

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.

5. Lease Serial No.

NMNM101609

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

CIVITAS PERMIAN OPERATING LLC

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

3b. Phone No. (include area code)
(303) 293-100010. Field and Pool or Exploratory Area
Dogie Draw; Wolfcamp4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 15/T25S/R35E/NMP11. 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 recompleat 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 recompleation 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 requests the following changes to the previously approved surface hole location (SHL) and drill plan. Change SHL from 447 FNL & 1500 FWL, NENW, Sec. 15, T.25S, R.35E to 536 FNL & 1409 FWL, NENW, Sec. 15, T.25S, R.35E. Changes to the drill plan and other variance requests are detailed in the attached summary and supporting documents. Please see the attached revised C102 plat, directional plan, anticollision report, production casing spec sheets and wellhead diagram for additional information.

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

Title Permitting Agent

Signature (Electronic Submission)

Date 04/18/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

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

Title Petroleum Engineer

Date 05/27/2025

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)

Additional Information

Location of Well

0. SHL: NENW / 447 FNL / 1500 FWL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1364087 / LONG: -103.3590891 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 177 FNL / 693 FWL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1371479 / LONG: -103.3616951 (TVD: 12635 feet, MD: 12741 feet)

BHL: SWSW / 5 FSL / 660 FWL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.1086285 / LONG: -103.3618169 (TVD: 12942 feet, MD: 23194 feet)

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-54742	Pool Code 17980	Pool Name DOGIE DRAW; WOLFCAMP
Property Code 337333	Property Name JUNIOR MINT FED	Well Number 221H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3221'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no. C	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 536' N	Feet from the E/W 1409' W	Latitude N 32.1361636	Longitude W 103.3593825	County LEA
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Bottom Hole Location

UL or lot no. M	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 5' S	Feet from the E/W 660' W	Latitude N 32.1086285	Longitude W 103.3618169	County LEA
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Dedicated Acres 1280.00	Infill or Defining Well Infill	Defining Well API - 30-025-54740	Overlapping Spacing Unit (Y/N) No	Consolidated Code N/A -
Order Numbers N/A			Well Setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no. D	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 660' W	Latitude N 32.1373663	Longitude W 103.3618024	County LEA
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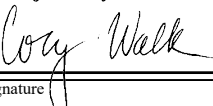
First Take Point (FTP)

UL or lot no. D	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 660' W	Latitude N 32.1373663	Longitude W 103.3618024	County LEA
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Last Take Point (LTP)

UL or lot no. M	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' S	Feet from the E/W 660' W	Latitude N 32.1088897	Longitude W 103.3618163	County LEA
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Unitized Area or Area of Uniform Intrest -	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation -
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OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  4-16-25		SURVEYORS CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>  2/6/2025 4:32:06 PM	
Signature Cory Walk		Signature and Seal of Professional Surveyor	
Date 4-16-25		Date 2/6/2025 4:32:06 PM	
Print Name cory@permitswest.com		Certificate Number	Date of Survey 01/30/2025
E-mail Address			

C-102

Submit Electronically
Via OCD PermittingState 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 221H

SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=842810 Y=414635
LAT.: N 32.1361636
LONG.: W 103.3593825
NAD 1927
X=801623 Y=414577
LAT.: N 32.1360373
LONG.: W 103.3589174
536' FNL 1409' FWL

KICK OFF POINT (KOP)
FIRST TAKE POINT (FTP)

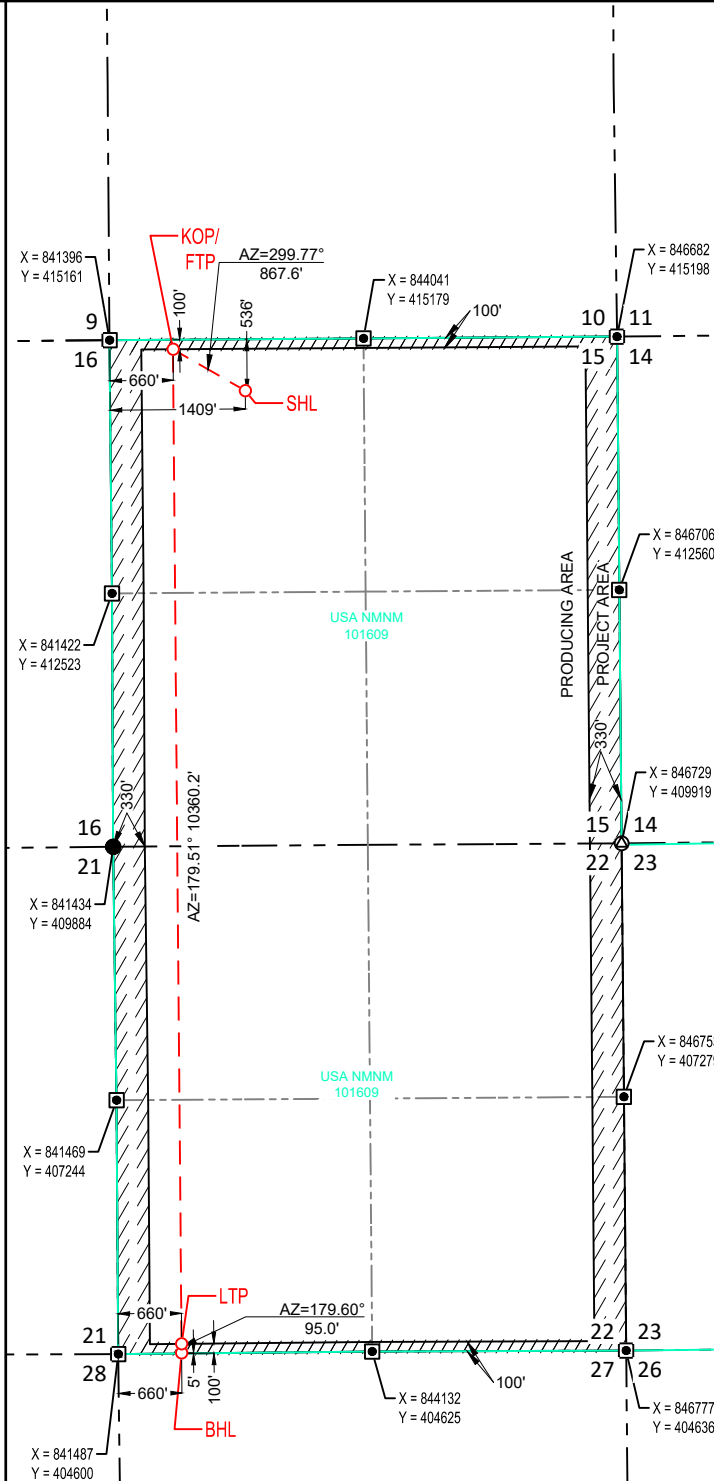
NEW MEXICO EAST
NAD 1983
X=842057 Y=415066
LAT.: N 32.1373663
LONG.: W 103.3618024
NAD 1927
X=800870 Y=415008
LAT.: N 32.1372400
LONG.: W 103.3613372
100' FNL 660' FWL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
NAD 1983
X=842146 Y=404706
LAT.: N 32.1088897
LONG.: W 103.3618163
NAD 1927
X=800959 Y=404648
LAT.: N 32.1087632
LONG.: W 103.3613526
100' FSL 660' FWL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
NAD 1983
X=842147 Y=404611
LAT.: N 32.1086285
LONG.: W 103.3618169
NAD 1927
X=800960 Y=404553
LAT.: N 32.1085021
LONG.: W 103.3613533
5' FSL 660' FWL



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.

01/30/2025

Date of Survey

Signature and Seal of Professional Surveyor:



2/6/2025 4:32:10 PM



Junior Mint Sundry Summary

4/3/2025

Civitas Resources is requesting sundries/variances for the upcoming Junior Mint drilling campaigns.

1. Cement Volumes and Design: Civitas Resources requests to sundry cement volumes to the following strings with comments noted below:

- Intermediate Cement: for all Junior Mint wells with deepset 7 5/8" intermediate strings, the following items are updated in the cement table:
 - i. Intermediate Lead/Tail Volumes: based of offset TapRock wells drilled in the previous two years, the lead and tail cement volumes are increased to improve assurance of cement to surface.
 - ii. Intermediate Yield: The lead cement yield for the 10.5 ppg slurry is updated to reflect recent labs from cement providers.
 - iii. Intermediate Contingency for no returns and/or lack of cement to surface: the goal is to ensure quality cement from shoe to surface
 - 1. No Returns at TD of 9 7/8" Hole: Civitas Resources requests to pump an intentional 2-stage cement job where stage 1 would be pumped to the mid/base of the Brushy Canyon and stage 2 would be pumped as a standard bradenhead squeeze to the mid/base of Brushy Canyon, thus cementing the entire string. To verify the TOC of stage 2, and Echo-meter will be used

Stage 1 Cement Details (conventional):
Single slurry: 15.6 ppg cement, Class H, Yield: 1.18 cuft/sk, 25% xs DBE Emulsion Spacer (weighted)

Stage 2 Cement Details (bradenhead):
Lead: 14.8 ppg, Class C Thixotropic + LCM, Yield: 1.44 cuft/sk, 100% xs DBE Spacer (weighted)

Tail: 14.8 ppg, Class C Thixotropic, Yield: 1.44 cuft/sk, 100% xs, shoot temp survey to determine TOC

Top Out (if necessary): 14.8 Class C Neat, Yield: 1.33 cuft/sk; if required, Civitas Resources will request BLM approval to top out after running a temp survey and report back to BLM the amount of volume to flush cement lines to wellhead.
- 2. No Cement to Surface 7 5/8" cement Job: Civitas Resources requests to pump an intentional 2-stage cement job where stage 1 would be pumped to the



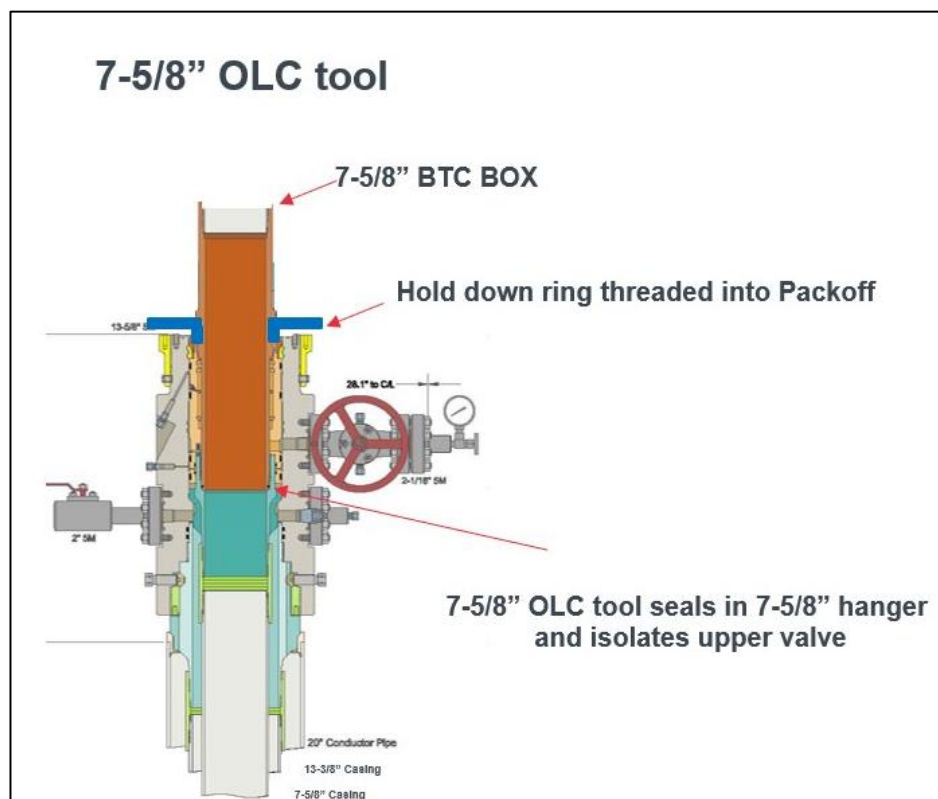
mid/base of the Brushy Canyon and stage 2 would be pumped as a standard bradenhead squeeze to the mid/base of Brushy Canyon (as described above), thus cementing the entire string. To verify the TOC of stage 2, and Echo-meter will be used and with BLM approval, top out the job as needed.

- Production Cement: the production tail volume has been increased from 200' to 500' to improve the overlap between intermediate and production casing



2. **Offline Cementing Intermediate Casing Only:** In addition to the batch drilling variance submitted in the original APD, Civitas Resources requests a variance for the option to offline cement intermediate casing strings set higher than the top of the WCA during the Junior Mint drilling campaign. To execute offline cement jobs safely, the following precautions and equipment are detailed below:

- During the drilling of the 9 7/8" and 10 5/8" hole sections (all 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).





3. **BOPE Testing Procedure for Batch Drilling:** Civitas Resources requests a variance to adjust the BOPE testing procedure to accommodate batch drilling. Details of the request are below:
- In lieu of a full BOP test during batch intermediate drilling operations, Civitas Resources requests to "Break-Test" or only test BOP connection breaks that are separated during skids between intermediate casing strings set above 5M BOPE thresholds/Wolfcamp A top. Industry standards are adhered to in terms of timing of breaks as noted in API Standard 53 which will include test charts during each skid for the following: Top Pipe Rams or VBRs, HCR, Downstream Kill Line, QDC Adapter – wellhead quick connect, and the body/shell of the BOP stack to 5M for 10 minutes.
 - Depending on the length and position of the next batch drilled intermediate hole section, the flex hose that connects to the choke manifold might have to be broken out, at which point the break will also be tested. This is not expected with Civitas Resources' rig fleet but could occur.
 - All "Break Test" BOPE operations will follow a 14-day limit, such that, Civitas Resources can have a 7-day buffer to execute a full test as per Onshore Order 43 CFR 3172 (21-day limit).
 - After completion of batch drilling operations for all intermediate hole sections above the WCA, the BOP tests will follow Onshore Order 43 CFR 3172
 - In the event any part of the BOPE equipment is changed or fails a test, a full test BOPE test will be performed. If the "Break Test" is not performed during the proper timing interval, a full BOPE test will take place.
 - The BLM will be contacted in the event a well control event is encountered.
 - During all "Break Test" or full BOPE tests, the BLM will be notified 4 hours before the test.
 - Before drilling out intermediate shoes and commencing production hole drilling, a full BOP test will be performed for all targets requiring a 10M BOPE pressure test; this test will override a previous 14 day "Break Test" interval.
4. **Centralizer Variance:** Due to the design of the intermediate casing strings on the Third Bone Spring Sand, WCA, and WCB intervals on the Junior Mint development (11 3/4" x 7 5/8" x 5 1/2" casing design), a variance to waive the centralizers is requested due to the tight clearance between 6 3/4" hole and 5 1/2" casing and the risk of not getting casing to bottom.



- Junior Mint Fed 221, WCB Target

Estimated Tops:

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler	660	660	Salt	Salt
Top Salt	1,100	1,100	Salt	Salt
Base Salt	4,920	4,925	Salt	Salt
DMG	5,160	5,171	Sandstone	None
Lamar	5,165	5,176	Sandstone	Hydrocarbons
Bell Canyon	5,185	5,255	Sandstone	Hydrocarbons
Ramsey Sand	5,205	5,275	Sandstone	Hydrocarbons
Cherry Canyon	6,150	6,226	Limestone	Hydrocarbons
Brushy Canyon	7,620	7,696	Sandstone	Hydrocarbons
Bone Spring Lime	8,930	9,006	Carbonate	Hydrocarbons
Upper Avalon	8,955	9,031	Carbonate	Hydrocarbons
Middle Avalon	9,185	9,261	Carbonate	Hydrocarbons
1st BS Sand	10,165	10,241	Sandstone	Hydrocarbons
2nd BS Carb	10,330	10,406	Carbonate	Hydrocarbons
2nd BS Sand	10,715	10,791	Sandstone	Hydrocarbons
3rd BS Carb	11,265	11,341	Carbonate	Hydrocarbons
3rd BS Sand	11,895	11,971	Sandstone	Hydrocarbons
Wolfcamp A	12,210	12,286	Sandstone	Hydrocarbons
Wolfcamp B	12,635	12,711	Sandstone	Hydrocarbons
KOP	12282	12357	Carbonate	Hydrocarbons
TD	12942	23193	Carbonate	Hydrocarbons

Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	14 3/4	0	1,075	11 3/4	API	No	0	1,075	0	1,075	J-55	47	BTC	1.13	1.15	1.6
1st Intermediate	9 7/8	1,075	12,257	7 5/8	API	No	0	12,257	0	12,082	P-110	29.7	BTC	1.13	1.15	1.6
Production	6 3/4	12,257	12,357	5 1/2	NON API	No	0	12,357	0	12,282	P110RYS	23	Talon	1.13	1.15	1.6
	6 3/4	12,357	23,193	5 1/2	NON API	No	12,357	23,193	12,282	12,942	P110RY	23	Talon	1.13	1.15	1.6

Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	391	1.72	672	13.5	100%	C	Additives + LCM
	Tail	775	196	1.33	260	14.8	100%	C	Additives + LCM
Intermediate	Lead	0	1105	4.29	4742	10.5	200%	C	Contingency Bradenhead Squeeze, LCM Lead
	Tail	11257	129	1.67	215	13.2	100%	C	Additives + LCM
Production	Tail	11757	924	1.24	1146	13.2	20%	H	Fluid Loss + Dispersant + Retarder + LCM

Mud Program:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1,075	FW Spud Mud	8.40	28	NC
1st Intermediate	1,075	12,257	DBE	9.20	27-30	NC
Production	12,257	23,193	OBM	12.50	55-65	<16



U. S. Steel Tubular Products

2/25/2025 2:43:45 PM

5.500" 23.00lb/ft (0.415" Wall) P110 RY USS-TALON HTQ™ RD



MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	6.630	6.425	sq. in.	--
Joint Efficiency	--	96.9	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	14,540	14,540	psi	--
Minimum Internal Yield Pressure	14,520	14,520	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	707,000	lb	--
Compression Rating	--	707,000	lb	--
Reference Length	--	20,490	ft	[5]
Maximum Uniaxial Bend Rating	--	88.9	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	20,800	ft-lb	[4]
Maximum Make-Up Torque	--	23,800	ft-lb	[4]
Maximum Operating Torque	--	39,800	ft-lb	[4]

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Notes

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

Legal Notice

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connections@uss.com
www.usstubular.com



U. S. Steel Tubular Products

2/25/2025 2:25:12 PM

5.500" 23.00lb/ft (0.415" Wall) USS RYS110 USS-TALON HTQ™ RD



MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	120,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	6.630	6.425	sq. in.	--
Joint Efficiency	--	96.9	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	14,540	14,540	psi	--
Minimum Internal Yield Pressure	14,520	14,520	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	707,000	lb	--
Compression Rating	--	707,000	lb	--
Reference Length	--	20,490	ft	[5]
Maximum Uniaxial Bend Rating	--	88.9	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	20,800	ft-lb	[4]
Maximum Make-Up Torque	--	23,800	ft-lb	[4]
Maximum Operating Torque	--	39,800	ft-lb	[4]

