66	26.61	25.29	145.96	-797.13	517.77	561.61	510.06	51.55	10.894			
7,100.00	6,932.65	7,042.05	6,935.90	27.01	25.59	146.98	-798.77	518.96	580.44	528.32	52.12	11.136			
7,200.00	7,029.68	7,169.33	7,062.62	27.41	26.03	147.74	-807.93	520.87	599.00	545.81	53.18	11.263			
7,300.00	7,126.71	7,312.01	7,198.38	27.81	26.58	145.60	-849.75	529.38	610.58	556.29	54.29	11.246			
7,309.09	7,135.53	7,324.41	7,209.60	27.84	26.63	145.28	-854.93	530.43	611.32	556.94	54.39	11.240			
7,350.00	7,174.84	7,378.62	7,257.20	28.01	26.84	143.44	-880.29	535.59	615.39	560.60	54.79	11.232			
7,400.00	7,221.63	7,441.34	7,308.94	28.22	27.10	140.88	-914.98	542.65	622.69	567.43	55.27	11.267			
7,450.00	7,266.71	7,500.17	7,353.69	28.44	27.34	138.04	-952.38	550.26	632.78	577.03	55.74	11.352			
7,500.00	7,309.74	7,555.27	7,391.84	28.67	27.56	134.95	-991.30	558.17	645.76	589.55	56.21	11.488			
7,550.00	7,350.39	7,606.90	7,423.97	28.91	27.77	131.64	-1,030.88	566.23	661.67	605.01	56.66	11.677			
7,600.00	7,388.34	7,655.42	7,450.74	29.15	27.96	128.11	-1,070.52	574.29	680.43	623.34	57.09	11.919			
7,650.00	7,423.32	7,701.19	7,472.77	29.40	28.14	124.36	-1,109.81	582.29	701.89	644.41	57.48	12.211			
7,700.00	7,455.05	7,744.57	7,490.64	29.65	28.31	120.40	-1,148.54	590.17	725.81	667.98	57.83	12.551			
7,750.00	7,483.30	7,785.94	7,504.85	29.90	28.46	116.21	-1,186.61	597.91	751.92	693.77	58.14	12.932			
7,800.00	7,507.84	7,816.16	7,513.43	30.15	28.58	112.12	-1,214.99	603.68	779.95	721.59	58.36	13.364			
7,850.00	7,528.50	7,852.27	7,522.29	30.41	28.71	107.64	-1,249.35	610.40	809.77	751.16	58.61	13.816			
7,900.00	7,545.11	7,880.59	7,528.56	30.66	28.81	103.21	-1,276.52	615.34	841.25	782.45	58.80	14.306			
7,919.09	7,550.36	7,900.00	7,532.50	30.75	28.88	101.39	-1,295.25	618.56	853.68	794.74	58.95	14.483			
8,000.00	7,568.52	7,935.11	7,538.90	31.16	29.01	97.59	-1,329.34	624.01	907.36	848.17	59.19	15.330			
8,100.00	7,583.22	8,000.00	7,548.24	31.66	29.24	92.82	-1,392.93	632.88	976.16	916.48	59.68	16.357			
8,200.00	7,589.24	8,036.48	7,552.07	32.17	29.36	88.07	-1,428.95	637.16	1,046.58	986.61	59.97	17.453			
8,219.09	7,589.40	8,045.68	7,552.87	32.26	29.40	87.17	-1,438.06	638.16	1,060.21	1,000.17	60.04	17.658			
8,300.00	7,589.40	8,083.98	7,555.50	32.67	29.53	87.47	-1,476.08	641.97	1,118.53	1,058.17	60.35	18.533			
8,400.00	7,589.40	8,129.83	7,557.16	33.21	29.68	87.70	-1,521.74	645.79	1,191.83	1,131.12	60.71	19.632			
8,444.09	7,589.40	8,153.26	7,557.37	33.45	29.76	87.76	-1,545.11	647.42	1,224.57	1,163.69	60.89	20.112			
8,500.00	7,589.40	8,185.44	7,557.37	33.76	29.87	87.89	-1,577.22	649.51	1,265.72	1,204.59	61.13	20.706			
8,600.00	7,589.40	8,256.02	7,557.37	34.34	30.11	88.10	-1,647.66	654.10	1,336.52	1,274.85	61.67	21.671			
8,700.00	7,589.40	8,330.22	7,557.36	34.92	30.37	88.28	-1,721.69	658.92	1,403.53	1,341.27	62.26	22.542			
8,800.00	7,589.40	8,407.82	7,557.36	35.52	30.65	88.42	-1,799.13	663.96	1,466.57	1,403.68	62.90	23.318			
8,900.00	7,589.40	8,488.61	7,557.36	36.12	30.96	88.54	-1,879.75	669.21	1,525.46	1,461.89	63.57	23.995			
9,000.00	7,589.40	8,572.38	7,557.35	36.73	31.28	88.64	-1,963.34	674.66	1,580.05	1,515.76	64.29	24.575			
9,100.00	7,589.40	8,658.89	7,557.35	37.33	31.63	88.72	-2,049.67	680.28	1,630.18	1,565.12	65.06	25.058			
9,200.00	7,589.40	8,747.90	7,557.35	37.92	31.99	88.78	-2,138.49	686.07	1,675.71	1,609.86	65.85	25.446			
9,300.00	7,589.39	8,839.18	7,557.35	38.51	32.38	88.84	-2,229.58	692.00	1,716.53	1,649.84	66.69	25.739			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS								Rule Assigned:		Offset Site Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance				Offset Well Error:		0.00 usft
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
9,400.00	7,589.39	8,932.47	7,557.34	39.09	32.78	88.89	-2,322.67	698.07	1,752.51	1,684.95	67.56	25.942		
9,500.00	7,589.39	9,027.51	7,557.34	39.65	33.21	88.93	-2,417.51	704.24	1,783.56	1,715.11	68.45	26.056		
9,600.00	7,589.39	9,124.05	7,557.33	40.19	33.65	88.96	-2,513.84	710.52	1,809.60	1,740.23	69.37	26.086		
9,700.00	7,589.38	9,221.81	7,557.33	40.72	34.11	88.98	-2,611.41	716.88	1,830.55	1,760.23	70.31	26.035		
9,800.00	7,589.38	9,320.55	7,557.33	41.23	34.58	89.00	-2,709.93	723.29	1,846.35	1,775.08	71.27	25.906		
9,900.00	7,589.38	9,419.97	7,557.32	41.72	35.06	89.01	-2,809.14	729.76	1,856.97	1,784.73	72.24	25.705		
10,000.00	7,589.37	9,519.81	7,557.32	42.18	35.56	89.01	-2,908.77	736.25	1,862.37	1,789.15	73.22	25.435		
10,100.00	7,589.37	9,619.80	7,557.32	42.63	36.07	89.01	-3,008.55	742.75	1,862.53	1,788.33	74.20	25.100		
10,173.66	7,589.36	9,693.38	7,557.31	42.94	36.45	89.01	-3,081.97	747.53	1,859.31	1,784.38	74.93	24.814		
10,200.00	7,589.36	9,719.67	7,557.31	43.05	36.58	89.01	-3,108.21	749.24	1,857.65	1,782.46	75.19	24.706		
10,300.00	7,589.36	9,819.47	7,557.31	43.47	37.11	89.01	-3,207.80	755.73	1,851.35	1,775.16	76.19	24.299		
10,400.00	7,589.36	9,919.28	7,557.31	43.90	37.64	89.00	-3,307.39	762.21	1,845.04	1,767.84	77.21	23.898		
10,500.00	7,589.35	10,019.08	7,557.30	44.33	38.18	89.00	-3,406.98	768.70	1,838.74	1,760.50	78.24	23.502		
10,600.00	7,589.35	10,118.88	7,557.30	44.78	38.73	89.00	-3,506.57	775.19	1,832.44	1,753.15	79.29	23.111		
10,700.00	7,589.34	10,218.68	7,557.29	45.23	39.29	88.99	-3,606.16	781.68	1,826.14	1,745.78	80.35	22.726		
10,800.00	7,589.34	10,318.48	7,557.29	45.69	39.85	88.99	-3,705.75	788.16	1,819.83	1,738.40	81.43	22.347		
10,900.00	7,589.33	10,418.28	7,557.29	46.16	40.42	88.99	-3,805.34	794.65	1,813.53	1,731.00	82.53	21.975		
11,000.00	7,589.33	10,518.08	7,557.28	46.64	41.00	88.98	-3,904.93	801.14	1,807.23	1,723.59	83.64	21.608		
11,100.00	7,589.33	10,617.88	7,557.28	47.12	41.58	88.98	-4,004.52	807.62	1,800.93	1,716.17	84.76	21.248		
11,200.00	7,589.32	10,717.68	7,557.28	47.61	42.17	88.97	-4,104.11	814.11	1,794.63	1,708.73	85.89	20.894		
11,300.00	7,589.32	10,817.49	7,557.27	48.11	42.76	88.97	-4,203.70	820.60	1,788.32	1,701.28	87.04	20.546		
11,400.00	7,589.31	10,917.29	7,557.27	48.61	43.36	88.97	-4,303.29	827.09	1,782.02	1,693.82	88.20	20.205		
11,500.00	7,589.31	11,017.09	7,557.27	49.12	43.97	88.96	-4,402.88	833.57	1,775.72	1,686.35	89.37	19.870		
11,600.00	7,589.31	11,116.89	7,557.26	49.64	44.58	88.96	-4,502.47	840.06	1,769.42	1,678.87	90.55	19.542		
11,700.00	7,589.30	11,216.69	7,557.26	50.16	45.19	88.96	-4,602.06	846.55	1,763.11	1,671.38	91.74	19.219		
11,800.00	7,589.30	11,316.49	7,557.26	50.69	45.81	88.95	-4,701.65	853.04	1,756.81	1,663.87	92.94	18.903		
11,900.00	7,589.29	11,416.29	7,557.25	51.23	46.44	88.95	-4,801.24	859.52	1,750.51	1,656.36	94.15	18.593		
12,000.00	7,589.29	11,516.09	7,557.25	51.77	47.07	88.95	-4,900.83	866.01	1,744.21	1,648.84	95.37	18.289		
12,100.00	7,589.28	11,615.89	7,557.24	52.31	47.70	88.94	-5,000.42	872.50	1,737.90	1,641.31	96.60	17.991		
12,200.00	7,589.28	11,715.70	7,557.24	52.86	48.34	88.94	-5,100.01	878.99	1,731.60	1,633.77	97.83	17.699		
12,300.00	7,589.28	11,815.50	7,557.24	53.42	48.98	88.93	-5,199.60	885.47	1,725.30	1,626.22	99.08	17.413		
12,400.00	7,589.27	11,915.30	7,557.23	53.98	49.62	88.93	-5,299.19	891.96	1,719.00	1,618.66	100.33	17.133		
12,500.00	7,589.27	12,015.10	7,557.23	54.55	50.27	88.93	-5,398.78	898.45	1,712.70	1,611.10	101.59	16.858		
12,600.00	7,589.26	12,114.90	7,557.23	55.12	50.92	88.92	-5,498.37	904.94	1,706.39	1,603.53	102.86	16.589		
12,700.00	7,589.26	12,214.70	7,557.22	55.70	51.58	88.92	-5,597.96	911.42	1,700.09	1,595.95	104.14	16.325		
12,800.00	7,589.26	12,314.50	7,557.22	56.28	52.23	88.91	-5,697.55	917.91	1,693.79	1,588.37	105.42	16.067		
12,900.00	7,589.25	12,414.30	7,557.22	56.86	52.89	88.91	-5,797.14	924.40	1,687.49	1,580.78	106.71	15.814		
13,000.00	7,589.25	12,514.11	7,557.21	57.45	53.56	88.91	-5,896.73	930.89	1,681.18	1,573.18	108.00	15.566		
13,100.00	7,589.24	12,613.91	7,557.21	58.04	54.23	88.90	-5,996.32	937.37	1,674.88	1,565.58	109.31	15.323		
13,200.00	7,589.24	12,713.71	7,557.20	58.64	54.89	88.90	-6,095.91	943.86	1,668.58	1,557.97	110.61	15.085		
13,300.00	7,589.23	12,813.51	7,557.20	59.24	55.57	88.89	-6,195.50	950.35	1,662.28	1,550.35	111.93	14.851		
13,400.00	7,589.23	12,913.31	7,557.20	59.84	56.24	88.89	-6,295.09	956.84	1,655.98	1,542.73	113.25	14.623		
13,500.00	7,589.23	13,013.11	7,557.19	60.45	56.92	88.89	-6,394.68	963.32	1,649.67	1,535.10	114.57	14.399		
13,600.00	7,589.22	13,112.91	7,557.19	61.06	57.60	88.88	-6,494.27	969.81	1,643.37	1,527.47	115.90	14.179		
13,700.00	7,589.22	13,212.71	7,557.19	61.68	58.28	88.88	-6,593.86	976.30	1,637.07	1,519.84	117.23	13.964		
13,800.00	7,589.21	13,312.51	7,557.18	62.30	58.96	88.87	-6,693.45	982.79	1,630.77	1,512.19	118.57	13.753		
13,900.00	7,589.21	13,412.32	7,557.18	62.92	59.65	88.87	-6,793.04	989.27	1,624.46	1,504.55	119.92	13.547		
14,000.00	7,589.21	13,512.12	7,557.18	63.54	60.34	88.86	-6,892.63	995.76	1,618.16	1,496.90	121.26	13.344		
14,100.00	7,589.20	13,611.92	7,557.17	64.17	61.03	88.86	-6,992.22	1,002.25	1,611.86	1,489.24	122.62	13.146		
14,200.00	7,589.20	13,711.72	7,557.17	64.80	61.72	88.85	-7,091.81	1,008.74	1,605.56	1,481.58	123.97	12.951		
14,300.00	7,589.19	13,811.52	7,557.16	65.43	62.41	88.85	-7,191.40	1,015.22	1,599.26	1,473.92	125.33	12.760		
14,400.00	7,589.19	13,911.32	7,557.16	66.07	63.11	88.85	-7,290.99	1,021.71	1,592.95	1,466.26	126.70	12.573		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 4H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS							Rule Assigned:			Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
14,500.00	7,589.18	14,011.12	7,557.16	66.71	63.81	88.84	-7,390.58	1,028.20	1,586.65	1,458.58	128.07	12.389		
14,600.00	7,589.18	14,110.92	7,557.15	67.35	64.51	88.84	-7,490.17	1,034.68	1,580.35	1,450.91	129.44	12.209		
14,700.00	7,589.18	14,210.72	7,557.15	67.99	65.21	88.83	-7,589.76	1,041.17	1,574.05	1,443.23	130.81	12.033		
14,800.00	7,589.17	14,310.53	7,557.15	68.64	65.91	88.83	-7,689.35	1,047.66	1,567.75	1,435.55	132.19	11.859		
14,900.00	7,589.17	14,410.33	7,557.14	69.29	66.61	88.82	-7,788.94	1,054.15	1,561.44	1,427.87	133.58	11.689		
15,000.00	7,589.16	14,510.13	7,557.14	69.94	67.32	88.82	-7,888.53	1,060.63	1,555.14	1,420.18	134.96	11.523		
15,100.00	7,589.16	14,609.93	7,557.14	70.59	68.03	88.81	-7,988.12	1,067.12	1,548.84	1,412.49	136.35	11.359		
15,200.00	7,589.16	14,709.73	7,557.13	71.25	68.73	88.81	-8,087.71	1,073.61	1,542.54	1,404.79	137.74	11.199		
15,300.00	7,589.15	14,809.53	7,557.13	71.91	69.44	88.80	-8,187.30	1,080.10	1,536.24	1,397.10	139.14	11.041		
15,400.00	7,589.15	14,909.33	7,557.12	72.57	70.15	88.80	-8,286.89	1,086.58	1,529.93	1,389.40	140.54	10.886		
15,500.00	7,589.14	15,009.13	7,557.12	73.23	70.87	88.79	-8,386.48	1,093.07	1,523.63	1,381.69	141.94	10.735		
15,600.00	7,589.14	15,108.93	7,557.12	73.89	71.58	88.79	-8,486.07	1,099.56	1,517.33	1,373.99	143.34	10.585		
15,700.00	7,589.13	15,208.74	7,557.11	74.56	72.29	88.78	-8,585.66	1,106.05	1,511.03	1,366.28	144.75	10.439		
15,800.00	7,589.13	15,308.54	7,557.11	75.23	73.01	88.78	-8,685.25	1,112.53	1,504.73	1,358.57	146.15	10.295		
15,900.00	7,589.13	15,408.34	7,557.11	75.90	73.73	88.77	-8,784.84	1,119.02	1,498.42	1,350.86	147.57	10.154		
16,000.00	7,589.12	15,508.14	7,557.10	76.57	74.44	88.77	-8,884.43	1,125.51	1,492.12	1,343.14	148.98	10.016		
16,100.00	7,589.12	15,607.94	7,557.10	77.24	75.16	88.76	-8,984.02	1,132.00	1,485.82	1,335.42	150.40	9.879		
16,200.00	7,589.11	15,707.74	7,557.10	77.92	75.88	88.76	-9,083.61	1,138.48	1,479.52	1,327.70	151.81	9.746		
16,300.00	7,589.11	15,807.54	7,557.09	78.59	76.60	88.75	-9,183.20	1,144.97	1,473.22	1,319.98	153.23	9.614		
16,400.00	7,589.11	15,907.34	7,557.09	79.27	77.33	88.75	-9,282.79	1,151.46	1,466.91	1,312.26	154.66	9.485		
16,500.00	7,589.10	16,007.15	7,557.08	79.95	78.05	88.74	-9,382.38	1,157.95	1,460.61	1,304.53	156.08	9.358		
16,600.00	7,589.10	16,106.95	7,557.08	80.63	78.77	88.74	-9,481.97	1,164.43	1,454.31	1,296.80	157.51	9.233		
16,700.00	7,589.09	16,206.75	7,557.08	81.31	79.50	88.73	-9,581.56	1,170.92	1,448.01	1,289.07	158.94	9.111		
16,800.00	7,589.09	16,306.55	7,557.07	82.00	80.22	88.73	-9,681.15	1,177.41	1,441.71	1,281.34	160.37	8.990		
16,900.00	7,589.08	16,406.35	7,557.07	82.68	80.95	88.72	-9,780.74	1,183.90	1,435.40	1,273.61	161.80	8.872		
17,000.00	7,589.08	16,506.15	7,557.07	83.37	81.68	88.71	-9,880.33	1,190.38	1,429.10	1,265.87	163.23	8.755		
17,100.00	7,589.08	16,605.95	7,557.06	84.06	82.40	88.71	-9,979.92	1,196.87	1,422.80	1,258.13	164.67	8.640		
17,200.00	7,589.07	16,705.75	7,557.06	84.75	83.13	88.70	-10,079.52	1,203.36	1,416.50	1,250.39	166.11	8.528		
17,300.00	7,589.07	16,805.55	7,557.06	85.44	83.86	88.70	-10,179.11	1,209.85	1,410.20	1,242.65	167.54	8.417		
17,400.00	7,589.06	16,905.36	7,557.05	86.13	84.59	88.69	-10,278.70	1,216.33	1,403.90	1,234.91	168.99	8.308		
17,500.00	7,589.06	17,005.16	7,557.05	86.83	85.32	88.69	-10,378.29	1,222.82	1,397.59	1,227.17	170.43	8.200		
17,600.00	7,589.06	17,104.96	7,557.04	87.52	86.06	88.68	-10,477.88	1,229.31	1,391.29	1,219.42	171.87	8.095		
17,700.00	7,589.05	17,204.76	7,557.04	88.22	86.79	88.67	-10,577.47	1,235.79	1,384.99	1,211.67	173.32	7.991		
17,800.00	7,589.05	17,304.56	7,557.04	88.91	87.52	88.67	-10,677.06	1,242.28	1,378.69	1,203.92	174.76	7.889		
17,900.00	7,589.04	17,404.36	7,557.03	89.61	88.26	88.66	-10,776.65	1,248.77	1,372.39	1,196.17	176.21	7.788		
18,000.00	7,589.04	17,504.16	7,557.03	90.31	88.99	88.65	-10,876.24	1,255.26	1,366.09	1,188.42	177.66	7.689		
18,100.00	7,589.03	17,603.96	7,557.03	91.01	89.73	88.65	-10,975.83	1,261.74	1,359.78	1,180.67	179.11	7.592		
18,200.00	7,589.03	17,703.76	7,557.02	91.71	90.46	88.64	-11,075.42	1,268.23	1,353.48	1,172.92	180.57	7.496		
18,300.00	7,589.03	17,803.57	7,557.02	92.42	91.20	88.64	-11,175.01	1,274.72	1,347.18	1,165.16	182.02	7.401		
18,400.00	7,589.02	17,903.37	7,557.02	93.12	91.93	88.63	-11,274.60	1,281.21	1,340.88	1,157.40	183.48	7.308		
18,500.00	7,589.02	18,003.17	7,557.01	93.82	92.67	88.62	-11,374.19	1,287.69	1,334.58	1,149.65	184.93	7.217		
18,600.00	7,589.01	18,102.97	7,557.01	94.53	93.41	88.62	-11,473.78	1,294.18	1,328.28	1,141.89	186.39	7.126		
18,700.00	7,589.01	18,202.77	7,557.00	95.23	94.15	88.61	-11,573.37	1,300.67	1,321.97	1,134.13	187.85	7.037		
18,800.00	7,589.01	18,302.57	7,557.00	95.94	94.89	88.60	-11,672.96	1,307.16	1,315.67	1,126.36	189.31	6.950	SF	
18,899.23	7,589.00	18,318.93	7,557.00	96.64	95.01	88.60	-11,689.28	1,308.22	1,312.03	1,123.31	188.71	6.952		
18,900.00	7,589.00	18,318.93	7,557.00	96.65	95.01	88.60	-11,689.28	1,308.22	1,312.03	1,123.32	188.70	6.953		
18,917.19	7,589.00	18,318.93	7,557.00	96.77	95.01	88.60	-11,689.28	1,308.22	1,312.15	1,123.70	188.45	6.963		
18,917.96	7,589.00	18,318.93	7,557.00	97.01	95.01	88.60	-11,689.28	1,308.22	1,312.16	1,123.74	188.42	6.964		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-88.90	1.53	-79.97	79.98				
100.00	100.00	100.00	100.00	0.28	0.28	-88.90	1.53	-79.97	79.98	79.43	0.55	144.887	
200.00	200.00	200.00	200.00	0.63	0.63	-88.90	1.53	-79.97	79.98	78.72	1.27	63.030	
300.00	300.00	300.00	300.00	0.99	0.99	-88.90	1.53	-79.97	79.98	78.00	1.99	40.276	
400.00	400.00	400.00	400.00	1.35	1.35	-88.90	1.53	-79.97	79.98	77.28	2.70	29.592	
500.00	500.00	500.00	500.00	1.71	1.71	-88.90	1.53	-79.97	79.98	76.56	3.42	23.389	
600.00	600.00	600.00	600.00	2.07	2.07	-88.90	1.53	-79.97	79.98	75.85	4.14	19.335	
700.00	700.00	700.00	700.00	2.43	2.43	-88.90	1.53	-79.97	79.98	75.13	4.85	16.479	
800.00	800.00	800.00	800.00	2.79	2.79	-88.90	1.53	-79.97	79.98	74.41	5.57	14.358	
900.00	900.00	900.00	900.00	3.14	3.14	-88.90	1.53	-79.97	79.98	73.70	6.29	12.721	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.90	1.53	-79.97	79.98	72.98	7.00	11.419	CC, ES
1,100.00	1,099.98	1,101.01	1,100.98	3.85	3.85	142.66	-0.14	-79.36	80.75	73.06	7.69	10.497	
1,200.00	1,199.84	1,201.95	1,201.79	4.18	4.18	141.40	-5.16	-77.54	83.06	74.71	8.35	9.942	
1,300.00	1,299.45	1,302.79	1,302.22	4.52	4.52	139.44	-13.49	-74.50	87.00	77.97	9.03	9.639	
1,400.00	1,398.70	1,404.68	1,403.37	4.86	4.86	137.18	-24.90	-69.88	92.29	82.59	9.70	9.510	
1,500.00	1,497.47	1,507.80	1,505.40	5.21	5.22	135.80	-37.47	-61.85	97.06	86.67	10.39	9.343	
1,600.00	1,595.62	1,611.13	1,607.19	5.56	5.57	135.32	-50.79	-50.17	100.92	89.85	11.07	9.114	
1,700.00	1,693.06	1,713.08	1,707.12	5.92	5.93	135.69	-64.58	-35.42	104.15	92.38	11.77	8.851	
1,800.00	1,790.08	1,812.99	1,804.94	6.28	6.29	136.63	-78.19	-20.38	108.08	95.60	12.48	8.658	
1,900.00	1,887.11	1,912.90	1,902.77	6.65	6.65	137.50	-91.81	-5.33	112.03	98.83	13.21	8.483	
2,000.00	1,984.14	2,012.80	2,000.59	7.02	7.02	138.31	-105.43	9.71	116.01	102.08	13.94	8.324	
2,100.00	2,081.17	2,112.71	2,098.42	7.39	7.38	139.06	-119.05	24.76	120.01	105.34	14.67	8.179	
2,200.00	2,178.20	2,212.62	2,196.25	7.76	7.75	139.77	-132.67	39.80	124.03	108.62	15.41	8.047	
2,300.00	2,275.23	2,312.53	2,294.07	8.14	8.12	140.43	-146.29	54.84	128.07	111.91	16.16	7.925	
2,400.00	2,372.26	2,412.43	2,391.90	8.52	8.49	141.06	-159.90	69.89	132.12	115.21	16.91	7.813	
2,500.00	2,469.29	2,512.34	2,489.72	8.90	8.87	141.64	-173.52	84.93	136.19	118.53	17.66	7.710	
2,600.00	2,566.32	2,612.25	2,587.55	9.28	9.24	142.19	-187.14	99.98	140.27	121.85	18.42	7.616	
2,700.00	2,663.35	2,712.16	2,685.37	9.67	9.62	142.71	-200.76	115.02	144.36	125.19	19.18	7.528	
2,800.00	2,760.38	2,812.07	2,783.20	10.05	9.99	143.20	-214.38	130.07	148.47	128.53	19.94	7.446	
2,900.00	2,857.41	2,911.97	2,881.02	10.44	10.37	143.67	-227.99	145.11	152.58	131.88	20.70	7.371	
3,000.00	2,954.44	3,011.88	2,978.85	10.83	10.75	144.11	-241.61	160.15	156.71	135.24	21.47	7.300	
3,100.00	3,051.47	3,111.79	3,076.67	11.22	11.13	144.53	-255.23	175.20	160.84	138.61	22.23	7.234	
3,200.00	3,148.50	3,211.70	3,174.50	11.60	11.50	144.92	-268.85	190.24	164.98	141.98	23.00	7.173	
3,300.00	3,245.53	3,311.61	3,272.32	11.99	11.88	145.30	-282.47	205.29	169.13	145.36	23.77	7.115	
3,400.00	3,342.56	3,411.51	3,370.15	12.38	12.26	145.66	-296.09	220.33	173.28	148.74	24.54	7.061	
3,500.00	3,439.59	3,511.42	3,467.97	12.77	12.64	146.00	-309.70	235.37	177.45	152.13	25.31	7.010	
3,600.00	3,536.62	3,611.33	3,565.80	13.17	13.03	146.33	-323.32	250.42	181.62	155.53	26.08	6.963	
3,700.00	3,633.65	3,711.24	3,663.63	13.56	13.41	146.64	-336.94	265.46	185.79	158.93	26.86	6.917	
3,800.00	3,730.68	3,811.14	3,761.45	13.95	13.79	146.94	-350.56	280.51	189.97	162.34	27.63	6.875	
3,900.00	3,827.71	3,911.05	3,859.28	14.34	14.17	147.22	-364.18	295.55	194.15	165.74	28.41	6.835	
4,000.00	3,924.74	4,010.96	3,957.10	14.74	14.55	147.50	-377.80	310.59	198.34	169.16	29.18	6.796	
4,100.00	4,021.77	4,110.87	4,054.93	15.13	14.94	147.76	-391.41	325.64	202.53	172.57	29.96	6.760	
4,200.00	4,118.79	4,210.78	4,152.75	15.52	15.32	148.01	-405.03	340.68	206.73	175.99	30.74	6.726	
4,300.00	4,215.82	4,310.68	4,250.58	15.92	15.70	148.25	-418.65	355.73	210.93	179.42	31.51	6.693	
4,400.00	4,312.85	4,410.59	4,348.40	16.31	16.09	148.48	-432.27	370.77	215.13	182.84	32.29	6.662	
4,500.00	4,409.88	4,510.50	4,446.23	16.70	16.47	148.71	-445.89	385.82	219.34	186.27	33.07	6.633	
4,600.00	4,506.91	4,610.41	4,544.05	17.10	16.85	148.92	-459.50	400.86	223.55	189.70	33.85	6.604	
4,700.00	4,603.94	4,710.32	4,641.88	17.49	17.24	149.13	-473.12	415.90	227.77	193.14	34.63	6.577	
4,800.00	4,700.97	4,810.22	4,739.70	17.89	17.62	149.33	-486.74	430.95	231.98	196.58	35.41	6.552	
4,900.00	4,798.00	4,910.13	4,837.53	18.28	18.01	149.52	-500.36	445.99	236.20	200.01	36.19	6.527	
5,000.00	4,895.03	5,010.04	4,935.36	18.68	18.39	149.70	-513.98	461.04	240.43	203.46	36.97	6.503	
5,100.00	4,992.06	5,109.95	5,033.18	19.07	18.77	149.88	-527.60	476.08	244.65	206.90	37.75	6.481	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Rule Assigned:												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,089.09	5,209.85	5,131.01	19.47	19.16	150.06	-541.21	491.12	248.88	210.35	38.53	6.459	
5,300.00	5,186.12	5,309.76	5,228.83	19.87	19.54	150.22	-554.83	506.17	253.11	213.79	39.31	6.438	
5,400.00	5,283.15	5,409.67	5,326.66	20.26	19.93	150.38	-568.45	521.21	257.34	217.24	40.09	6.418	
5,500.00	5,380.18	5,509.58	5,424.48	20.66	20.31	150.54	-582.07	536.26	261.57	220.69	40.88	6.399	
5,600.00	5,477.21	5,609.49	5,522.31	21.06	20.70	150.69	-595.69	551.30	265.80	224.15	41.66	6.381	
5,700.00	5,574.24	5,709.39	5,620.13	21.45	21.08	150.84	-609.31	566.34	270.04	227.60	42.44	6.363	
5,800.00	5,671.27	5,809.30	5,717.96	21.85	21.47	150.98	-622.92	581.39	274.28	231.06	43.22	6.346	
5,900.00	5,768.30	5,909.21	5,815.78	22.24	21.86	151.12	-636.54	596.43	278.52	234.51	44.01	6.329	
6,000.00	5,865.33	6,009.12	5,913.61	22.64	22.24	151.25	-650.16	611.48	282.76	237.97	44.79	6.313	
6,100.00	5,962.36	6,109.03	6,011.43	23.04	22.63	151.38	-663.78	626.52	287.00	241.43	45.57	6.298	
6,200.00	6,059.39	6,208.93	6,109.26	23.44	23.01	151.51	-677.40	641.56	291.25	244.89	46.35	6.283	
6,300.00	6,156.42	6,308.84	6,207.08	23.83	23.40	151.63	-691.02	656.61	295.49	248.36	47.14	6.269	
6,400.00	6,253.45	6,408.75	6,304.91	24.23	23.78	151.75	-704.63	671.65	299.74	251.82	47.92	6.255	
6,500.00	6,350.47	6,508.66	6,402.74	24.63	24.17	151.86	-718.25	686.70	303.99	255.28	48.70	6.241	
6,600.00	6,447.50	6,608.56	6,500.56	25.02	24.56	151.98	-731.87	701.74	308.24	258.75	49.49	6.228	
6,700.00	6,544.53	6,708.47	6,598.39	25.42	24.94	152.09	-745.49	716.79	312.49	262.22	50.27	6.216	
6,800.00	6,641.56	6,808.38	6,696.21	25.82	25.33	152.19	-759.11	731.83	316.74	265.69	51.06	6.204	
6,900.00	6,738.59	6,908.29	6,794.04	26.22	25.71	152.30	-772.72	746.87	320.99	269.15	51.84	6.192	
7,000.00	6,835.62	7,008.20	6,891.86	26.61	26.10	152.40	-786.34	761.92	325.25	272.62	52.63	6.180	
7,100.00	6,932.65	7,108.10	6,989.69	27.01	26.49	152.50	-799.96	776.96	329.50	276.09	53.41	6.169	
7,200.00	7,029.68	7,208.01	7,087.51	27.41	26.87	152.59	-813.58	792.01	333.76	279.57	54.19	6.159	
7,300.00	7,126.71	7,307.92	7,185.34	27.81	27.26	152.68	-827.20	807.05	338.02	283.04	54.98	6.148	
7,309.09	7,135.53	7,317.00	7,194.23	27.84	27.29	152.69	-828.44	808.42	338.40	283.35	55.05	6.147	SF
7,350.00	7,174.84	7,357.78	7,234.16	28.01	27.45	152.70	-833.99	814.56	341.44	286.07	55.37	6.166	
7,400.00	7,221.63	7,407.16	7,282.51	28.22	27.64	152.85	-840.72	821.99	348.67	292.90	55.77	6.252	
7,450.00	7,266.71	7,455.67	7,330.01	28.44	27.83	153.10	-847.34	829.30	359.75	303.58	56.17	6.405	
7,500.00	7,309.74	7,502.96	7,376.31	28.67	28.01	153.42	-853.78	836.42	374.68	318.11	56.57	6.624	
7,550.00	7,350.39	7,548.65	7,421.05	28.91	28.19	153.75	-860.01	843.30	393.41	336.45	56.95	6.908	
7,600.00	7,388.34	7,592.40	7,463.89	29.15	28.36	154.03	-865.97	849.89	415.87	358.55	57.33	7.255	
7,650.00	7,423.32	7,633.88	7,504.51	29.40	28.52	154.19	-871.63	856.13	441.98	384.30	57.68	7.662	
7,700.00	7,455.05	7,672.78	7,542.59	29.65	28.67	154.16	-876.93	861.99	471.58	413.56	58.02	8.128	
7,750.00	7,483.30	7,708.79	7,577.85	29.90	28.81	153.88	-881.84	867.41	504.48	446.15	58.33	8.649	
7,800.00	7,507.84	7,741.64	7,610.02	30.15	28.94	153.24	-886.32	872.36	540.46	481.85	58.61	9.221	
7,850.00	7,528.50	7,770.00	7,637.78	30.41	29.05	152.05	-890.18	876.62	579.26	520.40	58.85	9.842	
7,900.00	7,545.11	7,791.35	7,658.72	30.66	29.13	149.92	-893.01	879.75	620.71	561.66	59.05	10.512	
7,919.09	7,550.36	7,800.00	7,667.21	30.75	29.16	148.95	-894.13	880.98	637.17	578.05	59.12	10.777	
8,000.00	7,568.52	7,825.13	7,691.89	31.16	29.26	146.99	-897.27	884.46	709.14	649.80	59.34	11.951	
8,100.00	7,583.22	7,850.68	7,717.03	31.66	29.35	142.64	-900.32	887.83	801.71	742.16	59.55	13.464	
8,200.00	7,589.24	7,868.48	7,734.57	32.17	29.42	134.42	-902.36	890.08	897.26	837.57	59.69	15.033	
8,219.09	7,589.40	7,871.03	7,737.09	32.26	29.43	132.16	-902.64	890.39	915.76	856.05	59.71	15.337	
8,300.00	7,589.40	7,881.08	7,747.00	32.67	29.47	133.99	-903.75	891.62	994.42	934.63	59.78	16.634	
8,400.00	7,589.40	7,900.00	7,765.68	33.21	29.54	137.16	-905.78	893.86	1,091.96	1,032.03	59.93	18.222	
8,444.09	7,589.40	7,900.00	7,765.68	33.45	29.54	137.16	-905.78	893.86	1,135.01	1,075.08	59.93	18.940	
8,500.00	7,589.40	7,900.00	7,765.68	33.76	29.54	131.87	-905.78	893.86	1,189.59	1,129.66	59.93	19.850	
8,600.00	7,589.40	7,900.00	7,765.68	34.34	29.54	124.17	-905.78	893.86	1,286.84	1,226.92	59.92	21.475	
8,700.00	7,589.40	7,925.21	7,790.60	34.92	29.64	121.60	-908.36	896.71	1,383.17	1,323.05	60.12	23.008	
8,800.00	7,589.40	7,934.97	7,800.25	35.52	29.67	117.88	-909.31	897.76	1,478.83	1,418.64	60.19	24.569	
8,900.00	7,589.40	9,665.08	8,858.17	36.12	36.57	151.42	-1,807.84	1,331.72	1,532.67	1,476.73	55.94	27.399	
9,000.00	7,589.40	9,735.91	8,861.16	36.73	36.83	149.29	-1,878.32	1,337.84	1,565.76	1,508.12	57.64	27.164	
9,100.00	7,589.40	9,809.00	8,862.20	37.33	37.08	147.18	-1,951.36	1,340.07	1,598.27	1,538.95	59.32	26.945	
9,200.00	7,589.40	9,889.15	8,862.20	37.92	37.36	145.09	-2,031.51	1,340.22	1,629.65	1,568.71	60.95	26.738	
9,300.00	7,589.39	9,977.67	8,862.19	38.51	37.66	143.13	-2,120.03	1,340.38	1,659.09	1,596.57	62.52	26.536	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS						Rule Assigned:		Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis				Offset Wellbore Centre		Distance			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,400.00	7,589.39	10,068.49	8,862.19	39.09	37.99	141.39	-2,210.85	1,340.55	1,686.22	1,622.19	64.02	26.338	
9,500.00	7,589.39	10,161.39	8,862.19	39.65	38.33	139.88	-2,303.75	1,340.72	1,710.71	1,645.25	65.46	26.133	
9,600.00	7,589.39	10,256.09	8,862.19	40.19	38.69	138.59	-2,398.45	1,340.90	1,732.31	1,665.47	66.85	25.915	
9,700.00	7,589.38	10,352.34	8,862.19	40.72	39.07	137.52	-2,494.70	1,341.08	1,750.80	1,682.62	68.18	25.678	
9,800.00	7,589.38	10,449.87	8,862.18	41.23	39.45	136.67	-2,592.23	1,341.26	1,765.99	1,696.52	69.47	25.420	
9,900.00	7,589.38	10,548.43	8,862.18	41.72	39.86	136.02	-2,690.79	1,341.44	1,777.73	1,707.01	70.72	25.139	
10,000.00	7,589.37	10,647.73	8,862.18	42.18	40.27	135.57	-2,790.09	1,341.63	1,785.91	1,713.99	71.92	24.831	
10,100.00	7,589.37	10,747.51	8,862.18	42.63	40.70	135.33	-2,889.87	1,341.81	1,790.47	1,717.38	73.09	24.498	
10,173.66	7,589.36	10,821.15	8,862.18	42.94	41.02	135.27	-2,963.51	1,341.95	1,791.47	1,717.55	73.92	24.236	
10,200.00	7,589.36	10,847.49	8,862.18	43.05	41.14	135.27	-2,989.85	1,342.00	1,791.47	1,717.26	74.21	24.140	
10,300.00	7,589.36	10,947.49	8,862.17	43.47	41.58	135.27	-3,089.85	1,342.19	1,791.48	1,716.14	75.34	23.779	
10,400.00	7,589.36	11,047.49	8,862.17	43.90	42.04	135.27	-3,189.85	1,342.37	1,791.49	1,715.01	76.48	23.424	
10,500.00	7,589.35	11,147.49	8,862.17	44.33	42.50	135.27	-3,289.85	1,342.56	1,791.50	1,713.87	77.64	23.076	
10,600.00	7,589.35	11,247.49	8,862.17	44.78	42.97	135.27	-3,389.85	1,342.75	1,791.51	1,712.71	78.80	22.733	
10,700.00	7,589.34	11,347.49	8,862.17	45.23	43.45	135.27	-3,489.85	1,342.93	1,791.52	1,711.53	79.99	22.398	
10,800.00	7,589.34	11,447.49	8,862.16	45.69	43.94	135.27	-3,589.85	1,343.12	1,791.53	1,710.35	81.18	22.068	
10,900.00	7,589.33	11,547.49	8,862.16	46.16	44.44	135.27	-3,689.85	1,343.30	1,791.54	1,709.15	82.39	21.745	
11,000.00	7,589.33	11,647.49	8,862.16	46.64	44.94	135.27	-3,789.85	1,343.49	1,791.55	1,707.94	83.61	21.429	
11,100.00	7,589.33	11,747.49	8,862.16	47.12	45.45	135.27	-3,889.85	1,343.68	1,791.56	1,706.72	84.83	21.118	
11,200.00	7,589.32	11,847.49	8,862.16	47.61	45.96	135.27	-3,989.85	1,343.86	1,791.57	1,705.49	86.07	20.814	
11,300.00	7,589.32	11,947.49	8,862.15	48.11	46.49	135.27	-4,089.85	1,344.05	1,791.58	1,704.25	87.32	20.517	
11,400.00	7,589.31	12,047.49	8,862.15	48.61	47.01	135.27	-4,189.85	1,344.24	1,791.59	1,703.00	88.58	20.225	
11,500.00	7,589.31	12,147.49	8,862.15	49.12	47.55	135.27	-4,289.85	1,344.42	1,791.59	1,701.75	89.85	19.940	
11,600.00	7,589.31	12,247.49	8,862.15	49.64	48.09	135.27	-4,389.85	1,344.61	1,791.60	1,700.48	91.13	19.661	
11,700.00	7,589.30	12,347.49	8,862.15	50.16	48.64	135.27	-4,489.85	1,344.80	1,791.61	1,699.20	92.41	19.388	
11,800.00	7,589.30	12,447.49	8,862.14	50.69	49.19	135.27	-4,589.85	1,344.98	1,791.62	1,697.92	93.70	19.120	
11,900.00	7,589.29	12,547.49	8,862.14	51.23	49.75	135.27	-4,689.85	1,345.17	1,791.63	1,696.63	95.00	18.858	
12,000.00	7,589.29	12,647.49	8,862.14	51.77	50.31	135.27	-4,789.85	1,345.35	1,791.64	1,695.33	96.31	18.602	
12,100.00	7,589.28	12,747.49	8,862.14	52.31	50.88	135.27	-4,889.85	1,345.54	1,791.65	1,694.02	97.63	18.352	
12,200.00	7,589.28	12,847.49	8,862.14	52.86	51.45	135.27	-4,989.85	1,345.73	1,791.66	1,692.71	98.95	18.107	
12,300.00	7,589.28	12,947.49	8,862.13	53.42	52.03	135.27	-5,089.85	1,345.91	1,791.67	1,691.39	100.28	17.867	
12,400.00	7,589.27	13,047.49	8,862.13	53.98	52.61	135.27	-5,189.85	1,346.10	1,791.68	1,690.06	101.61	17.632	
12,500.00	7,589.27	13,147.49	8,862.13	54.55	53.20	135.27	-5,289.85	1,346.29	1,791.69	1,688.73	102.96	17.403	
12,600.00	7,589.26	13,247.49	8,862.13	55.12	53.79	135.27	-5,389.85	1,346.47	1,791.70	1,687.39	104.30	17.178	
12,700.00	7,589.26	13,347.49	8,862.13	55.70	54.39	135.27	-5,489.85	1,346.66	1,791.71	1,686.05	105.66	16.958	
12,800.00	7,589.26	13,447.49	8,862.12	56.28	54.99	135.27	-5,589.85	1,346.84	1,791.72	1,684.70	107.01	16.743	
12,900.00	7,589.25	13,547.49	8,862.12	56.86	55.59	135.27	-5,689.85	1,347.03	1,791.73	1,683.35	108.38	16.532	
13,000.00	7,589.25	13,647.49	8,862.12	57.45	56.20	135.27	-5,789.85	1,347.22	1,791.73	1,681.99	109.74	16.326	
13,100.00	7,589.24	13,747.49	8,862.12	58.04	56.81	135.27	-5,889.85	1,347.40	1,791.74	1,680.63	111.12	16.125	
13,200.00	7,589.24	13,847.49	8,862.12	58.64	57.43	135.27	-5,989.85	1,347.59	1,791.75	1,679.26	112.50	15.927	
13,300.00	7,589.23	13,947.49	8,862.11	59.24	58.04	135.27	-6,089.85	1,347.78	1,791.76	1,677.88	113.88	15.734	
13,400.00	7,589.23	14,047.49	8,862.11	59.84	58.67	135.27	-6,189.84	1,347.96	1,791.77	1,676.51	115.26	15.545	
13,500.00	7,589.23	14,147.49	8,862.11	60.45	59.29	135.27	-6,289.84	1,348.15	1,791.78	1,675.13	116.66	15.360	
13,600.00	7,589.22	14,247.49	8,862.11	61.06	59.92	135.27	-6,389.84	1,348.34	1,791.79	1,673.74	118.05	15.178	
13,700.00	7,589.22	14,347.49	8,862.11	61.68	60.55	135.27	-6,489.84	1,348.52	1,791.80	1,672.35	119.45	15.001	
13,800.00	7,589.21	14,447.49	8,862.10	62.30	61.19	135.27	-6,589.84	1,348.71	1,791.81	1,670.96	120.85	14.827	
13,900.00	7,589.21	14,547.49	8,862.10	62.92	61.82	135.27	-6,689.84	1,348.89	1,791.82	1,669.56	122.26	14.656	
14,000.00	7,589.21	14,647.49	8,862.10	63.54	62.46	135.27	-6,789.84	1,349.08	1,791.83	1,668.16	123.67	14.489	
14,100.00	7,589.20	14,747.49	8,862.10	64.17	63.11	135.27	-6,889.84	1,349.27	1,791.84	1,666.76	125.08	14.326	
14,200.00	7,589.20	14,847.49	8,862.10	64.80	63.75	135.27	-6,989.84	1,349.45	1,791.85	1,665.35	126.49	14.165	
14,300.00	7,589.19	14,947.49	8,862.09	65.43	64.40	135.27	-7,089.84	1,349.64	1,791.86	1,663.94	127.91	14.008	
14,400.00	7,589.19	15,047.49	8,862.09	66.07	65.05	135.27	-7,189.84	1,349.83	1,791.87	1,662.53	129.34	13.854	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 5H - OH - Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS				Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.00 usft	
Reference		Offset		Reference	Offset	Highside Toolface (°)			Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
14,500.00	7,589.18	15,147.49	8,862.09	66.71	65.70	135.27	-7,289.84	1,350.01	1,791.87	1,661.11	130.76	13.703		
14,600.00	7,589.18	15,247.49	8,862.09	67.35	66.36	135.27	-7,389.84	1,350.20	1,791.88	1,659.69	132.19	13.555		
14,700.00	7,589.18	15,347.49	8,862.09	67.99	67.02	135.27	-7,489.84	1,350.38	1,791.89	1,658.27	133.62	13.410		
14,800.00	7,589.17	15,447.49	8,862.08	68.64	67.68	135.26	-7,589.84	1,350.57	1,791.90	1,656.85	135.05	13.268		
14,900.00	7,589.17	15,547.49	8,862.08	69.29	68.34	135.26	-7,689.84	1,350.76	1,791.91	1,655.42	136.49	13.129		
15,000.00	7,589.16	15,647.49	8,862.08	69.94	69.00	135.26	-7,789.84	1,350.94	1,791.92	1,653.99	137.93	12.992		
15,100.00	7,589.16	15,747.49	8,862.08	70.59	69.67	135.26	-7,889.84	1,351.13	1,791.93	1,652.56	139.37	12.857		
15,200.00	7,589.16	15,847.49	8,862.08	71.25	70.34	135.26	-7,989.84	1,351.32	1,791.94	1,651.13	140.81	12.726		
15,300.00	7,589.15	15,947.49	8,862.07	71.91	71.01	135.26	-8,089.84	1,351.50	1,791.95	1,649.69	142.26	12.596		
15,400.00	7,589.15	16,047.49	8,862.07	72.57	71.68	135.26	-8,189.84	1,351.69	1,791.96	1,648.25	143.71	12.470		
15,500.00	7,589.14	16,147.49	8,862.07	73.23	72.35	135.26	-8,289.84	1,351.88	1,791.97	1,646.81	145.16	12.345		
15,600.00	7,589.14	16,247.49	8,862.07	73.89	73.03	135.26	-8,389.84	1,352.06	1,791.98	1,645.37	146.61	12.223		
15,700.00	7,589.13	16,347.49	8,862.07	74.56	73.70	135.26	-8,489.84	1,352.25	1,791.99	1,643.92	148.06	12.103		
15,800.00	7,589.13	16,447.49	8,862.06	75.23	74.38	135.26	-8,589.84	1,352.43	1,792.00	1,642.48	149.52	11.985		
15,900.00	7,589.13	16,547.49	8,862.06	75.90	75.06	135.26	-8,689.84	1,352.62	1,792.00	1,641.03	150.98	11.869		
16,000.00	7,589.12	16,647.49	8,862.06	76.57	75.74	135.26	-8,789.84	1,352.81	1,792.01	1,639.58	152.44	11.756		
16,100.00	7,589.12	16,747.49	8,862.06	77.24	76.43	135.26	-8,889.84	1,352.99	1,792.02	1,638.13	153.90	11.644		
16,200.00	7,589.11	16,847.49	8,862.05	77.92	77.11	135.26	-8,989.84	1,353.18	1,792.03	1,636.67	155.36	11.535		
16,300.00	7,589.11	16,947.49	8,862.05	78.59	77.80	135.26	-9,089.84	1,353.37	1,792.04	1,635.22	156.83	11.427		
16,400.00	7,589.11	17,047.49	8,862.05	79.27	78.49	135.26	-9,189.84	1,353.55	1,792.05	1,633.76	158.29	11.321		
16,500.00	7,589.10	17,147.49	8,862.05	79.95	79.18	135.26	-9,289.84	1,353.74	1,792.06	1,632.30	159.76	11.217		
16,600.00	7,589.10	17,247.49	8,862.05	80.63	79.87	135.26	-9,389.84	1,353.92	1,792.07	1,630.84	161.23	11.115		
16,700.00	7,589.09	17,347.49	8,862.04	81.31	80.56	135.26	-9,489.84	1,354.11	1,792.08	1,629.38	162.70	11.014		
16,800.00	7,589.09	17,447.49	8,862.04	82.00	81.25	135.26	-9,589.84	1,354.30	1,792.09	1,627.91	164.17	10.916		
16,900.00	7,589.08	17,547.49	8,862.04	82.68	81.95	135.26	-9,689.84	1,354.48	1,792.10	1,626.45	165.65	10.819		
17,000.00	7,589.08	17,647.49	8,862.04	83.37	82.64	135.26	-9,789.84	1,354.67	1,792.11	1,624.98	167.12	10.723		
17,100.00	7,589.08	17,747.49	8,862.04	84.06	83.34	135.26	-9,889.84	1,354.86	1,792.12	1,623.51	168.60	10.629		
17,200.00	7,589.07	17,847.49	8,862.03	84.75	84.04	135.26	-9,989.84	1,355.04	1,792.13	1,622.05	170.08	10.537		
17,300.00	7,589.07	17,947.49	8,862.03	85.44	84.74	135.26	-10,089.84	1,355.23	1,792.14	1,620.58	171.56	10.446		
17,400.00	7,589.06	18,047.49	8,862.03	86.13	85.44	135.26	-10,189.84	1,355.42	1,792.14	1,619.10	173.04	10.357		
17,500.00	7,589.06	18,147.49	8,862.03	86.83	86.14	135.26	-10,289.84	1,355.60	1,792.15	1,617.63	174.52	10.269		
17,600.00	7,589.06	18,247.49	8,862.03	87.52	86.84	135.26	-10,389.84	1,355.79	1,792.16	1,616.16	176.01	10.182		
17,700.00	7,589.05	18,347.49	8,862.02	88.22	87.55	135.26	-10,489.84	1,355.97	1,792.17	1,614.68	177.49	10.097		
17,800.00	7,589.05	18,447.49	8,862.02	88.91	88.25	135.26	-10,589.84	1,356.16	1,792.18	1,613.21	178.98	10.013		
17,900.00	7,589.04	18,547.49	8,862.02	89.61	88.96	135.26	-10,689.84	1,356.35	1,792.19	1,611.73	180.46	9.931		
18,000.00	7,589.04	18,647.49	8,862.02	90.31	89.66	135.26	-10,789.84	1,356.53	1,792.20	1,610.25	181.95	9.850		
18,100.00	7,589.03	18,747.49	8,862.02	91.01	90.37	135.26	-10,889.84	1,356.72	1,792.21	1,608.77	183.44	9.770		
18,200.00	7,589.03	18,847.49	8,862.01	91.71	91.08	135.26	-10,989.84	1,356.91	1,792.22	1,607.29	184.93	9.691		
18,300.00	7,589.03	18,947.49	8,862.01	92.42	91.79	135.26	-11,089.84	1,357.09	1,792.23	1,605.81	186.42	9.614		
18,400.00	7,589.02	19,047.49	8,862.01	93.12	92.50	135.26	-11,189.84	1,357.28	1,792.24	1,604.32	187.91	9.538		
18,500.00	7,589.02	19,147.49	8,862.01	93.82	93.21	135.26	-11,289.84	1,357.46	1,792.25	1,602.84	189.41	9.462		
18,600.00	7,589.01	19,247.49	8,862.01	94.53	93.92	135.26	-11,389.84	1,357.65	1,792.26	1,601.36	190.90	9.388		
18,700.00	7,589.01	19,347.49	8,862.00	95.23	94.63	135.26	-11,489.84	1,357.84	1,792.27	1,599.87	192.39	9.316		
18,800.00	7,589.01	19,447.49	8,862.00	95.94	95.35	135.26	-11,589.84	1,358.02	1,792.28	1,598.39	193.89	9.244		
18,900.00	7,589.00	19,547.49	8,862.00	96.65	96.06	135.26	-11,689.84	1,358.21	1,792.28	1,596.90	195.39	9.173		
18,917.19	7,589.00	19,548.26	8,862.00	96.77	96.14	135.26	-11,690.60	1,358.21	1,792.36	1,596.93	195.44	9.171		
18,917.96	7,589.00	19,548.26	8,862.00	97.01	96.14	135.26	-11,690.60	1,358.21	1,792.37	1,596.93	195.44	9.171		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS								Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)			
0.00	0.00	0.00	0.00	0.00	0.00	-88.90	0.77	-39.98	39.99							
100.00	100.00	100.00	100.00	0.28	0.28	-88.90	0.77	-39.98	39.99	39.44	0.55	72.435				
200.00	200.00	200.00	200.00	0.63	0.63	-88.90	0.77	-39.98	39.99	38.72	1.27	31.511				
300.00	300.00	300.00	300.00	0.99	0.99	-88.90	0.77	-39.98	39.99	38.00	1.99	20.135				
400.00	400.00	400.00	400.00	1.35	1.35	-88.90	0.77	-39.98	39.99	37.28	2.70	14.794				
500.00	500.00	500.00	500.00	1.71	1.71	-88.90	0.77	-39.98	39.99	36.57	3.42	11.693				
600.00	600.00	600.00	600.00	2.07	2.07	-88.90	0.77	-39.98	39.99	35.85	4.14	9.666				
700.00	700.00	700.00	700.00	2.43	2.43	-88.90	0.77	-39.98	39.99	35.13	4.85	8.239				
800.00	800.00	800.00	800.00	2.79	2.79	-88.90	0.77	-39.98	39.99	34.42	5.57	7.178				
900.00	900.00	900.00	900.00	3.14	3.14	-88.90	0.77	-39.98	39.99	33.70	6.29	6.360				
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.90	0.77	-39.98	39.99	32.98	7.00	5.709	CC, ES			
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	144.54	0.77	-39.98	41.40	33.69	7.71	5.371				
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	148.29	0.77	-39.98	45.76	37.36	8.40	5.448				
1,300.00	1,299.45	1,299.45	1,299.45	4.52	4.58	153.14	0.77	-39.98	53.38	44.28	9.09	5.869				
1,400.00	1,398.70	1,398.70	1,398.70	4.86	4.93	157.95	0.77	-39.98	64.49	54.70	9.79	6.586				
1,500.00	1,497.47	1,500.06	1,500.04	5.21	5.28	161.81	-0.31	-38.60	77.61	67.12	10.48	7.403				
1,600.00	1,595.62	1,601.97	1,601.80	5.56	5.62	164.55	-3.61	-34.37	90.91	79.75	11.16	8.149				
1,700.00	1,693.06	1,704.39	1,703.82	5.92	5.97	166.57	-9.18	-27.25	104.29	92.47	11.83	8.818				
1,800.00	1,790.08	1,807.55	1,806.17	6.28	6.32	167.99	-17.05	-17.17	115.99	103.49	12.50	9.281				
1,900.00	1,887.11	1,911.47	1,908.76	6.65	6.67	168.83	-27.27	-4.10	124.20	111.04	13.16	9.436				
2,000.00	1,984.14	2,015.89	2,011.16	7.02	7.04	169.26	-39.83	11.99	128.87	115.05	13.83	9.320				
2,100.00	2,081.17	2,120.53	2,112.96	7.39	7.40	169.35	-54.72	31.05	129.96	115.48	14.49	8.972				
2,200.00	2,178.20	2,221.83	2,210.85	7.76	7.76	169.22	-70.77	51.59	128.39	113.20	15.19	8.450				
2,300.00	2,275.23	2,321.82	2,307.42	8.14	8.12	169.07	-86.71	71.98	126.68	110.75	15.93	7.953				
2,400.00	2,372.26	2,421.80	2,404.00	8.52	8.49	168.92	-102.64	92.38	124.96	108.30	16.67	7.497				
2,500.00	2,469.29	2,521.79	2,500.58	8.90	8.86	168.77	-118.57	112.77	123.25	105.84	17.41	7.077				
2,600.00	2,566.32	2,621.77	2,597.16	9.28	9.23	168.61	-134.50	133.16	121.54	103.37	18.17	6.691				
2,700.00	2,663.35	2,721.76	2,693.74	9.67	9.60	168.44	-150.43	153.55	119.83	100.91	18.92	6.333				
2,800.00	2,760.38	2,821.74	2,790.31	10.05	9.98	168.27	-166.37	173.95	118.12	98.44	19.68	6.002				
2,900.00	2,857.41	2,921.73	2,886.89	10.44	10.36	168.10	-182.30	194.34	116.41	95.97	20.44	5.694				
3,000.00	2,954.44	3,021.71	2,983.47	10.83	10.74	167.92	-198.23	214.73	114.71	93.50	21.21	5.408				
3,100.00	3,051.47	3,121.70	3,080.05	11.22	11.12	167.73	-214.16	235.12	113.00	91.02	21.98	5.141				
3,200.00	3,148.50	3,221.68	3,176.63	11.60	11.50	167.54	-230.09	255.51	111.29	88.54	22.75	4.892				
3,300.00	3,245.53	3,321.67	3,273.20	11.99	11.89	167.34	-246.03	275.91	109.59	86.07	23.52	4.659				
3,400.00	3,342.56	3,421.65	3,369.78	12.38	12.28	167.14	-261.96	296.30	107.89	83.59	24.30	4.440				
3,500.00	3,439.59	3,521.63	3,466.36	12.77	12.66	166.93	-277.89	316.69	106.19	81.11	25.08	4.235				
3,600.00	3,536.62	3,621.62	3,562.94	13.17	13.05	166.72	-293.82	337.08	104.49	78.63	25.86	4.041				
3,700.00	3,633.65	3,721.60	3,659.52	13.56	13.44	166.49	-309.76	357.47	102.79	76.15	26.64	3.859				
3,800.00	3,730.68	3,821.59	3,756.09	13.95	13.83	166.26	-325.69	377.87	101.09	73.68	27.42	3.687				
3,900.00	3,827.71	3,921.57	3,852.67	14.34	14.22	166.02	-341.62	398.26	99.40	71.20	28.20	3.524				
4,000.00	3,924.74	4,021.56	3,949.25	14.74	14.61	165.77	-357.55	418.65	97.71	68.72	28.99	3.371				
4,100.00	4,021.77	4,121.54	4,045.83	15.13	15.01	165.52	-373.48	439.04	96.02	66.24	29.77	3.225				
4,200.00	4,118.79	4,221.53	4,142.40	15.52	15.40	165.25	-389.42	459.43	94.33	63.77	30.56	3.086				
4,300.00	4,215.82	4,321.51	4,238.98	15.92	15.79	164.98	-405.35	479.83	92.64	61.29	31.35	2.955				
4,400.00	4,312.85	4,421.50	4,335.56	16.31	16.19	164.69	-421.28	500.22	90.96	58.82	32.14	2.830				
4,500.00	4,409.88	4,521.48	4,432.14	16.70	16.58	164.40	-437.21	520.61	89.27	56.34	32.93	2.711				
4,600.00	4,506.91	4,621.47	4,528.72	17.10	16.98	164.09	-453.14	541.00	87.60	53.87	33.72	2.597				
4,700.00	4,603.94	4,721.45	4,625.29	17.49	17.37	163.77	-469.08	561.40	85.92	51.40	34.52	2.489				
4,800.00	4,700.97	4,821.44	4,721.87	17.89	17.77	163.44	-485.01	581.79	84.24	48.93	35.31	2.386				
4,900.00	4,798.00	4,921.42	4,818.45	18.28	18.17	163.10	-500.94	602.18	82.57	46.47	36.10	2.287				
5,000.00	4,895.03	5,021.41	4,915.03	18.68	18.56	162.74	-516.87	622.57	80.90	44.01	36.90	2.193				
5,100.00	4,992.06	5,121.39	5,011.61	19.07	18.96	162.36	-532.80	642.96	79.24	41.55	37.69	2.102				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,180.71	5,070.37	5,200.77	5,088.39	19.39	19.28	162.16	-545.18	658.81	78.34	39.97	38.36	2.042	
5,200.00	5,089.09	5,219.57	5,106.66	19.47	19.35	162.17	-547.94	662.35	78.40	39.88	38.53	2.035	SF
5,300.00	5,186.12	5,318.49	5,203.05	19.87	19.73	162.59	-561.57	679.84	80.12	40.80	39.32	2.038	
5,400.00	5,283.15	5,418.47	5,300.55	20.26	20.12	163.05	-575.17	697.30	82.13	42.03	40.10	2.048	
5,500.00	5,380.18	5,518.44	5,398.04	20.66	20.51	163.49	-588.78	714.76	84.15	43.26	40.89	2.058	
5,600.00	5,477.21	5,618.42	5,495.54	21.06	20.90	163.91	-602.38	732.21	86.17	44.50	41.67	2.068	
5,700.00	5,574.24	5,718.40	5,593.04	21.45	21.29	164.31	-615.98	749.67	88.20	45.75	42.45	2.078	
5,800.00	5,671.27	5,818.38	5,690.54	21.85	21.68	164.69	-629.58	767.13	90.23	46.99	43.23	2.087	
5,900.00	5,768.30	5,918.35	5,788.04	22.24	22.07	165.05	-643.18	784.59	92.26	48.24	44.02	2.096	
6,000.00	5,865.33	6,018.33	5,885.53	22.64	22.46	165.40	-656.78	802.04	94.30	49.50	44.80	2.105	
6,100.00	5,962.36	6,118.31	5,983.03	23.04	22.85	165.74	-670.38	819.50	96.34	50.75	45.58	2.113	
6,200.00	6,059.39	6,218.29	6,080.53	23.44	23.24	166.06	-683.98	836.96	98.38	52.02	46.37	2.122	
6,300.00	6,156.42	6,318.26	6,178.03	23.83	23.63	166.36	-697.58	854.41	100.43	53.28	47.15	2.130	
6,400.00	6,253.45	6,418.24	6,275.52	24.23	24.02	166.66	-711.18	871.87	102.48	54.54	47.93	2.138	
6,500.00	6,350.47	6,518.22	6,373.02	24.63	24.41	166.94	-724.78	889.33	104.53	55.81	48.72	2.146	
6,600.00	6,447.50	6,618.20	6,470.52	25.02	24.81	167.22	-738.38	906.79	106.58	57.08	49.50	2.153	
6,700.00	6,544.53	6,718.17	6,568.02	25.42	25.20	167.48	-751.98	924.24	108.64	58.35	50.29	2.160	
6,800.00	6,641.56	6,818.15	6,665.51	25.82	25.59	167.73	-765.58	941.70	110.70	59.63	51.07	2.168	
6,900.00	6,738.59	6,918.13	6,763.01	26.22	25.98	167.97	-779.18	959.16	112.76	60.91	51.86	2.175	
7,000.00	6,835.62	7,018.11	6,860.51	26.61	26.37	168.21	-792.78	976.61	114.83	62.18	52.64	2.181	
7,100.00	6,932.65	7,118.09	6,958.01	27.01	26.76	168.44	-806.38	994.07	116.89	63.46	53.43	2.188	
7,200.00	7,029.68	7,218.06	7,055.51	27.41	27.15	168.65	-819.98	1,011.53	118.96	64.75	54.21	2.194	
7,300.00	7,126.71	7,318.04	7,153.00	27.81	27.54	168.87	-833.58	1,028.99	121.03	66.03	55.00	2.201	
7,309.09	7,135.53	7,327.13	7,161.87	27.84	27.58	168.88	-834.82	1,030.57	121.21	66.15	55.07	2.201	
7,350.00	7,174.84	7,367.96	7,201.69	28.01	27.74	169.05	-840.38	1,037.70	123.49	68.10	55.39	2.229	
7,400.00	7,221.63	7,417.49	7,249.98	28.22	27.93	169.51	-847.11	1,046.35	130.16	74.37	55.79	2.333	
7,450.00	7,266.71	7,466.23	7,297.51	28.44	28.12	170.14	-853.74	1,054.86	141.07	84.88	56.19	2.511	
7,500.00	7,309.74	7,513.82	7,343.92	28.67	28.31	170.86	-860.22	1,063.17	156.16	99.58	56.58	2.760	
7,550.00	7,350.39	7,559.89	7,388.86	28.91	28.49	171.57	-866.49	1,071.22	175.33	118.37	56.97	3.078	
7,600.00	7,388.34	7,604.11	7,431.98	29.15	28.66	172.21	-872.50	1,078.94	198.46	141.12	57.34	3.461	
7,650.00	7,423.32	7,646.12	7,472.95	29.40	28.83	172.75	-878.22	1,086.27	225.38	167.67	57.70	3.906	
7,700.00	7,455.05	7,685.62	7,511.46	29.65	28.98	173.18	-883.59	1,093.17	255.87	197.82	58.05	4.408	
7,750.00	7,483.30	7,722.29	7,547.22	29.90	29.12	173.47	-888.58	1,099.57	289.71	231.34	58.36	4.964	
7,800.00	7,507.84	7,755.86	7,579.97	30.15	29.26	173.63	-893.14	1,105.43	326.63	267.98	58.65	5.569	
7,850.00	7,528.50	7,786.08	7,609.43	30.41	29.37	173.63	-897.26	1,110.71	366.36	307.44	58.91	6.219	
7,900.00	7,545.11	7,812.72	7,635.41	30.66	29.48	173.45	-900.88	1,115.36	408.58	349.44	59.14	6.909	
7,919.09	7,550.36	7,821.90	7,644.36	30.75	29.51	173.31	-902.13	1,116.96	425.29	366.07	59.22	7.181	
8,000.00	7,568.52	7,857.06	7,678.65	31.16	29.65	173.39	-906.91	1,123.10	498.05	438.54	59.51	8.369	
8,100.00	7,583.22	7,893.28	7,713.97	31.66	29.79	173.03	-911.84	1,129.43	591.14	531.33	59.80	9.885	
8,200.00	7,589.24	7,921.24	7,741.24	32.17	29.90	171.91	-915.64	1,134.31	687.05	627.02	60.03	11.445	
8,219.09	7,589.40	7,925.62	7,745.51	32.26	29.92	171.55	-916.24	1,135.08	705.62	645.56	60.07	11.748	
8,300.00	7,589.40	7,943.53	7,762.98	32.67	29.99	172.39	-918.67	1,138.20	784.48	724.28	60.21	13.030	
8,400.00	7,589.40	8,961.86	8,381.83	33.21	34.73	176.29	-1,366.55	1,665.75	812.76	772.56	40.20	20.218	
8,444.09	7,589.40	9,010.92	8,391.07	33.45	34.98	175.51	-1,404.50	1,695.43	822.03	781.54	40.49	20.302	
8,500.00	7,589.40	9,072.18	8,401.69	33.76	35.28	174.08	-1,453.68	1,730.36	833.40	792.43	40.98	20.339	
8,600.00	7,589.40	9,179.36	8,417.71	34.34	35.81	171.44	-1,544.15	1,785.48	852.72	810.58	42.15	20.233	
8,700.00	7,589.40	9,283.12	8,429.99	34.92	36.31	168.75	-1,636.44	1,831.19	870.96	827.27	43.70	19.932	
8,800.00	7,589.40	9,383.17	8,438.75	35.52	36.77	166.02	-1,729.11	1,867.78	888.41	842.81	45.59	19.486	
8,900.00	7,589.40	9,479.35	8,444.24	36.12	37.19	163.28	-1,820.94	1,895.77	905.32	857.55	47.77	18.953	
9,000.00	7,589.40	9,571.61	8,446.78	36.73	37.57	160.56	-1,910.93	1,915.81	921.96	871.81	50.15	18.386	
9,100.00	7,589.40	9,656.19	8,447.04	37.33	37.90	157.99	-1,994.52	1,928.66	938.64	886.01	52.63	17.833	
9,200.00	7,589.40	9,736.61	8,447.00	37.92	38.21	155.66	-2,074.37	1,938.21	955.86	900.83	55.03	17.371	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS		Offset Site Error:		0.00 usft	
Reference		Offset		Offset Well Error:		0.00 usft	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Semi Major Axis Reference	Offset	Highside Toolface	Offset Wellbore Centre
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)
							+E/-W (usft)
							Distance
							Between Centres (usft)
							Between Ellipses (usft)
							Minimum Separation (usft)
							Separation Factor
							Warning
9,300.00	7,589.39	9,816.89	8,446.94	38.51	38.51	153.50	-2,154.32
9,400.00	7,589.39	9,900.00	8,446.84	39.09	38.83	151.44	-2,237.26
9,500.00	7,589.39	9,977.12	8,446.71	39.65	39.12	149.66	-2,314.33
9,600.00	7,589.39	10,061.68	8,446.54	40.19	39.43	147.92	-2,398.89
9,700.00	7,589.38	10,157.92	8,446.34	40.72	39.80	146.30	-2,495.13
9,800.00	7,589.38	10,255.45	8,446.13	41.23	40.17	145.01	-2,592.65
9,900.00	7,589.38	10,353.99	8,445.93	41.72	40.56	144.02	-2,691.20
10,000.00	7,589.37	10,453.29	8,445.72	42.18	40.97	143.34	-2,790.50
10,100.00	7,589.37	10,553.07	8,445.51	42.63	41.38	142.97	-2,890.28
10,173.66	7,589.36	10,626.70	8,445.35	42.94	41.69	142.88	-2,963.91
10,200.00	7,589.36	10,653.05	8,445.30	43.05	41.81	142.88	-2,990.26
10,300.00	7,589.36	10,753.05	8,445.09	43.47	42.24	142.87	-3,090.26
10,400.00	7,589.36	10,853.05	8,444.88	43.90	42.69	142.86	-3,190.25
10,500.00	7,589.35	10,953.05	8,444.67	44.33	43.14	142.86	-3,290.25
10,600.00	7,589.35	11,053.05	8,444.46	44.78	43.60	142.85	-3,390.25
10,700.00	7,589.34	11,153.05	8,444.25	45.23	44.07	142.84	-3,490.25
10,800.00	7,589.34	11,253.05	8,444.04	45.69	44.54	142.83	-3,590.25
10,900.00	7,589.33	11,353.05	8,443.83	46.16	45.03	142.82	-3,690.25
11,000.00	7,589.33	11,453.05	8,443.62	46.64	45.52	142.81	-3,790.25
11,100.00	7,589.33	11,553.05	8,443.41	47.12	46.02	142.80	-3,890.25
11,200.00	7,589.32	11,653.05	8,443.20	47.61	46.52	142.80	-3,990.25
11,300.00	7,589.32	11,753.05	8,442.99	48.11	47.03	142.79	-4,090.25
11,400.00	7,589.31	11,853.05	8,442.78	48.61	47.55	142.78	-4,190.25
11,500.00	7,589.31	11,953.05	8,442.57	49.12	48.08	142.77	-4,290.25
11,600.00	7,589.31	12,053.05	8,442.35	49.64	48.61	142.76	-4,390.25
11,700.00	7,589.30	12,153.04	8,442.14	50.16	49.15	142.75	-4,490.25
11,800.00	7,589.30	12,253.04	8,441.93	50.69	49.69	142.74	-4,590.25
11,900.00	7,589.29	12,353.04	8,441.72	51.23	50.24	142.74	-4,690.25
12,000.00	7,589.29	12,453.04	8,441.51	51.77	50.79	142.73	-4,790.25
12,100.00	7,589.28	12,553.04	8,441.30	52.31	51.35	142.72	-4,890.25
12,200.00	7,589.28	12,653.04	8,441.09	52.86	51.92	142.71	-4,990.24
12,300.00	7,589.28	12,753.04	8,440.88	53.42	52.48	142.70	-5,090.24
12,400.00	7,589.27	12,853.04	8,440.67	53.98	53.06	142.69	-5,190.24
12,500.00	7,589.27	12,953.04	8,440.46	54.55	53.64	142.68	-5,290.24
12,600.00	7,589.26	13,053.04	8,440.25	55.12	54.22	142.68	-5,390.24
12,700.00	7,589.26	13,153.04	8,440.04	55.70	54.81	142.67	-5,490.24
12,800.00	7,589.26	13,253.04	8,439.83	56.28	55.40	142.66	-5,590.24
12,900.00	7,589.25	13,353.04	8,439.62	56.86	55.99	142.65	-5,690.24
13,000.00	7,589.25	13,453.04	8,439.41	57.45	56.59	142.64	-5,790.24
13,100.00	7,589.24	13,553.04	8,439.20	58.04	57.20	142.63	-5,890.24
13,200.00	7,589.24	13,653.04	8,438.99	58.64	57.81	142.62	-5,990.24
13,300.00	7,589.23	13,753.04	8,438.78	59.24	58.42	142.61	-6,090.24
13,400.00	7,589.23	13,853.04	8,438.57	59.84	59.03	142.61	-6,190.24
13,500.00	7,589.23	13,953.04	8,438.36	60.45	59.65	142.60	-6,290.24
13,600.00	7,589.22	14,053.04	8,438.15	61.06	60.27	142.59	-6,390.24
13,700.00	7,589.22	14,153.04	8,437.94	61.68	60.89	142.58	-6,490.24
13,800.00	7,589.21	14,253.04	8,437.73	62.30	61.52	142.57	-6,590.24
13,900.00	7,589.21	14,353.04	8,437.52	62.92	62.15	142.56	-6,690.24
14,000.00	7,589.21	14,453.04	8,437.31	63.54	62.78	142.55	-6,790.23
14,100.00	7,589.20	14,553.04	8,437.10	64.17	63.42	142.55	-6,890.23
14,200.00	7,589.20	14,653.04	8,436.89	64.80	64.06	142.54	-6,990.23
14,300.00	7,589.19	14,753.04	8,436.68	65.43	64.70	142.53	-7,090.23

