Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE*** *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

**THE SPACE FOR FEDERAL OR STATE OFICE USE**

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

# CONDITIONS OF APPROVAL FOR APD EXTENSION

The Approved Application for Permit to Drill (AAPD) expires if only conductor or surface casing has been set, and the well is not being diligently drilled at the expiration date of the extension.

The APD extension is granted for a 2-year period, not exceed 4 years from the approval of the APD.

## Additional Information

### Batch Well Data

JUNIOR MINT FED 111H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 112H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 121H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 122H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 131H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 132H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 135H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 137H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 151H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 152H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 211H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 212H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 215H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 217H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,

Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 221H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 222H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 113H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 133H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 213H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 117H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 118H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 123H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 124H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 134H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 138H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 156H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 158H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 214H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 216H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 218H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 223H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 224H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609, Operator:CIVITAS PERMIAN OPERATING LLC

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB
No. 1004-0137 Expires:
December 31, 2024

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE*** *- Other instructions on page 2*

5. Lease Serial No. NMNM101609

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No. Multiple - See Attached

2. Name of Operator CIVITAS PERMIAN OPERATING, LLC (OGRID: 332195)

9. API Well No.

3a. Address 555 17th Street, Suite 3700, Denver, CO 80202

3b. Phone No. *(include area code)* (303) 293-9100

10. Field and Pool or Exploratory Area WC-02 H-08 S253534O/BONE SPRING

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* Multiple - See Attached

11. Country or Parish, State LEA COUNTY, NM

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

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

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

This is notification that CIVITAS PERMIAN OPERATING, LLC is taking over operations of the wells referenced in Appendix A (Lea County, NM).

CIVITAS PERMIAN OPERATING, LLC, as new operator, accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portions thereof as described below:

Bond Coverage: BLM Bond Number: NMB106332702

Change of Operator Effective: 01/30/2025

Former Operator: Tap Rock Operating, LLC (OGRID: 372043)

See Conditions of Approval

Connor Wood, EVP
Tap Rock Operating, LLC

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)* Nathan S. Bennett

Title Director, Permitting & Compliance

Signature

Date 02/26/2025

**THE SPACE FOR FEDERAL OR STATE OFICE USE**

Approved by JENNIFER SANCHEZ

Digitally signed by JENNIFER SANCHEZ
Date: 2025.03.03 05:39:54 -07'00'

Title Petroleum Engineer

Date 03/03/2025

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

Office RFO

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

(Instructions on page 2)

| APPENDIX A | | | | | | |
|---|---|---|---|---|---|---|
| Lease Number | Legal Description | API Number | Well Name | Producing Reservoir | County | State |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 111H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 112H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 113H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 117H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 118H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 121H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 122H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 123H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 124H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 131H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 132H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 133H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 134H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 135H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 137H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 138H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 151H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 152H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 156H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 158H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 211H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 212H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 213H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 214H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 215H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 216H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 217H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 218H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 221H | AAPD | LEA | NM |
| NMNM101609 | T25S R35 SEC 15: NENW | Not Issued | JUNIOR MINT FED 222H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 223H | AAPD | LEA | NM |
| NMNM101609 | T25S R35E SEC 10: SWSE | Not Issued | JUNIOR MINT FED 224H | AAPD | LEA | NM |

**Change of Operator**
**Conditions of Approval**

1. Tank battery must be bermed/diked (must be able to contain 1 1/2 times the volume of the largest tank) within 90 days.
2. Submit for approval of water disposal method within 60 days, if changes have been made from previously approved disposal method.
3. Review facility diagram on file, and submit updated facility diagrams, as per Onshore Order #3 within 60 day.
4. This agency shall be notified of any spill or discharge as required by NTL-3A.
5. All outstanding environmental issue must be addressed within 90 days. Contact Jim Amos for inspection and to resolve environmental issues. 575-234-5909
6. Install legible well sign on location with operator name, well name and number, lease number, unit number, 1/4 1/4, section, township, and range. NMOCD requires the API number on well signs.
7. Subject to like approval by NMOCD.
8. All Reporting to ONRR (OGOR Reports) must be brought current within 30 days of this approval including any past history.
9. If this well is incapable of producing in paying quantities submit NOI to plug and abandon this well or obtain approval to do otherwise within 90 days.
10. Submit plan for approval of well operations for all TA/SI wells within 30 days of this approval to change operator.
11. If not in place acquire operating rights on this lease within 30 days with BLM office in Santa Fe, NM.

**JAM**

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No.: NMNM101609

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: JUNIOR MINT FED 133H

2. Name of Operator: TAP ROCK OPERATING LLC

9. API Well No.: 30-025-55627

3a. Address: 602 PARK POINT DRIVE SUITE 200, GOLDEN, CO 8040

3b. Phone No. *(include area code)*: (720) 460-3316

10. Field and Pool, or Exploratory: WC-025 H-08 S253534O/BONE SPRING

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SWSE / 525 FSL / 1740 FEL / LAT 32.1390679 / LONG -103.3524892

At proposed prod. zone: SWSE / 5 FSL / 1980 FEL / LAT 32.1086231 / LONG -103.3532588

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 10/T25S/R35E/NMP

14. Distance in miles and direction from nearest town or post office*: 9 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 525 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 1280.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 25 feet

19. Proposed Depth: 12141 feet / 22383 feet

20. BLM/BIA Bond No. in file: FED:

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3224 feet

22. Approximate date work will start*: 10/01/2022

23. Estimated duration: 90 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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

| 25. Signature | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | BRIAN WOOD / Ph: (720) 460-3316 | 07/06/2022 |

Title: Permitting Agent

| Approved by *(Signature)* | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | CODY LAYTON / Ph: (575) 234-5959 | 02/08/2023 |

| Title | Office |
|---|---|
| Assistant Field Manager Lands & Minerals | 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.

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APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

**Approval Date: 02/08/2023**

**Well Name:** JUNIOR MINT FED

**Well Location:** T25S / R35E / SEC 10 / SWSE / 32.1390679 / -103.3524892

**County or Parish/State:** LEA / NM

**Well Number:** 133H

**Type of Well:** OIL WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM101609

**Unit or CA Name:**

**Unit or CA Number:**

**US Well Number:**

**Operator:** CIVITAS PERMIAN OPERATING LLC

## Notice of Intent

**Sundry ID:** 2874467

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 09/19/2025

**Time Sundry Submitted:** 10:21

**Date proposed operation will begin:** 10/15/2025

**Procedure Description:** Civitas Permian Operating, LLC would like to request the following changes to the previously approved surface hole location (SHL) and drill plan. Change SHL from 525’ FSL & 1740’ FEL, SWSE, Sec. 10, T.25S, R.35E to 538’ FSL & 1485’ FEL, SWSE, Sec. 10, T.25S, R.35E. Changes to the drill plan and other variance requests are detailed in the attached revised drill plan. Also please see the attached revised C102 plat, directional plan, anticollision report, production casing spec sheets, offline cementing procedure and wellhead diagram for additional information. APD ID No. 10400086480.

## NOI Attachments

**Procedure Description**

JM_133H_Sundry_Attachment_091825_20250919101920.pdf

**Well Name:** JUNIOR MINT FED

**Well Location:** T25S / R35E / SEC 10 / SWSE / 32.1390679 / -103.3524892

**County or Parish/State:** LEA / NM

**Well Number:** 133H

**Type of Well:** OIL WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM101609

**Unit or CA Name:**

**Unit or CA Number:**

**US Well Number:**

**Operator:** CIVITAS PERMIAN OPERATING LLC

## Conditions of Approval

**Additional**

Sec_10_25S_35E_NMP_Sundry_2874467_Junior_Mint_Fed_133H_COAs_20251029132301.pdf

## Operator

*I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a*

**Operator Electronic Signature:** CORY WALK

**Signed on:** SEP 25, 2025 03:11 PM

**Name:** CIVITAS PERMIAN OPERATING LLC

**Title:** Permitting Agent

**Street Address:** 5 CALIENTE ROAD SUITE 3A

**City:** SANTA FE **State:** NM

**Phone:** (505) 466-8120

**Email address:** AFMSS@PERMITSWEST.COM

## Field

**Representative Name:**

**Street Address:**

**City:** **State:** **Zip:**

**Phone:**

**Email address:**

## BLM Point of Contact

**BLM POC Name:** CHRISTOPHER WALLS

**BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5752342234

**BLM POC Email Address:** CWALLS@BLM.GOV

**Disposition:** Approved

**Disposition Date:** 11/13/2025

**Signature:** Chris Walls

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE*** *- Other instructions on page 2*

5. Lease Serial No. NMNM101609

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
JUNIOR MINT FED/133H

2. Name of Operator CIVITAS PERMIAN OPERATING LLC

9. API Well No.

3a. Address 555 17TH STREET SUITE 3700, DENVER, CO 8

3b. Phone No. *(include area code)* (303) 293-1000

10. Field and Pool or Exploratory Area
WC-025 H-08 S253534O/BONE SPRING

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SEC 10/T25S/R35E/NMP

11. Country or Parish, State
LEA/NM

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

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

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

Civitas Permian Operating, LLC would like to request the following changes to the previously approved surface hole location (SHL) and drill plan. Change SHL from 525 FSL & 1740 FEL, SWSE, Sec. 10, T.25S, R.35E to 538 FSL & 1485 FEL, SWSE, Sec. 10, T.25S, R.35E. Changes to the drill plan and other variance requests are detailed in the attached revised drill plan. Also please see the attached revised C102 plat, directional plan, anticollision report, production casing spec sheets, offline cementing procedure and wellhead diagram for additional information. APD ID No. 10400086480.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
CORY WALK / Ph: (505) 466-8120

Title Permitting Agent

Signature (Electronic Submission)

Date 09/25/2025

**THE SPACE FOR FEDERAL OR STATE OFICE USE**

Approved by
CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date 11/13/2025

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

Office CARLSBAD

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

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

## SPECIFIC INSTRUCTIONS

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

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

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

## Additional Information

### Location of Well

0. SHL: SWSE / 525 FSL / 1740 FEL / TWSP: 25S / RANGE: 35E / SECTION: 10 / LAT: 32.1390679 / LONG: -103.3524892 ( TVD: 0 feet, MD: 0 feet )

PPP: NWNE / 218 FNL / 2023 FEL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1370335 / LONG: -103.3534031 ( TVD: 11895 feet, MD: 11988 feet )

BHL: SWSE / 5 FSL / 1980 FEL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.1086231 / LONG: -103.3532588 ( TVD: 12141 feet, MD: 22383 feet )

# PECOS DISTRICT
# DRILLING CONDITIONS OF APPROVAL

| | |
|---|---|
| **OPERATOR'S NAME:** | Civitas Permian Operating LLC |
| **WELL NAME & NO.:** | Junior Mint Fed 133H |
| **LOCATION:** | Sec 10-25S-35E-NMP |
| **COUNTY:** | Lea County, New Mexico |

*Changes approved through engineering via **Sundry 2874467** on 10/29/2025. Any previous COAs not addressed within the updated COAs still apply.*

**Create COAs**

| $H_2S$ | Cave / Karst | Waste Prevention Rule |
|---|---|---|
| Not Reported | Low | APD Submitted Prior to 06/10/24 |

| Potash | R-111-Q Design |
|---|---|
| None | |

| Wellhead | Casing |
|---|---|
| Multibowl | 3-String Well<br>☐ Liner ☑ Fluid Filled ☑ Casing Clearance |
| ☑ Flex Hose<br>☑ Break Testing | **Cementing**<br>☐ DV Tool ☐ Bradenhead ☐ Echometer<br>☑ Offline Cement ☐ Open Annulus ☐ Pilot Hole |

**Special Requirements**

☐ Capitan Reef ☐ Water Disposal ☐ COM ☐ Unit

*THIS WELL HAS INTERVALS WITH A MASP OVER 5000 PSI. BREAK TESTING IS ONLY ALLOWED ON THOSE INTERVALS WHOSE MASP IS EXPECTED TO BE UNDER 5M PSI.*

**A. HYDROGEN SULFIDE**

Hydrogen Sulfide ($H_2S$) monitors shall be installed prior to drilling out the surface shoe. If $H_2S$ is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, 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 **11-3/4** inch surface casing shall be set between **990' to 1050'** feet (a minimum of **70'** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. **Set depth adjusted per BLM geologist.**
    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 (including lead cement.)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is **cement to surface**. If cement does not circulate, see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is at least **300 feet** into previous casing string. Operator shall provide method of verification.
    - If cement does not circulate to surface on the previous casing, this string must come to surface.
    - String does not meet clearance requirement per 43 CFR 4172. Tieback increased by 100' and additional cement may be needed.

**C. PRESSURE CONTROL**

1. Operator has proposed a multi-bowl wellhead assembly. 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.
   Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) annular which shall be tested to 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 must be followed.

2. 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).

3. Break testing has been approved for this well ONLY on those intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)** If in the event break testing is not utilized, then a full BOPE test would be conducted.
   a. Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation. **BOPE Break Testing is NOT permitted to drill the production hole section.**
   b. While in transfer between wells, BOPE shall be secured by the hydraulic carrier or cradle.
   c. A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
   d. As a minimum, a full BOPE test shall be performed at 21-day intervals.
   e. In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**. Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.

## D. SPECIAL REQUIREMENT(S)

**Offline Cementing**

Offline cementing has been approved for **all hole sections, excluding production.** Contact the BLM prior to the commencement of any offline cementing procedure.

# 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)

**Contact Lea County Petroleum Engineering Inspection Staff:**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. 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.
        iii. BOP/BOPE test to be conducted per **43 CFR 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.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

## 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-Q 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 3172**.
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:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. 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.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. 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.
    i. 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).
    ii. 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.)
    iii. 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 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).

iv. 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.

v. The results of the test shall be reported to the appropriate BLM office.

vi. 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.

vii. 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.

viii. 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 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.

| C-102 | State of New Mexico<br>Energy, Minerals & Natural Resources Department<br>OIL CONSERVATION DIVISION | Revised July 9, 2024 |
|---|---|---|
| Submit Electronically<br>Via OCD Permitting | | Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled |

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025-55627 | 98185 | WC-025 G-09 S253502B; LWR BONE SPRING |

| Property Code | Property Name | Well Number |
|---|---|---|
| 337333 | JUNIOR MINT FED | 133H |

| OGRID No. | Operator Name | Ground Level Elevation |
|---|---|---|
| 332195 | CIVITAS PERMIAN OPERATING, LLC | 3221' |

Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

## Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 10 | 25-S | 35-E | - | 538' S | 1485' E | N 32.1391028 | W 103.3516650 | LEA |

## Bottom Hole Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 22 | 25-S | 35-E | - | 5' S | 1980' E | N 32.1086231 | W 103.3532588 | LEA |

| Dedicated Acres | Infill or Defining Well | Defining Well API | Overlapping Spacing Unit (Y/N) | Consolidated Code |
|---|---|---|---|---|
| 1280.00 | Infill | 30-025-54739 (131H) | N | N/A |

Order Numbers: Pending (NSP)
Well Setbacks are under Common Ownership: ☒ Yes ☐ No

## Kick Off Point (KOP)

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| B | 15 | 25-S | 35-E | - | 100' N | 1980' E | N 32.1373507 | W 103.3532559 | LEA |

## First Take Point (FTP)

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| B | 15 | 25-S | 35-E | - | 100' N | 1980' E | N 32.1373507 | W 103.3532559 | LEA |

## Last Take Point (LTP)

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 22 | 25-S | 35-E | - | 100' S | 1980' E | N 32.1088842 | W 103.3532587 | LEA |

| Unitized Area or Area of Uniform Interest | Spacing Unity Type | Ground Floor Elevation |
|---|---|---|
| N/A | ☒ Horizontal ☐ Vertical | 3221' |

## OPERATOR CERTIFICATION

*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.*

*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.*

Cory Walk 9-16-25

Signature Date

Cory Walk

Print Name

cory@permitswest.com

E-mail Address

## SURVEYORS CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

8/11/2025 9:43:59 AM

Signature and Seal of Professional Surveyor Date

Certificate Number

Date of Survey: 8/8/2025

M:\SURVEY\CIVITAS_RESOURCES_INC\JUNIOR_MINT_UNIT\FINAL_PRODUCTS\JUNIOR MINT FED REVISED\JUNIOR MINT Y#2\2 PAD\LO_JUNIOR_MINT_FED_133H_REV1.dwg BRADLEY LUCES 8/11/2025 9:40 AM

# C-102

Submit Electronically
Via OCD Permitting

## State of New Mexico
## Energy, Minerals & Natural Resources Department
## OIL CONSERVATION DIVISION

Revised July 9, 2024

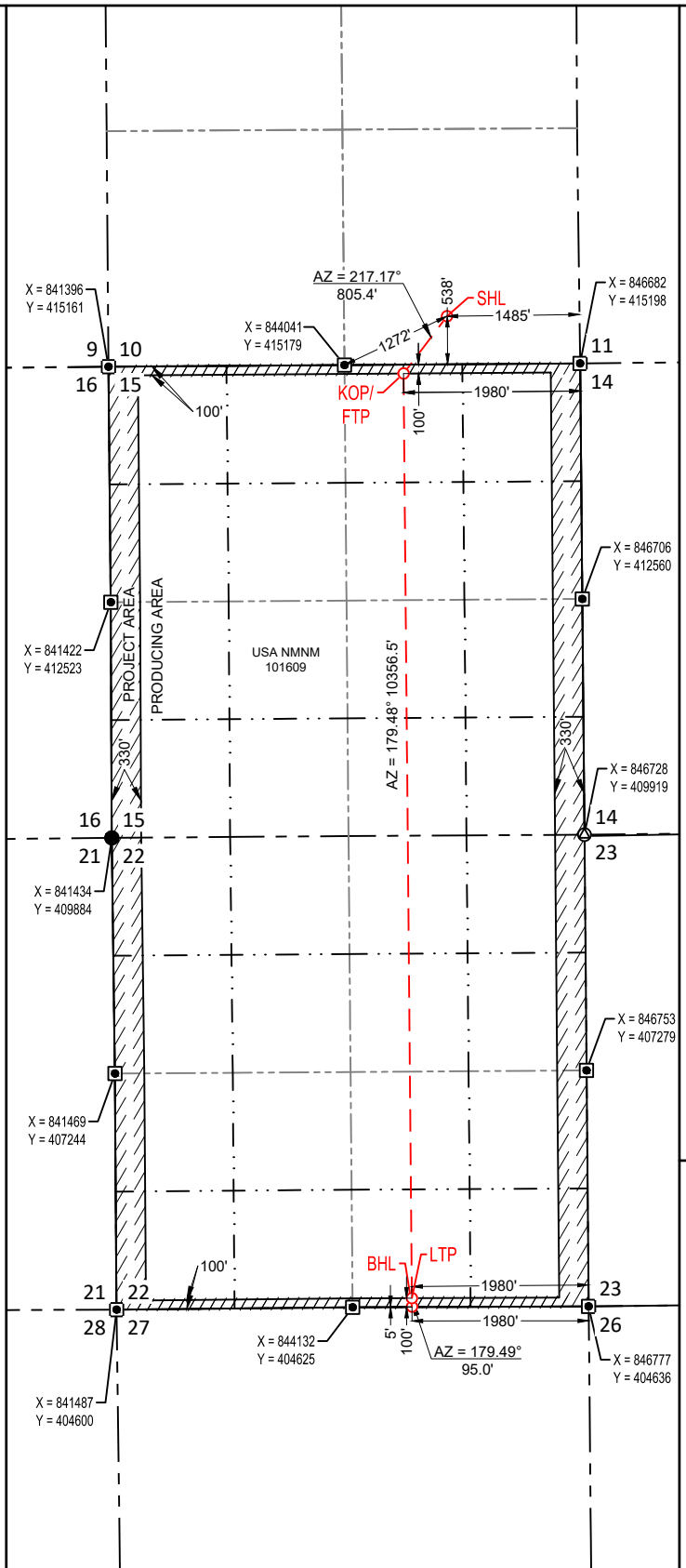
Submittal Type:
- ☐ Initial Submittal
- ☒ Amended Report
- ☐ As Drilled

Property Name and Well Number

**JUNIOR MINT FED 133H**

### SURFACE LOCATION (SHL)
NEW MEXICO EAST
NAD 1983
X=845189 Y=415726
LAT.: N 32.1391028
LONG.: W 103.3516650
NAD 1927
X=804002 Y=415668
LAT.: N 32.1389764
LONG.: W 103.3512001
538' FSL 1485' FEL

### KICK OFF POINT (KOP)
### FIRST TAKE POINT (FTP)
NEW MEXICO EAST
NAD 1983
X=844702 Y=415084
LAT.: N 32.1373507
LONG.: W 103.3532559
NAD 1927
X=803516 Y=415026
LAT.: N 32.1372243
LONG.: W 103.3527911
100' FNL 1980' FEL




### LAST TAKE POINT (LTP)
NEW MEXICO EAST
NAD 1983
X=844796 Y=404728
LAT.: N 32.1088842
LONG.: W 103.3532587
NAD 1927
X=803609 Y=404670
LAT.: N 32.1087577
LONG.: W 103.3527954
100' FSL 1980' FEL

### BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST
NAD 1983
X=844797 Y=404633
LAT.: N 32.1086231
LONG.: W 103.3532588
NAD 1927
X=803610 Y=404575
LAT.: N 32.1084965
LONG.: W 103.3527955
5' FSL 1980' FEL

### SURVEYORS CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

8/8/2025
Date of Survey
Signature and Seal of Professional Surveyor:

RAMON DOMINGUEZ
NEW MEXICO
24508
PROFESSIONAL SURVEYOR

8/11/2025 9:44:01 AM

M:\SURVEY\CVITAS_RESOURCES_INC\JUNIOR_MINT_UNIT\FINAL_PRODUCTS\JUNIOR MINT FED REVISED\JUNIOR MINT WB2 PAD\O_JUNIOR_MINT_FED_133H_REV1.dwg BRADLEY.LEE 8/11/2025 9:44 AM

# DRILLING AND OPERATIONS PLAN

**Civitas Permian Operating LLC**

## Section 1: Well Information

**Well Name and Number:** **Junior Mint Fed 133**

Proposed TD (ft MD): 22387 Proposed TD (ft TVD): 12139

## Section 2: Casing Design

| String Type | Hole Size | Casing Size | Top Set MD | Bottom Set MD | Top Set TVD | Bottom Set TVD | Weight (lbs/ft) | Grade | Joint Type | Pressure Test (psi) | Collapse SF | Burst SF | Joint SF Type | Joint SF | Body SF Type | Body SF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface | 14.75 | 11.75 | surface | 1,076 | surface | 1,075 | 42 | J55 | BTC | | 1.13 | 1.15 | BUOY | 1.80 | BUOY | 1.80 |
| Intermediate | 9.875 | 7.625 | surface | 11,408 | surface | 11,347 | 29.7 | P110 | BTC | | 1.13 | 1.15 | BUOY | 1.80 | BUOY | 1.80 |
| Production | 6.75 | 5.5 | surface | 22,387 | surface | 12,139 | 20 | P110RY | GBCD | | 1.13 | 1.15 | BUOY | 1.80 | BUOY | 1.80 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | Safety Factors will Meet or Exceed | | | | | |

**Centralization Plan:** Surface casing: centralizers run on bottom 3 joints. On subsequent strings of casing centralizers will be run as needed to ensure effective cement placement and zonal isolation.

| NMOCD Casing Information: | |
|---|---|
| Is casing new? If used, attach certification as required in 43 CFR 3172. | |
| Does casing meet API specifications? If no, attach casing specification sheet. | |
| Is premium or uncommon casing planned? If yes attach casing specification sheet. | |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | |
| Will intermediate pipe be kept at least 1/3 fluid filled until cement tops are verified? (collapse safety requirement) | |
| **Capitan Reef:** | |
| Is well located within Capitan Reef? | |
| If yes, does production casing cement tie back a minimum of 50' above the Reef? | |
| Is proposed well within the designated four string boundary? | |
| **R-111-Q and SOPA** | |
| Is well located in R-111-Q and SOPA? | |
| Is the second string set 100' to 600' below the base of salt? | |
| **SOPA but not R-111-Q** | |
| Is well located in SOPA but not in R-111-Q? | |
| If yes, are the first 2 strings cemented to surface and third string cement tied back 500' into previous casing? | |
| **High Cave / Karst** | |
| Is well located in high Cave/Karst? | |
| If yes, are there two strings cemented to surface? | |
| If yes, is there a contingency casing if lost circulation occurs? | |
| **Critical Cave / Karst** | |
| Is well located in critical Cave/Karst? | |
| If yes, are there three strings cemented to surface? | |

## Section 3: Cement Program

| String Type | Lead/Tail | Top MD | Density (ppg) | Quantity (sks) | Yield ($ft^3$/sks) | Excess (%) | Cement Type | Additives |
|---|---|---|---|---|---|---|---|---|
| Surface | Lead | 0 | 13.5 | 391 | 1.72 | 100 | Class C | Additives + LCM |
| Surface | Tail | 776 | 14.8 | 196 | 1.33 | 100 | Class C | Additives + LCM |
| Intermediate | Lead | 0 | 10.5 | 788 | 3.98 | 25 | Class C | Additives + LCM |
| Intermediate | Tail | 10408 | 13.2 | 231 | 1.61 | 25 | Class C | Additives + LCM |
| Production | Lead | na | 10.5 | na | 3.93 | na | Class H | Additives + LCM |
| Production | Tail | 11058 | 13.2 | 788 | 1.44 | 20 | Class H | Fluid Loss + Dispersant + Retarder + LCM |
| | | | | | | | | |

**Cementing Procedure**

Spacers will be used ahead of cement to ensure mud removal. Slurries will be designed to provide adequate compressive strength, fluid loss control, and bonding. Offline cementing may be performed on surface and intermediate casing strings when set above the Wolfcamp formation (variance request). BOPE will be installed and tested prior to drilling out the shoe, and cement job quality will be verified before resuming operations. This variance improves operational efficiency while maintaining full compliance with 43 CFR 3172 and BLM conditions of approval. If required to achieve top of cement on the intermediate casing, a second-stage cement job may be performed by bradenhead squeeze (variance request). This method will only be used as necessary to ensure zonal isolation and full compliance with 43 CFR 3172 and BLM conditions of approval. All WOC times will be 8 hours on surface and intermediate casing or until cement has reached 500 psi compressive strength, prior to resuming drilling or completion operations on the well.

## Section 4: Mud Program

**Mud System Type:** Closed Loop

**Will an air or gas system be used?** No

**Describe what will be on location to control well or mitigate other conditions:**

The necessary mud products for additional weight and fluid loss control will be on location at all times.

**Describe the mud monitoring system utilized:**

Losses or gains in the mud system will be monitored visually/manually as well as with an electronic PVT.

**Circulating Medium Table:**

| Top Depth | Bottom Depth | Mud Type | Min. Weight | Max Weight |
|---|---|---|---|---|
| 0 | 1076 | Water Based Mud | 8.4 | 8.8 |
| 1076 | 11408 | Brine or Oil Based Mud | 9.2 | 10.0 |
| 11408 | 22387 | Brine or Oil Based Mud | 11.0 | 12.5 |

## Section 5: BOPE & Wellhead

| Hole Section | Hole Size | Casing Size | Stack Size | MAASP (psi) | Min. Required WP | BOPE Type & Components | Test Pressures (psi) | Notes / Variance Reference |
|---|---|---|---|---|---|---|---|---|
| Int 1 | 9 7/8 | 7 5/8 | 13-5/8", 10M | 480 | 5M | Annular, Blind Ram, Double Pipe Ram | 250 / 5,000 | Variance – 10M stack tested to 5M for this section; Variance – 5M Annular tested to 70% WP (3,500 psi) |
| Production | 6 3/4 | 5 1/2 | 13-5/8", 10M | 6571 | 10M | Annular, Blind Ram, Double Pipe Ram | 250 / 10,000 | Variance – 5M Annular tested to 70% WP (3,500 psi) |

**Testing Procedure:**

The BOPE will be installed and tested on the surface casing and prior to drilling out each casing shoe. Tests will include a 250 psi low-pressure test and a high-pressure test to the required working pressure for each hole section. Due to MASP values lower than 5M, a variance is requested to test the installed 10M BOPE stack to 250 psi low and 5,000 psi high. For the production section the installed 10M BOP stack will be tested to 250 psi low and 10,000 psi high. A variance is also requested to utilize a 5M annular preventer and test to 70% of rated working pressure for both 5M and 10M sections which is consistent with guidance from the API (variance request). A variance is requested for break testing of BOPE on the intermediate section only . A variance is requested to utilize a coflexchoke line in place of a steel line. A variance is requested to utilize a multibowl wellhead system. The accumulator system will be sized to close the largest ram and annular preventers with 200 psi remaining. BOPE will be re-tested every 21 days as required by 43 CFR 3172. The remote kill line and 3rd choke (with remote control) will be installed as required.

**Wellhead Information:**

| | |
|---|---|
| **Manufacturer / Type** | Multibowl |
| **Pressure Rating** | 10M |
| **Installation / Testing** | Wellhead will be installed and tested by manufacturer's representative. Manufacturer representative shall install the test plug for the initial BOP test. For contingency top out cementing, wellhead has slot that will allow 1" string access to surface annulus. |

## Section 8: Geological Prognosis

**Estimated Tops of Important Geological Markers:**

| Formation | TVD (ft) | Lithologies | Mineral Resources | Producing Formation? |
|---|---|---|---|---|
| Rustler | 660 | Salt | Salt | No |
| Top Salt | 1100 | Salt | Salt | No |
| Base Salt | 4920 | Salt | Salt | No |
| DMG | 5160 | Sandstone | None | No |
| Lamar | 5165 | Sandstone | Hydrocarbon | No |
| Bell Canyon | 5185 | Sandstone | Hydrocarbon | No |
| Ramsey Sand | 5205 | Sandstone | Hydrocarbon | Yes |
| Cherry Canyon | 6150 | Limestone | Hydrocarbon | Yes |
| Brushy Canyon | 7620 | Sandstone | Hydrocarbon | Yes |
| Bone Spring Lime | 8930 | Carbonate | Hydrocarbon | Yes |
| Upper Avalon | 8955 | Carbonate | Hydrocarbon | Yes |
| Middle Avalon | 9185 | Carbonate | Hydrocarbon | Yes |
| 1st BS Sand | 10165 | Sandstone | Hydrocarbon | Yes |
| 2nd BS Carb | 10330 | Carbonate | Hydrocarbon | Yes |
| 2nd BS Sand | 10715 | Sandstone | Hydrocarbon | Yes |
| 3rd BS Carb | 11265 | Carbonate | Hydrocarbon | Yes |
| 3rd BS Sand | 11895 | Sandstone | Hydrocarbon | Yes |
| Wolfcamp A | 12210 | Sandstone | Hydrocarbon | Yes |
| Wolfcamp B | 12635 | Sandstone | Hydrocarbon | Yes |

| | | |
|---|---|---|
| **Anticipated Bottom Hole Pressure:** | **7890** | PSI |
| **Anticipated Static Bottom Hole Temperature:** | **194** | ˚F |
| **Anticipated Abnormal Pressure?** | **No** | |
| **Potential Hazards:** | **None** | |

## Section 9: H2S

| | | |
|---|---|---|
| **Anticipated concentration :** | **0** | ppm |
| **Depth of first occurance** | **na** | ft TVD |

**Additional Comments:**

H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. See attached H2S Contingency Plan.

## Section 10: Drilling Operations

Batch drilling may be conducted on this pad to improve operational efficiency. Surface and/or intermediate hole sections may be drilled and cased on multiple wells prior to proceeding with deeper drilling operations. Each casing string will be cemented and BOPE installed and tested on each well before drilling ahead. All wells will maintain full compliance with 43 CFR 3172 and applicable COAs Surface and intermediate casing will be cemented to surface, with offline cementing utilized on approved strings set above the Wolfcamp formation (variance). If required to achieve TOC, a second-stage cement job on the intermediate string may be performed by braidenhead squeeze through the casing (variance). Mud programs will be adjusted per hole section to maintain well control and borehole stability.

## Section 11: Testing, Logging, Coring

All casing strings will be tested in accordance with 43 CFR 3172.
Casing strings will be pressure tested after cementing per 43 CFR 3172 and NMOCD requirements.
FIT/LOT will be performed at the surface and intermediate casing shoes to confirm integrity prior to drilling ahead.
GR will be run from surface to TD.
No cores or additional testing / logging planned.

## Section 12: Variance Requests

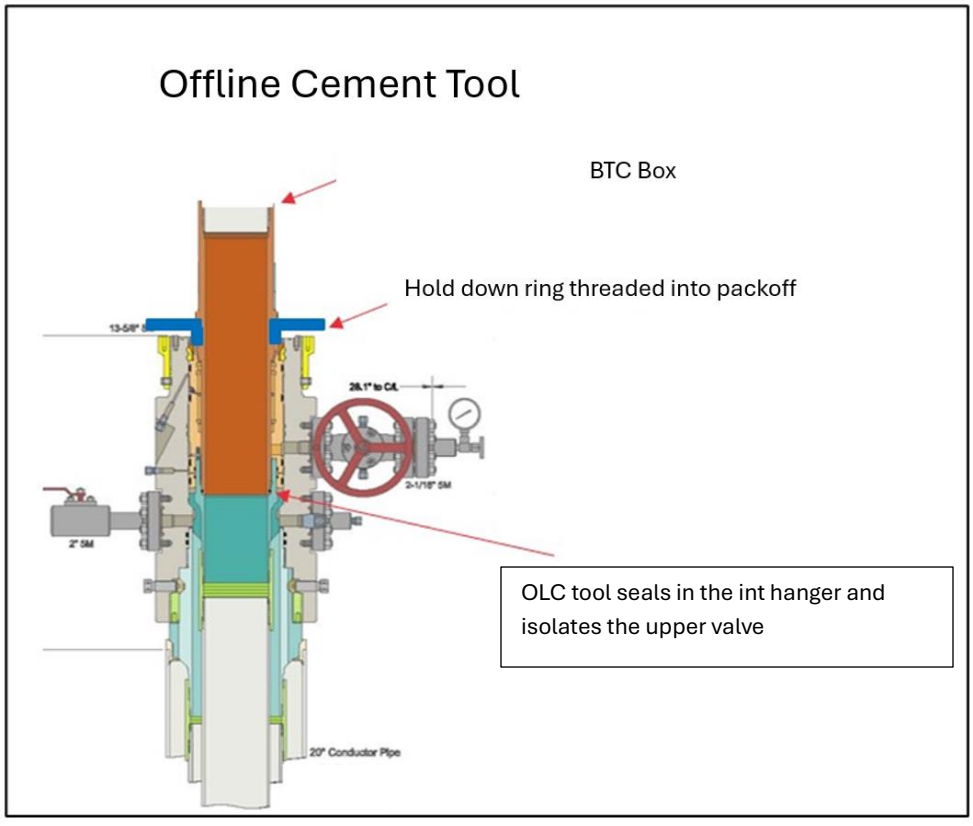
| Var # | Type | Description of Request |
|---|---|---|
| 1 | **Offline Cementing** | Request to perform offline cementing of surface and intermediate casing when strings are set above the Wolfcamp formation. This allows rig operations to continue while cement sets. (see attached plan). |
| 2 | **Intermediate Second-Stage Bullheading** | Request to perform a second-stage cement job on intermediate casing by bullheading through the casing rather than circulating through drill pipe, if needed to achieve planned TOC. |
| 3 | **Coflex Choke Line** | Request to use a flexible choke line from the BOP to the choke manifold in place of rigid steel line, per manufacturer specifications. |
| 4 | **Break Testing** | Request to perform break testing of BOPE components on the intermediate hole section only, rather than full pressure tests, to verify integrity without over-testing. |
| 5 | **5M Test on 10M BOPE** | Request to test a 10,000 psi BOPE system to 5,000 psi for the intermediate hole section (MASP ~500 psi) rather than to full rating. Production section will be tested to 10,000 psi. |
| 6 | **Annular Test Pressure** | Request to test annular preventer to 70% of rated working pressure instead of full working pressure, consistent with API guidance. |
| 7 | **Multibowl Wellhead** | Request to utilize a multibowl wellhead system in lieu of a conventional wellhead. |
| 8 | | |
| 9 | | |
| 10 | | |

## Section 13: List of Attachments

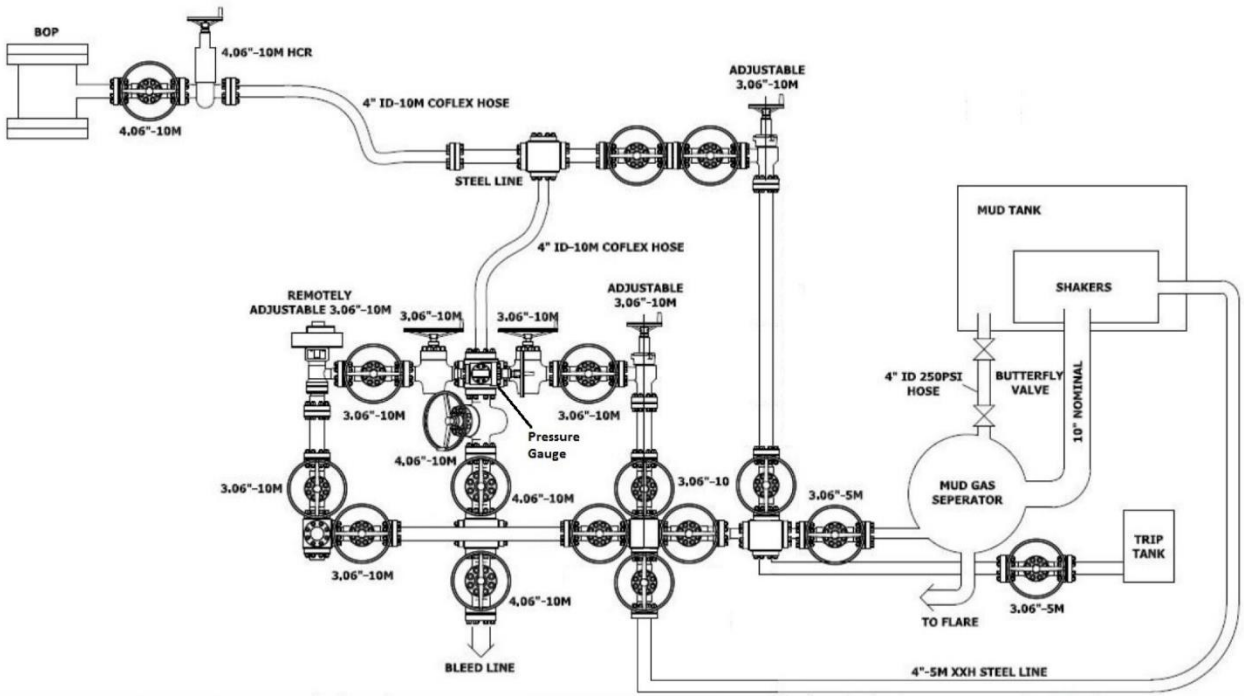
| | |
|---|---|
| 1 | **Directional Plan** |
| 2 | **Offline Cementing and Well control attachment** |
| 3 | **H2S Contingency Plan** |

**Offline Cementing**: Civitas requests a variance for the option to offline cement surface and intermediate casing strings set higher than Wolfcamp formations. To execute offline cement jobs safely, the following precautions and equipment are detailed below:

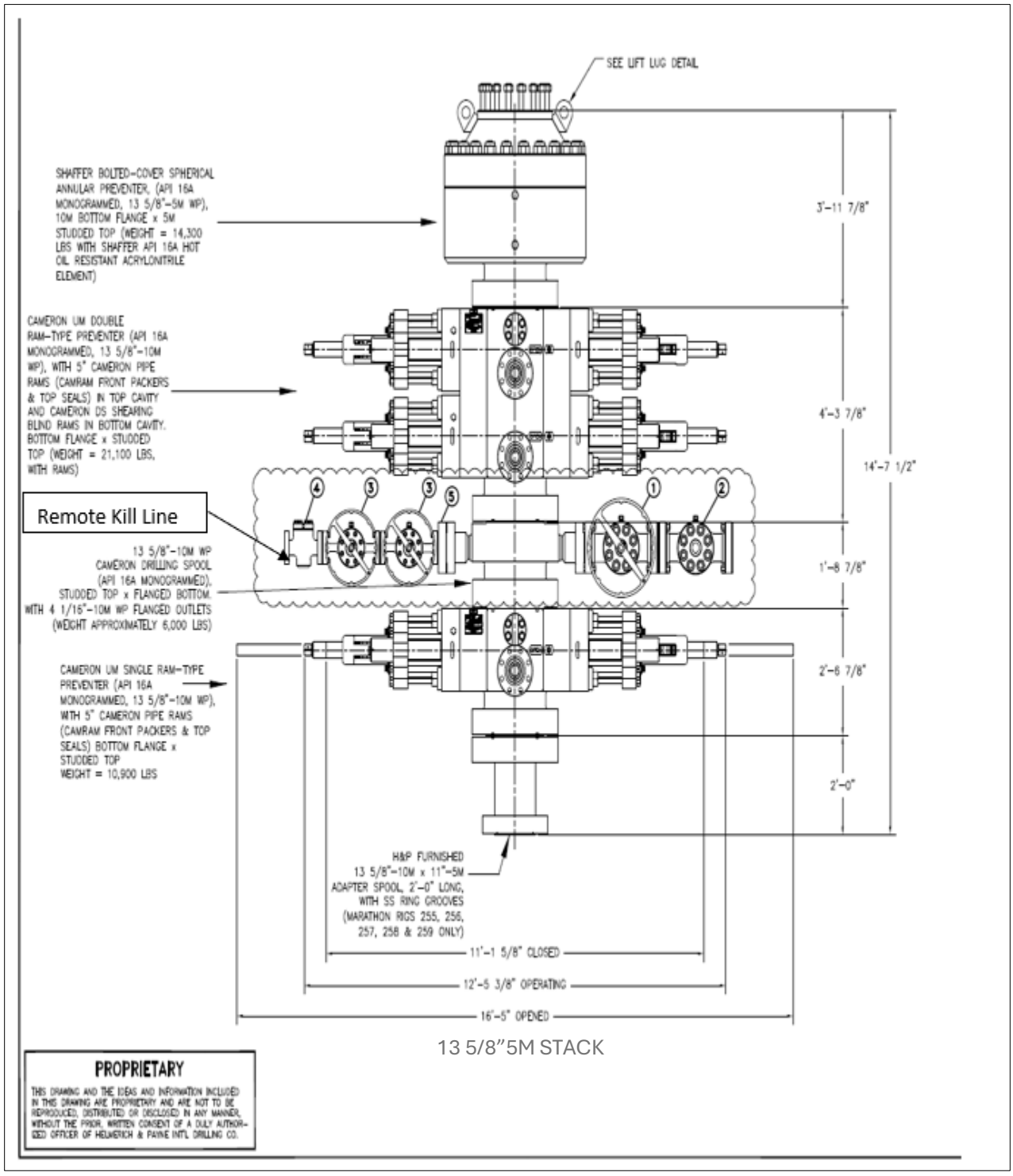
- For surface casing, no change to cement procedures to offline cement surface casing is anticipated.
- For intermediate casing, during the drilling of the intermediate hole section (all intermediate strings will be TD'd above the WCA top), hole conditions will be monitored and addressed to ensure for a successful casing run. In the event hole conditions change after running casing and/or the well is not in a static state, Civitas Resources can elect to pump the cement job online.
- Equipment for the offline cement job will include a tested/charted 5M working pressure dual manifold cement head system will be used with a standard offline cement tool that is packed off and tested through a port between the upper valve and packoff assembly (diagram below). Returns from the manifold will be taken to an auxiliary mud-gas separator during cement job. The operational scope is described in the following steps: the casing will be landed on the mandrel, pull tested, packoff installed and tested to 80% of collapse of casing on the top and bottom seals, nipple down BOP and install offline cement tool/manifold. The offline cement tool screws into the top of the packoff assembly. During the cement job, all returns will be taken through the A-Section valve (flanged). An example diagram of the tool is shown below:



10M Choke Layout

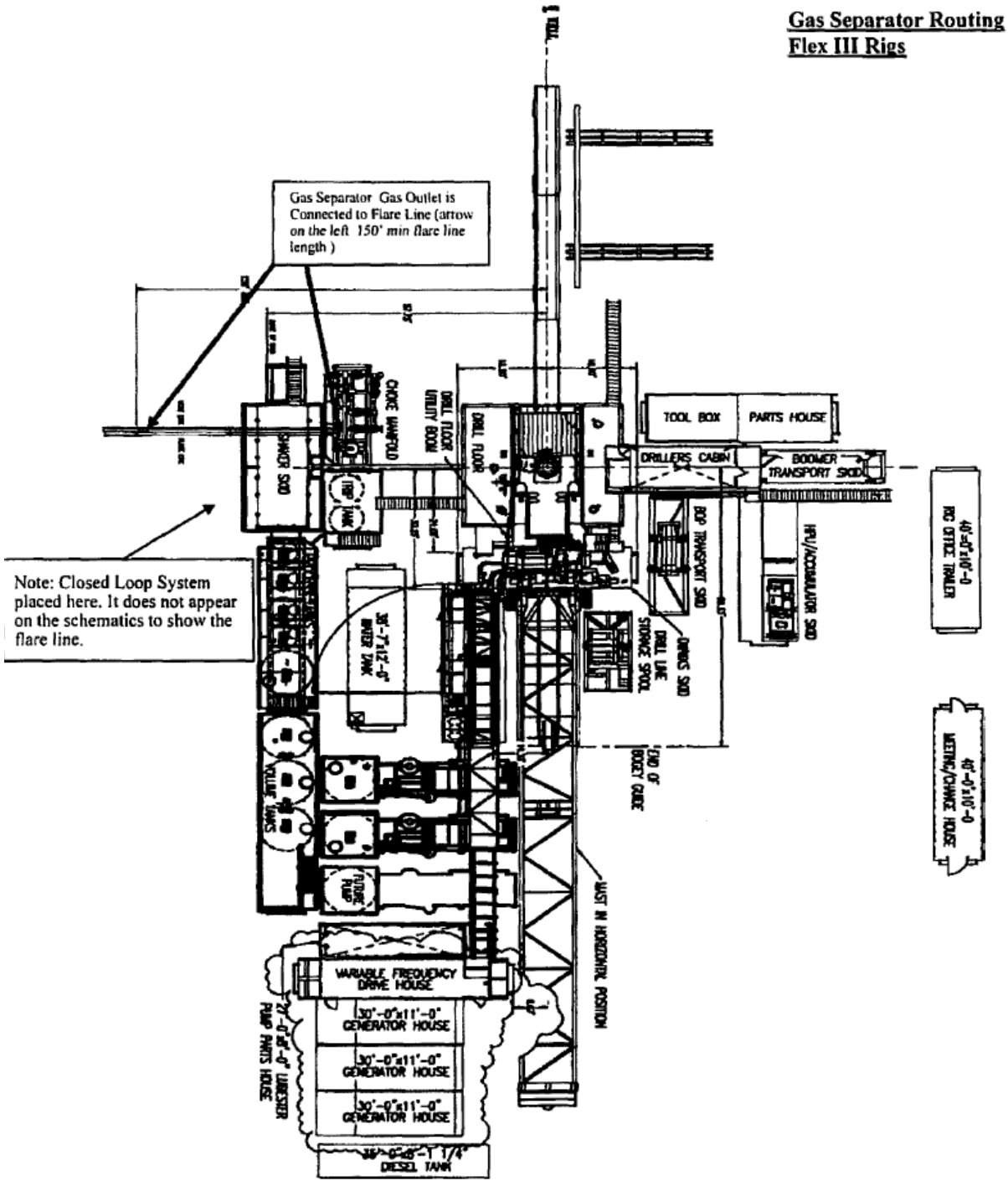


10M BOP Stack

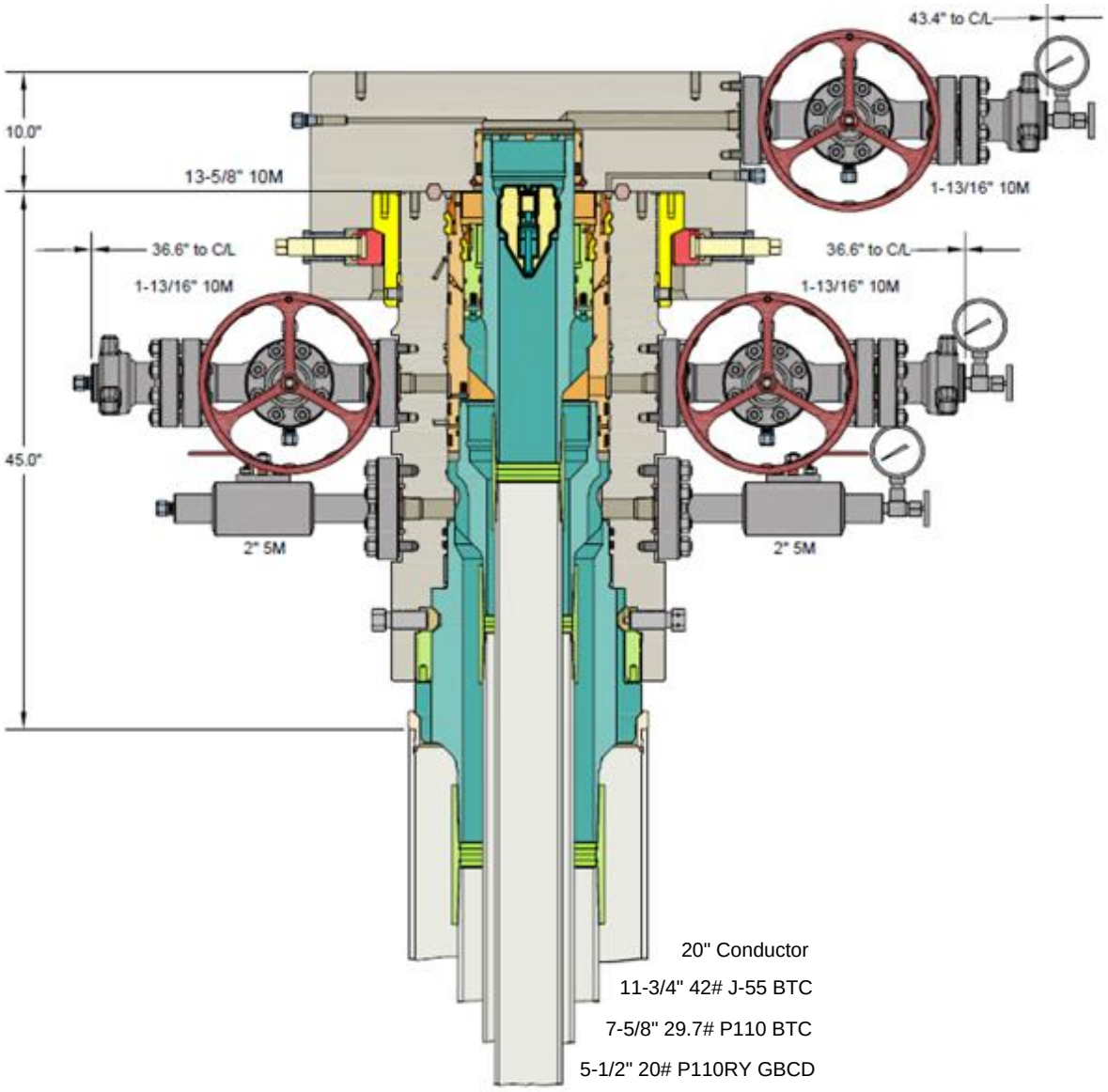



13 5/8"5M STACK

**Gas Separator Routing**
**Flex III Rigs**



Multi-bowl Wellhead Design

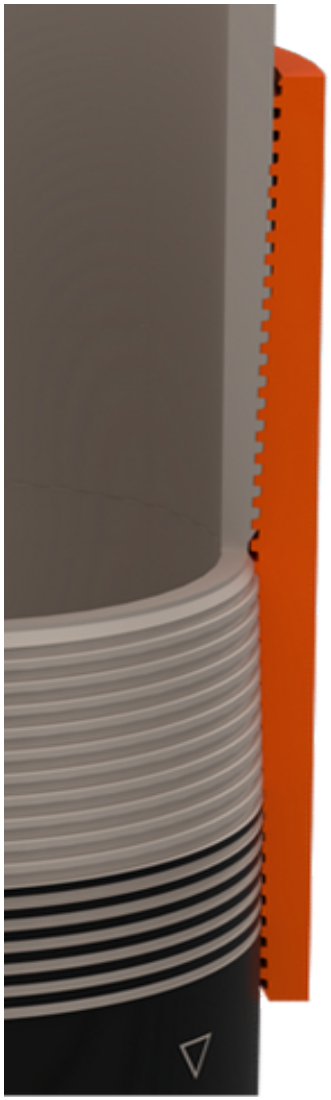


GBCONNECTIONS
ENGINEERING THE RIGHT CONNECTIONS

# GB Connection Performance Properties Sheet

Rev. 0 (04/29/2025)

ENGINEERING THE RIGHT CONNECTIONS™



**Casing:** 5.5 OD, 20 ppf
**Casing Grade:** Benteler P110 RY (95% RBW)

**Connection:** GB CD Butt 6.300
**Coupling Grade:** API P-110

| PIPE BODY GEOMETRY | | | | | |
|---|---|---|---|---|---|
| Nominal OD (in.) | 5 1/2 | Wall Thickness (in.) | 0.361 | Drift Diameter (in.) | 4.653 |
| Nominal Weight (ppf) | 20.00 | Nominal ID (in.) | 4.778 | API Alternate Drift Dia. (in.) | N/A |
| Plain End Weight (ppf) | 19.83 | Plain End Area (in.$^2$) | 5.828 | | |

| PIPE BODY PERFORMANCE** | | | | | |
|---|---|---|---|---|---|
| Material Specification | Benteler P110 RY (95% RBW) | Min. Yield Str. (psi) | 110,000 | Min. Ultimate Str. (psi) | 125,000 |
| **Collapse** | | **Tension** | | **Pressure** | |
| API (psi) | 11,106 | Pl. End Yield Str. (kips) | 641 | Min. Int. Yield Press. (psi) | 13,720 |
| High Collapse (psi) | - | **Torque** | | **Bending** | |
| | | Yield Torque (ft-lbs) | 74,420 | Build Rate to Yield (°/100 ft) | 91.7 |

| GB CD Butt 6.300 COUPLING GEOMETRY | | | | | |
|---|---|---|---|---|---|
| Coupling OD (in.) | 6.300 | Makeup Loss (in.) | 4.2500 | | |
| Coupling Length (in.) | 8.500 | Critical Cross-Sect. (in.$^2$) | 8.527 | | |

| GB CD Butt 6.300 CONNECTION PERFORMANCE RATINGS/EFFICIENCIES | | | | | |
|---|---|---|---|---|---|
| Material Specification | API P-110 | Min. Yield Str. (psi) | 110,000 | Min. Ultimate Str. (psi) | 125,000 |
| **Tension** | | **Efficiency** | | **Bending** | |
| Thread Str. (kips) | 667 | Internal Pressure (%) | 100% | Build Rate to Yield (°/100 ft) | 80.0 |
| Min. Tension Yield (kips) | 891 | External Pressure (%) | 100% | **Yield Torque** | |
| Min. Tension Ult. (kips) | 1,013 | Tension (%) | 100% | Yield Torque (ft-lbs) | 31,180 |
| Joint Str. (kips) | 667 | Compression (%) | 100% | | |
| | | Ratio of Areas (Cplg/Pipe) | 1.46 | | |

| MAKEUP TORQUE | | | | | |
|---|---|---|---|---|---|
| Min. MU Tq. (ft-lbs) | 10,000 | Max. MU Tq. (ft-lbs) | 20,000 | Running Tq. (ft-lbs) | See GBC RP |
| | | | | Max. Operating Tq. (ft-lbs)* | 29,620 |

Units: US Customary (lbm, in., °F, lbf)
1 kip = 1,000 lbs
* See Running Procedure for description and limitations.
See attached: Notes for GB Connection Performance Properties.
GBC Running Procedure (GBC RP): www.gbconnections.com/resources/running-procedures/
Blanking Dimensions: www.gbconnections.com/resources/documentation/#blanking-dimensions
Connection yield torque rating based on physical testing or extrapolation therefrom
** Casing properties applicable to Benteler P110 RY (95% RBW) grade with min. yield 110 ksi.

Do Not Cross SL

**Project:** Lea County, NM (NAD 83)
**Site:** Junior Mint Fed Pad
**Well:** Junior Mint Fed 133H
**Wellbore:** OH
**Design:** Plan #2
**Rig:** KB 26'

CIVITAS

T G M

Azimuths to Grid North
True North: -0.52°
Magnetic North: 5.53°

Magnetic Field
Strength: 47062.8nT
Dip Angle: 59.57°
Date: 8/15/2025
Model: HDGM2025

**Total Magnetic Correction: 5.53°**

PROJECT DETAILS: Lea County, NM (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

Reference Datum: GE 3221' + KB 26' @ 3247.00usft (KB 26')

SHL

RKB Elevation: GE 3221' + KB 26' @ 3247.00usft (KB 26')

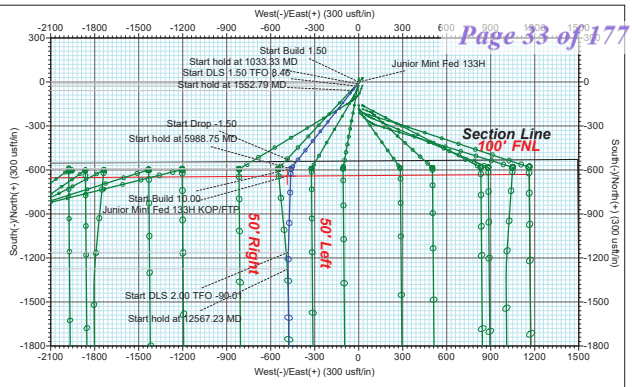
| +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Slot |
|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 415726.00 | 845189.00 | 32.1391026 | -103.3516655 | |

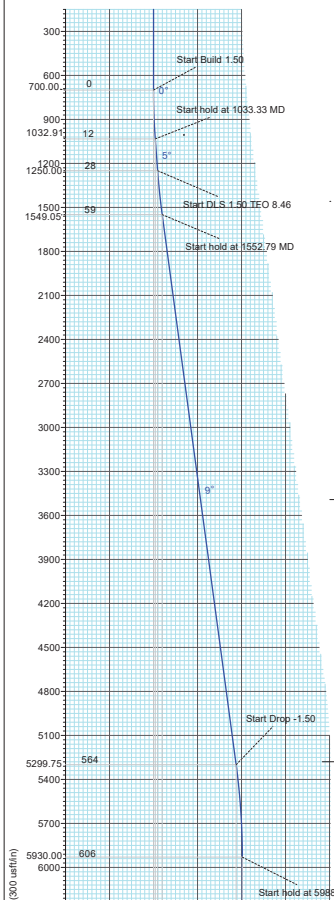
SECTION DETAILS

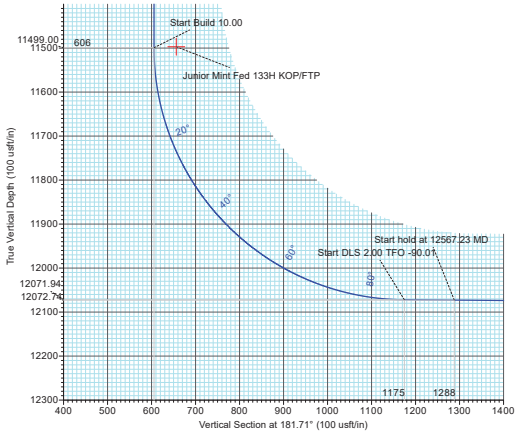
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Target |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1033.33 | 5.00 | 214.21 | 1032.91 | -12.02 | -8.17 | 1.50 | 214.21 | 12.26 | |
| 1251.25 | 5.00 | 214.21 | 1250.00 | -27.73 | -18.85 | 0.00 | 0.00 | 28.28 | |
| 1552.79 | 9.50 | 218.24 | 1549.05 | -58.15 | -41.65 | 1.50 | 8.46 | 59.36 | |
| 5355.61 | 9.50 | 218.24 | 5299.75 | -550.95 | -430.04 | 0.00 | 0.00 | 563.54 | |
| 5988.75 | 0.00 | 0.00 | 5930.00 | -592.07 | -462.45 | 1.50 | 180.00 | 605.61 | |
| 11557.75 | 0.00 | 0.00 | 11499.00 | -592.07 | -462.45 | 0.00 | 0.00 | 605.61 | |
| 12453.75 | 89.60 | 181.75 | 12071.94 | -1160.76 | -479.83 | 10.00 | 181.75 | 1174.56 | |
| 12567.23 | 89.60 | 179.48 | 12072.74 | -1274.22 | -481.04 | 2.00 | -90.01 | 1288.01 | |
| 22386.65 | 89.60 | 179.48 | 12141.30 | -11093.00 | -392.00 | 0.00 | 0.00 | 11099.76 | |

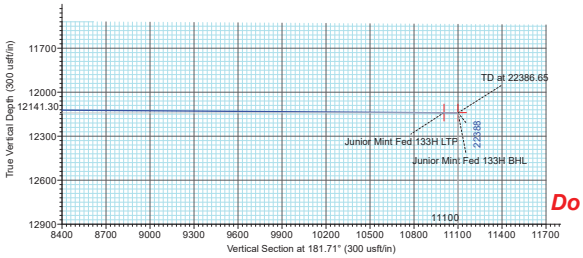
WELLBORE TARGET DETAILS

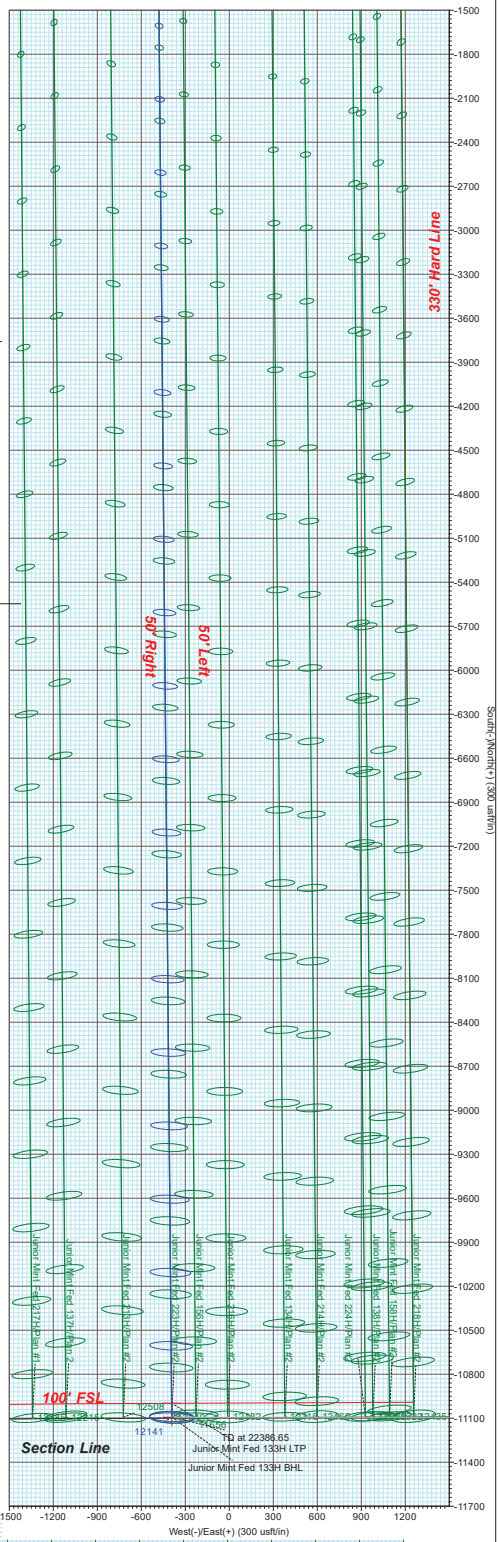
| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| Junior Mint Fed 133H KOP/FTP | 11497.00 | -642.00 | -487.00 | 415084.00 | 844702.00 | 32.1373503 | -103.3532575 |
| Junior Mint Fed 133H LTP | 12139.00 | -10998.00 | -393.00 | 404728.00 | 844796.00 | 32.1088840 | -103.3532582 |
| Junior Mint Fed 133H BHL | 12139.30 | -11093.00 | -392.00 | 404633.00 | 844797.00 | 32.1086228 | -103.3532578 |

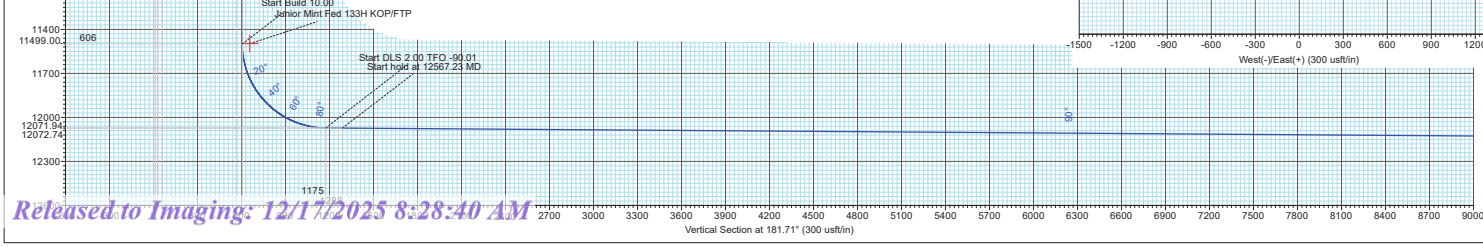



Do Not Cross SL

# Civitas Resources

**Lea County, NM (NAD 83)**
**Junior Mint Fed Pad**
**Junior Mint Fed 133H**

**OH**

**Plan: Plan #2**

Total Directional
"Driven by TOTAL performance"
total

# Standard Plan Report

**18 August, 2025**

*Total Report Version 1.80*

*COMPASS 5000.16 Build 97*

**ATTENTION**
All annotation callouts related to distances are uncertified and are approximated footages using available software and measurement tools. They should not be mistaken as an official record, which can only be obtained via a certified land surveyor.

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Project** Lea County, NM (NAD 83)

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Eastern Zone | | |

**Site** Junior Mint Fed Pad

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 414,635.00 usft | **Latitude:** | 32.1361627 |
| **From:** | Map | **Easting:** | 842,835.00 usft | **Longitude:** | -103.3593016 |
| **Position Uncertainty:** | 0.00 usft | **Slot Radius:** | 13-3/16 " | | |

**Well** Junior Mint Fed 133H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 usft | **Northing:** | 415,726.00 usft | **Latitude:** | 32.1391027 |
| | **+E/-W** | 0.00 usft | **Easting:** | 845,189.00 usft | **Longitude:** | -103.3516655 |
| **Position Uncertainty** | | 0.50 usft | **Wellhead Elevation:** | usft | **Ground Level:** | 3,221.00 usft |
| **Grid Convergence:** | | 0.52 ° | | | | |

**Wellbore** OH

| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
|---|---|---|---|---|---|
| | HDGM2025 | 8/15/2025 | 6.05 | 59.57 | 47,062.80000000 |

**Design** Plan #2

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.00 |

| **Vertical Section:** | **Depth From (TVD) (usft)** | **+N/-S (usft)** | **+E/-W (usft)** | **Direction (°)** |
|---|---|---|---|---|
| | 0.00 | 0.00 | 0.00 | 181.71 |

**Survey Tool Program** **Date** 8/12/2025

| **From (usft)** | **To (usft)** | **Survey (Wellbore)** | **Tool Name** | **Description** |
|---|---|---|---|---|
| 0.00 | 22,386.65 | Plan #2 (OH) | MWD+HRGM+SAG+FDIF | OWSG MWD + HRGM + SAG + FDIR Correction |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **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 | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,033.33 | 5.00 | 214.21 | 1,032.91 | -12.02 | -8.17 | 1.50 | 1.50 | 0.00 | 214.21 | |
| 1,251.25 | 5.00 | 214.21 | 1,250.00 | -27.73 | -18.85 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,552.79 | 9.50 | 218.24 | 1,549.05 | -58.15 | -41.65 | 1.50 | 1.49 | 1.34 | 8.46 | |
| 5,355.61 | 9.50 | 218.24 | 5,299.75 | -550.95 | -430.04 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,988.75 | 0.00 | 0.00 | 5,930.00 | -592.07 | -462.45 | 1.50 | -1.50 | 0.00 | 180.00 | |
| 11,557.75 | 0.00 | 0.00 | 11,499.00 | -592.07 | -462.45 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 12,453.75 | 89.60 | 181.75 | 12,071.94 | -1,160.76 | -479.83 | 10.00 | 10.00 | 0.00 | 181.75 | |
| 12,567.23 | 89.60 | 179.48 | 12,072.74 | -1,274.22 | -481.04 | 2.00 | 0.00 | -2.00 | -90.01 | |
| 22,386.65 | 89.60 | 179.48 | 12,141.30 | -11,093.00 | -392.00 | 0.00 | 0.00 | 0.00 | 0.00 | |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 415,726.00 | 845,189.00 | 32.1391027 | -103.3516655 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 1.50 | 214.21 | 799.99 | -1.08 | -0.74 | 415,724.92 | 845,188.26 | 32.1390997 | -103.3516679 | 1.10 | 1.50 | 1.50 | 0.00 |
| 900.00 | 3.00 | 214.21 | 899.91 | -4.33 | -2.94 | 415,721.67 | 845,186.06 | 32.1390908 | -103.3516751 | 4.41 | 1.50 | 1.50 | 0.00 |
| 1,000.00 | 4.50 | 214.21 | 999.69 | -9.74 | -6.62 | 415,716.26 | 845,182.38 | 32.1390761 | -103.3516872 | 9.93 | 1.50 | 1.50 | 0.00 |
| 1,033.33 | 5.00 | 214.21 | 1,032.91 | -12.02 | -8.17 | 415,713.98 | 845,180.83 | 32.1390698 | -103.3516922 | 12.26 | 1.50 | 1.50 | 0.00 |
| 1,100.00 | 5.00 | 214.21 | 1,099.32 | -16.83 | -11.44 | 415,709.17 | 845,177.56 | 32.1390567 | -103.3517029 | 17.16 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 5.00 | 214.21 | 1,198.94 | -24.03 | -16.34 | 415,701.97 | 845,172.66 | 32.1390370 | -103.3517190 | 24.51 | 0.00 | 0.00 | 0.00 |
| 1,251.25 | 5.00 | 214.21 | 1,250.00 | -27.73 | -18.85 | 415,698.27 | 845,170.15 | 32.1390269 | -103.3517272 | 28.28 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 5.72 | 215.29 | 1,298.53 | -31.47 | -21.45 | 415,694.53 | 845,167.55 | 32.1390167 | -103.3517357 | 32.09 | 1.50 | 1.49 | 2.21 |
| 1,400.00 | 7.21 | 216.82 | 1,397.89 | -40.57 | -28.09 | 415,685.43 | 845,160.91 | 32.1389919 | -103.3517574 | 41.39 | 1.50 | 1.49 | 1.54 |
| 1,500.00 | 8.71 | 217.84 | 1,496.93 | -51.57 | -36.50 | 415,674.43 | 845,152.50 | 32.1389618 | -103.3517849 | 52.64 | 1.50 | 1.49 | 1.01 |
| 1,552.79 | 9.50 | 218.24 | 1,549.05 | -58.15 | -41.65 | 415,667.85 | 845,147.35 | 32.1389439 | -103.3518017 | 59.36 | 1.50 | 1.50 | 0.77 |
| 1,600.00 | 9.50 | 218.24 | 1,595.62 | -64.27 | -46.47 | 415,661.73 | 845,142.53 | 32.1389272 | -103.3518175 | 65.62 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 9.50 | 218.24 | 1,694.25 | -77.22 | -56.68 | 415,648.78 | 845,132.32 | 32.1388918 | -103.3518509 | 78.88 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 9.50 | 218.24 | 1,792.87 | -90.18 | -66.90 | 415,635.82 | 845,122.10 | 32.1388565 | -103.3518842 | 92.14 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 9.50 | 218.24 | 1,891.50 | -103.14 | -77.11 | 415,622.86 | 845,111.89 | 32.1388211 | -103.3519176 | 105.40 | 0.00 | 0.00 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,000.00 | 9.50 | 218.24 | 1,990.13 | -116.10 | -87.32 | 415,609.90 | 845,101.68 | 32.1387857 | -103.3519510 | 118.66 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 9.50 | 218.24 | 2,088.76 | -129.06 | -97.54 | 415,596.94 | 845,091.46 | 32.1387504 | -103.3519844 | 131.91 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 9.50 | 218.24 | 2,187.39 | -142.02 | -107.75 | 415,583.98 | 845,081.25 | 32.1387150 | -103.3520177 | 145.17 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 9.50 | 218.24 | 2,286.02 | -154.98 | -117.96 | 415,571.02 | 845,071.04 | 32.1386797 | -103.3520511 | 158.43 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 9.50 | 218.24 | 2,384.65 | -167.94 | -128.18 | 415,558.06 | 845,060.82 | 32.1386443 | -103.3520845 | 171.69 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 9.50 | 218.24 | 2,483.28 | -180.90 | -138.39 | 415,545.10 | 845,050.61 | 32.1386089 | -103.3521179 | 184.94 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 9.50 | 218.24 | 2,581.91 | -193.85 | -148.60 | 415,532.15 | 845,040.40 | 32.1385736 | -103.3521512 | 198.20 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 9.50 | 218.24 | 2,680.54 | -206.81 | -158.82 | 415,519.19 | 845,030.18 | 32.1385382 | -103.3521846 | 211.46 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 9.50 | 218.24 | 2,779.17 | -219.77 | -169.03 | 415,506.23 | 845,019.97 | 32.1385028 | -103.3522180 | 224.72 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 9.50 | 218.24 | 2,877.80 | -232.73 | -179.24 | 415,493.27 | 845,009.76 | 32.1384675 | -103.3522514 | 237.98 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 9.50 | 218.24 | 2,976.43 | -245.69 | -189.46 | 415,480.31 | 844,999.54 | 32.1384321 | -103.3522847 | 251.23 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 9.50 | 218.24 | 3,075.06 | -258.65 | -199.67 | 415,467.35 | 844,989.33 | 32.1383968 | -103.3523181 | 264.49 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 9.50 | 218.24 | 3,173.69 | -271.61 | -209.88 | 415,454.39 | 844,979.12 | 32.1383614 | -103.3523515 | 277.75 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 9.50 | 218.24 | 3,272.32 | -284.57 | -220.10 | 415,441.43 | 844,968.90 | 32.1383260 | -103.3523848 | 291.01 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 9.50 | 218.24 | 3,370.94 | -297.53 | -230.31 | 415,428.47 | 844,958.69 | 32.1382907 | -103.3524182 | 304.27 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 9.50 | 218.24 | 3,469.57 | -310.48 | -240.52 | 415,415.52 | 844,948.48 | 32.1382553 | -103.3524516 | 317.52 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 9.50 | 218.24 | 3,568.20 | -323.44 | -250.74 | 415,402.56 | 844,938.26 | 32.1382199 | -103.3524850 | 330.78 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 9.50 | 218.24 | 3,666.83 | -336.40 | -260.95 | 415,389.60 | 844,928.05 | 32.1381846 | -103.3525183 | 344.04 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 9.50 | 218.24 | 3,765.46 | -349.36 | -271.16 | 415,376.64 | 844,917.84 | 32.1381492 | -103.3525517 | 357.30 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 9.50 | 218.24 | 3,864.09 | -362.32 | -281.38 | 415,363.68 | 844,907.62 | 32.1381139 | -103.3525851 | 370.56 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 9.50 | 218.24 | 3,962.72 | -375.28 | -291.59 | 415,350.72 | 844,897.41 | 32.1380785 | -103.3526185 | 383.81 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 9.50 | 218.24 | 4,061.35 | -388.24 | -301.80 | 415,337.76 | 844,887.20 | 32.1380431 | -103.3526518 | 397.07 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 9.50 | 218.24 | 4,159.98 | -401.20 | -312.02 | 415,324.80 | 844,876.98 | 32.1380078 | -103.3526852 | 410.33 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 9.50 | 218.24 | 4,258.61 | -414.16 | -322.23 | 415,311.84 | 844,866.77 | 32.1379724 | -103.3527186 | 423.59 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 9.50 | 218.24 | 4,357.24 | -427.11 | -332.44 | 415,298.89 | 844,856.56 | 32.1379370 | -103.3527520 | 436.85 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 9.50 | 218.24 | 4,455.87 | -440.07 | -342.66 | 415,285.93 | 844,846.34 | 32.1379017 | -103.3527853 | 450.10 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 9.50 | 218.24 | 4,554.50 | -453.03 | -352.87 | 415,272.97 | 844,836.13 | 32.1378663 | -103.3528187 | 463.36 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 9.50 | 218.24 | 4,653.13 | -465.99 | -363.08 | 415,260.01 | 844,825.92 | 32.1378310 | -103.3528521 | 476.62 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 9.50 | 218.24 | 4,751.76 | -478.95 | -373.30 | 415,247.05 | 844,815.70 | 32.1377956 | -103.3528854 | 489.88 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 9.50 | 218.24 | 4,850.39 | -491.91 | -383.51 | 415,234.09 | 844,805.49 | 32.1377602 | -103.3529188 | 503.13 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 9.50 | 218.24 | 4,949.01 | -504.87 | -393.72 | 415,221.13 | 844,795.28 | 32.1377249 | -103.3529522 | 516.39 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 9.50 | 218.24 | 5,047.64 | -517.83 | -403.94 | 415,208.17 | 844,785.06 | 32.1376895 | -103.3529856 | 529.65 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 9.50 | 218.24 | 5,146.27 | -530.79 | -414.15 | 415,195.21 | 844,774.85 | 32.1376541 | -103.3530189 | 542.91 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 9.50 | 218.24 | 5,244.90 | -543.75 | -424.36 | 415,182.25 | 844,764.64 | 32.1376188 | -103.3530523 | 556.17 | 0.00 | 0.00 | 0.00 |
| 5,355.61 | 9.50 | 218.24 | 5,299.75 | -550.95 | -430.04 | 415,175.05 | 844,758.96 | 32.1375991 | -103.3530709 | 563.54 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 8.83 | 218.24 | 5,343.57 | -556.50 | -434.42 | 415,169.50 | 844,754.58 | 32.1375840 | -103.3530852 | 569.22 | 1.50 | -1.50 | 0.00 |
| 5,500.00 | 7.33 | 218.24 | 5,442.58 | -567.54 | -443.12 | 415,158.46 | 844,745.88 | 32.1375538 | -103.3531136 | 580.51 | 1.50 | -1.50 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,600.00 | 5.83 | 218.24 | 5,541.92 | -576.55 | -450.22 | 415,149.45 | 844,738.78 | 32.1375293 | -103.3531368 | 589.72 | 1.50 | -1.50 | 0.00 |
| 5,700.00 | 4.33 | 218.24 | 5,641.52 | -583.50 | -455.70 | 415,142.50 | 844,733.30 | 32.1375103 | -103.3531547 | 596.84 | 1.50 | -1.50 | 0.00 |
| 5,800.00 | 2.83 | 218.24 | 5,741.32 | -588.41 | -459.56 | 415,137.59 | 844,729.44 | 32.1374969 | -103.3531673 | 601.86 | 1.50 | -1.50 | 0.00 |
| 5,900.00 | 1.33 | 218.24 | 5,841.25 | -591.26 | -461.81 | 415,134.74 | 844,727.19 | 32.1374891 | -103.3531747 | 604.78 | 1.50 | -1.50 | 0.00 |
| 5,988.75 | 0.00 | 0.00 | 5,930.00 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 1.50 | -1.50 | 0.00 |
| 6,000.00 | 0.00 | 0.00 | 5,941.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 6,041.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,141.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,241.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 0.00 | 0.00 | 6,341.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 0.00 | 0.00 | 6,441.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,541.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,641.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,741.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,841.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 0.00 | 0.00 | 6,941.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 7,041.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 0.00 | 0.00 | 7,141.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 0.00 | 0.00 | 7,241.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 0.00 | 0.00 | 7,341.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 0.00 | 0.00 | 7,441.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 0.00 | 0.00 | 7,541.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 0.00 | 0.00 | 7,641.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 0.00 | 0.00 | 7,741.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 0.00 | 0.00 | 7,841.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 0.00 | 0.00 | 7,941.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 0.00 | 0.00 | 8,041.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 0.00 | 0.00 | 8,141.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 0.00 | 0.00 | 8,241.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 0.00 | 0.00 | 8,341.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 0.00 | 0.00 | 8,441.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 0.00 | 0.00 | 8,541.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 0.00 | 0.00 | 8,641.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 0.00 | 0.00 | 8,741.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 0.00 | 0.00 | 8,841.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 0.00 | 0.00 | 8,941.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 0.00 | 0.00 | 9,041.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 0.00 | 0.00 | 9,141.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9,300.00 | 0.00 | 0.00 | 9,241.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 0.00 | 0.00 | 9,341.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 0.00 | 0.00 | 9,441.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 0.00 | 0.00 | 9,541.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 0.00 | 0.00 | 9,641.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 0.00 | 0.00 | 9,741.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 0.00 | 0.00 | 9,841.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 0.00 | 0.00 | 9,941.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 0.00 | 0.00 | 10,041.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 0.00 | 0.00 | 10,141.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 0.00 | 0.00 | 10,241.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 0.00 | 0.00 | 10,341.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 0.00 | 0.00 | 10,441.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 0.00 | 0.00 | 10,541.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 0.00 | 0.00 | 10,641.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 0.00 | 0.00 | 10,741.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 0.00 | 0.00 | 10,841.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 0.00 | 0.00 | 10,941.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 0.00 | 0.00 | 11,041.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 0.00 | 0.00 | 11,141.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 0.00 | 0.00 | 11,241.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 0.00 | 0.00 | 11,341.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 0.00 | 0.00 | 11,441.25 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,555.75 | 0.00 | 0.00 | 11,497.00 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| **Junior Mint Fed 133H KOP/FTP** | | | | | | | | | | | | | |
| 11,557.75 | 0.00 | 0.00 | 11,499.00 | -592.07 | -462.45 | 415,133.93 | 844,726.55 | 32.1374869 | -103.3531768 | 605.61 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 4.22 | 181.75 | 11,541.21 | -593.63 | -462.50 | 415,132.37 | 844,726.50 | 32.1374826 | -103.3531770 | 607.16 | 10.00 | 10.00 | 0.00 |
| 11,650.00 | 9.22 | 181.75 | 11,590.85 | -599.48 | -462.68 | 415,126.52 | 844,726.32 | 32.1374666 | -103.3531777 | 613.02 | 10.00 | 10.00 | 0.00 |
| 11,700.00 | 14.22 | 181.75 | 11,639.79 | -609.63 | -462.99 | 415,116.37 | 844,726.01 | 32.1374387 | -103.3531790 | 623.17 | 10.00 | 10.00 | 0.00 |
| 11,750.00 | 19.22 | 181.75 | 11,687.66 | -624.01 | -463.43 | 415,101.99 | 844,725.57 | 32.1373992 | -103.3531809 | 637.56 | 10.00 | 10.00 | 0.00 |
| 11,800.00 | 24.22 | 181.75 | 11,734.09 | -642.50 | -463.99 | 415,083.50 | 844,725.01 | 32.1373483 | -103.3531832 | 656.06 | 10.00 | 10.00 | 0.00 |
| 11,850.00 | 29.22 | 181.75 | 11,778.74 | -664.97 | -464.68 | 415,061.03 | 844,724.32 | 32.1372866 | -103.3531861 | 678.54 | 10.00 | 10.00 | 0.00 |
| 11,900.00 | 34.22 | 181.75 | 11,821.25 | -691.24 | -465.48 | 415,034.76 | 844,723.52 | 32.1372144 | -103.3531895 | 704.82 | 10.00 | 10.00 | 0.00 |
| 11,950.00 | 39.22 | 181.75 | 11,861.32 | -721.11 | -466.39 | 415,004.89 | 844,722.61 | 32.1371323 | -103.3531933 | 734.71 | 10.00 | 10.00 | 0.00 |
| 12,000.00 | 44.22 | 181.75 | 11,898.62 | -754.36 | -467.41 | 414,971.64 | 844,721.59 | 32.1370410 | -103.3531976 | 767.98 | 10.00 | 10.00 | 0.00 |
| 12,050.00 | 49.22 | 181.75 | 11,932.89 | -790.74 | -468.52 | 414,935.26 | 844,720.48 | 32.1369410 | -103.3532022 | 804.37 | 10.00 | 10.00 | 0.00 |
| 12,100.00 | 54.22 | 181.75 | 11,963.85 | -829.96 | -469.72 | 414,896.04 | 844,719.28 | 32.1368332 | -103.3532072 | 843.61 | 10.00 | 10.00 | 0.00 |
| 12,150.00 | 59.22 | 181.75 | 11,991.27 | -871.73 | -470.99 | 414,854.27 | 844,718.01 | 32.1367185 | -103.3532126 | 885.40 | 10.00 | 10.00 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,200.00 | 64.22 | 181.75 | 12,014.95 | -915.73 | -472.34 | 414,810.27 | 844,716.66 | 32.1365976 | -103.3532182 | 929.42 | 10.00 | 10.00 | 0.00 |
| 12,250.00 | 69.22 | 181.75 | 12,034.70 | -961.62 | -473.74 | 414,764.38 | 844,715.26 | 32.1364715 | -103.3532241 | 975.33 | 10.00 | 10.00 | 0.00 |
| 12,300.00 | 74.22 | 181.75 | 12,050.38 | -1,009.06 | -475.19 | 414,716.94 | 844,713.81 | 32.1363411 | -103.3532302 | 1,022.79 | 10.00 | 10.00 | 0.00 |
| 12,350.00 | 79.22 | 181.75 | 12,061.86 | -1,057.69 | -476.68 | 414,668.31 | 844,712.32 | 32.1362075 | -103.3532364 | 1,071.44 | 10.00 | 10.00 | 0.00 |
| 12,400.00 | 84.22 | 181.75 | 12,069.05 | -1,107.13 | -478.19 | 414,618.87 | 844,710.81 | 32.1360716 | -103.3532427 | 1,120.91 | 10.00 | 10.00 | 0.00 |
| 12,453.75 | 89.60 | 181.75 | 12,071.94 | -1,160.76 | -479.83 | 414,565.24 | 844,709.17 | 32.1359243 | -103.3532496 | 1,174.56 | 10.00 | 10.00 | 0.00 |
| 12,500.00 | 89.60 | 180.83 | 12,072.27 | -1,206.99 | -480.86 | 414,519.01 | 844,708.14 | 32.1357972 | -103.3532543 | 1,220.81 | 2.00 | 0.00 | -2.00 |
| 12,567.23 | 89.60 | 179.48 | 12,072.74 | -1,274.22 | -481.04 | 414,451.78 | 844,707.96 | 32.1356125 | -103.3532569 | 1,288.01 | 2.00 | 0.00 | -2.00 |
| 12,600.00 | 89.60 | 179.48 | 12,072.97 | -1,306.99 | -480.75 | 414,419.01 | 844,708.25 | 32.1355224 | -103.3532569 | 1,320.75 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 89.60 | 179.48 | 12,073.66 | -1,406.98 | -479.84 | 414,319.02 | 844,709.16 | 32.1352475 | -103.3532569 | 1,420.67 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 89.60 | 179.48 | 12,074.36 | -1,506.98 | -478.93 | 414,219.02 | 844,710.07 | 32.1349727 | -103.3532569 | 1,520.60 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 89.60 | 179.48 | 12,075.06 | -1,606.97 | -478.03 | 414,119.03 | 844,710.97 | 32.1346978 | -103.3532569 | 1,620.52 | 0.00 | 0.00 | 0.00 |
| 13,000.00 | 89.60 | 179.48 | 12,075.76 | -1,706.96 | -477.12 | 414,019.04 | 844,711.88 | 32.1344229 | -103.3532569 | 1,720.44 | 0.00 | 0.00 | 0.00 |
| 13,100.00 | 89.60 | 179.48 | 12,076.46 | -1,806.96 | -476.21 | 413,919.04 | 844,712.79 | 32.1341481 | -103.3532569 | 1,820.36 | 0.00 | 0.00 | 0.00 |
| 13,200.00 | 89.60 | 179.48 | 12,077.15 | -1,906.95 | -475.31 | 413,819.05 | 844,713.69 | 32.1338732 | -103.3532569 | 1,920.28 | 0.00 | 0.00 | 0.00 |
| 13,300.00 | 89.60 | 179.48 | 12,077.85 | -2,006.94 | -474.40 | 413,719.06 | 844,714.60 | 32.1335984 | -103.3532570 | 2,020.21 | 0.00 | 0.00 | 0.00 |
| 13,400.00 | 89.60 | 179.48 | 12,078.55 | -2,106.94 | -473.49 | 413,619.06 | 844,715.51 | 32.1333235 | -103.3532570 | 2,120.13 | 0.00 | 0.00 | 0.00 |
| 13,500.00 | 89.60 | 179.48 | 12,079.25 | -2,206.93 | -472.59 | 413,519.07 | 844,716.42 | 32.1330487 | -103.3532570 | 2,220.05 | 0.00 | 0.00 | 0.00 |
| 13,600.00 | 89.60 | 179.48 | 12,079.95 | -2,306.92 | -471.68 | 413,419.08 | 844,717.32 | 32.1327738 | -103.3532570 | 2,319.97 | 0.00 | 0.00 | 0.00 |
| 13,700.00 | 89.60 | 179.48 | 12,080.65 | -2,406.92 | -470.77 | 413,319.08 | 844,718.23 | 32.1324989 | -103.3532570 | 2,419.89 | 0.00 | 0.00 | 0.00 |
| 13,800.00 | 89.60 | 179.48 | 12,081.34 | -2,506.91 | -469.86 | 413,219.09 | 844,719.14 | 32.1322241 | -103.3532570 | 2,519.82 | 0.00 | 0.00 | 0.00 |
| 13,900.00 | 89.60 | 179.48 | 12,082.04 | -2,606.90 | -468.96 | 413,119.10 | 844,720.04 | 32.1319492 | -103.3532570 | 2,619.74 | 0.00 | 0.00 | 0.00 |
| 14,000.00 | 89.60 | 179.48 | 12,082.74 | -2,706.90 | -468.05 | 413,019.10 | 844,720.95 | 32.1316744 | -103.3532570 | 2,719.66 | 0.00 | 0.00 | 0.00 |
| 14,100.00 | 89.60 | 179.48 | 12,083.44 | -2,806.89 | -467.14 | 412,919.11 | 844,721.86 | 32.1313995 | -103.3532570 | 2,819.58 | 0.00 | 0.00 | 0.00 |
| 14,200.00 | 89.60 | 179.48 | 12,084.14 | -2,906.88 | -466.24 | 412,819.12 | 844,722.76 | 32.1311246 | -103.3532570 | 2,919.50 | 0.00 | 0.00 | 0.00 |
| 14,300.00 | 89.60 | 179.48 | 12,084.84 | -3,006.88 | -465.33 | 412,719.12 | 844,723.67 | 32.1308498 | -103.3532570 | 3,019.42 | 0.00 | 0.00 | 0.00 |
| 14,400.00 | 89.60 | 179.48 | 12,085.53 | -3,106.87 | -464.42 | 412,619.13 | 844,724.58 | 32.1305749 | -103.3532571 | 3,119.35 | 0.00 | 0.00 | 0.00 |
| 14,500.00 | 89.60 | 179.48 | 12,086.23 | -3,206.86 | -463.52 | 412,519.14 | 844,725.48 | 32.1303001 | -103.3532571 | 3,219.27 | 0.00 | 0.00 | 0.00 |
| 14,600.00 | 89.60 | 179.48 | 12,086.93 | -3,306.86 | -462.61 | 412,419.14 | 844,726.39 | 32.1300252 | -103.3532571 | 3,319.19 | 0.00 | 0.00 | 0.00 |
| 14,700.00 | 89.60 | 179.48 | 12,087.63 | -3,406.85 | -461.70 | 412,319.15 | 844,727.30 | 32.1297503 | -103.3532571 | 3,419.11 | 0.00 | 0.00 | 0.00 |
| 14,800.00 | 89.60 | 179.48 | 12,088.33 | -3,506.84 | -460.80 | 412,219.16 | 844,728.20 | 32.1294755 | -103.3532571 | 3,519.03 | 0.00 | 0.00 | 0.00 |
| 14,900.00 | 89.60 | 179.48 | 12,089.02 | -3,606.84 | -459.89 | 412,119.16 | 844,729.11 | 32.1292006 | -103.3532571 | 3,618.96 | 0.00 | 0.00 | 0.00 |
| 15,000.00 | 89.60 | 179.48 | 12,089.72 | -3,706.83 | -458.98 | 412,019.17 | 844,730.02 | 32.1289258 | -103.3532571 | 3,718.88 | 0.00 | 0.00 | 0.00 |
| 15,100.00 | 89.60 | 179.48 | 12,090.42 | -3,806.83 | -458.08 | 411,919.17 | 844,730.92 | 32.1286509 | -103.3532571 | 3,818.80 | 0.00 | 0.00 | 0.00 |
| 15,200.00 | 89.60 | 179.48 | 12,091.12 | -3,906.82 | -457.17 | 411,819.18 | 844,731.83 | 32.1283760 | -103.3532571 | 3,918.72 | 0.00 | 0.00 | 0.00 |
| 15,300.00 | 89.60 | 179.48 | 12,091.82 | -4,006.81 | -456.26 | 411,719.19 | 844,732.74 | 32.1281012 | -103.3532571 | 4,018.64 | 0.00 | 0.00 | 0.00 |
| 15,400.00 | 89.60 | 179.48 | 12,092.52 | -4,106.81 | -455.36 | 411,619.19 | 844,733.64 | 32.1278263 | -103.3532572 | 4,118.56 | 0.00 | 0.00 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,500.00 | 89.60 | 179.48 | 12,093.21 | -4,206.80 | -454.45 | 411,519.20 | 844,734.55 | 32.1275515 | -103.3532572 | 4,218.49 | 0.00 | 0.00 | 0.00 |
| 15,600.00 | 89.60 | 179.48 | 12,093.91 | -4,306.79 | -453.54 | 411,419.21 | 844,735.46 | 32.1272766 | -103.3532572 | 4,318.41 | 0.00 | 0.00 | 0.00 |
| 15,700.00 | 89.60 | 179.48 | 12,094.61 | -4,406.79 | -452.64 | 411,319.21 | 844,736.36 | 32.1270018 | -103.3532572 | 4,418.33 | 0.00 | 0.00 | 0.00 |
| 15,800.00 | 89.60 | 179.48 | 12,095.31 | -4,506.78 | -451.73 | 411,219.22 | 844,737.27 | 32.1267269 | -103.3532572 | 4,518.25 | 0.00 | 0.00 | 0.00 |
| 15,900.00 | 89.60 | 179.48 | 12,096.01 | -4,606.77 | -450.82 | 411,119.23 | 844,738.18 | 32.1264520 | -103.3532572 | 4,618.17 | 0.00 | 0.00 | 0.00 |
| 16,000.00 | 89.60 | 179.48 | 12,096.71 | -4,706.77 | -449.91 | 411,019.23 | 844,739.09 | 32.1261772 | -103.3532572 | 4,718.10 | 0.00 | 0.00 | 0.00 |
| 16,100.00 | 89.60 | 179.48 | 12,097.40 | -4,806.76 | -449.01 | 410,919.24 | 844,739.99 | 32.1259023 | -103.3532572 | 4,818.02 | 0.00 | 0.00 | 0.00 |
| 16,200.00 | 89.60 | 179.48 | 12,098.10 | -4,906.75 | -448.10 | 410,819.25 | 844,740.90 | 32.1256275 | -103.3532572 | 4,917.94 | 0.00 | 0.00 | 0.00 |
| 16,300.00 | 89.60 | 179.48 | 12,098.80 | -5,006.75 | -447.19 | 410,719.25 | 844,741.81 | 32.1253526 | -103.3532572 | 5,017.86 | 0.00 | 0.00 | 0.00 |
| 16,400.00 | 89.60 | 179.48 | 12,099.50 | -5,106.74 | -446.29 | 410,619.26 | 844,742.71 | 32.1250777 | -103.3532572 | 5,117.78 | 0.00 | 0.00 | 0.00 |
| 16,500.00 | 89.60 | 179.48 | 12,100.20 | -5,206.73 | -445.38 | 410,519.27 | 844,743.62 | 32.1248029 | -103.3532573 | 5,217.71 | 0.00 | 0.00 | 0.00 |
| 16,600.00 | 89.60 | 179.48 | 12,100.90 | -5,306.73 | -444.47 | 410,419.27 | 844,744.53 | 32.1245280 | -103.3532573 | 5,317.63 | 0.00 | 0.00 | 0.00 |
| 16,700.00 | 89.60 | 179.48 | 12,101.59 | -5,406.72 | -443.57 | 410,319.28 | 844,745.43 | 32.1242532 | -103.3532573 | 5,417.55 | 0.00 | 0.00 | 0.00 |
| 16,800.00 | 89.60 | 179.48 | 12,102.29 | -5,506.71 | -442.66 | 410,219.29 | 844,746.34 | 32.1239783 | -103.3532573 | 5,517.47 | 0.00 | 0.00 | 0.00 |
| 16,900.00 | 89.60 | 179.48 | 12,102.99 | -5,606.71 | -441.75 | 410,119.29 | 844,747.25 | 32.1237034 | -103.3532573 | 5,617.39 | 0.00 | 0.00 | 0.00 |
| 17,000.00 | 89.60 | 179.48 | 12,103.69 | -5,706.70 | -440.85 | 410,019.30 | 844,748.15 | 32.1234286 | -103.3532573 | 5,717.31 | 0.00 | 0.00 | 0.00 |
| 17,100.00 | 89.60 | 179.48 | 12,104.39 | -5,806.69 | -439.94 | 409,919.31 | 844,749.06 | 32.1231537 | -103.3532573 | 5,817.24 | 0.00 | 0.00 | 0.00 |
| 17,200.00 | 89.60 | 179.48 | 12,105.08 | -5,906.69 | -439.03 | 409,819.31 | 844,749.97 | 32.1228789 | -103.3532573 | 5,917.16 | 0.00 | 0.00 | 0.00 |
| 17,300.00 | 89.60 | 179.48 | 12,105.78 | -6,006.68 | -438.13 | 409,719.32 | 844,750.87 | 32.1226040 | -103.3532573 | 6,017.08 | 0.00 | 0.00 | 0.00 |
| 17,400.00 | 89.60 | 179.48 | 12,106.48 | -6,106.67 | -437.22 | 409,619.33 | 844,751.78 | 32.1223291 | -103.3532573 | 6,117.00 | 0.00 | 0.00 | 0.00 |
| 17,500.00 | 89.60 | 179.48 | 12,107.18 | -6,206.67 | -436.31 | 409,519.33 | 844,752.69 | 32.1220543 | -103.3532573 | 6,216.92 | 0.00 | 0.00 | 0.00 |
| 17,600.00 | 89.60 | 179.48 | 12,107.88 | -6,306.66 | -435.41 | 409,419.34 | 844,753.59 | 32.1217794 | -103.3532574 | 6,316.85 | 0.00 | 0.00 | 0.00 |
| 17,700.00 | 89.60 | 179.48 | 12,108.58 | -6,406.66 | -434.50 | 409,319.35 | 844,754.50 | 32.1215046 | -103.3532574 | 6,416.77 | 0.00 | 0.00 | 0.00 |
| 17,800.00 | 89.60 | 179.48 | 12,109.27 | -6,506.65 | -433.59 | 409,219.35 | 844,755.41 | 32.1212297 | -103.3532574 | 6,516.69 | 0.00 | 0.00 | 0.00 |
| 17,900.00 | 89.60 | 179.48 | 12,109.97 | -6,606.64 | -432.69 | 409,119.36 | 844,756.31 | 32.1209548 | -103.3532574 | 6,616.61 | 0.00 | 0.00 | 0.00 |
| 18,000.00 | 89.60 | 179.48 | 12,110.67 | -6,706.64 | -431.78 | 409,019.36 | 844,757.22 | 32.1206800 | -103.3532574 | 6,716.53 | 0.00 | 0.00 | 0.00 |
| 18,100.00 | 89.60 | 179.48 | 12,111.37 | -6,806.63 | -430.87 | 408,919.37 | 844,758.13 | 32.1204051 | -103.3532574 | 6,816.46 | 0.00 | 0.00 | 0.00 |
| 18,200.00 | 89.60 | 179.48 | 12,112.07 | -6,906.62 | -429.96 | 408,819.38 | 844,759.04 | 32.1201303 | -103.3532574 | 6,916.38 | 0.00 | 0.00 | 0.00 |
| 18,300.00 | 89.60 | 179.48 | 12,112.77 | -7,006.62 | -429.06 | 408,719.38 | 844,759.94 | 32.1198554 | -103.3532574 | 7,016.30 | 0.00 | 0.00 | 0.00 |
| 18,400.00 | 89.60 | 179.48 | 12,113.46 | -7,106.61 | -428.15 | 408,619.39 | 844,760.85 | 32.1195805 | -103.3532574 | 7,116.22 | 0.00 | 0.00 | 0.00 |
| 18,500.00 | 89.60 | 179.48 | 12,114.16 | -7,206.60 | -427.24 | 408,519.40 | 844,761.76 | 32.1193057 | -103.3532574 | 7,216.14 | 0.00 | 0.00 | 0.00 |
| 18,600.00 | 89.60 | 179.48 | 12,114.86 | -7,306.60 | -426.34 | 408,419.40 | 844,762.66 | 32.1190308 | -103.3532574 | 7,316.06 | 0.00 | 0.00 | 0.00 |
| 18,700.00 | 89.60 | 179.48 | 12,115.56 | -7,406.59 | -425.43 | 408,319.41 | 844,763.57 | 32.1187560 | -103.3532575 | 7,415.99 | 0.00 | 0.00 | 0.00 |
| 18,800.00 | 89.60 | 179.48 | 12,116.26 | -7,506.58 | -424.52 | 408,219.42 | 844,764.48 | 32.1184811 | -103.3532575 | 7,515.91 | 0.00 | 0.00 | 0.00 |
| 18,900.00 | 89.60 | 179.48 | 12,116.95 | -7,606.58 | -423.62 | 408,119.42 | 844,765.38 | 32.1182063 | -103.3532575 | 7,615.83 | 0.00 | 0.00 | 0.00 |
| 19,000.00 | 89.60 | 179.48 | 12,117.65 | -7,706.57 | -422.71 | 408,019.43 | 844,766.29 | 32.1179314 | -103.3532575 | 7,715.75 | 0.00 | 0.00 | 0.00 |
| 19,100.00 | 89.60 | 179.48 | 12,118.35 | -7,806.56 | -421.80 | 407,919.44 | 844,767.20 | 32.1176565 | -103.3532575 | 7,815.67 | 0.00 | 0.00 | 0.00 |
| 19,200.00 | 89.60 | 179.48 | 12,119.05 | -7,906.56 | -420.90 | 407,819.44 | 844,768.10 | 32.1173817 | -103.3532575 | 7,915.60 | 0.00 | 0.00 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**Planned Survey**

| Measured Depth (usft) | INC (°) | AZI (°) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Map Coordinates Northing (usft) | Map Coordinates Easting (usft) | Geo Coordinates Latitude (°) | Geo Coordinates Longitude (°) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19,300.00 | 89.60 | 179.48 | 12,119.75 | -8,006.55 | -419.99 | 407,719.45 | 844,769.01 | 32.1171068 | -103.3532575 | 8,015.52 | 0.00 | 0.00 | 0.00 |
| 19,400.00 | 89.60 | 179.48 | 12,120.45 | -8,106.54 | -419.08 | 407,619.46 | 844,769.92 | 32.1168320 | -103.3532575 | 8,115.44 | 0.00 | 0.00 | 0.00 |
| 19,500.00 | 89.60 | 179.48 | 12,121.14 | -8,206.54 | -418.18 | 407,519.46 | 844,770.82 | 32.1165571 | -103.3532575 | 8,215.36 | 0.00 | 0.00 | 0.00 |
| 19,600.00 | 89.60 | 179.48 | 12,121.84 | -8,306.53 | -417.27 | 407,419.47 | 844,771.73 | 32.1162822 | -103.3532575 | 8,315.28 | 0.00 | 0.00 | 0.00 |
| 19,700.00 | 89.60 | 179.48 | 12,122.54 | -8,406.52 | -416.36 | 407,319.48 | 844,772.64 | 32.1160074 | -103.3532575 | 8,415.21 | 0.00 | 0.00 | 0.00 |
| 19,800.00 | 89.60 | 179.48 | 12,123.24 | -8,506.52 | -415.46 | 407,219.48 | 844,773.54 | 32.1157325 | -103.3532575 | 8,515.13 | 0.00 | 0.00 | 0.00 |
| 19,900.00 | 89.60 | 179.48 | 12,123.94 | -8,606.51 | -414.55 | 407,119.49 | 844,774.45 | 32.1154577 | -103.3532576 | 8,615.05 | 0.00 | 0.00 | 0.00 |
| 20,000.00 | 89.60 | 179.48 | 12,124.64 | -8,706.50 | -413.64 | 407,019.50 | 844,775.36 | 32.1151828 | -103.3532576 | 8,714.97 | 0.00 | 0.00 | 0.00 |
| 20,100.00 | 89.60 | 179.48 | 12,125.33 | -8,806.50 | -412.74 | 406,919.50 | 844,776.26 | 32.1149079 | -103.3532576 | 8,814.89 | 0.00 | 0.00 | 0.00 |
| 20,200.00 | 89.60 | 179.48 | 12,126.03 | -8,906.49 | -411.83 | 406,819.51 | 844,777.17 | 32.1146331 | -103.3532576 | 8,914.81 | 0.00 | 0.00 | 0.00 |
| 20,300.00 | 89.60 | 179.48 | 12,126.73 | -9,006.48 | -410.92 | 406,719.52 | 844,778.08 | 32.1143582 | -103.3532576 | 9,014.74 | 0.00 | 0.00 | 0.00 |
| 20,400.00 | 89.60 | 179.48 | 12,127.43 | -9,106.48 | -410.02 | 406,619.52 | 844,778.98 | 32.1140834 | -103.3532576 | 9,114.66 | 0.00 | 0.00 | 0.00 |
| 20,500.00 | 89.60 | 179.48 | 12,128.13 | -9,206.47 | -409.11 | 406,519.53 | 844,779.89 | 32.1138085 | -103.3532576 | 9,214.58 | 0.00 | 0.00 | 0.00 |
| 20,600.00 | 89.60 | 179.48 | 12,128.83 | -9,306.47 | -408.20 | 406,419.53 | 844,780.80 | 32.1135336 | -103.3532576 | 9,314.50 | 0.00 | 0.00 | 0.00 |
| 20,700.00 | 89.60 | 179.48 | 12,129.52 | -9,406.46 | -407.29 | 406,319.54 | 844,781.71 | 32.1132588 | -103.3532576 | 9,414.42 | 0.00 | 0.00 | 0.00 |
| 20,800.00 | 89.60 | 179.48 | 12,130.22 | -9,506.45 | -406.39 | 406,219.55 | 844,782.61 | 32.1129839 | -103.3532576 | 9,514.35 | 0.00 | 0.00 | 0.00 |
| 20,900.00 | 89.60 | 179.48 | 12,130.92 | -9,606.45 | -405.48 | 406,119.55 | 844,783.52 | 32.1127091 | -103.3532576 | 9,614.27 | 0.00 | 0.00 | 0.00 |
| 21,000.00 | 89.60 | 179.48 | 12,131.62 | -9,706.44 | -404.57 | 406,019.56 | 844,784.43 | 32.1124342 | -103.3532576 | 9,714.19 | 0.00 | 0.00 | 0.00 |
| 21,100.00 | 89.60 | 179.48 | 12,132.32 | -9,806.43 | -403.67 | 405,919.57 | 844,785.33 | 32.1121593 | -103.3532577 | 9,814.11 | 0.00 | 0.00 | 0.00 |
| 21,200.00 | 89.60 | 179.48 | 12,133.01 | -9,906.43 | -402.76 | 405,819.57 | 844,786.24 | 32.1118845 | -103.3532577 | 9,914.03 | 0.00 | 0.00 | 0.00 |
| 21,300.00 | 89.60 | 179.48 | 12,133.71 | -10,006.42 | -401.85 | 405,719.58 | 844,787.15 | 32.1116096 | -103.3532577 | 10,013.95 | 0.00 | 0.00 | 0.00 |
| 21,400.00 | 89.60 | 179.48 | 12,134.41 | -10,106.41 | -400.95 | 405,619.59 | 844,788.05 | 32.1113348 | -103.3532577 | 10,113.88 | 0.00 | 0.00 | 0.00 |
| 21,500.00 | 89.60 | 179.48 | 12,135.11 | -10,206.41 | -400.04 | 405,519.59 | 844,788.96 | 32.1110599 | -103.3532577 | 10,213.80 | 0.00 | 0.00 | 0.00 |
| 21,600.00 | 89.60 | 179.48 | 12,135.81 | -10,306.40 | -399.13 | 405,419.60 | 844,789.87 | 32.1107850 | -103.3532577 | 10,313.72 | 0.00 | 0.00 | 0.00 |
| 21,700.00 | 89.60 | 179.48 | 12,136.51 | -10,406.39 | -398.23 | 405,319.61 | 844,790.77 | 32.1105102 | -103.3532577 | 10,413.64 | 0.00 | 0.00 | 0.00 |
| 21,800.00 | 89.60 | 179.48 | 12,137.20 | -10,506.39 | -397.32 | 405,219.61 | 844,791.68 | 32.1102353 | -103.3532577 | 10,513.56 | 0.00 | 0.00 | 0.00 |
| 21,900.00 | 89.60 | 179.48 | 12,137.90 | -10,606.38 | -396.41 | 405,119.62 | 844,792.59 | 32.1099605 | -103.3532577 | 10,613.49 | 0.00 | 0.00 | 0.00 |
| 22,000.00 | 89.60 | 179.48 | 12,138.60 | -10,706.37 | -395.51 | 405,019.63 | 844,793.49 | 32.1096856 | -103.3532577 | 10,713.41 | 0.00 | 0.00 | 0.00 |
| 22,100.00 | 89.60 | 179.48 | 12,139.30 | -10,806.37 | -394.60 | 404,919.63 | 844,794.40 | 32.1094107 | -103.3532577 | 10,813.33 | 0.00 | 0.00 | 0.00 |
| 22,200.00 | 89.60 | 179.48 | 12,140.00 | -10,906.36 | -393.69 | 404,819.64 | 844,795.31 | 32.1091359 | -103.3532577 | 10,913.25 | 0.00 | 0.00 | 0.00 |
| 22,291.63 | 89.60 | 179.48 | 12,140.64 | -10,997.99 | -392.86 | 404,728.01 | 844,796.14 | 32.1088840 | -103.3532577 | 11,004.81 | 0.00 | 0.00 | 0.00 |
| **Junior Mint Fed 133H LTP** | | | | | | | | | | | | | |
| 22,300.00 | 89.60 | 179.48 | 12,140.70 | -11,006.35 | -392.79 | 404,719.65 | 844,796.21 | 32.1088610 | -103.3532577 | 11,013.17 | 0.00 | 0.00 | 0.00 |
| 22,386.64 | 89.60 | 179.48 | 12,141.30 | -11,092.99 | -392.00 | 404,633.01 | 844,797.00 | 32.1086229 | -103.3532578 | 11,099.74 | 0.00 | 0.00 | 0.00 |
| **Junior Mint Fed 133H BHL** | | | | | | | | | | | | | |
| 22,386.65 | 89.60 | 179.48 | 12,141.30 | -11,093.00 | -392.00 | 404,633.00 | 844,797.00 | 32.1086228 | -103.3532578 | 11,099.76 | 0.01 | 0.00 | 0.00 |

# Total Directional

Planned Survey Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Well:** | Junior Mint Fed 133H | **North Reference:** | Grid |
| **Wellbore:** | OH | **Survey Calculation Method:** | Minimum Curvature |
| **Design:** | Plan #2 | **Database:** | .Total Directional Production DB |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Junior Mint Fed 133H | 0.00 | 0.00 | 11,497.00 | -642.00 | -487.00 | 415,084.00 | 844,702.00 | 32.1373503 | -103.3532575 |
| - plan misses target center by 55.64usft at 11555.75usft MD (11497.00 TVD, -592.07 N, -462.45 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| Junior Mint Fed 133H | 0.00 | 0.00 | 12,139.00 | -10,998.00 | -393.00 | 404,728.00 | 844,796.00 | 32.1088840 | -103.3532582 |
| - plan misses target center by 1.64usft at 22291.63usft MD (12140.64 TVD, -10997.99 N, -392.86 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| Junior Mint Fed 133H | 0.00 | 0.00 | 12,139.30 | -11,093.00 | -392.00 | 404,633.00 | 844,797.00 | 32.1086228 | -103.3532578 |
| - plan misses target center by 2.00usft at 22386.64usft MD (12141.30 TVD, -11092.99 N, -392.00 E) | | | | | | | | | |
| - Point | | | | | | | | | |

Checked By: _____ Approved By: _____ Date: _____

# Civitas Resources

**Lea County, NM (NAD 83)**
**Junior Mint Fed Pad**
**Junior Mint Fed 133H**

**OH**
**Plan #2**

Total Directional
"Driven by TOTAL performance"

# Anticollision Report

**Minimum Magnetic Interference Warning level is 20' center to center**

**18 August, 2025**

*Total Report Version 1.70*

*COMPASS 5000.16 Build 97*

Click here for our anticollision policy

**ATTENTION**
All offset data provided was gathered using available software and resources. Total Directional Services cannot guarantee the accuracy of all offset data, which should be verified for accuracy by the Operator.