UNCONTROLLED

Notes

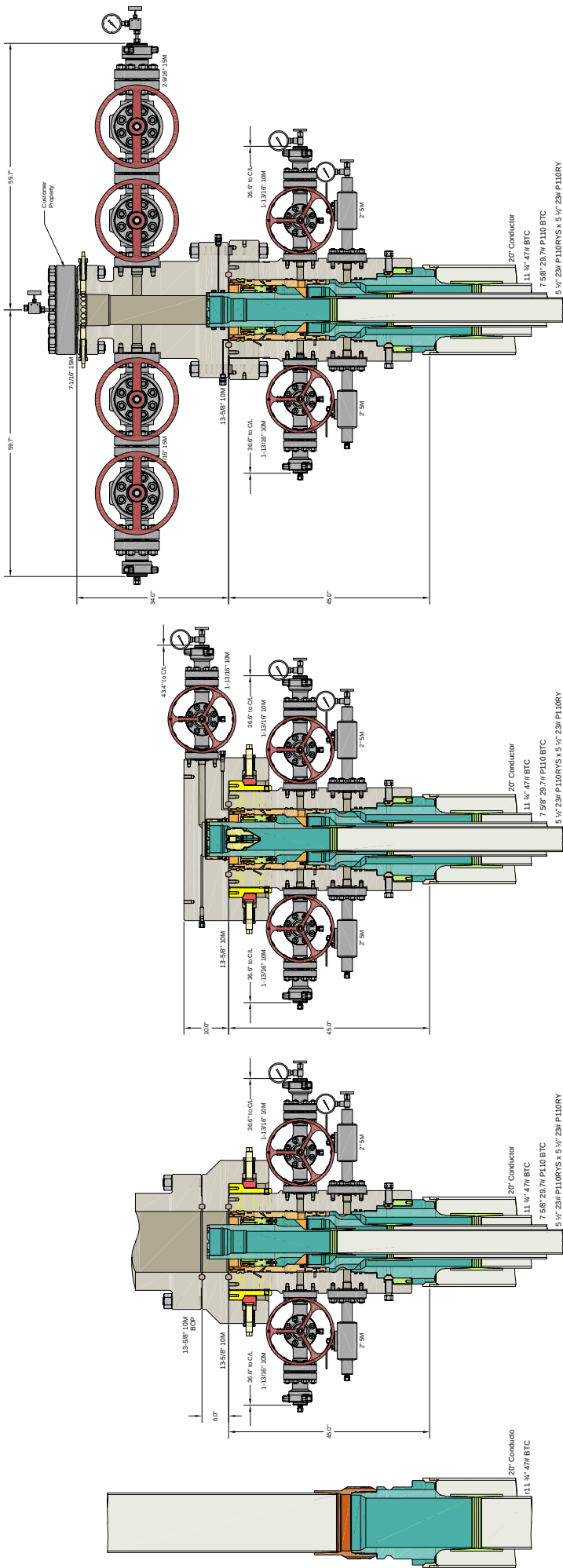
- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CIVITAS RESOURCES
DELAWARE BASIN

20" x 11-3/4" x 7-5/8" x 5-1/2" MBU-3T-SF Wellhead System
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head
And Quick Connect Drill Adapter & Quick Connect TA Cap

DRAWN
APPR
DRAWING NO.
VJK
13FEB22
REF: HBE0001444

Project: Lea County, NM (NAD 83)
Site: Junior Mint Fed Pad
Well: Junior Mint Fed 221H
Wellbore: OH
Design: Plan 1
Rig: 26' KB



Azimuths to Grid North
True North: -0.52°
Magnetic North: 5.55°

Magnetic Field
Strength: 47068.1nT
Dip Angle: 59.57°
Date: 7/15/2025
Model: HDGM2025

Total Magnetic Correction: 5.55°

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 + 26 @ 3247.00usft (26' KB)

SHL

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

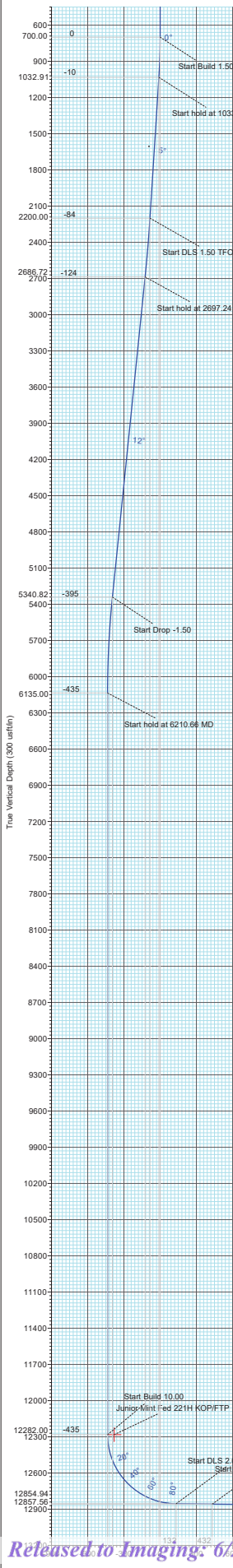
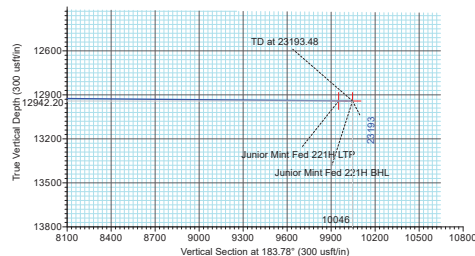
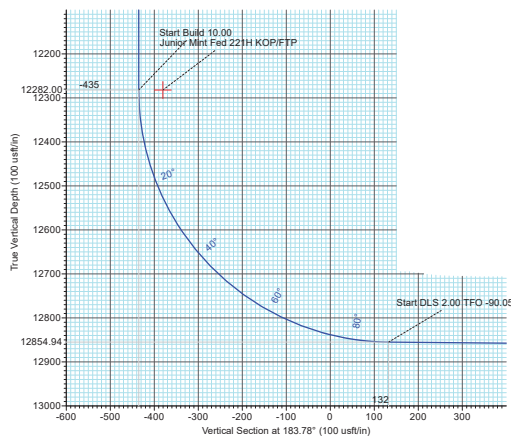
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	414635.00	842810.00	32.1361633	-103.3593824	

SECTION DETAILS

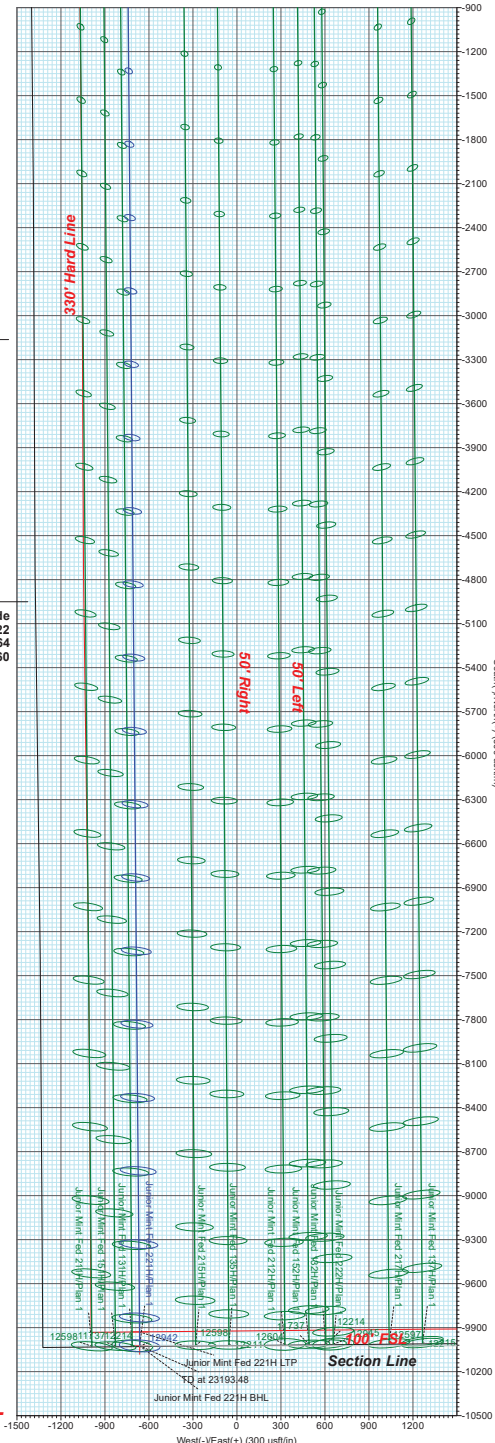
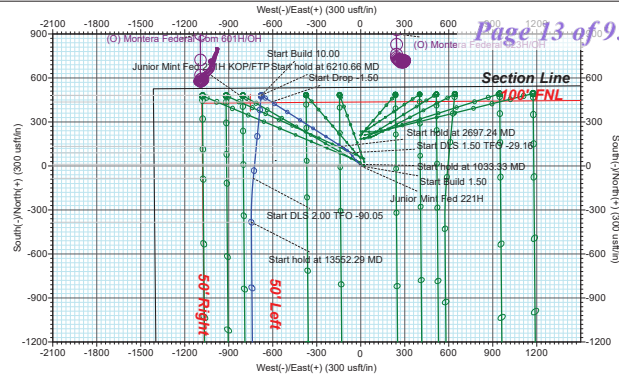
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1033.33	5.00	320.00	1032.91	11.13	-9.34	1.50	320.00	-10.49	
2204.88	5.00	320.00	2200.00	89.35	-74.98	0.00	0.00	-84.22	
2697.24	12.00	302.47	2686.72	133.33	-132.03	1.50	-29.16	-124.33	
5410.64	12.00	302.47	5340.82	436.19	-608.00	0.00	0.00	-395.16	
6210.66	0.00	0.00	6135.00	481.00	-678.43	1.50	180.00	-435.23	
12357.66	0.00	0.00	12282.00	481.00	-678.43	0.00	0.00	-435.23	
13252.66	89.50	185.50	12854.94	-84.34	-732.87	10.00	185.50	132.47	
13552.29	89.50	179.51	12857.56	-383.55	-745.95	2.00	-90.05	431.89	
23193.48	89.50	179.51	12942.20	-10024.00	-663.00	0.00	0.00	10045.90	

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Junior Mint Fed 221H KOP/FTP	12282.00	431.00	-753.00	415066.00	842057.00	32.1373667	-103.3618022
Junior Mint Fed 221H LTP	12941.70	-9929.00	-664.00	404706.00	842146.00	32.1088894	-103.3618164
Junior Mint Fed 221H BHL	12942.20	-10024.00	-663.00	404611.00	842147.00	32.1086283	-103.3618160



Do Not Cross SL



Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 221H

OH

Plan: Plan 1



Standard Plan Report

25 March, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

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

Site	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 221H					
Well Position	+N/-S	0.00 usft	Northing:	414,635.00 usft	Latitude:	32.1361634
	+E/-W	0.00 usft	Easting:	842,810.00 usft	Longitude:	-103.3593824
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	7/15/2025	6.07	59.57	47,068.10000000