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 6H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft	
Reference				Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
14,400.00	7,589.19	14,853.04	8,436.47	66.07	65.35	142.52	-7,190.23	1,961.29	1,067.70	938.57	129.13	8.268			
14,500.00	7,589.18	14,953.04	8,436.26	66.71	65.99	142.51	-7,290.23	1,961.44	1,067.56	936.98	130.58	8.175			
14,600.00	7,589.18	15,053.04	8,436.05	67.35	66.64	142.50	-7,390.23	1,961.59	1,067.43	935.39	132.04	8.084			
14,700.00	7,589.18	15,153.04	8,435.84	67.99	67.29	142.49	-7,490.23	1,961.75	1,067.29	933.79	133.50	7.995			
14,800.00	7,589.17	15,253.04	8,435.63	68.64	67.95	142.48	-7,590.23	1,961.90	1,067.16	932.20	134.96	7.907			
14,900.00	7,589.17	15,353.04	8,435.42	69.29	68.60	142.48	-7,690.23	1,962.05	1,067.02	930.60	136.42	7.821			
15,000.00	7,589.16	15,453.04	8,435.21	69.94	69.26	142.47	-7,790.23	1,962.20	1,066.89	929.00	137.89	7.737			
15,100.00	7,589.16	15,553.04	8,435.00	70.59	69.92	142.46	-7,890.23	1,962.35	1,066.75	927.40	139.36	7.655			
15,200.00	7,589.16	15,653.04	8,434.79	71.25	70.58	142.45	-7,990.23	1,962.50	1,066.62	925.79	140.82	7.574			
15,300.00	7,589.15	15,753.04	8,434.58	71.91	71.25	142.44	-8,090.23	1,962.66	1,066.48	924.18	142.30	7.495			
15,400.00	7,589.15	15,853.04	8,434.37	72.57	71.92	142.43	-8,190.23	1,962.81	1,066.34	922.58	143.77	7.417			
15,500.00	7,589.14	15,953.04	8,434.16	73.23	72.58	142.42	-8,290.23	1,962.96	1,066.21	920.97	145.24	7.341			
15,600.00	7,589.14	16,053.04	8,433.95	73.89	73.25	142.42	-8,390.23	1,963.11	1,066.07	919.36	146.72	7.266			
15,700.00	7,589.13	16,153.04	8,433.74	74.56	73.93	142.41	-8,490.23	1,963.26	1,065.94	917.74	148.20	7.193			
15,800.00	7,589.13	16,253.04	8,433.53	75.23	74.60	142.40	-8,590.22	1,963.41	1,065.80	916.13	149.68	7.121			
15,900.00	7,589.13	16,353.04	8,433.32	75.90	75.28	142.39	-8,690.22	1,963.56	1,065.67	914.51	151.16	7.050			
16,000.00	7,589.12	16,453.04	8,433.11	76.57	75.95	142.38	-8,790.22	1,963.72	1,065.53	912.89	152.64	6.981			
16,100.00	7,589.12	16,553.04	8,432.90	77.24	76.63	142.37	-8,890.22	1,963.87	1,065.40	911.27	154.12	6.913			
16,200.00	7,589.11	16,653.03	8,432.69	77.92	77.31	142.36	-8,990.22	1,964.02	1,065.26	909.65	155.61	6.846			
16,300.00	7,589.11	16,753.03	8,432.48	78.59	77.99	142.35	-9,090.22	1,964.17	1,065.13	908.03	157.10	6.780			
16,400.00	7,589.11	16,853.03	8,432.27	79.27	78.68	142.35	-9,190.22	1,964.32	1,064.99	906.41	158.58	6.716			
16,500.00	7,589.10	16,953.03	8,432.06	79.95	79.36	142.34	-9,290.22	1,964.47	1,064.86	904.78	160.07	6.652			
16,600.00	7,589.10	17,053.03	8,431.85	80.63	80.05	142.33	-9,390.22	1,964.63	1,064.72	903.16	161.56	6.590			
16,700.00	7,589.09	17,153.03	8,431.64	81.31	80.74	142.32	-9,490.22	1,964.78	1,064.59	901.53	163.06	6.529			
16,800.00	7,589.09	17,253.03	8,431.43	82.00	81.43	142.31	-9,590.22	1,964.93	1,064.45	899.90	164.55	6.469			
16,900.00	7,589.08	17,353.03	8,431.22	82.68	82.12	142.30	-9,690.22	1,965.08	1,064.32	898.27	166.04	6.410			
17,000.00	7,589.08	17,453.03	8,431.01	83.37	82.81	142.29	-9,790.22	1,965.23	1,064.18	896.64	167.54	6.352			
17,100.00	7,589.08	17,553.03	8,430.80	84.06	83.50	142.28	-9,890.22	1,965.38	1,064.05	895.01	169.04	6.295			
17,200.00	7,589.07	17,653.03	8,430.59	84.75	84.19	142.28	-9,990.22	1,965.53	1,063.91	893.38	170.53	6.239			
17,300.00	7,589.07	17,753.03	8,430.38	85.44	84.89	142.27	-10,090.22	1,965.69	1,063.78	891.75	172.03	6.184			
17,400.00	7,589.06	17,853.03	8,430.17	86.13	85.59	142.26	-10,190.22	1,965.84	1,063.64	890.11	173.53	6.129			
17,500.00	7,589.06	17,953.03	8,429.96	86.83	86.28	142.25	-10,290.22	1,965.99	1,063.51	888.48	175.03	6.076			
17,600.00	7,589.06	18,053.03	8,429.75	87.52	86.98	142.24	-10,390.21	1,966.14	1,063.37	886.84	176.54	6.024			
17,700.00	7,589.05	18,153.03	8,429.54	88.22	87.68	142.23	-10,490.21	1,966.29	1,063.24	885.20	178.04	5.972			
17,800.00	7,589.05	18,253.03	8,429.33	88.91	88.38	142.22	-10,590.21	1,966.44	1,063.11	883.56	179.54	5.921			
17,900.00	7,589.04	18,353.03	8,429.12	89.61	89.09	142.21	-10,690.21	1,966.59	1,062.97	881.92	181.05	5.871			
18,000.00	7,589.04	18,453.03	8,428.91	90.31	89.79	142.21	-10,790.21	1,966.75	1,062.84	880.28	182.55	5.822			
18,100.00	7,589.03	18,553.03	8,428.70	91.01	90.49	142.20	-10,890.21	1,966.90	1,062.70	878.64	184.06	5.774			
18,200.00	7,589.03	18,653.03	8,428.49	91.71	91.20	142.19	-10,990.21	1,967.05	1,062.57	877.00	185.56	5.726			
18,300.00	7,589.03	18,753.03	8,428.28	92.42	91.90	142.18	-11,090.21	1,967.20	1,062.43	875.36	187.07	5.679			
18,400.00	7,589.02	18,853.03	8,428.07	93.12	92.61	142.17	-11,190.21	1,967.35	1,062.30	873.72	188.58	5.633			
18,500.00	7,589.02	18,953.03	8,427.86	93.82	93.32	142.16	-11,290.21	1,967.50	1,062.16	872.07	190.09	5.588			
18,600.00	7,589.01	19,053.03	8,427.64	94.53	94.03	142.15	-11,390.21	1,967.66	1,062.03	870.43	191.60	5.543			
18,700.00	7,589.01	19,153.03	8,427.43	95.23	94.74	142.14	-11,490.21	1,967.81	1,061.89	868.78	193.11	5.499			
18,800.00	7,589.01	19,253.03	8,427.22	95.94	95.45	142.14	-11,590.21	1,967.96	1,061.76	867.14	194.62	5.455			
18,900.00	7,589.00	19,353.03	8,427.01	96.65	96.16	142.13	-11,690.21	1,968.11	1,061.63	865.49	196.13	5.413			
18,908.23	7,589.00	19,359.83	8,427.00	96.71	96.21	142.13	-11,697.01	1,968.12	1,061.61	865.38	196.24	5.410			
18,917.19	7,589.00	19,359.83	8,427.00	96.77	96.21	142.13	-11,697.01	1,968.12	1,061.65	865.43	196.22	5.410			
18,917.96	7,589.00	19,359.83	8,427.00	97.01	96.21	142.13	-11,697.01	1,968.12	1,061.66	865.43	196.23	5.410			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS						Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Minimum Separation (usft)
0.00	0.00	0.00	0.00	0.00	0.00	-88.88	0.39	-19.99	19.99					
100.00	100.00	100.00	100.00	0.28	0.28	-88.88	0.39	-19.99	19.99	19.44	0.55	36.218		
200.00	200.00	200.00	200.00	0.63	0.63	-88.88	0.39	-19.99	19.99	18.72	1.27	15.756		
300.00	300.00	300.00	300.00	0.99	0.99	-88.88	0.39	-19.99	19.99	18.01	1.99	10.068		
400.00	400.00	400.00	400.00	1.35	1.35	-88.88	0.39	-19.99	19.99	17.29	2.70	7.397		
500.00	500.00	500.00	500.00	1.71	1.71	-88.88	0.39	-19.99	19.99	16.57	3.42	5.846		
600.00	600.00	600.00	600.00	2.07	2.07	-88.88	0.39	-19.99	19.99	15.86	4.14	4.833		
700.00	700.00	700.00	700.00	2.43	2.43	-88.88	0.39	-19.99	19.99	15.14	4.85	4.119		
800.00	800.00	800.00	800.00	2.79	2.79	-88.88	0.39	-19.99	19.99	14.42	5.57	3.589		
900.00	900.00	900.00	900.00	3.14	3.14	-88.88	0.39	-19.99	19.99	13.71	6.29	3.180		
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.88	0.39	-19.99	19.99	12.99	7.00	2.854	CC, ES	
1,100.00	1,099.98	1,099.98	1,099.98	3.85	3.86	145.90	0.39	-19.99	21.42	13.71	7.71	2.779	SF	
1,200.00	1,199.84	1,199.84	1,199.84	4.18	4.22	152.36	0.39	-19.99	25.92	17.52	8.40	3.086		
1,300.00	1,299.45	1,300.57	1,300.55	4.52	4.57	158.53	-0.49	-18.46	32.18	23.10	9.08	3.544		
1,400.00	1,398.70	1,401.55	1,401.38	4.86	4.91	163.37	-3.15	-13.85	38.56	28.81	9.75	3.956		
1,500.00	1,497.47	1,502.76	1,502.20	5.21	5.25	167.43	-7.60	-6.15	45.02	34.61	10.41	4.325		
1,600.00	1,595.62	1,604.21	1,602.87	5.56	5.60	171.01	-13.84	4.66	51.55	40.48	11.07	4.657		
1,700.00	1,693.06	1,705.89	1,703.27	5.92	5.95	174.27	-21.89	18.59	58.17	46.44	11.73	4.960		
1,800.00	1,790.08	1,807.88	1,803.33	6.28	6.31	177.22	-31.74	35.65	63.14	50.75	12.38	5.098		
1,900.00	1,887.11	1,907.84	1,901.03	6.65	6.66	179.85	-42.34	53.93	66.39	53.29	13.10	5.069		
2,000.00	1,984.14	2,007.74	1,998.67	7.02	7.02	-177.76	-52.95	72.19	69.77	55.95	13.82	5.048		
2,100.00	2,081.17	2,107.64	2,096.32	7.39	7.38	-175.60	-63.55	90.45	73.26	58.71	14.55	5.034		
2,200.00	2,178.20	2,207.55	2,193.96	7.76	7.75	-173.65	-74.15	108.72	76.85	61.56	15.29	5.026		
2,300.00	2,275.23	2,307.45	2,291.61	8.14	8.11	-171.86	-84.75	126.98	80.52	64.49	16.03	5.022		
2,400.00	2,372.26	2,407.35	2,389.25	8.52	8.48	-170.24	-95.36	145.25	84.26	67.48	16.78	5.022		
2,500.00	2,469.29	2,507.25	2,486.90	8.90	8.85	-168.75	-105.96	163.51	88.06	70.53	17.52	5.025		
2,600.00	2,566.32	2,607.16	2,584.54	9.28	9.22	-167.38	-116.56	181.77	91.91	73.63	18.28	5.029		
2,700.00	2,663.35	2,707.06	2,682.19	9.67	9.59	-166.13	-127.16	200.04	95.81	76.78	19.03	5.035		
2,800.00	2,760.38	2,806.96	2,779.83	10.05	9.97	-164.98	-137.77	218.30	99.76	79.97	19.79	5.042		
2,900.00	2,857.41	2,906.86	2,877.48	10.44	10.34	-163.91	-148.37	236.57	103.74	83.20	20.54	5.050		
3,000.00	2,954.44	3,006.77	2,975.12	10.83	10.72	-162.92	-158.97	254.83	107.76	86.45	21.30	5.058		
3,100.00	3,051.47	3,106.67	3,072.77	11.22	11.10	-162.01	-169.57	273.09	111.80	89.74	22.06	5.067		
3,200.00	3,148.50	3,206.57	3,170.41	11.60	11.48	-161.16	-180.18	291.36	115.87	93.05	22.83	5.077		
3,300.00	3,245.53	3,306.48	3,268.06	11.99	11.85	-160.36	-190.78	309.62	119.97	96.38	23.59	5.086		
3,400.00	3,342.56	3,406.38	3,365.70	12.38	12.23	-159.62	-201.38	327.88	124.08	99.73	24.35	5.095		
3,500.00	3,439.59	3,506.28	3,463.35	12.77	12.61	-158.93	-211.98	346.15	128.22	103.10	25.12	5.105		
3,600.00	3,536.62	3,606.18	3,561.00	13.17	12.99	-158.28	-222.59	364.41	132.37	106.49	25.88	5.114		
3,700.00	3,633.65	3,706.09	3,658.64	13.56	13.38	-157.67	-233.19	382.68	136.54	109.89	26.65	5.123		
3,800.00	3,730.68	3,805.99	3,756.29	13.95	13.76	-157.09	-243.79	400.94	140.73	113.31	27.42	5.133		
3,900.00	3,827.71	3,905.89	3,853.93	14.34	14.14	-156.55	-254.39	419.20	144.93	116.74	28.19	5.142		
4,000.00	3,924.74	4,005.80	3,951.58	14.74	14.52	-156.04	-265.00	437.47	149.14	120.18	28.96	5.150		
4,100.00	4,021.77	4,105.70	4,049.22	15.13	14.90	-155.56	-275.60	455.73	153.36	123.63	29.73	5.159		
4,200.00	4,118.79	4,205.60	4,146.87	15.52	15.29	-155.10	-286.20	474.00	157.59	127.09	30.50	5.168		
4,300.00	4,215.82	4,305.50	4,244.51	15.92	15.67	-154.67	-296.80	492.26	161.83	130.56	31.27	5.176		
4,400.00	4,312.85	4,405.41	4,342.16	16.31	16.05	-154.26	-307.41	510.52	166.08	134.04	32.04	5.184		
4,500.00	4,409.88	4,505.31	4,439.80	16.70	16.44	-153.87	-318.01	528.79	170.34	137.53	32.81	5.192		
4,600.00	4,506.91	4,605.21	4,537.45	17.10	16.82	-153.49	-328.61	547.05	174.60	141.02	33.58	5.200		
4,700.00	4,603.94	4,705.11	4,635.09	17.49	17.21	-153.14	-339.21	565.32	178.87	144.52	34.35	5.207		
4,800.00	4,700.97	4,805.02	4,732.74	17.89	17.59	-152.80	-349.82	583.58	183.15	148.03	35.12	5.215		
4,900.00	4,798.00	4,904.92	4,830.38	18.28	17.98	-152.48	-360.42	601.84	187.44	151.54	35.90	5.222		
5,000.00	4,895.03	5,004.82	4,928.03	18.68	18.36	-152.18	-371.02	620.11	191.73	155.06	36.67	5.229		
5,100.00	4,992.06	5,104.73	5,025.67	19.07	18.75	-151.88	-381.62	638.37	196.02	158.58	37.44	5.235		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program:		0-MWD+IFR1+MS								Rule Assigned:		Offset Site Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance				Offset Well Error:		0.00 usft
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,200.00	5,089.09	5,204.63	5,123.32	19.47	19.13	-151.60	-392.23	656.64	200.32	162.11	38.22	5.242		
5,300.00	5,186.12	5,304.53	5,220.96	19.87	19.52	-151.33	-402.83	674.90	204.63	165.64	38.99	5.248		
5,400.00	5,283.15	5,404.43	5,318.61	20.26	19.90	-151.07	-413.43	693.16	208.94	169.18	39.76	5.255		
5,500.00	5,380.18	5,504.34	5,416.25	20.66	20.29	-150.83	-424.03	711.43	213.25	172.71	40.54	5.261		
5,600.00	5,477.21	5,604.24	5,513.90	21.06	20.68	-150.59	-434.64	729.69	217.57	176.26	41.31	5.266		
5,700.00	5,574.24	5,704.14	5,611.54	21.45	21.06	-150.36	-445.24	747.96	221.89	179.80	42.09	5.272		
5,800.00	5,671.27	5,804.05	5,709.19	21.85	21.45	-150.14	-455.84	766.22	226.21	183.35	42.86	5.278		
5,900.00	5,768.30	5,903.95	5,806.83	22.24	21.83	-149.93	-466.44	784.48	230.54	186.91	43.64	5.283		
6,000.00	5,865.33	6,003.85	5,904.48	22.64	22.22	-149.72	-477.05	802.75	234.87	190.46	44.41	5.289		
6,100.00	5,962.36	6,103.75	6,002.12	23.04	22.61	-149.53	-487.65	821.01	239.21	194.02	45.19	5.294		
6,200.00	6,059.39	6,203.66	6,099.77	23.44	22.99	-149.34	-498.25	839.27	243.54	197.58	45.96	5.299		
6,300.00	6,156.42	6,303.56	6,197.41	23.83	23.38	-149.16	-508.85	857.54	247.88	201.14	46.74	5.304		
6,400.00	6,253.45	6,403.46	6,295.06	24.23	23.77	-148.98	-519.45	875.80	252.22	204.71	47.51	5.309		
6,500.00	6,350.47	6,503.36	6,392.71	24.63	24.15	-148.81	-530.06	894.07	256.57	208.28	48.29	5.313		
6,600.00	6,447.50	6,603.27	6,490.35	25.02	24.54	-148.64	-540.66	912.33	260.91	211.85	49.06	5.318		
6,700.00	6,544.53	6,703.17	6,588.00	25.42	24.93	-148.48	-551.26	930.59	265.26	215.42	49.84	5.322		
6,800.00	6,641.56	6,803.07	6,685.64	25.82	25.32	-148.33	-561.86	948.86	269.61	218.99	50.62	5.327		
6,900.00	6,738.59	6,902.98	6,783.29	26.22	25.70	-148.18	-572.47	967.12	273.96	222.57	51.39	5.331		
7,000.00	6,835.62	7,002.88	6,880.93	26.61	26.09	-148.04	-583.07	985.39	278.31	226.14	52.17	5.335		
7,100.00	6,932.65	7,102.78	6,978.58	27.01	26.48	-147.89	-593.67	1,003.65	282.67	229.72	52.95	5.339		
7,200.00	7,029.68	7,202.68	7,076.22	27.41	26.87	-147.76	-604.27	1,021.91	287.03	233.30	53.72	5.343		
7,300.00	7,126.71	7,302.59	7,173.87	27.81	27.25	-147.63	-614.88	1,040.18	291.38	236.89	54.50	5.347		
7,309.09	7,135.53	7,311.67	7,182.74	27.84	27.29	-147.61	-615.84	1,041.84	291.78	237.21	54.57	5.347		
7,350.00	7,174.84	7,350.35	7,220.57	28.01	27.44	-147.56	-619.88	1,048.80	294.90	240.01	54.88	5.373		
7,400.00	7,221.63	7,395.97	7,265.32	28.22	27.61	-147.72	-624.34	1,056.48	302.58	247.32	55.26	5.475		
7,450.00	7,266.71	7,440.41	7,309.05	28.44	27.78	-148.08	-628.33	1,063.36	314.54	258.91	55.63	5.654		
7,500.00	7,309.74	7,483.17	7,351.23	28.67	27.94	-148.56	-631.85	1,069.42	330.78	274.79	55.99	5.908		
7,550.00	7,350.39	7,523.76	7,391.36	28.91	28.10	-149.02	-634.90	1,074.68	351.26	294.93	56.33	6.236		
7,600.00	7,388.34	7,561.76	7,429.01	29.15	28.24	-149.37	-637.50	1,079.15	375.88	319.23	56.65	6.635		
7,650.00	7,423.32	7,600.00	7,466.96	29.40	28.38	-149.68	-639.86	1,083.21	404.50	347.52	56.98	7.099		
7,700.00	7,455.05	7,628.60	7,495.38	29.65	28.48	-149.27	-641.46	1,085.96	436.84	379.64	57.21	7.636		
7,750.00	7,483.30	7,656.91	7,523.54	29.90	28.58	-148.57	-642.90	1,088.45	472.64	415.20	57.44	8.228		
7,800.00	7,507.84	7,681.57	7,548.09	30.15	28.67	-147.23	-644.04	1,090.41	511.54	453.89	57.64	8.874		
7,850.00	7,528.50	7,700.00	7,566.46	30.41	28.74	-144.72	-644.82	1,091.76	553.14	495.36	57.78	9.574		
7,900.00	7,545.11	7,719.52	7,585.92	30.66	28.81	-141.38	-645.59	1,093.08	597.01	539.07	57.94	10.303		
7,919.09	7,550.36	7,725.03	7,591.42	30.75	28.83	-139.52	-645.79	1,093.43	614.28	556.29	57.99	10.593		
8,000.00	7,568.52	7,744.48	7,610.82	31.16	28.90	-135.69	-646.47	1,094.60	689.22	631.08	58.14	11.855		
8,100.00	7,583.22	7,761.29	7,627.60	31.66	28.95	-126.90	-647.00	1,095.52	784.55	726.28	58.27	13.464		
8,200.00	7,589.24	7,770.55	7,636.84	32.17	28.99	-110.63	-647.28	1,095.99	881.87	823.52	58.35	15.114		
8,219.09	7,589.40	7,771.50	7,637.79	32.26	28.99	-106.37	-647.30	1,096.04	900.60	842.24	58.36	15.432		
8,300.00	7,589.40	7,774.93	7,641.21	32.67	29.00	-107.46	-647.40	1,096.20	980.13	921.74	58.40	16.784		
8,400.00	7,589.40	7,778.96	7,645.24	33.21	29.02	-108.72	-647.51	1,096.39	1,078.70	1,020.26	58.44	18.458		
8,444.09	7,589.40	7,780.68	7,646.95	33.45	29.02	-109.25	-647.56	1,096.47	1,122.24	1,063.78	58.46	19.197		
8,500.00	7,589.40	7,782.79	7,649.06	33.76	29.03	-114.41	-647.61	1,096.57	1,177.60	1,119.12	58.48	20.135		
8,600.00	7,589.40	7,800.00	7,666.25	34.34	29.09	-138.63	-648.04	1,097.31	1,277.23	1,218.56	58.67	21.768		
8,700.00	7,589.40	10,123.42	8,887.48	34.92	38.36	174.39	-1,711.09	1,959.58	1,304.38	1,265.34	39.04	33.411		
8,800.00	7,589.40	10,219.14	8,887.48	35.52	38.86	174.03	-1,786.27	2,018.83	1,305.19	1,265.01	40.18	32.481		
8,900.00	7,589.40	10,314.33	8,887.48	36.12	39.37	173.76	-1,862.95	2,075.23	1,305.84	1,264.49	41.35	31.582		
9,000.00	7,589.40	10,409.46	8,887.48	36.73	39.88	173.57	-1,941.39	2,129.02	1,306.30	1,263.78	42.52	30.720		
9,100.00	7,589.40	10,504.53	8,887.48	37.33	40.40	173.47	-2,021.54	2,180.16	1,306.55	1,262.86	43.70	29.899		
9,200.00	7,589.40	10,600.00	8,887.48	37.92	40.92	173.46	-2,103.69	2,228.79	1,306.59	1,261.72	44.87	29.120		
9,300.00	7,589.39	10,694.66	8,887.48	38.51	41.44	173.53	-2,186.69	2,274.29	1,306.41	1,260.38	46.04	28.377		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference Offset (usft) (usft)		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft) (+E/-W (usft)		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
9,400.00	7,589.39	10,789.77	8,887.47	39.09	41.96	173.69	-2,271.55	2,317.22	1,306.02	1,258.83	47.19	27.676	
9,500.00	7,589.39	10,884.93	8,887.47	39.65	42.48	173.93	-2,357.85	2,357.33	1,305.44	1,257.11	48.33	27.013	
9,600.00	7,589.39	10,980.18	8,887.47	40.19	43.00	174.26	-2,445.50	2,394.58	1,304.68	1,255.24	49.44	26.387	
9,700.00	7,589.38	11,075.54	8,887.47	40.72	43.51	174.67	-2,534.46	2,428.94	1,303.79	1,253.25	50.54	25.797	
9,800.00	7,589.38	11,171.04	8,887.47	41.23	44.02	175.16	-2,624.64	2,460.36	1,302.80	1,251.18	51.62	25.240	
9,900.00	7,589.38	11,266.71	8,887.46	41.72	44.53	175.74	-2,715.97	2,488.81	1,301.76	1,249.09	52.67	24.715	
10,000.00	7,589.37	11,362.57	8,887.46	42.18	45.03	176.40	-2,808.40	2,514.23	1,300.72	1,247.02	53.70	24.221	
10,100.00	7,589.37	11,458.66	8,887.46	42.63	45.52	177.13	-2,901.84	2,536.61	1,299.77	1,245.06	54.71	23.757	
10,173.66	7,589.36	11,529.60	8,887.45	42.94	45.88	177.73	-2,971.28	2,551.10	1,299.15	1,243.71	55.44	23.432	
10,200.00	7,589.36	11,555.04	8,887.45	43.05	46.01	177.93	-2,996.27	2,555.88	1,298.96	1,243.26	55.70	23.319	
10,300.00	7,589.36	11,652.34	8,887.45	43.47	46.49	178.64	-3,092.20	2,572.11	1,298.46	1,241.72	56.74	22.882	
10,400.00	7,589.36	11,750.64	8,887.44	43.90	46.97	179.21	-3,189.62	2,585.19	1,298.21	1,240.36	57.86	22.439	
10,500.00	7,589.35	11,849.73	8,887.44	44.33	47.44	179.63	-3,288.22	2,594.98	1,298.12	1,239.08	59.04	21.989	
10,600.00	7,589.35	11,949.36	8,887.43	44.78	47.90	179.91	-3,387.64	2,601.39	1,298.09	1,237.81	60.28	21.533	
10,700.00	7,589.34	12,049.30	8,887.43	45.23	48.35	-179.97	-3,487.53	2,604.33	1,298.09	1,236.49	61.60	21.073	
10,800.00	7,589.34	12,149.31	8,887.42	45.69	48.79	-179.96	-3,587.54	2,604.67	1,298.09	1,235.11	62.97	20.613	
10,900.00	7,589.33	12,249.31	8,887.42	46.16	49.24	-179.96	-3,687.54	2,604.86	1,298.09	1,233.73	64.36	20.170	
11,000.00	7,589.33	12,349.31	8,887.41	46.64	49.69	-179.97	-3,787.54	2,605.05	1,298.08	1,232.34	65.75	19.743	
11,100.00	7,589.33	12,449.31	8,887.41	47.12	50.15	-179.97	-3,887.54	2,605.23	1,298.08	1,230.94	67.15	19.332	
11,200.00	7,589.32	12,549.31	8,887.40	47.61	50.62	-179.97	-3,987.54	2,605.42	1,298.08	1,229.53	68.55	18.935	
11,300.00	7,589.32	12,649.31	8,887.40	48.11	51.10	-179.97	-4,087.54	2,605.61	1,298.08	1,228.11	69.97	18.552	
11,400.00	7,589.31	12,749.31	8,887.39	48.61	51.58	-179.97	-4,187.54	2,605.80	1,298.08	1,226.69	71.39	18.183	
11,500.00	7,589.31	12,849.31	8,887.39	49.12	52.06	-179.97	-4,287.54	2,605.98	1,298.08	1,225.26	72.82	17.827	
11,600.00	7,589.31	12,949.31	8,887.38	49.64	52.56	-179.97	-4,387.54	2,606.17	1,298.08	1,223.83	74.25	17.483	
11,700.00	7,589.30	13,049.31	8,887.38	50.16	53.06	-179.97	-4,487.54	2,606.36	1,298.08	1,222.39	75.69	17.151	
11,800.00	7,589.30	13,149.31	8,887.37	50.69	53.56	-179.97	-4,587.54	2,606.55	1,298.08	1,220.95	77.13	16.830	
11,900.00	7,589.29	13,249.31	8,887.37	51.23	54.08	-179.97	-4,687.54	2,606.73	1,298.07	1,219.50	78.58	16.520	
12,000.00	7,589.29	13,349.31	8,887.36	51.77	54.59	-179.97	-4,787.54	2,606.92	1,298.07	1,218.04	80.03	16.220	
12,100.00	7,589.28	13,449.31	8,887.36	52.31	55.12	-179.97	-4,887.54	2,607.11	1,298.07	1,216.59	81.49	15.930	
12,200.00	7,589.28	13,549.31	8,887.35	52.86	55.64	-179.97	-4,987.54	2,607.30	1,298.07	1,215.12	82.95	15.650	
12,300.00	7,589.28	13,649.31	8,887.35	53.42	56.18	-179.97	-5,087.54	2,607.48	1,298.07	1,213.66	84.41	15.378	
12,400.00	7,589.27	13,749.31	8,887.34	53.98	56.72	-179.97	-5,187.54	2,607.67	1,298.07	1,212.19	85.88	15.115	
12,500.00	7,589.27	13,849.31	8,887.34	54.55	57.26	-179.97	-5,287.54	2,607.86	1,298.07	1,210.72	87.35	14.860	
12,600.00	7,589.26	13,949.31	8,887.33	55.12	57.81	-179.97	-5,387.54	2,608.05	1,298.07	1,209.24	88.83	14.614	
12,700.00	7,589.26	14,049.31	8,887.33	55.70	58.36	-179.97	-5,487.54	2,608.23	1,298.07	1,207.76	90.30	14.374	
12,800.00	7,589.26	14,149.31	8,887.32	56.28	58.92	-179.97	-5,587.54	2,608.42	1,298.06	1,206.28	91.79	14.142	
12,900.00	7,589.25	14,249.31	8,887.31	56.86	59.48	-179.97	-5,687.54	2,608.61	1,298.06	1,204.79	93.27	13.917	
13,000.00	7,589.25	14,349.31	8,887.31	57.45	60.05	-179.97	-5,787.54	2,608.80	1,298.06	1,203.31	94.76	13.699	
13,100.00	7,589.24	14,449.31	8,887.30	58.04	60.62	-179.97	-5,887.54	2,608.98	1,298.06	1,201.81	96.25	13.487	
13,200.00	7,589.24	14,549.31	8,887.30	58.64	61.19	-179.98	-5,987.54	2,609.17	1,298.06	1,200.32	97.74	13.281	
13,300.00	7,589.23	14,649.31	8,887.29	59.24	61.77	-179.98	-6,087.54	2,609.36	1,298.06	1,198.83	99.23	13.081	
13,400.00	7,589.23	14,749.31	8,887.29	59.84	62.36	-179.98	-6,187.54	2,609.55	1,298.06	1,197.33	100.73	12.886	
13,500.00	7,589.23	14,849.31	8,887.28	60.45	62.94	-179.98	-6,287.54	2,609.73	1,298.06	1,195.83	102.23	12.697	
13,600.00	7,589.22	14,949.31	8,887.28	61.06	63.53	-179.98	-6,387.54	2,609.92	1,298.06	1,194.33	103.73	12.514	
13,700.00	7,589.22	15,049.31	8,887.27	61.68	64.13	-179.98	-6,487.54	2,610.11	1,298.06	1,192.82	105.23	12.335	
13,800.00	7,589.21	15,149.31	8,887.27	62.30	64.72	-179.98	-6,587.54	2,610.30	1,298.05	1,191.32	106.74	12.161	
13,900.00	7,589.21	15,249.31	8,887.26	62.92	65.32	-179.98	-6,687.54	2,610.48	1,298.05	1,189.81	108.25	11.992	
14,000.00	7,589.21	15,349.31	8,887.26	63.54	65.93	-179.98	-6,787.54	2,610.67	1,298.05	1,188.30	109.75	11.827	
14,100.00	7,589.20	15,449.31	8,887.25	64.17	66.54	-179.98	-6,887.54	2,610.86	1,298.05	1,186.79	111.26	11.666	
14,200.00	7,589.20	15,549.31	8,887.25	64.80	67.15	-179.98	-6,987.54	2,611.05	1,298.05	1,185.27	112.78	11.510	
14,300.00	7,589.19	15,649.31	8,887.24	65.43	67.76	-179.98	-7,087.53	2,611.23	1,298.05	1,183.76	114.29	11.357	
14,400.00	7,589.19	15,749.31	8,887.24	66.07	68.38	-179.98	-7,187.53	2,611.42	1,298.05	1,182.24	115.81	11.209	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Federal Com - Riverbend 12-13 Federal Com 8H - OH - Plan 1