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Reference** Plan #2

| | | | |
|---|---|---|---|
| **Filter type:** | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| **Interpolation Method:** | MD Interval 100.00usft | **Error Model:** | ISCWSA |
| **Depth Range:** | Unlimited | **Scan Method:** | Closest Approach 3D |
| **Results Limited by:** | Maximum centre distance of 2,433.18usft | **Error Surface:** | Pedal Curve |
| **Warning Levels Evaluated at:** | 2.00 **Sigma** | **Casing Method:** | Not applied |

**Well** Junior Mint Fed 133H

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 usft | **Northing:** | 415,726.00 usft | **Latitude:** | 32.1391027 |
| | **+E/-W** | 0.00 usft | **Easting:** | 845,189.00 usft | **Longitude:** | -103.3516655 |
| **Position Uncertainty** | | 0.50 usft | **Wellhead Elevation:** | usft | **Ground Level:** | 3,221.00 usft |
| **Grid Convergence:** | | 0.52 ° | | | | |

**Survey Tool Program** **Date** 8/12/2025

| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
|---|---|---|---|---|
| 0.00 | 22,386.65 | Plan #2 (OH) | MWD+HRGM+SAG+FDIF | OWSG MWD + HRGM + SAG + FDIR Correction |

**Expierimental: Summary Highlights: Junior Mint Fed 133H**

**Offset Listing**

| Offset Customer - Project - Site Name / Offset Well | Ground Level | KB Height | Map Coordinates Northing | Map Coordinates Easting | Geographical Coordinates Latitude | Geographical Coordinates Longitude | Surface Uncertainty Site | Surface Uncertainty Well |
|---|---|---|---|---|---|---|---|---|
| - - Junior Mint Fed Pad | | | | | | | | |
| Junior Mint Fed 132H - | 3,220.00 | 3,246.00 | 414,820.00 | 842,835.00 | 32.1366712 | -103.3592962 | 0.00 | 0.50 |
| Junior Mint Fed 134H - | 3,220.00 | 3,247.00 | 415,566.00 | 845,189.00 | 32.1386629 | -103.3516702 | 0.00 | 0.50 |
| Junior Mint Fed 135H - | 3,220.00 | 3,246.00 | 414,660.00 | 842,835.00 | 32.1362315 | -103.3593009 | 0.00 | 0.50 |
| Junior Mint Fed 137H - | 3,220.00 | 3,246.00 | 414,845.00 | 842,835.00 | 32.1367399 | -103.3592955 | 0.00 | 0.50 |
| Junior Mint Fed 138H - | 3,220.00 | 3,246.00 | 415,541.00 | 845,189.00 | 32.1385942 | -103.3516709 | 0.00 | 0.50 |
| Junior Mint Fed 152H - | 3,220.00 | 3,246.00 | 414,870.00 | 842,835.00 | 32.1368087 | -103.3592947 | 0.00 | 0.50 |
| Junior Mint Fed 156H - | 3,221.00 | 3,247.00 | 415,701.00 | 845,189.00 | 32.1390339 | -103.3516662 | 0.00 | 0.50 |
| Junior Mint Fed 158H - | 3,220.00 | 3,246.00 | 415,516.00 | 845,189.00 | 32.1385255 | -103.3516717 | 0.00 | 0.50 |
| Junior Mint Fed 212H - | 3,220.00 | 3,246.00 | 414,845.00 | 842,810.00 | 32.1367406 | -103.3593762 | 0.00 | 0.50 |
| Junior Mint Fed 213H - | 3,221.00 | 3,247.00 | 415,701.00 | 845,214.00 | 32.1390333 | -103.3515855 | 0.00 | 0.50 |
| Junior Mint Fed 214H - | 3,220.00 | 3,246.00 | 415,541.00 | 845,214.00 | 32.1385936 | -103.3515902 | 0.00 | 0.50 |
| Junior Mint Fed 215H - | 3,220.00 | 3,246.00 | 414,685.00 | 842,810.00 | 32.1363008 | -103.3593809 | 0.00 | 0.50 |
| Junior Mint Fed 216H - | 3,222.00 | 3,248.00 | 415,751.00 | 845,189.00 | 32.1391714 | -103.3516647 | 0.00 | 0.50 |
| Junior Mint Fed 217H - | 3,221.00 | 3,247.00 | 414,870.00 | 842,810.00 | 32.1368093 | -103.3593755 | 0.00 | 0.50 |
| Junior Mint Fed 218H - | 3,220.00 | 3,246.00 | 415,516.00 | 845,214.00 | 32.1385248 | -103.3515909 | 0.00 | 0.50 |
| Junior Mint Fed 222H - | 3,220.00 | 3,246.00 | 414,820.00 | 842,810.00 | 32.1366718 | -103.3593769 | 0.00 | 0.50 |
| Junior Mint Fed 223H - | 3,222.00 | 3,248.00 | 415,751.00 | 845,214.00 | 32.1391707 | -103.3515840 | 0.00 | 0.50 |
| Junior Mint Fed 224H - | 3,222.00 | 3,248.00 | 415,566.00 | 845,214.00 | 32.1386623 | -103.3515894 | 0.00 | 0.50 |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Summary**

| Site Name<br>Offset Well - Wellbore - Design | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|
| Junior Mint Fed Pad | | | | | | |
| Junior Mint Fed 132H - OH - Plan 2 | 12,597.75 | 12,637.56 | 1,377.28 | 1,337.62 | 34.73 | CC |
| Junior Mint Fed 132H - OH - Plan 2 | 22,387.52 | 22,425.19 | 1,382.92 | 1,090.01 | 4.72 | ES, SF |
| Junior Mint Fed 134H - OH - Plan #2 | 1,656.58 | 1,644.02 | 112.83 | 103.12 | 11.61 | CC, ES |
| Junior Mint Fed 134H - OH - Plan #2 | 22,387.52 | 22,335.81 | 771.40 | 469.15 | 2.55 | SF |
| Junior Mint Fed 135H - OH - Plan 1 | 12,597.86 | 12,623.79 | 2,036.89 | 1,998.18 | 52.62 | CC |
| Junior Mint Fed 135H - OH - Plan 1 | 22,387.52 | 22,411.61 | 2,042.27 | 1,751.27 | 7.02 | ES, SF |
| Junior Mint Fed 137H - OH - Plan 2 | 12,597.48 | 12,726.25 | 718.37 | 675.46 | 16.74 | CC |
| Junior Mint Fed 137H - OH - Plan 2 | 22,387.52 | 22,512.84 | 724.72 | 431.84 | 2.47 | ES, SF |
| Junior Mint Fed 138H - OH - Plan #2 | 604.69 | 603.69 | 185.00 | 179.16 | 31.70 | CC |
| Junior Mint Fed 138H - OH - Plan #2 | 1,100.00 | 1,086.86 | 186.08 | 178.26 | 23.79 | ES |
| Junior Mint Fed 138H - OH - Plan #2 | 22,387.52 | 22,381.53 | 1,371.67 | 1,069.57 | 4.54 | SF |
| Junior Mint Fed 152H - OH - Plan #3 | 8,871.22 | 8,843.43 | 1,488.65 | 1,459.39 | 50.87 | CC |
| Junior Mint Fed 152H - OH - Plan #3 | 22,387.52 | 22,079.41 | 1,524.00 | 1,234.81 | 5.27 | ES, SF |
| Junior Mint Fed 156H - OH - Plan #2 | 300.00 | 300.00 | 25.00 | 21.04 | 6.31 | CC, ES |
| Junior Mint Fed 156H - OH - Plan #2 | 22,387.52 | 21,918.86 | 512.49 | 370.91 | 3.62 | SF |
| Junior Mint Fed 158H - OH - Plan #2 | 300.00 | 299.00 | 210.00 | 206.04 | 53.06 | CC, ES |
| Junior Mint Fed 158H - OH - Plan #2 | 22,387.52 | 21,941.56 | 1,573.15 | 1,285.22 | 5.46 | SF |
| Junior Mint Fed 212H - OH - Plan #1 | 11,828.96 | 11,782.94 | 1,678.83 | 1,645.50 | 50.38 | CC |
| Junior Mint Fed 212H - OH - Plan #1 | 22,387.52 | 22,634.88 | 1,681.26 | 1,391.18 | 5.80 | ES, SF |
| Junior Mint Fed 213H - OH - Plan #2 | 500.00 | 500.00 | 35.36 | 30.09 | 6.71 | CC |
| Junior Mint Fed 213H - OH - Plan #2 | 2,007.88 | 2,006.76 | 37.44 | 25.89 | 3.24 | ES |
| Junior Mint Fed 213H - OH - Plan #2 | 22,387.52 | 22,830.04 | 493.47 | 275.84 | 2.27 | SF |
| Junior Mint Fed 214H - OH - Plan #2 | 300.00 | 299.00 | 186.68 | 182.72 | 47.16 | CC |
| Junior Mint Fed 214H - OH - Plan #2 | 1,500.00 | 1,488.97 | 191.56 | 182.07 | 20.19 | ES |
| Junior Mint Fed 214H - OH - Plan #2 | 22,387.52 | 22,699.44 | 1,040.05 | 750.67 | 3.59 | SF |
| Junior Mint Fed 215H - OH - Plan 1 | 12,595.03 | 12,883.74 | 2,284.99 | 2,245.44 | 57.77 | CC |
| Junior Mint Fed 215H - OH - Plan 1 | 22,387.52 | 22,675.33 | 2,287.59 | 1,998.39 | 7.91 | ES, SF |
| Junior Mint Fed 216H - OH - Plan #2 | 923.27 | 925.53 | 24.09 | 16.61 | 3.22 | CC, ES |
| Junior Mint Fed 216H - OH - Plan #2 | 22,387.52 | 22,717.40 | 511.17 | 270.90 | 2.13 | SF |
| Junior Mint Fed 217H - OH - Plan #1 | 11,763.23 | 11,811.52 | 968.31 | 933.50 | 27.82 | CC |
| Junior Mint Fed 217H - OH - Plan #1 | 22,387.52 | 22,698.24 | 979.78 | 693.32 | 3.42 | ES, SF |
| Junior Mint Fed 218H - OH - Plan #2 | 300.00 | 299.00 | 211.48 | 207.52 | 53.43 | CC |
| Junior Mint Fed 218H - OH - Plan #2 | 400.00 | 396.80 | 212.00 | 207.34 | 45.53 | ES |
| Junior Mint Fed 218H - OH - Plan #2 | 22,387.52 | 22,760.82 | 1,674.97 | 1,377.28 | 5.63 | SF |
| Junior Mint Fed 222H - OH - Plan #1 | 11,793.64 | 11,794.25 | 1,274.11 | 1,240.06 | 37.42 | CC |
| Junior Mint Fed 222H - OH - Plan #1 | 11,800.00 | 11,800.07 | 1,274.11 | 1,240.04 | 37.39 | ES |
| Junior Mint Fed 222H - OH - Plan #1 | 22,387.52 | 23,180.11 | 1,554.10 | 1,296.23 | 6.03 | SF |
| Junior Mint Fed 223H - OH - Plan #2 | 700.00 | 701.00 | 35.36 | 29.03 | 5.59 | CC, ES |
| Junior Mint Fed 223H - OH - Plan #2 | 6,156.73 | 6,178.22 | 63.48 | 34.71 | 2.21 | SF |
| Junior Mint Fed 224H - OH - Plan #2 | 1,745.65 | 1,739.12 | 115.80 | 105.65 | 11.41 | CC, ES |
| Junior Mint Fed 224H - OH - Plan #2 | 22,387.52 | 23,097.20 | 1,472.61 | 1,197.39 | 5.35 | SF |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2

**Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,500.00 | 1,496.93 | 1,772.82 | 1,770.54 | 4.81 | 5.19 | 32.86 | -879.13 | -2,292.18 | 2,418.22 | 2,408.35 | 9.87 | 244.961 | |
| 1,600.00 | 1,595.62 | 1,869.29 | 1,866.39 | 4.92 | 5.36 | 32.77 | -875.04 | -2,282.05 | 2,393.43 | 2,383.26 | 10.16 | 235.488 | |
| 1,700.00 | 1,694.25 | 1,965.66 | 1,962.14 | 5.12 | 5.54 | 32.99 | -870.95 | -2,271.94 | 2,368.36 | 2,357.82 | 10.53 | 224.824 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,800.00 | 1,792.87 | 2,062.04 | 2,057.89 | 5.31 | 5.72 | 33.22 | -866.87 | -2,261.82 | 2,343.32 | 2,332.42 | 10.91 | 214.853 | |
| 1,900.00 | 1,891.50 | 2,158.41 | 2,153.65 | 5.51 | 5.90 | 33.46 | -862.78 | -2,251.70 | 2,318.32 | 2,307.04 | 11.29 | 205.393 | |
| 2,000.00 | 1,990.13 | 2,277.84 | 2,272.26 | 5.71 | 6.11 | 33.77 | -857.34 | -2,238.92 | 2,293.12 | 2,281.43 | 11.69 | 196.090 | |
| 2,100.00 | 2,088.76 | 2,418.33 | 2,411.47 | 5.90 | 6.37 | 34.18 | -848.52 | -2,222.23 | 2,266.29 | 2,254.16 | 12.13 | 186.821 | |
| 2,200.00 | 2,187.39 | 2,556.74 | 2,548.19 | 6.10 | 6.63 | 34.66 | -837.06 | -2,203.92 | 2,237.67 | 2,225.11 | 12.57 | 178.067 | |
| 2,300.00 | 2,286.02 | 2,664.53 | 2,654.37 | 6.30 | 6.83 | 35.08 | -826.53 | -2,188.58 | 2,207.74 | 2,194.78 | 12.96 | 170.312 | |
| 2,400.00 | 2,384.65 | 2,758.92 | 2,747.31 | 6.50 | 7.01 | 35.46 | -817.20 | -2,175.08 | 2,177.81 | 2,164.47 | 13.34 | 163.196 | |
| 2,500.00 | 2,483.28 | 2,853.30 | 2,840.25 | 6.69 | 7.19 | 35.85 | -807.87 | -2,161.57 | 2,147.97 | 2,134.24 | 13.73 | 156.460 | |
| 2,600.00 | 2,581.91 | 2,947.68 | 2,933.20 | 6.89 | 7.37 | 36.25 | -798.54 | -2,148.06 | 2,118.23 | 2,104.11 | 14.11 | 150.075 | |
| 2,700.00 | 2,680.54 | 3,042.07 | 3,026.14 | 7.10 | 7.55 | 36.66 | -789.20 | -2,134.56 | 2,088.58 | 2,074.08 | 14.50 | 144.017 | |
| 2,800.00 | 2,779.17 | 3,136.45 | 3,119.09 | 7.33 | 7.73 | 37.09 | -779.87 | -2,121.05 | 2,059.04 | 2,044.14 | 14.89 | 138.263 | |
| 2,900.00 | 2,877.80 | 3,230.83 | 3,212.03 | 7.56 | 7.91 | 37.52 | -770.54 | -2,107.54 | 2,029.60 | 2,014.32 | 15.28 | 132.794 | |
| 3,000.00 | 2,976.43 | 3,325.21 | 3,304.97 | 7.79 | 8.09 | 37.97 | -761.21 | -2,094.03 | 2,000.28 | 1,984.60 | 15.68 | 127.590 | |
| 3,100.00 | 3,075.06 | 3,419.60 | 3,397.92 | 8.02 | 8.27 | 38.43 | -751.87 | -2,080.53 | 1,971.07 | 1,955.00 | 16.07 | 122.635 | |
| 3,200.00 | 3,173.69 | 3,513.98 | 3,490.86 | 8.25 | 8.46 | 38.90 | -742.54 | -2,067.02 | 1,941.99 | 1,925.52 | 16.47 | 117.913 | |
| 3,300.00 | 3,272.32 | 3,608.36 | 3,583.81 | 8.48 | 8.64 | 39.39 | -733.21 | -2,053.51 | 1,913.04 | 1,896.17 | 16.87 | 113.408 | |
| 3,400.00 | 3,370.94 | 3,702.74 | 3,676.75 | 8.72 | 8.85 | 39.89 | -723.88 | -2,040.01 | 1,884.22 | 1,866.95 | 17.27 | 109.106 | |
| 3,500.00 | 3,469.57 | 3,797.13 | 3,769.69 | 8.95 | 9.05 | 40.41 | -714.55 | -2,026.50 | 1,855.54 | 1,837.87 | 17.67 | 104.998 | |
| 3,600.00 | 3,568.20 | 3,891.51 | 3,862.64 | 9.19 | 9.26 | 40.94 | -705.21 | -2,012.99 | 1,827.01 | 1,808.94 | 18.08 | 101.071 | |
| 3,700.00 | 3,666.83 | 3,985.89 | 3,955.58 | 9.42 | 9.47 | 41.49 | -695.88 | -1,999.48 | 1,798.64 | 1,780.16 | 18.48 | 97.315 | |
| 3,800.00 | 3,765.46 | 4,080.28 | 4,048.52 | 9.66 | 9.67 | 42.06 | -686.55 | -1,985.98 | 1,770.42 | 1,751.53 | 18.89 | 93.719 | |
| 3,900.00 | 3,864.09 | 4,174.66 | 4,141.47 | 9.89 | 9.88 | 42.64 | -677.22 | -1,972.47 | 1,742.38 | 1,723.08 | 19.30 | 90.275 | |
| 4,000.00 | 3,962.72 | 4,269.04 | 4,234.41 | 10.13 | 10.09 | 43.24 | -667.88 | -1,958.96 | 1,714.52 | 1,694.80 | 19.71 | 86.975 | |
| 4,100.00 | 4,061.35 | 4,363.42 | 4,327.36 | 10.36 | 10.30 | 43.87 | -658.55 | -1,945.46 | 1,686.84 | 1,666.71 | 20.13 | 83.812 | |
| 4,200.00 | 4,159.98 | 4,452.98 | 4,415.55 | 10.60 | 10.48 | 44.47 | -649.71 | -1,932.66 | 1,659.39 | 1,638.87 | 20.51 | 80.887 | |
| 4,300.00 | 4,258.61 | 4,528.23 | 4,489.78 | 10.83 | 10.63 | 44.99 | -642.68 | -1,922.49 | 1,632.94 | 1,612.04 | 20.90 | 78.134 | |
| 4,400.00 | 4,357.24 | 4,600.00 | 4,560.72 | 11.07 | 10.78 | 45.47 | -636.50 | -1,913.54 | 1,607.83 | 1,586.53 | 21.29 | 75.510 | |
| 4,500.00 | 4,455.87 | 4,680.68 | 4,640.62 | 11.31 | 10.94 | 46.02 | -630.15 | -1,904.35 | 1,584.03 | 1,562.34 | 21.69 | 73.027 | |
| 4,600.00 | 4,554.50 | 4,757.84 | 4,717.18 | 11.54 | 11.08 | 46.53 | -624.67 | -1,896.42 | 1,561.57 | 1,539.48 | 22.08 | 70.716 | |
| 4,700.00 | 4,653.13 | 4,835.59 | 4,794.44 | 11.78 | 11.22 | 47.04 | -619.75 | -1,889.30 | 1,540.44 | 1,517.97 | 22.47 | 68.555 | |
| 4,800.00 | 4,751.76 | 4,913.92 | 4,872.39 | 12.02 | 11.35 | 47.55 | -615.39 | -1,882.99 | 1,520.64 | 1,497.79 | 22.85 | 66.538 | |
| 4,900.00 | 4,850.39 | 5,000.00 | 4,958.17 | 12.26 | 11.48 | 48.09 | -611.31 | -1,877.08 | 1,502.20 | 1,478.96 | 23.24 | 64.637 | |
| 5,000.00 | 4,949.01 | 5,072.19 | 5,030.19 | 12.49 | 11.58 | 48.54 | -608.44 | -1,872.93 | 1,485.05 | 1,461.45 | 23.60 | 62.913 | |
| 5,100.00 | 5,047.64 | 5,152.09 | 5,109.96 | 12.73 | 11.68 | 49.02 | -605.87 | -1,869.22 | 1,469.24 | 1,445.27 | 23.97 | 61.294 | |
| 5,200.00 | 5,146.27 | 5,232.47 | 5,190.27 | 12.97 | 11.78 | 49.48 | -603.93 | -1,866.40 | 1,454.76 | 1,430.43 | 24.33 | 59.795 | |
| 5,300.00 | 5,244.90 | 5,313.29 | 5,271.05 | 13.21 | 11.88 | 49.94 | -602.62 | -1,864.51 | 1,441.58 | 1,416.90 | 24.68 | 58.414 | |
| 5,400.00 | 5,343.57 | 5,400.00 | 5,357.75 | 13.41 | 11.98 | 50.34 | -601.94 | -1,863.51 | 1,429.89 | 1,404.90 | 24.99 | 57.218 | |
| 5,500.00 | 5,442.58 | 5,484.83 | 5,442.58 | 13.63 | 12.02 | 50.60 | -601.87 | -1,863.42 | 1,420.71 | 1,395.46 | 25.25 | 56.263 | |
| 5,600.00 | 5,541.92 | 5,584.16 | 5,541.92 | 13.82 | 12.09 | 50.88 | -601.87 | -1,863.42 | 1,413.43 | 1,387.91 | 25.52 | 55.385 | |
| 5,700.00 | 5,641.52 | 5,683.77 | 5,641.52 | 13.98 | 12.17 | 51.09 | -601.87 | -1,863.42 | 1,407.84 | 1,382.07 | 25.77 | 54.625 | |
| 5,800.00 | 5,741.32 | 5,783.57 | 5,741.32 | 14.12 | 12.24 | 51.24 | -601.87 | -1,863.42 | 1,403.92 | 1,377.92 | 26.00 | 53.987 | |
| 5,900.00 | 5,841.25 | 5,883.50 | 5,841.25 | 14.23 | 12.32 | 51.33 | -601.87 | -1,863.42 | 1,401.65 | 1,375.43 | 26.21 | 53.470 | |
| 6,000.00 | 5,941.25 | 5,983.49 | 5,941.25 | 14.28 | 12.40 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.66 | 26.34 | 53.181 | |
| 6,100.00 | 6,041.25 | 6,083.49 | 6,041.25 | 14.32 | 12.47 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.56 | 26.45 | 52.971 | |
| 6,200.00 | 6,141.25 | 6,183.49 | 6,141.25 | 14.35 | 12.55 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.45 | 26.55 | 52.761 | |
| 6,300.00 | 6,241.25 | 6,283.49 | 6,241.25 | 14.39 | 12.62 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.35 | 26.66 | 52.553 | |
| 6,400.00 | 6,341.25 | 6,383.49 | 6,341.25 | 14.42 | 12.70 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.24 | 26.77 | 52.344 | |
| 6,500.00 | 6,441.25 | 6,483.49 | 6,441.25 | 14.46 | 12.78 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.13 | 26.87 | 52.137 | |
| 6,600.00 | 6,541.25 | 6,583.49 | 6,541.25 | 14.49 | 12.85 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,374.03 | 26.98 | 51.930 | |
| 6,700.00 | 6,641.25 | 6,683.49 | 6,641.25 | 14.53 | 12.93 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.92 | 27.09 | 51.724 | |
| 6,800.00 | 6,741.25 | 6,783.49 | 6,741.25 | 14.56 | 13.01 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.81 | 27.19 | 51.519 | |
| 6,900.00 | 6,841.25 | 6,883.49 | 6,841.25 | 14.60 | 13.09 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.70 | 27.30 | 51.314 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,000.00 | 6,941.25 | 6,983.49 | 6,941.25 | 14.64 | 13.16 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.59 | 27.41 | 51.110 | |
| 7,100.00 | 7,041.25 | 7,083.49 | 7,041.25 | 14.68 | 13.24 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.48 | 27.52 | 50.907 | |
| 7,200.00 | 7,141.25 | 7,183.49 | 7,141.25 | 14.71 | 13.32 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.37 | 27.63 | 50.704 | |
| 7,300.00 | 7,241.25 | 7,283.49 | 7,241.25 | 14.75 | 13.39 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.26 | 27.74 | 50.503 | |
| 7,400.00 | 7,341.25 | 7,383.49 | 7,341.25 | 14.79 | 13.47 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.15 | 27.85 | 50.302 | |
| 7,500.00 | 7,441.25 | 7,483.49 | 7,441.25 | 14.83 | 13.55 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,373.04 | 27.96 | 50.102 | |
| 7,600.00 | 7,541.25 | 7,583.49 | 7,541.25 | 14.87 | 13.62 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.93 | 28.08 | 49.902 | |
| 7,700.00 | 7,641.25 | 7,683.49 | 7,641.25 | 14.91 | 13.70 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.82 | 28.19 | 49.704 | |
| 7,800.00 | 7,741.25 | 7,783.49 | 7,741.25 | 14.95 | 13.78 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.70 | 28.30 | 49.506 | |
| 7,900.00 | 7,841.25 | 7,883.49 | 7,841.25 | 14.99 | 13.86 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.59 | 28.41 | 49.309 | |
| 8,000.00 | 7,941.25 | 7,983.49 | 7,941.25 | 15.03 | 13.93 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.48 | 28.53 | 49.113 | |
| 8,100.00 | 8,041.25 | 8,083.49 | 8,041.25 | 15.07 | 14.01 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.36 | 28.64 | 48.917 | |
| 8,200.00 | 8,141.25 | 8,183.49 | 8,141.25 | 15.11 | 14.09 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.25 | 28.75 | 48.723 | |
| 8,300.00 | 8,241.25 | 8,283.49 | 8,241.25 | 15.15 | 14.17 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.13 | 28.87 | 48.529 | |
| 8,400.00 | 8,341.25 | 8,383.49 | 8,341.25 | 15.20 | 14.24 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,372.02 | 28.98 | 48.336 | |
| 8,500.00 | 8,441.25 | 8,483.49 | 8,441.25 | 15.24 | 14.32 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.90 | 29.10 | 48.144 | |
| 8,600.00 | 8,541.25 | 8,583.49 | 8,541.25 | 15.28 | 14.40 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.79 | 29.22 | 47.953 | |
| 8,700.00 | 8,641.25 | 8,683.49 | 8,641.25 | 15.32 | 14.48 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.67 | 29.33 | 47.763 | |
| 8,800.00 | 8,741.25 | 8,783.49 | 8,741.25 | 15.37 | 14.56 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.55 | 29.45 | 47.573 | |
| 8,900.00 | 8,841.25 | 8,883.49 | 8,841.25 | 15.41 | 14.63 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.44 | 29.57 | 47.385 | |
| 9,000.00 | 8,941.25 | 8,983.49 | 8,941.25 | 15.46 | 14.71 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.32 | 29.68 | 47.197 | |
| 9,100.00 | 9,041.25 | 9,083.49 | 9,041.25 | 15.50 | 14.79 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.20 | 29.80 | 47.010 | |
| 9,200.00 | 9,141.25 | 9,183.49 | 9,141.25 | 15.55 | 14.87 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,371.08 | 29.92 | 46.824 | |
| 9,300.00 | 9,241.25 | 9,283.49 | 9,241.25 | 15.59 | 14.95 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.97 | 30.04 | 46.639 | |
| 9,400.00 | 9,341.25 | 9,383.49 | 9,341.25 | 15.64 | 15.02 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.85 | 30.16 | 46.455 | |
| 9,500.00 | 9,441.25 | 9,483.49 | 9,441.25 | 15.68 | 15.10 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.73 | 30.28 | 46.272 | |
| 9,600.00 | 9,541.25 | 9,583.49 | 9,541.25 | 15.73 | 15.18 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.61 | 30.40 | 46.089 | |
| 9,700.00 | 9,641.25 | 9,683.49 | 9,641.25 | 15.78 | 15.26 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.49 | 30.52 | 45.907 | |
| 9,800.00 | 9,741.25 | 9,783.49 | 9,741.25 | 15.82 | 15.34 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.37 | 30.64 | 45.727 | |
| 9,900.00 | 9,841.25 | 9,883.49 | 9,841.25 | 15.87 | 15.42 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.24 | 30.76 | 45.547 | |
| 10,000.00 | 9,941.25 | 9,983.49 | 9,941.25 | 15.92 | 15.49 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.12 | 30.88 | 45.368 | |
| 10,100.00 | 10,041.25 | 10,083.49 | 10,041.25 | 15.96 | 15.57 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,370.00 | 31.00 | 45.190 | |
| 10,200.00 | 10,141.25 | 10,183.49 | 10,141.25 | 16.01 | 15.65 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.88 | 31.12 | 45.013 | |
| 10,300.00 | 10,241.25 | 10,283.49 | 10,241.25 | 16.06 | 15.73 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.76 | 31.25 | 44.836 | |
| 10,400.00 | 10,341.25 | 10,383.49 | 10,341.25 | 16.11 | 15.81 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.63 | 31.37 | 44.661 | |
| 10,500.00 | 10,441.25 | 10,483.49 | 10,441.25 | 16.16 | 15.89 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.51 | 31.49 | 44.487 | |
| 10,600.00 | 10,541.25 | 10,583.49 | 10,541.25 | 16.21 | 15.96 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.39 | 31.62 | 44.313 | |
| 10,700.00 | 10,641.25 | 10,683.49 | 10,641.25 | 16.26 | 16.04 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.26 | 31.74 | 44.140 | |
| 10,800.00 | 10,741.25 | 10,783.49 | 10,741.25 | 16.31 | 16.12 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.14 | 31.86 | 43.968 | |
| 10,900.00 | 10,841.25 | 10,883.49 | 10,841.25 | 16.36 | 16.20 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,369.02 | 31.99 | 43.797 | |
| 11,000.00 | 10,941.25 | 10,983.49 | 10,941.25 | 16.41 | 16.28 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,368.89 | 32.11 | 43.627 | |
| 11,100.00 | 11,041.25 | 11,083.49 | 11,041.25 | 16.46 | 16.36 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,368.77 | 32.24 | 43.458 | |
| 11,200.00 | 11,141.25 | 11,183.49 | 11,141.25 | 16.51 | 16.44 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,368.64 | 32.36 | 43.290 | |
| 11,300.00 | 11,241.25 | 11,283.49 | 11,241.25 | 16.56 | 16.51 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,368.52 | 32.49 | 43.122 | |
| 11,400.00 | 11,341.25 | 11,383.49 | 11,341.25 | 16.61 | 16.59 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,368.39 | 32.62 | 42.956 | |
| 11,500.00 | 11,441.25 | 11,483.49 | 11,441.25 | 16.66 | 16.67 | -90.40 | -601.87 | -1,863.42 | 1,401.00 | 1,368.26 | 32.74 | 42.790 | |
| 11,600.00 | 11,541.21 | 11,583.45 | 11,541.21 | 16.71 | 16.75 | 87.92 | -601.87 | -1,863.42 | 1,400.95 | 1,368.10 | 32.85 | 42.649 | |
| 11,700.00 | 11,639.79 | 11,684.41 | 11,641.81 | 16.90 | 16.82 | 88.36 | -608.64 | -1,863.36 | 1,400.38 | 1,367.44 | 32.94 | 42.513 | |
| 11,800.00 | 11,734.09 | 11,787.18 | 11,741.42 | 17.17 | 16.89 | 88.87 | -633.39 | -1,863.15 | 1,399.21 | 1,366.13 | 33.08 | 42.299 | |
| 11,900.00 | 11,821.25 | 11,891.67 | 11,836.51 | 17.53 | 16.96 | 89.41 | -676.36 | -1,862.78 | 1,397.46 | 1,364.16 | 33.30 | 41.968 | |
| 12,000.00 | 11,898.62 | 11,997.80 | 11,923.48 | 18.00 | 17.04 | 89.97 | -736.91 | -1,862.26 | 1,395.18 | 1,361.55 | 33.63 | 41.485 | |
| 12,100.00 | 11,963.85 | 12,105.41 | 11,998.75 | 18.59 | 17.14 | 90.54 | -813.60 | -1,861.60 | 1,392.41 | 1,358.29 | 34.12 | 40.806 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,200.00 | 12,014.95 | 12,214.27 | 12,058.96 | 19.33 | 17.27 | 91.08 | -904.09 | -1,860.82 | 1,389.23 | 1,354.41 | 34.82 | 39.902 | |
| 12,300.00 | 12,050.38 | 12,324.07 | 12,101.28 | 20.19 | 17.46 | 91.59 | -1,005.21 | -1,859.95 | 1,385.70 | 1,349.96 | 35.74 | 38.775 | |
| 12,400.00 | 12,069.05 | 12,434.43 | 12,123.63 | 21.14 | 17.73 | 92.05 | -1,113.11 | -1,859.02 | 1,381.92 | 1,345.04 | 36.88 | 37.469 | |
| 12,500.00 | 12,072.27 | 12,539.82 | 12,127.36 | 22.15 | 18.07 | 92.28 | -1,218.37 | -1,858.11 | 1,378.40 | 1,340.18 | 38.22 | 36.066 | |
| 12,597.75 | 12,072.95 | 12,637.56 | 12,128.21 | 23.16 | 18.45 | 92.30 | -1,316.11 | -1,857.27 | 1,377.28 | 1,337.62 | 39.65 | 34.732 | CC |
| 12,600.00 | 12,072.97 | 12,639.81 | 12,128.23 | 23.19 | 18.46 | 92.30 | -1,318.36 | -1,857.25 | 1,377.66 | 1,337.97 | 39.69 | 34.712 | |
| 12,700.00 | 12,073.66 | 12,739.81 | 12,129.10 | 24.26 | 18.93 | 92.31 | -1,418.35 | -1,856.39 | 1,377.71 | 1,336.42 | 41.29 | 33.364 | |
| 12,800.00 | 12,074.36 | 12,839.81 | 12,129.97 | 25.36 | 19.48 | 92.31 | -1,518.34 | -1,855.53 | 1,377.77 | 1,334.75 | 43.01 | 32.030 | |
| 12,900.00 | 12,075.06 | 12,939.81 | 12,130.85 | 26.49 | 20.11 | 92.32 | -1,618.34 | -1,854.67 | 1,377.82 | 1,332.98 | 44.84 | 30.727 | |
| 13,000.00 | 12,075.76 | 13,039.81 | 12,131.72 | 27.63 | 20.80 | 92.33 | -1,718.33 | -1,853.81 | 1,377.87 | 1,331.11 | 46.76 | 29.467 | |
| 13,100.00 | 12,076.46 | 13,139.81 | 12,132.59 | 28.80 | 21.56 | 92.33 | -1,818.32 | -1,852.95 | 1,377.92 | 1,329.16 | 48.76 | 28.259 | |
| 13,200.00 | 12,077.15 | 13,239.81 | 12,133.46 | 29.98 | 22.38 | 92.34 | -1,918.31 | -1,852.08 | 1,377.98 | 1,327.14 | 50.84 | 27.107 | |
| 13,300.00 | 12,077.85 | 13,339.81 | 12,134.33 | 31.18 | 23.26 | 92.35 | -2,018.31 | -1,851.22 | 1,378.03 | 1,325.06 | 52.97 | 26.014 | |
| 13,400.00 | 12,078.55 | 13,439.81 | 12,135.20 | 32.39 | 24.18 | 92.36 | -2,118.30 | -1,850.36 | 1,378.08 | 1,322.91 | 55.17 | 24.980 | |
| 13,500.00 | 12,079.25 | 13,539.81 | 12,136.07 | 33.61 | 25.14 | 92.36 | -2,218.29 | -1,849.50 | 1,378.14 | 1,320.72 | 57.41 | 24.004 | |
| 13,600.00 | 12,079.95 | 13,639.81 | 12,136.94 | 34.84 | 26.14 | 92.37 | -2,318.28 | -1,848.64 | 1,378.19 | 1,318.49 | 59.70 | 23.085 | |
| 13,700.00 | 12,080.65 | 13,739.81 | 12,137.82 | 36.08 | 27.18 | 92.38 | -2,418.28 | -1,847.78 | 1,378.24 | 1,316.21 | 62.03 | 22.220 | |
| 13,800.00 | 12,081.34 | 13,839.81 | 12,138.69 | 37.33 | 28.24 | 92.38 | -2,518.27 | -1,846.92 | 1,378.29 | 1,313.91 | 64.39 | 21.406 | |
| 13,900.00 | 12,082.04 | 13,939.81 | 12,139.56 | 38.59 | 29.33 | 92.39 | -2,618.26 | -1,846.06 | 1,378.35 | 1,311.57 | 66.78 | 20.640 | |
| 14,000.00 | 12,082.74 | 14,039.81 | 12,140.43 | 39.86 | 30.45 | 92.40 | -2,718.25 | -1,845.20 | 1,378.40 | 1,309.20 | 69.20 | 19.919 | |
| 14,100.00 | 12,083.44 | 14,139.81 | 12,141.30 | 41.13 | 31.58 | 92.41 | -2,818.24 | -1,844.34 | 1,378.45 | 1,306.81 | 71.64 | 19.241 | |
| 14,200.00 | 12,084.14 | 14,239.81 | 12,142.17 | 42.40 | 32.74 | 92.41 | -2,918.24 | -1,843.47 | 1,378.51 | 1,304.40 | 74.11 | 18.602 | |
| 14,300.00 | 12,084.84 | 14,339.81 | 12,143.04 | 43.69 | 33.91 | 92.42 | -3,018.23 | -1,842.61 | 1,378.56 | 1,301.97 | 76.59 | 17.999 | |
| 14,400.00 | 12,085.53 | 14,439.81 | 12,143.92 | 44.97 | 35.09 | 92.43 | -3,118.22 | -1,841.75 | 1,378.61 | 1,299.52 | 79.09 | 17.430 | |
| 14,500.00 | 12,086.23 | 14,539.81 | 12,144.79 | 46.27 | 36.29 | 92.43 | -3,218.21 | -1,840.89 | 1,378.67 | 1,297.05 | 81.61 | 16.893 | |
| 14,600.00 | 12,086.93 | 14,639.81 | 12,145.66 | 47.56 | 37.50 | 92.44 | -3,318.21 | -1,840.03 | 1,378.72 | 1,294.58 | 84.14 | 16.385 | |
| 14,700.00 | 12,087.63 | 14,739.81 | 12,146.53 | 48.86 | 38.72 | 92.45 | -3,418.20 | -1,839.17 | 1,378.77 | 1,292.08 | 86.69 | 15.905 | |
| 14,800.00 | 12,088.33 | 14,839.81 | 12,147.40 | 50.17 | 39.95 | 92.46 | -3,518.19 | -1,838.31 | 1,378.83 | 1,289.58 | 89.25 | 15.450 | |
| 14,900.00 | 12,089.02 | 14,939.81 | 12,148.27 | 51.47 | 41.19 | 92.46 | -3,618.18 | -1,837.45 | 1,378.88 | 1,287.07 | 91.81 | 15.018 | |
| 15,000.00 | 12,089.72 | 15,039.81 | 12,149.14 | 52.78 | 42.44 | 92.47 | -3,718.18 | -1,836.59 | 1,378.93 | 1,284.54 | 94.39 | 14.609 | |
| 15,100.00 | 12,090.42 | 15,139.81 | 12,150.02 | 54.10 | 43.69 | 92.48 | -3,818.17 | -1,835.73 | 1,378.99 | 1,282.01 | 96.98 | 14.220 | |
| 15,200.00 | 12,091.12 | 15,239.81 | 12,150.89 | 55.41 | 44.96 | 92.48 | -3,918.16 | -1,834.87 | 1,379.04 | 1,279.46 | 99.57 | 13.849 | |
| 15,300.00 | 12,091.82 | 15,339.81 | 12,151.76 | 56.73 | 46.23 | 92.49 | -4,018.15 | -1,834.00 | 1,379.09 | 1,276.92 | 102.18 | 13.497 | |
| 15,400.00 | 12,092.52 | 15,439.81 | 12,152.63 | 58.05 | 47.50 | 92.50 | -4,118.15 | -1,833.14 | 1,379.14 | 1,274.36 | 104.79 | 13.161 | |
| 15,500.00 | 12,093.21 | 15,539.81 | 12,153.50 | 59.37 | 48.78 | 92.51 | -4,218.14 | -1,832.28 | 1,379.20 | 1,271.80 | 107.40 | 12.841 | |
| 15,600.00 | 12,093.91 | 15,639.81 | 12,154.37 | 60.70 | 50.06 | 92.51 | -4,318.13 | -1,831.42 | 1,379.25 | 1,269.23 | 110.03 | 12.536 | |
| 15,700.00 | 12,094.61 | 15,739.81 | 12,155.24 | 62.03 | 51.35 | 92.52 | -4,418.12 | -1,830.56 | 1,379.30 | 1,266.65 | 112.65 | 12.244 | |
| 15,800.00 | 12,095.31 | 15,839.81 | 12,156.12 | 63.35 | 52.65 | 92.53 | -4,518.11 | -1,829.70 | 1,379.36 | 1,264.07 | 115.29 | 11.965 | |
| 15,900.00 | 12,096.01 | 15,939.81 | 12,156.99 | 64.68 | 53.94 | 92.53 | -4,618.11 | -1,828.84 | 1,379.41 | 1,261.49 | 117.92 | 11.697 | |
| 16,000.00 | 12,096.71 | 16,039.81 | 12,157.86 | 66.02 | 55.24 | 92.54 | -4,718.10 | -1,827.98 | 1,379.47 | 1,258.90 | 120.57 | 11.441 | |
| 16,100.00 | 12,097.40 | 16,139.81 | 12,158.73 | 67.35 | 56.55 | 92.55 | -4,818.09 | -1,827.12 | 1,379.52 | 1,256.30 | 123.21 | 11.196 | |
| 16,200.00 | 12,098.10 | 16,239.81 | 12,159.60 | 68.68 | 57.85 | 92.56 | -4,918.08 | -1,826.26 | 1,379.57 | 1,253.71 | 125.87 | 10.961 | |
| 16,300.00 | 12,098.80 | 16,339.81 | 12,160.47 | 70.02 | 59.16 | 92.56 | -5,018.08 | -1,825.39 | 1,379.63 | 1,251.11 | 128.52 | 10.735 | |
| 16,400.00 | 12,099.50 | 16,439.81 | 12,161.34 | 71.36 | 60.48 | 92.57 | -5,118.07 | -1,824.53 | 1,379.68 | 1,248.50 | 131.18 | 10.518 | |
| 16,500.00 | 12,100.20 | 16,539.81 | 12,162.22 | 72.69 | 61.79 | 92.58 | -5,218.06 | -1,823.67 | 1,379.73 | 1,245.89 | 133.84 | 10.309 | |
| 16,600.00 | 12,100.90 | 16,639.81 | 12,163.09 | 74.03 | 63.11 | 92.58 | -5,318.05 | -1,822.81 | 1,379.79 | 1,243.28 | 136.50 | 10.108 | |
| 16,700.00 | 12,101.59 | 16,739.80 | 12,163.96 | 75.37 | 64.43 | 92.59 | -5,418.05 | -1,821.95 | 1,379.84 | 1,240.67 | 139.17 | 9.915 | |
| 16,800.00 | 12,102.29 | 16,839.80 | 12,164.83 | 76.72 | 65.75 | 92.60 | -5,518.04 | -1,821.09 | 1,379.89 | 1,238.05 | 141.84 | 9.729 | |
| 16,900.00 | 12,102.99 | 16,939.80 | 12,165.70 | 78.06 | 67.07 | 92.60 | -5,618.03 | -1,820.23 | 1,379.95 | 1,235.44 | 144.51 | 9.549 | |
| 17,000.00 | 12,103.69 | 17,039.80 | 12,166.57 | 79.40 | 68.40 | 92.61 | -5,718.02 | -1,819.37 | 1,380.00 | 1,232.81 | 147.19 | 9.376 | |
| 17,100.00 | 12,104.39 | 17,139.80 | 12,167.44 | 80.75 | 69.73 | 92.62 | -5,818.02 | -1,818.51 | 1,380.05 | 1,230.19 | 149.86 | 9.209 | |
| 17,200.00 | 12,105.08 | 17,239.80 | 12,168.32 | 82.09 | 71.05 | 92.63 | -5,918.01 | -1,817.65 | 1,380.11 | 1,227.57 | 152.54 | 9.047 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17,300.00 | 12,105.78 | 17,339.80 | 12,169.19 | 83.44 | 72.38 | 92.63 | -6,018.00 | -1,816.78 | 1,380.16 | 1,224.94 | 155.22 | 8.891 | |
| 17,400.00 | 12,106.48 | 17,439.80 | 12,170.06 | 84.78 | 73.72 | 92.64 | -6,117.99 | -1,815.92 | 1,380.22 | 1,222.31 | 157.91 | 8.741 | |
| 17,500.00 | 12,107.18 | 17,539.80 | 12,170.93 | 86.13 | 75.05 | 92.65 | -6,217.98 | -1,815.06 | 1,380.27 | 1,219.68 | 160.59 | 8.595 | |
| 17,600.00 | 12,107.88 | 17,639.80 | 12,171.80 | 87.48 | 76.38 | 92.65 | -6,317.98 | -1,814.20 | 1,380.32 | 1,217.05 | 163.28 | 8.454 | |
| 17,700.00 | 12,108.58 | 17,739.80 | 12,172.67 | 88.83 | 77.72 | 92.66 | -6,417.97 | -1,813.34 | 1,380.38 | 1,214.41 | 165.97 | 8.317 | |
| 17,800.00 | 12,109.27 | 17,839.80 | 12,173.54 | 90.18 | 79.06 | 92.67 | -6,517.96 | -1,812.48 | 1,380.43 | 1,211.78 | 168.66 | 8.185 | |
| 17,900.00 | 12,109.97 | 17,939.80 | 12,174.41 | 91.52 | 80.39 | 92.68 | -6,617.95 | -1,811.62 | 1,380.48 | 1,209.14 | 171.35 | 8.057 | |
| 18,000.00 | 12,110.67 | 18,039.80 | 12,175.29 | 92.88 | 81.73 | 92.68 | -6,717.95 | -1,810.76 | 1,380.54 | 1,206.50 | 174.04 | 7.932 | |
| 18,100.00 | 12,111.37 | 18,139.80 | 12,176.16 | 94.23 | 83.07 | 92.69 | -6,817.94 | -1,809.90 | 1,380.59 | 1,203.86 | 176.73 | 7.812 | |
| 18,200.00 | 12,112.07 | 18,239.80 | 12,177.03 | 95.58 | 84.41 | 92.70 | -6,917.93 | -1,809.04 | 1,380.65 | 1,201.22 | 179.43 | 7.695 | |
| 18,300.00 | 12,112.77 | 18,339.80 | 12,177.90 | 96.93 | 85.76 | 92.70 | -7,017.92 | -1,808.17 | 1,380.70 | 1,198.58 | 182.12 | 7.581 | |
| 18,400.00 | 12,113.46 | 18,439.80 | 12,178.77 | 98.28 | 87.10 | 92.71 | -7,117.92 | -1,807.31 | 1,380.75 | 1,195.93 | 184.82 | 7.471 | |
| 18,500.00 | 12,114.16 | 18,539.80 | 12,179.64 | 99.63 | 88.44 | 92.72 | -7,217.91 | -1,806.45 | 1,380.81 | 1,193.29 | 187.52 | 7.364 | |
| 18,600.00 | 12,114.86 | 18,639.80 | 12,180.51 | 100.99 | 89.79 | 92.73 | -7,317.90 | -1,805.59 | 1,380.86 | 1,190.64 | 190.22 | 7.259 | |
| 18,700.00 | 12,115.56 | 18,739.80 | 12,181.39 | 102.34 | 91.13 | 92.73 | -7,417.89 | -1,804.73 | 1,380.92 | 1,188.00 | 192.92 | 7.158 | |
| 18,800.00 | 12,116.26 | 18,839.80 | 12,182.26 | 103.70 | 92.48 | 92.74 | -7,517.88 | -1,803.87 | 1,380.97 | 1,185.35 | 195.62 | 7.059 | |
| 18,900.00 | 12,116.95 | 18,939.80 | 12,183.13 | 105.05 | 93.83 | 92.75 | -7,617.88 | -1,803.01 | 1,381.02 | 1,182.70 | 198.32 | 6.963 | |
| 19,000.00 | 12,117.65 | 19,039.80 | 12,184.00 | 106.41 | 95.17 | 92.75 | -7,717.87 | -1,802.15 | 1,381.08 | 1,180.05 | 201.03 | 6.870 | |
| 19,100.00 | 12,118.35 | 19,139.80 | 12,184.87 | 107.76 | 96.52 | 92.76 | -7,817.86 | -1,801.29 | 1,381.13 | 1,177.40 | 203.73 | 6.779 | |
| 19,200.00 | 12,119.05 | 19,239.80 | 12,185.74 | 109.12 | 97.87 | 92.77 | -7,917.85 | -1,800.43 | 1,381.19 | 1,174.75 | 206.44 | 6.691 | |
| 19,300.00 | 12,119.75 | 19,339.80 | 12,186.61 | 110.47 | 99.22 | 92.78 | -8,017.85 | -1,799.56 | 1,381.24 | 1,172.10 | 209.14 | 6.604 | |
| 19,400.00 | 12,120.45 | 19,439.80 | 12,187.49 | 111.83 | 100.57 | 92.78 | -8,117.84 | -1,798.70 | 1,381.29 | 1,169.44 | 211.85 | 6.520 | |
| 19,500.00 | 12,121.14 | 19,539.80 | 12,188.36 | 113.19 | 101.92 | 92.79 | -8,217.83 | -1,797.84 | 1,381.35 | 1,166.79 | 214.56 | 6.438 | |
| 19,600.00 | 12,121.84 | 19,639.80 | 12,189.23 | 114.54 | 103.27 | 92.80 | -8,317.82 | -1,796.98 | 1,381.40 | 1,164.14 | 217.26 | 6.358 | |
| 19,700.00 | 12,122.54 | 19,739.80 | 12,190.10 | 115.90 | 104.62 | 92.80 | -8,417.82 | -1,796.12 | 1,381.46 | 1,161.48 | 219.97 | 6.280 | |
| 19,800.00 | 12,123.24 | 19,839.80 | 12,190.97 | 117.26 | 105.97 | 92.81 | -8,517.81 | -1,795.26 | 1,381.51 | 1,158.83 | 222.68 | 6.204 | |
| 19,900.00 | 12,123.94 | 19,939.80 | 12,191.84 | 118.61 | 107.32 | 92.82 | -8,617.80 | -1,794.40 | 1,381.57 | 1,156.17 | 225.39 | 6.130 | |
| 20,000.00 | 12,124.64 | 20,039.80 | 12,192.71 | 119.97 | 108.68 | 92.82 | -8,717.79 | -1,793.54 | 1,381.62 | 1,153.52 | 228.10 | 6.057 | |
| 20,100.00 | 12,125.33 | 20,139.80 | 12,193.59 | 121.33 | 110.03 | 92.83 | -8,817.79 | -1,792.68 | 1,381.67 | 1,150.86 | 230.81 | 5.986 | |
| 20,200.00 | 12,126.03 | 20,239.80 | 12,194.46 | 122.69 | 111.38 | 92.84 | -8,917.78 | -1,791.82 | 1,381.73 | 1,148.20 | 233.53 | 5.917 | |
| 20,300.00 | 12,126.73 | 20,339.80 | 12,195.33 | 124.05 | 112.74 | 92.85 | -9,017.77 | -1,790.95 | 1,381.78 | 1,145.54 | 236.24 | 5.849 | |
| 20,400.00 | 12,127.43 | 20,439.80 | 12,196.20 | 125.41 | 114.09 | 92.85 | -9,117.76 | -1,790.09 | 1,381.84 | 1,142.89 | 238.95 | 5.783 | |
| 20,500.00 | 12,128.13 | 20,539.80 | 12,197.07 | 126.77 | 115.45 | 92.86 | -9,217.75 | -1,789.23 | 1,381.89 | 1,140.23 | 241.66 | 5.718 | |
| 20,600.00 | 12,128.83 | 20,639.80 | 12,197.94 | 128.13 | 116.80 | 92.87 | -9,317.75 | -1,788.37 | 1,381.95 | 1,137.57 | 244.38 | 5.655 | |
| 20,700.00 | 12,129.52 | 20,739.80 | 12,198.81 | 129.49 | 118.16 | 92.87 | -9,417.74 | -1,787.51 | 1,382.00 | 1,134.91 | 247.09 | 5.593 | |
| 20,800.00 | 12,130.22 | 20,839.80 | 12,199.69 | 130.85 | 119.51 | 92.88 | -9,517.73 | -1,786.65 | 1,382.05 | 1,132.25 | 249.81 | 5.533 | |
| 20,900.00 | 12,130.92 | 20,939.80 | 12,200.56 | 132.21 | 120.87 | 92.89 | -9,617.72 | -1,785.79 | 1,382.11 | 1,129.59 | 252.52 | 5.473 | |
| 21,000.00 | 12,131.62 | 21,039.80 | 12,201.43 | 133.57 | 122.22 | 92.90 | -9,717.72 | -1,784.93 | 1,382.16 | 1,126.93 | 255.24 | 5.415 | |
| 21,100.00 | 12,132.32 | 21,139.80 | 12,202.30 | 134.93 | 123.58 | 92.90 | -9,817.71 | -1,784.07 | 1,382.22 | 1,124.27 | 257.95 | 5.358 | |
| 21,200.00 | 12,133.01 | 21,239.80 | 12,203.17 | 136.29 | 124.94 | 92.91 | -9,917.70 | -1,783.21 | 1,382.27 | 1,121.61 | 260.67 | 5.303 | |
| 21,300.00 | 12,133.71 | 21,339.80 | 12,204.04 | 137.65 | 126.30 | 92.92 | -10,017.69 | -1,782.35 | 1,382.33 | 1,118.94 | 263.38 | 5.248 | |
| 21,400.00 | 12,134.41 | 21,439.80 | 12,204.91 | 139.01 | 127.65 | 92.92 | -10,117.69 | -1,781.48 | 1,382.38 | 1,116.28 | 266.10 | 5.195 | |
| 21,500.00 | 12,135.11 | 21,539.80 | 12,205.79 | 140.37 | 129.01 | 92.93 | -10,217.68 | -1,780.62 | 1,382.44 | 1,113.62 | 268.82 | 5.143 | |
| 21,600.00 | 12,135.81 | 21,639.80 | 12,206.66 | 141.73 | 130.37 | 92.94 | -10,317.67 | -1,779.76 | 1,382.49 | 1,110.96 | 271.54 | 5.091 | |
| 21,700.00 | 12,136.51 | 21,739.80 | 12,207.53 | 143.09 | 131.73 | 92.94 | -10,417.66 | -1,778.90 | 1,382.55 | 1,108.29 | 274.25 | 5.041 | |
| 21,800.00 | 12,137.20 | 21,839.80 | 12,208.40 | 144.46 | 133.09 | 92.95 | -10,517.65 | -1,778.04 | 1,382.60 | 1,105.63 | 276.97 | 4.992 | |
| 21,900.00 | 12,137.90 | 21,939.80 | 12,209.27 | 145.82 | 134.44 | 92.96 | -10,617.65 | -1,777.18 | 1,382.66 | 1,102.97 | 279.69 | 4.944 | |
| 22,000.00 | 12,138.60 | 22,039.80 | 12,210.14 | 147.18 | 135.80 | 92.97 | -10,717.64 | -1,776.32 | 1,382.71 | 1,100.30 | 282.41 | 4.896 | |
| 22,100.00 | 12,139.30 | 22,139.80 | 12,211.01 | 148.54 | 137.16 | 92.97 | -10,817.63 | -1,775.46 | 1,382.76 | 1,097.64 | 285.13 | 4.850 | |
| 22,200.00 | 12,140.00 | 22,239.80 | 12,211.88 | 149.90 | 138.52 | 92.98 | -10,917.62 | -1,774.60 | 1,382.82 | 1,094.97 | 287.85 | 4.804 | |
| 22,300.00 | 12,140.70 | 22,339.80 | 12,212.76 | 151.27 | 139.88 | 92.99 | -11,017.62 | -1,773.74 | 1,382.87 | 1,092.31 | 290.57 | 4.759 | |
| 22,387.52 | 12,141.31 | 22,425.19 | 12,213.50 | 152.46 | 141.04 | 92.99 | -11,103.00 | -1,773.00 | 1,382.92 | 1,090.01 | 292.91 | 4.721 | ES, SF |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 0.50 | 0.50 | 180.00 | -160.00 | 0.00 | 160.00 | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.98 | 0.97 | 180.00 | -160.00 | 0.00 | 160.00 | 158.05 | 1.95 | 82.012 | |
| 200.00 | 200.00 | 200.00 | 200.00 | 1.56 | 1.55 | 180.00 | -160.00 | 0.00 | 160.00 | 156.88 | 3.12 | 51.362 | |
| 300.00 | 300.00 | 300.00 | 300.00 | 1.98 | 1.98 | 180.00 | -160.00 | 0.00 | 160.00 | 156.04 | 3.96 | 40.438 | |
| 400.00 | 400.00 | 400.00 | 400.00 | 2.33 | 2.32 | 180.00 | -160.00 | 0.00 | 160.00 | 155.35 | 4.65 | 34.379 | |
| 500.00 | 500.00 | 500.00 | 500.00 | 2.63 | 2.63 | 180.00 | -160.00 | 0.00 | 160.00 | 154.74 | 5.26 | 30.391 | |
| 600.00 | 600.00 | 600.00 | 600.00 | 2.91 | 2.91 | 180.00 | -160.00 | 0.00 | 160.00 | 154.18 | 5.82 | 27.509 | |
| 700.00 | 700.00 | 700.00 | 700.00 | 3.16 | 3.16 | 180.00 | -160.00 | 0.00 | 160.00 | 153.68 | 6.32 | 25.300 | |
| 800.00 | 799.99 | 799.99 | 799.99 | 3.45 | 3.40 | -34.48 | -160.00 | 0.00 | 158.92 | 152.09 | 6.83 | 23.283 | |
| 900.00 | 899.91 | 899.91 | 899.91 | 3.70 | 3.62 | -35.33 | -160.00 | 0.00 | 155.70 | 148.41 | 7.29 | 21.371 | |
| 1,000.00 | 999.69 | 999.69 | 999.69 | 3.95 | 3.83 | -36.82 | -160.00 | 0.00 | 150.41 | 142.69 | 7.72 | 19.477 | |
| 1,100.00 | 1,099.32 | 1,099.32 | 1,099.32 | 4.05 | 4.03 | -38.88 | -160.00 | 0.00 | 143.63 | 135.62 | 8.01 | 17.922 | |
| 1,200.00 | 1,198.94 | 1,198.94 | 1,198.94 | 4.24 | 4.23 | -41.17 | -160.00 | 0.00 | 136.95 | 128.55 | 8.39 | 16.319 | |
| 1,300.00 | 1,298.53 | 1,298.53 | 1,298.53 | 4.33 | 4.41 | -44.91 | -160.00 | 0.00 | 130.31 | 121.65 | 8.66 | 15.045 | |
| 1,400.00 | 1,397.89 | 1,396.44 | 1,396.44 | 4.57 | 4.49 | -50.19 | -160.28 | 0.00 | 122.98 | 114.04 | 8.94 | 13.755 | |
| 1,500.00 | 1,496.93 | 1,492.81 | 1,492.77 | 4.81 | 4.67 | -56.07 | -162.67 | 0.00 | 117.01 | 107.72 | 9.30 | 12.584 | |
| 1,600.00 | 1,595.62 | 1,589.30 | 1,589.14 | 4.92 | 4.85 | -62.32 | -167.49 | 0.00 | 113.39 | 103.84 | 9.55 | 11.877 | |
| 1,656.58 | 1,651.42 | 1,644.02 | 1,643.73 | 5.03 | 4.93 | -65.60 | -171.31 | 0.00 | 112.83 | 103.12 | 9.72 | 11.611 | CC, ES |
| 1,700.00 | 1,694.25 | 1,686.08 | 1,685.65 | 5.12 | 4.98 | -68.00 | -174.78 | 0.00 | 113.15 | 103.31 | 9.84 | 11.496 | |
| 1,800.00 | 1,792.87 | 1,783.08 | 1,782.23 | 5.31 | 5.11 | -73.71 | -183.63 | 1.24 | 116.14 | 106.00 | 10.14 | 11.450 | |
| 1,900.00 | 1,891.50 | 1,879.53 | 1,878.14 | 5.51 | 5.25 | -79.63 | -193.20 | 4.78 | 122.46 | 111.99 | 10.47 | 11.701 | |
| 2,000.00 | 1,990.13 | 1,975.33 | 1,973.21 | 5.71 | 5.41 | -85.34 | -203.45 | 10.59 | 132.30 | 121.49 | 10.81 | 12.234 | |
| 2,100.00 | 2,088.76 | 2,072.59 | 2,069.54 | 5.90 | 5.56 | -90.56 | -214.44 | 18.31 | 145.19 | 134.02 | 11.16 | 13.007 | |
| 2,200.00 | 2,187.39 | 2,170.91 | 2,166.89 | 6.10 | 5.71 | -94.98 | -225.59 | 26.24 | 159.25 | 147.72 | 11.52 | 13.818 | |
| 2,300.00 | 2,286.02 | 2,269.22 | 2,264.25 | 6.30 | 5.86 | -98.68 | -236.75 | 34.18 | 174.09 | 162.20 | 11.90 | 14.632 | |
| 2,400.00 | 2,384.65 | 2,367.53 | 2,361.61 | 6.50 | 6.02 | -101.78 | -247.90 | 42.12 | 189.54 | 177.27 | 12.28 | 15.439 | |
| 2,500.00 | 2,483.28 | 2,465.85 | 2,458.96 | 6.69 | 6.18 | -104.42 | -259.05 | 50.06 | 205.46 | 192.80 | 12.66 | 16.231 | |
| 2,600.00 | 2,581.91 | 2,564.16 | 2,556.32 | 6.89 | 6.34 | -106.68 | -270.21 | 58.00 | 221.74 | 208.69 | 13.04 | 17.000 | |
| 2,700.00 | 2,680.54 | 2,662.48 | 2,653.67 | 7.10 | 6.50 | -108.62 | -281.36 | 65.93 | 238.31 | 224.88 | 13.43 | 17.743 | |
| 2,800.00 | 2,779.17 | 2,760.79 | 2,751.03 | 7.33 | 6.67 | -110.32 | -292.51 | 73.87 | 255.11 | 241.29 | 13.82 | 18.459 | |
| 2,900.00 | 2,877.80 | 2,859.10 | 2,848.39 | 7.56 | 6.83 | -111.80 | -303.66 | 81.81 | 272.11 | 257.90 | 14.21 | 19.146 | |
| 3,000.00 | 2,976.43 | 2,957.42 | 2,945.74 | 7.79 | 7.00 | -113.11 | -314.82 | 89.75 | 289.27 | 274.66 | 14.61 | 19.804 | |
| 3,100.00 | 3,075.06 | 3,055.73 | 3,043.10 | 8.02 | 7.17 | -114.27 | -325.97 | 97.68 | 306.55 | 291.55 | 15.00 | 20.434 | |
| 3,200.00 | 3,173.69 | 3,154.05 | 3,140.46 | 8.25 | 7.34 | -115.31 | -337.12 | 105.62 | 323.94 | 308.55 | 15.40 | 21.037 | |
| 3,300.00 | 3,272.32 | 3,252.36 | 3,237.81 | 8.48 | 7.51 | -116.25 | -348.28 | 113.56 | 341.43 | 325.63 | 15.80 | 21.613 | |
| 3,400.00 | 3,370.94 | 3,350.67 | 3,335.17 | 8.72 | 7.69 | -117.09 | -359.43 | 121.50 | 359.00 | 342.80 | 16.20 | 22.163 | |
| 3,500.00 | 3,469.57 | 3,448.99 | 3,432.53 | 8.95 | 7.86 | -117.85 | -370.58 | 129.43 | 376.63 | 360.03 | 16.60 | 22.690 | |
| 3,600.00 | 3,568.20 | 3,547.30 | 3,529.88 | 9.19 | 8.04 | -118.55 | -381.74 | 137.37 | 394.33 | 377.33 | 17.00 | 23.193 | |
| 3,700.00 | 3,666.83 | 3,645.62 | 3,627.24 | 9.42 | 8.22 | -119.18 | -392.89 | 145.31 | 412.07 | 394.67 | 17.41 | 23.674 | |
| 3,800.00 | 3,765.46 | 3,743.93 | 3,724.59 | 9.66 | 8.39 | -119.77 | -404.04 | 153.25 | 429.87 | 412.06 | 17.81 | 24.135 | |
| 3,900.00 | 3,864.09 | 3,842.24 | 3,821.95 | 9.89 | 8.57 | -120.30 | -415.20 | 161.19 | 447.70 | 429.48 | 18.22 | 24.575 | |
| 4,000.00 | 3,962.72 | 3,940.56 | 3,919.31 | 10.13 | 8.76 | -120.80 | -426.35 | 169.12 | 465.56 | 446.94 | 18.62 | 24.998 | |
| 4,100.00 | 4,061.35 | 4,038.87 | 4,016.66 | 10.36 | 8.94 | -121.26 | -437.50 | 177.06 | 483.46 | 464.43 | 19.03 | 25.402 | |
| 4,200.00 | 4,159.98 | 4,137.19 | 4,114.02 | 10.60 | 9.12 | -121.69 | -448.66 | 185.00 | 501.39 | 481.95 | 19.44 | 25.790 | |
| 4,300.00 | 4,258.61 | 4,235.50 | 4,211.38 | 10.83 | 9.31 | -122.08 | -459.81 | 192.94 | 519.34 | 499.49 | 19.85 | 26.161 | |
| 4,400.00 | 4,357.24 | 4,333.82 | 4,308.73 | 11.07 | 9.49 | -122.45 | -470.96 | 200.87 | 537.31 | 517.05 | 20.26 | 26.518 | |
| 4,500.00 | 4,455.87 | 4,432.13 | 4,406.09 | 11.31 | 9.68 | -122.80 | -482.12 | 208.81 | 555.30 | 534.63 | 20.67 | 26.861 | |
| 4,600.00 | 4,554.50 | 4,530.44 | 4,503.45 | 11.54 | 9.87 | -123.12 | -493.27 | 216.75 | 573.32 | 552.23 | 21.09 | 27.190 | |
| 4,700.00 | 4,653.13 | 4,628.76 | 4,600.80 | 11.78 | 10.05 | -123.43 | -504.42 | 224.69 | 591.34 | 569.85 | 21.50 | 27.506 | |
| 4,800.00 | 4,751.76 | 4,727.07 | 4,698.16 | 12.02 | 10.24 | -123.72 | -515.57 | 232.62 | 609.39 | 587.48 | 21.91 | 27.810 | |
| 4,900.00 | 4,850.39 | 4,825.39 | 4,795.51 | 12.26 | 10.43 | -123.99 | -526.73 | 240.56 | 627.45 | 605.12 | 22.33 | 28.103 | |
| 5,000.00 | 4,949.01 | 4,923.70 | 4,892.87 | 12.49 | 10.62 | -124.24 | -537.88 | 248.50 | 645.52 | 622.78 | 22.74 | 28.385 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,100.00 | 5,047.64 | 5,022.01 | 4,990.23 | 12.73 | 10.81 | -124.48 | -549.03 | 256.44 | 663.60 | 640.45 | 23.15 | 28.659 | |
| 5,200.00 | 5,146.27 | 5,124.02 | 5,091.26 | 12.97 | 11.00 | -124.73 | -560.49 | 264.59 | 681.61 | 658.04 | 23.57 | 28.915 | |
| 5,300.00 | 5,244.90 | 5,234.84 | 5,201.33 | 13.21 | 11.19 | -125.14 | -570.98 | 272.05 | 698.31 | 674.28 | 24.03 | 29.063 | |
| 5,400.00 | 5,343.57 | 5,346.07 | 5,312.13 | 13.41 | 11.36 | -125.80 | -578.88 | 277.68 | 713.15 | 688.72 | 24.42 | 29.200 | |
| 5,500.00 | 5,442.58 | 5,457.81 | 5,423.68 | 13.63 | 11.51 | -126.55 | -584.18 | 281.45 | 725.01 | 700.20 | 24.81 | 29.221 | |
| 5,600.00 | 5,541.92 | 5,569.94 | 5,535.76 | 13.82 | 11.65 | -127.26 | -586.82 | 283.33 | 733.64 | 708.49 | 25.15 | 29.168 | |
| 5,700.00 | 5,641.52 | 5,675.71 | 5,641.52 | 13.98 | 11.71 | -127.88 | -587.13 | 283.55 | 739.26 | 713.88 | 25.38 | 29.127 | |
| 5,800.00 | 5,741.32 | 5,775.51 | 5,741.32 | 14.12 | 11.76 | -128.31 | -587.13 | 283.55 | 743.11 | 717.54 | 25.57 | 29.057 | |
| 5,900.00 | 5,841.25 | 5,875.44 | 5,841.25 | 14.23 | 11.81 | -128.55 | -587.13 | 283.55 | 745.37 | 719.62 | 25.76 | 28.941 | |
| 6,000.00 | 5,941.25 | 5,975.43 | 5,941.25 | 14.28 | 11.86 | 89.62 | -587.13 | 283.55 | 746.02 | 720.16 | 25.86 | 28.847 | |
| 6,100.00 | 6,041.25 | 6,075.43 | 6,041.25 | 14.32 | 11.92 | 89.62 | -587.13 | 283.55 | 746.02 | 720.07 | 25.94 | 28.757 | |
| 6,200.00 | 6,141.25 | 6,175.43 | 6,141.25 | 14.35 | 11.97 | 89.62 | -587.13 | 283.55 | 746.02 | 719.99 | 26.02 | 28.667 | |
| 6,300.00 | 6,241.25 | 6,275.43 | 6,241.25 | 14.39 | 12.03 | 89.62 | -587.13 | 283.55 | 746.02 | 719.91 | 26.11 | 28.576 | |
| 6,400.00 | 6,341.25 | 6,375.43 | 6,341.25 | 14.42 | 12.08 | 89.62 | -587.13 | 283.55 | 746.02 | 719.83 | 26.19 | 28.485 | |
| 6,500.00 | 6,441.25 | 6,475.43 | 6,441.25 | 14.46 | 12.13 | 89.62 | -587.13 | 283.55 | 746.02 | 719.74 | 26.27 | 28.394 | |
| 6,600.00 | 6,541.25 | 6,575.43 | 6,541.25 | 14.49 | 12.19 | 89.62 | -587.13 | 283.55 | 746.02 | 719.66 | 26.36 | 28.302 | |
| 6,700.00 | 6,641.25 | 6,675.43 | 6,641.25 | 14.53 | 12.24 | 89.62 | -587.13 | 283.55 | 746.02 | 719.57 | 26.44 | 28.211 | |
| 6,800.00 | 6,741.25 | 6,775.43 | 6,741.25 | 14.56 | 12.30 | 89.62 | -587.13 | 283.55 | 746.02 | 719.49 | 26.53 | 28.119 | |
| 6,900.00 | 6,841.25 | 6,875.43 | 6,841.25 | 14.60 | 12.36 | 89.62 | -587.13 | 283.55 | 746.02 | 719.40 | 26.62 | 28.027 | |
| 7,000.00 | 6,941.25 | 6,975.43 | 6,941.25 | 14.64 | 12.41 | 89.62 | -587.13 | 283.55 | 746.02 | 719.31 | 26.71 | 27.935 | |
| 7,100.00 | 7,041.25 | 7,075.43 | 7,041.25 | 14.68 | 12.47 | 89.62 | -587.13 | 283.55 | 746.02 | 719.22 | 26.79 | 27.843 | |
| 7,200.00 | 7,141.25 | 7,175.43 | 7,141.25 | 14.71 | 12.52 | 89.62 | -587.13 | 283.55 | 746.02 | 719.13 | 26.88 | 27.751 | |
| 7,300.00 | 7,241.25 | 7,275.43 | 7,241.25 | 14.75 | 12.58 | 89.62 | -587.13 | 283.55 | 746.02 | 719.04 | 26.97 | 27.659 | |
| 7,400.00 | 7,341.25 | 7,375.43 | 7,341.25 | 14.79 | 12.64 | 89.62 | -587.13 | 283.55 | 746.02 | 718.95 | 27.06 | 27.566 | |
| 7,500.00 | 7,441.25 | 7,475.43 | 7,441.25 | 14.83 | 12.70 | 89.62 | -587.13 | 283.55 | 746.02 | 718.86 | 27.15 | 27.474 | |
| 7,600.00 | 7,541.25 | 7,575.43 | 7,541.25 | 14.87 | 12.75 | 89.62 | -587.13 | 283.55 | 746.02 | 718.77 | 27.25 | 27.381 | |
| 7,700.00 | 7,641.25 | 7,675.43 | 7,641.25 | 14.91 | 12.81 | 89.62 | -587.13 | 283.55 | 746.02 | 718.68 | 27.34 | 27.289 | |
| 7,800.00 | 7,741.25 | 7,775.43 | 7,741.25 | 14.95 | 12.87 | 89.62 | -587.13 | 283.55 | 746.02 | 718.59 | 27.43 | 27.196 | |
| 7,900.00 | 7,841.25 | 7,875.43 | 7,841.25 | 14.99 | 12.93 | 89.62 | -587.13 | 283.55 | 746.02 | 718.49 | 27.52 | 27.104 | |
| 8,000.00 | 7,941.25 | 7,975.43 | 7,941.25 | 15.03 | 12.99 | 89.62 | -587.13 | 283.55 | 746.02 | 718.40 | 27.62 | 27.011 | |
| 8,100.00 | 8,041.25 | 8,075.43 | 8,041.25 | 15.07 | 13.05 | 89.62 | -587.13 | 283.55 | 746.02 | 718.30 | 27.71 | 26.918 | |
| 8,200.00 | 8,141.25 | 8,175.43 | 8,141.25 | 15.11 | 13.11 | 89.62 | -587.13 | 283.55 | 746.02 | 718.21 | 27.81 | 26.826 | |
| 8,300.00 | 8,241.25 | 8,275.43 | 8,241.25 | 15.15 | 13.17 | 89.62 | -587.13 | 283.55 | 746.02 | 718.11 | 27.91 | 26.734 | |
| 8,400.00 | 8,341.25 | 8,375.43 | 8,341.25 | 15.20 | 13.22 | 89.62 | -587.13 | 283.55 | 746.02 | 718.01 | 28.00 | 26.641 | |
| 8,500.00 | 8,441.25 | 8,475.43 | 8,441.25 | 15.24 | 13.28 | 89.62 | -587.13 | 283.55 | 746.02 | 717.92 | 28.10 | 26.549 | |
| 8,600.00 | 8,541.25 | 8,575.43 | 8,541.25 | 15.28 | 13.34 | 89.62 | -587.13 | 283.55 | 746.02 | 717.82 | 28.20 | 26.457 | |
| 8,700.00 | 8,641.25 | 8,675.43 | 8,641.25 | 15.32 | 13.41 | 89.62 | -587.13 | 283.55 | 746.02 | 717.72 | 28.30 | 26.364 | |
| 8,800.00 | 8,741.25 | 8,775.43 | 8,741.25 | 15.37 | 13.47 | 89.62 | -587.13 | 283.55 | 746.02 | 717.62 | 28.40 | 26.272 | |
| 8,900.00 | 8,841.25 | 8,875.43 | 8,841.25 | 15.41 | 13.53 | 89.62 | -587.13 | 283.55 | 746.02 | 717.52 | 28.50 | 26.180 | |
| 9,000.00 | 8,941.25 | 8,975.43 | 8,941.25 | 15.46 | 13.59 | 89.62 | -587.13 | 283.55 | 746.02 | 717.42 | 28.60 | 26.089 | |
| 9,100.00 | 9,041.25 | 9,075.43 | 9,041.25 | 15.50 | 13.65 | 89.62 | -587.13 | 283.55 | 746.02 | 717.32 | 28.70 | 25.997 | |
| 9,200.00 | 9,141.25 | 9,175.43 | 9,141.25 | 15.55 | 13.71 | 89.62 | -587.13 | 283.55 | 746.02 | 717.22 | 28.80 | 25.905 | |
| 9,300.00 | 9,241.25 | 9,275.43 | 9,241.25 | 15.59 | 13.77 | 89.62 | -587.13 | 283.55 | 746.02 | 717.12 | 28.90 | 25.814 | |
| 9,400.00 | 9,341.25 | 9,375.43 | 9,341.25 | 15.64 | 13.83 | 89.62 | -587.13 | 283.55 | 746.02 | 717.01 | 29.00 | 25.723 | |
| 9,500.00 | 9,441.25 | 9,475.43 | 9,441.25 | 15.68 | 13.90 | 89.62 | -587.13 | 283.55 | 746.02 | 716.91 | 29.11 | 25.632 | |
| 9,600.00 | 9,541.25 | 9,575.43 | 9,541.25 | 15.73 | 13.96 | 89.62 | -587.13 | 283.55 | 746.02 | 716.81 | 29.21 | 25.541 | |
| 9,700.00 | 9,641.25 | 9,675.43 | 9,641.25 | 15.78 | 14.02 | 89.62 | -587.13 | 283.55 | 746.02 | 716.70 | 29.31 | 25.450 | |
| 9,800.00 | 9,741.25 | 9,775.43 | 9,741.25 | 15.82 | 14.08 | 89.62 | -587.13 | 283.55 | 746.02 | 716.60 | 29.42 | 25.359 | |
| 9,900.00 | 9,841.25 | 9,875.43 | 9,841.25 | 15.87 | 14.15 | 89.62 | -587.13 | 283.55 | 746.02 | 716.49 | 29.52 | 25.269 | |
| 10,000.00 | 9,941.25 | 9,975.43 | 9,941.25 | 15.92 | 14.21 | 89.62 | -587.13 | 283.55 | 746.02 | 716.39 | 29.63 | 25.179 | |
| 10,100.00 | 10,041.25 | 10,075.43 | 10,041.25 | 15.96 | 14.27 | 89.62 | -587.13 | 283.55 | 746.02 | 716.28 | 29.73 | 25.089 | |
| 10,200.00 | 10,141.25 | 10,175.43 | 10,141.25 | 16.01 | 14.34 | 89.62 | -587.13 | 283.55 | 746.02 | 716.17 | 29.84 | 24.999 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,300.00 | 10,241.25 | 10,275.43 | 10,241.25 | 16.06 | 14.40 | 89.62 | -587.13 | 283.55 | 746.02 | 716.07 | 29.95 | 24.910 | |
| 10,400.00 | 10,341.25 | 10,375.43 | 10,341.25 | 16.11 | 14.46 | 89.62 | -587.13 | 283.55 | 746.02 | 715.96 | 30.06 | 24.820 | |
| 10,500.00 | 10,441.25 | 10,475.43 | 10,441.25 | 16.16 | 14.53 | 89.62 | -587.13 | 283.55 | 746.02 | 715.85 | 30.16 | 24.731 | |
| 10,600.00 | 10,541.25 | 10,575.43 | 10,541.25 | 16.21 | 14.59 | 89.62 | -587.13 | 283.55 | 746.02 | 715.74 | 30.27 | 24.643 | |
| 10,700.00 | 10,641.25 | 10,675.43 | 10,641.25 | 16.26 | 14.66 | 89.62 | -587.13 | 283.55 | 746.02 | 715.63 | 30.38 | 24.554 | |
| 10,800.00 | 10,741.25 | 10,775.43 | 10,741.25 | 16.31 | 14.72 | 89.62 | -587.13 | 283.55 | 746.02 | 715.52 | 30.49 | 24.466 | |
| 10,900.00 | 10,841.25 | 10,875.43 | 10,841.25 | 16.36 | 14.79 | 89.62 | -587.13 | 283.55 | 746.02 | 715.41 | 30.60 | 24.378 | |
| 11,000.00 | 10,941.25 | 10,975.43 | 10,941.25 | 16.41 | 14.85 | 89.62 | -587.13 | 283.55 | 746.02 | 715.30 | 30.71 | 24.290 | |
| 11,100.00 | 11,041.25 | 11,075.43 | 11,041.25 | 16.46 | 14.92 | 89.62 | -587.13 | 283.55 | 746.02 | 715.19 | 30.82 | 24.203 | |
| 11,200.00 | 11,141.25 | 11,175.43 | 11,141.25 | 16.51 | 14.98 | 89.62 | -587.13 | 283.55 | 746.02 | 715.08 | 30.94 | 24.115 | |
| 11,300.00 | 11,241.25 | 11,275.43 | 11,241.25 | 16.56 | 15.05 | 89.62 | -587.13 | 283.55 | 746.02 | 714.97 | 31.05 | 24.028 | |
| 11,400.00 | 11,341.25 | 11,375.43 | 11,341.25 | 16.61 | 15.11 | 89.62 | -587.13 | 283.55 | 746.02 | 714.86 | 31.16 | 23.942 | |
| 11,500.00 | 11,441.25 | 11,475.43 | 11,441.25 | 16.66 | 15.18 | 89.62 | -587.13 | 283.55 | 746.02 | 714.74 | 31.28 | 23.852 | |
| 11,503.73 | 11,444.98 | 11,479.17 | 11,444.98 | 16.66 | 15.18 | -92.13 | -587.13 | 283.55 | 746.02 | 714.74 | 31.28 | 23.849 | |
| 11,600.00 | 11,541.21 | 11,575.06 | 11,540.72 | 16.71 | 15.31 | -91.94 | -591.03 | 283.59 | 746.09 | 714.72 | 31.36 | 23.789 | |
| 11,700.00 | 11,639.79 | 11,673.87 | 11,637.39 | 16.90 | 15.53 | -91.56 | -610.92 | 283.77 | 746.76 | 715.17 | 31.59 | 23.643 | |
| 11,800.00 | 11,734.09 | 11,772.00 | 11,728.59 | 17.17 | 15.76 | -91.12 | -646.80 | 284.09 | 748.12 | 716.10 | 32.01 | 23.369 | |
| 11,900.00 | 11,821.25 | 11,869.50 | 11,811.84 | 17.53 | 16.00 | -90.66 | -697.32 | 284.55 | 750.12 | 717.45 | 32.66 | 22.965 | |
| 12,000.00 | 11,898.62 | 11,966.45 | 11,884.94 | 18.00 | 16.28 | -90.18 | -760.82 | 285.13 | 752.69 | 719.13 | 33.56 | 22.431 | |
| 12,100.00 | 11,963.85 | 12,062.93 | 11,946.05 | 18.59 | 16.70 | -89.69 | -835.34 | 285.81 | 755.75 | 721.06 | 34.70 | 21.782 | |
| 12,200.00 | 12,014.95 | 12,159.07 | 11,993.65 | 19.33 | 17.31 | -89.21 | -918.73 | 286.56 | 759.21 | 723.13 | 36.08 | 21.042 | |
| 12,300.00 | 12,050.38 | 12,254.95 | 12,026.59 | 20.19 | 18.06 | -88.76 | -1,008.65 | 287.38 | 762.94 | 725.26 | 37.68 | 20.248 | |
| 12,400.00 | 12,069.05 | 12,350.00 | 12,044.01 | 21.14 | 18.89 | -88.35 | -1,101.98 | 288.23 | 766.84 | 727.40 | 39.44 | 19.443 | |
| 12,500.00 | 12,072.27 | 12,448.30 | 12,047.25 | 22.15 | 19.82 | -88.15 | -1,200.17 | 289.12 | 770.42 | 729.06 | 41.36 | 18.626 | |
| 12,600.00 | 12,072.97 | 12,548.29 | 12,047.95 | 23.19 | 20.82 | -88.14 | -1,300.16 | 290.03 | 771.21 | 727.82 | 43.39 | 17.772 | |
| 12,700.00 | 12,073.66 | 12,648.29 | 12,048.65 | 24.26 | 21.86 | -88.14 | -1,400.15 | 290.94 | 771.21 | 725.71 | 45.51 | 16.948 | |
| 12,800.00 | 12,074.36 | 12,748.29 | 12,049.35 | 25.36 | 22.93 | -88.14 | -1,500.15 | 291.85 | 771.22 | 723.54 | 47.68 | 16.175 | |
| 12,900.00 | 12,075.06 | 12,848.29 | 12,050.05 | 26.49 | 24.04 | -88.14 | -1,600.14 | 292.76 | 771.22 | 721.31 | 49.91 | 15.452 | |
| 13,000.00 | 12,075.76 | 12,948.29 | 12,050.75 | 27.63 | 25.17 | -88.14 | -1,700.13 | 293.66 | 771.22 | 719.03 | 52.19 | 14.777 | |
| 13,100.00 | 12,076.46 | 13,048.29 | 12,051.45 | 28.80 | 26.32 | -88.14 | -1,800.13 | 294.57 | 771.22 | 716.71 | 54.51 | 14.148 | |
| 13,200.00 | 12,077.15 | 13,148.29 | 12,052.15 | 29.98 | 27.49 | -88.14 | -1,900.12 | 295.48 | 771.22 | 714.35 | 56.87 | 13.561 | |
| 13,300.00 | 12,077.85 | 13,248.29 | 12,052.85 | 31.18 | 28.68 | -88.14 | -2,000.11 | 296.39 | 771.23 | 711.96 | 59.26 | 13.014 | |
| 13,400.00 | 12,078.55 | 13,348.29 | 12,053.54 | 32.39 | 29.88 | -88.14 | -2,100.11 | 297.30 | 771.23 | 709.54 | 61.68 | 12.503 | |
| 13,500.00 | 12,079.25 | 13,448.29 | 12,054.24 | 33.61 | 31.10 | -88.14 | -2,200.10 | 298.21 | 771.23 | 707.10 | 64.13 | 12.026 | |
| 13,600.00 | 12,079.95 | 13,548.29 | 12,054.94 | 34.84 | 32.33 | -88.14 | -2,300.09 | 299.12 | 771.23 | 704.63 | 66.60 | 11.580 | |
| 13,700.00 | 12,080.65 | 13,648.29 | 12,055.64 | 36.08 | 33.57 | -88.14 | -2,400.09 | 300.03 | 771.23 | 702.15 | 69.09 | 11.163 | |
| 13,800.00 | 12,081.34 | 13,748.29 | 12,056.34 | 37.33 | 34.82 | -88.14 | -2,500.08 | 300.93 | 771.24 | 699.64 | 71.59 | 10.772 | |
| 13,900.00 | 12,082.04 | 13,848.29 | 12,057.04 | 38.59 | 36.07 | -88.14 | -2,600.07 | 301.84 | 771.24 | 697.12 | 74.12 | 10.406 | |
| 14,000.00 | 12,082.74 | 13,948.29 | 12,057.74 | 39.86 | 37.34 | -88.14 | -2,700.07 | 302.75 | 771.24 | 694.58 | 76.66 | 10.061 | |
| 14,100.00 | 12,083.44 | 14,048.29 | 12,058.44 | 41.13 | 38.61 | -88.14 | -2,800.06 | 303.66 | 771.24 | 692.03 | 79.21 | 9.737 | |
| 14,200.00 | 12,084.14 | 14,148.29 | 12,059.14 | 42.40 | 39.89 | -88.14 | -2,900.05 | 304.57 | 771.24 | 689.47 | 81.77 | 9.432 | |
| 14,300.00 | 12,084.84 | 14,248.29 | 12,059.84 | 43.69 | 41.18 | -88.14 | -3,000.05 | 305.48 | 771.24 | 686.90 | 84.35 | 9.144 | |
| 14,400.00 | 12,085.53 | 14,348.29 | 12,060.54 | 44.97 | 42.47 | -88.14 | -3,100.04 | 306.39 | 771.25 | 684.31 | 86.93 | 8.872 | |
| 14,500.00 | 12,086.23 | 14,448.29 | 12,061.24 | 46.27 | 43.76 | -88.14 | -3,200.03 | 307.30 | 771.25 | 681.72 | 89.53 | 8.615 | |
| 14,600.00 | 12,086.93 | 14,548.29 | 12,061.93 | 47.56 | 45.06 | -88.14 | -3,300.03 | 308.20 | 771.25 | 679.12 | 92.13 | 8.371 | |
| 14,700.00 | 12,087.63 | 14,648.29 | 12,062.63 | 48.86 | 46.37 | -88.14 | -3,400.02 | 309.11 | 771.25 | 676.51 | 94.74 | 8.141 | |
| 14,800.00 | 12,088.33 | 14,748.29 | 12,063.33 | 50.17 | 47.67 | -88.14 | -3,500.01 | 310.02 | 771.25 | 673.90 | 97.36 | 7.922 | |
| 14,900.00 | 12,089.02 | 14,848.29 | 12,064.03 | 51.47 | 48.98 | -88.14 | -3,600.01 | 310.93 | 771.26 | 671.28 | 99.98 | 7.714 | |
| 15,000.00 | 12,089.72 | 14,948.29 | 12,064.73 | 52.78 | 50.30 | -88.14 | -3,700.00 | 311.84 | 771.26 | 668.65 | 102.61 | 7.516 | |
| 15,100.00 | 12,090.42 | 15,048.29 | 12,065.43 | 54.10 | 51.61 | -88.14 | -3,799.99 | 312.75 | 771.26 | 666.02 | 105.24 | 7.328 | |
| 15,200.00 | 12,091.12 | 15,148.29 | 12,066.13 | 55.41 | 52.93 | -88.14 | -3,899.99 | 313.66 | 771.26 | 663.38 | 107.88 | 7.149 | |
| 15,300.00 | 12,091.82 | 15,248.29 | 12,066.83 | 56.73 | 54.25 | -88.14 | -3,999.98 | 314.57 | 771.26 | 660.73 | 110.53 | 6.978 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,400.00 | 12,092.52 | 15,348.29 | 12,067.53 | 58.05 | 55.58 | -88.14 | -4,099.98 | 315.47 | 771.27 | 658.09 | 113.18 | 6.815 | |
| 15,500.00 | 12,093.21 | 15,448.29 | 12,068.23 | 59.37 | 56.90 | -88.14 | -4,199.97 | 316.38 | 771.27 | 655.43 | 115.83 | 6.658 | |
| 15,600.00 | 12,093.91 | 15,548.29 | 12,068.93 | 60.70 | 58.23 | -88.14 | -4,299.96 | 317.29 | 771.27 | 652.78 | 118.49 | 6.509 | |
| 15,700.00 | 12,094.61 | 15,648.29 | 12,069.62 | 62.03 | 59.56 | -88.14 | -4,399.96 | 318.20 | 771.27 | 650.12 | 121.15 | 6.366 | |
| 15,800.00 | 12,095.31 | 15,748.29 | 12,070.32 | 63.35 | 60.89 | -88.14 | -4,499.95 | 319.11 | 771.27 | 647.46 | 123.82 | 6.229 | |
| 15,900.00 | 12,096.01 | 15,848.29 | 12,071.02 | 64.68 | 62.22 | -88.14 | -4,599.94 | 320.02 | 771.28 | 644.79 | 126.48 | 6.098 | |
| 16,000.00 | 12,096.71 | 15,948.29 | 12,071.72 | 66.02 | 63.56 | -88.14 | -4,699.94 | 320.93 | 771.28 | 642.12 | 129.15 | 5.972 | |
| 16,100.00 | 12,097.40 | 16,048.29 | 12,072.42 | 67.35 | 64.90 | -88.14 | -4,799.93 | 321.84 | 771.28 | 639.45 | 131.83 | 5.851 | |
| 16,200.00 | 12,098.10 | 16,148.29 | 12,073.12 | 68.68 | 66.23 | -88.14 | -4,899.92 | 322.74 | 771.28 | 636.78 | 134.50 | 5.734 | |
| 16,300.00 | 12,098.80 | 16,248.29 | 12,073.82 | 70.02 | 67.57 | -88.14 | -4,999.92 | 323.65 | 771.28 | 634.10 | 137.18 | 5.622 | |
| 16,400.00 | 12,099.50 | 16,348.29 | 12,074.52 | 71.36 | 68.91 | -88.14 | -5,099.91 | 324.56 | 771.28 | 631.42 | 139.86 | 5.515 | |
| 16,500.00 | 12,100.20 | 16,448.29 | 12,075.22 | 72.69 | 70.25 | -88.14 | -5,199.90 | 325.47 | 771.29 | 628.74 | 142.54 | 5.411 | |
| 16,600.00 | 12,100.90 | 16,548.29 | 12,075.92 | 74.03 | 71.60 | -88.14 | -5,299.90 | 326.38 | 771.29 | 626.06 | 145.23 | 5.311 | |
| 16,700.00 | 12,101.59 | 16,648.29 | 12,076.62 | 75.37 | 72.94 | -88.14 | -5,399.89 | 327.29 | 771.29 | 623.37 | 147.92 | 5.214 | |
| 16,800.00 | 12,102.29 | 16,748.29 | 12,077.32 | 76.72 | 74.28 | -88.14 | -5,499.88 | 328.20 | 771.29 | 620.69 | 150.61 | 5.121 | |
| 16,900.00 | 12,102.99 | 16,848.29 | 12,078.01 | 78.06 | 75.63 | -88.14 | -5,599.88 | 329.11 | 771.29 | 618.00 | 153.30 | 5.031 | |
| 17,000.00 | 12,103.69 | 16,948.29 | 12,078.71 | 79.40 | 76.97 | -88.14 | -5,699.87 | 330.01 | 771.30 | 615.31 | 155.99 | 4.945 | |
| 17,100.00 | 12,104.39 | 17,048.29 | 12,079.41 | 80.75 | 78.32 | -88.14 | -5,799.86 | 330.92 | 771.30 | 612.62 | 158.68 | 4.861 | |
| 17,200.00 | 12,105.08 | 17,148.29 | 12,080.11 | 82.09 | 79.67 | -88.14 | -5,899.86 | 331.83 | 771.30 | 609.92 | 161.38 | 4.779 | |
| 17,300.00 | 12,105.78 | 17,248.29 | 12,080.81 | 83.44 | 81.02 | -88.14 | -5,999.85 | 332.74 | 771.30 | 607.23 | 164.07 | 4.701 | |
| 17,400.00 | 12,106.48 | 17,348.29 | 12,081.51 | 84.78 | 82.37 | -88.14 | -6,099.84 | 333.65 | 771.30 | 604.53 | 166.77 | 4.625 | |
| 17,500.00 | 12,107.18 | 17,448.29 | 12,082.21 | 86.13 | 83.72 | -88.14 | -6,199.84 | 334.56 | 771.31 | 601.83 | 169.47 | 4.551 | |
| 17,600.00 | 12,107.88 | 17,548.29 | 12,082.91 | 87.48 | 85.07 | -88.14 | -6,299.83 | 335.47 | 771.31 | 599.14 | 172.17 | 4.480 | |
| 17,700.00 | 12,108.58 | 17,648.29 | 12,083.61 | 88.83 | 86.42 | -88.14 | -6,399.82 | 336.38 | 771.31 | 596.44 | 174.87 | 4.411 | |
| 17,800.00 | 12,109.27 | 17,748.29 | 12,084.31 | 90.18 | 87.77 | -88.14 | -6,499.82 | 337.28 | 771.31 | 593.74 | 177.58 | 4.344 | |
| 17,900.00 | 12,109.97 | 17,848.29 | 12,085.01 | 91.52 | 89.12 | -88.15 | -6,599.81 | 338.19 | 771.31 | 591.03 | 180.28 | 4.278 | |
| 18,000.00 | 12,110.67 | 17,948.29 | 12,085.70 | 92.88 | 90.47 | -88.15 | -6,699.80 | 339.10 | 771.31 | 588.33 | 182.98 | 4.215 | |
| 18,100.00 | 12,111.37 | 18,048.29 | 12,086.40 | 94.23 | 91.83 | -88.15 | -6,799.80 | 340.01 | 771.32 | 585.63 | 185.69 | 4.154 | |
| 18,200.00 | 12,112.07 | 18,148.29 | 12,087.10 | 95.58 | 93.18 | -88.15 | -6,899.79 | 340.92 | 771.32 | 582.92 | 188.40 | 4.094 | |
| 18,300.00 | 12,112.77 | 18,248.29 | 12,087.80 | 96.93 | 94.53 | -88.15 | -6,999.78 | 341.83 | 771.32 | 580.22 | 191.11 | 4.036 | |
| 18,400.00 | 12,113.46 | 18,348.29 | 12,088.50 | 98.28 | 95.89 | -88.15 | -7,099.78 | 342.74 | 771.32 | 577.51 | 193.81 | 3.980 | |
| 18,500.00 | 12,114.16 | 18,448.29 | 12,089.20 | 99.63 | 97.24 | -88.15 | -7,199.77 | 343.65 | 771.32 | 574.80 | 196.52 | 3.925 | |
| 18,600.00 | 12,114.86 | 18,548.29 | 12,089.90 | 100.99 | 98.60 | -88.15 | -7,299.76 | 344.55 | 771.33 | 572.09 | 199.23 | 3.871 | |
| 18,700.00 | 12,115.56 | 18,648.29 | 12,090.60 | 102.34 | 99.95 | -88.15 | -7,399.76 | 345.46 | 771.33 | 569.38 | 201.94 | 3.820 | |
| 18,800.00 | 12,116.26 | 18,748.29 | 12,091.30 | 103.70 | 101.31 | -88.15 | -7,499.75 | 346.37 | 771.33 | 566.67 | 204.66 | 3.769 | |
| 18,900.00 | 12,116.95 | 18,848.29 | 12,092.00 | 105.05 | 102.67 | -88.15 | -7,599.75 | 347.28 | 771.33 | 563.96 | 207.37 | 3.720 | |
| 19,000.00 | 12,117.65 | 18,948.29 | 12,092.70 | 106.41 | 104.02 | -88.15 | -7,699.74 | 348.19 | 771.33 | 561.25 | 210.08 | 3.672 | |
| 19,100.00 | 12,118.35 | 19,048.29 | 12,093.40 | 107.76 | 105.38 | -88.15 | -7,799.73 | 349.10 | 771.34 | 558.54 | 212.80 | 3.625 | |
| 19,200.00 | 12,119.05 | 19,148.29 | 12,094.09 | 109.12 | 106.74 | -88.15 | -7,899.73 | 350.01 | 771.34 | 555.83 | 215.51 | 3.579 | |
| 19,300.00 | 12,119.75 | 19,248.29 | 12,094.79 | 110.47 | 108.09 | -88.15 | -7,999.72 | 350.92 | 771.34 | 553.12 | 218.22 | 3.535 | |
| 19,400.00 | 12,120.45 | 19,348.29 | 12,095.49 | 111.83 | 109.45 | -88.15 | -8,099.71 | 351.82 | 771.34 | 550.40 | 220.94 | 3.491 | |
| 19,500.00 | 12,121.14 | 19,448.29 | 12,096.19 | 113.19 | 110.81 | -88.15 | -8,199.71 | 352.73 | 771.34 | 547.69 | 223.66 | 3.449 | |
| 19,600.00 | 12,121.84 | 19,548.29 | 12,096.89 | 114.54 | 112.17 | -88.15 | -8,299.70 | 353.64 | 771.35 | 544.97 | 226.37 | 3.407 | |
| 19,700.00 | 12,122.54 | 19,648.29 | 12,097.59 | 115.90 | 113.53 | -88.15 | -8,399.69 | 354.55 | 771.35 | 542.26 | 229.09 | 3.367 | |
| 19,800.00 | 12,123.24 | 19,748.29 | 12,098.29 | 117.26 | 114.89 | -88.15 | -8,499.69 | 355.46 | 771.35 | 539.54 | 231.81 | 3.328 | |
| 19,900.00 | 12,123.94 | 19,848.29 | 12,098.99 | 118.61 | 116.25 | -88.15 | -8,599.68 | 356.37 | 771.35 | 536.83 | 234.53 | 3.289 | |
| 20,000.00 | 12,124.64 | 19,948.29 | 12,099.69 | 119.97 | 117.61 | -88.15 | -8,699.67 | 357.28 | 771.35 | 534.11 | 237.24 | 3.251 | |
| 20,100.00 | 12,125.33 | 20,048.29 | 12,100.39 | 121.33 | 118.97 | -88.15 | -8,799.67 | 358.19 | 771.35 | 531.39 | 239.96 | 3.214 | |
| 20,200.00 | 12,126.03 | 20,148.29 | 12,101.09 | 122.69 | 120.33 | -88.15 | -8,899.66 | 359.09 | 771.36 | 528.67 | 242.68 | 3.178 | |
| 20,300.00 | 12,126.73 | 20,248.29 | 12,101.78 | 124.05 | 121.69 | -88.15 | -8,999.65 | 360.00 | 771.36 | 525.96 | 245.40 | 3.143 | |
| 20,400.00 | 12,127.43 | 20,348.29 | 12,102.48 | 125.41 | 123.05 | -88.15 | -9,099.65 | 360.91 | 771.36 | 523.24 | 248.12 | 3.109 | |
| 20,500.00 | 12,128.13 | 20,448.29 | 12,103.18 | 126.77 | 124.41 | -88.15 | -9,199.64 | 361.82 | 771.36 | 520.52 | 250.84 | 3.075 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,600.00 | 12,128.83 | 20,548.29 | 12,103.88 | 128.13 | 125.77 | -88.15 | -9,299.63 | 362.73 | 771.36 | 517.80 | 253.56 | 3.042 | |
| 20,700.00 | 12,129.52 | 20,648.29 | 12,104.58 | 129.49 | 127.13 | -88.15 | -9,399.63 | 363.64 | 771.37 | 515.08 | 256.29 | 3.010 | |
| 20,800.00 | 12,130.22 | 20,748.29 | 12,105.28 | 130.85 | 128.49 | -88.15 | -9,499.62 | 364.55 | 771.37 | 512.36 | 259.01 | 2.978 | |
| 20,900.00 | 12,130.92 | 20,848.29 | 12,105.98 | 132.21 | 129.85 | -88.15 | -9,599.61 | 365.46 | 771.37 | 509.64 | 261.73 | 2.947 | |
| 21,000.00 | 12,131.62 | 20,948.29 | 12,106.68 | 133.57 | 131.21 | -88.15 | -9,699.61 | 366.36 | 771.37 | 506.92 | 264.45 | 2.917 | |
| 21,100.00 | 12,132.32 | 21,048.29 | 12,107.38 | 134.93 | 132.57 | -88.15 | -9,799.60 | 367.27 | 771.37 | 504.20 | 267.17 | 2.887 | |
| 21,200.00 | 12,133.01 | 21,148.29 | 12,108.08 | 136.29 | 133.94 | -88.15 | -9,899.59 | 368.18 | 771.38 | 501.48 | 269.90 | 2.858 | |
| 21,300.00 | 12,133.71 | 21,248.29 | 12,108.78 | 137.65 | 135.30 | -88.15 | -9,999.59 | 369.09 | 771.38 | 498.76 | 272.62 | 2.829 | |
| 21,400.00 | 12,134.41 | 21,348.29 | 12,109.48 | 139.01 | 136.66 | -88.15 | -10,099.58 | 370.00 | 771.38 | 496.04 | 275.34 | 2.802 | |
| 21,500.00 | 12,135.11 | 21,448.29 | 12,110.17 | 140.37 | 138.02 | -88.15 | -10,199.57 | 370.91 | 771.38 | 493.31 | 278.07 | 2.774 | |
| 21,600.00 | 12,135.81 | 21,548.29 | 12,110.87 | 141.73 | 139.39 | -88.15 | -10,299.57 | 371.82 | 771.38 | 490.59 | 280.79 | 2.747 | |
| 21,700.00 | 12,136.51 | 21,648.29 | 12,111.57 | 143.09 | 140.75 | -88.15 | -10,399.56 | 372.73 | 771.39 | 487.87 | 283.52 | 2.721 | |
| 21,800.00 | 12,137.20 | 21,748.29 | 12,112.27 | 144.46 | 142.11 | -88.15 | -10,499.55 | 373.63 | 771.39 | 485.15 | 286.24 | 2.695 | |
| 21,900.00 | 12,137.90 | 21,848.29 | 12,112.97 | 145.82 | 143.47 | -88.15 | -10,599.55 | 374.54 | 771.39 | 482.42 | 288.97 | 2.669 | |
| 22,000.00 | 12,138.60 | 21,948.29 | 12,113.67 | 147.18 | 144.84 | -88.15 | -10,699.54 | 375.45 | 771.39 | 479.70 | 291.69 | 2.645 | |
| 22,100.00 | 12,139.30 | 22,048.29 | 12,114.37 | 148.54 | 146.20 | -88.15 | -10,799.53 | 376.36 | 771.39 | 476.98 | 294.42 | 2.620 | |
| 22,200.00 | 12,140.00 | 22,148.29 | 12,115.07 | 149.90 | 147.56 | -88.15 | -10,899.53 | 377.27 | 771.39 | 474.25 | 297.14 | 2.596 | |
| 22,300.00 | 12,140.70 | 22,248.29 | 12,115.77 | 151.27 | 148.93 | -88.15 | -10,999.52 | 378.18 | 771.40 | 471.53 | 299.87 | 2.572 | |
| 22,387.52 | 12,141.31 | 22,335.81 | 12,116.38 | 152.46 | 150.12 | -88.15 | -11,087.03 | 378.97 | 771.40 | 469.15 | 302.25 | 2.552 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 135H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2,200.00 | 2,187.39 | 2,188.48 | 2,182.25 | 6.10 | 6.20 | 32.79 | -944.89 | -2,398.64 | 2,427.51 | 2,415.55 | 11.96 | 202.906 | |
| 2,300.00 | 2,286.02 | 2,285.14 | 2,278.09 | 6.30 | 6.39 | 33.30 | -933.05 | -2,403.00 | 2,413.89 | 2,401.54 | 12.35 | 195.433 | |
| 2,400.00 | 2,384.65 | 2,381.80 | 2,373.92 | 6.50 | 6.58 | 33.81 | -921.22 | -2,407.37 | 2,400.47 | 2,387.73 | 12.74 | 188.417 | |
| 2,500.00 | 2,483.28 | 2,478.46 | 2,469.75 | 6.69 | 6.77 | 34.33 | -909.38 | -2,411.73 | 2,387.25 | 2,374.12 | 13.13 | 181.819 | |
| 2,600.00 | 2,581.91 | 2,575.12 | 2,565.58 | 6.89 | 6.96 | 34.85 | -897.54 | -2,416.10 | 2,374.23 | 2,360.71 | 13.52 | 175.604 | |
| 2,700.00 | 2,680.54 | 2,671.78 | 2,661.42 | 7.10 | 7.14 | 35.38 | -885.70 | -2,420.46 | 2,361.42 | 2,347.50 | 13.91 | 169.742 | |
| 2,800.00 | 2,779.17 | 2,768.44 | 2,757.25 | 7.33 | 7.33 | 35.91 | -873.86 | -2,424.82 | 2,348.81 | 2,334.51 | 14.30 | 164.205 | |
| 2,900.00 | 2,877.80 | 2,865.10 | 2,853.08 | 7.56 | 7.52 | 36.45 | -862.02 | -2,429.19 | 2,336.42 | 2,321.72 | 14.70 | 158.968 | |
| 3,000.00 | 2,976.43 | 2,961.76 | 2,948.91 | 7.79 | 7.71 | 36.99 | -850.18 | -2,433.55 | 2,324.25 | 2,309.16 | 15.09 | 154.009 | |
| 3,100.00 | 3,075.06 | 3,058.42 | 3,044.75 | 8.02 | 7.89 | 37.54 | -838.34 | -2,437.92 | 2,312.30 | 2,296.81 | 15.49 | 149.307 | |
| 3,200.00 | 3,173.69 | 3,155.08 | 3,140.58 | 8.25 | 8.08 | 38.10 | -826.51 | -2,442.28 | 2,300.57 | 2,284.68 | 15.88 | 144.845 | |
| 3,300.00 | 3,272.32 | 3,251.74 | 3,236.41 | 8.48 | 8.27 | 38.66 | -814.67 | -2,446.64 | 2,289.06 | 2,272.78 | 16.28 | 140.606 | |
| 3,400.00 | 3,370.94 | 3,348.40 | 3,332.24 | 8.72 | 8.46 | 39.22 | -802.83 | -2,451.01 | 2,277.79 | 2,261.11 | 16.68 | 136.574 | |
| 3,500.00 | 3,469.57 | 3,445.06 | 3,428.07 | 8.95 | 8.65 | 39.79 | -790.99 | -2,455.37 | 2,266.75 | 2,249.67 | 17.08 | 132.737 | |
| 3,600.00 | 3,568.20 | 3,541.71 | 3,523.91 | 9.19 | 8.83 | 40.37 | -779.15 | -2,459.74 | 2,255.95 | 2,238.47 | 17.48 | 129.081 | |
| 3,700.00 | 3,666.83 | 3,638.37 | 3,619.74 | 9.42 | 9.02 | 40.95 | -767.31 | -2,464.10 | 2,245.39 | 2,227.51 | 17.88 | 125.596 | |
| 3,800.00 | 3,765.46 | 3,735.03 | 3,715.57 | 9.66 | 9.21 | 41.54 | -755.47 | -2,468.46 | 2,235.07 | 2,216.79 | 18.28 | 122.270 | |
| 3,900.00 | 3,864.09 | 3,831.69 | 3,811.40 | 9.89 | 9.39 | 42.13 | -743.64 | -2,472.83 | 2,225.00 | 2,206.32 | 18.68 | 119.094 | |
| 4,000.00 | 3,962.72 | 3,928.35 | 3,907.24 | 10.13 | 9.58 | 42.72 | -731.80 | -2,477.19 | 2,215.18 | 2,196.10 | 19.09 | 116.059 | |
| 4,100.00 | 4,061.35 | 4,025.01 | 4,003.07 | 10.36 | 9.77 | 43.33 | -719.96 | -2,481.56 | 2,205.62 | 2,186.13 | 19.49 | 113.157 | |
| 4,200.00 | 4,159.98 | 4,121.67 | 4,098.90 | 10.60 | 9.96 | 43.93 | -708.12 | -2,485.92 | 2,196.31 | 2,176.41 | 19.90 | 110.380 | |
| 4,300.00 | 4,258.61 | 4,218.33 | 4,194.73 | 10.83 | 10.14 | 44.54 | -696.28 | -2,490.28 | 2,187.27 | 2,166.96 | 20.30 | 107.722 | |
| 4,400.00 | 4,357.24 | 4,314.99 | 4,290.57 | 11.07 | 10.33 | 45.16 | -684.44 | -2,494.65 | 2,178.48 | 2,157.77 | 20.71 | 105.176 | |
| 4,500.00 | 4,455.87 | 4,411.65 | 4,386.40 | 11.31 | 10.52 | 45.78 | -672.60 | -2,499.01 | 2,169.97 | 2,148.85 | 21.12 | 102.736 | |
| 4,600.00 | 4,554.50 | 4,508.31 | 4,482.23 | 11.54 | 10.70 | 46.40 | -660.76 | -2,503.38 | 2,161.72 | 2,140.19 | 21.53 | 100.396 | |
| 4,700.00 | 4,653.13 | 4,604.97 | 4,578.06 | 11.78 | 10.89 | 47.03 | -648.93 | -2,507.74 | 2,153.75 | 2,131.81 | 21.94 | 98.151 | |
| 4,800.00 | 4,751.76 | 4,701.63 | 4,673.90 | 12.02 | 11.08 | 47.67 | -637.09 | -2,512.10 | 2,146.06 | 2,123.70 | 22.36 | 95.988 | |
| 4,900.00 | 4,850.39 | 4,816.81 | 4,788.30 | 12.26 | 11.32 | 48.38 | -624.58 | -2,516.71 | 2,138.23 | 2,115.44 | 22.79 | 93.829 | |
| 5,000.00 | 4,949.01 | 4,933.42 | 4,904.48 | 12.49 | 11.55 | 49.03 | -615.23 | -2,520.16 | 2,129.77 | 2,106.57 | 23.20 | 91.801 | |
| 5,100.00 | 5,047.64 | 5,051.18 | 5,022.06 | 12.73 | 11.76 | 49.59 | -609.16 | -2,522.40 | 2,120.58 | 2,097.00 | 23.59 | 89.906 | |
| 5,200.00 | 5,146.27 | 5,169.87 | 5,140.71 | 12.97 | 11.95 | 50.07 | -606.49 | -2,523.38 | 2,110.60 | 2,086.65 | 23.95 | 88.142 | |
| 5,300.00 | 5,244.90 | 5,274.07 | 5,244.90 | 13.21 | 12.06 | 50.44 | -606.36 | -2,523.43 | 2,100.00 | 2,075.73 | 24.27 | 86.520 | |
| 5,400.00 | 5,343.57 | 5,372.74 | 5,343.57 | 13.41 | 12.14 | 50.73 | -606.36 | -2,523.43 | 2,089.61 | 2,065.05 | 24.56 | 85.085 | |
| 5,500.00 | 5,442.58 | 5,471.74 | 5,442.58 | 13.63 | 12.23 | 50.92 | -606.36 | -2,523.43 | 2,080.67 | 2,055.80 | 24.87 | 83.665 | |
| 5,600.00 | 5,541.92 | 5,571.08 | 5,541.92 | 13.82 | 12.32 | 51.08 | -606.36 | -2,523.43 | 2,073.43 | 2,048.27 | 25.16 | 82.412 | |
| 5,700.00 | 5,641.52 | 5,670.68 | 5,641.52 | 13.98 | 12.41 | 51.20 | -606.36 | -2,523.43 | 2,067.86 | 2,042.43 | 25.43 | 81.318 | |
| 5,800.00 | 5,741.32 | 5,770.49 | 5,741.32 | 14.12 | 12.49 | 51.29 | -606.36 | -2,523.43 | 2,063.94 | 2,038.27 | 25.68 | 80.379 | |
| 5,900.00 | 5,841.25 | 5,870.42 | 5,841.25 | 14.23 | 12.58 | 51.35 | -606.36 | -2,523.43 | 2,061.67 | 2,035.77 | 25.90 | 79.590 | |
| 6,000.00 | 5,941.25 | 5,970.41 | 5,941.25 | 14.28 | 12.67 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.98 | 26.05 | 79.117 | |
| 6,100.00 | 6,041.25 | 6,070.41 | 6,041.25 | 14.32 | 12.75 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.86 | 26.17 | 78.752 | |
| 6,200.00 | 6,141.25 | 6,170.41 | 6,141.25 | 14.35 | 12.84 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.74 | 26.29 | 78.390 | |
| 6,300.00 | 6,241.25 | 6,270.41 | 6,241.25 | 14.39 | 12.93 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.62 | 26.41 | 78.030 | |
| 6,400.00 | 6,341.25 | 6,370.41 | 6,341.25 | 14.42 | 13.02 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.49 | 26.53 | 77.672 | |
| 6,500.00 | 6,441.25 | 6,470.41 | 6,441.25 | 14.46 | 13.10 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.37 | 26.66 | 77.317 | |
| 6,600.00 | 6,541.25 | 6,570.41 | 6,541.25 | 14.49 | 13.19 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.25 | 26.78 | 76.964 | |
| 6,700.00 | 6,641.25 | 6,670.41 | 6,641.25 | 14.53 | 13.28 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.13 | 26.90 | 76.614 | |
| 6,800.00 | 6,741.25 | 6,770.41 | 6,741.25 | 14.56 | 13.36 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,034.01 | 27.02 | 76.266 | |
| 6,900.00 | 6,841.25 | 6,870.41 | 6,841.25 | 14.60 | 13.45 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.88 | 27.15 | 75.920 | |
| 7,000.00 | 6,941.25 | 6,970.41 | 6,941.25 | 14.64 | 13.54 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.76 | 27.27 | 75.576 | |
| 7,100.00 | 7,041.25 | 7,070.41 | 7,041.25 | 14.68 | 13.62 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.64 | 27.39 | 75.235 | |
| 7,200.00 | 7,141.25 | 7,170.41 | 7,141.25 | 14.71 | 13.71 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.51 | 27.52 | 74.896 | |
| 7,300.00 | 7,241.25 | 7,270.41 | 7,241.25 | 14.75 | 13.80 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.39 | 27.64 | 74.559 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 135H - OH - Plan 1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,400.00 | 7,341.25 | 7,370.41 | 7,341.25 | 14.79 | 13.88 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.26 | 27.77 | 74.225 | |
| 7,500.00 | 7,441.25 | 7,470.41 | 7,441.25 | 14.83 | 13.97 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.14 | 27.89 | 73.893 | |
| 7,600.00 | 7,541.25 | 7,570.41 | 7,541.25 | 14.87 | 14.06 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,033.01 | 28.02 | 73.563 | |
| 7,700.00 | 7,641.25 | 7,670.41 | 7,641.25 | 14.91 | 14.14 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.89 | 28.14 | 73.235 | |
| 7,800.00 | 7,741.25 | 7,770.41 | 7,741.25 | 14.95 | 14.23 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.76 | 28.27 | 72.909 | |
| 7,900.00 | 7,841.25 | 7,870.41 | 7,841.25 | 14.99 | 14.32 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.64 | 28.39 | 72.586 | |
| 8,000.00 | 7,941.25 | 7,970.41 | 7,941.25 | 15.03 | 14.40 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.51 | 28.52 | 72.264 | |
| 8,100.00 | 8,041.25 | 8,070.41 | 8,041.25 | 15.07 | 14.49 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.38 | 28.65 | 71.945 | |
| 8,200.00 | 8,141.25 | 8,170.41 | 8,141.25 | 15.11 | 14.57 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.26 | 28.77 | 71.628 | |
| 8,300.00 | 8,241.25 | 8,270.41 | 8,241.25 | 15.15 | 14.66 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.13 | 28.90 | 71.313 | |
| 8,400.00 | 8,341.25 | 8,370.41 | 8,341.25 | 15.20 | 14.75 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,032.00 | 29.03 | 71.000 | |
| 8,500.00 | 8,441.25 | 8,470.41 | 8,441.25 | 15.24 | 14.83 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.87 | 29.16 | 70.689 | |
| 8,600.00 | 8,541.25 | 8,570.41 | 8,541.25 | 15.28 | 14.92 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.75 | 29.28 | 70.380 | |
| 8,700.00 | 8,641.25 | 8,670.41 | 8,641.25 | 15.32 | 15.00 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.62 | 29.41 | 70.073 | |
| 8,800.00 | 8,741.25 | 8,770.41 | 8,741.25 | 15.37 | 15.09 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.49 | 29.54 | 69.768 | |
| 8,900.00 | 8,841.25 | 8,870.41 | 8,841.25 | 15.41 | 15.18 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.36 | 29.67 | 69.466 | |
| 9,000.00 | 8,941.25 | 8,970.41 | 8,941.25 | 15.46 | 15.26 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.23 | 29.80 | 69.165 | |
| 9,100.00 | 9,041.25 | 9,070.41 | 9,041.25 | 15.50 | 15.35 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,031.10 | 29.93 | 68.866 | |
| 9,200.00 | 9,141.25 | 9,170.41 | 9,141.25 | 15.55 | 15.43 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.97 | 30.06 | 68.569 | |
| 9,300.00 | 9,241.25 | 9,270.41 | 9,241.25 | 15.59 | 15.52 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.84 | 30.19 | 68.274 | |
| 9,400.00 | 9,341.25 | 9,370.41 | 9,341.25 | 15.64 | 15.60 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.71 | 30.32 | 67.981 | |
| 9,500.00 | 9,441.25 | 9,470.41 | 9,441.25 | 15.68 | 15.69 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.58 | 30.45 | 67.690 | |
| 9,600.00 | 9,541.25 | 9,570.41 | 9,541.25 | 15.73 | 15.77 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.45 | 30.58 | 67.401 | |
| 9,700.00 | 9,641.25 | 9,670.41 | 9,641.25 | 15.78 | 15.86 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.32 | 30.71 | 67.114 | |
| 9,800.00 | 9,741.25 | 9,770.41 | 9,741.25 | 15.82 | 15.95 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.19 | 30.84 | 66.829 | |
| 9,900.00 | 9,841.25 | 9,870.41 | 9,841.25 | 15.87 | 16.03 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,030.06 | 30.97 | 66.546 | |
| 10,000.00 | 9,941.25 | 9,970.41 | 9,941.25 | 15.92 | 16.12 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.93 | 31.10 | 66.264 | |
| 10,100.00 | 10,041.25 | 10,070.41 | 10,041.25 | 15.96 | 16.20 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.79 | 31.24 | 65.984 | |
| 10,200.00 | 10,141.25 | 10,170.41 | 10,141.25 | 16.01 | 16.29 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.66 | 31.37 | 65.707 | |
| 10,300.00 | 10,241.25 | 10,270.41 | 10,241.25 | 16.06 | 16.37 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.53 | 31.50 | 65.431 | |
| 10,400.00 | 10,341.25 | 10,370.41 | 10,341.25 | 16.11 | 16.46 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.40 | 31.63 | 65.156 | |
| 10,500.00 | 10,441.25 | 10,470.41 | 10,441.25 | 16.16 | 16.54 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.26 | 31.76 | 64.884 | |
| 10,600.00 | 10,541.25 | 10,570.41 | 10,541.25 | 16.21 | 16.63 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.13 | 31.90 | 64.613 | |
| 10,700.00 | 10,641.25 | 10,670.41 | 10,641.25 | 16.26 | 16.71 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,029.00 | 32.03 | 64.345 | |
| 10,800.00 | 10,741.25 | 10,770.41 | 10,741.25 | 16.31 | 16.80 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.86 | 32.16 | 64.078 | |
| 10,900.00 | 10,841.25 | 10,870.41 | 10,841.25 | 16.36 | 16.88 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.73 | 32.30 | 63.812 | |
| 11,000.00 | 10,941.25 | 10,970.41 | 10,941.25 | 16.41 | 16.97 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.60 | 32.43 | 63.549 | |
| 11,100.00 | 11,041.25 | 11,070.41 | 11,041.25 | 16.46 | 17.05 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.46 | 32.57 | 63.287 | |
| 11,200.00 | 11,141.25 | 11,170.41 | 11,141.25 | 16.51 | 17.14 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.33 | 32.70 | 63.027 | |
| 11,300.00 | 11,241.25 | 11,270.41 | 11,241.25 | 16.56 | 17.22 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.19 | 32.84 | 62.768 | |
| 11,400.00 | 11,341.25 | 11,370.41 | 11,341.25 | 16.61 | 17.31 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,028.06 | 32.97 | 62.511 | |
| 11,500.00 | 11,441.25 | 11,470.41 | 11,441.25 | 16.66 | 17.39 | -90.40 | -606.36 | -2,523.43 | 2,061.03 | 2,027.92 | 33.11 | 62.256 | |
| 11,600.00 | 11,541.21 | 11,570.37 | 11,541.21 | 16.71 | 17.47 | 87.90 | -606.36 | -2,523.43 | 2,060.97 | 2,027.76 | 33.22 | 62.049 | |
| 11,700.00 | 11,639.79 | 11,671.54 | 11,642.00 | 16.90 | 17.50 | 88.22 | -613.47 | -2,523.37 | 2,060.39 | 2,027.10 | 33.29 | 61.896 | |
| 11,800.00 | 11,734.09 | 11,774.47 | 11,741.66 | 17.17 | 17.52 | 88.59 | -638.66 | -2,523.15 | 2,059.18 | 2,025.80 | 33.38 | 61.697 | |
| 11,900.00 | 11,821.25 | 11,879.05 | 11,836.64 | 17.53 | 17.52 | 89.01 | -682.06 | -2,522.78 | 2,057.38 | 2,023.86 | 33.51 | 61.390 | |
| 12,000.00 | 11,898.62 | 11,985.18 | 11,923.36 | 18.00 | 17.53 | 89.45 | -742.99 | -2,522.25 | 2,055.03 | 2,021.29 | 33.74 | 60.916 | |
| 12,100.00 | 11,963.85 | 12,092.70 | 11,998.24 | 18.59 | 17.53 | 89.92 | -819.93 | -2,521.59 | 2,052.19 | 2,018.10 | 34.09 | 60.208 | |
| 12,200.00 | 12,014.95 | 12,201.37 | 12,057.99 | 19.33 | 17.53 | 90.39 | -910.50 | -2,520.81 | 2,048.93 | 2,014.33 | 34.60 | 59.209 | |
| 12,300.00 | 12,050.38 | 12,310.89 | 12,099.84 | 20.19 | 17.55 | 90.84 | -1,011.52 | -2,519.94 | 2,045.35 | 2,010.02 | 35.33 | 57.887 | |
| 12,400.00 | 12,069.05 | 12,420.89 | 12,121.79 | 21.14 | 17.58 | 91.26 | -1,119.13 | -2,519.01 | 2,041.55 | 2,005.27 | 36.28 | 56.278 | |
| 12,500.00 | 12,072.27 | 12,525.94 | 12,125.37 | 22.15 | 17.64 | 91.48 | -1,224.07 | -2,518.11 | 2,038.01 | 2,000.59 | 37.42 | 54.458 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 135H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,597.86 | 12,072.95 | 12,623.79 | 12,126.22 | 23.16 | 17.71 | 91.50 | -1,321.91 | -2,517.27 | 2,036.89 | 1,998.18 | 38.71 | 52.621 | CC |
| 12,600.00 | 12,072.97 | 12,625.94 | 12,126.24 | 23.19 | 17.71 | 91.50 | -1,324.06 | -2,517.25 | 2,037.27 | 1,998.53 | 38.74 | 52.590 | |
| 12,700.00 | 12,073.66 | 12,725.94 | 12,127.11 | 24.26 | 17.83 | 91.50 | -1,424.05 | -2,516.39 | 2,037.32 | 1,997.12 | 40.20 | 50.677 | |
| 12,800.00 | 12,074.36 | 12,825.94 | 12,127.98 | 25.36 | 18.01 | 91.51 | -1,524.04 | -2,515.53 | 2,037.37 | 1,995.58 | 41.80 | 48.745 | |
| 12,900.00 | 12,075.06 | 12,925.94 | 12,128.85 | 26.49 | 18.30 | 91.51 | -1,624.04 | -2,514.67 | 2,037.42 | 1,993.91 | 43.51 | 46.827 | |
| 13,000.00 | 12,075.76 | 13,025.94 | 12,129.73 | 27.63 | 18.75 | 91.52 | -1,724.03 | -2,513.81 | 2,037.47 | 1,992.14 | 45.33 | 44.948 | |
| 13,100.00 | 12,076.46 | 13,125.94 | 12,130.60 | 28.80 | 19.35 | 91.52 | -1,824.02 | -2,512.95 | 2,037.52 | 1,990.28 | 47.25 | 43.126 | |
| 13,200.00 | 12,077.15 | 13,225.94 | 12,131.47 | 29.98 | 20.07 | 91.53 | -1,924.01 | -2,512.08 | 2,037.57 | 1,988.33 | 49.24 | 41.376 | |
| 13,300.00 | 12,077.85 | 13,325.94 | 12,132.34 | 31.18 | 20.88 | 91.53 | -2,024.01 | -2,511.22 | 2,037.63 | 1,986.31 | 51.32 | 39.705 | |
| 13,400.00 | 12,078.55 | 13,425.94 | 12,133.21 | 32.39 | 21.76 | 91.54 | -2,124.00 | -2,510.36 | 2,037.68 | 1,984.22 | 53.46 | 38.118 | |
| 13,500.00 | 12,079.25 | 13,525.94 | 12,134.08 | 33.61 | 22.70 | 91.54 | -2,223.99 | -2,509.50 | 2,037.73 | 1,982.07 | 55.65 | 36.614 | |
| 13,600.00 | 12,079.95 | 13,625.94 | 12,134.95 | 34.84 | 23.69 | 91.55 | -2,323.98 | -2,508.64 | 2,037.78 | 1,979.88 | 57.90 | 35.194 | |
| 13,700.00 | 12,080.65 | 13,725.94 | 12,135.83 | 36.08 | 24.72 | 91.55 | -2,423.98 | -2,507.78 | 2,037.83 | 1,977.63 | 60.19 | 33.855 | |
| 13,800.00 | 12,081.34 | 13,825.94 | 12,136.70 | 37.33 | 25.78 | 91.56 | -2,523.97 | -2,506.92 | 2,037.88 | 1,975.35 | 62.52 | 32.594 | |
| 13,900.00 | 12,082.04 | 13,925.94 | 12,137.57 | 38.59 | 26.87 | 91.56 | -2,623.96 | -2,506.06 | 2,037.93 | 1,973.04 | 64.89 | 31.406 | |
| 14,000.00 | 12,082.74 | 14,025.94 | 12,138.44 | 39.86 | 27.98 | 91.57 | -2,723.95 | -2,505.20 | 2,037.98 | 1,970.69 | 67.29 | 30.288 | |
| 14,100.00 | 12,083.44 | 14,125.94 | 12,139.31 | 41.13 | 29.12 | 91.57 | -2,823.94 | -2,504.34 | 2,038.03 | 1,968.32 | 69.71 | 29.236 | |
| 14,200.00 | 12,084.14 | 14,225.94 | 12,140.18 | 42.40 | 30.28 | 91.58 | -2,923.94 | -2,503.48 | 2,038.08 | 1,965.92 | 72.16 | 28.245 | |
| 14,300.00 | 12,084.84 | 14,325.94 | 12,141.05 | 43.69 | 31.45 | 91.58 | -3,023.93 | -2,502.61 | 2,038.13 | 1,963.50 | 74.63 | 27.310 | |
| 14,400.00 | 12,085.53 | 14,425.93 | 12,141.92 | 44.97 | 32.65 | 91.59 | -3,123.92 | -2,501.75 | 2,038.18 | 1,961.06 | 77.12 | 26.429 | |
| 14,500.00 | 12,086.23 | 14,525.93 | 12,142.80 | 46.27 | 33.85 | 91.59 | -3,223.91 | -2,500.89 | 2,038.23 | 1,958.61 | 79.62 | 25.598 | |
| 14,600.00 | 12,086.93 | 14,625.93 | 12,143.67 | 47.56 | 35.07 | 91.60 | -3,323.91 | -2,500.03 | 2,038.28 | 1,956.13 | 82.15 | 24.812 | |
| 14,700.00 | 12,087.63 | 14,725.93 | 12,144.54 | 48.86 | 36.30 | 91.60 | -3,423.90 | -2,499.17 | 2,038.33 | 1,953.65 | 84.69 | 24.070 | |
| 14,800.00 | 12,088.33 | 14,825.93 | 12,145.41 | 50.17 | 37.54 | 91.60 | -3,523.89 | -2,498.31 | 2,038.38 | 1,951.15 | 87.24 | 23.367 | |
| 14,900.00 | 12,089.02 | 14,925.93 | 12,146.28 | 51.47 | 38.78 | 91.61 | -3,623.88 | -2,497.45 | 2,038.43 | 1,948.64 | 89.80 | 22.700 | |
| 15,000.00 | 12,089.72 | 15,025.93 | 12,147.15 | 52.78 | 40.04 | 91.61 | -3,723.88 | -2,496.59 | 2,038.49 | 1,946.12 | 92.37 | 22.069 | |
| 15,100.00 | 12,090.42 | 15,125.93 | 12,148.02 | 54.10 | 41.30 | 91.62 | -3,823.87 | -2,495.73 | 2,038.54 | 1,943.58 | 94.95 | 21.469 | |
| 15,200.00 | 12,091.12 | 15,225.93 | 12,148.89 | 55.41 | 42.57 | 91.62 | -3,923.86 | -2,494.87 | 2,038.59 | 1,941.04 | 97.54 | 20.899 | |
| 15,300.00 | 12,091.82 | 15,325.93 | 12,149.77 | 56.73 | 43.85 | 91.63 | -4,023.85 | -2,494.00 | 2,038.64 | 1,938.49 | 100.14 | 20.357 | |
| 15,400.00 | 12,092.52 | 15,425.93 | 12,150.64 | 58.05 | 45.13 | 91.63 | -4,123.85 | -2,493.14 | 2,038.69 | 1,935.94 | 102.75 | 19.841 | |
| 15,500.00 | 12,093.21 | 15,525.93 | 12,151.51 | 59.37 | 46.41 | 91.64 | -4,223.84 | -2,492.28 | 2,038.74 | 1,933.37 | 105.37 | 19.349 | |
| 15,600.00 | 12,093.91 | 15,625.93 | 12,152.38 | 60.70 | 47.70 | 91.64 | -4,323.83 | -2,491.42 | 2,038.79 | 1,930.80 | 107.99 | 18.880 | |
| 15,700.00 | 12,094.61 | 15,725.93 | 12,153.25 | 62.03 | 49.00 | 91.65 | -4,423.82 | -2,490.56 | 2,038.84 | 1,928.23 | 110.61 | 18.432 | |
| 15,800.00 | 12,095.31 | 15,825.93 | 12,154.12 | 63.35 | 50.30 | 91.65 | -4,523.81 | -2,489.70 | 2,038.89 | 1,925.65 | 113.24 | 18.004 | |
| 15,900.00 | 12,096.01 | 15,925.93 | 12,154.99 | 64.68 | 51.60 | 91.66 | -4,623.81 | -2,488.84 | 2,038.94 | 1,923.06 | 115.88 | 17.595 | |
| 16,000.00 | 12,096.71 | 16,025.93 | 12,155.86 | 66.02 | 52.91 | 91.66 | -4,723.80 | -2,487.98 | 2,038.99 | 1,920.47 | 118.52 | 17.203 | |
| 16,100.00 | 12,097.40 | 16,125.93 | 12,156.74 | 67.35 | 54.22 | 91.67 | -4,823.79 | -2,487.12 | 2,039.04 | 1,917.87 | 121.17 | 16.828 | |
| 16,200.00 | 12,098.10 | 16,225.93 | 12,157.61 | 68.68 | 55.53 | 91.67 | -4,923.78 | -2,486.26 | 2,039.09 | 1,915.27 | 123.82 | 16.468 | |
| 16,300.00 | 12,098.80 | 16,325.93 | 12,158.48 | 70.02 | 56.85 | 91.68 | -5,023.78 | -2,485.40 | 2,039.15 | 1,912.67 | 126.48 | 16.123 | |
| 16,400.00 | 12,099.50 | 16,425.93 | 12,159.35 | 71.36 | 58.16 | 91.68 | -5,123.77 | -2,484.53 | 2,039.20 | 1,910.06 | 129.13 | 15.791 | |
| 16,500.00 | 12,100.20 | 16,525.93 | 12,160.22 | 72.69 | 59.48 | 91.69 | -5,223.76 | -2,483.67 | 2,039.25 | 1,907.45 | 131.79 | 15.473 | |
| 16,600.00 | 12,100.90 | 16,625.93 | 12,161.09 | 74.03 | 60.81 | 91.69 | -5,323.75 | -2,482.81 | 2,039.30 | 1,904.84 | 134.46 | 15.167 | |
| 16,700.00 | 12,101.59 | 16,725.93 | 12,161.96 | 75.37 | 62.13 | 91.70 | -5,423.75 | -2,481.95 | 2,039.35 | 1,902.22 | 137.13 | 14.872 | |
| 16,800.00 | 12,102.29 | 16,825.93 | 12,162.83 | 76.72 | 63.46 | 91.70 | -5,523.74 | -2,481.09 | 2,039.40 | 1,899.60 | 139.80 | 14.588 | |
| 16,900.00 | 12,102.99 | 16,925.93 | 12,163.71 | 78.06 | 64.78 | 91.71 | -5,623.73 | -2,480.23 | 2,039.45 | 1,896.98 | 142.47 | 14.315 | |
| 17,000.00 | 12,103.69 | 17,025.93 | 12,164.58 | 79.40 | 66.11 | 91.71 | -5,723.72 | -2,479.37 | 2,039.50 | 1,894.36 | 145.15 | 14.051 | |
| 17,100.00 | 12,104.39 | 17,125.93 | 12,165.45 | 80.75 | 67.45 | 91.72 | -5,823.71 | -2,478.51 | 2,039.55 | 1,891.73 | 147.82 | 13.797 | |
| 17,200.00 | 12,105.08 | 17,225.93 | 12,166.32 | 82.09 | 68.78 | 91.72 | -5,923.71 | -2,477.65 | 2,039.60 | 1,889.10 | 150.50 | 13.552 | |
| 17,300.00 | 12,105.78 | 17,325.93 | 12,167.19 | 83.44 | 70.11 | 91.73 | -6,023.70 | -2,476.79 | 2,039.65 | 1,886.47 | 153.19 | 13.315 | |
| 17,400.00 | 12,106.48 | 17,425.93 | 12,168.06 | 84.78 | 71.45 | 91.73 | -6,123.69 | -2,475.92 | 2,039.71 | 1,883.84 | 155.87 | 13.086 | |
| 17,500.00 | 12,107.18 | 17,525.93 | 12,168.93 | 86.13 | 72.79 | 91.74 | -6,223.68 | -2,475.06 | 2,039.76 | 1,881.20 | 158.56 | 12.865 | |
| 17,600.00 | 12,107.88 | 17,625.93 | 12,169.80 | 87.48 | 74.12 | 91.74 | -6,323.68 | -2,474.20 | 2,039.81 | 1,878.56 | 161.24 | 12.650 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 135H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17,700.00 | 12,108.58 | 17,725.93 | 12,170.68 | 88.83 | 75.46 | 91.74 | -6,423.67 | -2,473.34 | 2,039.86 | 1,875.93 | 163.93 | 12.443 | |
| 17,800.00 | 12,109.27 | 17,825.93 | 12,171.55 | 90.18 | 76.80 | 91.75 | -6,523.66 | -2,472.48 | 2,039.91 | 1,873.29 | 166.62 | 12.243 | |
| 17,900.00 | 12,109.97 | 17,925.93 | 12,172.42 | 91.52 | 78.14 | 91.75 | -6,623.65 | -2,471.62 | 2,039.96 | 1,870.64 | 169.32 | 12.048 | |
| 18,000.00 | 12,110.67 | 18,025.93 | 12,173.29 | 92.88 | 79.49 | 91.76 | -6,723.65 | -2,470.76 | 2,040.01 | 1,868.00 | 172.01 | 11.860 | |
| 18,100.00 | 12,111.37 | 18,125.93 | 12,174.16 | 94.23 | 80.83 | 91.76 | -6,823.64 | -2,469.90 | 2,040.06 | 1,865.36 | 174.71 | 11.677 | |
| 18,200.00 | 12,112.07 | 18,225.93 | 12,175.03 | 95.58 | 82.17 | 91.77 | -6,923.63 | -2,469.04 | 2,040.11 | 1,862.71 | 177.40 | 11.500 | |
| 18,300.00 | 12,112.77 | 18,325.93 | 12,175.90 | 96.93 | 83.52 | 91.77 | -7,023.62 | -2,468.18 | 2,040.17 | 1,860.06 | 180.10 | 11.328 | |
| 18,400.00 | 12,113.46 | 18,425.93 | 12,176.77 | 98.28 | 84.87 | 91.78 | -7,123.62 | -2,467.32 | 2,040.22 | 1,857.42 | 182.80 | 11.161 | |
| 18,500.00 | 12,114.16 | 18,525.93 | 12,177.65 | 99.63 | 86.21 | 91.78 | -7,223.61 | -2,466.45 | 2,040.27 | 1,854.77 | 185.50 | 10.999 | |
| 18,600.00 | 12,114.86 | 18,625.93 | 12,178.52 | 100.99 | 87.56 | 91.79 | -7,323.60 | -2,465.59 | 2,040.32 | 1,852.12 | 188.20 | 10.841 | |
| 18,700.00 | 12,115.56 | 18,725.93 | 12,179.39 | 102.34 | 88.91 | 91.79 | -7,423.59 | -2,464.73 | 2,040.37 | 1,849.47 | 190.91 | 10.688 | |
| 18,800.00 | 12,116.26 | 18,825.93 | 12,180.26 | 103.70 | 90.26 | 91.80 | -7,523.58 | -2,463.87 | 2,040.42 | 1,846.81 | 193.61 | 10.539 | |
| 18,900.00 | 12,116.95 | 18,925.93 | 12,181.13 | 105.05 | 91.61 | 91.80 | -7,623.58 | -2,463.01 | 2,040.47 | 1,844.16 | 196.31 | 10.394 | |
| 19,000.00 | 12,117.65 | 19,025.93 | 12,182.00 | 106.41 | 92.96 | 91.81 | -7,723.57 | -2,462.15 | 2,040.52 | 1,841.51 | 199.02 | 10.253 | |
| 19,100.00 | 12,118.35 | 19,125.93 | 12,182.87 | 107.76 | 94.31 | 91.81 | -7,823.56 | -2,461.29 | 2,040.58 | 1,838.85 | 201.72 | 10.116 | |
| 19,200.00 | 12,119.05 | 19,225.93 | 12,183.74 | 109.12 | 95.66 | 91.82 | -7,923.55 | -2,460.43 | 2,040.63 | 1,836.20 | 204.43 | 9.982 | |
| 19,300.00 | 12,119.75 | 19,325.93 | 12,184.62 | 110.47 | 97.01 | 91.82 | -8,023.55 | -2,459.57 | 2,040.68 | 1,833.54 | 207.14 | 9.852 | |
| 19,400.00 | 12,120.45 | 19,425.93 | 12,185.49 | 111.83 | 98.36 | 91.83 | -8,123.54 | -2,458.71 | 2,040.73 | 1,830.88 | 209.85 | 9.725 | |
| 19,500.00 | 12,121.14 | 19,525.93 | 12,186.36 | 113.19 | 99.71 | 91.83 | -8,223.53 | -2,457.84 | 2,040.78 | 1,828.22 | 212.56 | 9.601 | |
| 19,600.00 | 12,121.84 | 19,625.93 | 12,187.23 | 114.54 | 101.07 | 91.84 | -8,323.52 | -2,456.98 | 2,040.83 | 1,825.56 | 215.27 | 9.480 | |
| 19,700.00 | 12,122.54 | 19,725.93 | 12,188.10 | 115.90 | 102.42 | 91.84 | -8,423.52 | -2,456.12 | 2,040.88 | 1,822.91 | 217.98 | 9.363 | |
| 19,800.00 | 12,123.24 | 19,825.93 | 12,188.97 | 117.26 | 103.77 | 91.85 | -8,523.51 | -2,455.26 | 2,040.94 | 1,820.25 | 220.69 | 9.248 | |
| 19,900.00 | 12,123.94 | 19,925.93 | 12,189.84 | 118.61 | 105.13 | 91.85 | -8,623.50 | -2,454.40 | 2,040.99 | 1,817.58 | 223.40 | 9.136 | |
| 20,000.00 | 12,124.64 | 20,025.93 | 12,190.71 | 119.97 | 106.48 | 91.86 | -8,723.49 | -2,453.54 | 2,041.04 | 1,814.92 | 226.12 | 9.027 | |
| 20,100.00 | 12,125.33 | 20,125.93 | 12,191.59 | 121.33 | 107.84 | 91.86 | -8,823.49 | -2,452.68 | 2,041.09 | 1,812.26 | 228.83 | 8.920 | |