Design	Plan 1				
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	183.78	

Survey Tool Program	Date	3/24/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	23,193.15	Plan 1 (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 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
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	320.00	1,032.91	11.13	-9.34	1.50	1.50	0.00	320.00	
2,204.88	5.00	320.00	2,200.00	89.35	-74.98	0.00	0.00	0.00	0.00	
2,697.24	12.00	302.47	2,686.72	133.33	-132.03	1.50	1.42	-3.56	-29.16	
5,410.64	12.00	302.47	5,340.82	436.19	-608.00	0.00	0.00	0.00	0.00	
6,210.66	0.00	0.00	6,135.00	481.00	-678.43	1.50	-1.50	0.00	180.00	
12,357.66	0.00	0.00	12,282.00	481.00	-678.43	0.00	0.00	0.00	0.00	
13,252.66	89.50	185.50	12,854.94	-84.34	-732.87	10.00	10.00	0.00	185.50	
13,552.29	89.50	179.51	12,857.56	-383.55	-745.95	2.00	0.00	-2.00	-90.05	
23,193.48	89.50	179.51	12,942.20	-10,024.00	-663.00	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
0.00	0.00	0.00	0.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.00	0.00	0.00
800.00	1.50	320.00	799.99	1.00	-0.84	414,636.00	842,809.16	32.1361661	-103.3593850	-0.95	1.50	1.50	0.00
900.00	3.00	320.00	899.91	4.01	-3.36	414,639.01	842,806.64	32.1361745	-103.3593931	-3.78	1.50	1.50	0.00
1,000.00	4.50	320.00	999.69	9.02	-7.57	414,644.02	842,802.43	32.1361883	-103.3594065	-8.50	1.50	1.50	0.00
1,033.33	5.00	320.00	1,032.91	11.13	-9.34	414,646.13	842,800.66	32.1361942	-103.3594122	-10.49	1.50	1.50	0.00
1,100.00	5.00	320.00	1,099.32	15.59	-13.08	414,650.59	842,796.92	32.1362065	-103.3594241	-14.69	0.00	0.00	0.00
1,200.00	5.00	320.00	1,198.94	22.26	-18.68	414,657.26	842,791.32	32.1362250	-103.3594420	-20.98	0.00	0.00	0.00
1,300.00	5.00	320.00	1,298.56	28.94	-24.28	414,663.94	842,785.72	32.1362435	-103.3594599	-27.27	0.00	0.00	0.00
1,400.00	5.00	320.00	1,398.18	35.62	-29.88	414,670.62	842,780.12	32.1362620	-103.3594778	-33.57	0.00	0.00	0.00
1,500.00	5.00	320.00	1,497.80	42.29	-35.49	414,677.29	842,774.51	32.1362805	-103.3594957	-39.86	0.00	0.00	0.00
1,600.00	5.00	320.00	1,597.42	48.97	-41.09	414,683.97	842,768.91	32.1362990	-103.3595136	-46.15	0.00	0.00	0.00
1,700.00	5.00	320.00	1,697.04	55.64	-46.69	414,690.64	842,763.31	32.1363175	-103.3595316	-52.45	0.00	0.00	0.00
1,800.00	5.00	320.00	1,796.66	62.32	-52.29	414,697.32	842,757.71	32.1363360	-103.3595495	-58.74	0.00	0.00	0.00
1,900.00	5.00	320.00	1,896.28	69.00	-57.90	414,704.00	842,752.10	32.1363544	-103.3595674	-65.03	0.00	0.00	0.00
2,000.00	5.00	320.00	1,995.90	75.67	-63.50	414,710.67	842,746.50	32.1363729	-103.3595853	-71.32	0.00	0.00	0.00
2,100.00	5.00	320.00	2,095.52	82.35	-69.10	414,717.35	842,740.90	32.1363914	-103.3596032	-77.62	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Dogleg Section (usft)	Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,204.88	5.00	320.00	2,200.00	89.35	-74.98	414,724.35	842,735.02	32.1364108	-103.3596219	-84.22	0.00	0.00	0.00
2,300.00	6.28	313.64	2,294.66	96.12	-81.41	414,731.12	842,728.59	32.1364296	-103.3596425	-90.55	1.50	1.35	-6.69
2,400.00	7.69	309.28	2,393.91	104.13	-90.55	414,739.13	842,719.45	32.1364518	-103.3596718	-97.94	1.50	1.40	-4.35
2,500.00	9.12	306.28	2,492.84	113.06	-102.12	414,748.06	842,707.88	32.1364767	-103.3597089	-106.08	1.50	1.43	-3.00
2,600.00	10.58	304.09	2,591.36	122.90	-116.11	414,757.90	842,693.89	32.1365040	-103.3597538	-114.98	1.50	1.45	-2.19
2,697.24	12.00	302.47	2,686.72	133.33	-132.03	414,768.33	842,677.97	32.1365331	-103.3598049	-124.33	1.50	1.46	-1.67
2,700.00	12.00	302.47	2,689.42	133.64	-132.51	414,768.64	842,677.49	32.1365340	-103.3598065	-124.61	0.00	0.00	0.00
2,800.00	12.00	302.47	2,787.23	144.80	-150.06	414,779.80	842,659.94	32.1365651	-103.3598628	-134.59	0.00	0.00	0.00
2,900.00	12.00	302.47	2,885.05	155.96	-167.60	414,790.96	842,642.40	32.1365962	-103.3599192	-144.57	0.00	0.00	0.00
3,000.00	12.00	302.47	2,982.86	167.12	-185.14	414,802.12	842,624.86	32.1366273	-103.3599755	-154.55	0.00	0.00	0.00
3,100.00	12.00	302.47	3,080.67	178.28	-202.68	414,813.28	842,607.32	32.1366584	-103.3600319	-164.53	0.00	0.00	0.00
3,200.00	12.00	302.47	3,178.49	189.44	-220.22	414,824.44	842,589.78	32.1366895	-103.3600882	-174.51	0.00	0.00	0.00
3,300.00	12.00	302.47	3,276.30	200.61	-237.76	414,835.61	842,572.24	32.1367206	-103.3601445	-184.49	0.00	0.00	0.00
3,400.00	12.00	302.47	3,374.12	211.77	-255.31	414,846.77	842,554.69	32.1367518	-103.3602009	-194.48	0.00	0.00	0.00
3,500.00	12.00	302.47	3,471.93	222.93	-272.85	414,857.93	842,537.15	32.1367829	-103.3602572	-204.46	0.00	0.00	0.00
3,600.00	12.00	302.47	3,569.75	234.09	-290.39	414,869.09	842,519.61	32.1368140	-103.3603135	-214.44	0.00	0.00	0.00
3,700.00	12.00	302.47	3,667.56	245.25	-307.93	414,880.25	842,502.07	32.1368451	-103.3603699	-224.42	0.00	0.00	0.00
3,800.00	12.00	302.47	3,765.38	256.41	-325.47	414,891.41	842,484.53	32.1368762	-103.3604262	-234.40	0.00	0.00	0.00
3,900.00	12.00	302.47	3,863.19	267.58	-343.01	414,902.58	842,466.99	32.1369073	-103.3604826	-244.38	0.00	0.00	0.00
4,000.00	12.00	302.47	3,961.01	278.74	-360.56	414,913.74	842,449.44	32.1369384	-103.3605389	-254.36	0.00	0.00	0.00
4,100.00	12.00	302.47	4,058.82	289.90	-378.10	414,924.90	842,431.90	32.1369696	-103.3605952	-264.34	0.00	0.00	0.00
4,200.00	12.00	302.47	4,156.64	301.06	-395.64	414,936.06	842,414.36	32.1370007	-103.3606516	-274.32	0.00	0.00	0.00
4,300.00	12.00	302.47	4,254.45	312.22	-413.18	414,947.22	842,396.82	32.1370318	-103.3607079	-284.30	0.00	0.00	0.00
4,400.00	12.00	302.47	4,352.27	323.38	-430.72	414,958.38	842,379.28	32.1370629	-103.3607643	-294.29	0.00	0.00	0.00
4,500.00	12.00	302.47	4,450.08	334.55	-448.26	414,969.55	842,361.74	32.1370940	-103.3608206	-304.27	0.00	0.00	0.00
4,600.00	12.00	302.47	4,547.89	345.71	-465.81	414,980.71	842,344.19	32.1371251	-103.3608769	-314.25	0.00	0.00	0.00
4,700.00	12.00	302.47	4,645.71	356.87	-483.35	414,991.87	842,326.65	32.1371562	-103.3609333	-324.23	0.00	0.00	0.00
4,800.00	12.00	302.47	4,743.52	368.03	-500.89	415,003.03	842,309.11	32.1371874	-103.3609896	-334.21	0.00	0.00	0.00
4,900.00	12.00	302.47	4,841.34	379.19	-518.43	415,014.19	842,291.57	32.1372185	-103.3610459	-344.19	0.00	0.00	0.00
5,000.00	12.00	302.47	4,939.15	390.35	-535.97	415,025.35	842,274.03	32.1372496	-103.3611023	-354.17	0.00	0.00	0.00
5,100.00	12.00	302.47	5,036.97	401.52	-553.51	415,036.52	842,256.49	32.1372807	-103.3611586	-364.15	0.00	0.00	0.00
5,200.00	12.00	302.47	5,134.78	412.68	-571.05	415,047.68	842,238.95	32.1373118	-103.3612150	-374.13	0.00	0.00	0.00
5,300.00	12.00	302.47	5,232.60	423.84	-588.60	415,058.84	842,221.40	32.1373429	-103.3612713	-384.11	0.00	0.00	0.00
5,400.00	12.00	302.47	5,330.41	435.00	-606.14	415,070.00	842,203.86	32.1373740	-103.3613276	-394.09	0.00	0.00	0.00
5,410.64	12.00	302.47	5,340.82	436.19	-608.00	415,071.19	842,202.00	32.1373773	-103.3613336	-395.16	0.00	0.00	0.00
5,500.00	10.66	302.47	5,428.44	445.61	-622.82	415,080.61	842,187.18	32.1374036	-103.3613812	-403.58	1.50	-1.50	0.00
5,600.00	9.16	302.47	5,526.94	454.85	-637.34	415,089.85	842,172.66	32.1374294	-103.3614278	-411.85	1.50	-1.50	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,700.00	7.66	302.47	5,625.86	462.70	-649.67	415,097.70	842,160.33	32.1374513	-103.3614675	-418.87	1.50	-1.50	0.00
5,800.00	6.16	302.47	5,725.13	469.16	-659.82	415,104.16	842,150.18	32.1374693	-103.3615001	-424.64	1.50	-1.50	0.00
5,900.00	4.66	302.47	5,824.69	474.22	-667.78	415,109.22	842,142.22	32.1374834	-103.3615256	-429.17	1.50	-1.50	0.00
6,000.00	3.16	302.47	5,924.45	477.88	-673.53	415,112.88	842,136.47	32.1374936	-103.3615441	-432.44	1.50	-1.50	0.00
6,100.00	1.66	302.47	6,024.36	480.14	-677.08	415,115.14	842,132.92	32.1374999	-103.3615555	-434.46	1.50	-1.50	0.00
6,200.00	0.16	302.47	6,124.34	480.99	-678.42	415,115.99	842,131.58	32.1375022	-103.3615598	-435.22	1.50	-1.50	0.00
6,210.66	0.00	0.00	6,135.00	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	1.50	-1.50	0.00
6,300.00	0.00	0.00	6,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
6,400.00	0.00	0.00	6,324.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
6,500.00	0.00	0.00	6,424.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
6,600.00	0.00	0.00	6,524.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
6,700.00	0.00	0.00	6,624.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
6,800.00	0.00	0.00	6,724.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
6,900.00	0.00	0.00	6,824.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,000.00	0.00	0.00	6,924.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,100.00	0.00	0.00	7,024.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,200.00	0.00	0.00	7,124.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,300.00	0.00	0.00	7,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,400.00	0.00	0.00	7,324.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,500.00	0.00	0.00	7,424.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,600.00	0.00	0.00	7,524.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,700.00	0.00	0.00	7,624.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,800.00	0.00	0.00	7,724.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
7,900.00	0.00	0.00	7,824.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,000.00	0.00	0.00	7,924.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,100.00	0.00	0.00	8,024.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,200.00	0.00	0.00	8,124.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,300.00	0.00	0.00	8,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,400.00	0.00	0.00	8,324.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,500.00	0.00	0.00	8,424.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,600.00	0.00	0.00	8,524.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,700.00	0.00	0.00	8,624.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,800.00	0.00	0.00	8,724.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
8,900.00	0.00	0.00	8,824.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,000.00	0.00	0.00	8,924.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,100.00	0.00	0.00	9,024.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,200.00	0.00	0.00	9,124.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,300.00	0.00	0.00	9,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,400.00	0.00	0.00	9,324.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,500.00	0.00	0.00	9,424.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,600.00	0.00	0.00	9,524.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,700.00	0.00	0.00	9,624.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,800.00	0.00	0.00	9,724.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
9,900.00	0.00	0.00	9,824.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,000.00	0.00	0.00	9,924.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,100.00	0.00	0.00	10,024.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,200.00	0.00	0.00	10,124.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,300.00	0.00	0.00	10,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,400.00	0.00	0.00	10,324.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,500.00	0.00	0.00	10,424.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,600.00	0.00	0.00	10,524.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,700.00	0.00	0.00	10,624.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,800.00	0.00	0.00	10,724.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
10,900.00	0.00	0.00	10,824.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,000.00	0.00	0.00	10,924.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,100.00	0.00	0.00	11,024.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,200.00	0.00	0.00	11,124.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,300.00	0.00	0.00	11,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,400.00	0.00	0.00	11,324.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,500.00	0.00	0.00	11,424.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,600.00	0.00	0.00	11,524.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,700.00	0.00	0.00	11,624.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,800.00	0.00	0.00	11,724.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
11,900.00	0.00	0.00	11,824.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
12,000.00	0.00	0.00	11,924.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
12,100.00	0.00	0.00	12,024.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
12,200.00	0.00	0.00	12,124.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
12,300.00	0.00	0.00	12,224.34	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
12,357.66	0.00	0.00	12,282.00	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.23	0.00	0.00	0.00
12,359.76	0.21	185.50	12,284.10	481.00	-678.43	415,116.00	842,131.57	32.1375023	-103.3615598	-435.22	10.00	10.00	0.00
Junior Mint Fed 221H KOP/FTP													
12,400.00	4.23	185.50	12,324.31	479.44	-678.58	415,114.44	842,131.42	32.1374980	-103.3615604	-433.66	10.00	10.00	0.00
12,450.00	9.23	185.50	12,373.94	473.61	-679.14	415,108.61	842,130.86	32.1374820	-103.3615623	-427.81	10.00	10.00	0.00
12,500.00	14.23	185.50	12,422.88	463.49	-680.12	415,098.49	842,129.88	32.1374542	-103.3615658	-417.64	10.00	10.00	0.00
12,550.00	19.23	185.50	12,470.75	449.16	-681.50	415,084.16	842,128.50	32.1374148	-103.3615707	-403.26	10.00	10.00	0.00
12,600.00	24.23	185.50	12,517.18	430.74	-683.27	415,065.74	842,126.73	32.1373642	-103.3615769	-384.76	10.00	10.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,650.00	29.23	185.50	12,561.82	408.36	-685.42	415,043.36	842,124.58	32.1373028	-103.3615845	-362.28	10.00	10.00	0.00
12,700.00	34.23	185.50	12,604.33	382.19	-687.94	415,017.19	842,122.06	32.1372309	-103.3615934	-336.00	10.00	10.00	0.00
12,750.00	39.23	185.50	12,644.39	352.43	-690.81	414,987.43	842,119.19	32.1371492	-103.3616036	-306.12	10.00	10.00	0.00
12,800.00	44.23	185.50	12,681.69	319.31	-694.00	414,954.31	842,116.00	32.1370582	-103.3616148	-272.86	10.00	10.00	0.00
12,850.00	49.23	185.50	12,715.95	283.08	-697.49	414,918.08	842,112.51	32.1369587	-103.3616272	-236.48	10.00	10.00	0.00
12,900.00	54.23	185.50	12,746.91	244.02	-701.25	414,879.02	842,108.75	32.1368515	-103.3616404	-197.25	10.00	10.00	0.00
12,950.00	59.23	185.50	12,774.32	202.41	-705.25	414,837.41	842,104.75	32.1367372	-103.3616546	-155.48	10.00	10.00	0.00
13,000.00	64.23	185.50	12,797.99	158.59	-709.47	414,793.59	842,100.53	32.1366169	-103.3616695	-111.48	10.00	10.00	0.00
13,050.00	69.23	185.50	12,817.74	112.88	-713.88	414,747.88	842,096.12	32.1364914	-103.3616851	-65.58	10.00	10.00	0.00
13,100.00	74.23	185.50	12,833.40	65.64	-718.42	414,700.64	842,091.58	32.1363616	-103.3617011	-18.13	10.00	10.00	0.00
13,150.00	79.23	185.50	12,844.87	17.21	-723.09	414,652.21	842,086.91	32.1362286	-103.3617176	30.50	10.00	10.00	0.00
13,200.00	84.23	185.50	12,852.06	-32.03	-727.83	414,602.97	842,082.17	32.1360934	-103.3617344	79.94	10.00	10.00	0.00
13,252.66	89.50	185.50	12,854.94	-84.34	-732.87	414,550.66	842,077.13	32.1359497	-103.3617521	132.47	10.00	10.00	0.00
13,300.00	89.50	184.55	12,855.35	-131.50	-737.01	414,503.50	842,072.99	32.1358202	-103.3617669	179.80	2.00	0.00	-2.00
13,400.00	89.50	182.55	12,856.23	-231.30	-743.21	414,403.70	842,066.79	32.1355461	-103.3617898	279.79	2.00	0.00	-2.00
13,500.00	89.50	180.55	12,857.10	-331.26	-745.92	414,303.74	842,064.08	32.1352714	-103.3618015	379.71	2.00	0.00	-2.00
13,552.29	89.50	179.51	12,857.56	-383.55	-745.95	414,251.45	842,064.05	32.1351277	-103.3618031	431.89	2.00	0.00	-2.00
13,600.00	89.50	179.51	12,857.98	-431.25	-745.54	414,203.75	842,064.46	32.1349966	-103.3618032	479.46	0.00	0.00	0.00
13,700.00	89.50	179.51	12,858.86	-531.24	-744.68	414,103.76	842,065.32	32.1347217	-103.3618033	579.18	0.00	0.00	0.00
13,800.00	89.50	179.51	12,859.74	-631.23	-743.82	414,003.77	842,066.18	32.1344469	-103.3618035	678.90	0.00	0.00	0.00
13,900.00	89.50	179.51	12,860.61	-731.23	-742.96	413,903.77	842,067.04	32.1341720	-103.3618036	778.62	0.00	0.00	0.00
14,000.00	89.50	179.51	12,861.49	-831.22	-742.10	413,803.78	842,067.90	32.1338971	-103.3618037	878.33	0.00	0.00	0.00
14,100.00	89.50	179.51	12,862.37	-931.21	-741.24	413,703.79	842,068.76	32.1336223	-103.3618039	978.05	0.00	0.00	0.00
14,200.00	89.50	179.51	12,863.25	-1,031.20	-740.38	413,603.80	842,069.62	32.1333474	-103.3618040	1,077.77	0.00	0.00	0.00
14,300.00	89.50	179.51	12,864.13	-1,131.20	-739.52	413,503.80	842,070.48	32.1330726	-103.3618041	1,177.49	0.00	0.00	0.00
14,400.00	89.50	179.51	12,865.00	-1,231.19	-738.65	413,403.81	842,071.35	32.1327977	-103.3618043	1,277.21	0.00	0.00	0.00
14,500.00	89.50	179.51	12,865.88	-1,331.18	-737.79	413,303.82	842,072.21	32.1325229	-103.3618044	1,376.92	0.00	0.00	0.00
14,600.00	89.50	179.51	12,866.76	-1,431.17	-736.93	413,203.83	842,073.07	32.1322480	-103.3618045	1,476.64	0.00	0.00	0.00
14,700.00	89.50	179.51	12,867.64	-1,531.17	-736.07	413,103.83	842,073.93	32.1319732	-103.3618047	1,576.36	0.00	0.00	0.00
14,800.00	89.50	179.51	12,868.51	-1,631.16	-735.21	413,003.84	842,074.79	32.1316983	-103.3618048	1,676.08	0.00	0.00	0.00
14,900.00	89.50	179.51	12,869.39	-1,731.15	-734.35	412,903.85	842,075.65	32.1314234	-103.3618049	1,775.80	0.00	0.00	0.00
15,000.00	89.50	179.51	12,870.27	-1,831.14	-733.49	412,803.86	842,076.51	32.1311486	-103.3618051	1,875.52	0.00	0.00	0.00
15,100.00	89.50	179.51	12,871.15	-1,931.14	-732.63	412,703.86	842,077.37	32.1308737	-103.3618052	1,975.23	0.00	0.00	0.00
15,200.00	89.50	179.51	12,872.03	-2,031.13	-731.77	412,603.87	842,078.23	32.1305989	-103.3618053	2,074.95	0.00	0.00	0.00
15,300.00	89.50	179.51	12,872.90	-2,131.12	-730.91	412,503.88	842,079.09	32.1303240	-103.3618055	2,174.67	0.00	0.00	0.00
15,400.00	89.50	179.51	12,873.78	-2,231.11	-730.05	412,403.89	842,079.95	32.1300492	-103.3618056	2,274.39	0.00	0.00	0.00
15,500.00	89.50	179.51	12,874.66	-2,331.11	-729.19	412,303.89	842,080.81	32.1297743	-103.3618057	2,374.11	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,600.00	89.50	179.51	12,875.54	-2,431.10	-728.33	412,203.90	842,081.67	32.1294995	-103.3618059	2,473.82	0.00	0.00	0.00
15,700.00	89.50	179.51	12,876.42	-2,531.09	-727.47	412,103.91	842,082.53	32.1292246	-103.3618060	2,573.54	0.00	0.00	0.00
15,800.00	89.50	179.51	12,877.29	-2,631.08	-726.61	412,003.92	842,083.39	32.1289497	-103.3618061	2,673.26	0.00	0.00	0.00
15,900.00	89.50	179.51	12,878.17	-2,731.08	-725.75	411,903.92	842,084.25	32.1286749	-103.3618063	2,772.98	0.00	0.00	0.00
16,000.00	89.50	179.51	12,879.05	-2,831.07	-724.89	411,803.93	842,085.11	32.1284000	-103.3618064	2,872.70	0.00	0.00	0.00
16,100.00	89.50	179.51	12,879.93	-2,931.06	-724.03	411,703.94	842,085.97	32.1281252	-103.3618065	2,972.42	0.00	0.00	0.00
16,200.00	89.50	179.51	12,880.81	-3,031.05	-723.17	411,603.95	842,086.83	32.1278503	-103.3618067	3,072.13	0.00	0.00	0.00
16,300.00	89.50	179.51	12,881.68	-3,131.05	-722.31	411,503.95	842,087.69	32.1275755	-103.3618068	3,171.85	0.00	0.00	0.00
16,400.00	89.50	179.51	12,882.56	-3,231.04	-721.45	411,403.96	842,088.55	32.1273006	-103.3618069	3,271.57	0.00	0.00	0.00
16,500.00	89.50	179.51	12,883.44	-3,331.03	-720.59	411,303.97	842,089.41	32.1270258	-103.3618071	3,371.29	0.00	0.00	0.00
16,600.00	89.50	179.51	12,884.32	-3,431.02	-719.73	411,203.98	842,090.27	32.1267509	-103.3618072	3,471.01	0.00	0.00	0.00
16,700.00	89.50	179.51	12,885.19	-3,531.01	-718.87	411,103.99	842,091.13	32.1264760	-103.3618073	3,570.73	0.00	0.00	0.00
16,800.00	89.50	179.51	12,886.07	-3,631.01	-718.01	411,003.99	842,091.99	32.1262012	-103.3618075	3,670.44	0.00	0.00	0.00
16,900.00	89.50	179.51	12,886.95	-3,731.00	-717.15	410,904.00	842,092.85	32.1259263	-103.3618076	3,770.16	0.00	0.00	0.00
17,000.00	89.50	179.51	12,887.83	-3,830.99	-716.29	410,804.01	842,093.71	32.1256515	-103.3618077	3,869.88	0.00	0.00	0.00
17,100.00	89.50	179.51	12,888.71	-3,930.98	-715.43	410,704.02	842,094.57	32.1253766	-103.3618079	3,969.60	0.00	0.00	0.00
17,200.00	89.50	179.51	12,889.58	-4,030.98	-714.57	410,604.02	842,095.43	32.1251018	-103.3618080	4,069.32	0.00	0.00	0.00
17,300.00	89.50	179.51	12,890.46	-4,130.97	-713.70	410,504.03	842,096.30	32.1248269	-103.3618081	4,169.03	0.00	0.00	0.00
17,400.00	89.50	179.51	12,891.34	-4,230.96	-712.84	410,404.04	842,097.16	32.1245520	-103.3618083	4,268.75	0.00	0.00	0.00
17,500.00	89.50	179.51	12,892.22	-4,330.95	-711.98	410,304.05	842,098.02	32.1242772	-103.3618084	4,368.47	0.00	0.00	0.00
17,600.00	89.50	179.51	12,893.10	-4,430.95	-711.12	410,204.05	842,098.88	32.1240023	-103.3618085	4,468.19	0.00	0.00	0.00
17,700.00	89.50	179.51	12,893.97	-4,530.94	-710.26	410,104.06	842,099.74	32.1237275	-103.3618087	4,567.91	0.00	0.00	0.00
17,800.00	89.50	179.51	12,894.85	-4,630.93	-709.40	410,004.07	842,100.60	32.1234526	-103.3618088	4,667.63	0.00	0.00	0.00
17,900.00	89.50	179.51	12,895.73	-4,730.92	-708.54	409,904.08	842,101.46	32.1231778	-103.3618089	4,767.34	0.00	0.00	0.00
18,000.00	89.50	179.51	12,896.61	-4,830.92	-707.68	409,804.08	842,102.32	32.1229029	-103.3618091	4,867.06	0.00	0.00	0.00
18,100.00	89.50	179.51	12,897.49	-4,930.91	-706.82	409,704.09	842,103.18	32.1226281	-103.3618092	4,966.78	0.00	0.00	0.00
18,200.00	89.50	179.51	12,898.36	-5,030.90	-705.96	409,604.10	842,104.04	32.1223532	-103.3618093	5,066.50	0.00	0.00	0.00
18,300.00	89.50	179.51	12,899.24	-5,130.89	-705.10	409,504.11	842,104.90	32.1220783	-103.3618095	5,166.22	0.00	0.00	0.00
18,400.00	89.50	179.51	12,900.12	-5,230.89	-704.24	409,404.11	842,105.76	32.1218035	-103.3618096	5,265.93	0.00	0.00	0.00
18,500.00	89.50	179.51	12,901.00	-5,330.88	-703.38	409,304.12	842,106.62	32.1215286	-103.3618097	5,365.65	0.00	0.00	0.00
18,600.00	89.50	179.51	12,901.87	-5,430.87	-702.52	409,204.13	842,107.48	32.1212538	-103.3618099	5,465.37	0.00	0.00	0.00
18,700.00	89.50	179.51	12,902.75	-5,530.86	-701.66	409,104.14	842,108.34	32.1209789	-103.3618100	5,565.09	0.00	0.00	0.00
18,800.00	89.50	179.51	12,903.63	-5,630.86	-700.80	409,004.14	842,109.20	32.1207041	-103.3618101	5,664.81	0.00	0.00	0.00
18,900.00	89.50	179.51	12,904.51	-5,730.85	-699.94	408,904.15	842,110.06	32.1204292	-103.3618103	5,764.53	0.00	0.00	0.00
19,000.00	89.50	179.51	12,905.39	-5,830.84	-699.08	408,804.16	842,110.92	32.1201544	-103.3618104	5,864.24	0.00	0.00	0.00
19,100.00	89.50	179.51	12,906.26	-5,930.83	-698.22	408,704.17	842,111.78	32.1198795	-103.3618105	5,963.96	0.00	0.00	0.00
19,200.00	89.50	179.51	12,907.14	-6,030.83	-697.36	408,604.17	842,112.64	32.1196046	-103.3618107	6,063.68	0.00	0.00	0.00
19,300.00	89.50	179.51	12,908.02	-6,130.82	-696.50	408,504.18	842,113.50	32.1193298	-103.3618108	6,163.40	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,400.00	89.50	179.51	12,908.90	-6,230.81	-695.64	408,404.19	842,114.36	32.1190549	-103.3618109	6,263.12	0.00	0.00	0.00
19,500.00	89.50	179.51	12,909.78	-6,330.80	-694.78	408,304.20	842,115.22	32.1187801	-103.3618111	6,362.83	0.00	0.00	0.00
19,600.00	89.50	179.51	12,910.65	-6,430.80	-693.92	408,204.20	842,116.08	32.1185052	-103.3618112	6,462.55	0.00	0.00	0.00
19,700.00	89.50	179.51	12,911.53	-6,530.79	-693.06	408,104.21	842,116.94	32.1182304	-103.3618113	6,562.27	0.00	0.00	0.00
19,800.00	89.50	179.51	12,912.41	-6,630.78	-692.20	408,004.22	842,117.80	32.1179555	-103.3618115	6,661.99	0.00	0.00	0.00
19,900.00	89.50	179.51	12,913.29	-6,730.77	-691.34	407,904.23	842,118.66	32.1176806	-103.3618116	6,761.71	0.00	0.00	0.00
20,000.00	89.50	179.51	12,914.17	-6,830.77	-690.48	407,804.23	842,119.52	32.1174058	-103.3618117	6,861.43	0.00	0.00	0.00
20,100.00	89.50	179.51	12,915.04	-6,930.76	-689.61	407,704.24	842,120.39	32.1171309	-103.3618119	6,961.14	0.00	0.00	0.00
20,200.00	89.50	179.51	12,915.92	-7,030.75	-688.75	407,604.25	842,121.25	32.1168561	-103.3618120	7,060.86	0.00	0.00	0.00
20,300.00	89.50	179.51	12,916.80	-7,130.74	-687.89	407,504.26	842,122.11	32.1165812	-103.3618121	7,160.58	0.00	0.00	0.00
20,400.00	89.50	179.51	12,917.68	-7,230.74	-687.03	407,404.26	842,122.97	32.1163064	-103.3618123	7,260.30	0.00	0.00	0.00
20,500.00	89.50	179.51	12,918.55	-7,330.73	-686.17	407,304.27	842,123.83	32.1160315	-103.3618124	7,360.02	0.00	0.00	0.00
20,600.00	89.50	179.51	12,919.43	-7,430.72	-685.31	407,204.28	842,124.69	32.1157567	-103.3618125	7,459.73	0.00	0.00	0.00
20,700.00	89.50	179.51	12,920.31	-7,530.71	-684.45	407,104.29	842,125.55	32.1154818	-103.3618127	7,559.45	0.00	0.00	0.00
20,800.00	89.50	179.51	12,921.19	-7,630.71	-683.59	407,004.29	842,126.41	32.1152069	-103.3618128	7,659.17	0.00	0.00	0.00
20,900.00	89.50	179.51	12,922.07	-7,730.70	-682.73	406,904.30	842,127.27	32.1149321	-103.3618129	7,758.89	0.00	0.00	0.00
21,000.00	89.50	179.51	12,922.94	-7,830.69	-681.87	406,804.31	842,128.13	32.1146572	-103.3618131	7,858.61	0.00	0.00	0.00
21,100.00	89.50	179.51	12,923.82	-7,930.68	-681.01	406,704.32	842,128.99	32.1143824	-103.3618132	7,958.33	0.00	0.00	0.00
21,200.00	89.50	179.51	12,924.70	-8,030.68	-680.15	406,604.33	842,129.85	32.1141075	-103.3618133	8,058.04	0.00	0.00	0.00
21,300.00	89.50	179.51	12,925.58	-8,130.67	-679.29	406,504.33	842,130.71	32.1138327	-103.3618135	8,157.76	0.00	0.00	0.00
21,400.00	89.50	179.51	12,926.46	-8,230.66	-678.43	406,404.34	842,131.57	32.1135578	-103.3618136	8,257.48	0.00	0.00	0.00
21,500.00	89.50	179.51	12,927.33	-8,330.65	-677.57	406,304.35	842,132.43	32.1132829	-103.3618137	8,357.20	0.00	0.00	0.00
21,600.00	89.50	179.51	12,928.21	-8,430.64	-676.71	406,204.36	842,133.29	32.1130081	-103.3618139	8,456.92	0.00	0.00	0.00
21,700.00	89.50	179.51	12,929.09	-8,530.64	-675.85	406,104.36	842,134.15	32.1127332	-103.3618140	8,556.63	0.00	0.00	0.00
21,800.00	89.50	179.51	12,929.97	-8,630.63	-674.99	406,004.37	842,135.01	32.1124584	-103.3618141	8,656.35	0.00	0.00	0.00
21,900.00	89.50	179.51	12,930.84	-8,730.62	-674.13	405,904.38	842,135.87	32.1121835	-103.3618143	8,756.07	0.00	0.00	0.00
22,000.00	89.50	179.51	12,931.72	-8,830.61	-673.27	405,804.39	842,136.73	32.1119087	-103.3618144	8,855.79	0.00	0.00	0.00
22,100.00	89.50	179.51	12,932.60	-8,930.61	-672.41	405,704.39	842,137.59	32.1116338	-103.3618145	8,955.51	0.00	0.00	0.00
22,200.00	89.50	179.51	12,933.48	-9,030.60	-671.55	405,604.40	842,138.45	32.1113590	-103.3618147	9,055.23	0.00	0.00	0.00
22,300.00	89.50	179.51	12,934.36	-9,130.59	-670.69	405,504.41	842,139.31	32.1110841	-103.3618148	9,154.94	0.00	0.00	0.00
22,400.00	89.50	179.51	12,935.23	-9,230.58	-669.83	405,404.42	842,140.17	32.1108092	-103.3618149	9,254.66	0.00	0.00	0.00
22,500.00	89.50	179.51	12,936.11	-9,330.58	-668.97	405,304.42	842,141.03	32.1105344	-103.3618151	9,354.38	0.00	0.00	0.00
22,600.00	89.50	179.51	12,936.99	-9,430.57	-668.11	405,204.43	842,141.89	32.1102595	-103.3618152	9,454.10	0.00	0.00	0.00
22,700.00	89.50	179.51	12,937.87	-9,530.56	-667.25	405,104.44	842,142.75	32.1099847	-103.3618153	9,553.82	0.00	0.00	0.00
22,800.00	89.50	179.51	12,938.75	-9,630.55	-666.39	405,004.45	842,143.61	32.1097098	-103.3618155	9,653.54	0.00	0.00	0.00
22,900.00	89.50	179.51	12,939.62	-9,730.55	-665.52	404,904.45	842,144.48	32.1094350	-103.3618156	9,753.25	0.00	0.00	0.00
23,000.00	89.50	179.51	12,940.50	-9,830.54	-664.66	404,804.46	842,145.34	32.1091601	-103.3618157	9,852.97	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Well:	Junior Mint Fed 221H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Dogleg Section (usft)	Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
23,098.47	89.50	179.51	12,941.37	-9,929.00	-663.82	404,706.00	842,146.18	32.1088894	-103.3618158	9,951.16	0.00	0.00	0.00
Junior Mint Fed 221H LTP													
23,100.00	89.50	179.51	12,941.38	-9,930.53	-663.80	404,704.47	842,146.20	32.1088852	-103.3618159	9,952.69	0.00	0.00	0.00
23,193.48	89.50	179.51	12,942.20	-10,024.00	-663.00	404,611.00	842,147.00	32.1086283	-103.3618160	10,045.90	0.00	0.00	0.00
Junior Mint Fed 221H BHL													