Survey Program: 0-MWD+IFR1+MS											Offset Site Error: 0.00 usft			
Reference				Offset		Semi Major Axis			Distance		Rule Assigned:		Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
14,500.00	7,589.18	15,849.31	8,887.23	66.71	69.00	-179.98	-7,287.53	2,611.61	1,298.05	1,180.73	117.32	11.064		
14,600.00	7,589.18	15,949.31	8,887.23	67.35	69.62	-179.98	-7,387.53	2,611.80	1,298.05	1,179.21	118.84	10.923		
14,700.00	7,589.18	16,049.31	8,887.22	67.99	70.25	-179.98	-7,487.53	2,611.98	1,298.04	1,177.69	120.36	10.785		
14,800.00	7,589.17	16,149.31	8,887.22	68.64	70.87	-179.98	-7,587.53	2,612.17	1,298.04	1,176.16	121.88	10.650		
14,900.00	7,589.17	16,249.31	8,887.21	69.29	71.50	-179.98	-7,687.53	2,612.36	1,298.04	1,174.64	123.40	10.519		
15,000.00	7,589.16	16,349.31	8,887.20	69.94	72.14	-179.98	-7,787.53	2,612.55	1,298.04	1,173.12	124.92	10.391		
15,100.00	7,589.16	16,449.31	8,887.20	70.59	72.77	-179.98	-7,887.53	2,612.73	1,298.04	1,171.59	126.45	10.265		
15,200.00	7,589.16	16,549.31	8,887.19	71.25	73.41	-179.98	-7,987.53	2,612.92	1,298.04	1,170.07	127.97	10.143		
15,300.00	7,589.15	16,649.31	8,887.19	71.91	74.05	-179.98	-8,087.53	2,613.11	1,298.04	1,168.54	129.50	10.024		
15,400.00	7,589.15	16,749.31	8,887.18	72.57	74.70	-179.98	-8,187.53	2,613.30	1,298.04	1,167.01	131.03	9.907		
15,500.00	7,589.14	16,849.31	8,887.18	73.23	75.34	-179.99	-8,287.53	2,613.48	1,298.04	1,165.48	132.55	9.793		
15,600.00	7,589.14	16,949.31	8,887.17	73.89	75.99	-179.99	-8,387.53	2,613.67	1,298.04	1,163.95	134.08	9.681		
15,700.00	7,589.13	17,049.31	8,887.17	74.56	76.64	-179.99	-8,487.53	2,613.86	1,298.03	1,162.42	135.61	9.572		
15,800.00	7,589.13	17,149.31	8,887.16	75.23	77.29	-179.99	-8,587.53	2,614.05	1,298.03	1,160.89	137.14	9.465		
15,900.00	7,589.13	17,249.31	8,887.16	75.90	77.94	-179.99	-8,687.53	2,614.23	1,298.03	1,159.36	138.68	9.360		
16,000.00	7,589.12	17,349.31	8,887.15	76.57	78.60	-179.99	-8,787.53	2,614.42	1,298.03	1,157.82	140.21	9.258		
16,100.00	7,589.12	17,449.31	8,887.15	77.24	79.26	-179.99	-8,887.53	2,614.61	1,298.03	1,156.29	141.74	9.158		
16,200.00	7,589.11	17,549.31	8,887.14	77.92	79.92	-179.99	-8,987.53	2,614.80	1,298.03	1,154.75	143.28	9.060		
16,300.00	7,589.11	17,649.31	8,887.14	78.59	80.58	-179.99	-9,087.53	2,614.98	1,298.03	1,153.22	144.81	8.964		
16,400.00	7,589.11	17,749.31	8,887.13	79.27	81.24	-179.99	-9,187.53	2,615.17	1,298.03	1,151.68	146.35	8.870		
16,500.00	7,589.10	17,849.31	8,887.13	79.95	81.91	-179.99	-9,287.53	2,615.36	1,298.03	1,150.14	147.88	8.777		
16,600.00	7,589.10	17,949.31	8,887.12	80.63	82.57	-179.99	-9,387.53	2,615.55	1,298.02	1,148.60	149.42	8.687		
16,700.00	7,589.09	18,049.31	8,887.12	81.31	83.24	-179.99	-9,487.53	2,615.73	1,298.02	1,147.06	150.96	8.599		
16,800.00	7,589.09	18,149.31	8,887.11	82.00	83.91	-179.99	-9,587.53	2,615.92	1,298.02	1,145.53	152.50	8.512		
16,900.00	7,589.08	18,249.31	8,887.11	82.68	84.58	-179.99	-9,687.53	2,616.11	1,298.02	1,143.99	154.04	8.427		
17,000.00	7,589.08	18,349.31	8,887.10	83.37	85.26	-179.99	-9,787.53	2,616.30	1,298.02	1,142.44	155.58	8.343		
17,100.00	7,589.08	18,449.31	8,887.10	84.06	85.93	-179.99	-9,887.53	2,616.48	1,298.02	1,140.90	157.12	8.262		
17,200.00	7,589.07	18,549.31	8,887.09	84.75	86.61	-179.99	-9,987.53	2,616.67	1,298.02	1,139.36	158.66	8.181		
17,300.00	7,589.07	18,649.31	8,887.08	85.44	87.29	-179.99	-10,087.53	2,616.86	1,298.02	1,137.82	160.20	8.103		
17,400.00	7,589.06	18,749.31	8,887.08	86.13	87.96	-179.99	-10,187.53	2,617.05	1,298.02	1,136.28	161.74	8.025		
17,500.00	7,589.06	18,849.31	8,887.07	86.83	88.65	-179.99	-10,287.53	2,617.23	1,298.02	1,134.73	163.28	7.949		
17,600.00	7,589.06	18,949.31	8,887.07	87.52	89.33	-179.99	-10,387.53	2,617.42	1,298.01	1,133.19	164.83	7.875		
17,700.00	7,589.05	19,049.31	8,887.06	88.22	90.01	-179.99	-10,487.53	2,617.61	1,298.01	1,131.64	166.37	7.802		
17,800.00	7,589.05	19,149.31	8,887.06	88.91	90.70	-180.00	-10,587.53	2,617.80	1,298.01	1,130.10	167.91	7.730		
17,900.00	7,589.04	19,249.31	8,887.05	89.61	91.38	-180.00	-10,687.53	2,617.98	1,298.01	1,128.55	169.46	7.660		
18,000.00	7,589.04	19,349.31	8,887.05	90.31	92.07	-180.00	-10,787.53	2,618.17	1,298.01	1,127.01	171.00	7.591		
18,100.00	7,589.03	19,449.31	8,887.04	91.01	92.76	-180.00	-10,887.53	2,618.36	1,298.01	1,125.46	172.55	7.523		
18,200.00	7,589.03	19,549.31	8,887.04	91.71	93.45	-180.00	-10,987.53	2,618.55	1,298.01	1,123.91	174.09	7.456		
18,300.00	7,589.03	19,649.31	8,887.03	92.42	94.14	-180.00	-11,087.53	2,618.73	1,298.01	1,122.37	175.64	7.390		
18,400.00	7,589.02	19,749.31	8,887.03	93.12	94.83	-180.00	-11,187.53	2,618.92	1,298.01	1,120.82	177.19	7.326		
18,500.00	7,589.02	19,849.31	8,887.02	93.82	95.52	-180.00	-11,287.53	2,619.11	1,298.00	1,119.27	178.73	7.262		
18,600.00	7,589.01	19,949.31	8,887.02	94.53	96.22	-180.00	-11,387.53	2,619.30	1,298.00	1,117.72	180.28	7.200		
18,700.00	7,589.01	20,049.31	8,887.01	95.23	96.91	-180.00	-11,487.53	2,619.48	1,298.00	1,116.17	181.83	7.139		
18,800.00	7,589.01	20,149.31	8,887.01	95.94	97.61	-180.00	-11,587.53	2,619.67	1,298.00	1,114.62	183.38	7.078		
18,900.00	7,589.00	20,249.31	8,887.00	96.65	98.30	-180.00	-11,687.53	2,619.86	1,298.00	1,113.07	184.93	7.019		
18,912.98	7,589.00	20,262.29	8,887.00	96.74	98.39	-180.00	-11,700.51	2,619.88	1,298.00	1,112.87	185.13	7.011		
18,917.19	7,589.00	20,266.44	8,887.00	96.77	98.42	180.00	-11,704.65	2,619.89	1,298.00	1,112.81	185.19	7.009		
18,917.96	7,589.00	20,266.44	8,887.00	97.01	98.42	180.00	-11,704.65	2,619.89	1,298.00	1,112.80	185.20	7.009		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD										Rule Assigned:		Offset Site Error:	0.50 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.71	-169.09	-6,149.97	-1,184.89	6,263.27				
100.00	100.00	44.97	44.97	0.28	0.71	-169.09	-6,149.99	-1,184.91	6,263.10	6,262.11	0.99	6,352.399	
200.00	200.00	139.38	139.38	0.63	0.76	-169.09	-6,150.12	-1,185.12	6,263.27	6,261.88	1.39	4,491.230	
300.00	300.00	249.92	249.91	0.99	0.97	-169.08	-6,150.00	-1,186.47	6,263.40	6,261.43	1.97	3,184.715	
400.00	400.00	363.82	363.79	1.35	1.29	-169.06	-6,149.44	-1,188.71	6,263.29	6,260.65	2.64	2,375.002	
500.00	500.00	451.47	451.42	1.71	1.55	-169.04	-6,148.94	-1,190.49	6,263.13	6,259.86	3.26	1,919.220	
600.00	600.00	575.00	574.92	2.07	1.95	-169.02	-6,148.30	-1,192.58	6,262.94	6,258.92	4.02	1,559.288	
700.00	700.00	770.11	770.01	2.43	2.59	-169.01	-6,145.42	-1,193.57	6,261.39	6,256.37	5.02	1,247.780	
800.00	800.00	875.64	875.52	2.79	2.95	-169.00	-6,143.22	-1,193.91	6,259.40	6,253.66	5.73	1,092.076	
900.00	900.00	1,021.80	1,021.62	3.14	3.45	-168.99	-6,139.47	-1,195.00	6,257.02	6,250.43	6.59	949.788	
1,000.00	1,000.00	1,100.00	1,099.78	3.50	3.72	-168.97	-6,137.15	-1,196.17	6,254.41	6,247.19	7.22	866.786	
1,100.00	1,099.98	1,158.81	1,158.56	3.85	3.92	63.10	-6,135.65	-1,197.34	6,251.52	6,243.76	7.76	805.188	
1,200.00	1,199.84	1,200.00	1,199.73	4.18	4.07	63.19	-6,134.87	-1,198.29	6,247.83	6,239.59	8.24	758.065	
1,300.00	1,299.45	1,260.77	1,260.48	4.52	4.28	63.33	-6,134.16	-1,199.80	6,243.31	6,234.52	8.79	710.175	
1,400.00	1,398.70	1,300.00	1,299.69	4.86	4.41	63.47	-6,134.02	-1,200.82	6,238.08	6,228.81	9.27	672.957	
1,500.00	1,497.47	1,381.02	1,380.69	5.21	4.69	63.70	-6,134.22	-1,203.04	6,231.88	6,221.98	9.90	629.679	
1,600.00	1,595.62	1,451.34	1,450.98	5.56	4.93	63.96	-6,134.75	-1,205.09	6,224.67	6,214.18	10.49	593.318	
1,700.00	1,693.06	1,525.67	1,525.26	5.92	5.19	64.27	-6,135.59	-1,207.46	6,216.41	6,205.31	11.10	559.798	
1,800.00	1,790.08	1,607.06	1,606.59	6.28	5.48	64.46	-6,136.72	-1,210.13	6,207.77	6,196.02	11.75	528.445	
1,900.00	1,887.11	1,691.61	1,691.08	6.65	5.77	64.65	-6,138.05	-1,213.07	6,199.43	6,187.03	12.40	499.761	
2,000.00	1,884.14	1,779.60	1,779.01	7.02	6.08	64.85	-6,139.60	-1,216.03	6,191.36	6,178.28	13.08	473.434	
2,100.00	2,081.17	1,885.51	1,884.87	7.39	6.45	65.09	-6,141.72	-1,218.59	6,183.40	6,169.59	13.81	447.598	
2,200.00	2,178.20	2,016.22	2,015.54	7.76	6.90	65.36	-6,144.34	-1,219.65	6,175.18	6,160.55	14.64	421.823	
2,300.00	2,275.23	2,136.17	2,135.48	8.14	7.31	65.60	-6,146.46	-1,219.19	6,166.56	6,151.14	15.43	399.663	
2,400.00	2,372.26	2,264.12	2,263.37	8.52	7.75	65.83	-6,148.79	-1,216.48	6,157.69	6,141.44	16.25	378.915	
2,500.00	2,469.29	2,354.32	2,353.49	8.90	8.07	65.98	-6,150.45	-1,212.98	6,148.50	6,131.55	16.95	362.843	
2,600.00	2,566.32	2,438.43	2,437.48	9.28	8.36	66.12	-6,152.53	-1,208.94	6,139.71	6,122.09	17.62	348.410	
2,700.00	2,663.35	2,547.87	2,546.81	9.67	8.75	66.30	-6,154.92	-1,204.74	6,130.94	6,112.56	18.39	333.444	
2,800.00	2,760.38	2,658.52	2,657.41	10.05	9.13	66.50	-6,156.66	-1,202.21	6,122.01	6,102.86	19.15	319.626	
2,900.00	2,857.41	2,773.78	2,772.65	10.44	9.53	66.72	-6,158.04	-1,200.29	6,112.94	6,093.00	19.94	306.623	
3,000.00	2,954.44	2,874.58	2,873.43	10.83	9.89	66.92	-6,159.00	-1,198.64	6,103.70	6,083.03	20.67	295.289	
3,100.00	3,051.47	2,971.60	2,970.43	11.22	10.22	67.11	-6,159.92	-1,197.11	6,094.55	6,073.16	21.39	284.895	
3,200.00	3,148.50	3,074.09	3,072.92	11.60	10.58	67.31	-6,160.76	-1,195.89	6,085.44	6,063.31	22.13	274.943	
3,300.00	3,245.53	3,177.73	3,176.55	11.99	10.94	67.52	-6,161.41	-1,194.98	6,076.30	6,053.42	22.88	265.581	
3,400.00	3,342.56	3,263.77	3,262.58	12.38	11.24	67.69	-6,161.97	-1,194.19	6,067.24	6,043.67	23.57	257.456	
3,500.00	3,439.59	3,342.04	3,340.85	12.77	11.51	67.85	-6,162.69	-1,193.47	6,058.52	6,034.29	24.23	250.069	
3,600.00	3,536.62	3,424.31	3,423.10	13.17	11.80	68.02	-6,163.70	-1,192.88	6,050.20	6,025.29	24.90	242.952	
3,700.00	3,633.65	3,527.69	3,526.49	13.56	12.16	68.23	-6,164.88	-1,192.58	6,041.99	6,016.34	25.65	235.547	
3,800.00	3,730.68	3,630.25	3,629.03	13.95	12.51	68.45	-6,165.88	-1,192.48	6,033.75	6,007.35	26.40	228.580	
3,900.00	3,827.71	3,725.64	3,724.43	14.34	12.85	68.65	-6,166.76	-1,192.40	6,025.56	5,998.44	27.12	222.192	
4,000.00	3,924.74	3,815.32	3,814.09	14.74	13.16	68.84	-6,167.66	-1,192.44	6,017.56	5,989.73	27.82	216.289	
4,100.00	4,021.77	3,915.27	3,914.05	15.13	13.51	69.06	-6,168.66	-1,192.58	6,009.66	5,981.10	28.56	210.419	
4,200.00	4,118.79	4,014.19	4,012.96	15.52	13.85	69.27	-6,169.57	-1,192.85	6,001.80	5,972.51	29.30	204.868	
4,300.00	4,215.82	4,108.10	4,106.86	15.92	14.18	69.48	-6,170.41	-1,193.24	5,994.05	5,964.04	30.01	199.702	
4,400.00	4,312.85	4,203.36	4,202.11	16.31	14.51	69.69	-6,171.26	-1,193.76	5,986.42	5,955.69	30.74	194.750	
4,500.00	4,409.88	4,296.75	4,295.50	16.70	14.84	69.89	-6,172.08	-1,194.45	5,978.93	5,947.47	31.46	190.066	
4,600.00	4,506.91	4,379.25	4,378.00	17.10	15.12	70.08	-6,172.92	-1,195.13	5,971.67	5,939.53	32.14	185.810	
4,700.00	4,603.94	4,463.98	4,462.72	17.49	15.42	70.27	-6,173.99	-1,195.79	5,964.72	5,931.90	32.83	181.697	
4,800.00	4,700.97	4,552.86	4,551.59	17.89	15.73	70.46	-6,175.28	-1,196.51	5,958.04	5,924.51	33.53	177.684	
4,900.00	4,798.00	4,646.02	4,644.73	18.28	16.06	70.67	-6,176.72	-1,197.27	5,951.54	5,917.29	34.25	173.766	
5,000.00	4,895.03	4,734.30	4,732.99	18.68	16.36	70.87	-6,178.17	-1,197.92	5,945.20	5,910.24	34.95	170.093	
5,100.00	4,992.06	4,813.96	4,812.64	19.07	16.64	71.04	-6,179.75	-1,198.35	5,939.19	5,903.56	35.63	166.712	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD										Rule Assigned:		Offset Site Error:	0.50 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	4,900.00	4,898.65	19.47	16.94	71.23	-6,181.73	-1,198.77	5,933.54	5,897.22	36.32	163.366	
5,300.00	5,186.12	4,990.42	4,989.05	19.87	17.26	71.43	-6,183.96	-1,199.20	5,928.13	5,891.10	37.03	160.086	
5,400.00	5,283.15	5,080.68	5,079.27	20.26	17.57	71.62	-6,186.26	-1,199.60	5,922.87	5,885.13	37.74	156.936	
5,500.00	5,380.18	5,220.43	5,218.98	20.66	18.06	71.93	-6,189.54	-1,200.06	5,917.49	5,878.87	38.62	153.219	
5,600.00	5,477.21	5,304.11	5,302.65	21.06	18.36	72.11	-6,191.33	-1,200.27	5,911.96	5,872.65	39.31	150.397	
5,700.00	5,574.24	5,400.00	5,398.51	21.45	18.69	72.32	-6,193.38	-1,200.53	5,906.52	5,866.48	40.04	147.518	
5,800.00	5,671.27	5,489.84	5,488.33	21.85	19.00	72.52	-6,195.33	-1,200.89	5,901.25	5,860.50	40.75	144.820	
5,900.00	5,768.30	5,584.58	5,583.05	22.24	19.34	72.73	-6,197.49	-1,201.34	5,896.18	5,854.71	41.48	142.161	
6,000.00	5,865.33	5,678.97	5,677.41	22.64	19.67	72.94	-6,199.71	-1,201.68	5,891.23	5,849.03	42.20	139.600	
6,100.00	5,962.36	5,779.94	5,778.35	23.04	20.02	73.16	-6,202.07	-1,202.11	5,886.38	5,843.44	42.95	137.055	
6,200.00	6,059.39	5,923.92	5,922.30	23.44	20.52	73.48	-6,204.89	-1,202.26	5,881.14	5,837.30	43.84	134.137	
6,300.00	6,156.42	6,016.38	6,014.75	23.83	20.85	73.68	-6,206.50	-1,202.11	5,875.71	5,831.15	44.56	131.849	
6,400.00	6,253.45	6,123.88	6,122.23	24.23	21.22	73.92	-6,208.26	-1,201.95	5,870.28	5,824.95	45.33	129.488	
6,500.00	6,350.47	6,221.17	6,219.51	24.63	21.56	74.13	-6,209.79	-1,201.79	5,864.87	5,818.80	46.07	127.302	
6,600.00	6,447.50	6,318.68	6,317.01	25.02	21.90	74.35	-6,211.32	-1,201.62	5,859.54	5,812.73	46.81	125.183	
6,700.00	6,544.53	6,424.16	6,422.48	25.42	22.27	74.58	-6,212.98	-1,201.44	5,854.31	5,806.74	47.57	123.063	
6,800.00	6,641.56	6,554.28	6,552.59	25.82	22.73	74.88	-6,213.80	-1,202.37	5,848.61	5,800.19	48.42	120.794	
6,900.00	6,738.59	6,641.46	6,639.75	26.22	23.03	75.10	-6,213.75	-1,204.12	5,842.91	5,793.79	49.12	118.950	
7,000.00	6,835.62	6,737.34	6,735.53	26.61	23.37	75.36	-6,212.99	-1,208.35	5,837.58	5,787.72	49.85	117.094	
7,100.00	6,932.65	6,886.19	6,884.18	27.01	23.89	75.78	-6,210.55	-1,215.58	5,831.78	5,781.01	50.76	114.881	
7,200.00	7,029.68	7,031.32	7,029.21	27.41	24.40	76.16	-6,207.86	-1,220.08	5,825.25	5,773.59	51.66	112.770	
7,300.00	7,126.71	7,166.78	7,164.62	27.81	24.87	76.51	-6,205.10	-1,222.72	5,818.29	5,765.77	52.51	110.796	
7,309.09	7,135.53	7,182.38	7,180.22	27.84	24.92	76.55	-6,204.77	-1,222.86	5,817.62	5,765.01	52.60	110.597	
7,350.00	7,174.84	7,233.58	7,231.41	28.01	25.10	77.02	-6,203.69	-1,223.09	5,814.19	5,761.25	52.94	109.823	
7,400.00	7,221.63	7,287.18	7,284.99	28.22	25.28	77.71	-6,202.60	-1,223.08	5,809.10	5,755.76	53.34	108.912	
7,450.00	7,266.71	7,334.38	7,332.18	28.44	25.45	78.50	-6,201.65	-1,222.93	5,803.11	5,749.39	53.72	108.022	
7,500.00	7,309.74	7,377.93	7,375.73	28.67	25.60	79.39	-6,200.75	-1,222.81	5,796.34	5,742.24	54.10	107.137	
7,550.00	7,350.39	7,420.89	7,418.67	28.91	25.75	80.38	-6,199.85	-1,222.72	5,788.89	5,734.41	54.49	106.245	
7,600.00	7,388.34	7,463.07	7,460.85	29.15	25.89	81.46	-6,198.96	-1,222.56	5,780.86	5,725.99	54.87	105.349	
7,650.00	7,423.32	7,501.98	7,499.75	29.40	26.03	82.59	-6,198.14	-1,222.35	5,772.35	5,717.10	55.25	104.470	
7,700.00	7,455.05	7,500.00	7,497.77	29.65	26.02	83.46	-6,198.18	-1,222.36	5,763.60	5,708.09	55.51	103.832	
7,750.00	7,483.30	7,534.99	7,532.75	29.90	26.14	84.65	-6,197.54	-1,222.13	5,754.60	5,698.72	55.88	102.978	
7,800.00	7,507.84	7,548.98	7,546.74	30.15	26.19	85.68	-6,197.34	-1,222.03	5,745.60	5,689.41	56.19	102.256	
7,850.00	7,528.50	7,560.82	7,558.57	30.41	26.23	86.70	-6,197.19	-1,221.95	5,736.65	5,680.17	56.49	101.556	
7,900.00	7,545.11	7,570.39	7,568.14	30.66	26.26	87.68	-6,197.09	-1,221.87	5,727.84	5,671.07	56.78	100.882	
7,919.09	7,550.36	7,573.42	7,571.18	30.75	26.28	88.05	-6,197.06	-1,221.85	5,724.53	5,667.65	56.88	100.634	
8,000.00	7,568.52	7,600.00	7,597.76	31.16	26.37	89.00	-6,196.86	-1,221.63	5,711.08	5,653.70	57.39	99.519	
8,100.00	7,583.22	7,600.00	7,597.76	31.66	26.37	89.77	-6,196.86	-1,221.63	5,695.74	5,637.83	57.91	98.363	
8,200.00	7,589.24	7,600.00	7,597.76	32.17	26.37	90.46	-6,196.86	-1,221.63	5,682.08	5,623.65	58.42	97.259	
8,219.09	7,589.40	7,600.00	7,597.76	32.26	26.37	90.58	-6,196.86	-1,221.63	5,679.67	5,621.15	58.52	97.056	
8,300.00	7,589.40	7,600.00	7,597.76	32.67	26.37	90.58	-6,196.86	-1,221.63	5,670.18	5,611.23	58.94	96.195	
8,400.00	7,589.40	7,600.00	7,597.76	33.21	26.37	90.58	-6,196.86	-1,221.63	5,660.02	5,600.53	59.49	95.137	
8,444.09	7,589.40	7,600.00	7,597.76	33.45	26.37	90.58	-6,196.86	-1,221.63	5,656.10	5,596.36	59.74	94.675	
8,500.00	7,589.40	7,600.00	7,597.76	33.76	26.37	90.58	-6,196.86	-1,221.63	5,650.80	5,590.74	60.06	94.080	
8,600.00	7,589.40	7,600.00	7,597.76	34.34	26.37	90.59	-6,196.86	-1,221.63	5,638.63	5,577.98	60.65	92.967	
8,700.00	7,589.40	7,600.00	7,597.76	34.92	26.37	90.59	-6,196.86	-1,221.63	5,623.02	5,561.77	61.25	91.802	
8,800.00	7,589.40	7,600.00	7,597.76	35.52	26.37	90.60	-6,196.86	-1,221.63	5,603.97	5,542.12	61.86	90.594	
8,900.00	7,589.40	7,600.00	7,597.76	36.12	26.37	90.61	-6,196.86	-1,221.63	5,581.52	5,519.05	62.47	89.349	
9,000.00	7,589.40	7,600.00	7,597.76	36.73	26.37	90.62	-6,196.86	-1,221.63	5,555.66	5,492.58	63.08	88.076	
9,100.00	7,589.40	7,600.00	7,597.76	37.33	26.37	90.63	-6,196.86	-1,221.63	5,526.44	5,462.76	63.68	86.778	
9,200.00	7,589.40	7,600.00	7,597.76	37.92	26.37	90.64	-6,196.86	-1,221.63	5,493.88	5,429.59	64.28	85.462	
9,300.00	7,589.39	7,600.00	7,597.76	38.51	26.37	90.65	-6,196.86	-1,221.63	5,458.00	5,393.13	64.87	84.132	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD										Rule Assigned:		Offset Site Error:	0.50 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,400.00	7,589.39	7,600.00	7,597.76	39.09	26.37	90.66	-6,196.86	-1,221.63	5,418.85	5,353.39	65.45	82.790	
9,500.00	7,589.39	7,600.00	7,597.76	39.65	26.37	90.68	-6,196.86	-1,221.63	5,376.45	5,310.43	66.02	81.441	
9,600.00	7,589.39	7,600.00	7,597.76	40.19	26.37	90.70	-6,196.86	-1,221.63	5,330.85	5,264.29	66.56	80.085	
9,700.00	7,589.38	7,600.00	7,597.76	40.72	26.37	90.72	-6,196.86	-1,221.63	5,282.10	5,215.00	67.09	78.726	
9,800.00	7,589.38	7,600.00	7,597.76	41.23	26.37	90.74	-6,196.86	-1,221.63	5,230.23	5,162.62	67.60	77.365	
9,900.00	7,589.38	7,600.00	7,597.76	41.72	26.37	90.77	-6,196.86	-1,221.63	5,175.30	5,107.21	68.09	76.001	
10,000.00	7,589.37	7,600.00	7,597.76	42.18	26.37	90.80	-6,196.86	-1,221.63	5,117.37	5,048.81	68.56	74.637	
10,100.00	7,589.37	7,600.00	7,597.76	42.63	26.37	90.83	-6,196.86	-1,221.63	5,056.50	4,987.49	69.01	73.272	
10,173.66	7,589.36	7,600.00	7,597.76	42.94	26.37	90.86	-6,196.86	-1,221.63	5,009.81	4,940.48	69.32	72.267	
10,200.00	7,589.36	7,600.00	7,597.76	43.05	26.37	90.86	-6,196.86	-1,221.63	4,992.87	4,923.44	69.43	71.908	
10,300.00	7,589.36	7,600.00	7,597.76	43.47	26.37	90.86	-6,196.86	-1,221.63	4,929.34	4,859.49	69.86	70.564	
10,400.00	7,589.36	7,600.00	7,597.76	43.90	26.37	90.86	-6,196.86	-1,221.63	4,867.04	4,796.75	70.29	69.245	
10,500.00	7,589.35	7,600.00	7,597.76	44.33	26.37	90.86	-6,196.86	-1,221.63	4,806.01	4,735.28	70.73	67.952	
10,600.00	7,589.35	7,600.00	7,597.76	44.78	26.37	90.86	-6,196.86	-1,221.63	4,746.30	4,675.12	71.17	66.686	
10,700.00	7,589.34	7,600.00	7,597.76	45.23	26.37	90.86	-6,196.86	-1,221.63	4,687.96	4,616.33	71.63	65.449	
10,800.00	7,589.34	7,600.00	7,597.76	45.69	26.37	90.86	-6,196.86	-1,221.63	4,631.05	4,558.96	72.09	64.240	
10,900.00	7,589.33	7,600.00	7,597.76	46.16	26.37	90.86	-6,196.86	-1,221.63	4,575.61	4,503.06	72.56	63.062	
11,000.00	7,589.33	7,600.00	7,597.76	46.64	26.37	90.86	-6,196.86	-1,221.63	4,521.71	4,448.68	73.03	61.915	
11,100.00	7,589.33	7,600.00	7,597.76	47.12	26.37	90.86	-6,196.86	-1,221.63	4,469.40	4,395.89	73.51	60.800	
11,200.00	7,589.32	7,589.83	7,587.59	47.61	26.33	90.71	-6,196.92	-1,221.72	4,418.71	4,344.76	73.95	59.754	
11,300.00	7,589.32	7,589.26	7,587.02	48.11	26.33	90.70	-6,196.92	-1,221.72	4,369.74	4,295.31	74.43	58.709	
11,400.00	7,589.31	7,588.67	7,586.43	48.61	26.33	90.69	-6,196.93	-1,221.73	4,322.53	4,247.61	74.91	57.700	
11,500.00	7,589.31	7,588.07	7,585.83	49.12	26.33	90.68	-6,196.93	-1,221.73	4,277.13	4,201.74	75.40	56.727	
11,600.00	7,589.31	7,587.45	7,585.21	49.64	26.32	90.67	-6,196.94	-1,221.74	4,233.62	4,157.73	75.88	55.791	
11,700.00	7,589.30	7,586.82	7,584.58	50.16	26.32	90.66	-6,196.94	-1,221.74	4,192.03	4,115.66	76.37	54.894	
11,800.00	7,589.30	7,586.17	7,583.93	50.69	26.32	90.65	-6,196.95	-1,221.75	4,152.44	4,075.59	76.84	54.037	
11,900.00	7,589.29	7,585.50	7,583.26	51.23	26.32	90.64	-6,196.95	-1,221.75	4,114.89	4,037.58	77.32	53.220	
12,000.00	7,589.29	7,584.81	7,582.57	51.77	26.31	90.63	-6,196.96	-1,221.76	4,079.46	4,001.67	77.79	52.444	
12,100.00	7,589.28	7,584.11	7,581.86	52.31	26.31	90.62	-6,196.96	-1,221.76	4,046.18	3,967.93	78.25	51.711	
12,200.00	7,589.28	7,583.38	7,581.14	52.86	26.31	90.61	-6,196.97	-1,221.77	4,015.12	3,936.42	78.70	51.020	
12,300.00	7,589.28	7,582.63	7,580.39	53.42	26.31	90.60	-6,196.97	-1,221.78	3,986.33	3,907.19	79.14	50.373	
12,400.00	7,589.27	7,581.86	7,579.62	53.98	26.30	90.59	-6,196.98	-1,221.78	3,959.85	3,880.29	79.56	49.770	
12,500.00	7,589.27	7,581.07	7,578.82	54.55	26.30	90.58	-6,196.99	-1,221.79	3,935.74	3,855.76	79.98	49.212	
12,600.00	7,589.26	7,580.25	7,578.01	55.12	26.30	90.57	-6,196.99	-1,221.80	3,914.03	3,833.66	80.37	48.699	
12,700.00	7,589.26	7,579.41	7,577.17	55.70	26.30	90.55	-6,197.00	-1,221.80	3,894.77	3,814.02	80.75	48.232	
12,800.00	7,589.26	7,578.54	7,576.30	56.28	26.29	90.54	-6,197.01	-1,221.81	3,878.00	3,796.89	81.11	47.812	
12,900.00	7,589.25	7,577.65	7,575.40	56.86	26.29	90.53	-6,197.02	-1,221.82	3,863.74	3,782.29	81.45	47.437	
13,000.00	7,589.25	7,576.72	7,574.48	57.45	26.29	90.51	-6,197.02	-1,221.82	3,852.02	3,770.25	81.77	47.110	
13,100.00	7,589.24	7,575.77	7,573.52	58.04	26.28	90.50	-6,197.03	-1,221.83	3,842.87	3,760.81	82.06	46.830	
13,200.00	7,589.24	7,574.78	7,572.54	58.64	26.28	90.48	-6,197.04	-1,221.84	3,836.31	3,753.98	82.33	46.596	
13,300.00	7,589.23	7,573.76	7,571.52	59.24	26.28	90.47	-6,197.05	-1,221.85	3,832.34	3,749.77	82.58	46.409	
13,400.00	7,589.23	7,572.70	7,570.46	59.84	26.27	90.45	-6,197.06	-1,221.86	3,830.99	3,748.19	82.80	46.270	
13,402.03	7,589.23	7,572.68	7,570.44	59.86	26.27	90.45	-6,197.06	-1,221.86	3,830.99	3,748.18	82.80	46.268	CC, ES
13,500.00	7,589.23	7,571.61	7,569.37	60.45	26.27	90.44	-6,197.07	-1,221.86	3,832.24	3,749.25	82.99	46.177	
13,600.00	7,589.22	7,570.48	7,568.24	61.06	26.27	90.42	-6,197.08	-1,221.87	3,836.10	3,752.94	83.16	46.131	
13,700.00	7,589.22	7,569.31	7,567.07	61.68	26.26	90.40	-6,197.10	-1,221.88	3,842.55	3,759.26	83.30	46.131	
13,800.00	7,589.21	7,568.09	7,565.85	62.30	26.26	90.38	-6,197.11	-1,221.89	3,851.60	3,768.19	83.41	46.176	
13,900.00	7,589.21	7,566.83	7,564.59	62.92	26.25	90.36	-6,197.12	-1,221.90	3,863.21	3,779.71	83.50	46.268	
14,000.00	7,589.21	7,565.52	7,563.28	63.54	26.25	90.34	-6,197.14	-1,221.91	3,877.37	3,793.81	83.56	46.404	
14,100.00	7,589.20	7,564.16	7,561.92	64.17	26.24	90.32	-6,197.15	-1,221.92	3,894.04	3,810.45	83.59	46.584	
14,200.00	7,589.20	7,562.75	7,560.50	64.80	26.24	90.30	-6,197.17	-1,221.93	3,913.20	3,829.60	83.60	46.808	
14,300.00	7,589.19	7,561.27	7,559.03	65.43	26.23	90.28	-6,197.18	-1,221.94	3,934.81	3,851.22	83.59	47.075	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Malaga 13 DM Fed Com 1H - OH - Svy

Survey Program: 100-GYRO-NS, 7745-OWSG (Rev2) MWD							Rule Assigned:		Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
14,400.00	7,589.19	7,559.74	7,557.50	66.07	26.23	90.26	-6,197.20	-1,221.96	3,958.82	3,875.27	83.55	47.384
14,500.00	7,589.18	7,558.14	7,555.90	66.71	26.22	90.23	-6,197.22	-1,221.97	3,985.20	3,901.72	83.49	47.735
14,600.00	7,589.18	7,556.47	7,554.23	67.35	26.22	90.21	-6,197.24	-1,221.98	4,013.90	3,930.50	83.40	48.126
14,700.00	7,589.18	7,554.73	7,552.49	67.99	26.21	90.18	-6,197.26	-1,221.99	4,044.87	3,961.57	83.30	48.557
14,800.00	7,589.17	7,552.91	7,550.66	68.64	26.20	90.16	-6,197.29	-1,222.01	4,078.05	3,994.87	83.18	49.027
14,900.00	7,589.17	7,551.00	7,548.76	69.29	26.20	90.13	-6,197.31	-1,222.02	4,113.40	4,030.36	83.04	49.535
15,000.00	7,589.16	7,549.00	7,546.76	69.94	26.19	90.10	-6,197.34	-1,222.03	4,150.85	4,067.97	82.88	50.080
15,100.00	7,589.16	7,546.91	7,544.67	70.59	26.18	90.07	-6,197.37	-1,222.05	4,190.36	4,107.65	82.71	50.661
15,200.00	7,589.16	7,544.71	7,542.47	71.25	26.18	90.03	-6,197.40	-1,222.07	4,231.86	4,149.33	82.53	51.278
15,300.00	7,589.15	7,542.40	7,540.16	71.91	26.17	90.00	-6,197.43	-1,222.08	4,275.30	4,192.97	82.33	51.928
15,400.00	7,589.15	7,539.97	7,537.73	72.57	26.16	89.96	-6,197.47	-1,222.10	4,320.61	4,238.49	82.12	52.612
15,500.00	7,589.14	9,616.26	8,292.93	73.23	37.72	100.09	-7,749.71	-1,619.65	4,332.71	4,225.81	106.90	40.529
15,600.00	7,589.14	9,669.54	8,294.69	73.89	38.33	100.09	-7,802.52	-1,626.44	4,345.95	4,237.97	107.97	40.250
15,700.00	7,589.13	9,842.14	8,299.35	74.56	40.37	100.10	-7,973.70	-1,648.00	4,359.03	4,248.00	111.02	39.263
15,800.00	7,589.13	9,965.34	8,301.18	75.23	41.88	100.09	-8,096.09	-1,662.03	4,370.68	4,257.36	113.31	38.572
15,900.00	7,589.13	10,112.05	8,301.09	75.90	43.72	100.06	-8,241.94	-1,677.81	4,381.40	4,265.36	116.04	37.759
16,000.00	7,589.12	10,176.60	8,300.49	76.57	44.55	100.03	-8,306.12	-1,684.66	4,391.98	4,274.58	117.40	37.411
16,100.00	7,589.12	10,215.00	8,300.19	77.24	45.05	100.02	-8,344.25	-1,689.24	4,403.80	4,285.50	118.30	37.225
16,200.00	7,589.11	10,255.10	8,300.06	77.92	45.57	100.00	-8,384.00	-1,694.53	4,416.97	4,297.74	119.23	37.046
16,300.00	7,589.11	10,310.46	8,300.29	78.59	46.31	99.99	-8,438.77	-1,702.56	4,431.43	4,311.01	120.42	36.798
16,400.00	7,589.11	10,824.90	8,302.43	79.27	53.31	99.90	-8,949.86	-1,755.44	4,442.71	4,312.90	129.80	34.226
16,500.00	7,589.10	10,852.00	8,302.00	79.95	53.69	99.89	-8,976.90	-1,757.14	4,449.00	4,318.36	130.64	34.057
16,600.00	7,589.10	10,889.65	8,301.83	80.63	54.22	99.88	-9,014.44	-1,760.01	4,456.78	4,325.14	131.63	33.858
16,700.00	7,589.09	10,937.36	8,302.33	81.31	54.89	99.87	-9,061.95	-1,764.42	4,466.08	4,333.29	132.79	33.632
16,800.00	7,589.09	11,085.39	8,302.59	82.00	57.00	99.85	-9,209.39	-1,777.57	4,474.96	4,339.18	135.78	32.957
16,900.00	7,589.08	11,135.70	8,302.12	82.68	57.72	99.83	-9,259.48	-1,782.16	4,484.07	4,347.07	137.00	32.730
17,000.00	7,589.08	11,171.00	8,301.88	83.37	58.22	99.82	-9,294.59	-1,785.83	4,494.48	4,356.55	137.93	32.586
17,100.00	7,589.08	11,234.00	8,301.88	84.06	59.14	99.80	-9,357.17	-1,793.13	4,506.07	4,366.70	139.37	32.332
17,200.00	7,589.07	11,350.81	8,301.68	84.75	60.84	99.77	-9,473.15	-1,807.04	4,517.99	4,376.15	141.84	31.853
17,300.00	7,589.07	11,405.10	8,301.21	85.44	61.64	99.75	-9,527.04	-1,813.50	4,529.91	4,386.79	143.12	31.652
17,400.00	7,589.06	11,489.00	8,301.00	86.13	62.87	99.72	-9,610.26	-1,824.20	4,542.64	4,397.67	144.97	31.335
17,500.00	7,589.06	11,552.00	8,300.78	86.83	63.81	99.70	-9,672.67	-1,832.75	4,556.07	4,409.66	146.41	31.118
17,600.00	7,589.06	11,575.27	8,300.72	87.52	64.15	99.70	-9,695.67	-1,836.29	4,570.72	4,423.68	147.05	31.083
17,700.00	7,589.05	12,106.52	8,306.66	88.22	72.09	99.65	-10,223.51	-1,890.31	4,580.13	4,422.60	157.53	29.075
17,800.00	7,589.05	12,173.09	8,304.59	88.91	73.10	99.62	-10,289.89	-1,894.83	4,586.48	4,427.35	159.13	28.822
17,900.00	7,589.04	12,226.99	8,302.49	89.61	73.91	99.58	-10,343.59	-1,898.96	4,593.63	4,433.13	160.50	28.621
18,000.00	7,589.04	12,273.02	8,300.44	90.31	74.61	99.55	-10,389.39	-1,903.05	4,601.87	4,440.17	161.70	28.459
18,100.00	7,589.03	12,314.00	8,299.00	91.01	75.23	99.52	-10,430.15	-1,907.12	4,611.33	4,448.55	162.79	28.327
18,200.00	7,589.03	12,354.90	8,298.50	91.71	75.85	99.51	-10,470.80	-1,911.56	4,622.06	4,458.20	163.86	28.208
18,300.00	7,589.03	12,456.38	8,301.16	92.42	77.41	99.52	-10,571.60	-1,922.94	4,633.75	4,467.63	166.12	27.894
18,400.00	7,589.02	12,563.56	8,303.07	93.12	79.05	99.51	-10,678.13	-1,934.56	4,644.93	4,476.43	168.50	27.567
18,500.00	7,589.02	12,670.90	8,303.50	93.82	80.70	99.50	-10,784.81	-1,946.48	4,656.15	4,485.26	170.89	27.247
18,600.00	7,589.01	12,957.94	8,305.01	94.53	85.12	99.46	-11,070.74	-1,971.06	4,664.40	4,487.65	176.74	26.391
18,700.00	7,589.01	13,061.66	8,305.72	95.23	86.72	99.46	-11,174.21	-1,978.12	4,671.43	4,492.36	179.07	26.087
18,800.00	7,589.01	13,139.00	8,306.56	95.94	87.92	99.46	-11,251.37	-1,983.40	4,678.54	4,497.63	180.90	25.862
18,900.00	7,589.00	13,305.00	8,304.53	96.65	90.49	99.41	-11,417.00	-1,994.12	4,684.70	4,500.30	184.40	25.405
18,917.19	7,589.00	13,305.00	8,304.53	96.77	90.49	99.41	-11,417.00	-1,994.12	4,685.76	4,501.29	184.47	25.401 SF
18,917.96	7,589.00	13,305.00	8,304.53	97.01	90.49	99.41	-11,417.00	-1,994.12	4,685.80	4,501.35	184.46	25.403