| 20,200.00 | 12,126.03 | 20,225.93 | 12,192.46 | 122.69 | 109.19 | 91.87 | -8,923.48 | -2,451.82 | 2,041.14 | 1,809.60 | 231.54 | 8.815 | |
| 20,300.00 | 12,126.73 | 20,325.93 | 12,193.33 | 124.05 | 110.55 | 91.87 | -9,023.47 | -2,450.96 | 2,041.19 | 1,806.94 | 234.26 | 8.713 | |
| 20,400.00 | 12,127.43 | 20,425.93 | 12,194.20 | 125.41 | 111.91 | 91.87 | -9,123.46 | -2,450.10 | 2,041.24 | 1,804.27 | 236.97 | 8.614 | |
| 20,500.00 | 12,128.13 | 20,525.93 | 12,195.07 | 126.77 | 113.26 | 91.88 | -9,223.45 | -2,449.24 | 2,041.30 | 1,801.61 | 239.69 | 8.517 | |
| 20,600.00 | 12,128.83 | 20,625.93 | 12,195.94 | 128.13 | 114.62 | 91.88 | -9,323.45 | -2,448.37 | 2,041.35 | 1,798.94 | 242.40 | 8.421 | |
| 20,700.00 | 12,129.52 | 20,725.93 | 12,196.81 | 129.49 | 115.98 | 91.89 | -9,423.44 | -2,447.51 | 2,041.40 | 1,796.28 | 245.12 | 8.328 | |
| 20,800.00 | 12,130.22 | 20,825.92 | 12,197.68 | 130.85 | 117.33 | 91.89 | -9,523.43 | -2,446.65 | 2,041.45 | 1,793.61 | 247.84 | 8.237 | |
| 20,900.00 | 12,130.92 | 20,925.92 | 12,198.56 | 132.21 | 118.69 | 91.90 | -9,623.42 | -2,445.79 | 2,041.50 | 1,790.95 | 250.55 | 8.148 | |
| 21,000.00 | 12,131.62 | 21,025.92 | 12,199.43 | 133.57 | 120.05 | 91.90 | -9,723.42 | -2,444.93 | 2,041.55 | 1,788.28 | 253.27 | 8.061 | |
| 21,100.00 | 12,132.32 | 21,125.92 | 12,200.30 | 134.93 | 121.41 | 91.91 | -9,823.41 | -2,444.07 | 2,041.60 | 1,785.62 | 255.99 | 7.975 | |
| 21,200.00 | 12,133.01 | 21,225.92 | 12,201.17 | 136.29 | 122.77 | 91.91 | -9,923.40 | -2,443.21 | 2,041.66 | 1,782.95 | 258.71 | 7.892 | |
| 21,300.00 | 12,133.71 | 21,325.92 | 12,202.04 | 137.65 | 124.12 | 91.92 | -10,023.39 | -2,442.35 | 2,041.71 | 1,780.28 | 261.43 | 7.810 | |
| 21,400.00 | 12,134.41 | 21,425.92 | 12,202.91 | 139.01 | 125.48 | 91.92 | -10,123.39 | -2,441.49 | 2,041.76 | 1,777.61 | 264.15 | 7.730 | |
| 21,500.00 | 12,135.11 | 21,525.92 | 12,203.78 | 140.37 | 126.84 | 91.93 | -10,223.38 | -2,440.63 | 2,041.81 | 1,774.95 | 266.87 | 7.651 | |
| 21,600.00 | 12,135.81 | 21,625.92 | 12,204.65 | 141.73 | 128.20 | 91.93 | -10,323.37 | -2,439.76 | 2,041.86 | 1,772.28 | 269.59 | 7.574 | |
| 21,700.00 | 12,136.51 | 21,725.92 | 12,205.53 | 143.09 | 129.56 | 91.94 | -10,423.36 | -2,438.90 | 2,041.91 | 1,769.61 | 272.31 | 7.499 | |
| 21,800.00 | 12,137.20 | 21,825.92 | 12,206.40 | 144.46 | 130.92 | 91.94 | -10,523.35 | -2,438.04 | 2,041.97 | 1,766.94 | 275.03 | 7.425 | |
| 21,900.00 | 12,137.90 | 21,925.92 | 12,207.27 | 145.82 | 132.28 | 91.95 | -10,623.35 | -2,437.18 | 2,042.02 | 1,764.27 | 277.75 | 7.352 | |
| 22,000.00 | 12,138.60 | 22,025.92 | 12,208.14 | 147.18 | 133.64 | 91.95 | -10,723.34 | -2,436.32 | 2,042.07 | 1,761.60 | 280.47 | 7.281 | |
| 22,100.00 | 12,139.30 | 22,125.92 | 12,209.01 | 148.54 | 135.00 | 91.96 | -10,823.33 | -2,435.46 | 2,042.12 | 1,758.93 | 283.19 | 7.211 | |
| 22,200.00 | 12,140.00 | 22,225.92 | 12,209.88 | 149.90 | 136.36 | 91.96 | -10,923.32 | -2,434.60 | 2,042.17 | 1,756.26 | 285.91 | 7.143 | |
| 22,300.00 | 12,140.70 | 22,325.92 | 12,210.75 | 151.27 | 137.72 | 91.97 | -11,023.32 | -2,433.74 | 2,042.22 | 1,753.59 | 288.63 | 7.075 | |
| 22,387.52 | 12,141.31 | 22,411.61 | 12,211.50 | 152.46 | 138.89 | 91.97 | -11,109.00 | -2,433.00 | 2,042.27 | 1,751.27 | 291.00 | 7.018 | ES, SF |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,200.00 | 1,198.94 | 1,410.65 | 1,408.33 | 4.24 | 5.02 | 35.74 | -863.77 | -2,273.66 | 2,417.54 | 2,408.35 | 9.19 | 263.167 | |
| 1,300.00 | 1,298.53 | 1,509.28 | 1,506.58 | 4.33 | 5.23 | 34.83 | -861.69 | -2,265.32 | 2,401.56 | 2,392.08 | 9.49 | 253.093 | |
| 1,400.00 | 1,397.89 | 1,607.50 | 1,604.44 | 4.57 | 5.43 | 33.55 | -859.62 | -2,257.01 | 2,383.61 | 2,373.69 | 9.92 | 240.303 | |
| 1,500.00 | 1,496.93 | 1,705.22 | 1,701.78 | 4.81 | 5.64 | 32.86 | -857.56 | -2,248.75 | 2,363.39 | 2,353.05 | 10.35 | 228.429 | |
| 1,600.00 | 1,595.62 | 1,802.42 | 1,798.61 | 4.92 | 5.84 | 32.73 | -855.52 | -2,240.53 | 2,341.19 | 2,330.53 | 10.66 | 219.578 | |
| 1,700.00 | 1,694.25 | 1,899.54 | 1,895.36 | 5.12 | 6.04 | 32.93 | -853.47 | -2,232.32 | 2,318.70 | 2,307.65 | 11.06 | 209.715 | |
| 1,800.00 | 1,792.87 | 1,996.65 | 1,992.10 | 5.31 | 6.23 | 33.13 | -851.43 | -2,224.10 | 2,296.24 | 2,284.79 | 11.45 | 200.535 | |
| 1,900.00 | 1,891.50 | 2,093.77 | 2,088.85 | 5.51 | 6.43 | 33.34 | -849.38 | -2,215.89 | 2,273.81 | 2,261.96 | 11.84 | 191.969 | |
| 2,000.00 | 1,990.13 | 2,190.89 | 2,185.60 | 5.71 | 6.63 | 33.55 | -847.34 | -2,207.67 | 2,251.40 | 2,239.15 | 12.25 | 183.812 | |
| 2,100.00 | 2,088.76 | 2,401.30 | 2,394.69 | 5.90 | 7.10 | 34.01 | -841.71 | -2,185.08 | 2,226.95 | 2,214.07 | 12.87 | 172.995 | |
| 2,200.00 | 2,187.39 | 2,582.49 | 2,573.46 | 6.10 | 7.52 | 34.40 | -834.61 | -2,156.54 | 2,196.87 | 2,183.43 | 13.45 | 163.392 | |
| 2,300.00 | 2,286.02 | 2,842.30 | 2,827.01 | 6.30 | 8.12 | 34.98 | -820.98 | -2,101.77 | 2,161.41 | 2,147.32 | 14.10 | 153.325 | |
| 2,400.00 | 2,384.65 | 2,951.58 | 2,932.59 | 6.50 | 8.33 | 35.22 | -814.17 | -2,074.44 | 2,122.69 | 2,108.20 | 14.49 | 146.517 | |
| 2,500.00 | 2,483.28 | 3,043.47 | 3,021.35 | 6.69 | 8.52 | 35.44 | -808.43 | -2,051.36 | 2,083.93 | 2,069.04 | 14.89 | 139.987 | |
| 2,600.00 | 2,581.91 | 3,135.36 | 3,110.11 | 6.89 | 8.72 | 35.66 | -802.68 | -2,028.28 | 2,045.20 | 2,029.91 | 15.29 | 133.785 | |
| 2,700.00 | 2,680.54 | 3,227.25 | 3,198.87 | 7.10 | 8.92 | 35.90 | -796.94 | -2,005.19 | 2,006.50 | 1,990.81 | 15.69 | 127.888 | |
| 2,800.00 | 2,779.17 | 3,319.15 | 3,287.63 | 7.33 | 9.12 | 36.14 | -791.19 | -1,982.11 | 1,967.82 | 1,951.73 | 16.09 | 122.276 | |
| 2,900.00 | 2,877.80 | 3,411.04 | 3,376.39 | 7.56 | 9.33 | 36.39 | -785.45 | -1,959.03 | 1,929.18 | 1,912.68 | 16.50 | 116.930 | |
| 3,000.00 | 2,976.43 | 3,502.93 | 3,465.15 | 7.79 | 9.55 | 36.65 | -779.70 | -1,935.95 | 1,890.57 | 1,873.67 | 16.91 | 111.834 | |
| 3,100.00 | 3,075.06 | 3,594.82 | 3,553.91 | 8.02 | 9.78 | 36.92 | -773.96 | -1,912.87 | 1,852.00 | 1,834.68 | 17.31 | 106.970 | |
| 3,200.00 | 3,173.69 | 3,686.71 | 3,642.67 | 8.25 | 10.03 | 37.21 | -768.21 | -1,889.79 | 1,813.46 | 1,795.74 | 17.72 | 102.326 | |
| 3,300.00 | 3,272.32 | 3,778.61 | 3,731.44 | 8.48 | 10.30 | 37.50 | -762.47 | -1,866.70 | 1,774.96 | 1,756.83 | 18.13 | 97.887 | |
| 3,400.00 | 3,370.94 | 3,870.50 | 3,820.20 | 8.72 | 10.58 | 37.81 | -756.72 | -1,843.62 | 1,736.51 | 1,717.97 | 18.54 | 93.641 | |
| 3,500.00 | 3,469.57 | 3,962.39 | 3,908.96 | 8.95 | 10.87 | 38.13 | -750.98 | -1,820.54 | 1,698.10 | 1,679.14 | 18.96 | 89.577 | |
| 3,600.00 | 3,568.20 | 4,054.28 | 3,997.72 | 9.19 | 11.15 | 38.47 | -745.23 | -1,797.46 | 1,659.74 | 1,640.37 | 19.37 | 85.675 | |
| 3,700.00 | 3,666.83 | 4,146.18 | 4,086.48 | 9.42 | 11.45 | 38.83 | -739.49 | -1,774.38 | 1,621.43 | 1,601.65 | 19.79 | 81.943 | |
| 3,800.00 | 3,765.46 | 4,238.07 | 4,175.24 | 9.66 | 11.74 | 39.20 | -733.74 | -1,751.30 | 1,583.18 | 1,562.98 | 20.20 | 78.361 | |
| 3,900.00 | 3,864.09 | 4,329.96 | 4,264.00 | 9.89 | 12.03 | 39.58 | -728.00 | -1,728.22 | 1,544.99 | 1,524.37 | 20.62 | 74.923 | |
| 4,000.00 | 3,962.72 | 4,421.85 | 4,352.76 | 10.13 | 12.33 | 39.99 | -722.25 | -1,705.13 | 1,506.86 | 1,485.82 | 21.04 | 71.619 | |
| 4,100.00 | 4,061.35 | 4,513.75 | 4,441.52 | 10.36 | 12.63 | 40.42 | -716.51 | -1,682.05 | 1,468.80 | 1,447.34 | 21.46 | 68.443 | |
| 4,200.00 | 4,159.98 | 4,605.64 | 4,530.28 | 10.60 | 12.93 | 40.87 | -710.76 | -1,658.97 | 1,430.82 | 1,408.94 | 21.88 | 65.389 | |
| 4,300.00 | 4,258.61 | 4,697.53 | 4,619.04 | 10.83 | 13.23 | 41.35 | -705.02 | -1,635.89 | 1,392.92 | 1,370.61 | 22.30 | 62.449 | |
| 4,400.00 | 4,357.24 | 4,789.42 | 4,707.80 | 11.07 | 13.53 | 41.85 | -699.27 | -1,612.81 | 1,355.10 | 1,332.37 | 22.73 | 59.619 | |
| 4,500.00 | 4,455.87 | 4,881.32 | 4,796.56 | 11.31 | 13.84 | 42.38 | -693.53 | -1,589.73 | 1,317.38 | 1,294.23 | 23.16 | 56.893 | |
| 4,600.00 | 4,554.50 | 4,973.21 | 4,885.32 | 11.54 | 14.14 | 42.94 | -687.78 | -1,566.64 | 1,279.77 | 1,256.18 | 23.58 | 54.265 | |
| 4,700.00 | 4,653.13 | 5,065.10 | 4,974.09 | 11.78 | 14.45 | 43.53 | -682.04 | -1,543.56 | 1,242.27 | 1,218.25 | 24.01 | 51.732 | |
| 4,800.00 | 4,751.76 | 5,156.99 | 5,062.85 | 12.02 | 14.75 | 44.16 | -676.29 | -1,520.48 | 1,204.89 | 1,180.44 | 24.45 | 49.289 | |
| 4,900.00 | 4,850.39 | 5,248.89 | 5,151.61 | 12.26 | 15.06 | 44.83 | -670.55 | -1,497.40 | 1,167.65 | 1,142.77 | 24.88 | 46.931 | |
| 5,000.00 | 4,949.01 | 5,340.78 | 5,240.37 | 12.49 | 15.37 | 45.55 | -664.80 | -1,474.32 | 1,130.55 | 1,105.24 | 25.32 | 44.655 | |
| 5,100.00 | 5,047.64 | 5,432.67 | 5,329.13 | 12.73 | 15.68 | 46.31 | -659.06 | -1,451.24 | 1,093.63 | 1,067.87 | 25.76 | 42.458 | |
| 5,200.00 | 5,146.27 | 5,524.56 | 5,417.89 | 12.97 | 15.99 | 47.12 | -653.31 | -1,428.16 | 1,056.88 | 1,030.68 | 26.20 | 40.337 | |
| 5,300.00 | 5,244.90 | 5,616.46 | 5,506.65 | 13.21 | 16.30 | 47.99 | -647.57 | -1,405.07 | 1,020.33 | 993.69 | 26.65 | 38.287 | |
| 5,400.00 | 5,343.57 | 5,708.44 | 5,595.50 | 13.41 | 16.61 | 48.71 | -641.82 | -1,381.97 | 984.17 | 957.10 | 27.07 | 36.355 | |
| 5,500.00 | 5,442.58 | 5,801.20 | 5,685.09 | 13.63 | 16.92 | 49.18 | -636.02 | -1,358.67 | 949.60 | 922.08 | 27.52 | 34.508 | |
| 5,600.00 | 5,541.92 | 5,894.80 | 5,775.51 | 13.82 | 17.24 | 49.61 | -630.17 | -1,335.16 | 916.82 | 888.87 | 27.95 | 32.801 | |
| 5,700.00 | 5,641.52 | 5,975.68 | 5,853.74 | 13.98 | 17.49 | 49.88 | -625.22 | -1,315.28 | 886.37 | 858.00 | 28.38 | 31.234 | |
| 5,800.00 | 5,741.32 | 6,054.00 | 5,929.89 | 14.12 | 17.74 | 50.07 | -620.80 | -1,297.51 | 859.51 | 830.71 | 28.80 | 29.844 | |
| 5,900.00 | 5,841.25 | 6,133.69 | 6,007.74 | 14.23 | 17.97 | 50.20 | -616.68 | -1,280.98 | 836.30 | 807.11 | 29.19 | 28.647 | |
| 6,000.00 | 5,941.25 | 6,214.54 | 6,087.07 | 14.28 | 18.19 | -91.49 | -612.91 | -1,265.83 | 816.77 | 787.28 | 29.50 | 27.690 | |
| 6,100.00 | 6,041.25 | 6,300.00 | 6,171.26 | 14.32 | 18.40 | -91.26 | -609.37 | -1,251.59 | 799.97 | 770.20 | 29.76 | 26.877 | |
| 6,200.00 | 6,141.25 | 6,378.38 | 6,248.75 | 14.35 | 18.57 | -91.06 | -606.52 | -1,240.14 | 785.22 | 755.20 | 30.01 | 26.161 | |
| 6,300.00 | 6,241.25 | 6,461.10 | 6,330.76 | 14.39 | 18.73 | -90.89 | -603.93 | -1,229.73 | 772.58 | 742.33 | 30.25 | 25.539 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,400.00 | 6,341.25 | 6,544.25 | 6,413.42 | 14.42 | 18.88 | -90.73 | -601.76 | -1,221.01 | 762.05 | 731.58 | 30.47 | 25.009 | |
| 6,500.00 | 6,441.25 | 6,627.75 | 6,496.61 | 14.46 | 19.01 | -90.61 | -600.01 | -1,214.01 | 753.64 | 722.96 | 30.68 | 24.568 | |
| 6,600.00 | 6,541.25 | 6,711.53 | 6,580.21 | 14.49 | 19.11 | -90.51 | -598.71 | -1,208.76 | 747.36 | 716.49 | 30.86 | 24.216 | |
| 6,700.00 | 6,641.25 | 6,800.00 | 6,668.60 | 14.53 | 19.21 | -90.44 | -597.81 | -1,205.15 | 743.23 | 712.19 | 31.04 | 23.944 | |
| 6,800.00 | 6,741.25 | 6,879.60 | 6,748.19 | 14.56 | 19.27 | -90.41 | -597.42 | -1,203.60 | 741.20 | 710.04 | 31.17 | 23.781 | |
| 6,859.26 | 6,800.51 | 6,931.92 | 6,800.51 | 14.59 | 19.30 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.78 | 31.22 | 23.734 | |
| 6,900.00 | 6,841.25 | 6,972.66 | 6,841.25 | 14.60 | 19.31 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.75 | 31.25 | 23.711 | |
| 7,000.00 | 6,941.25 | 7,072.66 | 6,941.25 | 14.64 | 19.36 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.67 | 31.33 | 23.649 | |
| 7,100.00 | 7,041.25 | 7,172.66 | 7,041.25 | 14.68 | 19.41 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.58 | 31.42 | 23.584 | |
| 7,200.00 | 7,141.25 | 7,272.66 | 7,141.25 | 14.71 | 19.46 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.49 | 31.51 | 23.520 | |
| 7,300.00 | 7,241.25 | 7,372.66 | 7,241.25 | 14.75 | 19.51 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.41 | 31.59 | 23.455 | |
| 7,400.00 | 7,341.25 | 7,472.66 | 7,341.25 | 14.79 | 19.56 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.32 | 31.68 | 23.390 | |
| 7,500.00 | 7,441.25 | 7,572.66 | 7,441.25 | 14.83 | 19.61 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.23 | 31.77 | 23.325 | |
| 7,600.00 | 7,541.25 | 7,672.66 | 7,541.25 | 14.87 | 19.66 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.14 | 31.86 | 23.260 | |
| 7,700.00 | 7,641.25 | 7,772.66 | 7,641.25 | 14.91 | 19.71 | -90.41 | -597.38 | -1,203.43 | 741.00 | 709.05 | 31.95 | 23.195 | |
| 7,800.00 | 7,741.25 | 7,872.66 | 7,741.25 | 14.95 | 19.76 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.96 | 32.04 | 23.130 | |
| 7,900.00 | 7,841.25 | 7,972.66 | 7,841.25 | 14.99 | 19.81 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.87 | 32.13 | 23.065 | |
| 8,000.00 | 7,941.25 | 8,072.66 | 7,941.25 | 15.03 | 19.87 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.78 | 32.22 | 23.000 | |
| 8,100.00 | 8,041.25 | 8,172.66 | 8,041.25 | 15.07 | 19.92 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.69 | 32.31 | 22.935 | |
| 8,200.00 | 8,141.25 | 8,272.66 | 8,141.25 | 15.11 | 19.97 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.60 | 32.40 | 22.869 | |
| 8,300.00 | 8,241.25 | 8,372.66 | 8,241.25 | 15.15 | 20.02 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.50 | 32.49 | 22.804 | |
| 8,400.00 | 8,341.25 | 8,472.66 | 8,341.25 | 15.20 | 20.07 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.41 | 32.59 | 22.739 | |
| 8,500.00 | 8,441.25 | 8,572.66 | 8,441.25 | 15.24 | 20.13 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.32 | 32.68 | 22.673 | |
| 8,600.00 | 8,541.25 | 8,672.66 | 8,541.25 | 15.28 | 20.18 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.22 | 32.78 | 22.608 | |
| 8,700.00 | 8,641.25 | 8,772.66 | 8,641.25 | 15.32 | 20.23 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.13 | 32.87 | 22.543 | |
| 8,800.00 | 8,741.25 | 8,872.66 | 8,741.25 | 15.37 | 20.28 | -90.41 | -597.38 | -1,203.43 | 741.00 | 708.03 | 32.97 | 22.478 | |
| 8,900.00 | 8,841.25 | 8,972.66 | 8,841.25 | 15.41 | 20.34 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.94 | 33.06 | 22.412 | |
| 9,000.00 | 8,941.25 | 9,072.66 | 8,941.25 | 15.46 | 20.39 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.84 | 33.16 | 22.347 | |
| 9,100.00 | 9,041.25 | 9,172.66 | 9,041.25 | 15.50 | 20.44 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.74 | 33.26 | 22.282 | |
| 9,200.00 | 9,141.25 | 9,272.66 | 9,141.25 | 15.55 | 20.50 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.65 | 33.35 | 22.217 | |
| 9,300.00 | 9,241.25 | 9,372.66 | 9,241.25 | 15.59 | 20.55 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.55 | 33.45 | 22.151 | |
| 9,400.00 | 9,341.25 | 9,472.66 | 9,341.25 | 15.64 | 20.61 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.45 | 33.55 | 22.086 | |
| 9,500.00 | 9,441.25 | 9,572.66 | 9,441.25 | 15.68 | 20.66 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.35 | 33.65 | 22.021 | |
| 9,600.00 | 9,541.25 | 9,672.66 | 9,541.25 | 15.73 | 20.72 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.25 | 33.75 | 21.956 | |
| 9,700.00 | 9,641.25 | 9,772.66 | 9,641.25 | 15.78 | 20.77 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.15 | 33.85 | 21.891 | |
| 9,800.00 | 9,741.25 | 9,872.66 | 9,741.25 | 15.82 | 20.83 | -90.41 | -597.38 | -1,203.43 | 741.00 | 707.05 | 33.95 | 21.826 | |
| 9,900.00 | 9,841.25 | 9,972.66 | 9,841.25 | 15.87 | 20.88 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.95 | 34.05 | 21.762 | |
| 10,000.00 | 9,941.25 | 10,072.66 | 9,941.25 | 15.92 | 20.94 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.85 | 34.15 | 21.697 | |
| 10,100.00 | 10,041.25 | 10,172.66 | 10,041.25 | 15.96 | 20.99 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.74 | 34.25 | 21.632 | |
| 10,200.00 | 10,141.25 | 10,272.66 | 10,141.25 | 16.01 | 21.05 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.64 | 34.36 | 21.568 | |
| 10,300.00 | 10,241.25 | 10,372.66 | 10,241.25 | 16.06 | 21.10 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.54 | 34.46 | 21.503 | |
| 10,400.00 | 10,341.25 | 10,472.66 | 10,341.25 | 16.11 | 21.16 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.44 | 34.56 | 21.439 | |
| 10,500.00 | 10,441.25 | 10,572.66 | 10,441.25 | 16.16 | 21.21 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.33 | 34.67 | 21.374 | |
| 10,600.00 | 10,541.25 | 10,672.66 | 10,541.25 | 16.21 | 21.27 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.23 | 34.77 | 21.310 | |
| 10,700.00 | 10,641.25 | 10,772.66 | 10,641.25 | 16.26 | 21.33 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.12 | 34.88 | 21.246 | |
| 10,800.00 | 10,741.25 | 10,872.66 | 10,741.25 | 16.31 | 21.38 | -90.41 | -597.38 | -1,203.43 | 741.00 | 706.02 | 34.98 | 21.182 | |
| 10,900.00 | 10,841.25 | 10,972.66 | 10,841.25 | 16.36 | 21.44 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.91 | 35.09 | 21.118 | |
| 11,000.00 | 10,941.25 | 11,072.66 | 10,941.25 | 16.41 | 21.50 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.80 | 35.19 | 21.055 | |
| 11,100.00 | 11,041.25 | 11,172.66 | 11,041.25 | 16.46 | 21.55 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.70 | 35.30 | 20.991 | |
| 11,200.00 | 11,141.25 | 11,272.66 | 11,141.25 | 16.51 | 21.61 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.59 | 35.41 | 20.927 | |
| 11,300.00 | 11,241.25 | 11,372.66 | 11,241.25 | 16.56 | 21.67 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.48 | 35.52 | 20.864 | |
| 11,400.00 | 11,341.25 | 11,472.66 | 11,341.25 | 16.61 | 21.73 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.38 | 35.62 | 20.801 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11,500.00 | 11,441.25 | 11,572.66 | 11,441.25 | 16.66 | 21.78 | -90.41 | -597.38 | -1,203.43 | 741.00 | 705.27 | 35.73 | 20.738 | |
| 11,600.00 | 11,541.21 | 11,672.62 | 11,541.21 | 16.71 | 21.84 | 87.97 | -597.38 | -1,203.43 | 740.94 | 705.12 | 35.82 | 20.685 | |
| 11,700.00 | 11,639.79 | 11,773.38 | 11,641.63 | 16.90 | 21.89 | 88.76 | -603.97 | -1,203.37 | 740.41 | 704.47 | 35.94 | 20.604 | |
| 11,800.00 | 11,734.09 | 11,875.96 | 11,741.11 | 17.17 | 21.94 | 89.62 | -628.45 | -1,203.16 | 739.34 | 703.22 | 36.12 | 20.471 | |
| 11,900.00 | 11,821.25 | 11,980.30 | 11,836.17 | 17.53 | 21.98 | 90.50 | -671.11 | -1,202.79 | 737.74 | 701.35 | 36.39 | 20.275 | |
| 12,000.00 | 11,898.62 | 12,086.33 | 11,923.22 | 18.00 | 22.03 | 91.37 | -731.37 | -1,202.28 | 735.64 | 698.86 | 36.78 | 20.003 | |
| 12,100.00 | 11,963.85 | 12,193.89 | 11,998.68 | 18.59 | 22.12 | 92.20 | -807.80 | -1,201.62 | 733.06 | 695.74 | 37.32 | 19.642 | |
| 12,200.00 | 12,014.95 | 12,302.77 | 12,059.17 | 19.33 | 22.27 | 92.97 | -898.13 | -1,200.84 | 730.05 | 691.99 | 38.06 | 19.181 | |
| 12,300.00 | 12,050.38 | 12,412.65 | 12,101.81 | 20.19 | 22.51 | 93.64 | -999.21 | -1,199.97 | 726.67 | 687.65 | 39.02 | 18.623 | |
| 12,400.00 | 12,069.05 | 12,523.16 | 12,124.47 | 21.14 | 22.85 | 94.20 | -1,107.20 | -1,199.04 | 722.98 | 682.79 | 40.19 | 17.990 | |
| 12,500.00 | 12,072.27 | 12,628.79 | 12,128.35 | 22.15 | 23.27 | 94.46 | -1,212.68 | -1,198.13 | 719.48 | 677.97 | 41.51 | 17.332 | |
| 12,597.48 | 12,072.95 | 12,726.25 | 12,129.20 | 23.16 | 23.72 | 94.49 | -1,310.14 | -1,197.29 | 718.37 | 675.46 | 42.90 | 16.744 | CC |
| 12,600.00 | 12,072.97 | 12,728.78 | 12,129.22 | 23.19 | 23.73 | 94.49 | -1,312.67 | -1,197.27 | 718.75 | 675.81 | 42.94 | 16.738 | |
| 12,700.00 | 12,073.66 | 12,828.78 | 12,130.09 | 24.26 | 24.26 | 94.50 | -1,412.66 | -1,196.41 | 718.81 | 674.32 | 44.49 | 16.156 | |
| 12,800.00 | 12,074.36 | 12,928.78 | 12,130.96 | 25.36 | 24.83 | 94.52 | -1,512.66 | -1,195.55 | 718.87 | 672.72 | 46.15 | 15.577 | |
| 12,900.00 | 12,075.06 | 13,028.78 | 12,131.84 | 26.49 | 25.45 | 94.53 | -1,612.65 | -1,194.69 | 718.93 | 671.03 | 47.90 | 15.009 | |
| 13,000.00 | 12,075.76 | 13,128.78 | 12,132.71 | 27.63 | 26.12 | 94.54 | -1,712.64 | -1,193.82 | 718.99 | 669.24 | 49.74 | 14.454 | |
| 13,100.00 | 12,076.46 | 13,228.78 | 12,133.58 | 28.80 | 26.83 | 94.56 | -1,812.63 | -1,192.96 | 719.05 | 667.38 | 51.66 | 13.919 | |
| 13,200.00 | 12,077.15 | 13,328.78 | 12,134.45 | 29.98 | 27.59 | 94.57 | -1,912.62 | -1,192.10 | 719.10 | 665.45 | 53.65 | 13.403 | |
| 13,300.00 | 12,077.85 | 13,428.78 | 12,135.32 | 31.18 | 28.38 | 94.58 | -2,012.62 | -1,191.24 | 719.16 | 663.46 | 55.71 | 12.910 | |
| 13,400.00 | 12,078.55 | 13,528.78 | 12,136.19 | 32.39 | 29.21 | 94.60 | -2,112.61 | -1,190.38 | 719.22 | 661.41 | 57.82 | 12.440 | |
| 13,500.00 | 12,079.25 | 13,628.78 | 12,137.07 | 33.61 | 30.07 | 94.61 | -2,212.60 | -1,189.52 | 719.28 | 659.30 | 59.98 | 11.992 | |
| 13,600.00 | 12,079.95 | 13,728.78 | 12,137.94 | 34.84 | 30.97 | 94.62 | -2,312.59 | -1,188.66 | 719.34 | 657.15 | 62.19 | 11.567 | |
| 13,700.00 | 12,080.65 | 13,828.78 | 12,138.81 | 36.08 | 31.89 | 94.64 | -2,412.59 | -1,187.79 | 719.40 | 654.96 | 64.44 | 11.164 | |
| 13,800.00 | 12,081.34 | 13,928.78 | 12,139.68 | 37.33 | 32.85 | 94.65 | -2,512.58 | -1,186.93 | 719.46 | 652.74 | 66.72 | 10.783 | |
| 13,900.00 | 12,082.04 | 14,028.78 | 12,140.55 | 38.59 | 33.83 | 94.66 | -2,612.57 | -1,186.07 | 719.52 | 650.48 | 69.04 | 10.421 | |
| 14,000.00 | 12,082.74 | 14,128.78 | 12,141.42 | 39.86 | 34.83 | 94.68 | -2,712.56 | -1,185.21 | 719.58 | 648.18 | 71.40 | 10.079 | |
| 14,100.00 | 12,083.44 | 14,228.78 | 12,142.29 | 41.13 | 35.86 | 94.69 | -2,812.56 | -1,184.35 | 719.64 | 645.87 | 73.77 | 9.755 | |
| 14,200.00 | 12,084.14 | 14,328.78 | 12,143.17 | 42.40 | 36.91 | 94.71 | -2,912.55 | -1,183.49 | 719.70 | 643.52 | 76.17 | 9.448 | |
| 14,300.00 | 12,084.84 | 14,428.78 | 12,144.04 | 43.69 | 37.98 | 94.72 | -3,012.54 | -1,182.63 | 719.76 | 641.16 | 78.60 | 9.157 | |
| 14,400.00 | 12,085.53 | 14,528.78 | 12,144.91 | 44.97 | 39.06 | 94.73 | -3,112.53 | -1,181.77 | 719.82 | 638.77 | 81.04 | 8.882 | |
| 14,500.00 | 12,086.23 | 14,628.78 | 12,145.78 | 46.27 | 40.16 | 94.75 | -3,212.52 | -1,180.90 | 719.88 | 636.37 | 83.51 | 8.621 | |
| 14,600.00 | 12,086.93 | 14,728.78 | 12,146.65 | 47.56 | 41.28 | 94.76 | -3,312.52 | -1,180.04 | 719.94 | 633.95 | 85.99 | 8.373 | |
| 14,700.00 | 12,087.63 | 14,828.78 | 12,147.52 | 48.86 | 42.41 | 94.77 | -3,412.51 | -1,179.18 | 720.00 | 631.52 | 88.48 | 8.137 | |
| 14,800.00 | 12,088.33 | 14,928.78 | 12,148.40 | 50.17 | 43.55 | 94.79 | -3,512.50 | -1,178.32 | 720.06 | 629.07 | 90.99 | 7.914 | |
| 14,900.00 | 12,089.02 | 15,028.78 | 12,149.27 | 51.47 | 44.71 | 94.80 | -3,612.49 | -1,177.46 | 720.12 | 626.60 | 93.51 | 7.701 | |
| 15,000.00 | 12,089.72 | 15,128.78 | 12,150.14 | 52.78 | 45.88 | 94.81 | -3,712.49 | -1,176.60 | 720.18 | 624.13 | 96.04 | 7.498 | |
| 15,100.00 | 12,090.42 | 15,228.78 | 12,151.01 | 54.10 | 47.06 | 94.83 | -3,812.48 | -1,175.74 | 720.24 | 621.65 | 98.59 | 7.305 | |
| 15,200.00 | 12,091.12 | 15,328.78 | 12,151.88 | 55.41 | 48.24 | 94.84 | -3,912.47 | -1,174.88 | 720.30 | 619.15 | 101.14 | 7.122 | |
| 15,300.00 | 12,091.82 | 15,428.77 | 12,152.75 | 56.73 | 49.44 | 94.85 | -4,012.46 | -1,174.01 | 720.36 | 616.65 | 103.71 | 6.946 | |
| 15,400.00 | 12,092.52 | 15,528.77 | 12,153.63 | 58.05 | 50.65 | 94.87 | -4,112.46 | -1,173.15 | 720.42 | 614.14 | 106.28 | 6.779 | |
| 15,500.00 | 12,093.21 | 15,628.77 | 12,154.50 | 59.37 | 51.86 | 94.88 | -4,212.45 | -1,172.29 | 720.48 | 611.62 | 108.86 | 6.618 | |
| 15,600.00 | 12,093.91 | 15,728.77 | 12,155.37 | 60.70 | 53.08 | 94.89 | -4,312.44 | -1,171.43 | 720.54 | 609.09 | 111.44 | 6.465 | |
| 15,700.00 | 12,094.61 | 15,828.77 | 12,156.24 | 62.03 | 54.31 | 94.91 | -4,412.43 | -1,170.57 | 720.60 | 606.56 | 114.04 | 6.319 | |
| 15,800.00 | 12,095.31 | 15,928.77 | 12,157.11 | 63.35 | 55.55 | 94.92 | -4,512.43 | -1,169.71 | 720.66 | 604.02 | 116.64 | 6.179 | |
| 15,900.00 | 12,096.01 | 16,028.77 | 12,157.98 | 64.68 | 56.79 | 94.93 | -4,612.42 | -1,168.85 | 720.72 | 601.47 | 119.24 | 6.044 | |
| 16,000.00 | 12,096.71 | 16,128.77 | 12,158.86 | 66.02 | 58.04 | 94.95 | -4,712.41 | -1,167.99 | 720.78 | 598.92 | 121.86 | 5.915 | |
| 16,100.00 | 12,097.40 | 16,228.77 | 12,159.73 | 67.35 | 59.29 | 94.96 | -4,812.40 | -1,167.12 | 720.84 | 596.36 | 124.47 | 5.791 | |
| 16,200.00 | 12,098.10 | 16,328.77 | 12,160.60 | 68.68 | 60.54 | 94.97 | -4,912.39 | -1,166.26 | 720.90 | 593.80 | 127.09 | 5.672 | |
| 16,300.00 | 12,098.80 | 16,428.77 | 12,161.47 | 70.02 | 61.81 | 94.99 | -5,012.39 | -1,165.40 | 720.96 | 591.24 | 129.72 | 5.558 | |
| 16,400.00 | 12,099.50 | 16,528.77 | 12,162.34 | 71.36 | 63.07 | 95.00 | -5,112.38 | -1,164.54 | 721.02 | 588.67 | 132.35 | 5.448 | |
| 16,500.00 | 12,100.20 | 16,628.77 | 12,163.21 | 72.69 | 64.34 | 95.01 | -5,212.37 | -1,163.68 | 721.08 | 586.10 | 134.98 | 5.342 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16,600.00 | 12,100.90 | 16,728.77 | 12,164.09 | 74.03 | 65.62 | 95.03 | -5,312.36 | -1,162.82 | 721.14 | 583.52 | 137.62 | 5.240 | |
| 16,700.00 | 12,101.59 | 16,828.77 | 12,164.96 | 75.37 | 66.90 | 95.04 | -5,412.36 | -1,161.96 | 721.20 | 580.94 | 140.26 | 5.142 | |
| 16,800.00 | 12,102.29 | 16,928.77 | 12,165.83 | 76.72 | 68.18 | 95.05 | -5,512.35 | -1,161.09 | 721.26 | 578.35 | 142.91 | 5.047 | |
| 16,900.00 | 12,102.99 | 17,028.77 | 12,166.70 | 78.06 | 69.46 | 95.07 | -5,612.34 | -1,160.23 | 721.32 | 575.77 | 145.55 | 4.956 | |
| 17,000.00 | 12,103.69 | 17,128.77 | 12,167.57 | 79.40 | 70.75 | 95.08 | -5,712.33 | -1,159.37 | 721.38 | 573.18 | 148.20 | 4.868 | |
| 17,100.00 | 12,104.39 | 17,228.77 | 12,168.44 | 80.75 | 72.04 | 95.09 | -5,812.33 | -1,158.51 | 721.44 | 570.59 | 150.86 | 4.782 | |
| 17,200.00 | 12,105.08 | 17,328.77 | 12,169.32 | 82.09 | 73.34 | 95.11 | -5,912.32 | -1,157.65 | 721.50 | 567.99 | 153.51 | 4.700 | |
| 17,300.00 | 12,105.78 | 17,428.77 | 12,170.19 | 83.44 | 74.63 | 95.12 | -6,012.31 | -1,156.79 | 721.56 | 565.39 | 156.17 | 4.620 | |
| 17,400.00 | 12,106.48 | 17,528.77 | 12,171.06 | 84.78 | 75.93 | 95.13 | -6,112.30 | -1,155.93 | 721.63 | 562.79 | 158.83 | 4.543 | |
| 17,500.00 | 12,107.18 | 17,628.77 | 12,171.93 | 86.13 | 77.24 | 95.15 | -6,212.29 | -1,155.07 | 721.69 | 560.19 | 161.49 | 4.469 | |
| 17,600.00 | 12,107.88 | 17,728.77 | 12,172.80 | 87.48 | 78.54 | 95.16 | -6,312.29 | -1,154.20 | 721.75 | 557.59 | 164.16 | 4.397 | |
| 17,700.00 | 12,108.58 | 17,828.77 | 12,173.67 | 88.83 | 79.85 | 95.17 | -6,412.28 | -1,153.34 | 721.81 | 554.98 | 166.82 | 4.327 | |
| 17,800.00 | 12,109.27 | 17,928.77 | 12,174.54 | 90.18 | 81.16 | 95.19 | -6,512.27 | -1,152.48 | 721.87 | 552.38 | 169.49 | 4.259 | |
| 17,900.00 | 12,109.97 | 18,028.77 | 12,175.42 | 91.52 | 82.47 | 95.20 | -6,612.26 | -1,151.62 | 721.93 | 549.77 | 172.16 | 4.193 | |
| 18,000.00 | 12,110.67 | 18,128.77 | 12,176.29 | 92.88 | 83.78 | 95.21 | -6,712.26 | -1,150.76 | 721.99 | 547.16 | 174.83 | 4.130 | |
| 18,100.00 | 12,111.37 | 18,228.77 | 12,177.16 | 94.23 | 85.09 | 95.23 | -6,812.25 | -1,149.90 | 722.05 | 544.54 | 177.51 | 4.068 | |
| 18,200.00 | 12,112.07 | 18,328.77 | 12,178.03 | 95.58 | 86.41 | 95.24 | -6,912.24 | -1,149.04 | 722.11 | 541.93 | 180.18 | 4.008 | |
| 18,300.00 | 12,112.77 | 18,428.77 | 12,178.90 | 96.93 | 87.73 | 95.25 | -7,012.23 | -1,148.18 | 722.17 | 539.31 | 182.86 | 3.949 | |
| 18,400.00 | 12,113.46 | 18,528.77 | 12,179.77 | 98.28 | 89.04 | 95.27 | -7,112.23 | -1,147.31 | 722.24 | 536.70 | 185.54 | 3.893 | |
| 18,500.00 | 12,114.16 | 18,628.77 | 12,180.65 | 99.63 | 90.37 | 95.28 | -7,212.22 | -1,146.45 | 722.30 | 534.08 | 188.22 | 3.838 | |
| 18,600.00 | 12,114.86 | 18,728.77 | 12,181.52 | 100.99 | 91.69 | 95.30 | -7,312.21 | -1,145.59 | 722.36 | 531.46 | 190.90 | 3.784 | |
| 18,700.00 | 12,115.56 | 18,828.77 | 12,182.39 | 102.34 | 93.01 | 95.31 | -7,412.20 | -1,144.73 | 722.42 | 528.84 | 193.58 | 3.732 | |
| 18,800.00 | 12,116.26 | 18,928.77 | 12,183.26 | 103.70 | 94.34 | 95.32 | -7,512.20 | -1,143.87 | 722.48 | 526.22 | 196.26 | 3.681 | |
| 18,900.00 | 12,116.95 | 19,028.77 | 12,184.13 | 105.05 | 95.66 | 95.34 | -7,612.19 | -1,143.01 | 722.54 | 523.60 | 198.95 | 3.632 | |
| 19,000.00 | 12,117.65 | 19,128.77 | 12,185.00 | 106.41 | 96.99 | 95.35 | -7,712.18 | -1,142.15 | 722.60 | 520.97 | 201.63 | 3.584 | |
| 19,100.00 | 12,118.35 | 19,228.77 | 12,185.88 | 107.76 | 98.32 | 95.36 | -7,812.17 | -1,141.29 | 722.67 | 518.35 | 204.32 | 3.537 | |
| 19,200.00 | 12,119.05 | 19,328.77 | 12,186.75 | 109.12 | 99.65 | 95.38 | -7,912.16 | -1,140.42 | 722.73 | 515.72 | 207.00 | 3.491 | |
| 19,300.00 | 12,119.75 | 19,428.77 | 12,187.62 | 110.47 | 100.98 | 95.39 | -8,012.16 | -1,139.56 | 722.79 | 513.10 | 209.69 | 3.447 | |
| 19,400.00 | 12,120.45 | 19,528.77 | 12,188.49 | 111.83 | 102.31 | 95.40 | -8,112.15 | -1,138.70 | 722.85 | 510.47 | 212.38 | 3.404 | |
| 19,500.00 | 12,121.14 | 19,628.77 | 12,189.36 | 113.19 | 103.64 | 95.42 | -8,212.14 | -1,137.84 | 722.91 | 507.84 | 215.07 | 3.361 | |
| 19,600.00 | 12,121.84 | 19,728.77 | 12,190.23 | 114.54 | 104.98 | 95.43 | -8,312.13 | -1,136.98 | 722.97 | 505.21 | 217.76 | 3.320 | |
| 19,700.00 | 12,122.54 | 19,828.77 | 12,191.11 | 115.90 | 106.31 | 95.44 | -8,412.13 | -1,136.12 | 723.03 | 502.58 | 220.45 | 3.280 | |
| 19,800.00 | 12,123.24 | 19,928.77 | 12,191.98 | 117.26 | 107.65 | 95.46 | -8,512.12 | -1,135.26 | 723.10 | 499.96 | 223.14 | 3.241 | |
| 19,900.00 | 12,123.94 | 20,028.77 | 12,192.85 | 118.61 | 108.98 | 95.47 | -8,612.11 | -1,134.40 | 723.16 | 497.32 | 225.83 | 3.202 | |
| 20,000.00 | 12,124.64 | 20,128.77 | 12,193.72 | 119.97 | 110.32 | 95.48 | -8,712.10 | -1,133.53 | 723.22 | 494.69 | 228.53 | 3.165 | |
| 20,100.00 | 12,125.33 | 20,228.77 | 12,194.59 | 121.33 | 111.66 | 95.50 | -8,812.10 | -1,132.67 | 723.28 | 492.06 | 231.22 | 3.128 | |
| 20,200.00 | 12,126.03 | 20,328.77 | 12,195.46 | 122.69 | 113.00 | 95.51 | -8,912.09 | -1,131.81 | 723.34 | 489.43 | 233.92 | 3.092 | |
| 20,300.00 | 12,126.73 | 20,428.77 | 12,196.34 | 124.05 | 114.34 | 95.52 | -9,012.08 | -1,130.95 | 723.41 | 486.80 | 236.61 | 3.057 | |
| 20,400.00 | 12,127.43 | 20,528.77 | 12,197.21 | 125.41 | 115.68 | 95.54 | -9,112.07 | -1,130.09 | 723.47 | 484.16 | 239.31 | 3.023 | |
| 20,500.00 | 12,128.13 | 20,628.77 | 12,198.08 | 126.77 | 117.02 | 95.55 | -9,212.06 | -1,129.23 | 723.53 | 481.53 | 242.00 | 2.990 | |
| 20,600.00 | 12,128.83 | 20,728.77 | 12,198.95 | 128.13 | 118.36 | 95.56 | -9,312.06 | -1,128.37 | 723.59 | 478.89 | 244.70 | 2.957 | |
| 20,700.00 | 12,129.52 | 20,828.77 | 12,199.82 | 129.49 | 119.70 | 95.58 | -9,412.05 | -1,127.50 | 723.65 | 476.26 | 247.39 | 2.925 | |
| 20,800.00 | 12,130.22 | 20,928.77 | 12,200.69 | 130.85 | 121.04 | 95.59 | -9,512.04 | -1,126.64 | 723.72 | 473.62 | 250.09 | 2.894 | |
| 20,900.00 | 12,130.92 | 21,028.77 | 12,201.56 | 132.21 | 122.39 | 95.60 | -9,612.03 | -1,125.78 | 723.78 | 470.99 | 252.79 | 2.863 | |
| 21,000.00 | 12,131.62 | 21,128.77 | 12,202.44 | 133.57 | 123.73 | 95.62 | -9,712.03 | -1,124.92 | 723.84 | 468.35 | 255.49 | 2.833 | |
| 21,100.00 | 12,132.32 | 21,228.77 | 12,203.31 | 134.93 | 125.07 | 95.63 | -9,812.02 | -1,124.06 | 723.90 | 465.72 | 258.19 | 2.804 | |
| 21,200.00 | 12,133.01 | 21,328.77 | 12,204.18 | 136.29 | 126.42 | 95.64 | -9,912.01 | -1,123.20 | 723.97 | 463.08 | 260.89 | 2.775 | |
| 21,300.00 | 12,133.71 | 21,428.77 | 12,205.05 | 137.65 | 127.76 | 95.65 | -10,012.00 | -1,122.34 | 724.03 | 460.44 | 263.59 | 2.747 | |
| 21,400.00 | 12,134.41 | 21,528.77 | 12,205.92 | 139.01 | 129.11 | 95.67 | -10,112.00 | -1,121.48 | 724.09 | 457.80 | 266.29 | 2.719 | |
| 21,500.00 | 12,135.11 | 21,628.77 | 12,206.79 | 140.37 | 130.46 | 95.68 | -10,211.99 | -1,120.61 | 724.15 | 455.17 | 268.99 | 2.692 | |
| 21,600.00 | 12,135.81 | 21,728.76 | 12,207.67 | 141.73 | 131.80 | 95.69 | -10,311.98 | -1,119.75 | 724.22 | 452.53 | 271.69 | 2.666 | |
| 21,700.00 | 12,136.51 | 21,828.76 | 12,208.54 | 143.09 | 133.15 | 95.71 | -10,411.97 | -1,118.89 | 724.28 | 449.89 | 274.39 | 2.640 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21,800.00 | 12,137.20 | 21,928.76 | 12,209.41 | 144.46 | 134.50 | 95.72 | -10,511.97 | -1,118.03 | 724.34 | 447.25 | 277.09 | 2.614 | |
| 21,900.00 | 12,137.90 | 22,028.76 | 12,210.28 | 145.82 | 135.85 | 95.73 | -10,611.96 | -1,117.17 | 724.40 | 444.61 | 279.79 | 2.589 | |
| 22,000.00 | 12,138.60 | 22,128.76 | 12,211.15 | 147.18 | 137.20 | 95.75 | -10,711.95 | -1,116.31 | 724.47 | 441.97 | 282.49 | 2.565 | |
| 22,100.00 | 12,139.30 | 22,228.76 | 12,212.02 | 148.54 | 138.55 | 95.76 | -10,811.94 | -1,115.45 | 724.53 | 439.33 | 285.19 | 2.540 | |
| 22,200.00 | 12,140.00 | 22,328.76 | 12,212.90 | 149.90 | 139.90 | 95.77 | -10,911.93 | -1,114.59 | 724.59 | 436.69 | 287.90 | 2.517 | |
| 22,300.00 | 12,140.70 | 22,428.76 | 12,213.77 | 151.27 | 141.25 | 95.79 | -11,011.93 | -1,113.72 | 724.65 | 434.05 | 290.60 | 2.494 | |
| 22,301.56 | 12,140.71 | 22,430.33 | 12,213.78 | 151.29 | 141.27 | 95.79 | -11,013.49 | -1,113.71 | 724.65 | 434.01 | 290.64 | 2.493 | |
| 22,387.52 | 12,141.31 | 22,512.84 | 12,214.50 | 152.46 | 142.38 | 95.80 | -11,096.00 | -1,113.00 | 724.72 | 431.84 | 292.87 | 2.474 | ES, SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.50 | 0.50 | 180.00 | -185.00 | 0.00 | 185.00 | | | | |
| 100.00 | 100.00 | 99.00 | 100.00 | 0.98 | 0.97 | 180.00 | -185.00 | 0.00 | 185.00 | 183.05 | 1.95 | 94.633 | |
| 200.00 | 200.00 | 199.00 | 200.00 | 1.56 | 1.56 | 180.00 | -185.00 | 0.00 | 185.00 | 181.88 | 3.12 | 59.366 | |
| 300.00 | 300.00 | 299.00 | 300.00 | 1.98 | 1.98 | 180.00 | -185.00 | 0.00 | 185.00 | 181.04 | 3.96 | 46.740 | |
| 400.00 | 400.00 | 399.00 | 400.00 | 2.33 | 2.33 | 180.00 | -185.00 | 0.00 | 185.00 | 180.34 | 4.66 | 39.739 | |
| 500.00 | 500.00 | 499.00 | 500.00 | 2.63 | 2.63 | 180.00 | -185.00 | 0.00 | 185.00 | 179.73 | 5.27 | 35.131 | |
| 600.00 | 600.00 | 599.00 | 600.00 | 2.91 | 2.91 | 180.00 | -185.00 | 0.00 | 185.00 | 179.18 | 5.82 | 31.801 | |
| 604.69 | 604.69 | 603.69 | 604.69 | 2.92 | 2.91 | 180.00 | -185.00 | 0.00 | 185.00 | 179.16 | 5.84 | 31.699 | CC |
| 700.00 | 700.00 | 697.52 | 698.52 | 3.16 | 3.02 | 179.93 | -185.19 | 0.23 | 185.20 | 179.01 | 6.18 | 29.962 | |
| 800.00 | 799.99 | 794.43 | 795.39 | 3.45 | 3.30 | -35.07 | -186.75 | 2.09 | 185.75 | 179.07 | 6.69 | 27.783 | |
| 900.00 | 899.91 | 891.11 | 891.95 | 3.70 | 3.56 | -36.88 | -189.89 | 5.83 | 185.94 | 178.78 | 7.15 | 25.992 | |
| 1,000.00 | 999.69 | 987.53 | 988.09 | 3.95 | 3.75 | -39.69 | -194.58 | 11.41 | 186.08 | 178.53 | 7.55 | 24.658 | |
| 1,077.08 | 1,076.51 | 1,064.11 | 1,064.38 | 4.02 | 3.89 | -42.36 | -198.87 | 16.53 | 186.24 | 178.48 | 7.75 | 24.016 | |
| 1,100.00 | 1,099.32 | 1,086.86 | 1,087.04 | 4.05 | 3.94 | -43.23 | -200.14 | 18.05 | 186.08 | 178.26 | 7.82 | 23.787 | ES |
| 1,200.00 | 1,198.94 | 1,186.17 | 1,185.98 | 4.24 | 4.14 | -46.79 | -205.71 | 24.68 | 186.70 | 178.48 | 8.21 | 22.729 | |
| 1,300.00 | 1,298.53 | 1,285.46 | 1,284.89 | 4.33 | 4.34 | -51.45 | -211.27 | 31.31 | 187.88 | 179.38 | 8.50 | 22.104 | |
| 1,400.00 | 1,397.89 | 1,384.51 | 1,383.56 | 4.57 | 4.54 | -57.10 | -216.82 | 37.92 | 188.75 | 179.85 | 8.90 | 21.200 | |
| 1,500.00 | 1,496.93 | 1,480.78 | 1,479.40 | 4.81 | 4.75 | -62.93 | -222.39 | 45.14 | 190.14 | 180.84 | 9.30 | 20.445 | |
| 1,600.00 | 1,595.62 | 1,575.45 | 1,573.41 | 4.92 | 4.96 | -69.08 | -228.38 | 54.49 | 193.96 | 184.36 | 9.60 | 20.197 | |
| 1,700.00 | 1,694.25 | 1,669.15 | 1,666.17 | 5.12 | 5.18 | -75.04 | -234.82 | 65.99 | 201.67 | 191.67 | 10.01 | 20.157 | |
| 1,800.00 | 1,792.87 | 1,761.83 | 1,757.60 | 5.31 | 5.39 | -80.81 | -241.67 | 79.54 | 213.63 | 203.22 | 10.41 | 20.528 | |
| 1,900.00 | 1,891.50 | 1,853.42 | 1,847.57 | 5.51 | 5.60 | -86.18 | -248.92 | 95.05 | 229.83 | 219.03 | 10.80 | 21.272 | |
| 2,000.00 | 1,990.13 | 1,943.82 | 1,935.96 | 5.71 | 5.77 | -90.99 | -256.54 | 112.43 | 250.12 | 238.96 | 11.16 | 22.418 | |
| 2,100.00 | 2,088.76 | 2,038.05 | 2,027.78 | 5.90 | 5.92 | -95.38 | -264.78 | 131.93 | 273.48 | 261.97 | 11.51 | 23.758 | |
| 2,200.00 | 2,187.39 | 2,133.17 | 2,120.47 | 6.10 | 6.11 | -99.13 | -273.11 | 151.63 | 298.23 | 286.32 | 11.92 | 25.023 | |
| 2,300.00 | 2,286.02 | 2,228.29 | 2,213.15 | 6.30 | 6.30 | -102.31 | -281.43 | 171.34 | 324.03 | 311.71 | 12.33 | 26.284 | |
| 2,400.00 | 2,384.65 | 2,323.41 | 2,305.83 | 6.50 | 6.50 | -105.02 | -289.76 | 191.05 | 350.65 | 337.91 | 12.74 | 27.522 | |
| 2,500.00 | 2,483.28 | 2,418.54 | 2,398.52 | 6.69 | 6.69 | -107.36 | -298.09 | 210.75 | 377.92 | 364.76 | 13.15 | 28.729 | |
| 2,600.00 | 2,581.91 | 2,513.66 | 2,491.20 | 6.89 | 6.94 | -109.38 | -306.42 | 230.46 | 405.69 | 392.12 | 13.58 | 29.881 | |
| 2,700.00 | 2,680.54 | 2,608.78 | 2,583.89 | 7.10 | 7.19 | -111.15 | -314.74 | 250.17 | 433.89 | 419.89 | 14.00 | 30.997 | |
| 2,800.00 | 2,779.17 | 2,703.90 | 2,676.57 | 7.33 | 7.46 | -112.71 | -323.07 | 269.87 | 462.42 | 448.00 | 14.42 | 32.065 | |
| 2,900.00 | 2,877.80 | 2,799.02 | 2,769.25 | 7.56 | 7.72 | -114.08 | -331.40 | 289.58 | 491.23 | 476.39 | 14.85 | 33.086 | |
| 3,000.00 | 2,976.43 | 2,894.14 | 2,861.94 | 7.79 | 7.99 | -115.31 | -339.72 | 309.28 | 520.28 | 505.01 | 15.28 | 34.060 | |
| 3,100.00 | 3,075.06 | 2,989.26 | 2,954.62 | 8.02 | 8.26 | -116.40 | -348.05 | 328.99 | 549.53 | 533.82 | 15.71 | 34.989 | |
| 3,200.00 | 3,173.69 | 3,084.38 | 3,047.31 | 8.25 | 8.54 | -117.39 | -356.38 | 348.70 | 578.94 | 562.80 | 16.14 | 35.874 | |
| 3,300.00 | 3,272.32 | 3,179.50 | 3,139.99 | 8.48 | 8.81 | -118.28 | -364.71 | 368.40 | 608.49 | 591.92 | 16.57 | 36.718 | |
| 3,400.00 | 3,370.94 | 3,274.63 | 3,232.67 | 8.72 | 9.09 | -119.09 | -373.03 | 388.11 | 638.17 | 621.16 | 17.01 | 37.523 | |
| 3,500.00 | 3,469.57 | 3,369.75 | 3,325.36 | 8.95 | 9.37 | -119.83 | -381.36 | 407.81 | 667.95 | 650.51 | 17.44 | 38.290 | |
| 3,600.00 | 3,568.20 | 3,464.87 | 3,418.04 | 9.19 | 9.65 | -120.50 | -389.69 | 427.52 | 697.83 | 679.95 | 17.88 | 39.021 | |
| 3,700.00 | 3,666.83 | 3,559.99 | 3,510.73 | 9.42 | 9.93 | -121.12 | -398.01 | 447.23 | 727.79 | 709.47 | 18.32 | 39.719 | |
| 3,800.00 | 3,765.46 | 3,655.11 | 3,603.41 | 9.66 | 10.21 | -121.70 | -406.34 | 466.93 | 757.82 | 739.06 | 18.76 | 40.385 | |
| 3,900.00 | 3,864.09 | 3,750.23 | 3,696.10 | 9.89 | 10.49 | -122.22 | -414.67 | 486.64 | 787.92 | 768.71 | 19.21 | 41.021 | |
| 4,000.00 | 3,962.72 | 3,845.35 | 3,788.78 | 10.13 | 10.77 | -122.71 | -423.00 | 506.35 | 818.07 | 798.42 | 19.65 | 41.630 | |
| 4,100.00 | 4,061.35 | 3,940.47 | 3,881.46 | 10.36 | 11.06 | -123.17 | -431.32 | 526.05 | 848.27 | 828.17 | 20.10 | 42.211 | |
| 4,200.00 | 4,159.98 | 4,035.59 | 3,974.15 | 10.60 | 11.35 | -123.59 | -439.65 | 545.76 | 878.52 | 857.97 | 20.54 | 42.768 | |
| 4,300.00 | 4,258.61 | 4,130.72 | 4,066.83 | 10.83 | 11.63 | -123.98 | -447.98 | 565.46 | 908.80 | 887.81 | 20.99 | 43.300 | |
| 4,400.00 | 4,357.24 | 4,225.84 | 4,159.52 | 11.07 | 11.92 | -124.35 | -456.30 | 585.17 | 939.13 | 917.69 | 21.44 | 43.811 | |
| 4,500.00 | 4,455.87 | 4,320.96 | 4,252.20 | 11.31 | 12.21 | -124.70 | -464.63 | 604.88 | 969.49 | 947.60 | 21.88 | 44.300 | |
| 4,600.00 | 4,554.50 | 4,416.08 | 4,344.88 | 11.54 | 12.49 | -125.03 | -472.96 | 624.58 | 999.87 | 977.54 | 22.33 | 44.769 | |
| 4,700.00 | 4,653.13 | 4,511.20 | 4,437.57 | 11.78 | 12.78 | -125.33 | -481.29 | 644.29 | 1,030.29 | 1,007.51 | 22.78 | 45.220 | |
| 4,800.00 | 4,751.76 | 4,606.32 | 4,530.25 | 12.02 | 13.07 | -125.62 | -489.61 | 663.99 | 1,060.73 | 1,037.50 | 23.23 | 45.653 | |
| 4,900.00 | 4,850.39 | 4,701.44 | 4,622.94 | 12.26 | 13.36 | -125.90 | -497.94 | 683.70 | 1,091.20 | 1,067.51 | 23.69 | 46.068 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,000.00 | 4,949.01 | 4,796.56 | 4,715.62 | 12.49 | 13.65 | -126.15 | -506.27 | 703.41 | 1,121.68 | 1,097.54 | 24.14 | 46.468 | |
| 5,100.00 | 5,047.64 | 4,891.68 | 4,808.31 | 12.73 | 13.94 | -126.40 | -514.60 | 723.11 | 1,152.19 | 1,127.60 | 24.59 | 46.853 | |
| 5,200.00 | 5,146.27 | 4,986.81 | 4,900.99 | 12.97 | 14.23 | -126.63 | -522.92 | 742.82 | 1,182.71 | 1,157.67 | 25.05 | 47.223 | |
| 5,300.00 | 5,244.90 | 5,081.93 | 4,993.67 | 13.21 | 14.52 | -126.85 | -531.25 | 762.53 | 1,213.25 | 1,187.75 | 25.50 | 47.580 | |
| 5,400.00 | 5,343.57 | 5,177.10 | 5,086.41 | 13.41 | 14.82 | -127.22 | -539.58 | 782.24 | 1,243.66 | 1,217.74 | 25.92 | 47.976 | |
| 5,500.00 | 5,442.58 | 5,291.15 | 5,197.64 | 13.63 | 15.14 | -127.71 | -549.39 | 805.44 | 1,272.49 | 1,246.07 | 26.42 | 48.156 | |
| 5,600.00 | 5,541.92 | 5,431.39 | 5,335.28 | 13.82 | 15.52 | -128.10 | -559.84 | 830.19 | 1,297.08 | 1,270.05 | 27.03 | 47.987 | |
| 5,700.00 | 5,641.52 | 5,574.34 | 5,476.49 | 13.98 | 15.85 | -128.39 | -568.47 | 850.60 | 1,316.77 | 1,289.18 | 27.59 | 47.733 | |
| 5,800.00 | 5,741.32 | 5,719.43 | 5,620.56 | 14.12 | 16.13 | -128.58 | -575.11 | 866.33 | 1,331.45 | 1,303.37 | 28.08 | 47.413 | |
| 5,900.00 | 5,841.25 | 5,866.05 | 5,766.71 | 14.23 | 16.35 | -128.67 | -579.66 | 877.09 | 1,341.03 | 1,312.52 | 28.51 | 47.039 | |
| 6,000.00 | 5,941.25 | 6,013.59 | 5,914.11 | 14.28 | 16.51 | 89.57 | -582.03 | 882.70 | 1,345.46 | 1,316.67 | 28.80 | 46.724 | |
| 6,100.00 | 6,041.25 | 6,140.73 | 6,041.25 | 14.32 | 16.59 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,317.13 | 28.91 | 46.563 | |
| 6,200.00 | 6,141.25 | 6,240.73 | 6,141.25 | 14.35 | 16.63 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,317.05 | 28.98 | 46.443 | |
| 6,300.00 | 6,241.25 | 6,340.73 | 6,241.25 | 14.39 | 16.68 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.98 | 29.06 | 46.323 | |
| 6,400.00 | 6,341.25 | 6,440.73 | 6,341.25 | 14.42 | 16.72 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.90 | 29.13 | 46.203 | |
| 6,500.00 | 6,441.25 | 6,540.73 | 6,441.25 | 14.46 | 16.76 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.83 | 29.21 | 46.082 | |
| 6,600.00 | 6,541.25 | 6,640.73 | 6,541.25 | 14.49 | 16.81 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.75 | 29.29 | 45.961 | |
| 6,700.00 | 6,641.25 | 6,740.73 | 6,641.25 | 14.53 | 16.85 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.67 | 29.36 | 45.839 | |
| 6,800.00 | 6,741.25 | 6,840.73 | 6,741.25 | 14.56 | 16.89 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.59 | 29.44 | 45.716 | |
| 6,900.00 | 6,841.25 | 6,940.73 | 6,841.25 | 14.60 | 16.94 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.51 | 29.52 | 45.593 | |
| 7,000.00 | 6,941.25 | 7,040.73 | 6,941.25 | 14.64 | 16.98 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.43 | 29.60 | 45.470 | |
| 7,100.00 | 7,041.25 | 7,140.73 | 7,041.25 | 14.68 | 17.03 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.35 | 29.68 | 45.347 | |
| 7,200.00 | 7,141.25 | 7,240.73 | 7,141.25 | 14.71 | 17.07 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.27 | 29.76 | 45.223 | |
| 7,300.00 | 7,241.25 | 7,340.73 | 7,241.25 | 14.75 | 17.12 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.19 | 29.85 | 45.099 | |
| 7,400.00 | 7,341.25 | 7,440.73 | 7,341.25 | 14.79 | 17.16 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.11 | 29.93 | 44.974 | |
| 7,500.00 | 7,441.25 | 7,540.73 | 7,441.25 | 14.83 | 17.21 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,316.02 | 30.01 | 44.849 | |
| 7,600.00 | 7,541.25 | 7,640.73 | 7,541.25 | 14.87 | 17.26 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.94 | 30.10 | 44.724 | |
| 7,700.00 | 7,641.25 | 7,740.73 | 7,641.25 | 14.91 | 17.30 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.85 | 30.18 | 44.599 | |
| 7,800.00 | 7,741.25 | 7,840.73 | 7,741.25 | 14.95 | 17.35 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.77 | 30.27 | 44.473 | |
| 7,900.00 | 7,841.25 | 7,940.73 | 7,841.25 | 14.99 | 17.40 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.68 | 30.35 | 44.347 | |
| 8,000.00 | 7,941.25 | 8,040.73 | 7,941.25 | 15.03 | 17.44 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.60 | 30.44 | 44.221 | |
| 8,100.00 | 8,041.25 | 8,140.73 | 8,041.25 | 15.07 | 17.49 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.51 | 30.53 | 44.095 | |
| 8,200.00 | 8,141.25 | 8,240.73 | 8,141.25 | 15.11 | 17.54 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.42 | 30.61 | 43.968 | |
| 8,300.00 | 8,241.25 | 8,340.73 | 8,241.25 | 15.15 | 17.59 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.33 | 30.70 | 43.842 | |
| 8,400.00 | 8,341.25 | 8,440.73 | 8,341.25 | 15.20 | 17.64 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.24 | 30.79 | 43.715 | |
| 8,500.00 | 8,441.25 | 8,540.73 | 8,441.25 | 15.24 | 17.68 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.15 | 30.88 | 43.588 | |
| 8,600.00 | 8,541.25 | 8,640.73 | 8,541.25 | 15.28 | 17.73 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,315.06 | 30.97 | 43.461 | |
| 8,700.00 | 8,641.25 | 8,740.73 | 8,641.25 | 15.32 | 17.78 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.97 | 31.06 | 43.334 | |
| 8,800.00 | 8,741.25 | 8,840.73 | 8,741.25 | 15.37 | 17.83 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.88 | 31.15 | 43.207 | |
| 8,900.00 | 8,841.25 | 8,940.73 | 8,841.25 | 15.41 | 17.88 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.79 | 31.25 | 43.080 | |
| 9,000.00 | 8,941.25 | 9,040.73 | 8,941.25 | 15.46 | 17.93 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.70 | 31.34 | 42.952 | |
| 9,100.00 | 9,041.25 | 9,140.73 | 9,041.25 | 15.50 | 17.98 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.60 | 31.43 | 42.825 | |
| 9,200.00 | 9,141.25 | 9,240.73 | 9,141.25 | 15.55 | 18.03 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.51 | 31.52 | 42.698 | |
| 9,300.00 | 9,241.25 | 9,340.73 | 9,241.25 | 15.59 | 18.08 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.42 | 31.62 | 42.570 | |
| 9,400.00 | 9,341.25 | 9,440.73 | 9,341.25 | 15.64 | 18.13 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.32 | 31.71 | 42.443 | |
| 9,500.00 | 9,441.25 | 9,540.73 | 9,441.25 | 15.68 | 18.18 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.23 | 31.81 | 42.316 | |
| 9,600.00 | 9,541.25 | 9,640.73 | 9,541.25 | 15.73 | 18.24 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.13 | 31.91 | 42.189 | |
| 9,700.00 | 9,641.25 | 9,740.73 | 9,641.25 | 15.78 | 18.29 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,314.03 | 32.00 | 42.061 | |
| 9,800.00 | 9,741.25 | 9,840.73 | 9,741.25 | 15.82 | 18.34 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.94 | 32.10 | 41.934 | |
| 9,900.00 | 9,841.25 | 9,940.73 | 9,841.25 | 15.87 | 18.39 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.84 | 32.20 | 41.807 | |
| 10,000.00 | 9,941.25 | 10,040.73 | 9,941.25 | 15.92 | 18.44 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.74 | 32.29 | 41.680 | |
| 10,100.00 | 10,041.25 | 10,140.73 | 10,041.25 | 15.96 | 18.50 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.64 | 32.39 | 41.553 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,200.00 | 10,141.25 | 10,240.73 | 10,141.25 | 16.01 | 18.55 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.54 | 32.49 | 41.427 | |
| 10,300.00 | 10,241.25 | 10,340.73 | 10,241.25 | 16.06 | 18.60 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.44 | 32.59 | 41.300 | |
| 10,400.00 | 10,341.25 | 10,440.73 | 10,341.25 | 16.11 | 18.65 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.34 | 32.69 | 41.173 | |
| 10,500.00 | 10,441.25 | 10,540.73 | 10,441.25 | 16.16 | 18.71 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.24 | 32.79 | 41.047 | |
| 10,600.00 | 10,541.25 | 10,640.73 | 10,541.25 | 16.21 | 18.76 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.14 | 32.89 | 40.921 | |
| 10,700.00 | 10,641.25 | 10,740.73 | 10,641.25 | 16.26 | 18.81 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,313.04 | 33.00 | 40.795 | |
| 10,800.00 | 10,741.25 | 10,840.73 | 10,741.25 | 16.31 | 18.87 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.94 | 33.10 | 40.669 | |
| 10,900.00 | 10,841.25 | 10,940.73 | 10,841.25 | 16.36 | 18.92 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.83 | 33.20 | 40.543 | |
| 11,000.00 | 10,941.25 | 11,040.73 | 10,941.25 | 16.41 | 18.98 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.73 | 33.30 | 40.417 | |
| 11,100.00 | 11,041.25 | 11,140.73 | 11,041.25 | 16.46 | 19.03 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.63 | 33.41 | 40.292 | |
| 11,200.00 | 11,141.25 | 11,240.73 | 11,141.25 | 16.51 | 19.09 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.52 | 33.51 | 40.167 | |
| 11,300.00 | 11,241.25 | 11,340.73 | 11,241.25 | 16.56 | 19.14 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.42 | 33.62 | 40.042 | |
| 11,400.00 | 11,341.25 | 11,440.73 | 11,341.25 | 16.61 | 19.20 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.31 | 33.72 | 39.917 | |
| 11,500.00 | 11,441.25 | 11,540.73 | 11,441.25 | 16.66 | 19.24 | 89.59 | -582.39 | 883.55 | 1,346.03 | 1,312.22 | 33.82 | 39.804 | |
| 11,500.53 | 11,441.78 | 11,541.26 | 11,441.78 | 16.66 | 19.24 | -92.16 | -582.39 | 883.55 | 1,346.03 | 1,312.22 | 33.82 | 39.803 | |
| 11,600.00 | 11,541.21 | 11,639.90 | 11,540.10 | 16.71 | 19.35 | -91.95 | -588.75 | 883.61 | 1,346.11 | 1,312.23 | 33.88 | 39.728 | |
| 11,700.00 | 11,639.79 | 11,737.73 | 11,635.14 | 16.90 | 19.52 | -91.57 | -611.44 | 883.81 | 1,346.81 | 1,312.72 | 34.09 | 39.513 | |
| 11,800.00 | 11,734.09 | 11,834.40 | 11,723.91 | 17.17 | 19.75 | -91.15 | -649.41 | 884.16 | 1,348.21 | 1,313.73 | 34.47 | 39.107 | |
| 11,900.00 | 11,821.25 | 11,930.03 | 11,804.23 | 17.53 | 20.03 | -90.69 | -701.12 | 884.63 | 1,350.25 | 1,315.18 | 35.07 | 38.502 | |
| 12,000.00 | 11,898.62 | 12,024.77 | 11,874.23 | 18.00 | 20.37 | -90.22 | -764.80 | 885.21 | 1,352.88 | 1,316.99 | 35.89 | 37.697 | |
| 12,100.00 | 11,963.85 | 12,118.79 | 11,932.40 | 18.59 | 20.79 | -89.73 | -838.52 | 885.88 | 1,355.99 | 1,319.05 | 36.94 | 36.709 | |
| 12,200.00 | 12,014.95 | 12,212.23 | 11,977.50 | 19.33 | 21.30 | -89.26 | -920.23 | 886.62 | 1,359.48 | 1,321.26 | 38.22 | 35.570 | |
| 12,300.00 | 12,050.38 | 12,305.28 | 12,008.64 | 20.19 | 21.89 | -88.80 | -1,007.80 | 887.42 | 1,363.25 | 1,323.54 | 39.71 | 34.333 | |
| 12,400.00 | 12,069.05 | 12,398.11 | 12,025.19 | 21.14 | 22.57 | -88.38 | -1,099.04 | 888.24 | 1,367.16 | 1,325.80 | 41.36 | 33.054 | |
| 12,500.00 | 12,072.27 | 12,494.02 | 12,028.25 | 22.15 | 23.32 | -88.17 | -1,194.86 | 889.12 | 1,370.74 | 1,327.59 | 43.15 | 31.764 | |
| 12,600.00 | 12,072.97 | 12,594.02 | 12,028.96 | 23.19 | 24.18 | -88.16 | -1,294.85 | 890.02 | 1,371.53 | 1,326.45 | 45.08 | 30.425 | |
| 12,700.00 | 12,073.66 | 12,694.02 | 12,029.67 | 24.26 | 25.08 | -88.16 | -1,394.84 | 890.93 | 1,371.53 | 1,324.44 | 47.09 | 29.127 | |
| 12,800.00 | 12,074.36 | 12,794.02 | 12,030.38 | 25.36 | 26.02 | -88.16 | -1,494.83 | 891.84 | 1,371.53 | 1,322.36 | 49.17 | 27.894 | |
| 12,900.00 | 12,075.06 | 12,894.02 | 12,031.09 | 26.49 | 27.00 | -88.16 | -1,594.83 | 892.75 | 1,371.53 | 1,320.22 | 51.31 | 26.730 | |
| 13,000.00 | 12,075.76 | 12,994.02 | 12,031.80 | 27.63 | 28.00 | -88.16 | -1,694.82 | 893.66 | 1,371.54 | 1,318.03 | 53.51 | 25.633 | |
| 13,100.00 | 12,076.46 | 13,094.02 | 12,032.51 | 28.80 | 29.04 | -88.16 | -1,794.81 | 894.57 | 1,371.54 | 1,315.79 | 55.75 | 24.602 | |
| 13,200.00 | 12,077.15 | 13,194.02 | 12,033.22 | 29.98 | 30.10 | -88.16 | -1,894.81 | 895.48 | 1,371.54 | 1,313.50 | 58.04 | 23.632 | |
| 13,300.00 | 12,077.85 | 13,294.02 | 12,033.93 | 31.18 | 31.19 | -88.16 | -1,994.80 | 896.38 | 1,371.54 | 1,311.18 | 60.36 | 22.722 | |
| 13,400.00 | 12,078.55 | 13,394.02 | 12,034.63 | 32.39 | 32.29 | -88.17 | -2,094.79 | 897.29 | 1,371.54 | 1,308.82 | 62.72 | 21.868 | |
| 13,500.00 | 12,079.25 | 13,494.02 | 12,035.34 | 33.61 | 33.42 | -88.17 | -2,194.79 | 898.20 | 1,371.54 | 1,306.44 | 65.11 | 21.067 | |
| 13,600.00 | 12,079.95 | 13,594.02 | 12,036.05 | 34.84 | 34.56 | -88.17 | -2,294.78 | 899.11 | 1,371.54 | 1,304.02 | 67.52 | 20.313 | |
| 13,700.00 | 12,080.65 | 13,694.02 | 12,036.76 | 36.08 | 35.71 | -88.17 | -2,394.77 | 900.02 | 1,371.55 | 1,301.59 | 69.96 | 19.605 | |
| 13,800.00 | 12,081.34 | 13,794.02 | 12,037.47 | 37.33 | 36.88 | -88.17 | -2,494.77 | 900.93 | 1,371.55 | 1,299.13 | 72.42 | 18.940 | |
| 13,900.00 | 12,082.04 | 13,894.02 | 12,038.18 | 38.59 | 38.06 | -88.17 | -2,594.76 | 901.84 | 1,371.55 | 1,296.65 | 74.90 | 18.313 | |
| 14,000.00 | 12,082.74 | 13,994.02 | 12,038.89 | 39.86 | 39.26 | -88.17 | -2,694.75 | 902.74 | 1,371.55 | 1,294.16 | 77.39 | 17.722 | |
| 14,100.00 | 12,083.44 | 14,094.02 | 12,039.60 | 41.13 | 40.46 | -88.17 | -2,794.75 | 903.65 | 1,371.55 | 1,291.65 | 79.90 | 17.165 | |
| 14,200.00 | 12,084.14 | 14,194.02 | 12,040.31 | 42.40 | 41.67 | -88.17 | -2,894.74 | 904.56 | 1,371.55 | 1,289.12 | 82.43 | 16.639 | |
| 14,300.00 | 12,084.84 | 14,294.02 | 12,041.02 | 43.69 | 42.90 | -88.17 | -2,994.73 | 905.47 | 1,371.55 | 1,286.58 | 84.97 | 16.142 | |
| 14,400.00 | 12,085.53 | 14,394.02 | 12,041.73 | 44.97 | 44.13 | -88.17 | -3,094.73 | 906.38 | 1,371.56 | 1,284.03 | 87.52 | 15.671 | |
| 14,500.00 | 12,086.23 | 14,494.02 | 12,042.43 | 46.27 | 45.37 | -88.17 | -3,194.72 | 907.29 | 1,371.56 | 1,281.47 | 90.09 | 15.225 | |
| 14,600.00 | 12,086.93 | 14,594.02 | 12,043.14 | 47.56 | 46.61 | -88.17 | -3,294.71 | 908.20 | 1,371.56 | 1,278.90 | 92.66 | 14.802 | |
| 14,700.00 | 12,087.63 | 14,694.02 | 12,043.85 | 48.86 | 47.86 | -88.17 | -3,394.71 | 909.10 | 1,371.56 | 1,276.32 | 95.24 | 14.401 | |
| 14,800.00 | 12,088.33 | 14,794.02 | 12,044.56 | 50.17 | 49.12 | -88.17 | -3,494.70 | 910.01 | 1,371.56 | 1,273.73 | 97.83 | 14.020 | |
| 14,900.00 | 12,089.02 | 14,894.02 | 12,045.27 | 51.47 | 50.38 | -88.17 | -3,594.69 | 910.92 | 1,371.56 | 1,271.13 | 100.43 | 13.657 | |
| 15,000.00 | 12,089.72 | 14,994.02 | 12,045.98 | 52.78 | 51.65 | -88.17 | -3,694.69 | 911.83 | 1,371.56 | 1,268.53 | 103.04 | 13.312 | |
| 15,100.00 | 12,090.42 | 15,094.02 | 12,046.69 | 54.10 | 52.93 | -88.17 | -3,794.68 | 912.74 | 1,371.57 | 1,265.92 | 105.65 | 12.982 | |
| 15,200.00 | 12,091.12 | 15,194.02 | 12,047.40 | 55.41 | 54.20 | -88.17 | -3,894.67 | 913.65 | 1,371.57 | 1,263.30 | 108.27 | 12.668 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,300.00 | 12,091.82 | 15,294.02 | 12,048.11 | 56.73 | 55.49 | -88.17 | -3,994.67 | 914.56 | 1,371.57 | 1,260.68 | 110.89 | 12.369 | |
| 15,400.00 | 12,092.52 | 15,394.02 | 12,048.82 | 58.05 | 56.77 | -88.17 | -4,094.66 | 915.46 | 1,371.57 | 1,258.05 | 113.52 | 12.082 | |
| 15,500.00 | 12,093.21 | 15,494.02 | 12,049.53 | 59.37 | 58.06 | -88.17 | -4,194.65 | 916.37 | 1,371.57 | 1,255.42 | 116.16 | 11.808 | |
| 15,600.00 | 12,093.91 | 15,594.02 | 12,050.23 | 60.70 | 59.35 | -88.18 | -4,294.65 | 917.28 | 1,371.57 | 1,252.78 | 118.80 | 11.546 | |
| 15,700.00 | 12,094.61 | 15,694.02 | 12,050.94 | 62.03 | 60.65 | -88.18 | -4,394.64 | 918.19 | 1,371.57 | 1,250.14 | 121.44 | 11.294 | |
| 15,800.00 | 12,095.31 | 15,794.02 | 12,051.65 | 63.35 | 61.95 | -88.18 | -4,494.63 | 919.10 | 1,371.58 | 1,247.49 | 124.09 | 11.053 | |
| 15,900.00 | 12,096.01 | 15,894.02 | 12,052.36 | 64.68 | 63.25 | -88.18 | -4,594.63 | 920.01 | 1,371.58 | 1,244.84 | 126.74 | 10.822 | |
| 16,000.00 | 12,096.71 | 15,994.02 | 12,053.07 | 66.02 | 64.56 | -88.18 | -4,694.62 | 920.92 | 1,371.58 | 1,242.18 | 129.39 | 10.600 | |
| 16,100.00 | 12,097.40 | 16,094.02 | 12,053.78 | 67.35 | 65.87 | -88.18 | -4,794.61 | 921.82 | 1,371.58 | 1,239.53 | 132.05 | 10.387 | |
| 16,200.00 | 12,098.10 | 16,194.02 | 12,054.49 | 68.68 | 67.17 | -88.18 | -4,894.61 | 922.73 | 1,371.58 | 1,236.87 | 134.72 | 10.181 | |
| 16,300.00 | 12,098.80 | 16,294.02 | 12,055.20 | 70.02 | 68.49 | -88.18 | -4,994.60 | 923.64 | 1,371.58 | 1,234.20 | 137.38 | 9.984 | |
| 16,400.00 | 12,099.50 | 16,394.02 | 12,055.91 | 71.36 | 69.80 | -88.18 | -5,094.59 | 924.55 | 1,371.58 | 1,231.54 | 140.05 | 9.794 | |
| 16,500.00 | 12,100.20 | 16,494.02 | 12,056.62 | 72.69 | 71.12 | -88.18 | -5,194.59 | 925.46 | 1,371.59 | 1,228.87 | 142.72 | 9.610 | |
| 16,600.00 | 12,100.90 | 16,594.02 | 12,057.32 | 74.03 | 72.44 | -88.18 | -5,294.58 | 926.37 | 1,371.59 | 1,226.19 | 145.39 | 9.434 | |
| 16,700.00 | 12,101.59 | 16,694.02 | 12,058.03 | 75.37 | 73.76 | -88.18 | -5,394.57 | 927.28 | 1,371.59 | 1,223.52 | 148.07 | 9.263 | |
| 16,800.00 | 12,102.29 | 16,794.02 | 12,058.74 | 76.72 | 75.08 | -88.18 | -5,494.57 | 928.18 | 1,371.59 | 1,220.84 | 150.75 | 9.099 | |
| 16,900.00 | 12,102.99 | 16,894.02 | 12,059.45 | 78.06 | 76.40 | -88.18 | -5,594.56 | 929.09 | 1,371.59 | 1,218.17 | 153.43 | 8.940 | |
| 17,000.00 | 12,103.69 | 16,994.02 | 12,060.16 | 79.40 | 77.73 | -88.18 | -5,694.55 | 930.00 | 1,371.59 | 1,215.49 | 156.11 | 8.786 | |
| 17,100.00 | 12,104.39 | 17,094.02 | 12,060.87 | 80.75 | 79.05 | -88.18 | -5,794.55 | 930.91 | 1,371.59 | 1,212.80 | 158.79 | 8.638 | |
| 17,200.00 | 12,105.08 | 17,194.02 | 12,061.58 | 82.09 | 80.38 | -88.18 | -5,894.54 | 931.82 | 1,371.60 | 1,210.12 | 161.48 | 8.494 | |
| 17,300.00 | 12,105.78 | 17,294.02 | 12,062.29 | 83.44 | 81.71 | -88.18 | -5,994.53 | 932.73 | 1,371.60 | 1,207.43 | 164.16 | 8.355 | |
| 17,400.00 | 12,106.48 | 17,394.02 | 12,063.00 | 84.78 | 83.04 | -88.18 | -6,094.53 | 933.64 | 1,371.60 | 1,204.74 | 166.85 | 8.220 | |
| 17,500.00 | 12,107.18 | 17,494.02 | 12,063.71 | 86.13 | 84.37 | -88.18 | -6,194.52 | 934.54 | 1,371.60 | 1,202.06 | 169.54 | 8.090 | |
| 17,600.00 | 12,107.88 | 17,594.02 | 12,064.42 | 87.48 | 85.70 | -88.18 | -6,294.51 | 935.45 | 1,371.60 | 1,199.36 | 172.24 | 7.963 | |
| 17,700.00 | 12,108.58 | 17,694.02 | 12,065.12 | 88.83 | 87.04 | -88.18 | -6,394.51 | 936.36 | 1,371.60 | 1,196.67 | 174.93 | 7.841 | |
| 17,800.00 | 12,109.27 | 17,794.02 | 12,065.83 | 90.18 | 88.37 | -88.19 | -6,494.50 | 937.27 | 1,371.60 | 1,193.98 | 177.63 | 7.722 | |
| 17,900.00 | 12,109.97 | 17,894.02 | 12,066.54 | 91.52 | 89.71 | -88.19 | -6,594.49 | 938.18 | 1,371.61 | 1,191.28 | 180.32 | 7.606 | |
| 18,000.00 | 12,110.67 | 17,994.02 | 12,067.25 | 92.88 | 91.05 | -88.19 | -6,694.49 | 939.09 | 1,371.61 | 1,188.59 | 183.02 | 7.494 | |
| 18,100.00 | 12,111.37 | 18,094.02 | 12,067.96 | 94.23 | 92.38 | -88.19 | -6,794.48 | 940.00 | 1,371.61 | 1,185.89 | 185.72 | 7.385 | |
| 18,200.00 | 12,112.07 | 18,194.02 | 12,068.67 | 95.58 | 93.72 | -88.19 | -6,894.47 | 940.90 | 1,371.61 | 1,183.19 | 188.42 | 7.280 | |
| 18,300.00 | 12,112.77 | 18,294.02 | 12,069.38 | 96.93 | 95.06 | -88.19 | -6,994.47 | 941.81 | 1,371.61 | 1,180.49 | 191.12 | 7.177 | |
| 18,400.00 | 12,113.46 | 18,394.02 | 12,070.09 | 98.28 | 96.40 | -88.19 | -7,094.46 | 942.72 | 1,371.61 | 1,177.79 | 193.82 | 7.077 | |
| 18,500.00 | 12,114.16 | 18,494.02 | 12,070.80 | 99.63 | 97.74 | -88.19 | -7,194.45 | 943.63 | 1,371.61 | 1,175.09 | 196.52 | 6.979 | |
| 18,600.00 | 12,114.86 | 18,594.02 | 12,071.51 | 100.99 | 99.09 | -88.19 | -7,294.45 | 944.54 | 1,371.62 | 1,172.39 | 199.23 | 6.885 | |
| 18,700.00 | 12,115.56 | 18,694.02 | 12,072.22 | 102.34 | 100.43 | -88.19 | -7,394.44 | 945.45 | 1,371.62 | 1,169.68 | 201.93 | 6.792 | |
| 18,800.00 | 12,116.26 | 18,794.02 | 12,072.92 | 103.70 | 101.77 | -88.19 | -7,494.43 | 946.36 | 1,371.62 | 1,166.98 | 204.64 | 6.703 | |
| 18,900.00 | 12,116.95 | 18,894.02 | 12,073.63 | 105.05 | 103.12 | -88.19 | -7,594.43 | 947.26 | 1,371.62 | 1,164.27 | 207.35 | 6.615 | |
| 19,000.00 | 12,117.65 | 18,994.02 | 12,074.34 | 106.41 | 104.46 | -88.19 | -7,694.42 | 948.17 | 1,371.62 | 1,161.57 | 210.05 | 6.530 | |
| 19,100.00 | 12,118.35 | 19,094.02 | 12,075.05 | 107.76 | 105.81 | -88.19 | -7,794.41 | 949.08 | 1,371.62 | 1,158.86 | 212.76 | 6.447 | |
| 19,200.00 | 12,119.05 | 19,194.02 | 12,075.76 | 109.12 | 107.15 | -88.19 | -7,894.41 | 949.99 | 1,371.62 | 1,156.15 | 215.47 | 6.366 | |
| 19,300.00 | 12,119.75 | 19,294.02 | 12,076.47 | 110.47 | 108.50 | -88.19 | -7,994.40 | 950.90 | 1,371.63 | 1,153.45 | 218.18 | 6.287 | |
| 19,400.00 | 12,120.45 | 19,394.02 | 12,077.18 | 111.83 | 109.85 | -88.19 | -8,094.39 | 951.81 | 1,371.63 | 1,150.74 | 220.89 | 6.210 | |
| 19,500.00 | 12,121.14 | 19,494.02 | 12,077.89 | 113.19 | 111.19 | -88.19 | -8,194.39 | 952.72 | 1,371.63 | 1,148.03 | 223.60 | 6.134 | |
| 19,600.00 | 12,121.84 | 19,594.02 | 12,078.60 | 114.54 | 112.54 | -88.19 | -8,294.38 | 953.62 | 1,371.63 | 1,145.32 | 226.31 | 6.061 | |
| 19,700.00 | 12,122.54 | 19,694.02 | 12,079.31 | 115.90 | 113.89 | -88.19 | -8,394.37 | 954.53 | 1,371.63 | 1,142.61 | 229.03 | 5.989 | |
| 19,800.00 | 12,123.24 | 19,794.02 | 12,080.02 | 117.26 | 115.24 | -88.19 | -8,494.37 | 955.44 | 1,371.63 | 1,139.89 | 231.74 | 5.919 | |
| 19,900.00 | 12,123.94 | 19,894.02 | 12,080.72 | 118.61 | 116.59 | -88.19 | -8,594.36 | 956.35 | 1,371.63 | 1,137.18 | 234.45 | 5.850 | |
| 20,000.00 | 12,124.64 | 19,994.02 | 12,081.43 | 119.97 | 117.94 | -88.20 | -8,694.35 | 957.26 | 1,371.64 | 1,134.47 | 237.17 | 5.783 | |
| 20,100.00 | 12,125.33 | 20,094.02 | 12,082.14 | 121.33 | 119.29 | -88.20 | -8,794.35 | 958.17 | 1,371.64 | 1,131.76 | 239.88 | 5.718 | |
| 20,200.00 | 12,126.03 | 20,194.02 | 12,082.85 | 122.69 | 120.64 | -88.20 | -8,894.34 | 959.08 | 1,371.64 | 1,129.04 | 242.60 | 5.654 | |
| 20,300.00 | 12,126.73 | 20,294.02 | 12,083.56 | 124.05 | 121.99 | -88.20 | -8,994.33 | 959.99 | 1,371.64 | 1,126.33 | 245.31 | 5.591 | |
| 20,400.00 | 12,127.43 | 20,394.02 | 12,084.27 | 125.41 | 123.34 | -88.20 | -9,094.33 | 960.89 | 1,371.64 | 1,123.61 | 248.03 | 5.530 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,500.00 | 12,128.13 | 20,494.02 | 12,084.98 | 126.77 | 124.70 | -88.20 | -9,194.32 | 961.80 | 1,371.64 | 1,120.90 | 250.75 | 5.470 | |
| 20,600.00 | 12,128.83 | 20,594.02 | 12,085.69 | 128.13 | 126.05 | -88.20 | -9,294.31 | 962.71 | 1,371.64 | 1,118.18 | 253.46 | 5.412 | |
| 20,700.00 | 12,129.52 | 20,694.02 | 12,086.40 | 129.49 | 127.40 | -88.20 | -9,394.31 | 963.62 | 1,371.65 | 1,115.46 | 256.18 | 5.354 | |
| 20,800.00 | 12,130.22 | 20,794.02 | 12,087.11 | 130.85 | 128.76 | -88.20 | -9,494.30 | 964.53 | 1,371.65 | 1,112.75 | 258.90 | 5.298 | |
| 20,900.00 | 12,130.92 | 20,894.02 | 12,087.82 | 132.21 | 130.11 | -88.20 | -9,594.29 | 965.44 | 1,371.65 | 1,110.03 | 261.62 | 5.243 | |
| 21,000.00 | 12,131.62 | 20,994.02 | 12,088.52 | 133.57 | 131.46 | -88.20 | -9,694.29 | 966.35 | 1,371.65 | 1,107.31 | 264.34 | 5.189 | |
| 21,100.00 | 12,132.32 | 21,094.02 | 12,089.23 | 134.93 | 132.82 | -88.20 | -9,794.28 | 967.25 | 1,371.65 | 1,104.60 | 267.06 | 5.136 | |
| 21,200.00 | 12,133.01 | 21,194.02 | 12,089.94 | 136.29 | 134.17 | -88.20 | -9,894.27 | 968.16 | 1,371.65 | 1,101.88 | 269.78 | 5.084 | |
| 21,300.00 | 12,133.71 | 21,294.02 | 12,090.65 | 137.65 | 135.53 | -88.20 | -9,994.27 | 969.07 | 1,371.65 | 1,099.16 | 272.50 | 5.034 | |
| 21,400.00 | 12,134.41 | 21,394.02 | 12,091.36 | 139.01 | 136.88 | -88.20 | -10,094.26 | 969.98 | 1,371.66 | 1,096.44 | 275.22 | 4.984 | |
| 21,500.00 | 12,135.11 | 21,494.02 | 12,092.07 | 140.37 | 138.24 | -88.20 | -10,194.25 | 970.89 | 1,371.66 | 1,093.72 | 277.94 | 4.935 | |
| 21,600.00 | 12,135.81 | 21,594.02 | 12,092.78 | 141.73 | 139.59 | -88.20 | -10,294.25 | 971.80 | 1,371.66 | 1,091.00 | 280.66 | 4.887 | |
| 21,700.00 | 12,136.51 | 21,694.02 | 12,093.49 | 143.09 | 140.95 | -88.20 | -10,394.24 | 972.71 | 1,371.66 | 1,088.28 | 283.38 | 4.840 | |
| 21,800.00 | 12,137.20 | 21,794.02 | 12,094.20 | 144.46 | 142.30 | -88.20 | -10,494.23 | 973.61 | 1,371.66 | 1,085.56 | 286.10 | 4.794 | |
| 21,900.00 | 12,137.90 | 21,894.02 | 12,094.91 | 145.82 | 143.66 | -88.20 | -10,594.23 | 974.52 | 1,371.66 | 1,082.84 | 288.82 | 4.749 | |
| 22,000.00 | 12,138.60 | 21,994.02 | 12,095.61 | 147.18 | 145.02 | -88.20 | -10,694.22 | 975.43 | 1,371.66 | 1,080.12 | 291.55 | 4.705 | |
| 22,100.00 | 12,139.30 | 22,094.02 | 12,096.32 | 148.54 | 146.37 | -88.20 | -10,794.21 | 976.34 | 1,371.67 | 1,077.40 | 294.27 | 4.661 | |
| 22,200.00 | 12,140.00 | 22,194.02 | 12,097.03 | 149.90 | 147.73 | -88.21 | -10,894.21 | 977.25 | 1,371.67 | 1,074.67 | 296.99 | 4.619 | |
| 22,300.00 | 12,140.70 | 22,294.02 | 12,097.74 | 151.27 | 149.09 | -88.21 | -10,994.20 | 978.16 | 1,371.67 | 1,071.95 | 299.72 | 4.577 | |
| 22,387.52 | 12,141.31 | 22,381.53 | 12,098.36 | 152.46 | 150.28 | -88.21 | -11,081.71 | 978.95 | 1,371.67 | 1,069.57 | 302.10 | 4.540 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,100.00 | 1,099.32 | 1,296.74 | 1,295.08 | 4.05 | 4.81 | 36.81 | -816.87 | -2,292.19 | 2,424.92 | 2,416.13 | 8.78 | 276.091 | |
| 1,200.00 | 1,198.94 | 1,398.58 | 1,396.57 | 4.24 | 5.03 | 36.99 | -811.86 | -2,285.31 | 2,409.97 | 2,400.79 | 9.18 | 262.558 | |
| 1,300.00 | 1,298.53 | 1,542.48 | 1,539.84 | 4.33 | 5.32 | 36.24 | -804.87 | -2,273.89 | 2,393.71 | 2,384.16 | 9.55 | 250.536 | |
| 1,400.00 | 1,397.89 | 1,642.93 | 1,639.74 | 4.57 | 5.52 | 35.06 | -799.76 | -2,264.74 | 2,374.33 | 2,364.36 | 9.98 | 237.964 | |
| 1,500.00 | 1,496.93 | 1,733.92 | 1,730.25 | 4.81 | 5.71 | 34.45 | -795.20 | -2,256.63 | 2,352.95 | 2,342.57 | 10.38 | 226.631 | |
| 1,600.00 | 1,595.62 | 1,820.08 | 1,815.99 | 4.92 | 5.88 | 34.37 | -791.07 | -2,249.19 | 2,329.97 | 2,319.30 | 10.67 | 218.373 | |
| 1,700.00 | 1,694.25 | 1,908.81 | 1,904.33 | 5.12 | 6.05 | 34.62 | -787.13 | -2,241.84 | 2,307.16 | 2,296.12 | 11.04 | 208.954 | |
| 1,800.00 | 1,792.87 | 1,995.61 | 1,990.76 | 5.31 | 6.23 | 34.87 | -783.32 | -2,234.93 | 2,284.73 | 2,273.32 | 11.41 | 200.247 | |
| 1,900.00 | 1,891.50 | 2,089.70 | 2,084.49 | 5.51 | 6.41 | 35.16 | -778.63 | -2,228.04 | 2,262.75 | 2,250.96 | 11.79 | 191.935 | |
| 2,000.00 | 1,990.13 | 2,186.50 | 2,180.88 | 5.71 | 6.60 | 35.49 | -773.13 | -2,221.06 | 2,240.73 | 2,228.56 | 12.17 | 184.079 | |
| 2,100.00 | 2,088.76 | 2,305.94 | 2,299.79 | 5.90 | 6.83 | 35.89 | -766.27 | -2,212.18 | 2,218.62 | 2,206.03 | 12.59 | 176.157 | |
| 2,200.00 | 2,187.39 | 2,597.91 | 2,588.68 | 6.10 | 7.52 | 36.90 | -746.80 | -2,175.52 | 2,191.45 | 2,178.07 | 13.38 | 163.792 | |
| 2,300.00 | 2,286.02 | 2,723.17 | 2,711.44 | 6.30 | 7.79 | 37.41 | -734.45 | -2,153.96 | 2,159.18 | 2,145.36 | 13.83 | 156.164 | |
| 2,400.00 | 2,384.65 | 2,800.00 | 2,786.61 | 6.50 | 7.95 | 37.81 | -724.54 | -2,141.53 | 2,127.19 | 2,112.99 | 14.20 | 149.760 | |
| 2,500.00 | 2,483.28 | 2,867.20 | 2,852.44 | 6.69 | 8.08 | 38.17 | -715.59 | -2,131.42 | 2,096.27 | 2,081.71 | 14.56 | 143.933 | |
| 2,600.00 | 2,581.91 | 2,938.77 | 2,922.72 | 6.89 | 8.23 | 38.55 | -706.87 | -2,121.13 | 2,066.44 | 2,051.51 | 14.93 | 138.389 | |
| 2,700.00 | 2,680.54 | 3,014.10 | 2,996.90 | 7.10 | 8.38 | 38.94 | -698.60 | -2,110.91 | 2,037.79 | 2,022.49 | 15.31 | 133.140 | |
| 2,800.00 | 2,779.17 | 3,104.06 | 3,085.55 | 7.33 | 8.56 | 39.41 | -688.88 | -2,099.13 | 2,009.78 | 1,994.09 | 15.70 | 128.045 | |
| 2,900.00 | 2,877.80 | 3,205.01 | 3,185.07 | 7.56 | 8.76 | 39.94 | -678.53 | -2,085.72 | 1,981.87 | 1,965.77 | 16.10 | 123.094 | |
| 3,000.00 | 2,976.43 | 3,301.61 | 3,280.25 | 7.79 | 8.96 | 40.45 | -668.77 | -2,072.42 | 1,953.68 | 1,937.17 | 16.50 | 118.393 | |
| 3,100.00 | 3,075.06 | 3,373.00 | 3,350.68 | 8.02 | 9.10 | 40.84 | -661.91 | -2,062.97 | 1,926.26 | 1,909.39 | 16.87 | 114.153 | |
| 3,200.00 | 3,173.69 | 3,457.36 | 3,434.03 | 8.25 | 9.27 | 41.29 | -654.19 | -2,052.48 | 1,899.81 | 1,882.55 | 17.26 | 110.065 | |
| 3,300.00 | 3,272.32 | 3,573.64 | 3,548.88 | 8.48 | 9.50 | 41.94 | -643.29 | -2,037.95 | 1,873.43 | 1,855.75 | 17.69 | 105.930 | |
| 3,400.00 | 3,370.94 | 3,679.80 | 3,653.56 | 8.72 | 9.72 | 42.55 | -632.99 | -2,023.62 | 1,846.17 | 1,828.07 | 18.10 | 101.983 | |
| 3,500.00 | 3,469.57 | 3,754.00 | 3,726.74 | 8.95 | 9.87 | 42.98 | -626.15 | -2,013.49 | 1,819.12 | 1,800.63 | 18.49 | 98.408 | |
| 3,600.00 | 3,568.20 | 3,815.24 | 3,787.30 | 9.19 | 10.03 | 43.33 | -620.98 | -2,005.97 | 1,793.70 | 1,774.82 | 18.88 | 94.987 | |
| 3,700.00 | 3,666.83 | 3,873.78 | 3,845.38 | 9.42 | 10.17 | 43.67 | -616.59 | -2,000.17 | 1,770.67 | 1,751.40 | 19.26 | 91.922 | |
| 3,800.00 | 3,765.46 | 3,945.00 | 3,916.22 | 9.66 | 10.32 | 44.05 | -612.16 | -1,994.25 | 1,749.52 | 1,729.88 | 19.64 | 89.073 | |
| 3,900.00 | 3,864.09 | 4,048.43 | 4,019.21 | 9.89 | 10.51 | 44.56 | -607.66 | -1,985.88 | 1,729.04 | 1,709.00 | 20.04 | 86.281 | |
| 4,000.00 | 3,962.72 | 4,147.27 | 4,117.61 | 10.13 | 10.69 | 45.03 | -604.16 | -1,977.33 | 1,708.24 | 1,687.81 | 20.43 | 83.602 | |
| 4,100.00 | 4,061.35 | 4,231.00 | 4,200.99 | 10.36 | 10.85 | 45.45 | -601.04 | -1,970.32 | 1,687.82 | 1,667.01 | 20.81 | 81.107 | |
| 4,200.00 | 4,159.98 | 4,298.39 | 4,268.17 | 10.60 | 10.98 | 45.79 | -598.59 | -1,965.54 | 1,668.77 | 1,647.60 | 21.17 | 78.821 | |
| 4,300.00 | 4,258.61 | 4,356.28 | 4,325.95 | 10.83 | 11.10 | 46.08 | -596.72 | -1,962.58 | 1,651.86 | 1,630.35 | 21.51 | 76.805 | |
| 4,400.00 | 4,357.24 | 4,422.00 | 4,391.64 | 11.07 | 11.26 | 46.40 | -595.40 | -1,961.16 | 1,637.75 | 1,615.91 | 21.84 | 74.990 | |
| 4,500.00 | 4,455.87 | 4,469.17 | 4,438.80 | 11.31 | 11.29 | 46.61 | -595.08 | -1,961.29 | 1,626.12 | 1,604.03 | 22.09 | 73.611 | |
| 4,600.00 | 4,554.50 | 4,541.29 | 4,510.90 | 11.54 | 11.32 | 46.90 | -595.66 | -1,962.82 | 1,616.84 | 1,594.51 | 22.33 | 72.391 | |
| 4,700.00 | 4,653.13 | 4,674.29 | 4,643.87 | 11.78 | 11.34 | 47.45 | -596.56 | -1,965.54 | 1,607.79 | 1,585.21 | 22.58 | 71.203 | |
| 4,800.00 | 4,751.76 | 4,820.23 | 4,789.79 | 12.02 | 11.51 | 48.12 | -595.80 | -1,963.82 | 1,595.26 | 1,572.31 | 22.96 | 69.482 | |
| 4,900.00 | 4,850.39 | 4,912.11 | 4,881.64 | 12.26 | 11.61 | 48.49 | -596.66 | -1,961.68 | 1,581.95 | 1,558.65 | 23.30 | 67.897 | |
| 5,000.00 | 4,949.01 | 4,994.00 | 4,963.51 | 12.49 | 11.65 | 48.82 | -597.95 | -1,960.54 | 1,569.65 | 1,546.05 | 23.60 | 66.509 | |
| 5,100.00 | 5,047.64 | 5,064.89 | 5,034.40 | 12.73 | 11.66 | 49.11 | -598.81 | -1,960.58 | 1,558.80 | 1,534.95 | 23.85 | 65.359 | |
| 5,200.00 | 5,146.27 | 5,142.35 | 5,111.85 | 12.97 | 11.65 | 49.45 | -599.44 | -1,961.77 | 1,549.52 | 1,525.45 | 24.07 | 64.366 | |
| 5,300.00 | 5,244.90 | 5,237.11 | 5,206.57 | 13.21 | 11.63 | 49.87 | -600.22 | -1,964.24 | 1,541.38 | 1,517.10 | 24.28 | 63.471 | |
| 5,400.00 | 5,343.57 | 5,338.42 | 5,307.86 | 13.41 | 11.60 | 50.28 | -600.76 | -1,966.48 | 1,533.11 | 1,508.67 | 24.45 | 62.707 | |
| 5,500.00 | 5,442.58 | 5,431.25 | 5,400.65 | 13.63 | 11.59 | 50.58 | -600.90 | -1,968.93 | 1,526.75 | 1,502.10 | 24.65 | 61.939 | |
| 5,600.00 | 5,541.92 | 5,535.24 | 5,504.61 | 13.82 | 11.60 | 50.88 | -600.79 | -1,971.69 | 1,522.12 | 1,497.28 | 24.84 | 61.276 | |
| 5,700.00 | 5,641.52 | 5,640.26 | 5,609.60 | 13.98 | 11.61 | 51.12 | -600.74 | -1,974.04 | 1,518.77 | 1,493.76 | 25.02 | 60.713 | |
| 5,800.00 | 5,741.32 | 5,744.68 | 5,713.99 | 14.12 | 11.63 | 51.28 | -600.80 | -1,976.09 | 1,516.83 | 1,491.65 | 25.17 | 60.258 | |
| 5,900.00 | 5,841.25 | 5,850.03 | 5,819.33 | 14.23 | 11.64 | 51.37 | -601.21 | -1,977.80 | 1,516.18 | 1,490.87 | 25.31 | 59.910 | |
| 5,900.35 | 5,841.60 | 5,850.40 | 5,819.70 | 14.23 | 11.64 | 51.37 | -601.21 | -1,977.81 | 1,516.18 | 1,490.87 | 25.31 | 59.909 | |
| 6,000.00 | 5,941.25 | 5,949.88 | 5,919.17 | 14.28 | 11.65 | -90.36 | -601.66 | -1,979.21 | 1,516.95 | 1,491.59 | 25.37 | 59.801 | |
| 6,100.00 | 6,041.25 | 6,057.85 | 6,027.13 | 14.32 | 11.66 | -90.38 | -602.17 | -1,980.54 | 1,518.19 | 1,492.79 | 25.40 | 59.764 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,200.00 | 6,141.25 | 6,173.65 | 6,142.93 | 14.35 | 11.69 | -90.40 | -602.64 | -1,980.98 | 1,518.56 | 1,493.09 | 25.48 | 59.610 | |
| 6,300.00 | 6,241.25 | 6,280.19 | 6,249.47 | 14.39 | 11.72 | -90.42 | -603.30 | -1,980.59 | 1,518.21 | 1,492.63 | 25.58 | 59.351 | |
| 6,400.00 | 6,341.25 | 6,384.00 | 6,353.27 | 14.42 | 11.77 | -90.45 | -604.09 | -1,979.91 | 1,517.55 | 1,491.85 | 25.70 | 59.049 | |
| 6,500.00 | 6,441.25 | 6,486.43 | 6,455.70 | 14.46 | 11.82 | -90.48 | -604.75 | -1,978.96 | 1,516.63 | 1,490.81 | 25.83 | 58.720 | |
| 6,600.00 | 6,541.25 | 6,589.90 | 6,559.16 | 14.49 | 11.89 | -90.50 | -605.22 | -1,977.92 | 1,515.64 | 1,489.67 | 25.97 | 58.369 | |
| 6,700.00 | 6,641.25 | 6,693.92 | 6,663.17 | 14.53 | 11.98 | -90.50 | -605.36 | -1,976.51 | 1,514.27 | 1,488.16 | 26.12 | 57.983 | |
| 6,800.00 | 6,741.25 | 6,802.45 | 6,771.68 | 14.56 | 12.09 | -90.49 | -605.13 | -1,974.71 | 1,512.62 | 1,486.34 | 26.28 | 57.568 | |
| 6,900.00 | 6,841.25 | 6,901.61 | 6,870.83 | 14.60 | 12.20 | -90.49 | -604.87 | -1,972.67 | 1,510.56 | 1,484.13 | 26.43 | 57.154 | |
| 7,000.00 | 6,941.25 | 7,000.43 | 6,969.62 | 14.64 | 12.31 | -90.47 | -604.43 | -1,970.79 | 1,508.65 | 1,482.07 | 26.58 | 56.750 | |
| 7,100.00 | 7,041.25 | 7,096.17 | 7,065.34 | 14.68 | 12.43 | -90.44 | -603.67 | -1,969.11 | 1,506.90 | 1,480.16 | 26.74 | 56.364 | |
| 7,200.00 | 7,141.25 | 7,193.89 | 7,163.05 | 14.71 | 12.54 | -90.43 | -603.40 | -1,967.64 | 1,505.39 | 1,478.51 | 26.88 | 56.002 | |
| 7,300.00 | 7,241.25 | 7,292.41 | 7,261.56 | 14.75 | 12.63 | -90.46 | -604.03 | -1,966.25 | 1,503.99 | 1,476.97 | 27.02 | 55.658 | |
| 7,400.00 | 7,341.25 | 7,386.38 | 7,355.52 | 14.79 | 12.72 | -90.47 | -604.49 | -1,965.16 | 1,502.83 | 1,475.67 | 27.16 | 55.335 | |
| 7,500.00 | 7,441.25 | 7,493.74 | 7,462.88 | 14.83 | 12.82 | -90.49 | -605.00 | -1,963.90 | 1,501.66 | 1,474.35 | 27.31 | 54.988 | |
| 7,600.00 | 7,541.25 | 7,595.50 | 7,564.62 | 14.87 | 12.92 | -90.51 | -605.53 | -1,962.37 | 1,500.17 | 1,472.71 | 27.46 | 54.635 | |
| 7,700.00 | 7,641.25 | 7,698.15 | 7,667.26 | 14.91 | 13.04 | -90.52 | -605.67 | -1,960.68 | 1,498.52 | 1,470.90 | 27.62 | 54.264 | |
| 7,800.00 | 7,741.25 | 7,796.31 | 7,765.40 | 14.95 | 13.15 | -90.51 | -605.33 | -1,958.94 | 1,496.74 | 1,468.97 | 27.77 | 53.902 | |
| 7,900.00 | 7,841.25 | 7,885.77 | 7,854.86 | 14.99 | 13.24 | -90.53 | -605.86 | -1,957.90 | 1,495.58 | 1,467.68 | 27.90 | 53.612 | |
| 8,000.00 | 7,941.25 | 7,992.62 | 7,961.69 | 15.03 | 13.33 | -90.56 | -606.78 | -1,956.61 | 1,494.37 | 1,466.33 | 28.04 | 53.298 | |
| 8,100.00 | 8,041.25 | 8,089.06 | 8,058.12 | 15.07 | 13.43 | -90.58 | -607.15 | -1,955.33 | 1,493.05 | 1,464.86 | 28.18 | 52.977 | |
| 8,200.00 | 8,141.25 | 8,180.46 | 8,149.52 | 15.11 | 13.53 | -90.58 | -607.26 | -1,954.59 | 1,492.24 | 1,463.92 | 28.32 | 52.688 | |
| 8,300.00 | 8,241.25 | 8,278.16 | 8,247.22 | 15.15 | 13.64 | -90.58 | -607.12 | -1,954.17 | 1,491.81 | 1,463.35 | 28.46 | 52.412 | |
| 8,400.00 | 8,341.25 | 8,379.82 | 8,348.87 | 15.20 | 13.75 | -90.57 | -606.78 | -1,953.70 | 1,491.34 | 1,462.73 | 28.61 | 52.134 | |
| 8,500.00 | 8,441.25 | 8,479.64 | 8,448.70 | 15.24 | 13.86 | -90.54 | -606.19 | -1,953.18 | 1,490.82 | 1,462.08 | 28.74 | 51.867 | |
| 8,600.00 | 8,541.25 | 8,581.71 | 8,550.76 | 15.28 | 13.96 | -90.51 | -605.33 | -1,952.67 | 1,490.31 | 1,461.44 | 28.88 | 51.607 | |
| 8,700.00 | 8,641.25 | 8,682.69 | 8,651.73 | 15.32 | 14.07 | -90.47 | -604.26 | -1,951.92 | 1,489.55 | 1,460.54 | 29.02 | 51.332 | |
| 8,800.00 | 8,741.25 | 8,780.35 | 8,749.38 | 15.37 | 14.18 | -90.45 | -603.88 | -1,951.34 | 1,488.96 | 1,459.80 | 29.16 | 51.061 | |
| 8,871.22 | 8,812.47 | 8,843.43 | 8,812.47 | 15.40 | 14.24 | -90.45 | -603.68 | -1,951.06 | 1,488.65 | 1,459.39 | 29.26 | 50.874 | CC |
| 8,900.00 | 8,841.25 | 8,864.29 | 8,833.32 | 15.41 | 14.25 | -90.45 | -603.74 | -1,951.11 | 1,488.73 | 1,459.43 | 29.30 | 50.807 | |
| 9,000.00 | 8,941.25 | 8,947.33 | 8,916.35 | 15.46 | 14.28 | -90.49 | -604.74 | -1,952.28 | 1,490.09 | 1,460.68 | 29.41 | 50.663 | |
| 9,100.00 | 9,041.25 | 9,059.66 | 9,028.67 | 15.50 | 14.27 | -90.50 | -605.19 | -1,953.67 | 1,491.33 | 1,461.88 | 29.45 | 50.644 | |
| 9,200.00 | 9,141.25 | 9,172.65 | 9,141.65 | 15.55 | 14.32 | -90.45 | -603.75 | -1,954.18 | 1,491.77 | 1,462.24 | 29.53 | 50.520 | |
| 9,300.00 | 9,241.25 | 9,276.14 | 9,245.10 | 15.59 | 14.41 | -90.34 | -600.99 | -1,953.94 | 1,491.52 | 1,461.89 | 29.64 | 50.322 | |
| 9,326.71 | 9,267.95 | 9,299.00 | 9,267.95 | 15.60 | 14.43 | -90.31 | -600.18 | -1,953.89 | 1,491.46 | 1,461.79 | 29.67 | 50.272 | |
| 9,400.00 | 9,341.25 | 9,352.38 | 9,321.30 | 15.64 | 14.46 | -90.25 | -598.69 | -1,954.19 | 1,491.89 | 1,462.17 | 29.72 | 50.206 | |
| 9,500.00 | 9,441.25 | 9,453.75 | 9,422.64 | 15.68 | 14.47 | -90.23 | -598.19 | -1,956.14 | 1,493.82 | 1,464.05 | 29.77 | 50.182 | |
| 9,600.00 | 9,541.25 | 9,566.41 | 9,535.30 | 15.73 | 14.46 | -90.27 | -599.20 | -1,956.77 | 1,494.35 | 1,464.53 | 29.82 | 50.112 | |
| 9,700.00 | 9,641.25 | 9,664.67 | 9,633.56 | 15.78 | 14.45 | -90.29 | -599.75 | -1,957.20 | 1,494.79 | 1,464.92 | 29.87 | 50.044 | |
| 9,800.00 | 9,741.25 | 9,762.63 | 9,731.51 | 15.82 | 14.44 | -90.31 | -600.09 | -1,957.77 | 1,495.37 | 1,465.46 | 29.91 | 49.994 | |
| 9,900.00 | 9,841.25 | 9,861.28 | 9,830.16 | 15.87 | 14.44 | -90.30 | -599.89 | -1,958.46 | 1,496.07 | 1,466.11 | 29.96 | 49.934 | |
| 10,000.00 | 9,941.25 | 9,956.51 | 9,925.39 | 15.92 | 14.47 | -90.26 | -598.96 | -1,959.31 | 1,496.96 | 1,466.94 | 30.02 | 49.862 | |
| 10,100.00 | 10,041.25 | 10,050.95 | 10,019.81 | 15.96 | 14.49 | -90.23 | -598.03 | -1,960.49 | 1,498.21 | 1,468.13 | 30.08 | 49.814 | |
| 10,200.00 | 10,141.25 | 10,151.96 | 10,120.80 | 16.01 | 14.52 | -90.17 | -596.56 | -1,961.93 | 1,499.63 | 1,469.49 | 30.14 | 49.762 | |
| 10,300.00 | 10,241.25 | 10,223.09 | 10,191.89 | 16.06 | 14.55 | -90.10 | -594.79 | -1,963.55 | 1,501.91 | 1,471.70 | 30.21 | 49.720 | |
| 10,400.00 | 10,341.25 | 10,317.46 | 10,286.17 | 16.11 | 14.57 | -90.04 | -592.99 | -1,967.16 | 1,505.72 | 1,475.46 | 30.26 | 49.764 | |
| 10,500.00 | 10,441.25 | 10,441.00 | 10,409.65 | 16.16 | 14.56 | -90.06 | -593.55 | -1,970.82 | 1,508.70 | 1,478.42 | 30.27 | 49.833 | |
| 10,600.00 | 10,541.25 | 10,549.05 | 10,517.68 | 16.21 | 14.58 | -90.02 | -592.55 | -1,972.75 | 1,510.49 | 1,480.16 | 30.32 | 49.811 | |
| 10,700.00 | 10,641.25 | 10,649.03 | 10,617.63 | 16.26 | 14.63 | -89.95 | -590.88 | -1,974.31 | 1,512.05 | 1,481.67 | 30.38 | 49.766 | |
| 10,800.00 | 10,741.25 | 10,749.00 | 10,717.58 | 16.31 | 14.68 | -89.89 | -589.21 | -1,975.87 | 1,513.61 | 1,483.16 | 30.45 | 49.709 | |
| 10,900.00 | 10,841.25 | 10,862.90 | 10,831.45 | 16.36 | 14.74 | -89.83 | -587.69 | -1,977.30 | 1,514.89 | 1,484.37 | 30.52 | 49.643 | |
| 11,000.00 | 10,941.25 | 10,972.69 | 10,941.25 | 16.41 | 14.79 | -89.83 | -587.50 | -1,977.47 | 1,515.03 | 1,484.43 | 30.60 | 49.508 | |
| 11,100.00 | 11,041.25 | 11,072.69 | 11,041.25 | 16.46 | 14.85 | -89.83 | -587.50 | -1,977.47 | 1,515.03 | 1,484.32 | 30.71 | 49.336 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11,200.00 | 11,141.25 | 11,172.69 | 11,141.25 | 16.51 | 14.91 | -89.83 | -587.50 | -1,977.47 | 1,515.03 | 1,484.21 | 30.82 | 49.160 | |
| 11,300.00 | 11,241.25 | 11,273.83 | 11,242.36 | 16.56 | 14.96 | -89.88 | -588.83 | -1,977.46 | 1,515.02 | 1,484.13 | 30.89 | 49.045 | |
| 11,400.00 | 11,341.25 | 11,374.24 | 11,341.42 | 16.61 | 15.04 | -90.47 | -604.40 | -1,977.33 | 1,514.93 | 1,484.03 | 30.90 | 49.024 | |
| 11,402.97 | 11,344.22 | 11,377.13 | 11,344.22 | 16.61 | 15.05 | -90.49 | -605.10 | -1,977.32 | 1,514.93 | 1,484.03 | 30.90 | 49.025 | |
| 11,500.00 | 11,441.25 | 11,466.67 | 11,428.94 | 16.66 | 15.13 | -91.58 | -633.81 | -1,977.08 | 1,515.25 | 1,484.37 | 30.88 | 49.071 | |
| 11,600.00 | 11,541.21 | 11,550.00 | 11,502.89 | 16.71 | 15.20 | 85.19 | -672.07 | -1,976.75 | 1,516.76 | 1,485.92 | 30.84 | 49.178 | |
| 11,700.00 | 11,639.79 | 11,625.37 | 11,564.36 | 16.90 | 15.28 | 83.72 | -715.59 | -1,976.37 | 1,518.96 | 1,488.03 | 30.93 | 49.107 | |
| 11,800.00 | 11,734.09 | 11,700.00 | 11,619.08 | 17.17 | 15.36 | 82.36 | -766.25 | -1,975.94 | 1,521.36 | 1,490.17 | 31.18 | 48.787 | |
| 11,900.00 | 11,821.25 | 11,770.36 | 11,664.23 | 17.53 | 15.44 | 81.20 | -820.15 | -1,975.47 | 1,523.60 | 1,491.97 | 31.63 | 48.174 | |
| 12,000.00 | 11,898.62 | 11,839.91 | 11,702.05 | 18.00 | 15.54 | 80.22 | -878.47 | -1,974.97 | 1,525.38 | 1,493.13 | 32.25 | 47.293 | |
| 12,100.00 | 11,963.85 | 11,908.12 | 11,732.01 | 18.59 | 15.65 | 79.46 | -939.70 | -1,974.44 | 1,526.43 | 1,493.37 | 33.06 | 46.166 | |
| 12,200.00 | 12,014.95 | 11,975.35 | 11,754.21 | 19.33 | 15.80 | 78.94 | -1,003.11 | -1,973.90 | 1,526.53 | 1,492.49 | 34.04 | 44.848 | |
| 12,300.00 | 12,050.38 | 12,050.00 | 11,769.99 | 20.19 | 15.99 | 78.64 | -1,076.02 | -1,973.27 | 1,525.57 | 1,490.41 | 35.15 | 43.397 | |
| 12,400.00 | 12,069.05 | 12,107.98 | 11,775.61 | 21.14 | 16.18 | 78.67 | -1,133.70 | -1,972.77 | 1,523.35 | 1,487.01 | 36.34 | 41.921 | |
| 12,500.00 | 12,072.27 | 12,196.18 | 11,776.68 | 22.15 | 16.52 | 78.78 | -1,221.89 | -1,972.02 | 1,520.24 | 1,482.56 | 37.68 | 40.348 | |
| 12,598.01 | 12,072.95 | 12,294.18 | 11,777.36 | 23.17 | 16.99 | 78.78 | -1,319.88 | -1,971.17 | 1,519.13 | 1,479.97 | 39.16 | 38.788 | |
| 12,600.00 | 12,072.97 | 12,296.17 | 11,777.38 | 23.19 | 17.00 | 78.78 | -1,321.87 | -1,971.16 | 1,519.51 | 1,480.32 | 39.19 | 38.768 | |
| 12,700.00 | 12,073.66 | 12,396.17 | 11,778.08 | 24.26 | 17.58 | 78.78 | -1,421.87 | -1,970.30 | 1,519.56 | 1,478.72 | 40.84 | 37.206 | |
| 12,800.00 | 12,074.36 | 12,496.17 | 11,778.77 | 25.36 | 18.24 | 78.78 | -1,521.86 | -1,969.44 | 1,519.60 | 1,477.00 | 42.60 | 35.671 | |
| 12,900.00 | 12,075.06 | 12,596.17 | 11,779.47 | 26.49 | 18.99 | 78.78 | -1,621.85 | -1,968.58 | 1,519.65 | 1,475.19 | 44.46 | 34.182 | |
| 13,000.00 | 12,075.76 | 12,696.17 | 11,780.17 | 27.63 | 19.80 | 78.78 | -1,721.85 | -1,967.72 | 1,519.69 | 1,473.29 | 46.40 | 32.750 | |
| 13,100.00 | 12,076.46 | 12,796.17 | 11,780.87 | 28.80 | 20.68 | 78.78 | -1,821.84 | -1,966.85 | 1,519.74 | 1,471.32 | 48.42 | 31.384 | |
| 13,200.00 | 12,077.15 | 12,896.17 | 11,781.56 | 29.98 | 21.61 | 78.78 | -1,921.84 | -1,965.99 | 1,519.79 | 1,469.27 | 50.51 | 30.088 | |
| 13,300.00 | 12,077.85 | 12,996.17 | 11,782.26 | 31.18 | 22.59 | 78.78 | -2,021.83 | -1,965.13 | 1,519.83 | 1,467.17 | 52.66 | 28.862 | |
| 13,400.00 | 12,078.55 | 13,096.17 | 11,782.96 | 32.39 | 23.60 | 78.79 | -2,121.82 | -1,964.27 | 1,519.88 | 1,465.02 | 54.86 | 27.706 | |
| 13,500.00 | 12,079.25 | 13,196.17 | 11,783.66 | 33.61 | 24.66 | 78.79 | -2,221.82 | -1,963.41 | 1,519.92 | 1,462.82 | 57.10 | 26.618 | |
| 13,600.00 | 12,079.95 | 13,296.17 | 11,784.35 | 34.84 | 25.74 | 78.79 | -2,321.81 | -1,962.55 | 1,519.97 | 1,460.59 | 59.38 | 25.595 | |
| 13,700.00 | 12,080.65 | 13,396.17 | 11,785.05 | 36.08 | 26.86 | 78.79 | -2,421.81 | -1,961.69 | 1,520.02 | 1,458.31 | 61.70 | 24.634 | |
| 13,800.00 | 12,081.34 | 13,496.17 | 11,785.75 | 37.33 | 27.99 | 78.79 | -2,521.80 | -1,960.83 | 1,520.06 | 1,456.01 | 64.05 | 23.732 | |
| 13,900.00 | 12,082.04 | 13,596.17 | 11,786.45 | 38.59 | 29.15 | 78.79 | -2,621.79 | -1,959.97 | 1,520.11 | 1,453.68 | 66.43 | 22.883 | |
| 14,000.00 | 12,082.74 | 13,696.17 | 11,787.14 | 39.86 | 30.32 | 78.79 | -2,721.79 | -1,959.11 | 1,520.15 | 1,451.32 | 68.83 | 22.085 | |
| 14,100.00 | 12,083.44 | 13,796.17 | 11,787.84 | 41.13 | 31.51 | 78.79 | -2,821.78 | -1,958.25 | 1,520.20 | 1,448.94 | 71.25 | 21.335 | |
| 14,200.00 | 12,084.14 | 13,896.17 | 11,788.54 | 42.40 | 32.72 | 78.79 | -2,921.77 | -1,957.39 | 1,520.24 | 1,446.55 | 73.70 | 20.628 | |
| 14,300.00 | 12,084.84 | 13,996.17 | 11,789.24 | 43.69 | 33.93 | 78.79 | -3,021.77 | -1,956.53 | 1,520.29 | 1,444.13 | 76.16 | 19.962 | |
| 14,400.00 | 12,085.53 | 14,096.17 | 11,789.93 | 44.97 | 35.16 | 78.79 | -3,121.76 | -1,955.67 | 1,520.34 | 1,441.70 | 78.64 | 19.334 | |
| 14,500.00 | 12,086.23 | 14,196.17 | 11,790.63 | 46.27 | 36.40 | 78.79 | -3,221.76 | -1,954.81 | 1,520.38 | 1,439.25 | 81.13 | 18.741 | |
| 14,600.00 | 12,086.93 | 14,296.17 | 11,791.33 | 47.56 | 37.65 | 78.79 | -3,321.75 | -1,953.95 | 1,520.43 | 1,436.80 | 83.63 | 18.180 | |
| 14,700.00 | 12,087.63 | 14,396.17 | 11,792.03 | 48.86 | 38.91 | 78.79 | -3,421.74 | -1,953.09 | 1,520.47 | 1,434.33 | 86.15 | 17.650 | |
| 14,800.00 | 12,088.33 | 14,496.17 | 11,792.72 | 50.17 | 40.17 | 78.79 | -3,521.74 | -1,952.23 | 1,520.52 | 1,431.84 | 88.67 | 17.147 | |
| 14,900.00 | 12,089.02 | 14,596.17 | 11,793.42 | 51.47 | 41.44 | 78.79 | -3,621.73 | -1,951.37 | 1,520.56 | 1,429.35 | 91.21 | 16.671 | |
| 15,000.00 | 12,089.72 | 14,696.17 | 11,794.12 | 52.78 | 42.72 | 78.79 | -3,721.73 | -1,950.51 | 1,520.61 | 1,426.85 | 93.76 | 16.219 | |
| 15,100.00 | 12,090.42 | 14,796.17 | 11,794.82 | 54.10 | 44.01 | 78.79 | -3,821.72 | -1,949.65 | 1,520.66 | 1,424.35 | 96.31 | 15.789 | |
| 15,200.00 | 12,091.12 | 14,896.17 | 11,795.52 | 55.41 | 45.29 | 78.79 | -3,921.71 | -1,948.79 | 1,520.70 | 1,421.83 | 98.87 | 15.380 | |
| 15,300.00 | 12,091.82 | 14,996.17 | 11,796.21 | 56.73 | 46.59 | 78.79 | -4,021.71 | -1,947.93 | 1,520.75 | 1,419.31 | 101.44 | 14.991 | |
| 15,400.00 | 12,092.52 | 15,096.17 | 11,796.91 | 58.05 | 47.88 | 78.79 | -4,121.70 | -1,947.07 | 1,520.79 | 1,416.78 | 104.02 | 14.621 | |
| 15,500.00 | 12,093.21 | 15,196.17 | 11,797.61 | 59.37 | 49.18 | 78.79 | -4,221.70 | -1,946.21 | 1,520.84 | 1,414.24 | 106.60 | 14.267 | |
| 15,600.00 | 12,093.91 | 15,296.17 | 11,798.31 | 60.70 | 50.49 | 78.79 | -4,321.69 | -1,945.35 | 1,520.89 | 1,411.70 | 109.18 | 13.930 | |
| 15,700.00 | 12,094.61 | 15,396.17 | 11,799.00 | 62.03 | 51.80 | 78.79 | -4,421.68 | -1,944.49 | 1,520.93 | 1,409.16 | 111.78 | 13.607 | |
| 15,800.00 | 12,095.31 | 15,496.17 | 11,799.70 | 63.35 | 53.11 | 78.79 | -4,521.68 | -1,943.63 | 1,520.98 | 1,406.61 | 114.37 | 13.299 | |
| 15,900.00 | 12,096.01 | 15,596.17 | 11,800.40 | 64.68 | 54.42 | 78.79 | -4,621.67 | -1,942.77 | 1,521.02 | 1,404.05 | 116.97 | 13.003 | |
| 16,000.00 | 12,096.71 | 15,696.17 | 11,801.10 | 66.02 | 55.74 | 78.79 | -4,721.66 | -1,941.91 | 1,521.07 | 1,401.49 | 119.58 | 12.720 | |
| 16,100.00 | 12,097.40 | 15,796.17 | 11,801.79 | 67.35 | 57.06 | 78.79 | -4,821.66 | -1,941.05 | 1,521.11 | 1,398.93 | 122.19 | 12.449 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16,200.00 | 12,098.10 | 15,896.17 | 11,802.49 | 68.68 | 58.38 | 78.79 | -4,921.65 | -1,940.19 | 1,521.16 | 1,396.36 | 124.80 | 12.189 | |
| 16,300.00 | 12,098.80 | 15,996.17 | 11,803.19 | 70.02 | 59.71 | 78.79 | -5,021.65 | -1,939.33 | 1,521.21 | 1,393.79 | 127.42 | 11.939 | |
| 16,400.00 | 12,099.50 | 16,096.17 | 11,803.89 | 71.36 | 61.03 | 78.79 | -5,121.64 | -1,938.47 | 1,521.25 | 1,391.22 | 130.04 | 11.699 | |
| 16,500.00 | 12,100.20 | 16,196.17 | 11,804.58 | 72.69 | 62.36 | 78.80 | -5,221.63 | -1,937.61 | 1,521.30 | 1,388.64 | 132.66 | 11.468 | |
| 16,600.00 | 12,100.90 | 16,296.17 | 11,805.28 | 74.03 | 63.69 | 78.80 | -5,321.63 | -1,936.75 | 1,521.34 | 1,386.06 | 135.28 | 11.246 | |
| 16,700.00 | 12,101.59 | 16,396.17 | 11,805.98 | 75.37 | 65.02 | 78.80 | -5,421.62 | -1,935.89 | 1,521.39 | 1,383.48 | 137.91 | 11.032 | |
| 16,800.00 | 12,102.29 | 16,496.17 | 11,806.68 | 76.72 | 66.35 | 78.80 | -5,521.62 | -1,935.03 | 1,521.43 | 1,380.89 | 140.54 | 10.826 | |
| 16,900.00 | 12,102.99 | 16,596.17 | 11,807.37 | 78.06 | 67.69 | 78.80 | -5,621.61 | -1,934.17 | 1,521.48 | 1,378.31 | 143.17 | 10.627 | |
| 17,000.00 | 12,103.69 | 16,696.17 | 11,808.07 | 79.40 | 69.02 | 78.80 | -5,721.60 | -1,933.30 | 1,521.53 | 1,375.72 | 145.81 | 10.435 | |
| 17,100.00 | 12,104.39 | 16,796.17 | 11,808.77 | 80.75 | 70.36 | 78.80 | -5,821.60 | -1,932.44 | 1,521.57 | 1,373.13 | 148.45 | 10.250 | |
| 17,200.00 | 12,105.08 | 16,896.17 | 11,809.47 | 82.09 | 71.70 | 78.80 | -5,921.59 | -1,931.58 | 1,521.62 | 1,370.53 | 151.08 | 10.071 | |
| 17,300.00 | 12,105.78 | 16,996.17 | 11,810.16 | 83.44 | 73.04 | 78.80 | -6,021.58 | -1,930.72 | 1,521.66 | 1,367.94 | 153.73 | 9.899 | |
| 17,400.00 | 12,106.48 | 17,096.17 | 11,810.86 | 84.78 | 74.38 | 78.80 | -6,121.58 | -1,929.86 | 1,521.71 | 1,365.34 | 156.37 | 9.732 | |
| 17,500.00 | 12,107.18 | 17,196.17 | 11,811.56 | 86.13 | 75.72 | 78.80 | -6,221.57 | -1,929.00 | 1,521.76 | 1,362.74 | 159.01 | 9.570 | |
| 17,600.00 | 12,107.88 | 17,296.17 | 11,812.26 | 87.48 | 77.06 | 78.80 | -6,321.57 | -1,928.14 | 1,521.80 | 1,360.14 | 161.66 | 9.414 | |
| 17,700.00 | 12,108.58 | 17,396.17 | 11,812.95 | 88.83 | 78.41 | 78.80 | -6,421.56 | -1,927.28 | 1,521.85 | 1,357.54 | 164.31 | 9.262 | |
| 17,800.00 | 12,109.27 | 17,496.17 | 11,813.65 | 90.18 | 79.75 | 78.80 | -6,521.55 | -1,926.42 | 1,521.89 | 1,354.94 | 166.96 | 9.116 | |
| 17,900.00 | 12,109.97 | 17,596.17 | 11,814.35 | 91.52 | 81.10 | 78.80 | -6,621.55 | -1,925.56 | 1,521.94 | 1,352.33 | 169.61 | 8.973 | |
| 18,000.00 | 12,110.67 | 17,696.17 | 11,815.05 | 92.88 | 82.44 | 78.80 | -6,721.54 | -1,924.70 | 1,521.98 | 1,349.73 | 172.26 | 8.836 | |
| 18,100.00 | 12,111.37 | 17,796.17 | 11,815.74 | 94.23 | 83.79 | 78.80 | -6,821.54 | -1,923.84 | 1,522.03 | 1,347.12 | 174.91 | 8.702 | |
| 18,200.00 | 12,112.07 | 17,896.17 | 11,816.44 | 95.58 | 85.14 | 78.80 | -6,921.53 | -1,922.98 | 1,522.08 | 1,344.51 | 177.56 | 8.572 | |
| 18,300.00 | 12,112.77 | 17,996.17 | 11,817.14 | 96.93 | 86.49 | 78.80 | -7,021.52 | -1,922.12 | 1,522.12 | 1,341.90 | 180.22 | 8.446 | |
| 18,400.00 | 12,113.46 | 18,096.17 | 11,817.84 | 98.28 | 87.84 | 78.80 | -7,121.52 | -1,921.26 | 1,522.17 | 1,339.29 | 182.88 | 8.323 | |
| 18,500.00 | 12,114.16 | 18,196.17 | 11,818.54 | 99.63 | 89.19 | 78.80 | -7,221.51 | -1,920.40 | 1,522.21 | 1,336.68 | 185.53 | 8.204 | |
| 18,600.00 | 12,114.86 | 18,296.17 | 11,819.23 | 100.99 | 90.54 | 78.80 | -7,321.50 | -1,919.54 | 1,522.26 | 1,334.07 | 188.19 | 8.089 | |
| 18,700.00 | 12,115.56 | 18,396.17 | 11,819.93 | 102.34 | 91.89 | 78.80 | -7,421.50 | -1,918.68 | 1,522.31 | 1,331.45 | 190.85 | 7.976 | |
| 18,800.00 | 12,116.26 | 18,496.17 | 11,820.63 | 103.70 | 93.24 | 78.80 | -7,521.49 | -1,917.82 | 1,522.35 | 1,328.84 | 193.51 | 7.867 | |
| 18,900.00 | 12,116.95 | 18,596.17 | 11,821.33 | 105.05 | 94.59 | 78.80 | -7,621.49 | -1,916.96 | 1,522.40 | 1,326.22 | 196.18 | 7.760 | |
| 19,000.00 | 12,117.65 | 18,696.17 | 11,822.02 | 106.41 | 95.94 | 78.80 | -7,721.48 | -1,916.10 | 1,522.44 | 1,323.61 | 198.84 | 7.657 | |
| 19,100.00 | 12,118.35 | 18,796.17 | 11,822.72 | 107.76 | 97.30 | 78.80 | -7,821.47 | -1,915.24 | 1,522.49 | 1,320.99 | 201.50 | 7.556 | |
| 19,200.00 | 12,119.05 | 18,896.17 | 11,823.42 | 109.12 | 98.65 | 78.80 | -7,921.47 | -1,914.38 | 1,522.53 | 1,318.37 | 204.16 | 7.457 | |
| 19,300.00 | 12,119.75 | 18,996.17 | 11,824.12 | 110.47 | 100.00 | 78.80 | -8,021.46 | -1,913.52 | 1,522.58 | 1,315.75 | 206.83 | 7.362 | |
| 19,400.00 | 12,120.45 | 19,096.17 | 11,824.81 | 111.83 | 101.36 | 78.80 | -8,121.46 | -1,912.66 | 1,522.63 | 1,313.13 | 209.49 | 7.268 | |
| 19,500.00 | 12,121.14 | 19,196.17 | 11,825.51 | 113.19 | 102.71 | 78.80 | -8,221.45 | -1,911.80 | 1,522.67 | 1,310.51 | 212.16 | 7.177 | |
| 19,600.00 | 12,121.84 | 19,296.17 | 11,826.21 | 114.54 | 104.07 | 78.80 | -8,321.44 | -1,910.94 | 1,522.72 | 1,307.89 | 214.83 | 7.088 | |
| 19,700.00 | 12,122.54 | 19,396.17 | 11,826.91 | 115.90 | 105.42 | 78.81 | -8,421.44 | -1,910.08 | 1,522.76 | 1,305.27 | 217.50 | 7.001 | |
| 19,800.00 | 12,123.24 | 19,496.17 | 11,827.60 | 117.26 | 106.78 | 78.81 | -8,521.43 | -1,909.22 | 1,522.81 | 1,302.65 | 220.16 | 6.917 | |
| 19,900.00 | 12,123.94 | 19,596.17 | 11,828.30 | 118.61 | 108.14 | 78.81 | -8,621.42 | -1,908.36 | 1,522.85 | 1,300.02 | 222.83 | 6.834 | |
| 20,000.00 | 12,124.64 | 19,696.17 | 11,829.00 | 119.97 | 109.49 | 78.81 | -8,721.42 | -1,907.50 | 1,522.90 | 1,297.40 | 225.50 | 6.753 | |
| 20,100.00 | 12,125.33 | 19,796.17 | 11,829.70 | 121.33 | 110.85 | 78.81 | -8,821.41 | -1,906.64 | 1,522.95 | 1,294.78 | 228.17 | 6.675 | |
| 20,200.00 | 12,126.03 | 19,896.17 | 11,830.39 | 122.69 | 112.21 | 78.81 | -8,921.41 | -1,905.78 | 1,522.99 | 1,292.15 | 230.84 | 6.598 | |
| 20,300.00 | 12,126.73 | 19,996.17 | 11,831.09 | 124.05 | 113.56 | 78.81 | -9,021.40 | -1,904.92 | 1,523.04 | 1,289.53 | 233.51 | 6.522 | |
| 20,400.00 | 12,127.43 | 20,096.17 | 11,831.79 | 125.41 | 114.92 | 78.81 | -9,121.39 | -1,904.06 | 1,523.08 | 1,286.90 | 236.18 | 6.449 | |
| 20,500.00 | 12,128.13 | 20,196.17 | 11,832.49 | 126.77 | 116.28 | 78.81 | -9,221.39 | -1,903.20 | 1,523.13 | 1,284.27 | 238.86 | 6.377 | |
| 20,600.00 | 12,128.83 | 20,296.17 | 11,833.18 | 128.13 | 117.64 | 78.81 | -9,321.38 | -1,902.34 | 1,523.18 | 1,281.65 | 241.53 | 6.306 | |
| 20,700.00 | 12,129.52 | 20,396.17 | 11,833.88 | 129.49 | 119.00 | 78.81 | -9,421.38 | -1,901.48 | 1,523.22 | 1,279.02 | 244.20 | 6.238 | |
| 20,800.00 | 12,130.22 | 20,496.17 | 11,834.58 | 130.85 | 120.35 | 78.81 | -9,521.37 | -1,900.62 | 1,523.27 | 1,276.39 | 246.87 | 6.170 | |
| 20,900.00 | 12,130.92 | 20,596.17 | 11,835.28 | 132.21 | 121.71 | 78.81 | -9,621.36 | -1,899.76 | 1,523.31 | 1,273.76 | 249.55 | 6.104 | |
| 21,000.00 | 12,131.62 | 20,696.17 | 11,835.97 | 133.57 | 123.07 | 78.81 | -9,721.36 | -1,898.89 | 1,523.36 | 1,271.14 | 252.22 | 6.040 | |
| 21,100.00 | 12,132.32 | 20,796.17 | 11,836.67 | 134.93 | 124.43 | 78.81 | -9,821.35 | -1,898.03 | 1,523.40 | 1,268.51 | 254.90 | 5.977 | |
| 21,200.00 | 12,133.01 | 20,896.17 | 11,837.37 | 136.29 | 125.79 | 78.81 | -9,921.34 | -1,897.17 | 1,523.45 | 1,265.88 | 257.57 | 5.915 | |
| 21,300.00 | 12,133.71 | 20,996.17 | 11,838.07 | 137.65 | 127.15 | 78.81 | -10,021.34 | -1,896.31 | 1,523.50 | 1,263.25 | 260.25 | 5.854 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3 — **Offset Site Error:** 0.00 usft