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 221H - plan misses target center by 89.78usft at 12357.76usft MD (12282.10 TVD, 481.00 N, -678.43 E) - Point	0.00	0.01	12,282.00	431.00	-753.00	415,066.00	842,057.00	32.1373667	-103.3618022
Junior Mint Fed 221H - plan misses target center by 0.38usft at 23098.47usft MD (12941.37 TVD, -9929.00 N, -663.82 E) - Point	0.00	0.01	12,941.70	-9,929.00	-664.00	404,706.00	842,146.00	32.1088895	-103.3618164
Junior Mint Fed 221H - plan hits target center - Point	0.00	0.01	12,942.20	-10,024.00	-663.00	404,611.00	842,147.00	32.1086283	-103.3618160

Checked By: _____ Approved By: _____ Date: _____

Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 221H

OH
Plan 1



Anticollision Report

Minimum Magnetic Interference Warning level is 50' center to center

25 March, 2025

Total Report Version 1.60

COMPASS 5000.16 Build 97

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Reference	Plan 1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum centre distance of 2,518.44usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Well	Junior Mint Fed 221H					
Well Position	+N-S	0.00 usft	Northing:	414,635.00 usft	Latitude:	32.1361634
	+E-W	0.00 usft	Easting:	842,810.00 usft	Longitude:	-103.3593824
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,221.00 usft
Grid Convergence:		0.52 °				

Survey Tool Program		Date	3/24/2025	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	23,193.15	Plan 1 (OH)	MWD+HRGM+SAG+FDIF	OWSG MWD + HRGM + SAG + FDIR Correction

Offset Listing								
Site Name	Ground LevelKB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty	
Offset Well			Northing	Easting	Latitude	Longitude	Site	Well
Civitas Resources - Junior Mint Fed Pad								
(O) Montera Federal 023H -	3,221.00	3,250.00	415,363.56	843,044.05	32.1381600	-103.3586050	0.00	0.00
(O) Montera Federal Com 601H -	3,226.90	3,253.00	415,439.30	841,823.90	32.1383985	-103.3625443	0.00	0.00
Junior Mint Fed 131H -	3,221.00	3,247.00	414,635.00	842,835.00	32.1361627	-103.3593016	0.00	0.50
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 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 151H -	3,221.00	3,247.00	414,685.00	842,835.00	32.1363002	-103.3593001	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 211H -	3,221.00	3,247.00	414,660.00	842,810.00	32.1362321	-103.3593816	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 -	3,222.00	3,248.00	415,701.00	845,154.00	32.1390348	-103.3517793	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 217H -	3,221.00	3,247.00	414,870.00	842,810.00	32.1368093	-103.3593755	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

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Summary

Site Name 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						
(O) Montera Federal 023H - OH - OH	2,542.28	2,523.27	706.37	691.12	46.34	CC
(O) Montera Federal 023H - OH - OH	2,600.00	2,577.00	706.64	691.09	45.47	ES
(O) Montera Federal 023H - OH - OH	11,900.00	11,817.69	957.56	898.66	16.26	SF
(O) Montera Federal Com 601H - OH - OH	6,072.98	5,996.35	402.37	367.03	11.39	CC
(O) Montera Federal Com 601H - OH - OH	11,030.86	10,971.36	409.64	353.32	7.27	ES
(O) Montera Federal Com 601H - OH - OH	11,100.00	11,030.43	410.53	353.97	7.26	SF
Junior Mint Fed 131H - OH - Plan 1	700.00	700.00	25.00	18.67	3.95	CC, ES
Junior Mint Fed 131H - OH - Plan 1	5,400.00	5,412.70	60.45	32.79	2.19	SF
Junior Mint Fed 132H - OH - Plan 1	1,100.00	1,088.57	181.72	173.64	22.50	CC, ES
Junior Mint Fed 132H - OH - Plan 1	23,193.48	22,428.60	1,463.39	1,214.75	5.89	SF
Junior Mint Fed 135H - OH - Plan 1	813.21	812.15	35.26	28.40	5.14	CC, ES
Junior Mint Fed 135H - OH - Plan 1	1,000.00	998.32	37.16	29.50	4.85	SF
Junior Mint Fed 137H - OH - Plan 1	300.00	299.00	211.48	207.52	53.43	CC
Junior Mint Fed 137H - OH - Plan 1	400.00	397.08	211.93	207.27	45.52	ES
Junior Mint Fed 137H - OH - Plan 1	23,193.48	22,512.90	2,061.78	1,796.00	7.76	SF
Junior Mint Fed 151H - OH - Plan 1	1,386.90	1,384.84	43.65	34.38	4.71	CC
Junior Mint Fed 151H - OH - Plan 1	1,400.00	1,397.83	43.67	34.34	4.68	ES
Junior Mint Fed 151H - OH - Plan 1	1,500.00	1,496.75	45.48	35.65	4.63	SF
Junior Mint Fed 152H - OH - Plan 1	300.00	299.00	236.33	232.37	59.71	CC, ES
Junior Mint Fed 152H - OH - Plan 1	23,193.48	21,935.47	1,669.33	1,459.87	7.97	SF
Junior Mint Fed 211H - OH - Plan 1	300.00	300.00	25.00	21.04	6.31	CC
Junior Mint Fed 211H - OH - Plan 1	400.00	399.72	25.53	20.86	5.47	ES
Junior Mint Fed 211H - OH - Plan 1	23,193.48	22,897.27	474.31	262.65	2.24	SF
Junior Mint Fed 212H - OH - Plan 1	2,279.19	2,270.38	141.02	128.86	11.60	CC, ES
Junior Mint Fed 212H - OH - Plan 1	23,193.48	22,796.26	1,046.32	779.54	3.92	SF
Junior Mint Fed 213H - OH - Plan 1	4,472.49	4,882.17	2,101.06	2,077.14	87.84	CC
Junior Mint Fed 213H - OH - Plan 1	23,193.48	22,823.46	2,360.52	2,074.99	8.27	ES, SF
Junior Mint Fed 215H - OH - Plan 1	300.00	299.00	50.00	46.04	12.63	CC, ES
Junior Mint Fed 215H - OH - Plan 1	23,193.48	22,806.75	513.67	296.13	2.36	SF
Junior Mint Fed 217H - OH - Plan 1	1,657.61	1,649.36	201.13	191.16	20.17	CC
Junior Mint Fed 217H - OH - Plan 1	1,700.00	1,691.21	201.24	191.12	19.88	ES
Junior Mint Fed 217H - OH - Plan 1	23,193.48	22,875.30	1,735.82	1,459.97	6.29	SF
Junior Mint Fed 222H - OH - Plan 1	1,770.01	1,760.90	139.20	128.73	13.29	CC, ES
Junior Mint Fed 222H - OH - Plan 1	23,193.48	23,184.44	1,320.07	1,040.52	4.72	SF