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Survey Program: 89-MWD+HRGM							Rule Assigned:							Offset Well Error:		0.00 usft	
Reference				Offset			Semi Major Axis				Offset Wellbore Centre				Distance		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
0.00	0.00	0.00	0.00	0.00	0.50	29.48	3,825.37	2,162.74	4,394.46								
100.00	100.00	54.42	54.42	0.28	0.51	29.48	3,825.54	2,162.75	4,394.65	4,393.87	0.78	5,625.082					
200.00	200.00	143.04	143.03	0.63	0.59	29.48	3,826.35	2,162.85	4,395.48	4,394.26	1.22	3,595.503					
300.00	300.00	246.85	246.84	0.99	0.84	29.48	3,827.10	2,163.11	4,396.23	4,394.40	1.84	2,392.900					
400.00	400.00	385.00	384.99	1.35	1.27	29.48	3,827.64	2,163.73	4,396.88	4,394.26	2.62	1,679.112					
499.44	499.44	479.45	479.44	1.71	1.57	29.49	3,827.14	2,164.08	4,396.62	4,393.34	3.28	1,340.166					
500.00	500.00	479.86	479.85	1.71	1.57	29.49	3,827.14	2,164.08	4,396.62	4,393.33	3.28	1,338.800					
600.00	600.00	562.25	562.24	2.07	1.85	29.49	3,827.23	2,164.34	4,396.86	4,392.93	3.92	1,121.501					
700.00	700.00	657.68	657.66	2.43	2.18	29.49	3,827.67	2,164.51	4,397.35	4,392.74	4.61	954.304					
800.00	800.00	750.14	750.12	2.79	2.50	29.49	3,828.22	2,164.60	4,397.91	4,392.63	5.29	831.730					
900.00	900.00	846.34	846.32	3.14	2.84	29.48	3,829.04	2,164.60	4,398.66	4,392.68	5.98	735.296					
1,000.00	1,000.00	935.28	935.25	3.50	3.15	29.47	3,829.95	2,164.57	4,399.53	4,392.87	6.65	661.331					
1,100.00	1,099.98	1,040.39	1,040.36	3.85	3.52	-98.54	3,831.35	2,164.25	4,400.81	4,393.44	7.37	597.451					
1,200.00	1,199.84	1,146.00	1,145.96	4.18	3.89	-98.59	3,832.59	2,163.89	4,402.44	4,394.37	8.07	545.409					
1,300.00	1,299.45	1,288.45	1,288.40	4.52	4.39	-98.73	3,833.45	2,163.09	4,404.00	4,395.09	8.91	494.501					
1,400.00	1,398.70	1,396.22	1,396.17	4.86	4.76	-98.88	3,833.50	2,162.22	4,405.51	4,395.90	9.62	458.066					
1,500.00	1,497.47	1,487.10	1,487.04	5.21	5.07	-99.03	3,833.57	2,161.48	4,407.66	4,397.38	10.28	428.841					
1,600.00	1,595.62	1,611.88	1,611.79	5.56	5.50	-99.32	3,834.29	2,158.69	4,410.16	4,399.10	11.06	398.582					
1,700.00	1,693.06	1,701.92	1,701.73	5.92	5.82	-99.57	3,835.61	2,154.82	4,413.18	4,401.44	11.74	375.977					
1,800.00	1,790.08	1,790.93	1,790.66	6.28	6.14	-99.89	3,837.02	2,151.20	4,416.85	4,404.44	12.41	355.797					
1,900.00	1,887.11	1,881.57	1,881.24	6.65	6.46	-100.22	3,838.17	2,148.08	4,420.72	4,407.62	13.10	337.452					
2,000.00	1,984.14	1,943.00	1,942.63	7.02	6.67	-100.43	3,839.17	2,146.03	4,425.17	4,411.48	13.69	323.317					
2,100.00	2,081.17	2,016.03	2,015.60	7.39	6.93	-100.69	3,840.75	2,143.88	4,430.39	4,416.07	14.32	309.428					
2,200.00	2,178.20	2,097.65	2,097.18	7.76	7.23	-100.97	3,842.76	2,142.19	4,436.36	4,421.38	14.98	296.100					
2,300.00	2,275.23	2,177.38	2,176.86	8.14	7.51	-101.25	3,844.96	2,140.51	4,442.75	4,427.10	15.64	284.012					
2,400.00	2,372.26	2,274.67	2,273.94	8.52	7.86	-101.62	3,849.25	2,135.84	4,449.59	4,433.22	16.37	271.813					
2,500.00	2,469.29	2,371.39	2,370.44	8.90	8.21	-102.00	3,853.47	2,130.87	4,456.47	4,439.37	17.10	260.654					
2,600.00	2,566.32	2,470.92	2,469.90	9.28	8.57	-102.34	3,856.52	2,128.50	4,463.52	4,445.68	17.84	250.266					
2,700.00	2,663.35	2,548.74	2,547.63	9.67	8.85	-102.62	3,859.22	2,126.20	4,470.85	4,452.36	18.49	241.735					
2,800.00	2,760.38	2,634.04	2,632.64	10.05	9.16	-102.96	3,863.75	2,121.01	4,478.74	4,459.56	19.18	233.453					
2,900.00	2,857.41	2,736.40	2,734.56	10.44	9.53	-103.38	3,869.75	2,113.55	4,486.86	4,466.92	19.94	225.001					
3,000.00	2,954.44	2,831.32	2,829.04	10.83	9.88	-103.78	3,875.31	2,106.31	4,495.06	4,474.39	20.67	217.445					
3,100.00	3,051.47	2,878.27	2,875.73	11.22	10.05	-103.98	3,878.37	2,102.50	4,503.96	4,482.74	21.22	212.240					
3,200.00	3,148.50	2,929.00	2,926.09	11.60	10.24	-104.20	3,882.55	2,098.05	4,514.20	4,492.42	21.78	207.239					
3,300.00	3,245.53	2,982.68	2,979.26	11.99	10.44	-104.44	3,887.73	2,092.79	4,525.56	4,503.21	22.36	202.433					
3,400.00	3,342.56	3,063.57	3,059.16	12.38	10.74	-104.83	3,896.39	2,083.64	4,537.69	4,514.65	23.04	196.957					
3,500.00	3,439.59	3,175.20	3,169.38	12.77	11.17	-105.36	3,908.37	2,070.61	4,550.03	4,526.18	23.85	190.775					
3,600.00	3,536.62	3,239.41	3,232.78	13.17	11.41	-105.66	3,915.18	2,063.03	4,562.57	4,538.10	24.47	186.464					
3,700.00	3,633.65	3,287.00	3,279.64	13.56	11.60	-105.90	3,920.84	2,057.01	4,576.23	4,551.21	25.02	182.928					
3,800.00	3,730.68	3,334.70	3,326.51	13.95	11.78	-106.14	3,927.10	2,050.69	4,591.08	4,565.52	25.56	179.594					
3,900.00	3,827.71	3,386.13	3,376.91	14.34	11.99	-106.40	3,934.50	2,043.65	4,607.16	4,581.04	26.12	176.357					
4,000.00	3,924.74	3,506.25	3,494.57	14.74	12.46	-107.01	3,951.88	2,026.86	4,623.60	4,596.61	26.99	171.306					
4,100.00	4,021.77	12,539.11	8,407.34	15.13	68.15	-90.75	-365.57	1,937.66	4,626.86	4,579.39	47.47	97.467					
4,200.00	4,118.79	12,553.97	8,407.58	15.52	68.34	-90.20	-380.43	1,937.41	4,528.81	4,480.99	47.82	94.702					
4,300.00	4,215.82	12,572.00	8,407.86	15.92	68.57	-89.52	-398.45	1,937.11	4,430.79	4,382.59	48.20	91.918					
4,400.00	4,312.85	12,587.69	8,408.10	16.31	68.78	-88.91	-414.14	1,936.87	4,332.80	4,284.22	48.58	89.197					
4,500.00	4,409.88	12,607.34	8,408.38	16.70	69.03	-88.12	-433.79	1,936.58	4,234.83	4,185.84	48.98	86.452					
4,600.00	4,506.91	12,626.76	8,408.63	17.10	69.28	-87.31	-453.21	1,936.31	4,136.88	4,087.48	49.40	83.742					
4,700.00	4,603.94	12,645.95	8,408.86	17.49	69.53	-86.48	-472.39	1,936.06	4,038.95	3,989.13	49.82	81.066					
4,800.00	4,700.97	12,664.91	8,409.06	17.89	69.78	-85.63	-491.35	1,935.82	3,941.06	3,890.81	50.25	78.425					
4,900.00	4,798.00	12,683.67	8,409.25	18.28	70.02	-84.76	-510.10	1,935.59	3,843.19	3,792.50	50.69	75.817					
5,000.00	4,895.03	12,702.24	8,409.42	18.68	70.27	-83.86	-528.67	1,935.35	3,745.36	3,694.23	51.14	73.242					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Offset Site Error: 0.50 usft

Offset Well Error: 0.00 usft

Survey Program: 89-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	4,992.06	12,720.63	8,409.58	19.07	70.51	-82.94			-547.06	1,935.11	3,647.57	3,595.98	51.59	70.699	
5,200.00	5,089.09	12,738.85	8,409.72	19.47	70.74	-82.00			-565.27	1,934.86	3,549.83	3,497.77	52.06	68.188	
5,300.00	5,186.12	12,757.28	8,409.85	19.87	70.98	-81.02			-583.70	1,934.61	3,452.13	3,399.59	52.54	65.705	
5,400.00	5,283.15	12,776.22	8,409.95	20.26	71.23	-79.97			-602.64	1,934.37	3,354.48	3,301.44	53.04	63.246	
5,500.00	5,380.18	12,794.81	8,410.02	20.66	71.47	-78.90			-621.23	1,934.17	3,256.89	3,203.34	53.55	60.820	
5,600.00	5,477.21	12,813.05	8,410.05	21.06	71.71	-77.81			-639.47	1,934.01	3,159.36	3,105.28	54.07	58.426	
5,700.00	5,574.24	12,830.96	8,410.05	21.45	71.95	-76.70			-657.38	1,933.89	3,061.90	3,007.28	54.62	56.063	
5,800.00	5,671.27	12,848.53	8,410.02	21.85	72.18	-75.58			-674.95	1,933.80	2,964.52	2,909.35	55.17	53.731	
5,900.00	5,768.30	12,860.28	8,410.01	22.24	72.33	-74.81			-686.70	1,933.74	2,867.26	2,811.55	55.71	51.468	
6,000.00	5,865.33	12,873.98	8,409.99	22.64	72.51	-73.88			-700.40	1,933.67	2,770.11	2,713.83	56.28	49.216	
6,100.00	5,962.36	12,887.74	8,409.98	23.04	72.69	-72.93			-714.16	1,933.61	2,673.10	2,616.22	56.89	46.990	
6,200.00	6,059.39	12,901.55	8,409.97	23.44	72.87	-71.96			-727.97	1,933.55	2,576.24	2,518.73	57.52	44.791	
6,300.00	6,156.42	12,915.43	8,409.97	23.83	73.06	-70.95			-741.85	1,933.50	2,479.55	2,421.37	58.18	42.617	
6,400.00	6,253.45	12,929.42	8,409.96	24.23	73.24	-69.92			-755.84	1,933.45	2,383.05	2,324.16	58.88	40.470	
6,500.00	6,350.47	12,945.30	8,409.96	24.63	73.45	-68.71			-771.72	1,933.40	2,286.75	2,227.10	59.64	38.341	
6,600.00	6,447.50	12,961.02	8,409.93	25.02	73.66	-67.48			-787.44	1,933.37	2,190.67	2,130.22	60.45	36.241	
6,700.00	6,544.53	12,976.59	8,409.90	25.42	73.86	-66.23			-803.01	1,933.35	2,094.85	2,033.54	61.31	34.170	
6,800.00	6,641.56	12,992.02	8,409.85	25.82	74.06	-64.96			-818.43	1,933.35	1,999.33	1,937.10	62.23	32.130	
6,900.00	6,738.59	13,007.29	8,409.78	26.22	74.27	-63.67			-833.71	1,933.36	1,904.15	1,840.93	63.22	30.121	
7,000.00	6,835.62	13,018.00	8,409.73	26.61	74.41	-62.75			-844.42	1,933.37	1,809.37	1,745.11	64.26	28.159	
7,100.00	6,932.65	13,034.31	8,409.65	27.01	74.62	-61.31			-860.73	1,933.42	1,715.07	1,649.63	65.44	26.210	
7,200.00	7,029.68	13,047.05	8,409.59	27.41	74.79	-60.17			-873.46	1,933.48	1,621.34	1,554.63	66.70	24.307	
7,300.00	7,126.71	13,059.88	8,409.53	27.81	74.96	-59.00			-886.30	1,933.56	1,528.28	1,460.18	68.10	22.441	
7,309.09	7,135.53	13,061.05	8,409.52	27.84	74.98	-58.90			-887.47	1,933.57	1,519.86	1,451.62	68.24	22.273	
7,350.00	7,174.84	13,067.11	8,409.50	28.01	75.06	-67.63			-893.53	1,933.62	1,481.78	1,412.95	68.83	21.527	
7,400.00	7,221.63	13,076.62	8,409.46	28.22	75.18	-79.78			-903.04	1,933.71	1,434.87	1,365.36	69.50	20.644	
7,450.00	7,266.71	13,088.42	8,409.41	28.44	75.34	-92.80			-914.83	1,933.83	1,387.80	1,317.70	70.10	19.797	
7,500.00	7,309.74	13,102.43	8,409.36	28.67	75.52	-105.49			-928.84	1,934.00	1,340.88	1,270.28	70.60	18.992	
7,550.00	7,350.39	13,118.01	8,409.31	28.91	75.73	-116.84			-944.42	1,934.22	1,294.43	1,223.43	70.99	18.233	
7,600.00	7,388.34	13,135.27	8,409.27	29.15	75.96	-126.37			-961.68	1,934.51	1,248.78	1,177.53	71.25	17.526	
7,650.00	7,423.32	13,154.45	8,409.26	29.40	76.22	-134.13			-980.85	1,934.87	1,204.31	1,132.94	71.37	16.875	
7,700.00	7,455.05	13,175.42	8,409.28	29.65	76.49	-140.40			-1,001.82	1,935.33	1,161.40	1,090.08	71.32	16.284	
7,750.00	7,483.30	13,197.00	8,409.34	29.90	76.78	-145.45			-1,023.40	1,935.86	1,120.48	1,049.39	71.09	15.761	
7,800.00	7,507.84	13,222.30	8,409.44	30.15	77.12	-149.69			-1,048.69	1,936.58	1,082.00	1,011.31	70.69	15.306	
7,850.00	7,528.50	13,249.75	8,409.58	30.41	77.48	-153.27			-1,076.12	1,937.48	1,046.40	976.29	70.10	14.926	
7,900.00	7,545.11	13,280.07	8,409.74	30.66	77.89	-156.42			-1,106.43	1,938.48	1,014.10	944.77	69.33	14.626	
7,919.09	7,550.36	13,291.87	8,409.80	30.75	78.05	-157.50			-1,118.22	1,938.88	1,002.74	933.75	68.99	14.535	
8,000.00	7,568.52	13,295.00	8,409.82	31.16	78.09	-158.58			-1,121.35	1,938.98	960.20	893.01	67.18	14.292	
8,100.00	7,583.22	13,295.00	8,409.82	31.66	78.09	-159.33			-1,121.35	1,938.98	921.60	856.64	64.96	14.188	SF
8,200.00	7,589.24	13,295.00	8,409.82	32.17	78.09	-159.71			-1,121.35	1,938.98	900.58	837.51	63.07	14.278	
8,219.09	7,589.40	13,295.00	8,409.82	32.26	78.09	-159.75			-1,121.35	1,938.98	898.70	835.92	62.78	14.315	
8,291.11	7,589.40	13,295.00	8,409.82	32.63	78.09	-159.75			-1,121.35	1,938.98	895.81	833.86	61.94	14.461	CC, ES
8,300.00	7,589.40	13,295.00	8,409.82	32.67	78.09	-159.75			-1,121.35	1,938.98	895.85	833.98	61.87	14.479	
8,400.00	7,589.40	13,295.00	8,409.82	33.21	78.09	-159.75			-1,121.35	1,938.98	902.40	840.84	61.56	14.658	
8,444.09	7,589.40	13,295.00	8,409.82	33.45	78.09	-159.75			-1,121.35	1,938.98	908.78	847.06	61.72	14.725	
8,500.00	7,589.40	13,295.00	8,409.82	33.76	78.09	-160.07			-1,121.35	1,938.98	920.12	857.95	62.16	14.802	
8,600.00	7,589.40	13,295.00	8,409.82	34.34	78.09	-160.95			-1,121.35	1,938.98	949.61	886.08	63.53	14.946	
8,700.00	7,589.40	13,295.00	8,409.82	34.92	78.09	-162.20			-1,121.35	1,938.98	989.93	924.55	65.38	15.142	
8,800.00	7,589.40	13,295.00	8,409.82	35.52	78.09	-163.85			-1,121.35	1,938.98	1,039.69	972.32	67.38	15.431	
8,900.00	7,589.40	13,295.00	8,409.82	36.12	78.09	-165.91			-1,121.35	1,938.98	1,097.50	1,028.20	69.31	15.836	
9,000.00	7,589.40	13,295.00	8,409.82	36.73	78.09	-168.38			-1,121.35	1,938.98	1,162.01	1,090.99	71.02	16.363	
9,100.00	7,589.40	13,295.00	8,409.82	37.33	78.09	-171.28			-1,121.35	1,938.98	1,232.00	1,159.56	72.44	17.007	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Survey Program: 89-MWD+HRGM							Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
9,200.00	7,589.40	13,295.00	8,409.82	37.92	78.09	-174.59	-1,121.35	1,938.98	1,306.42	1,232.86	73.56	17.759	
9,300.00	7,589.39	13,295.00	8,409.82	38.51	78.09	-178.32	-1,121.35	1,938.98	1,384.37	1,309.97	74.40	18.608	
9,400.00	7,589.39	13,295.00	8,409.82	39.09	78.09	177.57	-1,121.35	1,938.98	1,465.08	1,390.11	74.97	19.542	
9,500.00	7,589.39	13,295.00	8,409.82	39.65	78.09	173.15	-1,121.35	1,938.98	1,547.93	1,472.61	75.31	20.553	
9,600.00	7,589.39	13,295.00	8,409.82	40.19	78.09	168.48	-1,121.35	1,938.98	1,632.37	1,556.90	75.46	21.631	
9,700.00	7,589.38	13,295.00	8,409.82	40.72	78.09	163.66	-1,121.35	1,938.98	1,717.96	1,642.51	75.45	22.769	
9,800.00	7,589.38	13,295.00	8,409.82	41.23	78.09	158.80	-1,121.35	1,938.98	1,804.31	1,729.02	75.30	23.962	
9,900.00	7,589.38	13,295.00	8,409.82	41.72	78.09	154.00	-1,121.35	1,938.98	1,891.11	1,816.08	75.04	25.203	
10,000.00	7,589.37	13,295.00	8,409.82	42.18	78.09	149.35	-1,121.35	1,938.98	1,978.07	1,903.39	74.68	26.487	
10,100.00	7,589.37	13,295.00	8,409.82	42.63	78.09	144.93	-1,121.35	1,938.98	2,064.95	1,990.70	74.25	27.810	
10,173.66	7,589.36	13,295.00	8,409.82	42.94	78.09	141.85	-1,121.35	1,938.98	2,128.76	2,054.86	73.90	28.807	
10,200.00	7,589.36	13,295.00	8,409.82	43.05	78.09	141.85	-1,121.35	1,938.98	2,151.58	2,077.81	73.77	29.167	
10,300.00	7,589.36	13,295.00	8,409.82	43.47	78.09	141.85	-1,121.35	1,938.98	2,238.93	2,165.63	73.30	30.543	
10,400.00	7,589.36	13,295.00	8,409.82	43.90	78.09	141.85	-1,121.35	1,938.98	2,327.29	2,254.42	72.88	31.935	
10,500.00	7,589.35	13,295.00	8,409.82	44.33	78.09	141.85	-1,121.35	1,938.98	2,416.57	2,344.08	72.48	33.340	
10,600.00	7,589.35	13,295.00	8,409.82	44.78	78.09	141.85	-1,121.35	1,938.98	2,506.65	2,434.52	72.12	34.755	
10,700.00	7,589.34	13,295.00	8,409.82	45.23	78.09	141.85	-1,121.35	1,938.98	2,597.46	2,525.66	71.79	36.180	
10,800.00	7,589.34	13,295.00	8,409.82	45.69	78.09	141.85	-1,121.35	1,938.98	2,688.92	2,617.43	71.49	37.612	
10,900.00	7,589.33	13,295.00	8,409.82	46.16	78.09	141.85	-1,121.35	1,938.98	2,780.97	2,709.75	71.21	39.052	
11,000.00	7,589.33	13,295.00	8,409.82	46.64	78.09	141.85	-1,121.35	1,938.98	2,873.55	2,802.59	70.96	40.497	
11,100.00	7,589.33	13,295.00	8,409.82	47.12	78.09	141.85	-1,121.35	1,938.98	2,966.61	2,895.88	70.72	41.947	
11,200.00	7,589.32	13,295.00	8,409.82	47.61	78.09	141.85	-1,121.35	1,938.98	3,060.11	2,989.60	70.51	43.401	
11,300.00	7,589.32	13,295.00	8,409.82	48.11	78.09	141.85	-1,121.35	1,938.98	3,154.00	3,083.69	70.31	44.857	
11,400.00	7,589.31	13,295.00	8,409.82	48.61	78.09	141.85	-1,121.35	1,938.98	3,248.27	3,178.14	70.13	46.317	
11,500.00	7,589.31	13,295.00	8,409.82	49.12	78.09	141.85	-1,121.35	1,938.98	3,342.86	3,272.90	69.97	47.779	
11,600.00	7,589.31	13,295.00	8,409.82	49.64	78.09	141.85	-1,121.35	1,938.98	3,437.76	3,367.95	69.81	49.242	
11,700.00	7,589.30	13,295.00	8,409.82	50.16	78.09	141.85	-1,121.35	1,938.98	3,532.95	3,463.27	69.67	50.706	
11,800.00	7,589.30	13,295.00	8,409.82	50.69	78.09	141.85	-1,121.35	1,938.98	3,628.39	3,558.84	69.55	52.171	
11,900.00	7,589.29	13,295.00	8,409.82	51.23	78.09	141.85	-1,121.35	1,938.98	3,724.07	3,654.64	69.43	53.637	
12,000.00	7,589.29	13,295.00	8,409.82	51.77	78.09	141.85	-1,121.35	1,938.98	3,819.97	3,750.65	69.32	55.102	
12,100.00	7,589.28	13,295.00	8,409.82	52.31	78.09	141.85	-1,121.35	1,938.98	3,916.08	3,846.85	69.23	56.568	
12,200.00	7,589.28	13,295.00	8,409.82	52.86	78.09	141.85	-1,121.35	1,938.98	4,012.38	3,943.24	69.14	58.033	
12,300.00	7,589.28	13,295.00	8,409.82	53.42	78.09	141.85	-1,121.35	1,938.98	4,108.85	4,039.80	69.06	59.498	
12,400.00	7,589.27	13,295.00	8,409.82	53.98	78.09	141.85	-1,121.35	1,938.98	4,205.49	4,136.51	68.99	60.961	
12,500.00	7,589.27	13,295.00	8,409.82	54.55	78.09	141.85	-1,121.35	1,938.98	4,302.29	4,233.37	68.92	62.424	
12,600.00	7,589.26	13,295.00	8,409.82	55.12	78.09	141.85	-1,121.35	1,938.98	4,399.22	4,330.36	68.86	63.886	
12,700.00	7,589.26	13,295.00	8,409.82	55.70	78.09	141.85	-1,121.35	1,938.98	4,496.29	4,427.49	68.81	65.346	
12,800.00	7,589.26	13,295.00	8,409.82	56.28	78.09	141.85	-1,121.35	1,938.98	4,593.49	4,524.73	68.76	66.805	
12,900.00	7,589.25	13,295.00	8,409.82	56.86	78.09	141.85	-1,121.35	1,938.98	4,690.81	4,622.09	68.72	68.262	
13,000.00	7,589.25	13,295.00	8,409.82	57.45	78.09	141.85	-1,121.35	1,938.98	4,788.23	4,719.55	68.68	69.718	
13,100.00	7,589.24	13,295.00	8,409.82	58.04	78.09	141.85	-1,121.35	1,938.98	4,885.76	4,817.11	68.65	71.172	
13,200.00	7,589.24	13,295.00	8,409.82	58.64	78.09	141.85	-1,121.35	1,938.98	4,983.39	4,914.77	68.62	72.624	
13,300.00	7,589.23	13,295.00	8,409.82	59.24	78.09	141.85	-1,121.35	1,938.98	5,081.11	5,012.51	68.60	74.073	
13,400.00	7,589.23	13,295.00	8,409.82	59.84	78.09	141.85	-1,121.35	1,938.98	5,178.91	5,110.34	68.58	75.521	
13,500.00	7,589.23	13,295.00	8,409.82	60.45	78.09	141.85	-1,121.35	1,938.98	5,276.80	5,208.24	68.56	76.967	
13,600.00	7,589.22	13,295.00	8,409.82	61.06	78.09	141.85	-1,121.35	1,938.98	5,374.77	5,306.22	68.55	78.410	
13,700.00	7,589.22	13,295.00	8,409.82	61.68	78.09	141.85	-1,121.35	1,938.98	5,472.81	5,404.27	68.54	79.851	
13,800.00	7,589.21	13,295.00	8,409.82	62.30	78.09	141.85	-1,121.35	1,938.98	5,570.92	5,502.38	68.53	81.290	
13,900.00	7,589.21	13,295.00	8,409.82	62.92	78.09	141.85	-1,121.35	1,938.98	5,669.09	5,600.56	68.53	82.726	
14,000.00	7,589.21	13,295.00	8,409.82	63.54	78.09	141.85	-1,121.35	1,938.98	5,767.33	5,698.80	68.53	84.160	
14,100.00	7,589.20	13,295.00	8,409.82	64.17	78.09	141.85	-1,121.35	1,938.98	5,865.63	5,797.10	68.53	85.591	
14,200.00	7,589.20	13,295.00	8,409.82	64.80	78.09	141.85	-1,121.35	1,938.98	5,963.98	5,895.45	68.54	87.020	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 SB Fee 5H - OH - Svy

Survey Program: 89-MWD+HRGM										Rule Assigned:				Offset Site Error:		0.50 usft			
Reference				Offset		Semi Major Axis				Offset Wellbore Centre				Distance		Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning						
14,300.00	7,589.19	13,295.00	8,409.82	65.43	78.09	141.85	-1,121.35	1,938.98	6,062.39	5,993.85	68.54	88.446							
14,400.00	7,589.19	13,295.00	8,409.82	66.07	78.09	141.85	-1,121.35	1,938.98	6,160.85	6,092.30	68.55	89.869							
14,500.00	7,589.18	13,295.00	8,409.82	66.71	78.09	141.85	-1,121.35	1,938.98	6,259.36	6,190.79	68.57	91.289							
14,600.00	7,589.18	13,295.00	8,409.82	67.35	78.09	141.85	-1,121.35	1,938.98	6,357.91	6,289.33	68.58	92.706							
14,700.00	7,589.18	13,295.00	8,409.82	67.99	78.09	141.85	-1,121.35	1,938.98	6,456.51	6,387.91	68.60	94.121							
14,800.00	7,589.17	13,295.00	8,409.82	68.64	78.09	141.85	-1,121.35	1,938.98	6,555.15	6,486.54	68.62	95.533							
14,900.00	7,589.17	13,295.00	8,409.82	69.29	78.09	141.85	-1,121.35	1,938.98	6,653.84	6,585.20	68.64	96.941							
15,000.00	7,589.16	13,295.00	8,409.82	69.94	78.09	141.85	-1,121.35	1,938.98	6,752.56	6,683.90	68.66	98.347							
15,100.00	7,589.16	13,295.00	8,409.82	70.59	78.09	141.85	-1,121.35	1,938.98	6,851.32	6,782.63	68.69	99.750							
15,200.00	7,589.16	13,295.00	8,409.82	71.25	78.09	141.85	-1,121.35	1,938.98	6,950.11	6,881.40	68.71	101.149							
15,300.00	7,589.15	13,295.00	8,409.82	71.91	78.09	141.85	-1,121.35	1,938.98	7,048.94	6,980.20	68.74	102.545							
15,400.00	7,589.15	13,295.00	8,409.82	72.57	78.09	141.85	-1,121.35	1,938.98	7,147.80	7,079.03	68.77	103.939							
15,500.00	7,589.14	13,295.00	8,409.82	73.23	78.09	141.85	-1,121.35	1,938.98	7,246.69	7,177.89	68.80	105.329							
15,600.00	7,589.14	13,295.00	8,409.82	73.89	78.09	141.85	-1,121.35	1,938.98	7,345.61	7,276.78	68.83	106.716							
15,700.00	7,589.13	13,295.00	8,409.82	74.56	78.09	141.85	-1,121.35	1,938.98	7,444.56	7,375.69	68.87	108.099							
15,800.00	7,589.13	13,295.00	8,409.82	75.23	78.09	141.85	-1,121.35	1,938.98	7,543.54	7,474.64	68.90	109.479							
15,900.00	7,589.13	13,295.00	8,409.82	75.90	78.09	141.85	-1,121.35	1,938.98	7,642.54	7,573.60	68.94	110.856							
16,000.00	7,589.12	13,295.00	8,409.82	76.57	78.09	141.85	-1,121.35	1,938.98	7,741.57	7,672.60	68.98	112.230							
16,100.00	7,589.12	13,295.00	8,409.82	77.24	78.09	141.85	-1,121.35	1,938.98	7,840.63	7,771.61	69.02	113.600							
16,200.00	7,589.11	13,295.00	8,409.82	77.92	78.09	141.85	-1,121.35	1,938.98	7,939.71	7,870.65	69.06	114.967							
16,300.00	7,589.11	13,295.00	8,409.82	78.59	78.09	141.85	-1,121.35	1,938.98	8,038.81	7,969.71	69.10	116.331							
16,400.00	7,589.11	13,295.00	8,409.82	79.27	78.09	141.85	-1,121.35	1,938.98	8,137.93	8,068.79	69.15	117.691							
16,500.00	7,589.10	13,295.00	8,409.82	79.95	78.09	141.85	-1,121.35	1,938.98	8,237.08	8,167.89	69.19	119.047							
16,600.00	7,589.10	13,295.00	8,409.82	80.63	78.09	141.85	-1,121.35	1,938.98	8,336.24	8,267.00	69.24	120.400							
16,700.00	7,589.09	13,295.00	8,409.82	81.31	78.09	141.85	-1,121.35	1,938.98	8,435.43	8,366.14	69.29	121.750							
16,800.00	7,589.09	13,295.00	8,409.82	82.00	78.09	141.85	-1,121.35	1,938.98	8,534.63	8,465.30	69.33	123.096							
16,900.00	7,589.08	13,295.00	8,409.82	82.68	78.09	141.85	-1,121.35	1,938.98	8,633.85	8,564.47	69.38	124.438							
17,000.00	7,589.08	13,295.00	8,409.82	83.37	78.09	141.85	-1,121.35	1,938.98	8,733.09	8,663.66	69.43	125.777							
17,100.00	7,589.08	13,295.00	8,409.82	84.06	78.09	141.85	-1,121.35	1,938.98	8,832.35	8,762.87	69.48	127.112							
17,200.00	7,589.07	13,295.00	8,409.82	84.75	78.09	141.85	-1,121.35	1,938.98	8,931.62	8,862.09	69.54	128.444							
17,300.00	7,589.07	13,295.00	8,409.82	85.44	78.09	141.85	-1,121.35	1,938.98	9,030.91	8,961.32	69.59	129.772							
17,400.00	7,589.06	13,295.00	8,409.82	86.13	78.09	141.85	-1,121.35	1,938.98	9,130.22	9,060.57	69.65	131.096							
17,500.00	7,589.06	13,295.00	8,409.82	86.83	78.09	141.85	-1,121.35	1,938.98	9,229.54	9,159.84	69.70	132.417							
17,600.00	7,589.06	13,295.00	8,409.82	87.52	78.09	141.85	-1,121.35	1,938.98	9,328.87	9,259.12	69.76	133.733							
17,700.00	7,589.05	13,295.00	8,409.82	88.22	78.09	141.85	-1,121.35	1,938.98	9,428.22	9,358.41	69.81	135.047							
17,800.00	7,589.05	13,295.00	8,409.82	88.91	78.09	141.85	-1,121.35	1,938.98	9,527.58	9,457.71	69.87	136.356							
17,900.00	7,589.04	13,295.00	8,409.82	89.61	78.09	141.85	-1,121.35	1,938.98	9,626.96	9,557.03	69.93	137.662							
18,000.00	7,589.04	13,295.00	8,409.82	90.31	78.09	141.85	-1,121.35	1,938.98	9,726.35	9,656.36	69.99	138.964							
18,100.00	7,589.03	13,295.00	8,409.82	91.01	78.09	141.85	-1,121.35	1,938.98	9,825.75	9,755.70	70.05	140.262							
18,200.00	7,589.03	13,295.00	8,409.82	91.71	78.09	141.85	-1,121.35	1,938.98	9,925.16	9,855.05	70.11	141.557							

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Survey Program: 145-MWD+HRGM		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.50	29.14	3,825.37	2,132.73	4,379.77				
100.00	100.00	54.94	54.93	0.28	0.51	29.14	3,825.51	2,132.81	4,379.97	4,379.18	0.78	5,593.667	
200.00	200.00	145.00	144.99	0.63	0.55	29.14	3,826.37	2,133.28	4,381.01	4,379.83	1.18	3,714.765	
300.00	300.00	262.05	262.04	0.99	0.81	29.14	3,827.03	2,133.89	4,381.78	4,379.98	1.80	2,437.142	
400.00	400.00	334.00	333.99	1.35	1.02	29.15	3,827.54	2,134.33	4,382.65	4,380.28	2.37	1,849.687	
500.00	500.00	437.98	437.95	1.71	1.35	29.15	3,828.45	2,135.25	4,383.86	4,380.79	3.06	1,430.518	
600.00	600.00	540.73	540.70	2.07	1.70	29.15	3,829.01	2,135.93	4,384.65	4,380.88	3.77	1,162.972	
700.00	700.00	621.01	620.98	2.43	1.98	29.15	3,829.93	2,136.28	4,385.85	4,381.44	4.40	995.883	
800.00	800.00	721.64	721.60	2.79	2.32	29.14	3,831.44	2,136.40	4,387.22	4,382.11	5.11	858.565	
900.00	900.00	814.35	814.29	3.14	2.65	29.14	3,832.80	2,136.57	4,388.59	4,382.80	5.79	757.786	
1,000.00	1,000.00	909.10	909.03	3.50	2.98	29.12	3,834.67	2,136.52	4,390.28	4,383.80	6.48	677.408	
1,100.00	1,099.98	1,038.11	1,038.00	3.85	3.43	-98.91	3,837.48	2,134.98	4,391.88	4,384.61	7.27	603.745	
1,200.00	1,199.84	1,163.76	1,163.53	4.18	3.86	-99.03	3,840.70	2,130.60	4,393.22	4,385.17	8.04	546.158	
1,300.00	1,299.45	1,250.83	1,250.49	4.52	4.17	-99.15	3,843.30	2,127.07	4,395.24	4,386.56	8.69	505.992	
1,400.00	1,398.70	1,401.35	1,400.85	4.86	4.69	-99.43	3,846.69	2,121.19	4,397.34	4,387.78	9.56	460.168	
1,500.00	1,497.47	1,484.43	1,483.86	5.21	4.99	-99.60	3,848.04	2,118.11	4,399.62	4,389.43	10.19	431.552	
1,600.00	1,595.62	1,629.12	1,628.41	5.56	5.50	-99.98	3,850.33	2,112.13	4,402.40	4,391.34	11.06	398.216	
1,700.00	1,693.06	1,727.49	1,726.63	5.92	5.84	-100.27	3,851.60	2,106.77	4,405.03	4,393.27	11.76	374.577	
1,800.00	1,790.08	1,800.31	1,799.33	6.28	6.10	-100.55	3,852.83	2,102.95	4,408.60	4,396.22	12.38	356.073	
1,900.00	1,887.11	1,888.01	1,886.93	6.65	6.41	-100.87	3,854.43	2,099.04	4,412.79	4,399.73	13.06	337.907	
2,000.00	1,984.14	2,049.37	2,048.20	7.02	6.98	-101.43	3,855.08	2,094.01	4,416.60	4,402.61	13.99	315.619	
2,100.00	2,081.17	2,163.09	2,161.89	7.39	7.37	-101.80	3,853.46	2,091.81	4,419.41	4,404.66	14.75	299.546	
2,200.00	2,178.20	2,273.59	2,272.32	7.76	7.76	-102.17	3,852.32	2,088.32	4,422.21	4,406.70	15.51	285.091	
2,300.00	2,275.23	2,406.46	2,405.10	8.14	8.22	-102.61	3,850.00	2,084.07	4,424.51	4,408.16	16.35	270.640	
2,400.00	2,372.26	2,479.00	2,477.61	8.52	8.47	-102.84	3,848.34	2,082.58	4,426.91	4,409.94	16.98	260.751	
2,500.00	2,469.29	2,550.09	2,548.68	8.90	8.72	-103.07	3,847.00	2,081.22	4,429.92	4,412.31	17.60	251.629	
2,600.00	2,566.32	2,636.52	2,635.06	9.28	9.02	-103.36	3,846.30	2,078.47	4,433.48	4,415.19	18.29	242.384	
2,700.00	2,663.35	2,725.13	2,723.60	9.67	9.34	-103.66	3,845.94	2,075.24	4,437.36	4,418.37	18.99	233.690	
2,800.00	2,760.38	2,809.96	2,808.35	10.05	9.64	-103.96	3,846.06	2,071.49	4,441.59	4,421.92	19.67	225.748	
2,900.00	2,857.41	2,840.00	2,838.34	10.44	9.75	-104.08	3,846.37	2,069.72	4,446.64	4,426.48	20.16	220.515	
3,000.00	2,954.44	2,943.45	2,941.39	10.83	10.13	-104.50	3,849.19	2,061.20	4,452.00	4,431.07	20.93	212.694	
3,100.00	3,051.47	3,004.95	3,002.42	11.22	10.36	-104.78	3,852.28	2,054.29	4,458.56	4,437.02	21.54	206.980	
3,200.00	3,148.50	3,109.00	3,105.11	11.60	10.74	-105.30	3,859.93	2,039.44	4,466.42	4,444.11	22.31	200.180	
3,300.00	3,245.53	3,131.49	3,127.21	11.99	10.83	-105.41	3,861.92	2,035.79	4,474.60	4,451.83	22.77	196.484	
3,400.00	3,342.56	3,220.22	3,214.30	12.38	11.17	-105.88	3,870.02	2,020.85	4,483.70	4,460.20	23.50	190.813	
3,500.00	3,439.59	3,318.15	3,310.33	12.77	11.55	-106.41	3,879.09	2,003.96	4,493.18	4,468.91	24.26	185.173	
3,600.00	3,536.62	3,427.27	3,417.25	13.17	11.98	-107.00	3,888.99	1,984.51	4,502.68	4,477.60	25.08	179.504	
3,700.00	3,633.65	3,528.81	3,516.74	13.56	12.39	-107.54	3,897.94	1,966.26	4,512.32	4,486.44	25.88	174.383	
3,800.00	3,730.68	3,641.59	3,627.34	13.95	12.84	-108.14	3,907.35	1,946.32	4,522.03	4,495.31	26.72	169.253	
3,900.00	3,827.71	3,734.00	3,718.06	14.34	13.21	-108.62	3,914.58	1,930.32	4,531.76	4,504.29	27.48	164.939	
4,000.00	3,924.74	3,823.00	3,805.37	14.74	13.57	-109.08	3,921.72	1,914.58	4,541.94	4,513.72	28.22	160.938	
4,100.00	4,021.77	3,926.31	3,906.54	15.13	14.00	-109.63	3,930.23	1,895.46	4,552.45	4,523.42	29.04	156.791	
4,200.00	4,118.79	4,030.63	4,008.54	15.52	14.44	-110.19	3,938.67	1,875.33	4,563.02	4,533.16	29.86	152.817	
4,300.00	4,215.82	4,134.54	4,110.05	15.92	14.88	-110.76	3,946.93	1,854.69	4,573.70	4,543.01	30.69	149.048	
4,400.00	4,312.85	4,238.32	4,211.38	16.31	15.32	-111.32	3,954.93	1,833.74	4,584.50	4,552.98	31.52	145.454	
4,500.00	4,409.88	4,342.01	4,312.59	16.70	15.77	-111.88	3,962.68	1,812.56	4,595.43	4,563.08	32.35	142.051	
4,600.00	4,506.91	4,445.60	4,413.66	17.10	16.22	-112.44	3,970.15	1,791.14	4,606.48	4,573.30	33.18	138.824	
4,700.00	4,603.94	4,511.40	4,475.74	17.49	16.93	-113.32	3,980.27	1,757.71	4,617.09	4,582.79	34.30	134.625	
4,800.00	4,700.97	4,596.00	4,556.17	17.89	18.10	-114.67	3,986.44	1,710.13	4,625.17	4,589.31	35.87	128.959	
4,900.00	4,798.00	4,697.68	4,657.40	18.28	18.30	-114.89	3,986.10	1,703.31	4,632.03	4,595.58	36.46	127.057	
5,000.00	4,895.03	4,795.00	4,744.44	18.68	18.45	-115.04	3,986.30	1,698.80	4,640.33	4,603.34	36.99	125.460	
5,100.00	4,992.06	4,895.00	4,844.44	19.07	18.45	-115.04	3,986.30	1,698.80	4,650.38	4,613.03	37.36	124.486	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Offset Site Error: 0.50 usft

Offset Well Error: 0.00 usft

Survey Program: 145-MWD+HRGM		Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,089.09	5,061.08	5,020.05	19.47	18.74	-115.35			3,987.90	1,690.60	4,661.02	4,622.99	38.03	122.568	
5,300.00	5,186.12	5,098.86	5,057.64	19.87	18.88	-115.49			3,989.30	1,687.00	4,673.40	4,634.86	38.54	121.266	
5,400.00	5,283.15	5,164.00	5,122.46	20.26	19.13	-115.74			3,992.65	1,681.54	4,687.32	4,648.16	39.16	119.699	
5,500.00	5,380.18	14,247.49	9,899.86	20.66	72.96	-132.35			-544.82	1,612.90	4,613.00	4,562.38	50.62	91.129	
5,600.00	5,477.21	14,308.25	9,899.93	21.06	73.73	-132.53			-605.48	1,616.25	4,514.29	4,463.05	51.24	88.100	
5,700.00	5,574.24	14,338.12	9,899.69	21.45	74.11	-132.58			-635.27	1,618.38	4,415.49	4,363.85	51.65	85.496	
5,800.00	5,671.27	14,368.75	9,899.30	21.85	74.50	-132.63			-665.82	1,620.72	4,316.63	4,264.57	52.06	82.918	
5,900.00	5,768.30	14,398.01	9,898.79	22.24	74.87	-132.66			-694.97	1,623.10	4,217.72	4,165.26	52.47	80.391	
6,000.00	5,865.33	14,389.55	9,898.90	22.64	74.77	-132.64			-686.54	1,622.45	4,118.81	4,066.21	52.60	78.307	
6,100.00	5,962.36	14,397.00	9,898.81	23.04	74.86	-132.66			-693.97	1,623.02	4,019.97	3,967.12	52.85	76.063	
6,200.00	6,059.39	14,397.00	9,898.81	23.44	74.86	-132.66			-693.97	1,623.02	3,921.18	3,868.12	53.05	73.912	
6,300.00	6,156.42	14,593.00	9,893.67	23.83	77.38	-133.37			-889.38	1,635.59	3,822.41	3,767.72	54.68	69.900	
6,400.00	6,253.45	14,593.00	9,893.67	24.23	77.38	-133.37			-889.38	1,635.59	3,723.03	3,668.15	54.88	67.836	
6,500.00	6,350.47	14,593.00	9,893.67	24.63	77.38	-133.37			-889.38	1,635.59	3,623.69	3,568.61	55.09	65.783	
6,600.00	6,447.50	14,593.00	9,893.67	25.02	77.38	-133.37			-889.38	1,635.59	3,524.39	3,469.10	55.29	63.743	
6,700.00	6,544.53	14,593.00	9,893.67	25.42	77.38	-133.37			-889.38	1,635.59	3,425.13	3,369.63	55.50	61.715	
6,800.00	6,641.56	14,593.00	9,893.67	25.82	77.38	-133.37			-889.38	1,635.59	3,325.91	3,270.20	55.71	59.699	
6,900.00	6,738.59	14,593.00	9,893.67	26.22	77.38	-133.37			-889.38	1,635.59	3,226.74	3,170.81	55.93	57.697	
7,000.00	6,835.62	14,593.00	9,893.67	26.61	77.38	-133.37			-889.38	1,635.59	3,127.62	3,071.48	56.14	55.707	
7,100.00	6,932.65	14,593.00	9,893.67	27.01	77.38	-133.37			-889.38	1,635.59	3,028.56	2,972.19	56.37	53.729	
7,200.00	7,029.68	14,593.00	9,893.67	27.41	77.38	-133.37			-889.38	1,635.59	2,929.57	2,872.97	56.59	51.766	
7,300.00	7,126.71	14,593.00	9,893.67	27.81	77.38	-133.37			-889.38	1,635.59	2,830.64	2,773.82	56.82	49.815	
7,309.09	7,135.53	14,593.00	9,893.67	27.84	77.38	-133.37			-889.38	1,635.59	2,821.65	2,764.81	56.84	49.638	
7,350.00	7,174.84	14,593.00	9,893.67	28.01	77.38	-147.80			-889.38	1,635.59	2,781.39	2,724.46	56.93	48.857	
7,400.00	7,221.63	14,593.00	9,893.67	28.22	77.38	-156.94			-889.38	1,635.59	2,732.94	2,675.93	57.01	47.937	
7,450.00	7,266.71	14,593.00	9,893.67	28.44	77.38	-162.01			-889.38	1,635.59	2,685.71	2,628.65	57.07	47.061	
7,500.00	7,309.74	14,593.00	9,893.67	28.67	77.38	-165.15			-889.38	1,635.59	2,640.15	2,583.04	57.10	46.234	
7,550.00	7,350.39	14,593.00	9,893.67	28.91	77.38	-167.25			-889.38	1,635.59	2,596.68	2,539.56	57.12	45.458	
7,600.00	7,388.34	14,593.00	9,893.67	29.15	77.38	-168.74			-889.38	1,635.59	2,555.76	2,498.63	57.13	44.735	
7,650.00	7,423.32	14,593.00	9,893.67	29.40	77.38	-169.82			-889.38	1,635.59	2,517.83	2,460.69	57.14	44.066	
7,700.00	7,455.05	14,593.00	9,893.67	29.65	77.38	-170.63			-889.38	1,635.59	2,483.32	2,426.17	57.15	43.452	
7,750.00	7,483.30	14,593.00	9,893.67	29.90	77.38	-171.24			-889.38	1,635.59	2,452.65	2,395.47	57.18	42.892	
7,800.00	7,507.84	14,593.00	9,893.67	30.15	77.38	-171.71			-889.38	1,635.59	2,426.20	2,368.96	57.24	42.387	
7,850.00	7,528.50	14,593.00	9,893.67	30.41	77.38	-172.05			-889.38	1,635.59	2,404.31	2,346.98	57.33	41.936	
7,900.00	7,545.11	14,593.00	9,893.67	30.66	77.38	-172.30			-889.38	1,635.59	2,387.27	2,329.80	57.47	41.539	
7,919.09	7,550.36	14,593.00	9,893.67	30.75	77.38	-172.37			-889.38	1,635.59	2,382.10	2,324.57	57.53	41.404	
8,000.00	7,568.52	14,593.00	9,893.67	31.16	77.38	-172.48			-889.38	1,635.59	2,365.84	2,307.95	57.89	40.865	
8,100.00	7,583.22	14,593.00	9,893.67	31.66	77.38	-172.54			-889.38	1,635.59	2,357.23	2,298.71	58.52	40.283	
8,117.01	7,584.86	14,593.00	9,893.67	31.75	77.38	-172.54			-889.38	1,635.59	2,357.04	2,298.40	58.64	40.194	CC, ES
8,200.00	7,589.24	14,593.00	9,893.67	32.17	77.38	-172.51			-889.38	1,635.59	2,361.48	2,302.16	59.32	39.811	
8,219.09	7,589.40	14,593.00	9,893.67	32.26	77.38	-172.49			-889.38	1,635.59	2,363.75	2,304.26	59.49	39.735	
8,300.00	7,589.40	14,593.00	9,893.67	32.67	77.38	-172.49			-889.38	1,635.59	2,375.71	2,315.44	60.27	39.418	
8,400.00	7,589.40	14,593.00	9,893.67	33.21	77.38	-172.49			-889.38	1,635.59	2,394.19	2,332.82	61.37	39.014	
8,444.09	7,589.40	14,593.00	9,893.67	33.45	77.38	-172.49			-889.38	1,635.59	2,403.61	2,341.72	61.89	38.835	
8,500.00	7,589.40	14,593.00	9,893.67	33.76	77.38	-172.90			-889.38	1,635.59	2,416.77	2,354.18	62.59	38.614	
8,600.00	7,589.40	14,593.00	9,893.67	34.34	77.38	-173.73			-889.38	1,635.59	2,443.80	2,379.91	63.89	38.251	
8,700.00	7,589.40	14,593.00	9,893.67	34.92	77.38	-174.72			-889.38	1,635.59	2,475.11	2,409.88	65.23	37.943	
8,800.00	7,589.40	14,593.00	9,893.67	35.52	77.38	-175.85			-889.38	1,635.59	2,510.47	2,443.88	66.58	37.704	
8,900.00	7,589.40	14,593.00	9,893.67	36.12	77.38	-177.12			-889.38	1,635.59	2,549.61	2,481.69	67.91	37.543	
9,000.00	7,589.40	14,593.00	9,893.67	36.73	77.38	-178.53			-889.38	1,635.59	2,592.25	2,523.05	69.19	37.464	SF
9,100.00	7,589.40	14,593.00	9,893.67	37.33	77.38	179.92			-889.38	1,635.59	2,638.11	2,567.70	70.41	37.469	
9,200.00	7,589.40	14,593.00	9,893.67	37.92	77.38	178.24			-889.38	1,635.59	2,686.90	2,615.36	71.54	37.557	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Survey Program: 145-MWD+HRGM		Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy		Offset Site Error: 0.50 usft	
Reference		Offset		Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)
Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)
Separation Factor	Warning				
9,300.00	7,589.39	14,593.00	9,893.67	38.51	77.38
9,400.00	7,589.39	14,593.00	9,893.67	39.09	77.38
9,500.00	7,589.39	14,593.00	9,893.67	39.65	77.38
9,600.00	7,589.39	14,593.00	9,893.67	40.19	77.38
9,700.00	7,589.38	14,593.00	9,893.67	40.72	77.38
9,800.00	7,589.38	14,593.00	9,893.67	41.23	77.38
9,900.00	7,589.38	14,593.00	9,893.67	41.72	77.38
10,000.00	7,589.37	14,593.00	9,893.67	42.18	77.38
10,100.00	7,589.37	14,593.00	9,893.67	42.63	77.38
10,173.66	7,589.36	14,593.00	9,893.67	42.94	77.38
10,200.00	7,589.36	14,593.00	9,893.67	43.05	77.38
10,300.00	7,589.36	14,593.00	9,893.67	43.47	77.38
10,400.00	7,589.36	14,593.00	9,893.67	43.90	77.38
10,500.00	7,589.35	14,593.00	9,893.67	44.33	77.38
10,600.00	7,589.35	14,593.00	9,893.67	44.78	77.38
10,700.00	7,589.34	14,593.00	9,893.67	45.23	77.38
10,800.00	7,589.34	14,593.00	9,893.67	45.69	77.38
10,900.00	7,589.33	14,593.00	9,893.67	46.16	77.38
11,000.00	7,589.33	14,593.00	9,893.67	46.64	77.38
11,100.00	7,589.33	14,593.00	9,893.67	47.12	77.38
11,200.00	7,589.32	14,593.00	9,893.67	47.61	77.38
11,300.00	7,589.32	14,593.00	9,893.67	48.11	77.38
11,400.00	7,589.31	14,593.00	9,893.67	48.61	77.38
11,500.00	7,589.31	14,593.00	9,893.67	49.12	77.38
11,600.00	7,589.31	14,593.00	9,893.67	49.64	77.38
11,700.00	7,589.30	14,593.00	9,893.67	50.16	77.38
11,800.00	7,589.30	14,593.00	9,893.67	50.69	77.38
11,900.00	7,589.29	14,593.00	9,893.67	51.23	77.38
12,000.00	7,589.29	14,593.00	9,893.67	51.77	77.38
12,100.00	7,589.28	14,593.00	9,893.67	52.31	77.38
12,200.00	7,589.28	14,593.00	9,893.67	52.86	77.38
12,300.00	7,589.28	14,593.00	9,893.67	53.42	77.38
12,400.00	7,589.27	14,593.00	9,893.67	53.98	77.38
12,500.00	7,589.27	14,593.00	9,893.67	54.55	77.38
12,600.00	7,589.26	14,593.00	9,893.67	55.12	77.38
12,700.00	7,589.26	14,593.00	9,893.67	55.70	77.38
12,800.00	7,589.26	14,593.00	9,893.67	56.28	77.38
12,900.00	7,589.25	14,593.00	9,893.67	56.86	77.38
13,000.00	7,589.25	14,593.00	9,893.67	57.45	77.38
13,100.00	7,589.24	14,593.00	9,893.67	58.04	77.38
13,200.00	7,589.24	14,593.00	9,893.67	58.64	77.38
13,300.00	7,589.23	14,593.00	9,893.67	59.24	77.38
13,400.00	7,589.23	14,593.00	9,893.67	59.84	77.38
13,500.00	7,589.23	14,593.00	9,893.67	60.45	77.38
13,600.00	7,589.22	14,593.00	9,893.67	61.06	77.38
13,700.00	7,589.22	14,593.00	9,893.67	61.68	77.38
13,800.00	7,589.21	14,593.00	9,893.67	62.30	77.38
13,900.00	7,589.21	14,593.00	9,893.67	62.92	77.38
14,000.00	7,589.21	14,593.00	9,893.67	63.54	77.38
14,100.00	7,589.20	14,593.00	9,893.67	64.17	77.38
14,200.00	7,589.20	14,593.00	9,893.67	64.80	77.38
14,300.00	7,589.19	14,593.00	9,893.67	65.43	77.38