**Survey Program:** 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21,400.00 | 12,134.41 | 21,096.17 | 11,838.76 | 139.01 | 128.51 | 78.81 | -10,121.33 | -1,895.45 | 1,523.54 | 1,260.62 | 262.92 | 5.795 | |
| 21,500.00 | 12,135.11 | 21,196.17 | 11,839.46 | 140.37 | 129.87 | 78.81 | -10,221.33 | -1,894.59 | 1,523.59 | 1,257.99 | 265.60 | 5.736 | |
| 21,600.00 | 12,135.81 | 21,296.17 | 11,840.16 | 141.73 | 131.23 | 78.81 | -10,321.32 | -1,893.73 | 1,523.63 | 1,255.36 | 268.28 | 5.679 | |
| 21,700.00 | 12,136.51 | 21,396.17 | 11,840.86 | 143.09 | 132.59 | 78.81 | -10,421.31 | -1,892.87 | 1,523.68 | 1,252.73 | 270.95 | 5.623 | |
| 21,800.00 | 12,137.20 | 21,496.17 | 11,841.56 | 144.46 | 133.96 | 78.81 | -10,521.31 | -1,892.01 | 1,523.73 | 1,250.10 | 273.63 | 5.569 | |
| 21,900.00 | 12,137.90 | 21,596.17 | 11,842.25 | 145.82 | 135.32 | 78.81 | -10,621.30 | -1,891.15 | 1,523.77 | 1,247.46 | 276.31 | 5.515 | |
| 22,000.00 | 12,138.60 | 21,696.17 | 11,842.95 | 147.18 | 136.68 | 78.81 | -10,721.30 | -1,890.29 | 1,523.82 | 1,244.83 | 278.99 | 5.462 | |
| 22,100.00 | 12,139.30 | 21,796.17 | 11,843.65 | 148.54 | 138.04 | 78.81 | -10,821.29 | -1,889.43 | 1,523.86 | 1,242.20 | 281.66 | 5.410 | |
| 22,200.00 | 12,140.00 | 21,896.17 | 11,844.35 | 149.90 | 139.40 | 78.81 | -10,921.28 | -1,888.57 | 1,523.91 | 1,239.57 | 284.34 | 5.359 | |
| 22,300.00 | 12,140.70 | 21,996.17 | 11,845.04 | 151.27 | 140.76 | 78.81 | -11,021.28 | -1,887.71 | 1,523.95 | 1,236.93 | 287.02 | 5.310 | |
| 22,300.05 | 12,140.70 | 21,996.22 | 11,845.04 | 151.27 | 140.76 | 78.81 | -11,021.33 | -1,887.71 | 1,523.95 | 1,236.93 | 287.02 | 5.310 | |
| 22,387.52 | 12,141.31 | 22,079.41 | 11,845.62 | 152.46 | 141.78 | 78.81 | -11,104.51 | -1,887.00 | 1,524.00 | 1,234.81 | 289.19 | 5.270 | ES, SF |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 0.50 | 0.50 | 180.00 | -25.00 | 0.00 | 25.00 | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.98 | 0.98 | 180.00 | -25.00 | 0.00 | 25.00 | 23.04 | 1.96 | 12.741 | |
| 200.00 | 200.00 | 200.00 | 200.00 | 1.56 | 1.56 | 180.00 | -25.00 | 0.00 | 25.00 | 21.88 | 3.12 | 8.007 | |
| 300.00 | 300.00 | 300.00 | 300.00 | 1.98 | 1.98 | 180.00 | -25.00 | 0.00 | 25.00 | 21.04 | 3.96 | 6.309 | CC, ES |
| 400.00 | 400.00 | 399.39 | 399.38 | 2.33 | 2.40 | -178.81 | -26.17 | -0.54 | 26.19 | 21.47 | 4.72 | 5.548 | |
| 500.00 | 500.00 | 498.64 | 498.55 | 2.63 | 2.76 | -175.82 | -29.68 | -2.17 | 29.80 | 24.42 | 5.38 | 5.543 | |
| 600.00 | 600.00 | 597.63 | 597.32 | 2.91 | 3.09 | -172.19 | -35.51 | -4.87 | 35.95 | 29.98 | 5.97 | 6.019 | |
| 700.00 | 700.00 | 696.92 | 696.26 | 3.16 | 3.22 | -168.94 | -43.22 | -8.44 | 44.19 | 37.83 | 6.36 | 6.949 | |
| 800.00 | 799.99 | 796.64 | 795.60 | 3.45 | 3.46 | -21.37 | -51.10 | -12.10 | 51.48 | 44.60 | 6.88 | 7.486 | |
| 900.00 | 899.91 | 896.52 | 895.10 | 3.70 | 3.70 | -20.95 | -59.00 | -15.76 | 56.36 | 49.00 | 7.36 | 7.656 | |
| 1,000.00 | 999.69 | 996.49 | 994.68 | 3.95 | 3.92 | -21.50 | -66.90 | -19.42 | 58.80 | 50.97 | 7.83 | 7.510 | |
| 1,100.00 | 1,099.32 | 1,096.48 | 1,094.29 | 4.05 | 4.15 | -22.76 | -74.81 | -23.09 | 59.36 | 51.21 | 8.15 | 7.287 | |
| 1,200.00 | 1,198.94 | 1,196.47 | 1,193.90 | 4.24 | 4.37 | -24.05 | -82.72 | -26.75 | 59.81 | 51.26 | 8.55 | 6.993 | |
| 1,300.00 | 1,298.53 | 1,295.84 | 1,292.88 | 4.33 | 4.49 | -26.45 | -90.77 | -30.53 | 60.26 | 51.50 | 8.76 | 6.876 | |
| 1,400.00 | 1,397.89 | 1,394.43 | 1,390.85 | 4.57 | 4.75 | -29.58 | -100.53 | -35.49 | 60.82 | 51.60 | 9.22 | 6.596 | |
| 1,500.00 | 1,496.93 | 1,493.01 | 1,488.51 | 4.81 | 5.00 | -32.45 | -112.36 | -41.86 | 61.61 | 51.93 | 9.67 | 6.370 | |
| 1,600.00 | 1,595.62 | 1,591.59 | 1,585.79 | 4.92 | 5.25 | -34.81 | -126.28 | -49.66 | 62.87 | 52.86 | 10.00 | 6.286 | |
| 1,700.00 | 1,694.25 | 1,690.12 | 1,682.57 | 5.12 | 5.50 | -35.69 | -142.24 | -58.87 | 66.10 | 55.67 | 10.43 | 6.340 | |
| 1,800.00 | 1,792.87 | 1,789.52 | 1,779.83 | 5.31 | 5.67 | -35.64 | -159.96 | -69.27 | 71.02 | 60.22 | 10.80 | 6.575 | |
| 1,900.00 | 1,891.50 | 1,889.39 | 1,877.52 | 5.51 | 5.88 | -35.53 | -177.87 | -79.79 | 76.07 | 64.84 | 11.23 | 6.773 | |
| 2,000.00 | 1,990.13 | 1,989.26 | 1,975.21 | 5.71 | 6.09 | -35.44 | -195.78 | -90.30 | 81.12 | 69.45 | 11.67 | 6.952 | |
| 2,100.00 | 2,088.76 | 2,089.14 | 2,072.90 | 5.90 | 6.30 | -35.36 | -213.68 | -100.82 | 86.16 | 74.06 | 12.10 | 7.119 | |
| 2,200.00 | 2,187.39 | 2,189.01 | 2,170.59 | 6.10 | 6.52 | -35.29 | -231.59 | -111.34 | 91.21 | 78.67 | 12.54 | 7.273 | |
| 2,300.00 | 2,286.02 | 2,288.88 | 2,268.27 | 6.30 | 6.73 | -35.23 | -249.50 | -121.86 | 96.25 | 83.27 | 12.98 | 7.416 | |
| 2,400.00 | 2,384.65 | 2,388.75 | 2,365.96 | 6.50 | 6.96 | -35.17 | -267.41 | -132.37 | 101.30 | 87.88 | 13.42 | 7.549 | |
| 2,500.00 | 2,483.28 | 2,488.63 | 2,463.65 | 6.69 | 7.23 | -35.12 | -285.32 | -142.89 | 106.35 | 92.49 | 13.86 | 7.674 | |
| 2,600.00 | 2,581.91 | 2,588.50 | 2,561.34 | 6.89 | 7.51 | -35.07 | -303.23 | -153.41 | 111.39 | 97.09 | 14.30 | 7.791 | |
| 2,700.00 | 2,680.54 | 2,688.37 | 2,659.03 | 7.10 | 7.79 | -35.03 | -321.14 | -163.93 | 116.44 | 101.70 | 14.74 | 7.900 | |
| 2,800.00 | 2,779.17 | 2,788.24 | 2,756.72 | 7.33 | 8.07 | -34.99 | -339.04 | -174.44 | 121.49 | 106.31 | 15.18 | 8.003 | |
| 2,900.00 | 2,877.80 | 2,888.12 | 2,854.41 | 7.56 | 8.35 | -34.96 | -356.95 | -184.96 | 126.53 | 110.91 | 15.62 | 8.100 | |
| 3,000.00 | 2,976.43 | 2,987.99 | 2,952.10 | 7.79 | 8.64 | -34.92 | -374.86 | -195.48 | 131.58 | 115.51 | 16.06 | 8.191 | |
| 3,100.00 | 3,075.06 | 3,087.86 | 3,049.79 | 8.02 | 8.92 | -34.89 | -392.77 | -205.99 | 136.63 | 120.12 | 16.51 | 8.277 | |
| 3,200.00 | 3,173.69 | 3,187.73 | 3,147.48 | 8.25 | 9.21 | -34.86 | -410.68 | -216.51 | 141.67 | 124.72 | 16.95 | 8.358 | |
| 3,300.00 | 3,272.32 | 3,287.61 | 3,245.17 | 8.48 | 9.49 | -34.84 | -428.59 | -227.03 | 146.72 | 129.33 | 17.39 | 8.436 | |
| 3,400.00 | 3,370.94 | 3,387.48 | 3,342.86 | 8.72 | 9.78 | -34.81 | -446.49 | -237.55 | 151.77 | 133.93 | 17.84 | 8.509 | |
| 3,500.00 | 3,469.57 | 3,487.35 | 3,440.55 | 8.95 | 10.06 | -34.79 | -464.40 | -248.06 | 156.81 | 138.53 | 18.28 | 8.578 | |
| 3,600.00 | 3,568.20 | 3,587.22 | 3,538.24 | 9.19 | 10.35 | -34.76 | -482.31 | -258.58 | 161.86 | 143.13 | 18.72 | 8.644 | |
| 3,700.00 | 3,666.83 | 3,687.10 | 3,635.92 | 9.42 | 10.64 | -34.74 | -500.22 | -269.10 | 166.91 | 147.74 | 19.17 | 8.707 | |
| 3,800.00 | 3,765.46 | 3,786.97 | 3,733.61 | 9.66 | 10.92 | -34.72 | -518.13 | -279.62 | 171.95 | 152.35 | 19.61 | 8.770 | |
| 3,900.00 | 3,864.09 | 3,890.90 | 3,835.52 | 9.89 | 11.20 | -34.89 | -535.68 | -289.93 | 175.91 | 155.83 | 20.08 | 8.759 | |
| 4,000.00 | 3,962.72 | 3,995.15 | 3,938.27 | 10.13 | 11.47 | -35.48 | -550.89 | -298.86 | 177.46 | 156.90 | 20.56 | 8.632 | |
| 4,100.00 | 4,061.35 | 4,099.36 | 4,041.42 | 10.36 | 11.70 | -36.49 | -563.67 | -306.36 | 176.62 | 155.60 | 21.02 | 8.402 | |
| 4,200.00 | 4,159.98 | 4,203.37 | 4,144.73 | 10.60 | 11.91 | -37.97 | -574.00 | -312.43 | 173.47 | 152.00 | 21.47 | 8.078 | |
| 4,300.00 | 4,258.61 | 4,307.03 | 4,247.98 | 10.83 | 12.09 | -40.01 | -581.88 | -317.06 | 168.14 | 146.22 | 21.92 | 7.672 | |
| 4,400.00 | 4,357.24 | 4,410.18 | 4,350.94 | 11.07 | 12.23 | -42.74 | -587.32 | -320.25 | 160.79 | 138.44 | 22.35 | 7.193 | |
| 4,500.00 | 4,455.87 | 4,512.69 | 4,453.38 | 11.31 | 12.35 | -46.34 | -590.34 | -322.03 | 151.70 | 128.92 | 22.78 | 6.659 | |
| 4,600.00 | 4,554.50 | 4,613.81 | 4,554.50 | 11.54 | 12.41 | -51.06 | -591.06 | -322.45 | 141.34 | 118.16 | 23.18 | 6.098 | |
| 4,700.00 | 4,653.13 | 4,712.44 | 4,653.13 | 11.78 | 12.45 | -56.61 | -591.06 | -322.45 | 131.50 | 107.91 | 23.59 | 5.575 | |
| 4,800.00 | 4,751.76 | 4,811.06 | 4,751.76 | 12.02 | 12.49 | -62.96 | -591.06 | -322.45 | 123.10 | 99.08 | 24.02 | 5.124 | |
| 4,900.00 | 4,850.39 | 4,909.69 | 4,850.39 | 12.26 | 12.53 | -70.12 | -591.06 | -322.45 | 116.44 | 91.98 | 24.47 | 4.759 | |
| 5,000.00 | 4,949.01 | 5,008.32 | 4,949.01 | 12.49 | 12.56 | -77.99 | -591.06 | -322.45 | 111.84 | 86.95 | 24.89 | 4.493 | |
| 5,100.00 | 5,047.64 | 5,106.95 | 5,047.64 | 12.73 | 12.60 | -86.35 | -591.06 | -322.45 | 109.56 | 84.28 | 25.28 | 4.333 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,142.89 | 5,089.95 | 5,149.26 | 5,089.95 | 12.83 | 12.62 | -90.00 | -591.06 | -322.45 | 109.33 | 83.90 | 25.43 | 4.299 | |
| 5,200.00 | 5,146.27 | 5,205.58 | 5,146.27 | 12.97 | 12.64 | -94.86 | -591.06 | -322.45 | 109.74 | 84.13 | 25.61 | 4.285 | |
| 5,300.00 | 5,244.90 | 5,304.21 | 5,244.90 | 13.21 | 12.68 | -103.16 | -591.06 | -322.45 | 112.36 | 86.50 | 25.86 | 4.345 | |
| 5,400.00 | 5,343.57 | 5,402.88 | 5,343.57 | 13.41 | 12.72 | -110.86 | -591.06 | -322.45 | 117.18 | 91.17 | 26.01 | 4.505 | |
| 5,500.00 | 5,442.58 | 5,501.89 | 5,442.58 | 13.63 | 12.76 | -117.02 | -591.06 | -322.45 | 122.94 | 96.78 | 26.16 | 4.699 | |
| 5,600.00 | 5,541.92 | 5,601.22 | 5,541.92 | 13.82 | 12.81 | -121.63 | -591.06 | -322.45 | 128.59 | 102.29 | 26.30 | 4.889 | |
| 5,700.00 | 5,641.52 | 5,700.83 | 5,641.52 | 13.98 | 12.85 | -124.92 | -591.06 | -322.45 | 133.46 | 107.02 | 26.44 | 5.048 | |
| 5,800.00 | 5,741.32 | 5,800.63 | 5,741.32 | 14.12 | 12.89 | -127.10 | -591.06 | -322.45 | 137.14 | 110.55 | 26.58 | 5.159 | |
| 5,900.00 | 5,841.25 | 5,900.56 | 5,841.25 | 14.23 | 12.93 | -128.32 | -591.06 | -322.45 | 139.36 | 112.63 | 26.73 | 5.213 | |
| 6,000.00 | 5,941.25 | 6,000.55 | 5,941.25 | 14.28 | 12.98 | 89.59 | -591.06 | -322.45 | 140.00 | 113.18 | 26.83 | 5.219 | |
| 6,100.00 | 6,041.25 | 6,100.55 | 6,041.25 | 14.32 | 13.02 | 89.59 | -591.06 | -322.45 | 140.00 | 113.10 | 26.90 | 5.204 | |
| 6,200.00 | 6,141.25 | 6,200.55 | 6,141.25 | 14.35 | 13.06 | 89.59 | -591.06 | -322.45 | 140.00 | 113.03 | 26.98 | 5.190 | |
| 6,300.00 | 6,241.25 | 6,300.55 | 6,241.25 | 14.39 | 13.11 | 89.59 | -591.06 | -322.45 | 140.00 | 112.95 | 27.06 | 5.175 | |
| 6,400.00 | 6,341.25 | 6,400.55 | 6,341.25 | 14.42 | 13.15 | 89.59 | -591.06 | -322.45 | 140.00 | 112.87 | 27.13 | 5.160 | |
| 6,500.00 | 6,441.25 | 6,500.55 | 6,441.25 | 14.46 | 13.20 | 89.59 | -591.06 | -322.45 | 140.00 | 112.79 | 27.21 | 5.145 | |
| 6,600.00 | 6,541.25 | 6,600.55 | 6,541.25 | 14.49 | 13.24 | 89.59 | -591.06 | -322.45 | 140.00 | 112.71 | 27.29 | 5.130 | |
| 6,700.00 | 6,641.25 | 6,700.55 | 6,641.25 | 14.53 | 13.29 | 89.59 | -591.06 | -322.45 | 140.00 | 112.63 | 27.37 | 5.115 | |
| 6,800.00 | 6,741.25 | 6,800.55 | 6,741.25 | 14.56 | 13.34 | 89.59 | -591.06 | -322.45 | 140.00 | 112.55 | 27.45 | 5.100 | |
| 6,900.00 | 6,841.25 | 6,900.55 | 6,841.25 | 14.60 | 13.38 | 89.59 | -591.06 | -322.45 | 140.00 | 112.47 | 27.53 | 5.085 | |
| 7,000.00 | 6,941.25 | 7,000.55 | 6,941.25 | 14.64 | 13.43 | 89.59 | -591.06 | -322.45 | 140.00 | 112.39 | 27.62 | 5.070 | |
| 7,100.00 | 7,041.25 | 7,100.55 | 7,041.25 | 14.68 | 13.48 | 89.59 | -591.06 | -322.45 | 140.00 | 112.30 | 27.70 | 5.054 | |
| 7,200.00 | 7,141.25 | 7,200.55 | 7,141.25 | 14.71 | 13.52 | 89.59 | -591.06 | -322.45 | 140.00 | 112.22 | 27.78 | 5.039 | |
| 7,300.00 | 7,241.25 | 7,300.55 | 7,241.25 | 14.75 | 13.57 | 89.59 | -591.06 | -322.45 | 140.00 | 112.14 | 27.87 | 5.024 | |
| 7,400.00 | 7,341.25 | 7,400.55 | 7,341.25 | 14.79 | 13.62 | 89.59 | -591.06 | -322.45 | 140.00 | 112.05 | 27.95 | 5.009 | |
| 7,500.00 | 7,441.25 | 7,500.55 | 7,441.25 | 14.83 | 13.67 | 89.59 | -591.06 | -322.45 | 140.00 | 111.97 | 28.04 | 4.993 | |
| 7,600.00 | 7,541.25 | 7,600.55 | 7,541.25 | 14.87 | 13.72 | 89.59 | -591.06 | -322.45 | 140.00 | 111.88 | 28.12 | 4.978 | |
| 7,700.00 | 7,641.25 | 7,700.55 | 7,641.25 | 14.91 | 13.77 | 89.59 | -591.06 | -322.45 | 140.00 | 111.79 | 28.21 | 4.963 | |
| 7,800.00 | 7,741.25 | 7,800.55 | 7,741.25 | 14.95 | 13.82 | 89.59 | -591.06 | -322.45 | 140.00 | 111.70 | 28.30 | 4.947 | |
| 7,900.00 | 7,841.25 | 7,900.55 | 7,841.25 | 14.99 | 13.87 | 89.59 | -591.06 | -322.45 | 140.00 | 111.62 | 28.39 | 4.932 | |
| 8,000.00 | 7,941.25 | 8,000.55 | 7,941.25 | 15.03 | 13.92 | 89.59 | -591.06 | -322.45 | 140.00 | 111.53 | 28.48 | 4.916 | |
| 8,100.00 | 8,041.25 | 8,100.55 | 8,041.25 | 15.07 | 13.97 | 89.59 | -591.06 | -322.45 | 140.00 | 111.44 | 28.57 | 4.901 | |
| 8,200.00 | 8,141.25 | 8,200.55 | 8,141.25 | 15.11 | 14.02 | 89.59 | -591.06 | -322.45 | 140.00 | 111.35 | 28.66 | 4.885 | |
| 8,300.00 | 8,241.25 | 8,300.55 | 8,241.25 | 15.15 | 14.07 | 89.59 | -591.06 | -322.45 | 140.00 | 111.25 | 28.75 | 4.870 | |
| 8,400.00 | 8,341.25 | 8,400.55 | 8,341.25 | 15.20 | 14.12 | 89.59 | -591.06 | -322.45 | 140.00 | 111.16 | 28.84 | 4.854 | |
| 8,500.00 | 8,441.25 | 8,500.55 | 8,441.25 | 15.24 | 14.17 | 89.59 | -591.06 | -322.45 | 140.00 | 111.07 | 28.93 | 4.839 | |
| 8,600.00 | 8,541.25 | 8,600.55 | 8,541.25 | 15.28 | 14.23 | 89.59 | -591.06 | -322.45 | 140.00 | 110.98 | 29.03 | 4.823 | |
| 8,700.00 | 8,641.25 | 8,700.55 | 8,641.25 | 15.32 | 14.28 | 89.59 | -591.06 | -322.45 | 140.00 | 110.88 | 29.12 | 4.808 | |
| 8,800.00 | 8,741.25 | 8,800.55 | 8,741.25 | 15.37 | 14.33 | 89.59 | -591.06 | -322.45 | 140.00 | 110.79 | 29.21 | 4.792 | |
| 8,900.00 | 8,841.25 | 8,900.55 | 8,841.25 | 15.41 | 14.38 | 89.59 | -591.06 | -322.45 | 140.00 | 110.70 | 29.31 | 4.777 | |
| 9,000.00 | 8,941.25 | 9,000.55 | 8,941.25 | 15.46 | 14.44 | 89.59 | -591.06 | -322.45 | 140.00 | 110.60 | 29.40 | 4.761 | |
| 9,100.00 | 9,041.25 | 9,100.55 | 9,041.25 | 15.50 | 14.49 | 89.59 | -591.06 | -322.45 | 140.00 | 110.50 | 29.50 | 4.746 | |
| 9,200.00 | 9,141.25 | 9,200.55 | 9,141.25 | 15.55 | 14.54 | 89.59 | -591.06 | -322.45 | 140.00 | 110.41 | 29.60 | 4.730 | |
| 9,300.00 | 9,241.25 | 9,300.55 | 9,241.25 | 15.59 | 14.60 | 89.59 | -591.06 | -322.45 | 140.00 | 110.31 | 29.69 | 4.715 | |
| 9,400.00 | 9,341.25 | 9,400.55 | 9,341.25 | 15.64 | 14.65 | 89.59 | -591.06 | -322.45 | 140.00 | 110.21 | 29.79 | 4.699 | |
| 9,500.00 | 9,441.25 | 9,500.55 | 9,441.25 | 15.68 | 14.71 | 89.59 | -591.06 | -322.45 | 140.00 | 110.11 | 29.89 | 4.684 | |
| 9,600.00 | 9,541.25 | 9,600.55 | 9,541.25 | 15.73 | 14.76 | 89.59 | -591.06 | -322.45 | 140.00 | 110.02 | 29.99 | 4.669 | |
| 9,700.00 | 9,641.25 | 9,700.55 | 9,641.25 | 15.78 | 14.82 | 89.59 | -591.06 | -322.45 | 140.00 | 109.92 | 30.09 | 4.653 | |
| 9,800.00 | 9,741.25 | 9,800.55 | 9,741.25 | 15.82 | 14.87 | 89.59 | -591.06 | -322.45 | 140.00 | 109.82 | 30.19 | 4.638 | |
| 9,900.00 | 9,841.25 | 9,900.55 | 9,841.25 | 15.87 | 14.93 | 89.59 | -591.06 | -322.45 | 140.00 | 109.72 | 30.29 | 4.622 | |
| 10,000.00 | 9,941.25 | 10,000.55 | 9,941.25 | 15.92 | 14.98 | 89.59 | -591.06 | -322.45 | 140.00 | 109.61 | 30.39 | 4.607 | |
| 10,100.00 | 10,041.25 | 10,100.55 | 10,041.25 | 15.96 | 15.04 | 89.59 | -591.06 | -322.45 | 140.00 | 109.51 | 30.49 | 4.592 | |
| 10,200.00 | 10,141.25 | 10,200.55 | 10,141.25 | 16.01 | 15.10 | 89.59 | -591.06 | -322.45 | 140.00 | 109.41 | 30.59 | 4.576 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,300.00 | 10,241.25 | 10,300.55 | 10,241.25 | 16.06 | 15.15 | 89.59 | -591.06 | -322.45 | 140.00 | 109.31 | 30.70 | 4.561 | |
| 10,400.00 | 10,341.25 | 10,400.55 | 10,341.25 | 16.11 | 15.21 | 89.59 | -591.06 | -322.45 | 140.00 | 109.21 | 30.80 | 4.546 | |
| 10,500.00 | 10,441.25 | 10,500.55 | 10,441.25 | 16.16 | 15.27 | 89.59 | -591.06 | -322.45 | 140.00 | 109.10 | 30.90 | 4.531 | |
| 10,600.00 | 10,541.25 | 10,600.55 | 10,541.25 | 16.21 | 15.33 | 89.59 | -591.06 | -322.45 | 140.00 | 109.00 | 31.01 | 4.515 | |
| 10,700.00 | 10,641.25 | 10,700.55 | 10,641.25 | 16.26 | 15.38 | 89.59 | -591.06 | -322.45 | 140.00 | 108.89 | 31.11 | 4.500 | |
| 10,800.00 | 10,741.25 | 10,800.55 | 10,741.25 | 16.31 | 15.44 | 89.59 | -591.06 | -322.45 | 140.00 | 108.79 | 31.22 | 4.485 | |
| 10,900.00 | 10,841.25 | 10,900.55 | 10,841.25 | 16.36 | 15.50 | 89.59 | -591.06 | -322.45 | 140.00 | 108.68 | 31.32 | 4.470 | |
| 11,000.00 | 10,941.25 | 11,000.55 | 10,941.25 | 16.41 | 15.56 | 89.59 | -591.06 | -322.45 | 140.00 | 108.58 | 31.43 | 4.455 | |
| 11,013.40 | 10,954.65 | 11,013.96 | 10,954.65 | 16.41 | 15.56 | 89.59 | -591.06 | -322.45 | 140.00 | 108.56 | 31.44 | 4.453 | |
| 11,100.00 | 11,041.25 | 11,100.55 | 11,041.24 | 16.46 | 15.61 | 89.62 | -591.15 | -322.45 | 140.00 | 108.48 | 31.52 | 4.441 | |
| 11,100.00 | 11,041.25 | 11,100.55 | 11,041.24 | 16.46 | 15.61 | 89.62 | -591.15 | -322.45 | 140.00 | 108.48 | 31.52 | 4.441 | |
| 11,200.00 | 11,141.25 | 11,199.17 | 11,139.21 | 16.51 | 15.75 | 93.80 | -601.37 | -322.36 | 140.42 | 108.69 | 31.73 | 4.426 | |
| 11,300.00 | 11,241.25 | 11,291.73 | 11,228.30 | 16.56 | 15.97 | 103.63 | -626.10 | -322.13 | 144.97 | 112.70 | 32.26 | 4.493 | |
| 11,400.00 | 11,341.25 | 11,374.55 | 11,303.72 | 16.61 | 16.22 | 115.82 | -660.13 | -321.82 | 160.67 | 127.14 | 33.54 | 4.791 | |
| 11,500.00 | 11,441.25 | 11,450.00 | 11,367.53 | 16.66 | 16.50 | 127.51 | -700.30 | -321.46 | 192.42 | 156.93 | 35.50 | 5.421 | |
| 11,600.00 | 11,541.21 | 11,507.80 | 11,412.51 | 16.71 | 16.75 | -44.62 | -736.54 | -321.13 | 238.69 | 200.58 | 38.11 | 6.263 | |
| 11,700.00 | 11,639.79 | 11,566.43 | 11,454.18 | 16.90 | 17.06 | -35.79 | -777.75 | -320.75 | 288.00 | 247.58 | 40.42 | 7.125 | |
| 11,800.00 | 11,734.09 | 11,623.97 | 11,490.78 | 17.17 | 17.41 | -29.87 | -822.12 | -320.35 | 334.81 | 292.28 | 42.53 | 7.872 | |
| 11,900.00 | 11,821.25 | 11,680.71 | 11,522.33 | 17.53 | 17.79 | -25.85 | -869.25 | -319.92 | 377.14 | 332.72 | 44.42 | 8.490 | |
| 12,000.00 | 11,898.62 | 11,736.85 | 11,548.80 | 18.00 | 18.22 | -23.10 | -918.73 | -319.47 | 413.85 | 367.78 | 46.08 | 8.982 | |
| 12,100.00 | 11,963.85 | 11,800.00 | 11,572.64 | 18.59 | 18.75 | -21.17 | -977.17 | -318.94 | 444.35 | 397.00 | 47.35 | 9.384 | |
| 12,200.00 | 12,014.95 | 11,850.00 | 11,586.86 | 19.33 | 19.20 | -20.03 | -1,025.09 | -318.50 | 467.85 | 419.26 | 48.59 | 9.628 | |
| 12,300.00 | 12,050.38 | 11,900.00 | 11,596.86 | 20.19 | 19.67 | -19.35 | -1,074.06 | -318.06 | 484.35 | 434.87 | 49.48 | 9.788 | |
| 12,400.00 | 12,069.05 | 11,950.00 | 11,602.54 | 21.14 | 20.16 | -19.09 | -1,123.72 | -317.61 | 493.65 | 443.62 | 50.03 | 9.867 | |
| 12,500.00 | 12,072.27 | 12,034.28 | 11,604.20 | 22.15 | 21.03 | -19.31 | -1,207.96 | -316.84 | 495.98 | 445.67 | 50.31 | 9.859 | |
| 12,600.00 | 12,072.97 | 12,134.27 | 11,604.72 | 23.19 | 22.09 | -19.39 | -1,307.95 | -315.93 | 496.40 | 445.82 | 50.58 | 9.813 | |
| 12,700.00 | 12,073.66 | 12,234.27 | 11,605.25 | 24.26 | 23.18 | -19.38 | -1,407.94 | -315.02 | 496.57 | 445.66 | 50.91 | 9.755 | |
| 12,800.00 | 12,074.36 | 12,334.27 | 11,605.77 | 25.36 | 24.31 | -19.38 | -1,507.94 | -314.12 | 496.73 | 445.48 | 51.25 | 9.691 | |
| 12,900.00 | 12,075.06 | 12,434.27 | 11,606.30 | 26.49 | 25.45 | -19.37 | -1,607.93 | -313.21 | 496.90 | 445.26 | 51.63 | 9.624 | |
| 13,000.00 | 12,075.76 | 12,534.27 | 11,606.82 | 27.63 | 26.62 | -19.36 | -1,707.93 | -312.30 | 497.06 | 445.02 | 52.04 | 9.552 | |
| 13,100.00 | 12,076.46 | 12,634.27 | 11,607.35 | 28.80 | 27.80 | -19.36 | -1,807.92 | -311.39 | 497.22 | 444.76 | 52.47 | 9.477 | |
| 13,200.00 | 12,077.15 | 12,734.27 | 11,607.87 | 29.98 | 29.01 | -19.35 | -1,907.92 | -310.48 | 497.39 | 444.46 | 52.92 | 9.398 | |
| 13,300.00 | 12,077.85 | 12,834.27 | 11,608.40 | 31.18 | 30.22 | -19.34 | -2,007.91 | -309.57 | 497.55 | 444.15 | 53.40 | 9.317 | |
| 13,400.00 | 12,078.55 | 12,934.27 | 11,608.92 | 32.39 | 31.45 | -19.34 | -2,107.90 | -308.66 | 497.72 | 443.81 | 53.91 | 9.232 | |
| 13,500.00 | 12,079.25 | 13,034.27 | 11,609.45 | 33.61 | 32.69 | -19.33 | -2,207.90 | -307.75 | 497.88 | 443.44 | 54.44 | 9.146 | |
| 13,600.00 | 12,079.95 | 13,134.27 | 11,609.97 | 34.84 | 33.94 | -19.33 | -2,307.89 | -306.84 | 498.04 | 443.05 | 54.99 | 9.057 | |
| 13,700.00 | 12,080.65 | 13,234.27 | 11,610.50 | 36.08 | 35.19 | -19.32 | -2,407.89 | -305.94 | 498.21 | 442.64 | 55.57 | 8.966 | |
| 13,800.00 | 12,081.34 | 13,334.27 | 11,611.02 | 37.33 | 36.46 | -19.31 | -2,507.88 | -305.03 | 498.37 | 442.21 | 56.16 | 8.874 | |
| 13,900.00 | 12,082.04 | 13,434.27 | 11,611.55 | 38.59 | 37.73 | -19.31 | -2,607.88 | -304.12 | 498.54 | 441.76 | 56.78 | 8.780 | |
| 14,000.00 | 12,082.74 | 13,534.27 | 11,612.07 | 39.86 | 39.01 | -19.30 | -2,707.87 | -303.21 | 498.70 | 441.28 | 57.42 | 8.686 | |
| 14,100.00 | 12,083.44 | 13,634.27 | 11,612.60 | 41.13 | 40.30 | -19.29 | -2,807.86 | -302.30 | 498.86 | 440.79 | 58.07 | 8.591 | |
| 14,200.00 | 12,084.14 | 13,734.27 | 11,613.12 | 42.40 | 41.59 | -19.29 | -2,907.86 | -301.39 | 499.03 | 440.28 | 58.75 | 8.495 | |
| 14,300.00 | 12,084.84 | 13,834.27 | 11,613.65 | 43.69 | 42.88 | -19.28 | -3,007.85 | -300.48 | 499.19 | 439.75 | 59.44 | 8.398 | |
| 14,400.00 | 12,085.53 | 13,934.27 | 11,614.17 | 44.97 | 44.18 | -19.27 | -3,107.85 | -299.57 | 499.36 | 439.21 | 60.15 | 8.302 | |
| 14,500.00 | 12,086.23 | 14,034.27 | 11,614.70 | 46.27 | 45.48 | -19.27 | -3,207.84 | -298.66 | 499.52 | 438.64 | 60.88 | 8.205 | |
| 14,600.00 | 12,086.93 | 14,134.27 | 11,615.22 | 47.56 | 46.79 | -19.26 | -3,307.84 | -297.76 | 499.68 | 438.06 | 61.62 | 8.109 | |
| 14,700.00 | 12,087.63 | 14,234.27 | 11,615.75 | 48.86 | 48.10 | -19.26 | -3,407.83 | -296.85 | 499.85 | 437.47 | 62.38 | 8.013 | |
| 14,800.00 | 12,088.33 | 14,334.27 | 11,616.27 | 50.17 | 49.42 | -19.25 | -3,507.83 | -295.94 | 500.01 | 436.86 | 63.16 | 7.917 | |
| 14,900.00 | 12,089.02 | 14,434.27 | 11,616.80 | 51.47 | 50.73 | -19.24 | -3,607.82 | -295.03 | 500.18 | 436.23 | 63.94 | 7.822 | |
| 15,000.00 | 12,089.72 | 14,534.27 | 11,617.32 | 52.78 | 52.05 | -19.24 | -3,707.81 | -294.12 | 500.34 | 435.60 | 64.75 | 7.728 | |
| 15,100.00 | 12,090.42 | 14,634.27 | 11,617.85 | 54.10 | 53.37 | -19.23 | -3,807.81 | -293.21 | 500.51 | 434.94 | 65.56 | 7.634 | |
| 15,200.00 | 12,091.12 | 14,734.27 | 11,618.37 | 55.41 | 54.70 | -19.22 | -3,907.80 | -292.30 | 500.67 | 434.28 | 66.39 | 7.541 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,300.00 | 12,091.82 | 14,834.27 | 11,618.90 | 56.73 | 56.02 | -19.22 | -4,007.80 | -291.39 | 500.83 | 433.60 | 67.23 | 7.449 | |
| 15,400.00 | 12,092.52 | 14,934.27 | 11,619.42 | 58.05 | 57.35 | -19.21 | -4,107.79 | -290.48 | 501.00 | 432.91 | 68.09 | 7.358 | |
| 15,500.00 | 12,093.21 | 15,034.27 | 11,619.95 | 59.37 | 58.68 | -19.21 | -4,207.79 | -289.58 | 501.16 | 432.21 | 68.95 | 7.268 | |
| 15,600.00 | 12,093.91 | 15,134.27 | 11,620.47 | 60.70 | 60.01 | -19.20 | -4,307.78 | -288.67 | 501.33 | 431.50 | 69.83 | 7.180 | |
| 15,700.00 | 12,094.61 | 15,234.27 | 11,621.00 | 62.03 | 61.35 | -19.19 | -4,407.77 | -287.76 | 501.49 | 430.78 | 70.71 | 7.092 | |
| 15,800.00 | 12,095.31 | 15,334.27 | 11,621.52 | 63.35 | 62.68 | -19.19 | -4,507.77 | -286.85 | 501.66 | 430.05 | 71.61 | 7.006 | |
| 15,900.00 | 12,096.01 | 15,434.27 | 11,622.05 | 64.68 | 64.02 | -19.18 | -4,607.76 | -285.94 | 501.82 | 429.31 | 72.51 | 6.920 | |
| 16,000.00 | 12,096.71 | 15,534.27 | 11,622.58 | 66.02 | 65.36 | -19.17 | -4,707.76 | -285.03 | 501.98 | 428.55 | 73.43 | 6.836 | |
| 16,100.00 | 12,097.40 | 15,634.27 | 11,623.10 | 67.35 | 66.70 | -19.17 | -4,807.75 | -284.12 | 502.15 | 427.79 | 74.35 | 6.754 | |
| 16,200.00 | 12,098.10 | 15,734.27 | 11,623.63 | 68.68 | 68.04 | -19.16 | -4,907.75 | -283.21 | 502.31 | 427.03 | 75.29 | 6.672 | |
| 16,300.00 | 12,098.80 | 15,834.27 | 11,624.15 | 70.02 | 69.38 | -19.15 | -5,007.74 | -282.30 | 502.48 | 426.25 | 76.23 | 6.592 | |
| 16,400.00 | 12,099.50 | 15,934.27 | 11,624.68 | 71.36 | 70.72 | -19.15 | -5,107.73 | -281.39 | 502.64 | 425.46 | 77.18 | 6.513 | |
| 16,500.00 | 12,100.20 | 16,034.27 | 11,625.20 | 72.69 | 72.06 | -19.14 | -5,207.73 | -280.49 | 502.80 | 424.67 | 78.13 | 6.435 | |
| 16,600.00 | 12,100.90 | 16,134.27 | 11,625.73 | 74.03 | 73.41 | -19.14 | -5,307.72 | -279.58 | 502.97 | 423.87 | 79.10 | 6.359 | |
| 16,700.00 | 12,101.59 | 16,234.27 | 11,626.25 | 75.37 | 74.75 | -19.13 | -5,407.72 | -278.67 | 503.13 | 423.06 | 80.07 | 6.284 | |
| 16,800.00 | 12,102.29 | 16,334.27 | 11,626.78 | 76.72 | 76.10 | -19.12 | -5,507.71 | -277.76 | 503.30 | 422.25 | 81.05 | 6.210 | |
| 16,900.00 | 12,102.99 | 16,434.27 | 11,627.30 | 78.06 | 77.45 | -19.12 | -5,607.71 | -276.85 | 503.46 | 421.43 | 82.03 | 6.137 | |
| 17,000.00 | 12,103.69 | 16,534.27 | 11,627.83 | 79.40 | 78.79 | -19.11 | -5,707.70 | -275.94 | 503.63 | 420.60 | 83.02 | 6.066 | |
| 17,100.00 | 12,104.39 | 16,634.27 | 11,628.35 | 80.75 | 80.14 | -19.11 | -5,807.70 | -275.03 | 503.79 | 419.77 | 84.02 | 5.996 | |
| 17,200.00 | 12,105.08 | 16,734.27 | 11,628.88 | 82.09 | 81.49 | -19.10 | -5,907.69 | -274.12 | 503.95 | 418.93 | 85.03 | 5.927 | |
| 17,300.00 | 12,105.78 | 16,834.27 | 11,629.40 | 83.44 | 82.84 | -19.09 | -6,007.68 | -273.21 | 504.12 | 418.08 | 86.03 | 5.860 | |
| 17,400.00 | 12,106.48 | 16,934.27 | 11,629.93 | 84.78 | 84.19 | -19.09 | -6,107.68 | -272.31 | 504.28 | 417.23 | 87.05 | 5.793 | |
| 17,500.00 | 12,107.18 | 17,034.27 | 11,630.45 | 86.13 | 85.54 | -19.08 | -6,207.67 | -271.40 | 504.45 | 416.38 | 88.07 | 5.728 | |
| 17,600.00 | 12,107.88 | 17,134.27 | 11,630.98 | 87.48 | 86.90 | -19.07 | -6,307.67 | -270.49 | 504.61 | 415.52 | 89.09 | 5.664 | |
| 17,700.00 | 12,108.58 | 17,234.26 | 11,631.50 | 88.83 | 88.25 | -19.07 | -6,407.66 | -269.58 | 504.78 | 414.65 | 90.12 | 5.601 | |
| 17,800.00 | 12,109.27 | 17,334.26 | 11,632.03 | 90.18 | 89.60 | -19.06 | -6,507.66 | -268.67 | 504.94 | 413.78 | 91.16 | 5.539 | |
| 17,900.00 | 12,109.97 | 17,434.26 | 11,632.55 | 91.52 | 90.95 | -19.06 | -6,607.65 | -267.76 | 505.11 | 412.91 | 92.20 | 5.479 | |
| 18,000.00 | 12,110.67 | 17,534.26 | 11,633.08 | 92.88 | 92.31 | -19.05 | -6,707.64 | -266.85 | 505.27 | 412.03 | 93.24 | 5.419 | |
| 18,100.00 | 12,111.37 | 17,634.26 | 11,633.60 | 94.23 | 93.66 | -19.04 | -6,807.64 | -265.94 | 505.43 | 411.15 | 94.29 | 5.361 | |
| 18,200.00 | 12,112.07 | 17,734.26 | 11,634.13 | 95.58 | 95.02 | -19.04 | -6,907.63 | -265.03 | 505.60 | 410.26 | 95.34 | 5.303 | |
| 18,300.00 | 12,112.77 | 17,834.26 | 11,634.65 | 96.93 | 96.37 | -19.03 | -7,007.63 | -264.13 | 505.76 | 409.37 | 96.39 | 5.247 | |
| 18,400.00 | 12,113.46 | 17,934.26 | 11,635.18 | 98.28 | 97.73 | -19.02 | -7,107.62 | -263.22 | 505.93 | 408.48 | 97.45 | 5.192 | |
| 18,500.00 | 12,114.16 | 18,034.26 | 11,635.70 | 99.63 | 99.08 | -19.02 | -7,207.62 | -262.31 | 506.09 | 407.58 | 98.51 | 5.137 | |
| 18,600.00 | 12,114.86 | 18,134.26 | 11,636.23 | 100.99 | 100.44 | -19.01 | -7,307.61 | -261.40 | 506.26 | 406.68 | 99.58 | 5.084 | |
| 18,700.00 | 12,115.56 | 18,234.26 | 11,636.75 | 102.34 | 101.80 | -19.01 | -7,407.60 | -260.49 | 506.42 | 405.77 | 100.65 | 5.032 | |
| 18,800.00 | 12,116.26 | 18,334.26 | 11,637.28 | 103.70 | 103.15 | -19.00 | -7,507.60 | -259.58 | 506.58 | 404.86 | 101.72 | 4.980 | |
| 18,900.00 | 12,116.95 | 18,434.26 | 11,637.80 | 105.05 | 104.51 | -18.99 | -7,607.59 | -258.67 | 506.75 | 403.95 | 102.80 | 4.930 | |
| 19,000.00 | 12,117.65 | 18,534.26 | 11,638.33 | 106.41 | 105.87 | -18.99 | -7,707.59 | -257.76 | 506.91 | 403.04 | 103.88 | 4.880 | |
| 19,100.00 | 12,118.35 | 18,634.26 | 11,638.85 | 107.76 | 107.22 | -18.98 | -7,807.58 | -256.85 | 507.08 | 402.12 | 104.96 | 4.831 | |
| 19,200.00 | 12,119.05 | 18,734.26 | 11,639.38 | 109.12 | 108.58 | -18.98 | -7,907.58 | -255.95 | 507.24 | 401.20 | 106.04 | 4.783 | |
| 19,300.00 | 12,119.75 | 18,834.26 | 11,639.90 | 110.47 | 109.94 | -18.97 | -8,007.57 | -255.04 | 507.41 | 400.28 | 107.13 | 4.736 | |
| 19,400.00 | 12,120.45 | 18,934.26 | 11,640.43 | 111.83 | 111.30 | -18.96 | -8,107.57 | -254.13 | 507.57 | 399.35 | 108.22 | 4.690 | |
| 19,500.00 | 12,121.14 | 19,034.26 | 11,640.95 | 113.19 | 112.66 | -18.96 | -8,207.56 | -253.22 | 507.74 | 398.43 | 109.31 | 4.645 | |
| 19,600.00 | 12,121.84 | 19,134.26 | 11,641.48 | 114.54 | 114.02 | -18.95 | -8,307.55 | -252.31 | 507.90 | 397.49 | 110.41 | 4.600 | |
| 19,700.00 | 12,122.54 | 19,234.26 | 11,642.00 | 115.90 | 115.38 | -18.94 | -8,407.55 | -251.40 | 508.06 | 396.56 | 111.50 | 4.557 | |
| 19,800.00 | 12,123.24 | 19,334.26 | 11,642.53 | 117.26 | 116.74 | -18.94 | -8,507.54 | -250.49 | 508.23 | 395.63 | 112.60 | 4.514 | |
| 19,900.00 | 12,123.94 | 19,434.26 | 11,643.05 | 118.61 | 118.10 | -18.93 | -8,607.54 | -249.58 | 508.39 | 394.69 | 113.70 | 4.471 | |
| 20,000.00 | 12,124.64 | 19,534.26 | 11,643.58 | 119.97 | 119.46 | -18.93 | -8,707.53 | -248.67 | 508.56 | 393.75 | 114.81 | 4.430 | |
| 20,100.00 | 12,125.33 | 19,634.26 | 11,644.10 | 121.33 | 120.82 | -18.92 | -8,807.53 | -247.77 | 508.72 | 392.81 | 115.91 | 4.389 | |
| 20,200.00 | 12,126.03 | 19,734.26 | 11,644.63 | 122.69 | 122.18 | -18.91 | -8,907.52 | -246.86 | 508.89 | 391.87 | 117.02 | 4.349 | |
| 20,300.00 | 12,126.73 | 19,834.26 | 11,645.15 | 124.05 | 123.54 | -18.91 | -9,007.51 | -245.95 | 509.05 | 390.92 | 118.13 | 4.309 | |
| 20,400.00 | 12,127.43 | 19,934.26 | 11,645.68 | 125.41 | 124.90 | -18.90 | -9,107.51 | -245.04 | 509.22 | 389.97 | 119.24 | 4.270 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,500.00 | 12,128.13 | 20,034.26 | 11,646.20 | 126.77 | 126.26 | -18.90 | -9,207.50 | -244.13 | 509.38 | 389.02 | 120.36 | 4.232 | |
| 20,600.00 | 12,128.83 | 20,134.26 | 11,646.73 | 128.13 | 127.62 | -18.89 | -9,307.50 | -243.22 | 509.54 | 388.07 | 121.47 | 4.195 | |
| 20,700.00 | 12,129.52 | 20,234.26 | 11,647.25 | 129.49 | 128.98 | -18.88 | -9,407.49 | -242.31 | 509.71 | 387.12 | 122.59 | 4.158 | |
| 20,800.00 | 12,130.22 | 20,334.26 | 11,647.78 | 130.85 | 130.34 | -18.88 | -9,507.49 | -241.40 | 509.87 | 386.17 | 123.71 | 4.122 | |
| 20,900.00 | 12,130.92 | 20,434.26 | 11,648.30 | 132.21 | 131.71 | -18.87 | -9,607.48 | -240.49 | 510.04 | 385.21 | 124.83 | 4.086 | |
| 21,000.00 | 12,131.62 | 20,534.26 | 11,648.83 | 133.57 | 133.07 | -18.87 | -9,707.47 | -239.58 | 510.20 | 384.26 | 125.95 | 4.051 | |
| 21,100.00 | 12,132.32 | 20,634.26 | 11,649.35 | 134.93 | 134.43 | -18.86 | -9,807.47 | -238.68 | 510.37 | 383.30 | 127.07 | 4.016 | |
| 21,200.00 | 12,133.01 | 20,734.26 | 11,649.88 | 136.29 | 135.79 | -18.85 | -9,907.46 | -237.77 | 510.53 | 382.34 | 128.20 | 3.982 | |
| 21,300.00 | 12,133.71 | 20,834.26 | 11,650.41 | 137.65 | 137.15 | -18.85 | -10,007.46 | -236.86 | 510.70 | 381.38 | 129.32 | 3.949 | |
| 21,400.00 | 12,134.41 | 20,934.26 | 11,650.93 | 139.01 | 138.52 | -18.84 | -10,107.45 | -235.95 | 510.86 | 380.41 | 130.45 | 3.916 | |
| 21,500.00 | 12,135.11 | 21,034.26 | 11,651.46 | 140.37 | 139.88 | -18.84 | -10,207.45 | -235.04 | 511.03 | 379.45 | 131.58 | 3.884 | |
| 21,600.00 | 12,135.81 | 21,134.26 | 11,651.98 | 141.73 | 141.24 | -18.83 | -10,307.44 | -234.13 | 511.19 | 378.48 | 132.71 | 3.852 | |
| 21,700.00 | 12,136.51 | 21,234.26 | 11,652.51 | 143.09 | 142.61 | -18.82 | -10,407.43 | -233.22 | 511.35 | 377.52 | 133.84 | 3.821 | |
| 21,800.00 | 12,137.20 | 21,334.26 | 11,653.03 | 144.46 | 143.97 | -18.82 | -10,507.43 | -232.31 | 511.52 | 376.55 | 134.97 | 3.790 | |
| 21,900.00 | 12,137.90 | 21,434.26 | 11,653.56 | 145.82 | 145.33 | -18.81 | -10,607.42 | -231.40 | 511.68 | 375.58 | 136.10 | 3.760 | |
| 22,000.00 | 12,138.60 | 21,534.26 | 11,654.08 | 147.18 | 146.70 | -18.81 | -10,707.42 | -230.50 | 511.85 | 374.61 | 137.24 | 3.730 | |
| 22,100.00 | 12,139.30 | 21,634.26 | 11,654.61 | 148.54 | 148.06 | -18.80 | -10,807.41 | -229.59 | 512.01 | 373.64 | 138.37 | 3.700 | |
| 22,200.00 | 12,140.00 | 21,734.26 | 11,655.13 | 149.90 | 149.42 | -18.79 | -10,907.41 | -228.68 | 512.18 | 372.67 | 139.51 | 3.671 | |
| 22,300.00 | 12,140.70 | 21,834.26 | 11,655.66 | 151.27 | 150.79 | -18.79 | -11,007.40 | -227.77 | 512.34 | 371.70 | 140.65 | 3.643 | |
| 22,387.52 | 12,141.31 | 21,918.86 | 11,656.10 | 152.46 | 151.94 | -18.78 | -11,092.00 | -227.00 | 512.49 | 370.91 | 141.58 | 3.620 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 158H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.50 | 0.50 | 180.00 | -210.00 | 0.00 | 210.00 | | | | |
| 100.00 | 100.00 | 99.00 | 100.00 | 0.98 | 0.97 | 180.00 | -210.00 | 0.00 | 210.00 | 208.05 | 1.95 | 107.421 | |
| 200.00 | 200.00 | 199.00 | 200.00 | 1.56 | 1.56 | 180.00 | -210.00 | 0.00 | 210.00 | 206.88 | 3.12 | 67.389 | |
| 300.00 | 300.00 | 299.00 | 300.00 | 1.98 | 1.98 | 180.00 | -210.00 | 0.00 | 210.00 | 206.04 | 3.96 | 53.056 | CC, ES |
| 400.00 | 400.00 | 395.60 | 396.59 | 2.33 | 2.39 | 179.75 | -210.77 | 0.92 | 210.80 | 206.13 | 4.67 | 45.131 | |
| 500.00 | 500.00 | 492.05 | 492.96 | 2.63 | 2.74 | 179.01 | -213.10 | 3.70 | 213.25 | 207.96 | 5.29 | 40.305 | |
| 600.00 | 600.00 | 588.25 | 588.97 | 2.91 | 3.06 | 177.80 | -216.99 | 8.33 | 217.43 | 211.57 | 5.86 | 37.133 | |
| 700.00 | 700.00 | 684.08 | 684.43 | 3.16 | 3.36 | 176.20 | -222.40 | 14.78 | 223.44 | 217.05 | 6.38 | 35.015 | |
| 800.00 | 799.99 | 779.44 | 779.18 | 3.45 | 3.64 | -40.07 | -229.32 | 23.02 | 230.41 | 223.51 | 6.90 | 33.387 | |
| 900.00 | 899.91 | 876.10 | 874.95 | 3.70 | 3.79 | -42.80 | -237.72 | 33.04 | 237.46 | 230.18 | 7.29 | 32.591 | |
| 1,000.00 | 999.69 | 975.00 | 972.89 | 3.95 | 4.00 | -45.91 | -246.57 | 43.58 | 243.57 | 235.85 | 7.72 | 31.533 | |
| 1,100.00 | 1,099.32 | 1,073.78 | 1,070.71 | 4.05 | 4.22 | -49.24 | -255.40 | 54.11 | 249.07 | 241.02 | 8.05 | 30.939 | |
| 1,200.00 | 1,198.94 | 1,172.56 | 1,168.52 | 4.24 | 4.45 | -52.47 | -264.24 | 64.64 | 255.31 | 246.83 | 8.48 | 30.111 | |
| 1,300.00 | 1,298.53 | 1,270.59 | 1,265.55 | 4.33 | 4.66 | -56.72 | -272.88 | 75.63 | 262.29 | 253.50 | 8.79 | 29.850 | |
| 1,400.00 | 1,397.89 | 1,367.24 | 1,360.98 | 4.57 | 4.87 | -62.05 | -280.87 | 88.72 | 269.73 | 260.53 | 9.20 | 29.311 | |
| 1,500.00 | 1,496.93 | 1,462.38 | 1,454.61 | 4.81 | 5.09 | -67.51 | -288.17 | 103.90 | 278.36 | 268.75 | 9.61 | 28.961 | |
| 1,600.00 | 1,595.62 | 1,555.77 | 1,546.18 | 4.92 | 5.30 | -72.88 | -294.81 | 121.02 | 289.22 | 279.30 | 9.92 | 29.147 | |
| 1,700.00 | 1,694.25 | 1,648.99 | 1,637.21 | 5.12 | 5.49 | -77.95 | -300.93 | 140.13 | 303.37 | 293.07 | 10.30 | 29.448 | |
| 1,800.00 | 1,792.87 | 1,743.92 | 1,729.83 | 5.31 | 5.68 | -82.73 | -307.06 | 160.00 | 320.15 | 309.45 | 10.70 | 29.923 | |
| 1,900.00 | 1,891.50 | 1,838.85 | 1,822.46 | 5.51 | 5.89 | -87.03 | -313.19 | 179.88 | 339.01 | 327.90 | 11.11 | 30.514 | |
| 2,000.00 | 1,990.13 | 1,933.78 | 1,915.08 | 5.71 | 6.13 | -90.89 | -319.32 | 199.76 | 359.65 | 348.12 | 11.53 | 31.193 | |
| 2,100.00 | 2,088.76 | 2,028.71 | 2,007.71 | 5.90 | 6.39 | -94.34 | -325.45 | 219.63 | 381.75 | 369.81 | 11.94 | 31.960 | |
| 2,200.00 | 2,187.39 | 2,123.64 | 2,100.33 | 6.10 | 6.65 | -97.42 | -331.58 | 239.51 | 405.09 | 392.73 | 12.36 | 32.765 | |
| 2,300.00 | 2,286.02 | 2,218.57 | 2,192.96 | 6.30 | 6.92 | -100.17 | -337.71 | 259.38 | 429.47 | 416.68 | 12.79 | 33.592 | |
| 2,400.00 | 2,384.65 | 2,313.51 | 2,285.58 | 6.50 | 7.19 | -102.63 | -343.84 | 279.26 | 454.71 | 441.50 | 13.21 | 34.425 | |
| 2,500.00 | 2,483.28 | 2,408.44 | 2,378.20 | 6.69 | 7.46 | -104.84 | -349.97 | 299.13 | 480.68 | 467.05 | 13.63 | 35.256 | |
| 2,600.00 | 2,581.91 | 2,503.37 | 2,470.83 | 6.89 | 7.74 | -106.83 | -356.10 | 319.01 | 507.27 | 493.21 | 14.06 | 36.075 | |
| 2,700.00 | 2,680.54 | 2,598.30 | 2,563.45 | 7.10 | 8.01 | -108.62 | -362.23 | 338.88 | 534.39 | 519.90 | 14.49 | 36.878 | |
| 2,800.00 | 2,779.17 | 2,693.23 | 2,656.08 | 7.33 | 8.29 | -110.25 | -368.36 | 358.76 | 561.95 | 547.03 | 14.92 | 37.660 | |
| 2,900.00 | 2,877.80 | 2,788.16 | 2,748.70 | 7.56 | 8.56 | -111.72 | -374.49 | 378.64 | 589.91 | 574.55 | 15.35 | 38.420 | |
| 3,000.00 | 2,976.43 | 2,883.09 | 2,841.33 | 7.79 | 8.84 | -113.06 | -380.62 | 398.51 | 618.20 | 602.41 | 15.79 | 39.156 | |
| 3,100.00 | 3,075.06 | 2,978.03 | 2,933.95 | 8.02 | 9.12 | -114.29 | -386.75 | 418.39 | 646.77 | 630.55 | 16.22 | 39.868 | |
| 3,200.00 | 3,173.69 | 3,072.96 | 3,026.58 | 8.25 | 9.40 | -115.41 | -392.88 | 438.26 | 675.61 | 658.95 | 16.66 | 40.555 | |
| 3,300.00 | 3,272.32 | 3,167.89 | 3,119.20 | 8.48 | 9.68 | -116.44 | -399.02 | 458.14 | 704.66 | 687.56 | 17.10 | 41.217 | |
| 3,400.00 | 3,370.94 | 3,262.82 | 3,211.83 | 8.72 | 9.96 | -117.39 | -405.15 | 478.01 | 733.91 | 716.38 | 17.53 | 41.855 | |
| 3,500.00 | 3,469.57 | 3,357.75 | 3,304.45 | 8.95 | 10.24 | -118.27 | -411.28 | 497.89 | 763.33 | 745.36 | 17.97 | 42.468 | |
| 3,600.00 | 3,568.20 | 3,452.68 | 3,397.08 | 9.19 | 10.52 | -119.09 | -417.41 | 517.77 | 792.91 | 774.50 | 18.41 | 43.059 | |
| 3,700.00 | 3,666.83 | 3,547.61 | 3,489.70 | 9.42 | 10.81 | -119.85 | -423.54 | 537.64 | 822.63 | 803.77 | 18.86 | 43.628 | |
| 3,800.00 | 3,765.46 | 3,642.55 | 3,582.33 | 9.66 | 11.09 | -120.55 | -429.67 | 557.52 | 852.47 | 833.17 | 19.30 | 44.175 | |
| 3,900.00 | 3,864.09 | 3,737.48 | 3,674.95 | 9.89 | 11.37 | -121.21 | -435.80 | 577.39 | 882.42 | 862.68 | 19.74 | 44.702 | |
| 4,000.00 | 3,962.72 | 3,832.41 | 3,767.58 | 10.13 | 11.66 | -121.82 | -441.93 | 597.27 | 912.47 | 892.28 | 20.18 | 45.209 | |
| 4,100.00 | 4,061.35 | 3,927.34 | 3,860.20 | 10.36 | 11.94 | -122.40 | -448.06 | 617.14 | 942.61 | 921.98 | 20.63 | 45.697 | |
| 4,200.00 | 4,159.98 | 4,022.27 | 3,952.83 | 10.60 | 12.23 | -122.94 | -454.19 | 637.02 | 972.83 | 951.75 | 21.07 | 46.167 | |
| 4,300.00 | 4,258.61 | 4,117.20 | 4,045.45 | 10.83 | 12.51 | -123.45 | -460.32 | 656.90 | 1,003.12 | 981.61 | 21.52 | 46.619 | |
| 4,400.00 | 4,357.24 | 4,212.13 | 4,138.08 | 11.07 | 12.80 | -123.92 | -466.45 | 676.77 | 1,033.49 | 1,011.52 | 21.96 | 47.055 | |
| 4,500.00 | 4,455.87 | 4,307.07 | 4,230.70 | 11.31 | 13.08 | -124.38 | -472.58 | 696.65 | 1,063.91 | 1,041.50 | 22.41 | 47.476 | |
| 4,600.00 | 4,554.50 | 4,402.00 | 4,323.32 | 11.54 | 13.37 | -124.80 | -478.71 | 716.52 | 1,094.40 | 1,071.54 | 22.86 | 47.881 | |
| 4,700.00 | 4,653.13 | 4,496.93 | 4,415.95 | 11.78 | 13.65 | -125.21 | -484.84 | 736.40 | 1,124.93 | 1,101.63 | 23.30 | 48.272 | |
| 4,800.00 | 4,751.76 | 4,591.86 | 4,508.57 | 12.02 | 13.94 | -125.59 | -490.97 | 756.27 | 1,155.51 | 1,131.76 | 23.75 | 48.649 | |
| 4,900.00 | 4,850.39 | 4,686.79 | 4,601.20 | 12.26 | 14.23 | -125.95 | -497.10 | 776.15 | 1,186.14 | 1,161.94 | 24.20 | 49.013 | |
| 5,000.00 | 4,949.01 | 4,781.72 | 4,693.82 | 12.49 | 14.51 | -126.29 | -503.23 | 796.03 | 1,216.81 | 1,192.16 | 24.65 | 49.365 | |
| 5,100.00 | 5,047.64 | 4,876.65 | 4,786.45 | 12.73 | 14.80 | -126.62 | -509.36 | 815.90 | 1,247.52 | 1,222.42 | 25.10 | 49.705 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 158H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 5,146.27 | 4,971.59 | 4,879.07 | 12.97 | 15.09 | -126.93 | -515.49 | 835.78 | 1,278.26 | 1,252.71 | 25.55 | 50.033 | |
| 5,300.00 | 5,244.90 | 5,066.52 | 4,971.70 | 13.21 | 15.37 | -127.23 | -521.62 | 855.65 | 1,309.03 | 1,283.04 | 26.00 | 50.351 | |
| 5,400.00 | 5,343.57 | 5,161.51 | 5,064.38 | 13.41 | 15.66 | -127.67 | -527.76 | 875.54 | 1,339.69 | 1,313.27 | 26.42 | 50.713 | |
| 5,500.00 | 5,442.58 | 5,257.00 | 5,157.55 | 13.63 | 15.95 | -128.22 | -533.93 | 895.53 | 1,369.07 | 1,342.22 | 26.86 | 50.977 | |
| 5,600.00 | 5,541.92 | 5,353.02 | 5,251.24 | 13.82 | 16.24 | -128.65 | -540.13 | 915.64 | 1,396.91 | 1,369.64 | 27.28 | 51.208 | |
| 5,700.00 | 5,641.52 | 5,449.50 | 5,345.38 | 13.98 | 16.53 | -128.97 | -546.36 | 935.84 | 1,423.18 | 1,395.50 | 27.68 | 51.410 | |
| 5,800.00 | 5,741.32 | 5,546.39 | 5,439.91 | 14.12 | 16.82 | -129.19 | -552.61 | 956.12 | 1,447.86 | 1,419.80 | 28.06 | 51.600 | |
| 5,900.00 | 5,841.25 | 5,685.42 | 5,575.92 | 14.23 | 17.21 | -129.24 | -561.10 | 983.64 | 1,469.91 | 1,441.33 | 28.58 | 51.429 | |
| 6,000.00 | 5,941.25 | 5,841.30 | 5,729.53 | 14.28 | 17.59 | 89.10 | -568.90 | 1,008.92 | 1,486.70 | 1,457.64 | 29.07 | 51.146 | |
| 6,100.00 | 6,041.25 | 5,999.26 | 5,886.15 | 14.32 | 17.92 | 89.34 | -574.91 | 1,028.41 | 1,499.00 | 1,469.52 | 29.48 | 50.846 | |
| 6,200.00 | 6,141.25 | 6,158.65 | 6,044.92 | 14.35 | 18.17 | 89.50 | -579.04 | 1,041.79 | 1,507.38 | 1,477.54 | 29.84 | 50.522 | |
| 6,300.00 | 6,241.25 | 6,318.95 | 6,205.03 | 14.39 | 18.35 | 89.59 | -581.21 | 1,048.85 | 1,511.77 | 1,481.64 | 30.13 | 50.174 | |
| 6,400.00 | 6,341.25 | 6,455.17 | 6,341.25 | 14.42 | 18.43 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,482.22 | 30.27 | 49.967 | |
| 6,500.00 | 6,441.25 | 6,555.17 | 6,441.25 | 14.46 | 18.46 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,482.15 | 30.34 | 49.856 | |
| 6,600.00 | 6,541.25 | 6,655.17 | 6,541.25 | 14.49 | 18.50 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,482.08 | 30.41 | 49.737 | |
| 6,700.00 | 6,641.25 | 6,755.17 | 6,641.25 | 14.53 | 18.54 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,482.00 | 30.48 | 49.618 | |
| 6,800.00 | 6,741.25 | 6,855.17 | 6,741.25 | 14.56 | 18.58 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.93 | 30.56 | 49.498 | |
| 6,900.00 | 6,841.25 | 6,955.17 | 6,841.25 | 14.60 | 18.62 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.86 | 30.63 | 49.377 | |
| 7,000.00 | 6,941.25 | 7,055.17 | 6,941.25 | 14.64 | 18.66 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.78 | 30.71 | 49.257 | |
| 7,100.00 | 7,041.25 | 7,155.17 | 7,041.25 | 14.68 | 18.70 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.70 | 30.78 | 49.135 | |
| 7,200.00 | 7,141.25 | 7,255.17 | 7,141.25 | 14.71 | 18.74 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.63 | 30.86 | 49.013 | |
| 7,300.00 | 7,241.25 | 7,355.17 | 7,241.25 | 14.75 | 18.78 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.55 | 30.94 | 48.891 | |
| 7,400.00 | 7,341.25 | 7,455.17 | 7,341.25 | 14.79 | 18.83 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.47 | 31.01 | 48.768 | |
| 7,500.00 | 7,441.25 | 7,555.17 | 7,441.25 | 14.83 | 18.87 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.39 | 31.09 | 48.645 | |
| 7,600.00 | 7,541.25 | 7,655.17 | 7,541.25 | 14.87 | 18.91 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.31 | 31.17 | 48.521 | |
| 7,700.00 | 7,641.25 | 7,755.17 | 7,641.25 | 14.91 | 18.95 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.23 | 31.25 | 48.397 | |
| 7,800.00 | 7,741.25 | 7,855.17 | 7,741.25 | 14.95 | 18.99 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.15 | 31.33 | 48.273 | |
| 7,900.00 | 7,841.25 | 7,955.17 | 7,841.25 | 14.99 | 19.04 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,481.07 | 31.41 | 48.148 | |
| 8,000.00 | 7,941.25 | 8,055.17 | 7,941.25 | 15.03 | 19.08 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.99 | 31.50 | 48.023 | |
| 8,100.00 | 8,041.25 | 8,155.17 | 8,041.25 | 15.07 | 19.12 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.91 | 31.58 | 47.898 | |
| 8,200.00 | 8,141.25 | 8,255.17 | 8,141.25 | 15.11 | 19.16 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.83 | 31.66 | 47.772 | |
| 8,300.00 | 8,241.25 | 8,355.17 | 8,241.25 | 15.15 | 19.21 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.74 | 31.74 | 47.646 | |
| 8,400.00 | 8,341.25 | 8,455.17 | 8,341.25 | 15.20 | 19.25 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.66 | 31.83 | 47.520 | |
| 8,500.00 | 8,441.25 | 8,555.17 | 8,441.25 | 15.24 | 19.30 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.57 | 31.91 | 47.393 | |
| 8,600.00 | 8,541.25 | 8,655.17 | 8,541.25 | 15.28 | 19.34 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.49 | 32.00 | 47.267 | |
| 8,700.00 | 8,641.25 | 8,755.17 | 8,641.25 | 15.32 | 19.39 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.40 | 32.09 | 47.140 | |
| 8,800.00 | 8,741.25 | 8,855.17 | 8,741.25 | 15.37 | 19.43 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.31 | 32.17 | 47.013 | |
| 8,900.00 | 8,841.25 | 8,955.17 | 8,841.25 | 15.41 | 19.48 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.23 | 32.26 | 46.885 | |
| 9,000.00 | 8,941.25 | 9,055.17 | 8,941.25 | 15.46 | 19.52 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.14 | 32.35 | 46.758 | |
| 9,100.00 | 9,041.25 | 9,155.17 | 9,041.25 | 15.50 | 19.57 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,480.05 | 32.44 | 46.630 | |
| 9,200.00 | 9,141.25 | 9,255.17 | 9,141.25 | 15.55 | 19.61 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.96 | 32.52 | 46.503 | |
| 9,300.00 | 9,241.25 | 9,355.17 | 9,241.25 | 15.59 | 19.66 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.87 | 32.61 | 46.375 | |
| 9,400.00 | 9,341.25 | 9,455.17 | 9,341.25 | 15.64 | 19.70 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.78 | 32.70 | 46.247 | |
| 9,500.00 | 9,441.25 | 9,555.17 | 9,441.25 | 15.68 | 19.75 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.69 | 32.80 | 46.119 | |
| 9,600.00 | 9,541.25 | 9,655.17 | 9,541.25 | 15.73 | 19.80 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.60 | 32.89 | 45.991 | |
| 9,700.00 | 9,641.25 | 9,755.17 | 9,641.25 | 15.78 | 19.84 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.51 | 32.98 | 45.862 | |
| 9,800.00 | 9,741.25 | 9,855.17 | 9,741.25 | 15.82 | 19.89 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.42 | 33.07 | 45.734 | |
| 9,900.00 | 9,841.25 | 9,955.17 | 9,841.25 | 15.87 | 19.94 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.32 | 33.16 | 45.606 | |
| 10,000.00 | 9,941.25 | 10,055.17 | 9,941.25 | 15.92 | 19.99 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.23 | 33.26 | 45.478 | |
| 10,100.00 | 10,041.25 | 10,155.17 | 10,041.25 | 15.96 | 20.03 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.13 | 33.35 | 45.349 | |
| 10,200.00 | 10,141.25 | 10,255.17 | 10,141.25 | 16.01 | 20.08 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,479.04 | 33.45 | 45.221 | |
| 10,300.00 | 10,241.25 | 10,355.17 | 10,241.25 | 16.06 | 20.13 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.94 | 33.54 | 45.093 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 158H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,400.00 | 10,341.25 | 10,455.17 | 10,341.25 | 16.11 | 20.18 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.85 | 33.64 | 44.964 | |
| 10,500.00 | 10,441.25 | 10,555.17 | 10,441.25 | 16.16 | 20.23 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.75 | 33.73 | 44.836 | |
| 10,600.00 | 10,541.25 | 10,655.17 | 10,541.25 | 16.21 | 20.28 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.66 | 33.83 | 44.708 | |
| 10,700.00 | 10,641.25 | 10,755.17 | 10,641.25 | 16.26 | 20.33 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.56 | 33.93 | 44.580 | |
| 10,800.00 | 10,741.25 | 10,855.17 | 10,741.25 | 16.31 | 20.37 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.46 | 34.03 | 44.452 | |
| 10,900.00 | 10,841.25 | 10,955.17 | 10,841.25 | 16.36 | 20.42 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.36 | 34.12 | 44.324 | |
| 11,000.00 | 10,941.25 | 11,055.17 | 10,941.25 | 16.41 | 20.47 | 89.60 | -581.57 | 1,050.00 | 1,512.49 | 1,478.26 | 34.22 | 44.196 | |
| 11,100.00 | 11,041.25 | 11,165.76 | 11,051.75 | 16.46 | 20.54 | 89.70 | -584.19 | 1,049.82 | 1,512.33 | 1,478.03 | 34.30 | 44.086 | |
| 11,200.00 | 11,141.25 | 11,284.70 | 11,168.12 | 16.51 | 20.72 | 90.59 | -607.66 | 1,048.24 | 1,511.01 | 1,476.60 | 34.41 | 43.914 | |
| 11,300.00 | 11,241.25 | 11,390.12 | 11,265.27 | 16.56 | 20.93 | 92.13 | -648.11 | 1,045.52 | 1,509.20 | 1,474.64 | 34.56 | 43.668 | |
| 11,396.09 | 11,337.33 | 11,475.33 | 11,337.33 | 16.61 | 21.13 | 93.85 | -693.35 | 1,042.48 | 1,508.33 | 1,473.60 | 34.74 | 43.424 | |
| 11,400.00 | 11,341.25 | 11,478.47 | 11,339.85 | 16.61 | 21.14 | 93.92 | -695.21 | 1,042.35 | 1,508.33 | 1,473.59 | 34.74 | 43.415 | |
| 11,500.00 | 11,441.25 | 11,550.00 | 11,394.34 | 16.66 | 21.35 | 95.68 | -741.37 | 1,039.25 | 1,509.83 | 1,474.88 | 34.95 | 43.197 | |
| 11,600.00 | 11,541.21 | 11,609.24 | 11,434.83 | 16.71 | 21.55 | -84.21 | -784.49 | 1,036.34 | 1,514.69 | 1,479.48 | 35.20 | 43.027 | |
| 11,700.00 | 11,639.79 | 11,664.96 | 11,468.64 | 16.90 | 21.77 | -82.04 | -828.65 | 1,033.37 | 1,521.96 | 1,486.32 | 35.63 | 42.710 | |
| 11,800.00 | 11,734.09 | 11,719.78 | 11,497.56 | 17.17 | 22.01 | -79.89 | -875.08 | 1,030.25 | 1,530.62 | 1,494.33 | 36.29 | 42.179 | |
| 11,900.00 | 11,821.25 | 11,773.95 | 11,521.65 | 17.53 | 22.28 | -77.85 | -923.48 | 1,026.99 | 1,539.86 | 1,502.71 | 37.15 | 41.447 | |
| 12,000.00 | 11,898.62 | 11,827.65 | 11,540.89 | 18.00 | 22.57 | -75.98 | -973.47 | 1,023.63 | 1,548.92 | 1,510.72 | 38.20 | 40.547 | |
| 12,100.00 | 11,963.85 | 11,881.00 | 11,555.29 | 18.59 | 22.89 | -74.36 | -1,024.71 | 1,020.18 | 1,557.13 | 1,517.72 | 39.40 | 39.520 | |
| 12,200.00 | 12,014.95 | 11,934.09 | 11,564.81 | 19.33 | 23.23 | -73.03 | -1,076.80 | 1,016.67 | 1,563.88 | 1,523.17 | 40.71 | 38.413 | |
| 12,300.00 | 12,050.38 | 11,987.00 | 11,569.46 | 20.19 | 23.59 | -72.05 | -1,129.37 | 1,013.14 | 1,568.72 | 1,526.62 | 42.10 | 37.266 | |
| 12,400.00 | 12,069.05 | 12,047.16 | 11,570.16 | 21.14 | 24.04 | -71.44 | -1,189.41 | 1,009.36 | 1,571.14 | 1,527.58 | 43.55 | 36.074 | |
| 12,500.00 | 12,072.27 | 12,100.00 | 11,570.43 | 22.15 | 24.45 | -71.36 | -1,242.19 | 1,007.03 | 1,570.63 | 1,525.67 | 44.96 | 34.931 | |
| 12,600.00 | 12,072.97 | 12,178.72 | 11,570.85 | 23.19 | 25.11 | -71.32 | -1,320.88 | 1,005.35 | 1,568.69 | 1,522.11 | 46.58 | 33.678 | |
| 12,672.38 | 12,073.47 | 12,226.44 | 11,571.10 | 23.96 | 25.52 | -71.32 | -1,368.61 | 1,005.38 | 1,568.16 | 1,520.44 | 47.72 | 32.861 | |
| 12,700.00 | 12,073.66 | 12,254.06 | 11,571.24 | 24.26 | 25.77 | -71.31 | -1,396.23 | 1,005.63 | 1,568.17 | 1,519.95 | 48.22 | 32.521 | |
| 12,800.00 | 12,074.36 | 12,354.06 | 11,571.77 | 25.36 | 26.69 | -71.31 | -1,496.22 | 1,006.53 | 1,568.23 | 1,518.14 | 50.08 | 31.314 | |
| 12,900.00 | 12,075.06 | 12,454.06 | 11,572.29 | 26.49 | 27.64 | -71.30 | -1,596.22 | 1,007.44 | 1,568.28 | 1,516.27 | 52.01 | 30.156 | |
| 13,000.00 | 12,075.76 | 12,554.06 | 11,572.82 | 27.63 | 28.63 | -71.30 | -1,696.21 | 1,008.34 | 1,568.33 | 1,514.34 | 53.99 | 29.049 | |
| 13,100.00 | 12,076.46 | 12,654.06 | 11,573.34 | 28.80 | 29.64 | -71.29 | -1,796.20 | 1,009.24 | 1,568.38 | 1,512.35 | 56.02 | 27.995 | |
| 13,200.00 | 12,077.15 | 12,754.06 | 11,573.87 | 29.98 | 30.68 | -71.28 | -1,896.20 | 1,010.14 | 1,568.43 | 1,510.33 | 58.10 | 26.994 | |
| 13,300.00 | 12,077.85 | 12,854.06 | 11,574.39 | 31.18 | 31.75 | -71.28 | -1,996.19 | 1,011.04 | 1,568.48 | 1,508.25 | 60.22 | 26.044 | |
| 13,400.00 | 12,078.55 | 12,954.06 | 11,574.91 | 32.39 | 32.83 | -71.27 | -2,096.19 | 1,011.94 | 1,568.53 | 1,506.15 | 62.38 | 25.144 | |
| 13,500.00 | 12,079.25 | 13,054.06 | 11,575.44 | 33.61 | 33.93 | -71.26 | -2,196.18 | 1,012.84 | 1,568.58 | 1,504.01 | 64.57 | 24.292 | |
| 13,600.00 | 12,079.95 | 13,154.06 | 11,575.96 | 34.84 | 35.05 | -71.26 | -2,296.18 | 1,013.75 | 1,568.63 | 1,501.84 | 66.79 | 23.485 | |
| 13,700.00 | 12,080.65 | 13,254.06 | 11,576.49 | 36.08 | 36.19 | -71.25 | -2,396.17 | 1,014.65 | 1,568.68 | 1,499.64 | 69.04 | 22.721 | |
| 13,800.00 | 12,081.34 | 13,354.06 | 11,577.01 | 37.33 | 37.34 | -71.25 | -2,496.17 | 1,015.55 | 1,568.73 | 1,497.42 | 71.31 | 21.998 | |
| 13,900.00 | 12,082.04 | 13,454.06 | 11,577.54 | 38.59 | 38.50 | -71.24 | -2,596.16 | 1,016.45 | 1,568.78 | 1,495.17 | 73.61 | 21.313 | |
| 14,000.00 | 12,082.74 | 13,554.06 | 11,578.06 | 39.86 | 39.68 | -71.23 | -2,696.15 | 1,017.35 | 1,568.83 | 1,492.91 | 75.92 | 20.663 | |
| 14,100.00 | 12,083.44 | 13,654.06 | 11,578.59 | 41.13 | 40.86 | -71.23 | -2,796.15 | 1,018.25 | 1,568.88 | 1,490.63 | 78.26 | 20.048 | |
| 14,200.00 | 12,084.14 | 13,754.06 | 11,579.11 | 42.40 | 42.06 | -71.22 | -2,896.14 | 1,019.16 | 1,568.93 | 1,488.33 | 80.61 | 19.464 | |
| 14,300.00 | 12,084.84 | 13,854.06 | 11,579.64 | 43.69 | 43.27 | -71.22 | -2,996.14 | 1,020.06 | 1,568.99 | 1,486.01 | 82.97 | 18.910 | |
| 14,400.00 | 12,085.53 | 13,954.06 | 11,580.16 | 44.97 | 44.48 | -71.21 | -3,096.13 | 1,020.96 | 1,569.04 | 1,483.69 | 85.35 | 18.383 | |
| 14,500.00 | 12,086.23 | 14,054.06 | 11,580.69 | 46.27 | 45.70 | -71.20 | -3,196.13 | 1,021.86 | 1,569.09 | 1,481.34 | 87.74 | 17.883 | |
| 14,600.00 | 12,086.93 | 14,154.06 | 11,581.21 | 47.56 | 46.94 | -71.20 | -3,296.12 | 1,022.76 | 1,569.14 | 1,478.99 | 90.15 | 17.407 | |
| 14,700.00 | 12,087.63 | 14,254.06 | 11,581.74 | 48.86 | 48.17 | -71.19 | -3,396.12 | 1,023.66 | 1,569.19 | 1,476.63 | 92.56 | 16.953 | |
| 14,800.00 | 12,088.33 | 14,354.06 | 11,582.26 | 50.17 | 49.42 | -71.19 | -3,496.11 | 1,024.56 | 1,569.24 | 1,474.25 | 94.99 | 16.521 | |
| 14,900.00 | 12,089.02 | 14,454.06 | 11,582.79 | 51.47 | 50.67 | -71.18 | -3,596.10 | 1,025.47 | 1,569.29 | 1,471.87 | 97.42 | 16.108 | |
| 15,000.00 | 12,089.72 | 14,554.06 | 11,583.31 | 52.78 | 51.93 | -71.17 | -3,696.10 | 1,026.37 | 1,569.34 | 1,469.48 | 99.86 | 15.715 | |
| 15,100.00 | 12,090.42 | 14,654.06 | 11,583.84 | 54.10 | 53.19 | -71.17 | -3,796.09 | 1,027.27 | 1,569.39 | 1,467.08 | 102.31 | 15.339 | |
| 15,200.00 | 12,091.12 | 14,754.06 | 11,584.36 | 55.41 | 54.45 | -71.16 | -3,896.09 | 1,028.17 | 1,569.44 | 1,464.67 | 104.77 | 14.980 | |
| 15,300.00 | 12,091.82 | 14,854.06 | 11,584.89 | 56.73 | 55.72 | -71.16 | -3,996.08 | 1,029.07 | 1,569.49 | 1,462.26 | 107.24 | 14.636 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 158H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,400.00 | 12,092.52 | 14,954.06 | 11,585.41 | 58.05 | 57.00 | -71.15 | -4,096.08 | 1,029.97 | 1,569.55 | 1,459.84 | 109.71 | 14.307 | |
| 15,500.00 | 12,093.21 | 15,054.06 | 11,585.94 | 59.37 | 58.28 | -71.14 | -4,196.07 | 1,030.87 | 1,569.60 | 1,457.41 | 112.19 | 13.991 | |
| 15,600.00 | 12,093.91 | 15,154.06 | 11,586.46 | 60.70 | 59.56 | -71.14 | -4,296.06 | 1,031.78 | 1,569.65 | 1,454.98 | 114.67 | 13.689 | |
| 15,700.00 | 12,094.61 | 15,254.06 | 11,586.98 | 62.03 | 60.85 | -71.13 | -4,396.06 | 1,032.68 | 1,569.70 | 1,452.54 | 117.16 | 13.398 | |
| 15,800.00 | 12,095.31 | 15,354.06 | 11,587.51 | 63.35 | 62.14 | -71.13 | -4,496.05 | 1,033.58 | 1,569.75 | 1,450.10 | 119.65 | 13.120 | |
| 15,900.00 | 12,096.01 | 15,454.06 | 11,588.03 | 64.68 | 63.43 | -71.12 | -4,596.05 | 1,034.48 | 1,569.80 | 1,447.65 | 122.15 | 12.852 | |
| 16,000.00 | 12,096.71 | 15,554.06 | 11,588.56 | 66.02 | 64.73 | -71.11 | -4,696.04 | 1,035.38 | 1,569.85 | 1,445.20 | 124.65 | 12.594 | |
| 16,100.00 | 12,097.40 | 15,654.06 | 11,589.08 | 67.35 | 66.03 | -71.11 | -4,796.04 | 1,036.28 | 1,569.90 | 1,442.75 | 127.15 | 12.346 | |
| 16,200.00 | 12,098.10 | 15,754.06 | 11,589.61 | 68.68 | 67.33 | -71.10 | -4,896.03 | 1,037.19 | 1,569.95 | 1,440.29 | 129.66 | 12.108 | |
| 16,300.00 | 12,098.80 | 15,854.06 | 11,590.13 | 70.02 | 68.64 | -71.10 | -4,996.03 | 1,038.09 | 1,570.01 | 1,437.83 | 132.18 | 11.878 | |
| 16,400.00 | 12,099.50 | 15,954.06 | 11,590.66 | 71.36 | 69.94 | -71.09 | -5,096.02 | 1,038.99 | 1,570.06 | 1,435.36 | 134.69 | 11.657 | |
| 16,500.00 | 12,100.20 | 16,054.06 | 11,591.18 | 72.69 | 71.25 | -71.08 | -5,196.01 | 1,039.89 | 1,570.11 | 1,432.90 | 137.21 | 11.443 | |
| 16,600.00 | 12,100.90 | 16,154.06 | 11,591.71 | 74.03 | 72.56 | -71.08 | -5,296.01 | 1,040.79 | 1,570.16 | 1,430.42 | 139.73 | 11.237 | |
| 16,700.00 | 12,101.59 | 16,254.06 | 11,592.23 | 75.37 | 73.88 | -71.07 | -5,396.00 | 1,041.69 | 1,570.21 | 1,427.95 | 142.26 | 11.038 | |
| 16,800.00 | 12,102.29 | 16,354.05 | 11,592.76 | 76.72 | 75.19 | -71.07 | -5,496.00 | 1,042.59 | 1,570.26 | 1,425.47 | 144.79 | 10.845 | |
| 16,900.00 | 12,102.99 | 16,454.05 | 11,593.28 | 78.06 | 76.51 | -71.06 | -5,595.99 | 1,043.50 | 1,570.31 | 1,422.99 | 147.32 | 10.659 | |
| 17,000.00 | 12,103.69 | 16,554.05 | 11,593.81 | 79.40 | 77.83 | -71.05 | -5,695.99 | 1,044.40 | 1,570.36 | 1,420.51 | 149.85 | 10.479 | |
| 17,100.00 | 12,104.39 | 16,654.05 | 11,594.33 | 80.75 | 79.15 | -71.05 | -5,795.98 | 1,045.30 | 1,570.42 | 1,418.03 | 152.39 | 10.306 | |
| 17,200.00 | 12,105.08 | 16,754.05 | 11,594.86 | 82.09 | 80.47 | -71.04 | -5,895.98 | 1,046.20 | 1,570.47 | 1,415.54 | 154.92 | 10.137 | |
| 17,300.00 | 12,105.78 | 16,854.05 | 11,595.38 | 83.44 | 81.79 | -71.03 | -5,995.97 | 1,047.10 | 1,570.52 | 1,413.06 | 157.46 | 9.974 | |
| 17,400.00 | 12,106.48 | 16,954.05 | 11,595.91 | 84.78 | 83.12 | -71.03 | -6,095.96 | 1,048.00 | 1,570.57 | 1,410.57 | 160.00 | 9.816 | |
| 17,500.00 | 12,107.18 | 17,054.05 | 11,596.43 | 86.13 | 84.45 | -71.02 | -6,195.96 | 1,048.90 | 1,570.62 | 1,408.07 | 162.55 | 9.663 | |
| 17,600.00 | 12,107.88 | 17,154.05 | 11,596.96 | 87.48 | 85.77 | -71.02 | -6,295.95 | 1,049.81 | 1,570.67 | 1,405.58 | 165.09 | 9.514 | |
| 17,700.00 | 12,108.58 | 17,254.05 | 11,597.48 | 88.83 | 87.10 | -71.01 | -6,395.95 | 1,050.71 | 1,570.72 | 1,403.09 | 167.64 | 9.370 | |
| 17,800.00 | 12,109.27 | 17,354.05 | 11,598.01 | 90.18 | 88.43 | -71.00 | -6,495.94 | 1,051.61 | 1,570.77 | 1,400.59 | 170.18 | 9.230 | |
| 17,900.00 | 12,109.97 | 17,454.05 | 11,598.53 | 91.52 | 89.76 | -71.00 | -6,595.94 | 1,052.51 | 1,570.83 | 1,398.09 | 172.73 | 9.094 | |
| 18,000.00 | 12,110.67 | 17,554.05 | 11,599.06 | 92.88 | 91.10 | -70.99 | -6,695.93 | 1,053.41 | 1,570.88 | 1,395.59 | 175.28 | 8.962 | |
| 18,100.00 | 12,111.37 | 17,654.05 | 11,599.58 | 94.23 | 92.43 | -70.99 | -6,795.93 | 1,054.31 | 1,570.93 | 1,393.09 | 177.84 | 8.834 | |
| 18,200.00 | 12,112.07 | 17,754.05 | 11,600.10 | 95.58 | 93.76 | -70.98 | -6,895.92 | 1,055.22 | 1,570.98 | 1,390.59 | 180.39 | 8.709 | |
| 18,300.00 | 12,112.77 | 17,854.05 | 11,600.63 | 96.93 | 95.10 | -70.97 | -6,995.91 | 1,056.12 | 1,571.03 | 1,388.09 | 182.94 | 8.588 | |
| 18,400.00 | 12,113.46 | 17,954.05 | 11,601.15 | 98.28 | 96.44 | -70.97 | -7,095.91 | 1,057.02 | 1,571.08 | 1,385.58 | 185.50 | 8.469 | |
| 18,500.00 | 12,114.16 | 18,054.05 | 11,601.68 | 99.63 | 97.77 | -70.96 | -7,195.90 | 1,057.92 | 1,571.14 | 1,383.08 | 188.06 | 8.355 | |
| 18,600.00 | 12,114.86 | 18,154.05 | 11,602.20 | 100.99 | 99.11 | -70.96 | -7,295.90 | 1,058.82 | 1,571.19 | 1,380.57 | 190.61 | 8.243 | |
| 18,700.00 | 12,115.56 | 18,254.05 | 11,602.73 | 102.34 | 100.45 | -70.95 | -7,395.89 | 1,059.72 | 1,571.24 | 1,378.07 | 193.17 | 8.134 | |
| 18,800.00 | 12,116.26 | 18,354.05 | 11,603.25 | 103.70 | 101.79 | -70.94 | -7,495.89 | 1,060.62 | 1,571.29 | 1,375.56 | 195.73 | 8.028 | |
| 18,900.00 | 12,116.95 | 18,454.05 | 11,603.78 | 105.05 | 103.13 | -70.94 | -7,595.88 | 1,061.53 | 1,571.34 | 1,373.05 | 198.29 | 7.924 | |
| 19,000.00 | 12,117.65 | 18,554.05 | 11,604.30 | 106.41 | 104.47 | -70.93 | -7,695.87 | 1,062.43 | 1,571.39 | 1,370.54 | 200.85 | 7.824 | |
| 19,100.00 | 12,118.35 | 18,654.05 | 11,604.83 | 107.76 | 105.81 | -70.93 | -7,795.87 | 1,063.33 | 1,571.44 | 1,368.03 | 203.42 | 7.725 | |
| 19,200.00 | 12,119.05 | 18,754.05 | 11,605.35 | 109.12 | 107.16 | -70.92 | -7,895.86 | 1,064.23 | 1,571.50 | 1,365.52 | 205.98 | 7.629 | |
| 19,300.00 | 12,119.75 | 18,854.05 | 11,605.88 | 110.47 | 108.50 | -70.91 | -7,995.86 | 1,065.13 | 1,571.55 | 1,363.01 | 208.54 | 7.536 | |
| 19,400.00 | 12,120.45 | 18,954.05 | 11,606.40 | 111.83 | 109.84 | -70.91 | -8,095.85 | 1,066.03 | 1,571.60 | 1,360.49 | 211.11 | 7.445 | |
| 19,500.00 | 12,121.14 | 19,054.05 | 11,606.93 | 113.19 | 111.19 | -70.90 | -8,195.85 | 1,066.93 | 1,571.65 | 1,357.98 | 213.67 | 7.355 | |
| 19,600.00 | 12,121.84 | 19,154.05 | 11,607.45 | 114.54 | 112.53 | -70.90 | -8,295.84 | 1,067.84 | 1,571.70 | 1,355.47 | 216.24 | 7.268 | |
| 19,700.00 | 12,122.54 | 19,254.05 | 11,607.98 | 115.90 | 113.88 | -70.89 | -8,395.84 | 1,068.74 | 1,571.76 | 1,352.95 | 218.80 | 7.183 | |
| 19,800.00 | 12,123.24 | 19,354.05 | 11,608.50 | 117.26 | 115.22 | -70.88 | -8,495.83 | 1,069.64 | 1,571.81 | 1,350.44 | 221.37 | 7.100 | |
| 19,900.00 | 12,123.94 | 19,454.05 | 11,609.03 | 118.61 | 116.57 | -70.88 | -8,595.82 | 1,070.54 | 1,571.86 | 1,347.92 | 223.94 | 7.019 | |
| 20,000.00 | 12,124.64 | 19,554.05 | 11,609.55 | 119.97 | 117.92 | -70.87 | -8,695.82 | 1,071.44 | 1,571.91 | 1,345.40 | 226.51 | 6.940 | |
| 20,100.00 | 12,125.33 | 19,654.05 | 11,610.08 | 121.33 | 119.27 | -70.87 | -8,795.81 | 1,072.34 | 1,571.96 | 1,342.89 | 229.08 | 6.862 | |
| 20,200.00 | 12,126.03 | 19,754.05 | 11,610.60 | 122.69 | 120.61 | -70.86 | -8,895.81 | 1,073.25 | 1,572.01 | 1,340.37 | 231.65 | 6.786 | |
| 20,300.00 | 12,126.73 | 19,854.05 | 11,611.13 | 124.05 | 121.96 | -70.85 | -8,995.80 | 1,074.15 | 1,572.07 | 1,337.85 | 234.21 | 6.712 | |
| 20,400.00 | 12,127.43 | 19,954.05 | 11,611.65 | 125.41 | 123.31 | -70.85 | -9,095.80 | 1,075.05 | 1,572.12 | 1,335.33 | 236.78 | 6.639 | |
| 20,500.00 | 12,128.13 | 20,054.05 | 11,612.17 | 126.77 | 124.66 | -70.84 | -9,195.79 | 1,075.95 | 1,572.17 | 1,332.81 | 239.36 | 6.568 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 158H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,600.00 | 12,128.83 | 20,154.05 | 11,612.70 | 128.13 | 126.01 | -70.84 | -9,295.79 | 1,076.85 | 1,572.22 | 1,330.30 | 241.93 | 6.499 | |
| 20,700.00 | 12,129.52 | 20,254.05 | 11,613.22 | 129.49 | 127.36 | -70.83 | -9,395.78 | 1,077.75 | 1,572.27 | 1,327.78 | 244.50 | 6.431 | |
| 20,800.00 | 12,130.22 | 20,354.05 | 11,613.75 | 130.85 | 128.71 | -70.82 | -9,495.77 | 1,078.65 | 1,572.33 | 1,325.26 | 247.07 | 6.364 | |
| 20,900.00 | 12,130.92 | 20,454.05 | 11,614.27 | 132.21 | 130.06 | -70.82 | -9,595.77 | 1,079.56 | 1,572.38 | 1,322.74 | 249.64 | 6.299 | |
| 21,000.00 | 12,131.62 | 20,554.05 | 11,614.80 | 133.57 | 131.42 | -70.81 | -9,695.76 | 1,080.46 | 1,572.43 | 1,320.22 | 252.21 | 6.235 | |
| 21,100.00 | 12,132.32 | 20,654.05 | 11,615.32 | 134.93 | 132.77 | -70.81 | -9,795.76 | 1,081.36 | 1,572.48 | 1,317.69 | 254.79 | 6.172 | |
| 21,200.00 | 12,133.01 | 20,754.05 | 11,615.85 | 136.29 | 134.12 | -70.80 | -9,895.75 | 1,082.26 | 1,572.53 | 1,315.17 | 257.36 | 6.110 | |
| 21,300.00 | 12,133.71 | 20,854.05 | 11,616.37 | 137.65 | 135.47 | -70.79 | -9,995.75 | 1,083.16 | 1,572.59 | 1,312.65 | 259.93 | 6.050 | |
| 21,400.00 | 12,134.41 | 20,954.05 | 11,616.90 | 139.01 | 136.83 | -70.79 | -10,095.74 | 1,084.06 | 1,572.64 | 1,310.13 | 262.51 | 5.991 | |
| 21,500.00 | 12,135.11 | 21,054.05 | 11,617.42 | 140.37 | 138.18 | -70.78 | -10,195.74 | 1,084.96 | 1,572.69 | 1,307.61 | 265.08 | 5.933 | |
| 21,600.00 | 12,135.81 | 21,154.05 | 11,617.95 | 141.73 | 139.53 | -70.78 | -10,295.73 | 1,085.87 | 1,572.74 | 1,305.09 | 267.66 | 5.876 | |
| 21,700.00 | 12,136.51 | 21,254.05 | 11,618.47 | 143.09 | 140.89 | -70.77 | -10,395.72 | 1,086.77 | 1,572.79 | 1,302.56 | 270.23 | 5.820 | |
| 21,800.00 | 12,137.20 | 21,354.05 | 11,619.00 | 144.46 | 142.24 | -70.76 | -10,495.72 | 1,087.67 | 1,572.85 | 1,300.04 | 272.80 | 5.765 | |
| 21,900.00 | 12,137.90 | 21,454.05 | 11,619.52 | 145.82 | 143.60 | -70.76 | -10,595.71 | 1,088.57 | 1,572.90 | 1,297.52 | 275.38 | 5.712 | |
| 22,000.00 | 12,138.60 | 21,554.05 | 11,620.05 | 147.18 | 144.95 | -70.75 | -10,695.71 | 1,089.47 | 1,572.95 | 1,295.00 | 277.95 | 5.659 | |
| 22,100.00 | 12,139.30 | 21,654.05 | 11,620.57 | 148.54 | 146.31 | -70.74 | -10,795.70 | 1,090.37 | 1,573.00 | 1,292.47 | 280.53 | 5.607 | |
| 22,200.00 | 12,140.00 | 21,754.05 | 11,621.10 | 149.90 | 147.66 | -70.74 | -10,895.70 | 1,091.28 | 1,573.05 | 1,289.95 | 283.11 | 5.556 | |
| 22,300.00 | 12,140.70 | 21,854.05 | 11,621.62 | 151.27 | 149.02 | -70.73 | -10,995.69 | 1,092.18 | 1,573.11 | 1,287.43 | 285.68 | 5.507 | |
| 22,387.52 | 12,141.31 | 21,941.56 | 11,622.08 | 152.46 | 150.20 | -70.73 | -11,083.20 | 1,092.97 | 1,573.15 | 1,285.22 | 287.93 | 5.464 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,900.00 | 1,891.50 | 1,890.50 | 1,891.50 | 5.51 | 5.42 | 33.45 | -881.00 | -2,379.00 | 2,429.77 | 2,418.91 | 10.86 | 223.831 | |
| 2,000.00 | 1,990.13 | 1,989.13 | 1,990.13 | 5.71 | 5.57 | 33.66 | -881.00 | -2,379.00 | 2,415.96 | 2,404.75 | 11.21 | 215.469 | |
| 2,100.00 | 2,088.76 | 2,087.76 | 2,088.76 | 5.90 | 5.72 | 33.88 | -881.00 | -2,379.00 | 2,402.18 | 2,390.62 | 11.57 | 207.660 | |
| 2,200.00 | 2,187.39 | 2,186.39 | 2,187.39 | 6.10 | 5.87 | 34.10 | -881.00 | -2,379.00 | 2,388.44 | 2,376.52 | 11.92 | 200.347 | |
| 2,300.00 | 2,286.02 | 2,380.31 | 2,381.25 | 6.30 | 6.21 | 34.59 | -877.76 | -2,376.24 | 2,373.03 | 2,360.61 | 12.43 | 190.939 | |
| 2,400.00 | 2,384.65 | 2,584.93 | 2,585.28 | 6.50 | 6.56 | 35.27 | -866.26 | -2,366.42 | 2,353.22 | 2,340.29 | 12.92 | 182.075 | |
| 2,500.00 | 2,483.28 | 2,757.73 | 2,756.76 | 6.69 | 6.81 | 35.97 | -850.14 | -2,352.67 | 2,329.31 | 2,315.99 | 13.32 | 174.891 | |
| 2,600.00 | 2,581.91 | 2,853.10 | 2,851.21 | 6.89 | 6.93 | 36.40 | -840.05 | -2,344.05 | 2,304.36 | 2,290.72 | 13.64 | 168.912 | |
| 2,700.00 | 2,680.54 | 2,948.48 | 2,945.66 | 7.10 | 7.07 | 36.83 | -829.95 | -2,335.44 | 2,279.53 | 2,265.54 | 13.99 | 162.961 | |
| 2,800.00 | 2,779.17 | 3,043.86 | 3,040.10 | 7.33 | 7.22 | 37.27 | -819.86 | -2,326.82 | 2,254.83 | 2,240.49 | 14.34 | 157.268 | |
| 2,900.00 | 2,877.80 | 3,139.23 | 3,134.55 | 7.56 | 7.36 | 37.72 | -809.76 | -2,318.21 | 2,230.26 | 2,215.57 | 14.69 | 151.826 | |
| 3,000.00 | 2,976.43 | 3,234.61 | 3,229.00 | 7.79 | 7.51 | 38.17 | -799.67 | -2,309.60 | 2,205.83 | 2,190.78 | 15.04 | 146.619 | |
| 3,100.00 | 3,075.06 | 3,329.98 | 3,323.45 | 8.02 | 7.66 | 38.64 | -789.58 | -2,300.98 | 2,181.53 | 2,166.13 | 15.40 | 141.638 | |
| 3,200.00 | 3,173.69 | 3,425.36 | 3,417.90 | 8.25 | 7.81 | 39.12 | -779.48 | -2,292.37 | 2,157.39 | 2,141.62 | 15.76 | 136.868 | |
| 3,300.00 | 3,272.32 | 3,520.74 | 3,512.35 | 8.48 | 7.96 | 39.61 | -769.39 | -2,283.75 | 2,133.39 | 2,117.26 | 16.13 | 132.301 | |
| 3,400.00 | 3,370.94 | 3,616.11 | 3,606.79 | 8.72 | 8.12 | 40.11 | -759.29 | -2,275.14 | 2,109.54 | 2,093.05 | 16.49 | 127.925 | |
| 3,500.00 | 3,469.57 | 3,711.49 | 3,701.24 | 8.95 | 8.27 | 40.62 | -749.20 | -2,266.52 | 2,085.86 | 2,069.00 | 16.86 | 123.730 | |
| 3,600.00 | 3,568.20 | 3,806.86 | 3,795.69 | 9.19 | 8.43 | 41.14 | -739.10 | -2,257.91 | 2,062.35 | 2,045.12 | 17.23 | 119.709 | |
| 3,700.00 | 3,666.83 | 3,902.24 | 3,890.14 | 9.42 | 8.59 | 41.68 | -729.01 | -2,249.30 | 2,039.00 | 2,021.40 | 17.60 | 115.851 | |
| 3,800.00 | 3,765.46 | 3,997.62 | 3,984.59 | 9.66 | 8.75 | 42.22 | -718.92 | -2,240.68 | 2,015.84 | 1,997.86 | 17.97 | 112.150 | |
| 3,900.00 | 3,864.09 | 4,092.99 | 4,079.04 | 9.89 | 8.91 | 42.78 | -708.82 | -2,232.07 | 1,992.85 | 1,974.50 | 18.35 | 108.597 | |
| 4,000.00 | 3,962.72 | 4,188.37 | 4,173.49 | 10.13 | 9.07 | 43.35 | -698.73 | -2,223.45 | 1,970.06 | 1,951.33 | 18.73 | 105.185 | |
| 4,100.00 | 4,061.35 | 4,283.74 | 4,267.93 | 10.36 | 9.23 | 43.93 | -688.63 | -2,214.84 | 1,947.47 | 1,928.36 | 19.11 | 101.907 | |
| 4,200.00 | 4,159.98 | 4,379.12 | 4,362.38 | 10.60 | 9.39 | 44.53 | -678.54 | -2,206.23 | 1,925.07 | 1,905.58 | 19.49 | 98.758 | |
| 4,300.00 | 4,258.61 | 4,474.50 | 4,456.83 | 10.83 | 9.56 | 45.14 | -668.45 | -2,197.61 | 1,902.90 | 1,883.02 | 19.88 | 95.731 | |
| 4,400.00 | 4,357.24 | 4,569.87 | 4,551.28 | 11.07 | 9.72 | 45.76 | -658.35 | -2,189.00 | 1,880.93 | 1,860.67 | 20.26 | 92.821 | |
| 4,500.00 | 4,455.87 | 4,665.25 | 4,645.73 | 11.31 | 9.89 | 46.40 | -648.26 | -2,180.38 | 1,859.20 | 1,838.55 | 20.65 | 90.023 | |
| 4,600.00 | 4,554.50 | 4,760.63 | 4,740.18 | 11.54 | 10.06 | 47.05 | -638.16 | -2,171.77 | 1,837.70 | 1,816.66 | 21.04 | 87.331 | |
| 4,700.00 | 4,653.13 | 4,846.47 | 4,825.20 | 11.78 | 10.19 | 47.64 | -629.15 | -2,164.08 | 1,816.54 | 1,795.13 | 21.41 | 84.841 | |
| 4,800.00 | 4,751.76 | 4,918.13 | 4,896.31 | 12.02 | 10.31 | 48.13 | -622.47 | -2,158.38 | 1,796.67 | 1,774.89 | 21.77 | 82.511 | |
| 4,900.00 | 4,850.39 | 5,000.00 | 4,977.75 | 12.26 | 10.47 | 48.65 | -616.08 | -2,152.93 | 1,778.33 | 1,756.18 | 22.15 | 80.268 | |
| 5,000.00 | 4,949.01 | 5,063.74 | 5,041.27 | 12.49 | 10.58 | 49.03 | -612.03 | -2,149.46 | 1,761.43 | 1,738.92 | 22.51 | 78.255 | |
| 5,100.00 | 5,047.64 | 5,137.61 | 5,114.98 | 12.73 | 10.71 | 49.45 | -608.33 | -2,146.32 | 1,746.03 | 1,723.16 | 22.87 | 76.360 | |
| 5,200.00 | 5,146.27 | 5,212.13 | 5,189.42 | 12.97 | 10.84 | 49.85 | -605.71 | -2,144.08 | 1,732.09 | 1,708.87 | 23.22 | 74.610 | |
| 5,300.00 | 5,244.90 | 5,287.25 | 5,264.51 | 13.21 | 10.96 | 50.22 | -604.18 | -2,142.77 | 1,719.58 | 1,696.03 | 23.55 | 73.004 | |
| 5,400.00 | 5,343.57 | 5,366.32 | 5,343.57 | 13.41 | 11.03 | 50.51 | -603.77 | -2,142.42 | 1,708.65 | 1,684.84 | 23.82 | 71.744 | |
| 5,500.00 | 5,442.58 | 5,465.32 | 5,442.58 | 13.63 | 11.11 | 50.77 | -603.77 | -2,142.42 | 1,699.69 | 1,675.57 | 24.11 | 70.486 | |
| 5,600.00 | 5,541.92 | 5,564.66 | 5,541.92 | 13.82 | 11.21 | 50.98 | -603.77 | -2,142.42 | 1,692.42 | 1,668.02 | 24.41 | 69.342 | |
| 5,700.00 | 5,641.52 | 5,664.26 | 5,641.52 | 13.98 | 11.30 | 51.15 | -603.77 | -2,142.42 | 1,686.84 | 1,662.16 | 24.68 | 68.349 | |
| 5,800.00 | 5,741.32 | 5,764.07 | 5,741.32 | 14.12 | 11.39 | 51.27 | -603.77 | -2,142.42 | 1,682.93 | 1,657.99 | 24.93 | 67.501 | |
| 5,900.00 | 5,841.25 | 5,864.00 | 5,841.25 | 14.23 | 11.49 | 51.34 | -603.77 | -2,142.42 | 1,680.65 | 1,655.49 | 25.16 | 66.793 | |
| 6,000.00 | 5,941.25 | 5,963.99 | 5,941.25 | 14.28 | 11.58 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,654.70 | 25.31 | 66.368 | |
| 6,100.00 | 6,041.25 | 6,063.99 | 6,041.25 | 14.32 | 11.67 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,654.57 | 25.44 | 66.041 | |
| 6,200.00 | 6,141.25 | 6,163.99 | 6,141.25 | 14.35 | 11.77 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,654.45 | 25.56 | 65.716 | |
| 6,300.00 | 6,241.25 | 6,263.99 | 6,241.25 | 14.39 | 11.86 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,654.32 | 25.69 | 65.394 | |
| 6,400.00 | 6,341.25 | 6,363.99 | 6,341.25 | 14.42 | 11.95 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,654.19 | 25.82 | 65.074 | |
| 6,500.00 | 6,441.25 | 6,463.99 | 6,441.25 | 14.46 | 12.05 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,654.07 | 25.94 | 64.757 | |
| 6,600.00 | 6,541.25 | 6,563.99 | 6,541.25 | 14.49 | 12.14 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.94 | 26.07 | 64.442 | |
| 6,700.00 | 6,641.25 | 6,663.99 | 6,641.25 | 14.53 | 12.23 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.81 | 26.20 | 64.130 | |
| 6,800.00 | 6,741.25 | 6,763.99 | 6,741.25 | 14.56 | 12.32 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.69 | 26.32 | 63.820 | |
| 6,900.00 | 6,841.25 | 6,863.99 | 6,841.25 | 14.60 | 12.41 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.56 | 26.45 | 63.513 | |
| 7,000.00 | 6,941.25 | 6,963.99 | 6,941.25 | 14.64 | 12.51 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.43 | 26.58 | 63.208 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,100.00 | 7,041.25 | 7,063.99 | 7,041.25 | 14.68 | 12.60 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.30 | 26.71 | 62.906 | |
| 7,200.00 | 7,141.25 | 7,163.99 | 7,141.25 | 14.71 | 12.69 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.18 | 26.83 | 62.606 | |
| 7,300.00 | 7,241.25 | 7,263.99 | 7,241.25 | 14.75 | 12.78 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,653.05 | 26.96 | 62.308 | |
| 7,400.00 | 7,341.25 | 7,363.99 | 7,341.25 | 14.79 | 12.87 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.92 | 27.09 | 62.012 | |
| 7,500.00 | 7,441.25 | 7,463.99 | 7,441.25 | 14.83 | 12.96 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.79 | 27.22 | 61.719 | |
| 7,600.00 | 7,541.25 | 7,563.99 | 7,541.25 | 14.87 | 13.05 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.66 | 27.35 | 61.428 | |
| 7,700.00 | 7,641.25 | 7,663.99 | 7,641.25 | 14.91 | 13.14 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.53 | 27.48 | 61.139 | |
| 7,800.00 | 7,741.25 | 7,763.99 | 7,741.25 | 14.95 | 13.24 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.40 | 27.61 | 60.853 | |
| 7,900.00 | 7,841.25 | 7,863.99 | 7,841.25 | 14.99 | 13.33 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.27 | 27.74 | 60.568 | |
| 8,000.00 | 7,941.25 | 7,963.99 | 7,941.25 | 15.03 | 13.42 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.14 | 27.87 | 60.286 | |
| 8,100.00 | 8,041.25 | 8,063.99 | 8,041.25 | 15.07 | 13.51 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,652.01 | 28.00 | 60.006 | |
| 8,200.00 | 8,141.25 | 8,163.99 | 8,141.25 | 15.11 | 13.60 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.88 | 28.13 | 59.728 | |
| 8,300.00 | 8,241.25 | 8,263.99 | 8,241.25 | 15.15 | 13.69 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.75 | 28.26 | 59.452 | |
| 8,400.00 | 8,341.25 | 8,363.99 | 8,341.25 | 15.20 | 13.78 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.62 | 28.39 | 59.178 | |
| 8,500.00 | 8,441.25 | 8,463.99 | 8,441.25 | 15.24 | 13.87 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.49 | 28.52 | 58.906 | |
| 8,600.00 | 8,541.25 | 8,563.99 | 8,541.25 | 15.28 | 13.96 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.36 | 28.65 | 58.636 | |
| 8,700.00 | 8,641.25 | 8,663.99 | 8,641.25 | 15.32 | 14.05 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.23 | 28.78 | 58.368 | |
| 8,800.00 | 8,741.25 | 8,763.99 | 8,741.25 | 15.37 | 14.14 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,651.10 | 28.91 | 58.102 | |
| 8,900.00 | 8,841.25 | 8,863.99 | 8,841.25 | 15.41 | 14.23 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.96 | 29.05 | 57.839 | |
| 9,000.00 | 8,941.25 | 8,963.99 | 8,941.25 | 15.46 | 14.32 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.83 | 29.18 | 57.577 | |
| 9,100.00 | 9,041.25 | 9,063.99 | 9,041.25 | 15.50 | 14.41 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.70 | 29.31 | 57.317 | |
| 9,200.00 | 9,141.25 | 9,163.99 | 9,141.25 | 15.55 | 14.50 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.57 | 29.44 | 57.058 | |
| 9,300.00 | 9,241.25 | 9,263.99 | 9,241.25 | 15.59 | 14.59 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.43 | 29.58 | 56.802 | |
| 9,400.00 | 9,341.25 | 9,363.99 | 9,341.25 | 15.64 | 14.67 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.30 | 29.71 | 56.548 | |
| 9,500.00 | 9,441.25 | 9,463.99 | 9,441.25 | 15.68 | 14.76 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.17 | 29.84 | 56.295 | |
| 9,600.00 | 9,541.25 | 9,563.99 | 9,541.25 | 15.73 | 14.85 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,650.03 | 29.98 | 56.045 | |
| 9,700.00 | 9,641.25 | 9,663.99 | 9,641.25 | 15.78 | 14.94 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.90 | 30.11 | 55.796 | |
| 9,800.00 | 9,741.25 | 9,763.99 | 9,741.25 | 15.82 | 15.03 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.77 | 30.24 | 55.549 | |
| 9,900.00 | 9,841.25 | 9,863.99 | 9,841.25 | 15.87 | 15.12 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.63 | 30.38 | 55.304 | |
| 10,000.00 | 9,941.25 | 9,963.99 | 9,941.25 | 15.92 | 15.21 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.50 | 30.51 | 55.060 | |
| 10,100.00 | 10,041.25 | 10,063.99 | 10,041.25 | 15.96 | 15.30 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.36 | 30.65 | 54.818 | |
| 10,200.00 | 10,141.25 | 10,163.99 | 10,141.25 | 16.01 | 15.39 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.23 | 30.78 | 54.578 | |
| 10,300.00 | 10,241.25 | 10,263.99 | 10,241.25 | 16.06 | 15.47 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,649.09 | 30.92 | 54.340 | |
| 10,400.00 | 10,341.25 | 10,363.99 | 10,341.25 | 16.11 | 15.56 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.96 | 31.05 | 54.104 | |
| 10,500.00 | 10,441.25 | 10,463.99 | 10,441.25 | 16.16 | 15.65 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.82 | 31.19 | 53.869 | |
| 10,600.00 | 10,541.25 | 10,563.99 | 10,541.25 | 16.21 | 15.74 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.69 | 31.32 | 53.636 | |
| 10,700.00 | 10,641.25 | 10,663.99 | 10,641.25 | 16.26 | 15.83 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.55 | 31.46 | 53.404 | |
| 10,800.00 | 10,741.25 | 10,763.99 | 10,741.25 | 16.31 | 15.92 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.42 | 31.59 | 53.174 | |
| 10,900.00 | 10,841.25 | 10,863.99 | 10,841.25 | 16.36 | 16.00 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.28 | 31.73 | 52.946 | |
| 11,000.00 | 10,941.25 | 10,963.99 | 10,941.25 | 16.41 | 16.09 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.14 | 31.87 | 52.719 | |
| 11,100.00 | 11,041.25 | 11,063.99 | 11,041.25 | 16.46 | 16.18 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,648.01 | 32.00 | 52.494 | |
| 11,200.00 | 11,141.25 | 11,163.99 | 11,141.25 | 16.51 | 16.27 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,647.87 | 32.14 | 52.271 | |
| 11,300.00 | 11,241.25 | 11,263.99 | 11,241.25 | 16.56 | 16.36 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,647.73 | 32.28 | 52.049 | |
| 11,400.00 | 11,341.25 | 11,363.99 | 11,341.25 | 16.61 | 16.44 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,647.60 | 32.41 | 51.829 | |
| 11,500.00 | 11,441.25 | 11,463.99 | 11,441.25 | 16.66 | 16.53 | -90.40 | -603.77 | -2,142.42 | 1,680.01 | 1,647.46 | 32.55 | 51.610 | |
| 11,600.00 | 11,541.21 | 11,563.95 | 11,541.21 | 16.71 | 16.62 | 87.91 | -603.77 | -2,142.42 | 1,679.95 | 1,647.28 | 32.67 | 51.419 | |
| 11,700.00 | 11,639.79 | 11,662.53 | 11,639.79 | 16.90 | 16.71 | 88.50 | -603.77 | -2,142.42 | 1,679.44 | 1,646.57 | 32.88 | 51.085 | |
| 11,800.00 | 11,734.09 | 11,756.84 | 11,734.09 | 17.17 | 16.79 | 89.61 | -603.77 | -2,142.42 | 1,678.88 | 1,645.68 | 33.20 | 50.574 | |
| 11,828.96 | 11,760.19 | 11,782.94 | 11,760.19 | 17.27 | 16.81 | 90.00 | -603.77 | -2,142.42 | 1,678.83 | 1,645.50 | 33.33 | 50.376 | CC |
| 11,900.00 | 11,821.25 | 11,852.25 | 11,829.45 | 17.53 | 16.87 | 91.13 | -605.69 | -2,142.40 | 1,679.12 | 1,645.52 | 33.61 | 49.960 | |
| 12,000.00 | 11,898.62 | 11,964.10 | 11,939.33 | 18.00 | 16.92 | 92.86 | -625.62 | -2,142.23 | 1,680.26 | 1,646.23 | 34.03 | 49.372 | |
| 12,100.00 | 11,963.85 | 12,091.38 | 12,056.91 | 18.59 | 16.99 | 94.67 | -673.69 | -2,141.82 | 1,681.96 | 1,647.41 | 34.55 | 48.684 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,200.00 | 12,014.95 | 12,238.26 | 12,175.49 | 19.33 | 17.06 | 96.49 | -759.67 | -2,141.08 | 1,683.69 | 1,648.49 | 35.20 | 47.831 | |
| 12,300.00 | 12,050.38 | 12,407.40 | 12,279.83 | 20.19 | 17.16 | 98.15 | -892.00 | -2,139.94 | 1,684.56 | 1,648.47 | 36.08 | 46.685 | |
| 12,400.00 | 12,069.05 | 12,596.11 | 12,345.19 | 21.14 | 17.33 | 99.35 | -1,068.12 | -2,138.42 | 1,683.50 | 1,646.19 | 37.30 | 45.128 | |
| 12,500.00 | 12,072.27 | 12,748.43 | 12,355.81 | 22.15 | 17.59 | 99.71 | -1,219.77 | -2,137.12 | 1,680.40 | 1,641.67 | 38.73 | 43.391 | |
| 12,596.51 | 12,072.94 | 12,844.93 | 12,356.32 | 23.15 | 17.85 | 99.72 | -1,316.27 | -2,136.29 | 1,679.26 | 1,639.16 | 40.10 | 41.879 | |
| 12,600.00 | 12,072.97 | 12,848.42 | 12,356.33 | 23.19 | 17.86 | 99.71 | -1,319.76 | -2,136.26 | 1,679.63 | 1,639.49 | 40.15 | 41.835 | |
| 12,700.00 | 12,073.66 | 12,948.42 | 12,356.86 | 24.26 | 18.24 | 99.71 | -1,419.75 | -2,135.39 | 1,679.65 | 1,637.95 | 41.70 | 40.277 | |
| 12,800.00 | 12,074.36 | 13,048.42 | 12,357.38 | 25.36 | 18.74 | 99.70 | -1,519.75 | -2,134.53 | 1,679.67 | 1,636.29 | 43.37 | 38.728 | |
| 12,900.00 | 12,075.06 | 13,148.42 | 12,357.91 | 26.49 | 19.35 | 99.69 | -1,619.74 | -2,133.67 | 1,679.68 | 1,634.54 | 45.14 | 37.208 | |
| 13,000.00 | 12,075.76 | 13,248.42 | 12,358.43 | 27.63 | 20.05 | 99.69 | -1,719.74 | -2,132.81 | 1,679.70 | 1,632.69 | 47.01 | 35.733 | |
| 13,100.00 | 12,076.46 | 13,348.42 | 12,358.95 | 28.80 | 20.83 | 99.68 | -1,819.73 | -2,131.95 | 1,679.71 | 1,630.76 | 48.95 | 34.312 | |
| 13,200.00 | 12,077.15 | 13,448.42 | 12,359.48 | 29.98 | 21.68 | 99.68 | -1,919.73 | -2,131.09 | 1,679.73 | 1,628.76 | 50.97 | 32.953 | |
| 13,300.00 | 12,077.85 | 13,548.42 | 12,360.00 | 31.18 | 22.59 | 99.67 | -2,019.72 | -2,130.23 | 1,679.74 | 1,626.69 | 53.06 | 31.659 | |
| 13,400.00 | 12,078.55 | 13,648.42 | 12,360.52 | 32.39 | 23.54 | 99.66 | -2,119.72 | -2,129.37 | 1,679.76 | 1,624.56 | 55.20 | 30.432 | |
| 13,500.00 | 12,079.25 | 13,748.42 | 12,361.05 | 33.61 | 24.54 | 99.66 | -2,219.71 | -2,128.51 | 1,679.78 | 1,622.39 | 57.39 | 29.270 | |
| 13,600.00 | 12,079.95 | 13,848.42 | 12,361.57 | 34.84 | 25.57 | 99.65 | -2,319.71 | -2,127.65 | 1,679.79 | 1,620.17 | 59.62 | 28.173 | |
| 13,700.00 | 12,080.65 | 13,948.42 | 12,362.09 | 36.08 | 26.64 | 99.65 | -2,419.70 | -2,126.78 | 1,679.81 | 1,617.91 | 61.90 | 27.137 | |
| 13,800.00 | 12,081.34 | 14,048.42 | 12,362.62 | 37.33 | 27.73 | 99.64 | -2,519.70 | -2,125.92 | 1,679.82 | 1,615.61 | 64.21 | 26.161 | |
| 13,900.00 | 12,082.04 | 14,148.42 | 12,363.14 | 38.59 | 28.84 | 99.63 | -2,619.69 | -2,125.06 | 1,679.84 | 1,613.29 | 66.55 | 25.240 | |
| 14,000.00 | 12,082.74 | 14,248.42 | 12,363.66 | 39.86 | 29.98 | 99.63 | -2,719.69 | -2,124.20 | 1,679.86 | 1,610.93 | 68.92 | 24.372 | |
| 14,100.00 | 12,083.44 | 14,348.42 | 12,364.19 | 41.13 | 31.14 | 99.62 | -2,819.68 | -2,123.34 | 1,679.87 | 1,608.55 | 71.32 | 23.554 | |
| 14,200.00 | 12,084.14 | 14,448.42 | 12,364.71 | 42.40 | 32.32 | 99.61 | -2,919.68 | -2,122.48 | 1,679.89 | 1,606.15 | 73.74 | 22.781 | |
| 14,300.00 | 12,084.84 | 14,548.42 | 12,365.23 | 43.69 | 33.51 | 99.61 | -3,019.67 | -2,121.62 | 1,679.90 | 1,603.73 | 76.18 | 22.052 | |
| 14,400.00 | 12,085.53 | 14,648.42 | 12,365.76 | 44.97 | 34.71 | 99.60 | -3,119.67 | -2,120.76 | 1,679.92 | 1,601.28 | 78.64 | 21.363 | |
| 14,500.00 | 12,086.23 | 14,748.42 | 12,366.28 | 46.27 | 35.92 | 99.60 | -3,219.66 | -2,119.90 | 1,679.94 | 1,598.83 | 81.11 | 20.712 | |
| 14,600.00 | 12,086.93 | 14,848.42 | 12,366.80 | 47.56 | 37.15 | 99.59 | -3,319.66 | -2,119.04 | 1,679.95 | 1,596.35 | 83.60 | 20.095 | |
| 14,700.00 | 12,087.63 | 14,948.42 | 12,367.33 | 48.86 | 38.39 | 99.58 | -3,419.65 | -2,118.17 | 1,679.97 | 1,593.86 | 86.10 | 19.511 | |
| 14,800.00 | 12,088.33 | 15,048.42 | 12,367.85 | 50.17 | 39.63 | 99.58 | -3,519.64 | -2,117.31 | 1,679.98 | 1,591.37 | 88.62 | 18.958 | |
| 14,900.00 | 12,089.02 | 15,148.42 | 12,368.37 | 51.47 | 40.89 | 99.57 | -3,619.64 | -2,116.45 | 1,680.00 | 1,588.85 | 91.15 | 18.432 | |
| 15,000.00 | 12,089.72 | 15,248.42 | 12,368.90 | 52.78 | 42.15 | 99.57 | -3,719.63 | -2,115.59 | 1,680.02 | 1,586.33 | 93.68 | 17.933 | |
| 15,100.00 | 12,090.42 | 15,348.42 | 12,369.42 | 54.10 | 43.41 | 99.56 | -3,819.63 | -2,114.73 | 1,680.03 | 1,583.80 | 96.23 | 17.458 | |
| 15,200.00 | 12,091.12 | 15,448.42 | 12,369.95 | 55.41 | 44.69 | 99.55 | -3,919.62 | -2,113.87 | 1,680.05 | 1,581.26 | 98.79 | 17.007 | |
| 15,300.00 | 12,091.82 | 15,548.42 | 12,370.47 | 56.73 | 45.97 | 99.55 | -4,019.62 | -2,113.01 | 1,680.06 | 1,578.71 | 101.35 | 16.577 | |
| 15,400.00 | 12,092.52 | 15,648.42 | 12,370.99 | 58.05 | 47.25 | 99.54 | -4,119.61 | -2,112.15 | 1,680.08 | 1,576.16 | 103.92 | 16.167 | |
| 15,500.00 | 12,093.21 | 15,748.42 | 12,371.52 | 59.37 | 48.54 | 99.54 | -4,219.61 | -2,111.29 | 1,680.10 | 1,573.59 | 106.50 | 15.775 | |
| 15,600.00 | 12,093.91 | 15,848.42 | 12,372.04 | 60.70 | 49.83 | 99.53 | -4,319.60 | -2,110.43 | 1,680.11 | 1,571.02 | 109.09 | 15.401 | |
| 15,700.00 | 12,094.61 | 15,948.42 | 12,372.56 | 62.03 | 51.13 | 99.52 | -4,419.60 | -2,109.56 | 1,680.13 | 1,568.45 | 111.68 | 15.044 | |
| 15,800.00 | 12,095.31 | 16,048.42 | 12,373.09 | 63.35 | 52.43 | 99.52 | -4,519.59 | -2,108.70 | 1,680.15 | 1,565.87 | 114.28 | 14.702 | |
| 15,900.00 | 12,096.01 | 16,148.42 | 12,373.61 | 64.68 | 53.73 | 99.51 | -4,619.59 | -2,107.84 | 1,680.16 | 1,563.28 | 116.88 | 14.375 | |
| 16,000.00 | 12,096.71 | 16,248.42 | 12,374.13 | 66.02 | 55.04 | 99.50 | -4,719.58 | -2,106.98 | 1,680.18 | 1,560.69 | 119.49 | 14.062 | |
| 16,100.00 | 12,097.40 | 16,348.42 | 12,374.66 | 67.35 | 56.35 | 99.50 | -4,819.58 | -2,106.12 | 1,680.19 | 1,558.10 | 122.10 | 13.761 | |
| 16,200.00 | 12,098.10 | 16,448.42 | 12,375.18 | 68.68 | 57.67 | 99.49 | -4,919.57 | -2,105.26 | 1,680.21 | 1,555.50 | 124.72 | 13.472 | |
| 16,300.00 | 12,098.80 | 16,548.42 | 12,375.70 | 70.02 | 58.98 | 99.49 | -5,019.57 | -2,104.40 | 1,680.23 | 1,552.89 | 127.34 | 13.195 | |
| 16,400.00 | 12,099.50 | 16,648.42 | 12,376.23 | 71.36 | 60.30 | 99.48 | -5,119.56 | -2,103.54 | 1,680.24 | 1,550.28 | 129.96 | 12.929 | |
| 16,500.00 | 12,100.20 | 16,748.42 | 12,376.75 | 72.69 | 61.62 | 99.47 | -5,219.56 | -2,102.68 | 1,680.26 | 1,547.67 | 132.59 | 12.673 | |
| 16,600.00 | 12,100.90 | 16,848.42 | 12,377.27 | 74.03 | 62.94 | 99.47 | -5,319.55 | -2,101.82 | 1,680.28 | 1,545.06 | 135.22 | 12.426 | |
| 16,700.00 | 12,101.59 | 16,948.42 | 12,377.80 | 75.37 | 64.27 | 99.46 | -5,419.55 | -2,100.95 | 1,680.29 | 1,542.44 | 137.85 | 12.189 | |
| 16,800.00 | 12,102.29 | 17,048.42 | 12,378.32 | 76.72 | 65.59 | 99.46 | -5,519.54 | -2,100.09 | 1,680.31 | 1,539.82 | 140.49 | 11.960 | |
| 16,900.00 | 12,102.99 | 17,148.42 | 12,378.84 | 78.06 | 66.92 | 99.45 | -5,619.53 | -2,099.23 | 1,680.33 | 1,537.20 | 143.13 | 11.740 | |
| 17,000.00 | 12,103.69 | 17,248.42 | 12,379.37 | 79.40 | 68.25 | 99.44 | -5,719.53 | -2,098.37 | 1,680.34 | 1,534.57 | 145.77 | 11.527 | |
| 17,100.00 | 12,104.39 | 17,348.42 | 12,379.89 | 80.75 | 69.58 | 99.44 | -5,819.52 | -2,097.51 | 1,680.36 | 1,531.94 | 148.42 | 11.322 | |
| 17,200.00 | 12,105.08 | 17,448.42 | 12,380.41 | 82.09 | 70.92 | 99.43 | -5,919.52 | -2,096.65 | 1,680.38 | 1,529.31 | 151.06 | 11.124 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17,300.00 | 12,105.78 | 17,548.42 | 12,380.94 | 83.44 | 72.25 | 99.42 | -6,019.51 | -2,095.79 | 1,680.39 | 1,526.68 | 153.71 | 10.932 | |
| 17,400.00 | 12,106.48 | 17,648.42 | 12,381.46 | 84.78 | 73.59 | 99.42 | -6,119.51 | -2,094.93 | 1,680.41 | 1,524.04 | 156.37 | 10.747 | |
| 17,500.00 | 12,107.18 | 17,748.42 | 12,381.98 | 86.13 | 74.92 | 99.41 | -6,219.50 | -2,094.07 | 1,680.43 | 1,521.41 | 159.02 | 10.567 | |
| 17,600.00 | 12,107.88 | 17,848.42 | 12,382.51 | 87.48 | 76.26 | 99.41 | -6,319.50 | -2,093.21 | 1,680.44 | 1,518.77 | 161.68 | 10.394 | |
| 17,700.00 | 12,108.58 | 17,948.42 | 12,383.03 | 88.83 | 77.60 | 99.40 | -6,419.49 | -2,092.34 | 1,680.46 | 1,516.13 | 164.33 | 10.226 | |
| 17,800.00 | 12,109.27 | 18,048.42 | 12,383.56 | 90.18 | 78.94 | 99.39 | -6,519.49 | -2,091.48 | 1,680.48 | 1,513.48 | 166.99 | 10.063 | |
| 17,900.00 | 12,109.97 | 18,148.42 | 12,384.08 | 91.52 | 80.28 | 99.39 | -6,619.48 | -2,090.62 | 1,680.49 | 1,510.84 | 169.65 | 9.905 | |
| 18,000.00 | 12,110.67 | 18,248.42 | 12,384.60 | 92.88 | 81.62 | 99.38 | -6,719.48 | -2,089.76 | 1,680.51 | 1,508.19 | 172.32 | 9.752 | |
| 18,100.00 | 12,111.37 | 18,348.42 | 12,385.13 | 94.23 | 82.97 | 99.38 | -6,819.47 | -2,088.90 | 1,680.53 | 1,505.54 | 174.98 | 9.604 | |
| 18,200.00 | 12,112.07 | 18,448.42 | 12,385.65 | 95.58 | 84.31 | 99.37 | -6,919.47 | -2,088.04 | 1,680.54 | 1,502.89 | 177.65 | 9.460 | |
| 18,300.00 | 12,112.77 | 18,548.42 | 12,386.17 | 96.93 | 85.65 | 99.36 | -7,019.46 | -2,087.18 | 1,680.56 | 1,500.24 | 180.31 | 9.320 | |
| 18,400.00 | 12,113.46 | 18,648.42 | 12,386.70 | 98.28 | 87.00 | 99.36 | -7,119.46 | -2,086.32 | 1,680.58 | 1,497.59 | 182.98 | 9.184 | |
| 18,500.00 | 12,114.16 | 18,748.41 | 12,387.22 | 99.63 | 88.35 | 99.35 | -7,219.45 | -2,085.46 | 1,680.59 | 1,494.94 | 185.65 | 9.052 | |
| 18,600.00 | 12,114.86 | 18,848.41 | 12,387.74 | 100.99 | 89.69 | 99.34 | -7,319.45 | -2,084.60 | 1,680.61 | 1,492.29 | 188.32 | 8.924 | |
| 18,700.00 | 12,115.56 | 18,948.41 | 12,388.27 | 102.34 | 91.04 | 99.34 | -7,419.44 | -2,083.73 | 1,680.63 | 1,489.63 | 191.00 | 8.799 | |
| 18,800.00 | 12,116.26 | 19,048.41 | 12,388.79 | 103.70 | 92.39 | 99.33 | -7,519.44 | -2,082.87 | 1,680.64 | 1,486.97 | 193.67 | 8.678 | |
| 18,900.00 | 12,116.95 | 19,148.41 | 12,389.31 | 105.05 | 93.74 | 99.33 | -7,619.43 | -2,082.01 | 1,680.66 | 1,484.32 | 196.34 | 8.560 | |
| 19,000.00 | 12,117.65 | 19,248.41 | 12,389.84 | 106.41 | 95.09 | 99.32 | -7,719.42 | -2,081.15 | 1,680.68 | 1,481.66 | 199.02 | 8.445 | |
| 19,100.00 | 12,118.35 | 19,348.41 | 12,390.36 | 107.76 | 96.44 | 99.31 | -7,819.42 | -2,080.29 | 1,680.69 | 1,479.00 | 201.70 | 8.333 | |
| 19,200.00 | 12,119.05 | 19,448.41 | 12,390.88 | 109.12 | 97.79 | 99.31 | -7,919.41 | -2,079.43 | 1,680.71 | 1,476.34 | 204.37 | 8.224 | |
| 19,300.00 | 12,119.75 | 19,548.41 | 12,391.41 | 110.47 | 99.14 | 99.30 | -8,019.41 | -2,078.57 | 1,680.73 | 1,473.67 | 207.05 | 8.117 | |
| 19,400.00 | 12,120.45 | 19,648.41 | 12,391.93 | 111.83 | 100.49 | 99.30 | -8,119.40 | -2,077.71 | 1,680.74 | 1,471.01 | 209.73 | 8.014 | |
| 19,500.00 | 12,121.14 | 19,748.41 | 12,392.45 | 113.19 | 101.84 | 99.29 | -8,219.40 | -2,076.85 | 1,680.76 | 1,468.35 | 212.41 | 7.913 | |
| 19,600.00 | 12,121.84 | 19,848.41 | 12,392.98 | 114.54 | 103.19 | 99.28 | -8,319.39 | -2,075.99 | 1,680.78 | 1,465.68 | 215.09 | 7.814 | |
| 19,700.00 | 12,122.54 | 19,948.41 | 12,393.50 | 115.90 | 104.55 | 99.28 | -8,419.39 | -2,075.12 | 1,680.80 | 1,463.02 | 217.78 | 7.718 | |
| 19,800.00 | 12,123.24 | 20,048.41 | 12,394.02 | 117.26 | 105.90 | 99.27 | -8,519.38 | -2,074.26 | 1,680.81 | 1,460.35 | 220.46 | 7.624 | |
| 19,900.00 | 12,123.94 | 20,148.41 | 12,394.55 | 118.61 | 107.25 | 99.27 | -8,619.38 | -2,073.40 | 1,680.83 | 1,457.69 | 223.14 | 7.533 | |
| 20,000.00 | 12,124.64 | 20,248.41 | 12,395.07 | 119.97 | 108.61 | 99.26 | -8,719.37 | -2,072.54 | 1,680.85 | 1,455.02 | 225.83 | 7.443 | |
| 20,100.00 | 12,125.33 | 20,348.41 | 12,395.60 | 121.33 | 109.96 | 99.25 | -8,819.37 | -2,071.68 | 1,680.86 | 1,452.35 | 228.51 | 7.356 | |
| 20,200.00 | 12,126.03 | 20,448.41 | 12,396.12 | 122.69 | 111.32 | 99.25 | -8,919.36 | -2,070.82 | 1,680.88 | 1,449.68 | 231.20 | 7.270 | |
| 20,300.00 | 12,126.73 | 20,548.41 | 12,396.64 | 124.05 | 112.67 | 99.24 | -9,019.36 | -2,069.96 | 1,680.90 | 1,447.01 | 233.89 | 7.187 | |
| 20,400.00 | 12,127.43 | 20,648.41 | 12,397.17 | 125.41 | 114.03 | 99.23 | -9,119.35 | -2,069.10 | 1,680.92 | 1,444.34 | 236.57 | 7.105 | |
| 20,500.00 | 12,128.13 | 20,748.41 | 12,397.69 | 126.77 | 115.38 | 99.23 | -9,219.35 | -2,068.24 | 1,680.93 | 1,441.67 | 239.26 | 7.026 | |
| 20,600.00 | 12,128.83 | 20,848.41 | 12,398.21 | 128.13 | 116.74 | 99.22 | -9,319.34 | -2,067.38 | 1,680.95 | 1,439.00 | 241.95 | 6.948 | |
| 20,700.00 | 12,129.52 | 20,948.41 | 12,398.74 | 129.49 | 118.10 | 99.22 | -9,419.34 | -2,066.51 | 1,680.97 | 1,436.33 | 244.64 | 6.871 | |
| 20,800.00 | 12,130.22 | 21,048.41 | 12,399.26 | 130.85 | 119.45 | 99.21 | -9,519.33 | -2,065.65 | 1,680.98 | 1,433.66 | 247.33 | 6.797 | |
| 20,900.00 | 12,130.92 | 21,148.41 | 12,399.78 | 132.21 | 120.81 | 99.20 | -9,619.33 | -2,064.79 | 1,681.00 | 1,430.98 | 250.02 | 6.724 | |
| 21,000.00 | 12,131.62 | 21,248.41 | 12,400.31 | 133.57 | 122.17 | 99.20 | -9,719.32 | -2,063.93 | 1,681.02 | 1,428.31 | 252.71 | 6.652 | |
| 21,100.00 | 12,132.32 | 21,348.41 | 12,400.83 | 134.93 | 123.53 | 99.19 | -9,819.31 | -2,063.07 | 1,681.04 | 1,425.64 | 255.40 | 6.582 | |
| 21,200.00 | 12,133.01 | 21,448.41 | 12,401.35 | 136.29 | 124.88 | 99.19 | -9,919.31 | -2,062.21 | 1,681.05 | 1,422.96 | 258.09 | 6.513 | |
| 21,300.00 | 12,133.71 | 21,548.41 | 12,401.88 | 137.65 | 126.24 | 99.18 | -10,019.30 | -2,061.35 | 1,681.07 | 1,420.29 | 260.78 | 6.446 | |
| 21,400.00 | 12,134.41 | 21,648.41 | 12,402.40 | 139.01 | 127.60 | 99.17 | -10,119.30 | -2,060.49 | 1,681.09 | 1,417.61 | 263.48 | 6.380 | |
| 21,500.00 | 12,135.11 | 21,748.41 | 12,402.92 | 140.37 | 128.96 | 99.17 | -10,219.29 | -2,059.63 | 1,681.11 | 1,414.94 | 266.17 | 6.316 | |
| 21,600.00 | 12,135.81 | 21,848.41 | 12,403.45 | 141.73 | 130.32 | 99.16 | -10,319.29 | -2,058.77 | 1,681.12 | 1,412.26 | 268.86 | 6.253 | |
| 21,700.00 | 12,136.51 | 21,948.41 | 12,403.97 | 143.09 | 131.68 | 99.15 | -10,419.28 | -2,057.90 | 1,681.14 | 1,409.58 | 271.56 | 6.191 | |
| 21,800.00 | 12,137.20 | 22,048.41 | 12,404.49 | 144.46 | 133.04 | 99.15 | -10,519.28 | -2,057.04 | 1,681.16 | 1,406.91 | 274.25 | 6.130 | |
| 21,900.00 | 12,137.90 | 22,148.41 | 12,405.02 | 145.82 | 134.40 | 99.14 | -10,619.27 | -2,056.18 | 1,681.18 | 1,404.23 | 276.95 | 6.070 | |
| 22,000.00 | 12,138.60 | 22,248.41 | 12,405.54 | 147.18 | 135.76 | 99.14 | -10,719.27 | -2,055.32 | 1,681.19 | 1,401.55 | 279.64 | 6.012 | |
| 22,100.00 | 12,139.30 | 22,348.41 | 12,406.06 | 148.54 | 137.12 | 99.13 | -10,819.26 | -2,054.46 | 1,681.21 | 1,398.87 | 282.34 | 5.955 | |
| 22,200.00 | 12,140.00 | 22,448.41 | 12,406.59 | 149.90 | 138.48 | 99.12 | -10,919.26 | -2,053.60 | 1,681.23 | 1,396.19 | 285.04 | 5.898 | |
| 22,300.00 | 12,140.70 | 22,548.41 | 12,407.11 | 151.27 | 139.84 | 99.12 | -11,019.25 | -2,052.74 | 1,681.25 | 1,393.51 | 287.73 | 5.843 | |
| 22,387.52 | 12,141.31 | 22,634.88 | 12,407.56 | 152.46 | 141.01 | 99.11 | -11,105.72 | -2,051.99 | 1,681.26 | 1,391.18 | 290.08 | 5.796 | ES, SF |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 0.50 | 0.50 | 135.00 | -25.00 | 25.00 | 35.36 | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.98 | 0.98 | 135.00 | -25.00 | 25.00 | 35.36 | 33.39 | 1.96 | 18.018 | |
| 200.00 | 200.00 | 200.00 | 200.00 | 1.56 | 1.56 | 135.00 | -25.00 | 25.00 | 35.36 | 32.23 | 3.12 | 11.324 | |
| 300.00 | 300.00 | 300.00 | 300.00 | 1.98 | 1.98 | 135.00 | -25.00 | 25.00 | 35.36 | 31.39 | 3.96 | 8.923 | |
| 400.00 | 400.00 | 400.00 | 400.00 | 2.33 | 2.33 | 135.00 | -25.00 | 25.00 | 35.36 | 30.70 | 4.66 | 7.589 | |
| 500.00 | 500.00 | 500.00 | 500.00 | 2.63 | 2.63 | 135.00 | -25.00 | 25.00 | 35.36 | 30.09 | 5.27 | 6.710 | CC |
| 600.00 | 600.00 | 599.59 | 599.58 | 2.91 | 2.97 | 136.88 | -26.22 | 24.56 | 35.93 | 30.10 | 5.82 | 6.171 | |
| 700.00 | 700.00 | 699.04 | 698.95 | 3.16 | 3.26 | 142.13 | -29.87 | 23.23 | 37.85 | 31.52 | 6.33 | 5.980 | |
| 800.00 | 799.99 | 798.31 | 798.01 | 3.45 | 3.54 | -66.12 | -35.94 | 21.02 | 41.14 | 34.32 | 6.81 | 6.036 | |
| 900.00 | 899.91 | 897.95 | 897.28 | 3.70 | 3.65 | -62.06 | -43.95 | 18.10 | 44.94 | 37.79 | 7.15 | 6.287 | |
| 1,000.00 | 999.69 | 997.91 | 996.86 | 3.95 | 3.86 | -61.20 | -52.14 | 15.12 | 47.73 | 40.16 | 7.57 | 6.306 | |
| 1,100.00 | 1,099.32 | 1,097.88 | 1,096.45 | 4.05 | 4.07 | -62.50 | -60.33 | 12.14 | 49.56 | 41.70 | 7.86 | 6.303 | |
| 1,200.00 | 1,198.94 | 1,197.86 | 1,196.05 | 4.24 | 4.28 | -63.87 | -68.51 | 9.16 | 51.35 | 43.10 | 8.25 | 6.224 | |
| 1,300.00 | 1,298.53 | 1,298.00 | 1,295.80 | 4.33 | 4.39 | -66.24 | -76.79 | 5.91 | 53.01 | 44.57 | 8.44 | 6.284 | |
| 1,400.00 | 1,397.89 | 1,398.38 | 1,395.63 | 4.57 | 4.60 | -69.05 | -85.68 | 0.49 | 53.46 | 44.62 | 8.84 | 6.049 | |
| 1,500.00 | 1,496.93 | 1,498.78 | 1,495.25 | 4.81 | 4.82 | -71.37 | -95.27 | -7.47 | 52.49 | 43.26 | 9.24 | 5.683 | |
| 1,600.00 | 1,595.62 | 1,599.18 | 1,594.57 | 4.92 | 5.04 | -72.90 | -105.56 | -17.96 | 50.19 | 40.64 | 9.55 | 5.254 | |
| 1,700.00 | 1,694.25 | 1,699.53 | 1,693.46 | 5.12 | 5.26 | -71.54 | -116.51 | -30.96 | 46.97 | 36.98 | 9.99 | 4.703 | |
| 1,800.00 | 1,792.87 | 1,799.70 | 1,791.74 | 5.31 | 5.49 | -66.63 | -128.13 | -46.44 | 43.12 | 32.66 | 10.46 | 4.124 | |
| 1,900.00 | 1,891.50 | 1,899.55 | 1,889.21 | 5.51 | 5.71 | -57.06 | -140.36 | -64.35 | 39.41 | 28.44 | 10.97 | 3.593 | |
| 2,000.00 | 1,990.13 | 1,998.95 | 1,985.66 | 5.71 | 5.94 | -42.03 | -153.19 | -84.63 | 37.45 | 25.94 | 11.51 | 3.253 | |
| 2,007.88 | 1,997.90 | 2,006.76 | 1,993.21 | 5.72 | 5.95 | -40.64 | -154.22 | -86.32 | 37.44 | 25.89 | 11.55 | 3.242 | ES |
| 2,100.00 | 2,088.76 | 2,098.17 | 2,081.52 | 5.90 | 6.11 | -24.23 | -166.44 | -106.56 | 39.13 | 27.18 | 11.95 | 3.274 | |
| 2,200.00 | 2,187.39 | 2,197.44 | 2,177.40 | 6.10 | 6.34 | -9.11 | -179.71 | -128.56 | 44.20 | 31.85 | 12.35 | 3.578 | |
| 2,300.00 | 2,286.02 | 2,296.70 | 2,273.28 | 6.30 | 6.60 | 2.32 | -192.98 | -150.56 | 51.67 | 38.94 | 12.72 | 4.060 | |
| 2,400.00 | 2,384.65 | 2,395.96 | 2,369.16 | 6.50 | 6.89 | 10.64 | -206.25 | -172.57 | 60.65 | 47.55 | 13.10 | 4.630 | |
| 2,500.00 | 2,483.28 | 2,495.23 | 2,465.04 | 6.69 | 7.18 | 16.73 | -219.52 | -194.57 | 70.57 | 57.08 | 13.49 | 5.230 | |
| 2,600.00 | 2,581.91 | 2,594.49 | 2,560.92 | 6.89 | 7.49 | 21.29 | -232.79 | -216.57 | 81.09 | 67.19 | 13.90 | 5.832 | |
| 2,700.00 | 2,680.54 | 2,693.76 | 2,656.80 | 7.10 | 7.80 | 24.79 | -246.06 | -238.57 | 92.00 | 77.68 | 14.33 | 6.421 | |
| 2,800.00 | 2,779.17 | 2,793.02 | 2,752.69 | 7.33 | 8.11 | 27.54 | -259.34 | -260.57 | 103.18 | 88.42 | 14.76 | 6.989 | |
| 2,900.00 | 2,877.80 | 2,892.29 | 2,848.57 | 7.56 | 8.43 | 29.75 | -272.61 | -282.58 | 114.55 | 99.35 | 15.21 | 7.533 | |
| 3,000.00 | 2,976.43 | 2,991.55 | 2,944.45 | 7.79 | 8.75 | 31.56 | -285.88 | -304.58 | 126.06 | 110.40 | 15.66 | 8.052 | |
| 3,100.00 | 3,075.06 | 3,090.81 | 3,040.33 | 8.02 | 9.07 | 33.07 | -299.15 | -326.58 | 137.67 | 121.56 | 16.11 | 8.545 | |
| 3,200.00 | 3,173.69 | 3,190.08 | 3,136.21 | 8.25 | 9.40 | 34.34 | -312.42 | -348.58 | 149.36 | 132.79 | 16.57 | 9.014 | |
| 3,300.00 | 3,272.32 | 3,289.34 | 3,232.09 | 8.48 | 9.73 | 35.43 | -325.69 | -370.58 | 161.11 | 144.07 | 17.03 | 9.458 | |
| 3,400.00 | 3,370.94 | 3,388.61 | 3,327.97 | 8.72 | 10.06 | 36.36 | -338.96 | -392.59 | 172.91 | 155.41 | 17.50 | 9.881 | |
| 3,500.00 | 3,469.57 | 3,487.87 | 3,423.85 | 8.95 | 10.40 | 37.18 | -352.23 | -414.59 | 184.75 | 166.78 | 17.97 | 10.282 | |
| 3,600.00 | 3,568.20 | 3,587.13 | 3,519.73 | 9.19 | 10.73 | 37.90 | -365.50 | -436.59 | 196.62 | 178.18 | 18.44 | 10.663 | |
| 3,700.00 | 3,666.83 | 3,686.40 | 3,615.62 | 9.42 | 11.07 | 38.54 | -378.77 | -458.59 | 208.52 | 189.61 | 18.91 | 11.026 | |
| 3,800.00 | 3,765.46 | 3,785.66 | 3,711.50 | 9.66 | 11.41 | 39.11 | -392.05 | -480.59 | 220.44 | 201.06 | 19.39 | 11.370 | |
| 3,900.00 | 3,864.09 | 3,884.93 | 3,807.38 | 9.89 | 11.75 | 39.62 | -405.32 | -502.60 | 232.38 | 212.52 | 19.86 | 11.699 | |
| 4,000.00 | 3,962.72 | 3,984.19 | 3,903.26 | 10.13 | 12.09 | 40.08 | -418.59 | -524.60 | 244.34 | 224.00 | 20.34 | 12.012 | |
| 4,100.00 | 4,061.35 | 4,083.46 | 3,999.14 | 10.36 | 12.43 | 40.50 | -431.86 | -546.60 | 256.32 | 235.49 | 20.82 | 12.310 | |
| 4,200.00 | 4,159.98 | 4,182.72 | 4,095.02 | 10.60 | 12.77 | 40.88 | -445.13 | -568.60 | 268.30 | 247.00 | 21.30 | 12.595 | |
| 4,300.00 | 4,258.61 | 4,281.98 | 4,190.90 | 10.83 | 13.12 | 41.23 | -458.40 | -590.60 | 280.30 | 258.51 | 21.78 | 12.867 | |
| 4,400.00 | 4,357.24 | 4,381.25 | 4,286.78 | 11.07 | 13.46 | 41.55 | -471.67 | -612.60 | 292.30 | 270.03 | 22.27 | 13.127 | |
| 4,500.00 | 4,455.87 | 4,480.51 | 4,382.66 | 11.31 | 13.81 | 41.84 | -484.94 | -634.61 | 304.31 | 281.56 | 22.75 | 13.376 | |
| 4,600.00 | 4,554.50 | 4,579.78 | 4,478.54 | 11.54 | 14.16 | 42.11 | -498.21 | -656.61 | 316.33 | 293.10 | 23.23 | 13.615 | |
| 4,700.00 | 4,653.13 | 4,679.04 | 4,574.43 | 11.78 | 14.50 | 42.36 | -511.48 | -678.61 | 328.36 | 304.64 | 23.72 | 13.843 | |
| 4,800.00 | 4,751.76 | 4,778.30 | 4,670.31 | 12.02 | 14.85 | 42.60 | -524.76 | -700.61 | 340.39 | 316.19 | 24.20 | 14.063 | |
| 4,900.00 | 4,850.39 | 4,884.97 | 4,773.58 | 12.26 | 15.21 | 42.89 | -538.52 | -723.43 | 351.59 | 326.85 | 24.75 | 14.208 | |
| 5,000.00 | 4,949.01 | 4,993.91 | 4,879.78 | 12.49 | 15.55 | 43.36 | -551.06 | -744.23 | 360.25 | 334.95 | 25.29 | 14.242 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,100.00 | 5,047.64 | 5,103.20 | 4,986.97 | 12.73 | 15.86 | 44.01 | -562.07 | -762.47 | 366.31 | 340.48 | 25.83 | 14.181 | |
| 5,200.00 | 5,146.27 | 5,212.65 | 5,094.89 | 12.97 | 16.13 | 44.83 | -571.50 | -778.10 | 369.81 | 343.46 | 26.35 | 14.034 | |
| 5,300.00 | 5,244.90 | 5,322.09 | 5,203.27 | 13.21 | 16.37 | 45.84 | -579.32 | -791.08 | 370.78 | 343.92 | 26.86 | 13.804 | |
| 5,400.00 | 5,343.57 | 5,431.36 | 5,311.87 | 13.41 | 16.57 | 47.02 | -585.54 | -801.38 | 369.47 | 342.15 | 27.32 | 13.524 | |
| 5,500.00 | 5,442.58 | 5,540.49 | 5,420.63 | 13.63 | 16.74 | 48.13 | -590.14 | -809.01 | 367.24 | 339.46 | 27.78 | 13.222 | |
| 5,600.00 | 5,541.92 | 5,649.48 | 5,529.46 | 13.82 | 16.87 | 49.14 | -593.13 | -813.97 | 364.34 | 336.17 | 28.18 | 12.931 | |
| 5,700.00 | 5,641.52 | 5,758.30 | 5,638.25 | 13.98 | 16.97 | 50.06 | -594.51 | -816.26 | 360.75 | 332.26 | 28.49 | 12.662 | |
| 5,800.00 | 5,741.32 | 5,861.38 | 5,741.32 | 14.12 | 17.02 | 50.79 | -594.62 | -816.44 | 356.93 | 328.20 | 28.73 | 12.423 | |
| 5,900.00 | 5,841.25 | 5,961.31 | 5,841.25 | 14.23 | 17.05 | 51.22 | -594.62 | -816.44 | 354.64 | 325.71 | 28.93 | 12.257 | |
| 6,000.00 | 5,941.25 | 6,061.30 | 5,941.25 | 14.28 | 17.09 | -90.41 | -594.62 | -816.44 | 354.00 | 324.96 | 29.04 | 12.192 | |
| 6,100.00 | 6,041.25 | 6,161.30 | 6,041.25 | 14.32 | 17.12 | -90.41 | -594.62 | -816.44 | 354.00 | 324.89 | 29.10 | 12.163 | |
| 6,200.00 | 6,141.25 | 6,261.30 | 6,141.25 | 14.35 | 17.16 | -90.41 | -594.62 | -816.44 | 354.00 | 324.82 | 29.17 | 12.134 | |
| 6,300.00 | 6,241.25 | 6,361.30 | 6,241.25 | 14.39 | 17.20 | -90.41 | -594.62 | -816.44 | 354.00 | 324.75 | 29.24 | 12.105 | |
| 6,400.00 | 6,341.25 | 6,461.30 | 6,341.25 | 14.42 | 17.23 | -90.41 | -594.62 | -816.44 | 354.00 | 324.68 | 29.32 | 12.075 | |
| 6,500.00 | 6,441.25 | 6,561.30 | 6,441.25 | 14.46 | 17.27 | -90.41 | -594.62 | -816.44 | 354.00 | 324.61 | 29.39 | 12.046 | |
| 6,600.00 | 6,541.25 | 6,661.30 | 6,541.25 | 14.49 | 17.31 | -90.41 | -594.62 | -816.44 | 354.00 | 324.54 | 29.46 | 12.016 | |
| 6,700.00 | 6,641.25 | 6,761.30 | 6,641.25 | 14.53 | 17.35 | -90.41 | -594.62 | -816.44 | 354.00 | 324.47 | 29.53 | 11.987 | |
| 6,800.00 | 6,741.25 | 6,861.30 | 6,741.25 | 14.56 | 17.38 | -90.41 | -594.62 | -816.44 | 354.00 | 324.39 | 29.61 | 11.957 | |
| 6,900.00 | 6,841.25 | 6,961.30 | 6,841.25 | 14.60 | 17.42 | -90.41 | -594.62 | -816.44 | 354.00 | 324.32 | 29.68 | 11.927 | |
| 7,000.00 | 6,941.25 | 7,061.30 | 6,941.25 | 14.64 | 17.46 | -90.41 | -594.62 | -816.44 | 354.00 | 324.24 | 29.76 | 11.896 | |
| 7,100.00 | 7,041.25 | 7,161.30 | 7,041.25 | 14.68 | 17.50 | -90.41 | -594.62 | -816.44 | 354.00 | 324.17 | 29.83 | 11.866 | |
| 7,200.00 | 7,141.25 | 7,261.30 | 7,141.25 | 14.71 | 17.54 | -90.41 | -594.62 | -816.44 | 354.00 | 324.09 | 29.91 | 11.836 | |
| 7,300.00 | 7,241.25 | 7,361.30 | 7,241.25 | 14.75 | 17.58 | -90.41 | -594.62 | -816.44 | 354.00 | 324.01 | 29.99 | 11.805 | |
| 7,400.00 | 7,341.25 | 7,461.30 | 7,341.25 | 14.79 | 17.62 | -90.41 | -594.62 | -816.44 | 354.00 | 323.93 | 30.07 | 11.774 | |
| 7,500.00 | 7,441.25 | 7,561.30 | 7,441.25 | 14.83 | 17.66 | -90.41 | -594.62 | -816.44 | 354.00 | 323.86 | 30.14 | 11.744 | |
| 7,600.00 | 7,541.25 | 7,661.30 | 7,541.25 | 14.87 | 17.70 | -90.41 | -594.62 | -816.44 | 354.00 | 323.78 | 30.22 | 11.713 | |
| 7,700.00 | 7,641.25 | 7,761.30 | 7,641.25 | 14.91 | 17.74 | -90.41 | -594.62 | -816.44 | 354.00 | 323.70 | 30.30 | 11.682 | |
| 7,800.00 | 7,741.25 | 7,861.30 | 7,741.25 | 14.95 | 17.78 | -90.41 | -594.62 | -816.44 | 354.00 | 323.61 | 30.38 | 11.651 | |
| 7,900.00 | 7,841.25 | 7,961.30 | 7,841.25 | 14.99 | 17.82 | -90.41 | -594.62 | -816.44 | 354.00 | 323.53 | 30.47 | 11.619 | |
| 8,000.00 | 7,941.25 | 8,061.30 | 7,941.25 | 15.03 | 17.87 | -90.41 | -594.62 | -816.44 | 354.00 | 323.45 | 30.55 | 11.588 | |
| 8,100.00 | 8,041.25 | 8,161.30 | 8,041.25 | 15.07 | 17.91 | -90.41 | -594.62 | -816.44 | 354.00 | 323.37 | 30.63 | 11.557 | |
| 8,200.00 | 8,141.25 | 8,261.30 | 8,141.25 | 15.11 | 17.95 | -90.41 | -594.62 | -816.44 | 354.00 | 323.28 | 30.71 | 11.526 | |
| 8,300.00 | 8,241.25 | 8,361.30 | 8,241.25 | 15.15 | 17.99 | -90.41 | -594.62 | -816.44 | 354.00 | 323.20 | 30.80 | 11.494 | |
| 8,400.00 | 8,341.25 | 8,461.30 | 8,341.25 | 15.20 | 18.04 | -90.41 | -594.62 | -816.44 | 354.00 | 323.12 | 30.88 | 11.463 | |
| 8,500.00 | 8,441.25 | 8,561.30 | 8,441.25 | 15.24 | 18.08 | -90.41 | -594.62 | -816.44 | 354.00 | 323.03 | 30.97 | 11.431 | |
| 8,600.00 | 8,541.25 | 8,661.30 | 8,541.25 | 15.28 | 18.12 | -90.41 | -594.62 | -816.44 | 354.00 | 322.94 | 31.05 | 11.399 | |
| 8,700.00 | 8,641.25 | 8,761.30 | 8,641.25 | 15.32 | 18.17 | -90.41 | -594.62 | -816.44 | 354.00 | 322.86 | 31.14 | 11.368 | |
| 8,800.00 | 8,741.25 | 8,861.30 | 8,741.25 | 15.37 | 18.21 | -90.41 | -594.62 | -816.44 | 354.00 | 322.77 | 31.23 | 11.336 | |
| 8,900.00 | 8,841.25 | 8,961.30 | 8,841.25 | 15.41 | 18.25 | -90.41 | -594.62 | -816.44 | 354.00 | 322.68 | 31.32 | 11.304 | |
| 9,000.00 | 8,941.25 | 9,061.30 | 8,941.25 | 15.46 | 18.30 | -90.41 | -594.62 | -816.44 | 354.00 | 322.59 | 31.40 | 11.272 | |
| 9,100.00 | 9,041.25 | 9,161.30 | 9,041.25 | 15.50 | 18.34 | -90.41 | -594.62 | -816.44 | 354.00 | 322.51 | 31.49 | 11.240 | |
| 9,200.00 | 9,141.25 | 9,261.30 | 9,141.25 | 15.55 | 18.39 | -90.41 | -594.62 | -816.44 | 354.00 | 322.42 | 31.58 | 11.209 | |
| 9,300.00 | 9,241.25 | 9,361.30 | 9,241.25 | 15.59 | 18.43 | -90.41 | -594.62 | -816.44 | 354.00 | 322.33 | 31.67 | 11.177 | |