Offset Design: Junior Mint Fed Pad - (O) Montera Federal 023H - OH - OH

Survey Program: 100-3_Gyro-NS-CT_OWSG, 11638-3_MWD						Rule Assigned:			Offset Well Error:		0.00 usft		
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	3.10	0.10	0.50	0.00	17.81	728.56	234.06	765.23				
100.00	100.00	106.38	103.38	0.98	0.15	17.81	728.33	233.96	764.99	763.87	1.13	678.177	
200.00	200.00	206.16	203.16	1.56	0.50	17.81	727.98	233.86	764.63	762.57	2.06	371.580	
300.00	300.00	307.66	304.65	1.98	0.85	17.80	727.51	233.64	764.12	761.29	2.83	269.659	
400.00	400.00	408.11	405.11	2.33	1.20	17.80	726.90	233.32	763.45	759.91	3.53	216.023	
500.00	500.00	508.56	505.55	2.63	1.56	17.75	726.46	232.54	762.79	758.60	4.19	182.014	
600.00	600.00	609.12	606.10	2.91	1.91	17.67	726.04	231.28	762.01	757.19	4.82	158.145	
700.00	700.00	708.24	705.21	3.16	2.26	17.59	725.62	230.07	761.24	755.82	5.42	140.468	
800.00	799.99	802.78	799.75	3.46	2.59	57.61	725.64	229.08	760.24	754.24	6.00	126.665	
900.00	899.91	898.49	895.46	3.73	2.92	57.80	726.34	228.21	758.56	751.99	6.57	115.432	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Montera Federal 023H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-3_Gyro-NS-CT_OWSG, 11638-3_MWD														Rule Assigned:	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
1,000.00	999.69	998.05	995.01	4.00	3.27	58.18	727.16	227.52	755.66	748.51	7.14	105.778			
1,100.00	1,099.32	1,099.55	1,096.50	4.11	3.62	58.69	727.92	226.77	751.64	744.03	7.61	98.806			
1,200.00	1,198.94	1,199.58	1,196.53	4.32	3.97	59.18	728.62	225.89	747.51	739.35	8.16	91.602			
1,300.00	1,298.56	1,300.00	1,296.94	4.52	4.32	59.67	729.19	224.91	743.27	734.56	8.71	85.330			
1,400.00	1,398.18	1,398.71	1,395.64	4.72	4.67	60.18	729.83	224.14	739.23	729.98	9.25	79.913			
1,500.00	1,497.80	1,498.21	1,495.14	4.92	5.02	60.70	730.42	223.47	735.25	725.46	9.79	75.106			
1,600.00	1,597.42	1,597.26	1,594.18	5.12	5.36	61.24	731.02	222.97	731.39	721.07	10.32	70.848			
1,700.00	1,697.04	1,695.39	1,692.31	5.32	5.71	61.78	731.77	222.68	727.83	716.98	10.85	67.075			
1,800.00	1,796.66	1,794.39	1,791.31	5.51	6.05	62.36	732.56	222.68	724.47	713.10	11.38	63.671			
1,900.00	1,896.28	1,893.49	1,890.40	5.70	6.40	62.96	733.32	222.81	721.22	709.31	11.90	60.587			
2,000.00	1,995.90	1,992.99	1,989.90	5.90	6.74	63.58	734.06	223.19	718.12	705.70	12.43	57.782			
2,100.00	2,095.52	2,092.13	2,089.03	6.09	7.09	64.21	734.75	223.67	715.11	702.16	12.95	55.224			
2,200.00	2,195.14	2,192.31	2,189.21	6.29	7.44	64.86	735.45	224.18	712.20	698.72	13.48	52.830			
2,300.00	2,294.66	2,289.55	2,286.45	6.48	7.78	71.99	736.06	225.08	709.59	695.60	13.99	50.731			
2,400.00	2,393.91	2,387.14	2,384.03	6.70	8.12	77.33	736.78	226.32	707.63	693.13	14.51	48.783			
2,500.00	2,492.84	2,483.42	2,480.29	6.92	8.46	81.51	737.65	227.87	706.51	691.49	15.02	47.024			
2,542.28	2,534.54	2,523.27	2,520.13	7.01	8.60	83.07	738.07	228.64	706.37	691.12	15.24	46.336	CC		
2,600.00	2,591.36	2,577.00	2,573.84	7.13	8.78	85.05	738.81	229.85	706.64	691.09	15.54	45.467	ES		
2,700.00	2,689.42	2,671.40	2,668.21	7.35	9.12	88.21	740.37	232.16	708.21	692.14	16.07	44.082			
2,800.00	2,787.23	2,784.50	2,781.24	7.54	9.52	90.23	742.28	235.06	710.87	694.20	16.67	42.633			
2,900.00	2,885.05	2,859.84	2,856.54	7.74	9.78	91.59	743.03	237.09	713.61	696.46	17.15	41.614			
3,000.00	2,982.86	2,955.68	2,952.29	7.94	10.12	93.26	745.75	240.24	718.81	701.11	17.70	40.607			
3,100.00	3,080.67	3,062.35	3,058.86	8.15	10.50	95.16	747.96	244.10	724.31	706.01	18.30	39.574			
3,200.00	3,178.49	3,159.89	3,156.34	8.35	10.85	96.93	748.78	247.74	729.62	710.75	18.87	38.664			
3,300.00	3,276.30	3,256.10	3,252.47	8.56	11.19	98.64	749.81	251.33	735.80	716.37	19.44	37.857			
3,400.00	3,374.12	3,367.66	3,363.97	8.78	11.58	100.56	750.59	254.62	741.93	721.87	20.06	36.981			
3,500.00	3,471.93	3,469.11	3,465.41	9.00	11.94	102.24	750.65	256.30	747.34	726.69	20.65	36.189			
3,600.00	3,569.75	3,569.63	3,565.92	9.22	12.29	103.85	750.65	257.23	752.82	731.58	21.24	35.448			
3,700.00	3,667.56	3,667.78	3,664.07	9.45	12.63	105.37	750.80	257.78	758.69	736.88	21.82	34.776			
3,800.00	3,765.38	3,766.09	3,762.38	9.68	12.97	106.86	750.84	258.14	764.89	742.50	22.40	34.152			
3,900.00	3,863.19	3,856.78	3,853.07	9.92	13.29	108.23	750.94	258.80	771.96	749.01	22.95	33.638			
4,000.00	3,961.01	3,939.37	3,935.63	10.16	13.58	109.53	751.10	261.04	781.12	757.65	23.47	33.287			
4,100.00	4,058.82	4,023.56	4,019.70	10.41	13.88	110.93	750.91	265.50	792.64	768.66	23.98	33.050			
4,200.00	4,156.64	4,117.17	4,113.08	10.66	14.22	112.52	750.44	271.88	805.86	781.32	24.54	32.838			
4,300.00	4,254.45	4,222.57	4,218.14	10.91	14.60	114.41	747.75	279.84	819.32	794.16	25.15	32.571			
4,400.00	4,352.27	4,390.52	4,385.64	11.16	15.19	117.38	738.54	286.42	829.31	803.32	25.99	31.906			
4,500.00	4,450.08	4,495.21	4,490.18	11.42	15.56	118.79	734.89	282.48	834.19	807.61	26.58	31.379			
4,600.00	4,547.89	4,570.02	4,564.88	11.68	15.83	119.52	736.27	278.80	840.99	813.90	27.10	31.036			
4,700.00	4,645.71	4,637.20	4,631.95	11.94	16.06	120.09	739.44	276.81	851.11	823.55	27.56	30.878			
4,800.00	4,743.52	4,700.00	4,694.66	12.20	16.28	120.74	742.16	278.38	865.80	837.83	27.97	30.952			
4,900.00	4,841.34	4,764.89	4,759.33	12.46	16.52	121.53	744.15	283.24	884.64	856.28	28.36	31.196			
5,000.00	4,939.15	4,870.36	4,864.22	12.72	16.92	122.98	744.85	294.12	905.73	876.76	28.97	31.262			
5,100.00	5,036.97	5,032.73	5,026.14	12.99	17.51	125.37	738.41	304.06	921.44	891.57	29.87	30.853			
5,200.00	5,134.78	5,154.00	5,147.29	13.26	17.93	126.95	733.60	305.91	933.93	903.40	30.52	30.597			
5,300.00	5,232.60	5,268.83	5,262.06	13.52	18.33	128.23	730.81	303.99	944.35	913.21	31.14	30.321			
5,400.00	5,330.41	5,365.18	5,358.37	13.79	18.67	129.18	729.81	301.22	954.46	922.75	31.70	30.105			
5,500.00	5,428.44	5,464.03	5,457.18	14.04	19.02	130.18	728.98	298.39	964.23	931.97	32.26	29.892			
5,600.00	5,526.94	5,560.19	5,553.30	14.27	19.36	131.02	728.24	295.72	972.64	939.84	32.80	29.652			
5,700.00	5,625.86	5,653.59	5,646.67	14.49	19.69	131.72	727.54	293.58	979.95	946.63	33.32	29.409			
5,800.00	5,725.13	5,751.14	5,744.20	14.67	20.03	132.30	726.83	291.82	986.09	952.25	33.84	29.140			
5,900.00	5,824.69	5,847.47	5,840.52	14.84	20.37	132.76	726.10	290.20	990.67	956.33	34.34	28.849			
6,000.00	5,924.45	5,949.27	5,942.30	14.98	20.73	133.10	725.45	288.69	993.72	958.88	34.84	28.520			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Montera Federal 023H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-3_Gyro-NS-CT_OWGS, 11638-3_MWD												Rule Assigned:			
Reference				Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
6,100.00	6,024.36	6,047.74	6,040.76	15.09	21.07	133.30	724.92	287.28	995.07	959.75	35.32	28.175			
6,200.00	6,124.34	6,144.33	6,137.34	15.18	21.41	133.39	724.09	285.98	994.65	958.89	35.76	27.812			
6,300.00	6,224.34	6,243.60	6,236.59	15.24	21.76	75.89	723.06	284.85	993.30	957.14	36.16	27.466			
6,400.00	6,324.34	6,341.31	6,334.30	15.31	22.10	75.94	721.95	283.96	992.14	955.57	36.57	27.129			
6,500.00	6,424.34	6,440.59	6,433.56	15.38	22.44	75.99	721.01	283.21	991.18	954.20	36.98	26.800			
6,600.00	6,524.34	6,538.53	6,531.50	15.45	22.78	76.03	720.16	282.60	990.36	952.97	37.39	26.486			
6,700.00	6,624.34	6,637.98	6,630.94	15.52	23.13	76.06	719.44	282.03	989.63	951.83	37.81	26.177			
6,800.00	6,724.34	6,738.80	6,731.76	15.59	23.48	76.09	718.69	281.51	988.95	950.73	38.23	25.872			
6,900.00	6,824.34	6,838.04	6,831.00	15.66	23.82	76.12	718.02	281.00	988.29	949.66	38.64	25.578			
7,000.00	6,924.34	6,935.70	6,928.66	15.73	24.16	76.16	717.34	280.62	987.75	948.70	39.05	25.297			
7,100.00	7,024.34	7,035.00	7,027.96	15.80	24.50	76.18	716.82	280.44	987.45	947.99	39.46	25.024			
7,200.00	7,124.34	7,134.82	7,127.77	15.87	24.85	76.21	716.27	280.29	987.17	947.30	39.88	24.756			
7,300.00	7,224.34	7,232.86	7,225.81	15.94	25.19	76.25	715.56	280.19	986.90	946.62	40.29	24.497			
7,400.00	7,324.34	7,332.26	7,325.21	16.01	25.54	76.28	715.02	280.25	986.83	946.13	40.70	24.245			
7,431.85	7,356.19	7,363.25	7,356.19	16.04	25.64	76.29	714.87	280.25	986.80	945.97	40.83	24.168			
7,500.00	7,424.34	7,430.26	7,423.21	16.09	25.88	76.30	714.66	280.35	986.85	945.74	41.11	24.004			
7,600.00	7,524.34	7,528.54	7,521.48	16.16	26.22	76.32	714.38	280.67	987.09	945.57	41.52	23.773			
7,700.00	7,624.34	7,629.87	7,622.81	16.23	26.57	76.33	714.27	280.91	987.30	945.35	41.95	23.538			
7,800.00	7,724.34	7,728.43	7,721.37	16.30	26.91	76.34	714.29	281.20	987.59	945.23	42.36	23.316			
7,900.00	7,824.34	7,825.59	7,818.53	16.37	27.25	76.33	714.52	281.57	988.01	945.25	42.76	23.104			
8,000.00	7,924.34	7,927.23	7,920.17	16.44	27.60	76.30	715.05	282.00	988.55	945.36	43.19	22.889			
8,100.00	8,024.34	8,022.30	8,015.23	16.51	27.93	76.28	715.55	282.54	989.22	945.63	43.59	22.694			
8,200.00	8,124.34	8,123.60	8,116.53	16.58	28.29	76.25	716.32	283.26	990.09	946.08	44.01	22.495			
8,300.00	8,224.34	8,222.35	8,215.27	16.66	28.63	76.22	717.05	284.01	991.00	946.57	44.43	22.306			
8,400.00	8,324.34	8,321.44	8,314.36	16.73	28.98	76.18	717.86	284.77	991.95	947.10	44.84	22.120			
8,500.00	8,424.34	8,421.50	8,414.41	16.80	29.33	76.15	718.77	285.65	993.02	947.76	45.26	21.938			
8,600.00	8,524.34	8,519.98	8,512.88	16.87	29.67	76.10	719.75	286.55	994.15	948.47	45.68	21.764			
8,700.00	8,624.34	8,619.43	8,612.32	16.94	30.02	76.06	720.81	287.56	995.39	949.29	46.10	21.594			
8,800.00	8,724.34	8,720.52	8,713.41	17.01	30.37	76.02	721.67	288.55	996.54	950.02	46.52	21.421			
8,900.00	8,824.34	8,819.46	8,812.34	17.09	30.72	76.00	722.40	289.49	997.64	950.71	46.94	21.255			
9,000.00	8,924.34	8,916.60	8,909.47	17.16	31.06	75.96	723.36	290.57	998.96	951.62	47.35	21.099			
9,100.00	9,024.34	9,009.55	9,002.40	17.23	31.38	75.94	724.03	292.14	1,000.77	953.03	47.74	20.964			
9,200.00	9,124.34	9,102.84	9,095.66	17.30	31.71	75.97	724.14	294.51	1,003.27	955.14	48.13	20.845			
9,300.00	9,224.34	9,202.72	9,195.50	17.38	32.07	76.02	723.92	297.54	1,006.16	957.61	48.55	20.724			
9,400.00	9,324.34	9,304.85	9,297.58	17.45	32.43	76.08	723.58	300.55	1,008.94	959.96	48.98	20.600			
9,500.00	9,424.34	9,406.45	9,399.13	17.52	32.79	76.16	722.98	303.51	1,011.63	962.23	49.41	20.476			
9,600.00	9,524.34	9,517.40	9,510.04	17.59	33.17	76.27	721.51	306.05	1,013.53	963.66	49.87	20.324			
9,700.00	9,624.34	9,646.37	9,638.98	17.67	33.62	76.42	718.81	305.80	1,012.66	962.27	50.39	20.097			
9,800.00	9,724.34	9,748.66	9,741.24	17.74	33.98	76.52	716.74	304.63	1,011.07	960.25	50.82	19.896			
9,900.00	9,824.34	9,852.05	9,844.60	17.81	34.34	76.62	714.60	303.28	1,009.33	958.08	51.25	19.696			
10,000.00	9,924.34	9,953.77	9,946.27	17.89	34.70	76.73	712.14	301.66	1,007.22	955.54	51.67	19.493			
10,100.00	10,024.34	10,056.48	10,048.94	17.96	35.06	76.85	709.58	299.86	1,004.94	952.84	52.10	19.289			
10,200.00	10,124.34	10,160.48	10,152.89	18.03	35.43	76.93	707.54	297.40	1,002.19	949.66	52.53	19.079			
10,300.00	10,224.34	10,260.35	10,252.72	18.11	35.78	76.95	706.60	294.73	999.37	946.42	52.95	18.874			
10,400.00	10,324.34	10,356.71	10,349.04	18.18	36.12	76.95	705.95	292.29	996.75	943.39	53.36	18.681			
10,500.00	10,424.34	10,451.04	10,443.35	18.25	36.46	76.95	705.48	290.24	994.52	940.76	53.76	18.499			
10,600.00	10,524.34	10,543.60	10,535.90	18.33	36.78	76.94	705.43	288.74	992.94	938.78	54.16	18.334			
10,700.00	10,624.34	10,645.25	10,637.54	18.40	37.13	76.88	706.03	287.32	991.71	937.12	54.58	18.168			
10,800.00	10,724.34	10,753.35	10,745.62	18.47	37.51	76.84	706.33	285.21	989.86	934.83	55.03	17.987			
10,900.00	10,824.34	10,853.13	10,845.37	18.55	37.86	76.80	706.45	283.08	987.81	932.36	55.45	17.814			
11,000.00	10,924.34	10,955.65	10,947.87	18.62	38.23	76.77	706.55	280.70	985.57	929.69	55.88	17.637			
11,100.00	11,024.34	11,071.07	11,063.23	18.69	38.63	76.69	707.02	277.07	982.63	926.29	56.35	17.439			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Monter Federal 023H - OH - OH