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WA Fee 4 - OH - Svy

Survey Program: 145-MWD+HRGM							Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
14,400.00	7,589.19	14,593.00	9,893.67	66.07	77.38	157.49	-889.38	1,635.59	6,783.50	6,704.16	79.34	85.500	
14,500.00	7,589.18	14,593.00	9,893.67	66.71	77.38	157.49	-889.38	1,635.59	6,876.47	6,797.11	79.36	86.646	
14,600.00	7,589.18	14,593.00	9,893.67	67.35	77.38	157.49	-889.38	1,635.59	6,969.64	6,890.25	79.39	87.793	
14,700.00	7,589.18	14,593.00	9,893.67	67.99	77.38	157.49	-889.38	1,635.59	7,063.00	6,983.58	79.41	88.940	
14,800.00	7,589.17	14,593.00	9,893.67	68.64	77.38	157.49	-889.38	1,635.59	7,156.53	7,077.09	79.44	90.088	
14,900.00	7,589.17	14,593.00	9,893.67	69.29	77.38	157.49	-889.38	1,635.59	7,250.24	7,170.77	79.47	91.237	
15,000.00	7,589.16	14,593.00	9,893.67	69.94	77.38	157.49	-889.38	1,635.59	7,344.11	7,264.62	79.49	92.386	
15,100.00	7,589.16	14,593.00	9,893.67	70.59	77.38	157.49	-889.38	1,635.59	7,438.15	7,358.62	79.52	93.536	
15,200.00	7,589.16	14,593.00	9,893.67	71.25	77.38	157.49	-889.38	1,635.59	7,532.33	7,452.78	79.55	94.685	
15,300.00	7,589.15	14,593.00	9,893.67	71.91	77.38	157.49	-889.38	1,635.59	7,626.67	7,547.09	79.58	95.835	
15,400.00	7,589.15	14,593.00	9,893.67	72.57	77.38	157.49	-889.38	1,635.59	7,721.14	7,641.53	79.61	96.984	
15,500.00	7,589.14	14,593.00	9,893.67	73.23	77.38	157.49	-889.38	1,635.59	7,815.76	7,736.12	79.64	98.134	
15,600.00	7,589.14	14,593.00	9,893.67	73.89	77.38	157.49	-889.38	1,635.59	7,910.51	7,830.83	79.68	99.283	
15,700.00	7,589.13	14,593.00	9,893.67	74.56	77.38	157.49	-889.38	1,635.59	8,005.38	7,925.67	79.71	100.431	
15,800.00	7,589.13	14,593.00	9,893.67	75.23	77.38	157.49	-889.38	1,635.59	8,100.38	8,020.64	79.74	101.580	
15,900.00	7,589.13	14,593.00	9,893.67	75.90	77.38	157.49	-889.38	1,635.59	8,195.50	8,115.72	79.78	102.727	
16,000.00	7,589.12	14,593.00	9,893.67	76.57	77.38	157.49	-889.38	1,635.59	8,290.73	8,210.91	79.82	103.874	
16,100.00	7,589.12	14,593.00	9,893.67	77.24	77.38	157.49	-889.38	1,635.59	8,386.07	8,306.22	79.85	105.021	
16,200.00	7,589.11	14,593.00	9,893.67	77.92	77.38	157.49	-889.38	1,635.59	8,481.52	8,401.63	79.89	106.166	
16,300.00	7,589.11	14,593.00	9,893.67	78.59	77.38	157.49	-889.38	1,635.59	8,577.08	8,497.15	79.93	107.311	
16,400.00	7,589.11	14,593.00	9,893.67	79.27	77.38	157.49	-889.38	1,635.59	8,672.73	8,592.77	79.97	108.454	
16,500.00	7,589.10	14,593.00	9,893.67	79.95	77.38	157.49	-889.38	1,635.59	8,768.48	8,688.48	80.01	109.597	
16,600.00	7,589.10	14,593.00	9,893.67	80.63	77.38	157.49	-889.38	1,635.59	8,864.33	8,784.28	80.05	110.739	
16,700.00	7,589.09	14,593.00	9,893.67	81.31	77.38	157.49	-889.38	1,635.59	8,960.26	8,880.18	80.09	111.880	
16,800.00	7,589.09	14,593.00	9,893.67	82.00	77.38	157.49	-889.38	1,635.59	9,056.29	8,976.16	80.13	113.019	
16,900.00	7,589.08	14,593.00	9,893.67	82.68	77.38	157.49	-889.38	1,635.59	9,152.40	9,072.22	80.17	114.157	
17,000.00	7,589.08	14,593.00	9,893.67	83.37	77.38	157.49	-889.38	1,635.59	9,248.59	9,168.37	80.22	115.294	
17,100.00	7,589.08	14,593.00	9,893.67	84.06	77.38	157.49	-889.38	1,635.59	9,344.86	9,264.60	80.26	116.430	
17,200.00	7,589.07	14,593.00	9,893.67	84.75	77.38	157.49	-889.38	1,635.59	9,441.21	9,360.90	80.31	117.564	
17,300.00	7,589.07	14,593.00	9,893.67	85.44	77.38	157.49	-889.38	1,635.59	9,537.63	9,457.28	80.35	118.696	
17,400.00	7,589.06	14,593.00	9,893.67	86.13	77.38	157.49	-889.38	1,635.59	9,634.13	9,553.73	80.40	119.827	
17,500.00	7,589.06	14,593.00	9,893.67	86.83	77.38	157.49	-889.38	1,635.59	9,730.70	9,650.25	80.45	120.957	
17,600.00	7,589.06	14,593.00	9,893.67	87.52	77.38	157.49	-889.38	1,635.59	9,827.34	9,746.84	80.50	122.085	
17,700.00	7,589.05	14,593.00	9,893.67	88.22	77.38	157.49	-889.38	1,635.59	9,924.04	9,843.49	80.54	123.211	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Survey Program: 55-MWD+HRGM		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.50	29.82	3,825.37	2,192.73	4,409.30				
100.00	100.00	55.00	54.99	0.28	0.51	29.83	3,825.14	2,193.42	4,409.46	4,408.69	0.78	5,658.661	
200.00	200.00	119.80	119.79	0.63	0.58	29.84	3,825.41	2,194.15	4,410.41	4,409.20	1.21	3,645.552	
300.00	300.00	261.79	261.73	0.99	0.93	29.80	3,828.09	2,192.15	4,411.36	4,409.44	1.92	2,297.208	
400.00	400.00	334.00	333.94	1.35	1.15	29.79	3,828.94	2,191.82	4,412.14	4,409.63	2.50	1,762.061	
500.00	500.00	563.86	563.76	1.71	1.92	29.76	3,829.19	2,189.06	4,411.54	4,407.92	3.63	1,216.424	
600.00	600.00	660.73	660.61	2.07	2.25	29.74	3,828.35	2,186.77	4,409.61	4,405.30	4.31	1,021.943	
700.00	700.00	729.05	728.91	2.43	2.48	29.72	3,827.85	2,185.47	4,408.07	4,403.16	4.91	898.022	
800.00	800.00	781.00	780.86	2.79	2.66	29.72	3,827.67	2,185.05	4,407.44	4,401.99	5.45	809.181	
821.46	821.46	800.64	800.50	2.86	2.73	29.72	3,827.66	2,185.01	4,407.41	4,401.82	5.59	788.351	
900.00	900.00	846.24	846.10	3.14	2.89	29.72	3,827.80	2,185.13	4,407.72	4,401.69	6.03	731.233	
1,000.00	1,000.00	938.44	938.30	3.50	3.20	29.72	3,828.60	2,185.65	4,408.74	4,402.04	6.70	657.809	
1,100.00	1,099.98	1,060.06	1,059.91	3.85	3.62	-98.29	3,829.48	2,185.84	4,409.70	4,402.24	7.47	590.639	
1,200.00	1,199.84	1,125.82	1,125.66	4.18	3.84	-98.30	3,829.71	2,186.62	4,411.33	4,403.31	8.02	549.770	
1,300.00	1,299.45	1,190.18	1,190.01	4.52	4.07	-98.30	3,830.04	2,188.13	4,414.21	4,405.63	8.58	514.337	
1,400.00	1,398.70	1,246.00	1,245.80	4.86	4.26	-98.28	3,830.66	2,189.77	4,418.46	4,409.35	9.12	484.731	
1,500.00	1,497.47	1,317.10	1,316.84	5.21	4.50	-98.29	3,831.85	2,192.34	4,424.04	4,414.33	9.71	455.751	
1,600.00	1,595.62	1,390.15	1,389.80	5.56	4.76	-98.31	3,833.32	2,195.62	4,430.85	4,420.54	10.31	429.725	
1,700.00	1,693.06	1,497.08	1,496.57	5.92	5.13	-98.42	3,835.42	2,201.17	4,438.54	4,427.50	11.04	401.995	
1,800.00	1,790.08	1,618.96	1,618.30	6.28	5.56	-98.75	3,837.49	2,206.75	4,446.05	4,434.22	11.83	375.746	
1,900.00	1,887.11	1,735.46	1,734.71	6.65	5.97	-99.07	3,839.42	2,210.94	4,453.17	4,440.56	12.61	353.161	
2,000.00	1,984.14	1,825.79	1,824.99	7.02	6.29	-99.33	3,840.96	2,213.70	4,460.19	4,446.89	13.30	335.423	
2,100.00	2,081.17	1,901.49	1,900.61	7.39	6.56	-99.54	3,842.33	2,216.55	4,467.73	4,453.79	13.94	320.609	
2,200.00	2,178.20	1,987.06	1,986.08	7.76	6.87	-99.77	3,843.92	2,220.56	4,475.81	4,461.20	14.61	306.325	
2,300.00	2,275.23	2,101.78	2,100.60	8.14	7.28	-100.05	3,845.19	2,227.17	4,483.82	4,468.43	15.40	291.216	
2,400.00	2,372.26	2,223.41	2,221.99	8.52	7.71	-100.34	3,845.47	2,234.79	4,491.35	4,475.14	16.21	277.069	
2,500.00	2,469.29	2,318.00	2,316.40	8.90	8.05	-100.56	3,845.51	2,240.57	4,498.76	4,481.83	16.93	265.773	
2,600.00	2,566.32	2,389.77	2,387.99	9.28	8.31	-100.72	3,845.64	2,245.60	4,506.74	4,489.17	17.56	256.611	
2,700.00	2,663.35	2,472.26	2,470.23	9.67	8.61	-100.90	3,845.80	2,252.13	4,515.20	4,496.96	18.24	247.550	
2,800.00	2,760.38	2,550.93	2,548.66	10.05	8.89	-101.07	3,846.29	2,258.29	4,524.07	4,505.17	18.90	239.327	
2,900.00	2,857.41	2,657.28	2,654.78	10.44	9.28	-101.33	3,847.97	2,265.04	4,533.23	4,513.56	19.67	230.443	
3,000.00	2,954.44	2,729.20	2,726.55	10.83	9.54	-101.50	3,849.08	2,269.48	4,542.41	4,522.10	20.31	223.640	
3,100.00	3,051.47	2,754.00	2,751.28	11.22	9.63	-101.56	3,849.56	2,271.21	4,552.74	4,531.98	20.77	219.207	
3,200.00	3,148.50	2,804.49	2,801.58	11.60	9.81	-101.67	3,851.01	2,275.31	4,564.29	4,542.96	21.32	214.042	
3,300.00	3,245.53	2,843.00	2,839.87	11.99	9.96	-101.76	3,852.67	2,279.04	4,577.42	4,555.59	21.83	209.693	
3,400.00	3,342.56	2,843.00	2,839.87	12.38	9.96	-101.76	3,852.67	2,279.04	4,592.20	4,570.03	22.17	207.108	
3,500.00	3,439.59	2,898.63	2,895.06	12.77	10.16	-101.87	3,856.00	2,285.29	4,608.05	4,585.30	22.74	202.633	
3,600.00	3,536.62	2,932.00	2,928.06	13.17	10.29	-101.94	3,858.55	2,289.48	4,625.56	4,602.35	23.21	199.275	
3,700.00	3,633.65	2,971.02	2,966.57	13.56	10.44	-102.01	3,861.91	2,294.77	4,644.41	4,620.71	23.70	195.934	
3,800.00	3,730.68	3,022.00	3,016.77	13.95	10.63	-102.10	3,866.74	2,302.24	4,664.47	4,640.22	24.24	192.394	
3,900.00	3,827.71	3,075.73	3,069.56	14.34	10.84	-102.19	3,872.16	2,310.63	4,685.49	4,660.70	24.80	188.959	
4,000.00	3,924.74	3,155.66	3,147.99	14.74	11.15	-102.33	3,880.42	2,323.65	4,707.14	4,681.67	25.47	184.844	
4,100.00	4,021.77	3,260.60	3,250.97	15.13	11.56	-102.50	3,891.43	2,340.54	4,728.88	4,702.63	26.25	180.148	
4,200.00	4,118.79	3,375.19	3,363.54	15.52	12.01	-102.69	3,903.27	2,358.45	4,750.35	4,723.27	27.08	175.417	
4,300.00	4,215.82	3,469.00	3,455.74	15.92	12.38	-102.86	3,912.99	2,372.71	4,771.71	4,743.89	27.82	171.538	
4,400.00	4,312.85	3,642.15	3,626.33	16.31	13.07	-103.17	3,929.90	2,397.07	4,791.95	4,763.04	28.92	165.722	
4,500.00	4,409.88	3,714.23	3,697.42	16.70	13.36	-103.30	3,936.65	2,406.83	4,811.93	4,782.37	29.56	162.807	
4,600.00	4,506.91	3,767.93	3,750.25	17.10	13.57	-103.39	3,941.91	2,414.90	4,832.82	4,802.71	30.11	160.494	
4,700.00	4,603.94	3,826.00	3,807.26	17.49	13.81	-103.48	3,947.96	2,424.15	4,854.63	4,823.95	30.69	158.197	
4,800.00	4,700.97	3,903.77	3,883.50	17.89	14.13	-103.60	3,956.36	2,437.00	4,877.07	4,845.71	31.36	155.538	
4,900.00	4,798.00	3,988.78	3,966.81	18.28	14.48	-103.73	3,965.70	2,451.14	4,899.76	4,867.70	32.06	152.831	
5,000.00	4,895.03	4,139.20	4,114.36	18.68	15.10	-103.97	3,982.25	2,475.21	4,922.37	4,889.29	33.08	148.813	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Survey Program: 55-MWD+HRGM							Rule Assigned:							Offset Site Error: 0.50 usft		
Reference				Offset		Semi Major Axis			Offset Wellbore Centre			Distance			Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
5,100.00	4,992.06	4,512.20	4,482.43	19.07	16.61	-104.57	4,011.29	2,527.66	4,940.68	4,905.57	35.10	140.743				
5,200.00	5,089.09	4,600.69	4,570.05	19.47	16.97	-104.71	4,016.30	2,538.90	4,957.18	4,921.35	35.83	138.360				
5,300.00	5,186.12	14,022.73	9,758.34	19.87	71.27	-80.54	-422.82	2,613.92	4,957.59	4,904.79	52.80	93.894				
5,400.00	5,283.15	14,037.37	9,758.61	20.26	71.46	-80.06	-437.44	2,614.56	4,861.10	4,807.84	53.25	91.282				
5,500.00	5,380.18	14,052.74	9,758.89	20.66	71.65	-79.54	-452.79	2,615.27	4,764.69	4,710.97	53.72	88.688				
5,600.00	5,477.21	14,068.09	9,759.16	21.06	71.85	-79.01	-468.12	2,616.01	4,668.39	4,614.18	54.21	86.123				
5,700.00	5,574.24	14,153.27	9,760.11	21.45	72.94	-75.94	-553.19	2,620.16	4,572.14	4,516.92	55.22	82.802				
5,800.00	5,671.27	14,169.38	9,760.18	21.85	73.14	-75.33	-569.29	2,620.85	4,475.78	4,420.05	55.73	80.313				
5,900.00	5,768.30	14,247.36	9,760.10	22.24	74.14	-72.26	-647.21	2,623.65	4,379.36	4,322.64	56.71	77.221				
6,000.00	5,865.33	14,259.38	9,760.04	22.64	74.30	-71.76	-659.22	2,624.01	4,282.99	4,225.77	57.22	74.853				
6,100.00	5,962.36	14,271.48	9,759.98	23.04	74.45	-71.26	-671.32	2,624.39	4,186.75	4,129.01	57.74	72.508				
6,200.00	6,059.39	14,283.68	9,759.93	23.44	74.61	-70.75	-683.51	2,624.78	4,090.65	4,032.37	58.28	70.187				
6,300.00	6,156.42	14,302.00	9,759.86	23.83	74.84	-69.97	-701.82	2,625.37	3,994.70	3,935.82	58.88	67.840				
6,400.00	6,253.45	14,302.00	9,759.86	24.23	74.84	-69.97	-701.82	2,625.37	3,898.90	3,839.53	59.37	65.671				
6,500.00	6,350.47	14,302.00	9,759.86	24.63	74.84	-69.97	-701.82	2,625.37	3,803.32	3,743.44	59.88	63.519				
6,600.00	6,447.50	14,302.00	9,759.86	25.02	74.84	-69.97	-701.82	2,625.37	3,707.97	3,647.56	60.41	61.385				
6,700.00	6,544.53	14,329.64	9,759.83	25.42	75.20	-68.77	-729.44	2,626.37	3,612.67	3,551.51	61.16	59.068				
6,800.00	6,641.56	14,337.91	9,759.85	25.82	75.31	-68.40	-737.71	2,626.70	3,517.69	3,455.90	61.80	56.922				
6,900.00	6,738.59	14,346.38	9,759.88	26.22	75.42	-68.02	-746.17	2,627.05	3,422.97	3,360.50	62.46	54.799				
7,000.00	6,835.62	14,355.04	9,759.93	26.61	75.53	-67.63	-754.82	2,627.42	3,328.51	3,265.35	63.16	52.699				
7,100.00	6,932.65	14,363.91	9,760.00	27.01	75.64	-67.23	-763.68	2,627.82	3,234.34	3,170.45	63.89	50.623				
7,200.00	7,029.68	14,372.99	9,760.08	27.41	75.76	-66.82	-772.75	2,628.24	3,140.48	3,075.83	64.66	48.572				
7,300.00	7,126.71	14,396.00	9,760.35	27.81	76.06	-65.75	-795.73	2,629.39	3,047.02	2,981.46	65.56	46.475				
7,309.09	7,135.53	14,396.00	9,760.35	27.84	76.06	-65.75	-795.73	2,629.39	3,038.53	2,972.90	65.63	46.297				
7,350.00	7,174.84	14,396.00	9,760.35	28.01	76.06	-76.14	-795.73	2,629.39	3,000.19	2,934.26	65.93	45.505				
7,400.00	7,221.63	14,396.00	9,760.35	28.22	76.06	-90.00	-795.73	2,629.39	2,953.10	2,886.85	66.26	44.572				
7,450.00	7,266.71	14,396.00	9,760.35	28.44	76.06	-103.61	-795.73	2,629.39	2,906.11	2,839.58	66.53	43.681				
7,500.00	7,309.74	14,413.17	9,760.61	28.67	76.28	-115.41	-812.87	2,630.33	2,859.51	2,792.63	66.88	42.758				
7,550.00	7,350.39	14,424.94	9,760.81	28.91	76.43	-125.25	-824.62	2,631.01	2,813.68	2,746.56	67.12	41.918				
7,600.00	7,388.34	14,446.00	9,761.22	29.15	76.71	-133.11	-845.64	2,632.31	2,769.00	2,701.62	67.37	41.099				
7,650.00	7,423.32	14,457.41	9,761.46	29.40	76.85	-139.20	-857.02	2,633.05	2,725.77	2,658.28	67.49	40.389				
7,700.00	7,455.05	14,483.76	9,762.01	29.65	77.20	-144.12	-883.31	2,634.75	2,684.34	2,616.70	67.64	39.685				
7,750.00	7,483.30	14,503.00	9,762.41	29.90	77.45	-147.95	-902.51	2,635.99	2,645.06	2,577.39	67.67	39.085				
7,800.00	7,507.84	14,503.00	9,762.41	30.15	77.45	-150.69	-902.51	2,635.99	2,608.51	2,541.00	67.51	38.637				
7,850.00	7,528.50	14,503.00	9,762.41	30.41	77.45	-152.81	-902.51	2,635.99	2,575.17	2,507.87	67.30	38.265				
7,900.00	7,545.11	14,503.00	9,762.41	30.66	77.45	-154.45	-902.51	2,635.99	2,545.40	2,478.37	67.04	37.969				
7,919.09	7,550.36	14,503.00	9,762.41	30.75	77.45	-154.98	-902.51	2,635.99	2,535.06	2,468.14	66.93	37.879				
8,000.00	7,568.52	14,503.00	9,762.41	31.16	77.45	-155.92	-902.51	2,635.99	2,495.70	2,429.25	66.46	37.555				
8,100.00	7,583.22	14,503.00	9,762.41	31.66	77.45	-156.77	-902.51	2,635.99	2,456.45	2,390.58	65.87	37.292				
8,200.00	7,589.24	14,503.00	9,762.41	32.17	77.45	-157.35	-902.51	2,635.99	2,428.34	2,363.03	65.31	37.180				
8,219.09	7,589.40	14,503.00	9,762.41	32.26	77.45	-157.43	-902.51	2,635.99	2,424.29	2,359.08	65.21	37.176				
8,300.00	7,589.40	14,503.00	9,762.41	32.67	77.45	-157.43	-902.51	2,635.99	2,409.36	2,344.52	64.84	37.161				
8,400.00	7,589.40	14,503.00	9,762.41	33.21	77.45	-157.43	-902.51	2,635.99	2,394.55	2,330.06	64.50	37.127				
8,444.09	7,589.40	14,503.00	9,762.41	33.45	77.45	-157.43	-902.51	2,635.99	2,389.33	2,324.94	64.39	37.108				
8,500.00	7,589.40	14,503.00	9,762.41	33.76	77.45	-157.28	-902.51	2,635.99	2,384.17	2,319.87	64.30	37.080				
8,600.00	7,589.40	14,503.00	9,762.41	34.34	77.45	-157.16	-902.51	2,635.99	2,379.77	2,315.49	64.28	37.023				
8,620.61	7,589.40	14,503.00	9,762.41	34.46	77.45	-157.16	-902.51	2,635.99	2,379.64	2,315.34	64.30	37.011	CC, ES			
8,700.00	7,589.40	14,503.00	9,762.41	34.92	77.45	-157.21	-902.51	2,635.99	2,381.60	2,317.18	64.42	36.968	SF			
8,800.00	7,589.40	14,503.00	9,762.41	35.52	77.45	-157.43	-902.51	2,635.99	2,389.64	2,324.93	64.71	36.928				
8,900.00	7,589.40	14,503.00	9,762.41	36.12	77.45	-157.83	-902.51	2,635.99	2,403.81	2,338.69	65.12	36.916				
9,000.00	7,589.40	14,503.00	9,762.41	36.73	77.45	-158.40	-902.51	2,635.99	2,423.95	2,358.34	65.61	36.944				
9,100.00	7,589.40	14,503.00	9,762.41	37.33	77.45	-159.16	-902.51	2,635.99	2,449.87	2,383.70	66.17	37.022				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

Survey Program: 55-MWD+HRGM									Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance					Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
9,200.00	7,589.40	14,503.00	9,762.41	37.92	77.45	-160.09	-902.51	2,635.99	2,481.32	2,414.54	66.78	37.157			
9,300.00	7,589.39	14,503.00	9,762.41	38.51	77.45	-161.20	-902.51	2,635.99	2,518.00	2,450.60	67.41	37.354			
9,400.00	7,589.39	14,503.00	9,762.41	39.09	77.45	-162.51	-902.51	2,635.99	2,559.60	2,491.56	68.04	37.618			
9,500.00	7,589.39	14,503.00	9,762.41	39.65	77.45	-164.00	-902.51	2,635.99	2,605.76	2,537.09	68.66	37.949			
9,600.00	7,589.39	14,503.00	9,762.41	40.19	77.45	-165.69	-902.51	2,635.99	2,656.12	2,586.86	69.27	38.346			
9,700.00	7,589.38	14,503.00	9,762.41	40.72	77.45	-167.58	-902.51	2,635.99	2,710.32	2,640.48	69.84	38.808			
9,800.00	7,589.38	14,503.00	9,762.41	41.23	77.45	-169.65	-902.51	2,635.99	2,767.99	2,697.61	70.38	39.330			
9,900.00	7,589.38	14,503.00	9,762.41	41.72	77.45	-171.92	-902.51	2,635.99	2,828.76	2,757.88	70.88	39.909			
10,000.00	7,589.37	14,503.00	9,762.41	42.18	77.45	-174.37	-902.51	2,635.99	2,892.27	2,820.92	71.35	40.538			
10,100.00	7,589.37	14,503.00	9,762.41	42.63	77.45	-176.99	-902.51	2,635.99	2,958.18	2,886.41	71.78	41.213			
10,173.66	7,589.36	14,503.00	9,762.41	42.94	77.45	-179.02	-902.51	2,635.99	3,008.07	2,936.00	72.07	41.736			
10,200.00	7,589.36	14,503.00	9,762.41	43.05	77.45	-179.02	-902.51	2,635.99	3,026.17	2,953.99	72.18	41.927			
10,300.00	7,589.36	14,503.00	9,762.41	43.47	77.45	-179.02	-902.51	2,635.99	3,095.91	3,023.36	72.55	42.674			
10,400.00	7,589.36	14,503.00	9,762.41	43.90	77.45	-179.02	-902.51	2,635.99	3,167.28	3,094.39	72.89	43.452			
10,500.00	7,589.35	14,503.00	9,762.41	44.33	77.45	-179.02	-902.51	2,635.99	3,240.16	3,166.95	73.21	44.257			
10,600.00	7,589.35	14,503.00	9,762.41	44.78	77.45	-179.02	-902.51	2,635.99	3,314.46	3,240.95	73.51	45.089			
10,700.00	7,589.34	14,503.00	9,762.41	45.23	77.45	-179.02	-902.51	2,635.99	3,390.08	3,316.30	73.79	45.944			
10,800.00	7,589.34	14,503.00	9,762.41	45.69	77.45	-179.02	-902.51	2,635.99	3,466.94	3,392.89	74.05	46.821			
10,900.00	7,589.33	14,503.00	9,762.41	46.16	77.45	-179.02	-902.51	2,635.99	3,544.95	3,470.66	74.29	47.718			
11,000.00	7,589.33	14,503.00	9,762.41	46.64	77.45	-179.02	-902.51	2,635.99	3,624.04	3,549.52	74.52	48.634			
11,100.00	7,589.33	14,503.00	9,762.41	47.12	77.45	-179.02	-902.51	2,635.99	3,704.14	3,629.41	74.73	49.568			
11,200.00	7,589.32	14,503.00	9,762.41	47.61	77.45	-179.02	-902.51	2,635.99	3,785.19	3,710.26	74.93	50.518			
11,300.00	7,589.32	14,503.00	9,762.41	48.11	77.45	-179.02	-902.51	2,635.99	3,867.12	3,792.01	75.12	51.482			
11,400.00	7,589.31	14,503.00	9,762.41	48.61	77.45	-179.02	-902.51	2,635.99	3,949.89	3,874.60	75.29	52.460			
11,500.00	7,589.31	14,503.00	9,762.41	49.12	77.45	-179.02	-902.51	2,635.99	4,033.44	3,957.98	75.46	53.451			
11,600.00	7,589.31	14,503.00	9,762.41	49.64	77.45	-179.02	-902.51	2,635.99	4,117.72	4,042.11	75.62	54.454			
11,700.00	7,589.30	14,503.00	9,762.41	50.16	77.45	-179.02	-902.51	2,635.99	4,202.70	4,126.93	75.77	55.468			
11,800.00	7,589.30	14,503.00	9,762.41	50.69	77.45	-179.02	-902.51	2,635.99	4,288.31	4,212.40	75.91	56.492			
11,900.00	7,589.29	14,503.00	9,762.41	51.23	77.45	-179.02	-902.51	2,635.99	4,374.54	4,298.50	76.05	57.525			
12,000.00	7,589.29	14,503.00	9,762.41	51.77	77.45	-179.02	-902.51	2,635.99	4,461.35	4,385.17	76.18	58.567			
12,100.00	7,589.28	14,503.00	9,762.41	52.31	77.45	-179.02	-902.51	2,635.99	4,548.70	4,472.40	76.30	59.617			
12,200.00	7,589.28	14,503.00	9,762.41	52.86	77.45	-179.02	-902.51	2,635.99	4,636.55	4,560.14	76.42	60.675			
12,300.00	7,589.28	14,503.00	9,762.41	53.42	77.45	-179.02	-902.51	2,635.99	4,724.90	4,648.37	76.53	61.739			
12,400.00	7,589.27	14,503.00	9,762.41	53.98	77.45	-179.02	-902.51	2,635.99	4,813.69	4,737.05	76.64	62.811			
12,500.00	7,589.27	14,503.00	9,762.41	54.55	77.45	-179.02	-902.51	2,635.99	4,902.92	4,826.18	76.74	63.888			
12,600.00	7,589.26	14,503.00	9,762.41	55.12	77.45	-179.02	-902.51	2,635.99	4,992.56	4,915.71	76.84	64.970			
12,700.00	7,589.26	14,503.00	9,762.41	55.70	77.45	-179.02	-902.51	2,635.99	5,082.58	5,005.64	76.94	66.058			
12,800.00	7,589.26	14,503.00	9,762.41	56.28	77.45	-179.02	-902.51	2,635.99	5,172.97	5,095.94	77.04	67.151			
12,900.00	7,589.25	14,503.00	9,762.41	56.86	77.45	-179.02	-902.51	2,635.99	5,263.71	5,186.58	77.13	68.248			
13,000.00	7,589.25	14,503.00	9,762.41	57.45	77.45	-179.02	-902.51	2,635.99	5,354.78	5,277.56	77.22	69.349			
13,100.00	7,589.24	14,503.00	9,762.41	58.04	77.45	-179.02	-902.51	2,635.99	5,446.16	5,368.85	77.30	70.454			
13,200.00	7,589.24	14,503.00	9,762.41	58.64	77.45	-179.02	-902.51	2,635.99	5,537.83	5,460.45	77.39	71.562			
13,300.00	7,589.23	14,503.00	9,762.41	59.24	77.45	-179.02	-902.51	2,635.99	5,629.80	5,552.33	77.47	72.673			
13,400.00	7,589.23	14,503.00	9,762.41	59.84	77.45	-179.02	-902.51	2,635.99	5,722.03	5,644.48	77.55	73.788			
13,500.00	7,589.23	14,503.00	9,762.41	60.45	77.45	-179.02	-902.51	2,635.99	5,814.52	5,736.89	77.63	74.905			
13,600.00	7,589.22	14,503.00	9,762.41	61.06	77.45	-179.02	-902.51	2,635.99	5,907.25	5,829.55	77.70	76.024			
13,700.00	7,589.22	14,503.00	9,762.41	61.68	77.45	-179.02	-902.51	2,635.99	6,000.22	5,922.44	77.78	77.146			
13,800.00	7,589.21	14,503.00	9,762.41	62.30	77.45	-179.02	-902.51	2,635.99	6,093.41	6,015.56	77.85	78.270			
13,900.00	7,589.21	14,503.00	9,762.41	62.92	77.45	-179.02	-902.51	2,635.99	6,186.81	6,108.88	77.92	79.395			
14,000.00	7,589.21	14,503.00	9,762.41	63.54	77.45	-179.02	-902.51	2,635.99	6,280.41	6,202.42	78.00	80.522			
14,100.00	7,589.20	14,503.00	9,762.41	64.17	77.45	-179.02	-902.51	2,635.99	6,374.21	6,296.15	78.07	81.651			
14,200.00	7,589.20	14,503.00	9,762.41	64.80	77.45	-179.02	-902.51	2,635.99	6,468.20	6,390.06	78.14	82.781			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Riverbend 12-13 Offsets - Whistle Pig 1 WXY Fee 9H - OH - Svy

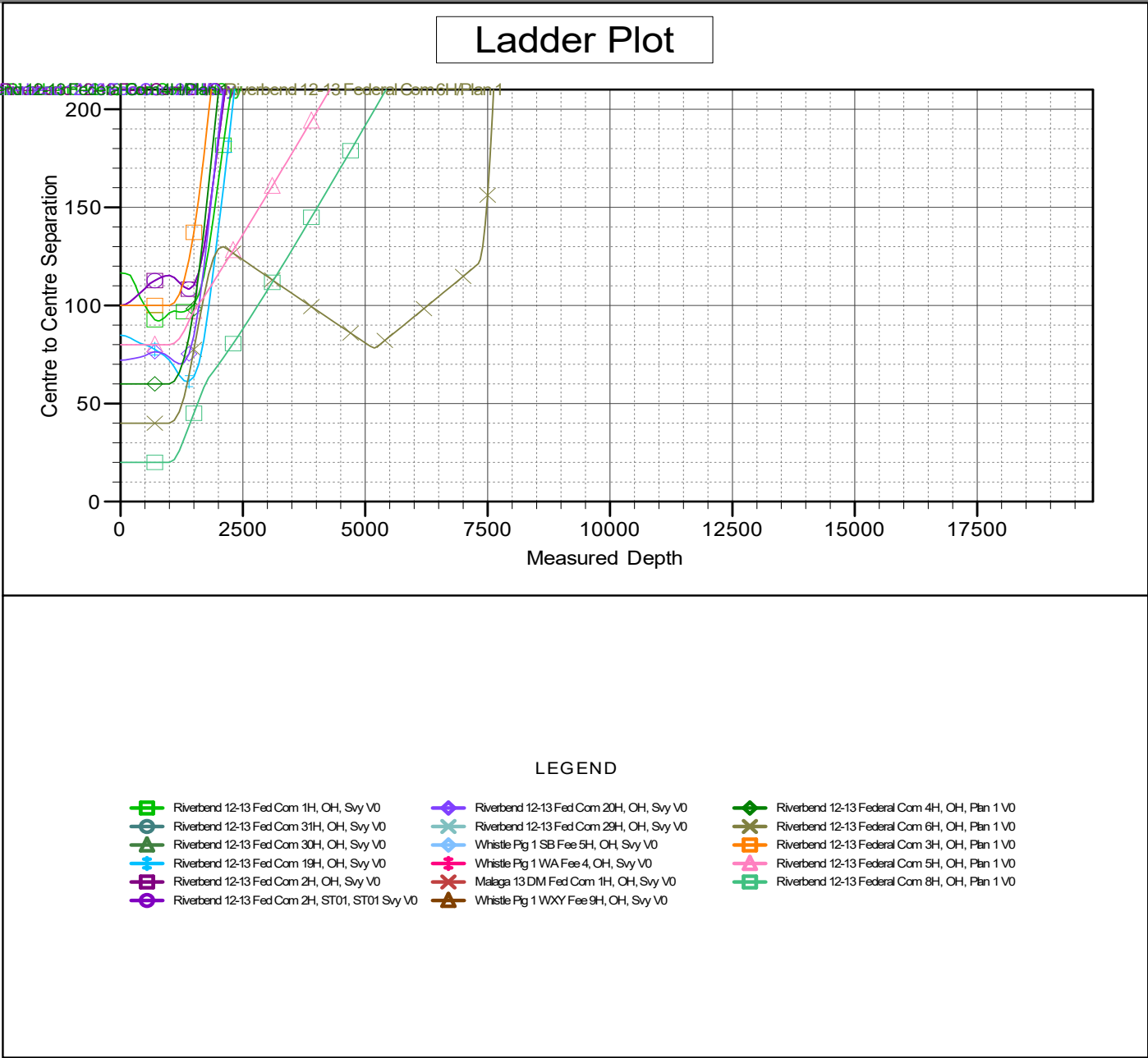
Survey Program: 55-MWD+HRGM		Rule Assigned:										Offset Site Error: 0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
14,300.00	7,589.19	14,503.00	9,762.41	65.43	77.45	-179.02	-902.51	2,635.99	6,562.36	6,484.16	78.21	83.912
14,400.00	7,589.19	14,503.00	9,762.41	66.07	77.45	-179.02	-902.51	2,635.99	6,656.70	6,578.42	78.27	85.044
14,500.00	7,589.18	14,503.00	9,762.41	66.71	77.45	-179.02	-902.51	2,635.99	6,751.19	6,672.85	78.34	86.177
14,600.00	7,589.18	14,503.00	9,762.41	67.35	77.45	-179.02	-902.51	2,635.99	6,845.84	6,767.44	78.41	87.310
14,700.00	7,589.18	14,503.00	9,762.41	67.99	77.45	-179.02	-902.51	2,635.99	6,940.65	6,862.17	78.47	88.444
14,800.00	7,589.17	14,503.00	9,762.41	68.64	77.45	-179.02	-902.51	2,635.99	7,035.59	6,957.05	78.54	89.579
14,900.00	7,589.17	14,503.00	9,762.41	69.29	77.45	-179.02	-902.51	2,635.99	7,130.68	7,052.07	78.61	90.714
15,000.00	7,589.16	14,503.00	9,762.41	69.94	77.45	-179.02	-902.51	2,635.99	7,225.90	7,147.22	78.67	91.849
15,100.00	7,589.16	14,503.00	9,762.41	70.59	77.45	-179.02	-902.51	2,635.99	7,321.24	7,242.51	78.74	92.984
15,200.00	7,589.16	14,503.00	9,762.41	71.25	77.45	-179.02	-902.51	2,635.99	7,416.71	7,337.91	78.80	94.119
15,300.00	7,589.15	14,503.00	9,762.41	71.91	77.45	-179.02	-902.51	2,635.99	7,512.29	7,433.43	78.87	95.254
15,400.00	7,589.15	14,503.00	9,762.41	72.57	77.45	-179.02	-902.51	2,635.99	7,607.99	7,529.06	78.93	96.389
15,500.00	7,589.14	14,503.00	9,762.41	73.23	77.45	-179.02	-902.51	2,635.99	7,703.80	7,624.81	78.99	97.524
15,600.00	7,589.14	14,503.00	9,762.41	73.89	77.45	-179.02	-902.51	2,635.99	7,799.72	7,720.66	79.06	98.658
15,700.00	7,589.13	14,503.00	9,762.41	74.56	77.45	-179.02	-902.51	2,635.99	7,895.73	7,816.61	79.12	99.792
15,800.00	7,589.13	14,503.00	9,762.41	75.23	77.45	-179.02	-902.51	2,635.99	7,991.84	7,912.66	79.19	100.926
15,900.00	7,589.13	14,503.00	9,762.41	75.90	77.45	-179.02	-902.51	2,635.99	8,088.05	8,008.80	79.25	102.058
16,000.00	7,589.12	14,503.00	9,762.41	76.57	77.45	-179.02	-902.51	2,635.99	8,184.35	8,105.04	79.31	103.190
16,100.00	7,589.12	14,503.00	9,762.41	77.24	77.45	-179.02	-902.51	2,635.99	8,280.73	8,201.36	79.38	104.322
16,200.00	7,589.11	14,503.00	9,762.41	77.92	77.45	-179.02	-902.51	2,635.99	8,377.20	8,297.76	79.44	105.452
16,300.00	7,589.11	14,503.00	9,762.41	78.59	77.45	-179.02	-902.51	2,635.99	8,473.76	8,394.25	79.50	106.582
16,400.00	7,589.11	14,503.00	9,762.41	79.27	77.45	-179.02	-902.51	2,635.99	8,570.39	8,490.82	79.57	107.711
16,500.00	7,589.10	14,503.00	9,762.41	79.95	77.45	-179.02	-902.51	2,635.99	8,667.10	8,587.46	79.63	108.839
16,600.00	7,589.10	14,503.00	9,762.41	80.63	77.45	-179.02	-902.51	2,635.99	8,763.88	8,684.18	79.70	109.965
16,700.00	7,589.09	14,503.00	9,762.41	81.31	77.45	-179.02	-902.51	2,635.99	8,860.73	8,780.97	79.76	111.091
16,800.00	7,589.09	14,503.00	9,762.41	82.00	77.45	-179.02	-902.51	2,635.99	8,957.65	8,877.83	79.83	112.215
16,900.00	7,589.08	14,503.00	9,762.41	82.68	77.45	-179.02	-902.51	2,635.99	9,054.64	8,974.75	79.89	113.338
17,000.00	7,589.08	14,503.00	9,762.41	83.37	77.45	-179.02	-902.51	2,635.99	9,151.70	9,071.74	79.96	114.460
17,100.00	7,589.08	14,503.00	9,762.41	84.06	77.45	-179.02	-902.51	2,635.99	9,248.81	9,168.79	80.02	115.581
17,200.00	7,589.07	14,503.00	9,762.41	84.75	77.45	-179.02	-902.51	2,635.99	9,345.99	9,265.91	80.09	116.700
17,300.00	7,589.07	14,503.00	9,762.41	85.44	77.45	-179.02	-902.51	2,635.99	9,443.23	9,363.08	80.15	117.818
17,400.00	7,589.06	14,503.00	9,762.41	86.13	77.45	-179.02	-902.51	2,635.99	9,540.52	9,460.30	80.22	118.934
17,500.00	7,589.06	14,503.00	9,762.41	86.83	77.45	-179.02	-902.51	2,635.99	9,637.87	9,557.59	80.28	120.049
17,600.00	7,589.06	14,503.00	9,762.41	87.52	77.45	-179.02	-902.51	2,635.99	9,735.27	9,654.92	80.35	121.163
17,700.00	7,589.05	14,503.00	9,762.41	88.22	77.45	-179.02	-902.51	2,635.99	9,832.73	9,752.31	80.42	122.274
17,800.00	7,589.05	14,503.00	9,762.41	88.91	77.45	-179.02	-902.51	2,635.99	9,930.23	9,849.75	80.48	123.385

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 2934' GL + 23 @ 2957.00usft	Coordinates are relative to: Riverbend 12-13 Federal Com 7H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.3333333	Grid Convergence at Surface is: 0.16°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Coterra Energy	Local Co-ordinate Reference:	Well Riverbend 12-13 Federal Com 7H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	2934' GL + 23 @ 2957.00usft
Reference Site:	Riverbend 12-13 Federal Com	MD Reference:	2934' GL + 23 @ 2957.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Riverbend 12-13 Federal Com 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 2934' GL + 23 @ 2957.00usft

Offset Depths are relative to Offset Datum

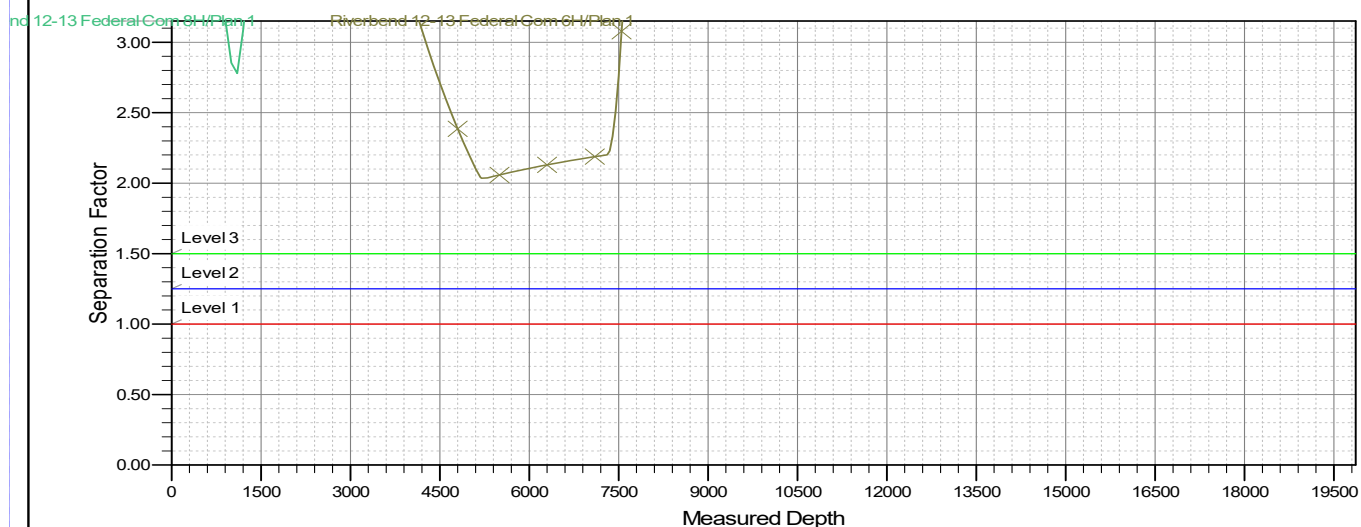
Central Meridian is -104.3333333

Coordinates are relative to: Riverbend 12-13 Federal Com 7H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.16°

Separation Factor Plot



LEGEND

Riverbend 12-13 Fed Com 1H, OH, Svy V0	Riverbend 12-13 Fed Com 20H, OH, Svy V0	Riverbend 12-13 Federal Com 4H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 31H, OH, Svy V0	Riverbend 12-13 Fed Com 29H, OH, Svy V0	Riverbend 12-13 Federal Com 6H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 30H, OH, Svy V0	Whistle Pig 1 SB Fee 5H, OH, Svy V0	Riverbend 12-13 Federal Com 3H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 19H, OH, Svy V0	Whistle Pig 1 WA Fee 4, OH, Svy V0	Riverbend 12-13 Federal Com 5H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 2H, OH, Svy V0	Malaga 13 DM Fed Com 1H, OH, Svy V0	Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0
Riverbend 12-13 Fed Com 2H, ST01, ST01 Svy V0	Whistle Pig 1 WXY Fee 9H, OH, Svy V0	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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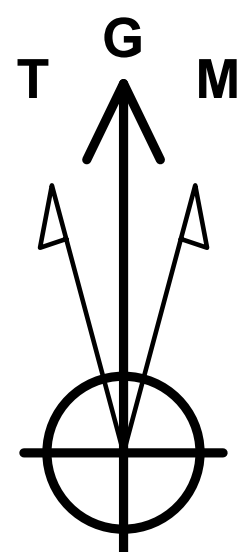
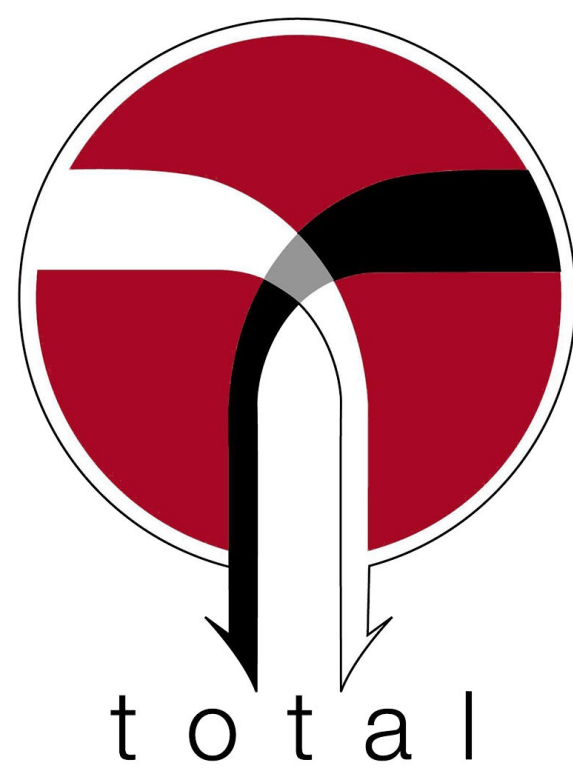
Page 81 of 81