| 9,400.00 | 9,341.25 | 9,461.30 | 9,341.25 | 15.64 | 18.48 | -90.41 | -594.62 | -816.44 | 354.00 | 322.24 | 31.76 | 11.145 | |
| 9,500.00 | 9,441.25 | 9,561.30 | 9,441.25 | 15.68 | 18.53 | -90.41 | -594.62 | -816.44 | 354.00 | 322.14 | 31.86 | 11.113 | |
| 9,600.00 | 9,541.25 | 9,661.30 | 9,541.25 | 15.73 | 18.57 | -90.41 | -594.62 | -816.44 | 354.00 | 322.05 | 31.95 | 11.081 | |
| 9,700.00 | 9,641.25 | 9,761.30 | 9,641.25 | 15.78 | 18.62 | -90.41 | -594.62 | -816.44 | 354.00 | 321.96 | 32.04 | 11.049 | |
| 9,800.00 | 9,741.25 | 9,861.30 | 9,741.25 | 15.82 | 18.66 | -90.41 | -594.62 | -816.44 | 354.00 | 321.87 | 32.13 | 11.017 | |
| 9,900.00 | 9,841.25 | 9,961.30 | 9,841.25 | 15.87 | 18.71 | -90.41 | -594.62 | -816.44 | 354.00 | 321.77 | 32.23 | 10.985 | |
| 10,000.00 | 9,941.25 | 10,061.30 | 9,941.25 | 15.92 | 18.76 | -90.41 | -594.62 | -816.44 | 354.00 | 321.68 | 32.32 | 10.953 | |
| 10,100.00 | 10,041.25 | 10,161.30 | 10,041.25 | 15.96 | 18.81 | -90.41 | -594.62 | -816.44 | 354.00 | 321.58 | 32.42 | 10.921 | |
| 10,200.00 | 10,141.25 | 10,261.30 | 10,141.25 | 16.01 | 18.85 | -90.41 | -594.62 | -816.44 | 354.00 | 321.49 | 32.51 | 10.889 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,300.00 | 10,241.25 | 10,361.30 | 10,241.25 | 16.06 | 18.90 | -90.41 | -594.62 | -816.44 | 354.00 | 321.39 | 32.61 | 10.857 | |
| 10,400.00 | 10,341.25 | 10,461.30 | 10,341.25 | 16.11 | 18.95 | -90.41 | -594.62 | -816.44 | 354.00 | 321.30 | 32.70 | 10.825 | |
| 10,500.00 | 10,441.25 | 10,561.30 | 10,441.25 | 16.16 | 19.00 | -90.41 | -594.62 | -816.44 | 354.00 | 321.20 | 32.80 | 10.793 | |
| 10,600.00 | 10,541.25 | 10,661.30 | 10,541.25 | 16.21 | 19.05 | -90.41 | -594.62 | -816.44 | 354.00 | 321.10 | 32.90 | 10.761 | |
| 10,700.00 | 10,641.25 | 10,761.30 | 10,641.25 | 16.26 | 19.09 | -90.41 | -594.62 | -816.44 | 354.00 | 321.00 | 32.99 | 10.729 | |
| 10,800.00 | 10,741.25 | 10,861.30 | 10,741.25 | 16.31 | 19.14 | -90.41 | -594.62 | -816.44 | 354.00 | 320.91 | 33.09 | 10.697 | |
| 10,900.00 | 10,841.25 | 10,961.30 | 10,841.25 | 16.36 | 19.19 | -90.41 | -594.62 | -816.44 | 354.00 | 320.81 | 33.19 | 10.665 | |
| 11,000.00 | 10,941.25 | 11,061.30 | 10,941.25 | 16.41 | 19.24 | -90.41 | -594.62 | -816.44 | 354.00 | 320.71 | 33.29 | 10.633 | |
| 11,100.00 | 11,041.25 | 11,161.30 | 11,041.25 | 16.46 | 19.29 | -90.41 | -594.62 | -816.44 | 354.00 | 320.61 | 33.39 | 10.602 | |
| 11,200.00 | 11,141.25 | 11,261.30 | 11,141.25 | 16.51 | 19.34 | -90.41 | -594.62 | -816.44 | 354.00 | 320.51 | 33.49 | 10.570 | |
| 11,300.00 | 11,241.25 | 11,361.30 | 11,241.25 | 16.56 | 19.39 | -90.41 | -594.62 | -816.44 | 354.00 | 320.41 | 33.59 | 10.538 | |
| 11,400.00 | 11,341.25 | 11,461.30 | 11,341.25 | 16.61 | 19.44 | -90.41 | -594.62 | -816.44 | 354.00 | 320.31 | 33.69 | 10.506 | |
| 11,500.00 | 11,441.25 | 11,561.30 | 11,441.25 | 16.66 | 19.49 | -90.41 | -594.62 | -816.44 | 354.00 | 320.20 | 33.80 | 10.475 | |
| 11,600.00 | 11,541.21 | 11,661.26 | 11,541.21 | 16.71 | 19.54 | 88.09 | -594.62 | -816.44 | 353.94 | 320.05 | 33.89 | 10.443 | |
| 11,681.72 | 11,622.00 | 11,742.06 | 11,622.00 | 16.87 | 19.58 | 90.00 | -594.62 | -816.44 | 353.75 | 319.62 | 34.13 | 10.364 | |
| 11,700.00 | 11,639.79 | 11,759.84 | 11,639.79 | 16.90 | 19.59 | 90.66 | -594.62 | -816.44 | 353.77 | 319.57 | 34.20 | 10.345 | |
| 11,800.00 | 11,734.09 | 11,854.15 | 11,734.09 | 17.17 | 19.64 | 95.46 | -594.62 | -816.44 | 355.69 | 320.90 | 34.79 | 10.225 | |
| 11,900.00 | 11,821.25 | 11,941.31 | 11,821.25 | 17.53 | 19.69 | 101.35 | -594.62 | -816.44 | 364.02 | 328.35 | 35.67 | 10.206 | |
| 12,000.00 | 11,898.62 | 12,024.87 | 11,904.81 | 18.00 | 19.74 | 107.39 | -595.04 | -816.44 | 383.72 | 346.97 | 36.75 | 10.440 | |
| 12,100.00 | 11,963.85 | 12,138.93 | 12,017.61 | 18.59 | 19.91 | 115.12 | -610.66 | -816.30 | 413.64 | 375.55 | 38.09 | 10.858 | |
| 12,200.00 | 12,014.95 | 12,282.48 | 12,151.48 | 19.33 | 20.27 | 123.10 | -661.41 | -815.84 | 448.67 | 408.33 | 40.34 | 11.121 | |
| 12,300.00 | 12,050.38 | 12,474.19 | 12,302.81 | 20.19 | 20.99 | 131.17 | -777.65 | -814.79 | 482.29 | 438.14 | 44.16 | 10.923 | |
| 12,400.00 | 12,069.05 | 12,731.52 | 12,430.47 | 21.14 | 22.51 | 137.57 | -998.58 | -812.81 | 504.36 | 455.83 | 48.53 | 10.393 | |
| 12,500.00 | 12,072.27 | 12,943.45 | 12,456.18 | 22.15 | 24.24 | 139.31 | -1,207.94 | -810.92 | 506.29 | 456.32 | 49.97 | 10.131 | |
| 12,600.00 | 12,072.97 | 13,043.44 | 12,456.70 | 23.19 | 25.15 | 139.37 | -1,307.93 | -810.02 | 505.65 | 454.91 | 50.74 | 9.966 | |
| 12,700.00 | 12,073.66 | 13,143.44 | 12,457.23 | 24.26 | 26.11 | 139.36 | -1,407.93 | -809.12 | 505.52 | 453.96 | 51.56 | 9.805 | |
| 12,800.00 | 12,074.36 | 13,243.44 | 12,457.76 | 25.36 | 27.11 | 139.34 | -1,507.92 | -808.23 | 505.40 | 452.96 | 52.44 | 9.638 | |
| 12,900.00 | 12,075.06 | 13,343.44 | 12,458.28 | 26.49 | 28.14 | 139.33 | -1,607.91 | -807.33 | 505.27 | 451.90 | 53.37 | 9.468 | |
| 13,000.00 | 12,075.76 | 13,443.44 | 12,458.81 | 27.63 | 29.19 | 139.32 | -1,707.91 | -806.43 | 505.15 | 450.79 | 54.35 | 9.294 | |
| 13,100.00 | 12,076.46 | 13,543.44 | 12,459.34 | 28.80 | 30.27 | 139.30 | -1,807.90 | -805.53 | 505.02 | 449.63 | 55.39 | 9.118 | |
| 13,200.00 | 12,077.15 | 13,643.44 | 12,459.86 | 29.98 | 31.38 | 139.29 | -1,907.90 | -804.63 | 504.89 | 448.43 | 56.47 | 8.941 | |
| 13,300.00 | 12,077.85 | 13,743.44 | 12,460.39 | 31.18 | 32.50 | 139.28 | -2,007.89 | -803.73 | 504.77 | 447.17 | 57.59 | 8.764 | |
| 13,400.00 | 12,078.55 | 13,843.44 | 12,460.91 | 32.39 | 33.64 | 139.26 | -2,107.89 | -802.83 | 504.64 | 445.88 | 58.76 | 8.588 | |
| 13,500.00 | 12,079.25 | 13,943.44 | 12,461.44 | 33.61 | 34.80 | 139.25 | -2,207.88 | -801.93 | 504.52 | 444.55 | 59.97 | 8.413 | |
| 13,600.00 | 12,079.95 | 14,043.44 | 12,461.97 | 34.84 | 35.97 | 139.24 | -2,307.88 | -801.03 | 504.39 | 443.18 | 61.21 | 8.240 | |
| 13,700.00 | 12,080.65 | 14,143.44 | 12,462.49 | 36.08 | 37.16 | 139.22 | -2,407.87 | -800.13 | 504.27 | 441.77 | 62.49 | 8.069 | |
| 13,800.00 | 12,081.34 | 14,243.44 | 12,463.02 | 37.33 | 38.36 | 139.21 | -2,507.86 | -799.23 | 504.14 | 440.33 | 63.81 | 7.901 | |
| 13,900.00 | 12,082.04 | 14,343.44 | 12,463.55 | 38.59 | 39.56 | 139.19 | -2,607.86 | -798.33 | 504.02 | 438.86 | 65.15 | 7.736 | |
| 14,000.00 | 12,082.74 | 14,443.44 | 12,464.07 | 39.86 | 40.78 | 139.18 | -2,707.85 | -797.43 | 503.89 | 437.37 | 66.53 | 7.574 | |
| 14,100.00 | 12,083.44 | 14,543.44 | 12,464.60 | 41.13 | 42.01 | 139.17 | -2,807.85 | -796.53 | 503.77 | 435.84 | 67.93 | 7.416 | |
| 14,200.00 | 12,084.14 | 14,643.44 | 12,465.12 | 42.40 | 43.24 | 139.15 | -2,907.84 | -795.63 | 503.64 | 434.29 | 69.35 | 7.262 | |
| 14,300.00 | 12,084.84 | 14,743.44 | 12,465.65 | 43.69 | 44.49 | 139.14 | -3,007.84 | -794.73 | 503.51 | 432.71 | 70.81 | 7.111 | |
| 14,400.00 | 12,085.53 | 14,843.44 | 12,466.18 | 44.97 | 45.73 | 139.13 | -3,107.83 | -793.83 | 503.39 | 431.11 | 72.28 | 6.964 | |
| 14,500.00 | 12,086.23 | 14,943.44 | 12,466.70 | 46.27 | 46.99 | 139.11 | -3,207.83 | -792.93 | 503.26 | 429.49 | 73.78 | 6.821 | |
| 14,600.00 | 12,086.93 | 15,043.44 | 12,467.23 | 47.56 | 48.25 | 139.10 | -3,307.82 | -792.04 | 503.14 | 427.84 | 75.29 | 6.682 | |
| 14,700.00 | 12,087.63 | 15,143.44 | 12,467.75 | 48.86 | 49.52 | 139.09 | -3,407.81 | -791.14 | 503.01 | 426.18 | 76.83 | 6.547 | |
| 14,800.00 | 12,088.33 | 15,243.44 | 12,468.28 | 50.17 | 50.79 | 139.07 | -3,507.81 | -790.24 | 502.89 | 424.50 | 78.39 | 6.415 | |
| 14,900.00 | 12,089.02 | 15,343.44 | 12,468.81 | 51.47 | 52.07 | 139.06 | -3,607.80 | -789.34 | 502.76 | 422.80 | 79.96 | 6.288 | |
| 15,000.00 | 12,089.72 | 15,443.44 | 12,469.33 | 52.78 | 53.35 | 139.05 | -3,707.80 | -788.44 | 502.64 | 421.09 | 81.55 | 6.164 | |
| 15,100.00 | 12,090.42 | 15,543.44 | 12,469.86 | 54.10 | 54.64 | 139.03 | -3,807.79 | -787.54 | 502.51 | 419.36 | 83.15 | 6.043 | |
| 15,200.00 | 12,091.12 | 15,643.44 | 12,470.39 | 55.41 | 55.93 | 139.02 | -3,907.79 | -786.64 | 502.39 | 417.62 | 84.77 | 5.926 | |
| 15,300.00 | 12,091.82 | 15,743.44 | 12,470.91 | 56.73 | 57.22 | 139.01 | -4,007.78 | -785.74 | 502.26 | 415.86 | 86.40 | 5.813 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,400.00 | 12,092.52 | 15,843.44 | 12,471.44 | 58.05 | 58.51 | 138.99 | -4,107.78 | -784.84 | 502.14 | 414.09 | 88.05 | 5.703 | |
| 15,500.00 | 12,093.21 | 15,943.44 | 12,471.96 | 59.37 | 59.81 | 138.98 | -4,207.77 | -783.94 | 502.01 | 412.30 | 89.71 | 5.596 | |
| 15,600.00 | 12,093.91 | 16,043.44 | 12,472.49 | 60.70 | 61.12 | 138.97 | -4,307.76 | -783.04 | 501.89 | 410.51 | 91.38 | 5.492 | |
| 15,700.00 | 12,094.61 | 16,143.44 | 12,473.02 | 62.03 | 62.42 | 138.95 | -4,407.76 | -782.14 | 501.76 | 408.70 | 93.06 | 5.392 | |
| 15,800.00 | 12,095.31 | 16,243.44 | 12,473.54 | 63.35 | 63.73 | 138.94 | -4,507.75 | -781.24 | 501.64 | 406.88 | 94.75 | 5.294 | |
| 15,900.00 | 12,096.01 | 16,343.44 | 12,474.07 | 64.68 | 65.04 | 138.93 | -4,607.75 | -780.34 | 501.51 | 405.06 | 96.46 | 5.199 | |
| 16,000.00 | 12,096.71 | 16,443.44 | 12,474.59 | 66.02 | 66.35 | 138.91 | -4,707.74 | -779.44 | 501.39 | 403.22 | 98.17 | 5.107 | |
| 16,100.00 | 12,097.40 | 16,543.44 | 12,475.12 | 67.35 | 67.67 | 138.90 | -4,807.74 | -778.54 | 501.26 | 401.37 | 99.89 | 5.018 | |
| 16,200.00 | 12,098.10 | 16,643.43 | 12,475.65 | 68.68 | 68.98 | 138.88 | -4,907.73 | -777.64 | 501.14 | 399.52 | 101.62 | 4.931 | |
| 16,300.00 | 12,098.80 | 16,743.43 | 12,476.17 | 70.02 | 70.30 | 138.87 | -5,007.73 | -776.74 | 501.01 | 397.65 | 103.36 | 4.847 | |
| 16,400.00 | 12,099.50 | 16,843.43 | 12,476.70 | 71.36 | 71.62 | 138.86 | -5,107.72 | -775.85 | 500.89 | 395.78 | 105.11 | 4.765 | |
| 16,500.00 | 12,100.20 | 16,943.43 | 12,477.23 | 72.69 | 72.95 | 138.84 | -5,207.71 | -774.95 | 500.76 | 393.90 | 106.86 | 4.686 | |
| 16,600.00 | 12,100.90 | 17,043.43 | 12,477.75 | 74.03 | 74.27 | 138.83 | -5,307.71 | -774.05 | 500.64 | 392.01 | 108.63 | 4.609 | |
| 16,700.00 | 12,101.59 | 17,143.43 | 12,478.28 | 75.37 | 75.59 | 138.82 | -5,407.70 | -773.15 | 500.52 | 390.12 | 110.40 | 4.534 | |
| 16,800.00 | 12,102.29 | 17,243.43 | 12,478.80 | 76.72 | 76.92 | 138.80 | -5,507.70 | -772.25 | 500.39 | 388.22 | 112.17 | 4.461 | |
| 16,900.00 | 12,102.99 | 17,343.43 | 12,479.33 | 78.06 | 78.25 | 138.79 | -5,607.69 | -771.35 | 500.27 | 386.31 | 113.95 | 4.390 | |
| 17,000.00 | 12,103.69 | 17,443.43 | 12,479.86 | 79.40 | 79.58 | 138.78 | -5,707.69 | -770.45 | 500.14 | 384.40 | 115.74 | 4.321 | |
| 17,100.00 | 12,104.39 | 17,543.43 | 12,480.38 | 80.75 | 80.91 | 138.76 | -5,807.68 | -769.55 | 500.02 | 382.48 | 117.54 | 4.254 | |
| 17,200.00 | 12,105.08 | 17,643.43 | 12,480.91 | 82.09 | 82.24 | 138.75 | -5,907.68 | -768.65 | 499.89 | 380.55 | 119.34 | 4.189 | |
| 17,300.00 | 12,105.78 | 17,743.43 | 12,481.44 | 83.44 | 83.58 | 138.73 | -6,007.67 | -767.75 | 499.77 | 378.62 | 121.15 | 4.125 | |
| 17,400.00 | 12,106.48 | 17,843.43 | 12,481.96 | 84.78 | 84.91 | 138.72 | -6,107.66 | -766.85 | 499.64 | 376.68 | 122.96 | 4.063 | |
| 17,500.00 | 12,107.18 | 17,943.43 | 12,482.49 | 86.13 | 86.25 | 138.71 | -6,207.66 | -765.95 | 499.52 | 374.74 | 124.78 | 4.003 | |
| 17,600.00 | 12,107.88 | 18,043.43 | 12,483.01 | 87.48 | 87.58 | 138.69 | -6,307.65 | -765.05 | 499.39 | 372.80 | 126.60 | 3.945 | |
| 17,700.00 | 12,108.58 | 18,143.43 | 12,483.54 | 88.83 | 88.92 | 138.68 | -6,407.65 | -764.15 | 499.27 | 370.84 | 128.43 | 3.888 | |
| 17,800.00 | 12,109.27 | 18,243.43 | 12,484.07 | 90.18 | 90.26 | 138.67 | -6,507.64 | -763.25 | 499.15 | 368.89 | 130.26 | 3.832 | |
| 17,900.00 | 12,109.97 | 18,343.43 | 12,484.59 | 91.52 | 91.60 | 138.65 | -6,607.64 | -762.35 | 499.02 | 366.93 | 132.09 | 3.778 | |
| 18,000.00 | 12,110.67 | 18,443.43 | 12,485.12 | 92.88 | 92.94 | 138.64 | -6,707.63 | -761.45 | 498.90 | 364.96 | 133.93 | 3.725 | |
| 18,100.00 | 12,111.37 | 18,543.43 | 12,485.64 | 94.23 | 94.28 | 138.63 | -6,807.62 | -760.56 | 498.77 | 362.99 | 135.78 | 3.673 | |
| 18,200.00 | 12,112.07 | 18,643.43 | 12,486.17 | 95.58 | 95.62 | 138.61 | -6,907.62 | -759.66 | 498.65 | 361.02 | 137.63 | 3.623 | |
| 18,300.00 | 12,112.77 | 18,743.43 | 12,486.70 | 96.93 | 96.97 | 138.60 | -7,007.61 | -758.76 | 498.52 | 359.04 | 139.48 | 3.574 | |
| 18,400.00 | 12,113.46 | 18,843.43 | 12,487.22 | 98.28 | 98.31 | 138.58 | -7,107.61 | -757.86 | 498.40 | 357.06 | 141.34 | 3.526 | |
| 18,500.00 | 12,114.16 | 18,943.43 | 12,487.75 | 99.63 | 99.65 | 138.57 | -7,207.60 | -756.96 | 498.28 | 355.08 | 143.20 | 3.480 | |
| 18,600.00 | 12,114.86 | 19,043.43 | 12,488.28 | 100.99 | 101.00 | 138.56 | -7,307.60 | -756.06 | 498.15 | 353.09 | 145.06 | 3.434 | |
| 18,700.00 | 12,115.56 | 19,143.43 | 12,488.80 | 102.34 | 102.34 | 138.54 | -7,407.59 | -755.16 | 498.03 | 351.10 | 146.93 | 3.390 | |
| 18,800.00 | 12,116.26 | 19,243.43 | 12,489.33 | 103.70 | 103.69 | 138.53 | -7,507.59 | -754.26 | 497.90 | 349.10 | 148.80 | 3.346 | |
| 18,900.00 | 12,116.95 | 19,343.43 | 12,489.85 | 105.05 | 105.04 | 138.52 | -7,607.58 | -753.36 | 497.78 | 347.11 | 150.67 | 3.304 | |
| 19,000.00 | 12,117.65 | 19,443.43 | 12,490.38 | 106.41 | 106.38 | 138.50 | -7,707.57 | -752.46 | 497.66 | 345.10 | 152.55 | 3.262 | |
| 19,100.00 | 12,118.35 | 19,543.43 | 12,490.91 | 107.76 | 107.73 | 138.49 | -7,807.57 | -751.56 | 497.53 | 343.10 | 154.43 | 3.222 | |
| 19,200.00 | 12,119.05 | 19,643.43 | 12,491.43 | 109.12 | 109.08 | 138.47 | -7,907.56 | -750.66 | 497.41 | 341.09 | 156.32 | 3.182 | |
| 19,300.00 | 12,119.75 | 19,743.43 | 12,491.96 | 110.47 | 110.43 | 138.46 | -8,007.56 | -749.76 | 497.28 | 339.08 | 158.20 | 3.143 | |
| 19,400.00 | 12,120.45 | 19,843.43 | 12,492.49 | 111.83 | 111.78 | 138.45 | -8,107.55 | -748.86 | 497.16 | 337.07 | 160.09 | 3.105 | |
| 19,500.00 | 12,121.14 | 19,943.43 | 12,493.01 | 113.19 | 113.13 | 138.43 | -8,207.55 | -747.96 | 497.04 | 335.05 | 161.98 | 3.068 | |
| 19,600.00 | 12,121.84 | 20,043.43 | 12,493.54 | 114.54 | 114.48 | 138.42 | -8,307.54 | -747.06 | 496.91 | 333.03 | 163.88 | 3.032 | |
| 19,700.00 | 12,122.54 | 20,143.43 | 12,494.06 | 115.90 | 115.83 | 138.41 | -8,407.54 | -746.16 | 496.79 | 331.01 | 165.78 | 2.997 | |
| 19,800.00 | 12,123.24 | 20,243.43 | 12,494.59 | 117.26 | 117.18 | 138.39 | -8,507.53 | -745.26 | 496.67 | 328.99 | 167.68 | 2.962 | |
| 19,900.00 | 12,123.94 | 20,343.43 | 12,495.12 | 118.61 | 118.53 | 138.38 | -8,607.52 | -744.37 | 496.54 | 326.96 | 169.58 | 2.928 | |
| 20,000.00 | 12,124.64 | 20,443.43 | 12,495.64 | 119.97 | 119.88 | 138.36 | -8,707.52 | -743.47 | 496.42 | 324.93 | 171.49 | 2.895 | |
| 20,100.00 | 12,125.33 | 20,543.43 | 12,496.17 | 121.33 | 121.24 | 138.35 | -8,807.51 | -742.57 | 496.29 | 322.90 | 173.39 | 2.862 | |
| 20,200.00 | 12,126.03 | 20,643.43 | 12,496.69 | 122.69 | 122.59 | 138.34 | -8,907.51 | -741.67 | 496.17 | 320.87 | 175.30 | 2.830 | |
| 20,300.00 | 12,126.73 | 20,743.43 | 12,497.22 | 124.05 | 123.94 | 138.32 | -9,007.50 | -740.77 | 496.05 | 318.83 | 177.22 | 2.799 | |
| 20,400.00 | 12,127.43 | 20,843.43 | 12,497.75 | 125.41 | 125.29 | 138.31 | -9,107.50 | -739.87 | 495.92 | 316.79 | 179.13 | 2.768 | |
| 20,500.00 | 12,128.13 | 20,943.43 | 12,498.27 | 126.77 | 126.65 | 138.29 | -9,207.49 | -738.97 | 495.80 | 314.75 | 181.05 | 2.738 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,600.00 | 12,128.83 | 21,043.43 | 12,498.80 | 128.13 | 128.00 | 138.28 | -9,307.49 | -738.07 | 495.68 | 312.71 | 182.97 | 2.709 | |
| 20,700.00 | 12,129.52 | 21,143.43 | 12,499.33 | 129.49 | 129.36 | 138.27 | -9,407.48 | -737.17 | 495.55 | 310.66 | 184.89 | 2.680 | |
| 20,800.00 | 12,130.22 | 21,243.43 | 12,499.85 | 130.85 | 130.71 | 138.25 | -9,507.47 | -736.27 | 495.43 | 308.61 | 186.81 | 2.652 | |
| 20,900.00 | 12,130.92 | 21,343.43 | 12,500.38 | 132.21 | 132.07 | 138.24 | -9,607.47 | -735.37 | 495.31 | 306.57 | 188.74 | 2.624 | |
| 21,000.00 | 12,131.62 | 21,443.43 | 12,500.90 | 133.57 | 133.42 | 138.23 | -9,707.46 | -734.47 | 495.18 | 304.51 | 190.67 | 2.597 | |
| 21,100.00 | 12,132.32 | 21,543.43 | 12,501.43 | 134.93 | 134.78 | 138.21 | -9,807.46 | -733.57 | 495.06 | 302.46 | 192.60 | 2.570 | |
| 21,200.00 | 12,133.01 | 21,643.43 | 12,501.96 | 136.29 | 136.13 | 138.20 | -9,907.45 | -732.67 | 494.94 | 300.40 | 194.53 | 2.544 | |
| 21,300.00 | 12,133.71 | 21,743.43 | 12,502.48 | 137.65 | 137.49 | 138.18 | -10,007.45 | -731.77 | 494.81 | 298.35 | 196.47 | 2.519 | |
| 21,400.00 | 12,134.41 | 21,843.43 | 12,503.01 | 139.01 | 138.85 | 138.17 | -10,107.44 | -730.87 | 494.69 | 296.29 | 198.40 | 2.493 | |
| 21,500.00 | 12,135.11 | 21,943.43 | 12,503.54 | 140.37 | 140.20 | 138.16 | -10,207.44 | -729.97 | 494.57 | 294.23 | 200.34 | 2.469 | |
| 21,600.00 | 12,135.81 | 22,043.43 | 12,504.06 | 141.73 | 141.56 | 138.14 | -10,307.43 | -729.08 | 494.44 | 292.16 | 202.28 | 2.444 | |
| 21,700.00 | 12,136.51 | 22,143.43 | 12,504.59 | 143.09 | 142.92 | 138.13 | -10,407.42 | -728.18 | 494.32 | 290.10 | 204.22 | 2.421 | |
| 21,800.00 | 12,137.20 | 22,243.43 | 12,505.11 | 144.46 | 144.27 | 138.11 | -10,507.42 | -727.28 | 494.20 | 288.03 | 206.16 | 2.397 | |
| 21,900.00 | 12,137.90 | 22,343.43 | 12,505.64 | 145.82 | 145.63 | 138.10 | -10,607.41 | -726.38 | 494.07 | 285.96 | 208.11 | 2.374 | |
| 22,000.00 | 12,138.60 | 22,443.43 | 12,506.17 | 147.18 | 146.99 | 138.09 | -10,707.41 | -725.48 | 493.95 | 283.89 | 210.06 | 2.352 | |
| 22,100.00 | 12,139.30 | 22,543.43 | 12,506.69 | 148.54 | 148.35 | 138.07 | -10,807.40 | -724.58 | 493.83 | 281.82 | 212.01 | 2.329 | |
| 22,200.00 | 12,140.00 | 22,643.43 | 12,507.22 | 149.90 | 149.71 | 138.06 | -10,907.40 | -723.68 | 493.70 | 279.75 | 213.96 | 2.307 | |
| 22,300.00 | 12,140.70 | 22,743.43 | 12,507.74 | 151.27 | 151.06 | 138.04 | -11,007.39 | -722.78 | 493.58 | 277.67 | 215.91 | 2.286 | |
| 22,379.79 | 12,141.25 | 22,823.21 | 12,508.16 | 152.36 | 152.15 | 138.03 | -11,087.17 | -722.06 | 493.48 | 276.02 | 217.46 | 2.269 | |
| 22,387.52 | 12,141.31 | 22,830.04 | 12,508.20 | 152.46 | 152.24 | 138.03 | -11,094.00 | -722.00 | 493.47 | 275.84 | 217.63 | 2.267 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.50 | 0.50 | 172.30 | -185.00 | 25.00 | 186.68 | | | | |
| 100.00 | 100.00 | 99.00 | 100.00 | 0.98 | 0.97 | 172.30 | -185.00 | 25.00 | 186.68 | 184.73 | 1.95 | 95.493 | |
| 200.00 | 200.00 | 199.00 | 200.00 | 1.56 | 1.56 | 172.30 | -185.00 | 25.00 | 186.68 | 183.57 | 3.12 | 59.906 | |
| 300.00 | 300.00 | 299.00 | 300.00 | 1.98 | 1.98 | 172.30 | -185.00 | 25.00 | 186.68 | 182.72 | 3.96 | 47.165 | CC |
| 400.00 | 400.00 | 396.78 | 397.77 | 2.33 | 2.39 | 171.97 | -185.42 | 26.15 | 187.27 | 182.61 | 4.66 | 40.186 | |
| 500.00 | 500.00 | 494.41 | 495.33 | 2.63 | 2.75 | 170.98 | -186.69 | 29.65 | 189.09 | 183.82 | 5.27 | 35.860 | |
| 600.00 | 600.00 | 594.14 | 594.92 | 2.91 | 3.02 | 169.61 | -188.48 | 34.55 | 191.68 | 185.86 | 5.82 | 32.928 | |
| 700.00 | 700.00 | 694.00 | 694.65 | 3.16 | 3.27 | 168.28 | -190.26 | 39.46 | 194.39 | 188.06 | 6.33 | 30.715 | |
| 800.00 | 799.99 | 793.84 | 794.34 | 3.45 | 3.51 | -47.48 | -192.05 | 44.37 | 196.30 | 189.48 | 6.82 | 28.784 | |
| 900.00 | 899.91 | 893.57 | 893.94 | 3.70 | 3.74 | -49.58 | -193.84 | 49.27 | 196.66 | 189.39 | 7.27 | 27.044 | |
| 1,000.00 | 999.69 | 993.13 | 993.37 | 3.95 | 3.97 | -52.29 | -195.62 | 54.17 | 195.67 | 187.97 | 7.70 | 25.400 | |
| 1,100.00 | 1,099.32 | 1,092.52 | 1,092.61 | 4.05 | 4.18 | -55.50 | -197.40 | 59.06 | 193.96 | 185.96 | 8.01 | 24.228 | |
| 1,200.00 | 1,198.94 | 1,191.89 | 1,191.85 | 4.24 | 4.39 | -58.78 | -199.18 | 63.95 | 192.80 | 184.40 | 8.40 | 22.948 | |
| 1,300.00 | 1,298.53 | 1,291.23 | 1,291.05 | 4.33 | 4.60 | -63.25 | -200.95 | 68.83 | 192.18 | 183.49 | 8.69 | 22.114 | |
| 1,400.00 | 1,397.89 | 1,390.29 | 1,389.97 | 4.57 | 4.80 | -68.82 | -202.73 | 73.70 | 191.63 | 182.54 | 9.09 | 21.084 | |
| 1,462.07 | 1,459.41 | 1,451.59 | 1,451.19 | 4.72 | 4.93 | -72.36 | -203.82 | 76.72 | 191.49 | 182.15 | 9.34 | 20.508 | |
| 1,500.00 | 1,496.93 | 1,488.97 | 1,488.52 | 4.81 | 5.00 | -74.59 | -204.49 | 78.56 | 191.56 | 182.07 | 9.49 | 20.186 | ES |
| 1,600.00 | 1,595.62 | 1,583.16 | 1,582.54 | 4.92 | 5.21 | -80.12 | -206.89 | 83.69 | 193.53 | 183.73 | 9.80 | 19.740 | |
| 1,700.00 | 1,694.25 | 1,676.60 | 1,675.67 | 5.12 | 5.42 | -85.05 | -211.12 | 90.11 | 199.55 | 189.32 | 10.23 | 19.512 | |
| 1,800.00 | 1,792.87 | 1,769.86 | 1,768.40 | 5.31 | 5.63 | -89.49 | -217.19 | 97.82 | 209.43 | 198.78 | 10.65 | 19.661 | |
| 1,900.00 | 1,891.50 | 1,863.10 | 1,860.86 | 5.51 | 5.78 | -93.32 | -225.10 | 106.84 | 222.82 | 211.80 | 11.02 | 20.226 | |
| 2,000.00 | 1,990.13 | 1,960.93 | 1,957.74 | 5.71 | 5.95 | -96.79 | -234.26 | 116.90 | 238.16 | 226.75 | 11.41 | 20.878 | |
| 2,100.00 | 2,088.76 | 2,058.76 | 2,054.62 | 5.90 | 6.14 | -99.84 | -243.42 | 126.97 | 254.26 | 242.43 | 11.83 | 21.496 | |
| 2,200.00 | 2,187.39 | 2,156.59 | 2,151.50 | 6.10 | 6.33 | -102.52 | -252.58 | 137.04 | 270.98 | 258.74 | 12.25 | 22.126 | |
| 2,300.00 | 2,286.02 | 2,254.43 | 2,248.38 | 6.30 | 6.53 | -104.89 | -261.74 | 147.10 | 288.23 | 275.56 | 12.67 | 22.756 | |
| 2,400.00 | 2,384.65 | 2,352.26 | 2,345.27 | 6.50 | 6.72 | -106.99 | -270.90 | 157.17 | 305.90 | 292.82 | 13.08 | 23.380 | |
| 2,500.00 | 2,483.28 | 2,450.09 | 2,442.15 | 6.69 | 6.92 | -108.86 | -280.06 | 167.24 | 323.93 | 310.43 | 13.50 | 23.993 | |
| 2,600.00 | 2,581.91 | 2,547.92 | 2,539.03 | 6.89 | 7.11 | -110.54 | -289.22 | 177.31 | 342.27 | 328.35 | 13.92 | 24.591 | |
| 2,700.00 | 2,680.54 | 2,645.76 | 2,635.91 | 7.10 | 7.30 | -112.05 | -298.38 | 187.37 | 360.86 | 346.53 | 14.34 | 25.173 | |
| 2,800.00 | 2,779.17 | 2,743.59 | 2,732.79 | 7.33 | 7.50 | -113.41 | -307.54 | 197.44 | 379.68 | 364.92 | 14.75 | 25.738 | |
| 2,900.00 | 2,877.80 | 2,841.42 | 2,829.67 | 7.56 | 7.69 | -114.64 | -316.69 | 207.51 | 398.68 | 383.51 | 15.17 | 26.284 | |
| 3,000.00 | 2,976.43 | 2,939.25 | 2,926.55 | 7.79 | 7.89 | -115.76 | -325.85 | 217.57 | 417.84 | 402.25 | 15.58 | 26.811 | |
| 3,100.00 | 3,075.06 | 3,037.09 | 3,023.43 | 8.02 | 8.08 | -116.78 | -335.01 | 227.64 | 437.14 | 421.14 | 16.00 | 27.320 | |
| 3,200.00 | 3,173.69 | 3,134.92 | 3,120.32 | 8.25 | 8.27 | -117.71 | -344.17 | 237.71 | 456.57 | 440.15 | 16.42 | 27.810 | |
| 3,300.00 | 3,272.32 | 3,232.75 | 3,217.20 | 8.48 | 8.47 | -118.57 | -353.33 | 247.78 | 476.10 | 459.27 | 16.83 | 28.282 | |
| 3,400.00 | 3,370.94 | 3,330.58 | 3,314.08 | 8.72 | 8.66 | -119.36 | -362.49 | 257.84 | 495.73 | 478.48 | 17.25 | 28.737 | |
| 3,500.00 | 3,469.57 | 3,428.42 | 3,410.96 | 8.95 | 8.86 | -120.09 | -371.65 | 267.91 | 515.44 | 497.78 | 17.67 | 29.175 | |
| 3,600.00 | 3,568.20 | 3,526.25 | 3,507.84 | 9.19 | 9.05 | -120.77 | -380.81 | 277.98 | 535.23 | 517.15 | 18.08 | 29.596 | |
| 3,700.00 | 3,666.83 | 3,624.08 | 3,604.72 | 9.42 | 9.25 | -121.40 | -389.97 | 288.04 | 555.09 | 536.59 | 18.50 | 30.002 | |
| 3,800.00 | 3,765.46 | 3,721.91 | 3,701.60 | 9.66 | 9.44 | -121.99 | -399.13 | 298.11 | 575.00 | 556.08 | 18.92 | 30.392 | |
| 3,900.00 | 3,864.09 | 3,819.75 | 3,798.48 | 9.89 | 9.64 | -122.53 | -408.29 | 308.18 | 594.97 | 575.64 | 19.34 | 30.769 | |
| 4,000.00 | 3,962.72 | 3,917.58 | 3,895.36 | 10.13 | 9.83 | -123.04 | -417.45 | 318.25 | 614.99 | 595.24 | 19.75 | 31.131 | |
| 4,100.00 | 4,061.35 | 4,015.41 | 3,992.25 | 10.36 | 10.03 | -123.52 | -426.61 | 328.31 | 635.06 | 614.88 | 20.17 | 31.481 | |
| 4,200.00 | 4,159.98 | 4,113.24 | 4,089.13 | 10.60 | 10.22 | -123.97 | -435.77 | 338.38 | 655.16 | 634.57 | 20.59 | 31.818 | |
| 4,300.00 | 4,258.61 | 4,211.08 | 4,186.01 | 10.83 | 10.42 | -124.40 | -444.93 | 348.45 | 675.30 | 654.29 | 21.01 | 32.142 | |
| 4,400.00 | 4,357.24 | 4,308.91 | 4,282.89 | 11.07 | 10.61 | -124.79 | -454.08 | 358.51 | 695.47 | 674.04 | 21.43 | 32.456 | |
| 4,500.00 | 4,455.87 | 4,406.74 | 4,379.77 | 11.31 | 10.81 | -125.17 | -463.24 | 368.58 | 715.67 | 693.83 | 21.85 | 32.758 | |
| 4,600.00 | 4,554.50 | 4,504.57 | 4,476.65 | 11.54 | 11.01 | -125.53 | -472.40 | 378.65 | 735.90 | 713.64 | 22.27 | 33.051 | |
| 4,700.00 | 4,653.13 | 4,602.41 | 4,573.53 | 11.78 | 11.20 | -125.86 | -481.56 | 388.72 | 756.16 | 733.48 | 22.69 | 33.333 | |
| 4,800.00 | 4,751.76 | 4,700.24 | 4,670.41 | 12.02 | 11.40 | -126.18 | -490.72 | 398.78 | 776.44 | 753.34 | 23.10 | 33.605 | |
| 4,900.00 | 4,850.39 | 4,798.07 | 4,767.30 | 12.26 | 11.59 | -126.48 | -499.88 | 408.85 | 796.75 | 773.22 | 23.52 | 33.869 | |
| 5,000.00 | 4,949.01 | 4,895.90 | 4,864.18 | 12.49 | 11.79 | -126.77 | -509.04 | 418.92 | 817.07 | 793.12 | 23.94 | 34.124 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,100.00 | 5,047.64 | 4,993.74 | 4,961.06 | 12.73 | 11.99 | -127.04 | -518.20 | 428.99 | 837.41 | 813.05 | 24.36 | 34.371 | |
| 5,200.00 | 5,146.27 | 5,091.57 | 5,057.94 | 12.97 | 12.18 | -127.31 | -527.36 | 439.05 | 857.77 | 832.99 | 24.78 | 34.609 | |
| 5,300.00 | 5,244.90 | 5,189.40 | 5,154.82 | 13.21 | 12.38 | -127.55 | -536.52 | 449.12 | 878.15 | 852.94 | 25.20 | 34.841 | |
| 5,400.00 | 5,343.57 | 5,287.27 | 5,251.74 | 13.41 | 12.58 | -127.89 | -545.68 | 459.19 | 898.38 | 872.79 | 25.59 | 35.103 | |
| 5,500.00 | 5,442.58 | 5,385.45 | 5,348.96 | 13.63 | 12.78 | -128.22 | -554.87 | 469.29 | 917.29 | 891.29 | 26.00 | 35.274 | |
| 5,600.00 | 5,541.92 | 5,493.19 | 5,455.70 | 13.82 | 12.96 | -128.40 | -564.73 | 480.13 | 934.40 | 908.00 | 26.41 | 35.387 | |
| 5,700.00 | 5,641.52 | 5,614.14 | 5,575.91 | 13.98 | 13.20 | -128.52 | -573.68 | 489.97 | 947.99 | 921.14 | 26.85 | 35.307 | |
| 5,800.00 | 5,741.32 | 5,735.99 | 5,697.38 | 14.12 | 13.42 | -128.60 | -580.11 | 497.03 | 957.64 | 930.39 | 27.25 | 35.148 | |
| 5,900.00 | 5,841.25 | 5,858.45 | 5,819.71 | 14.23 | 13.63 | -128.65 | -583.94 | 501.24 | 963.32 | 935.73 | 27.59 | 34.919 | |
| 6,000.00 | 5,941.25 | 5,981.21 | 5,942.44 | 14.28 | 13.75 | 89.59 | -585.13 | 502.55 | 965.02 | 937.26 | 27.76 | 34.760 | |
| 6,001.69 | 5,942.94 | 5,983.28 | 5,944.52 | 14.29 | 13.75 | 89.59 | -585.12 | 502.54 | 965.02 | 937.25 | 27.76 | 34.757 | |
| 6,100.00 | 6,041.25 | 6,080.01 | 6,041.25 | 14.32 | 13.78 | 89.59 | -585.13 | 502.55 | 965.02 | 937.21 | 27.82 | 34.689 | |
| 6,200.00 | 6,141.25 | 6,180.01 | 6,141.25 | 14.35 | 13.81 | 89.59 | -585.13 | 502.55 | 965.02 | 937.14 | 27.89 | 34.601 | |
| 6,300.00 | 6,241.25 | 6,280.01 | 6,241.25 | 14.39 | 13.85 | 89.59 | -585.13 | 502.55 | 965.02 | 937.06 | 27.96 | 34.513 | |
| 6,400.00 | 6,341.25 | 6,380.01 | 6,341.25 | 14.42 | 13.89 | 89.59 | -585.13 | 502.55 | 965.02 | 936.99 | 28.03 | 34.424 | |
| 6,500.00 | 6,441.25 | 6,480.01 | 6,441.25 | 14.46 | 13.93 | 89.59 | -585.13 | 502.55 | 965.02 | 936.92 | 28.11 | 34.335 | |
| 6,600.00 | 6,541.25 | 6,580.01 | 6,541.25 | 14.49 | 13.97 | 89.59 | -585.13 | 502.55 | 965.02 | 936.85 | 28.18 | 34.246 | |
| 6,700.00 | 6,641.25 | 6,680.01 | 6,641.25 | 14.53 | 14.01 | 89.59 | -585.13 | 502.55 | 965.02 | 936.77 | 28.25 | 34.156 | |
| 6,800.00 | 6,741.25 | 6,780.01 | 6,741.25 | 14.56 | 14.05 | 89.59 | -585.13 | 502.55 | 965.02 | 936.70 | 28.33 | 34.065 | |
| 6,900.00 | 6,841.25 | 6,880.01 | 6,841.25 | 14.60 | 14.09 | 89.59 | -585.13 | 502.55 | 965.02 | 936.62 | 28.40 | 33.974 | |
| 7,000.00 | 6,941.25 | 6,980.01 | 6,941.25 | 14.64 | 14.13 | 89.59 | -585.13 | 502.55 | 965.02 | 936.54 | 28.48 | 33.883 | |
| 7,100.00 | 7,041.25 | 7,080.01 | 7,041.25 | 14.68 | 14.17 | 89.59 | -585.13 | 502.55 | 965.02 | 936.47 | 28.56 | 33.791 | |
| 7,200.00 | 7,141.25 | 7,180.01 | 7,141.25 | 14.71 | 14.21 | 89.59 | -585.13 | 502.55 | 965.02 | 936.39 | 28.64 | 33.699 | |
| 7,300.00 | 7,241.25 | 7,280.01 | 7,241.25 | 14.75 | 14.25 | 89.59 | -585.13 | 502.55 | 965.02 | 936.31 | 28.72 | 33.607 | |
| 7,400.00 | 7,341.25 | 7,380.01 | 7,341.25 | 14.79 | 14.30 | 89.59 | -585.13 | 502.55 | 965.02 | 936.23 | 28.79 | 33.514 | |
| 7,500.00 | 7,441.25 | 7,480.01 | 7,441.25 | 14.83 | 14.34 | 89.59 | -585.13 | 502.55 | 965.02 | 936.15 | 28.87 | 33.421 | |
| 7,600.00 | 7,541.25 | 7,580.01 | 7,541.25 | 14.87 | 14.38 | 89.59 | -585.13 | 502.55 | 965.02 | 936.07 | 28.96 | 33.328 | |
| 7,700.00 | 7,641.25 | 7,680.01 | 7,641.25 | 14.91 | 14.42 | 89.59 | -585.13 | 502.55 | 965.02 | 935.99 | 29.04 | 33.235 | |
| 7,800.00 | 7,741.25 | 7,780.01 | 7,741.25 | 14.95 | 14.47 | 89.59 | -585.13 | 502.55 | 965.02 | 935.91 | 29.12 | 33.141 | |
| 7,900.00 | 7,841.25 | 7,880.01 | 7,841.25 | 14.99 | 14.51 | 89.59 | -585.13 | 502.55 | 965.02 | 935.82 | 29.20 | 33.047 | |
| 8,000.00 | 7,941.25 | 7,980.01 | 7,941.25 | 15.03 | 14.56 | 89.59 | -585.13 | 502.55 | 965.02 | 935.74 | 29.29 | 32.952 | |
| 8,100.00 | 8,041.25 | 8,080.01 | 8,041.25 | 15.07 | 14.60 | 89.59 | -585.13 | 502.55 | 965.02 | 935.66 | 29.37 | 32.858 | |
| 8,200.00 | 8,141.25 | 8,180.01 | 8,141.25 | 15.11 | 14.65 | 89.59 | -585.13 | 502.55 | 965.02 | 935.57 | 29.45 | 32.763 | |
| 8,300.00 | 8,241.25 | 8,280.01 | 8,241.25 | 15.15 | 14.69 | 89.59 | -585.13 | 502.55 | 965.02 | 935.49 | 29.54 | 32.669 | |
| 8,400.00 | 8,341.25 | 8,380.01 | 8,341.25 | 15.20 | 14.74 | 89.59 | -585.13 | 502.55 | 965.02 | 935.40 | 29.63 | 32.574 | |
| 8,500.00 | 8,441.25 | 8,480.01 | 8,441.25 | 15.24 | 14.78 | 89.59 | -585.13 | 502.55 | 965.02 | 935.31 | 29.71 | 32.478 | |
| 8,600.00 | 8,541.25 | 8,580.01 | 8,541.25 | 15.28 | 14.83 | 89.59 | -585.13 | 502.55 | 965.02 | 935.22 | 29.80 | 32.383 | |
| 8,700.00 | 8,641.25 | 8,680.01 | 8,641.25 | 15.32 | 14.87 | 89.59 | -585.13 | 502.55 | 965.02 | 935.14 | 29.89 | 32.288 | |
| 8,800.00 | 8,741.25 | 8,780.01 | 8,741.25 | 15.37 | 14.92 | 89.59 | -585.13 | 502.55 | 965.02 | 935.05 | 29.98 | 32.192 | |
| 8,900.00 | 8,841.25 | 8,880.01 | 8,841.25 | 15.41 | 14.97 | 89.59 | -585.13 | 502.55 | 965.02 | 934.96 | 30.07 | 32.096 | |
| 9,000.00 | 8,941.25 | 8,980.01 | 8,941.25 | 15.46 | 15.02 | 89.59 | -585.13 | 502.55 | 965.02 | 934.87 | 30.16 | 32.001 | |
| 9,100.00 | 9,041.25 | 9,080.01 | 9,041.25 | 15.50 | 15.06 | 89.59 | -585.13 | 502.55 | 965.02 | 934.78 | 30.25 | 31.905 | |
| 9,200.00 | 9,141.25 | 9,180.01 | 9,141.25 | 15.55 | 15.11 | 89.59 | -585.13 | 502.55 | 965.02 | 934.69 | 30.34 | 31.809 | |
| 9,300.00 | 9,241.25 | 9,280.01 | 9,241.25 | 15.59 | 15.16 | 89.59 | -585.13 | 502.55 | 965.02 | 934.60 | 30.43 | 31.713 | |
| 9,400.00 | 9,341.25 | 9,380.01 | 9,341.25 | 15.64 | 15.21 | 89.59 | -585.13 | 502.55 | 965.02 | 934.50 | 30.52 | 31.617 | |
| 9,500.00 | 9,441.25 | 9,480.01 | 9,441.25 | 15.68 | 15.26 | 89.59 | -585.13 | 502.55 | 965.02 | 934.41 | 30.62 | 31.521 | |
| 9,600.00 | 9,541.25 | 9,580.01 | 9,541.25 | 15.73 | 15.31 | 89.59 | -585.13 | 502.55 | 965.02 | 934.32 | 30.71 | 31.425 | |
| 9,700.00 | 9,641.25 | 9,680.01 | 9,641.25 | 15.78 | 15.36 | 89.59 | -585.13 | 502.55 | 965.02 | 934.22 | 30.80 | 31.329 | |
| 9,800.00 | 9,741.25 | 9,780.01 | 9,741.25 | 15.82 | 15.41 | 89.59 | -585.13 | 502.55 | 965.02 | 934.13 | 30.90 | 31.233 | |
| 9,900.00 | 9,841.25 | 9,880.01 | 9,841.25 | 15.87 | 15.46 | 89.59 | -585.13 | 502.55 | 965.02 | 934.03 | 30.99 | 31.137 | |
| 10,000.00 | 9,941.25 | 9,980.01 | 9,941.25 | 15.92 | 15.51 | 89.59 | -585.13 | 502.55 | 965.02 | 933.94 | 31.09 | 31.041 | |
| 10,100.00 | 10,041.25 | 10,080.01 | 10,041.25 | 15.96 | 15.56 | 89.59 | -585.13 | 502.55 | 965.02 | 933.84 | 31.18 | 30.945 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,200.00 | 10,141.25 | 10,180.01 | 10,141.25 | 16.01 | 15.61 | 89.59 | -585.13 | 502.55 | 965.02 | 933.74 | 31.28 | 30.849 | |
| 10,300.00 | 10,241.25 | 10,280.01 | 10,241.25 | 16.06 | 15.66 | 89.59 | -585.13 | 502.55 | 965.02 | 933.65 | 31.38 | 30.753 | |
| 10,400.00 | 10,341.25 | 10,380.01 | 10,341.25 | 16.11 | 15.71 | 89.59 | -585.13 | 502.55 | 965.02 | 933.55 | 31.48 | 30.658 | |
| 10,500.00 | 10,441.25 | 10,480.01 | 10,441.25 | 16.16 | 15.76 | 89.59 | -585.13 | 502.55 | 965.02 | 933.45 | 31.58 | 30.562 | |
| 10,600.00 | 10,541.25 | 10,580.01 | 10,541.25 | 16.21 | 15.81 | 89.59 | -585.13 | 502.55 | 965.02 | 933.35 | 31.68 | 30.466 | |
| 10,700.00 | 10,641.25 | 10,680.01 | 10,641.25 | 16.26 | 15.87 | 89.59 | -585.13 | 502.55 | 965.02 | 933.25 | 31.77 | 30.371 | |
| 10,800.00 | 10,741.25 | 10,780.01 | 10,741.25 | 16.31 | 15.92 | 89.59 | -585.13 | 502.55 | 965.02 | 933.15 | 31.87 | 30.275 | |
| 10,900.00 | 10,841.25 | 10,880.01 | 10,841.25 | 16.36 | 15.97 | 89.59 | -585.13 | 502.55 | 965.02 | 933.05 | 31.98 | 30.180 | |
| 11,000.00 | 10,941.25 | 10,980.01 | 10,941.25 | 16.41 | 16.02 | 89.59 | -585.13 | 502.55 | 965.02 | 932.95 | 32.08 | 30.085 | |
| 11,100.00 | 11,041.25 | 11,080.01 | 11,041.25 | 16.46 | 16.08 | 89.59 | -585.13 | 502.55 | 965.02 | 932.85 | 32.18 | 29.990 | |
| 11,200.00 | 11,141.25 | 11,180.01 | 11,141.25 | 16.51 | 16.13 | 89.59 | -585.13 | 502.55 | 965.02 | 932.74 | 32.28 | 29.895 | |
| 11,300.00 | 11,241.25 | 11,280.01 | 11,241.25 | 16.56 | 16.19 | 89.59 | -585.13 | 502.55 | 965.02 | 932.64 | 32.38 | 29.800 | |
| 11,400.00 | 11,341.25 | 11,380.01 | 11,341.25 | 16.61 | 16.24 | 89.59 | -585.13 | 502.55 | 965.02 | 932.54 | 32.49 | 29.705 | |
| 11,500.00 | 11,441.25 | 11,480.01 | 11,441.25 | 16.66 | 16.29 | 89.59 | -585.13 | 502.55 | 965.02 | 932.43 | 32.59 | 29.611 | |
| 11,500.01 | 11,441.25 | 11,480.02 | 11,441.25 | 16.66 | 16.29 | 89.59 | -585.13 | 502.55 | 965.02 | 932.43 | 32.59 | 29.611 | |
| 11,600.00 | 11,541.21 | 11,579.97 | 11,541.21 | 16.71 | 16.35 | -92.25 | -585.13 | 502.55 | 965.08 | 932.41 | 32.67 | 29.536 | |
| 11,700.00 | 11,639.79 | 11,678.55 | 11,639.79 | 16.90 | 16.40 | -93.11 | -585.13 | 502.55 | 965.85 | 933.02 | 32.83 | 29.419 | |
| 11,800.00 | 11,734.09 | 11,772.86 | 11,734.09 | 17.17 | 16.45 | -94.70 | -585.13 | 502.55 | 968.24 | 935.16 | 33.08 | 29.269 | |
| 11,900.00 | 11,821.25 | 11,860.02 | 11,821.25 | 17.53 | 16.49 | -96.63 | -585.13 | 502.55 | 973.83 | 940.42 | 33.41 | 29.147 | |
| 12,000.00 | 11,898.62 | 11,961.43 | 11,922.33 | 18.00 | 16.57 | -99.08 | -591.82 | 502.61 | 983.83 | 949.98 | 33.85 | 29.065 | |
| 12,100.00 | 11,963.85 | 12,083.02 | 12,039.63 | 18.59 | 16.75 | -101.69 | -622.92 | 502.89 | 997.29 | 962.68 | 34.61 | 28.817 | |
| 12,200.00 | 12,014.95 | 12,229.90 | 12,168.64 | 19.33 | 16.99 | -104.39 | -692.29 | 503.52 | 1,012.84 | 976.88 | 35.97 | 28.159 | |
| 12,300.00 | 12,050.38 | 12,391.89 | 12,285.11 | 20.19 | 17.73 | -106.58 | -804.05 | 504.54 | 1,028.11 | 990.11 | 38.00 | 27.056 | |
| 12,400.00 | 12,069.05 | 12,630.23 | 12,390.07 | 21.14 | 19.37 | -108.67 | -1,016.03 | 506.47 | 1,039.66 | 998.41 | 41.25 | 25.205 | |
| 12,500.00 | 12,072.27 | 12,811.95 | 12,408.17 | 22.15 | 20.96 | -108.77 | -1,196.24 | 508.10 | 1,044.51 | 1,000.81 | 43.70 | 23.903 | |
| 12,600.00 | 12,072.97 | 12,911.94 | 12,408.69 | 23.19 | 21.91 | -108.74 | -1,296.23 | 509.01 | 1,045.20 | 999.78 | 45.42 | 23.013 | |
| 12,700.00 | 12,073.66 | 13,011.94 | 12,409.22 | 24.26 | 22.91 | -108.73 | -1,396.23 | 509.92 | 1,045.15 | 997.92 | 47.23 | 22.130 | |
| 12,800.00 | 12,074.36 | 13,111.94 | 12,409.74 | 25.36 | 23.93 | -108.72 | -1,496.22 | 510.83 | 1,045.10 | 995.99 | 49.11 | 21.281 | |
| 12,900.00 | 12,075.06 | 13,211.94 | 12,410.27 | 26.49 | 24.99 | -108.71 | -1,596.22 | 511.74 | 1,045.04 | 993.99 | 51.05 | 20.469 | |
| 13,000.00 | 12,075.76 | 13,311.94 | 12,410.79 | 27.63 | 26.07 | -108.70 | -1,696.21 | 512.65 | 1,044.99 | 991.93 | 53.06 | 19.695 | |
| 13,100.00 | 12,076.46 | 13,411.94 | 12,411.32 | 28.80 | 27.18 | -108.69 | -1,796.20 | 513.56 | 1,044.93 | 989.82 | 55.11 | 18.960 | |
| 13,200.00 | 12,077.15 | 13,511.94 | 12,411.84 | 29.98 | 28.31 | -108.68 | -1,896.20 | 514.46 | 1,044.88 | 987.67 | 57.21 | 18.263 | |
| 13,300.00 | 12,077.85 | 13,611.94 | 12,412.37 | 31.18 | 29.46 | -108.67 | -1,996.19 | 515.37 | 1,044.83 | 985.47 | 59.36 | 17.603 | |
| 13,400.00 | 12,078.55 | 13,711.94 | 12,412.89 | 32.39 | 30.62 | -108.66 | -2,096.19 | 516.28 | 1,044.77 | 983.24 | 61.53 | 16.979 | |
| 13,500.00 | 12,079.25 | 13,811.94 | 12,413.42 | 33.61 | 31.80 | -108.65 | -2,196.18 | 517.19 | 1,044.72 | 980.97 | 63.75 | 16.389 | |
| 13,600.00 | 12,079.95 | 13,911.94 | 12,413.94 | 34.84 | 33.00 | -108.65 | -2,296.18 | 518.10 | 1,044.66 | 978.68 | 65.99 | 15.831 | |
| 13,700.00 | 12,080.65 | 14,011.94 | 12,414.47 | 36.08 | 34.21 | -108.64 | -2,396.17 | 519.01 | 1,044.61 | 976.36 | 68.25 | 15.305 | |
| 13,800.00 | 12,081.34 | 14,111.94 | 12,414.99 | 37.33 | 35.42 | -108.63 | -2,496.16 | 519.92 | 1,044.56 | 974.01 | 70.55 | 14.807 | |
| 13,900.00 | 12,082.04 | 14,211.94 | 12,415.52 | 38.59 | 36.65 | -108.62 | -2,596.16 | 520.82 | 1,044.50 | 971.64 | 72.86 | 14.336 | |
| 14,000.00 | 12,082.74 | 14,311.94 | 12,416.04 | 39.86 | 37.89 | -108.61 | -2,696.15 | 521.73 | 1,044.45 | 969.25 | 75.20 | 13.890 | |
| 14,100.00 | 12,083.44 | 14,411.94 | 12,416.57 | 41.13 | 39.14 | -108.60 | -2,796.15 | 522.64 | 1,044.40 | 966.85 | 77.55 | 13.468 | |
| 14,200.00 | 12,084.14 | 14,511.94 | 12,417.09 | 42.40 | 40.39 | -108.59 | -2,896.14 | 523.55 | 1,044.34 | 964.43 | 79.92 | 13.068 | |
| 14,300.00 | 12,084.84 | 14,611.94 | 12,417.62 | 43.69 | 41.65 | -108.58 | -2,996.14 | 524.46 | 1,044.29 | 961.99 | 82.30 | 12.689 | |
| 14,400.00 | 12,085.53 | 14,711.94 | 12,418.14 | 44.97 | 42.92 | -108.57 | -3,096.13 | 525.37 | 1,044.24 | 959.54 | 84.70 | 12.329 | |
| 14,500.00 | 12,086.23 | 14,811.94 | 12,418.67 | 46.27 | 44.19 | -108.56 | -3,196.13 | 526.28 | 1,044.18 | 957.07 | 87.11 | 11.987 | |
| 14,600.00 | 12,086.93 | 14,911.94 | 12,419.19 | 47.56 | 45.47 | -108.56 | -3,296.12 | 527.19 | 1,044.13 | 954.60 | 89.53 | 11.662 | |
| 14,700.00 | 12,087.63 | 15,011.94 | 12,419.72 | 48.86 | 46.75 | -108.55 | -3,396.11 | 528.09 | 1,044.08 | 952.11 | 91.97 | 11.353 | |
| 14,800.00 | 12,088.33 | 15,111.94 | 12,420.24 | 50.17 | 48.04 | -108.54 | -3,496.11 | 529.00 | 1,044.02 | 949.61 | 94.41 | 11.058 | |
| 14,900.00 | 12,089.02 | 15,211.94 | 12,420.76 | 51.47 | 49.33 | -108.53 | -3,596.10 | 529.91 | 1,043.97 | 947.10 | 96.86 | 10.778 | |
| 15,000.00 | 12,089.72 | 15,311.94 | 12,421.29 | 52.78 | 50.63 | -108.52 | -3,696.10 | 530.82 | 1,043.92 | 944.59 | 99.33 | 10.510 | |
| 15,100.00 | 12,090.42 | 15,411.94 | 12,421.81 | 54.10 | 51.93 | -108.51 | -3,796.09 | 531.73 | 1,043.86 | 942.07 | 101.80 | 10.254 | |
| 15,200.00 | 12,091.12 | 15,511.94 | 12,422.34 | 55.41 | 53.23 | -108.50 | -3,896.09 | 532.64 | 1,043.81 | 939.54 | 104.27 | 10.010 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,300.00 | 12,091.82 | 15,611.94 | 12,422.86 | 56.73 | 54.54 | -108.49 | -3,996.08 | 533.55 | 1,043.76 | 937.00 | 106.76 | 9.777 | |
| 15,400.00 | 12,092.52 | 15,711.94 | 12,423.39 | 58.05 | 55.85 | -108.48 | -4,096.07 | 534.45 | 1,043.70 | 934.45 | 109.25 | 9.553 | |
| 15,500.00 | 12,093.21 | 15,811.94 | 12,423.91 | 59.37 | 57.16 | -108.47 | -4,196.07 | 535.36 | 1,043.65 | 931.90 | 111.75 | 9.340 | |
| 15,600.00 | 12,093.91 | 15,911.94 | 12,424.44 | 60.70 | 58.47 | -108.46 | -4,296.06 | 536.27 | 1,043.60 | 929.35 | 114.25 | 9.134 | |
| 15,700.00 | 12,094.61 | 16,011.94 | 12,424.96 | 62.03 | 59.79 | -108.46 | -4,396.06 | 537.18 | 1,043.54 | 926.79 | 116.76 | 8.938 | |
| 15,800.00 | 12,095.31 | 16,111.94 | 12,425.49 | 63.35 | 61.11 | -108.45 | -4,496.05 | 538.09 | 1,043.49 | 924.22 | 119.27 | 8.749 | |
| 15,900.00 | 12,096.01 | 16,211.94 | 12,426.01 | 64.68 | 62.43 | -108.44 | -4,596.05 | 539.00 | 1,043.44 | 921.65 | 121.79 | 8.568 | |
| 16,000.00 | 12,096.71 | 16,311.94 | 12,426.54 | 66.02 | 63.75 | -108.43 | -4,696.04 | 539.91 | 1,043.38 | 919.08 | 124.31 | 8.394 | |
| 16,100.00 | 12,097.40 | 16,411.93 | 12,427.06 | 67.35 | 65.08 | -108.42 | -4,796.03 | 540.82 | 1,043.33 | 916.50 | 126.83 | 8.226 | |
| 16,200.00 | 12,098.10 | 16,511.93 | 12,427.59 | 68.68 | 66.41 | -108.41 | -4,896.03 | 541.72 | 1,043.28 | 913.91 | 129.36 | 8.065 | |
| 16,300.00 | 12,098.80 | 16,611.93 | 12,428.11 | 70.02 | 67.73 | -108.40 | -4,996.02 | 542.63 | 1,043.23 | 911.33 | 131.90 | 7.909 | |
| 16,400.00 | 12,099.50 | 16,711.93 | 12,428.64 | 71.36 | 69.06 | -108.39 | -5,096.02 | 543.54 | 1,043.17 | 908.74 | 134.44 | 7.760 | |
| 16,500.00 | 12,100.20 | 16,811.93 | 12,429.16 | 72.69 | 70.40 | -108.38 | -5,196.01 | 544.45 | 1,043.12 | 906.14 | 136.98 | 7.615 | |
| 16,600.00 | 12,100.90 | 16,911.93 | 12,429.69 | 74.03 | 71.73 | -108.37 | -5,296.01 | 545.36 | 1,043.07 | 903.55 | 139.52 | 7.476 | |
| 16,700.00 | 12,101.59 | 17,011.93 | 12,430.21 | 75.37 | 73.06 | -108.37 | -5,396.00 | 546.27 | 1,043.01 | 900.95 | 142.07 | 7.342 | |
| 16,800.00 | 12,102.29 | 17,111.93 | 12,430.74 | 76.72 | 74.40 | -108.36 | -5,496.00 | 547.18 | 1,042.96 | 898.34 | 144.62 | 7.212 | |
| 16,900.00 | 12,102.99 | 17,211.93 | 12,431.26 | 78.06 | 75.74 | -108.35 | -5,595.99 | 548.08 | 1,042.91 | 895.74 | 147.17 | 7.086 | |
| 17,000.00 | 12,103.69 | 17,311.93 | 12,431.79 | 79.40 | 77.07 | -108.34 | -5,695.98 | 548.99 | 1,042.86 | 893.13 | 149.73 | 6.965 | |
| 17,100.00 | 12,104.39 | 17,411.93 | 12,432.31 | 80.75 | 78.41 | -108.33 | -5,795.98 | 549.90 | 1,042.80 | 890.52 | 152.28 | 6.848 | |
| 17,200.00 | 12,105.08 | 17,511.93 | 12,432.84 | 82.09 | 79.75 | -108.32 | -5,895.97 | 550.81 | 1,042.75 | 887.90 | 154.85 | 6.734 | |
| 17,300.00 | 12,105.78 | 17,611.93 | 12,433.36 | 83.44 | 81.09 | -108.31 | -5,995.97 | 551.72 | 1,042.70 | 885.29 | 157.41 | 6.624 | |
| 17,400.00 | 12,106.48 | 17,711.93 | 12,433.89 | 84.78 | 82.43 | -108.30 | -6,095.96 | 552.63 | 1,042.64 | 882.67 | 159.97 | 6.518 | |
| 17,500.00 | 12,107.18 | 17,811.93 | 12,434.41 | 86.13 | 83.78 | -108.29 | -6,195.96 | 553.54 | 1,042.59 | 880.05 | 162.54 | 6.414 | |
| 17,600.00 | 12,107.88 | 17,911.93 | 12,434.94 | 87.48 | 85.12 | -108.28 | -6,295.95 | 554.44 | 1,042.54 | 877.43 | 165.11 | 6.314 | |
| 17,700.00 | 12,108.58 | 18,011.93 | 12,435.46 | 88.83 | 86.47 | -108.27 | -6,395.94 | 555.35 | 1,042.49 | 874.81 | 167.68 | 6.217 | |
| 17,800.00 | 12,109.27 | 18,111.93 | 12,435.99 | 90.18 | 87.81 | -108.27 | -6,495.94 | 556.26 | 1,042.43 | 872.18 | 170.25 | 6.123 | |
| 17,900.00 | 12,109.97 | 18,211.93 | 12,436.51 | 91.52 | 89.16 | -108.26 | -6,595.93 | 557.17 | 1,042.38 | 869.56 | 172.83 | 6.031 | |
| 18,000.00 | 12,110.67 | 18,311.93 | 12,437.04 | 92.88 | 90.50 | -108.25 | -6,695.93 | 558.08 | 1,042.33 | 866.93 | 175.40 | 5.942 | |
| 18,100.00 | 12,111.37 | 18,411.93 | 12,437.56 | 94.23 | 91.85 | -108.24 | -6,795.92 | 558.99 | 1,042.28 | 864.30 | 177.98 | 5.856 | |
| 18,200.00 | 12,112.07 | 18,511.93 | 12,438.09 | 95.58 | 93.20 | -108.23 | -6,895.92 | 559.90 | 1,042.22 | 861.66 | 180.56 | 5.772 | |
| 18,300.00 | 12,112.77 | 18,611.93 | 12,438.61 | 96.93 | 94.55 | -108.22 | -6,995.91 | 560.81 | 1,042.17 | 859.03 | 183.14 | 5.691 | |
| 18,400.00 | 12,113.46 | 18,711.93 | 12,439.14 | 98.28 | 95.89 | -108.21 | -7,095.90 | 561.71 | 1,042.12 | 856.40 | 185.72 | 5.611 | |
| 18,500.00 | 12,114.16 | 18,811.93 | 12,439.66 | 99.63 | 97.24 | -108.20 | -7,195.90 | 562.62 | 1,042.07 | 853.76 | 188.31 | 5.534 | |
| 18,600.00 | 12,114.86 | 18,911.93 | 12,440.19 | 100.99 | 98.59 | -108.19 | -7,295.89 | 563.53 | 1,042.01 | 851.12 | 190.89 | 5.459 | |
| 18,700.00 | 12,115.56 | 19,011.93 | 12,440.71 | 102.34 | 99.95 | -108.18 | -7,395.89 | 564.44 | 1,041.96 | 848.48 | 193.48 | 5.385 | |
| 18,800.00 | 12,116.26 | 19,111.93 | 12,441.24 | 103.70 | 101.30 | -108.17 | -7,495.88 | 565.35 | 1,041.91 | 845.84 | 196.07 | 5.314 | |
| 18,900.00 | 12,116.95 | 19,211.93 | 12,441.76 | 105.05 | 102.65 | -108.17 | -7,595.88 | 566.26 | 1,041.86 | 843.20 | 198.66 | 5.245 | |
| 19,000.00 | 12,117.65 | 19,311.93 | 12,442.29 | 106.41 | 104.00 | -108.16 | -7,695.87 | 567.17 | 1,041.81 | 840.56 | 201.25 | 5.177 | |
| 19,100.00 | 12,118.35 | 19,411.93 | 12,442.81 | 107.76 | 105.35 | -108.15 | -7,795.86 | 568.07 | 1,041.75 | 837.92 | 203.84 | 5.111 | |
| 19,200.00 | 12,119.05 | 19,511.93 | 12,443.34 | 109.12 | 106.71 | -108.14 | -7,895.86 | 568.98 | 1,041.70 | 835.27 | 206.43 | 5.046 | |
| 19,300.00 | 12,119.75 | 19,611.93 | 12,443.86 | 110.47 | 108.06 | -108.13 | -7,995.85 | 569.89 | 1,041.65 | 832.62 | 209.02 | 4.983 | |
| 19,400.00 | 12,120.45 | 19,711.93 | 12,444.39 | 111.83 | 109.41 | -108.12 | -8,095.85 | 570.80 | 1,041.60 | 829.98 | 211.62 | 4.922 | |
| 19,500.00 | 12,121.14 | 19,811.93 | 12,444.91 | 113.19 | 110.77 | -108.11 | -8,195.84 | 571.71 | 1,041.54 | 827.33 | 214.21 | 4.862 | |
| 19,600.00 | 12,121.84 | 19,911.93 | 12,445.44 | 114.54 | 112.12 | -108.10 | -8,295.84 | 572.62 | 1,041.49 | 824.68 | 216.81 | 4.804 | |
| 19,700.00 | 12,122.54 | 20,011.93 | 12,445.96 | 115.90 | 113.48 | -108.09 | -8,395.83 | 573.53 | 1,041.44 | 822.03 | 219.41 | 4.747 | |
| 19,800.00 | 12,123.24 | 20,111.93 | 12,446.49 | 117.26 | 114.83 | -108.08 | -8,495.83 | 574.44 | 1,041.39 | 819.38 | 222.01 | 4.691 | |
| 19,900.00 | 12,123.94 | 20,211.93 | 12,447.01 | 118.61 | 116.19 | -108.07 | -8,595.82 | 575.34 | 1,041.34 | 816.73 | 224.61 | 4.636 | |
| 20,000.00 | 12,124.64 | 20,311.93 | 12,447.54 | 119.97 | 117.54 | -108.07 | -8,695.81 | 576.25 | 1,041.28 | 814.08 | 227.21 | 4.583 | |
| 20,100.00 | 12,125.33 | 20,411.93 | 12,448.06 | 121.33 | 118.90 | -108.06 | -8,795.81 | 577.16 | 1,041.23 | 811.42 | 229.81 | 4.531 | |
| 20,200.00 | 12,126.03 | 20,511.93 | 12,448.59 | 122.69 | 120.26 | -108.05 | -8,895.80 | 578.07 | 1,041.18 | 808.77 | 232.41 | 4.480 | |
| 20,300.00 | 12,126.73 | 20,611.93 | 12,449.11 | 124.05 | 121.61 | -108.04 | -8,995.80 | 578.98 | 1,041.13 | 806.11 | 235.02 | 4.430 | |
| 20,400.00 | 12,127.43 | 20,711.93 | 12,449.64 | 125.41 | 122.97 | -108.03 | -9,095.79 | 579.89 | 1,041.08 | 803.46 | 237.62 | 4.381 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,500.00 | 12,128.13 | 20,811.93 | 12,450.16 | 126.77 | 124.33 | -108.02 | -9,195.79 | 580.80 | 1,041.02 | 800.80 | 240.22 | 4.334 | |
| 20,600.00 | 12,128.83 | 20,911.93 | 12,450.69 | 128.13 | 125.68 | -108.01 | -9,295.78 | 581.70 | 1,040.97 | 798.14 | 242.83 | 4.287 | |
| 20,700.00 | 12,129.52 | 21,011.93 | 12,451.21 | 129.49 | 127.04 | -108.00 | -9,395.77 | 582.61 | 1,040.92 | 795.48 | 245.44 | 4.241 | |
| 20,800.00 | 12,130.22 | 21,111.93 | 12,451.74 | 130.85 | 128.40 | -107.99 | -9,495.77 | 583.52 | 1,040.87 | 792.83 | 248.04 | 4.196 | |
| 20,900.00 | 12,130.92 | 21,211.93 | 12,452.26 | 132.21 | 129.76 | -107.98 | -9,595.76 | 584.43 | 1,040.82 | 790.17 | 250.65 | 4.152 | |
| 21,000.00 | 12,131.62 | 21,311.93 | 12,452.79 | 133.57 | 131.12 | -107.97 | -9,695.76 | 585.34 | 1,040.77 | 787.51 | 253.26 | 4.109 | |
| 21,100.00 | 12,132.32 | 21,411.93 | 12,453.31 | 134.93 | 132.48 | -107.97 | -9,795.75 | 586.25 | 1,040.71 | 784.84 | 255.87 | 4.067 | |
| 21,200.00 | 12,133.01 | 21,511.93 | 12,453.84 | 136.29 | 133.83 | -107.96 | -9,895.75 | 587.16 | 1,040.66 | 782.18 | 258.48 | 4.026 | |
| 21,300.00 | 12,133.71 | 21,611.93 | 12,454.36 | 137.65 | 135.19 | -107.95 | -9,995.74 | 588.07 | 1,040.61 | 779.52 | 261.09 | 3.986 | |
| 21,400.00 | 12,134.41 | 21,711.93 | 12,454.89 | 139.01 | 136.55 | -107.94 | -10,095.73 | 588.97 | 1,040.56 | 776.86 | 263.70 | 3.946 | |
| 21,500.00 | 12,135.11 | 21,811.93 | 12,455.41 | 140.37 | 137.91 | -107.93 | -10,195.73 | 589.88 | 1,040.51 | 774.19 | 266.31 | 3.907 | |
| 21,600.00 | 12,135.81 | 21,911.93 | 12,455.94 | 141.73 | 139.27 | -107.92 | -10,295.72 | 590.79 | 1,040.46 | 771.53 | 268.93 | 3.869 | |
| 21,700.00 | 12,136.51 | 22,011.93 | 12,456.46 | 143.09 | 140.63 | -107.91 | -10,395.72 | 591.70 | 1,040.40 | 768.86 | 271.54 | 3.832 | |
| 21,800.00 | 12,137.20 | 22,111.93 | 12,456.99 | 144.46 | 141.99 | -107.90 | -10,495.71 | 592.61 | 1,040.35 | 766.20 | 274.15 | 3.795 | |
| 21,900.00 | 12,137.90 | 22,211.93 | 12,457.51 | 145.82 | 143.35 | -107.89 | -10,595.71 | 593.52 | 1,040.30 | 763.53 | 276.77 | 3.759 | |
| 22,000.00 | 12,138.60 | 22,311.93 | 12,458.04 | 147.18 | 144.71 | -107.88 | -10,695.70 | 594.43 | 1,040.25 | 760.87 | 279.38 | 3.723 | |
| 22,100.00 | 12,139.30 | 22,411.93 | 12,458.56 | 148.54 | 146.07 | -107.87 | -10,795.70 | 595.33 | 1,040.20 | 758.20 | 282.00 | 3.689 | |
| 22,200.00 | 12,140.00 | 22,511.93 | 12,459.09 | 149.90 | 147.43 | -107.87 | -10,895.69 | 596.24 | 1,040.15 | 755.53 | 284.61 | 3.655 | |
| 22,300.00 | 12,140.70 | 22,611.93 | 12,459.61 | 151.27 | 148.78 | -107.86 | -10,995.68 | 597.15 | 1,040.10 | 752.88 | 287.21 | 3.621 | |
| 22,387.52 | 12,141.31 | 22,699.44 | 12,460.07 | 152.46 | 149.85 | -107.85 | -11,083.20 | 597.95 | 1,040.05 | 750.67 | 289.38 | 3.594 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3,500.00 | 3,469.57 | 3,312.63 | 3,288.76 | 8.95 | 8.91 | 40.96 | -761.19 | -2,619.62 | 2,428.15 | 2,410.65 | 17.51 | 138.709 | |
| 3,600.00 | 3,568.20 | 3,409.71 | 3,384.77 | 9.19 | 9.11 | 41.50 | -750.31 | -2,628.98 | 2,423.20 | 2,405.27 | 17.93 | 135.154 | |
| 3,700.00 | 3,666.83 | 3,506.79 | 3,480.78 | 9.42 | 9.31 | 42.04 | -739.42 | -2,638.33 | 2,418.47 | 2,400.12 | 18.35 | 131.772 | |
| 3,800.00 | 3,765.46 | 3,603.86 | 3,576.80 | 9.66 | 9.51 | 42.58 | -728.54 | -2,647.69 | 2,413.97 | 2,395.19 | 18.78 | 128.551 | |
| 3,900.00 | 3,864.09 | 3,700.94 | 3,672.81 | 9.89 | 9.71 | 43.13 | -717.66 | -2,657.05 | 2,409.71 | 2,390.50 | 19.20 | 125.480 | |
| 4,000.00 | 3,962.72 | 3,798.02 | 3,768.82 | 10.13 | 9.91 | 43.67 | -706.78 | -2,666.41 | 2,405.67 | 2,386.04 | 19.63 | 122.551 | |
| 4,100.00 | 4,061.35 | 3,895.10 | 3,864.83 | 10.36 | 10.11 | 44.22 | -695.89 | -2,675.77 | 2,401.87 | 2,381.81 | 20.06 | 119.755 | |
| 4,200.00 | 4,159.98 | 3,992.17 | 3,960.84 | 10.60 | 10.31 | 44.77 | -685.01 | -2,685.13 | 2,398.30 | 2,377.82 | 20.48 | 117.083 | |
| 4,300.00 | 4,258.61 | 4,089.25 | 4,056.85 | 10.83 | 10.51 | 45.33 | -674.13 | -2,694.48 | 2,394.97 | 2,374.06 | 20.91 | 114.529 | |
| 4,400.00 | 4,357.24 | 4,186.33 | 4,152.86 | 11.07 | 10.71 | 45.88 | -663.25 | -2,703.84 | 2,391.88 | 2,370.54 | 21.34 | 112.085 | |
| 4,500.00 | 4,455.87 | 4,283.41 | 4,248.87 | 11.31 | 10.91 | 46.43 | -652.36 | -2,713.20 | 2,389.02 | 2,367.25 | 21.77 | 109.745 | |
| 4,600.00 | 4,554.50 | 4,380.48 | 4,344.88 | 11.54 | 11.10 | 46.99 | -641.48 | -2,722.56 | 2,386.40 | 2,364.20 | 22.20 | 107.519 | |
| 4,700.00 | 4,653.13 | 4,526.60 | 4,489.69 | 11.78 | 11.41 | 47.79 | -626.78 | -2,735.20 | 2,383.17 | 2,360.46 | 22.72 | 104.913 | |
| 4,800.00 | 4,751.76 | 4,683.77 | 4,646.16 | 12.02 | 11.73 | 48.53 | -615.64 | -2,744.79 | 2,377.77 | 2,354.55 | 23.22 | 102.410 | |
| 4,900.00 | 4,850.39 | 4,842.32 | 4,804.49 | 12.26 | 12.02 | 49.17 | -609.35 | -2,750.19 | 2,370.04 | 2,346.37 | 23.67 | 100.141 | |
| 5,000.00 | 4,949.01 | 4,986.87 | 4,949.01 | 12.49 | 12.18 | 49.65 | -607.91 | -2,751.43 | 2,359.96 | 2,335.95 | 24.01 | 98.307 | |
| 5,100.00 | 5,047.64 | 5,085.50 | 5,047.64 | 12.73 | 12.26 | 49.95 | -607.91 | -2,751.43 | 2,349.22 | 2,324.91 | 24.31 | 96.632 | |
| 5,200.00 | 5,146.27 | 5,184.13 | 5,146.27 | 12.97 | 12.34 | 50.26 | -607.91 | -2,751.43 | 2,338.55 | 2,313.93 | 24.62 | 94.976 | |
| 5,300.00 | 5,244.90 | 5,282.76 | 5,244.90 | 13.21 | 12.42 | 50.57 | -607.91 | -2,751.43 | 2,327.95 | 2,303.02 | 24.93 | 93.363 | |
| 5,400.00 | 5,343.57 | 5,381.43 | 5,343.57 | 13.41 | 12.50 | 50.82 | -607.91 | -2,751.43 | 2,317.58 | 2,292.37 | 25.21 | 91.919 | |
| 5,500.00 | 5,442.58 | 5,480.43 | 5,442.58 | 13.63 | 12.58 | 50.99 | -607.91 | -2,751.43 | 2,308.66 | 2,283.15 | 25.51 | 90.483 | |
| 5,600.00 | 5,541.92 | 5,579.77 | 5,541.92 | 13.82 | 12.66 | 51.12 | -607.91 | -2,751.43 | 2,301.43 | 2,275.63 | 25.80 | 89.214 | |
| 5,700.00 | 5,641.52 | 5,679.37 | 5,641.52 | 13.98 | 12.74 | 51.23 | -607.91 | -2,751.43 | 2,295.86 | 2,269.80 | 26.06 | 88.105 | |
| 5,800.00 | 5,741.32 | 5,779.18 | 5,741.32 | 14.12 | 12.83 | 51.30 | -607.91 | -2,751.43 | 2,291.95 | 2,265.65 | 26.30 | 87.151 | |
| 5,900.00 | 5,841.25 | 5,879.11 | 5,841.25 | 14.23 | 12.91 | 51.35 | -607.91 | -2,751.43 | 2,289.68 | 2,263.16 | 26.52 | 86.349 | |
| 6,000.00 | 5,941.25 | 5,979.10 | 5,941.25 | 14.28 | 12.99 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,262.38 | 26.66 | 85.874 | |
| 6,100.00 | 6,041.25 | 6,079.10 | 6,041.25 | 14.32 | 13.07 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,262.27 | 26.77 | 85.511 | |
| 6,200.00 | 6,141.25 | 6,179.10 | 6,141.25 | 14.35 | 13.15 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,262.15 | 26.88 | 85.150 | |
| 6,300.00 | 6,241.25 | 6,279.10 | 6,241.25 | 14.39 | 13.24 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,262.04 | 27.00 | 84.791 | |
| 6,400.00 | 6,341.25 | 6,379.10 | 6,341.25 | 14.42 | 13.32 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.92 | 27.11 | 84.433 | |
| 6,500.00 | 6,441.25 | 6,479.10 | 6,441.25 | 14.46 | 13.40 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.81 | 27.23 | 84.077 | |
| 6,600.00 | 6,541.25 | 6,579.10 | 6,541.25 | 14.49 | 13.48 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.69 | 27.34 | 83.723 | |
| 6,700.00 | 6,641.25 | 6,679.10 | 6,641.25 | 14.53 | 13.56 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.58 | 27.46 | 83.371 | |
| 6,800.00 | 6,741.25 | 6,779.10 | 6,741.25 | 14.56 | 13.65 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.46 | 27.57 | 83.020 | |
| 6,900.00 | 6,841.25 | 6,879.10 | 6,841.25 | 14.60 | 13.73 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.35 | 27.69 | 82.672 | |
| 7,000.00 | 6,941.25 | 6,979.10 | 6,941.25 | 14.64 | 13.81 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.23 | 27.80 | 82.325 | |
| 7,100.00 | 7,041.25 | 7,079.10 | 7,041.25 | 14.68 | 13.89 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.11 | 27.92 | 81.979 | |
| 7,200.00 | 7,141.25 | 7,179.10 | 7,141.25 | 14.71 | 13.97 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,261.00 | 28.04 | 81.636 | |
| 7,300.00 | 7,241.25 | 7,279.10 | 7,241.25 | 14.75 | 14.06 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.88 | 28.16 | 81.294 | |
| 7,400.00 | 7,341.25 | 7,379.10 | 7,341.25 | 14.79 | 14.14 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.76 | 28.28 | 80.955 | |
| 7,500.00 | 7,441.25 | 7,479.10 | 7,441.25 | 14.83 | 14.22 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.64 | 28.39 | 80.617 | |
| 7,600.00 | 7,541.25 | 7,579.10 | 7,541.25 | 14.87 | 14.30 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.52 | 28.51 | 80.280 | |
| 7,700.00 | 7,641.25 | 7,679.10 | 7,641.25 | 14.91 | 14.38 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.40 | 28.63 | 79.946 | |
| 7,800.00 | 7,741.25 | 7,779.10 | 7,741.25 | 14.95 | 14.47 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.28 | 28.75 | 79.613 | |
| 7,900.00 | 7,841.25 | 7,879.10 | 7,841.25 | 14.99 | 14.55 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.16 | 28.87 | 79.282 | |
| 8,000.00 | 7,941.25 | 7,979.10 | 7,941.25 | 15.03 | 14.63 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,260.04 | 28.99 | 78.953 | |
| 8,100.00 | 8,041.25 | 8,079.10 | 8,041.25 | 15.07 | 14.71 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.92 | 29.11 | 78.625 | |
| 8,200.00 | 8,141.25 | 8,179.10 | 8,141.25 | 15.11 | 14.79 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.80 | 29.23 | 78.300 | |
| 8,300.00 | 8,241.25 | 8,279.10 | 8,241.25 | 15.15 | 14.88 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.68 | 29.36 | 77.976 | |
| 8,400.00 | 8,341.25 | 8,379.10 | 8,341.25 | 15.20 | 14.96 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.56 | 29.48 | 77.654 | |
| 8,500.00 | 8,441.25 | 8,479.10 | 8,441.25 | 15.24 | 15.04 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.44 | 29.60 | 77.333 | |
| 8,600.00 | 8,541.25 | 8,579.10 | 8,541.25 | 15.28 | 15.12 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.31 | 29.72 | 77.015 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8,700.00 | 8,641.25 | 8,679.10 | 8,641.25 | 15.32 | 15.20 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.19 | 29.84 | 76.698 | |
| 8,800.00 | 8,741.25 | 8,779.10 | 8,741.25 | 15.37 | 15.29 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,259.07 | 29.97 | 76.383 | |
| 8,900.00 | 8,841.25 | 8,879.10 | 8,841.25 | 15.41 | 15.37 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.94 | 30.09 | 76.070 | |
| 9,000.00 | 8,941.25 | 8,979.10 | 8,941.25 | 15.46 | 15.45 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.82 | 30.22 | 75.758 | |
| 9,100.00 | 9,041.25 | 9,079.10 | 9,041.25 | 15.50 | 15.53 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.70 | 30.34 | 75.448 | |
| 9,200.00 | 9,141.25 | 9,179.10 | 9,141.25 | 15.55 | 15.61 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.57 | 30.46 | 75.140 | |
| 9,300.00 | 9,241.25 | 9,279.10 | 9,241.25 | 15.59 | 15.70 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.45 | 30.59 | 74.834 | |
| 9,400.00 | 9,341.25 | 9,379.10 | 9,341.25 | 15.64 | 15.78 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.32 | 30.71 | 74.529 | |
| 9,500.00 | 9,441.25 | 9,479.10 | 9,441.25 | 15.68 | 15.86 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.20 | 30.84 | 74.226 | |
| 9,600.00 | 9,541.25 | 9,579.10 | 9,541.25 | 15.73 | 15.94 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,258.07 | 30.96 | 73.925 | |
| 9,700.00 | 9,641.25 | 9,679.10 | 9,641.25 | 15.78 | 16.03 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.94 | 31.09 | 73.625 | |
| 9,800.00 | 9,741.25 | 9,779.10 | 9,741.25 | 15.82 | 16.11 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.82 | 31.22 | 73.327 | |
| 9,900.00 | 9,841.25 | 9,879.10 | 9,841.25 | 15.87 | 16.19 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.69 | 31.34 | 73.031 | |
| 10,000.00 | 9,941.25 | 9,979.10 | 9,941.25 | 15.92 | 16.27 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.56 | 31.47 | 72.737 | |
| 10,100.00 | 10,041.25 | 10,079.10 | 10,041.25 | 15.96 | 16.35 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.44 | 31.60 | 72.444 | |
| 10,200.00 | 10,141.25 | 10,179.10 | 10,141.25 | 16.01 | 16.44 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.31 | 31.72 | 72.153 | |
| 10,300.00 | 10,241.25 | 10,279.10 | 10,241.25 | 16.06 | 16.52 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.18 | 31.85 | 71.863 | |
| 10,400.00 | 10,341.25 | 10,379.10 | 10,341.25 | 16.11 | 16.60 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,257.05 | 31.98 | 71.576 | |
| 10,500.00 | 10,441.25 | 10,479.10 | 10,441.25 | 16.16 | 16.68 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.93 | 32.11 | 71.290 | |
| 10,600.00 | 10,541.25 | 10,579.10 | 10,541.25 | 16.21 | 16.76 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.80 | 32.24 | 71.005 | |
| 10,700.00 | 10,641.25 | 10,679.10 | 10,641.25 | 16.26 | 16.85 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.67 | 32.37 | 70.722 | |
| 10,800.00 | 10,741.25 | 10,779.10 | 10,741.25 | 16.31 | 16.93 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.54 | 32.50 | 70.441 | |
| 10,900.00 | 10,841.25 | 10,879.10 | 10,841.25 | 16.36 | 17.01 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.41 | 32.63 | 70.162 | |
| 11,000.00 | 10,941.25 | 10,979.10 | 10,941.25 | 16.41 | 17.09 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.28 | 32.75 | 69.884 | |
| 11,100.00 | 11,041.25 | 11,079.10 | 11,041.25 | 16.46 | 17.18 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.15 | 32.88 | 69.608 | |
| 11,200.00 | 11,141.25 | 11,179.10 | 11,141.25 | 16.51 | 17.26 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,256.02 | 33.02 | 69.333 | |
| 11,300.00 | 11,241.25 | 11,279.10 | 11,241.25 | 16.56 | 17.34 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,255.89 | 33.15 | 69.060 | |
| 11,400.00 | 11,341.25 | 11,379.10 | 11,341.25 | 16.61 | 17.42 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,255.76 | 33.28 | 68.788 | |
| 11,500.00 | 11,441.25 | 11,479.10 | 11,441.25 | 16.66 | 17.50 | -90.40 | -607.91 | -2,751.43 | 2,289.03 | 2,255.63 | 33.41 | 68.519 | |
| 11,600.00 | 11,541.21 | 11,579.06 | 11,541.21 | 16.71 | 17.59 | 87.90 | -607.91 | -2,751.43 | 2,288.98 | 2,255.46 | 33.52 | 68.285 | |
| 11,700.00 | 11,639.79 | 11,677.64 | 11,639.79 | 16.90 | 17.67 | 88.35 | -607.91 | -2,751.43 | 2,288.44 | 2,254.72 | 33.72 | 67.863 | |
| 11,800.00 | 11,734.09 | 11,771.95 | 11,734.09 | 17.17 | 17.74 | 89.19 | -607.91 | -2,751.43 | 2,287.70 | 2,253.66 | 34.04 | 67.207 | |
| 11,875.25 | 11,800.49 | 11,838.34 | 11,800.49 | 17.44 | 17.79 | 90.00 | -607.91 | -2,751.43 | 2,287.43 | 2,253.06 | 34.36 | 66.564 | |
| 11,900.00 | 11,821.25 | 11,862.26 | 11,824.41 | 17.53 | 17.80 | 90.32 | -608.18 | -2,751.43 | 2,287.46 | 2,253.00 | 34.46 | 66.388 | |
| 12,000.00 | 11,898.62 | 11,971.83 | 11,932.93 | 18.00 | 17.84 | 91.72 | -621.96 | -2,751.31 | 2,287.99 | 2,253.11 | 34.89 | 65.583 | |
| 12,100.00 | 11,963.85 | 12,098.29 | 12,052.24 | 18.59 | 17.87 | 93.22 | -663.13 | -2,750.95 | 2,289.04 | 2,253.68 | 35.36 | 64.735 | |
| 12,200.00 | 12,014.95 | 12,247.55 | 12,177.31 | 19.33 | 17.90 | 94.78 | -743.81 | -2,750.26 | 2,290.16 | 2,254.29 | 35.87 | 63.848 | |
| 12,300.00 | 12,050.38 | 12,424.62 | 12,292.69 | 20.19 | 17.97 | 96.27 | -877.19 | -2,749.11 | 2,290.59 | 2,254.13 | 36.46 | 62.822 | |
| 12,400.00 | 12,069.05 | 12,627.93 | 12,367.92 | 21.14 | 18.13 | 97.40 | -1,064.91 | -2,747.50 | 2,289.29 | 2,252.04 | 37.25 | 61.452 | |
| 12,500.00 | 12,072.27 | 12,788.72 | 12,380.02 | 22.15 | 18.36 | 97.73 | -1,224.89 | -2,746.12 | 2,286.13 | 2,247.80 | 38.34 | 59.631 | |
| 12,595.03 | 12,072.93 | 12,883.74 | 12,380.51 | 23.13 | 18.56 | 97.74 | -1,319.90 | -2,745.30 | 2,284.99 | 2,245.44 | 39.55 | 57.769 | CC |
| 12,600.00 | 12,072.97 | 12,888.71 | 12,380.54 | 23.19 | 18.57 | 97.73 | -1,324.88 | -2,745.26 | 2,285.37 | 2,245.76 | 39.62 | 57.685 | |
| 12,700.00 | 12,073.66 | 12,988.71 | 12,381.06 | 24.26 | 18.84 | 97.73 | -1,424.87 | -2,744.40 | 2,285.40 | 2,244.36 | 41.04 | 55.688 | |
| 12,800.00 | 12,074.36 | 13,088.71 | 12,381.59 | 25.36 | 19.19 | 97.73 | -1,524.87 | -2,743.54 | 2,285.42 | 2,242.83 | 42.59 | 53.664 | |
| 12,900.00 | 12,075.06 | 13,188.71 | 12,382.11 | 26.49 | 19.62 | 97.72 | -1,624.86 | -2,742.67 | 2,285.44 | 2,241.19 | 44.25 | 51.648 | |
| 13,000.00 | 12,075.76 | 13,288.71 | 12,382.63 | 27.63 | 20.14 | 97.72 | -1,724.86 | -2,741.81 | 2,285.46 | 2,239.44 | 46.02 | 49.664 | |
| 13,100.00 | 12,076.46 | 13,388.71 | 12,383.16 | 28.80 | 20.74 | 97.71 | -1,824.85 | -2,740.95 | 2,285.48 | 2,237.60 | 47.88 | 47.734 | |
| 13,200.00 | 12,077.15 | 13,488.71 | 12,383.68 | 29.98 | 21.43 | 97.71 | -1,924.85 | -2,740.09 | 2,285.51 | 2,235.68 | 49.83 | 45.871 | |
| 13,300.00 | 12,077.85 | 13,588.71 | 12,384.20 | 31.18 | 22.20 | 97.70 | -2,024.84 | -2,739.23 | 2,285.53 | 2,233.68 | 51.84 | 44.084 | |
| 13,400.00 | 12,078.55 | 13,688.71 | 12,384.73 | 32.39 | 23.03 | 97.70 | -2,124.83 | -2,738.37 | 2,285.55 | 2,231.62 | 53.93 | 42.380 | |
| 13,500.00 | 12,079.25 | 13,788.71 | 12,385.25 | 33.61 | 23.91 | 97.69 | -2,224.83 | -2,737.51 | 2,285.57 | 2,229.50 | 56.07 | 40.760 | |
| 13,600.00 | 12,079.95 | 13,888.71 | 12,385.77 | 34.84 | 24.85 | 97.69 | -2,324.82 | -2,736.65 | 2,285.59 | 2,227.32 | 58.27 | 39.224 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13,700.00 | 12,080.65 | 13,988.71 | 12,386.30 | 36.08 | 25.83 | 97.69 | -2,424.82 | -2,735.79 | 2,285.62 | 2,225.10 | 60.51 | 37.771 | |
| 13,800.00 | 12,081.34 | 14,088.71 | 12,386.82 | 37.33 | 26.85 | 97.68 | -2,524.81 | -2,734.93 | 2,285.64 | 2,222.84 | 62.79 | 36.399 | |
| 13,900.00 | 12,082.04 | 14,188.71 | 12,387.34 | 38.59 | 27.90 | 97.68 | -2,624.81 | -2,734.06 | 2,285.66 | 2,220.55 | 65.11 | 35.103 | |
| 14,000.00 | 12,082.74 | 14,288.71 | 12,387.87 | 39.86 | 28.98 | 97.67 | -2,724.80 | -2,733.20 | 2,285.68 | 2,218.22 | 67.46 | 33.880 | |
| 14,100.00 | 12,083.44 | 14,388.71 | 12,388.39 | 41.13 | 30.08 | 97.67 | -2,824.80 | -2,732.34 | 2,285.70 | 2,215.86 | 69.84 | 32.726 | |
| 14,200.00 | 12,084.14 | 14,488.71 | 12,388.91 | 42.40 | 31.21 | 97.66 | -2,924.79 | -2,731.48 | 2,285.73 | 2,213.48 | 72.25 | 31.637 | |
| 14,300.00 | 12,084.84 | 14,588.71 | 12,389.44 | 43.69 | 32.36 | 97.66 | -3,024.79 | -2,730.62 | 2,285.75 | 2,211.07 | 74.68 | 30.609 | |
| 14,400.00 | 12,085.53 | 14,688.71 | 12,389.96 | 44.97 | 33.52 | 97.65 | -3,124.78 | -2,729.76 | 2,285.77 | 2,208.64 | 77.13 | 29.637 | |
| 14,500.00 | 12,086.23 | 14,788.71 | 12,390.48 | 46.27 | 34.70 | 97.65 | -3,224.78 | -2,728.90 | 2,285.79 | 2,206.20 | 79.59 | 28.718 | |
| 14,600.00 | 12,086.93 | 14,888.71 | 12,391.01 | 47.56 | 35.90 | 97.64 | -3,324.77 | -2,728.04 | 2,285.81 | 2,203.74 | 82.08 | 27.849 | |
| 14,700.00 | 12,087.63 | 14,988.71 | 12,391.53 | 48.86 | 37.10 | 97.64 | -3,424.77 | -2,727.18 | 2,285.84 | 2,201.26 | 84.58 | 27.026 | |
| 14,800.00 | 12,088.33 | 15,088.71 | 12,392.05 | 50.17 | 38.32 | 97.64 | -3,524.76 | -2,726.32 | 2,285.86 | 2,198.77 | 87.09 | 26.246 | |
| 14,900.00 | 12,089.02 | 15,188.71 | 12,392.57 | 51.47 | 39.55 | 97.63 | -3,624.76 | -2,725.46 | 2,285.88 | 2,196.26 | 89.62 | 25.506 | |
| 15,000.00 | 12,089.72 | 15,288.71 | 12,393.10 | 52.78 | 40.79 | 97.63 | -3,724.75 | -2,724.59 | 2,285.90 | 2,193.74 | 92.16 | 24.804 | |
| 15,100.00 | 12,090.42 | 15,388.71 | 12,393.62 | 54.10 | 42.03 | 97.62 | -3,824.75 | -2,723.73 | 2,285.93 | 2,191.22 | 94.71 | 24.137 | |
| 15,200.00 | 12,091.12 | 15,488.71 | 12,394.14 | 55.41 | 43.29 | 97.62 | -3,924.74 | -2,722.87 | 2,285.95 | 2,188.68 | 97.27 | 23.502 | |
| 15,300.00 | 12,091.82 | 15,588.71 | 12,394.67 | 56.73 | 44.55 | 97.61 | -4,024.74 | -2,722.01 | 2,285.97 | 2,186.14 | 99.83 | 22.897 | |
| 15,400.00 | 12,092.52 | 15,688.71 | 12,395.19 | 58.05 | 45.82 | 97.61 | -4,124.73 | -2,721.15 | 2,285.99 | 2,183.58 | 102.41 | 22.322 | |
| 15,500.00 | 12,093.21 | 15,788.71 | 12,395.71 | 59.37 | 47.09 | 97.60 | -4,224.72 | -2,720.29 | 2,286.01 | 2,181.02 | 104.99 | 21.773 | |
| 15,600.00 | 12,093.91 | 15,888.71 | 12,396.24 | 60.70 | 48.37 | 97.60 | -4,324.72 | -2,719.43 | 2,286.04 | 2,178.45 | 107.59 | 21.249 | |
| 15,700.00 | 12,094.61 | 15,988.71 | 12,396.76 | 62.03 | 49.65 | 97.60 | -4,424.71 | -2,718.57 | 2,286.06 | 2,175.88 | 110.18 | 20.748 | |
| 15,800.00 | 12,095.31 | 16,088.71 | 12,397.28 | 63.35 | 50.94 | 97.59 | -4,524.71 | -2,717.71 | 2,286.08 | 2,173.30 | 112.79 | 20.269 | |
| 15,900.00 | 12,096.01 | 16,188.70 | 12,397.81 | 64.68 | 52.23 | 97.59 | -4,624.70 | -2,716.85 | 2,286.10 | 2,170.71 | 115.40 | 19.811 | |
| 16,000.00 | 12,096.71 | 16,288.70 | 12,398.33 | 66.02 | 53.53 | 97.58 | -4,724.70 | -2,715.99 | 2,286.13 | 2,168.12 | 118.01 | 19.372 | |
| 16,100.00 | 12,097.40 | 16,388.70 | 12,398.85 | 67.35 | 54.83 | 97.58 | -4,824.69 | -2,715.12 | 2,286.15 | 2,165.52 | 120.63 | 18.952 | |
| 16,200.00 | 12,098.10 | 16,488.70 | 12,399.38 | 68.68 | 56.13 | 97.57 | -4,924.69 | -2,714.26 | 2,286.17 | 2,162.92 | 123.25 | 18.549 | |
| 16,300.00 | 12,098.80 | 16,588.70 | 12,399.90 | 70.02 | 57.44 | 97.57 | -5,024.68 | -2,713.40 | 2,286.19 | 2,160.31 | 125.88 | 18.162 | |
| 16,400.00 | 12,099.50 | 16,688.70 | 12,400.42 | 71.36 | 58.75 | 97.56 | -5,124.68 | -2,712.54 | 2,286.22 | 2,157.70 | 128.51 | 17.790 | |
| 16,500.00 | 12,100.20 | 16,788.70 | 12,400.95 | 72.69 | 60.06 | 97.56 | -5,224.67 | -2,711.68 | 2,286.24 | 2,155.09 | 131.15 | 17.433 | |
| 16,600.00 | 12,100.90 | 16,888.70 | 12,401.47 | 74.03 | 61.38 | 97.55 | -5,324.67 | -2,710.82 | 2,286.26 | 2,152.47 | 133.79 | 17.089 | |
| 16,700.00 | 12,101.59 | 16,988.70 | 12,401.99 | 75.37 | 62.69 | 97.55 | -5,424.66 | -2,709.96 | 2,286.28 | 2,149.85 | 136.43 | 16.758 | |
| 16,800.00 | 12,102.29 | 17,088.70 | 12,402.52 | 76.72 | 64.01 | 97.55 | -5,524.66 | -2,709.10 | 2,286.31 | 2,147.23 | 139.08 | 16.439 | |
| 16,900.00 | 12,102.99 | 17,188.70 | 12,403.04 | 78.06 | 65.34 | 97.54 | -5,624.65 | -2,708.24 | 2,286.33 | 2,144.60 | 141.72 | 16.132 | |
| 17,000.00 | 12,103.69 | 17,288.70 | 12,403.56 | 79.40 | 66.66 | 97.54 | -5,724.65 | -2,707.38 | 2,286.35 | 2,141.98 | 144.38 | 15.836 | |
| 17,100.00 | 12,104.39 | 17,388.70 | 12,404.09 | 80.75 | 67.98 | 97.53 | -5,824.64 | -2,706.51 | 2,286.37 | 2,139.34 | 147.03 | 15.550 | |
| 17,200.00 | 12,105.08 | 17,488.70 | 12,404.61 | 82.09 | 69.31 | 97.53 | -5,924.64 | -2,705.65 | 2,286.40 | 2,136.71 | 149.69 | 15.275 | |
| 17,300.00 | 12,105.78 | 17,588.70 | 12,405.13 | 83.44 | 70.64 | 97.52 | -6,024.63 | -2,704.79 | 2,286.42 | 2,134.07 | 152.34 | 15.008 | |
| 17,400.00 | 12,106.48 | 17,688.70 | 12,405.66 | 84.78 | 71.97 | 97.52 | -6,124.63 | -2,703.93 | 2,286.44 | 2,131.44 | 155.01 | 14.751 | |
| 17,500.00 | 12,107.18 | 17,788.70 | 12,406.18 | 86.13 | 73.30 | 97.51 | -6,224.62 | -2,703.07 | 2,286.46 | 2,128.79 | 157.67 | 14.502 | |
| 17,600.00 | 12,107.88 | 17,888.70 | 12,406.70 | 87.48 | 74.64 | 97.51 | -6,324.61 | -2,702.21 | 2,286.49 | 2,126.15 | 160.33 | 14.261 | |
| 17,700.00 | 12,108.58 | 17,988.70 | 12,407.23 | 88.83 | 75.97 | 97.51 | -6,424.61 | -2,701.35 | 2,286.51 | 2,123.51 | 163.00 | 14.028 | |
| 17,800.00 | 12,109.27 | 18,088.70 | 12,407.75 | 90.18 | 77.31 | 97.50 | -6,524.60 | -2,700.49 | 2,286.53 | 2,120.86 | 165.67 | 13.802 | |
| 17,900.00 | 12,109.97 | 18,188.70 | 12,408.27 | 91.52 | 78.64 | 97.50 | -6,624.60 | -2,699.63 | 2,286.55 | 2,118.21 | 168.34 | 13.583 | |
| 18,000.00 | 12,110.67 | 18,288.70 | 12,408.80 | 92.88 | 79.98 | 97.49 | -6,724.59 | -2,698.77 | 2,286.58 | 2,115.56 | 171.01 | 13.371 | |
| 18,100.00 | 12,111.37 | 18,388.70 | 12,409.32 | 94.23 | 81.32 | 97.49 | -6,824.59 | -2,697.91 | 2,286.60 | 2,112.91 | 173.69 | 13.165 | |
| 18,200.00 | 12,112.07 | 18,488.70 | 12,409.84 | 95.58 | 82.66 | 97.48 | -6,924.58 | -2,697.04 | 2,286.62 | 2,110.26 | 176.36 | 12.965 | |
| 18,300.00 | 12,112.77 | 18,588.70 | 12,410.37 | 96.93 | 84.00 | 97.48 | -7,024.58 | -2,696.18 | 2,286.65 | 2,107.61 | 179.04 | 12.772 | |
| 18,400.00 | 12,113.46 | 18,688.70 | 12,410.89 | 98.28 | 85.34 | 97.47 | -7,124.57 | -2,695.32 | 2,286.67 | 2,104.95 | 181.72 | 12.584 | |
| 18,500.00 | 12,114.16 | 18,788.70 | 12,411.41 | 99.63 | 86.69 | 97.47 | -7,224.57 | -2,694.46 | 2,286.69 | 2,102.29 | 184.40 | 12.401 | |
| 18,600.00 | 12,114.86 | 18,888.70 | 12,411.94 | 100.99 | 88.03 | 97.46 | -7,324.56 | -2,693.60 | 2,286.71 | 2,099.64 | 187.08 | 12.223 | |
| 18,700.00 | 12,115.56 | 18,988.70 | 12,412.46 | 102.34 | 89.37 | 97.46 | -7,424.56 | -2,692.74 | 2,286.74 | 2,096.98 | 189.76 | 12.051 | |
| 18,800.00 | 12,116.26 | 19,088.70 | 12,412.98 | 103.70 | 90.72 | 97.46 | -7,524.55 | -2,691.88 | 2,286.76 | 2,094.32 | 192.44 | 11.883 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18,900.00 | 12,116.95 | 19,188.70 | 12,413.51 | 105.05 | 92.06 | 97.45 | -7,624.55 | -2,691.02 | 2,286.78 | 2,091.65 | 195.13 | 11.719 | |
| 19,000.00 | 12,117.65 | 19,288.70 | 12,414.03 | 106.41 | 93.41 | 97.45 | -7,724.54 | -2,690.16 | 2,286.80 | 2,088.99 | 197.81 | 11.560 | |
| 19,100.00 | 12,118.35 | 19,388.70 | 12,414.55 | 107.76 | 94.76 | 97.44 | -7,824.54 | -2,689.30 | 2,286.83 | 2,086.33 | 200.50 | 11.406 | |
| 19,200.00 | 12,119.05 | 19,488.70 | 12,415.08 | 109.12 | 96.11 | 97.44 | -7,924.53 | -2,688.44 | 2,286.85 | 2,083.66 | 203.19 | 11.255 | |
| 19,300.00 | 12,119.75 | 19,588.70 | 12,415.60 | 110.47 | 97.46 | 97.43 | -8,024.53 | -2,687.57 | 2,286.87 | 2,081.00 | 205.88 | 11.108 | |
| 19,400.00 | 12,120.45 | 19,688.70 | 12,416.12 | 111.83 | 98.80 | 97.43 | -8,124.52 | -2,686.71 | 2,286.90 | 2,078.33 | 208.56 | 10.965 | |
| 19,500.00 | 12,121.14 | 19,788.70 | 12,416.65 | 113.19 | 100.15 | 97.42 | -8,224.52 | -2,685.85 | 2,286.92 | 2,075.66 | 211.25 | 10.825 | |
| 19,600.00 | 12,121.84 | 19,888.70 | 12,417.17 | 114.54 | 101.50 | 97.42 | -8,324.51 | -2,684.99 | 2,286.94 | 2,073.00 | 213.95 | 10.689 | |
| 19,700.00 | 12,122.54 | 19,988.70 | 12,417.69 | 115.90 | 102.85 | 97.42 | -8,424.50 | -2,684.13 | 2,286.96 | 2,070.33 | 216.64 | 10.557 | |
| 19,800.00 | 12,123.24 | 20,088.70 | 12,418.22 | 117.26 | 104.21 | 97.41 | -8,524.50 | -2,683.27 | 2,286.99 | 2,067.66 | 219.33 | 10.427 | |
| 19,900.00 | 12,123.94 | 20,188.70 | 12,418.74 | 118.61 | 105.56 | 97.41 | -8,624.49 | -2,682.41 | 2,287.01 | 2,064.99 | 222.02 | 10.301 | |
| 20,000.00 | 12,124.64 | 20,288.70 | 12,419.26 | 119.97 | 106.91 | 97.40 | -8,724.49 | -2,681.55 | 2,287.03 | 2,062.32 | 224.72 | 10.177 | |
| 20,100.00 | 12,125.33 | 20,388.70 | 12,419.78 | 121.33 | 108.26 | 97.40 | -8,824.48 | -2,680.69 | 2,287.06 | 2,059.64 | 227.41 | 10.057 | |
| 20,200.00 | 12,126.03 | 20,488.70 | 12,420.31 | 122.69 | 109.62 | 97.39 | -8,924.48 | -2,679.83 | 2,287.08 | 2,056.97 | 230.11 | 9.939 | |
| 20,300.00 | 12,126.73 | 20,588.70 | 12,420.83 | 124.05 | 110.97 | 97.39 | -9,024.47 | -2,678.96 | 2,287.10 | 2,054.30 | 232.80 | 9.824 | |
| 20,400.00 | 12,127.43 | 20,688.70 | 12,421.35 | 125.41 | 112.32 | 97.38 | -9,124.47 | -2,678.10 | 2,287.13 | 2,051.63 | 235.50 | 9.712 | |
| 20,500.00 | 12,128.13 | 20,788.70 | 12,421.88 | 126.77 | 113.68 | 97.38 | -9,224.46 | -2,677.24 | 2,287.15 | 2,048.95 | 238.20 | 9.602 | |
| 20,600.00 | 12,128.83 | 20,888.70 | 12,422.40 | 128.13 | 115.03 | 97.37 | -9,324.46 | -2,676.38 | 2,287.17 | 2,046.28 | 240.90 | 9.494 | |
| 20,700.00 | 12,129.52 | 20,988.70 | 12,422.92 | 129.49 | 116.39 | 97.37 | -9,424.45 | -2,675.52 | 2,287.19 | 2,043.60 | 243.59 | 9.389 | |
| 20,800.00 | 12,130.22 | 21,088.70 | 12,423.45 | 130.85 | 117.74 | 97.37 | -9,524.45 | -2,674.66 | 2,287.22 | 2,040.92 | 246.29 | 9.287 | |
| 20,900.00 | 12,130.92 | 21,188.70 | 12,423.97 | 132.21 | 119.10 | 97.36 | -9,624.44 | -2,673.80 | 2,287.24 | 2,038.25 | 248.99 | 9.186 | |
| 21,000.00 | 12,131.62 | 21,288.70 | 12,424.49 | 133.57 | 120.45 | 97.36 | -9,724.44 | -2,672.94 | 2,287.26 | 2,035.57 | 251.69 | 9.088 | |
| 21,100.00 | 12,132.32 | 21,388.70 | 12,425.02 | 134.93 | 121.81 | 97.35 | -9,824.43 | -2,672.08 | 2,287.29 | 2,032.89 | 254.39 | 8.991 | |
| 21,200.00 | 12,133.01 | 21,488.70 | 12,425.54 | 136.29 | 123.17 | 97.35 | -9,924.43 | -2,671.22 | 2,287.31 | 2,030.21 | 257.10 | 8.897 | |
| 21,300.00 | 12,133.71 | 21,588.70 | 12,426.06 | 137.65 | 124.52 | 97.34 | -10,024.42 | -2,670.36 | 2,287.33 | 2,027.54 | 259.80 | 8.804 | |
| 21,400.00 | 12,134.41 | 21,688.70 | 12,426.59 | 139.01 | 125.88 | 97.34 | -10,124.42 | -2,669.49 | 2,287.36 | 2,024.86 | 262.50 | 8.714 | |
| 21,500.00 | 12,135.11 | 21,788.70 | 12,427.11 | 140.37 | 127.24 | 97.33 | -10,224.41 | -2,668.63 | 2,287.38 | 2,022.18 | 265.20 | 8.625 | |
| 21,600.00 | 12,135.81 | 21,888.70 | 12,427.63 | 141.73 | 128.60 | 97.33 | -10,324.41 | -2,667.77 | 2,287.40 | 2,019.50 | 267.90 | 8.538 | |
| 21,700.00 | 12,136.51 | 21,988.70 | 12,428.16 | 143.09 | 129.95 | 97.33 | -10,424.40 | -2,666.91 | 2,287.43 | 2,016.82 | 270.61 | 8.453 | |
| 21,800.00 | 12,137.20 | 22,088.70 | 12,428.68 | 144.46 | 131.31 | 97.32 | -10,524.39 | -2,666.05 | 2,287.45 | 2,014.14 | 273.31 | 8.369 | |
| 21,900.00 | 12,137.90 | 22,188.70 | 12,429.20 | 145.82 | 132.67 | 97.32 | -10,624.39 | -2,665.19 | 2,287.47 | 2,011.46 | 276.02 | 8.287 | |
| 22,000.00 | 12,138.60 | 22,288.70 | 12,429.73 | 147.18 | 134.03 | 97.31 | -10,724.38 | -2,664.33 | 2,287.50 | 2,008.77 | 278.72 | 8.207 | |
| 22,100.00 | 12,139.30 | 22,388.69 | 12,430.25 | 148.54 | 135.39 | 97.31 | -10,824.38 | -2,663.47 | 2,287.52 | 2,006.09 | 281.43 | 8.128 | |
| 22,200.00 | 12,140.00 | 22,488.69 | 12,430.77 | 149.90 | 136.75 | 97.30 | -10,924.37 | -2,662.61 | 2,287.54 | 2,003.41 | 284.13 | 8.051 | |
| 22,300.00 | 12,140.70 | 22,588.69 | 12,431.30 | 151.27 | 138.11 | 97.30 | -11,024.37 | -2,661.75 | 2,287.57 | 2,000.73 | 286.84 | 7.975 | |
| 22,387.52 | 12,141.31 | 22,675.33 | 12,431.75 | 152.46 | 139.28 | 97.29 | -11,111.00 | -2,661.00 | 2,287.59 | 1,998.39 | 289.20 | 7.910 | ES, SF |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.00 | 0.50 | 0.50 | 0.00 | 25.00 | 0.00 | 25.00 | | | | |
| 100.00 | 100.00 | 101.00 | 100.00 | 0.98 | 0.99 | 0.00 | 25.00 | 0.00 | 25.00 | 23.03 | 1.97 | 12.706 | |
| 200.00 | 200.00 | 201.00 | 200.00 | 1.56 | 1.57 | 0.00 | 25.00 | 0.00 | 25.00 | 21.87 | 3.13 | 7.996 | |
| 300.00 | 300.00 | 301.00 | 300.00 | 1.98 | 1.98 | 0.00 | 25.00 | 0.00 | 25.00 | 21.03 | 3.97 | 6.304 | |
| 400.00 | 400.00 | 401.00 | 400.00 | 2.33 | 2.33 | 0.00 | 25.00 | 0.00 | 25.00 | 20.34 | 4.66 | 5.363 | |
| 500.00 | 500.00 | 501.00 | 500.00 | 2.63 | 2.64 | 0.00 | 25.00 | 0.00 | 25.00 | 19.73 | 5.27 | 4.742 | |
| 600.00 | 600.00 | 601.00 | 600.00 | 2.91 | 2.91 | 0.00 | 25.00 | 0.00 | 25.00 | 19.18 | 5.82 | 4.294 | |
| 700.00 | 700.00 | 701.01 | 700.01 | 3.16 | 3.17 | 0.00 | 25.00 | 0.00 | 25.00 | 18.67 | 6.33 | 3.949 | |
| 800.00 | 799.99 | 801.66 | 800.65 | 3.45 | 3.45 | 147.27 | 23.65 | -0.10 | 24.75 | 17.87 | 6.88 | 3.598 | |
| 900.00 | 899.91 | 902.27 | 901.17 | 3.70 | 3.70 | 151.87 | 19.66 | -0.40 | 24.16 | 16.78 | 7.37 | 3.276 | |
| 923.27 | 923.14 | 925.53 | 924.40 | 3.76 | 3.75 | 153.41 | 18.45 | -0.49 | 24.09 | 16.61 | 7.48 | 3.222 | CC, ES |
| 1,000.00 | 999.69 | 1,002.21 | 1,000.98 | 3.95 | 3.90 | 159.35 | 14.45 | -0.80 | 24.91 | 17.09 | 7.81 | 3.188 | |
| 1,100.00 | 1,099.32 | 1,102.09 | 1,100.73 | 4.05 | 4.08 | 167.27 | 9.23 | -1.19 | 28.04 | 19.93 | 8.10 | 3.460 | |
| 1,200.00 | 1,198.94 | 1,201.97 | 1,200.47 | 4.24 | 4.27 | 173.53 | 4.02 | -1.58 | 31.73 | 23.26 | 8.48 | 3.744 | |
| 1,300.00 | 1,298.53 | 1,302.30 | 1,300.64 | 4.33 | 4.36 | 177.64 | -1.55 | -2.07 | 35.70 | 27.05 | 8.65 | 4.127 | |
| 1,400.00 | 1,397.89 | 1,403.07 | 1,401.09 | 4.57 | 4.59 | -178.19 | -9.40 | -3.18 | 40.02 | 30.94 | 9.09 | 4.405 | |
| 1,500.00 | 1,496.93 | 1,503.49 | 1,500.98 | 4.81 | 4.71 | -173.22 | -19.61 | -4.95 | 45.09 | 35.68 | 9.41 | 4.793 | |
| 1,600.00 | 1,595.62 | 1,603.14 | 1,600.04 | 4.92 | 4.90 | -168.87 | -30.29 | -6.85 | 52.38 | 42.70 | 9.68 | 5.409 | |
| 1,700.00 | 1,694.25 | 1,702.77 | 1,699.07 | 5.12 | 5.09 | -165.36 | -40.96 | -8.75 | 60.30 | 50.25 | 10.05 | 6.001 | |
| 1,800.00 | 1,792.87 | 1,802.40 | 1,798.11 | 5.31 | 5.27 | -162.67 | -51.63 | -10.65 | 68.39 | 57.98 | 10.42 | 6.566 | |
| 1,900.00 | 1,891.50 | 1,902.02 | 1,897.14 | 5.51 | 5.46 | -160.55 | -62.30 | -12.55 | 76.60 | 65.82 | 10.79 | 7.101 | |
| 2,000.00 | 1,990.13 | 2,001.65 | 1,996.18 | 5.71 | 5.65 | -158.84 | -72.97 | -14.45 | 84.90 | 73.74 | 11.16 | 7.606 | |
| 2,100.00 | 2,088.76 | 2,101.28 | 2,095.21 | 5.90 | 5.83 | -157.44 | -83.64 | -16.35 | 93.25 | 81.71 | 11.54 | 8.082 | |
| 2,200.00 | 2,187.39 | 2,200.90 | 2,194.25 | 6.10 | 6.02 | -156.27 | -94.31 | -18.25 | 101.65 | 89.74 | 11.92 | 8.530 | |
| 2,300.00 | 2,286.02 | 2,300.53 | 2,293.29 | 6.30 | 6.20 | -155.28 | -104.98 | -20.15 | 110.09 | 97.79 | 12.30 | 8.952 | |
| 2,400.00 | 2,384.65 | 2,400.16 | 2,392.32 | 6.50 | 6.39 | -154.43 | -115.65 | -22.05 | 118.56 | 105.88 | 12.68 | 9.350 | |
| 2,500.00 | 2,483.28 | 2,499.78 | 2,491.36 | 6.69 | 6.57 | -153.70 | -126.32 | -23.95 | 127.04 | 113.98 | 13.06 | 9.725 | |
| 2,600.00 | 2,581.91 | 2,599.41 | 2,590.39 | 6.89 | 6.76 | -153.05 | -136.99 | -25.85 | 135.55 | 122.10 | 13.45 | 10.080 | |
| 2,700.00 | 2,680.54 | 2,699.04 | 2,689.43 | 7.10 | 6.95 | -152.48 | -147.66 | -27.75 | 144.07 | 130.24 | 13.83 | 10.415 | |
| 2,800.00 | 2,779.17 | 2,798.66 | 2,788.46 | 7.33 | 7.13 | -151.98 | -158.33 | -29.65 | 152.60 | 138.38 | 14.22 | 10.733 | |
| 2,900.00 | 2,877.80 | 2,898.29 | 2,887.50 | 7.56 | 7.32 | -151.53 | -169.00 | -31.56 | 161.15 | 146.54 | 14.61 | 11.033 | |
| 3,000.00 | 2,976.43 | 2,997.92 | 2,986.53 | 7.79 | 7.50 | -151.12 | -179.67 | -33.46 | 169.70 | 154.71 | 14.99 | 11.319 | |
| 3,100.00 | 3,075.06 | 3,097.55 | 3,085.57 | 8.02 | 7.69 | -150.76 | -190.34 | -35.36 | 178.26 | 162.88 | 15.38 | 11.589 | |
| 3,200.00 | 3,173.69 | 3,197.17 | 3,184.61 | 8.25 | 7.87 | -150.42 | -201.00 | -37.26 | 186.83 | 171.06 | 15.77 | 11.847 | |
| 3,300.00 | 3,272.32 | 3,296.80 | 3,283.64 | 8.48 | 8.06 | -150.12 | -211.67 | -39.16 | 195.40 | 179.24 | 16.16 | 12.092 | |
| 3,400.00 | 3,370.94 | 3,396.43 | 3,382.68 | 8.72 | 8.24 | -149.84 | -222.34 | -41.06 | 203.98 | 187.43 | 16.55 | 12.326 | |
| 3,500.00 | 3,469.57 | 3,496.05 | 3,481.71 | 8.95 | 8.42 | -149.58 | -233.01 | -42.96 | 212.56 | 195.62 | 16.94 | 12.549 | |
| 3,600.00 | 3,568.20 | 3,595.68 | 3,580.75 | 9.19 | 8.61 | -149.35 | -243.68 | -44.86 | 221.15 | 203.82 | 17.33 | 12.762 | |
| 3,700.00 | 3,666.83 | 3,695.31 | 3,679.78 | 9.42 | 8.79 | -149.13 | -254.35 | -46.76 | 229.73 | 212.02 | 17.72 | 12.966 | |
| 3,800.00 | 3,765.46 | 3,794.93 | 3,778.82 | 9.66 | 8.98 | -148.93 | -265.02 | -48.66 | 238.33 | 220.22 | 18.11 | 13.160 | |
| 3,900.00 | 3,864.09 | 3,894.56 | 3,877.85 | 9.89 | 9.16 | -148.74 | -275.69 | -50.56 | 246.92 | 228.42 | 18.50 | 13.347 | |
| 4,000.00 | 3,962.72 | 3,994.19 | 3,976.89 | 10.13 | 9.35 | -148.56 | -286.36 | -52.46 | 255.52 | 236.63 | 18.89 | 13.525 | |
| 4,100.00 | 4,061.35 | 4,093.81 | 4,075.92 | 10.36 | 9.53 | -148.40 | -297.03 | -54.36 | 264.12 | 244.84 | 19.28 | 13.697 | |
| 4,200.00 | 4,159.98 | 4,193.44 | 4,174.96 | 10.60 | 9.72 | -148.24 | -307.70 | -56.26 | 272.72 | 253.05 | 19.68 | 13.861 | |
| 4,300.00 | 4,258.61 | 4,293.07 | 4,274.00 | 10.83 | 9.90 | -148.10 | -318.37 | -58.16 | 281.33 | 261.26 | 20.07 | 14.019 | |
| 4,400.00 | 4,357.24 | 4,392.69 | 4,373.03 | 11.07 | 10.08 | -147.96 | -329.04 | -60.06 | 289.93 | 269.47 | 20.46 | 14.171 | |
| 4,500.00 | 4,455.87 | 4,492.32 | 4,472.07 | 11.31 | 10.27 | -147.84 | -339.71 | -61.96 | 298.54 | 277.69 | 20.85 | 14.317 | |
| 4,600.00 | 4,554.50 | 4,591.95 | 4,571.10 | 11.54 | 10.45 | -147.72 | -350.38 | -63.86 | 307.15 | 285.90 | 21.24 | 14.458 | |
| 4,700.00 | 4,653.13 | 4,691.57 | 4,670.14 | 11.78 | 10.64 | -147.60 | -361.05 | -65.76 | 315.76 | 294.12 | 21.64 | 14.593 | |
| 4,800.00 | 4,751.76 | 4,791.20 | 4,769.17 | 12.02 | 10.82 | -147.49 | -371.72 | -67.66 | 324.37 | 302.34 | 22.03 | 14.724 | |
| 4,900.00 | 4,850.39 | 4,890.83 | 4,868.21 | 12.26 | 11.01 | -147.39 | -382.39 | -69.56 | 332.98 | 310.56 | 22.42 | 14.850 | |
| 5,000.00 | 4,949.01 | 4,990.45 | 4,967.24 | 12.49 | 11.19 | -147.29 | -393.06 | -71.46 | 341.59 | 318.78 | 22.82 | 14.972 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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) | Rule Assigned: Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,100.00 | 5,047.64 | 5,090.08 | 5,066.28 | 12.73 | 11.38 | -147.20 | -403.73 | -73.36 | 350.21 | 327.00 | 23.21 | 15.089 | |
| 5,200.00 | 5,146.27 | 5,189.71 | 5,165.32 | 12.97 | 11.56 | -147.11 | -414.40 | -75.26 | 358.82 | 335.22 | 23.60 | 15.203 | |
| 5,300.00 | 5,244.90 | 5,289.33 | 5,264.35 | 13.21 | 11.74 | -147.03 | -425.07 | -77.16 | 367.44 | 343.44 | 24.00 | 15.313 | |
| 5,400.00 | 5,343.57 | 5,388.98 | 5,363.40 | 13.41 | 11.93 | -146.95 | -435.74 | -79.06 | 375.84 | 351.48 | 24.36 | 15.431 | |
| 5,500.00 | 5,442.58 | 5,488.74 | 5,462.58 | 13.63 | 12.11 | -146.73 | -446.43 | -80.97 | 382.39 | 357.64 | 24.75 | 15.450 | |
| 5,600.00 | 5,541.92 | 5,588.59 | 5,561.83 | 13.82 | 12.30 | -146.28 | -457.12 | -82.87 | 386.78 | 361.65 | 25.13 | 15.390 | |
| 5,700.00 | 5,641.52 | 5,688.45 | 5,661.10 | 13.98 | 12.48 | -145.61 | -467.82 | -84.78 | 389.04 | 363.54 | 25.50 | 15.257 | |
| 5,800.00 | 5,741.32 | 5,788.26 | 5,760.32 | 14.12 | 12.67 | -144.71 | -478.51 | -86.68 | 389.21 | 363.35 | 25.85 | 15.056 | |
| 5,900.00 | 5,841.25 | 5,887.95 | 5,859.41 | 14.23 | 12.85 | -143.57 | -489.18 | -88.58 | 387.36 | 361.18 | 26.18 | 14.794 | |
| 6,000.00 | 5,941.25 | 5,987.45 | 5,958.32 | 14.28 | 13.04 | 76.07 | -499.84 | -90.48 | 383.61 | 357.19 | 26.43 | 14.516 | |
| 6,100.00 | 6,041.25 | 6,086.85 | 6,057.14 | 14.32 | 13.22 | 77.57 | -510.49 | -92.38 | 379.29 | 352.65 | 26.64 | 14.238 | |
| 6,200.00 | 6,141.25 | 6,186.26 | 6,155.95 | 14.35 | 13.40 | 79.09 | -521.13 | -94.27 | 375.24 | 348.39 | 26.85 | 13.974 | |
| 6,300.00 | 6,241.25 | 6,285.67 | 6,254.77 | 14.39 | 13.59 | 80.65 | -531.78 | -96.17 | 371.46 | 344.39 | 27.07 | 13.724 | |
| 6,400.00 | 6,341.25 | 6,385.07 | 6,353.59 | 14.42 | 13.77 | 82.24 | -542.42 | -98.06 | 367.96 | 340.68 | 27.28 | 13.488 | |
| 6,500.00 | 6,441.25 | 6,484.48 | 6,452.40 | 14.46 | 13.96 | 83.86 | -553.07 | -99.96 | 364.75 | 337.26 | 27.50 | 13.266 | |
| 6,600.00 | 6,541.25 | 6,583.88 | 6,551.22 | 14.49 | 14.14 | 85.50 | -563.72 | -101.86 | 361.84 | 334.13 | 27.71 | 13.058 | |
| 6,700.00 | 6,641.25 | 6,681.90 | 6,648.71 | 14.53 | 14.31 | 87.06 | -573.66 | -103.63 | 359.37 | 331.47 | 27.90 | 12.880 | |
| 6,800.00 | 6,741.25 | 6,779.61 | 6,746.11 | 14.56 | 14.49 | 88.27 | -581.26 | -104.98 | 357.67 | 329.58 | 28.09 | 12.735 | |
| 6,900.00 | 6,841.25 | 6,877.65 | 6,844.01 | 14.60 | 14.66 | 89.09 | -586.41 | -105.90 | 356.61 | 328.36 | 28.25 | 12.623 | |
| 7,000.00 | 6,941.25 | 6,975.90 | 6,942.22 | 14.64 | 14.82 | 89.52 | -589.09 | -106.38 | 356.09 | 327.70 | 28.39 | 12.542 | |
| 7,078.57 | 7,019.81 | 7,053.50 | 7,019.81 | 14.67 | 14.87 | 89.59 | -589.51 | -106.45 | 356.01 | 327.56 | 28.45 | 12.514 | |
| 7,100.00 | 7,041.25 | 7,074.93 | 7,041.25 | 14.68 | 14.87 | 89.59 | -589.51 | -106.45 | 356.01 | 327.55 | 28.46 | 12.510 | |
| 7,200.00 | 7,141.25 | 7,174.93 | 7,141.25 | 14.71 | 14.89 | 89.59 | -589.51 | -106.45 | 356.01 | 327.50 | 28.51 | 12.487 | |
| 7,300.00 | 7,241.25 | 7,274.93 | 7,241.25 | 14.75 | 14.92 | 89.59 | -589.51 | -106.45 | 356.01 | 327.44 | 28.57 | 12.461 | |
| 7,400.00 | 7,341.25 | 7,374.93 | 7,341.25 | 14.79 | 14.95 | 89.59 | -589.51 | -106.45 | 356.01 | 327.38 | 28.63 | 12.435 | |
| 7,500.00 | 7,441.25 | 7,474.93 | 7,441.25 | 14.83 | 14.97 | 89.59 | -589.51 | -106.45 | 356.01 | 327.32 | 28.69 | 12.408 | |
| 7,600.00 | 7,541.25 | 7,574.93 | 7,541.25 | 14.87 | 15.00 | 89.59 | -589.51 | -106.45 | 356.01 | 327.26 | 28.75 | 12.382 | |
| 7,700.00 | 7,641.25 | 7,674.93 | 7,641.25 | 14.91 | 15.03 | 89.59 | -589.51 | -106.45 | 356.01 | 327.19 | 28.82 | 12.355 | |
| 7,800.00 | 7,741.25 | 7,774.93 | 7,741.25 | 14.95 | 15.06 | 89.59 | -589.51 | -106.45 | 356.01 | 327.13 | 28.88 | 12.328 | |
| 7,900.00 | 7,841.25 | 7,874.93 | 7,841.25 | 14.99 | 15.08 | 89.59 | -589.51 | -106.45 | 356.01 | 327.07 | 28.94 | 12.301 | |
| 8,000.00 | 7,941.25 | 7,974.93 | 7,941.25 | 15.03 | 15.11 | 89.59 | -589.51 | -106.45 | 356.01 | 327.00 | 29.01 | 12.273 | |
| 8,100.00 | 8,041.25 | 8,074.93 | 8,041.25 | 15.07 | 15.14 | 89.59 | -589.51 | -106.45 | 356.01 | 326.94 | 29.07 | 12.245 | |
| 8,200.00 | 8,141.25 | 8,174.93 | 8,141.25 | 15.11 | 15.17 | 89.59 | -589.51 | -106.45 | 356.01 | 326.87 | 29.14 | 12.217 | |
| 8,300.00 | 8,241.25 | 8,274.93 | 8,241.25 | 15.15 | 15.20 | 89.59 | -589.51 | -106.45 | 356.01 | 326.80 | 29.21 | 12.189 | |
| 8,400.00 | 8,341.25 | 8,374.93 | 8,341.25 | 15.20 | 15.23 | 89.59 | -589.51 | -106.45 | 356.01 | 326.73 | 29.27 | 12.161 | |
| 8,500.00 | 8,441.25 | 8,474.93 | 8,441.25 | 15.24 | 15.26 | 89.59 | -589.51 | -106.45 | 356.01 | 326.67 | 29.34 | 12.133 | |
| 8,600.00 | 8,541.25 | 8,574.93 | 8,541.25 | 15.28 | 15.29 | 89.59 | -589.51 | -106.45 | 356.01 | 326.60 | 29.41 | 12.104 | |
| 8,700.00 | 8,641.25 | 8,674.93 | 8,641.25 | 15.32 | 15.32 | 89.59 | -589.51 | -106.45 | 356.01 | 326.53 | 29.48 | 12.075 | |
| 8,800.00 | 8,741.25 | 8,774.93 | 8,741.25 | 15.37 | 15.35 | 89.59 | -589.51 | -106.45 | 356.01 | 326.46 | 29.55 | 12.046 | |
| 8,900.00 | 8,841.25 | 8,874.93 | 8,841.25 | 15.41 | 15.39 | 89.59 | -589.51 | -106.45 | 356.01 | 326.38 | 29.62 | 12.017 | |
| 9,000.00 | 8,941.25 | 8,974.93 | 8,941.25 | 15.46 | 15.42 | 89.59 | -589.51 | -106.45 | 356.01 | 326.31 | 29.70 | 11.988 | |
| 9,100.00 | 9,041.25 | 9,074.93 | 9,041.25 | 15.50 | 15.45 | 89.59 | -589.51 | -106.45 | 356.01 | 326.24 | 29.77 | 11.959 | |
| 9,200.00 | 9,141.25 | 9,174.93 | 9,141.25 | 15.55 | 15.48 | 89.59 | -589.51 | -106.45 | 356.01 | 326.17 | 29.84 | 11.929 | |
| 9,300.00 | 9,241.25 | 9,274.93 | 9,241.25 | 15.59 | 15.52 | 89.59 | -589.51 | -106.45 | 356.01 | 326.09 | 29.92 | 11.899 | |
| 9,400.00 | 9,341.25 | 9,374.93 | 9,341.25 | 15.64 | 15.55 | 89.59 | -589.51 | -106.45 | 356.01 | 326.02 | 29.99 | 11.870 | |
| 9,500.00 | 9,441.25 | 9,474.93 | 9,441.25 | 15.68 | 15.59 | 89.59 | -589.51 | -106.45 | 356.01 | 325.94 | 30.07 | 11.840 | |
| 9,600.00 | 9,541.25 | 9,574.93 | 9,541.25 | 15.73 | 15.62 | 89.59 | -589.51 | -106.45 | 356.01 | 325.86 | 30.15 | 11.810 | |
| 9,700.00 | 9,641.25 | 9,674.93 | 9,641.25 | 15.78 | 15.65 | 89.59 | -589.51 | -106.45 | 356.01 | 325.79 | 30.22 | 11.779 | |
| 9,800.00 | 9,741.25 | 9,774.93 | 9,741.25 | 15.82 | 15.69 | 89.59 | -589.51 | -106.45 | 356.01 | 325.71 | 30.30 | 11.749 | |
| 9,900.00 | 9,841.25 | 9,874.93 | 9,841.25 | 15.87 | 15.73 | 89.59 | -589.51 | -106.45 | 356.01 | 325.63 | 30.38 | 11.719 | |
| 10,000.00 | 9,941.25 | 9,974.93 | 9,941.25 | 15.92 | 15.76 | 89.59 | -589.51 | -106.45 | 356.01 | 325.55 | 30.46 | 11.688 | |
| 10,100.00 | 10,041.25 | 10,074.93 | 10,041.25 | 15.96 | 15.80 | 89.59 | -589.51 | -106.45 | 356.01 | 325.47 | 30.54 | 11.658 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,200.00 | 10,141.25 | 10,174.93 | 10,141.25 | 16.01 | 15.83 | 89.59 | -589.51 | -106.45 | 356.01 | 325.39 | 30.62 | 11.627 | |
| 10,300.00 | 10,241.25 | 10,274.93 | 10,241.25 | 16.06 | 15.87 | 89.59 | -589.51 | -106.45 | 356.01 | 325.31 | 30.70 | 11.596 | |
| 10,400.00 | 10,341.25 | 10,374.93 | 10,341.25 | 16.11 | 15.91 | 89.59 | -589.51 | -106.45 | 356.01 | 325.23 | 30.78 | 11.566 | |
| 10,500.00 | 10,441.25 | 10,474.93 | 10,441.25 | 16.16 | 15.95 | 89.59 | -589.51 | -106.45 | 356.01 | 325.14 | 30.86 | 11.535 | |
| 10,600.00 | 10,541.25 | 10,574.93 | 10,541.25 | 16.21 | 15.98 | 89.59 | -589.51 | -106.45 | 356.01 | 325.06 | 30.95 | 11.504 | |
| 10,700.00 | 10,641.25 | 10,674.93 | 10,641.25 | 16.26 | 16.02 | 89.59 | -589.51 | -106.45 | 356.01 | 324.98 | 31.03 | 11.473 | |
| 10,800.00 | 10,741.25 | 10,774.93 | 10,741.25 | 16.31 | 16.06 | 89.59 | -589.51 | -106.45 | 356.01 | 324.89 | 31.12 | 11.442 | |
| 10,900.00 | 10,841.25 | 10,874.93 | 10,841.25 | 16.36 | 16.10 | 89.59 | -589.51 | -106.45 | 356.01 | 324.81 | 31.20 | 11.410 | |
| 11,000.00 | 10,941.25 | 10,974.93 | 10,941.25 | 16.41 | 16.14 | 89.59 | -589.51 | -106.45 | 356.01 | 324.72 | 31.29 | 11.379 | |
| 11,100.00 | 11,041.25 | 11,074.93 | 11,041.25 | 16.46 | 16.18 | 89.59 | -589.51 | -106.45 | 356.01 | 324.64 | 31.37 | 11.348 | |
| 11,200.00 | 11,141.25 | 11,174.93 | 11,141.25 | 16.51 | 16.22 | 89.59 | -589.51 | -106.45 | 356.01 | 324.55 | 31.46 | 11.317 | |
| 11,300.00 | 11,241.25 | 11,274.93 | 11,241.25 | 16.56 | 16.26 | 89.59 | -589.51 | -106.45 | 356.01 | 324.46 | 31.55 | 11.285 | |
| 11,400.00 | 11,341.25 | 11,374.93 | 11,341.25 | 16.61 | 16.30 | 89.59 | -589.51 | -106.45 | 356.01 | 324.37 | 31.63 | 11.254 | |
| 11,500.00 | 11,441.25 | 11,474.93 | 11,441.25 | 16.66 | 16.34 | 89.59 | -589.51 | -106.45 | 356.01 | 324.29 | 31.72 | 11.222 | |
| 11,500.03 | 11,441.27 | 11,474.95 | 11,441.27 | 16.66 | 16.34 | 89.59 | -589.51 | -106.45 | 356.01 | 324.29 | 31.72 | 11.222 | |
| 11,600.00 | 11,541.21 | 11,574.89 | 11,541.21 | 16.71 | 16.38 | -92.41 | -589.51 | -106.45 | 356.07 | 324.28 | 31.79 | 11.200 | |
| 11,700.00 | 11,639.79 | 11,673.47 | 11,639.79 | 16.90 | 16.42 | -94.83 | -589.51 | -106.45 | 357.10 | 325.16 | 31.94 | 11.181 | |
| 11,800.00 | 11,734.09 | 11,767.77 | 11,734.09 | 17.17 | 16.46 | -99.30 | -589.51 | -106.45 | 361.45 | 329.25 | 32.19 | 11.227 | |
| 11,900.00 | 11,821.25 | 11,854.94 | 11,821.25 | 17.53 | 16.49 | -104.67 | -589.51 | -106.45 | 373.16 | 340.61 | 32.55 | 11.464 | |
| 12,000.00 | 11,898.62 | 11,948.45 | 11,914.67 | 18.00 | 16.62 | -110.79 | -592.42 | -106.42 | 395.97 | 362.93 | 33.04 | 11.985 | |
| 12,100.00 | 11,963.85 | 12,067.18 | 12,030.72 | 18.59 | 16.93 | -117.47 | -616.48 | -106.20 | 426.83 | 392.67 | 34.16 | 12.495 | |
| 12,200.00 | 12,014.95 | 12,213.45 | 12,162.97 | 19.33 | 17.34 | -123.91 | -678.04 | -105.65 | 461.38 | 424.71 | 36.67 | 12.583 | |
| 12,300.00 | 12,050.38 | 12,400.36 | 12,302.07 | 20.19 | 17.80 | -129.64 | -801.64 | -104.52 | 493.73 | 452.68 | 41.05 | 12.027 | |
| 12,400.00 | 12,069.05 | 12,635.86 | 12,409.17 | 21.14 | 19.33 | -133.17 | -1,009.50 | -102.63 | 516.00 | 469.73 | 46.27 | 11.152 | |
| 12,500.00 | 12,072.27 | 12,829.90 | 12,430.17 | 22.15 | 21.34 | -133.30 | -1,201.66 | -100.89 | 522.02 | 473.10 | 48.92 | 10.671 | |
| 12,600.00 | 12,072.97 | 12,929.90 | 12,430.70 | 23.19 | 22.44 | -133.21 | -1,301.65 | -99.98 | 522.48 | 472.44 | 50.04 | 10.442 | |
| 12,700.00 | 12,073.66 | 13,029.90 | 12,431.22 | 24.26 | 23.57 | -133.20 | -1,401.64 | -99.07 | 522.36 | 471.13 | 51.23 | 10.196 | |
| 12,800.00 | 12,074.36 | 13,129.90 | 12,431.75 | 25.36 | 24.72 | -133.18 | -1,501.64 | -98.16 | 522.25 | 469.76 | 52.48 | 9.951 | |
| 12,900.00 | 12,075.06 | 13,229.90 | 12,432.27 | 26.49 | 25.89 | -133.17 | -1,601.63 | -97.25 | 522.13 | 468.34 | 53.79 | 9.707 | |
| 13,000.00 | 12,075.76 | 13,329.89 | 12,432.80 | 27.63 | 27.08 | -133.16 | -1,701.63 | -96.34 | 522.01 | 466.87 | 55.14 | 9.467 | |
| 13,100.00 | 12,076.46 | 13,429.89 | 12,433.32 | 28.80 | 28.29 | -133.14 | -1,801.62 | -95.43 | 521.90 | 465.35 | 56.54 | 9.230 | |
| 13,200.00 | 12,077.15 | 13,529.89 | 12,433.85 | 29.98 | 29.51 | -133.13 | -1,901.62 | -94.52 | 521.78 | 463.79 | 57.98 | 8.999 | |
| 13,300.00 | 12,077.85 | 13,629.89 | 12,434.37 | 31.18 | 30.75 | -133.11 | -2,001.61 | -93.62 | 521.66 | 462.19 | 59.47 | 8.772 | |
| 13,400.00 | 12,078.55 | 13,729.89 | 12,434.90 | 32.39 | 31.99 | -133.10 | -2,101.60 | -92.71 | 521.54 | 460.56 | 60.99 | 8.552 | |
| 13,500.00 | 12,079.25 | 13,829.89 | 12,435.42 | 33.61 | 33.25 | -133.08 | -2,201.60 | -91.80 | 521.43 | 458.89 | 62.54 | 8.337 | |
| 13,600.00 | 12,079.95 | 13,929.89 | 12,435.95 | 34.84 | 34.51 | -133.07 | -2,301.59 | -90.89 | 521.31 | 457.18 | 64.13 | 8.129 | |
| 13,700.00 | 12,080.65 | 14,029.89 | 12,436.47 | 36.08 | 35.78 | -133.06 | -2,401.59 | -89.98 | 521.19 | 455.45 | 65.74 | 7.928 | |
| 13,800.00 | 12,081.34 | 14,129.89 | 12,437.00 | 37.33 | 37.06 | -133.04 | -2,501.58 | -89.07 | 521.08 | 453.69 | 67.38 | 7.733 | |
| 13,900.00 | 12,082.04 | 14,229.89 | 12,437.52 | 38.59 | 38.35 | -133.03 | -2,601.58 | -88.16 | 520.96 | 451.91 | 69.05 | 7.544 | |
| 14,000.00 | 12,082.74 | 14,329.89 | 12,438.05 | 39.86 | 39.64 | -133.01 | -2,701.57 | -87.25 | 520.84 | 450.10 | 70.75 | 7.362 | |
| 14,100.00 | 12,083.44 | 14,429.89 | 12,438.57 | 41.13 | 40.93 | -133.00 | -2,801.56 | -86.34 | 520.73 | 448.27 | 72.46 | 7.186 | |
| 14,200.00 | 12,084.14 | 14,529.89 | 12,439.10 | 42.40 | 42.23 | -132.99 | -2,901.56 | -85.44 | 520.61 | 446.41 | 74.20 | 7.017 | |
| 14,300.00 | 12,084.84 | 14,629.89 | 12,439.62 | 43.69 | 43.54 | -132.97 | -3,001.55 | -84.53 | 520.49 | 444.54 | 75.95 | 6.853 | |
| 14,400.00 | 12,085.53 | 14,729.89 | 12,440.15 | 44.97 | 44.84 | -132.96 | -3,101.55 | -83.62 | 520.38 | 442.65 | 77.72 | 6.695 | |
| 14,500.00 | 12,086.23 | 14,829.89 | 12,440.67 | 46.27 | 46.16 | -132.94 | -3,201.54 | -82.71 | 520.26 | 440.75 | 79.51 | 6.543 | |
| 14,600.00 | 12,086.93 | 14,929.89 | 12,441.20 | 47.56 | 47.47 | -132.93 | -3,301.54 | -81.80 | 520.14 | 438.82 | 81.32 | 6.396 | |
| 14,700.00 | 12,087.63 | 15,029.89 | 12,441.72 | 48.86 | 48.79 | -132.92 | -3,401.53 | -80.89 | 520.03 | 436.89 | 83.14 | 6.255 | |
| 14,800.00 | 12,088.33 | 15,129.89 | 12,442.25 | 50.17 | 50.11 | -132.90 | -3,501.53 | -79.98 | 519.91 | 434.93 | 84.98 | 6.118 | |
| 14,900.00 | 12,089.02 | 15,229.89 | 12,442.77 | 51.47 | 51.43 | -132.89 | -3,601.52 | -79.07 | 519.80 | 432.97 | 86.83 | 5.987 | |
| 15,000.00 | 12,089.72 | 15,329.89 | 12,443.30 | 52.78 | 52.76 | -132.87 | -3,701.51 | -78.16 | 519.68 | 430.99 | 88.69 | 5.860 | |
| 15,100.00 | 12,090.42 | 15,429.89 | 12,443.82 | 54.10 | 54.09 | -132.86 | -3,801.51 | -77.26 | 519.56 | 429.00 | 90.56 | 5.737 | |
| 15,200.00 | 12,091.12 | 15,529.89 | 12,444.35 | 55.41 | 55.42 | -132.85 | -3,901.50 | -76.35 | 519.45 | 427.00 | 92.44 | 5.619 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,300.00 | 12,091.82 | 15,629.89 | 12,444.87 | 56.73 | 56.75 | -132.83 | -4,001.50 | -75.44 | 519.33 | 424.99 | 94.34 | 5.505 | |
| 15,400.00 | 12,092.52 | 15,729.89 | 12,445.40 | 58.05 | 58.08 | -132.82 | -4,101.49 | -74.53 | 519.21 | 422.97 | 96.24 | 5.395 | |
| 15,500.00 | 12,093.21 | 15,829.89 | 12,445.92 | 59.37 | 59.42 | -132.80 | -4,201.49 | -73.62 | 519.10 | 420.94 | 98.16 | 5.288 | |
| 15,600.00 | 12,093.91 | 15,929.89 | 12,446.45 | 60.70 | 60.75 | -132.79 | -4,301.48 | -72.71 | 518.98 | 418.90 | 100.08 | 5.186 | |
| 15,700.00 | 12,094.61 | 16,029.89 | 12,446.97 | 62.03 | 62.09 | -132.77 | -4,401.47 | -71.80 | 518.87 | 416.85 | 102.01 | 5.086 | |
| 15,800.00 | 12,095.31 | 16,129.89 | 12,447.50 | 63.35 | 63.43 | -132.76 | -4,501.47 | -70.89 | 518.75 | 414.80 | 103.95 | 4.990 | |
| 15,900.00 | 12,096.01 | 16,229.89 | 12,448.02 | 64.68 | 64.77 | -132.75 | -4,601.46 | -69.98 | 518.63 | 412.73 | 105.90 | 4.897 | |
| 16,000.00 | 12,096.71 | 16,329.89 | 12,448.55 | 66.02 | 66.11 | -132.73 | -4,701.46 | -69.08 | 518.52 | 410.66 | 107.85 | 4.808 | |
| 16,100.00 | 12,097.40 | 16,429.89 | 12,449.07 | 67.35 | 67.46 | -132.72 | -4,801.45 | -68.17 | 518.40 | 408.59 | 109.81 | 4.721 | |
| 16,200.00 | 12,098.10 | 16,529.89 | 12,449.60 | 68.68 | 68.80 | -132.70 | -4,901.45 | -67.26 | 518.29 | 406.50 | 111.78 | 4.637 | |
| 16,300.00 | 12,098.80 | 16,629.89 | 12,450.12 | 70.02 | 70.15 | -132.69 | -5,001.44 | -66.35 | 518.17 | 404.41 | 113.76 | 4.555 | |
| 16,400.00 | 12,099.50 | 16,729.89 | 12,450.65 | 71.36 | 71.49 | -132.67 | -5,101.43 | -65.44 | 518.05 | 402.32 | 115.74 | 4.476 | |
| 16,500.00 | 12,100.20 | 16,829.89 | 12,451.17 | 72.69 | 72.84 | -132.66 | -5,201.43 | -64.53 | 517.94 | 400.21 | 117.72 | 4.400 | |
| 16,600.00 | 12,100.90 | 16,929.89 | 12,451.70 | 74.03 | 74.19 | -132.65 | -5,301.42 | -63.62 | 517.82 | 398.11 | 119.72 | 4.325 | |
| 16,700.00 | 12,101.59 | 17,029.89 | 12,452.22 | 75.37 | 75.53 | -132.63 | -5,401.42 | -62.71 | 517.71 | 395.99 | 121.71 | 4.254 | |
| 16,800.00 | 12,102.29 | 17,129.89 | 12,452.75 | 76.72 | 76.88 | -132.62 | -5,501.41 | -61.80 | 517.59 | 393.88 | 123.71 | 4.184 | |
| 16,900.00 | 12,102.99 | 17,229.89 | 12,453.27 | 78.06 | 78.23 | -132.60 | -5,601.41 | -60.90 | 517.47 | 391.75 | 125.72 | 4.116 | |
| 17,000.00 | 12,103.69 | 17,329.89 | 12,453.80 | 79.40 | 79.58 | -132.59 | -5,701.40 | -59.99 | 517.36 | 389.63 | 127.73 | 4.050 | |
| 17,100.00 | 12,104.39 | 17,429.89 | 12,454.32 | 80.75 | 80.93 | -132.57 | -5,801.40 | -59.08 | 517.24 | 387.49 | 129.75 | 3.987 | |
| 17,200.00 | 12,105.08 | 17,529.89 | 12,454.85 | 82.09 | 82.29 | -132.56 | -5,901.39 | -58.17 | 517.13 | 385.36 | 131.77 | 3.925 | |
| 17,300.00 | 12,105.78 | 17,629.89 | 12,455.37 | 83.44 | 83.64 | -132.55 | -6,001.38 | -57.26 | 517.01 | 383.22 | 133.79 | 3.864 | |
| 17,400.00 | 12,106.48 | 17,729.89 | 12,455.90 | 84.78 | 84.99 | -132.53 | -6,101.38 | -56.35 | 516.90 | 381.07 | 135.82 | 3.806 | |
| 17,500.00 | 12,107.18 | 17,829.89 | 12,456.43 | 86.13 | 86.35 | -132.52 | -6,201.37 | -55.44 | 516.78 | 378.93 | 137.85 | 3.749 | |
| 17,600.00 | 12,107.88 | 17,929.89 | 12,456.95 | 87.48 | 87.70 | -132.50 | -6,301.37 | -54.53 | 516.67 | 376.77 | 139.89 | 3.693 | |
| 17,700.00 | 12,108.58 | 18,029.89 | 12,457.48 | 88.83 | 89.05 | -132.49 | -6,401.36 | -53.63 | 516.55 | 374.62 | 141.93 | 3.639 | |
| 17,800.00 | 12,109.27 | 18,129.89 | 12,458.00 | 90.18 | 90.41 | -132.47 | -6,501.36 | -52.72 | 516.43 | 372.46 | 143.97 | 3.587 | |
| 17,900.00 | 12,109.97 | 18,229.89 | 12,458.53 | 91.52 | 91.76 | -132.46 | -6,601.35 | -51.81 | 516.32 | 370.30 | 146.02 | 3.536 | |
| 18,000.00 | 12,110.67 | 18,329.89 | 12,459.05 | 92.88 | 93.12 | -132.45 | -6,701.34 | -50.90 | 516.20 | 368.13 | 148.07 | 3.486 | |
| 18,100.00 | 12,111.37 | 18,429.89 | 12,459.58 | 94.23 | 94.48 | -132.43 | -6,801.34 | -49.99 | 516.09 | 365.96 | 150.13 | 3.438 | |
| 18,200.00 | 12,112.07 | 18,529.89 | 12,460.10 | 95.58 | 95.83 | -132.42 | -6,901.33 | -49.08 | 515.97 | 363.79 | 152.18 | 3.391 | |
| 18,300.00 | 12,112.77 | 18,629.89 | 12,460.63 | 96.93 | 97.19 | -132.40 | -7,001.33 | -48.17 | 515.86 | 361.62 | 154.24 | 3.344 | |
| 18,400.00 | 12,113.46 | 18,729.89 | 12,461.15 | 98.28 | 98.55 | -132.39 | -7,101.32 | -47.26 | 515.74 | 359.44 | 156.30 | 3.300 | |
| 18,500.00 | 12,114.16 | 18,829.89 | 12,461.68 | 99.63 | 99.90 | -132.37 | -7,201.32 | -46.35 | 515.63 | 357.26 | 158.37 | 3.256 | |
| 18,600.00 | 12,114.86 | 18,929.89 | 12,462.20 | 100.99 | 101.26 | -132.36 | -7,301.31 | -45.45 | 515.51 | 355.08 | 160.44 | 3.213 | |
| 18,700.00 | 12,115.56 | 19,029.89 | 12,462.73 | 102.34 | 102.62 | -132.35 | -7,401.30 | -44.54 | 515.40 | 352.89 | 162.51 | 3.172 | |
| 18,800.00 | 12,116.26 | 19,129.89 | 12,463.25 | 103.70 | 103.98 | -132.33 | -7,501.30 | -43.63 | 515.28 | 350.70 | 164.58 | 3.131 | |
| 18,900.00 | 12,116.95 | 19,229.89 | 12,463.78 | 105.05 | 105.34 | -132.32 | -7,601.29 | -42.72 | 515.17 | 348.51 | 166.66 | 3.091 | |
| 19,000.00 | 12,117.65 | 19,329.89 | 12,464.30 | 106.41 | 106.70 | -132.30 | -7,701.29 | -41.81 | 515.05 | 346.32 | 168.74 | 3.052 | |
| 19,100.00 | 12,118.35 | 19,429.89 | 12,464.83 | 107.76 | 108.06 | -132.29 | -7,801.28 | -40.90 | 514.94 | 344.12 | 170.82 | 3.015 | |
| 19,200.00 | 12,119.05 | 19,529.89 | 12,465.35 | 109.12 | 109.41 | -132.27 | -7,901.28 | -39.99 | 514.82 | 341.92 | 172.90 | 2.978 | |
| 19,300.00 | 12,119.75 | 19,629.89 | 12,465.88 | 110.47 | 110.77 | -132.26 | -8,001.27 | -39.08 | 514.71 | 339.72 | 174.98 | 2.941 | |
| 19,400.00 | 12,120.45 | 19,729.89 | 12,466.40 | 111.83 | 112.13 | -132.24 | -8,101.27 | -38.17 | 514.59 | 337.52 | 177.07 | 2.906 | |
| 19,500.00 | 12,121.14 | 19,829.89 | 12,466.93 | 113.19 | 113.49 | -132.23 | -8,201.26 | -37.27 | 514.48 | 335.31 | 179.16 | 2.872 | |
| 19,600.00 | 12,121.84 | 19,929.89 | 12,467.45 | 114.54 | 114.86 | -132.22 | -8,301.25 | -36.36 | 514.36 | 333.11 | 181.25 | 2.838 | |
| 19,700.00 | 12,122.54 | 20,029.89 | 12,467.98 | 115.90 | 116.22 | -132.20 | -8,401.25 | -35.45 | 514.25 | 330.90 | 183.35 | 2.805 | |
| 19,800.00 | 12,123.24 | 20,129.88 | 12,468.50 | 117.26 | 117.58 | -132.19 | -8,501.24 | -34.54 | 514.13 | 328.69 | 185.45 | 2.772 | |
| 19,900.00 | 12,123.94 | 20,229.88 | 12,469.03 | 118.61 | 118.94 | -132.17 | -8,601.24 | -33.63 | 514.02 | 326.47 | 187.54 | 2.741 | |
| 20,000.00 | 12,124.64 | 20,329.88 | 12,469.55 | 119.97 | 120.30 | -132.16 | -8,701.23 | -32.72 | 513.90 | 324.26 | 189.64 | 2.710 | |
| 20,100.00 | 12,125.33 | 20,429.88 | 12,470.08 | 121.33 | 121.66 | -132.14 | -8,801.23 | -31.81 | 513.79 | 322.04 | 191.75 | 2.680 | |
| 20,200.00 | 12,126.03 | 20,529.88 | 12,470.60 | 122.69 | 123.02 | -132.13 | -8,901.22 | -30.90 | 513.67 | 319.82 | 193.85 | 2.650 | |
| 20,300.00 | 12,126.73 | 20,629.88 | 12,471.13 | 124.05 | 124.38 | -132.11 | -9,001.21 | -29.99 | 513.56 | 317.60 | 195.96 | 2.621 | |
| 20,400.00 | 12,127.43 | 20,729.88 | 12,471.65 | 125.41 | 125.75 | -132.10 | -9,101.21 | -29.09 | 513.44 | 315.38 | 198.06 | 2.592 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,500.00 | 12,128.13 | 20,829.88 | 12,472.18 | 126.77 | 127.11 | -132.09 | -9,201.20 | -28.18 | 513.33 | 313.16 | 200.17 | 2.564 | |
| 20,600.00 | 12,128.83 | 20,929.88 | 12,472.70 | 128.13 | 128.47 | -132.07 | -9,301.20 | -27.27 | 513.22 | 310.93 | 202.29 | 2.537 | |
| 20,700.00 | 12,129.52 | 21,029.88 | 12,473.23 | 129.49 | 129.83 | -132.06 | -9,401.19 | -26.36 | 513.10 | 308.70 | 204.40 | 2.510 | |
| 20,800.00 | 12,130.22 | 21,129.88 | 12,473.75 | 130.85 | 131.20 | -132.04 | -9,501.19 | -25.45 | 512.99 | 306.47 | 206.51 | 2.484 | |
| 20,900.00 | 12,130.92 | 21,229.88 | 12,474.28 | 132.21 | 132.56 | -132.03 | -9,601.18 | -24.54 | 512.87 | 304.24 | 208.63 | 2.458 | |
| 21,000.00 | 12,131.62 | 21,329.88 | 12,474.80 | 133.57 | 133.92 | -132.01 | -9,701.17 | -23.63 | 512.76 | 302.01 | 210.75 | 2.433 | |
| 21,100.00 | 12,132.32 | 21,429.88 | 12,475.33 | 134.93 | 135.28 | -132.00 | -9,801.17 | -22.72 | 512.64 | 299.77 | 212.87 | 2.408 | |
| 21,200.00 | 12,133.01 | 21,529.88 | 12,475.85 | 136.29 | 136.65 | -131.98 | -9,901.16 | -21.81 | 512.53 | 297.54 | 214.99 | 2.384 | |
| 21,300.00 | 12,133.71 | 21,629.88 | 12,476.38 | 137.65 | 138.01 | -131.97 | -10,001.16 | -20.91 | 512.41 | 295.30 | 217.11 | 2.360 | |
| 21,400.00 | 12,134.41 | 21,729.88 | 12,476.90 | 139.01 | 139.37 | -131.95 | -10,101.15 | -20.00 | 512.30 | 293.06 | 219.24 | 2.337 | |
| 21,500.00 | 12,135.11 | 21,829.88 | 12,477.43 | 140.37 | 140.74 | -131.94 | -10,201.15 | -19.09 | 512.19 | 290.82 | 221.37 | 2.314 | |