Survey Program: 100-3_Gyro-NS-CT_OWSG, 11638-3_MWD										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,200.00	11,124.34	11,182.55	11,174.50	18.77	39.03	76.45	709.90	271.05	977.97	921.16	56.80	17.217	
11,300.00	11,224.34	11,279.65	11,271.25	18.84	39.38	76.06	715.13	264.60	972.79	915.56	57.23	16.999	
11,400.00	11,324.34	11,366.92	11,358.25	18.92	39.68	75.72	719.87	259.78	968.74	911.11	57.62	16.811	
11,500.00	11,424.34	11,465.56	11,456.63	18.99	40.03	75.35	725.07	254.95	965.30	907.25	58.05	16.628	
11,600.00	11,524.34	11,562.53	11,553.37	19.06	40.37	74.99	730.14	250.40	962.10	903.62	58.48	16.452	
11,700.00	11,624.34	11,656.51	11,647.18	19.14	40.54	74.70	734.11	246.59	959.30	900.57	58.72	16.335	
11,800.00	11,724.34	11,743.36	11,733.94	19.21	40.55	74.48	737.25	244.21	957.61	898.80	58.81	16.283	
11,857.87	11,782.21	11,791.67	11,782.21	19.26	40.55	74.37	738.96	243.40	957.25	898.38	58.86	16.262	
11,900.00	11,824.34	11,817.69	11,808.20	19.29	40.55	74.29	740.19	243.24	957.56	898.66	58.90	16.257	SF
12,000.00	11,924.34	11,890.29	11,880.46	19.36	40.56	73.91	747.07	243.71	960.76	901.77	58.99	16.286	
12,100.00	12,024.34	11,954.20	11,942.90	19.44	40.57	73.15	760.40	243.95	967.20	908.12	59.09	16.369	
12,200.00	12,124.34	12,014.51	11,999.77	19.51	40.58	72.02	780.41	243.98	977.76	918.57	59.18	16.521	
12,300.00	12,224.34	12,064.86	12,045.48	19.59	40.59	70.85	801.49	244.39	993.13	933.85	59.28	16.754	
12,400.00	12,324.31	12,124.59	12,096.52	19.64	40.61	-115.49	832.44	244.37	1,014.07	954.71	59.36	17.083	
12,500.00	12,422.88	12,170.55	12,133.62	19.68	40.62	-114.23	859.54	243.67	1,045.90	986.53	59.37	17.617	
12,600.00	12,517.18	12,194.39	12,152.09	19.70	40.63	-110.79	874.61	243.28	1,090.33	1,031.01	59.32	18.380	
12,700.00	12,604.33	12,212.00	12,165.36	19.72	40.64	-105.37	886.18	243.23	1,146.21	1,086.95	59.26	19.342	
12,800.00	12,681.69	12,212.00	12,165.36	19.76	40.64	-97.04	886.18	243.23	1,210.93	1,151.74	59.19	20.459	
12,900.00	12,746.91	12,212.00	12,165.36	19.82	40.64	-87.04	886.18	243.23	1,281.65	1,222.50	59.15	21.668	
13,000.00	12,797.99	12,212.00	12,165.36	19.92	40.64	-76.24	886.18	243.23	1,355.46	1,296.32	59.14	22.920	
13,100.00	12,833.40	12,195.98	12,153.30	20.08	40.63	-64.99	875.64	243.27	1,429.51	1,370.37	59.13	24.174	
13,200.00	12,852.06	12,180.00	12,141.01	20.30	40.63	-55.37	865.43	243.49	1,501.49	1,442.35	59.15	25.386	
13,300.00	12,855.35	12,161.17	12,126.20	20.57	40.62	-51.33	853.80	243.84	1,569.89	1,510.73	59.16	26.538	
13,400.00	12,856.23	12,149.00	12,116.45	20.89	40.62	-52.12	846.52	244.04	1,638.18	1,578.98	59.20	27.673	
13,500.00	12,857.10	12,118.00	12,091.06	21.25	40.61	-52.34	828.75	244.44	1,706.83	1,647.57	59.26	28.803	
13,600.00	12,857.98	12,101.78	12,077.44	21.64	40.60	-52.44	819.93	244.55	1,776.22	1,716.89	59.33	29.938	
13,700.00	12,858.86	12,086.00	12,063.95	22.08	40.60	-51.95	811.75	244.54	1,847.71	1,788.29	59.43	31.092	
13,800.00	12,859.74	12,086.00	12,063.95	22.59	40.60	-51.95	811.75	244.54	1,921.54	1,862.01	59.53	32.279	
13,900.00	12,860.61	12,055.00	12,036.69	23.15	40.59	-50.98	797.01	244.27	1,997.24	1,937.57	59.67	33.473	
14,000.00	12,861.49	12,055.00	12,036.69	23.77	40.59	-50.98	797.01	244.27	2,074.69	2,014.90	59.79	34.702	
14,100.00	12,862.37	12,055.00	12,036.69	24.45	40.59	-50.98	797.01	244.27	2,154.00	2,094.09	59.91	35.956	
14,200.00	12,863.25	12,038.36	12,021.67	25.18	40.59	-50.46	789.85	244.09	2,234.65	2,174.60	60.05	37.211	
14,300.00	12,864.13	12,023.00	12,007.61	25.97	40.58	-49.98	783.67	244.00	2,316.82	2,256.61	60.20	38.483	
14,400.00	12,865.00	12,023.00	12,007.61	26.80	40.58	-49.98	783.67	244.00	2,400.08	2,339.75	60.33	39.782	
14,500.00	12,865.88	12,023.00	12,007.61	27.67	40.58	-49.98	783.67	244.00	2,484.58	2,424.12	60.46	41.096	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Montera Federal Com 601H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-3_Gyro-NS-CT_OWSG, 11116-3_MWD							Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	5.73	-0.27	0.50	0.01	-50.80	804.30	-986.10	1,272.51				
100.00	100.00	101.78	95.78	0.98	0.14	-50.81	804.26	-986.39	1,272.71	1,271.60	1.12	1,139.406	
200.00	200.00	208.68	202.67	1.56	0.51	-50.82	804.07	-986.54	1,272.71	1,270.64	2.07	614.837	
208.21	208.21	214.21	208.21	1.60	0.53	-50.82	804.06	-986.54	1,272.70	1,270.58	2.12	599.362	
300.00	300.00	302.32	296.32	1.98	0.84	-50.84	803.94	-986.97	1,272.97	1,270.15	2.82	451.837	
400.00	400.00	410.32	404.31	2.33	1.22	-50.86	803.47	-987.33	1,272.95	1,269.41	3.54	359.327	
500.00	500.00	509.74	503.73	2.63	1.56	-50.89	802.84	-987.38	1,272.60	1,268.40	4.19	303.388	
600.00	600.00	611.14	605.13	2.91	1.92	-50.91	802.20	-987.54	1,272.32	1,267.49	4.82	263.729	
700.00	700.00	711.26	705.25	3.16	2.27	-50.94	801.55	-987.59	1,271.94	1,266.52	5.43	234.337	
800.00	799.99	818.41	812.39	3.46	2.64	-10.98	800.62	-987.34	1,269.93	1,263.83	6.09	208.368	
900.00	899.91	918.13	912.11	3.73	2.99	-11.04	799.84	-986.85	1,265.20	1,258.48	6.72	188.360	
1,000.00	999.69	1,019.26	1,013.23	4.00	3.35	-11.10	799.65	-985.82	1,257.88	1,250.54	7.33	171.566	
1,100.00	1,099.32	1,117.54	1,111.50	4.11	3.69	-11.13	799.90	-984.36	1,248.48	1,240.68	7.79	160.257	
1,200.00	1,198.94	1,215.84	1,209.79	4.32	4.03	-11.15	800.15	-982.87	1,238.91	1,230.57	8.34	148.554	
1,300.00	1,298.56	1,315.90	1,309.84	4.52	4.38	-11.18	800.51	-981.34	1,229.39	1,220.50	8.89	138.248	
1,400.00	1,398.18	1,416.73	1,410.66	4.72	4.74	-11.21	800.60	-979.94	1,219.82	1,210.38	9.45	129.141	
1,500.00	1,497.80	1,519.77	1,513.69	4.92	5.10	-11.26	800.43	-978.50	1,210.08	1,200.08	10.00	120.960	
1,600.00	1,597.42	1,618.90	1,612.81	5.12	5.44	-11.31	800.04	-977.19	1,200.26	1,189.71	10.55	113.801	
1,700.00	1,697.04	1,719.32	1,713.22	5.32	5.80	-11.38	799.43	-975.91	1,190.34	1,179.25	11.09	107.308	
1,800.00	1,796.66	1,819.22	1,813.11	5.51	6.15	-11.45	798.69	-974.63	1,180.34	1,168.71	11.64	101.445	
1,900.00	1,896.28	1,921.78	1,915.66	5.70	6.50	-11.53	797.88	-973.19	1,170.21	1,158.03	12.19	96.035	
2,000.00	1,995.90	2,006.69	2,000.55	5.90	6.80	-11.65	796.52	-973.18	1,160.67	1,147.99	12.68	91.568	
2,100.00	2,095.52	2,103.43	2,097.25	6.09	7.14	-11.87	794.27	-974.63	1,151.87	1,138.67	13.20	87.234	
2,200.00	2,195.14	2,206.13	2,199.91	6.29	7.50	-12.11	791.82	-976.22	1,143.10	1,129.34	13.76	83.067	
2,300.00	2,294.66	2,307.45	2,301.19	6.48	7.86	-5.95	789.39	-977.52	1,133.00	1,118.68	14.31	79.148	
2,400.00	2,393.91	2,405.60	2,399.32	6.70	8.20	-1.73	787.12	-978.49	1,120.24	1,105.36	14.87	75.312	
2,500.00	2,492.84	2,508.24	2,501.93	6.92	8.56	1.20	785.03	-978.98	1,104.77	1,089.32	15.45	71.500	
2,600.00	2,591.36	2,610.82	2,604.49	7.13	8.92	3.40	783.33	-979.22	1,086.87	1,070.85	16.03	67.812	
2,700.00	2,689.42	2,705.22	2,698.88	7.35	9.25	5.09	781.77	-979.20	1,066.32	1,049.75	16.57	64.344	
2,800.00	2,787.23	2,801.08	2,794.71	7.54	9.59	5.07	779.62	-979.62	1,044.62	1,027.52	17.10	61.078	
2,900.00	2,885.05	2,899.91	2,893.43	7.74	9.94	4.90	775.39	-982.04	1,023.27	1,005.62	17.65	57.980	
3,000.00	2,982.86	2,994.29	2,987.69	7.94	10.28	4.73	771.31	-984.31	1,001.88	983.69	18.18	55.101	
3,100.00	3,080.67	3,094.03	3,087.33	8.15	10.63	4.57	767.44	-986.43	980.51	961.78	18.73	52.340	
3,200.00	3,178.49	3,190.08	3,183.32	8.35	10.97	4.46	764.38	-987.88	959.10	939.83	19.27	49.764	
3,300.00	3,276.30	3,298.76	3,291.86	8.56	11.36	4.26	759.57	-989.88	937.21	917.36	19.85	47.208	
3,400.00	3,374.12	3,395.88	3,388.70	8.78	11.72	3.89	752.84	-992.84	914.84	894.43	20.41	44.830	
3,500.00	3,471.93	3,496.88	3,489.48	9.00	12.09	3.56	746.49	-995.09	892.22	871.25	20.97	42.546	
3,600.00	3,569.75	3,594.18	3,586.57	9.22	12.44	3.25	740.55	-996.99	869.52	848.00	21.53	40.396	
3,700.00	3,667.56	3,692.90	3,685.11	9.45	12.80	2.92	734.67	-998.92	846.94	824.86	22.08	38.351	
3,800.00	3,765.38	3,786.87	3,778.93	9.68	13.15	2.64	729.71	-1,000.32	824.38	801.75	22.63	36.429	
3,900.00	3,863.19	3,885.69	3,877.62	9.92	13.50	2.37	724.88	-1,001.53	801.86	778.67	23.19	34.582	
4,000.00	3,961.01	3,972.58	3,964.32	10.16	13.82	2.01	719.77	-1,003.97	780.07	756.35	23.72	32.884	
4,100.00	4,058.82	4,057.70	4,049.19	10.41	14.14	1.54	714.45	-1,007.94	759.63	735.38	24.25	31.320	
4,200.00	4,156.64	4,146.79	4,138.07	10.66	14.47	1.13	710.54	-1,012.47	740.61	715.82	24.79	29.875	
4,300.00	4,254.45	4,236.70	4,227.86	10.91	14.79	0.87	709.12	-1,016.79	722.89	697.58	25.32	28.554	
4,400.00	4,352.27	4,333.17	4,324.25	11.16	15.12	0.77	709.90	-1,020.75	705.91	680.05	25.86	27.301	
4,500.00	4,450.08	4,445.61	4,436.61	11.42	15.51	0.93	713.13	-1,022.82	688.20	661.76	26.45	26.021	
4,600.00	4,547.89	4,585.46	4,576.37	11.68	16.00	1.26	714.56	-1,019.03	665.52	638.45	27.07	24.582	
4,700.00	4,645.71	4,685.55	4,676.35	11.94	16.34	1.39	712.89	-1,014.93	640.53	612.91	27.62	23.194	
4,800.00	4,743.52	4,787.61	4,778.18	12.20	16.71	1.03	706.44	-1,012.81	614.64	586.48	28.17	21.823	
4,900.00	4,841.34	4,884.69	4,874.94	12.46	17.06	0.53	698.87	-1,011.10	588.26	559.54	28.72	20.484	
5,000.00	4,939.15	4,975.00	4,964.97	12.72	17.39	0.01	691.83	-1,009.63	562.05	532.78	29.27	19.201	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Montera Federal Com 601H - OH - OH														Offset Site Error: 0.00 usft	
Survey Program: 100-3_Gyro-NS-CT_OWSG, 11116-3_MWD														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned: Distance			Offset Well Error: 0.00 usft		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,100.00	5,036.97	5,056.69	5,046.43	12.99	17.69	-0.62	685.84	-1,010.94	538.68	508.85	29.83	18.058			
5,200.00	5,134.78	5,154.50	5,143.99	13.26	18.06	-1.41	679.20	-1,013.04	516.21	485.81	30.40	16.982			
5,300.00	5,232.60	5,251.38	5,240.66	13.52	18.42	-2.18	673.13	-1,014.54	493.60	462.63	30.96	15.942			
5,400.00	5,330.41	5,348.85	5,337.95	13.79	18.78	-3.00	667.31	-1,016.06	471.23	439.70	31.53	14.946			
5,500.00	5,428.44	5,443.38	5,432.29	14.04	19.13	-3.87	661.55	-1,017.68	450.07	417.98	32.09	14.025			
5,600.00	5,526.94	5,527.52	5,516.13	14.27	19.45	-4.90	655.98	-1,021.91	434.13	401.48	32.65	13.295			
5,700.00	5,625.86	5,626.59	5,614.80	14.49	19.82	-6.22	649.58	-1,028.11	422.21	388.97	33.24	12.703			
5,800.00	5,725.13	5,725.61	5,713.42	14.67	20.20	-7.57	643.14	-1,034.26	413.04	379.23	33.81	12.215			
5,900.00	5,824.69	5,824.88	5,812.31	14.84	20.57	-8.89	636.86	-1,040.25	406.62	372.24	34.38	11.826			
6,000.00	5,924.45	5,924.10	5,911.14	14.98	20.95	-10.20	630.55	-1,046.37	403.11	368.17	34.94	11.536			
6,072.98	5,997.35	5,996.35	5,983.12	15.06	21.23	-11.09	626.18	-1,050.81	402.37	367.03	35.34	11.386	CC		
6,100.00	6,024.36	6,023.14	6,009.82	15.09	21.33	-11.41	624.61	-1,052.45	402.47	366.99	35.49	11.342			
6,200.00	6,124.34	6,125.49	6,111.83	15.18	21.72	-12.54	618.68	-1,058.27	404.23	368.22	36.01	11.225			
6,300.00	6,224.34	6,227.67	6,213.71	15.24	22.11	-71.07	613.00	-1,063.39	407.10	370.66	36.45	11.170			
6,400.00	6,324.34	6,329.32	6,315.11	15.31	22.49	-72.04	607.25	-1,067.85	409.47	372.59	36.89	11.100			
6,500.00	6,424.34	6,430.33	6,415.87	15.38	22.87	-72.97	601.53	-1,071.91	411.61	374.28	37.33	11.026			
6,600.00	6,524.34	6,530.71	6,516.04	15.45	23.25	-73.83	596.24	-1,075.74	413.76	376.00	37.77	10.956			
6,700.00	6,624.34	6,630.11	6,615.24	15.52	23.62	-74.65	591.06	-1,079.41	415.91	377.70	38.20	10.887			
6,800.00	6,724.34	6,730.76	6,715.69	15.59	24.00	-75.46	585.93	-1,083.07	418.12	379.48	38.64	10.821			
6,900.00	6,824.34	6,841.56	6,826.32	15.66	24.41	-76.26	580.58	-1,085.68	419.25	380.17	39.09	10.726			
7,000.00	6,924.34	6,941.37	6,926.04	15.73	24.77	-76.86	576.20	-1,086.17	418.71	379.19	39.52	10.596			
7,022.53	6,946.87	6,962.23	6,946.87	15.75	24.84	-76.98	575.34	-1,086.31	418.65	379.03	39.61	10.569			
7,100.00	7,024.34	7,030.06	7,014.68	15.80	25.08	-77.17	574.22	-1,087.70	419.87	379.95	39.92	10.518			
7,200.00	7,124.34	7,130.61	7,115.20	15.87	25.42	-77.25	574.11	-1,090.00	422.07	381.74	40.33	10.466			
7,300.00	7,224.34	7,230.68	7,215.24	15.94	25.76	-77.33	574.05	-1,092.20	424.20	383.46	40.74	10.413			
7,400.00	7,324.34	7,331.46	7,316.00	16.01	26.11	-77.39	574.03	-1,094.29	426.22	385.08	41.15	10.358			
7,500.00	7,424.34	7,432.75	7,417.27	16.09	26.45	-77.44	574.07	-1,096.32	428.18	386.62	41.56	10.302			
7,600.00	7,524.34	7,533.09	7,517.60	16.16	26.79	-77.50	574.03	-1,097.98	429.79	387.82	41.97	10.240			
7,700.00	7,624.34	7,633.80	7,618.29	16.23	27.14	-77.54	574.03	-1,099.56	431.32	388.94	42.38	10.176			
7,800.00	7,724.34	7,733.96	7,718.45	16.30	27.48	-77.53	574.43	-1,100.89	432.71	389.92	42.79	10.111			
7,900.00	7,824.34	7,834.68	7,819.16	16.37	27.82	-77.52	574.84	-1,102.28	434.14	390.94	43.21	10.048			
8,000.00	7,924.34	7,934.64	7,919.11	16.44	28.16	-77.48	575.39	-1,103.39	435.35	391.73	43.62	9.981			
8,100.00	8,024.34	8,035.96	8,020.42	16.51	28.50	-77.44	575.86	-1,104.33	436.35	392.32	44.03	9.910			
8,200.00	8,124.34	8,131.23	8,115.68	16.58	28.83	-77.48	575.89	-1,105.63	437.69	393.26	44.43	9.851			
8,300.00	8,224.34	8,230.28	8,214.71	16.66	29.17	-77.52	576.12	-1,108.01	440.09	395.25	44.84	9.814			
8,400.00	8,324.34	8,339.85	8,324.26	16.73	29.54	-77.49	576.52	-1,108.88	440.92	395.65	45.28	9.739			
8,500.00	8,424.34	8,448.28	8,432.68	16.80	29.92	-77.32	577.53	-1,107.48	439.85	394.15	45.70	9.624			
8,600.00	8,524.34	8,548.24	8,532.62	16.87	30.27	-77.15	578.40	-1,105.34	437.96	391.84	46.12	9.496			
8,700.00	8,624.34	8,647.06	8,631.41	16.94	30.61	-76.98	579.27	-1,103.32	436.16	389.62	46.54	9.372			
8,800.00	8,724.34	8,746.76	8,731.09	17.01	30.96	-76.84	579.92	-1,101.48	434.51	387.55	46.95	9.254			
8,900.00	8,824.34	8,845.41	8,829.73	17.09	31.30	-76.74	580.26	-1,099.72	432.86	385.49	47.37	9.138			
9,000.00	8,924.34	8,945.06	8,929.37	17.16	31.64	-76.67	580.48	-1,098.43	431.65	383.87	47.78	9.034			
9,100.00	9,024.34	9,044.55	9,028.85	17.23	31.99	-76.64	580.49	-1,097.36	430.60	382.41	48.20	8.934			
9,200.00	9,124.34	9,144.44	9,128.73	17.30	32.33	-76.63	580.29	-1,096.30	429.53	380.92	48.61	8.836			
9,300.00	9,224.34	9,244.64	9,228.93	17.38	32.67	-76.66	579.86	-1,095.30	428.46	379.44	49.03	8.740			
9,400.00	9,324.34	9,342.56	9,326.84	17.45	33.01	-76.73	579.15	-1,094.51	427.50	378.07	49.44	8.647			
9,500.00	9,424.34	9,442.42	9,426.70	17.52	33.35	-76.85	578.08	-1,094.13	426.89	377.03	49.85	8.563			
9,600.00	9,524.34	9,542.36	9,526.63	17.59	33.70	-77.00	576.93	-1,093.94	426.45	376.17	50.27	8.483			
9,700.00	9,624.34	9,642.02	9,626.28	17.67	34.04	-77.15	575.72	-1,093.64	425.88	375.19	50.69	8.402			
9,800.00	9,724.34	9,741.87	9,726.13	17.74	34.38	-77.28	574.71	-1,093.41	425.43	374.33	51.10	8.325			
9,900.00	9,824.34	9,841.73	9,825.98	17.81	34.73	-77.40	573.75	-1,093.25	425.07	373.55	51.52	8.250			
10,000.00	9,924.34	9,943.30	9,927.54	17.89	35.08	-77.48	573.01	-1,092.76	424.44	372.49	51.94	8.171			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Monter Federal Com 601H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program:		100-3_Gyro-NS-CT_OWSSG, 11116-3_MWD		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)			
10,100.00	10,024.34	10,042.60	10,026.84	17.96	35.42	-77.48	572.80	-1,091.97	423.61	371.26	52.36	8.091	
10,200.00	10,124.34	10,141.54	10,125.78	18.03	35.76	-77.40	573.25	-1,091.27	423.02	370.25	52.77	8.016	
10,300.00	10,224.34	10,244.13	10,228.36	18.11	36.12	-77.28	573.97	-1,090.40	422.35	369.15	53.20	7.939	
10,400.00	10,324.34	10,344.40	10,328.62	18.18	36.47	-77.05	575.46	-1,089.06	421.38	367.76	53.62	7.858	
10,500.00	10,424.34	10,446.71	10,430.90	18.25	36.83	-76.77	577.16	-1,087.40	420.17	366.12	54.05	7.773	
10,600.00	10,524.34	10,548.24	10,532.38	18.33	37.19	-76.44	579.06	-1,085.05	418.35	363.87	54.48	7.678	
10,700.00	10,624.34	10,647.83	10,631.92	18.40	37.54	-76.11	580.96	-1,082.66	416.47	361.56	54.91	7.585	
10,800.00	10,724.34	10,749.96	10,733.99	18.47	37.91	-75.73	583.13	-1,079.88	414.35	359.00	55.34	7.487	
10,900.00	10,824.34	10,849.07	10,833.01	18.55	38.26	-75.24	585.93	-1,076.79	412.04	356.27	55.78	7.387	
11,000.00	10,924.34	10,947.83	10,931.68	18.62	38.62	-74.74	588.86	-1,073.85	409.93	353.72	56.21	7.293	
11,030.86	10,955.20	10,971.36	10,955.20	18.64	38.70	-74.66	589.36	-1,073.48	409.64	353.32	56.32	7.273	ES
11,100.00	11,024.34	11,030.43	11,014.26	18.69	38.89	-74.56	590.28	-1,074.02	410.53	353.97	56.56	7.258	SF
11,200.00	11,124.34	11,116.00	11,099.77	18.77	39.04	-74.35	592.51	-1,076.57	414.19	357.43	56.76	7.297	
11,300.00	11,224.34	11,211.00	11,194.57	18.84	39.05	-74.17	595.43	-1,081.91	420.45	363.62	56.83	7.398	
11,400.00	11,324.34	11,329.20	11,312.59	18.92	39.06	-74.23	596.70	-1,088.10	425.85	368.91	56.94	7.479	
11,500.00	11,424.34	11,440.85	11,424.21	18.99	39.07	-74.47	595.15	-1,089.24	426.37	369.35	57.03	7.477	
11,600.00	11,524.34	11,539.20	11,522.55	19.06	39.08	-74.66	593.94	-1,090.05	426.84	369.72	57.11	7.474	
11,700.00	11,624.34	11,640.83	11,624.16	19.14	39.10	-74.92	592.08	-1,090.72	426.99	369.79	57.20	7.465	
11,800.00	11,724.34	11,740.92	11,724.22	19.21	39.12	-75.24	589.82	-1,091.35	427.02	369.73	57.29	7.453	
11,900.00	11,824.34	11,836.37	11,819.65	19.29	39.14	-75.51	587.96	-1,092.35	427.54	370.15	57.38	7.450	
12,000.00	11,924.34	11,934.12	11,917.23	19.36	39.16	-74.97	592.21	-1,092.61	428.91	371.43	57.49	7.461	
12,100.00	12,024.34	11,997.73	11,979.24	19.44	39.18	-73.22	605.75	-1,092.26	434.57	377.02	57.55	7.551	
12,200.00	12,124.34	12,058.40	12,034.49	19.51	39.21	-70.17	630.59	-1,093.31	450.08	392.49	57.59	7.815	
12,300.00	12,224.34	12,136.62	12,101.20	19.59	39.24	-65.38	671.36	-1,093.85	473.26	415.58	57.68	8.204	
12,400.00	12,324.31	12,202.37	12,154.44	19.64	39.28	112.13	709.92	-1,092.75	503.49	445.77	57.72	8.722	
12,500.00	12,422.88	12,248.45	12,190.25	19.68	39.31	111.30	738.90	-1,092.28	547.58	489.89	57.70	9.491	
12,600.00	12,517.18	12,280.47	12,214.31	19.70	39.33	107.55	760.03	-1,092.39	606.25	548.54	57.72	10.504	
12,700.00	12,604.33	12,301.10	12,229.49	19.72	39.35	100.23	773.99	-1,092.64	676.61	618.78	57.83	11.701	
12,800.00	12,681.69	12,318.00	12,241.75	19.76	39.37	89.78	785.63	-1,092.93	755.08	697.03	58.05	13.007	
12,900.00	12,746.91	12,306.87	12,233.69	19.82	39.36	73.84	777.95	-1,092.73	837.69	779.40	58.29	14.370	
13,000.00	12,797.99	12,294.92	12,224.97	19.92	39.35	58.69	769.78	-1,092.55	921.23	862.61	58.62	15.716	
13,100.00	12,833.40	12,271.00	12,207.26	20.08	39.33	45.79	753.70	-1,092.32	1,002.64	943.67	58.96	17.004	
13,200.00	12,852.06	12,251.27	12,192.39	20.30	39.31	36.86	740.73	-1,092.27	1,079.41	1,020.05	59.36	18.185	
13,300.00	12,855.35	12,224.00	12,171.42	20.57	39.29	31.96	723.31	-1,092.45	1,151.00	1,091.27	59.73	19.269	
13,400.00	12,856.23	12,195.66	12,149.12	20.89	39.27	29.22	705.83	-1,092.86	1,224.93	1,164.85	60.09	20.386	
13,500.00	12,857.10	12,177.00	12,134.18	21.25	39.26	26.58	694.65	-1,093.20	1,302.19	1,241.76	60.43	21.547	
13,600.00	12,857.98	12,130.00	12,095.71	21.64	39.24	24.24	667.66	-1,093.93	1,382.04	1,321.33	60.70	22.766	
13,700.00	12,858.86	12,130.00	12,095.71	22.08	39.24	24.24	667.66	-1,093.93	1,463.47	1,402.43	61.03	23.979	
13,800.00	12,859.74	12,098.18	12,068.94	22.59	39.22	23.51	650.48	-1,093.97	1,546.21	1,484.91	61.29	25.226	
13,900.00	12,860.61	12,082.00	12,055.07	23.15	39.22	23.13	642.15	-1,093.76	1,630.37	1,568.82	61.56	26.485	
14,000.00	12,861.49	12,066.62	12,041.71	23.77	39.21	22.77	634.53	-1,093.47	1,715.78	1,653.98	61.80	27.762	
14,100.00	12,862.37	12,055.00	12,031.49	24.45	39.21	22.51	628.99	-1,093.24	1,802.36	1,740.32	62.04	29.054	
14,200.00	12,863.25	12,042.76	12,020.63	25.18	39.20	22.23	623.38	-1,092.97	1,889.97	1,827.72	62.25	30.360	
14,300.00	12,864.13	12,035.00	12,013.67	25.97	39.20	22.05	619.93	-1,092.80	1,978.52	1,916.06	62.45	31.680	
14,400.00	12,865.00	12,035.00	12,013.67	26.80	39.20	22.05	619.93	-1,092.80	2,068.05	2,005.41	62.64	33.015	
14,500.00	12,865.88	12,035.00	12,013.67	27.67	39.20	22.05	619.93	-1,092.80	2,158.50	2,095.69	62.81	34.365	
14,600.00	12,866.76	12,035.00	12,013.67	28.59	39.20	22.05	619.93	-1,092.80	2,249.76	2,186.79	62.97	35.727	
14,700.00	12,867.64	12,035.00	12,013.67	29.54	39.20	22.05	619.93	-1,092.80	2,341.73	2,278.62	63.12	37.100	
14,800.00	12,868.51	12,010.65	11,991.37	30.52	39.19	21.51	610.17	-1,092.37	2,433.20	2,369.92	63.29	38.446	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 131H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.50	0.50	90.00	0.00	25.00	25.00	23.04	1.96	12.741			
100.00	100.00	100.00	100.00	0.98	0.98	90.00	0.00	25.00	25.00	21.88	3.12	8.007			
200.00	200.00	200.00	200.00	1.56	1.56	90.00	0.00	25.00	25.00	21.04	3.96	6.309			
300.00	300.00	300.00	300.00	1.98	1.98	90.00	0.00	25.00	25.00	20.34	4.66	5.366			
400.00	400.00	400.00	400.00	2.33	2.33	90.00	0.00	25.00	25.00	19.73	5.27	4.745			
500.00	500.00	500.00	500.00	2.63	2.63	90.00	0.00	25.00	25.00	19.18	5.82	4.295			
600.00	600.00	600.00	600.00	2.91	2.91	90.00	0.00	25.00	25.00	18.67	6.33	3.951	CC, ES		
700.00	700.00	700.00	700.00	3.16	3.16	90.00	0.00	25.00	25.00	18.03	6.83	3.788			
800.00	799.99	799.99	799.99	3.46	3.40	132.21	0.00	25.00	25.86	19.03	7.31	3.921			
900.00	899.91	899.91	899.91	3.73	3.62	138.01	0.00	25.00	28.65	21.34	7.78	4.345			
1,000.00	999.69	999.69	999.69	4.00	3.84	145.40	0.00	25.00	33.79	26.02	8.11	5.073			
1,100.00	1,099.32	1,099.32	1,099.32	4.11	4.04	152.17	0.00	25.00	41.14	33.03	8.52	5.754			
1,200.00	1,198.94	1,198.94	1,198.94	4.32	4.23	156.93	0.00	25.00	49.03	40.51	8.92	6.410			
1,300.00	1,298.56	1,298.56	1,298.56	4.52	4.42	160.35	0.00	25.00	57.15	48.24	9.30	7.034			
1,400.00	1,398.18	1,398.18	1,398.18	4.72	4.60	162.92	0.00	25.00	65.43	56.13	9.68	7.541			
1,500.00	1,497.80	1,499.06	1,499.06	4.92	4.77	164.99	0.43	24.26	72.96	63.29	10.04	7.851			
1,600.00	1,597.42	1,600.20	1,600.16	5.12	4.94	166.81	1.75	21.97	78.83	68.79	10.40	7.982			
1,700.00	1,697.04	1,701.50	1,701.36	5.32	5.10	168.57	3.97	18.14	83.01	72.61	10.76	7.950			
1,800.00	1,796.66	1,802.91	1,802.57	5.51	5.27	170.36	7.09	12.74	85.53	74.77	11.11	7.773			
1,900.00	1,896.28	1,904.35	1,903.70	5.70	5.44	172.29	11.11	5.80	86.39	75.27	11.47	7.466			
2,000.00	1,995.90	2,005.78	2,004.65	5.90	5.60	174.47	16.03	-2.69	85.63	74.16	11.82	7.045			
2,100.00	2,095.52	2,107.13	2,105.33	6.09	5.77	177.04	21.83	-12.72	83.29	71.47	12.19	6.521			
2,200.00	2,195.14	2,208.32	2,205.64	6.29	5.94	-179.82	28.52	-24.26	79.47	67.28	12.55	5.999			
2,300.00	2,294.66	2,309.39	2,305.58	6.48	6.12	-170.02	36.08	-37.33	75.28	62.73	12.93	5.564			
2,400.00	2,393.91	2,410.42	2,405.19	6.70	6.29	-162.45	44.52	-51.91	71.93	59.00	13.31	5.209			
2,500.00	2,492.84	2,511.42	2,504.47	6.92	6.47	-156.58	53.84	-68.00	69.33	56.02	13.70	4.920			
2,600.00	2,591.36	2,612.40	2,603.37	7.13	6.66	-151.98	64.03	-85.60	67.39	53.69	14.07	4.690			
2,700.00	2,689.42	2,713.35	2,701.88	7.35	6.84	-148.52	75.08	-104.70	66.01	51.93	14.44	4.479			
2,800.00	2,787.23	2,813.44	2,799.30	7.54	7.01	-146.79	86.57	-124.55	64.70	50.26	14.86	4.268			
2,900.00	2,885.05	2,913.41	2,896.61	7.74	7.23	-145.00	98.06	-144.39	63.44	48.58	15.29	4.071			
3,000.00	2,982.86	3,013.38	2,993.92	7.94	7.46	-143.13	109.54	-164.23	62.25	46.96	15.73	3.887			
3,100.00	3,080.67	3,113.35	3,091.23	8.15	7.69	-141.19	121.03	-184.06	61.13	45.40	16.17	3.714			
3,200.00	3,178.49	3,213.32	3,188.54	8.35	7.93	-139.17	132.51	-203.90	60.07	43.90	16.63	3.554			
3,300.00	3,276.30	3,313.30	3,285.84	8.56	8.18	-137.09	143.99	-223.74	59.10	42.47	17.10	3.405			
3,400.00	3,374.12	3,413.27	3,383.15	8.78	8.43	-134.95	155.48	-243.57	58.21	41.11	17.57	3.266			
3,500.00	3,471.93	3,513.24	3,480.46	9.00	8.68	-132.74	166.96	-263.41	57.40	39.82	18.06	3.139			
3,600.00	3,569.75	3,613.21	3,577.77	9.22	8.94	-130.47	178.44	-283.25	56.67	38.62	18.55	3.021			
3,700.00	3,667.56	3,713.18	3,675.08	9.45	9.20	-128.14	189.93	-303.09	56.04	37.49	19.06	2.912			
3,800.00	3,765.38	3,813.15	3,772.39	9.68	9.47	-125.77	201.41	-322.92	55.51	36.45	19.57	2.813			
3,900.00	3,863.19	3,913.13	3,869.70	9.92	9.74	-123.35	212.90	-342.76	55.07	35.49	20.10	2.723			
4,000.00	3,961.01	4,013.10	3,967.01	10.16	10.01	-120.90	224.38	-362.60	54.73	34.63	20.63	2.642			
4,100.00	4,058.82	4,113.07	4,064.31	10.41	10.28	-118.43	235.86	-382.44	54.49	33.86	21.16	2.568			
4,200.00	4,156.64	4,213.04	4,161.62	10.66	10.56	-115.93	247.35	-402.27	54.35	33.19	21.60	2.514			
4,281.64	4,236.49	4,294.66	4,241.07	10.86	10.78	-113.89	256.72	-418.47	54.32	32.71	21.70	2.503			
4,300.00	4,254.45	4,313.01	4,258.93	10.91	10.83	-113.43	258.83	-422.11	54.32	32.61	22.25	2.444			
4,400.00	4,352.27	4,412.99	4,356.24	11.16	11.11	-110.93	270.31	-441.95	54.39	32.14	22.80	2.393			
4,500.00	4,450.08	4,512.96	4,453.55	11.42	11.39	-108.44	281.80	-461.78	54.56	31.76	23.35	2.349			
4,600.00	4,547.89	4,612.93	4,550.86	11.68	11.68	-105.97	293.28	-481.62	54.84	31.49	23.90	2.311			
4,700.00	4,645.71	4,712.90	4,648.17	11.94	11.96	-103.54	304.77	-501.46	55.22	31.32	24.44	2.278			
4,800.00	4,743.52	4,812.87	4,745.47	12.20	12.24	-101.13	316.25	-521.30	55.69	31.25	24.99	2.251			
4,900.00	4,841.34	4,912.84	4,842.78	12.46	12.53	-98.78	327.73	-541.13	56.26	31.27	25.53	2.230			
5,000.00	4,939.15	5,012.82	4,940.09	12.72	12.82	-96.47	339.22	-560.97	56.93	31.39					