Coterra Energy

Site: Riverbend 12-13 Federal Com
Well: Riverbend 12-13 Federal Com 7H
Design: Plan 1
Rig:

PROJECT DETAILS: Eddy County, NM (NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone



Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.26°

Magnetic Field
Strength: 47172.8nT
Dip Angle: 59.67°
Date: 8/19/2025
Model: HDGM2025

SHL

RKB Elevation: 2934' GL + 23 @ 2957.00usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	420300.29	631568.46	32.1551480	-104.0417630	

SECTION DETAILS

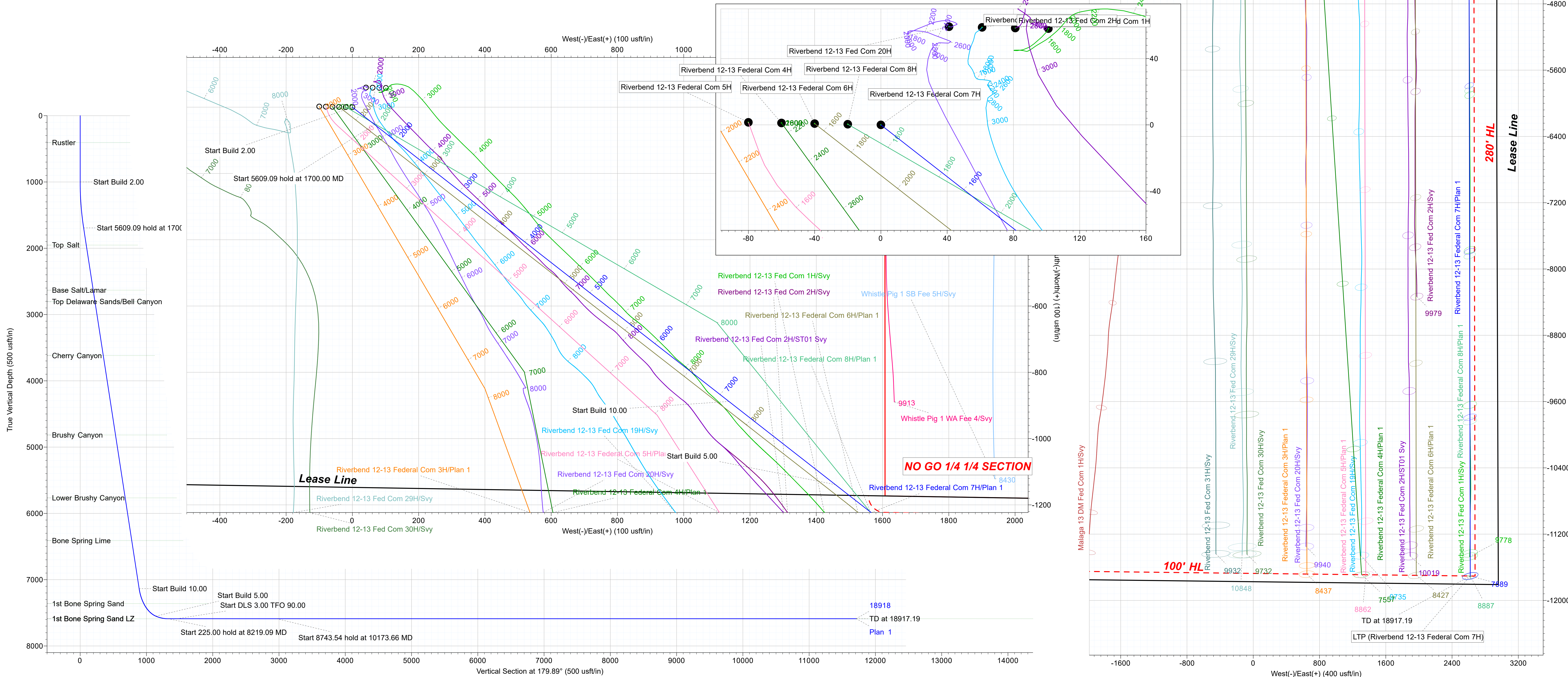
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
1700.00	14.00	128.00	1693.06	-52.39	67.06	2.00	128.00	52.52	
7309.09	14.00	128.00	7135.53	-887.82	1136.36	0.00	0.00	890.00	
7919.09	75.00	128.00	7550.36	-1138.79	1457.59	10.00	0.00	1141.59	
8219.09	90.00	128.00	7589.40	-1321.39	1691.30	5.00	0.00	1324.63	
8444.09	90.00	128.00	7589.40	-1459.91	1868.60	0.00	0.00	1463.50	
10173.66	90.00	179.89	7589.36	-2961.13	2602.63	3.00	90.00	2966.12	
18917.19	90.00	179.89	7589.00	-11704.65	2619.89	0.00	0.00	11709.66	

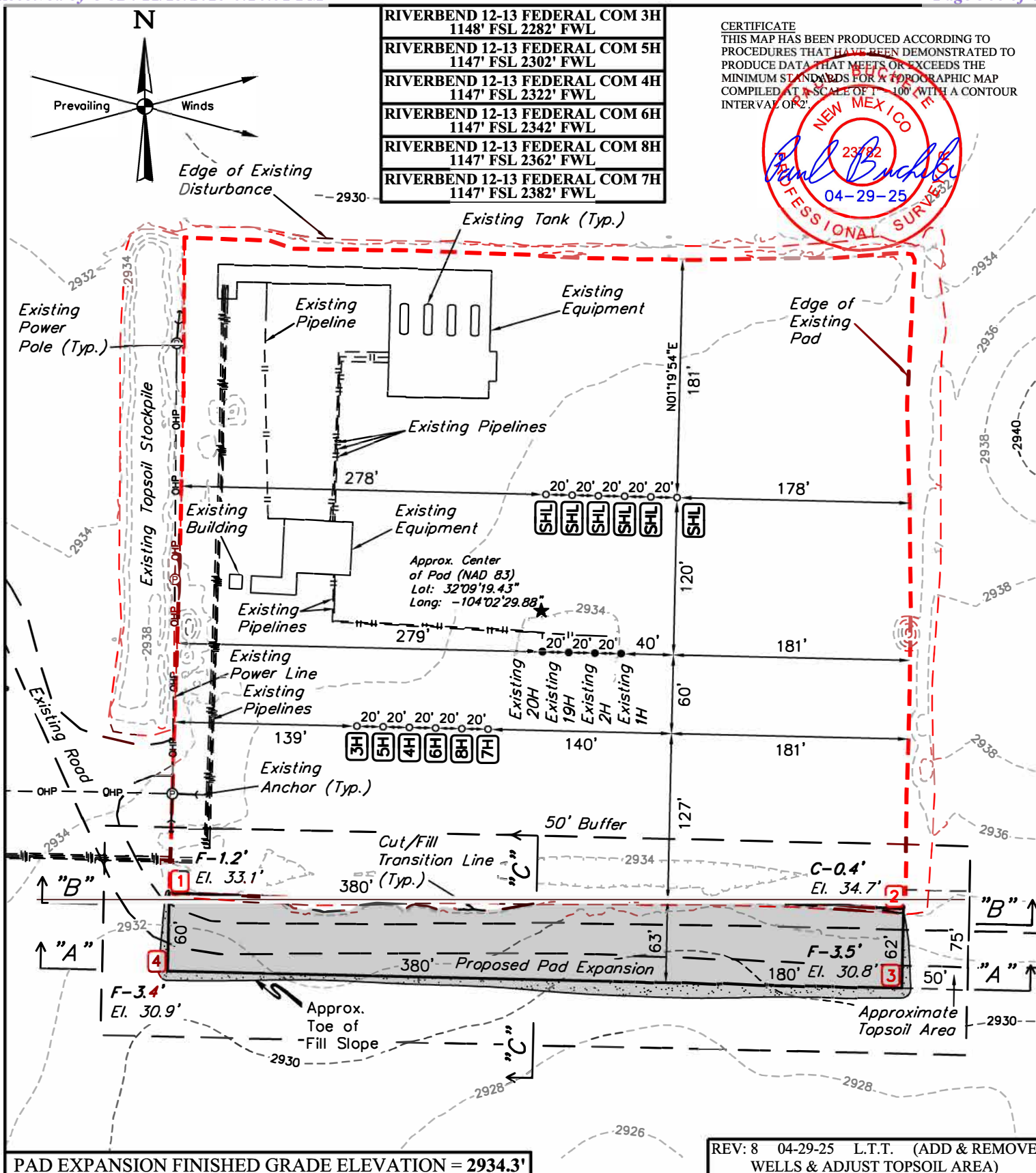
Formations

TVDP	MDP	Formation
407.00	407.00	Rustler
1952.00	1966.87	Top Salt
2632.00	2667.69	Base Salt/Lamar
2806.00	2847.00	Delaware Sands/Bell Canyon
3619.00	3684.90	Cherry Canyon
4817.00	4919.58	Brushy Canyon
5766.00	5897.63	Lower Brushy Canyon
6411.00	6562.38	Bone Spring Lime
7361.00	7563.62	1st Bone Spring Sand
7589.00	8188.69	1st Bone Spring Sand LZ

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Riverbend 12-13 Federal Com 7H)	0.00	-1288.95	2600.47	419011.34	634168.93	32.1515851	-104.0333716
LTP (Riverbend 12-13 Federal Com 7H)	0.00	-11704.65	2619.89	408595.64	634188.35	32.1229532	-104.0334026



**NOTES:**

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UELS, LLC

Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Cimarex Energy Co. of Colorado **OGRID:** 162683 **Date:** 7/10/2025

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
Riverbend 12-13 Fed Com 7H		Sec 1 T25S, R28E	1147 FSL/2362	FWL 1550	3100	4106

IV. Central Delivery Point Name: Riverbend CTB _____ [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
Riverbend 12-13 Fed Com 7H		5/4/2027	9/14/2027	11/16/2027	1/15/2028	1/15/2028

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:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	5/14/2025
Phone:	432/6201644
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

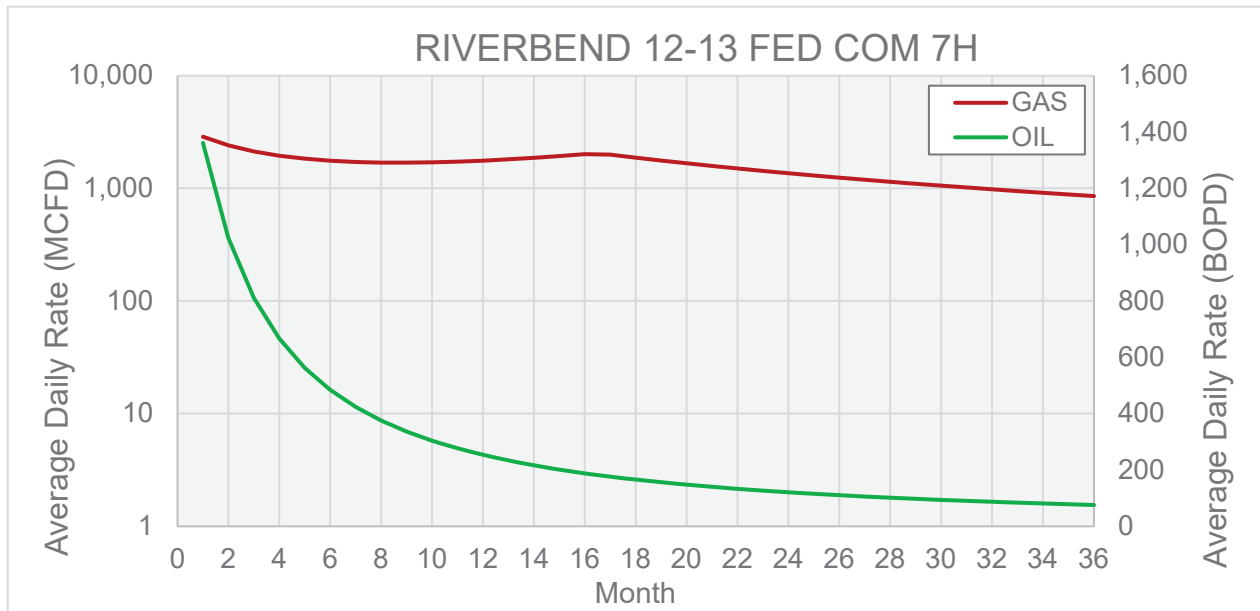
From State of New Mexico, Natural Gas Management Plan

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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.

RIVERBEND 12-13 FED COM 7H	RIVERBEND 12-13 FED COM 7H
GAS MCFD	OIL BOPD
2,875	1,361
2,408	1,023
2,126	811
1,947	666
1,831	562
1,757	484
1,713	424
1,691	375
1,688	336
1,699	304
1,723	276
1,760	253
1,807	233
1,864	216
1,932	201
2,011	188
1,988	176
1,869	165
1,762	156
1,666	147
1,578	140
1,499	133
1,426	126
1,359	120
1,298	115
1,242	110
1,190	105
1,141	101
1,096	97
1,054	93
1,015	90
979	87
944	84
912	81
882	78



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.

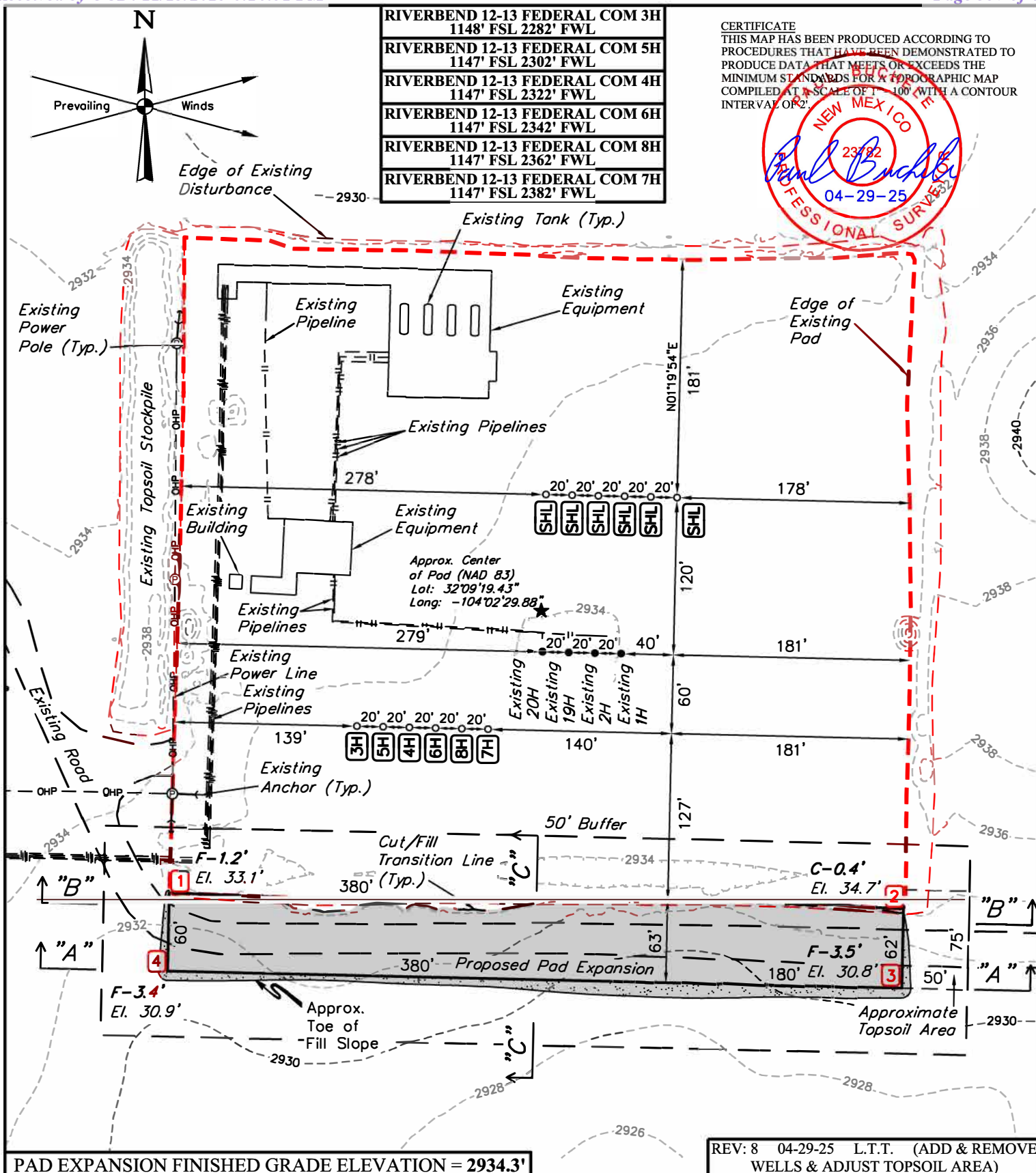
- i. Venting or flaring occurs as a result of bradenhead testing.
 - j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
 - k. Venting or flaring occurs as a result of a packer leakage test.
 - l. Venting 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...
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 - 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.

**NOTES:**

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

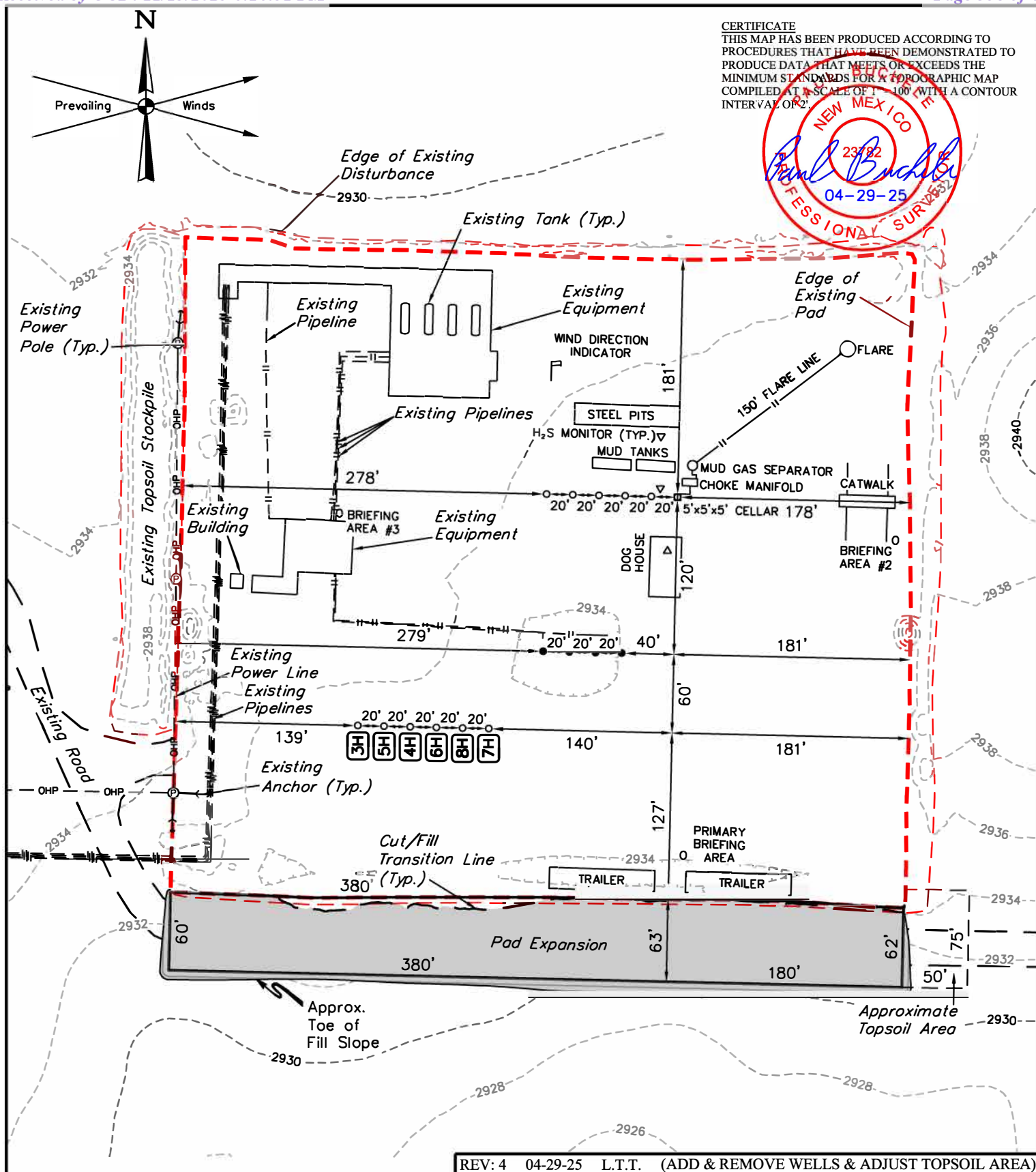
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J



REV: 4 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Cimarex Energy Co. of Colorado **OGRID:** 162683 **Date:** 7/10/2025

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
Riverbend 12-13 Fed Com 7H		Sec 1 T25S, R28E	1147 FSL/2362	FWL 1550	3100	4106

IV. Central Delivery Point Name: Riverbend CTB _____ [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
Riverbend 12-13 Fed Com 7H		5/4/2027	9/14/2027	11/16/2027	1/15/2028	1/15/2028

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:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	5/14/2025
Phone:	432/6201644
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

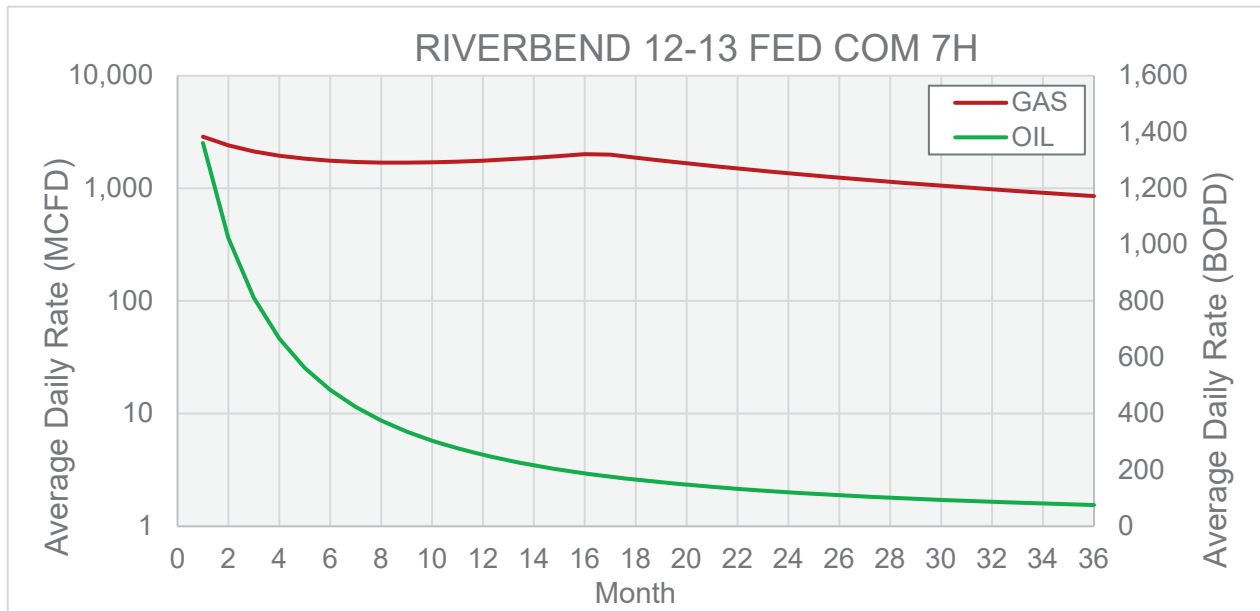
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The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

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 #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

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.



CERTIFICATE OF QUALITY

LTTY/QR-5.7.1-19B

No: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3"×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3 rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items			Inspection results		
Appearance Checking			In accordance with API Spec 16C 3 rd edition		
Size and Lengths			In accordance with API Spec 16C 3 rd edition		
Dimensions and Tolerances			In accordance with API Spec 16C 3 rd edition		
End Connections: 4-1/16"×10000psi Integral flange for sour gas service			In accordance with API Spec 6A 21 st edition		
End Connections: 4-1/16"×10000psi Integral flange for sour gas service			In accordance with API Spec 17D 3 rd edition		
Hydrostatic Testing			In accordance with API Spec 16C 3 rd edition		
product Marking			In accordance with API Spec 16C 3 rd edition		
Inspection conclusion		The inspected items meet standard requirements of API Spec 16C 3 rd edition			
Remarks		16C-0403 			
Approver	Jane C	Auditor	Alice D	Inspector	Leo W
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD					



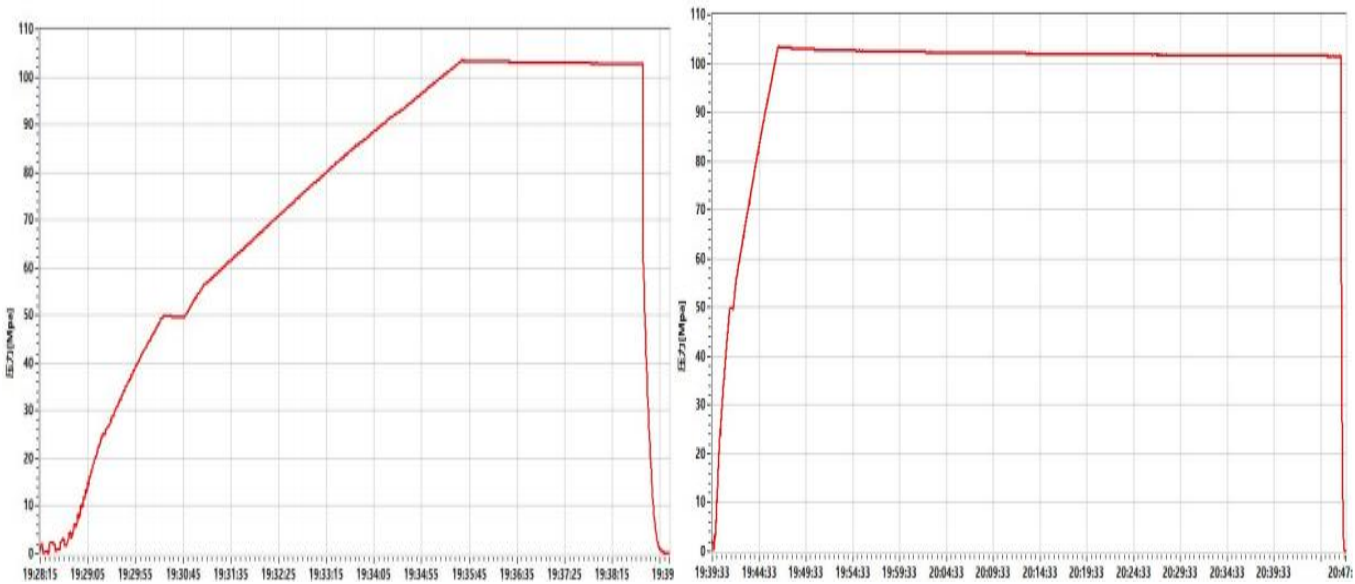
HYDROSTATIC TESTING REPORT

LTTY/QR-5.7.1-28

No: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3 rd edition
Product Specification	3″×10000psi×35ft （10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing:



Conclusion	The inspected items meet standard requirements of API Spec 16C 3 rd edition					16C-0403
Approver	Jane C	Auditor	Alice D	Inspector	Leo W	
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD						



CERTIFICATE OF CONFORMANCE

№:LT24090307

Product Name: Choke And Kill Hose

Product Specification: 3"×10000psi×35ft (10.67m)

Serial Number: VTC-7660257

customer number: PO890145-001

End Connections: 4-1/16"×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager:

Jane C

Date:Sep 3, 2024

16C-0403 The logo for API Spec 16C, featuring the letters "API" inside a diamond shape.

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD



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 #3: Omit the DV Tool from the Intermediate Casing

Coterra requests approval to omit the DV tool from the intermediate casing string. In lieu of a DV tool, Coterra will retain the option to pump down the intermediate annulus through casing valves with the appropriate cement slurry in the event returns to surface are not achieved on the primary job.

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.



CERTIFICATE OF QUALITY

LTTY/QR-5.7.1-19B

No: LT2024-156-001

Customer Name			
Product Name	Choke And Kill Hose		
Product Specification	3"×10000psi×35ft（10.67m）	Quantity	1PCS
Serial Number	VTC-7660257	FSL	FSL3
customer number	PO890145-001	Standard	API Spec 16C 3 rd edition
Temperature Range	-29℃～+121℃	Inspection date	2024.09.03

Inspection Items			Inspection results		
Appearance Checking			In accordance with API Spec 16C 3 rd edition		
Size and Lengths			In accordance with API Spec 16C 3 rd edition		
Dimensions and Tolerances			In accordance with API Spec 16C 3 rd edition		
End Connections: 4-1/16"×10000psi Integral flange for sour gas service			In accordance with API Spec 6A 21 st edition		
End Connections: 4-1/16"×10000psi Integral flange for sour gas service			In accordance with API Spec 17D 3 rd edition		
Hydrostatic Testing			In accordance with API Spec 16C 3 rd edition		
product Marking			In accordance with API Spec 16C 3 rd edition		
Inspection conclusion		The inspected items meet standard requirements of API Spec 16C 3 rd edition			
Remarks		16C-0403 			
Approver	Jane C	Auditor	Alice D	Inspector	Leo W
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD					



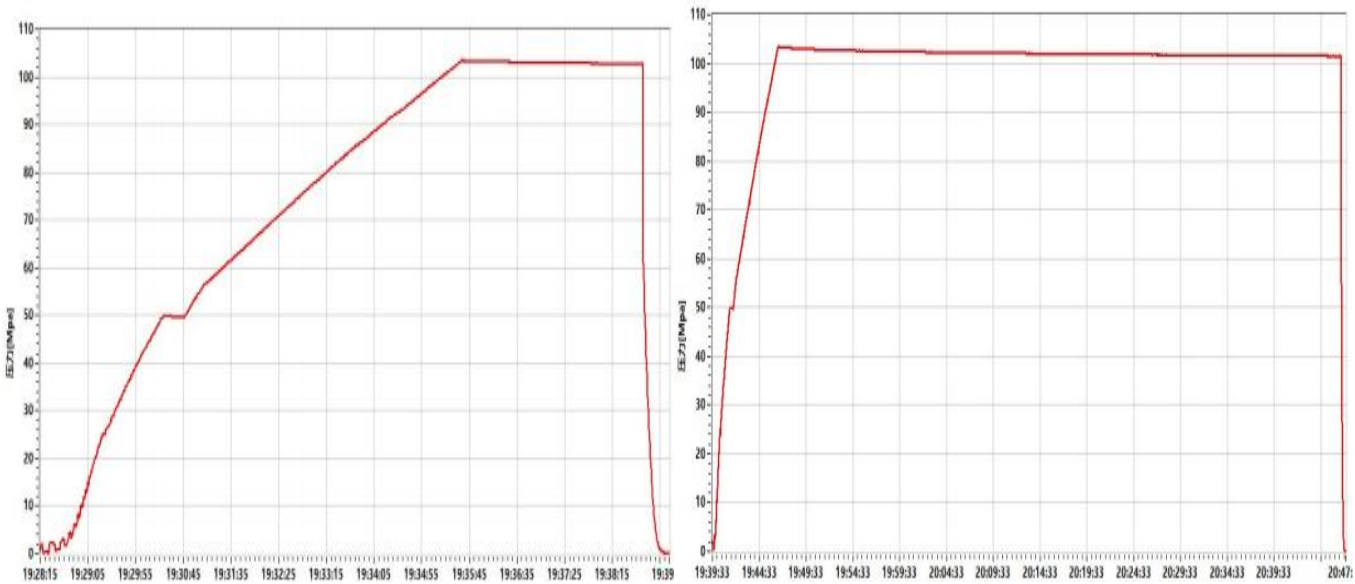
HYDROSTATIC TESTING REPORT

LTTY/QR-5.7.1-28

No: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3 rd edition
Product Specification	3″×10000psi×35ft （10.67m）	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30
Rate of length change			
Standard requirements	At working pressure ,the rate of length change should not more than ±2%		
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%		
Hydrostatic testing			
Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.		
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage		

Graph of pressure testing:



Conclusion	The inspected items meet standard requirements of API Spec 16C 3 rd edition					16C-0403
Approver	Jane C	Auditor	Alice D	Inspector	Leo W	
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD						



CERTIFICATE OF CONFORMANCE

№:LT24090307

Product Name: Choke And Kill Hose

Product Specification: 3"×10000psi×35ft (10.67m)

Serial Number: VTC-7660257

customer number: PO890145-001

End Connections: 4-1/16"×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3rd edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3rd edition .

QC Manager:

Jane C

Date:Sep 3, 2024

16C-0403 The logo for API Spec 16C, featuring the letters "API" inside a diamond shape.

LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD





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

SUPO Data Report

10/16/2025

APD ID: 10400105549

Submission Date: 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Well Type: CONVENTIONAL GAS 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:

RIVERBEND_12_13_FED_COM_W2E2_road_access_20250826154348.pdf

RIVERBEND_12_13_FED_COM_W2E2_road_access_20250925121456.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

ROW ID(s)

ID: 140042

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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H

Section 3 - Location of Existing Wells

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

RIVERBEND_12_13_FED_COM_W2E2_one_mile_radius_map_20250826154411.pdf

RIVERBEND_12_13_FED_COM_W2E2_one_mile_radius_map_20250925121513.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT**Production Facilities description:** An existing battery will be utilized.**Production Facilities map:**

Riverbend_12_13_Fed_Com_Existing_CTB_Layout_20200318065629.pdf

RB_12_13_Fed_Com_Existing_CTB_Layout_20250925121543.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:****City:** Carlsbad**Water source permit type:** WATER RIGHT**Permit Number:****Water source transport method:** TRUCKING**Source land ownership:** FEDERAL**Source transportation land ownership:** FEDERAL**Water source volume (barrels):** 5000**Source volume (acre-feet):** 0.64446548**Source volume (gal):** 210000

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Water source and transportation**

Riverbend_12_13_Fed_Com_W2E2_Drilling_Water_Source_Route_20250826154434.pdf

Riverbend_12_13_Fed_Com_W2E2_Drilling_Water_Source_Route_20250925121604.pdf

Water source comments:**New water well?** N**New Water Well Info****Well latitude:****Well Longitude:****Well datum:****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:** NO**Construction Materials description:****Construction Materials source location****Section 7 - Methods for Handling****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:**

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** A licensed 3rd party hauls trash to Lea County Landfill**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**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 FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** A licensed 3rd party contractor will be used to haul and dispose human waste.

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**

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COMWell Number: 7H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

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?

Cuttings 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:

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250826154516.pdf

RIVERBEND_12_13_FED_COM_W2E2_surface_use_plat_expansion_20250826154516.pdf

RIVERBEND_12_13_FED_COM_W2E2_aerial_site_layout_20250826154517.pdf

RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250925121659.pdf

RIVERBEND_12_13_FED_COM_W2E2_surface_use_plat_expansion_20250925121659.pdf

RIVERBEND_12_13_FED_COM_W2E2_aerial_site_layout_20250925121700.pdf

Comments:

Section 10 - Plans for Surface

Type of disturbance: New Surface DisturbanceMultiple Well Pad Name: Riverbend 12-13 Fed Com

Multiple Well Pad Number: 7H

Recontouring

RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250826154540.pdf

RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250925121720.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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

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 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): 8.112	Well pad interim reclamation (acres): 2.589	Well pad long term disturbance (acres): 5.523
Road proposed disturbance (acres): 0	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: 8.112	Total interim reclamation: 2.589	Total long term disturbance: 5.523

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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**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**Non native seed description:****Seedling transplant description:****Will seedlings be transplanted for this project?** N**Seedling transplant description attachment:****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:****Last Name:****Phone:****Email:****Seedbed prep:****Seed BMP:****Seed method:****Existing invasive species?** N**Existing invasive species treatment description:****Existing invasive species treatment**

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

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:

Section 11 - Surface

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:

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 OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

SUPO Additional Information: Onsite conducted on August 5, 2024 with Brendan Harris & Brandon Carico, Ellen Trout. Casey Jones, Shelly Bowen onsite for Coterra.
Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE EXISTING LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°) TO THE EXISTING WELL LOCATION IS APPROXIMATELY 2.4 MILES.

REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

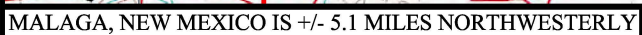
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	
DRAWN BY	B.R.	03-16-17	
ROAD DESCRIPTION			EXHIBIT A



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 3 08-16-24 D.J.S. (PAD EXPANSION)

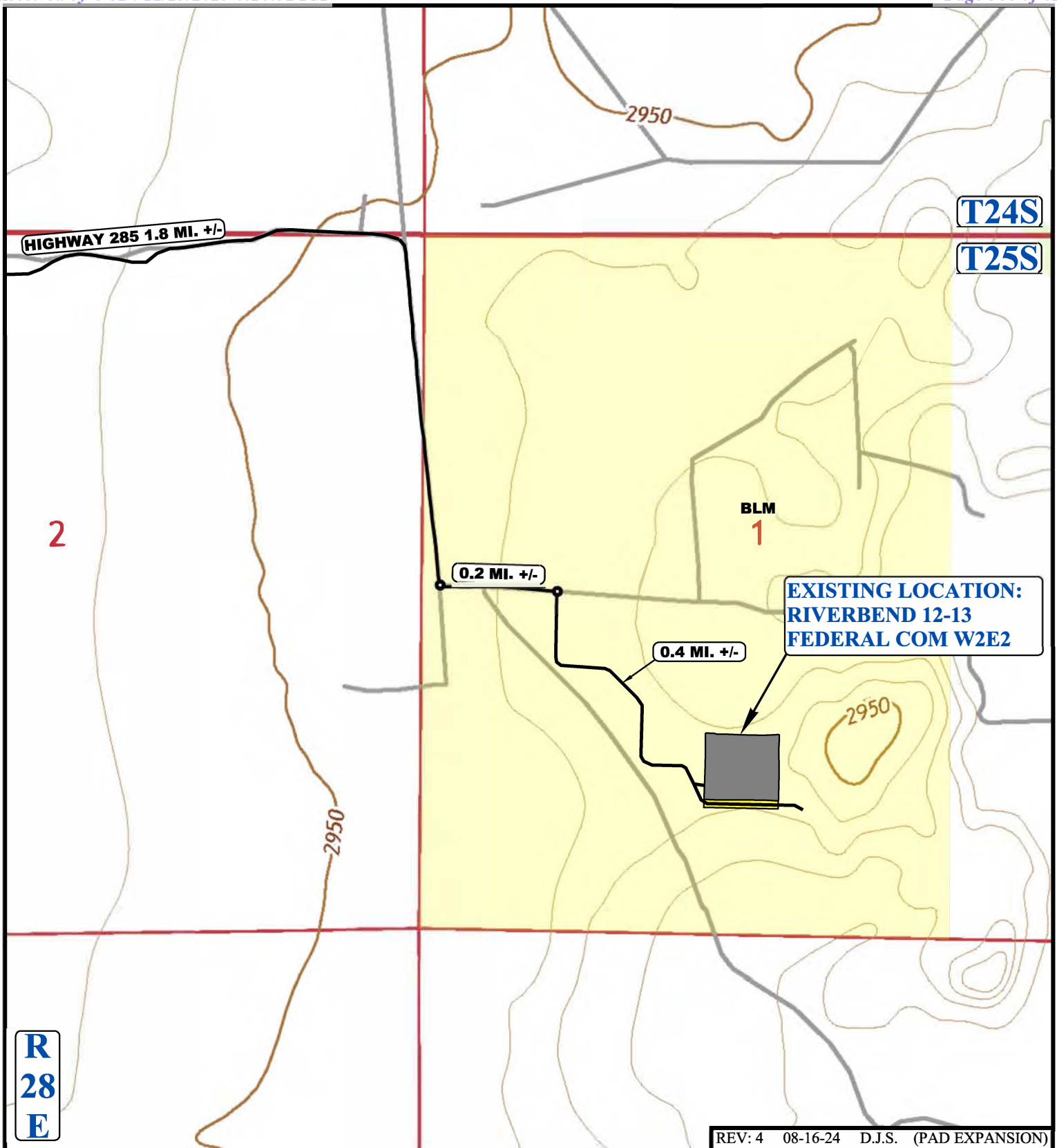
CIMAREX ENERGY CO.

**RIVERBEND 12-13 FEDERAL COM W2E2
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E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 100,000
PUBLIC ACCESS ROAD MAP			EXHIBIT B



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD



CIMAREX ENERGY CO.

**RIVERBEND 12-13 FEDERAL COM W2E2
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E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 12,000
NEW ROAD MAP			EXHIBIT D



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY, THEN SOUTHERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE EXISTING LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD 83 LATITUDE 32.1664° AND LONGITUDE -104.0717°) TO THE EXISTING WELL LOCATION IS APPROXIMATELY 2.4 MILES.

REV: 4 08-16-24 D.J.S. (PAD EXPANSION)

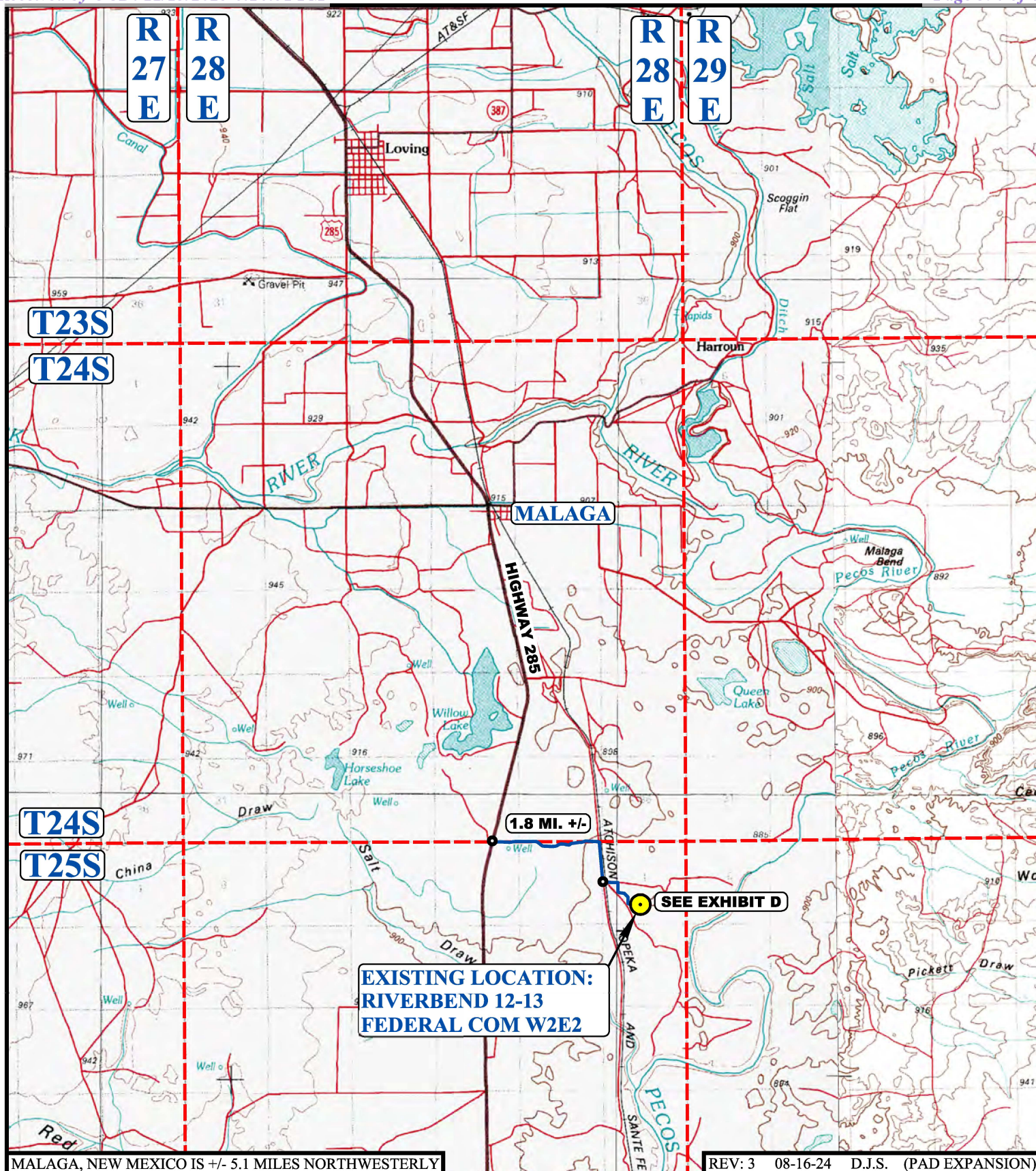
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	
DRAWN BY	B.R.	03-16-17	
ROAD DESCRIPTION			EXHIBIT A



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

**LEGEND:**

EXISTING LOCATION

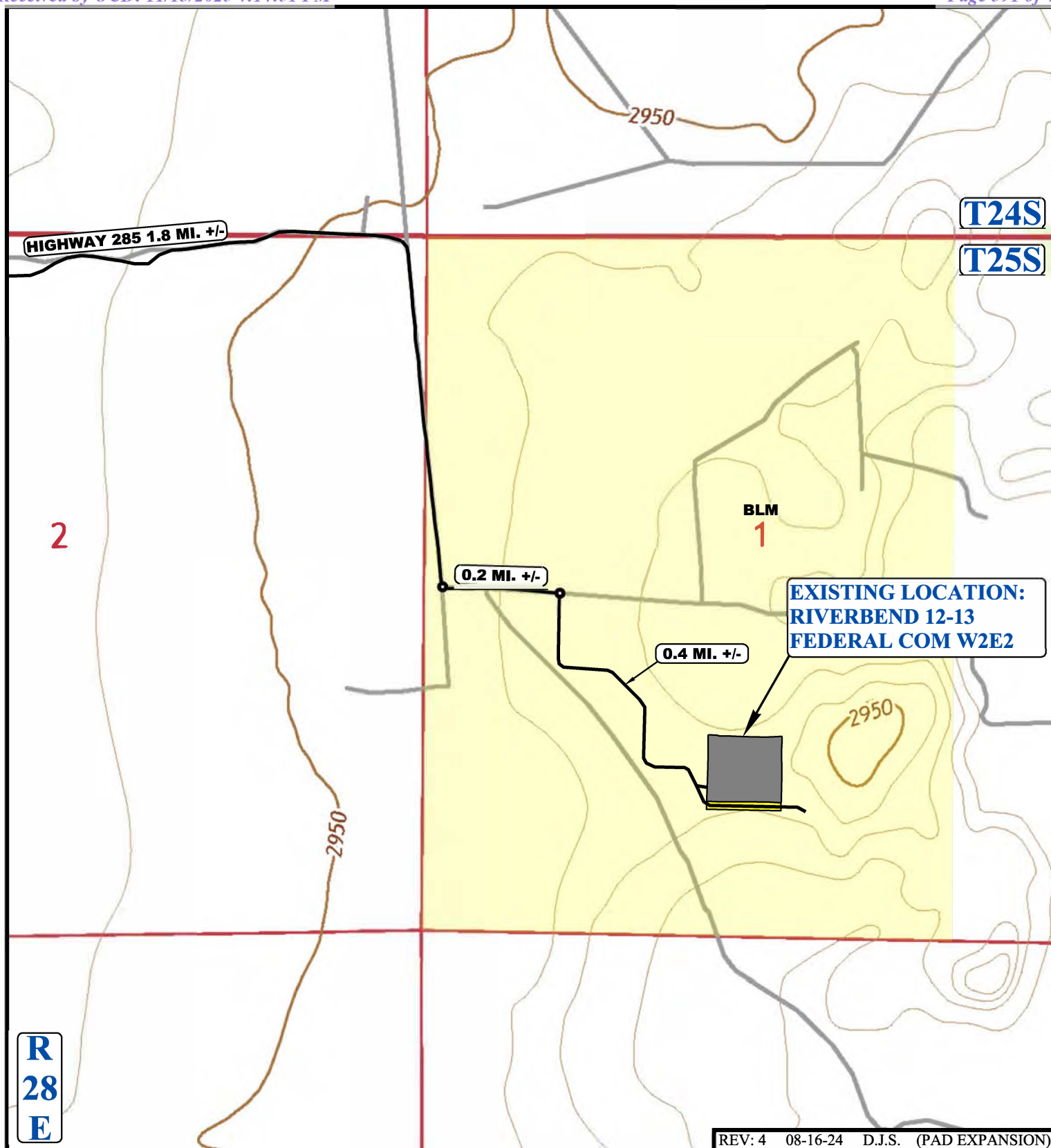
**CIMAREX ENERGY CO.**

**RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 100,000
PUBLIC ACCESS ROAD MAP			EXHIBIT B



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



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LEGEND:

EXISTING ROAD



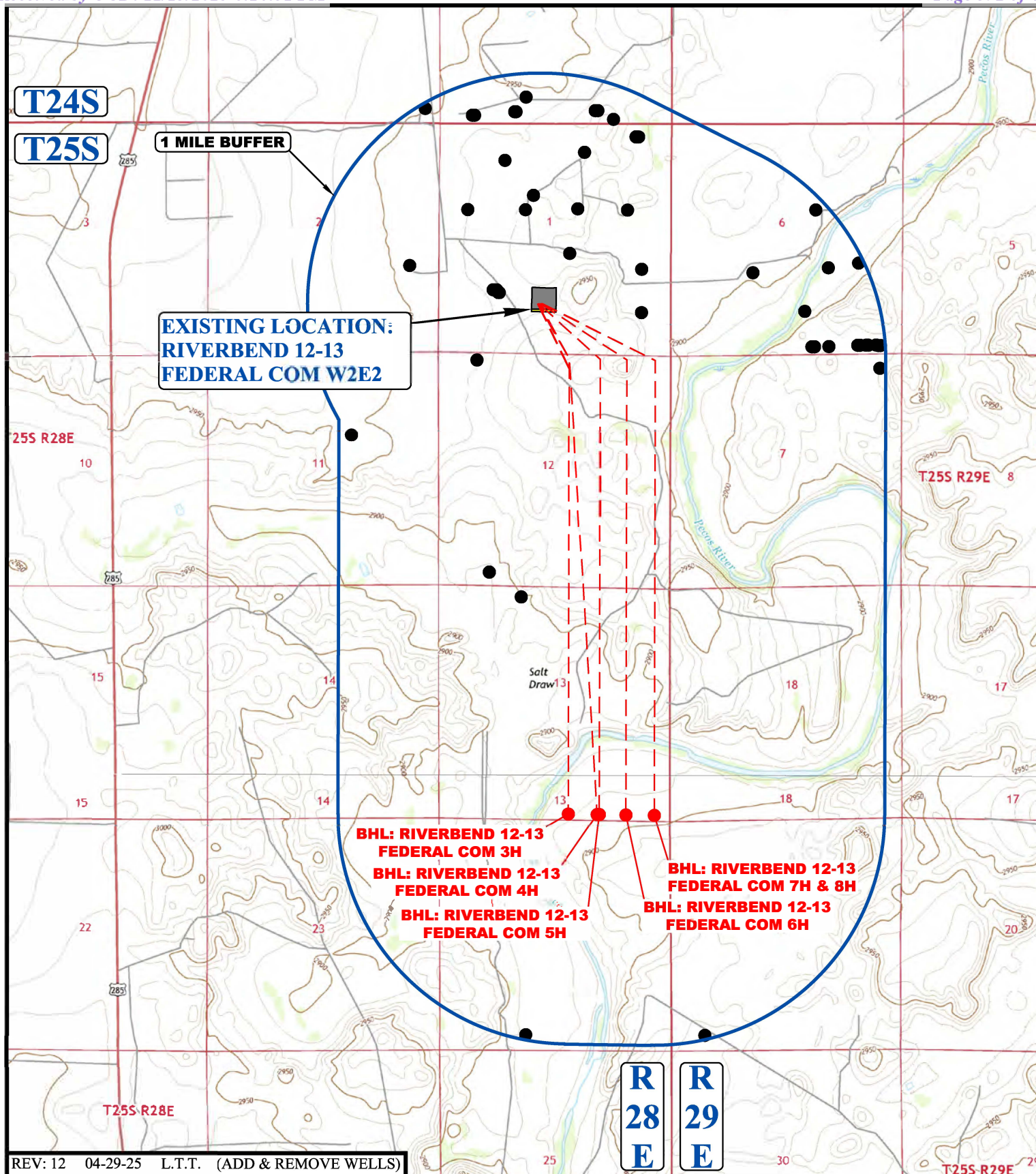
CIMAREX ENERGY CO.

**RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 12,000
NEW ROAD MAP			EXHIBIT D



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

**LEGEND:**

- EXISTING WELLS

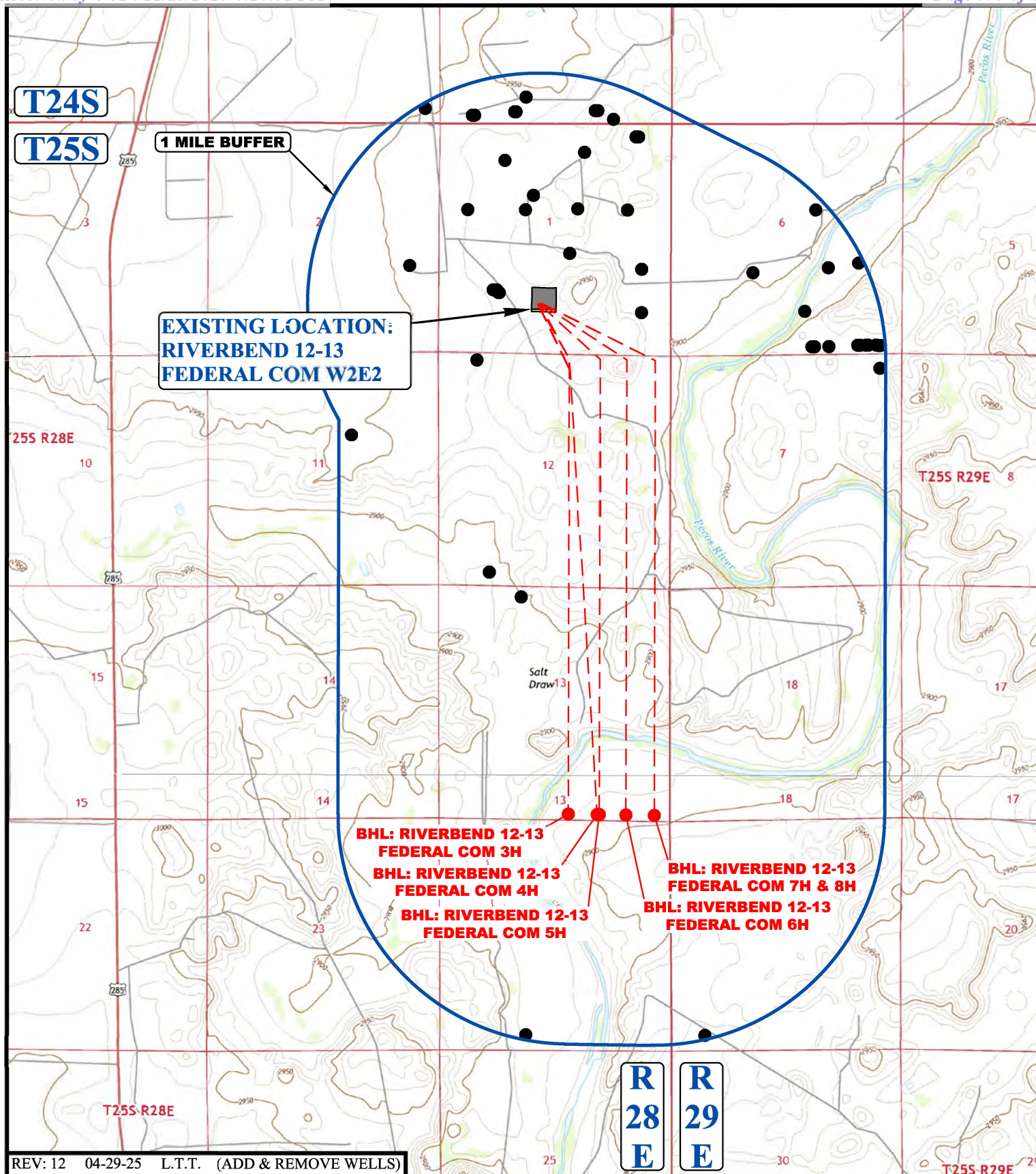
**CIMAREX ENERGY CO.**

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E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 36,000
ONE MILE RADIUS PLAT			EXHIBIT E



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

**LEGEND:**

- EXISTING WELLS

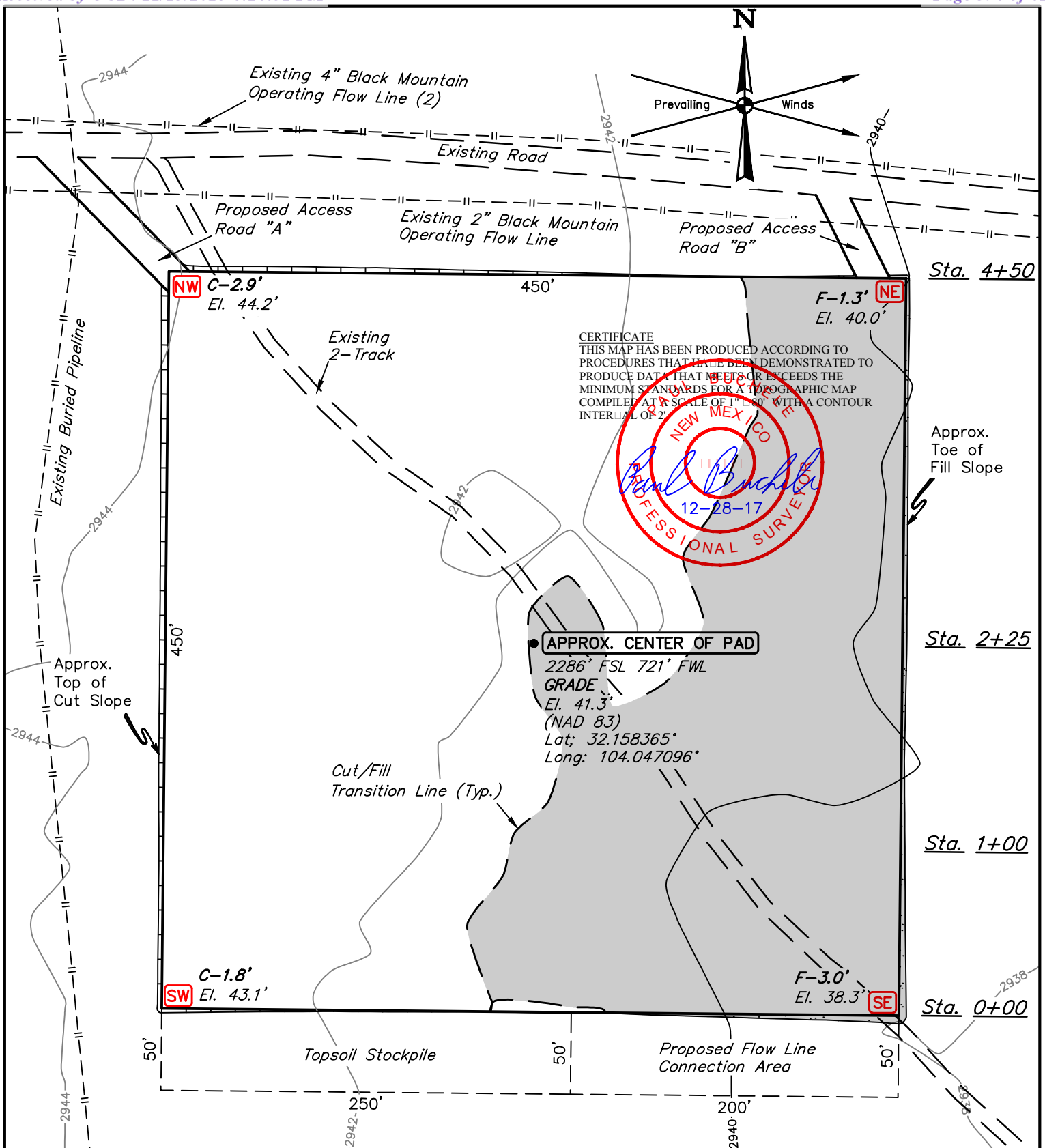
**CIMAREX ENERGY CO.**

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	B.R.	03-16-17	1 : 36,000
ONE MILE RADIUS PLAT			EXHIBIT E



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

FINISHED GRADE ELEVATION ☐ 2941.3 ☐RE: 2 12-14-17 S.F. (MODIFIED PAD ☐ NAME CHANGE)**NOTES:**

- Contours shown at 2' intervals.
- Cut/Fill slopes 1 1/2:1 (Typ. except where noted)
- Underground utilities shown on this sheet are for illustration purposes only, actual locations to be determined prior to construction.

CIMAREX ENERGY CO.

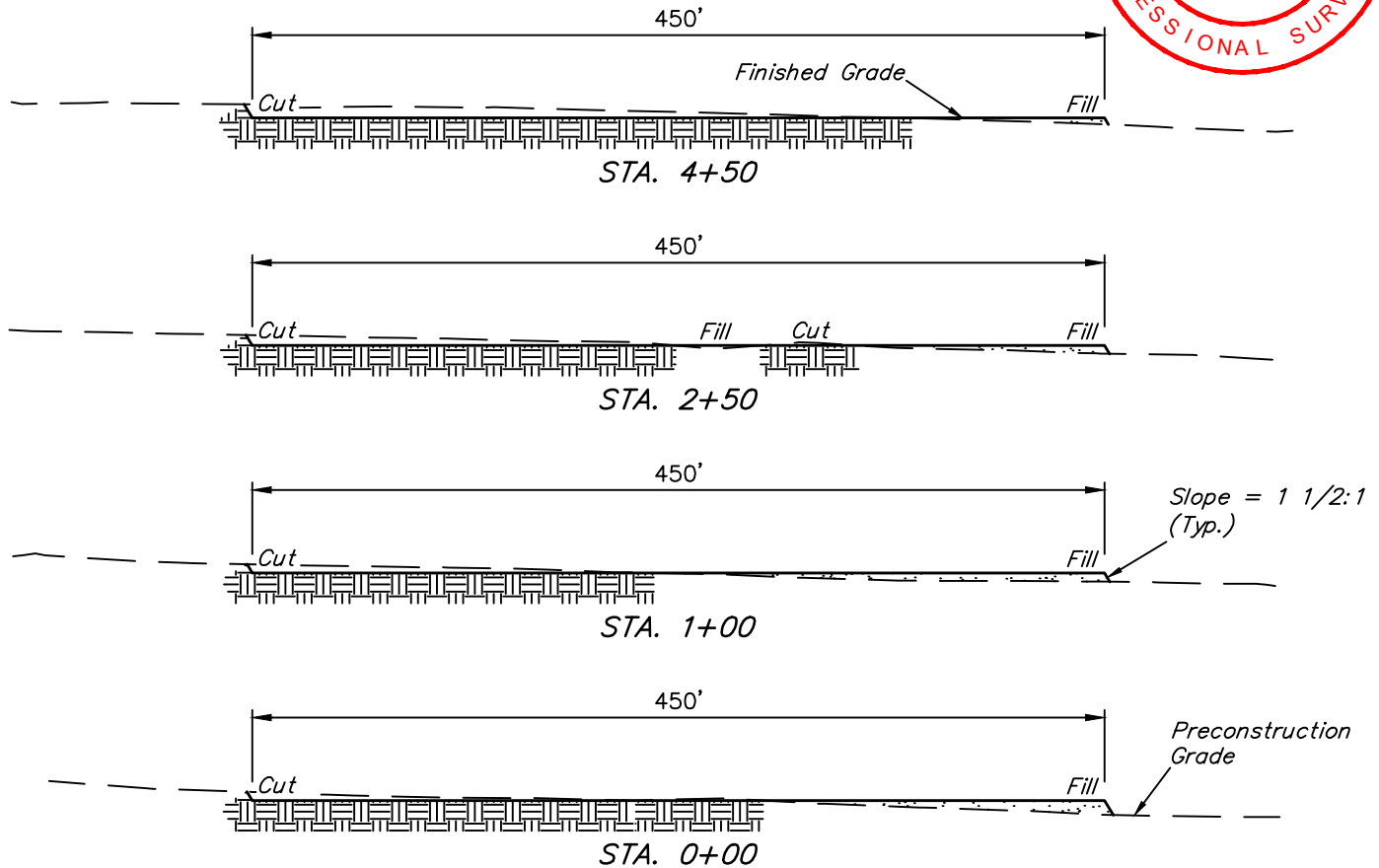
RIVERBEND 12-13 FEDERAL COM CTB
228 FSL 721 FWL (APPROX. CENTER OF PAD)
NW 1/4 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A. J. R.	12-08-17	SCALE
DRAWN BY	C.D.	03-20-17	1" = 80'
LOCATION LAYOUT		EXHIBIT F	



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

X-Section
Scale
1" = 100'



APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2,550 Cu. Yds.
REMAINING LOCATION	3,990 Cu. Yds.
TOTAL CUT	540 Cu. Yds.
FILL	3,990 Cu. Yds.
EXCESS MATERIAL	2,550 Cu. Yds.
TOPSOIL	2,550 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	0 Cu. Yds.

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±5.020
FLOW LINE CONNECTION AREA DISTURBANCE	NA	±0.230
30' WIDE GAS SALES PIPELINE R-O-W DISTURBANCE	±8,556.14'	±5.893
30' WIDE SWD PIPELINE R-O-W DISTURBANCE	±7,464.72'	±5.141
TOTAL SURFACE USE AREA		±16.284

RE: 2 12-14-17 S.F. (MOED PAD NAME CHANGE)

NOTES:

- Fill quantity includes 5% for compaction.
- Cut/Fill slopes 1 1/2:1 (Typ. except where noted)

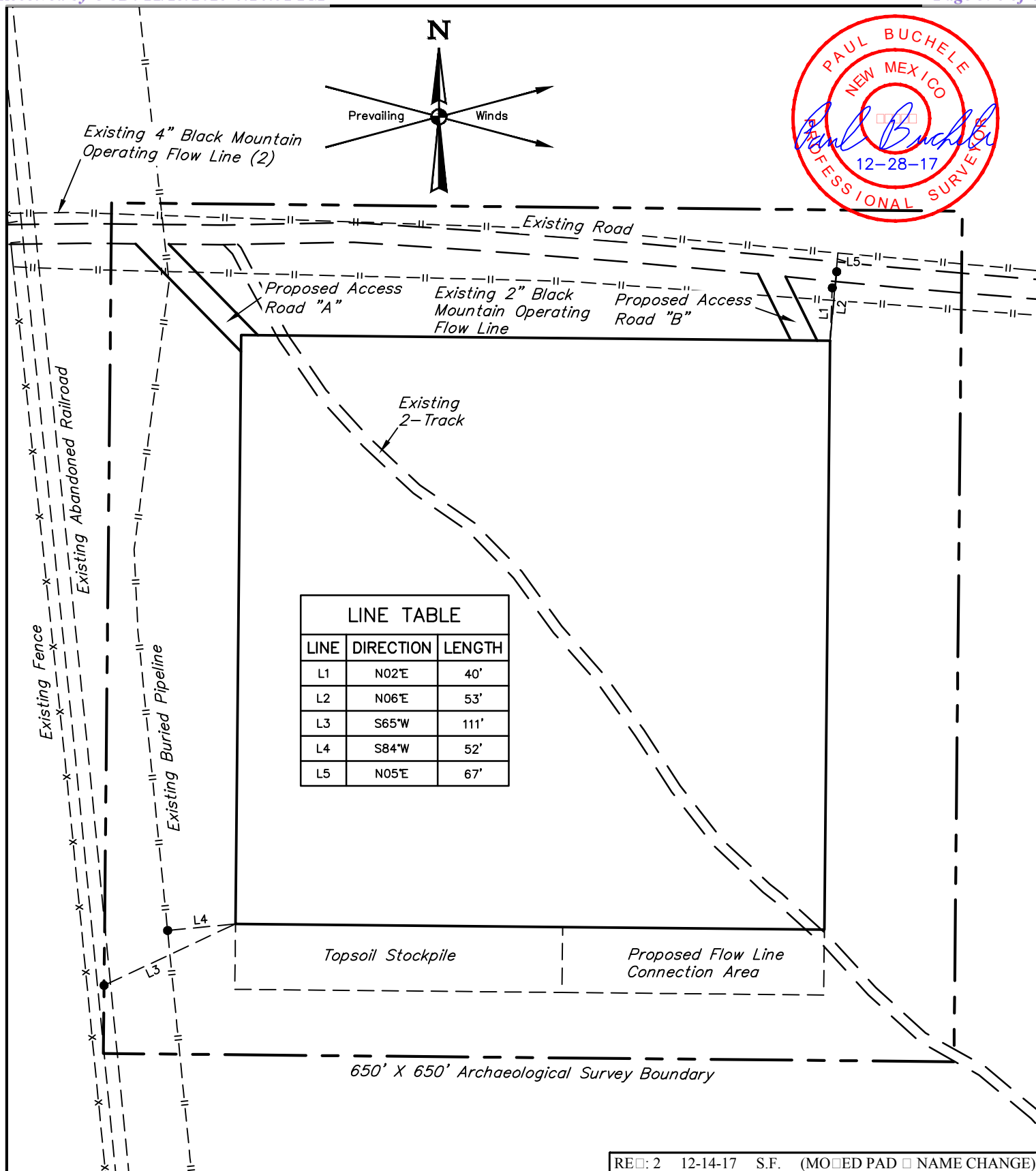
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM CTB
228 FSL 721 FWL (APPROX. CENTER OF PAD)
NW 1/4 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A., J.R.	12-08-17	SCALE
DRAWN BY	C.D.	03-20-17	AS SHOWN
TYPICAL CROSS SECTIONS		EXHIBIT F	



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

**NOTES:**

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

RE: 2 12-14-17 S.F. (MOED PAD NAME CHANGE)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM CTB
228 FSL 721 FWL (APPROX. CENTER OF PAD)
NW 1/4 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	A. J. R.	12-08-17	SCALE
DRAWN BY	C.D.	03-20-17	1" = 100'
ARCHAEOLOGICAL SURVEY BOUNDARY			EXHIBIT F

BEGINNING AT THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD83 LATITUDE N32.1664° AND LONGITUDE W104.0717°), PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD "A" TO THE SOUTHEAST; FOLLOW ROAD FLAGS APPROXIMATELY 108' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF HIGHWAY 285 AND AN EXISTING ROAD TO THE EAST (LOCATED AT NAD83 LATITUDE N32.1664° AND LONGITUDE W104.0717°) TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 1.9 MILES.

REV: 2 12-18-17 R.T. (PAD MOVE)

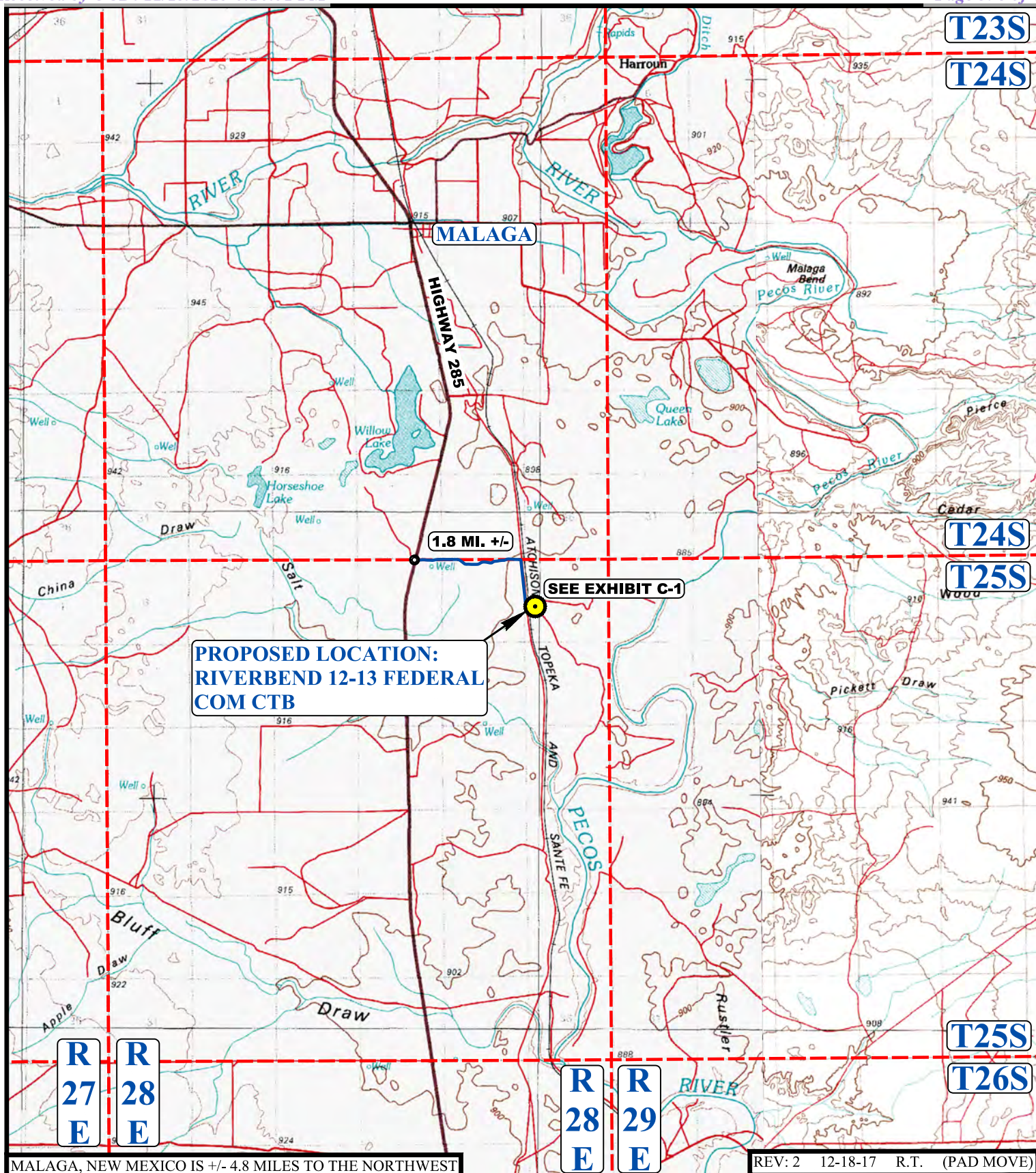
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM CTB
2286' FSL 721' FWL (APPROX. CENTER OF PAD)
NW 1/4 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	G.M.	03-13-17	
DRAWN BY	B.R.	03-16-17	
ROAD DESCRIPTION		EXHIBIT F	



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

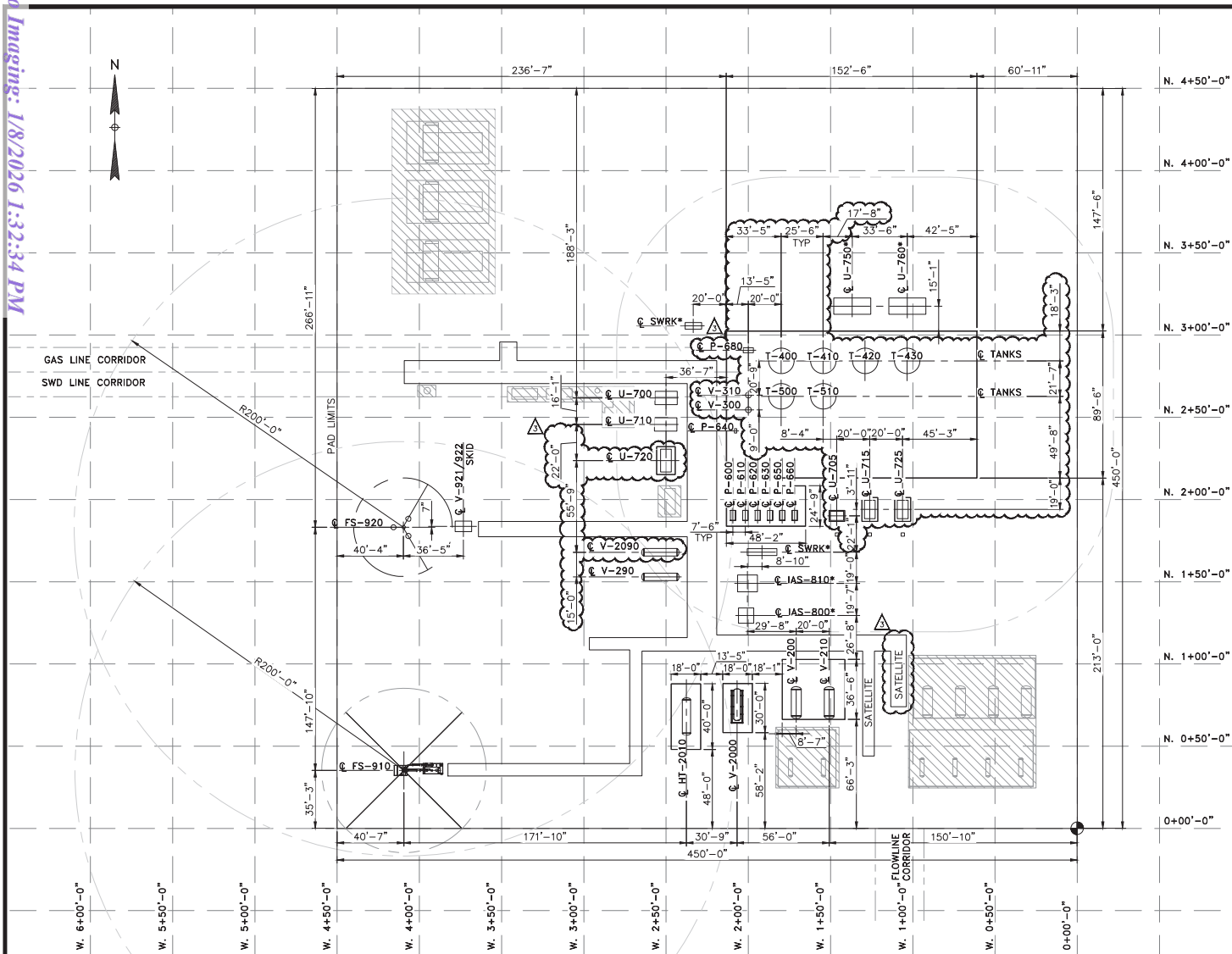
**LEGEND:**

PROPOSED LOCATION



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017





EQUIPMENT		
TAG	DESCRIPTION	
V-200	HZ 3PH TEST SEPERATOR 72" OD x 16' S/S	
V-210	HZ 3PH TEST SEPERATOR 72" OD x 16' S/S	
V-290	2PH HZ LP SCRUBBER 54" OD x 20'-0"	
V-2090	2PH HZ LP SCRUBBER 54" OD x 20'-0"	
V-2000	HZ HEATER TREATER 48" OD x 16' S/S	
HT-2010	HZ HEATER TREATER 60" OD x 20' S/S	
V-300	VAPOR RECOVERY TOWER 36" OD x 40' S/S	
V-310	VAPOR RECOVERY TOWER 36" OD x 40' S/S	
T-400 THRU T-430	1000 BBL OIL TANK 15'-6" x 30'-0" HT	
T-500 THRU T-510	1000 BBL WATER TANK 15'-6" x 30'-0" HT	
P-600	WATER TRANSFER PUMP	25
P-610	WATER TRANSFER PUMP	25
P-620	WATER TRANSFER PUMP	25
P-630	WATER TRANSFER PUMP	25
P-640	RECIRCULATION PUMP	3
P-650	WATER TRANSFER PUMP	100
P-660	WATER TRANSFER PUMP	100
P-680	PCP RECIRCULATION PUMP	2
U-700	VAPOR RECOVERY UNIT (G17)	160
U-705	VAPER RECOVERY UNIT (HY-BON NK100)	30
U-710	VAPOR RECOVERY UNIT (G17)	160
U-715	VAPOR RECOVERY UNIT (FLOGISTIX FX10V75)	75
U-720	VAPOR RECOVERY UNIT (FLOGISTIX FX12V125)	125
U-725	VAPOR RECOVERY UNIT (FLOGISTIX FX10V75)	75
U-750	MPLX LACT WITH BOOSTER PUMP	160
U-760	MPLX LACT WITH BOOSTER PUMP	170
IAS-800	AIR COMPRESSOR	(2)
IAS-810	AIR COMPRESSOR	(2)
FS-910	HERO 12" DUAL 10 MMCFD FLARE	18
V-911/912	DUAL SCRUBBER SKID	3
FS-920	TRIPOD 3.0/1.5 MMCFD DUAL FLARE STACK	18
V-921/922	DUAL SCUBBER SKID	3

ISSUED
SEPTEMBER 08, 2023
FOR CONSTRUCTION

LEGEND



NOTE:
LP 82PB; SWEET: OFF PAD
* FIELD VERIFY LOCATION PRIOR TO CONSTRUCTION

REFERENCE DRAWINGS		REVISIONS				
NO.	TITLE	NO.	DATE	DESCRIPTION	BY	CHK. APP.
0		0	04/26/18	ISSUED FOR CONSTRUCTION	MJR	NR
1		1	07/15/19	IFC-35 PROJ. 9216 5 WELL ADD ON	CJ	LL
2		2	09/08/23	ISSUED AS-BUILT	NR	JM
3		3	09/08/23	IFC 35 PROJ 23129	NR	JM



3S Services, LLC
ENGINEERING & DESIGN
Ph: 432-687-5611 Midland, Texas 79705
WWW.3SENGINEERINGDESIGN.COM
TPE FIRM REG. #13809
NM FIRM REG. #454520
OKLA FIRM REG. #3712333615

NOTICE

THIS DRAWING HAS NOT BEEN PUBLISHED BUT RATHER HAS BEEN FORWARDED BY 3S ENGINEERING & DESIGN FOR USE BY THE CLIENT NAMED IN THE TITLE BLOCK SOLELY IN RESPECT OF THE CONSTRUCTION, OPERATION AND MAINTENANCE OF THE FACILITY NAMED IN THE TITLE BLOCK AND SHALL NOT BE USED FOR ANY OTHER PURPOSE, OR FORWARDED TO ANY OTHER PARTY, WITHOUT THE EXPRESS WRITTEN PERMISSION OF 3S ENGINEERING & DESIGN.

ENGINEERING RECORD

BY	DATE
DRN: JV	02/21/18
DES: NR	
CHK:	
APP:	
AFE No.	
FACILITY ENGR. C. CUMBE	
PROJ. ENGR. J. MONEELY	
SCALE: NONE	



RIVERBEND 12-13 W2 BATTERY

PLOT PLAN

EDDY COUNTY

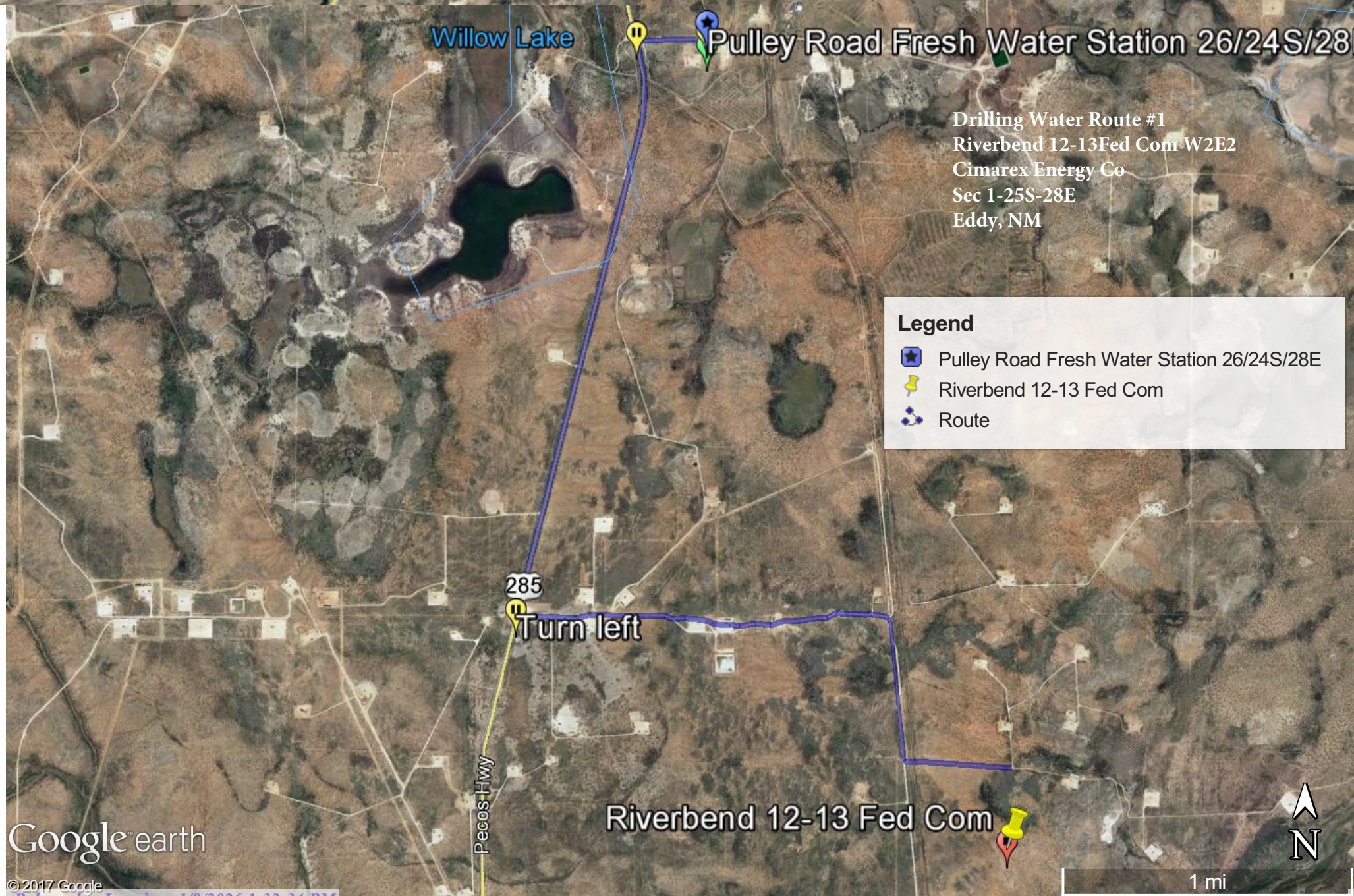
PLOT SCALE NONE

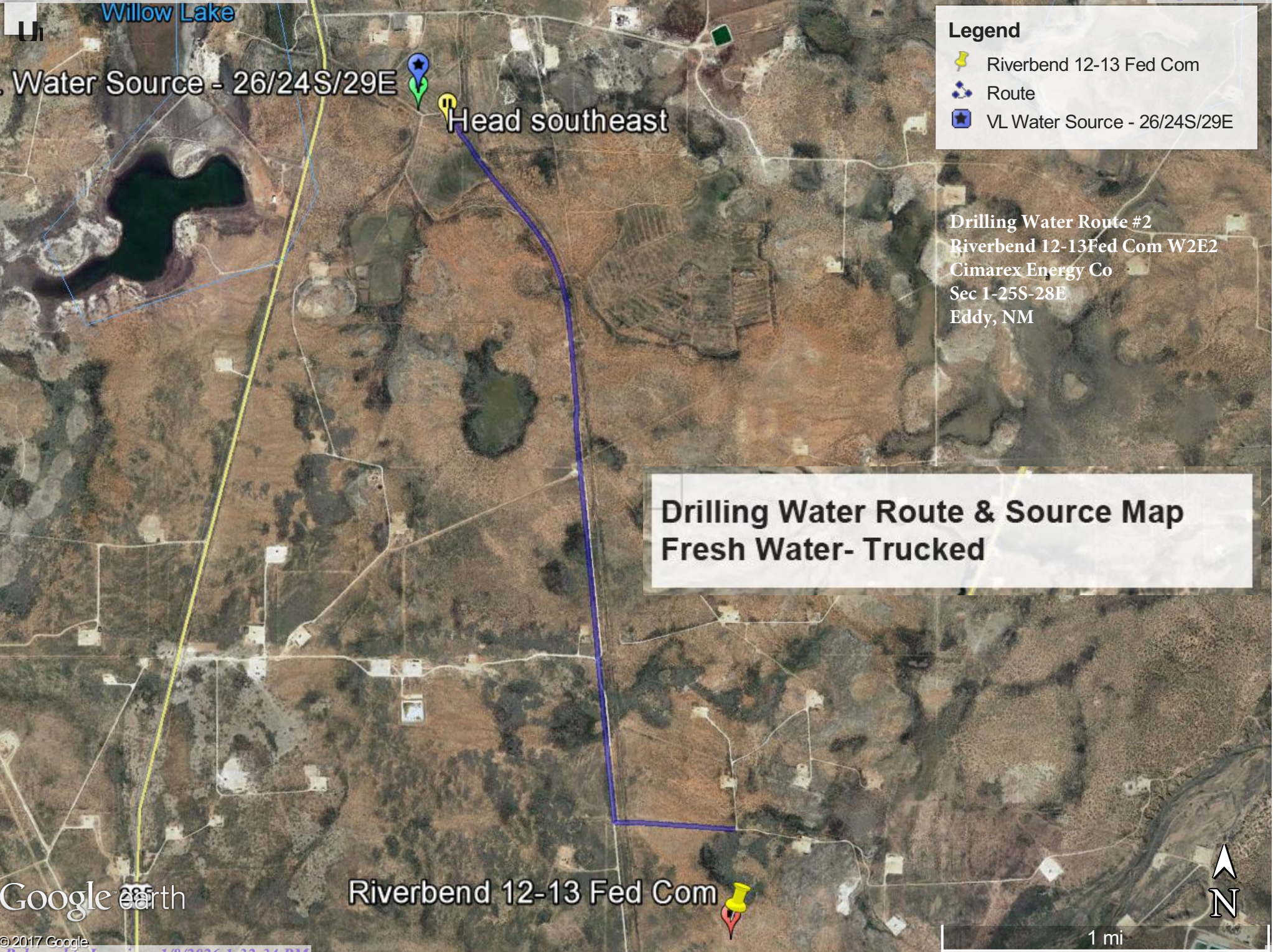
CAD NO.

DWG. NO.

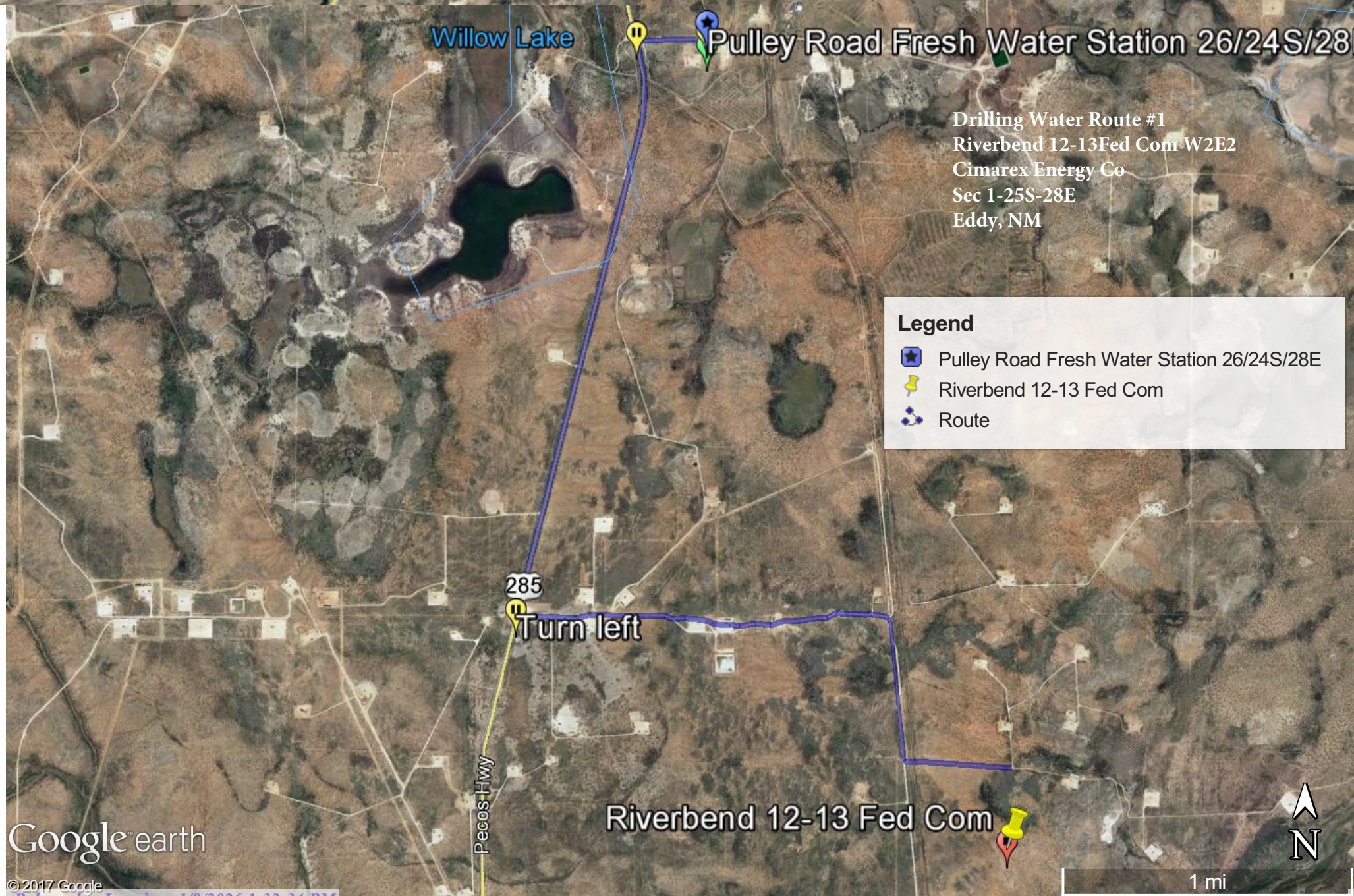
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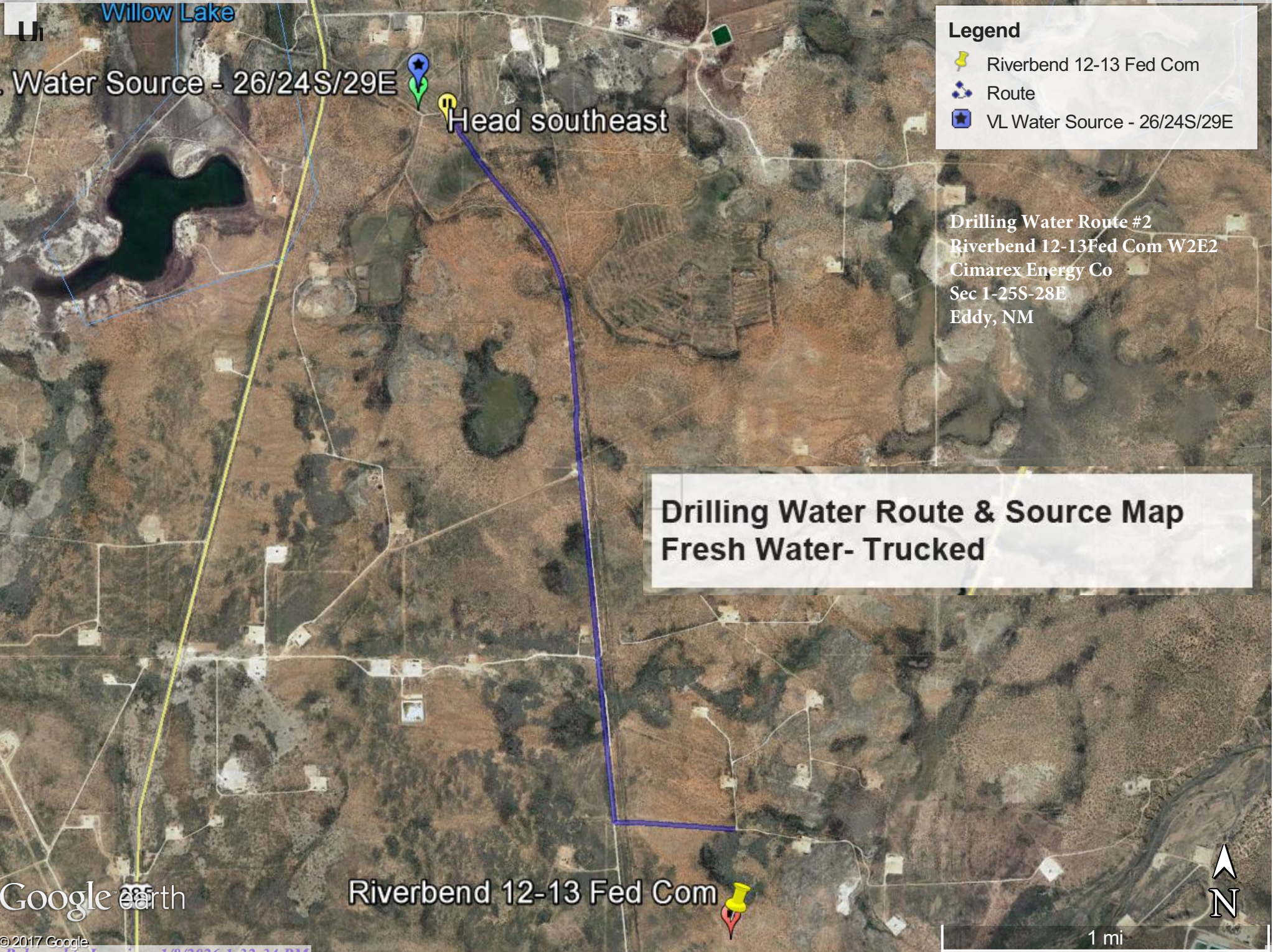
Drilling Water Route & Source Map Fresh Water- Trucked

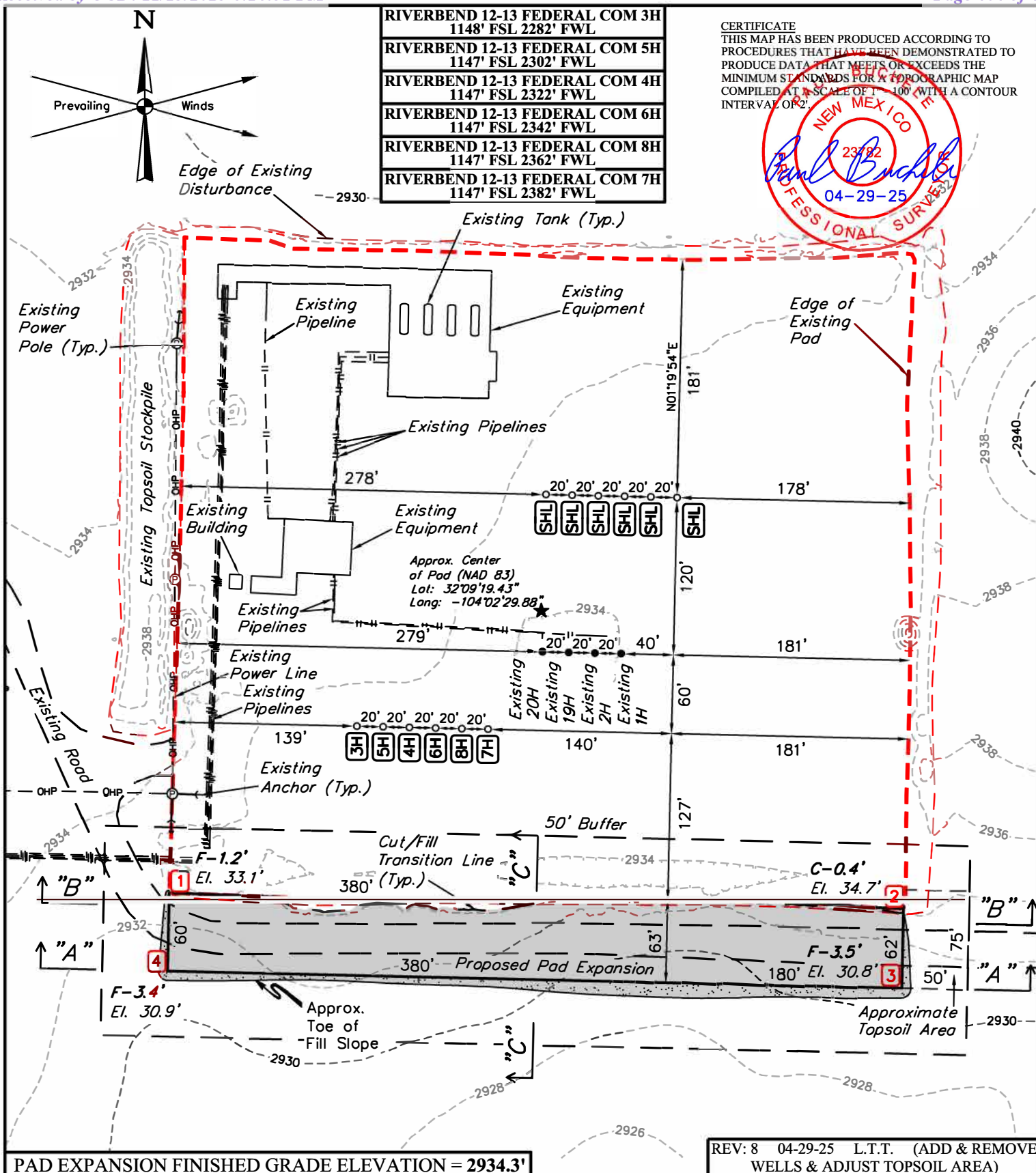




Drilling Water Route & Source Map Fresh Water- Trucked





**NOTES:**

- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

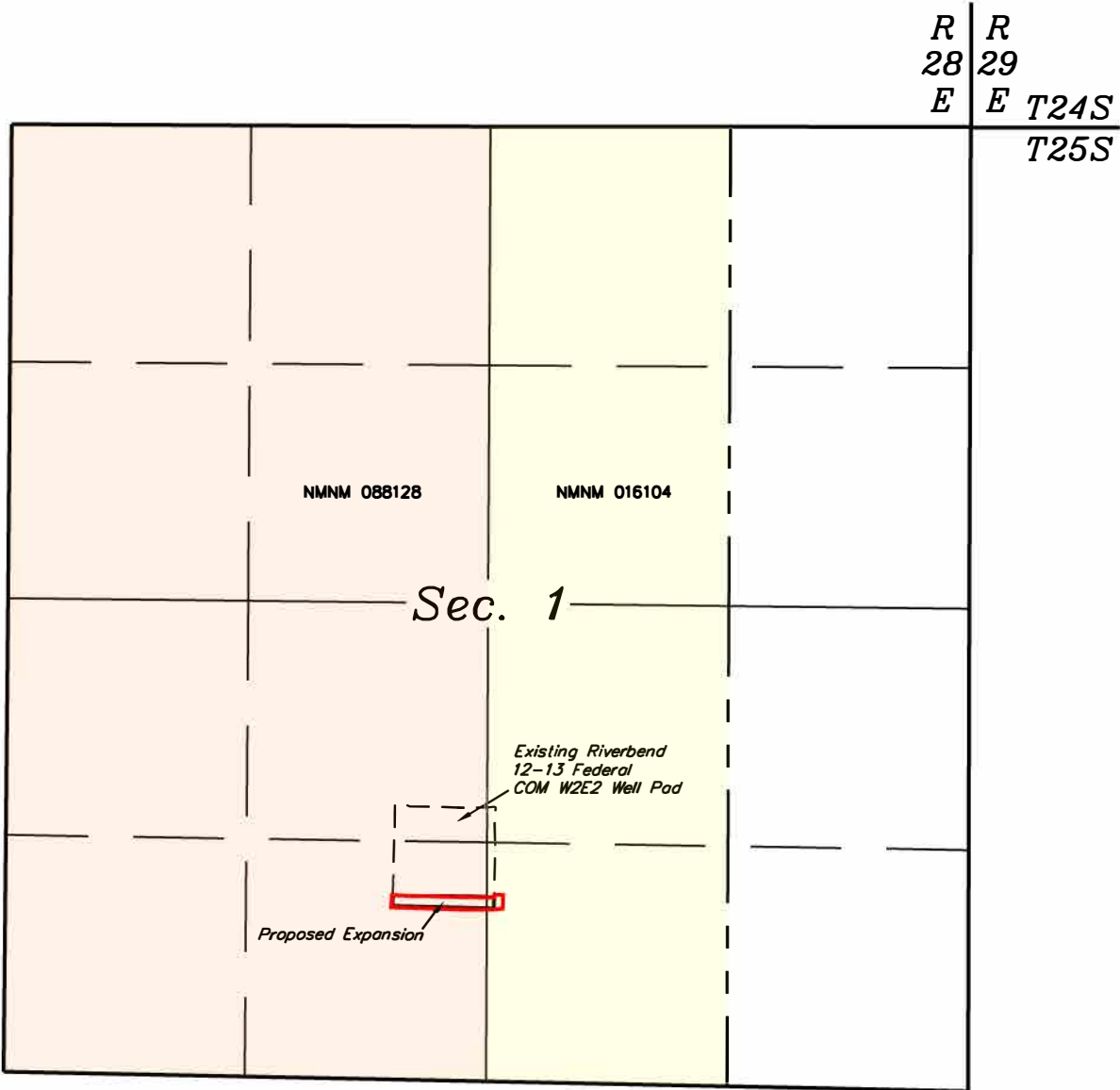
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT		EXHIBIT J	



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



- Colored areas within section lines represent Federal oil & gas leases.