| 21,600.00 | 12,135.81 | 21,929.88 | 12,477.95 | 141.73 | 142.10 | -131.93 | -10,301.14 | -18.18 | 512.07 | 288.58 | 223.49 | 2.291 | |
| 21,700.00 | 12,136.51 | 22,029.88 | 12,478.48 | 143.09 | 143.47 | -131.91 | -10,401.13 | -17.27 | 511.96 | 286.33 | 225.62 | 2.269 | |
| 21,800.00 | 12,137.20 | 22,129.88 | 12,479.00 | 144.46 | 144.83 | -131.90 | -10,501.13 | -16.36 | 511.84 | 284.09 | 227.75 | 2.247 | |
| 21,900.00 | 12,137.90 | 22,229.88 | 12,479.53 | 145.82 | 146.19 | -131.88 | -10,601.12 | -15.45 | 511.73 | 281.84 | 229.89 | 2.226 | |
| 22,000.00 | 12,138.60 | 22,329.88 | 12,480.05 | 147.18 | 147.56 | -131.87 | -10,701.12 | -14.54 | 511.61 | 279.59 | 232.02 | 2.205 | |
| 22,100.00 | 12,139.30 | 22,429.88 | 12,480.58 | 148.54 | 148.92 | -131.85 | -10,801.11 | -13.63 | 511.50 | 277.34 | 234.16 | 2.184 | |
| 22,200.00 | 12,140.00 | 22,529.88 | 12,481.10 | 149.90 | 150.29 | -131.84 | -10,901.11 | -12.73 | 511.39 | 275.09 | 236.29 | 2.164 | |
| 22,300.00 | 12,140.70 | 22,629.88 | 12,481.63 | 151.27 | 151.65 | -131.82 | -11,001.10 | -11.82 | 511.27 | 272.84 | 238.43 | 2.144 | |
| 22,387.52 | 12,141.31 | 22,717.40 | 12,482.09 | 152.46 | 152.82 | -131.81 | -11,088.61 | -11.02 | 511.17 | 270.90 | 240.27 | 2.127 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,600.00 | 1,595.62 | 1,794.46 | 1,792.20 | 4.92 | 5.31 | 33.32 | -857.97 | -2,322.57 | 2,418.52 | 2,408.42 | 10.10 | 239.453 | |
| 1,700.00 | 1,694.25 | 1,891.86 | 1,889.24 | 5.12 | 5.48 | 33.46 | -858.27 | -2,314.08 | 2,396.64 | 2,386.17 | 10.47 | 228.888 | |
| 1,800.00 | 1,792.87 | 1,989.27 | 1,986.27 | 5.31 | 5.65 | 33.61 | -858.56 | -2,305.60 | 2,374.78 | 2,363.94 | 10.84 | 219.023 | |
| 1,900.00 | 1,891.50 | 2,086.67 | 2,083.30 | 5.51 | 5.83 | 33.75 | -858.86 | -2,297.11 | 2,352.94 | 2,341.72 | 11.22 | 209.789 | |
| 2,000.00 | 1,990.13 | 2,184.07 | 2,180.34 | 5.71 | 6.01 | 33.90 | -859.16 | -2,288.63 | 2,331.11 | 2,319.51 | 11.60 | 201.031 | |
| 2,100.00 | 2,088.76 | 2,397.02 | 2,392.02 | 5.90 | 6.43 | 34.26 | -857.61 | -2,265.74 | 2,307.35 | 2,295.17 | 12.17 | 189.539 | |
| 2,200.00 | 2,187.39 | 2,631.62 | 2,623.46 | 6.10 | 6.92 | 34.73 | -849.78 | -2,228.41 | 2,277.78 | 2,264.99 | 12.79 | 178.092 | |
| 2,300.00 | 2,286.02 | 2,856.51 | 2,842.80 | 6.30 | 7.40 | 35.26 | -836.24 | -2,180.80 | 2,242.63 | 2,229.27 | 13.37 | 167.780 | |
| 2,400.00 | 2,384.65 | 2,972.70 | 2,955.09 | 6.50 | 7.63 | 35.57 | -827.26 | -2,152.33 | 2,203.93 | 2,190.15 | 13.78 | 159.983 | |
| 2,500.00 | 2,483.28 | 3,064.43 | 3,043.70 | 6.69 | 7.80 | 35.83 | -820.09 | -2,129.69 | 2,165.16 | 2,151.00 | 14.16 | 152.942 | |
| 2,600.00 | 2,581.91 | 3,156.17 | 3,132.30 | 6.89 | 7.98 | 36.09 | -812.92 | -2,107.06 | 2,126.43 | 2,111.89 | 14.54 | 146.247 | |
| 2,700.00 | 2,680.54 | 3,247.90 | 3,220.91 | 7.10 | 8.16 | 36.37 | -805.75 | -2,084.42 | 2,087.75 | 2,072.82 | 14.92 | 139.885 | |
| 2,800.00 | 2,779.17 | 3,339.64 | 3,309.52 | 7.33 | 8.34 | 36.65 | -798.58 | -2,061.78 | 2,049.10 | 2,033.78 | 15.32 | 133.780 | |
| 2,900.00 | 2,877.80 | 3,431.37 | 3,398.13 | 7.56 | 8.60 | 36.95 | -791.41 | -2,039.15 | 2,010.50 | 1,994.80 | 15.71 | 128.012 | |
| 3,000.00 | 2,976.43 | 3,523.11 | 3,486.74 | 7.79 | 8.86 | 37.25 | -784.24 | -2,016.51 | 1,971.95 | 1,955.85 | 16.10 | 122.494 | |
| 3,100.00 | 3,075.06 | 3,614.84 | 3,575.35 | 8.02 | 9.13 | 37.57 | -777.07 | -1,993.88 | 1,933.45 | 1,916.96 | 16.49 | 117.227 | |
| 3,200.00 | 3,173.69 | 3,706.58 | 3,663.96 | 8.25 | 9.40 | 37.91 | -769.91 | -1,971.24 | 1,895.01 | 1,878.12 | 16.89 | 112.196 | |
| 3,300.00 | 3,272.32 | 3,798.31 | 3,752.57 | 8.48 | 9.67 | 38.25 | -762.74 | -1,948.60 | 1,856.62 | 1,839.33 | 17.29 | 107.386 | |
| 3,400.00 | 3,370.94 | 3,890.05 | 3,841.18 | 8.72 | 9.95 | 38.61 | -755.57 | -1,925.97 | 1,818.29 | 1,800.60 | 17.69 | 102.785 | |
| 3,500.00 | 3,469.57 | 3,981.79 | 3,929.79 | 8.95 | 10.22 | 38.99 | -748.40 | -1,903.33 | 1,780.03 | 1,761.93 | 18.09 | 98.381 | |
| 3,600.00 | 3,568.20 | 4,073.52 | 4,018.40 | 9.19 | 10.51 | 39.38 | -741.23 | -1,880.70 | 1,741.83 | 1,723.34 | 18.50 | 94.163 | |
| 3,700.00 | 3,666.83 | 4,165.26 | 4,107.00 | 9.42 | 10.79 | 39.79 | -734.06 | -1,858.06 | 1,703.71 | 1,684.81 | 18.90 | 90.120 | |
| 3,800.00 | 3,765.46 | 4,256.99 | 4,195.61 | 9.66 | 11.07 | 40.22 | -726.89 | -1,835.42 | 1,665.67 | 1,646.36 | 19.31 | 86.243 | |
| 3,900.00 | 3,864.09 | 4,348.73 | 4,284.22 | 9.89 | 11.36 | 40.67 | -719.72 | -1,812.79 | 1,627.72 | 1,607.99 | 19.72 | 82.523 | |
| 4,000.00 | 3,962.72 | 4,440.46 | 4,372.83 | 10.13 | 11.65 | 41.14 | -712.55 | -1,790.15 | 1,589.85 | 1,569.71 | 20.14 | 78.951 | |
| 4,100.00 | 4,061.35 | 4,532.20 | 4,461.44 | 10.36 | 11.94 | 41.63 | -705.38 | -1,767.52 | 1,552.08 | 1,531.53 | 20.55 | 75.520 | |
| 4,200.00 | 4,159.98 | 4,623.93 | 4,550.05 | 10.60 | 12.23 | 42.14 | -698.21 | -1,744.88 | 1,514.42 | 1,493.45 | 20.97 | 72.221 | |
| 4,300.00 | 4,258.61 | 4,715.67 | 4,638.66 | 10.83 | 12.53 | 42.68 | -691.04 | -1,722.24 | 1,476.87 | 1,455.48 | 21.39 | 69.049 | |
| 4,400.00 | 4,357.24 | 4,807.40 | 4,727.27 | 11.07 | 12.82 | 43.25 | -683.87 | -1,699.61 | 1,439.44 | 1,417.63 | 21.81 | 65.997 | |
| 4,500.00 | 4,455.87 | 4,899.14 | 4,815.88 | 11.31 | 13.12 | 43.85 | -676.70 | -1,676.97 | 1,402.14 | 1,379.90 | 22.24 | 63.060 | |
| 4,600.00 | 4,554.50 | 4,990.87 | 4,904.49 | 11.54 | 13.42 | 44.48 | -669.53 | -1,654.34 | 1,364.98 | 1,342.32 | 22.66 | 60.230 | |
| 4,700.00 | 4,653.13 | 5,082.61 | 4,993.10 | 11.78 | 13.72 | 45.14 | -662.36 | -1,631.70 | 1,327.98 | 1,304.89 | 23.09 | 57.505 | |
| 4,800.00 | 4,751.76 | 5,174.34 | 5,081.70 | 12.02 | 14.02 | 45.84 | -655.19 | -1,609.06 | 1,291.14 | 1,267.61 | 23.53 | 54.879 | |
| 4,900.00 | 4,850.39 | 5,266.08 | 5,170.31 | 12.26 | 14.32 | 46.58 | -648.02 | -1,586.43 | 1,254.49 | 1,230.52 | 23.96 | 52.347 | |
| 5,000.00 | 4,949.01 | 5,357.81 | 5,258.92 | 12.49 | 14.62 | 47.37 | -640.86 | -1,563.79 | 1,218.03 | 1,193.63 | 24.40 | 49.914 | |
| 5,100.00 | 5,047.64 | 5,436.01 | 5,334.52 | 12.73 | 14.87 | 48.07 | -634.82 | -1,544.74 | 1,182.12 | 1,157.27 | 24.85 | 47.567 | |
| 5,200.00 | 5,146.27 | 5,500.00 | 5,396.65 | 12.97 | 15.07 | 48.66 | -630.19 | -1,530.13 | 1,148.04 | 1,122.72 | 25.32 | 45.346 | |
| 5,300.00 | 5,244.90 | 5,579.56 | 5,474.23 | 13.21 | 15.30 | 49.41 | -624.88 | -1,513.36 | 1,115.84 | 1,090.06 | 25.78 | 43.284 | |
| 5,400.00 | 5,343.57 | 5,652.93 | 5,546.10 | 13.41 | 15.50 | 49.95 | -620.42 | -1,499.27 | 1,085.82 | 1,059.61 | 26.21 | 41.432 | |
| 5,500.00 | 5,442.58 | 5,727.78 | 5,619.69 | 13.63 | 15.69 | 50.27 | -616.29 | -1,486.24 | 1,059.17 | 1,032.52 | 26.65 | 39.741 | |
| 5,600.00 | 5,541.92 | 5,800.00 | 5,690.94 | 13.82 | 15.86 | 50.54 | -612.73 | -1,474.98 | 1,036.18 | 1,009.11 | 27.07 | 38.281 | |
| 5,700.00 | 5,641.52 | 5,881.53 | 5,771.62 | 13.98 | 16.03 | 50.81 | -609.19 | -1,463.82 | 1,016.80 | 989.35 | 27.46 | 37.031 | |
| 5,800.00 | 5,741.32 | 5,960.03 | 5,849.53 | 14.12 | 16.18 | 51.00 | -606.28 | -1,454.62 | 1,001.08 | 973.27 | 27.81 | 35.995 | |
| 5,900.00 | 5,841.25 | 6,039.33 | 5,928.41 | 14.23 | 16.31 | 51.13 | -603.83 | -1,446.88 | 989.00 | 960.87 | 28.13 | 35.159 | |
| 6,000.00 | 5,941.25 | 6,119.22 | 6,008.03 | 14.28 | 16.43 | -90.57 | -601.86 | -1,440.66 | 980.54 | 952.19 | 28.35 | 34.585 | |
| 6,100.00 | 6,041.25 | 6,200.00 | 6,088.66 | 14.32 | 16.53 | -90.49 | -600.38 | -1,435.99 | 974.73 | 946.20 | 28.53 | 34.160 | |
| 6,200.00 | 6,141.25 | 6,279.77 | 6,168.36 | 14.35 | 16.62 | -90.43 | -599.42 | -1,432.98 | 970.93 | 942.24 | 28.69 | 33.837 | |
| 6,300.00 | 6,241.25 | 6,360.23 | 6,248.81 | 14.39 | 16.68 | -90.41 | -598.97 | -1,431.54 | 969.15 | 940.34 | 28.81 | 33.643 | |
| 6,354.43 | 6,295.67 | 6,407.09 | 6,295.67 | 14.41 | 16.71 | -90.41 | -598.93 | -1,431.42 | 968.99 | 940.14 | 28.85 | 33.583 | |
| 6,400.00 | 6,341.25 | 6,452.67 | 6,341.25 | 14.42 | 16.74 | -90.41 | -598.93 | -1,431.42 | 968.99 | 940.10 | 28.90 | 33.534 | |
| 6,500.00 | 6,441.25 | 6,552.67 | 6,441.25 | 14.46 | 16.79 | -90.41 | -598.93 | -1,431.42 | 968.99 | 940.01 | 28.99 | 33.427 | |
| 6,600.00 | 6,541.25 | 6,652.67 | 6,541.25 | 14.49 | 16.85 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.91 | 29.08 | 33.320 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6,700.00 | 6,641.25 | 6,752.67 | 6,641.25 | 14.53 | 16.91 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.82 | 29.18 | 33.212 | |
| 6,800.00 | 6,741.25 | 6,852.67 | 6,741.25 | 14.56 | 16.97 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.72 | 29.27 | 33.105 | |
| 6,900.00 | 6,841.25 | 6,952.67 | 6,841.25 | 14.60 | 17.03 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.63 | 29.37 | 32.998 | |
| 7,000.00 | 6,941.25 | 7,052.67 | 6,941.25 | 14.64 | 17.09 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.53 | 29.46 | 32.890 | |
| 7,100.00 | 7,041.25 | 7,152.67 | 7,041.25 | 14.68 | 17.14 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.44 | 29.56 | 32.783 | |
| 7,200.00 | 7,141.25 | 7,252.67 | 7,141.25 | 14.71 | 17.20 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.34 | 29.65 | 32.676 | |
| 7,300.00 | 7,241.25 | 7,352.67 | 7,241.25 | 14.75 | 17.26 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.24 | 29.75 | 32.569 | |
| 7,400.00 | 7,341.25 | 7,452.67 | 7,341.25 | 14.79 | 17.32 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.14 | 29.85 | 32.462 | |
| 7,500.00 | 7,441.25 | 7,552.67 | 7,441.25 | 14.83 | 17.38 | -90.41 | -598.93 | -1,431.42 | 968.99 | 939.05 | 29.95 | 32.355 | |
| 7,600.00 | 7,541.25 | 7,652.67 | 7,541.25 | 14.87 | 17.44 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.95 | 30.05 | 32.248 | |
| 7,700.00 | 7,641.25 | 7,752.67 | 7,641.25 | 14.91 | 17.50 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.85 | 30.15 | 32.142 | |
| 7,800.00 | 7,741.25 | 7,852.67 | 7,741.25 | 14.95 | 17.56 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.75 | 30.25 | 32.035 | |
| 7,900.00 | 7,841.25 | 7,952.67 | 7,841.25 | 14.99 | 17.62 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.65 | 30.35 | 31.929 | |
| 8,000.00 | 7,941.25 | 8,052.67 | 7,941.25 | 15.03 | 17.68 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.54 | 30.45 | 31.823 | |
| 8,100.00 | 8,041.25 | 8,152.67 | 8,041.25 | 15.07 | 17.74 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.44 | 30.55 | 31.717 | |
| 8,200.00 | 8,141.25 | 8,252.67 | 8,141.25 | 15.11 | 17.80 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.34 | 30.65 | 31.611 | |
| 8,300.00 | 8,241.25 | 8,352.67 | 8,241.25 | 15.15 | 17.86 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.24 | 30.76 | 31.505 | |
| 8,400.00 | 8,341.25 | 8,452.67 | 8,341.25 | 15.20 | 17.93 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.13 | 30.86 | 31.400 | |
| 8,500.00 | 8,441.25 | 8,552.67 | 8,441.25 | 15.24 | 17.99 | -90.41 | -598.93 | -1,431.42 | 968.99 | 938.03 | 30.96 | 31.294 | |
| 8,600.00 | 8,541.25 | 8,652.67 | 8,541.25 | 15.28 | 18.05 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.93 | 31.07 | 31.189 | |
| 8,700.00 | 8,641.25 | 8,752.67 | 8,641.25 | 15.32 | 18.11 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.82 | 31.17 | 31.084 | |
| 8,800.00 | 8,741.25 | 8,852.67 | 8,741.25 | 15.37 | 18.17 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.72 | 31.28 | 30.980 | |
| 8,900.00 | 8,841.25 | 8,952.67 | 8,841.25 | 15.41 | 18.23 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.61 | 31.38 | 30.875 | |
| 9,000.00 | 8,941.25 | 9,052.67 | 8,941.25 | 15.46 | 18.30 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.50 | 31.49 | 30.771 | |
| 9,100.00 | 9,041.25 | 9,152.67 | 9,041.25 | 15.50 | 18.36 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.40 | 31.60 | 30.667 | |
| 9,200.00 | 9,141.25 | 9,252.67 | 9,141.25 | 15.55 | 18.42 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.29 | 31.70 | 30.563 | |
| 9,300.00 | 9,241.25 | 9,352.67 | 9,241.25 | 15.59 | 18.48 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.18 | 31.81 | 30.460 | |
| 9,400.00 | 9,341.25 | 9,452.67 | 9,341.25 | 15.64 | 18.54 | -90.41 | -598.93 | -1,431.42 | 968.99 | 937.07 | 31.92 | 30.356 | |
| 9,500.00 | 9,441.25 | 9,552.67 | 9,441.25 | 15.68 | 18.61 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.96 | 32.03 | 30.253 | |
| 9,600.00 | 9,541.25 | 9,652.67 | 9,541.25 | 15.73 | 18.67 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.86 | 32.14 | 30.151 | |
| 9,700.00 | 9,641.25 | 9,752.67 | 9,641.25 | 15.78 | 18.73 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.75 | 32.25 | 30.048 | |
| 9,800.00 | 9,741.25 | 9,852.67 | 9,741.25 | 15.82 | 18.80 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.64 | 32.36 | 29.946 | |
| 9,900.00 | 9,841.25 | 9,952.67 | 9,841.25 | 15.87 | 18.86 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.53 | 32.47 | 29.844 | |
| 10,000.00 | 9,941.25 | 10,052.67 | 9,941.25 | 15.92 | 18.92 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.41 | 32.58 | 29.743 | |
| 10,100.00 | 10,041.25 | 10,152.67 | 10,041.25 | 15.96 | 18.99 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.30 | 32.69 | 29.641 | |
| 10,200.00 | 10,141.25 | 10,252.67 | 10,141.25 | 16.01 | 19.05 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.19 | 32.80 | 29.540 | |
| 10,300.00 | 10,241.25 | 10,352.67 | 10,241.25 | 16.06 | 19.12 | -90.41 | -598.93 | -1,431.42 | 968.99 | 936.08 | 32.91 | 29.440 | |
| 10,400.00 | 10,341.25 | 10,452.67 | 10,341.25 | 16.11 | 19.18 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.97 | 33.03 | 29.339 | |
| 10,500.00 | 10,441.25 | 10,552.67 | 10,441.25 | 16.16 | 19.24 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.85 | 33.14 | 29.239 | |
| 10,600.00 | 10,541.25 | 10,652.67 | 10,541.25 | 16.21 | 19.31 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.74 | 33.25 | 29.140 | |
| 10,700.00 | 10,641.25 | 10,752.67 | 10,641.25 | 16.26 | 19.37 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.63 | 33.37 | 29.040 | |
| 10,800.00 | 10,741.25 | 10,852.67 | 10,741.25 | 16.31 | 19.44 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.51 | 33.48 | 28.941 | |
| 10,900.00 | 10,841.25 | 10,952.67 | 10,841.25 | 16.36 | 19.50 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.40 | 33.60 | 28.842 | |
| 11,000.00 | 10,941.25 | 11,052.67 | 10,941.25 | 16.41 | 19.57 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.28 | 33.71 | 28.744 | |
| 11,100.00 | 11,041.25 | 11,152.67 | 11,041.25 | 16.46 | 19.63 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.17 | 33.83 | 28.646 | |
| 11,200.00 | 11,141.25 | 11,252.67 | 11,141.25 | 16.51 | 19.70 | -90.41 | -598.93 | -1,431.42 | 968.99 | 935.05 | 33.94 | 28.548 | |
| 11,300.00 | 11,241.25 | 11,352.67 | 11,241.25 | 16.56 | 19.76 | -90.41 | -598.93 | -1,431.42 | 968.99 | 934.94 | 34.06 | 28.451 | |
| 11,400.00 | 11,341.25 | 11,452.67 | 11,341.25 | 16.61 | 19.83 | -90.41 | -598.93 | -1,431.42 | 968.99 | 934.82 | 34.18 | 28.354 | |
| 11,500.00 | 11,441.25 | 11,552.67 | 11,441.25 | 16.66 | 19.89 | -90.41 | -598.93 | -1,431.42 | 968.99 | 934.70 | 34.29 | 28.257 | |
| 11,600.00 | 11,541.21 | 11,652.63 | 11,541.21 | 16.71 | 19.96 | 87.94 | -598.93 | -1,431.42 | 968.94 | 934.54 | 34.39 | 28.172 | |
| 11,700.00 | 11,639.79 | 11,751.21 | 11,639.79 | 16.90 | 20.02 | 88.92 | -598.93 | -1,431.42 | 968.49 | 933.90 | 34.60 | 27.994 | |
| 11,763.23 | 11,700.10 | 11,811.52 | 11,700.10 | 17.07 | 20.06 | 90.00 | -598.93 | -1,431.42 | 968.31 | 933.50 | 34.81 | 27.818 | CC |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11,800.00 | 11,734.09 | 11,845.51 | 11,734.09 | 17.17 | 20.08 | 90.76 | -598.93 | -1,431.42 | 968.41 | 933.48 | 34.93 | 27.721 | |
| 11,900.00 | 11,821.25 | 11,945.28 | 11,833.65 | 17.53 | 20.13 | 93.25 | -603.66 | -1,431.38 | 969.94 | 934.57 | 35.37 | 27.420 | |
| 12,000.00 | 11,898.62 | 12,058.51 | 11,943.79 | 18.00 | 20.19 | 95.91 | -629.15 | -1,431.16 | 972.90 | 937.00 | 35.90 | 27.103 | |
| 12,100.00 | 11,963.85 | 12,185.61 | 12,058.70 | 18.59 | 20.24 | 98.59 | -682.84 | -1,430.70 | 976.79 | 940.25 | 36.54 | 26.730 | |
| 12,200.00 | 12,014.95 | 12,329.42 | 12,170.81 | 19.33 | 20.31 | 101.18 | -772.31 | -1,429.93 | 980.73 | 943.35 | 37.38 | 26.236 | |
| 12,300.00 | 12,050.38 | 12,491.13 | 12,265.85 | 20.19 | 20.49 | 103.43 | -902.48 | -1,428.81 | 983.45 | 944.95 | 38.50 | 25.547 | |
| 12,400.00 | 12,069.05 | 12,667.82 | 12,323.76 | 21.14 | 20.88 | 104.99 | -1,068.65 | -1,427.37 | 983.52 | 943.58 | 39.95 | 24.621 | |
| 12,500.00 | 12,072.27 | 12,813.51 | 12,333.36 | 22.15 | 21.40 | 105.44 | -1,213.77 | -1,426.12 | 980.68 | 939.26 | 41.43 | 23.673 | |
| 12,600.00 | 12,072.97 | 12,913.51 | 12,333.89 | 23.19 | 21.85 | 105.44 | -1,313.76 | -1,425.26 | 979.92 | 937.12 | 42.80 | 22.896 | |
| 12,700.00 | 12,073.66 | 13,013.50 | 12,334.41 | 24.26 | 22.37 | 105.43 | -1,413.76 | -1,424.40 | 979.91 | 935.63 | 44.29 | 22.127 | |
| 12,800.00 | 12,074.36 | 13,113.50 | 12,334.93 | 25.36 | 22.94 | 105.42 | -1,513.75 | -1,423.54 | 979.91 | 934.03 | 45.88 | 21.359 | |
| 12,900.00 | 12,075.06 | 13,213.50 | 12,335.45 | 26.49 | 23.57 | 105.41 | -1,613.75 | -1,422.68 | 979.91 | 932.34 | 47.56 | 20.602 | |
| 13,000.00 | 12,075.76 | 13,313.50 | 12,335.97 | 27.63 | 24.26 | 105.40 | -1,713.74 | -1,421.82 | 979.91 | 930.57 | 49.34 | 19.862 | |
| 13,100.00 | 12,076.46 | 13,413.50 | 12,336.49 | 28.80 | 24.99 | 105.39 | -1,813.74 | -1,420.96 | 979.90 | 928.72 | 51.19 | 19.144 | |
| 13,200.00 | 12,077.15 | 13,513.50 | 12,337.01 | 29.98 | 25.78 | 105.38 | -1,913.73 | -1,420.10 | 979.90 | 926.80 | 53.10 | 18.452 | |
| 13,300.00 | 12,077.85 | 13,613.50 | 12,337.54 | 31.18 | 26.60 | 105.37 | -2,013.73 | -1,419.24 | 979.90 | 924.81 | 55.09 | 17.789 | |
| 13,400.00 | 12,078.55 | 13,713.50 | 12,338.06 | 32.39 | 27.47 | 105.36 | -2,113.72 | -1,418.37 | 979.89 | 922.77 | 57.12 | 17.154 | |
| 13,500.00 | 12,079.25 | 13,813.50 | 12,338.58 | 33.61 | 28.37 | 105.35 | -2,213.72 | -1,417.51 | 979.89 | 920.68 | 59.21 | 16.550 | |
| 13,600.00 | 12,079.95 | 13,913.50 | 12,339.10 | 34.84 | 29.31 | 105.34 | -2,313.71 | -1,416.65 | 979.89 | 918.55 | 61.34 | 15.974 | |
| 13,700.00 | 12,080.65 | 14,013.50 | 12,339.62 | 36.08 | 30.28 | 105.33 | -2,413.71 | -1,415.79 | 979.89 | 916.37 | 63.52 | 15.428 | |
| 13,800.00 | 12,081.34 | 14,113.50 | 12,340.14 | 37.33 | 31.28 | 105.31 | -2,513.70 | -1,414.93 | 979.88 | 914.16 | 65.73 | 14.909 | |
| 13,900.00 | 12,082.04 | 14,213.50 | 12,340.66 | 38.59 | 32.30 | 105.30 | -2,613.69 | -1,414.07 | 979.88 | 911.91 | 67.97 | 14.417 | |
| 14,000.00 | 12,082.74 | 14,313.50 | 12,341.18 | 39.86 | 33.35 | 105.29 | -2,713.69 | -1,413.21 | 979.88 | 909.64 | 70.24 | 13.950 | |
| 14,100.00 | 12,083.44 | 14,413.50 | 12,341.71 | 41.13 | 34.42 | 105.28 | -2,813.68 | -1,412.35 | 979.87 | 907.33 | 72.54 | 13.508 | |
| 14,200.00 | 12,084.14 | 14,513.50 | 12,342.23 | 42.40 | 35.51 | 105.27 | -2,913.68 | -1,411.48 | 979.87 | 905.01 | 74.87 | 13.088 | |
| 14,300.00 | 12,084.84 | 14,613.50 | 12,342.75 | 43.69 | 36.62 | 105.26 | -3,013.67 | -1,410.62 | 979.87 | 902.66 | 77.21 | 12.691 | |
| 14,400.00 | 12,085.53 | 14,713.50 | 12,343.27 | 44.97 | 37.75 | 105.25 | -3,113.67 | -1,409.76 | 979.87 | 900.29 | 79.58 | 12.313 | |
| 14,500.00 | 12,086.23 | 14,813.50 | 12,343.79 | 46.27 | 38.89 | 105.24 | -3,213.66 | -1,408.90 | 979.86 | 897.90 | 81.97 | 11.955 | |
| 14,600.00 | 12,086.93 | 14,913.50 | 12,344.31 | 47.56 | 40.04 | 105.23 | -3,313.66 | -1,408.04 | 979.86 | 895.49 | 84.37 | 11.614 | |
| 14,700.00 | 12,087.63 | 15,013.50 | 12,344.83 | 48.86 | 41.21 | 105.22 | -3,413.65 | -1,407.18 | 979.86 | 893.07 | 86.79 | 11.291 | |
| 14,800.00 | 12,088.33 | 15,113.50 | 12,345.36 | 50.17 | 42.39 | 105.21 | -3,513.65 | -1,406.32 | 979.86 | 890.64 | 89.22 | 10.983 | |
| 14,900.00 | 12,089.02 | 15,213.50 | 12,345.88 | 51.47 | 43.58 | 105.20 | -3,613.64 | -1,405.46 | 979.86 | 888.19 | 91.66 | 10.690 | |
| 15,000.00 | 12,089.72 | 15,313.50 | 12,346.40 | 52.78 | 44.78 | 105.19 | -3,713.64 | -1,404.60 | 979.85 | 885.73 | 94.12 | 10.411 | |
| 15,100.00 | 12,090.42 | 15,413.50 | 12,346.92 | 54.10 | 45.99 | 105.18 | -3,813.63 | -1,403.73 | 979.85 | 883.26 | 96.59 | 10.144 | |
| 15,200.00 | 12,091.12 | 15,513.50 | 12,347.44 | 55.41 | 47.21 | 105.16 | -3,913.63 | -1,402.87 | 979.85 | 880.78 | 99.07 | 9.891 | |
| 15,300.00 | 12,091.82 | 15,613.50 | 12,347.96 | 56.73 | 48.44 | 105.15 | -4,013.62 | -1,402.01 | 979.85 | 878.29 | 101.56 | 9.648 | |
| 15,400.00 | 12,092.52 | 15,713.50 | 12,348.48 | 58.05 | 49.67 | 105.14 | -4,113.62 | -1,401.15 | 979.84 | 875.79 | 104.06 | 9.417 | |
| 15,500.00 | 12,093.21 | 15,813.50 | 12,349.01 | 59.37 | 50.91 | 105.13 | -4,213.61 | -1,400.29 | 979.84 | 873.28 | 106.56 | 9.195 | |
| 15,600.00 | 12,093.91 | 15,913.50 | 12,349.53 | 60.70 | 52.16 | 105.12 | -4,313.61 | -1,399.43 | 979.84 | 870.77 | 109.07 | 8.983 | |
| 15,700.00 | 12,094.61 | 16,013.50 | 12,350.05 | 62.03 | 53.42 | 105.11 | -4,413.60 | -1,398.57 | 979.84 | 868.24 | 111.59 | 8.780 | |
| 15,800.00 | 12,095.31 | 16,113.50 | 12,350.57 | 63.35 | 54.68 | 105.10 | -4,513.60 | -1,397.71 | 979.84 | 865.71 | 114.12 | 8.586 | |
| 15,900.00 | 12,096.01 | 16,213.50 | 12,351.09 | 64.68 | 55.94 | 105.09 | -4,613.59 | -1,396.85 | 979.83 | 863.18 | 116.66 | 8.399 | |
| 16,000.00 | 12,096.71 | 16,313.50 | 12,351.61 | 66.02 | 57.21 | 105.08 | -4,713.59 | -1,395.98 | 979.83 | 860.64 | 119.20 | 8.220 | |
| 16,100.00 | 12,097.40 | 16,413.50 | 12,352.13 | 67.35 | 58.48 | 105.07 | -4,813.58 | -1,395.12 | 979.83 | 858.09 | 121.74 | 8.049 | |
| 16,200.00 | 12,098.10 | 16,513.50 | 12,352.65 | 68.68 | 59.76 | 105.06 | -4,913.57 | -1,394.26 | 979.83 | 855.54 | 124.29 | 7.883 | |
| 16,300.00 | 12,098.80 | 16,613.50 | 12,353.18 | 70.02 | 61.04 | 105.05 | -5,013.57 | -1,393.40 | 979.83 | 852.98 | 126.85 | 7.725 | |
| 16,400.00 | 12,099.50 | 16,713.50 | 12,353.70 | 71.36 | 62.33 | 105.04 | -5,113.56 | -1,392.54 | 979.82 | 850.42 | 129.40 | 7.572 | |
| 16,500.00 | 12,100.20 | 16,813.50 | 12,354.22 | 72.69 | 63.62 | 105.03 | -5,213.56 | -1,391.68 | 979.82 | 847.85 | 131.97 | 7.425 | |
| 16,600.00 | 12,100.90 | 16,913.50 | 12,354.74 | 74.03 | 64.91 | 105.02 | -5,313.55 | -1,390.82 | 979.82 | 845.28 | 134.54 | 7.283 | |
| 16,700.00 | 12,101.59 | 17,013.50 | 12,355.26 | 75.37 | 66.21 | 105.00 | -5,413.55 | -1,389.96 | 979.82 | 842.71 | 137.11 | 7.146 | |
| 16,800.00 | 12,102.29 | 17,113.50 | 12,355.78 | 76.72 | 67.50 | 104.99 | -5,513.54 | -1,389.09 | 979.82 | 840.13 | 139.68 | 7.015 | |
| 16,900.00 | 12,102.99 | 17,213.50 | 12,356.30 | 78.06 | 68.81 | 104.98 | -5,613.54 | -1,388.23 | 979.82 | 837.55 | 142.26 | 6.887 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17,000.00 | 12,103.69 | 17,313.50 | 12,356.83 | 79.40 | 70.11 | 104.97 | -5,713.53 | -1,387.37 | 979.81 | 834.97 | 144.85 | 6.765 | |
| 17,100.00 | 12,104.39 | 17,413.50 | 12,357.35 | 80.75 | 71.42 | 104.96 | -5,813.53 | -1,386.51 | 979.81 | 832.38 | 147.43 | 6.646 | |
| 17,200.00 | 12,105.08 | 17,513.50 | 12,357.87 | 82.09 | 72.72 | 104.95 | -5,913.52 | -1,385.65 | 979.81 | 829.79 | 150.02 | 6.531 | |
| 17,300.00 | 12,105.78 | 17,613.50 | 12,358.39 | 83.44 | 74.03 | 104.94 | -6,013.52 | -1,384.79 | 979.81 | 827.20 | 152.61 | 6.420 | |
| 17,400.00 | 12,106.48 | 17,713.50 | 12,358.91 | 84.78 | 75.35 | 104.93 | -6,113.51 | -1,383.93 | 979.81 | 824.60 | 155.21 | 6.313 | |
| 17,500.00 | 12,107.18 | 17,813.50 | 12,359.43 | 86.13 | 76.66 | 104.92 | -6,213.51 | -1,383.07 | 979.81 | 822.00 | 157.80 | 6.209 | |
| 17,600.00 | 12,107.88 | 17,913.50 | 12,359.95 | 87.48 | 77.98 | 104.91 | -6,313.50 | -1,382.21 | 979.81 | 819.40 | 160.40 | 6.108 | |
| 17,700.00 | 12,108.58 | 18,013.50 | 12,360.48 | 88.83 | 79.30 | 104.90 | -6,413.50 | -1,381.34 | 979.80 | 816.80 | 163.00 | 6.011 | |
| 17,800.00 | 12,109.27 | 18,113.50 | 12,361.00 | 90.18 | 80.62 | 104.89 | -6,513.49 | -1,380.48 | 979.80 | 814.20 | 165.61 | 5.916 | |
| 17,900.00 | 12,109.97 | 18,213.50 | 12,361.52 | 91.52 | 81.94 | 104.88 | -6,613.49 | -1,379.62 | 979.80 | 811.59 | 168.21 | 5.825 | |
| 18,000.00 | 12,110.67 | 18,313.50 | 12,362.04 | 92.88 | 83.26 | 104.87 | -6,713.48 | -1,378.76 | 979.80 | 808.98 | 170.82 | 5.736 | |
| 18,100.00 | 12,111.37 | 18,413.50 | 12,362.56 | 94.23 | 84.59 | 104.86 | -6,813.48 | -1,377.90 | 979.80 | 806.37 | 173.43 | 5.650 | |
| 18,200.00 | 12,112.07 | 18,513.50 | 12,363.08 | 95.58 | 85.92 | 104.84 | -6,913.47 | -1,377.04 | 979.80 | 803.76 | 176.04 | 5.566 | |
| 18,300.00 | 12,112.77 | 18,613.50 | 12,363.60 | 96.93 | 87.24 | 104.83 | -7,013.46 | -1,376.18 | 979.80 | 801.14 | 178.66 | 5.484 | |
| 18,400.00 | 12,113.46 | 18,713.50 | 12,364.13 | 98.28 | 88.57 | 104.82 | -7,113.46 | -1,375.32 | 979.80 | 798.52 | 181.27 | 5.405 | |
| 18,500.00 | 12,114.16 | 18,813.50 | 12,364.65 | 99.63 | 89.90 | 104.81 | -7,213.45 | -1,374.45 | 979.79 | 795.91 | 183.89 | 5.328 | |
| 18,600.00 | 12,114.86 | 18,913.50 | 12,365.17 | 100.99 | 91.23 | 104.80 | -7,313.45 | -1,373.59 | 979.79 | 793.29 | 186.51 | 5.253 | |
| 18,700.00 | 12,115.56 | 19,013.50 | 12,365.69 | 102.34 | 92.57 | 104.79 | -7,413.44 | -1,372.73 | 979.79 | 790.66 | 189.13 | 5.181 | |
| 18,800.00 | 12,116.26 | 19,113.49 | 12,366.21 | 103.70 | 93.90 | 104.78 | -7,513.44 | -1,371.87 | 979.79 | 788.04 | 191.75 | 5.110 | |
| 18,900.00 | 12,116.95 | 19,213.49 | 12,366.73 | 105.05 | 95.23 | 104.77 | -7,613.43 | -1,371.01 | 979.79 | 785.42 | 194.37 | 5.041 | |
| 19,000.00 | 12,117.65 | 19,313.49 | 12,367.25 | 106.41 | 96.57 | 104.76 | -7,713.43 | -1,370.15 | 979.79 | 782.79 | 197.00 | 4.974 | |
| 19,100.00 | 12,118.35 | 19,413.49 | 12,367.77 | 107.76 | 97.91 | 104.75 | -7,813.42 | -1,369.29 | 979.79 | 780.16 | 199.62 | 4.908 | |
| 19,200.00 | 12,119.05 | 19,513.49 | 12,368.30 | 109.12 | 99.24 | 104.74 | -7,913.42 | -1,368.43 | 979.79 | 777.54 | 202.25 | 4.844 | |
| 19,300.00 | 12,119.75 | 19,613.49 | 12,368.82 | 110.47 | 100.58 | 104.73 | -8,013.41 | -1,367.57 | 979.79 | 774.91 | 204.88 | 4.782 | |
| 19,400.00 | 12,120.45 | 19,713.49 | 12,369.34 | 111.83 | 101.92 | 104.72 | -8,113.41 | -1,366.70 | 979.79 | 772.28 | 207.51 | 4.722 | |
| 19,500.00 | 12,121.14 | 19,813.49 | 12,369.86 | 113.19 | 103.26 | 104.71 | -8,213.40 | -1,365.84 | 979.78 | 769.64 | 210.14 | 4.663 | |
| 19,600.00 | 12,121.84 | 19,913.49 | 12,370.38 | 114.54 | 104.60 | 104.69 | -8,313.40 | -1,364.98 | 979.78 | 767.01 | 212.77 | 4.605 | |
| 19,700.00 | 12,122.54 | 20,013.49 | 12,370.90 | 115.90 | 105.94 | 104.68 | -8,413.39 | -1,364.12 | 979.78 | 764.38 | 215.41 | 4.549 | |
| 19,800.00 | 12,123.24 | 20,113.49 | 12,371.42 | 117.26 | 107.28 | 104.67 | -8,513.39 | -1,363.26 | 979.78 | 761.74 | 218.04 | 4.494 | |
| 19,900.00 | 12,123.94 | 20,213.49 | 12,371.95 | 118.61 | 108.63 | 104.66 | -8,613.38 | -1,362.40 | 979.78 | 759.10 | 220.68 | 4.440 | |
| 20,000.00 | 12,124.64 | 20,313.49 | 12,372.47 | 119.97 | 109.97 | 104.65 | -8,713.38 | -1,361.54 | 979.78 | 756.47 | 223.31 | 4.387 | |
| 20,100.00 | 12,125.33 | 20,413.49 | 12,372.99 | 121.33 | 111.32 | 104.64 | -8,813.37 | -1,360.68 | 979.78 | 753.83 | 225.95 | 4.336 | |
| 20,200.00 | 12,126.03 | 20,513.49 | 12,373.51 | 122.69 | 112.66 | 104.63 | -8,913.37 | -1,359.81 | 979.78 | 751.19 | 228.59 | 4.286 | |
| 20,300.00 | 12,126.73 | 20,613.49 | 12,374.03 | 124.05 | 114.01 | 104.62 | -9,013.36 | -1,358.95 | 979.78 | 748.55 | 231.23 | 4.237 | |
| 20,400.00 | 12,127.43 | 20,713.49 | 12,374.55 | 125.41 | 115.35 | 104.61 | -9,113.35 | -1,358.09 | 979.78 | 745.91 | 233.87 | 4.189 | |
| 20,500.00 | 12,128.13 | 20,813.49 | 12,375.07 | 126.77 | 116.70 | 104.60 | -9,213.35 | -1,357.23 | 979.78 | 743.27 | 236.51 | 4.143 | |
| 20,600.00 | 12,128.83 | 20,913.49 | 12,375.60 | 128.13 | 118.04 | 104.59 | -9,313.34 | -1,356.37 | 979.78 | 740.62 | 239.15 | 4.097 | |
| 20,700.00 | 12,129.52 | 21,013.49 | 12,376.12 | 129.49 | 119.39 | 104.58 | -9,413.34 | -1,355.51 | 979.78 | 737.98 | 241.80 | 4.052 | |
| 20,800.00 | 12,130.22 | 21,113.49 | 12,376.64 | 130.85 | 120.74 | 104.57 | -9,513.33 | -1,354.65 | 979.78 | 735.34 | 244.44 | 4.008 | |
| 20,900.00 | 12,130.92 | 21,213.49 | 12,377.16 | 132.21 | 122.09 | 104.56 | -9,613.33 | -1,353.79 | 979.78 | 732.69 | 247.09 | 3.965 | |
| 21,000.00 | 12,131.62 | 21,313.49 | 12,377.68 | 133.57 | 123.44 | 104.55 | -9,713.32 | -1,352.93 | 979.78 | 730.05 | 249.73 | 3.923 | |
| 21,100.00 | 12,132.32 | 21,413.49 | 12,378.20 | 134.93 | 124.79 | 104.53 | -9,813.32 | -1,352.06 | 979.78 | 727.40 | 252.38 | 3.882 | |
| 21,200.00 | 12,133.01 | 21,513.49 | 12,378.72 | 136.29 | 126.14 | 104.52 | -9,913.31 | -1,351.20 | 979.78 | 724.75 | 255.03 | 3.842 | |
| 21,300.00 | 12,133.71 | 21,613.49 | 12,379.24 | 137.65 | 127.49 | 104.51 | -10,013.31 | -1,350.34 | 979.78 | 722.10 | 257.67 | 3.802 | |
| 21,400.00 | 12,134.41 | 21,713.49 | 12,379.77 | 139.01 | 128.84 | 104.50 | -10,113.30 | -1,349.48 | 979.78 | 719.45 | 260.32 | 3.764 | |
| 21,500.00 | 12,135.11 | 21,813.49 | 12,380.29 | 140.37 | 130.19 | 104.49 | -10,213.30 | -1,348.62 | 979.78 | 716.81 | 262.97 | 3.726 | |
| 21,600.00 | 12,135.81 | 21,913.49 | 12,380.81 | 141.73 | 131.54 | 104.48 | -10,313.29 | -1,347.76 | 979.78 | 714.16 | 265.62 | 3.689 | |
| 21,700.00 | 12,136.51 | 22,013.49 | 12,381.33 | 143.09 | 132.89 | 104.47 | -10,413.29 | -1,346.90 | 979.78 | 711.50 | 268.27 | 3.652 | |
| 21,706.56 | 12,136.55 | 22,020.05 | 12,381.36 | 143.18 | 132.98 | 104.47 | -10,419.85 | -1,346.84 | 979.78 | 711.33 | 268.45 | 3.650 | |
| 21,800.00 | 12,137.20 | 22,113.49 | 12,381.85 | 144.46 | 134.24 | 104.46 | -10,513.28 | -1,346.04 | 979.78 | 708.85 | 270.92 | 3.616 | |
| 21,900.00 | 12,137.90 | 22,213.49 | 12,382.37 | 145.82 | 135.60 | 104.45 | -10,613.28 | -1,345.17 | 979.78 | 706.20 | 273.58 | 3.581 | |
| 22,000.00 | 12,138.60 | 22,313.49 | 12,382.89 | 147.18 | 136.95 | 104.44 | -10,713.27 | -1,344.31 | 979.78 | 703.55 | 276.23 | 3.547 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22,100.00 | 12,139.30 | 22,413.49 | 12,383.42 | 148.54 | 138.30 | 104.43 | -10,813.27 | -1,343.45 | 979.78 | 700.90 | 278.88 | 3.513 | |
| 22,200.00 | 12,140.00 | 22,513.49 | 12,383.94 | 149.90 | 139.66 | 104.42 | -10,913.26 | -1,342.59 | 979.78 | 698.24 | 281.54 | 3.480 | |
| 22,300.00 | 12,140.70 | 22,613.49 | 12,384.46 | 151.27 | 141.01 | 104.41 | -11,013.26 | -1,341.73 | 979.78 | 695.59 | 284.19 | 3.448 | |
| 22,308.78 | 12,140.76 | 22,622.27 | 12,384.50 | 151.39 | 141.13 | 104.41 | -11,022.04 | -1,341.65 | 979.78 | 695.35 | 284.42 | 3.445 | |
| 22,387.52 | 12,141.31 | 22,698.24 | 12,384.90 | 152.46 | 142.16 | 104.40 | -11,098.00 | -1,341.00 | 979.78 | 693.32 | 286.46 | 3.420 | ES, SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.50 | 0.50 | 173.21 | -210.00 | 25.00 | 211.49 | | | | |
| 100.00 | 100.00 | 99.00 | 100.00 | 0.98 | 0.97 | 173.21 | -210.00 | 25.00 | 211.48 | 209.53 | 1.95 | 108.179 | |
| 200.00 | 200.00 | 199.00 | 200.00 | 1.56 | 1.56 | 173.21 | -210.00 | 25.00 | 211.48 | 208.37 | 3.12 | 67.865 | |
| 300.00 | 300.00 | 299.00 | 300.00 | 1.98 | 1.98 | 173.21 | -210.00 | 25.00 | 211.48 | 207.52 | 3.96 | 53.431 | CC |
| 400.00 | 400.00 | 396.80 | 397.79 | 2.33 | 2.40 | 172.91 | -210.36 | 26.17 | 212.00 | 207.34 | 4.66 | 45.531 | ES |
| 500.00 | 500.00 | 494.45 | 495.37 | 2.63 | 2.75 | 172.00 | -211.46 | 29.73 | 213.59 | 208.33 | 5.27 | 40.565 | |
| 600.00 | 600.00 | 591.85 | 592.56 | 2.91 | 3.08 | 170.51 | -213.30 | 35.65 | 216.38 | 210.56 | 5.82 | 37.174 | |
| 700.00 | 700.00 | 688.87 | 689.20 | 3.16 | 3.38 | 168.51 | -215.85 | 43.89 | 220.53 | 214.19 | 6.34 | 34.786 | |
| 800.00 | 799.99 | 785.33 | 785.02 | 3.45 | 3.66 | -48.34 | -219.11 | 54.41 | 225.39 | 218.54 | 6.85 | 32.916 | |
| 900.00 | 899.91 | 882.63 | 881.42 | 3.70 | 3.81 | -51.81 | -223.02 | 67.07 | 230.37 | 223.15 | 7.22 | 31.897 | |
| 1,000.00 | 999.69 | 981.18 | 979.01 | 3.95 | 4.03 | -55.73 | -227.08 | 80.17 | 234.94 | 227.28 | 7.66 | 30.662 | |
| 1,100.00 | 1,099.32 | 1,079.49 | 1,076.36 | 4.05 | 4.25 | -59.92 | -231.12 | 93.24 | 239.60 | 231.61 | 7.99 | 29.980 | |
| 1,200.00 | 1,198.94 | 1,177.79 | 1,173.70 | 4.24 | 4.46 | -63.98 | -235.17 | 106.31 | 245.47 | 237.06 | 8.42 | 29.170 | |
| 1,300.00 | 1,298.53 | 1,276.03 | 1,271.00 | 4.33 | 4.68 | -68.93 | -239.21 | 119.37 | 252.48 | 243.75 | 8.73 | 28.921 | |
| 1,400.00 | 1,397.89 | 1,373.92 | 1,367.93 | 4.57 | 4.89 | -74.50 | -243.24 | 132.38 | 260.24 | 251.09 | 9.15 | 28.440 | |
| 1,500.00 | 1,496.93 | 1,471.32 | 1,464.38 | 4.81 | 5.10 | -79.80 | -247.25 | 145.33 | 269.09 | 259.53 | 9.57 | 28.122 | |
| 1,600.00 | 1,595.62 | 1,568.25 | 1,560.37 | 4.92 | 5.31 | -84.69 | -251.24 | 158.22 | 279.46 | 269.56 | 9.90 | 28.229 | |
| 1,700.00 | 1,694.25 | 1,665.09 | 1,656.27 | 5.12 | 5.52 | -88.99 | -255.22 | 171.09 | 291.56 | 281.23 | 10.33 | 28.231 | |
| 1,800.00 | 1,792.87 | 1,761.94 | 1,752.17 | 5.31 | 5.72 | -92.94 | -259.21 | 183.97 | 305.22 | 294.46 | 10.76 | 28.377 | |
| 1,900.00 | 1,891.50 | 1,858.78 | 1,848.07 | 5.51 | 5.93 | -96.55 | -263.19 | 196.84 | 320.24 | 309.06 | 11.18 | 28.632 | |
| 2,000.00 | 1,990.13 | 1,955.63 | 1,943.98 | 5.71 | 6.13 | -99.84 | -267.18 | 209.72 | 336.44 | 324.82 | 11.61 | 28.971 | |
| 2,100.00 | 2,088.76 | 2,052.47 | 2,039.88 | 5.90 | 6.33 | -102.83 | -271.17 | 222.59 | 353.65 | 341.61 | 12.04 | 29.372 | |
| 2,200.00 | 2,187.39 | 2,149.32 | 2,135.78 | 6.10 | 6.54 | -105.54 | -275.15 | 235.47 | 371.74 | 359.27 | 12.47 | 29.818 | |
| 2,300.00 | 2,286.02 | 2,243.29 | 2,228.82 | 6.30 | 6.72 | -107.94 | -279.05 | 248.06 | 390.69 | 377.83 | 12.87 | 30.368 | |
| 2,400.00 | 2,384.65 | 2,330.60 | 2,315.04 | 6.50 | 6.91 | -109.96 | -283.19 | 261.19 | 412.00 | 398.74 | 13.25 | 31.084 | |
| 2,500.00 | 2,483.28 | 2,417.01 | 2,400.03 | 6.69 | 7.12 | -111.76 | -287.95 | 276.02 | 436.03 | 422.38 | 13.65 | 31.934 | |
| 2,600.00 | 2,581.91 | 2,500.00 | 2,481.31 | 6.89 | 7.32 | -113.30 | -293.12 | 291.95 | 462.67 | 448.64 | 14.03 | 32.974 | |
| 2,700.00 | 2,680.54 | 2,586.87 | 2,565.98 | 7.10 | 7.54 | -114.72 | -299.18 | 310.41 | 491.76 | 477.33 | 14.43 | 34.074 | |
| 2,800.00 | 2,779.17 | 2,677.58 | 2,654.02 | 7.33 | 7.73 | -116.03 | -306.03 | 331.15 | 522.76 | 507.94 | 14.81 | 35.286 | |
| 2,900.00 | 2,877.80 | 2,771.92 | 2,745.56 | 7.56 | 7.98 | -117.23 | -313.18 | 352.81 | 554.12 | 538.88 | 15.24 | 36.360 | |
| 3,000.00 | 2,976.43 | 2,866.26 | 2,837.10 | 7.79 | 8.25 | -118.31 | -320.34 | 374.48 | 585.67 | 570.00 | 15.67 | 37.373 | |
| 3,100.00 | 3,075.06 | 2,960.59 | 2,928.63 | 8.02 | 8.53 | -119.28 | -327.50 | 396.15 | 617.40 | 601.30 | 16.10 | 38.340 | |
| 3,200.00 | 3,173.69 | 3,054.93 | 3,020.17 | 8.25 | 8.82 | -120.15 | -334.66 | 417.82 | 649.27 | 632.73 | 16.54 | 39.261 | |
| 3,300.00 | 3,272.32 | 3,149.27 | 3,111.70 | 8.48 | 9.11 | -120.94 | -341.82 | 439.49 | 681.27 | 664.29 | 16.97 | 40.139 | |
| 3,400.00 | 3,370.94 | 3,243.61 | 3,203.24 | 8.72 | 9.40 | -121.67 | -348.98 | 461.15 | 713.37 | 695.96 | 17.41 | 40.975 | |
| 3,500.00 | 3,469.57 | 3,337.95 | 3,294.78 | 8.95 | 9.69 | -122.33 | -356.14 | 482.82 | 745.57 | 727.72 | 17.85 | 41.773 | |
| 3,600.00 | 3,568.20 | 3,432.28 | 3,386.31 | 9.19 | 9.99 | -122.93 | -363.30 | 504.49 | 777.84 | 759.56 | 18.29 | 42.534 | |
| 3,700.00 | 3,666.83 | 3,526.62 | 3,477.85 | 9.42 | 10.28 | -123.49 | -370.46 | 526.16 | 810.19 | 791.47 | 18.73 | 43.260 | |
| 3,800.00 | 3,765.46 | 3,620.96 | 3,569.38 | 9.66 | 10.58 | -124.01 | -377.62 | 547.83 | 842.61 | 823.44 | 19.17 | 43.954 | |
| 3,900.00 | 3,864.09 | 3,715.30 | 3,660.92 | 9.89 | 10.88 | -124.48 | -384.78 | 569.49 | 875.08 | 855.47 | 19.61 | 44.617 | |
| 4,000.00 | 3,962.72 | 3,809.64 | 3,752.46 | 10.13 | 11.18 | -124.93 | -391.93 | 591.16 | 907.60 | 887.54 | 20.06 | 45.250 | |
| 4,100.00 | 4,061.35 | 3,903.97 | 3,843.99 | 10.36 | 11.48 | -125.34 | -399.09 | 612.83 | 940.17 | 919.67 | 20.50 | 45.856 | |
| 4,200.00 | 4,159.98 | 3,998.31 | 3,935.53 | 10.60 | 11.78 | -125.72 | -406.25 | 634.50 | 972.78 | 951.83 | 20.95 | 46.436 | |
| 4,300.00 | 4,258.61 | 4,092.65 | 4,027.07 | 10.83 | 12.09 | -126.08 | -413.41 | 656.17 | 1,005.42 | 984.03 | 21.40 | 46.991 | |
| 4,400.00 | 4,357.24 | 4,186.99 | 4,118.60 | 11.07 | 12.39 | -126.42 | -420.57 | 677.83 | 1,038.10 | 1,016.26 | 21.84 | 47.523 | |
| 4,500.00 | 4,455.87 | 4,281.32 | 4,210.14 | 11.31 | 12.69 | -126.74 | -427.73 | 699.50 | 1,070.81 | 1,048.52 | 22.29 | 48.033 | |
| 4,600.00 | 4,554.50 | 4,375.66 | 4,301.67 | 11.54 | 13.00 | -127.04 | -434.89 | 721.17 | 1,103.55 | 1,080.80 | 22.74 | 48.522 | |
| 4,700.00 | 4,653.13 | 4,470.00 | 4,393.21 | 11.78 | 13.31 | -127.32 | -442.05 | 742.84 | 1,136.31 | 1,113.11 | 23.19 | 48.992 | |
| 4,800.00 | 4,751.76 | 4,564.34 | 4,484.75 | 12.02 | 13.61 | -127.58 | -449.21 | 764.51 | 1,169.09 | 1,145.45 | 23.65 | 49.444 | |
| 4,900.00 | 4,850.39 | 4,658.68 | 4,576.28 | 12.26 | 13.92 | -127.84 | -456.37 | 786.17 | 1,201.90 | 1,177.80 | 24.10 | 49.877 | |
| 5,000.00 | 4,949.01 | 4,753.01 | 4,667.82 | 12.49 | 14.23 | -128.07 | -463.53 | 807.84 | 1,234.72 | 1,210.17 | 24.55 | 50.294 | |
| 5,100.00 | 5,047.64 | 4,847.35 | 4,759.35 | 12.73 | 14.54 | -128.30 | -470.68 | 829.51 | 1,267.57 | 1,242.56 | 25.00 | 50.696 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 5,146.27 | 4,941.69 | 4,850.89 | 12.97 | 14.84 | -128.51 | -477.84 | 851.18 | 1,300.43 | 1,274.97 | 25.46 | 51.082 | |
| 5,300.00 | 5,244.90 | 5,036.03 | 4,942.43 | 13.21 | 15.15 | -128.72 | -485.00 | 872.85 | 1,333.30 | 1,307.39 | 25.91 | 51.454 | |
| 5,400.00 | 5,343.57 | 5,130.43 | 5,034.02 | 13.41 | 15.46 | -129.08 | -492.17 | 894.53 | 1,366.04 | 1,339.70 | 26.34 | 51.868 | |
| 5,500.00 | 5,442.58 | 5,225.33 | 5,126.11 | 13.63 | 15.77 | -129.57 | -499.37 | 916.33 | 1,397.46 | 1,370.68 | 26.78 | 52.179 | |
| 5,600.00 | 5,541.92 | 5,320.77 | 5,218.71 | 13.82 | 16.09 | -129.94 | -506.61 | 938.25 | 1,427.30 | 1,400.09 | 27.21 | 52.453 | |
| 5,700.00 | 5,641.52 | 5,416.69 | 5,311.78 | 13.98 | 16.40 | -130.21 | -513.89 | 960.28 | 1,455.53 | 1,427.91 | 27.62 | 52.694 | |
| 5,800.00 | 5,741.32 | 5,513.01 | 5,405.24 | 14.12 | 16.72 | -130.37 | -521.20 | 982.40 | 1,482.14 | 1,454.12 | 28.01 | 52.906 | |
| 5,900.00 | 5,841.25 | 5,609.67 | 5,499.04 | 14.23 | 17.04 | -130.45 | -528.54 | 1,004.61 | 1,507.13 | 1,478.74 | 28.39 | 53.094 | |
| 6,000.00 | 5,941.25 | 5,706.61 | 5,593.09 | 14.28 | 17.36 | 87.84 | -535.89 | 1,026.87 | 1,530.50 | 1,501.82 | 28.68 | 53.365 | |
| 6,100.00 | 6,041.25 | 5,803.64 | 5,687.24 | 14.32 | 17.68 | 88.15 | -543.26 | 1,049.16 | 1,553.27 | 1,524.32 | 28.95 | 53.656 | |
| 6,200.00 | 6,141.25 | 5,949.52 | 5,829.27 | 14.35 | 18.12 | 88.58 | -553.70 | 1,080.76 | 1,574.90 | 1,545.49 | 29.40 | 53.560 | |
| 6,300.00 | 6,241.25 | 6,110.93 | 5,987.75 | 14.39 | 18.56 | 88.95 | -563.28 | 1,109.75 | 1,592.77 | 1,562.87 | 29.90 | 53.267 | |
| 6,400.00 | 6,341.25 | 6,274.70 | 6,149.73 | 14.42 | 18.93 | 89.24 | -570.84 | 1,132.65 | 1,606.69 | 1,576.35 | 30.34 | 52.951 | |
| 6,500.00 | 6,441.25 | 6,440.28 | 6,314.39 | 14.46 | 19.22 | 89.44 | -576.27 | 1,149.07 | 1,616.58 | 1,585.85 | 30.73 | 52.610 | |
| 6,600.00 | 6,541.25 | 6,607.06 | 6,480.84 | 14.49 | 19.43 | 89.55 | -579.46 | 1,158.75 | 1,622.37 | 1,591.32 | 31.05 | 52.253 | |
| 6,700.00 | 6,641.25 | 6,767.50 | 6,641.25 | 14.53 | 19.54 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.81 | 31.23 | 52.005 | |
| 6,800.00 | 6,741.25 | 6,867.50 | 6,741.25 | 14.56 | 19.57 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.75 | 31.29 | 51.901 | |
| 6,900.00 | 6,841.25 | 6,967.50 | 6,841.25 | 14.60 | 19.61 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.68 | 31.36 | 51.781 | |
| 7,000.00 | 6,941.25 | 7,067.50 | 6,941.25 | 14.64 | 19.64 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.61 | 31.44 | 51.661 | |
| 7,100.00 | 7,041.25 | 7,167.50 | 7,041.25 | 14.68 | 19.68 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.53 | 31.51 | 51.540 | |
| 7,200.00 | 7,141.25 | 7,267.50 | 7,141.25 | 14.71 | 19.72 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.46 | 31.59 | 51.418 | |
| 7,300.00 | 7,241.25 | 7,367.50 | 7,241.25 | 14.75 | 19.76 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.38 | 31.66 | 51.296 | |
| 7,400.00 | 7,341.25 | 7,467.50 | 7,341.25 | 14.79 | 19.80 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.31 | 31.74 | 51.173 | |
| 7,500.00 | 7,441.25 | 7,567.50 | 7,441.25 | 14.83 | 19.84 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.23 | 31.81 | 51.050 | |
| 7,600.00 | 7,541.25 | 7,667.50 | 7,541.25 | 14.87 | 19.88 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.15 | 31.89 | 50.927 | |
| 7,700.00 | 7,641.25 | 7,767.50 | 7,641.25 | 14.91 | 19.92 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.07 | 31.97 | 50.803 | |
| 7,800.00 | 7,741.25 | 7,867.50 | 7,741.25 | 14.95 | 19.96 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,592.00 | 32.05 | 50.678 | |
| 7,900.00 | 7,841.25 | 7,967.50 | 7,841.25 | 14.99 | 20.00 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.92 | 32.13 | 50.554 | |
| 8,000.00 | 7,941.25 | 8,067.50 | 7,941.25 | 15.03 | 20.04 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.84 | 32.20 | 50.428 | |
| 8,100.00 | 8,041.25 | 8,167.50 | 8,041.25 | 15.07 | 20.08 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.76 | 32.29 | 50.303 | |
| 8,200.00 | 8,141.25 | 8,267.50 | 8,141.25 | 15.11 | 20.12 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.68 | 32.37 | 50.177 | |
| 8,300.00 | 8,241.25 | 8,367.50 | 8,241.25 | 15.15 | 20.16 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.59 | 32.45 | 50.051 | |
| 8,400.00 | 8,341.25 | 8,467.50 | 8,341.25 | 15.20 | 20.21 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.51 | 32.53 | 49.924 | |
| 8,500.00 | 8,441.25 | 8,567.50 | 8,441.25 | 15.24 | 20.25 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.43 | 32.61 | 49.797 | |
| 8,600.00 | 8,541.25 | 8,667.50 | 8,541.25 | 15.28 | 20.29 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.35 | 32.70 | 49.670 | |
| 8,700.00 | 8,641.25 | 8,767.50 | 8,641.25 | 15.32 | 20.33 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.26 | 32.78 | 49.543 | |
| 8,800.00 | 8,741.25 | 8,867.50 | 8,741.25 | 15.37 | 20.38 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.18 | 32.87 | 49.415 | |
| 8,900.00 | 8,841.25 | 8,967.50 | 8,841.25 | 15.41 | 20.42 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.09 | 32.95 | 49.287 | |
| 9,000.00 | 8,941.25 | 9,067.50 | 8,941.25 | 15.46 | 20.46 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,591.01 | 33.04 | 49.159 | |
| 9,100.00 | 9,041.25 | 9,167.50 | 9,041.25 | 15.50 | 20.51 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.92 | 33.12 | 49.031 | |
| 9,200.00 | 9,141.25 | 9,267.50 | 9,141.25 | 15.55 | 20.55 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.83 | 33.21 | 48.903 | |
| 9,300.00 | 9,241.25 | 9,367.50 | 9,241.25 | 15.59 | 20.59 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.74 | 33.30 | 48.774 | |
| 9,400.00 | 9,341.25 | 9,467.50 | 9,341.25 | 15.64 | 20.64 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.66 | 33.39 | 48.645 | |
| 9,500.00 | 9,441.25 | 9,567.50 | 9,441.25 | 15.68 | 20.68 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.57 | 33.47 | 48.516 | |
| 9,600.00 | 9,541.25 | 9,667.50 | 9,541.25 | 15.73 | 20.73 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.48 | 33.56 | 48.387 | |
| 9,700.00 | 9,641.25 | 9,767.50 | 9,641.25 | 15.78 | 20.77 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.39 | 33.65 | 48.258 | |
| 9,800.00 | 9,741.25 | 9,867.50 | 9,741.25 | 15.82 | 20.82 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.30 | 33.74 | 48.129 | |
| 9,900.00 | 9,841.25 | 9,967.50 | 9,841.25 | 15.87 | 20.86 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.21 | 33.83 | 47.999 | |
| 10,000.00 | 9,941.25 | 10,067.50 | 9,941.25 | 15.92 | 20.91 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.12 | 33.93 | 47.870 | |
| 10,100.00 | 10,041.25 | 10,167.50 | 10,041.25 | 15.96 | 20.95 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,590.02 | 34.02 | 47.740 | |
| 10,200.00 | 10,141.25 | 10,267.50 | 10,141.25 | 16.01 | 21.00 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.93 | 34.11 | 47.611 | |
| 10,300.00 | 10,241.25 | 10,367.50 | 10,241.25 | 16.06 | 21.04 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.84 | 34.20 | 47.481 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,400.00 | 10,341.25 | 10,467.50 | 10,341.25 | 16.11 | 21.09 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.74 | 34.30 | 47.352 | |
| 10,500.00 | 10,441.25 | 10,567.50 | 10,441.25 | 16.16 | 21.14 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.65 | 34.39 | 47.222 | |
| 10,600.00 | 10,541.25 | 10,667.50 | 10,541.25 | 16.21 | 21.18 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.56 | 34.49 | 47.092 | |
| 10,700.00 | 10,641.25 | 10,767.50 | 10,641.25 | 16.26 | 21.23 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.46 | 34.58 | 46.963 | |
| 10,800.00 | 10,741.25 | 10,867.50 | 10,741.25 | 16.31 | 21.28 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.36 | 34.68 | 46.833 | |
| 10,900.00 | 10,841.25 | 10,967.50 | 10,841.25 | 16.36 | 21.33 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.27 | 34.77 | 46.704 | |
| 11,000.00 | 10,941.25 | 11,067.50 | 10,941.25 | 16.41 | 21.37 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.17 | 34.87 | 46.574 | |
| 11,100.00 | 11,041.25 | 11,167.50 | 11,041.25 | 16.46 | 21.42 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,589.07 | 34.97 | 46.445 | |
| 11,200.00 | 11,141.25 | 11,267.50 | 11,141.25 | 16.51 | 21.47 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,588.98 | 35.06 | 46.315 | |
| 11,300.00 | 11,241.25 | 11,367.50 | 11,241.25 | 16.56 | 21.52 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,588.88 | 35.16 | 46.186 | |
| 11,400.00 | 11,341.25 | 11,467.50 | 11,341.25 | 16.61 | 21.57 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,588.78 | 35.26 | 46.057 | |
| 11,500.00 | 11,441.25 | 11,567.50 | 11,441.25 | 16.66 | 21.62 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,588.68 | 35.36 | 45.928 | |
| 11,500.23 | 11,441.48 | 11,567.74 | 11,441.48 | 16.66 | 21.62 | 89.59 | -580.39 | 1,161.55 | 1,624.04 | 1,588.68 | 35.36 | 45.927 | |
| 11,600.00 | 11,541.21 | 11,667.47 | 11,541.21 | 16.71 | 21.66 | -92.21 | -580.39 | 1,161.55 | 1,624.10 | 1,588.66 | 35.44 | 45.822 | |
| 11,700.00 | 11,639.79 | 11,766.05 | 11,639.79 | 16.90 | 21.71 | -92.70 | -580.39 | 1,161.55 | 1,624.80 | 1,589.18 | 35.62 | 45.610 | |
| 11,800.00 | 11,734.09 | 11,860.35 | 11,734.09 | 17.17 | 21.76 | -93.59 | -580.39 | 1,161.55 | 1,626.73 | 1,590.80 | 35.93 | 45.274 | |
| 11,900.00 | 11,821.25 | 11,949.78 | 11,823.52 | 17.53 | 21.79 | -94.71 | -580.55 | 1,161.55 | 1,630.79 | 1,594.44 | 36.35 | 44.863 | |
| 12,000.00 | 11,898.62 | 12,057.14 | 11,929.99 | 18.00 | 21.92 | -96.08 | -593.09 | 1,161.67 | 1,637.34 | 1,600.43 | 36.91 | 44.361 | |
| 12,100.00 | 11,963.85 | 12,180.86 | 12,047.24 | 18.59 | 22.15 | -97.45 | -631.81 | 1,162.02 | 1,645.84 | 1,608.12 | 37.71 | 43.640 | |
| 12,200.00 | 12,014.95 | 12,326.94 | 12,171.11 | 19.33 | 22.54 | -98.81 | -708.50 | 1,162.71 | 1,655.51 | 1,616.64 | 38.88 | 42.583 | |
| 12,300.00 | 12,050.38 | 12,501.14 | 12,287.72 | 20.19 | 23.20 | -100.03 | -837.00 | 1,163.88 | 1,665.08 | 1,624.57 | 40.51 | 41.099 | |
| 12,400.00 | 12,069.05 | 12,703.47 | 12,367.64 | 21.14 | 24.33 | -100.73 | -1,021.73 | 1,165.56 | 1,672.83 | 1,630.22 | 42.61 | 39.259 | |
| 12,500.00 | 12,072.27 | 12,873.32 | 12,383.16 | 22.15 | 25.53 | -100.70 | -1,190.39 | 1,167.09 | 1,677.11 | 1,632.45 | 44.66 | 37.555 | |
| 12,600.00 | 12,072.97 | 12,973.32 | 12,383.69 | 23.19 | 26.32 | -100.67 | -1,290.38 | 1,168.00 | 1,677.85 | 1,631.42 | 46.43 | 36.139 | |
| 12,700.00 | 12,073.66 | 13,073.32 | 12,384.21 | 24.26 | 27.16 | -100.67 | -1,390.37 | 1,168.91 | 1,677.82 | 1,629.53 | 48.29 | 34.746 | |
| 12,800.00 | 12,074.36 | 13,173.32 | 12,384.74 | 25.36 | 28.04 | -100.66 | -1,490.36 | 1,169.82 | 1,677.79 | 1,627.57 | 50.22 | 33.406 | |
| 12,900.00 | 12,075.06 | 13,273.32 | 12,385.26 | 26.49 | 28.95 | -100.65 | -1,590.36 | 1,170.73 | 1,677.76 | 1,625.54 | 52.23 | 32.125 | |
| 13,000.00 | 12,075.76 | 13,373.32 | 12,385.79 | 27.63 | 29.90 | -100.65 | -1,690.35 | 1,171.63 | 1,677.73 | 1,623.44 | 54.29 | 30.904 | |
| 13,100.00 | 12,076.46 | 13,473.32 | 12,386.32 | 28.80 | 30.87 | -100.64 | -1,790.35 | 1,172.54 | 1,677.70 | 1,621.30 | 56.40 | 29.745 | |
| 13,200.00 | 12,077.15 | 13,573.32 | 12,386.84 | 29.98 | 31.88 | -100.64 | -1,890.34 | 1,173.45 | 1,677.67 | 1,619.11 | 58.57 | 28.646 | |
| 13,300.00 | 12,077.85 | 13,673.32 | 12,387.37 | 31.18 | 32.90 | -100.63 | -1,990.34 | 1,174.36 | 1,677.64 | 1,616.87 | 60.77 | 27.606 | |
| 13,400.00 | 12,078.55 | 13,773.32 | 12,387.89 | 32.39 | 33.95 | -100.63 | -2,090.33 | 1,175.27 | 1,677.61 | 1,614.60 | 63.02 | 26.622 | |
| 13,500.00 | 12,079.25 | 13,873.32 | 12,388.42 | 33.61 | 35.02 | -100.62 | -2,190.32 | 1,176.18 | 1,677.58 | 1,612.29 | 65.29 | 25.693 | |
| 13,600.00 | 12,079.95 | 13,973.32 | 12,388.95 | 34.84 | 36.11 | -100.61 | -2,290.32 | 1,177.09 | 1,677.55 | 1,609.95 | 67.60 | 24.815 | |
| 13,700.00 | 12,080.65 | 14,073.32 | 12,389.47 | 36.08 | 37.21 | -100.61 | -2,390.31 | 1,177.99 | 1,677.52 | 1,607.58 | 69.94 | 23.985 | |
| 13,800.00 | 12,081.34 | 14,173.32 | 12,390.00 | 37.33 | 38.33 | -100.60 | -2,490.31 | 1,178.90 | 1,677.49 | 1,605.19 | 72.30 | 23.201 | |
| 13,900.00 | 12,082.04 | 14,273.32 | 12,390.52 | 38.59 | 39.46 | -100.60 | -2,590.30 | 1,179.81 | 1,677.46 | 1,602.77 | 74.69 | 22.460 | |
| 14,000.00 | 12,082.74 | 14,373.32 | 12,391.05 | 39.86 | 40.61 | -100.59 | -2,690.30 | 1,180.72 | 1,677.43 | 1,600.34 | 77.09 | 21.758 | |
| 14,100.00 | 12,083.44 | 14,473.32 | 12,391.57 | 41.13 | 41.77 | -100.59 | -2,790.29 | 1,181.63 | 1,677.40 | 1,597.88 | 79.52 | 21.094 | |
| 14,200.00 | 12,084.14 | 14,573.32 | 12,392.10 | 42.40 | 42.94 | -100.58 | -2,890.28 | 1,182.54 | 1,677.37 | 1,595.41 | 81.96 | 20.466 | |
| 14,300.00 | 12,084.84 | 14,673.32 | 12,392.63 | 43.69 | 44.12 | -100.57 | -2,990.28 | 1,183.45 | 1,677.34 | 1,592.92 | 84.42 | 19.869 | |
| 14,400.00 | 12,085.53 | 14,773.32 | 12,393.15 | 44.97 | 45.32 | -100.57 | -3,090.27 | 1,184.35 | 1,677.31 | 1,590.42 | 86.89 | 19.304 | |
| 14,500.00 | 12,086.23 | 14,873.31 | 12,393.68 | 46.27 | 46.52 | -100.56 | -3,190.27 | 1,185.26 | 1,677.28 | 1,587.90 | 89.38 | 18.766 | |
| 14,600.00 | 12,086.93 | 14,973.31 | 12,394.20 | 47.56 | 47.73 | -100.56 | -3,290.26 | 1,186.17 | 1,677.25 | 1,585.38 | 91.87 | 18.256 | |
| 14,700.00 | 12,087.63 | 15,073.31 | 12,394.73 | 48.86 | 48.94 | -100.55 | -3,390.26 | 1,187.08 | 1,677.22 | 1,582.84 | 94.38 | 17.770 | |
| 14,800.00 | 12,088.33 | 15,173.31 | 12,395.26 | 50.17 | 50.17 | -100.54 | -3,490.25 | 1,187.99 | 1,677.19 | 1,580.29 | 96.90 | 17.308 | |
| 14,900.00 | 12,089.02 | 15,273.31 | 12,395.78 | 51.47 | 51.40 | -100.54 | -3,590.24 | 1,188.90 | 1,677.16 | 1,577.73 | 99.43 | 16.867 | |
| 15,000.00 | 12,089.72 | 15,373.31 | 12,396.31 | 52.78 | 52.64 | -100.53 | -3,690.24 | 1,189.80 | 1,677.13 | 1,575.16 | 101.97 | 16.447 | |
| 15,100.00 | 12,090.42 | 15,473.31 | 12,396.83 | 54.10 | 53.88 | -100.53 | -3,790.23 | 1,190.71 | 1,677.10 | 1,572.59 | 104.52 | 16.046 | |
| 15,200.00 | 12,091.12 | 15,573.31 | 12,397.36 | 55.41 | 55.13 | -100.52 | -3,890.23 | 1,191.62 | 1,677.07 | 1,570.00 | 107.07 | 15.663 | |
| 15,300.00 | 12,091.82 | 15,673.31 | 12,397.88 | 56.73 | 56.38 | -100.52 | -3,990.22 | 1,192.53 | 1,677.04 | 1,567.41 | 109.63 | 15.297 | |
| 15,400.00 | 12,092.52 | 15,773.31 | 12,398.41 | 58.05 | 57.64 | -100.51 | -4,090.22 | 1,193.44 | 1,677.01 | 1,564.81 | 112.20 | 14.947 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,500.00 | 12,093.21 | 15,873.31 | 12,398.94 | 59.37 | 58.91 | -100.50 | -4,190.21 | 1,194.35 | 1,676.98 | 1,562.21 | 114.77 | 14.612 | |
| 15,600.00 | 12,093.91 | 15,973.31 | 12,399.46 | 60.70 | 60.18 | -100.50 | -4,290.21 | 1,195.26 | 1,676.95 | 1,559.60 | 117.35 | 14.290 | |
| 15,700.00 | 12,094.61 | 16,073.31 | 12,399.99 | 62.03 | 61.45 | -100.49 | -4,390.20 | 1,196.16 | 1,676.92 | 1,556.99 | 119.94 | 13.982 | |
| 15,800.00 | 12,095.31 | 16,173.31 | 12,400.51 | 63.35 | 62.72 | -100.49 | -4,490.19 | 1,197.07 | 1,676.89 | 1,554.37 | 122.53 | 13.686 | |
| 15,900.00 | 12,096.01 | 16,273.31 | 12,401.04 | 64.68 | 64.00 | -100.48 | -4,590.19 | 1,197.98 | 1,676.86 | 1,551.74 | 125.12 | 13.402 | |
| 16,000.00 | 12,096.71 | 16,373.31 | 12,401.57 | 66.02 | 65.29 | -100.48 | -4,690.18 | 1,198.89 | 1,676.83 | 1,549.11 | 127.72 | 13.129 | |
| 16,100.00 | 12,097.40 | 16,473.31 | 12,402.09 | 67.35 | 66.58 | -100.47 | -4,790.18 | 1,199.80 | 1,676.80 | 1,546.48 | 130.32 | 12.867 | |
| 16,200.00 | 12,098.10 | 16,573.31 | 12,402.62 | 68.68 | 67.87 | -100.46 | -4,890.17 | 1,200.71 | 1,676.77 | 1,543.84 | 132.93 | 12.614 | |
| 16,300.00 | 12,098.80 | 16,673.31 | 12,403.14 | 70.02 | 69.16 | -100.46 | -4,990.17 | 1,201.62 | 1,676.74 | 1,541.20 | 135.54 | 12.371 | |
| 16,400.00 | 12,099.50 | 16,773.31 | 12,403.67 | 71.36 | 70.45 | -100.45 | -5,090.16 | 1,202.52 | 1,676.72 | 1,538.56 | 138.16 | 12.136 | |
| 16,500.00 | 12,100.20 | 16,873.31 | 12,404.20 | 72.69 | 71.75 | -100.45 | -5,190.15 | 1,203.43 | 1,676.69 | 1,535.91 | 140.77 | 11.910 | |
| 16,600.00 | 12,100.90 | 16,973.31 | 12,404.72 | 74.03 | 73.05 | -100.44 | -5,290.15 | 1,204.34 | 1,676.66 | 1,533.26 | 143.40 | 11.693 | |
| 16,700.00 | 12,101.59 | 17,073.31 | 12,405.25 | 75.37 | 74.36 | -100.43 | -5,390.14 | 1,205.25 | 1,676.63 | 1,530.61 | 146.02 | 11.482 | |
| 16,800.00 | 12,102.29 | 17,173.31 | 12,405.77 | 76.72 | 75.66 | -100.43 | -5,490.14 | 1,206.16 | 1,676.60 | 1,527.95 | 148.65 | 11.279 | |
| 16,900.00 | 12,102.99 | 17,273.31 | 12,406.30 | 78.06 | 76.97 | -100.42 | -5,590.13 | 1,207.07 | 1,676.57 | 1,525.29 | 151.28 | 11.083 | |
| 17,000.00 | 12,103.69 | 17,373.31 | 12,406.82 | 79.40 | 78.28 | -100.42 | -5,690.13 | 1,207.98 | 1,676.54 | 1,522.63 | 153.91 | 10.893 | |
| 17,100.00 | 12,104.39 | 17,473.31 | 12,407.35 | 80.75 | 79.59 | -100.41 | -5,790.12 | 1,208.88 | 1,676.51 | 1,519.96 | 156.54 | 10.709 | |
| 17,200.00 | 12,105.08 | 17,573.31 | 12,407.88 | 82.09 | 80.90 | -100.41 | -5,890.11 | 1,209.79 | 1,676.48 | 1,517.30 | 159.18 | 10.532 | |
| 17,300.00 | 12,105.78 | 17,673.31 | 12,408.40 | 83.44 | 82.22 | -100.40 | -5,990.11 | 1,210.70 | 1,676.45 | 1,514.63 | 161.82 | 10.360 | |
| 17,400.00 | 12,106.48 | 17,773.31 | 12,408.93 | 84.78 | 83.54 | -100.39 | -6,090.10 | 1,211.61 | 1,676.42 | 1,511.96 | 164.46 | 10.193 | |
| 17,500.00 | 12,107.18 | 17,873.31 | 12,409.45 | 86.13 | 84.85 | -100.39 | -6,190.10 | 1,212.52 | 1,676.39 | 1,509.28 | 167.11 | 10.032 | |
| 17,600.00 | 12,107.88 | 17,973.31 | 12,409.98 | 87.48 | 86.17 | -100.38 | -6,290.09 | 1,213.43 | 1,676.36 | 1,506.61 | 169.75 | 9.875 | |
| 17,700.00 | 12,108.58 | 18,073.31 | 12,410.51 | 88.83 | 87.50 | -100.38 | -6,390.09 | 1,214.33 | 1,676.33 | 1,503.93 | 172.40 | 9.724 | |
| 17,800.00 | 12,109.27 | 18,173.31 | 12,411.03 | 90.18 | 88.82 | -100.37 | -6,490.08 | 1,215.24 | 1,676.30 | 1,501.25 | 175.05 | 9.576 | |
| 17,900.00 | 12,109.97 | 18,273.31 | 12,411.56 | 91.52 | 90.14 | -100.36 | -6,590.08 | 1,216.15 | 1,676.27 | 1,498.57 | 177.70 | 9.433 | |
| 18,000.00 | 12,110.67 | 18,373.31 | 12,412.08 | 92.88 | 91.47 | -100.36 | -6,690.07 | 1,217.06 | 1,676.24 | 1,495.89 | 180.35 | 9.294 | |
| 18,100.00 | 12,111.37 | 18,473.31 | 12,412.61 | 94.23 | 92.79 | -100.35 | -6,790.06 | 1,217.97 | 1,676.21 | 1,493.21 | 183.00 | 9.159 | |
| 18,200.00 | 12,112.07 | 18,573.31 | 12,413.13 | 95.58 | 94.12 | -100.35 | -6,890.06 | 1,218.88 | 1,676.19 | 1,490.52 | 185.66 | 9.028 | |
| 18,300.00 | 12,112.77 | 18,673.31 | 12,413.66 | 96.93 | 95.45 | -100.34 | -6,990.05 | 1,219.79 | 1,676.16 | 1,487.84 | 188.32 | 8.901 | |
| 18,400.00 | 12,113.46 | 18,773.31 | 12,414.19 | 98.28 | 96.78 | -100.34 | -7,090.05 | 1,220.69 | 1,676.13 | 1,485.15 | 190.98 | 8.777 | |
| 18,500.00 | 12,114.16 | 18,873.31 | 12,414.71 | 99.63 | 98.11 | -100.33 | -7,190.04 | 1,221.60 | 1,676.10 | 1,482.46 | 193.64 | 8.656 | |
| 18,600.00 | 12,114.86 | 18,973.31 | 12,415.24 | 100.99 | 99.45 | -100.32 | -7,290.04 | 1,222.51 | 1,676.07 | 1,479.77 | 196.30 | 8.538 | |
| 18,700.00 | 12,115.56 | 19,073.31 | 12,415.76 | 102.34 | 100.78 | -100.32 | -7,390.03 | 1,223.42 | 1,676.04 | 1,477.08 | 198.96 | 8.424 | |
| 18,800.00 | 12,116.26 | 19,173.31 | 12,416.29 | 103.70 | 102.11 | -100.31 | -7,490.02 | 1,224.33 | 1,676.01 | 1,474.39 | 201.62 | 8.313 | |
| 18,900.00 | 12,116.95 | 19,273.31 | 12,416.82 | 105.05 | 103.45 | -100.31 | -7,590.02 | 1,225.24 | 1,675.98 | 1,471.69 | 204.29 | 8.204 | |
| 19,000.00 | 12,117.65 | 19,373.31 | 12,417.34 | 106.41 | 104.78 | -100.30 | -7,690.01 | 1,226.15 | 1,675.95 | 1,469.00 | 206.95 | 8.098 | |
| 19,100.00 | 12,118.35 | 19,473.31 | 12,417.87 | 107.76 | 106.12 | -100.30 | -7,790.01 | 1,227.05 | 1,675.92 | 1,466.30 | 209.62 | 7.995 | |
| 19,200.00 | 12,119.05 | 19,573.31 | 12,418.39 | 109.12 | 107.46 | -100.29 | -7,890.00 | 1,227.96 | 1,675.89 | 1,463.61 | 212.29 | 7.895 | |
| 19,300.00 | 12,119.75 | 19,673.31 | 12,418.92 | 110.47 | 108.80 | -100.28 | -7,990.00 | 1,228.87 | 1,675.86 | 1,460.91 | 214.95 | 7.796 | |
| 19,400.00 | 12,120.45 | 19,773.31 | 12,419.44 | 111.83 | 110.13 | -100.28 | -8,089.99 | 1,229.78 | 1,675.83 | 1,458.21 | 217.62 | 7.701 | |
| 19,500.00 | 12,121.14 | 19,873.31 | 12,419.97 | 113.19 | 111.47 | -100.27 | -8,189.98 | 1,230.69 | 1,675.81 | 1,455.51 | 220.29 | 7.607 | |
| 19,600.00 | 12,121.84 | 19,973.31 | 12,420.50 | 114.54 | 112.82 | -100.27 | -8,289.98 | 1,231.60 | 1,675.78 | 1,452.81 | 222.97 | 7.516 | |
| 19,700.00 | 12,122.54 | 20,073.31 | 12,421.02 | 115.90 | 114.16 | -100.26 | -8,389.97 | 1,232.50 | 1,675.75 | 1,450.11 | 225.64 | 7.427 | |
| 19,800.00 | 12,123.24 | 20,173.31 | 12,421.55 | 117.26 | 115.50 | -100.25 | -8,489.97 | 1,233.41 | 1,675.72 | 1,447.41 | 228.31 | 7.340 | |
| 19,900.00 | 12,123.94 | 20,273.31 | 12,422.07 | 118.61 | 116.84 | -100.25 | -8,589.96 | 1,234.32 | 1,675.69 | 1,444.71 | 230.98 | 7.255 | |
| 20,000.00 | 12,124.64 | 20,373.31 | 12,422.60 | 119.97 | 118.18 | -100.24 | -8,689.96 | 1,235.23 | 1,675.66 | 1,442.00 | 233.66 | 7.171 | |
| 20,100.00 | 12,125.33 | 20,473.31 | 12,423.13 | 121.33 | 119.53 | -100.24 | -8,789.95 | 1,236.14 | 1,675.63 | 1,439.30 | 236.33 | 7.090 | |
| 20,200.00 | 12,126.03 | 20,573.31 | 12,423.65 | 122.69 | 120.87 | -100.23 | -8,889.95 | 1,237.05 | 1,675.60 | 1,436.59 | 239.01 | 7.011 | |
| 20,300.00 | 12,126.73 | 20,673.31 | 12,424.18 | 124.05 | 122.22 | -100.23 | -8,989.94 | 1,237.96 | 1,675.57 | 1,433.89 | 241.69 | 6.933 | |
| 20,400.00 | 12,127.43 | 20,773.31 | 12,424.70 | 125.41 | 123.56 | -100.22 | -9,089.93 | 1,238.86 | 1,675.54 | 1,431.18 | 244.36 | 6.857 | |
| 20,500.00 | 12,128.13 | 20,873.31 | 12,425.23 | 126.77 | 124.91 | -100.21 | -9,189.93 | 1,239.77 | 1,675.52 | 1,428.47 | 247.04 | 6.782 | |
| 20,600.00 | 12,128.83 | 20,973.31 | 12,425.76 | 128.13 | 126.25 | -100.21 | -9,289.92 | 1,240.68 | 1,675.49 | 1,425.77 | 249.72 | 6.709 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,700.00 | 12,129.52 | 21,073.31 | 12,426.28 | 129.49 | 127.60 | -100.20 | -9,389.92 | 1,241.59 | 1,675.46 | 1,423.06 | 252.40 | 6.638 | |
| 20,800.00 | 12,130.22 | 21,173.31 | 12,426.81 | 130.85 | 128.95 | -100.20 | -9,489.91 | 1,242.50 | 1,675.43 | 1,420.35 | 255.08 | 6.568 | |
| 20,900.00 | 12,130.92 | 21,273.31 | 12,427.33 | 132.21 | 130.30 | -100.19 | -9,589.91 | 1,243.41 | 1,675.40 | 1,417.64 | 257.76 | 6.500 | |
| 21,000.00 | 12,131.62 | 21,373.31 | 12,427.86 | 133.57 | 131.64 | -100.18 | -9,689.90 | 1,244.32 | 1,675.37 | 1,414.93 | 260.44 | 6.433 | |
| 21,100.00 | 12,132.32 | 21,473.31 | 12,428.38 | 134.93 | 132.99 | -100.18 | -9,789.89 | 1,245.22 | 1,675.34 | 1,412.22 | 263.12 | 6.367 | |
| 21,200.00 | 12,133.01 | 21,573.31 | 12,428.91 | 136.29 | 134.34 | -100.17 | -9,889.89 | 1,246.13 | 1,675.31 | 1,409.51 | 265.81 | 6.303 | |
| 21,300.00 | 12,133.71 | 21,673.30 | 12,429.44 | 137.65 | 135.69 | -100.17 | -9,989.88 | 1,247.04 | 1,675.29 | 1,406.80 | 268.49 | 6.240 | |
| 21,400.00 | 12,134.41 | 21,773.30 | 12,429.96 | 139.01 | 137.04 | -100.16 | -10,089.88 | 1,247.95 | 1,675.26 | 1,404.08 | 271.17 | 6.178 | |
| 21,500.00 | 12,135.11 | 21,873.30 | 12,430.49 | 140.37 | 138.39 | -100.16 | -10,189.87 | 1,248.86 | 1,675.23 | 1,401.37 | 273.86 | 6.117 | |
| 21,600.00 | 12,135.81 | 21,973.30 | 12,431.01 | 141.73 | 139.74 | -100.15 | -10,289.87 | 1,249.77 | 1,675.20 | 1,398.66 | 276.54 | 6.058 | |
| 21,700.00 | 12,136.51 | 22,073.30 | 12,431.54 | 143.09 | 141.09 | -100.14 | -10,389.86 | 1,250.68 | 1,675.17 | 1,395.94 | 279.23 | 5.999 | |
| 21,800.00 | 12,137.20 | 22,173.30 | 12,432.07 | 144.46 | 142.44 | -100.14 | -10,489.85 | 1,251.58 | 1,675.14 | 1,393.23 | 281.91 | 5.942 | |
| 21,900.00 | 12,137.90 | 22,273.30 | 12,432.59 | 145.82 | 143.79 | -100.13 | -10,589.85 | 1,252.49 | 1,675.11 | 1,390.51 | 284.60 | 5.886 | |
| 22,000.00 | 12,138.60 | 22,373.30 | 12,433.12 | 147.18 | 145.15 | -100.13 | -10,689.84 | 1,253.40 | 1,675.08 | 1,387.80 | 287.28 | 5.831 | |
| 22,100.00 | 12,139.30 | 22,473.30 | 12,433.64 | 148.54 | 146.50 | -100.12 | -10,789.84 | 1,254.31 | 1,675.06 | 1,385.08 | 289.97 | 5.777 | |
| 22,200.00 | 12,140.00 | 22,573.30 | 12,434.17 | 149.90 | 147.85 | -100.11 | -10,889.83 | 1,255.22 | 1,675.03 | 1,382.37 | 292.66 | 5.723 | |
| 22,300.00 | 12,140.70 | 22,673.30 | 12,434.69 | 151.27 | 149.20 | -100.11 | -10,989.83 | 1,256.13 | 1,675.00 | 1,379.65 | 295.35 | 5.671 | |
| 22,387.52 | 12,141.31 | 22,760.82 | 12,435.15 | 152.46 | 150.39 | -100.10 | -11,077.34 | 1,256.92 | 1,674.97 | 1,377.28 | 297.70 | 5.626 | SF |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,800.00 | 1,792.87 | 1,999.86 | 1,999.81 | 5.31 | 5.59 | 32.98 | -902.46 | -2,350.17 | 2,432.27 | 2,421.48 | 10.79 | 225.465 | |
| 1,900.00 | 1,891.50 | 2,097.10 | 2,096.67 | 5.51 | 5.74 | 33.14 | -901.43 | -2,341.76 | 2,409.97 | 2,398.84 | 11.14 | 216.380 | |
| 2,000.00 | 1,990.13 | 2,194.33 | 2,193.53 | 5.71 | 5.90 | 33.32 | -900.39 | -2,333.34 | 2,387.70 | 2,376.20 | 11.49 | 207.748 | |
| 2,100.00 | 2,088.76 | 2,413.26 | 2,411.10 | 5.90 | 6.29 | 33.77 | -894.27 | -2,309.99 | 2,363.13 | 2,351.10 | 12.03 | 196.387 | |
| 2,200.00 | 2,187.39 | 2,634.69 | 2,629.52 | 6.10 | 6.71 | 34.37 | -879.80 | -2,276.80 | 2,333.36 | 2,320.78 | 12.58 | 185.466 | |
| 2,300.00 | 2,286.02 | 2,766.48 | 2,758.54 | 6.30 | 6.95 | 34.81 | -867.60 | -2,252.91 | 2,299.81 | 2,286.81 | 13.00 | 176.974 | |
| 2,400.00 | 2,384.65 | 2,859.83 | 2,849.86 | 6.50 | 7.11 | 35.13 | -858.69 | -2,235.68 | 2,266.08 | 2,252.72 | 13.36 | 169.666 | |
| 2,500.00 | 2,483.28 | 2,953.18 | 2,941.17 | 6.69 | 7.27 | 35.46 | -849.78 | -2,218.44 | 2,232.42 | 2,218.69 | 13.72 | 162.693 | |
| 2,600.00 | 2,581.91 | 3,046.53 | 3,032.48 | 6.89 | 7.43 | 35.80 | -840.86 | -2,201.21 | 2,198.82 | 2,184.73 | 14.09 | 156.051 | |
| 2,700.00 | 2,680.54 | 3,139.89 | 3,123.80 | 7.10 | 7.60 | 36.15 | -831.95 | -2,183.97 | 2,165.30 | 2,150.84 | 14.46 | 149.722 | |
| 2,800.00 | 2,779.17 | 3,233.24 | 3,215.11 | 7.33 | 7.76 | 36.51 | -823.04 | -2,166.74 | 2,131.86 | 2,117.02 | 14.84 | 143.688 | |
| 2,900.00 | 2,877.80 | 3,326.59 | 3,306.43 | 7.56 | 7.93 | 36.89 | -814.12 | -2,149.50 | 2,098.49 | 2,083.28 | 15.21 | 137.933 | |
| 3,000.00 | 2,976.43 | 3,419.94 | 3,397.74 | 7.79 | 8.11 | 37.27 | -805.21 | -2,132.27 | 2,065.21 | 2,049.61 | 15.59 | 132.430 | |
| 3,100.00 | 3,075.06 | 3,513.30 | 3,489.05 | 8.02 | 8.32 | 37.67 | -796.30 | -2,115.03 | 2,032.01 | 2,016.03 | 15.98 | 127.180 | |
| 3,200.00 | 3,173.69 | 3,606.65 | 3,580.37 | 8.25 | 8.53 | 38.08 | -787.38 | -2,097.80 | 1,998.91 | 1,982.54 | 16.36 | 122.162 | |
| 3,300.00 | 3,272.32 | 3,700.00 | 3,671.68 | 8.48 | 8.75 | 38.50 | -778.47 | -2,080.56 | 1,965.90 | 1,949.15 | 16.75 | 117.364 | |
| 3,400.00 | 3,370.94 | 3,793.35 | 3,762.99 | 8.72 | 8.97 | 38.94 | -769.56 | -2,063.33 | 1,932.99 | 1,915.85 | 17.14 | 112.771 | |
| 3,500.00 | 3,469.57 | 3,886.71 | 3,854.31 | 8.95 | 9.19 | 39.39 | -760.64 | -2,046.09 | 1,900.19 | 1,882.66 | 17.53 | 108.374 | |
| 3,600.00 | 3,568.20 | 3,980.06 | 3,945.62 | 9.19 | 9.42 | 39.86 | -751.73 | -2,028.86 | 1,867.51 | 1,849.58 | 17.93 | 104.161 | |
| 3,700.00 | 3,666.83 | 4,073.41 | 4,036.93 | 9.42 | 9.64 | 40.35 | -742.82 | -2,011.62 | 1,834.94 | 1,816.61 | 18.33 | 100.124 | |
| 3,800.00 | 3,765.46 | 4,166.76 | 4,128.25 | 9.66 | 9.87 | 40.85 | -733.90 | -1,994.39 | 1,802.49 | 1,783.77 | 18.73 | 96.252 | |
| 3,900.00 | 3,864.09 | 4,260.12 | 4,219.56 | 9.89 | 10.10 | 41.37 | -724.99 | -1,977.15 | 1,770.18 | 1,751.05 | 19.13 | 92.537 | |
| 4,000.00 | 3,962.72 | 4,353.47 | 4,310.88 | 10.13 | 10.33 | 41.90 | -716.07 | -1,959.92 | 1,738.01 | 1,718.47 | 19.53 | 88.971 | |
| 4,100.00 | 4,061.35 | 4,446.82 | 4,402.19 | 10.36 | 10.57 | 42.46 | -707.16 | -1,942.68 | 1,705.98 | 1,686.04 | 19.94 | 85.545 | |
| 4,200.00 | 4,159.98 | 4,540.17 | 4,493.50 | 10.60 | 10.80 | 43.04 | -698.25 | -1,925.45 | 1,674.11 | 1,653.75 | 20.35 | 82.255 | |
| 4,300.00 | 4,258.61 | 4,633.53 | 4,584.82 | 10.83 | 11.04 | 43.64 | -689.33 | -1,908.21 | 1,642.40 | 1,621.63 | 20.77 | 79.091 | |
| 4,400.00 | 4,357.24 | 4,726.88 | 4,676.13 | 11.07 | 11.28 | 44.26 | -680.42 | -1,890.98 | 1,610.86 | 1,589.68 | 21.18 | 76.050 | |
| 4,500.00 | 4,455.87 | 4,820.23 | 4,767.44 | 11.31 | 11.51 | 44.91 | -671.51 | -1,873.74 | 1,579.51 | 1,557.91 | 21.60 | 73.124 | |
| 4,600.00 | 4,554.50 | 4,913.58 | 4,858.76 | 11.54 | 11.75 | 45.58 | -662.59 | -1,856.51 | 1,548.36 | 1,526.34 | 22.02 | 70.308 | |
| 4,700.00 | 4,653.13 | 5,006.94 | 4,950.07 | 11.78 | 11.99 | 46.28 | -653.68 | -1,839.27 | 1,517.41 | 1,494.96 | 22.45 | 67.598 | |
| 4,800.00 | 4,751.76 | 5,100.29 | 5,041.38 | 12.02 | 12.24 | 47.01 | -644.77 | -1,822.04 | 1,486.68 | 1,463.81 | 22.88 | 64.989 | |
| 4,900.00 | 4,850.39 | 5,184.08 | 5,123.37 | 12.26 | 12.43 | 47.68 | -636.81 | -1,806.65 | 1,456.31 | 1,433.04 | 23.27 | 62.570 | |
| 5,000.00 | 4,949.01 | 5,253.58 | 5,191.58 | 12.49 | 12.59 | 48.24 | -630.68 | -1,794.79 | 1,427.47 | 1,403.77 | 23.70 | 60.238 | |
| 5,100.00 | 5,047.64 | 5,323.98 | 5,260.89 | 12.73 | 12.75 | 48.81 | -625.05 | -1,783.91 | 1,400.47 | 1,376.34 | 24.13 | 58.050 | |
| 5,200.00 | 5,146.27 | 5,400.00 | 5,335.99 | 12.97 | 12.92 | 49.42 | -619.63 | -1,773.44 | 1,375.33 | 1,350.78 | 24.55 | 56.015 | |
| 5,300.00 | 5,244.90 | 5,467.31 | 5,402.67 | 13.21 | 13.05 | 49.95 | -615.41 | -1,765.27 | 1,352.06 | 1,327.09 | 24.97 | 54.157 | |
| 5,400.00 | 5,343.57 | 5,540.23 | 5,475.08 | 13.41 | 13.18 | 50.39 | -611.44 | -1,757.60 | 1,330.84 | 1,305.49 | 25.34 | 52.513 | |
| 5,500.00 | 5,442.58 | 5,614.28 | 5,548.77 | 13.63 | 13.31 | 50.67 | -608.07 | -1,751.08 | 1,312.88 | 1,287.15 | 25.73 | 51.017 | |
| 5,600.00 | 5,541.92 | 5,700.00 | 5,634.22 | 13.82 | 13.43 | 50.97 | -604.98 | -1,745.11 | 1,298.49 | 1,272.38 | 26.11 | 49.736 | |
| 5,700.00 | 5,641.52 | 5,765.26 | 5,699.36 | 13.98 | 13.51 | 51.11 | -603.22 | -1,741.70 | 1,287.46 | 1,261.04 | 26.42 | 48.728 | |
| 5,800.00 | 5,741.32 | 5,841.76 | 5,775.80 | 14.12 | 13.60 | 51.25 | -601.81 | -1,738.97 | 1,279.94 | 1,253.23 | 26.71 | 47.916 | |
| 5,900.00 | 5,841.25 | 5,918.65 | 5,852.67 | 14.23 | 13.67 | 51.33 | -601.10 | -1,737.60 | 1,275.88 | 1,248.93 | 26.95 | 47.337 | |
| 6,000.00 | 5,941.25 | 6,007.22 | 5,941.25 | 14.28 | 13.71 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.95 | 27.06 | 47.122 | |
| 6,100.00 | 6,041.25 | 6,107.22 | 6,041.25 | 14.32 | 13.78 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.85 | 27.16 | 46.942 | |
| 6,200.00 | 6,141.25 | 6,207.22 | 6,141.25 | 14.35 | 13.86 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.75 | 27.27 | 46.761 | |
| 6,300.00 | 6,241.25 | 6,307.22 | 6,241.25 | 14.39 | 13.93 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.64 | 27.37 | 46.582 | |
| 6,400.00 | 6,341.25 | 6,407.22 | 6,341.25 | 14.42 | 14.00 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.53 | 27.48 | 46.403 | |
| 6,500.00 | 6,441.25 | 6,507.22 | 6,441.25 | 14.46 | 14.08 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.43 | 27.58 | 46.224 | |
| 6,600.00 | 6,541.25 | 6,607.22 | 6,541.25 | 14.49 | 14.15 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.32 | 27.69 | 46.046 | |
| 6,700.00 | 6,641.25 | 6,707.22 | 6,641.25 | 14.53 | 14.22 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.21 | 27.80 | 45.868 | |
| 6,800.00 | 6,741.25 | 6,807.22 | 6,741.25 | 14.56 | 14.30 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.11 | 27.90 | 45.692 | |
| 6,900.00 | 6,841.25 | 6,907.22 | 6,841.25 | 14.60 | 14.37 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,247.00 | 28.01 | 45.515 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7,000.00 | 6,941.25 | 7,007.22 | 6,941.25 | 14.64 | 14.44 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.89 | 28.12 | 45.339 | |
| 7,100.00 | 7,041.25 | 7,107.22 | 7,041.25 | 14.68 | 14.52 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.78 | 28.23 | 45.164 | |
| 7,200.00 | 7,141.25 | 7,207.22 | 7,141.25 | 14.71 | 14.59 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.67 | 28.34 | 44.990 | |
| 7,300.00 | 7,241.25 | 7,307.22 | 7,241.25 | 14.75 | 14.67 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.56 | 28.45 | 44.816 | |
| 7,400.00 | 7,341.25 | 7,407.22 | 7,341.25 | 14.79 | 14.74 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.45 | 28.56 | 44.642 | |
| 7,500.00 | 7,441.25 | 7,507.22 | 7,441.25 | 14.83 | 14.81 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.34 | 28.67 | 44.470 | |
| 7,600.00 | 7,541.25 | 7,607.22 | 7,541.25 | 14.87 | 14.89 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.23 | 28.78 | 44.298 | |
| 7,700.00 | 7,641.25 | 7,707.22 | 7,641.25 | 14.91 | 14.96 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.12 | 28.89 | 44.126 | |
| 7,800.00 | 7,741.25 | 7,807.22 | 7,741.25 | 14.95 | 15.04 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,246.00 | 29.01 | 43.956 | |
| 7,900.00 | 7,841.25 | 7,907.22 | 7,841.25 | 14.99 | 15.11 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.89 | 29.12 | 43.785 | |
| 8,000.00 | 7,941.25 | 8,007.22 | 7,941.25 | 15.03 | 15.19 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.78 | 29.23 | 43.616 | |
| 8,100.00 | 8,041.25 | 8,107.22 | 8,041.25 | 15.07 | 15.26 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.67 | 29.35 | 43.447 | |
| 8,200.00 | 8,141.25 | 8,207.22 | 8,141.25 | 15.11 | 15.34 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.55 | 29.46 | 43.279 | |
| 8,300.00 | 8,241.25 | 8,307.22 | 8,241.25 | 15.15 | 15.41 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.44 | 29.57 | 43.112 | |
| 8,400.00 | 8,341.25 | 8,407.22 | 8,341.25 | 15.20 | 15.49 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.32 | 29.69 | 42.945 | |
| 8,500.00 | 8,441.25 | 8,507.22 | 8,441.25 | 15.24 | 15.56 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.21 | 29.80 | 42.779 | |
| 8,600.00 | 8,541.25 | 8,607.22 | 8,541.25 | 15.28 | 15.64 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,245.09 | 29.92 | 42.614 | |
| 8,700.00 | 8,641.25 | 8,707.22 | 8,641.25 | 15.32 | 15.71 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.98 | 30.04 | 42.449 | |
| 8,800.00 | 8,741.25 | 8,807.22 | 8,741.25 | 15.37 | 15.79 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.86 | 30.15 | 42.285 | |
| 8,900.00 | 8,841.25 | 8,907.22 | 8,841.25 | 15.41 | 15.86 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.74 | 30.27 | 42.122 | |
| 9,000.00 | 8,941.25 | 9,007.22 | 8,941.25 | 15.46 | 15.94 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.62 | 30.39 | 41.959 | |
| 9,100.00 | 9,041.25 | 9,107.22 | 9,041.25 | 15.50 | 16.01 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.51 | 30.50 | 41.798 | |
| 9,200.00 | 9,141.25 | 9,207.22 | 9,141.25 | 15.55 | 16.09 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.39 | 30.62 | 41.637 | |
| 9,300.00 | 9,241.25 | 9,307.22 | 9,241.25 | 15.59 | 16.16 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.27 | 30.74 | 41.476 | |
| 9,400.00 | 9,341.25 | 9,407.22 | 9,341.25 | 15.64 | 16.24 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.15 | 30.86 | 41.317 | |
| 9,500.00 | 9,441.25 | 9,507.22 | 9,441.25 | 15.68 | 16.31 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,244.03 | 30.98 | 41.158 | |
| 9,600.00 | 9,541.25 | 9,607.22 | 9,541.25 | 15.73 | 16.39 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.91 | 31.10 | 41.000 | |
| 9,700.00 | 9,641.25 | 9,707.22 | 9,641.25 | 15.78 | 16.47 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.79 | 31.22 | 40.842 | |
| 9,800.00 | 9,741.25 | 9,807.22 | 9,741.25 | 15.82 | 16.54 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.67 | 31.34 | 40.685 | |
| 9,900.00 | 9,841.25 | 9,907.22 | 9,841.25 | 15.87 | 16.62 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.55 | 31.46 | 40.529 | |
| 10,000.00 | 9,941.25 | 10,007.22 | 9,941.25 | 15.92 | 16.69 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.43 | 31.58 | 40.374 | |
| 10,100.00 | 10,041.25 | 10,107.22 | 10,041.25 | 15.96 | 16.77 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.31 | 31.70 | 40.220 | |
| 10,200.00 | 10,141.25 | 10,207.22 | 10,141.25 | 16.01 | 16.85 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.19 | 31.82 | 40.066 | |
| 10,300.00 | 10,241.25 | 10,307.22 | 10,241.25 | 16.06 | 16.92 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,243.07 | 31.94 | 39.913 | |
| 10,400.00 | 10,341.25 | 10,407.22 | 10,341.25 | 16.11 | 17.00 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.94 | 32.07 | 39.761 | |
| 10,500.00 | 10,441.25 | 10,507.22 | 10,441.25 | 16.16 | 17.07 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.82 | 32.19 | 39.609 | |
| 10,600.00 | 10,541.25 | 10,607.22 | 10,541.25 | 16.21 | 17.15 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.70 | 32.31 | 39.458 | |
| 10,700.00 | 10,641.25 | 10,707.22 | 10,641.25 | 16.26 | 17.23 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.58 | 32.44 | 39.308 | |
| 10,800.00 | 10,741.25 | 10,807.22 | 10,741.25 | 16.31 | 17.30 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.45 | 32.56 | 39.159 | |
| 10,900.00 | 10,841.25 | 10,907.22 | 10,841.25 | 16.36 | 17.38 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.33 | 32.68 | 39.010 | |
| 11,000.00 | 10,941.25 | 11,007.22 | 10,941.25 | 16.41 | 17.46 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.20 | 32.81 | 38.862 | |
| 11,100.00 | 11,041.25 | 11,107.22 | 11,041.25 | 16.46 | 17.53 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,242.08 | 32.93 | 38.715 | |
| 11,200.00 | 11,141.25 | 11,207.22 | 11,141.25 | 16.51 | 17.61 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,241.95 | 33.06 | 38.569 | |
| 11,300.00 | 11,241.25 | 11,307.22 | 11,241.25 | 16.56 | 17.69 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,241.83 | 33.18 | 38.423 | |
| 11,400.00 | 11,341.25 | 11,407.22 | 11,341.25 | 16.61 | 17.76 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,241.70 | 33.31 | 38.278 | |
| 11,500.00 | 11,441.25 | 11,507.22 | 11,441.25 | 16.66 | 17.84 | -90.40 | -601.01 | -1,737.43 | 1,275.01 | 1,241.58 | 33.43 | 38.134 | |
| 11,600.00 | 11,541.21 | 11,607.18 | 11,541.21 | 16.71 | 17.92 | 87.92 | -601.01 | -1,737.43 | 1,274.95 | 1,241.41 | 33.54 | 38.008 | |
| 11,700.00 | 11,639.79 | 11,705.77 | 11,639.79 | 16.90 | 17.99 | 88.68 | -601.01 | -1,737.43 | 1,274.47 | 1,240.73 | 33.75 | 37.768 | |
| 11,793.64 | 11,728.28 | 11,794.25 | 11,728.28 | 17.16 | 18.06 | 90.00 | -601.01 | -1,737.43 | 1,274.11 | 1,240.06 | 34.05 | 37.417 | CC |
| 11,800.00 | 11,734.09 | 11,800.07 | 11,734.09 | 17.17 | 18.06 | 90.11 | -601.01 | -1,737.43 | 1,274.11 | 1,240.04 | 34.07 | 37.394 | ES |
| 11,900.00 | 11,821.25 | 11,887.23 | 11,821.25 | 17.53 | 18.13 | 91.91 | -601.01 | -1,737.43 | 1,275.15 | 1,240.61 | 34.54 | 36.917 | |
| 12,000.00 | 11,898.62 | 11,964.60 | 11,898.62 | 18.00 | 18.19 | 93.68 | -601.01 | -1,737.43 | 1,279.25 | 1,244.08 | 35.16 | 36.380 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12,100.00 | 11,963.85 | 12,029.83 | 11,963.85 | 18.59 | 18.24 | 94.99 | -601.01 | -1,737.43 | 1,288.22 | 1,252.28 | 35.94 | 35.839 | |
| 12,200.00 | 12,014.95 | 12,080.93 | 12,014.95 | 19.33 | 18.28 | 95.38 | -601.01 | -1,737.43 | 1,303.65 | 1,266.79 | 36.86 | 35.364 | |
| 12,300.00 | 12,050.38 | 12,116.35 | 12,050.38 | 20.19 | 18.31 | 94.51 | -601.01 | -1,737.43 | 1,326.56 | 1,288.68 | 37.88 | 35.024 | |
| 12,400.00 | 12,069.05 | 12,135.03 | 12,069.05 | 21.14 | 18.32 | 92.11 | -601.01 | -1,737.43 | 1,357.15 | 1,318.23 | 38.92 | 34.874 | |
| 12,500.00 | 12,072.27 | 12,138.24 | 12,072.27 | 22.15 | 18.32 | 90.19 | -601.01 | -1,737.43 | 1,395.05 | 1,355.13 | 39.92 | 34.947 | |
| 12,600.00 | 12,072.97 | 12,138.94 | 12,072.97 | 23.19 | 18.33 | 90.23 | -601.01 | -1,737.43 | 1,441.41 | 1,400.56 | 40.85 | 35.285 | |
| 12,700.00 | 12,073.66 | 12,139.64 | 12,073.66 | 24.26 | 18.33 | 90.26 | -601.01 | -1,737.43 | 1,493.70 | 1,451.99 | 41.70 | 35.819 | |
| 12,800.00 | 12,074.36 | 13,592.61 | 12,861.95 | 25.36 | 20.61 | 120.72 | -1,511.55 | -1,804.55 | 1,541.94 | 1,494.12 | 47.82 | 32.243 | |
| 12,900.00 | 12,075.06 | 13,692.61 | 12,862.81 | 26.49 | 21.19 | 120.72 | -1,611.54 | -1,803.69 | 1,542.07 | 1,492.94 | 49.13 | 31.389 | |
| 13,000.00 | 12,075.76 | 13,792.61 | 12,863.68 | 27.63 | 21.85 | 120.73 | -1,711.53 | -1,802.83 | 1,542.19 | 1,491.68 | 50.51 | 30.531 | |
| 13,100.00 | 12,076.46 | 13,892.61 | 12,864.55 | 28.80 | 22.56 | 120.73 | -1,811.53 | -1,801.97 | 1,542.32 | 1,490.35 | 51.97 | 29.677 | |
| 13,200.00 | 12,077.15 | 13,992.61 | 12,865.42 | 29.98 | 23.34 | 120.74 | -1,911.52 | -1,801.11 | 1,542.44 | 1,488.95 | 53.50 | 28.833 | |
| 13,300.00 | 12,077.85 | 14,092.61 | 12,866.29 | 31.18 | 24.16 | 120.74 | -2,011.51 | -1,800.25 | 1,542.57 | 1,487.49 | 55.08 | 28.004 | |
| 13,400.00 | 12,078.55 | 14,192.61 | 12,867.15 | 32.39 | 25.04 | 120.74 | -2,111.50 | -1,799.39 | 1,542.70 | 1,485.97 | 56.73 | 27.194 | |
| 13,500.00 | 12,079.25 | 14,292.61 | 12,868.02 | 33.61 | 25.96 | 120.75 | -2,211.50 | -1,798.53 | 1,542.82 | 1,484.40 | 58.43 | 26.406 | |
| 13,600.00 | 12,079.95 | 14,392.61 | 12,868.89 | 34.84 | 26.92 | 120.75 | -2,311.49 | -1,797.67 | 1,542.95 | 1,482.78 | 60.17 | 25.642 | |
| 13,700.00 | 12,080.65 | 14,492.61 | 12,869.76 | 36.08 | 27.91 | 120.76 | -2,411.48 | -1,796.81 | 1,543.08 | 1,481.11 | 61.96 | 24.904 | |
| 13,800.00 | 12,081.34 | 14,592.61 | 12,870.63 | 37.33 | 28.94 | 120.76 | -2,511.47 | -1,795.95 | 1,543.20 | 1,479.41 | 63.79 | 24.191 | |
| 13,900.00 | 12,082.04 | 14,692.61 | 12,871.49 | 38.59 | 29.99 | 120.77 | -2,611.47 | -1,795.08 | 1,543.33 | 1,477.67 | 65.66 | 23.505 | |
| 14,000.00 | 12,082.74 | 14,792.61 | 12,872.36 | 39.86 | 31.07 | 120.77 | -2,711.46 | -1,794.22 | 1,543.46 | 1,475.90 | 67.56 | 22.846 | |
| 14,100.00 | 12,083.44 | 14,892.61 | 12,873.23 | 41.13 | 32.17 | 120.78 | -2,811.45 | -1,793.36 | 1,543.58 | 1,474.09 | 69.49 | 22.212 | |
| 14,200.00 | 12,084.14 | 14,992.61 | 12,874.10 | 42.40 | 33.29 | 120.78 | -2,911.44 | -1,792.50 | 1,543.71 | 1,472.26 | 71.45 | 21.604 | |
| 14,300.00 | 12,084.84 | 15,092.61 | 12,874.97 | 43.69 | 34.44 | 120.79 | -3,011.44 | -1,791.64 | 1,543.84 | 1,470.40 | 73.44 | 21.022 | |
| 14,400.00 | 12,085.53 | 15,192.61 | 12,875.83 | 44.97 | 35.59 | 120.79 | -3,111.43 | -1,790.78 | 1,543.96 | 1,468.51 | 75.45 | 20.463 | |
| 14,500.00 | 12,086.23 | 15,292.61 | 12,876.70 | 46.27 | 36.76 | 120.79 | -3,211.42 | -1,789.92 | 1,544.09 | 1,466.60 | 77.48 | 19.928 | |
| 14,600.00 | 12,086.93 | 15,392.61 | 12,877.57 | 47.56 | 37.95 | 120.80 | -3,311.41 | -1,789.06 | 1,544.22 | 1,464.68 | 79.54 | 19.415 | |
| 14,700.00 | 12,087.63 | 15,492.61 | 12,878.44 | 48.86 | 39.15 | 120.80 | -3,411.40 | -1,788.20 | 1,544.34 | 1,462.73 | 81.61 | 18.923 | |
| 14,800.00 | 12,088.33 | 15,592.61 | 12,879.31 | 50.17 | 40.36 | 120.81 | -3,511.40 | -1,787.34 | 1,544.47 | 1,460.77 | 83.70 | 18.452 | |
| 14,900.00 | 12,089.02 | 15,692.61 | 12,880.17 | 51.47 | 41.58 | 120.81 | -3,611.39 | -1,786.48 | 1,544.59 | 1,458.79 | 85.81 | 18.001 | |
| 15,000.00 | 12,089.72 | 15,792.61 | 12,881.04 | 52.78 | 42.80 | 120.82 | -3,711.38 | -1,785.62 | 1,544.72 | 1,456.79 | 87.93 | 17.568 | |
| 15,100.00 | 12,090.42 | 15,892.61 | 12,881.91 | 54.10 | 44.04 | 120.82 | -3,811.37 | -1,784.76 | 1,544.85 | 1,454.78 | 90.06 | 17.153 | |
| 15,200.00 | 12,091.12 | 15,992.61 | 12,882.78 | 55.41 | 45.29 | 120.83 | -3,911.37 | -1,783.90 | 1,544.97 | 1,452.76 | 92.21 | 16.754 | |
| 15,300.00 | 12,091.82 | 16,092.61 | 12,883.65 | 56.73 | 46.54 | 120.83 | -4,011.36 | -1,783.03 | 1,545.10 | 1,450.73 | 94.37 | 16.372 | |
| 15,400.00 | 12,092.52 | 16,192.61 | 12,884.51 | 58.05 | 47.80 | 120.83 | -4,111.35 | -1,782.17 | 1,545.23 | 1,448.68 | 96.54 | 16.005 | |
| 15,500.00 | 12,093.21 | 16,292.61 | 12,885.38 | 59.37 | 49.06 | 120.84 | -4,211.34 | -1,781.31 | 1,545.35 | 1,446.63 | 98.73 | 15.653 | |
| 15,600.00 | 12,093.91 | 16,392.61 | 12,886.25 | 60.70 | 50.33 | 120.84 | -4,311.34 | -1,780.45 | 1,545.48 | 1,444.56 | 100.92 | 15.314 | |
| 15,700.00 | 12,094.61 | 16,492.61 | 12,887.12 | 62.03 | 51.61 | 120.85 | -4,411.33 | -1,779.59 | 1,545.61 | 1,442.49 | 103.12 | 14.989 | |
| 15,800.00 | 12,095.31 | 16,592.61 | 12,887.99 | 63.35 | 52.89 | 120.85 | -4,511.32 | -1,778.73 | 1,545.73 | 1,440.41 | 105.33 | 14.676 | |
| 15,900.00 | 12,096.01 | 16,692.61 | 12,888.85 | 64.68 | 54.17 | 120.86 | -4,611.31 | -1,777.87 | 1,545.86 | 1,438.32 | 107.54 | 14.374 | |
| 16,000.00 | 12,096.71 | 16,792.61 | 12,889.72 | 66.02 | 55.46 | 120.86 | -4,711.31 | -1,777.01 | 1,545.99 | 1,436.22 | 109.77 | 14.084 | |
| 16,100.00 | 12,097.40 | 16,892.61 | 12,890.59 | 67.35 | 56.75 | 120.87 | -4,811.30 | -1,776.15 | 1,546.11 | 1,434.12 | 112.00 | 13.805 | |
| 16,200.00 | 12,098.10 | 16,992.61 | 12,891.46 | 68.68 | 58.05 | 120.87 | -4,911.29 | -1,775.29 | 1,546.24 | 1,432.00 | 114.24 | 13.535 | |
| 16,300.00 | 12,098.80 | 17,092.61 | 12,892.33 | 70.02 | 59.35 | 120.88 | -5,011.28 | -1,774.43 | 1,546.37 | 1,429.89 | 116.48 | 13.276 | |
| 16,400.00 | 12,099.50 | 17,192.61 | 12,893.19 | 71.36 | 60.65 | 120.88 | -5,111.28 | -1,773.57 | 1,546.49 | 1,427.76 | 118.73 | 13.025 | |
| 16,500.00 | 12,100.20 | 17,292.61 | 12,894.06 | 72.69 | 61.96 | 120.88 | -5,211.27 | -1,772.71 | 1,546.62 | 1,425.64 | 120.98 | 12.784 | |
| 16,600.00 | 12,100.90 | 17,392.61 | 12,894.93 | 74.03 | 63.26 | 120.89 | -5,311.26 | -1,771.85 | 1,546.75 | 1,423.50 | 123.24 | 12.550 | |
| 16,700.00 | 12,101.59 | 17,492.61 | 12,895.80 | 75.37 | 64.57 | 120.89 | -5,411.25 | -1,770.98 | 1,546.87 | 1,421.36 | 125.51 | 12.325 | |
| 16,800.00 | 12,102.29 | 17,592.61 | 12,896.67 | 76.72 | 65.89 | 120.90 | -5,511.24 | -1,770.12 | 1,547.00 | 1,419.22 | 127.78 | 12.107 | |
| 16,900.00 | 12,102.99 | 17,692.61 | 12,897.54 | 78.06 | 67.20 | 120.90 | -5,611.24 | -1,769.26 | 1,547.13 | 1,417.08 | 130.05 | 11.896 | |
| 17,000.00 | 12,103.69 | 17,792.61 | 12,898.40 | 79.40 | 68.52 | 120.91 | -5,711.23 | -1,768.40 | 1,547.25 | 1,414.92 | 132.33 | 11.692 | |
| 17,100.00 | 12,104.39 | 17,892.60 | 12,899.27 | 80.75 | 69.84 | 120.91 | -5,811.22 | -1,767.54 | 1,547.38 | 1,412.77 | 134.61 | 11.495 | |
| 17,200.00 | 12,105.08 | 17,992.60 | 12,900.14 | 82.09 | 71.16 | 120.92 | -5,911.21 | -1,766.68 | 1,547.51 | 1,410.61 | 136.90 | 11.304 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5) — **Rule Assigned:** — **Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17,300.00 | 12,105.78 | 18,092.60 | 12,901.01 | 83.44 | 72.49 | 120.92 | -6,011.21 | -1,765.82 | 1,547.63 | 1,408.45 | 139.19 | 11.119 | |
| 17,400.00 | 12,106.48 | 18,192.60 | 12,901.88 | 84.78 | 73.81 | 120.93 | -6,111.20 | -1,764.96 | 1,547.76 | 1,406.28 | 141.48 | 10.940 | |
| 17,500.00 | 12,107.18 | 18,292.60 | 12,902.74 | 86.13 | 75.14 | 120.93 | -6,211.19 | -1,764.10 | 1,547.89 | 1,404.12 | 143.77 | 10.766 | |
| 17,600.00 | 12,107.88 | 18,392.60 | 12,903.61 | 87.48 | 76.47 | 120.93 | -6,311.18 | -1,763.24 | 1,548.02 | 1,401.94 | 146.07 | 10.598 | |
| 17,700.00 | 12,108.58 | 18,492.60 | 12,904.48 | 88.83 | 77.80 | 120.94 | -6,411.18 | -1,762.38 | 1,548.14 | 1,399.77 | 148.37 | 10.434 | |
| 17,800.00 | 12,109.27 | 18,592.60 | 12,905.35 | 90.18 | 79.13 | 120.94 | -6,511.17 | -1,761.52 | 1,548.27 | 1,397.59 | 150.68 | 10.275 | |
| 17,900.00 | 12,109.97 | 18,692.60 | 12,906.22 | 91.52 | 80.46 | 120.95 | -6,611.16 | -1,760.66 | 1,548.40 | 1,395.41 | 152.98 | 10.121 | |
| 18,000.00 | 12,110.67 | 18,792.60 | 12,907.08 | 92.88 | 81.79 | 120.95 | -6,711.15 | -1,759.80 | 1,548.52 | 1,393.23 | 155.29 | 9.972 | |
| 18,100.00 | 12,111.37 | 18,892.60 | 12,907.95 | 94.23 | 83.13 | 120.96 | -6,811.15 | -1,758.93 | 1,548.65 | 1,391.05 | 157.60 | 9.826 | |
| 18,200.00 | 12,112.07 | 18,992.60 | 12,908.82 | 95.58 | 84.46 | 120.96 | -6,911.14 | -1,758.07 | 1,548.78 | 1,388.86 | 159.91 | 9.685 | |
| 18,300.00 | 12,112.77 | 19,092.60 | 12,909.69 | 96.93 | 85.80 | 120.97 | -7,011.13 | -1,757.21 | 1,548.90 | 1,386.67 | 162.23 | 9.548 | |
| 18,400.00 | 12,113.46 | 19,192.60 | 12,910.56 | 98.28 | 87.14 | 120.97 | -7,111.12 | -1,756.35 | 1,549.03 | 1,384.48 | 164.55 | 9.414 | |
| 18,500.00 | 12,114.16 | 19,292.60 | 12,911.42 | 99.63 | 88.48 | 120.98 | -7,211.11 | -1,755.49 | 1,549.16 | 1,382.29 | 166.86 | 9.284 | |
| 18,600.00 | 12,114.86 | 19,392.60 | 12,912.29 | 100.99 | 89.82 | 120.98 | -7,311.11 | -1,754.63 | 1,549.28 | 1,380.10 | 169.19 | 9.157 | |
| 18,700.00 | 12,115.56 | 19,492.60 | 12,913.16 | 102.34 | 91.16 | 120.98 | -7,411.10 | -1,753.77 | 1,549.41 | 1,377.90 | 171.51 | 9.034 | |
| 18,800.00 | 12,116.26 | 19,592.60 | 12,914.03 | 103.70 | 92.50 | 120.99 | -7,511.09 | -1,752.91 | 1,549.54 | 1,375.71 | 173.83 | 8.914 | |
| 18,900.00 | 12,116.95 | 19,692.60 | 12,914.90 | 105.05 | 93.84 | 120.99 | -7,611.08 | -1,752.05 | 1,549.66 | 1,373.51 | 176.16 | 8.797 | |
| 19,000.00 | 12,117.65 | 19,792.60 | 12,915.76 | 106.41 | 95.19 | 121.00 | -7,711.08 | -1,751.19 | 1,549.79 | 1,371.31 | 178.48 | 8.683 | |
| 19,100.00 | 12,118.35 | 19,892.60 | 12,916.63 | 107.76 | 96.53 | 121.00 | -7,811.07 | -1,750.33 | 1,549.92 | 1,369.11 | 180.81 | 8.572 | |
| 19,200.00 | 12,119.05 | 19,992.60 | 12,917.50 | 109.12 | 97.88 | 121.01 | -7,911.06 | -1,749.47 | 1,550.05 | 1,366.90 | 183.14 | 8.464 | |
| 19,300.00 | 12,119.75 | 20,092.60 | 12,918.37 | 110.47 | 99.22 | 121.01 | -8,011.05 | -1,748.61 | 1,550.17 | 1,364.70 | 185.47 | 8.358 | |
| 19,400.00 | 12,120.45 | 20,192.60 | 12,919.24 | 111.83 | 100.57 | 121.02 | -8,111.05 | -1,747.75 | 1,550.30 | 1,362.49 | 187.81 | 8.255 | |
| 19,500.00 | 12,121.14 | 20,292.60 | 12,920.10 | 113.19 | 101.91 | 121.02 | -8,211.04 | -1,746.88 | 1,550.43 | 1,360.29 | 190.14 | 8.154 | |
| 19,600.00 | 12,121.84 | 20,392.60 | 12,920.97 | 114.54 | 103.26 | 121.02 | -8,311.03 | -1,746.02 | 1,550.55 | 1,358.08 | 192.48 | 8.056 | |
| 19,700.00 | 12,122.54 | 20,492.60 | 12,921.84 | 115.90 | 104.61 | 121.03 | -8,411.02 | -1,745.16 | 1,550.68 | 1,355.87 | 194.81 | 7.960 | |
| 19,800.00 | 12,123.24 | 20,592.60 | 12,922.71 | 117.26 | 105.96 | 121.03 | -8,511.02 | -1,744.30 | 1,550.81 | 1,353.66 | 197.15 | 7.866 | |
| 19,900.00 | 12,123.94 | 20,692.60 | 12,923.58 | 118.61 | 107.31 | 121.04 | -8,611.01 | -1,743.44 | 1,550.93 | 1,351.45 | 199.49 | 7.775 | |
| 20,000.00 | 12,124.64 | 20,792.60 | 12,924.44 | 119.97 | 108.66 | 121.04 | -8,711.00 | -1,742.58 | 1,551.06 | 1,349.24 | 201.82 | 7.685 | |
| 20,100.00 | 12,125.33 | 20,892.60 | 12,925.31 | 121.33 | 110.01 | 121.05 | -8,810.99 | -1,741.72 | 1,551.19 | 1,347.02 | 204.16 | 7.598 | |
| 20,200.00 | 12,126.03 | 20,992.60 | 12,926.18 | 122.69 | 111.36 | 121.05 | -8,910.99 | -1,740.86 | 1,551.32 | 1,344.81 | 206.51 | 7.512 | |
| 20,300.00 | 12,126.73 | 21,092.60 | 12,927.05 | 124.05 | 112.71 | 121.06 | -9,010.98 | -1,740.00 | 1,551.44 | 1,342.60 | 208.85 | 7.429 | |
| 20,400.00 | 12,127.43 | 21,192.60 | 12,927.92 | 125.41 | 114.06 | 121.06 | -9,110.97 | -1,739.14 | 1,551.57 | 1,340.38 | 211.19 | 7.347 | |
| 20,500.00 | 12,128.13 | 21,292.60 | 12,928.78 | 126.77 | 115.41 | 121.07 | -9,210.96 | -1,738.28 | 1,551.70 | 1,338.16 | 213.53 | 7.267 | |
| 20,600.00 | 12,128.83 | 21,392.60 | 12,929.65 | 128.13 | 116.77 | 121.07 | -9,310.95 | -1,737.42 | 1,551.82 | 1,335.95 | 215.88 | 7.188 | |
| 20,700.00 | 12,129.52 | 21,492.60 | 12,930.52 | 129.49 | 118.12 | 121.07 | -9,410.95 | -1,736.56 | 1,551.95 | 1,333.73 | 218.22 | 7.112 | |
| 20,800.00 | 12,130.22 | 21,592.60 | 12,931.39 | 130.85 | 119.47 | 121.08 | -9,510.94 | -1,735.70 | 1,552.08 | 1,331.51 | 220.57 | 7.037 | |
| 20,900.00 | 12,130.92 | 21,692.60 | 12,932.26 | 132.21 | 120.82 | 121.08 | -9,610.93 | -1,734.83 | 1,552.21 | 1,329.29 | 222.91 | 6.963 | |
| 21,000.00 | 12,131.62 | 21,792.60 | 12,933.12 | 133.57 | 122.18 | 121.09 | -9,710.92 | -1,733.97 | 1,552.33 | 1,327.07 | 225.26 | 6.891 | |
| 21,100.00 | 12,132.32 | 21,892.60 | 12,933.99 | 134.93 | 123.53 | 121.09 | -9,810.92 | -1,733.11 | 1,552.46 | 1,324.85 | 227.61 | 6.821 | |
| 21,200.00 | 12,133.01 | 21,992.60 | 12,934.86 | 136.29 | 124.89 | 121.10 | -9,910.91 | -1,732.25 | 1,552.59 | 1,322.63 | 229.95 | 6.752 | |
| 21,300.00 | 12,133.71 | 22,092.60 | 12,935.73 | 137.65 | 126.24 | 121.10 | -10,010.90 | -1,731.39 | 1,552.71 | 1,320.41 | 232.30 | 6.684 | |
| 21,400.00 | 12,134.41 | 22,192.60 | 12,936.60 | 139.01 | 127.60 | 121.11 | -10,110.89 | -1,730.53 | 1,552.84 | 1,318.19 | 234.65 | 6.618 | |
| 21,500.00 | 12,135.11 | 22,292.60 | 12,937.46 | 140.37 | 128.95 | 121.11 | -10,210.89 | -1,729.67 | 1,552.97 | 1,315.97 | 237.00 | 6.553 | |
| 21,600.00 | 12,135.81 | 22,392.60 | 12,938.33 | 141.73 | 130.31 | 121.11 | -10,310.88 | -1,728.81 | 1,553.10 | 1,313.75 | 239.35 | 6.489 | |
| 21,700.00 | 12,136.51 | 22,492.60 | 12,939.20 | 143.09 | 131.67 | 121.12 | -10,410.87 | -1,727.95 | 1,553.22 | 1,311.52 | 241.70 | 6.426 | |
| 21,800.00 | 12,137.20 | 22,592.60 | 12,940.07 | 144.46 | 133.02 | 121.12 | -10,510.86 | -1,727.09 | 1,553.35 | 1,309.30 | 244.05 | 6.365 | |
| 21,900.00 | 12,137.90 | 22,692.60 | 12,940.94 | 145.82 | 134.38 | 121.13 | -10,610.86 | -1,726.23 | 1,553.48 | 1,307.07 | 246.40 | 6.305 | |
| 22,000.00 | 12,138.60 | 22,792.60 | 12,941.80 | 147.18 | 135.74 | 121.13 | -10,710.85 | -1,725.37 | 1,553.60 | 1,304.85 | 248.75 | 6.246 | |
| 22,100.00 | 12,139.30 | 22,892.60 | 12,942.67 | 148.54 | 137.09 | 121.14 | -10,810.84 | -1,724.51 | 1,553.73 | 1,302.63 | 251.11 | 6.188 | |
| 22,200.00 | 12,140.00 | 22,992.60 | 12,943.54 | 149.90 | 138.45 | 121.14 | -10,910.83 | -1,723.65 | 1,553.86 | 1,300.40 | 253.46 | 6.131 | |
| 22,300.00 | 12,140.70 | 23,092.60 | 12,944.41 | 151.27 | 139.81 | 121.15 | -11,010.83 | -1,722.78 | 1,553.99 | 1,298.17 | 255.81 | 6.075 | |
| 22,387.52 | 12,141.31 | 23,180.11 | 12,945.17 | 152.46 | 141.00 | 121.15 | -11,098.34 | -1,722.03 | 1,554.10 | 1,296.23 | 257.87 | 6.027 | SF |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.00 | 0.50 | 0.50 | 45.00 | 25.00 | 25.00 | 35.36 | | | | |
| 100.00 | 100.00 | 101.00 | 100.00 | 0.98 | 0.99 | 45.00 | 25.00 | 25.00 | 35.36 | 33.39 | 1.97 | 17.968 | |
| 200.00 | 200.00 | 201.00 | 200.00 | 1.56 | 1.57 | 45.00 | 25.00 | 25.00 | 35.36 | 32.23 | 3.13 | 11.309 | |
| 300.00 | 300.00 | 301.00 | 300.00 | 1.98 | 1.98 | 45.00 | 25.00 | 25.00 | 35.36 | 31.39 | 3.97 | 8.915 | |
| 400.00 | 400.00 | 401.00 | 400.00 | 2.33 | 2.33 | 45.00 | 25.00 | 25.00 | 35.36 | 30.69 | 4.66 | 7.584 | |
| 500.00 | 500.00 | 501.00 | 500.00 | 2.63 | 2.64 | 45.00 | 25.00 | 25.00 | 35.36 | 30.08 | 5.27 | 6.707 | |
| 600.00 | 600.00 | 601.00 | 600.00 | 2.91 | 2.91 | 45.00 | 25.00 | 25.00 | 35.36 | 29.53 | 5.82 | 6.072 | |
| 700.00 | 700.00 | 701.00 | 700.00 | 3.16 | 3.17 | 45.00 | 25.00 | 25.00 | 35.36 | 29.03 | 6.33 | 5.585 | CC, ES |
| 800.00 | 799.99 | 800.99 | 799.99 | 3.45 | 3.40 | -169.59 | 25.00 | 25.00 | 36.64 | 29.79 | 6.85 | 5.351 | |
| 900.00 | 899.91 | 900.91 | 899.91 | 3.70 | 3.63 | -170.58 | 25.00 | 25.00 | 40.51 | 33.18 | 7.33 | 5.530 | |
| 1,000.00 | 999.69 | 1,000.69 | 999.69 | 3.95 | 3.84 | -171.88 | 25.00 | 25.00 | 46.97 | 39.19 | 7.78 | 6.036 | |
| 1,100.00 | 1,099.32 | 1,100.32 | 1,099.32 | 4.05 | 4.04 | -173.12 | 25.00 | 25.00 | 55.47 | 47.39 | 8.08 | 6.863 | |
| 1,200.00 | 1,198.94 | 1,199.94 | 1,198.94 | 4.24 | 4.23 | -174.05 | 25.00 | 25.00 | 64.13 | 55.67 | 8.47 | 7.573 | |
| 1,300.00 | 1,298.53 | 1,299.53 | 1,298.53 | 4.33 | 4.42 | -175.83 | 25.00 | 25.00 | 73.12 | 64.37 | 8.75 | 8.355 | |
| 1,400.00 | 1,397.89 | 1,398.89 | 1,397.89 | 4.57 | 4.60 | -177.81 | 25.00 | 25.00 | 84.37 | 75.20 | 9.17 | 9.200 | |
| 1,500.00 | 1,496.93 | 1,497.93 | 1,496.93 | 4.81 | 4.77 | -179.05 | 25.00 | 25.00 | 98.21 | 88.63 | 9.58 | 10.251 | |
| 1,600.00 | 1,595.62 | 1,596.62 | 1,595.62 | 4.92 | 4.94 | -179.55 | 25.00 | 25.00 | 114.35 | 104.49 | 9.86 | 11.592 | |
| 1,700.00 | 1,694.25 | 1,695.25 | 1,694.25 | 5.12 | 5.11 | -179.61 | 25.00 | 25.00 | 130.85 | 120.63 | 10.22 | 12.799 | |
| 1,800.00 | 1,792.87 | 1,793.87 | 1,792.87 | 5.31 | 5.27 | -179.65 | 25.00 | 25.00 | 147.35 | 136.77 | 10.58 | 13.928 | |
| 1,900.00 | 1,891.50 | 1,892.50 | 1,891.50 | 5.51 | 5.42 | -179.69 | 25.00 | 25.00 | 163.85 | 152.92 | 10.93 | 14.988 | |
| 2,000.00 | 1,990.13 | 1,991.13 | 1,990.13 | 5.71 | 5.58 | -179.72 | 25.00 | 25.00 | 180.35 | 169.07 | 11.28 | 15.985 | |
| 2,100.00 | 2,088.76 | 2,094.61 | 2,093.60 | 5.90 | 5.75 | -179.77 | 24.14 | 24.20 | 195.74 | 184.09 | 11.65 | 16.795 | |
| 2,200.00 | 2,187.39 | 2,199.32 | 2,198.23 | 6.10 | 5.90 | -179.87 | 21.19 | 21.46 | 208.45 | 196.44 | 12.01 | 17.359 | |
| 2,300.00 | 2,286.02 | 2,304.69 | 2,303.37 | 6.30 | 6.06 | 179.97 | 16.11 | 16.73 | 218.43 | 206.08 | 12.36 | 17.677 | |
| 2,400.00 | 2,384.65 | 2,410.56 | 2,408.77 | 6.50 | 6.22 | 179.76 | 8.86 | 9.98 | 225.67 | 212.97 | 12.70 | 17.764 | |
| 2,500.00 | 2,483.28 | 2,516.77 | 2,514.20 | 6.69 | 6.38 | 179.51 | -0.55 | 1.22 | 230.15 | 217.11 | 13.05 | 17.637 | |
| 2,600.00 | 2,581.91 | 2,623.16 | 2,619.40 | 6.89 | 6.54 | 179.19 | -12.13 | -9.55 | 231.87 | 218.48 | 13.39 | 17.313 | |
| 2,700.00 | 2,680.54 | 2,729.56 | 2,724.13 | 7.10 | 6.71 | 178.81 | -25.85 | -22.32 | 230.82 | 217.09 | 13.73 | 16.806 | |
| 2,800.00 | 2,779.17 | 2,833.68 | 2,826.11 | 7.33 | 6.86 | 178.35 | -41.23 | -36.63 | 227.18 | 213.10 | 14.07 | 16.141 | |
| 2,900.00 | 2,877.80 | 2,933.57 | 2,923.82 | 7.56 | 7.00 | 177.88 | -56.43 | -50.77 | 222.94 | 208.53 | 14.42 | 15.465 | |
| 3,000.00 | 2,976.43 | 3,033.47 | 3,021.53 | 7.79 | 7.13 | 177.40 | -71.64 | -64.92 | 218.72 | 203.96 | 14.76 | 14.817 | |
| 3,100.00 | 3,075.06 | 3,133.36 | 3,119.24 | 8.02 | 7.27 | 176.89 | -86.84 | -79.06 | 214.52 | 199.41 | 15.11 | 14.195 | |
| 3,200.00 | 3,173.69 | 3,233.25 | 3,216.96 | 8.25 | 7.42 | 176.36 | -102.04 | -93.20 | 210.33 | 194.87 | 15.47 | 13.600 | |
| 3,300.00 | 3,272.32 | 3,333.15 | 3,314.67 | 8.48 | 7.56 | 175.82 | -117.24 | -107.35 | 206.17 | 190.34 | 15.82 | 13.030 | |
| 3,400.00 | 3,370.94 | 3,433.04 | 3,412.38 | 8.72 | 7.72 | 175.25 | -132.44 | -121.49 | 202.02 | 185.84 | 16.18 | 12.485 | |
| 3,500.00 | 3,469.57 | 3,532.93 | 3,510.09 | 8.95 | 7.90 | 174.65 | -147.64 | -135.64 | 197.89 | 181.34 | 16.55 | 11.956 | |
| 3,600.00 | 3,568.20 | 3,632.83 | 3,607.80 | 9.19 | 8.11 | 174.04 | -162.84 | -149.78 | 193.79 | 176.87 | 16.92 | 11.454 | |
| 3,700.00 | 3,666.83 | 3,732.72 | 3,705.51 | 9.42 | 8.32 | 173.39 | -178.04 | -163.92 | 189.70 | 172.41 | 17.29 | 10.972 | |
| 3,800.00 | 3,765.46 | 3,832.61 | 3,803.23 | 9.66 | 8.54 | 172.72 | -193.24 | -178.07 | 185.65 | 167.98 | 17.66 | 10.509 | |
| 3,900.00 | 3,864.09 | 3,932.51 | 3,900.94 | 9.89 | 8.76 | 172.01 | -208.45 | -192.21 | 181.62 | 163.58 | 18.04 | 10.066 | |
| 4,000.00 | 3,962.72 | 4,032.40 | 3,998.65 | 10.13 | 8.99 | 171.28 | -223.65 | -206.36 | 177.62 | 159.19 | 18.42 | 9.640 | |
| 4,100.00 | 4,061.35 | 4,132.29 | 4,096.36 | 10.36 | 9.22 | 170.51 | -238.85 | -220.50 | 173.65 | 154.84 | 18.81 | 9.232 | |
| 4,200.00 | 4,159.98 | 4,232.19 | 4,194.07 | 10.60 | 9.46 | 169.70 | -254.05 | -234.65 | 169.71 | 150.51 | 19.20 | 8.840 | |
| 4,300.00 | 4,258.61 | 4,332.08 | 4,291.78 | 10.83 | 9.70 | 168.86 | -269.25 | -248.79 | 165.81 | 146.22 | 19.59 | 8.464 | |
| 4,400.00 | 4,357.24 | 4,431.97 | 4,389.49 | 11.07 | 9.94 | 167.97 | -284.45 | -262.93 | 161.94 | 141.96 | 19.98 | 8.103 | |
| 4,500.00 | 4,455.87 | 4,531.87 | 4,487.21 | 11.31 | 10.19 | 167.05 | -299.65 | -277.08 | 158.12 | 137.73 | 20.38 | 7.757 | |
| 4,600.00 | 4,554.50 | 4,631.76 | 4,584.92 | 11.54 | 10.43 | 166.08 | -314.85 | -291.22 | 154.34 | 133.55 | 20.79 | 7.424 | |
| 4,700.00 | 4,653.13 | 4,731.65 | 4,682.63 | 11.78 | 10.68 | 165.05 | -330.05 | -305.37 | 150.60 | 129.40 | 21.20 | 7.105 | |
| 4,800.00 | 4,751.76 | 4,831.55 | 4,780.34 | 12.02 | 10.94 | 163.98 | -345.26 | -319.51 | 146.92 | 125.31 | 21.61 | 6.799 | |
| 4,900.00 | 4,850.39 | 4,931.44 | 4,878.05 | 12.26 | 11.19 | 162.86 | -360.46 | -333.65 | 143.29 | 121.26 | 22.03 | 6.504 | |
| 5,000.00 | 4,949.01 | 5,031.33 | 4,975.76 | 12.49 | 11.45 | 161.67 | -375.66 | -347.80 | 139.71 | 117.26 | 22.45 | 6.222 | |
| 5,100.00 | 5,047.64 | 5,131.23 | 5,073.48 | 12.73 | 11.70 | 160.42 | -390.86 | -361.94 | 136.21 | 113.32 | 22.88 | 5.952 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 5,146.27 | 5,231.12 | 5,171.19 | 12.97 | 11.96 | 159.11 | -406.06 | -376.09 | 132.76 | 109.44 | 23.32 | 5.692 | |
| 5,300.00 | 5,244.90 | 5,331.01 | 5,268.90 | 13.21 | 12.23 | 157.73 | -421.26 | -390.23 | 129.40 | 105.63 | 23.77 | 5.444 | |
| 5,400.00 | 5,343.57 | 5,430.90 | 5,366.60 | 13.41 | 12.49 | 156.22 | -436.46 | -404.37 | 125.87 | 101.68 | 24.19 | 5.203 | |
| 5,500.00 | 5,442.58 | 5,530.65 | 5,464.17 | 13.63 | 12.75 | 154.15 | -451.64 | -418.50 | 120.44 | 95.77 | 24.67 | 4.881 | |
| 5,600.00 | 5,541.92 | 5,630.19 | 5,561.54 | 13.82 | 13.02 | 151.25 | -466.79 | -432.59 | 112.88 | 87.70 | 25.18 | 4.483 | |
| 5,700.00 | 5,641.52 | 5,729.46 | 5,658.64 | 13.98 | 13.28 | 147.17 | -481.89 | -446.65 | 103.44 | 77.71 | 25.73 | 4.020 | |
| 5,800.00 | 5,741.32 | 5,828.37 | 5,755.39 | 14.12 | 13.55 | 141.31 | -496.94 | -460.65 | 92.55 | 66.21 | 26.34 | 3.514 | |
| 5,900.00 | 5,841.25 | 5,926.87 | 5,851.74 | 14.23 | 13.82 | 132.72 | -511.93 | -474.60 | 81.03 | 53.98 | 27.05 | 2.996 | |
| 6,000.00 | 5,941.25 | 6,024.89 | 5,947.62 | 14.28 | 14.08 | -21.76 | -526.85 | -488.48 | 70.51 | 42.69 | 27.82 | 2.534 | |
| 6,100.00 | 6,041.25 | 6,122.54 | 6,043.24 | 14.32 | 14.31 | -37.89 | -541.32 | -501.94 | 64.34 | 35.82 | 28.51 | 2.256 | |
| 6,156.73 | 6,097.98 | 6,178.22 | 6,097.98 | 14.34 | 14.45 | -47.06 | -548.83 | -508.93 | 63.48 | 34.71 | 28.77 | 2.206 | SF |
| 6,200.00 | 6,141.25 | 6,220.89 | 6,140.01 | 14.35 | 14.55 | -53.64 | -554.18 | -513.91 | 63.91 | 35.03 | 28.89 | 2.213 | |
| 6,300.00 | 6,241.25 | 6,320.11 | 6,238.06 | 14.39 | 14.77 | -66.59 | -565.31 | -524.26 | 67.43 | 38.47 | 28.96 | 2.328 | |
| 6,400.00 | 6,341.25 | 6,420.06 | 6,337.19 | 14.42 | 14.96 | -76.10 | -574.62 | -532.93 | 72.72 | 43.80 | 28.92 | 2.514 | |
| 6,500.00 | 6,441.25 | 6,520.61 | 6,437.23 | 14.46 | 15.13 | -82.65 | -582.08 | -539.87 | 78.16 | 49.26 | 28.90 | 2.705 | |
| 6,600.00 | 6,541.25 | 6,621.64 | 6,537.96 | 14.49 | 15.27 | -86.92 | -587.63 | -545.03 | 82.76 | 53.85 | 28.91 | 2.862 | |
| 6,700.00 | 6,641.25 | 6,723.00 | 6,639.20 | 14.53 | 15.39 | -89.44 | -591.23 | -548.38 | 85.96 | 56.99 | 28.97 | 2.967 | |
| 6,800.00 | 6,741.25 | 6,824.55 | 6,740.72 | 14.56 | 15.47 | -90.52 | -592.86 | -549.90 | 87.46 | 58.41 | 29.05 | 3.011 | |
| 6,900.00 | 6,841.25 | 6,925.07 | 6,841.25 | 14.60 | 15.49 | -90.59 | -592.97 | -550.00 | 87.55 | 58.46 | 29.10 | 3.009 | |
| 7,000.00 | 6,941.25 | 7,025.07 | 6,941.25 | 14.64 | 15.54 | -90.59 | -592.97 | -550.00 | 87.55 | 58.38 | 29.18 | 3.001 | |
| 7,100.00 | 7,041.25 | 7,125.07 | 7,041.25 | 14.68 | 15.58 | -90.59 | -592.97 | -550.00 | 87.55 | 58.30 | 29.25 | 2.993 | |
| 7,200.00 | 7,141.25 | 7,225.07 | 7,141.25 | 14.71 | 15.62 | -90.59 | -592.97 | -550.00 | 87.55 | 58.23 | 29.33 | 2.985 | |
| 7,300.00 | 7,241.25 | 7,325.07 | 7,241.25 | 14.75 | 15.66 | -90.59 | -592.97 | -550.00 | 87.55 | 58.15 | 29.41 | 2.977 | |
| 7,400.00 | 7,341.25 | 7,425.07 | 7,341.25 | 14.79 | 15.70 | -90.59 | -592.97 | -550.00 | 87.55 | 58.07 | 29.49 | 2.969 | |
| 7,500.00 | 7,441.25 | 7,525.07 | 7,441.25 | 14.83 | 15.74 | -90.59 | -592.97 | -550.00 | 87.55 | 57.99 | 29.57 | 2.961 | |
| 7,600.00 | 7,541.25 | 7,625.07 | 7,541.25 | 14.87 | 15.78 | -90.59 | -592.97 | -550.00 | 87.55 | 57.91 | 29.65 | 2.953 | |
| 7,700.00 | 7,641.25 | 7,725.07 | 7,641.25 | 14.91 | 15.83 | -90.59 | -592.97 | -550.00 | 87.55 | 57.83 | 29.73 | 2.945 | |
| 7,800.00 | 7,741.25 | 7,825.07 | 7,741.25 | 14.95 | 15.87 | -90.59 | -592.97 | -550.00 | 87.55 | 57.75 | 29.81 | 2.937 | |
| 7,900.00 | 7,841.25 | 7,925.07 | 7,841.25 | 14.99 | 15.91 | -90.59 | -592.97 | -550.00 | 87.55 | 57.66 | 29.89 | 2.929 | |
| 8,000.00 | 7,941.25 | 8,025.07 | 7,941.25 | 15.03 | 15.96 | -90.59 | -592.97 | -550.00 | 87.55 | 57.58 | 29.97 | 2.921 | |
| 8,100.00 | 8,041.25 | 8,125.07 | 8,041.25 | 15.07 | 16.00 | -90.59 | -592.97 | -550.00 | 87.55 | 57.50 | 30.06 | 2.913 | |
| 8,200.00 | 8,141.25 | 8,225.07 | 8,141.25 | 15.11 | 16.05 | -90.59 | -592.97 | -550.00 | 87.55 | 57.41 | 30.14 | 2.905 | |
| 8,300.00 | 8,241.25 | 8,325.07 | 8,241.25 | 15.15 | 16.09 | -90.59 | -592.97 | -550.00 | 87.55 | 57.33 | 30.23 | 2.897 | |
| 8,400.00 | 8,341.25 | 8,425.07 | 8,341.25 | 15.20 | 16.13 | -90.59 | -592.97 | -550.00 | 87.55 | 57.24 | 30.31 | 2.889 | |
| 8,500.00 | 8,441.25 | 8,525.07 | 8,441.25 | 15.24 | 16.18 | -90.59 | -592.97 | -550.00 | 87.55 | 57.16 | 30.40 | 2.880 | |
| 8,600.00 | 8,541.25 | 8,625.07 | 8,541.25 | 15.28 | 16.22 | -90.59 | -592.97 | -550.00 | 87.55 | 57.07 | 30.48 | 2.872 | |
| 8,700.00 | 8,641.25 | 8,725.07 | 8,641.25 | 15.32 | 16.27 | -90.59 | -592.97 | -550.00 | 87.55 | 56.98 | 30.57 | 2.864 | |
| 8,800.00 | 8,741.25 | 8,825.07 | 8,741.25 | 15.37 | 16.32 | -90.59 | -592.97 | -550.00 | 87.55 | 56.90 | 30.66 | 2.856 | |
| 8,900.00 | 8,841.25 | 8,925.07 | 8,841.25 | 15.41 | 16.36 | -90.59 | -592.97 | -550.00 | 87.55 | 56.81 | 30.75 | 2.848 | |
| 9,000.00 | 8,941.25 | 9,025.07 | 8,941.25 | 15.46 | 16.41 | -90.59 | -592.97 | -550.00 | 87.55 | 56.72 | 30.84 | 2.839 | |
| 9,100.00 | 9,041.25 | 9,125.07 | 9,041.25 | 15.50 | 16.46 | -90.59 | -592.97 | -550.00 | 87.55 | 56.63 | 30.93 | 2.831 | |
| 9,200.00 | 9,141.25 | 9,225.07 | 9,141.25 | 15.55 | 16.50 | -90.59 | -592.97 | -550.00 | 87.55 | 56.54 | 31.02 | 2.823 | |
| 9,300.00 | 9,241.25 | 9,325.07 | 9,241.25 | 15.59 | 16.55 | -90.59 | -592.97 | -550.00 | 87.55 | 56.45 | 31.11 | 2.815 | |
| 9,400.00 | 9,341.25 | 9,425.07 | 9,341.25 | 15.64 | 16.60 | -90.59 | -592.97 | -550.00 | 87.55 | 56.36 | 31.20 | 2.806 | |
| 9,500.00 | 9,441.25 | 9,525.07 | 9,441.25 | 15.68 | 16.65 | -90.59 | -592.97 | -550.00 | 87.55 | 56.26 | 31.29 | 2.798 | |
| 9,600.00 | 9,541.25 | 9,625.07 | 9,541.25 | 15.73 | 16.69 | -90.59 | -592.97 | -550.00 | 87.55 | 56.17 | 31.38 | 2.790 | |
| 9,700.00 | 9,641.25 | 9,725.07 | 9,641.25 | 15.78 | 16.74 | -90.59 | -592.97 | -550.00 | 87.55 | 56.08 | 31.48 | 2.782 | |
| 9,800.00 | 9,741.25 | 9,825.07 | 9,741.25 | 15.82 | 16.79 | -90.59 | -592.97 | -550.00 | 87.55 | 55.98 | 31.57 | 2.773 | |
| 9,900.00 | 9,841.25 | 9,925.07 | 9,841.25 | 15.87 | 16.84 | -90.59 | -592.97 | -550.00 | 87.55 | 55.89 | 31.66 | 2.765 | |
| 10,000.00 | 9,941.25 | 10,025.07 | 9,941.25 | 15.92 | 16.89 | -90.59 | -592.97 | -550.00 | 87.55 | 55.80 | 31.76 | 2.757 | |
| 10,100.00 | 10,041.25 | 10,125.07 | 10,041.25 | 15.96 | 16.94 | -90.59 | -592.97 | -550.00 | 87.55 | 55.70 | 31.86 | 2.749 | |
| 10,200.00 | 10,141.25 | 10,225.07 | 10,141.25 | 16.01 | 16.99 | -90.59 | -592.97 | -550.00 | 87.55 | 55.60 | 31.95 | 2.740 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Offset Well Error:** 0.50 usft