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 131H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre			Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
5,100.00	5,036.97	5,112.79	5,037.40	12.99	13.11	-94.22	350.70	-580.81	57.68	31.61	26.07	2.212	SF	
5,200.00	5,134.78	5,212.76	5,134.71	13.26	13.40	-92.04	362.18	-600.65	58.52	31.92	26.61	2.200		
5,300.00	5,232.60	5,312.73	5,232.02	13.52	13.69	-89.91	373.67	-620.48	59.45	32.31	27.14	2.191		
5,400.00	5,330.41	5,412.70	5,329.33	13.79	13.98	-87.86	385.15	-640.32	60.45	32.79	27.66	2.185		
5,500.00	5,428.44	5,512.65	5,426.61	14.04	14.27	-84.92	396.63	-660.15	61.61	33.48	28.13	2.190		
5,600.00	5,526.94	5,612.56	5,523.89	14.27	14.54	-79.90	408.05	-679.87	63.32	34.82	28.50	2.222		
5,700.00	5,625.86	5,712.62	5,621.62	14.49	14.82	-74.15	418.78	-698.42	65.75	36.97	28.78	2.285		
5,800.00	5,725.13	5,812.74	5,719.78	14.67	15.09	-68.17	428.67	-715.50	69.05	40.09	28.96	2.384		
5,900.00	5,824.69	5,912.94	5,818.34	14.84	15.34	-62.16	437.70	-731.10	73.37	44.30	29.07	2.524		
6,000.00	5,924.45	6,013.21	5,917.28	14.98	15.57	-56.33	445.88	-745.22	78.83	49.70	29.14	2.706		
6,100.00	6,024.36	6,113.58	6,016.57	15.09	15.78	-50.81	453.19	-757.85	85.50	56.32	29.18	2.930		
6,200.00	6,124.34	6,214.04	6,116.21	15.18	15.97	-45.73	459.63	-768.98	93.40	64.18	29.22	3.196		
6,300.00	6,224.34	6,314.72	6,216.27	15.24	16.15	-98.95	465.21	-778.62	101.75	72.49	29.25	3.478		
6,400.00	6,324.34	6,415.77	6,316.88	15.31	16.31	-95.84	469.93	-786.76	109.15	79.81	29.34	3.720		
6,500.00	6,424.34	6,517.12	6,417.94	15.38	16.45	-93.60	473.76	-793.38	115.36	85.89	29.47	3.915		
6,600.00	6,524.34	6,618.71	6,519.35	15.45	16.58	-92.05	476.70	-798.47	120.22	90.61	29.61	4.060		
6,700.00	6,624.34	6,720.47	6,621.04	15.52	16.69	-91.04	478.75	-802.00	123.64	93.88	29.76	4.155		
6,800.00	6,724.34	6,822.35	6,722.89	15.59	16.77	-90.51	479.89	-803.97	125.55	95.65	29.90	4.199		
6,900.00	6,824.34	6,923.81	6,824.34	15.66	16.85	-90.39	480.15	-804.42	125.99	95.96	30.03	4.195		
7,000.00	6,924.34	7,023.81	6,924.34	15.73	16.91	-90.39	480.15	-804.42	125.99	95.82	30.17	4.176		
7,100.00	7,024.34	7,123.81	7,024.34	15.80	16.97	-90.39	480.15	-804.42	125.99	95.69	30.30	4.158		
7,200.00	7,124.34	7,223.81	7,124.34	15.87	17.04	-90.39	480.15	-804.42	125.99	95.56	30.44	4.140		
7,300.00	7,224.34	7,323.81	7,224.34	15.94	17.10	-90.39	480.15	-804.42	125.99	95.42	30.57	4.122		
7,400.00	7,324.34	7,423.81	7,324.34	16.01	17.17	-90.39	480.15	-804.42	125.99	95.29	30.70	4.104		
7,500.00	7,424.34	7,523.81	7,424.34	16.09	17.23	-90.39	480.15	-804.42	125.99	95.15	30.84	4.086		
7,600.00	7,524.34	7,623.81	7,524.34	16.16	17.30	-90.39	480.15	-804.42	125.99	95.02	30.97	4.068		
7,700.00	7,624.34	7,723.81	7,624.34	16.23	17.36	-90.39	480.15	-804.42	125.99	94.88	31.11	4.050		
7,800.00	7,724.34	7,823.81	7,724.34	16.30	17.43	-90.39	480.15	-804.42	125.99	94.75	31.24	4.033		
7,900.00	7,824.34	7,923.81	7,824.34	16.37	17.49	-90.39	480.15	-804.42	125.99	94.61	31.38	4.015		
8,000.00	7,924.34	8,023.81	7,924.34	16.44	17.56	-90.39	480.15	-804.42	125.99	94.48	31.52	3.998		
8,100.00	8,024.34	8,123.81	8,024.34	16.51	17.62	-90.39	480.15	-804.42	125.99	94.34	31.65	3.981		
8,200.00	8,124.34	8,223.81	8,124.34	16.58	17.69	-90.39	480.15	-804.42	125.99	94.21	31.79	3.964		
8,300.00	8,224.34	8,323.81	8,224.34	16.66	17.75	-90.39	480.15	-804.42	125.99	94.07	31.92	3.947		
8,400.00	8,324.34	8,423.81	8,324.34	16.73	17.82	-90.39	480.15	-804.42	125.99	93.93	32.06	3.930		
8,500.00	8,424.34	8,523.81	8,424.34	16.80	17.89	-90.39	480.15	-804.42	125.99	93.79	32.20	3.913		
8,600.00	8,524.34	8,623.81	8,524.34	16.87	17.95	-90.39	480.15	-804.42	125.99	93.66	32.34	3.896		
8,700.00	8,624.34	8,723.81	8,624.34	16.94	18.02	-90.39	480.15	-804.42	125.99	93.52	32.47	3.880		
8,800.00	8,724.34	8,823.81	8,724.34	17.01	18.09	-90.39	480.15	-804.42	125.99	93.38	32.61	3.864		
8,900.00	8,824.34	8,923.81	8,824.34	17.09	18.15	-90.39	480.15	-804.42	125.99	93.24	32.75	3.847		
9,000.00	8,924.34	9,023.81	8,924.34	17.16	18.22	-90.39	480.15	-804.42	125.99	93.11	32.89	3.831		
9,100.00	9,024.34	9,123.81	9,024.34	17.23	18.29	-90.39	480.15	-804.42	125.99	92.97	33.03	3.815		
9,200.00	9,124.34	9,223.81	9,124.34	17.30	18.35	-90.39	480.15	-804.42	125.99	92.83	33.16	3.799		
9,300.00	9,224.34	9,323.81	9,224.34	17.38	18.42	-90.39	480.15	-804.42	125.99	92.69	33.30	3.783		
9,400.00	9,324.34	9,423.81	9,324.34	17.45	18.49	-90.39	480.15	-804.42	125.99	92.55	33.44	3.767		
9,500.00	9,424.34	9,523.81	9,424.34	17.52	18.55	-90.39	480.15	-804.42	125.99	92.41	33.58	3.752		
9,600.00	9,524.34	9,623.81	9,524.34	17.59	18.62	-90.39	480.15	-804.42	125.99	92.27	33.72	3.736		
9,700.00	9,624.34	9,723.81	9,624.34	17.67	18.69	-90.39	480.15	-804.42	125.99	92.13	33.86	3.721		
9,800.00	9,724.34	9,823.81	9,724.34	17.74	18.76	-90.39	480.15	-804.42	125.99	91.99	34.00	3.705		
9,900.00	9,824.34	9,923.81	9,824.34	17.81	18.82	-90.39	480.15	-804.42	125.99	91.85	34.14	3.690		
10,000.00	9,924.34	10,023.81	9,924.34	17.89	18.89	-90.39	480.15	-804.42	125.99	91.71	34.28	3.675		
10,100.00	10,024.34	10,123.81	10,024.34	17.96	18.96	-90.39	480.15	-804.42	125.99	91.57	34.42	3.660		
10,200.00	10,124.34	10,223.81	10,124.34	18.03	19.03	-90.39	480.15	-804.42	125.99	91.43	34.56	3.645		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 131H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
10,300.00	10,224.34	10,323.81	10,224.34	18.11	19.10	-90.39	480.15	-804.42	125.99	91.29	34.70	3.630
10,400.00	10,324.34	10,423.81	10,324.34	18.18	19.16	-90.39	480.15	-804.42	125.99	91.15	34.85	3.616
10,500.00	10,424.34	10,523.81	10,424.34	18.25	19.23	-90.39	480.15	-804.42	125.99	91.01	34.99	3.601
10,600.00	10,524.34	10,623.81	10,524.34	18.33	19.30	-90.39	480.15	-804.42	125.99	90.86	35.13	3.587
10,700.00	10,624.34	10,723.81	10,624.34	18.40	19.37	-90.39	480.15	-804.42	125.99	90.72	35.27	3.572
10,800.00	10,724.34	10,823.81	10,724.34	18.47	19.44	-90.39	480.15	-804.42	125.99	90.58	35.41	3.558
10,900.00	10,824.34	10,923.81	10,824.34	18.55	19.51	-90.39	480.15	-804.42	125.99	90.44	35.56	3.544
11,000.00	10,924.34	11,023.81	10,924.34	18.62	19.58	-90.39	480.15	-804.42	125.99	90.30	35.70	3.529
11,100.00	11,024.34	11,123.81	11,024.34	18.69	19.65	-90.39	480.15	-804.42	125.99	90.15	35.84	3.515
11,200.00	11,124.34	11,223.81	11,124.34	18.77	19.71	-90.39	480.15	-804.42	125.99	90.01	35.98	3.501
11,300.00	11,224.34	11,323.81	11,224.34	18.84	19.78	-90.39	480.15	-804.42	125.99	89.87	36.13	3.488
11,400.00	11,324.34	11,423.81	11,324.34	18.92	19.85	-90.39	480.15	-804.42	125.99	89.72	36.27	3.474
11,500.00	11,424.34	11,523.81	11,424.34	18.99	19.92	-90.39	480.15	-804.42	125.99	89.58	36.41	3.460
11,600.00	11,524.34	11,623.81	11,524.34	19.06	19.99	-90.39	480.15	-804.42	125.99	89.44	36.55	3.447
11,646.05	11,570.40	11,669.86	11,570.40	19.10	20.01	-90.49	479.92	-804.42	125.99	89.39	36.60	3.442
11,700.00	11,624.34	11,723.49	11,623.85	19.14	20.04	-92.33	475.88	-804.38	126.06	89.38	36.68	3.437
11,800.00	11,724.34	11,819.10	11,717.34	19.21	20.05	-101.08	456.37	-804.22	128.36	91.36	37.01	3.468
11,900.00	11,824.34	11,906.15	11,798.58	19.29	20.02	-113.92	425.33	-803.95	139.71	101.76	37.95	3.682
12,000.00	11,924.34	11,982.35	11,865.12	19.36	19.98	-126.51	388.33	-803.63	166.65	126.87	39.78	4.189
12,100.00	12,024.34	12,050.00	11,919.63	19.44	19.95	-136.74	348.33	-803.29	210.13	168.23	41.91	5.014
12,200.00	12,124.34	12,100.00	11,956.69	19.51	19.93	-143.15	314.78	-803.00	266.93	222.68	44.25	6.032
12,300.00	12,224.34	12,150.00	11,990.68	19.59	19.91	-148.51	278.14	-802.68	333.45	287.56	45.90	7.265
12,400.00	12,324.31	12,187.90	12,014.24	19.64	19.91	20.96	248.46	-802.43	405.99	358.52	47.47	8.552
12,500.00	12,422.88	12,227.67	12,036.80	19.68	19.90	15.80	215.72	-802.14	474.70	425.84	48.86	9.715
12,600.00	12,517.18	12,268.68	12,057.63	19.70	19.91	12.44	180.41	-801.84	536.58	486.42	50.16	10.697
12,700.00	12,604.33	12,300.00	12,071.80	19.72	19.92	10.38	152.48	-801.60	590.99	539.42	51.58	11.459
12,800.00	12,681.69	12,350.00	12,091.21	19.76	19.96	8.59	106.42	-801.20	636.78	584.20	52.58	12.111
12,900.00	12,746.91	12,400.00	12,106.53	19.82	20.00	7.32	58.84	-800.79	674.00	620.48	53.53	12.591
13,000.00	12,797.99	12,450.00	12,117.64	19.92	20.07	6.39	10.11	-800.37	702.27	647.88	54.40	12.910
13,100.00	12,833.40	12,483.19	12,122.65	20.08	20.12	5.86	-22.69	-800.09	720.86	665.57	55.29	13.037
13,200.00	12,852.06	12,526.94	12,126.34	20.30	20.20	5.37	-66.27	-799.72	730.07	674.13	55.94	13.050
13,300.00	12,855.35	12,599.06	12,127.38	20.57	20.37	4.82	-138.38	-799.10	730.65	674.34	56.30	12.977
13,400.00	12,856.23	12,698.81	12,128.25	20.89	20.66	4.29	-238.12	-798.24	730.09	673.60	56.48	12.926
13,500.00	12,857.10	12,798.74	12,129.12	21.25	21.00	4.04	-338.04	-797.38	729.83	673.17	56.67	12.880
13,594.38	12,857.93	12,893.11	12,129.94	21.62	21.39	3.98	-432.41	-796.56	729.78	672.93	56.84	12.839
13,600.00	12,857.98	12,898.73	12,129.99	21.64	21.41	4.01	-438.03	-796.52	729.81	672.96	56.85	12.837
13,700.00	12,858.86	12,998.73	12,130.86	22.08	21.88	4.01	-538.02	-795.66	729.81	672.76	57.06	12.791
13,800.00	12,859.74	13,098.73	12,131.73	22.59	22.42	4.01	-638.02	-794.79	729.82	672.55	57.27	12.742
13,900.00	12,860.61	13,198.73	12,132.60	23.15	23.01	4.01	-738.01	-793.93	729.83	672.32	57.51	12.691
14,000.00	12,861.49	13,298.73	12,133.47	23.77	23.66	4.01	-838.00	-793.07	729.83	672.08	57.75	12.637
14,100.00	12,862.37	13,398.73	12,134.34	24.45	24.37	4.01	-937.99	-792.21	729.84	671.83	58.01	12.580
14,200.00	12,863.25	13,498.73	12,135.21	25.18	25.13	4.01	-1,037.99	-791.35	729.85	671.56	58.29	12.521
14,300.00	12,864.13	13,598.73	12,136.09	25.97	25.94	4.01	-1,137.98	-790.49	729.85	671.28	58.58	12.460
14,400.00	12,865.00	13,698.73	12,136.96	26.80	26.79	4.01	-1,237.97	-789.63	729.86	670.98	58.88	12.396
14,500.00	12,865.88	13,798.73	12,137.83	27.67	27.69	4.01	-1,337.96	-788.77	729.87	670.68	59.19	12.331
14,600.00	12,866.76	13,898.73	12,138.70	28.59	28.62	4.01	-1,437.96	-787.91	729.87	670.36	59.52	12.263
14,700.00	12,867.64	13,998.73	12,139.57	29.54	29.59	4.01	-1,537.95	-787.05	729.88	670.02	59.86	12.194
14,800.00	12,868.51	14,098.73	12,140.44	30.52	30.59	4.01	-1,637.94	-786.19	729.89	669.68	60.21	12.123
14,900.00	12,869.39	14,198.73	12,141.31	31.54	31.62	4.01	-1,737.93	-785.33	729.89	669.32	60.57	12.050
15,000.00	12,870.27	14,298.73	12,142.18	32.58	32.67	4.01	-1,837.93	-784.47	729.90	668.95	60.95	11.976
15,100.00	12,871.15	14,398.73	12,143.05	33.65	33.75	4.01	-1,937.92	-783.61	729.91	668.57	61.33	11.901
15,200.00	12,872.03	14,498.73	12,143.93	34.73	34.85	4.01	-2,037.91	-782.74	729.91	668.18	61.73	11.824