LEGEND:

- PROPOSED CENTERLINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- PROPERTY LINE

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)



CIMAREX ENERGY CO.

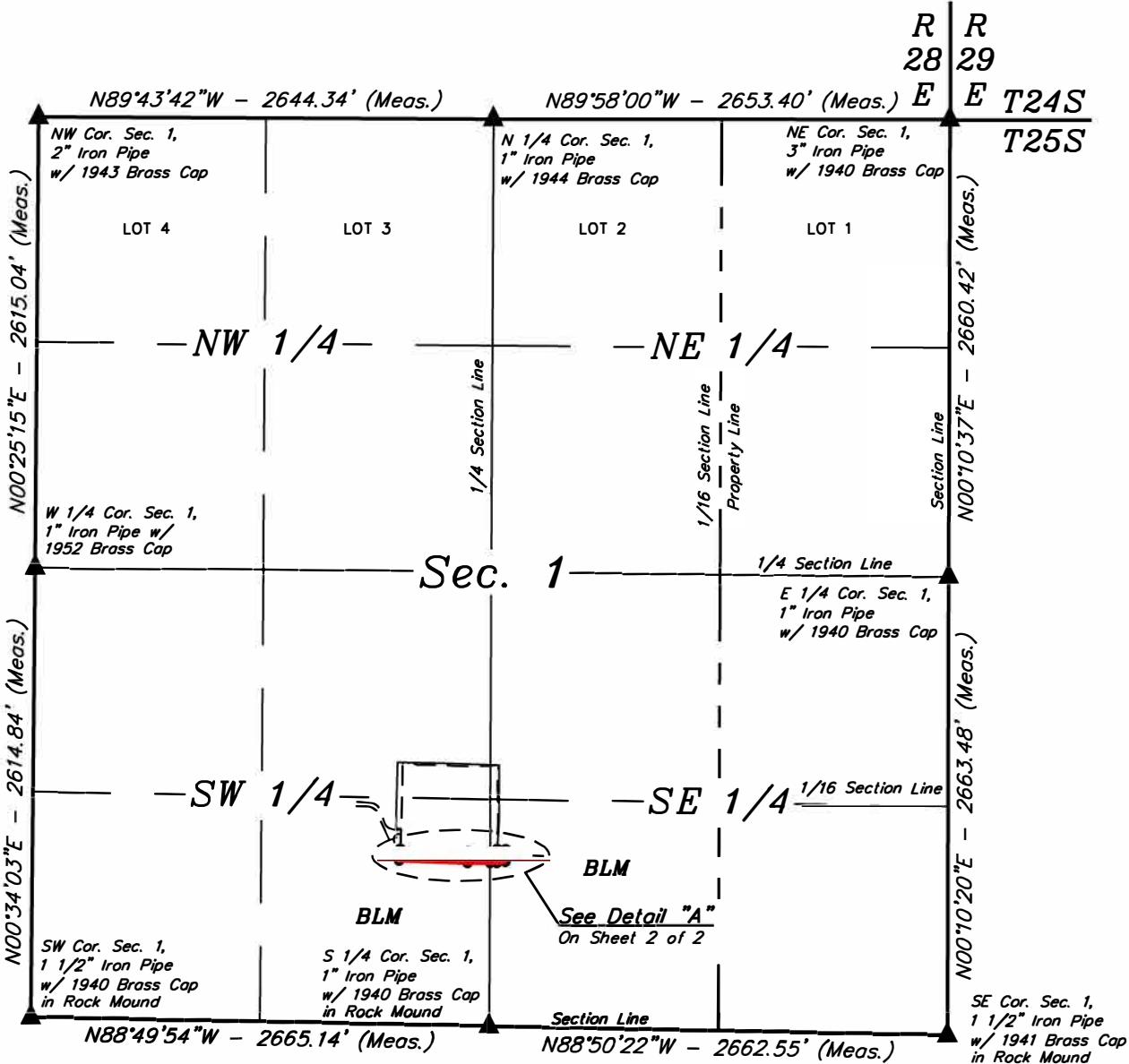
RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A

OVERALL SURFACE USE AREA



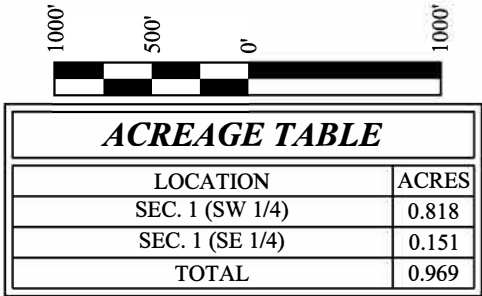
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



SURFACE USE AREA DESCRIPTION

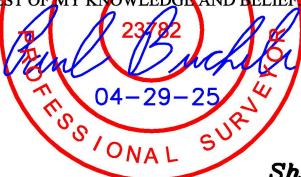
COMMENCING AT THE SOUTH 1/4 CORNER OF SECTION 1, T25S, R28E, N.M.P.M., FROM WHICH THE SOUTHWEST CORNER OF SAID SECTION 1 BEARS N88°49'54"W 2665.14', THENCE N00°16'11"E 947.86' ALONG THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1 TO THE POINT OF BEGINNING; THENCE N89°56'48"W 130.95'; THENCE N88°02'22"W 397.73'; THENCE N04°50'59"E 69.27'; THENCE N89°57'32"E 2.51'; THENCE S00°21'29"W 3.02'; THENCE S88°25'46"E 393.67'; THENCE S89°21'44"E 126.91' TO A POINT ON THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1; THENCE CONTINUING S89°21'44"E 40.19'; THENCE N04°19'11"E 15.69'; THENCE S88°40'06"E 49.03'; THENCE S01°19'54"W 75.00'; THENCE S82°27'12"W 50.60'; THENCE N89°56'48"W 38.80' TO THE POINT OF BEGINNING. CONTAINS 0.969 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS N00°16'11"E 947.86' FROM THE SOUTH 1/4 CORNER OF SECTION 1, T25S, R28E, N.M.P.M.



▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION THAT I AM RESPONSIBLE FOR THIS SURVEY THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF



Sheet 1 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)



CIMAREX ENERGY CO.

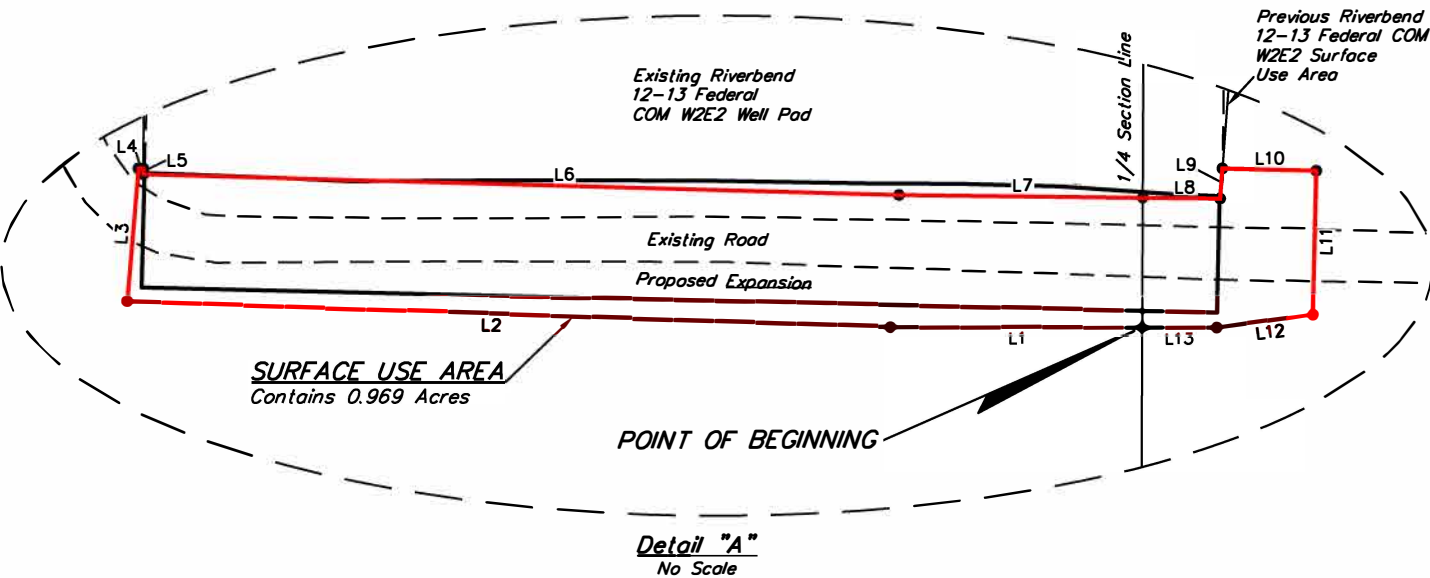
RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	1" = 1000'
FILE	C-6404-A1		

SURFACE USE AREA

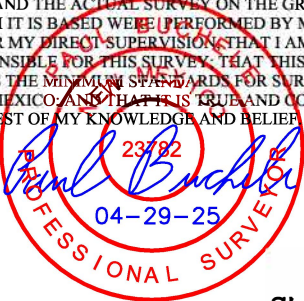


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Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°56'48"W	130.95'
L2	N88°02'22"W	397.73'
L3	N04°50'59"E	69.27'
L4	N89°57'32"E	2.51'
L5	S00°21'29"W	3.02'
L6	S88°25'46"E	393.67'
L7	S89°21'44"E	126.91'
L8	S89°21'44"E	40.19'
L9	N04°19'11"E	15.69'
L10	S88°40'06"E	49.03'
L11	S01°19'54"W	75.00'
L12	S82°27'12"W	50.60'
L13	N89°56'48"W	38.80'

CERTIFICATE
THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Sheet 2 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)



CIMAREX ENERGY CO.

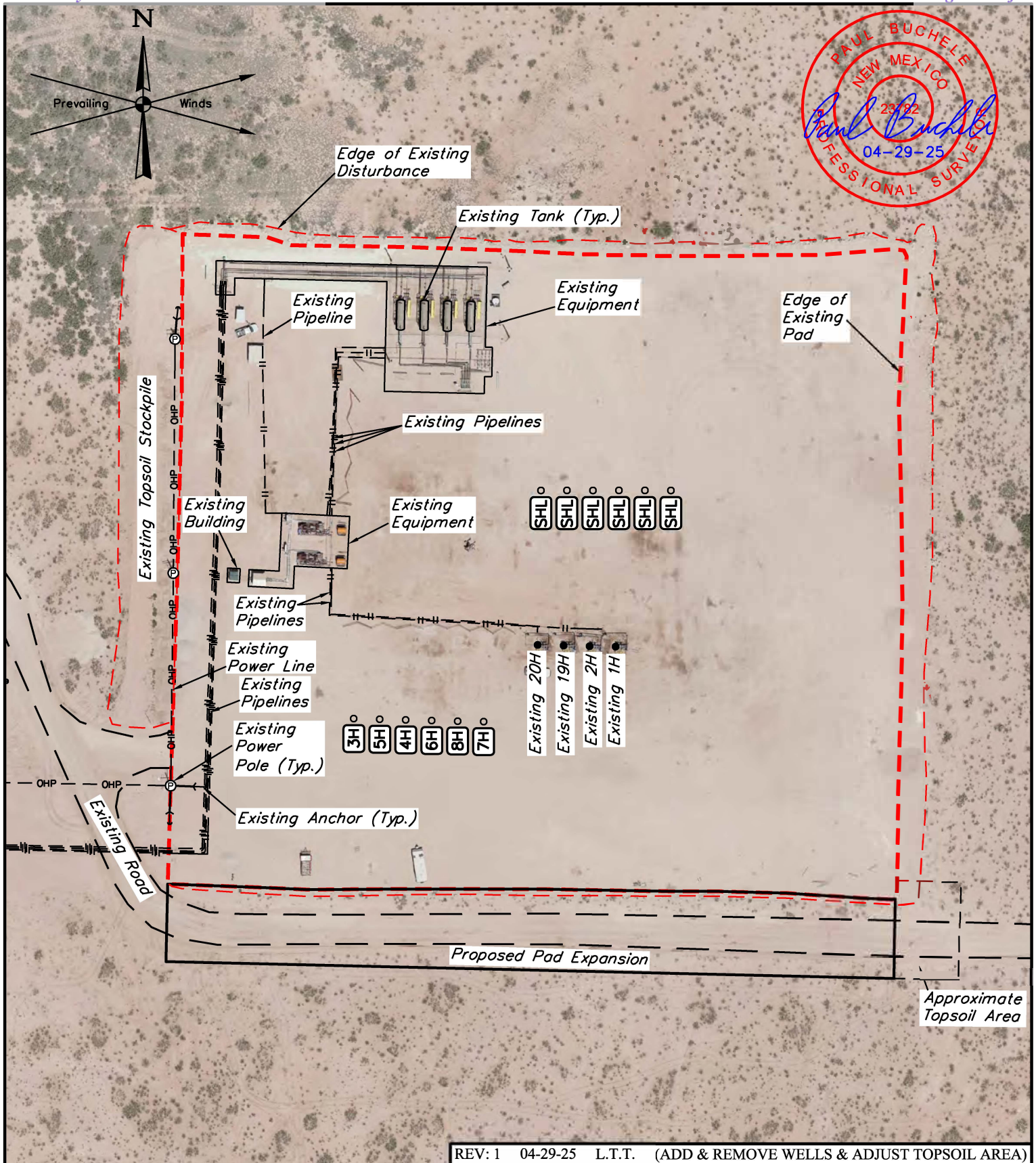
RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A
FILE	C-6404-A2		

SURFACE USE AREA



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 04-29-25 L.T.T. (ADD & REMOVE WELLS & ADJUST TOPSOIL AREA)

NOTES:

- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-16-24	1" = 100'
AERIAL SITE PLAN			



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017



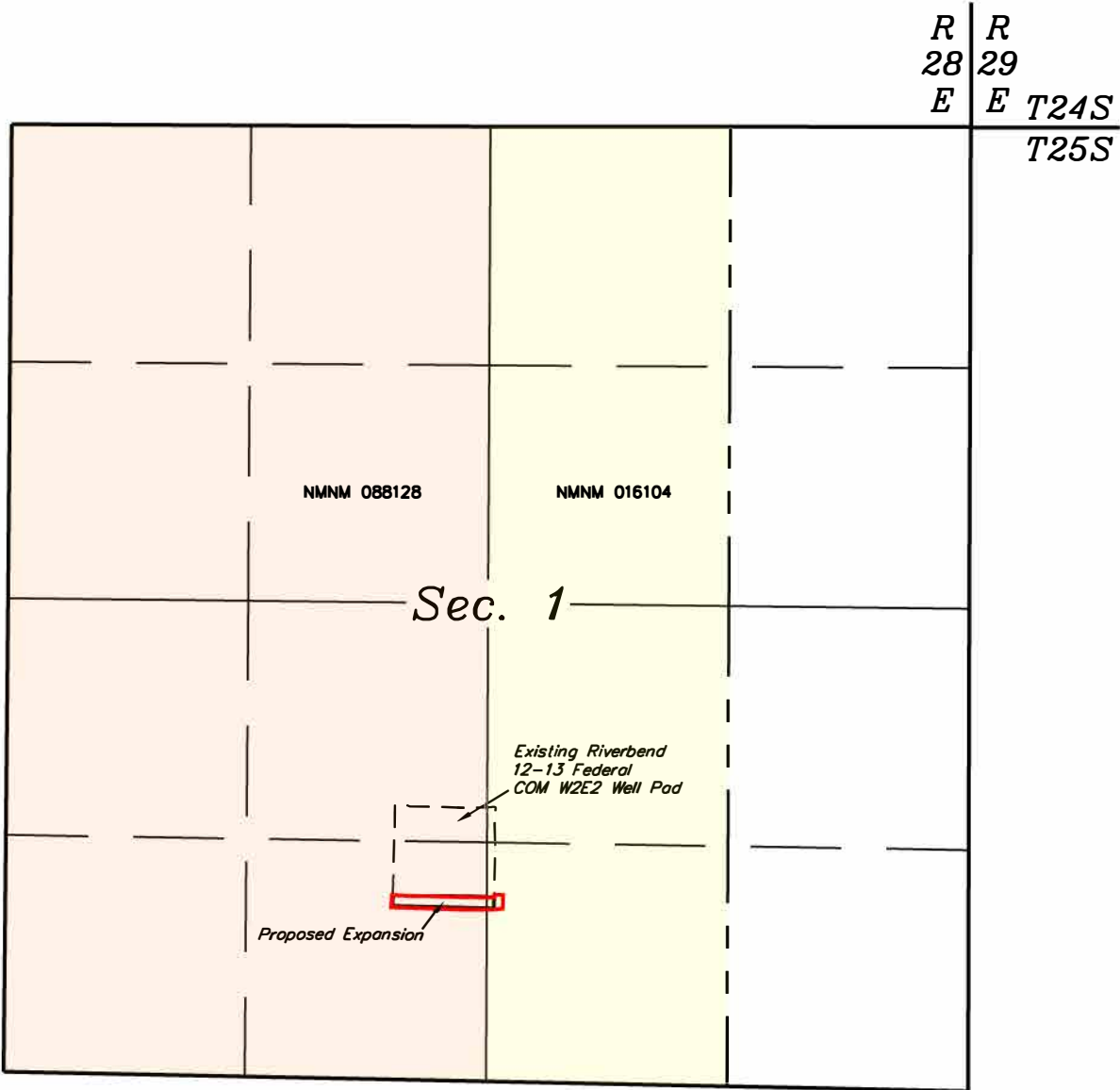
- Contours shown at 2' intervals.
- Cut/Fill Slopes 2:1 (Typ.)
- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

**RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
LOCATION LAYOUT			EXHIBIT J



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



- Colored areas within section lines represent Federal oil & gas leases.

LEGEND:

- PROPOSED CENTERLINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- PROPERTY LINE

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)



CIMAREX ENERGY CO.

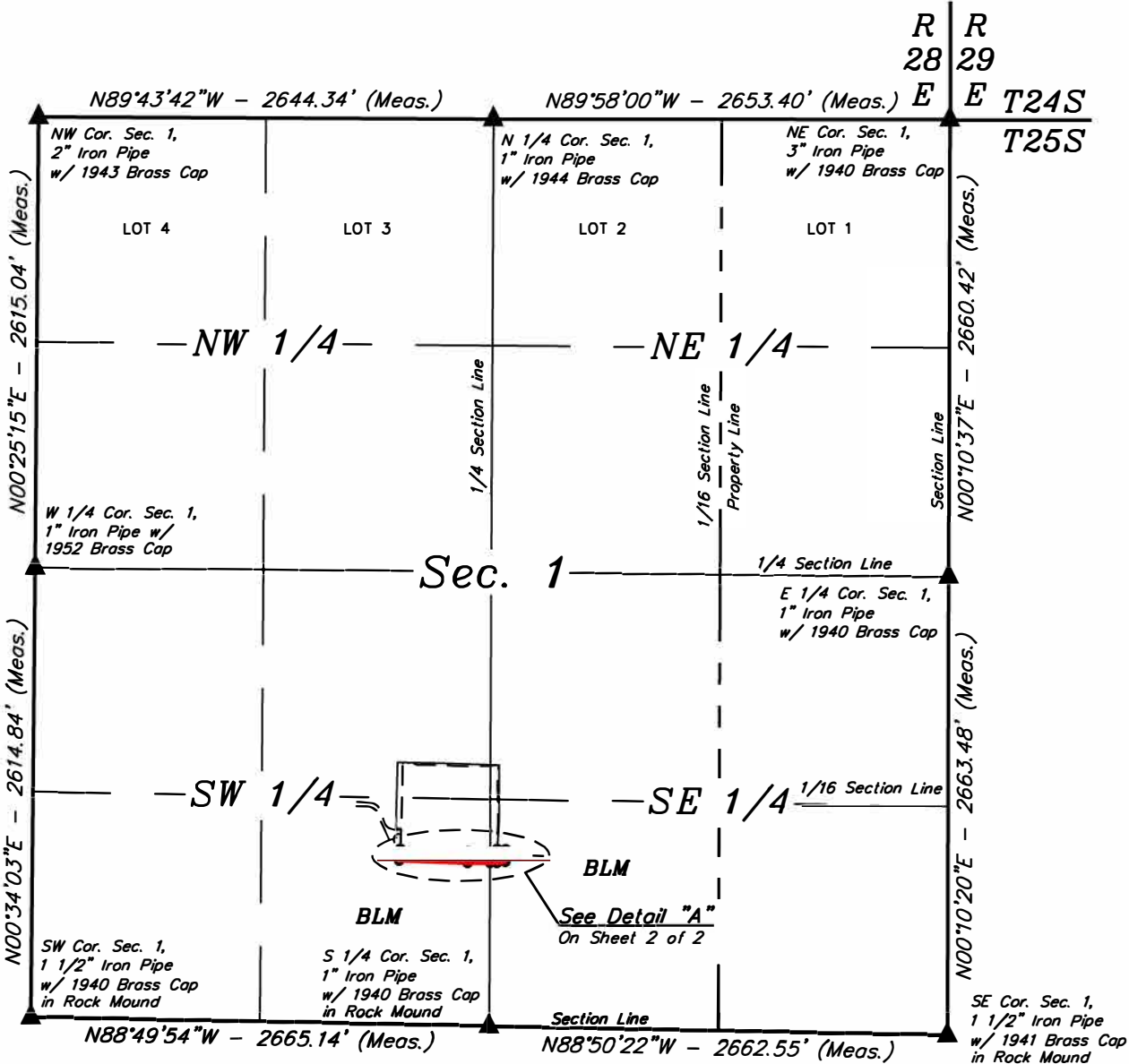
RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A

OVERALL SURFACE USE AREA



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



SURFACE USE AREA DESCRIPTION

COMMENCING AT THE SOUTH 1/4 CORNER OF SECTION 1, T25S, R28E, N.M.P.M., FROM WHICH THE SOUTHWEST CORNER OF SAID SECTION 1 BEARS N88°49'54"W 2665.14', THENCE N00°16'11"E 947.86' ALONG THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1 TO THE POINT OF BEGINNING; THENCE N89°56'48"W 130.95'; THENCE N88°02'22"W 397.73'; THENCE N04°50'59"E 69.27'; THENCE N89°57'32"E 2.51'; THENCE S00°21'29"W 3.02'; THENCE S88°25'46"E 393.67'; THENCE S89°21'44"E 126.91' TO A POINT ON THE EAST LINE OF THE SE 1/4 SW 1/4 OF SAID SECTION 1; THENCE CONTINUING S89°21'44"E 40.19'; THENCE N04°19'11"E 15.69'; THENCE S88°40'06"E 49.03'; THENCE S01°19'54"W 75.00'; THENCE S82°27'12"W 50.60'; THENCE N89°56'48"W 38.80' TO THE POINT OF BEGINNING. CONTAINS 0.969 ACRES MORE OR LESS.

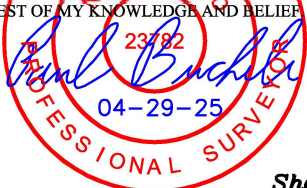
POINT OF BEGINNING BEARS N00°16'11"E 947.86' FROM THE SOUTH 1/4 CORNER OF SECTION 1, T25S, R28E, N.M.P.M.

1000'
500'
0'
1000'

ACREAGE TABLE	
LOCATION	ACRES
SEC. 1 (SW 1/4)	0.818
SEC. 1 (SE 1/4)	0.151
TOTAL	0.969

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS SURFACE USE AREA PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION THAT I AM RESPONSIBLE FOR THIS SURVEY THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF



Sheet 1 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)



CIMAREX ENERGY CO.

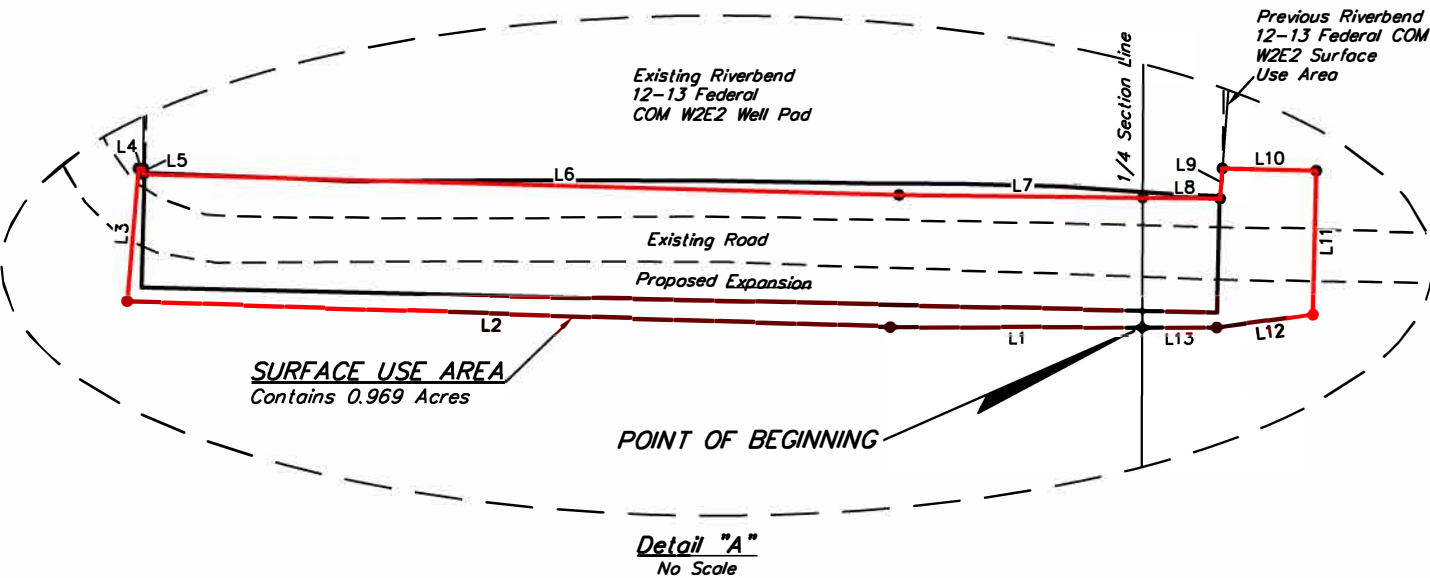
RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	1" = 1000'
FILE	C-6404-A1		

SURFACE USE AREA

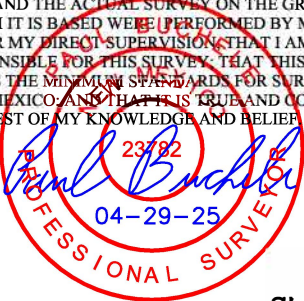


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Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°56'48"W	130.95'
L2	N88°02'22"W	397.73'
L3	N04°50'59"E	69.27'
L4	N89°57'32"E	2.51'
L5	S00°21'29"W	3.02'
L6	S88°25'46"E	393.67'
L7	S89°21'44"E	126.91'
L8	S89°21'44"E	40.19'
L9	N04°19'11"E	15.69'
L10	S88°40'06"E	49.03'
L11	S01°19'54"W	75.00'
L12	S82°27'12"W	50.60'
L13	N89°56'48"W	38.80'

CERTIFICATE
THIS IS TO CERTIFY THAT THIS SURFACE USE AREA
PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON
WHICH IT IS BASED WERE PERFORMED BY ME OR
UNDER MY DIRECT SUPERVISION THAT I AM
RESPONSIBLE FOR THIS SURVEY THAT THIS SURVEY
MEETS THE MINIMUM STANDARDS FOR SURVEYING IN
NEW MEXICO AND THAT IT IS TRUE AND CORRECT TO
THE BEST OF MY KNOWLEDGE AND BELIEF



Sheet 2 of 2

REV: 1 04-29-25 L.T.T. (TOPSOIL PILE MOVE)

NOTES:
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)



CIMAREX ENERGY CO.

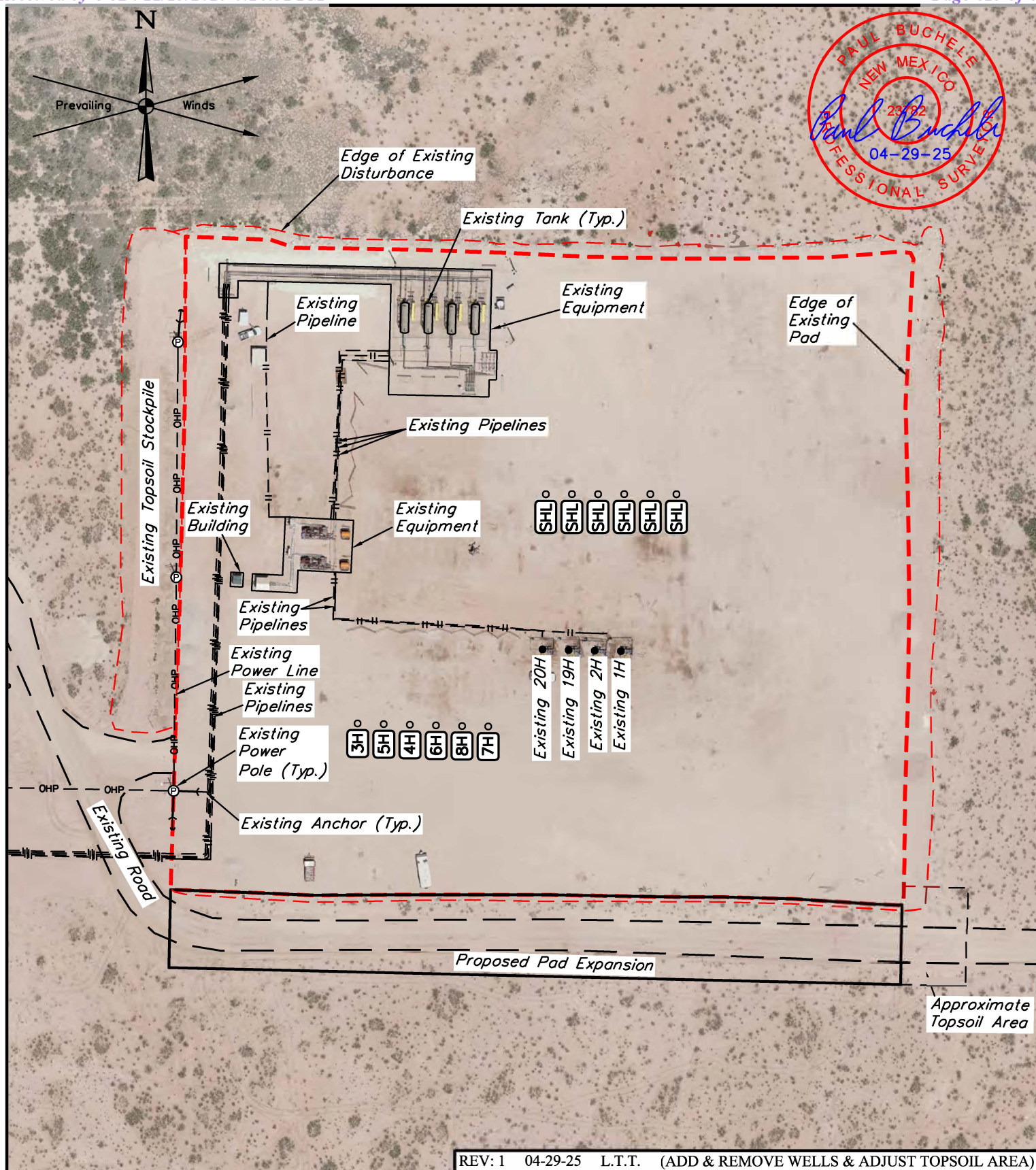
RIVERBEND 12-13 FEDERAL COM W2E2
PAD EXPANSION ON BLM LANDS IN
SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-20-24	N/A
FILE	C-6404-A2		

SURFACE USE AREA



UELS, LLC
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Vernal, UT 84078 * (435) 789-1017

**NOTES:**

- Underground utilities shown on this sheet are for visualization purposes only, actual locations to be determined prior to construction.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

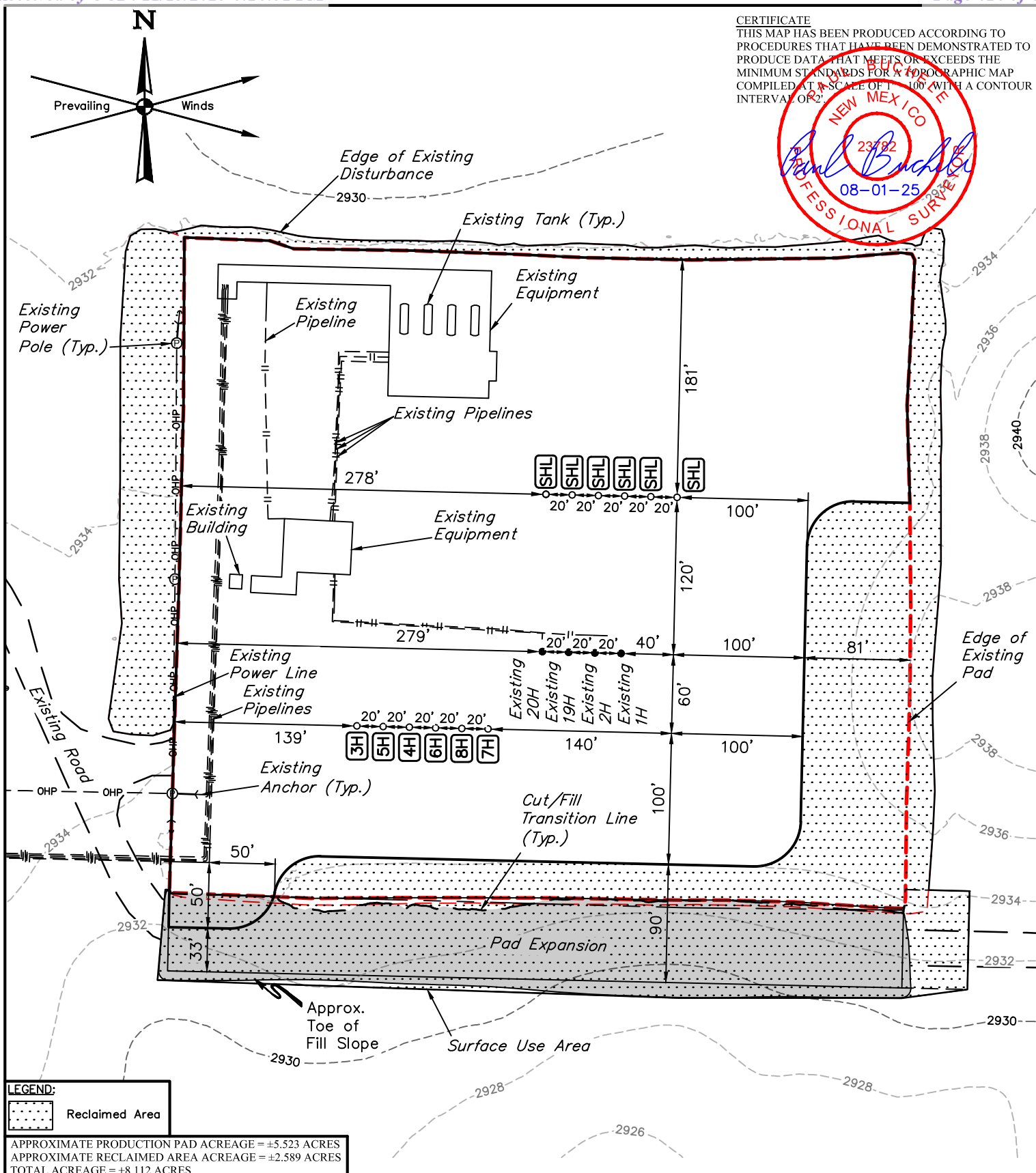
CIMAREX ENERGY CO.

RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

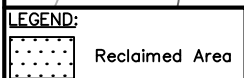
SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	D.J.S.	08-16-24	1" = 100'
AERIAL SITE PLAN			



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APPROXIMATE PRODUCTION PAD ACREAGE = ±5.523 ACRES
APPROXIMATE RECLAIMED AREA ACREAGE = ±2.589 ACRES
TOTAL ACREAGE = ±8.112 ACRES

NOTES:

- Contours shown at 2' intervals.

CIMAREX ENERGY CO.

**RIVERBEND 12-13 FEDERAL COM E2W2-E
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**

SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	N.R.	08-01-25	1" = 100'
RECLAMATION LAYOUT			EXHIBIT P



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



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

PWD Data Report

10/16/2025

APD ID: 10400105549

Submission Date: 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD Surface Owner Description:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Other PWD Surface Owner Description:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Precipitated Solids Permit

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO**Well Name:** RIVERBEND 12-13 FEDERAL COM**Well Number:** 7H**State****Unlined Produced Water Pit Estimated****Unlined pit: do you have a reclamation bond for the pit?****Is the reclamation bond a rider under the BLM bond?****Unlined pit bond number:****Unlined pit bond amount:****Additional bond information****Section 4 -****Would you like to utilize Injection PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Other PWD Surface Owner Description:****Injection PWD discharge volume (bbl/day):****Injection well mineral owner:****Injection well type:****Injection well number:****Injection well name:****Assigned injection well API number?****Injection well API number:****Injection well new surface disturbance (acres):****Minerals protection information:****Mineral protection****Underground Injection Control (UIC) Permit?****UIC Permit****Section 5 - Surface****Would you like to utilize Surface Discharge PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Other PWD Surface Owner Description :****Surface discharge PWD discharge volume (bbl/day):****Surface Discharge NPDES Permit?****Surface Discharge NPDES Permit attachment:****Surface Discharge site facilities information:****Surface discharge site facilities map:**

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COMWell Number: 7H

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

PWD Surface Owner Description:

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



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

Bond Info Data

10/16/2025

APD ID: 10400105549

Submission Date: 08/07/2025

Highlighted data
reflects the most
recent changes
[Show Final Text](#)

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM

Well Number: 7H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Bond

Federal/Indian APD: FED

BLM Bond number: NMB001188

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

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:	☒ Initial Submittal
			☐ Amended Report
		☐ As Drilled	

WELL LOCATION INFORMATION

API Number 30-015-57621	Pool Code 96217	Pool Name WILLOW LAKE; BONE SPRING, SOUTHEAST
Property Code 338169	Property Name RIVERBEND 12-13 FEDERAL COM	Well Number 7H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Ground Level Elevation 2934.2'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL N	Section 1	Township 25S	Range 28E	Lot	Ft. from N/S 1147 SOUTH	Ft. from E/W 2382 WEST	Latitude (NAD 83) 32.155148°	Longitude (NAD 83) -104.041763°	County EDDY
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Bottom Hole Location

UL P	Section 13	Township 25S	Range 28E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.122953°	Longitude (NAD 83) -104.033403°	County EDDY
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Dedicated Acres 640	Infill or Defining Well Infill Well	Defining Well API Riverbend 12-13 Fed Com 5H	Overlapping Spacing Unit (Y/N) No	Consolidation Code C
Order Numbers. Pending			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL A	Section 12	Township 25S	Range 28E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.151585°	Longitude (NAD 83) -104.033372°	County EDDY
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First Take Point (FTP)

UL A	Section 12	Township 25S	Range 28E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.151585°	Longitude (NAD 83) -104.033372°	County EDDY
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Last Take Point (LTP)

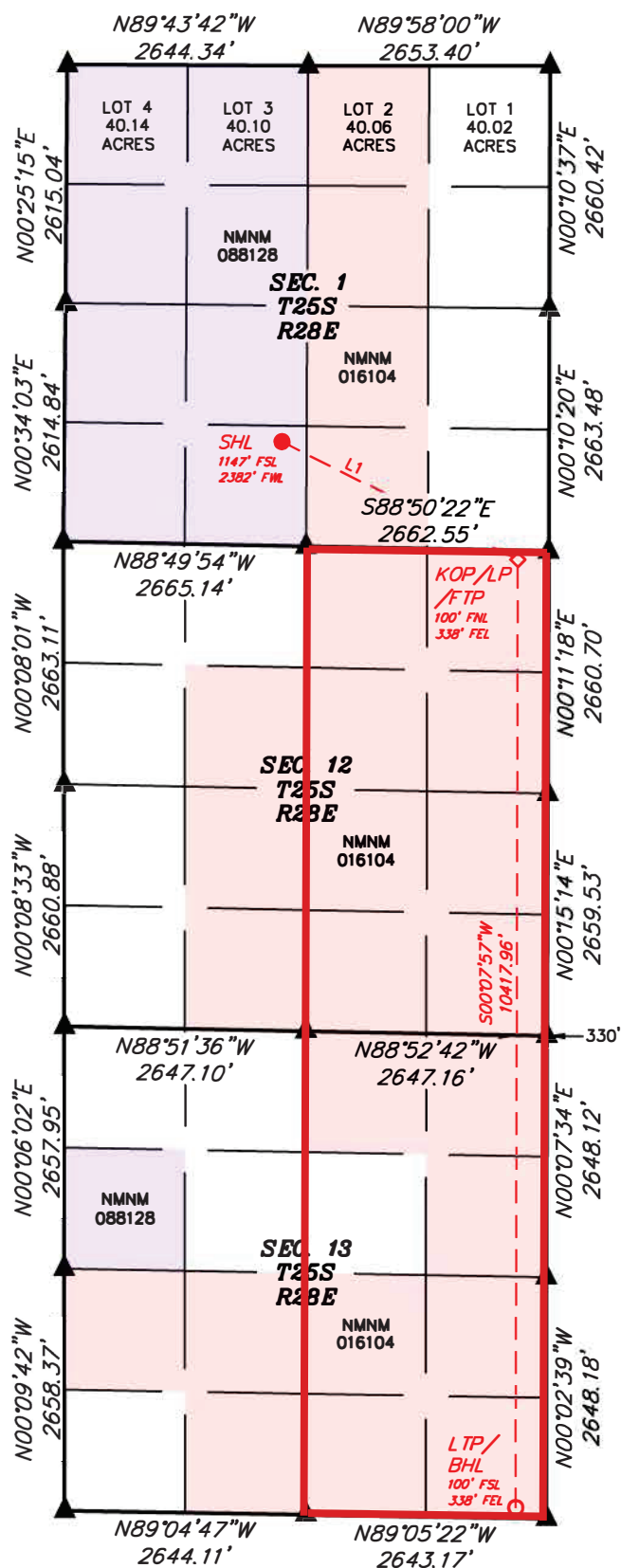
UL P	Section 13	Township 25S	Range 28E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 338 EAST	Latitude (NAD 83) 32.122953°	Longitude (NAD 83) -104.033403°	County EDDY
---------	---------------	-----------------	--------------	-----	---------------------------	--------------------------	---------------------------------	------------------------------------	----------------

Unitized Area or Area of Uniform Interest N/A	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 2934.2'
--	--	---------------------------------

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>Crystal Denson</i> 11/5/2025 Signature Date Crystal Denson Printed Name Crystal.Denson@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 August 12, 2024 Certificate Number Date of Survey
--	--

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 RIVERBEND 12-13 FEDERAL COM	Well Number 7H	Drawn By L.T.T. 04-29-25	Revised By
--	-------------------	-----------------------------	------------



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

NAD 83 (SURFACE HOLE LOCATION)	
LATITUDE = 32°09'18.53" (32.155148°)	
LONGITUDE = -104°02'30.35" (-104.041763°)	
NAD 27 (SURFACE HOLE LOCATION)	
LATITUDE = 32°09'18.09" (32.155025°)	
LONGITUDE = -104°02'28.59" (-104.041274°)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 420300.29' E: 631568.46'	
STATE PLANE NAD 27 (N.M. EAST)	
N: 420242.01' E: 590384.27'	

NAD 83 (KOP/LP/FTP)	
LATITUDE = 32°09'05.71" (32.151585°)	
LONGITUDE = -104°02'00.14" (-104.033372°)	
NAD 27 (KOP/LP/FTP)	
LATITUDE = 32°09'05.26" (32.151462°)	
LONGITUDE = -104°01'58.38" (-104.032883°)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 419011.34' E: 634168.93'	
STATE PLANE NAD 27 (N.M. EAST)	
N: 418953.04' E: 592984.65'	

NAD 83 (LTP/BHL)	
LATITUDE = 32°07'22.63" (32.122953°)	
LONGITUDE = -104°02'00.25" (-104.033403°)	
NAD 27 (LTP/BHL)	
LATITUDE = 32°07'22.19" (32.122830°)	
LONGITUDE = -104°01'58.49" (-104.032915°)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 408595.64' E: 634188.35'	
STATE PLANE NAD 27 (N.M. EAST)	
N: 408537.55' E: 593003.83'	

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S63°23'40"E	2903.01'

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.



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 526490

ACKNOWLEDGMENTS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd Midland, TX 79706	OGRID: 162683
	Action Number: 526490
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
-------------------------------------	--

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 526490

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd Midland, TX 79706	OGRID: 162683
	Action Number: 526490
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
amydoebele2024	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/13/2025
amydoebele2024	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/13/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	1/8/2026
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	1/8/2026
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	1/8/2026
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	1/8/2026