**Rule Assigned:**

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,300.00 | 10,241.25 | 10,325.07 | 10,241.25 | 16.06 | 17.04 | -90.59 | -592.97 | -550.00 | 87.55 | 55.51 | 32.05 | 2.732 | |
| 10,400.00 | 10,341.25 | 10,425.07 | 10,341.25 | 16.11 | 17.09 | -90.59 | -592.97 | -550.00 | 87.55 | 55.41 | 32.14 | 2.724 | |
| 10,500.00 | 10,441.25 | 10,525.07 | 10,441.25 | 16.16 | 17.14 | -90.59 | -592.97 | -550.00 | 87.55 | 55.31 | 32.24 | 2.716 | |
| 10,600.00 | 10,541.25 | 10,625.07 | 10,541.25 | 16.21 | 17.19 | -90.59 | -592.97 | -550.00 | 87.55 | 55.21 | 32.34 | 2.707 | |
| 10,700.00 | 10,641.25 | 10,725.07 | 10,641.25 | 16.26 | 17.24 | -90.59 | -592.97 | -550.00 | 87.55 | 55.12 | 32.44 | 2.699 | |
| 10,800.00 | 10,741.25 | 10,825.07 | 10,741.25 | 16.31 | 17.29 | -90.59 | -592.97 | -550.00 | 87.55 | 55.02 | 32.54 | 2.691 | |
| 10,900.00 | 10,841.25 | 10,925.07 | 10,841.25 | 16.36 | 17.35 | -90.59 | -592.97 | -550.00 | 87.55 | 54.92 | 32.64 | 2.683 | |
| 11,000.00 | 10,941.25 | 11,025.07 | 10,941.25 | 16.41 | 17.40 | -90.59 | -592.97 | -550.00 | 87.55 | 54.82 | 32.74 | 2.674 | |
| 11,100.00 | 11,041.25 | 11,125.07 | 11,041.25 | 16.46 | 17.45 | -90.59 | -592.97 | -550.00 | 87.55 | 54.72 | 32.84 | 2.666 | |
| 11,200.00 | 11,141.25 | 11,225.07 | 11,141.25 | 16.51 | 17.50 | -90.59 | -592.97 | -550.00 | 87.55 | 54.61 | 32.94 | 2.658 | |
| 11,300.00 | 11,241.25 | 11,325.07 | 11,241.25 | 16.56 | 17.55 | -90.59 | -592.97 | -550.00 | 87.55 | 54.51 | 33.04 | 2.650 | |
| 11,400.00 | 11,341.25 | 11,425.07 | 11,341.25 | 16.61 | 17.61 | -90.59 | -592.97 | -550.00 | 87.55 | 54.41 | 33.14 | 2.642 | |
| 11,500.00 | 11,441.25 | 11,525.07 | 11,441.25 | 16.66 | 17.66 | -90.59 | -592.97 | -550.00 | 87.55 | 54.31 | 33.25 | 2.633 | |
| 11,600.00 | 11,541.21 | 11,625.03 | 11,541.21 | 16.71 | 17.71 | 88.68 | -592.97 | -550.00 | 87.50 | 54.14 | 33.37 | 2.622 | |
| 11,621.78 | 11,562.89 | 11,646.72 | 11,562.89 | 16.75 | 17.72 | 90.00 | -592.97 | -550.00 | 87.48 | 54.03 | 33.45 | 2.615 | |
| 11,700.00 | 11,639.79 | 11,723.61 | 11,639.79 | 16.90 | 17.77 | 98.81 | -592.97 | -550.00 | 88.59 | 54.70 | 33.89 | 2.614 | |
| 11,800.00 | 11,734.09 | 11,817.92 | 11,734.09 | 17.17 | 17.82 | 116.04 | -592.97 | -550.00 | 99.25 | 64.50 | 34.75 | 2.856 | |
| 11,900.00 | 11,821.25 | 11,905.08 | 11,821.25 | 17.53 | 17.86 | 132.11 | -592.97 | -550.00 | 129.62 | 94.22 | 35.39 | 3.662 | |
| 12,000.00 | 11,898.62 | 11,982.45 | 11,898.62 | 18.00 | 17.91 | 142.45 | -592.97 | -550.00 | 181.30 | 145.63 | 35.67 | 5.082 | |
| 12,100.00 | 11,963.85 | 12,047.67 | 11,963.85 | 18.59 | 17.94 | 147.45 | -592.97 | -550.00 | 250.22 | 214.41 | 35.81 | 6.987 | |
| 12,200.00 | 12,014.95 | 12,098.78 | 12,014.95 | 19.33 | 17.97 | 147.86 | -592.97 | -550.00 | 331.97 | 296.06 | 35.91 | 9.244 | |
| 12,300.00 | 12,050.38 | 12,134.20 | 12,050.38 | 20.19 | 17.99 | 142.12 | -592.97 | -550.00 | 422.77 | 386.78 | 35.98 | 11.749 | |
| 12,400.00 | 12,069.05 | 12,152.88 | 12,069.05 | 21.14 | 18.00 | 120.48 | -592.97 | -550.00 | 519.15 | 483.13 | 36.02 | 14.412 | |
| 12,500.00 | 12,072.27 | 12,156.09 | 12,072.27 | 22.15 | 18.00 | 93.14 | -592.97 | -550.00 | 617.90 | 581.88 | 36.03 | 17.151 | |
| 12,600.00 | 12,072.97 | 12,156.79 | 12,072.97 | 23.19 | 18.00 | 94.54 | -592.97 | -550.00 | 717.37 | 681.33 | 36.04 | 19.904 | |
| 12,700.00 | 12,073.66 | 13,448.30 | 12,798.23 | 24.26 | 24.96 | 179.97 | -1,403.18 | -480.24 | 724.58 | 668.41 | 56.17 | 12.901 | |
| 12,800.00 | 12,074.36 | 13,548.30 | 12,798.75 | 25.36 | 26.03 | 179.97 | -1,503.17 | -479.30 | 724.40 | 668.07 | 56.33 | 12.859 | |
| 12,900.00 | 12,075.06 | 13,648.30 | 12,799.28 | 26.49 | 27.14 | 179.97 | -1,603.16 | -478.39 | 724.23 | 667.71 | 56.52 | 12.814 | |
| 13,000.00 | 12,075.76 | 13,748.30 | 12,799.81 | 27.63 | 28.26 | 179.97 | -1,703.16 | -477.48 | 724.06 | 667.34 | 56.71 | 12.767 | |
| 13,100.00 | 12,076.46 | 13,848.30 | 12,800.33 | 28.80 | 29.41 | 179.97 | -1,803.15 | -476.57 | 723.89 | 666.96 | 56.93 | 12.716 | |
| 13,200.00 | 12,077.15 | 13,948.30 | 12,800.86 | 29.98 | 30.57 | 179.98 | -1,903.15 | -475.66 | 723.71 | 666.56 | 57.15 | 12.663 | |
| 13,300.00 | 12,077.85 | 14,048.30 | 12,801.38 | 31.18 | 31.75 | 179.98 | -2,003.14 | -474.74 | 723.54 | 666.15 | 57.39 | 12.608 | |
| 13,400.00 | 12,078.55 | 14,148.30 | 12,801.91 | 32.39 | 32.94 | 179.98 | -2,103.13 | -473.83 | 723.37 | 665.73 | 57.64 | 12.549 | |
| 13,500.00 | 12,079.25 | 14,248.30 | 12,802.44 | 33.61 | 34.15 | 179.98 | -2,203.13 | -472.92 | 723.20 | 665.29 | 57.91 | 12.489 | |
| 13,600.00 | 12,079.95 | 14,348.30 | 12,802.96 | 34.84 | 35.37 | 179.98 | -2,303.12 | -472.01 | 723.03 | 664.84 | 58.19 | 12.426 | |
| 13,700.00 | 12,080.65 | 14,448.30 | 12,803.49 | 36.08 | 36.59 | 179.98 | -2,403.12 | -471.10 | 722.85 | 664.38 | 58.48 | 12.361 | |
| 13,800.00 | 12,081.34 | 14,548.30 | 12,804.01 | 37.33 | 37.83 | 179.98 | -2,503.11 | -470.19 | 722.68 | 663.90 | 58.78 | 12.295 | |
| 13,900.00 | 12,082.04 | 14,648.30 | 12,804.54 | 38.59 | 39.08 | 179.98 | -2,603.11 | -469.28 | 722.51 | 663.41 | 59.10 | 12.226 | |
| 14,000.00 | 12,082.74 | 14,748.30 | 12,805.07 | 39.86 | 40.33 | 179.98 | -2,703.10 | -468.37 | 722.34 | 662.91 | 59.42 | 12.156 | |
| 14,100.00 | 12,083.44 | 14,848.30 | 12,805.59 | 41.13 | 41.59 | 179.98 | -2,803.09 | -467.46 | 722.16 | 662.40 | 59.76 | 12.083 | |
| 14,200.00 | 12,084.14 | 14,948.30 | 12,806.12 | 42.40 | 42.86 | 179.98 | -2,903.09 | -466.55 | 721.99 | 661.87 | 60.12 | 12.010 | |
| 14,300.00 | 12,084.84 | 15,048.30 | 12,806.64 | 43.69 | 44.13 | 179.98 | -3,003.08 | -465.64 | 721.82 | 661.34 | 60.48 | 11.935 | |
| 14,400.00 | 12,085.53 | 15,148.30 | 12,807.17 | 44.97 | 45.41 | 179.98 | -3,103.08 | -464.73 | 721.65 | 660.79 | 60.86 | 11.858 | |
| 14,500.00 | 12,086.23 | 15,248.30 | 12,807.70 | 46.27 | 46.69 | 179.98 | -3,203.07 | -463.82 | 721.47 | 660.23 | 61.24 | 11.781 | |
| 14,600.00 | 12,086.93 | 15,348.30 | 12,808.22 | 47.56 | 47.98 | 179.98 | -3,303.07 | -462.91 | 721.30 | 659.66 | 61.64 | 11.702 | |
| 14,700.00 | 12,087.63 | 15,448.30 | 12,808.75 | 48.86 | 49.27 | 179.98 | -3,403.06 | -462.00 | 721.13 | 659.08 | 62.05 | 11.622 | |
| 14,800.00 | 12,088.33 | 15,548.30 | 12,809.27 | 50.17 | 50.57 | 179.98 | -3,503.06 | -461.09 | 720.96 | 658.49 | 62.47 | 11.541 | |
| 14,900.00 | 12,089.02 | 15,648.30 | 12,809.80 | 51.47 | 51.87 | 179.98 | -3,603.05 | -460.18 | 720.79 | 657.89 | 62.90 | 11.460 | |
| 15,000.00 | 12,089.72 | 15,748.30 | 12,810.33 | 52.78 | 53.17 | 179.98 | -3,703.04 | -459.27 | 720.61 | 657.28 | 63.34 | 11.378 | |
| 15,100.00 | 12,090.42 | 15,848.30 | 12,810.85 | 54.10 | 54.48 | 179.98 | -3,803.04 | -458.36 | 720.44 | 656.66 | 63.78 | 11.295 | |
| 15,200.00 | 12,091.12 | 15,948.30 | 12,811.38 | 55.41 | 55.79 | 179.98 | -3,903.03 | -457.45 | 720.27 | 656.03 | 64.24 | 11.212 | |
| 15,300.00 | 12,091.82 | 16,048.30 | 12,811.90 | 56.73 | 57.10 | 179.98 | -4,003.03 | -456.54 | 720.10 | 655.39 | 64.71 | 11.128 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,400.00 | 12,092.52 | 16,148.30 | 12,812.43 | 58.05 | 58.41 | 179.98 | -4,103.02 | -455.63 | 719.92 | 654.74 | 65.19 | 11.044 | |
| 15,500.00 | 12,093.21 | 16,248.30 | 12,812.96 | 59.37 | 59.73 | 179.98 | -4,203.02 | -454.72 | 719.75 | 654.08 | 65.68 | 10.959 | |
| 15,600.00 | 12,093.91 | 16,348.30 | 12,813.48 | 60.70 | 61.05 | 179.98 | -4,303.01 | -453.81 | 719.58 | 653.41 | 66.17 | 10.874 | |
| 15,700.00 | 12,094.61 | 16,448.30 | 12,814.01 | 62.03 | 62.37 | 179.98 | -4,403.00 | -452.90 | 719.41 | 652.73 | 66.68 | 10.790 | |
| 15,800.00 | 12,095.31 | 16,548.30 | 12,814.53 | 63.35 | 63.69 | 179.98 | -4,503.00 | -451.99 | 719.24 | 652.05 | 67.19 | 10.705 | |
| 15,900.00 | 12,096.01 | 16,648.30 | 12,815.06 | 64.68 | 65.02 | 179.98 | -4,602.99 | -451.08 | 719.06 | 651.35 | 67.71 | 10.620 | |
| 16,000.00 | 12,096.71 | 16,748.30 | 12,815.59 | 66.02 | 66.34 | 179.98 | -4,702.99 | -450.17 | 718.89 | 650.65 | 68.24 | 10.535 | |
| 16,100.00 | 12,097.40 | 16,848.30 | 12,816.11 | 67.35 | 67.67 | 179.98 | -4,802.98 | -449.26 | 718.72 | 649.94 | 68.78 | 10.450 | |
| 16,200.00 | 12,098.10 | 16,948.30 | 12,816.64 | 68.68 | 69.00 | 179.98 | -4,902.98 | -448.35 | 718.55 | 649.22 | 69.32 | 10.365 | |
| 16,300.00 | 12,098.80 | 17,048.30 | 12,817.16 | 70.02 | 70.34 | 179.98 | -5,002.97 | -447.44 | 718.37 | 648.50 | 69.88 | 10.281 | |
| 16,400.00 | 12,099.50 | 17,148.30 | 12,817.69 | 71.36 | 71.67 | 179.98 | -5,102.96 | -446.53 | 718.20 | 647.77 | 70.44 | 10.197 | |
| 16,500.00 | 12,100.20 | 17,248.30 | 12,818.22 | 72.69 | 73.00 | 179.98 | -5,202.96 | -445.62 | 718.03 | 647.03 | 71.00 | 10.113 | |
| 16,600.00 | 12,100.90 | 17,348.30 | 12,818.74 | 74.03 | 74.34 | 179.98 | -5,302.95 | -444.71 | 717.86 | 646.28 | 71.58 | 10.029 | |
| 16,700.00 | 12,101.59 | 17,448.30 | 12,819.27 | 75.37 | 75.68 | 179.98 | -5,402.95 | -443.80 | 717.69 | 645.53 | 72.16 | 9.946 | |
| 16,800.00 | 12,102.29 | 17,548.30 | 12,819.79 | 76.72 | 77.01 | 179.98 | -5,502.94 | -442.89 | 717.51 | 644.77 | 72.75 | 9.863 | |
| 16,900.00 | 12,102.99 | 17,648.30 | 12,820.32 | 78.06 | 78.35 | 179.98 | -5,602.94 | -441.98 | 717.34 | 644.00 | 73.34 | 9.781 | |
| 17,000.00 | 12,103.69 | 17,748.30 | 12,820.85 | 79.40 | 79.69 | 179.99 | -5,702.93 | -441.07 | 717.17 | 643.23 | 73.94 | 9.699 | |
| 17,100.00 | 12,104.39 | 17,848.30 | 12,821.37 | 80.75 | 81.03 | 179.99 | -5,802.92 | -440.16 | 717.00 | 642.45 | 74.55 | 9.618 | |
| 17,200.00 | 12,105.08 | 17,948.29 | 12,821.90 | 82.09 | 82.37 | 179.99 | -5,902.92 | -439.25 | 716.82 | 641.66 | 75.16 | 9.537 | |
| 17,300.00 | 12,105.78 | 18,048.29 | 12,822.42 | 83.44 | 83.72 | 179.99 | -6,002.91 | -438.33 | 716.65 | 640.87 | 75.78 | 9.457 | |
| 17,400.00 | 12,106.48 | 18,148.29 | 12,822.95 | 84.78 | 85.06 | 179.99 | -6,102.91 | -437.42 | 716.48 | 640.07 | 76.41 | 9.377 | |
| 17,500.00 | 12,107.18 | 18,248.29 | 12,823.48 | 86.13 | 86.41 | 179.99 | -6,202.90 | -436.51 | 716.31 | 639.27 | 77.04 | 9.298 | |
| 17,600.00 | 12,107.88 | 18,348.29 | 12,824.00 | 87.48 | 87.75 | 179.99 | -6,302.90 | -435.60 | 716.14 | 638.46 | 77.67 | 9.220 | |
| 17,700.00 | 12,108.58 | 18,448.29 | 12,824.53 | 88.83 | 89.10 | 179.99 | -6,402.89 | -434.69 | 715.96 | 637.65 | 78.31 | 9.142 | |
| 17,800.00 | 12,109.27 | 18,548.29 | 12,825.05 | 90.18 | 90.44 | 179.99 | -6,502.89 | -433.78 | 715.79 | 636.83 | 78.96 | 9.065 | |
| 17,900.00 | 12,109.97 | 18,648.29 | 12,825.58 | 91.52 | 91.79 | 179.99 | -6,602.88 | -432.87 | 715.62 | 636.01 | 79.61 | 8.989 | |
| 18,000.00 | 12,110.67 | 18,748.29 | 12,826.11 | 92.88 | 93.14 | 179.99 | -6,702.87 | -431.96 | 715.45 | 635.18 | 80.27 | 8.913 | |
| 18,100.00 | 12,111.37 | 18,848.29 | 12,826.63 | 94.23 | 94.49 | 179.99 | -6,802.87 | -431.05 | 715.27 | 634.34 | 80.93 | 8.838 | |
| 18,200.00 | 12,112.07 | 18,948.29 | 12,827.16 | 95.58 | 95.84 | 179.99 | -6,902.86 | -430.14 | 715.10 | 633.51 | 81.60 | 8.764 | |
| 18,300.00 | 12,112.77 | 19,048.29 | 12,827.68 | 96.93 | 97.19 | 179.99 | -7,002.86 | -429.23 | 714.93 | 632.66 | 82.27 | 8.690 | |
| 18,400.00 | 12,113.46 | 19,148.29 | 12,828.21 | 98.28 | 98.54 | 179.99 | -7,102.85 | -428.32 | 714.76 | 631.81 | 82.94 | 8.618 | |
| 18,500.00 | 12,114.16 | 19,248.29 | 12,828.74 | 99.63 | 99.89 | 179.99 | -7,202.85 | -427.41 | 714.58 | 630.96 | 83.62 | 8.545 | |
| 18,600.00 | 12,114.86 | 19,348.29 | 12,829.26 | 100.99 | 101.24 | 179.99 | -7,302.84 | -426.50 | 714.41 | 630.11 | 84.31 | 8.474 | |
| 18,700.00 | 12,115.56 | 19,448.29 | 12,829.79 | 102.34 | 102.59 | 179.99 | -7,402.83 | -425.59 | 714.24 | 629.25 | 85.00 | 8.403 | |
| 18,800.00 | 12,116.26 | 19,548.29 | 12,830.31 | 103.70 | 103.94 | 179.99 | -7,502.83 | -424.68 | 714.07 | 628.38 | 85.69 | 8.333 | |
| 18,900.00 | 12,116.95 | 19,648.29 | 12,830.84 | 105.05 | 105.29 | 179.99 | -7,602.82 | -423.77 | 713.90 | 627.51 | 86.38 | 8.264 | |
| 19,000.00 | 12,117.65 | 19,748.29 | 12,831.37 | 106.41 | 106.65 | 179.99 | -7,702.82 | -422.86 | 713.72 | 626.64 | 87.08 | 8.196 | |
| 19,100.00 | 12,118.35 | 19,848.29 | 12,831.89 | 107.76 | 108.00 | 179.99 | -7,802.81 | -421.95 | 713.55 | 625.76 | 87.79 | 8.128 | |
| 19,200.00 | 12,119.05 | 19,948.29 | 12,832.42 | 109.12 | 109.35 | 179.99 | -7,902.81 | -421.04 | 713.38 | 624.88 | 88.50 | 8.061 | |
| 19,300.00 | 12,119.75 | 20,048.29 | 12,832.94 | 110.47 | 110.71 | 179.99 | -8,002.80 | -420.13 | 713.21 | 624.00 | 89.21 | 7.995 | |
| 19,400.00 | 12,120.45 | 20,148.29 | 12,833.47 | 111.83 | 112.06 | 179.99 | -8,102.79 | -419.22 | 713.03 | 623.11 | 89.92 | 7.929 | |
| 19,500.00 | 12,121.14 | 20,248.29 | 12,834.00 | 113.19 | 113.42 | 179.99 | -8,202.79 | -418.31 | 712.86 | 622.22 | 90.64 | 7.865 | |
| 19,600.00 | 12,121.84 | 20,348.29 | 12,834.52 | 114.54 | 114.77 | 179.99 | -8,302.78 | -417.40 | 712.69 | 621.33 | 91.36 | 7.801 | |
| 19,700.00 | 12,122.54 | 20,448.29 | 12,835.05 | 115.90 | 116.13 | 179.99 | -8,402.78 | -416.49 | 712.52 | 620.43 | 92.09 | 7.737 | |
| 19,800.00 | 12,123.24 | 20,548.29 | 12,835.57 | 117.26 | 117.49 | 179.99 | -8,502.77 | -415.58 | 712.35 | 619.53 | 92.82 | 7.675 | |
| 19,900.00 | 12,123.94 | 20,648.29 | 12,836.10 | 118.61 | 118.84 | 179.99 | -8,602.77 | -414.67 | 712.17 | 618.62 | 93.55 | 7.613 | |
| 20,000.00 | 12,124.64 | 20,748.29 | 12,836.63 | 119.97 | 120.20 | 179.99 | -8,702.76 | -413.76 | 712.00 | 617.72 | 94.28 | 7.552 | |
| 20,100.00 | 12,125.33 | 20,848.29 | 12,837.15 | 121.33 | 121.55 | 179.99 | -8,802.75 | -412.85 | 711.83 | 616.81 | 95.02 | 7.491 | |
| 20,200.00 | 12,126.03 | 20,948.29 | 12,837.68 | 122.69 | 122.91 | 179.99 | -8,902.75 | -411.94 | 711.66 | 615.89 | 95.76 | 7.431 | |
| 20,300.00 | 12,126.73 | 21,048.29 | 12,838.20 | 124.05 | 124.27 | 179.99 | -9,002.74 | -411.03 | 711.48 | 614.98 | 96.51 | 7.372 | |
| 20,400.00 | 12,127.43 | 21,148.29 | 12,838.73 | 125.41 | 125.63 | 179.99 | -9,102.74 | -410.12 | 711.31 | 614.06 | 97.25 | 7.314 | |
| 20,500.00 | 12,128.13 | 21,248.29 | 12,839.26 | 126.77 | 126.98 | 179.99 | -9,202.73 | -409.21 | 711.14 | 613.14 | 98.00 | 7.256 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,600.00 | 12,128.83 | 21,348.29 | 12,839.78 | 128.13 | 128.34 | 180.00 | -9,302.73 | -408.30 | 710.97 | 612.21 | 98.75 | 7.199 | |
| 20,700.00 | 12,129.52 | 21,448.29 | 12,840.31 | 129.49 | 129.70 | 180.00 | -9,402.72 | -407.39 | 710.80 | 611.29 | 99.51 | 7.143 | |
| 20,800.00 | 12,130.22 | 21,548.29 | 12,840.83 | 130.85 | 131.06 | 180.00 | -9,502.71 | -406.48 | 710.62 | 610.36 | 100.27 | 7.087 | |
| 20,900.00 | 12,130.92 | 21,648.29 | 12,841.36 | 132.21 | 132.42 | 180.00 | -9,602.71 | -405.57 | 710.45 | 609.43 | 101.03 | 7.032 | |
| 21,000.00 | 12,131.62 | 21,748.29 | 12,841.89 | 133.57 | 133.78 | 180.00 | -9,702.70 | -404.66 | 710.28 | 608.49 | 101.79 | 6.978 | |
| 21,100.00 | 12,132.32 | 21,848.29 | 12,842.41 | 134.93 | 135.14 | 180.00 | -9,802.70 | -403.75 | 710.11 | 607.55 | 102.55 | 6.924 | |
| 21,200.00 | 12,133.01 | 21,948.29 | 12,842.94 | 136.29 | 136.50 | 180.00 | -9,902.69 | -402.84 | 709.93 | 606.62 | 103.32 | 6.871 | |
| 21,300.00 | 12,133.71 | 22,048.29 | 12,843.46 | 137.65 | 137.86 | 180.00 | -10,002.69 | -401.93 | 709.76 | 605.67 | 104.09 | 6.819 | |
| 21,400.00 | 12,134.41 | 22,148.29 | 12,843.99 | 139.01 | 139.22 | 180.00 | -10,102.68 | -401.01 | 709.59 | 604.73 | 104.86 | 6.767 | |
| 21,500.00 | 12,135.11 | 22,248.29 | 12,844.52 | 140.37 | 140.58 | 180.00 | -10,202.68 | -400.10 | 709.42 | 603.79 | 105.63 | 6.716 | |
| 21,600.00 | 12,135.81 | 22,348.29 | 12,845.04 | 141.73 | 141.94 | 180.00 | -10,302.67 | -399.19 | 709.25 | 602.84 | 106.41 | 6.665 | |
| 21,700.00 | 12,136.51 | 22,448.29 | 12,845.57 | 143.09 | 143.30 | 180.00 | -10,402.66 | -398.28 | 709.07 | 601.89 | 107.19 | 6.615 | |
| 21,800.00 | 12,137.20 | 22,548.29 | 12,846.09 | 144.46 | 144.66 | 180.00 | -10,502.66 | -397.37 | 708.90 | 600.94 | 107.96 | 6.566 | |
| 21,900.00 | 12,137.90 | 22,648.29 | 12,846.62 | 145.82 | 146.02 | 180.00 | -10,602.65 | -396.46 | 708.73 | 599.98 | 108.75 | 6.517 | |
| 22,000.00 | 12,138.60 | 22,748.29 | 12,847.15 | 147.18 | 147.38 | 180.00 | -10,702.65 | -395.55 | 708.56 | 599.03 | 109.53 | 6.469 | |
| 22,100.00 | 12,139.30 | 22,848.29 | 12,847.67 | 148.54 | 148.74 | 180.00 | -10,802.64 | -394.64 | 708.38 | 598.07 | 110.32 | 6.421 | |
| 22,200.00 | 12,140.00 | 22,948.29 | 12,848.20 | 149.90 | 150.10 | 180.00 | -10,902.64 | -393.73 | 708.21 | 597.11 | 111.10 | 6.374 | |
| 22,300.00 | 12,140.70 | 23,048.29 | 12,848.72 | 151.27 | 151.46 | 180.00 | -11,002.63 | -392.82 | 708.04 | 596.15 | 111.89 | 6.328 | |
| 22,387.52 | 12,141.31 | 23,135.80 | 12,849.19 | 152.46 | 152.65 | 180.00 | -11,090.14 | -392.03 | 707.89 | 595.32 | 112.57 | 6.288 | |

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 | 1.00 | 0.00 | 0.50 | 0.50 | 171.12 | -160.00 | 25.00 | 161.94 | | | | |
| 100.00 | 100.00 | 101.00 | 100.00 | 0.98 | 0.99 | 171.12 | -160.00 | 25.00 | 161.94 | 159.97 | 1.97 | 82.302 | |
| 200.00 | 200.00 | 201.00 | 200.00 | 1.56 | 1.57 | 171.12 | -160.00 | 25.00 | 161.94 | 158.81 | 3.13 | 51.798 | |
| 300.00 | 300.00 | 301.00 | 300.00 | 1.98 | 1.98 | 171.12 | -160.00 | 25.00 | 161.94 | 157.98 | 3.97 | 40.835 | |
| 400.00 | 400.00 | 401.00 | 400.00 | 2.33 | 2.33 | 171.12 | -160.00 | 25.00 | 161.94 | 157.28 | 4.66 | 34.737 | |
| 500.00 | 500.00 | 501.00 | 500.00 | 2.63 | 2.64 | 171.12 | -160.00 | 25.00 | 161.94 | 156.67 | 5.27 | 30.719 | |
| 600.00 | 600.00 | 601.00 | 600.00 | 2.91 | 2.91 | 171.12 | -160.00 | 25.00 | 161.94 | 156.12 | 5.82 | 27.812 | |
| 700.00 | 700.00 | 701.00 | 700.00 | 3.16 | 3.17 | 171.12 | -160.00 | 25.00 | 161.94 | 155.61 | 6.33 | 25.583 | |
| 800.00 | 799.99 | 800.99 | 799.99 | 3.45 | 3.40 | -43.42 | -160.00 | 25.00 | 160.99 | 154.17 | 6.82 | 23.598 | |
| 900.00 | 899.91 | 900.91 | 899.91 | 3.70 | 3.63 | -44.43 | -160.00 | 25.00 | 158.16 | 150.89 | 7.27 | 21.746 | |
| 1,000.00 | 999.69 | 1,000.69 | 999.69 | 3.95 | 3.84 | -46.18 | -160.00 | 25.00 | 153.55 | 145.85 | 7.70 | 19.941 | |
| 1,100.00 | 1,099.32 | 1,100.32 | 1,099.32 | 4.05 | 4.04 | -48.60 | -160.00 | 25.00 | 147.74 | 139.75 | 7.99 | 18.492 | |
| 1,200.00 | 1,198.94 | 1,199.94 | 1,198.94 | 4.24 | 4.23 | -51.23 | -160.00 | 25.00 | 142.11 | 133.75 | 8.37 | 16.988 | |
| 1,300.00 | 1,298.53 | 1,299.53 | 1,298.53 | 4.33 | 4.42 | -55.29 | -160.00 | 25.00 | 136.67 | 128.04 | 8.63 | 15.833 | |
| 1,400.00 | 1,397.89 | 1,398.89 | 1,397.89 | 4.57 | 4.60 | -60.99 | -160.00 | 25.00 | 130.70 | 121.70 | 9.00 | 14.517 | |
| 1,500.00 | 1,496.93 | 1,497.93 | 1,496.93 | 4.81 | 4.77 | -67.63 | -160.00 | 25.00 | 124.66 | 115.30 | 9.36 | 13.316 | |
| 1,600.00 | 1,595.62 | 1,596.62 | 1,595.62 | 4.92 | 4.94 | -75.18 | -160.00 | 25.00 | 119.47 | 109.85 | 9.62 | 12.418 | |
| 1,700.00 | 1,694.25 | 1,695.25 | 1,694.25 | 5.12 | 5.11 | -82.96 | -160.00 | 25.00 | 116.29 | 106.31 | 9.98 | 11.654 | |
| 1,745.65 | 1,739.27 | 1,739.12 | 1,738.12 | 5.21 | 5.18 | -86.55 | -160.09 | 25.18 | 115.80 | 105.65 | 10.15 | 11.411 | CC, ES |
| 1,800.00 | 1,792.87 | 1,791.14 | 1,790.13 | 5.31 | 5.28 | -90.87 | -160.50 | 25.96 | 116.51 | 106.16 | 10.36 | 11.248 | |
| 1,900.00 | 1,891.50 | 1,886.64 | 1,885.57 | 5.51 | 5.44 | -98.61 | -162.11 | 29.04 | 121.58 | 110.84 | 10.73 | 11.327 | |
| 2,000.00 | 1,990.13 | 1,981.76 | 1,980.51 | 5.71 | 5.60 | -105.51 | -164.82 | 34.20 | 131.28 | 120.18 | 11.10 | 11.824 | |
| 2,100.00 | 2,088.76 | 2,076.39 | 2,074.78 | 5.90 | 5.76 | -111.23 | -168.59 | 41.42 | 145.14 | 133.68 | 11.46 | 12.661 | |
| 2,200.00 | 2,187.39 | 2,170.41 | 2,168.22 | 6.10 | 5.92 | -115.70 | -173.42 | 50.63 | 162.60 | 150.78 | 11.82 | 13.761 | |
| 2,300.00 | 2,286.02 | 2,263.72 | 2,260.67 | 6.30 | 6.08 | -119.05 | -179.26 | 61.79 | 183.14 | 170.99 | 12.16 | 15.063 | |
| 2,400.00 | 2,384.65 | 2,356.21 | 2,351.99 | 6.50 | 6.24 | -121.48 | -186.08 | 74.82 | 206.40 | 193.91 | 12.50 | 16.516 | |
| 2,500.00 | 2,483.28 | 2,447.79 | 2,442.03 | 6.69 | 6.40 | -123.19 | -193.84 | 89.64 | 232.10 | 219.27 | 12.83 | 18.089 | |
| 2,600.00 | 2,581.91 | 2,538.37 | 2,530.66 | 6.89 | 6.55 | -124.35 | -202.50 | 106.19 | 260.04 | 246.87 | 13.16 | 19.755 | |
| 2,700.00 | 2,680.54 | 2,627.87 | 2,617.77 | 7.10 | 6.69 | -125.09 | -212.01 | 124.35 | 290.09 | 276.62 | 13.47 | 21.538 | |
| 2,800.00 | 2,779.17 | 2,721.36 | 2,708.41 | 7.33 | 6.79 | -125.59 | -222.64 | 144.65 | 321.58 | 307.80 | 13.78 | 23.335 | |
| 2,900.00 | 2,877.80 | 2,816.22 | 2,800.37 | 7.56 | 6.93 | -126.01 | -233.45 | 165.30 | 353.14 | 338.98 | 14.16 | 24.946 | |
| 3,000.00 | 2,976.43 | 2,911.08 | 2,892.32 | 7.79 | 7.08 | -126.36 | -244.25 | 185.94 | 384.71 | 370.17 | 14.54 | 26.462 | |
| 3,100.00 | 3,075.06 | 3,005.94 | 2,984.28 | 8.02 | 7.23 | -126.66 | -255.06 | 206.58 | 416.29 | 401.36 | 14.93 | 27.892 | |
| 3,200.00 | 3,173.69 | 3,100.81 | 3,076.23 | 8.25 | 7.45 | -126.91 | -265.87 | 227.23 | 447.88 | 432.56 | 15.32 | 29.240 | |
| 3,300.00 | 3,272.32 | 3,195.67 | 3,168.19 | 8.48 | 7.68 | -127.14 | -276.67 | 247.87 | 479.48 | 463.76 | 15.72 | 30.510 | |
| 3,400.00 | 3,370.94 | 3,290.53 | 3,260.14 | 8.72 | 7.92 | -127.33 | -287.48 | 268.52 | 511.08 | 494.97 | 16.12 | 31.710 | |
| 3,500.00 | 3,469.57 | 3,385.39 | 3,352.10 | 8.95 | 8.17 | -127.50 | -298.29 | 289.16 | 542.69 | 526.17 | 16.52 | 32.842 | |
| 3,600.00 | 3,568.20 | 3,480.25 | 3,444.05 | 9.19 | 8.42 | -127.65 | -309.09 | 309.80 | 574.30 | 557.37 | 16.93 | 33.913 | |
| 3,700.00 | 3,666.83 | 3,575.11 | 3,536.01 | 9.42 | 8.68 | -127.79 | -319.90 | 330.45 | 605.92 | 588.57 | 17.35 | 34.925 | |
| 3,800.00 | 3,765.46 | 3,669.97 | 3,627.96 | 9.66 | 8.94 | -127.91 | -330.71 | 351.09 | 637.54 | 619.77 | 17.77 | 35.884 | |
| 3,900.00 | 3,864.09 | 3,764.83 | 3,719.92 | 9.89 | 9.20 | -128.03 | -341.51 | 371.73 | 669.16 | 650.97 | 18.19 | 36.791 | |
| 4,000.00 | 3,962.72 | 3,859.70 | 3,811.87 | 10.13 | 9.47 | -128.13 | -352.32 | 392.38 | 700.78 | 682.17 | 18.61 | 37.652 | |
| 4,100.00 | 4,061.35 | 3,954.56 | 3,903.83 | 10.36 | 9.75 | -128.22 | -363.13 | 413.02 | 732.41 | 713.37 | 19.04 | 38.469 | |
| 4,200.00 | 4,159.98 | 4,049.42 | 3,995.78 | 10.60 | 10.02 | -128.30 | -373.93 | 433.66 | 764.03 | 744.56 | 19.47 | 39.244 | |
| 4,300.00 | 4,258.61 | 4,144.28 | 4,087.74 | 10.83 | 10.30 | -128.38 | -384.74 | 454.31 | 795.66 | 775.76 | 19.90 | 39.981 | |
| 4,400.00 | 4,357.24 | 4,239.14 | 4,179.69 | 11.07 | 10.58 | -128.46 | -395.55 | 474.95 | 827.29 | 806.95 | 20.34 | 40.682 | |
| 4,500.00 | 4,455.87 | 4,334.00 | 4,271.65 | 11.31 | 10.87 | -128.52 | -406.36 | 495.60 | 858.92 | 838.15 | 20.77 | 41.349 | |
| 4,600.00 | 4,554.50 | 4,428.86 | 4,363.60 | 11.54 | 11.16 | -128.58 | -417.16 | 516.24 | 890.55 | 869.34 | 21.21 | 41.985 | |
| 4,700.00 | 4,653.13 | 4,523.73 | 4,455.56 | 11.78 | 11.44 | -128.64 | -427.97 | 536.88 | 922.18 | 900.53 | 21.65 | 42.591 | |
| 4,800.00 | 4,751.76 | 4,618.59 | 4,547.51 | 12.02 | 11.73 | -128.70 | -438.78 | 557.53 | 953.81 | 931.72 | 22.09 | 43.169 | |
| 4,900.00 | 4,850.39 | 4,713.45 | 4,639.47 | 12.26 | 12.03 | -128.75 | -449.58 | 578.17 | 985.45 | 962.91 | 22.54 | 43.721 | |
| 5,000.00 | 4,949.01 | 4,808.31 | 4,731.42 | 12.49 | 12.32 | -128.79 | -460.39 | 598.81 | 1,017.08 | 994.10 | 22.99 | 44.249 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5,100.00 | 5,047.64 | 4,903.17 | 4,823.38 | 12.73 | 12.62 | -128.84 | -471.20 | 619.46 | 1,048.72 | 1,025.28 | 23.43 | 44.753 | |
| 5,200.00 | 5,146.27 | 4,998.03 | 4,915.33 | 12.97 | 12.91 | -128.88 | -482.00 | 640.10 | 1,080.35 | 1,056.47 | 23.88 | 45.236 | |
| 5,300.00 | 5,244.90 | 5,092.89 | 5,007.29 | 13.21 | 13.21 | -128.92 | -492.81 | 660.74 | 1,111.99 | 1,087.65 | 24.33 | 45.698 | |
| 5,400.00 | 5,343.57 | 5,187.81 | 5,099.29 | 13.41 | 13.51 | -129.12 | -503.62 | 681.40 | 1,143.47 | 1,118.72 | 24.75 | 46.193 | |
| 5,500.00 | 5,442.58 | 5,283.14 | 5,191.70 | 13.63 | 13.82 | -129.42 | -514.48 | 702.15 | 1,173.62 | 1,148.43 | 25.20 | 46.579 | |
| 5,600.00 | 5,541.92 | 5,378.92 | 5,284.55 | 13.82 | 14.13 | -129.61 | -525.40 | 722.99 | 1,202.19 | 1,176.57 | 25.62 | 46.916 | |
| 5,700.00 | 5,641.52 | 5,502.08 | 5,404.23 | 13.98 | 14.50 | -129.63 | -538.88 | 748.75 | 1,228.41 | 1,202.25 | 26.16 | 46.961 | |
| 5,800.00 | 5,741.32 | 5,638.17 | 5,537.45 | 14.12 | 14.88 | -129.55 | -551.74 | 773.32 | 1,250.16 | 1,223.45 | 26.71 | 46.813 | |
| 5,900.00 | 5,841.25 | 5,776.52 | 5,673.82 | 14.23 | 15.21 | -129.41 | -562.55 | 793.96 | 1,267.21 | 1,240.01 | 27.20 | 46.587 | |
| 6,000.00 | 5,941.25 | 5,916.65 | 5,812.71 | 14.28 | 15.49 | 89.06 | -571.16 | 810.40 | 1,279.50 | 1,251.92 | 27.58 | 46.389 | |
| 6,100.00 | 6,041.25 | 6,058.03 | 5,953.42 | 14.32 | 15.72 | 89.35 | -577.44 | 822.40 | 1,287.93 | 1,260.04 | 27.90 | 46.168 | |
| 6,200.00 | 6,141.25 | 6,200.22 | 6,095.36 | 14.35 | 15.90 | 89.52 | -581.32 | 829.81 | 1,293.12 | 1,264.95 | 28.17 | 45.903 | |
| 6,300.00 | 6,241.25 | 6,342.83 | 6,237.93 | 14.39 | 16.01 | 89.59 | -582.74 | 832.54 | 1,295.02 | 1,266.66 | 28.36 | 45.664 | |
| 6,400.00 | 6,341.25 | 6,446.15 | 6,341.25 | 14.42 | 16.04 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.60 | 28.43 | 45.554 | |
| 6,500.00 | 6,441.25 | 6,546.15 | 6,441.25 | 14.46 | 16.09 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.52 | 28.51 | 45.421 | |
| 6,600.00 | 6,541.25 | 6,646.15 | 6,541.25 | 14.49 | 16.14 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.44 | 28.60 | 45.288 | |
| 6,700.00 | 6,641.25 | 6,746.15 | 6,641.25 | 14.53 | 16.19 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.35 | 28.68 | 45.155 | |
| 6,800.00 | 6,741.25 | 6,846.15 | 6,741.25 | 14.56 | 16.24 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.27 | 28.77 | 45.021 | |
| 6,900.00 | 6,841.25 | 6,946.15 | 6,841.25 | 14.60 | 16.29 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.18 | 28.85 | 44.887 | |
| 7,000.00 | 6,941.25 | 7,046.15 | 6,941.25 | 14.64 | 16.34 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.10 | 28.94 | 44.753 | |
| 7,100.00 | 7,041.25 | 7,146.15 | 7,041.25 | 14.68 | 16.39 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,266.01 | 29.02 | 44.619 | |
| 7,200.00 | 7,141.25 | 7,246.15 | 7,141.25 | 14.71 | 16.44 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.92 | 29.11 | 44.484 | |
| 7,300.00 | 7,241.25 | 7,346.15 | 7,241.25 | 14.75 | 16.49 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.83 | 29.20 | 44.350 | |
| 7,400.00 | 7,341.25 | 7,446.15 | 7,341.25 | 14.79 | 16.54 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.74 | 29.29 | 44.215 | |
| 7,500.00 | 7,441.25 | 7,546.15 | 7,441.25 | 14.83 | 16.59 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.65 | 29.38 | 44.080 | |
| 7,600.00 | 7,541.25 | 7,646.15 | 7,541.25 | 14.87 | 16.64 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.56 | 29.47 | 43.945 | |
| 7,700.00 | 7,641.25 | 7,746.15 | 7,641.25 | 14.91 | 16.69 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.47 | 29.56 | 43.810 | |
| 7,800.00 | 7,741.25 | 7,846.15 | 7,741.25 | 14.95 | 16.75 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.38 | 29.65 | 43.675 | |
| 7,900.00 | 7,841.25 | 7,946.15 | 7,841.25 | 14.99 | 16.80 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.29 | 29.74 | 43.539 | |
| 8,000.00 | 7,941.25 | 8,046.15 | 7,941.25 | 15.03 | 16.85 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.20 | 29.84 | 43.404 | |
| 8,100.00 | 8,041.25 | 8,146.15 | 8,041.25 | 15.07 | 16.90 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.10 | 29.93 | 43.269 | |
| 8,200.00 | 8,141.25 | 8,246.15 | 8,141.25 | 15.11 | 16.96 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,265.01 | 30.02 | 43.133 | |
| 8,300.00 | 8,241.25 | 8,346.15 | 8,241.25 | 15.15 | 17.01 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.92 | 30.12 | 42.998 | |
| 8,400.00 | 8,341.25 | 8,446.15 | 8,341.25 | 15.20 | 17.06 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.82 | 30.21 | 42.863 | |
| 8,500.00 | 8,441.25 | 8,546.15 | 8,441.25 | 15.24 | 17.12 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.72 | 30.31 | 42.728 | |
| 8,600.00 | 8,541.25 | 8,646.15 | 8,541.25 | 15.28 | 17.17 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.63 | 30.41 | 42.592 | |
| 8,700.00 | 8,641.25 | 8,746.15 | 8,641.25 | 15.32 | 17.22 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.53 | 30.50 | 42.457 | |
| 8,800.00 | 8,741.25 | 8,846.15 | 8,741.25 | 15.37 | 17.28 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.43 | 30.60 | 42.322 | |
| 8,900.00 | 8,841.25 | 8,946.15 | 8,841.25 | 15.41 | 17.33 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.34 | 30.70 | 42.187 | |
| 9,000.00 | 8,941.25 | 9,046.15 | 8,941.25 | 15.46 | 17.39 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.24 | 30.80 | 42.052 | |
| 9,100.00 | 9,041.25 | 9,146.15 | 9,041.25 | 15.50 | 17.44 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.14 | 30.89 | 41.918 | |
| 9,200.00 | 9,141.25 | 9,246.15 | 9,141.25 | 15.55 | 17.50 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,264.04 | 30.99 | 41.783 | |
| 9,300.00 | 9,241.25 | 9,346.15 | 9,241.25 | 15.59 | 17.55 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.94 | 31.09 | 41.649 | |
| 9,400.00 | 9,341.25 | 9,446.15 | 9,341.25 | 15.64 | 17.61 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.84 | 31.19 | 41.514 | |
| 9,500.00 | 9,441.25 | 9,546.15 | 9,441.25 | 15.68 | 17.66 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.74 | 31.30 | 41.380 | |
| 9,600.00 | 9,541.25 | 9,646.15 | 9,541.25 | 15.73 | 17.72 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.64 | 31.40 | 41.246 | |
| 9,700.00 | 9,641.25 | 9,746.15 | 9,641.25 | 15.78 | 17.77 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.53 | 31.50 | 41.112 | |
| 9,800.00 | 9,741.25 | 9,846.15 | 9,741.25 | 15.82 | 17.83 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.43 | 31.60 | 40.979 | |
| 9,900.00 | 9,841.25 | 9,946.15 | 9,841.25 | 15.87 | 17.89 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.33 | 31.71 | 40.846 | |
| 10,000.00 | 9,941.25 | 10,046.15 | 9,941.25 | 15.92 | 17.94 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.22 | 31.81 | 40.712 | |
| 10,100.00 | 10,041.25 | 10,146.15 | 10,041.25 | 15.96 | 18.00 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.12 | 31.91 | 40.580 | |
| 10,200.00 | 10,141.25 | 10,246.15 | 10,141.25 | 16.01 | 18.06 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,263.02 | 32.02 | 40.447 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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) | Rule Assigned: Distance Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,300.00 | 10,241.25 | 10,346.15 | 10,241.25 | 16.06 | 18.11 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.91 | 32.12 | 40.315 | |
| 10,400.00 | 10,341.25 | 10,446.15 | 10,341.25 | 16.11 | 18.17 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.80 | 32.23 | 40.183 | |
| 10,500.00 | 10,441.25 | 10,546.15 | 10,441.25 | 16.16 | 18.23 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.70 | 32.33 | 40.051 | |
| 10,600.00 | 10,541.25 | 10,646.15 | 10,541.25 | 16.21 | 18.29 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.59 | 32.44 | 39.919 | |
| 10,700.00 | 10,641.25 | 10,746.15 | 10,641.25 | 16.26 | 18.34 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.49 | 32.55 | 39.788 | |
| 10,800.00 | 10,741.25 | 10,846.15 | 10,741.25 | 16.31 | 18.40 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.38 | 32.66 | 39.657 | |
| 10,900.00 | 10,841.25 | 10,946.15 | 10,841.25 | 16.36 | 18.46 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.27 | 32.76 | 39.526 | |
| 11,000.00 | 10,941.25 | 11,046.15 | 10,941.25 | 16.41 | 18.52 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.16 | 32.87 | 39.396 | |
| 11,100.00 | 11,041.25 | 11,146.15 | 11,041.25 | 16.46 | 18.58 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,262.05 | 32.98 | 39.266 | |
| 11,200.00 | 11,141.25 | 11,246.15 | 11,141.25 | 16.51 | 18.64 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,261.94 | 33.09 | 39.136 | |
| 11,300.00 | 11,241.25 | 11,346.15 | 11,241.25 | 16.56 | 18.70 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,261.83 | 33.20 | 39.007 | |
| 11,400.00 | 11,341.25 | 11,446.15 | 11,341.25 | 16.61 | 18.76 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,261.72 | 33.31 | 38.878 | |
| 11,500.00 | 11,441.25 | 11,546.15 | 11,441.25 | 16.66 | 18.81 | 89.59 | -582.75 | 832.55 | 1,295.03 | 1,261.61 | 33.42 | 38.749 | |
| 11,500.36 | 11,441.61 | 11,546.51 | 11,441.61 | 16.66 | 18.82 | -92.16 | -582.75 | 832.55 | 1,295.03 | 1,261.61 | 33.42 | 38.749 | |
| 11,600.00 | 11,541.21 | 11,646.11 | 11,541.21 | 16.71 | 18.87 | -92.23 | -582.75 | 832.55 | 1,295.09 | 1,261.58 | 33.52 | 38.642 | |
| 11,700.00 | 11,639.79 | 11,744.69 | 11,639.79 | 16.90 | 18.93 | -92.85 | -582.75 | 832.55 | 1,295.82 | 1,262.11 | 33.71 | 38.443 | |
| 11,800.00 | 11,734.09 | 11,838.99 | 11,734.09 | 17.17 | 18.99 | -94.00 | -582.75 | 832.55 | 1,297.92 | 1,263.89 | 34.03 | 38.145 | |
| 11,900.00 | 11,821.25 | 11,926.15 | 11,821.25 | 17.53 | 19.04 | -95.40 | -582.75 | 832.55 | 1,302.56 | 1,268.09 | 34.47 | 37.788 | |
| 12,000.00 | 11,898.62 | 12,003.52 | 11,898.62 | 18.00 | 19.09 | -96.67 | -582.75 | 832.55 | 1,311.24 | 1,276.21 | 35.03 | 37.433 | |
| 12,100.00 | 11,963.85 | 12,068.75 | 11,963.85 | 18.59 | 19.13 | -97.38 | -582.75 | 832.55 | 1,325.52 | 1,289.84 | 35.68 | 37.148 | |
| 12,200.00 | 12,014.95 | 12,119.85 | 12,014.95 | 19.33 | 19.16 | -97.14 | -582.75 | 832.55 | 1,346.70 | 1,310.31 | 36.39 | 37.003 | |
| 12,300.00 | 12,050.38 | 12,155.28 | 12,050.38 | 20.19 | 19.18 | -95.59 | -582.75 | 832.55 | 1,375.47 | 1,338.35 | 37.12 | 37.055 | |
| 12,400.00 | 12,069.05 | 12,173.95 | 12,069.05 | 21.14 | 19.19 | -92.51 | -582.75 | 832.55 | 1,411.74 | 1,373.93 | 37.81 | 37.339 | |
| 12,500.00 | 12,072.27 | 12,177.17 | 12,072.27 | 22.15 | 19.19 | -90.20 | -582.75 | 832.55 | 1,454.21 | 1,415.79 | 38.42 | 37.847 | |
| 12,600.00 | 12,072.97 | 13,309.70 | 12,742.68 | 23.19 | 24.09 | -116.90 | -1,291.48 | 838.99 | 1,480.02 | 1,432.52 | 47.50 | 31.156 | |
| 12,700.00 | 12,073.66 | 13,409.70 | 12,743.21 | 24.26 | 24.99 | -116.90 | -1,391.47 | 839.90 | 1,479.94 | 1,430.89 | 49.06 | 30.167 | |
| 12,800.00 | 12,074.36 | 13,509.70 | 12,743.73 | 25.36 | 25.92 | -116.89 | -1,491.46 | 840.81 | 1,479.87 | 1,429.18 | 50.69 | 29.197 | |
| 12,900.00 | 12,075.06 | 13,609.70 | 12,744.26 | 26.49 | 26.90 | -116.89 | -1,591.46 | 841.72 | 1,479.79 | 1,427.41 | 52.38 | 28.251 | |
| 13,000.00 | 12,075.76 | 13,709.70 | 12,744.78 | 27.63 | 27.91 | -116.88 | -1,691.45 | 842.62 | 1,479.71 | 1,425.58 | 54.13 | 27.334 | |
| 13,100.00 | 12,076.46 | 13,809.70 | 12,745.31 | 28.80 | 28.95 | -116.87 | -1,791.45 | 843.53 | 1,479.64 | 1,423.70 | 55.94 | 26.449 | |
| 13,200.00 | 12,077.15 | 13,909.70 | 12,745.84 | 29.98 | 30.01 | -116.87 | -1,891.44 | 844.44 | 1,479.56 | 1,421.76 | 57.80 | 25.597 | |
| 13,300.00 | 12,077.85 | 14,009.70 | 12,746.36 | 31.18 | 31.10 | -116.86 | -1,991.44 | 845.35 | 1,479.49 | 1,419.78 | 59.71 | 24.780 | |
| 13,400.00 | 12,078.55 | 14,109.70 | 12,746.89 | 32.39 | 32.20 | -116.86 | -2,091.43 | 846.26 | 1,479.41 | 1,417.76 | 61.65 | 23.997 | |
| 13,500.00 | 12,079.25 | 14,209.70 | 12,747.41 | 33.61 | 33.33 | -116.85 | -2,191.43 | 847.17 | 1,479.33 | 1,415.70 | 63.63 | 23.248 | |
| 13,600.00 | 12,079.95 | 14,309.70 | 12,747.94 | 34.84 | 34.47 | -116.84 | -2,291.42 | 848.07 | 1,479.26 | 1,413.61 | 65.65 | 22.533 | |
| 13,700.00 | 12,080.65 | 14,409.70 | 12,748.46 | 36.08 | 35.63 | -116.84 | -2,391.41 | 848.98 | 1,479.18 | 1,411.48 | 67.70 | 21.850 | |
| 13,800.00 | 12,081.34 | 14,509.70 | 12,748.99 | 37.33 | 36.81 | -116.83 | -2,491.41 | 849.89 | 1,479.10 | 1,409.33 | 69.77 | 21.199 | |
| 13,900.00 | 12,082.04 | 14,609.70 | 12,749.52 | 38.59 | 37.99 | -116.83 | -2,591.40 | 850.80 | 1,479.03 | 1,407.16 | 71.87 | 20.578 | |
| 14,000.00 | 12,082.74 | 14,709.70 | 12,750.04 | 39.86 | 39.19 | -116.82 | -2,691.40 | 851.71 | 1,478.95 | 1,404.95 | 74.00 | 19.986 | |
| 14,100.00 | 12,083.44 | 14,809.70 | 12,750.57 | 41.13 | 40.40 | -116.82 | -2,791.39 | 852.62 | 1,478.88 | 1,402.73 | 76.14 | 19.422 | |
| 14,200.00 | 12,084.14 | 14,909.70 | 12,751.09 | 42.40 | 41.61 | -116.81 | -2,891.39 | 853.53 | 1,478.80 | 1,400.49 | 78.31 | 18.884 | |
| 14,300.00 | 12,084.84 | 15,009.70 | 12,751.62 | 43.69 | 42.84 | -116.80 | -2,991.38 | 854.43 | 1,478.72 | 1,398.23 | 80.50 | 18.370 | |
| 14,400.00 | 12,085.53 | 15,109.70 | 12,752.15 | 44.97 | 44.07 | -116.80 | -3,091.37 | 855.34 | 1,478.65 | 1,395.95 | 82.70 | 17.880 | |
| 14,500.00 | 12,086.23 | 15,209.70 | 12,752.67 | 46.27 | 45.32 | -116.79 | -3,191.37 | 856.25 | 1,478.57 | 1,393.65 | 84.92 | 17.412 | |
| 14,600.00 | 12,086.93 | 15,309.70 | 12,753.20 | 47.56 | 46.56 | -116.79 | -3,291.36 | 857.16 | 1,478.49 | 1,391.35 | 87.15 | 16.965 | |
| 14,700.00 | 12,087.63 | 15,409.70 | 12,753.72 | 48.86 | 47.82 | -116.78 | -3,391.36 | 858.07 | 1,478.42 | 1,389.02 | 89.40 | 16.538 | |
| 14,800.00 | 12,088.33 | 15,509.70 | 12,754.25 | 50.17 | 49.08 | -116.77 | -3,491.35 | 858.98 | 1,478.34 | 1,386.69 | 91.65 | 16.130 | |
| 14,900.00 | 12,089.02 | 15,609.70 | 12,754.78 | 51.47 | 50.35 | -116.77 | -3,591.35 | 859.89 | 1,478.27 | 1,384.34 | 93.92 | 15.739 | |
| 15,000.00 | 12,089.72 | 15,709.70 | 12,755.30 | 52.78 | 51.62 | -116.76 | -3,691.34 | 860.79 | 1,478.19 | 1,381.99 | 96.20 | 15.365 | |
| 15,100.00 | 12,090.42 | 15,809.70 | 12,755.83 | 54.10 | 52.90 | -116.76 | -3,791.33 | 861.70 | 1,478.11 | 1,379.62 | 98.50 | 15.007 | |
| 15,200.00 | 12,091.12 | 15,909.70 | 12,756.35 | 55.41 | 54.18 | -116.75 | -3,891.33 | 862.61 | 1,478.04 | 1,377.24 | 100.80 | 14.664 | |
| 15,300.00 | 12,091.82 | 16,009.70 | 12,756.88 | 56.73 | 55.46 | -116.74 | -3,991.32 | 863.52 | 1,477.96 | 1,374.86 | 103.10 | 14.335 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15,400.00 | 12,092.52 | 16,109.70 | 12,757.40 | 58.05 | 56.75 | -116.74 | -4,091.32 | 864.43 | 1,477.89 | 1,372.46 | 105.42 | 14.019 | |
| 15,500.00 | 12,093.21 | 16,209.70 | 12,757.93 | 59.37 | 58.04 | -116.73 | -4,191.31 | 865.34 | 1,477.81 | 1,370.06 | 107.75 | 13.716 | |
| 15,600.00 | 12,093.91 | 16,309.70 | 12,758.46 | 60.70 | 59.34 | -116.73 | -4,291.31 | 866.25 | 1,477.73 | 1,367.66 | 110.08 | 13.424 | |
| 15,700.00 | 12,094.61 | 16,409.70 | 12,758.98 | 62.03 | 60.64 | -116.72 | -4,391.30 | 867.15 | 1,477.66 | 1,365.24 | 112.42 | 13.144 | |
| 15,800.00 | 12,095.31 | 16,509.70 | 12,759.51 | 63.35 | 61.94 | -116.71 | -4,491.29 | 868.06 | 1,477.58 | 1,362.82 | 114.76 | 12.875 | |
| 15,900.00 | 12,096.01 | 16,609.69 | 12,760.03 | 64.68 | 63.24 | -116.71 | -4,591.29 | 868.97 | 1,477.51 | 1,360.39 | 117.11 | 12.616 | |
| 16,000.00 | 12,096.71 | 16,709.69 | 12,760.56 | 66.02 | 64.55 | -116.70 | -4,691.28 | 869.88 | 1,477.43 | 1,357.96 | 119.47 | 12.367 | |
| 16,100.00 | 12,097.40 | 16,809.69 | 12,761.09 | 67.35 | 65.86 | -116.70 | -4,791.28 | 870.79 | 1,477.35 | 1,355.52 | 121.83 | 12.126 | |
| 16,200.00 | 12,098.10 | 16,909.69 | 12,761.61 | 68.68 | 67.17 | -116.69 | -4,891.27 | 871.70 | 1,477.28 | 1,353.08 | 124.20 | 11.894 | |
| 16,300.00 | 12,098.80 | 17,009.69 | 12,762.14 | 70.02 | 68.49 | -116.68 | -4,991.27 | 872.61 | 1,477.20 | 1,350.63 | 126.57 | 11.671 | |
| 16,400.00 | 12,099.50 | 17,109.69 | 12,762.66 | 71.36 | 69.80 | -116.68 | -5,091.26 | 873.51 | 1,477.13 | 1,348.18 | 128.95 | 11.455 | |
| 16,500.00 | 12,100.20 | 17,209.69 | 12,763.19 | 72.69 | 71.12 | -116.67 | -5,191.26 | 874.42 | 1,477.05 | 1,345.72 | 131.33 | 11.247 | |
| 16,600.00 | 12,100.90 | 17,309.69 | 12,763.72 | 74.03 | 72.44 | -116.67 | -5,291.25 | 875.33 | 1,476.97 | 1,343.26 | 133.71 | 11.046 | |
| 16,700.00 | 12,101.59 | 17,409.69 | 12,764.24 | 75.37 | 73.76 | -116.66 | -5,391.24 | 876.24 | 1,476.90 | 1,340.80 | 136.10 | 10.851 | |
| 16,800.00 | 12,102.29 | 17,509.69 | 12,764.77 | 76.72 | 75.09 | -116.65 | -5,491.24 | 877.15 | 1,476.82 | 1,338.33 | 138.49 | 10.663 | |
| 16,900.00 | 12,102.99 | 17,609.69 | 12,765.29 | 78.06 | 76.41 | -116.65 | -5,591.23 | 878.06 | 1,476.75 | 1,335.86 | 140.89 | 10.482 | |
| 17,000.00 | 12,103.69 | 17,709.69 | 12,765.82 | 79.40 | 77.74 | -116.64 | -5,691.23 | 878.97 | 1,476.67 | 1,333.38 | 143.29 | 10.305 | |
| 17,100.00 | 12,104.39 | 17,809.69 | 12,766.34 | 80.75 | 79.07 | -116.64 | -5,791.22 | 879.87 | 1,476.60 | 1,330.90 | 145.69 | 10.135 | |
| 17,200.00 | 12,105.08 | 17,909.69 | 12,766.87 | 82.09 | 80.40 | -116.63 | -5,891.22 | 880.78 | 1,476.52 | 1,328.42 | 148.10 | 9.970 | |
| 17,300.00 | 12,105.78 | 18,009.69 | 12,767.40 | 83.44 | 81.73 | -116.62 | -5,991.21 | 881.69 | 1,476.44 | 1,325.94 | 150.51 | 9.810 | |
| 17,400.00 | 12,106.48 | 18,109.69 | 12,767.92 | 84.78 | 83.06 | -116.62 | -6,091.20 | 882.60 | 1,476.37 | 1,323.45 | 152.92 | 9.655 | |
| 17,500.00 | 12,107.18 | 18,209.69 | 12,768.45 | 86.13 | 84.39 | -116.61 | -6,191.20 | 883.51 | 1,476.29 | 1,320.96 | 155.33 | 9.504 | |
| 17,600.00 | 12,107.88 | 18,309.69 | 12,768.97 | 87.48 | 85.73 | -116.60 | -6,291.19 | 884.42 | 1,476.22 | 1,318.47 | 157.75 | 9.358 | |
| 17,700.00 | 12,108.58 | 18,409.69 | 12,769.50 | 88.83 | 87.06 | -116.60 | -6,391.19 | 885.33 | 1,476.14 | 1,315.97 | 160.17 | 9.216 | |
| 17,800.00 | 12,109.27 | 18,509.69 | 12,770.03 | 90.18 | 88.40 | -116.59 | -6,491.18 | 886.23 | 1,476.07 | 1,313.48 | 162.59 | 9.079 | |
| 17,900.00 | 12,109.97 | 18,609.69 | 12,770.55 | 91.52 | 89.74 | -116.59 | -6,591.18 | 887.14 | 1,475.99 | 1,310.98 | 165.01 | 8.945 | |
| 18,000.00 | 12,110.67 | 18,709.69 | 12,771.08 | 92.88 | 91.07 | -116.58 | -6,691.17 | 888.05 | 1,475.92 | 1,308.48 | 167.44 | 8.815 | |
| 18,100.00 | 12,111.37 | 18,809.69 | 12,771.60 | 94.23 | 92.41 | -116.57 | -6,791.16 | 888.96 | 1,475.84 | 1,305.97 | 169.87 | 8.688 | |
| 18,200.00 | 12,112.07 | 18,909.69 | 12,772.13 | 95.58 | 93.75 | -116.57 | -6,891.16 | 889.87 | 1,475.76 | 1,303.47 | 172.30 | 8.565 | |
| 18,300.00 | 12,112.77 | 19,009.69 | 12,772.65 | 96.93 | 95.09 | -116.56 | -6,991.15 | 890.78 | 1,475.69 | 1,300.96 | 174.73 | 8.446 | |
| 18,400.00 | 12,113.46 | 19,109.69 | 12,773.18 | 98.28 | 96.44 | -116.56 | -7,091.15 | 891.68 | 1,475.61 | 1,298.45 | 177.16 | 8.329 | |
| 18,500.00 | 12,114.16 | 19,209.69 | 12,773.71 | 99.63 | 97.78 | -116.55 | -7,191.14 | 892.59 | 1,475.54 | 1,295.94 | 179.60 | 8.216 | |
| 18,600.00 | 12,114.86 | 19,309.69 | 12,774.23 | 100.99 | 99.12 | -116.54 | -7,291.14 | 893.50 | 1,475.46 | 1,293.43 | 182.03 | 8.105 | |
| 18,700.00 | 12,115.56 | 19,409.69 | 12,774.76 | 102.34 | 100.47 | -116.54 | -7,391.13 | 894.41 | 1,475.39 | 1,290.91 | 184.47 | 7.998 | |
| 18,800.00 | 12,116.26 | 19,509.69 | 12,775.28 | 103.70 | 101.81 | -116.53 | -7,491.13 | 895.32 | 1,475.31 | 1,288.40 | 186.91 | 7.893 | |
| 18,900.00 | 12,116.95 | 19,609.69 | 12,775.81 | 105.05 | 103.16 | -116.53 | -7,591.12 | 896.23 | 1,475.24 | 1,285.88 | 189.35 | 7.791 | |
| 19,000.00 | 12,117.65 | 19,709.69 | 12,776.34 | 106.41 | 104.50 | -116.52 | -7,691.11 | 897.14 | 1,475.16 | 1,283.36 | 191.80 | 7.691 | |
| 19,100.00 | 12,118.35 | 19,809.69 | 12,776.86 | 107.76 | 105.85 | -116.51 | -7,791.11 | 898.04 | 1,475.08 | 1,280.84 | 194.24 | 7.594 | |
| 19,200.00 | 12,119.05 | 19,909.69 | 12,777.39 | 109.12 | 107.19 | -116.51 | -7,891.10 | 898.95 | 1,475.01 | 1,278.32 | 196.69 | 7.499 | |
| 19,300.00 | 12,119.75 | 20,009.69 | 12,777.91 | 110.47 | 108.54 | -116.50 | -7,991.10 | 899.86 | 1,474.93 | 1,275.80 | 199.14 | 7.407 | |
| 19,400.00 | 12,120.45 | 20,109.69 | 12,778.44 | 111.83 | 109.89 | -116.50 | -8,091.09 | 900.77 | 1,474.86 | 1,273.27 | 201.59 | 7.316 | |
| 19,500.00 | 12,121.14 | 20,209.69 | 12,778.97 | 113.19 | 111.24 | -116.49 | -8,191.09 | 901.68 | 1,474.78 | 1,270.75 | 204.04 | 7.228 | |
| 19,600.00 | 12,121.84 | 20,309.69 | 12,779.49 | 114.54 | 112.59 | -116.48 | -8,291.08 | 902.59 | 1,474.71 | 1,268.22 | 206.49 | 7.142 | |
| 19,700.00 | 12,122.54 | 20,409.69 | 12,780.02 | 115.90 | 113.94 | -116.48 | -8,391.07 | 903.50 | 1,474.63 | 1,265.69 | 208.94 | 7.058 | |
| 19,800.00 | 12,123.24 | 20,509.69 | 12,780.54 | 117.26 | 115.29 | -116.47 | -8,491.07 | 904.40 | 1,474.56 | 1,263.16 | 211.40 | 6.975 | |
| 19,900.00 | 12,123.94 | 20,609.69 | 12,781.07 | 118.61 | 116.64 | -116.47 | -8,591.06 | 905.31 | 1,474.48 | 1,260.63 | 213.85 | 6.895 | |
| 20,000.00 | 12,124.64 | 20,709.69 | 12,781.59 | 119.97 | 117.99 | -116.46 | -8,691.06 | 906.22 | 1,474.41 | 1,258.10 | 216.31 | 6.816 | |
| 20,100.00 | 12,125.33 | 20,809.69 | 12,782.12 | 121.33 | 119.34 | -116.45 | -8,791.05 | 907.13 | 1,474.33 | 1,255.57 | 218.76 | 6.739 | |
| 20,200.00 | 12,126.03 | 20,909.69 | 12,782.65 | 122.69 | 120.69 | -116.45 | -8,891.05 | 908.04 | 1,474.26 | 1,253.03 | 221.22 | 6.664 | |
| 20,300.00 | 12,126.73 | 21,009.69 | 12,783.17 | 124.05 | 122.04 | -116.44 | -8,991.04 | 908.95 | 1,474.18 | 1,250.50 | 223.68 | 6.591 | |
| 20,400.00 | 12,127.43 | 21,109.69 | 12,783.70 | 125.41 | 123.40 | -116.44 | -9,091.03 | 909.86 | 1,474.11 | 1,247.96 | 226.14 | 6.518 | |
| 20,500.00 | 12,128.13 | 21,209.69 | 12,784.22 | 126.77 | 124.75 | -116.43 | -9,191.03 | 910.76 | 1,474.03 | 1,245.43 | 228.60 | 6.448 | |

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

# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

**Offset Design:** Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

**Offset Site Error:** 0.00 usft

**Survey Program:** 0-MWD+HRGM+SAG+FDIR (rev.5)

**Rule Assigned:**

**Offset Well Error:** 0.50 usft

| Reference Measured Depth (usft) | Reference Vertical Depth (usft) | Offset Measured Depth (usft) | Offset 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,600.00 | 12,128.83 | 21,309.69 | 12,784.75 | 128.13 | 126.10 | -116.42 | -9,291.02 | 911.67 | 1,473.96 | 1,242.89 | 231.07 | 6.379 | |
| 20,700.00 | 12,129.52 | 21,409.69 | 12,785.28 | 129.49 | 127.46 | -116.42 | -9,391.02 | 912.58 | 1,473.88 | 1,240.35 | 233.53 | 6.311 | |
| 20,800.00 | 12,130.22 | 21,509.69 | 12,785.80 | 130.85 | 128.81 | -116.41 | -9,491.01 | 913.49 | 1,473.81 | 1,237.81 | 235.99 | 6.245 | |
| 20,900.00 | 12,130.92 | 21,609.69 | 12,786.33 | 132.21 | 130.16 | -116.41 | -9,591.01 | 914.40 | 1,473.73 | 1,235.27 | 238.46 | 6.180 | |
| 21,000.00 | 12,131.62 | 21,709.69 | 12,786.85 | 133.57 | 131.52 | -116.40 | -9,691.00 | 915.31 | 1,473.65 | 1,232.73 | 240.93 | 6.117 | |
| 21,100.00 | 12,132.32 | 21,809.69 | 12,787.38 | 134.93 | 132.87 | -116.39 | -9,791.00 | 916.22 | 1,473.58 | 1,230.19 | 243.39 | 6.054 | |
| 21,200.00 | 12,133.01 | 21,909.69 | 12,787.91 | 136.29 | 134.23 | -116.39 | -9,890.99 | 917.12 | 1,473.50 | 1,227.65 | 245.86 | 5.993 | |
| 21,300.00 | 12,133.71 | 22,009.69 | 12,788.43 | 137.65 | 135.58 | -116.38 | -9,990.98 | 918.03 | 1,473.43 | 1,225.10 | 248.33 | 5.933 | |
| 21,400.00 | 12,134.41 | 22,109.69 | 12,788.96 | 139.01 | 136.94 | -116.38 | -10,090.98 | 918.94 | 1,473.35 | 1,222.56 | 250.80 | 5.875 | |
| 21,500.00 | 12,135.11 | 22,209.69 | 12,789.48 | 140.37 | 138.30 | -116.37 | -10,190.97 | 919.85 | 1,473.28 | 1,220.01 | 253.27 | 5.817 | |
| 21,600.00 | 12,135.81 | 22,309.69 | 12,790.01 | 141.73 | 139.65 | -116.36 | -10,290.97 | 920.76 | 1,473.20 | 1,217.47 | 255.74 | 5.761 | |
| 21,700.00 | 12,136.51 | 22,409.69 | 12,790.53 | 143.09 | 141.01 | -116.36 | -10,390.96 | 921.67 | 1,473.13 | 1,214.92 | 258.21 | 5.705 | |
| 21,800.00 | 12,137.20 | 22,509.69 | 12,791.06 | 144.46 | 142.37 | -116.35 | -10,490.96 | 922.58 | 1,473.05 | 1,212.37 | 260.68 | 5.651 | |
| 21,900.00 | 12,137.90 | 22,609.69 | 12,791.59 | 145.82 | 143.72 | -116.35 | -10,590.95 | 923.48 | 1,472.98 | 1,209.82 | 263.16 | 5.597 | |
| 22,000.00 | 12,138.60 | 22,709.69 | 12,792.11 | 147.18 | 145.08 | -116.34 | -10,690.94 | 924.39 | 1,472.90 | 1,207.28 | 265.63 | 5.545 | |
| 22,100.00 | 12,139.30 | 22,809.69 | 12,792.64 | 148.54 | 146.44 | -116.33 | -10,790.94 | 925.30 | 1,472.83 | 1,204.73 | 268.10 | 5.494 | |
| 22,200.00 | 12,140.00 | 22,909.69 | 12,793.16 | 149.90 | 147.80 | -116.33 | -10,890.93 | 926.21 | 1,472.75 | 1,202.18 | 270.58 | 5.443 | |
| 22,300.00 | 12,140.70 | 23,009.69 | 12,793.69 | 151.27 | 149.15 | -116.32 | -10,990.93 | 927.12 | 1,472.68 | 1,199.63 | 273.05 | 5.393 | |
| 22,387.52 | 12,141.31 | 23,097.20 | 12,794.15 | 152.46 | 150.34 | -116.32 | -11,078.44 | 927.91 | 1,472.61 | 1,197.39 | 275.22 | 5.351 | SF |

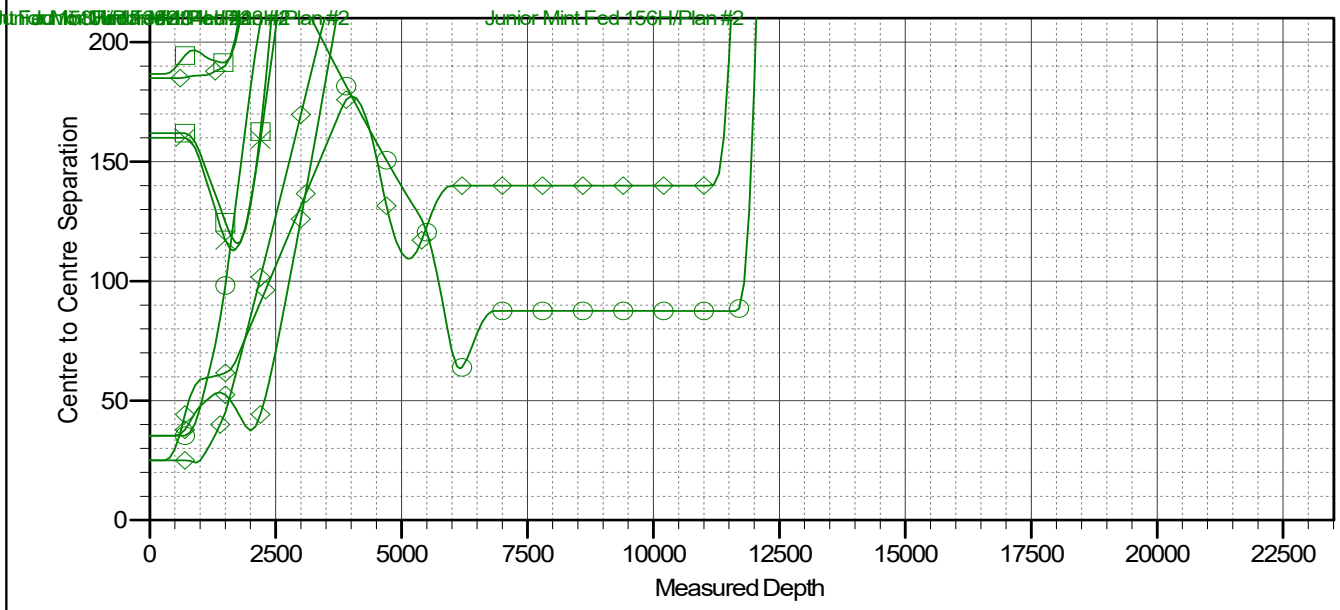
# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

Reference Depths are relative to GE 3221' + KB 26' @ 3247.00usft (KB Coordinates are relative to: Junior Mint Fed 133H
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: 0.52°

## Ladder Plot




LEGEND

- Junior Mint Fed 217H, OH, Plan #1 V0
- Junior Mint Fed 156H, OH, Plan #2 V0
- Junior Mint Fed 215H, OH, Plan 1 V0
- Junior Mint Fed 138H, OH, Plan #2 V0
- Junior Mint Fed 134H, OH, Plan #2 V0
- Junior Mint Fed 222H, OH, Plan #1 V0
- Junior Mint Fed 152H, OH, Plan #3 V0
- Junior Mint Fed 135H, OH, Plan 1 V0
- Junior Mint Fed 214H, OH, Plan #2 V0
- Junior Mint Fed 158H, OH, Plan #2 V0
- Junior Mint Fed 137H, OH, Plan 2 V0
- Junior Mint Fed 216H, OH, Plan #2 V0
- Junior Mint Fed 213H, OH, Plan #2 V0
- Junior Mint Fed 224H, OH, Plan #2 V0
- Junior Mint Fed 218H, OH, Plan #2 V0
- Junior Mint Fed 212H, OH, Plan #1 V0
- Junior Mint Fed 223H, OH, Plan #2 V0
- Junior Mint Fed 132H, OH, Plan 2 V0

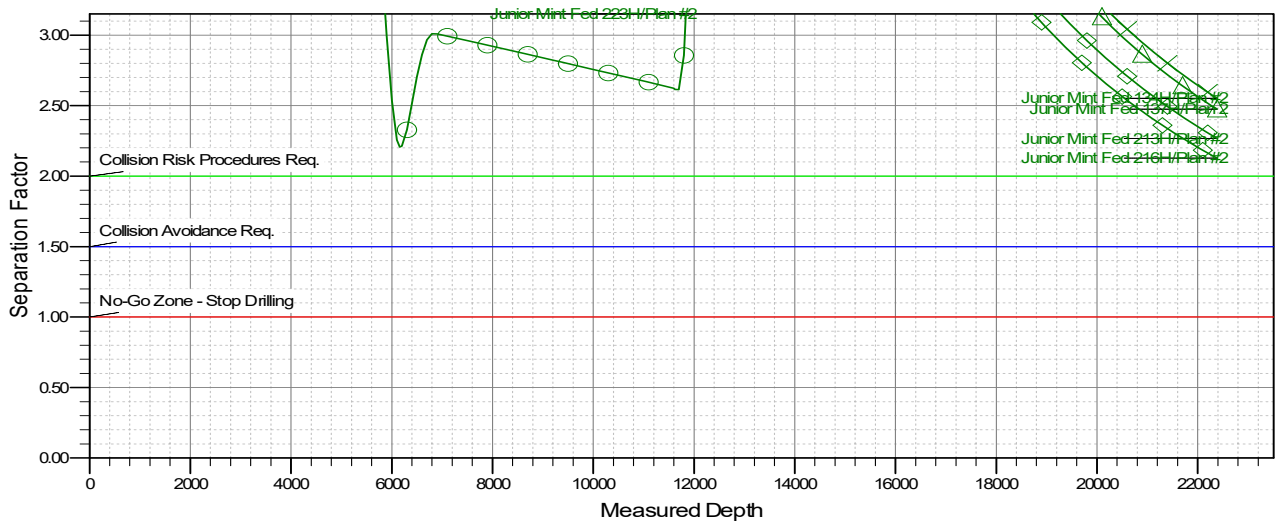
# Total Directional

Anticollision Report

| | | | |
|---|---|---|---|
| **Company:** | Civitas Resources | **Local Co-ordinate Reference:** | Well Junior Mint Fed 133H |
| **Project:** | Lea County, NM (NAD 83) | **TVD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Reference Site:** | Junior Mint Fed Pad | **MD Reference:** | GE 3221' + KB 26' @ 3247.00usft (KB 26') |
| **Site Error:** | 0.00 usft | **North Reference:** | Grid |
| **Reference Well:** | Junior Mint Fed 133H | **Survey Calculation Method:** | Minimum Curvature |
| **Well Error:** | 0.50 usft | **Output errors are at** | 2.00 sigma |
| **Reference Wellbore** | OH | **Database:** | .Total Directional Production DB |
| **Reference Design:** | Plan #2 | **Offset TVD Reference:** | Reference Datum |

Reference Depths are relative to GE 3221' + KB 26' @ 3247.00usft (KBCoordinates are relative to: Junior Mint Fed 133H
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: 0.52°

## Separation Factor Plot




LEGEND

- Junior Mint Fed 217H, OH, Plan #1 V0
- Junior Mint Fed 138H, OH, Plan #2 V0
- Junior Mint Fed 152H, OH, Plan #3 V0
- Junior Mint Fed 158H, OH, Plan #2 V0
- Junior Mint Fed 213H, OH, Plan #2 V0
- Junior Mint Fed 212H, OH, Plan #1 V0
- Junior Mint Fed 156H, OH, Plan #2 V0
- Junior Mint Fed 134H, OH, Plan #2 V0
- Junior Mint Fed 135H, OH, Plan 1 V0
- Junior Mint Fed 137H, OH, Plan 2 V0
- Junior Mint Fed 224H, OH, Plan #2 V0
- Junior Mint Fed 223H, OH, Plan #2 V0
- Junior Mint Fed 215H, OH, Plan 1 V0
- Junior Mint Fed 222H, OH, Plan #1 V0
- Junior Mint Fed 214H, OH, Plan #2 V0
- Junior Mint Fed 216H, OH, Plan #2 V0
- Junior Mint Fed 218H, OH, Plan #2 V0
- Junior Mint Fed 132H, OH, Plan 2 V0

| C-102<br>Submit Electronically<br>Via OCD Permitting | State of New Mexico<br>Energy, Minerals & Natural Resources Department<br>OIL CONSERVATION DIVISION | Revised July 9, 2024<br>Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled |
|---|---|---|

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025- | 98185 | WC-025 G-09 S253502B; LWR BONE SPRING |

| Property Code | Property Name | Well Number |
|---|---|---|
| | JUNIOR MINT FED | 133H |

| OGRID No. | Operator Name | Ground Level Elevation |
|---|---|---|
| 332195 | CIVITAS PERMIAN OPERATING, LLC | 3224' |

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal | Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

## Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 10 | 25-S | 35-E | - | 525' S | 1740' E | N 32.1390679 | W 103.3524892 | LEA |

## Bottom Hole Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 22 | 25-S | 35-E | - | 5' S | 1980' E | N 32.1086231 | W 103.3532588 | LEA |

| Dedicated Acres | Infill or Defining Well | Defining Well API | Overlapping Spacing Unit (Y/N) | Consolidated Code |
|---|---|---|---|---|
| 1280.00 | Infill | 30-025-54739 (131H) | N | N/A |

Order Numbers: NSP | Well Setbacks are under Common Ownership: ☒ Yes ☐ No

## Kick Off Point (KOP)

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| B | 15 | 25-S | 35-E | - | 100' N | 1980' E | N 32.1373515 | W 103.3532559 | LEA |

## First Take Point (FTP)

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| B | 15 | 25-S | 35-E | - | 100' N | 1980' E | N 32.1373515 | W 103.3532559 | LEA |

## Last Take Point (LTP)

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the N/S | Feet from the E/W | Latitude | Longitude | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 22 | 25-S | 35-E | - | 100' S | 1980' E | N 32.1088842 | W 103.3532587 | LEA |

| Unitized Area or Area of Uniform Intrest | Spacing Unity Type | Ground Floor Elevation |
|---|---|---|
| Y | ☒ Horizontal ☐ Vertical | 3224' |

## OPERATOR CERTIFICATION

*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.*

*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.*

Signature: Cory Walk — Date: 9-16-25

Print Name: Cory Walk

E-mail Address: cory@permitswest.com

## SURVEYORS CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

4/17/2025 8:48:02 AM

Signature and Seal of Professional Surveyor — Date

Certificate Number

Date of Survey: 06/07/2022

M:\SURVEY\CIVITAS_RESOURCES_INC\LEA\JUNIOR_MINT_UNIT\FINAL_PRODUCTS\TAPROCK C-102 UPDATES\C-102_JUNIOR_MINT_FED_133H_REV3.dwg 4/17/2025 8:48 AM

# C-102

Submit Electronically
Via OCD Permitting

## State of New Mexico
## Energy, Minerals & Natural Resources Department
## OIL CONSERVATION DIVISION

Revised July 9, 2024

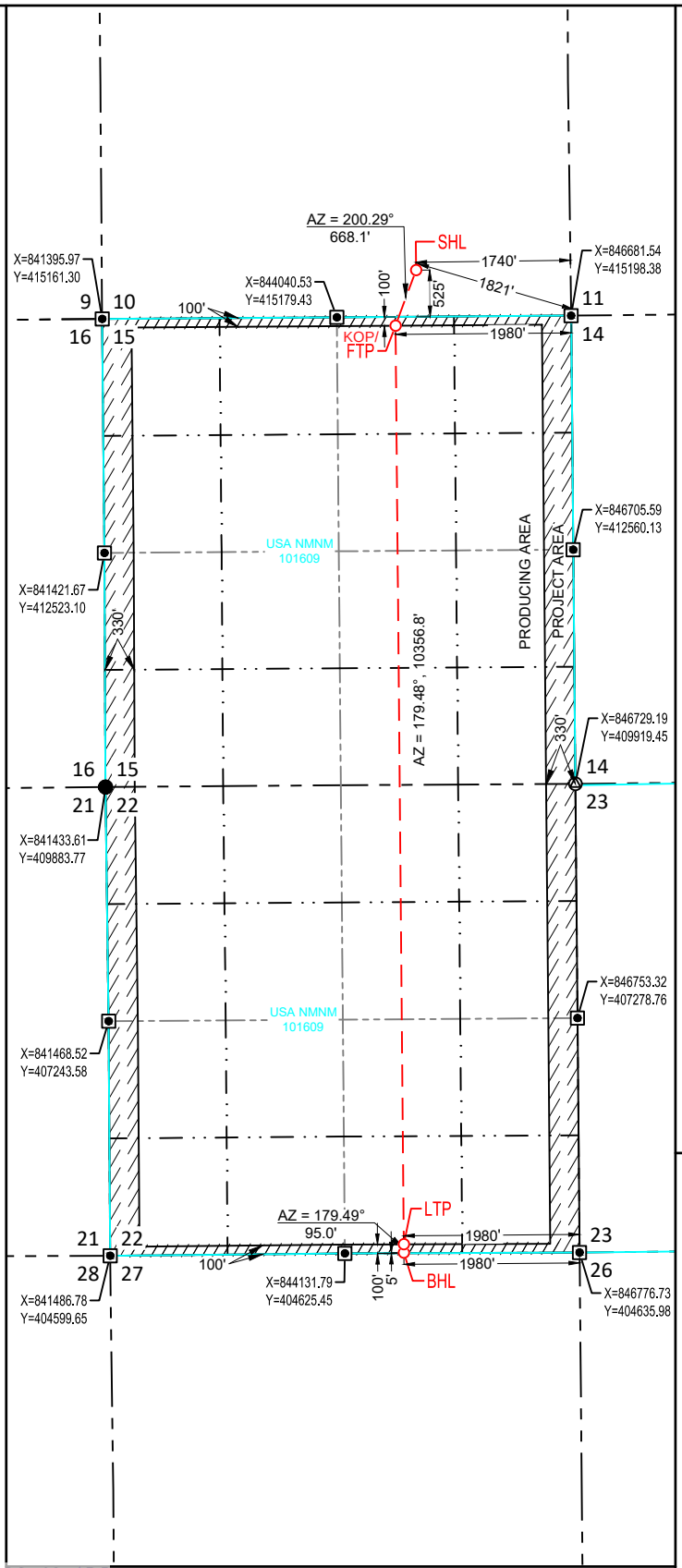
Submittal Type:
- [X] Initial Submittal
- [ ] Amended Report
- [ ] As Drilled

Property Name and Well Number

**JUNIOR MINT FED 133H**

**SURFACE LOCATION (SHL)**
NEW MEXICO EAST
NAD 1983
X=844934
Y=415711
LAT.: N 32.1390679
LONG.: W 103.3524892
525' FSL 1740' FEL

**KICK OFF POINT (KOP)/ FIRST TAKE POINT (FTP)**
NEW MEXICO EAST
NAD 1983
X=844702
Y=415084
LAT.: N 32.1373515
LONG.: W 103.3532559
100' FNL 1980' FEL




**LAST TAKE POINT (LTP)**
NEW MEXICO EAST
NAD 1983
X=844796
Y=404728
LAT.: N 32.1088842
LONG.: W 103.3532587
100' FSL 1980' FEL

**BOTTOM HOLE LOCATION (BHL)**
NEW MEXICO EAST
NAD 1983
X=844797
Y=404633
LAT.: N 32.1086231
LONG.: W 103.3532588
5' FSL 1980' FEL

## SURVEYORS CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

06/07/2022
Date of Survey
Signature and Seal of Professional Surveyor:

RAMON DOMINGUEZ
NEW MEXICO
24508
PROFESSIONAL SURVEYOR

4/17/2025 8:48:05 AM

M:\SURVEY\CVITAS_RESOURCES_INC\LEA\JUNIOR_MINT_UNIT\FINAL_PRODUCTS\APROCK C-102 UPDATES\C-102_JUNIOR_MINT_FED_133H_REV 3.dwg YAHIR.MENDIETA 4/17/2025 8:48 AM

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:** CIVITAS PERMIAN OPERATING, LLC **OGRID:** 332195 **Date:** 04/17/2025

**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 |
|---|---|---|---|---|---|---|
| *SEE ATTACHED* | | | | | | |
| | | | | | | |

**IV. Central Delivery Point Name:** JUNIOR MINT 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 |
|---|---|---|---|---|---|---|
| *SEE ATTACHED* | | | | | | |
| | | | | | | |

**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: Cory Walk |
| Printed Name: Cory Walk |
| Title: Consultant |
| E-mail Address: cory@permitswest.com |
| Date: 04/17/2025 |
| Phone: (505) 466-8120 |

| **OIL CONSERVATION DIVISION**<br>**(Only applicable when submitted as a standalone form)** |
|---|
| Approved By: |
| Title: |
| Approval Date: |
| Conditions of Approval: |

## III. Well(s): Junior Mint E2 Pad

| Well Name | API | ULSTR | Footages | Anticipated Oil (BBL/D) | Anticipated Gas (MCF/D) | Anticipated Produced Water (BBL/D) |
|---|---|---|---|---|---|---|
| Junior Mint Fed 113H | TBD | O-10-25S-35E | 373' FSL/1477' FEL | 620 | 800 | 960 |
| Junior Mint Fed 117H | TBD | O-10-25S-35E | 349' FSL/1558' FEL | 620 | 800 | 960 |
| Junior Mint Fed 118H | TBD | O-10-25S-35E | 348' FSL/1452' FEL | 620 | 800 | 960 |
| Junior Mint Fed 123H | TBD | O-10-25S-35E | 374' FSL/1558' FEL | 620 | 800 | 960 |
| Junior Mint Fed 124H | TBD | O-10-25S-35E | 373' FSL/1453' FEL | 620 | 800 | 960 |
| Junior Mint Fed 133H | TBD | O-10-25S-35E | 525' FSL/1740' FEL | 620 | 800 | 960 |
| Junior Mint Fed 134H | TBD | O-10-25S-35E | 525' FSL/1715' FEL | 620 | 800 | 960 |
| Junior Mint Fed 138H | TBD | O-10-25S-35E | 524' FSL/1635' FEL | 620 | 800 | 960 |
| Junior Mint Fed 156H | TBD | O-10-25S-35E | 350' FSL/1663' FEL | 620 | 800 | 960 |
| Junior Mint Fed 158H | TBD | O-10-25S-35E | 350' FSL/1638' FEL | 620 | 800 | 960 |
| Junior Mint Fed 213H | TBD | O-10-25S-35E | 550' FSL/1740' FEL | 620 | 800 | 960 |
| Junior Mint Fed 214H | TBD | O-10-25S-35E | 549' FSL/1635' FEL | 620 | 800 | 960 |
| Junior Mint Fed 216H | TBD | O-10-25S-35E | 550' FSL/1715' FEL | 620 | 800 | 960 |
| Junior Mint Fed 218H | TBD | O-10-25S-35E | 549' FSL/1610' FEL | 620 | 800 | 960 |
| Junior Mint Fed 223H | TBD | O-10-25S-35E | 375' FSL/1663' FEL | 620 | 800 | 960 |
| Junior Mint Fed 224H | TBD | O-10-25S-35E | 375' FSL/1637' FEL | 620 | 800 | 960 |

# V. Anticipated Schedule: Junior Mint E2 Pad

| Well Name | API | Spud Date | TD Reached Date | Completion Commencement Date | Initial Flow Back Date | First Production Date |
|---|---|---|---|---|---|---|
| Junior Mint Fed 113H | TBD | 9/12/2026 | 12/11/2026 | 3/11/2027 | 3/31/2027 | 4/20/2027 |
| Junior Mint Fed 117H | TBD | 9/10/2026 | 12/9/2026 | 3/9/2027 | 3/29/2027 | 4/18/2027 |
| Junior Mint Fed 118H | TBD | 9/13/2026 | 12/12/2026 | 3/12/2027 | 4/1/2027 | 4/21/2027 |
| Junior Mint Fed 123H | TBD | 9/14/2026 | 12/13/2026 | 3/13/2027 | 4/2/2027 | 4/22/2027 |
| Junior Mint Fed 124H | TBD | 9/15/2026 | 12/14/2026 | 3/14/2027 | 4/3/2027 | 4/23/2027 |
| Junior Mint Fed 133H | TBD | 3/28/2026 | 6/26/2026 | 9/24/2026 | 10/14/2026 | 11/3/2026 |
| Junior Mint Fed 134H | TBD | 2/22/2026 | 5/23/2026 | 8/21/2026 | 9/10/2026 | 9/30/2026 |
| Junior Mint Fed 138H | TBD | 2/23/2026 | 5/24/2026 | 8/22/2026 | 9/11/2026 | 10/1/2026 |
| Junior Mint Fed 156H | TBD | 3/27/2026 | 6/25/2026 | 9/23/2026 | 10/13/2026 | 11/2/2026 |
| Junior Mint Fed 158H | TBD | 2/12/2026 | 5/13/2026 | 8/11/2026 | 8/31/2026 | 9/20/2026 |
| Junior Mint Fed 213H | TBD | 4/1/2026 | 6/30/2026 | 9/28/2026 | 10/18/2026 | 11/7/2026 |
| Junior Mint Fed 214H | TBD | 2/25/2026 | 5/26/2026 | 8/24/2026 | 9/13/2026 | 10/3/2026 |
| Junior Mint Fed 216H | TBD | 3/29/2026 | 6/27/2026 | 9/25/2026 | 10/15/2026 | 11/4/2026 |
| Junior Mint Fed 218H | TBD | 2/26/2026 | 5/27/2026 | 8/25/2026 | 9/14/2026 | 10/4/2026 |
| Junior Mint Fed 223H | TBD | 3/30/2026 | 6/28/2026 | 9/26/2026 | 10/16/2026 | 11/5/2026 |
| Junior Mint Fed 224H | TBD | 2/27/2026 | 5/28/2026 | 8/26/2026 | 9/15/2026 | 10/5/2026 |

## Civitas Permian Operating Natural Gas Management Plan

VI. **Separation Equipment:**

Each surface facility design includes the following process equipment: Multiphase test measurement per upstream pad, 3-phase separators, a sales gas scrubber, heater treaters, a VRU compressor, multiple water and oil tanks, as well as flare knockouts (HP & LP), and flares (HP & LP - combined). All process vessels will be sized to separate oil, water, gas based upon typical/historical & predicted well performance. Each process vessel will be fitted with an appropriately sized PSV as per ASME code requirements to mitigate vessel rupture and loss of containment. Additionally, the process vessels will be fitted with pressure transmitters tied to the facility control system which will allow operations to monitor pressures and when necessary, shut in the facility to avoid vessel over-pressure and the potential vent of natural gas. Natural gas will preferentially be sold to pipeline, and only during upset/emergency conditions will gas be directed to the flare system. Aboveground steel oil tanks & water tanks will be fitted with 32 oz thief hatches as well as PRVs to protect the tanks from rupture/collapse. Additionally, the tank vapor outlets will preferentially be directed to the VRU and the sales gas pipeline. Only during process upsets/emergency conditions will tank vapors be directed to the LP flare system.

VII. **Operational Practices:**

- During drilling operations, gas meters will be installed at the shakers and Volume Totalizers will be installed on the pits. In the event that elevated gas levels, or a pit gain are observed, returns will be diverted to a gas buster. Gas coming off the gas buster will be combusted at the flare stack. A 10’ or taller flare will be located at least 100’ from the SHL.

- During completions operations, including stimulation and frac plug drill out operations, hydrocarbon production to surface is minimized. When gas production does occur, gas will be combusted at a flare stack. A 10’ or taller flare will be located at least 100’ from the SHL.

- During production operations, all process vessels (separators, heater treaters, tanks) will recompress (where necessary) and route gas outlets into the natural gas gathering pipeline. Gas will preferentially be routed to natural gas gathering pipeline and the flare system will be used only during emergencies, malfunction, or if the gas does not meet pipeline specifications. In the event of flaring off-specification gas, operations will pull gas samples twice a week and will also route gas back to pipeline as soon as the gas meets specification. Exceptions to this will include only those qualified emergencies as mentioned in the BLM Waste Prevention Rule.

- To comply with state performance standards, separation and storage equipment will be designed to handle the maximum anticipated throughput and pressure to minimize waste and reduce the likelihood of venting gas to atmosphere. Additionally, each storage tank (Oil & Water) will be fitted with a level transmitter to facilitate gauging of the tank without opening of the thief hatch. Any gas collected through the tank vent system is expected to be recompressed and routed to sales. However, in the event of an emergency, the tank vapor system will be designed to combust the gas using a flare stack fitted with a continuous or automatic ignitor. The flare stack will be properly anchored and will be located a minimum of 100 feet from the well and storage tanks. Operators will conduct weekly AVO inspections. These AVO inspection records will be stored for the required 5-year period and will be made available upon Division request.

**VIII. Best Management Practices:**

When performing routine or preventive maintenance on a vessel or tank, initially all inlet valves are closed, and the vessel or tank is allowed to depressurize through the normal outlet connections to gas sales and/or liquid tanks. Once the vessel or tank is depressurized to lowest acceptable sales outlet pressure, usually around 20 psig, a temporary low-pressure flowline is connected from the vessel or tank to the Vapor Recovery Unit (VRU) for further pressure reduction. Once depressurized to less than 1-2 psig, the remaining natural gas in the vessel or tank is vented to atmosphere through a controlled pressure relief valve. Once the vessel or tank is depressurized to atmospheric pressure, the vessel or tank can be safely opened, and maintenance performed.

AFMSS

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

# Drilling Plan Data Report

04/11/2025

**APD ID:** 10400086480

**Submission Date:** 07/06/2022

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** JUNIOR MINT FED

**Well Number:** 133H

**Well Type:** OIL WELL

**Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

## Section 1 - Geologic Formations

| Formation ID | Formation Name | Elevation | True Vertical | Measured Depth | Lithologies | Mineral Resources | Producing Formatio |
|---|---|---|---|---|---|---|---|
| 9893970 | QUATERNARY | 3224 | 0 | 0 | OTHER : Caliche | NONE | N |
| 9893971 | RUSTLER | 2564 | 660 | 660 | SALT | OTHER : Salt | N |
| 9893972 | TOP SALT | 2124 | 1100 | 1100 | SALT | OTHER : Salt | N |
| 9893973 | BASE OF SALT | -1696 | 4920 | 4966 | SALT | OTHER : Salt | N |
| 9893974 | DELAWARE | -1936 | 5160 | 5209 | OTHER, SANDSTONE : Mountain Group | NONE | N |
| 9893975 | LAMAR | -1941 | 5165 | 5214 | SANDSTONE | NATURAL GAS, OIL | N |
| 9893976 | BELL CANYON | -1961 | 5185 | 5234 | SANDSTONE | NATURAL GAS, OIL | N |
| 9893977 | RAMSEY SAND | -1981 | 5205 | 5254 | SANDSTONE | NATURAL GAS, OIL | N |
| 9893978 | CHERRY CANYON | -2926 | 6150 | 6202 | OTHER : Carbonate | NATURAL GAS, OIL | N |
| 9893979 | BRUSHY CANYON | -4396 | 7620 | 7672 | SANDSTONE | NATURAL GAS, OIL | N |
| 9893980 | BONE SPRING LIME | -5706 | 8930 | 8982 | OTHER : Carbonate | NATURAL GAS, OIL | N |
| 9893981 | UPPER AVALON SHALE | -5731 | 8955 | 9007 | OTHER : Carbonate | NATURAL GAS, OIL | N |
| 9893982 | AVALON SAND | -5961 | 9185 | 9237 | OTHER : Middle Carbonate | NATURAL GAS, OIL | N |
| 9893983 | BONE SPRING 1ST | -6941 | 10165 | 10217 | SANDSTONE | NATURAL GAS, OIL | N |
| 9893984 | BONE SPRING 2ND | -7106 | 10330 | 10382 | OTHER : Carbonate | NATURAL GAS, OIL | N |
| 9893985 | BONE SPRING 2ND | -7491 | 10715 | 10767 | SANDSTONE | NATURAL GAS, OIL | N |
| 9893968 | BONE SPRING 3RD | -8041 | 11265 | 11317 | OTHER : Carbonate | NATURAL GAS, OIL | N |

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** JUNIOR MINT FED **Well Number:** 133H

| Formation ID | Formation Name | Elevation | True Vertical | Measured Depth | Lithologies | Mineral Resources | Producing Formatio |
|---|---|---|---|---|---|---|---|
| 9893969 | BONE SPRING 3RD | -8671 | 11895 | 11988 | SANDSTONE | NATURAL GAS, OIL | Y |

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 10M **Rating Depth:** 15000

**Equipment:** At 22,383', a 10M pressure control system is required. The BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

**Requesting Variance?** YES

**Variance request:** Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after cementing a casing string, a 10M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Tap Rock requests a variance to use a 5000 psi annular BOP on a 10M BOP stack. The annular will be tested to 250 psi low and 5,000 psi high.

**Testing Procedure:** After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a third party tester to 250 psi low, 10000 psi high, and the annular preventer will be tested to 250 psi low, 5000 psi high. The BOP will be tested in this manner after nipple-up if any break of the stack occurs.

**Choke Diagram Attachment:**

Choke_Diagram_032918_20220702163103.pdf

**BOP Diagram Attachment:**

10M_BOP_Stack_5M_Annular_Preventer_20220702163113.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 | 14.75 | 11.75 | NEW | API | N | 0 | 685 | 0 | 685 | 3224 | 2539 | 685 | J-55 | 42 | BUTT | 1.13 | 1.15 | DRY | 1.6 | DRY | 1.6 |
| 2 | PRODUCTION | 6.75 | 5.5 | NEW | NON API | N | 0 | 11251 | 0 | 11199 | 3221 | -7975 | 11251 | P-110 | 20 | OTHER - TXP | 1.13 | 1.15 | DRY | 1.6 | DRY | 1.6 |

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** JUNIOR MINT FED **Well Number:** 133H

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | INTERMEDIATE | 9.875 | 7.625 | NEW | API | N | 0 | 11451 | 0 | 11399 | 3221 | -8175 | 11451 | P-110 | 29.7 | BUTT | 1.13 | 1.15 | DRY | 1.6 | DRY | 1.6 |
| 4 | PRODUCTION | 6.75 | 5.5 | NEW | NON API | N | 11251 | 22383 | 11199 | 12141 | -7975 | -8917 | 11132 | P-110 | 20 | OTHER - W441 | 1.13 | 1.15 | DRY | 1.6 | DRY | 1.6 |

**Casing Attachments**

**Casing ID:** 1 **String** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing_Design_Assumptions_20220702163142.pdf

**Casing ID:** 2 **String** PRODUCTION

**Inspection Document:**

**Spec Document:**

5.5in_TXP_Casing_Spec_20220702163241.PDF

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing_Design_Assumptions_20220702163250.pdf

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** JUNIOR MINT FED **Well Number:** 133H

**Casing Attachments**

**Casing ID:** 3 **String** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing_Design_Assumptions_20220702163213.pdf

**Casing ID:** 4 **String** PRODUCTION

**Inspection Document:**

**Spec Document:**

5.5in_W441_Casing_Spec_20220702163319.pdf

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing_Design_Assumptions_20220702163326.pdf

## Section 4 - Cement

| String Type | Lead/Tail | Stage Tool Depth | Top MD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCTION | Lead | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | None | None |
| PRODUCTION | Tail | | 11251 | 22383 | 900 | 1.24 | 14.5 | 1116 | 20 | Class H | Fluid Loss + Dispersant + Retarder + LCM |
| SURFACE | Lead | | 0 | 385 | 183 | 1.82 | 13.5 | 334 | 100 | Class C | 5% NCI + LCM |
| SURFACE | Tail | | 385 | 685 | 194 | 1.34 | 14.8 | 260 | 100 | Class C | 5% NCI + LCM |
| INTERMEDIATE | Lead | | 0 | 10451 | 862 | 4.29 | 10.5 | 3698 | 65 | Class C | Bentonite + 1% CaCL2 + 8% NaCL+ |

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** JUNIOR MINT FED **Well Number:** 133H

| String Type | Lead/Tail | Stage Tool Depth | Top MD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | LCM |
| INTERMEDIATE | Tail | | 10451 | 11451 | 212 | 1.67 | 13.2 | 354 | 65 | Class C | 5% NaCL + LCM |

## 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:** All necessary mud products (i.e., barite, pac) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions.

**Describe the mud monitoring system utilized:** Electronic Pason mud monitor system complying with Onshore Order 1 will be used.

## 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 | 685 | OTHER : Fresh Water Spud Mud | 8.4 | 8.4 | | | | | | | |
| 685 | 11451 | OTHER : Diesel Brine Emulsion | 9.2 | 9.2 | | | | | | | |
| 11451 | 22383 | OIL-BASED MUD | 12.5 | 12.5 | | | | | | | |

**Operator Name:** TAP ROCK OPERATING LLC

**Well Name:** JUNIOR MINT FED **Well Number:** 133H

## Section 6 - Test, Logging, Coring

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

Electric Logging Program: No open-hole logs are planned at this time for the pilot hole. GR will be collected while drilling through the MWD tools from KOP to TD. A 2-person mud logging program will be used from KOP to TD. CBL w/ CCL from as far as gravity will let it fall to TOC.

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

CEMENT BOND LOG,GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

**Coring operation description for the well:**

No DSTs or cores are planned at this time.

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7892 **Anticipated Surface Pressure:** 5220

**Anticipated Bottom Hole Temperature(F):** 195

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geoharzards description:**

**Contingency Plans geohazards**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations**

JM_E2_H2S_Plan_v2_RDC_20221112084735.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

JM_133H_Horizontal_Plan_20220702163530.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

JM_133H_Drill_Plan_20220702163539.pdf
CoFlex_Certs_20220702163612.pdf
JM_133H_Anticollision_Report_20220702163625.pdf
Well_Control_Plan_10M_BOP_5M_Annular_20220702163634.pdf
Wellhead_3T_11.75_1.625_5.5_062922_20220702163634.pdf

**Other Variance attachment:**

TAP ROCK RESOURCES

INTREPID

**Azimuths to Grid North**
**True North: -0.52°**
**Magnetic North: 5.77°**

**Magnetic Field**
**Strength: 47396.4nT**
**Dip Angle: 59.95°**
**Date: 06/22/2022**
**Model: IGRF2015**

To convert a Magnetic Direction to a Grid Direction, Add 5.77°

**Tap Rock Resources, LLC**
**Project: Lea County, NM (NAD 83 NME)**
**Site: (Junior Mint Fed) Sec-15_T-25-S_R-35-E**
**Well: Junior Mint Fed #133H**
**Wellbore: OWB**
**Design: Plan #1**
**Lat: 32° 8' 20.644 N**
**Long: 103° 21' 8.963 W**
**Pad GL: 3224.0**
**KB: KB @ 3250.0usft**

**WELL DETAILS: Junior Mint Fed #133H**

3224.0

| +N/-S | +E/-W | Northing | Easting | Latittude | Longitude |
|---|---|---|---|---|---|
| 0.0 | 0.0 | 415711.00 | 844934.00 | 32° 8' 20.644 N | 103° 21' 8.963 W |

**SECTION DETAILS**

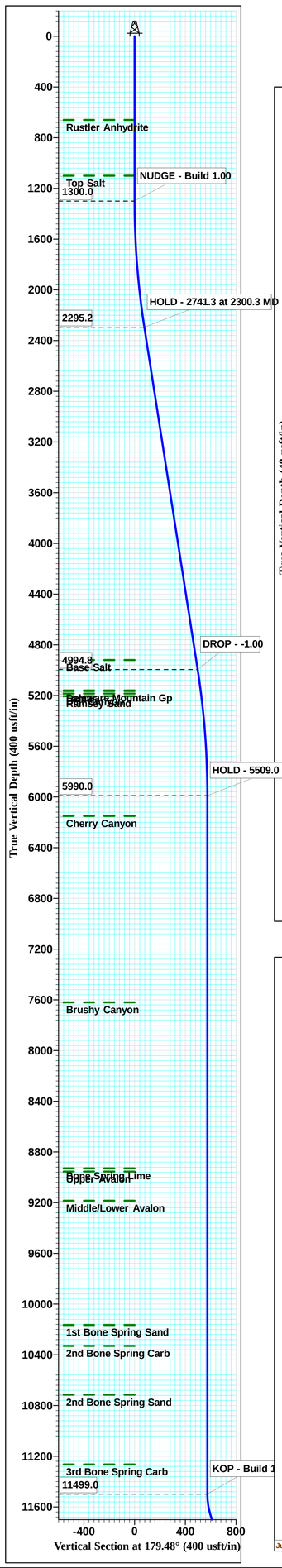
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Annotation |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 1300.0 | 0.00 | 0.00 | 1300.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | NUDGE - Build 1.00 |
| 2300.3 | 10.00 | 207.47 | 2295.2 | -77.3 | -40.2 | 1.00 | 207.47 | 76.9 | HOLD - 2741.3 at 2300.3 MD |
| 5041.5 | 10.00 | 207.47 | 4994.8 | -499.7 | -259.8 | 0.00 | 0.00 | 497.3 | DROP - -1.00 |
| 6041.8 | 0.00 | 0.00 | 5990.0 | -577.0 | -300.0 | 1.00 | 180.00 | 574.3 | HOLD - 5509.0 at 6041.8 MD |
| 11550.8 | 0.00 | 0.00 | 11499.0 | -577.0 | -300.0 | 0.00 | 0.00 | 574.3 | KOP - Build 10.00 |
| 12446.8 | 89.60 | 174.00 | 12071.9 | -1142.8 | -240.5 | 10.00 | 174.00 | 1140.6 | EOC/TRN - DLS 2.00 TFO 90.02 |
| 12720.7 | 89.60 | 179.48 | 12073.9 | -1416.2 | -225.0 | 2.00 | 90.02 | 1414.1 | Start 9662.4 hold at 12720.7 MD |
| 22383.2 | 89.60 | 179.48 | 12141.3 | -11078.0 | -137.0 | 0.00 | 0.00 | 11076.3 | TD at 22383.2 |

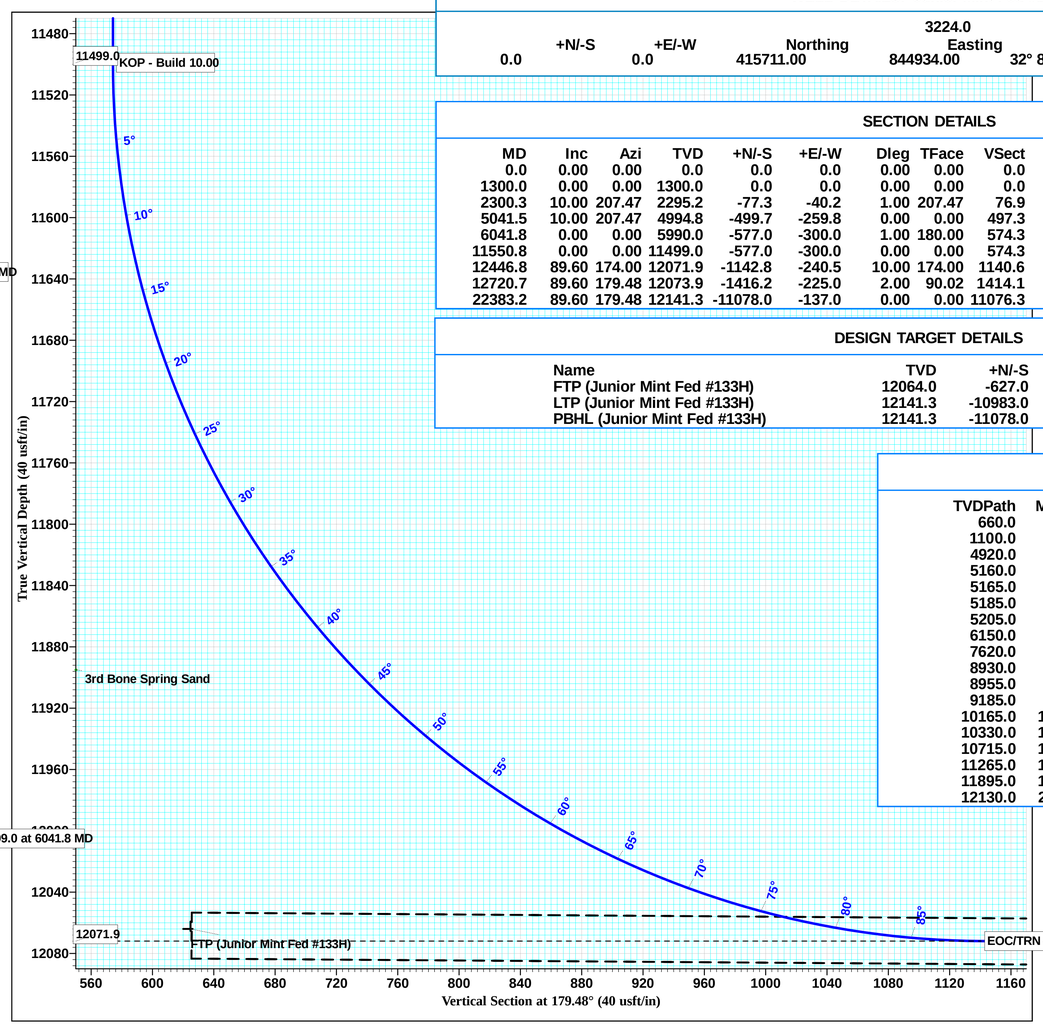
**DESIGN TARGET DETAILS**

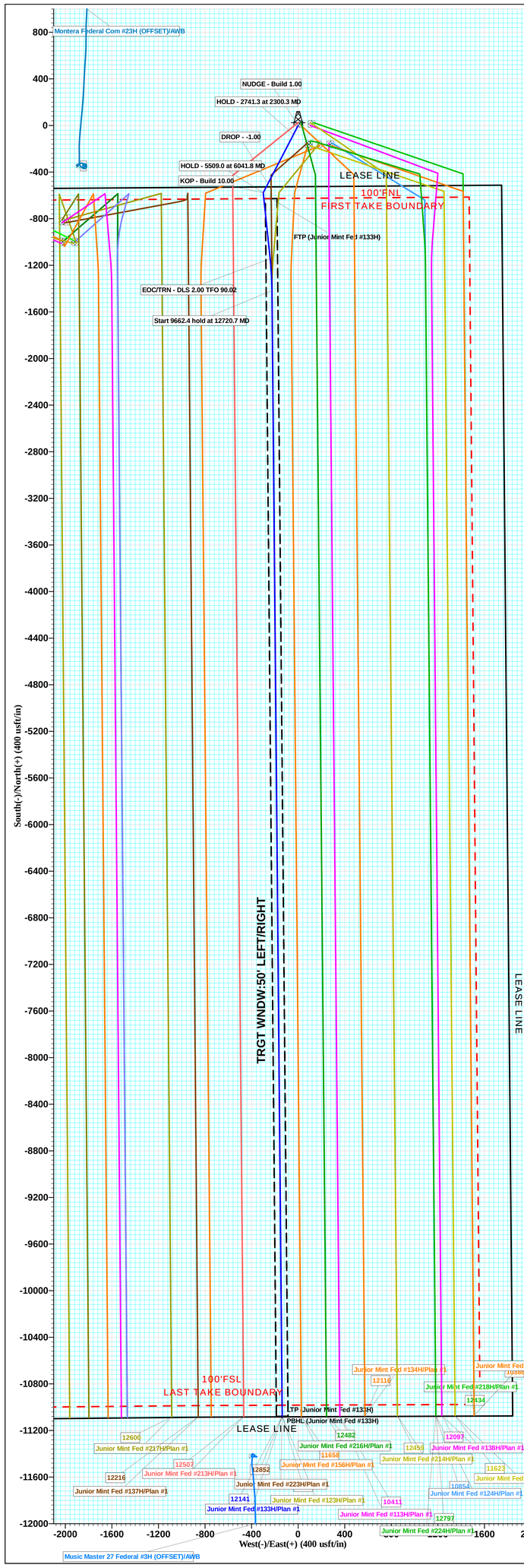
| Name | TVD | +N/-S | +E/-W | Northing | Easting |
|---|---|---|---|---|---|
| FTP (Junior Mint Fed #133H) | 12064.0 | -627.0 | -232.0 | 415084.00 | 844702.00 |
| LTP (Junior Mint Fed #133H) | 12141.3 | -10983.0 | -138.0 | 404728.00 | 844796.00 |
| PBHL (Junior Mint Fed #133H) | 12141.3 | -11078.0 | -137.0 | 404633.00 | 844797.00 |

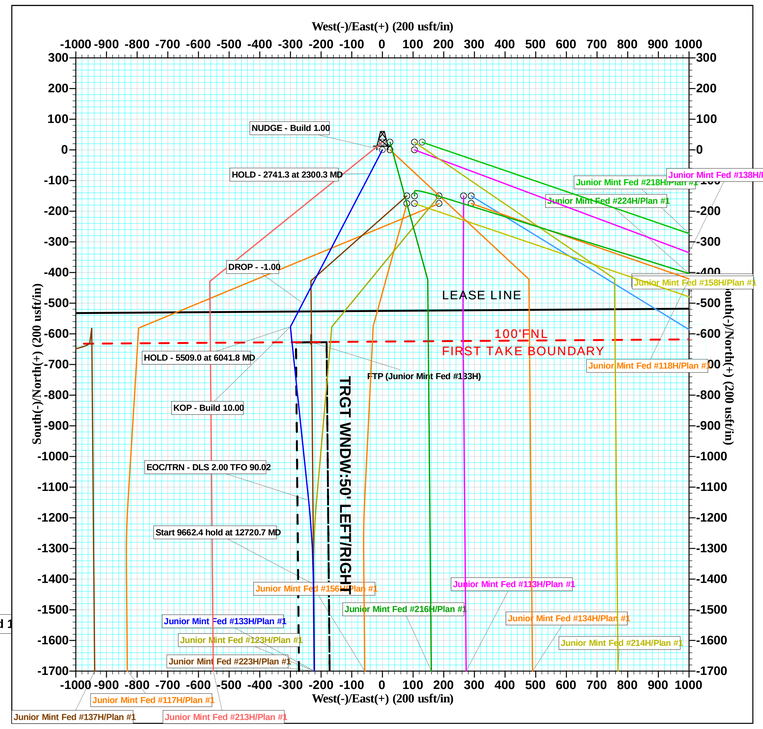
**FORMATIONS**

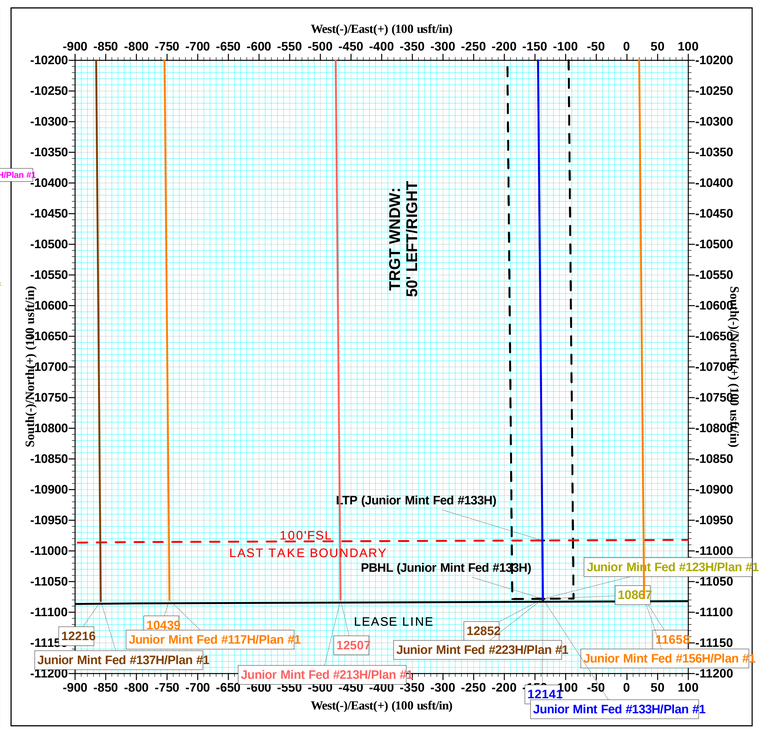
| TVDPath | MDPath | Formation |
|---|---|---|
| 660.0 | 660.0 | Rustler Anhydrite |
| 1100.0 | 1100.0 | Top Salt |
| 4920.0 | 4965.6 | Base Salt |
| 5160.0 | 5208.9 | Delaware Mountain Gp |
| 5165.0 | 5213.9 | Lamar |
| 5185.0 | 5234.1 | Bell Canyon |
| 5205.0 | 5254.3 | Ramsey Sand |
| 6150.0 | 6201.8 | Cherry Canyon |
| 7620.0 | 7671.8 | Brushy Canyon |
| 8930.0 | 8981.8 | Bone Spring Lime |
| 8955.0 | 9006.8 | Upper Avalon |
| 9185.0 | 9236.8 | Middle/Lower Avalon |
| 10165.0 | 10216.8 | 1st Bone Spring Sand |
| 10330.0 | 10381.8 | 2nd Bone Spring Carb |
| 10715.0 | 10766.8 | 2nd Bone Spring Sand |
| 11265.0 | 11316.8 | 3rd Bone Spring Carb |
| 11895.0 | 11988.0 | 3rd Bone Spring Sand |
| 12130.0 | 20760.8 | 3rd BS W Sand |

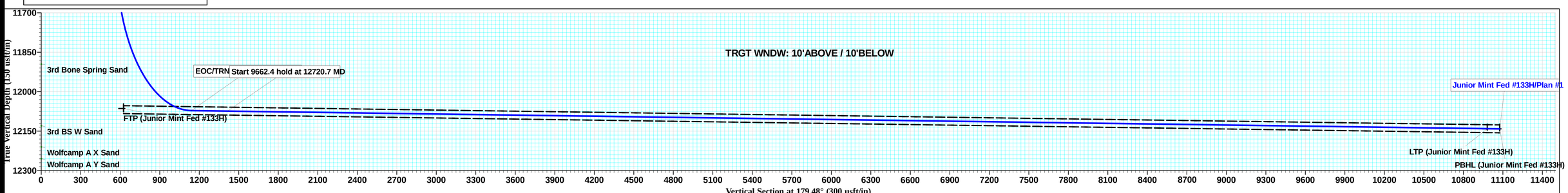


# Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)**
**(Junior Mint Fed) Sec-15_T-25-S_R-35-E**
**Junior Mint Fed #133H**

**OWB**

**Plan: Plan #1**

# Standard Planning Report

**25 June, 2022**

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Project** Lea County, NM (NAD 83 NME)

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Eastern Zone | | |

**Site** (Junior Mint Fed) Sec-15_T-25-S_R-35-E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 414,725.00 usft | **Latitude:** | 32° 8' 11.068 N |
| **From:** | Map | **Easting:** | 842,925.00 usft | **Longitude:** | 103° 21' 32.430 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.52 ° |

**Well** Junior Mint Fed #133H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 986.0 usft | **Northing:** | 415,711.00 usft | **Latitude:** | 32° 8' 20.644 N |
| | **+E/-W** | 2,009.0 usft | **Easting:** | 844,934.00 usft | **Longitude:** | 103° 21' 8.963 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | | **Ground Level:** | 3,224.0 usft |

**Wellbore** OWB

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2015 | 06/22/22 | 6.30 | 59.95 | 47,396.41073878 |

**Design** Plan #1

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|---|---|---|---|---|
| | 0.0 | 0.0 | 0.0 | 179.48 |

**Plan Survey Tool Program** **Date** 06/25/22

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.0 | 22,383.0 | Plan #1 (OWB) | MWD<br>OWSG MWD - Standard | |

**Plan Sections**

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,300.3 | 10.00 | 207.47 | 2,295.2 | -77.3 | -40.2 | 1.00 | 1.00 | 0.00 | 207.47 | |
| 5,041.5 | 10.00 | 207.47 | 4,994.8 | -499.7 | -259.8 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,041.8 | 0.00 | 0.00 | 5,990.0 | -577.0 | -300.0 | 1.00 | -1.00 | 0.00 | 180.00 | |
| 11,550.8 | 0.00 | 0.00 | 11,499.0 | -577.0 | -300.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 12,446.8 | 89.60 | 174.00 | 12,071.9 | -1,142.8 | -240.5 | 10.00 | 10.00 | 0.00 | 174.00 | |
| 12,720.7 | 89.60 | 179.48 | 12,073.9 | -1,416.2 | -225.0 | 2.00 | 0.00 | 2.00 | 90.02 | |
| 22,383.2 | 89.60 | 179.48 | 12,141.3 | -11,078.0 | -137.0 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL (Junior Mint F |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **NUDGE - Build 1.00** | | | | | | | | | |
| 1,400.0 | 1.00 | 207.47 | 1,400.0 | -0.8 | -0.4 | 0.8 | 1.00 | 1.00 | 0.00 |
| 1,500.0 | 2.00 | 207.47 | 1,500.0 | -3.1 | -1.6 | 3.1 | 1.00 | 1.00 | 0.00 |
| 1,600.0 | 3.00 | 207.47 | 1,599.9 | -7.0 | -3.6 | 6.9 | 1.00 | 1.00 | 0.00 |
| 1,700.0 | 4.00 | 207.47 | 1,699.7 | -12.4 | -6.4 | 12.3 | 1.00 | 1.00 | 0.00 |
| 1,800.0 | 5.00 | 207.47 | 1,799.4 | -19.3 | -10.1 | 19.3 | 1.00 | 1.00 | 0.00 |
| 1,900.0 | 6.00 | 207.47 | 1,898.9 | -27.8 | -14.5 | 27.7 | 1.00 | 1.00 | 0.00 |
| 2,000.0 | 7.00 | 207.47 | 1,998.3 | -37.9 | -19.7 | 37.7 | 1.00 | 1.00 | 0.00 |
| 2,100.0 | 8.00 | 207.47 | 2,097.4 | -49.5 | -25.7 | 49.2 | 1.00 | 1.00 | 0.00 |
| 2,200.0 | 9.00 | 207.47 | 2,196.3 | -62.6 | -32.5 | 62.3 | 1.00 | 1.00 | 0.00 |
| 2,300.3 | 10.00 | 207.47 | 2,295.2 | -77.3 | -40.2 | 76.9 | 1.00 | 1.00 | 0.00 |
| **HOLD - 2741.3 at 2300.3 MD** | | | | | | | | | |
| 2,400.0 | 10.00 | 207.47 | 2,393.4 | -92.6 | -48.2 | 92.2 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 10.00 | 207.47 | 2,491.9 | -108.1 | -56.2 | 107.5 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 10.00 | 207.47 | 2,590.4 | -123.5 | -64.2 | 122.9 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 10.00 | 207.47 | 2,688.9 | -138.9 | -72.2 | 138.2 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 10.00 | 207.47 | 2,787.3 | -154.3 | -80.2 | 153.6 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 10.00 | 207.47 | 2,885.8 | -169.7 | -88.2 | 168.9 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 10.00 | 207.47 | 2,984.3 | -185.1 | -96.2 | 184.2 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 10.00 | 207.47 | 3,082.8 | -200.5 | -104.3 | 199.6 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 10.00 | 207.47 | 3,181.3 | -215.9 | -112.3 | 214.9 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 10.00 | 207.47 | 3,279.7 | -231.3 | -120.3 | 230.2 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 10.00 | 207.47 | 3,378.2 | -246.8 | -128.3 | 245.6 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 10.00 | 207.47 | 3,476.7 | -262.2 | -136.3 | 260.9 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 10.00 | 207.47 | 3,575.2 | -277.6 | -144.3 | 276.3 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 10.00 | 207.47 | 3,673.7 | -293.0 | -152.3 | 291.6 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 10.00 | 207.47 | 3,772.1 | -308.4 | -160.3 | 306.9 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 10.00 | 207.47 | 3,870.6 | -323.8 | -168.4 | 322.3 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 10.00 | 207.47 | 3,969.1 | -339.2 | -176.4 | 337.6 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 10.00 | 207.47 | 4,067.6 | -354.6 | -184.4 | 352.9 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 10.00 | 207.47 | 4,166.0 | -370.0 | -192.4 | 368.3 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 10.00 | 207.47 | 4,264.5 | -385.4 | -200.4 | 383.6 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 10.00 | 207.47 | 4,363.0 | -400.9 | -208.4 | 399.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 10.00 | 207.47 | 4,461.5 | -416.3 | -216.4 | 414.3 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 10.00 | 207.47 | 4,560.0 | -431.7 | -224.4 | 429.6 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 10.00 | 207.47 | 4,658.4 | -447.1 | -232.5 | 445.0 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 10.00 | 207.47 | 4,756.9 | -462.5 | -240.5 | 460.3 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 10.00 | 207.47 | 4,855.4 | -477.9 | -248.5 | 475.6 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 10.00 | 207.47 | 4,953.9 | -493.3 | -256.5 | 491.0 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 5,041.5 | 10.00 | 207.47 | 4,994.8 | -499.7 | -259.8 | 497.3 | 0.00 | 0.00 | 0.00 |
| **DROP - -1.00** | | | | | | | | | |
| 5,100.0 | 9.42 | 207.47 | 5,052.4 | -508.5 | -264.4 | 506.1 | 1.00 | -1.00 | 0.00 |
| 5,200.0 | 8.42 | 207.47 | 5,151.2 | -522.2 | -271.5 | 519.7 | 1.00 | -1.00 | 0.00 |
| 5,300.0 | 7.42 | 207.47 | 5,250.3 | -534.5 | -277.9 | 531.9 | 1.00 | -1.00 | 0.00 |
| 5,400.0 | 6.42 | 207.47 | 5,349.5 | -545.1 | -283.4 | 542.5 | 1.00 | -1.00 | 0.00 |
| 5,500.0 | 5.42 | 207.47 | 5,449.0 | -554.3 | -288.2 | 551.6 | 1.00 | -1.00 | 0.00 |
| 5,600.0 | 4.42 | 207.47 | 5,548.6 | -561.9 | -292.1 | 559.2 | 1.00 | -1.00 | 0.00 |
| 5,700.0 | 3.42 | 207.47 | 5,648.4 | -568.0 | -295.3 | 565.3 | 1.00 | -1.00 | 0.00 |
| 5,800.0 | 2.42 | 207.47 | 5,748.3 | -572.5 | -297.6 | 569.7 | 1.00 | -1.00 | 0.00 |
| 5,900.0 | 1.42 | 207.47 | 5,848.2 | -575.4 | -299.2 | 572.7 | 1.00 | -1.00 | 0.00 |
| 6,000.0 | 0.42 | 207.47 | 5,948.2 | -576.9 | -299.9 | 574.1 | 1.00 | -1.00 | 0.00 |
| 6,041.8 | 0.00 | 0.00 | 5,990.0 | -577.0 | -300.0 | 574.3 | 1.00 | -1.00 | 0.00 |
| **HOLD - 5509.0 at 6041.8 MD** | | | | | | | | | |
| 6,100.0 | 0.00 | 0.00 | 6,048.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 6,148.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 0.00 | 0.00 | 6,248.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 0.00 | 0.00 | 6,348.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,448.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 0.00 | 0.00 | 6,548.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 0.00 | 0.00 | 6,648.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 0.00 | 0.00 | 6,748.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 0.00 | 0.00 | 6,848.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 6,948.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 7,048.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 7,148.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 0.00 | 0.00 | 7,248.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 0.00 | 0.00 | 7,348.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 0.00 | 0.00 | 7,448.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 0.00 | 0.00 | 7,548.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 0.00 | 0.00 | 7,648.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 0.00 | 0.00 | 7,748.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 0.00 | 0.00 | 7,848.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 0.00 | 0.00 | 7,948.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 0.00 | 0.00 | 8,048.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 0.00 | 0.00 | 8,148.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 0.00 | 0.00 | 8,248.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 0.00 | 0.00 | 8,348.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 0.00 | 0.00 | 8,448.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 0.00 | 0.00 | 8,548.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 0.00 | 0.00 | 8,648.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 0.00 | 0.00 | 8,748.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 0.00 | 0.00 | 8,848.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 0.00 | 0.00 | 8,948.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 0.00 | 0.00 | 9,048.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 0.00 | 0.00 | 9,148.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 0.00 | 0.00 | 9,248.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 0.00 | 0.00 | 9,348.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 0.00 | 0.00 | 9,448.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 0.00 | 0.00 | 9,548.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 0.00 | 0.00 | 9,648.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 0.00 | 0.00 | 9,748.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 0.00 | 0.00 | 9,848.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 0.00 | 0.00 | 9,948.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 10,100.0 | 0.00 | 0.00 | 10,048.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 0.00 | 0.00 | 10,148.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 0.00 | 0.00 | 10,248.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 0.00 | 0.00 | 10,348.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 0.00 | 0.00 | 10,448.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 0.00 | 0.00 | 10,548.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 0.00 | 0.00 | 10,648.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 0.00 | 0.00 | 10,748.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 0.00 | 0.00 | 10,848.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 0.00 | 0.00 | 10,948.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 0.00 | 0.00 | 11,048.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 0.00 | 0.00 | 11,148.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 0.00 | 0.00 | 11,248.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 0.00 | 0.00 | 11,348.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 0.00 | 0.00 | 11,448.2 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| 11,550.8 | 0.00 | 0.00 | 11,499.0 | -577.0 | -300.0 | 574.3 | 0.00 | 0.00 | 0.00 |
| **KOP - Build 10.00** | | | | | | | | | |
| 11,600.0 | 4.92 | 174.00 | 11,548.1 | -579.1 | -299.8 | 576.4 | 10.00 | 10.00 | 0.00 |
| 11,650.0 | 9.92 | 174.00 | 11,597.7 | -585.5 | -299.1 | 582.8 | 10.00 | 10.00 | 0.00 |
| 11,700.0 | 14.92 | 174.00 | 11,646.5 | -596.2 | -298.0 | 593.5 | 10.00 | 10.00 | 0.00 |
| 11,750.0 | 19.92 | 174.00 | 11,694.2 | -611.1 | -296.4 | 608.4 | 10.00 | 10.00 | 0.00 |
| 11,800.0 | 24.92 | 174.00 | 11,740.4 | -630.0 | -294.4 | 627.3 | 10.00 | 10.00 | 0.00 |
| 11,850.0 | 29.92 | 174.00 | 11,784.8 | -652.9 | -292.0 | 650.3 | 10.00 | 10.00 | 0.00 |
| 11,900.0 | 34.92 | 174.00 | 11,827.0 | -679.6 | -289.2 | 676.9 | 10.00 | 10.00 | 0.00 |
| 11,950.0 | 39.92 | 174.00 | 11,866.7 | -709.8 | -286.0 | 707.2 | 10.00 | 10.00 | 0.00 |
| 12,000.0 | 44.92 | 174.00 | 11,903.6 | -743.3 | -282.5 | 740.7 | 10.00 | 10.00 | 0.00 |
| 12,050.0 | 49.92 | 174.00 | 11,937.4 | -779.9 | -278.7 | 777.4 | 10.00 | 10.00 | 0.00 |
| 12,100.0 | 54.92 | 174.00 | 11,967.9 | -819.3 | -274.5 | 816.8 | 10.00 | 10.00 | 0.00 |
| 12,150.0 | 59.92 | 174.00 | 11,994.8 | -861.2 | -270.1 | 858.7 | 10.00 | 10.00 | 0.00 |
| 12,200.0 | 64.92 | 174.00 | 12,017.9 | -905.3 | -265.5 | 902.8 | 10.00 | 10.00 | 0.00 |
| 12,250.0 | 69.92 | 174.00 | 12,037.1 | -951.2 | -260.7 | 948.8 | 10.00 | 10.00 | 0.00 |
| 12,300.0 | 74.92 | 174.00 | 12,052.2 | -998.6 | -255.7 | 996.2 | 10.00 | 10.00 | 0.00 |
| 12,350.0 | 79.92 | 174.00 | 12,063.1 | -1,047.1 | -250.6 | 1,044.8 | 10.00 | 10.00 | 0.00 |
| 12,400.0 | 84.92 | 174.00 | 12,069.7 | -1,096.3 | -245.4 | 1,094.1 | 10.00 | 10.00 | 0.00 |
| 12,446.8 | 89.60 | 174.00 | 12,071.9 | -1,142.8 | -240.5 | 1,140.6 | 10.00 | 10.00 | 0.00 |
| **EOC/TRN - DLS 2.00 TFO 90.02** | | | | | | | | | |
| 12,500.0 | 89.60 | 175.06 | 12,072.3 | -1,195.8 | -235.5 | 1,193.6 | 2.00 | 0.00 | 2.00 |
| 12,600.0 | 89.60 | 177.06 | 12,073.0 | -1,295.5 | -228.6 | 1,293.4 | 2.00 | 0.00 | 2.00 |
| 12,700.0 | 89.60 | 179.06 | 12,073.7 | -1,395.5 | -225.2 | 1,393.4 | 2.00 | 0.00 | 2.00 |
| 12,720.7 | 89.60 | 179.48 | 12,073.9 | -1,416.2 | -225.0 | 1,414.1 | 2.00 | 0.00 | 2.00 |
| **Start 9662.4 hold at 12720.7 MD** | | | | | | | | | |
| 12,800.0 | 89.60 | 179.48 | 12,074.4 | -1,495.5 | -224.2 | 1,493.4 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 89.60 | 179.48 | 12,075.1 | -1,595.5 | -223.3 | 1,593.4 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 89.60 | 179.48 | 12,075.8 | -1,695.5 | -222.4 | 1,693.4 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 89.60 | 179.48 | 12,076.5 | -1,795.4 | -221.5 | 1,793.4 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 89.60 | 179.48 | 12,077.2 | -1,895.4 | -220.6 | 1,893.4 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 89.60 | 179.48 | 12,077.9 | -1,995.4 | -219.7 | 1,993.4 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 89.60 | 179.48 | 12,078.6 | -2,095.4 | -218.8 | 2,093.4 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 89.60 | 179.48 | 12,079.3 | -2,195.4 | -217.9 | 2,193.4 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 89.60 | 179.48 | 12,080.0 | -2,295.4 | -216.9 | 2,293.3 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 89.60 | 179.48 | 12,080.7 | -2,395.4 | -216.0 | 2,393.3 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 89.60 | 179.48 | 12,081.4 | -2,495.4 | -215.1 | 2,493.3 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 89.60 | 179.48 | 12,082.1 | -2,595.4 | -214.2 | 2,593.3 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 14,000.0 | 89.60 | 179.48 | 12,082.8 | -2,695.4 | -213.3 | 2,693.3 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 89.60 | 179.48 | 12,083.5 | -2,795.4 | -212.4 | 2,793.3 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 89.60 | 179.48 | 12,084.2 | -2,895.4 | -211.5 | 2,893.3 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 89.60 | 179.48 | 12,084.9 | -2,995.4 | -210.6 | 2,993.3 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 89.60 | 179.48 | 12,085.6 | -3,095.4 | -209.7 | 3,093.3 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 89.60 | 179.48 | 12,086.3 | -3,195.4 | -208.8 | 3,193.3 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 89.60 | 179.48 | 12,087.0 | -3,295.3 | -207.8 | 3,293.3 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 89.60 | 179.48 | 12,087.7 | -3,395.3 | -206.9 | 3,393.3 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 89.60 | 179.48 | 12,088.4 | -3,495.3 | -206.0 | 3,493.3 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 89.60 | 179.48 | 12,089.1 | -3,595.3 | -205.1 | 3,593.3 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 89.60 | 179.48 | 12,089.8 | -3,695.3 | -204.2 | 3,693.3 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 89.60 | 179.48 | 12,090.5 | -3,795.3 | -203.3 | 3,793.3 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 89.60 | 179.48 | 12,091.2 | -3,895.3 | -202.4 | 3,893.3 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 89.60 | 179.48 | 12,091.9 | -3,995.3 | -201.5 | 3,993.3 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 89.60 | 179.48 | 12,092.6 | -4,095.3 | -200.6 | 4,093.3 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 89.60 | 179.48 | 12,093.3 | -4,195.3 | -199.7 | 4,193.3 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 89.60 | 179.48 | 12,094.0 | -4,295.3 | -198.7 | 4,293.3 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 89.60 | 179.48 | 12,094.7 | -4,395.3 | -197.8 | 4,393.3 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 89.60 | 179.48 | 12,095.4 | -4,495.3 | -196.9 | 4,493.3 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 89.60 | 179.48 | 12,096.1 | -4,595.3 | -196.0 | 4,593.3 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 89.60 | 179.48 | 12,096.8 | -4,695.3 | -195.1 | 4,693.3 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 89.60 | 179.48 | 12,097.5 | -4,795.2 | -194.2 | 4,793.3 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 89.60 | 179.48 | 12,098.2 | -4,895.2 | -193.3 | 4,893.3 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 89.60 | 179.48 | 12,098.9 | -4,995.2 | -192.4 | 4,993.3 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 89.60 | 179.48 | 12,099.5 | -5,095.2 | -191.5 | 5,093.3 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 89.60 | 179.48 | 12,100.2 | -5,195.2 | -190.6 | 5,193.3 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 89.60 | 179.48 | 12,100.9 | -5,295.2 | -189.6 | 5,293.3 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 89.60 | 179.48 | 12,101.6 | -5,395.2 | -188.7 | 5,393.3 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 89.60 | 179.48 | 12,102.3 | -5,495.2 | -187.8 | 5,493.3 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 89.60 | 179.48 | 12,103.0 | -5,595.2 | -186.9 | 5,593.3 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 89.60 | 179.48 | 12,103.7 | -5,695.2 | -186.0 | 5,693.3 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 89.60 | 179.48 | 12,104.4 | -5,795.2 | -185.1 | 5,793.3 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 89.60 | 179.48 | 12,105.1 | -5,895.2 | -184.2 | 5,893.3 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 89.60 | 179.48 | 12,105.8 | -5,995.2 | -183.3 | 5,993.3 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 89.60 | 179.48 | 12,106.5 | -6,095.2 | -182.4 | 6,093.3 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 89.60 | 179.48 | 12,107.2 | -6,195.2 | -181.4 | 6,193.3 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 89.60 | 179.48 | 12,107.9 | -6,295.2 | -180.5 | 6,293.3 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 89.60 | 179.48 | 12,108.6 | -6,395.1 | -179.6 | 6,393.2 | 0.00 | 0.00 | 0.00 |
| 17,800.0 | 89.60 | 179.48 | 12,109.3 | -6,495.1 | -178.7 | 6,493.2 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 89.60 | 179.48 | 12,110.0 | -6,595.1 | -177.8 | 6,593.2 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 89.60 | 179.48 | 12,110.7 | -6,695.1 | -176.9 | 6,693.2 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 89.60 | 179.48 | 12,111.4 | -6,795.1 | -176.0 | 6,793.2 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 89.60 | 179.48 | 12,112.1 | -6,895.1 | -175.1 | 6,893.2 | 0.00 | 0.00 | 0.00 |
| 18,300.0 | 89.60 | 179.48 | 12,112.8 | -6,995.1 | -174.2 | 6,993.2 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 89.60 | 179.48 | 12,113.5 | -7,095.1 | -173.3 | 7,093.2 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 89.60 | 179.48 | 12,114.2 | -7,195.1 | -172.3 | 7,193.2 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 89.60 | 179.48 | 12,114.9 | -7,295.1 | -171.4 | 7,293.2 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 89.60 | 179.48 | 12,115.6 | -7,395.1 | -170.5 | 7,393.2 | 0.00 | 0.00 | 0.00 |
| 18,800.0 | 89.60 | 179.48 | 12,116.3 | -7,495.1 | -169.6 | 7,493.2 | 0.00 | 0.00 | 0.00 |
| 18,900.0 | 89.60 | 179.48 | 12,117.0 | -7,595.1 | -168.7 | 7,593.2 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 89.60 | 179.48 | 12,117.7 | -7,695.1 | -167.8 | 7,693.2 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 89.60 | 179.48 | 12,118.4 | -7,795.1 | -166.9 | 7,793.2 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 89.60 | 179.48 | 12,119.1 | -7,895.0 | -166.0 | 7,893.2 | 0.00 | 0.00 | 0.00 |
| 19,300.0 | 89.60 | 179.48 | 12,119.8 | -7,995.0 | -165.1 | 7,993.2 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 19,400.0 | 89.60 | 179.48 | 12,120.5 | -8,095.0 | -164.2 | 8,093.2 | 0.00 | 0.00 | 0.00 |
| 19,500.0 | 89.60 | 179.48 | 12,121.2 | -8,195.0 | -163.2 | 8,193.2 | 0.00 | 0.00 | 0.00 |
| 19,600.0 | 89.60 | 179.48 | 12,121.9 | -8,295.0 | -162.3 | 8,293.2 | 0.00 | 0.00 | 0.00 |
| 19,700.0 | 89.60 | 179.48 | 12,122.6 | -8,395.0 | -161.4 | 8,393.2 | 0.00 | 0.00 | 0.00 |
| 19,800.0 | 89.60 | 179.48 | 12,123.3 | -8,495.0 | -160.5 | 8,493.2 | 0.00 | 0.00 | 0.00 |
| 19,900.0 | 89.60 | 179.48 | 12,124.0 | -8,595.0 | -159.6 | 8,593.2 | 0.00 | 0.00 | 0.00 |
| 20,000.0 | 89.60 | 179.48 | 12,124.7 | -8,695.0 | -158.7 | 8,693.2 | 0.00 | 0.00 | 0.00 |
| 20,100.0 | 89.60 | 179.48 | 12,125.4 | -8,795.0 | -157.8 | 8,793.2 | 0.00 | 0.00 | 0.00 |
| 20,200.0 | 89.60 | 179.48 | 12,126.1 | -8,895.0 | -156.9 | 8,893.2 | 0.00 | 0.00 | 0.00 |
| 20,300.0 | 89.60 | 179.48 | 12,126.8 | -8,995.0 | -156.0 | 8,993.2 | 0.00 | 0.00 | 0.00 |
| 20,400.0 | 89.60 | 179.48 | 12,127.5 | -9,095.0 | -155.1 | 9,093.2 | 0.00 | 0.00 | 0.00 |
| 20,500.0 | 89.60 | 179.48 | 12,128.2 | -9,195.0 | -154.1 | 9,193.2 | 0.00 | 0.00 | 0.00 |
| 20,600.0 | 89.60 | 179.48 | 12,128.9 | -9,295.0 | -153.2 | 9,293.2 | 0.00 | 0.00 | 0.00 |
| 20,700.0 | 89.60 | 179.48 | 12,129.6 | -9,394.9 | -152.3 | 9,393.2 | 0.00 | 0.00 | 0.00 |
| 20,800.0 | 89.60 | 179.48 | 12,130.3 | -9,494.9 | -151.4 | 9,493.2 | 0.00 | 0.00 | 0.00 |
| 20,900.0 | 89.60 | 179.48 | 12,131.0 | -9,594.9 | -150.5 | 9,593.2 | 0.00 | 0.00 | 0.00 |
| 21,000.0 | 89.60 | 179.48 | 12,131.7 | -9,694.9 | -149.6 | 9,693.2 | 0.00 | 0.00 | 0.00 |
| 21,100.0 | 89.60 | 179.48 | 12,132.4 | -9,794.9 | -148.7 | 9,793.2 | 0.00 | 0.00 | 0.00 |
| 21,200.0 | 89.60 | 179.48 | 12,133.1 | -9,894.9 | -147.8 | 9,893.2 | 0.00 | 0.00 | 0.00 |
| 21,300.0 | 89.60 | 179.48 | 12,133.8 | -9,994.9 | -146.9 | 9,993.2 | 0.00 | 0.00 | 0.00 |
| 21,400.0 | 89.60 | 179.48 | 12,134.5 | -10,094.9 | -145.9 | 10,093.2 | 0.00 | 0.00 | 0.00 |
| 21,500.0 | 89.60 | 179.48 | 12,135.2 | -10,194.9 | -145.0 | 10,193.2 | 0.00 | 0.00 | 0.00 |
| 21,600.0 | 89.60 | 179.48 | 12,135.9 | -10,294.9 | -144.1 | 10,293.2 | 0.00 | 0.00 | 0.00 |
| 21,700.0 | 89.60 | 179.48 | 12,136.6 | -10,394.9 | -143.2 | 10,393.2 | 0.00 | 0.00 | 0.00 |
| 21,800.0 | 89.60 | 179.48 | 12,137.3 | -10,494.9 | -142.3 | 10,493.1 | 0.00 | 0.00 | 0.00 |
| 21,900.0 | 89.60 | 179.48 | 12,138.0 | -10,594.9 | -141.4 | 10,593.1 | 0.00 | 0.00 | 0.00 |
| 22,000.0 | 89.60 | 179.48 | 12,138.7 | -10,694.9 | -140.5 | 10,693.1 | 0.00 | 0.00 | 0.00 |
| 22,100.0 | 89.60 | 179.48 | 12,139.4 | -10,794.9 | -139.6 | 10,793.1 | 0.00 | 0.00 | 0.00 |
| 22,200.0 | 89.60 | 179.48 | 12,140.0 | -10,894.8 | -138.7 | 10,893.1 | 0.00 | 0.00 | 0.00 |
| 22,300.0 | 89.60 | 179.48 | 12,140.7 | -10,994.8 | -137.8 | 10,993.1 | 0.00 | 0.00 | 0.00 |
| 22,383.2 | 89.60 | 179.48 | 12,141.3 | -11,078.0 | -137.0 | 11,076.3 | 0.00 | 0.00 | 0.00 |
| **TD at 22383.2** | | | | | | | | | |

**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 (Junior Mint Fed # | 0.00 | 0.00 | 12,064.0 | -627.0 | -232.0 | 415,084.00 | 844,702.00 | 32° 8' 14.461 N | 103° 21' 11.727 W |
| - plan misses target center by 202.2usft at 12027.3usft MD (11922.4 TVD, -762.9 N, -280.5 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| PBHL (Junior Mint Fec | 0.40 | 179.48 | 12,141.3 | -11,078.0 | -137.0 | 404,633.00 | 844,797.00 | 32° 6' 31.042 N | 103° 21' 11.728 W |
| - plan hits target center | | | | | | | | | |
| - Rectangle (sides W100.0 H10,451.0 D30.0) | | | | | | | | | |
| LTP (Junior Mint Fed # | 0.00 | 0.00 | 12,141.3 | -10,983.0 | -138.0 | 404,728.00 | 844,796.00 | 32° 6' 31.982 N | 103° 21' 11.730 W |
| - plan misses target center by 0.7usft at 22288.2usft MD (12140.7 TVD, -10983.0 N, -137.9 E) | | | | | | | | | |
| - Point | | | | | | | | | |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Junior Mint Fed #133H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3250.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3250.0usft |
| **Site:** | (Junior Mint Fed) Sec-15_T-25-S_R-35-E | **North Reference:** | Grid |
| **Well:** | Junior Mint Fed #133H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #1 | | |

**Formations**

| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 660.0 | 660.0 | Rustler Anhydrite | | | |
| 1,100.0 | 1,100.0 | Top Salt | | | |
| 4,965.6 | 4,920.0 | Base Salt | | | |
| 5,208.9 | 5,160.0 | Delaware Mountain Gp | | | |
| 5,213.9 | 5,165.0 | Lamar | | | |
| 5,234.1 | 5,185.0 | Bell Canyon | | | |
| 5,254.3 | 5,205.0 | Ramsey Sand | | | |
| 6,201.8 | 6,150.0 | Cherry Canyon | | | |
| 7,671.8 | 7,620.0 | Brushy Canyon | | | |
| 8,981.8 | 8,930.0 | Bone Spring Lime | | | |
| 9,006.8 | 8,955.0 | Upper Avalon | | | |
| 9,236.8 | 9,185.0 | Middle/Lower Avalon | | | |
| 10,216.8 | 10,165.0 | 1st Bone Spring Sand | | | |
| 10,381.8 | 10,330.0 | 2nd Bone Spring Carb | | | |
| 10,766.8 | 10,715.0 | 2nd Bone Spring Sand | | | |
| 11,316.8 | 11,265.0 | 3rd Bone Spring Carb | | | |
| 11,988.0 | 11,895.0 | 3rd Bone Spring Sand | | | |
| 20,760.8 | 12,130.0 | 3rd BS W Sand | | | |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 1,300.0 | 1,300.0 | 0.0 | 0.0 | NUDGE - Build 1.00 |
| 2,300.3 | 2,295.2 | -77.3 | -40.2 | HOLD - 2741.3 at 2300.3 MD |
| 5,041.5 | 4,994.8 | -499.7 | -259.8 | DROP - -1.00 |
| 6,041.8 | 5,990.0 | -577.0 | -300.0 | HOLD - 5509.0 at 6041.8 MD |
| 11,550.8 | 11,499.0 | -577.0 | -300.0 | KOP - Build 10.00 |
| 12,446.8 | 12,071.9 | -1,142.8 | -240.5 | EOC/TRN - DLS 2.00 TFO 90.02 |
| 12,720.7 | 12,073.9 | -1,416.2 | -225.0 | Start 9662.4 hold at 12720.7 MD |
| 22,383.2 | 12,141.3 | -11,078.0 | -137.0 | TD at 22383.2 |

# PECOS DISTRICT
# DRILLING CONDITIONS OF APPROVAL

| | |
|---|---|
| **OPERATOR'S NAME:** | Tap Rock Operating LLC |
| **WELL NAME & NO.:** | Junior Mint Fed 133H |
| **LOCATION:** | Sec 10-24S-35E-NMP |
| **COUNTY:** | Lea County, New Mexico |

COA

| | | | |
|---|---|---|---|
| H2S | ○ Yes | ◉ No | |
| Potash | ◉ None | ○ Secretary | ○ R-111-P |
| Cave/Karst Potential | ◉ Low | ○ Medium | ○ High |
| Cave/Karst Potential | ○ Critical | | |
| Variance | ○ None | ◉ Flex Hose | ○ Other |
| Wellhead | ○ Conventional | ◉ Multibowl | ○ Both |
| Other | ☐ 4 String Area | ☐ Capitan Reef | ☐ WIPP |
| Other | ☑ Fluid Filled | ☐ Cement Squeeze | ☐ Pilot Hole |
| Special Requirements | ☐ Water Disposal | ☐ COM | ☐ Unit |

## 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 Onshore Order 6 requirements, 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 **11-3/4** inch surface casing shall be set at approximately **710** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface. ***Surface casing set depth adjusted per BLM geologist.***

    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



 **Approval Date: 02/08/2023**

after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   - Cement should tie-back at least **300 feet** into previous casing string. Operator shall provide method of verification. ***Larger casing tie back due to failing to meet the 0.422 inch clearance requirement per OO2.III.B***

**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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 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 OOGO2.III.A.2.i must be followed.

# 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
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 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.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

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, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity 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 intergrity 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



 **Approval Date: 02/08/2023**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

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 OOGO2.III.A.2.i 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 Onshore Order 2 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 water basin (8 hours) or potash (24 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 Onshore Order No. 2.

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.



 **Approval Date: 02/08/2023**

Hydrogen Sulfide Drilling

Operations Plan

Tap Rock Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/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
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible
- Windsock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
    - Green Flag – Normal Safe Operation Condition
    - Yellow Flag – Potential Pressure and Danger
    - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See Drilling Operations Plan Schematics

6 Communication:

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

7 Drilling Stem Testing:

- No DST cores are planned at this time

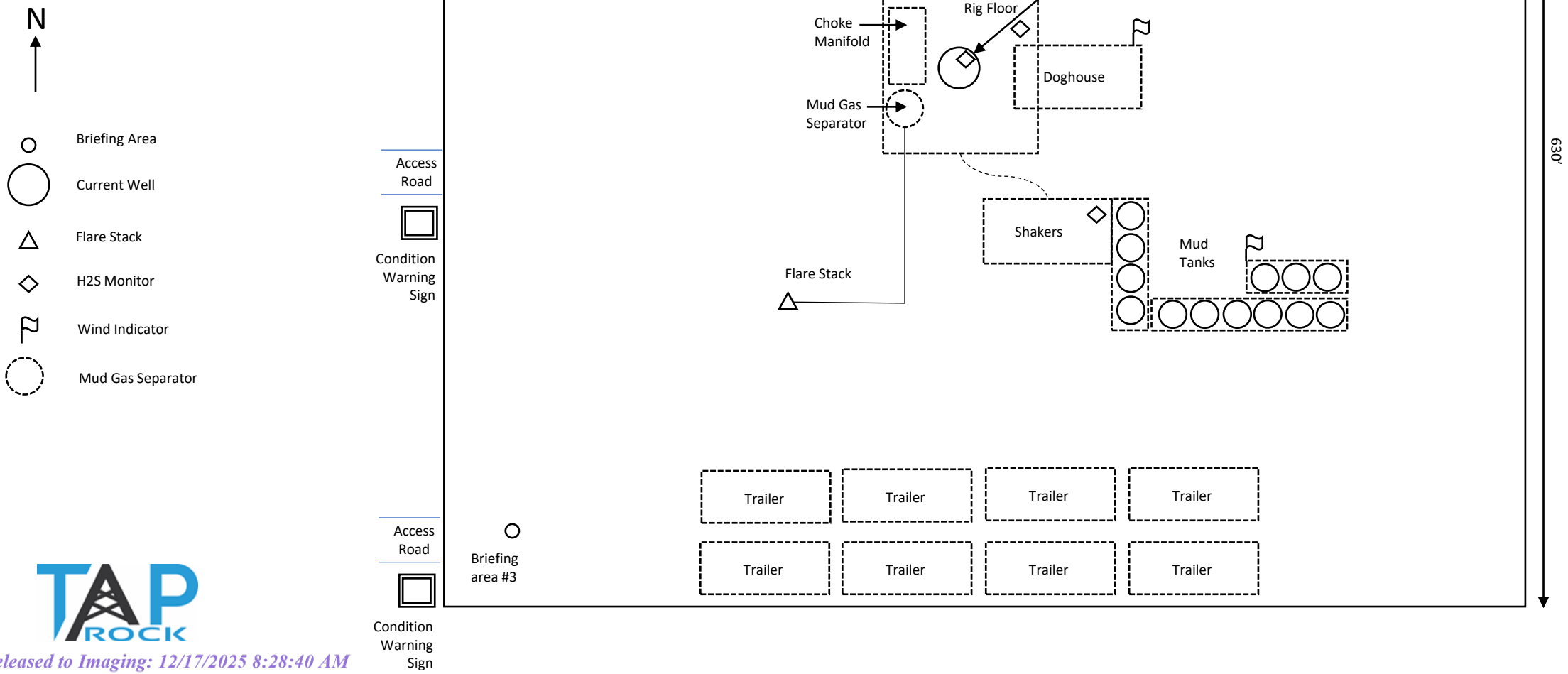
8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubulars good and other mechanical equipment

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary

11 Emergency Contacts

| Emergency Contacts | | |
|---|---|---|
| Carlsbad Police Department | 575.887.7551 | 911 |
| Carlsbad Medical Center | 575.887.4100 | 911 |
| Eddy County Fire Service | 575.628.5450 | 911 |
| Eddy County Sherriff | 575.887.7551 | 911 |
| Lea County Fire Service | 575.391.2983 | 911 |
| Lea County Sherriff | 575.396.3611 | 911 |
| Jal Police Department | 575.395.2121 | 911 |
| Jal Fire Department | 575.395.2221 | 911 |
| Tap Rock Resources | 720.772.5090 | |

Rig Diagram
Junior Mint Fed E2 Pad
Tap Rock Operating, LLC
10-25S-35E
Lea County, NM



# Tap Rock Operating LLC

**Junior Mint Fed E2 Pad**
**H2S Contingency Plan:**
**2 Mile Radius Map**

Sec. 10, Township 25S, Range 35E
Lea County, New Mexico

Well Pad Location

1:27,000

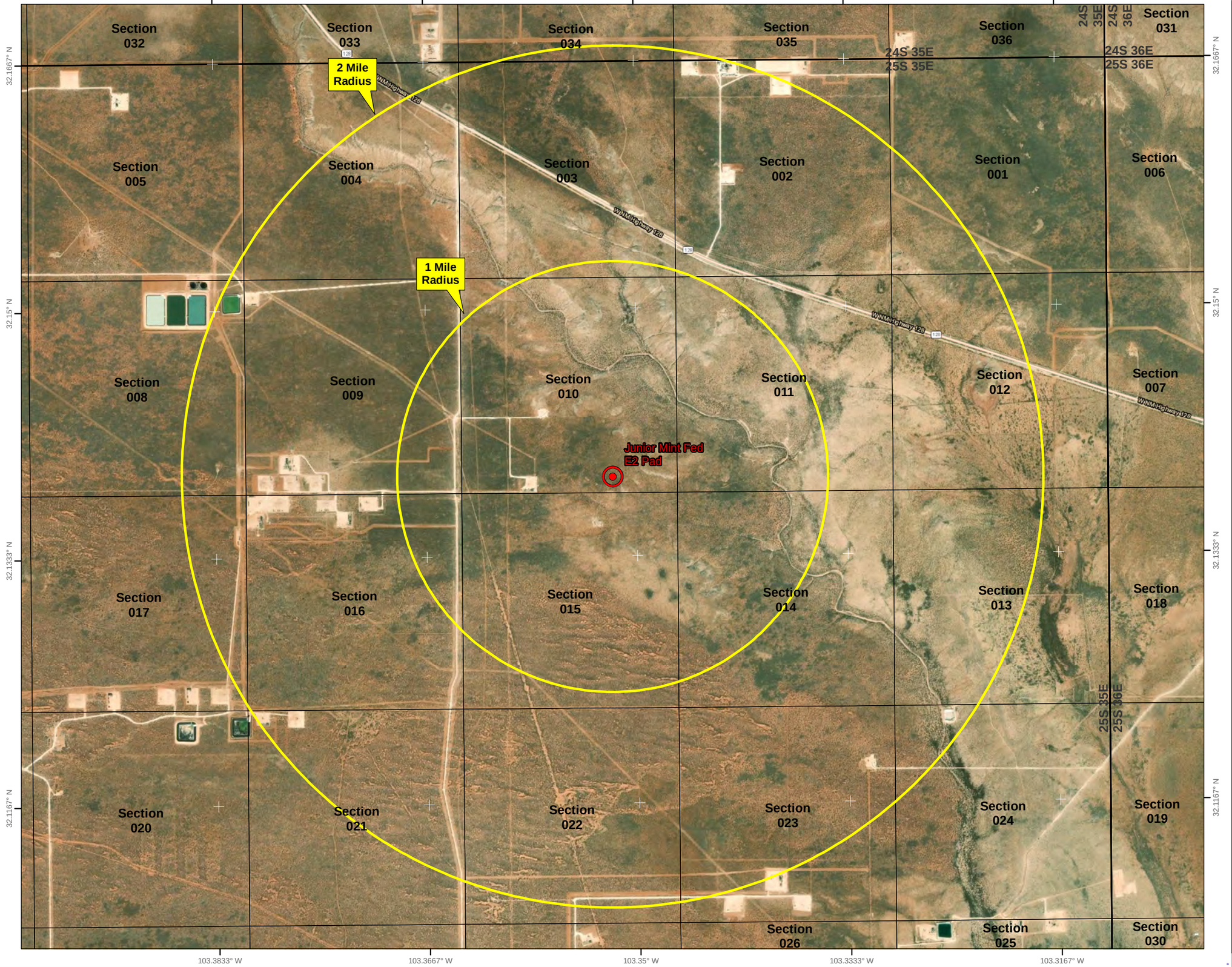
0 0.25 0.5 1
Miles

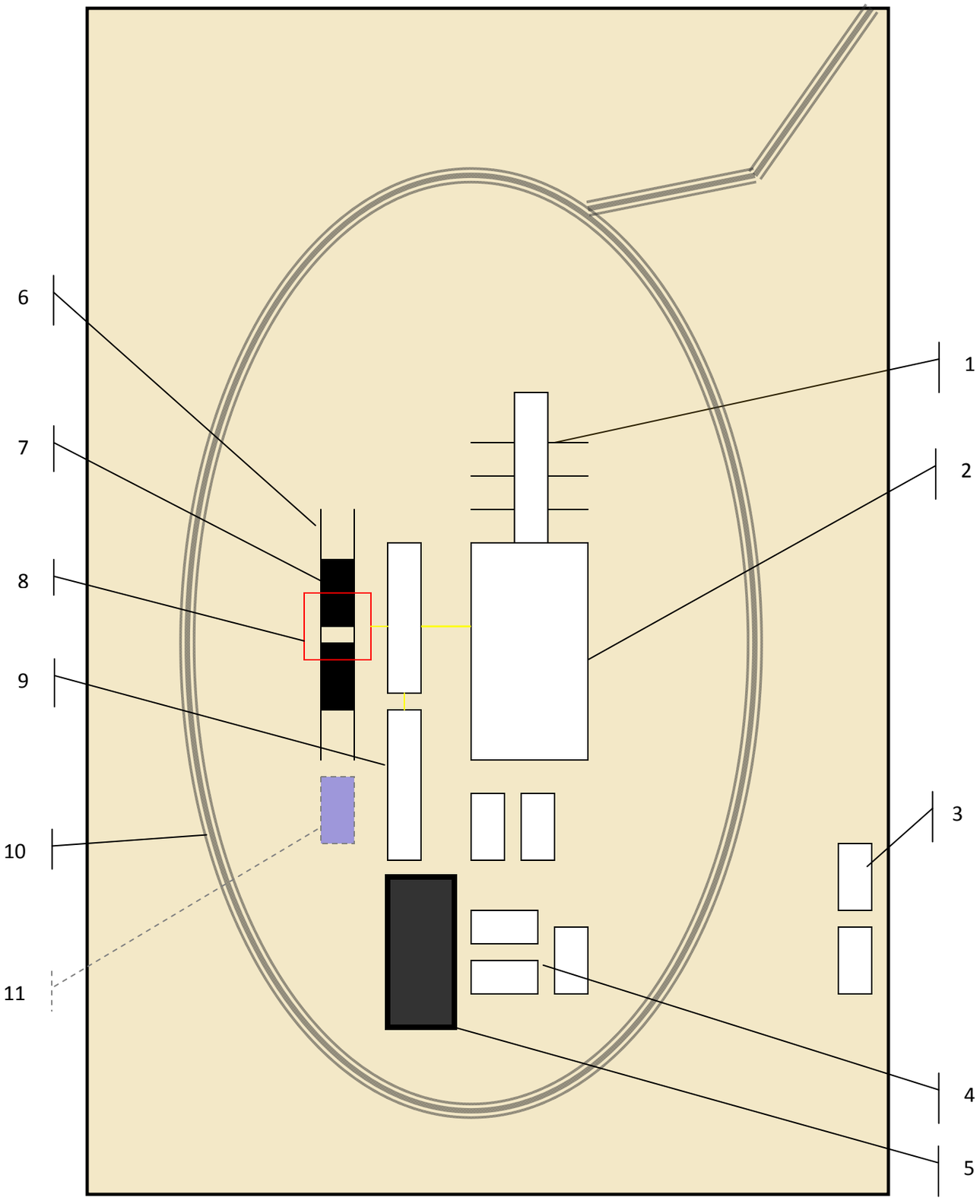
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 28, 2022
for Tap Rock Operating, LLC




## Schematic Closed Loop Drilling Rig*

1. **Pipe Rack**
2. **Drill Rig**
3. **House Trailers/ Offices**
4. **Generator/Fuel/Storage**
5. **Overflow-Frac Tank**
6. **Skids**
7. **Roll Offs**
8. **Hopper or Centrifuge**
9. **Mud Tanks**
10. **Loop Drive**
11. **Generator (only for use with centrifuge)**

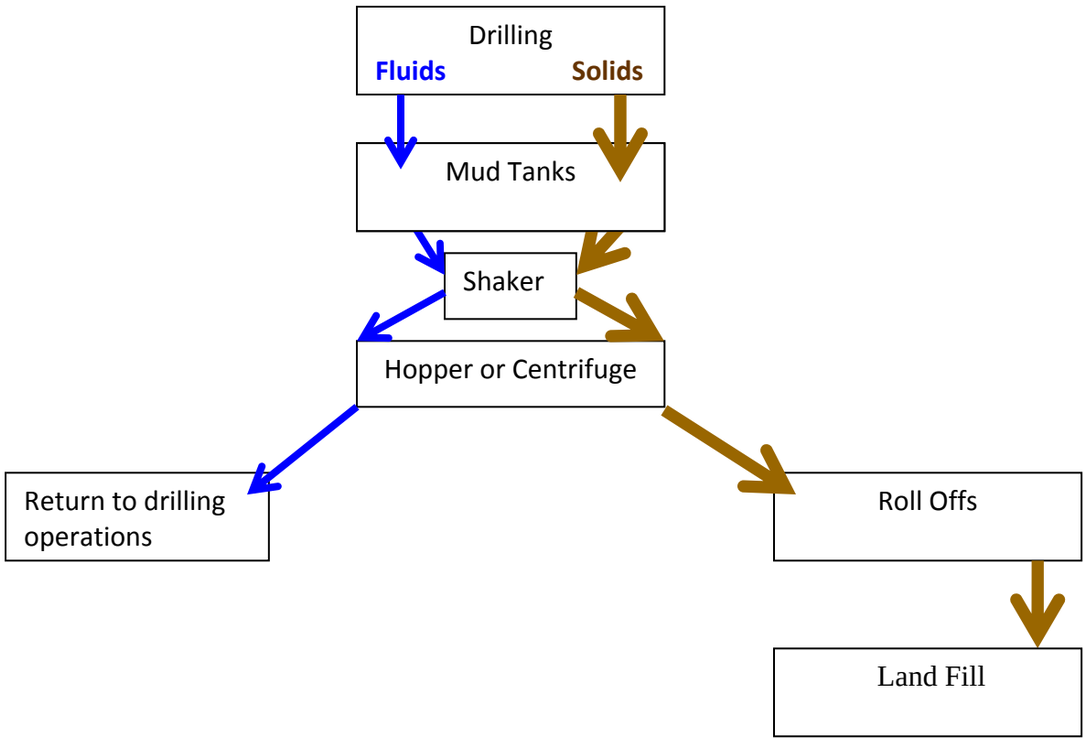
***Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available**

**Above: Centrifugal Closed Loop System**

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120


**Closed Loop Drilling System: Mud tanks to right (1)**
**Hopper in air to settle out solids (2)**
**Water return pipe (3)**
**Shaker between hopper and mud tanks (4)**
**Roll offs on skids (5)**

## Flow Chart for Drilling Fluids and Solids




**Photos Courtesy of Gandy Corporation Oil Field Service**

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

| | |
|---|---|
| Operator:<br>Civitas Permian Operating, LLC<br>555 17th Street<br>Denver, CO 80202 | OGRID:<br>332195 |
| | Action Number:<br>526678 |
| | Action Type:<br>[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. |

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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
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## CONDITIONS

| | |
|---|---|
| Operator:<br>Civitas Permian Operating, LLC<br>555 17th Street<br>Denver, CO 80202 | OGRID:<br>332195 |
| | Action Number:<br>526678 |
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**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| permitsw | Cement is required to circulate on both surface and intermediate1 strings of casing. | 11/14/2025 |
| matthew.gomez | If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing, if a CBL is unable to indicate sufficient cement coverage due to a lighter cement, a USI log may also be required. If strata isolation is not achieved, remediation will be required before further operations may commence. | 12/17/2025 |
| matthew.gomez | All conducted logs must be submitted to the OCD. | 12/17/2025 |
| matthew.gomez | Cement must be in place for at least eight hours and achieve a minimum compressive strength of 500 PSI before performing any further operations on the well. | 12/17/2025 |
| matthew.gomez | Administrative order required for non-standard spacing unit prior to production. | 12/17/2025 |
| matthew.gomez | Notify the OCD 24 hours prior to casing & cement. | 12/17/2025 |
| matthew.gomez | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string. | 12/17/2025 |
| matthew.gomez | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system. | 12/17/2025 |
| matthew.gomez | File As Drilled C-102 and a directional Survey with C-104 completion packet. | 12/17/2025 |