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 131H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,300.00	12,872.90	14,598.73	12,144.80	35.84	35.96	4.01	-2,137.90	-781.88	729.92	667.78	62.14	11.746	
15,400.00	12,873.78	14,698.73	12,145.67	36.97	37.10	4.01	-2,237.90	-781.02	729.93	667.37	62.56	11.667	
15,500.00	12,874.66	14,798.73	12,146.54	38.11	38.25	4.01	-2,337.89	-780.16	729.93	666.94	62.99	11.587	
15,600.00	12,875.54	14,898.73	12,147.41	39.27	39.41	4.01	-2,437.88	-779.30	729.94	666.51	63.44	11.507	
15,700.00	12,876.42	14,998.73	12,148.28	40.45	40.59	4.01	-2,537.87	-778.44	729.95	666.06	63.89	11.425	
15,800.00	12,877.29	15,098.73	12,149.15	41.63	41.78	4.01	-2,637.87	-777.58	729.95	665.60	64.35	11.343	
15,900.00	12,878.17	15,198.73	12,150.02	42.83	42.98	4.01	-2,737.86	-776.72	729.96	665.14	64.82	11.261	
16,000.00	12,879.05	15,298.73	12,150.89	44.03	44.19	4.01	-2,837.85	-775.86	729.97	664.66	65.31	11.178	
16,100.00	12,879.93	15,398.73	12,151.77	45.25	45.41	4.01	-2,937.84	-775.00	729.97	664.18	65.80	11.094	
16,200.00	12,880.81	15,498.73	12,152.64	46.48	46.64	4.01	-3,037.84	-774.14	729.98	663.68	66.30	11.010	
16,300.00	12,881.68	15,598.73	12,153.51	47.71	47.88	4.01	-3,137.83	-773.28	729.99	663.18	66.81	10.926	
16,400.00	12,882.56	15,698.73	12,154.38	48.95	49.12	4.01	-3,237.82	-772.42	729.99	662.67	67.33	10.842	
16,500.00	12,883.44	15,798.73	12,155.25	50.20	50.37	4.01	-3,337.81	-771.55	730.00	662.15	67.86	10.758	
16,600.00	12,884.32	15,898.73	12,156.12	51.45	51.63	4.01	-3,437.81	-770.69	730.01	661.62	68.39	10.674	
16,700.00	12,885.19	15,998.73	12,156.99	52.71	52.89	4.01	-3,537.80	-769.83	730.01	661.08	68.94	10.590	
16,800.00	12,886.07	16,098.73	12,157.86	53.98	54.16	4.01	-3,637.79	-768.97	730.02	660.53	69.49	10.506	
16,900.00	12,886.95	16,198.73	12,158.73	55.25	55.43	4.01	-3,737.78	-768.11	730.03	659.98	70.05	10.422	
17,000.00	12,887.83	16,298.73	12,159.61	56.53	56.71	4.01	-3,837.78	-767.25	730.04	659.42	70.62	10.338	
17,100.00	12,888.71	16,398.73	12,160.48	57.81	57.99	4.01	-3,937.77	-766.39	730.04	658.85	71.19	10.254	
17,200.00	12,889.58	16,498.73	12,161.35	59.09	59.28	4.01	-4,037.76	-765.53	730.05	658.27	71.78	10.171	
17,300.00	12,890.46	16,598.73	12,162.22	60.38	60.57	4.01	-4,137.75	-764.67	730.06	657.69	72.37	10.088	
17,400.00	12,891.34	16,698.73	12,163.09	61.67	61.86	4.01	-4,237.75	-763.81	730.06	657.10	72.96	10.006	
17,500.00	12,892.22	16,798.73	12,163.96	62.97	63.16	4.01	-4,337.74	-762.95	730.07	656.50	73.57	9.924	
17,600.00	12,893.10	16,898.73	12,164.83	64.27	64.46	4.01	-4,437.73	-762.09	730.08	655.90	74.18	9.842	
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CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 131H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:			Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
20,500.00	12,918.55	19,798.73	12,190.10	102.74	102.94	4.01	-7,337.51	-737.13	730.27	636.12	94.15	7.757
20,600.00	12,919.43	19,898.73	12,190.97	104.09	104.29	4.01	-7,437.51	-736.26	730.28	635.38	94.89	7.696
20,700.00	12,920.31	19,998.73	12,191.84	105.43	105.63	4.01	-7,537.50	-735.40	730.28	634.64	95.65	7.635
20,800.00	12,921.19	20,098.73	12,192.71	106.78	106.98	4.01	-7,637.49	-734.54	730.29	633.89	96.40	7.575
20,900.00	12,922.07	20,198.73	12,193.58	108.12	108.32	4.01	-7,737.48	-733.68	730.30	633.14	97.16	7.516
21,000.00	12,922.94	20,298.73	12,194.45	109.47	109.67	4.00	-7,837.48	-732.82	730.30	632.38	97.92	7.458
21,100.00	12,923.82	20,398.73	12,195.32	110.81	111.02	4.00	-7,937.47	-731.96	730.31	631.62	98.69	7.400
21,200.00	12,924.70	20,498.73	12,196.19	112.16	112.36	4.00	-8,037.46	-731.10	730.32	630.86	99.45	7.343
21,300.00	12,925.58	20,598.73	12,197.06	113.51	113.71	4.00	-8,137.45	-730.24	730.32	630.10	100.22	7.287
21,400.00	12,926.46	20,698.73	12,197.94	114.86	115.06	4.00	-8,237.45	-729.38	730.33	629.34	100.99	7.231
21,500.00	12,927.33	20,798.73	12,198.81	116.21	116.41	4.00	-8,337.44	-728.52	730.34	628.57	101.77	7.176
21,600.00	12,928.21	20,898.73	12,199.68	117.56	117.76	4.00	-8,437.43	-727.66	730.34	627.80	102.55	7.122
21,700.00	12,929.09	20,998.73	12,200.55	118.91	119.11	4.00	-8,537.42	-726.80	730.35	627.03	103.32	7.068
21,800.00	12,929.97	21,098.73	12,201.42	120.26	120.46	4.00	-8,637.42	-725.94	730.36	626.25	104.11	7.015
21,900.00	12,930.84	21,198.73	12,202.29	121.61	121.81	4.00	-8,737.41	-725.08	730.36	625.47	104.89	6.963
22,000.00	12,931.72	21,298.73	12,203.16	122.96	123.16	4.00	-8,837.40	-724.21	730.37	624.69	105.68	6.911
22,100.00	12,932.60	21,398.73	12,204.03	124.31	124.52	4.00	-8,937.39	-723.35	730.38	623.91	106.47	6.860
22,200.00	12,933.48	21,498.73	12,204.90	125.66	125.87	4.00	-9,037.39	-722.49	730.38	623.13	107.26	6.810
22,300.00	12,934.36	21,598.73	12,205.78	127.02	127.22	4.00	-9,137.38	-721.63	730.39	622.34	108.05	6.760
22,400.00	12,935.23	21,698.73	12,206.65	128.37	128.57	4.00	-9,237.37	-720.77	730.40	621.55	108.85	6.710
22,500.00	12,936.11	21,798.73	12,207.52	129.72	129.93	4.00	-9,337.36	-719.91	730.40	620.76	109.64	6.662
22,600.00	12,936.99	21,898.73	12,208.39	131.08	131.28	4.00	-9,437.36	-719.05	730.41	619.97	110.44	6.614
22,700.00	12,937.87	21,998.73	12,209.26	132.43	132.63	4.00	-9,537.35	-718.19	730.42	619.17	111.24	6.566
22,800.00	12,938.75	22,098.73	12,210.13	133.78	133.99	4.00	-9,637.34	-717.33	730.42	618.38	112.05	6.519
22,900.00	12,939.62	22,198.73	12,211.00	135.14	135.34	4.00	-9,737.33	-716.47	730.43	617.58	112.85	6.472
23,000.00	12,940.50	22,298.73	12,211.87	136.49	136.70	4.00	-9,837.33	-715.61	730.44	616.78	113.66	6.427
23,100.00	12,941.38	22,398.73	12,212.75	137.85	138.05	4.00	-9,937.32	-714.75	730.44	615.98	114.47	6.381
23,107.74	12,941.45	22,406.48	12,212.81	137.94	138.16	4.00	-9,945.06	-714.68	730.45	615.93	114.52	6.379
23,193.48	12,942.20	22,485.80	12,213.50	139.00	139.26	4.00	-10,024.37	-714.00	730.48	615.30	115.17	6.342

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:					Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre			Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
0.00	0.00	0.00	1.00	0.50	0.50	7.70	185.00	25.00	186.68					
100.00	100.00	99.00	100.00	0.98	0.97	7.70	185.00	25.00	186.68	184.73	1.95	95.493		
200.00	200.00	199.00	200.00	1.56	1.56	7.70	185.00	25.00	186.68	183.57	3.12	59.906		
300.00	300.00	299.00	300.00	1.98	1.98	7.70	185.00	25.00	186.68	182.72	3.96	47.165		
400.00	400.00	399.00	400.00	2.33	2.33	7.70	185.00	25.00	186.68	182.03	4.66	40.101		
500.00	500.00	499.00	500.00	2.63	2.63	7.70	185.00	25.00	186.68	181.42	5.27	35.451		
600.00	600.00	599.00	600.00	2.91	2.91	7.70	185.00	25.00	186.68	180.86	5.82	32.090		
700.00	700.00	699.00	700.00	3.16	3.16	7.70	185.00	25.00	186.68	180.36	6.33	29.515		
800.00	799.99	798.99	799.99	3.46	3.40	48.00	185.00	25.00	185.80	178.98	6.82	27.228		
900.00	899.91	895.89	896.88	3.73	3.66	49.19	185.63	26.02	184.01	176.71	7.30	25.198		
1,000.00	999.69	992.46	993.38	4.00	3.91	51.58	187.55	29.12	182.37	174.62	7.75	23.520		
1,082.47	1,081.89	1,071.77	1,072.55	4.09	4.11	54.29	190.09	33.21	181.83	173.81	8.02	22.676	CC, ES	
1,100.00	1,099.32	1,088.57	1,089.29	4.11	4.15	55.00	190.74	34.26	181.72	173.64	8.07	22.505		
1,200.00	1,198.94	1,186.14	1,186.52	4.32	4.27	58.93	195.08	41.27	183.35	174.95	8.39	21.851		
1,300.00	1,298.56	1,285.27	1,285.27	4.52	4.46	62.89	199.64	48.61	186.09	177.31	8.78	21.204		
1,400.00	1,398.18	1,384.41	1,384.03	4.72	4.65	66.72	204.19	55.95	189.70	180.53	9.16	20.699		
1,500.00	1,497.80	1,483.54	1,482.78	4.92	4.84	70.39	208.74	63.29	194.14	184.59	9.55	20.334		
1,600.00	1,597.42	1,582.67	1,581.54	5.12	5.03	73.89	213.30	70.64	199.35	189.42	9.93	20.085		
1,700.00	1,697.04	1,681.80	1,680.29	5.32	5.22	77.19	217.85	77.98	205.27	194.97	10.30	19.933		
1,800.00	1,796.66	1,780.93	1,779.05	5.51	5.41	80.31	222.40	85.32	211.84	201.17	10.67	19.860		
1,900.00	1,896.28	1,880.07	1,877.80	5.70	5.60	83.23	226.95	92.67	219.00	207.97	11.03	19.853		
2,000.00	1,995.90	1,979.20	1,976.56	5.90	5.78	85.96	231.51	100.01	226.70	215.31	11.39	19.899		
2,100.00	2,095.52	2,078.33	2,075.31	6.09	5.97	88.51	236.06	107.35	234.88	223.13	11.75	19.989		
2,200.00	2,195.14	2,177.46	2,174.07	6.29	6.16	90.89	240.61	114.70	243.50	231.38	12.12	20.088		
2,300.00	2,294.66	2,273.39	2,269.60	6.48	6.34	99.46	245.24	122.15	253.57	241.12	12.46	20.358		
2,400.00	2,393.91	2,367.43	2,363.09	6.70	6.51	106.22	250.55	130.73	267.12	254.32	12.80	20.869		
2,500.00	2,492.84	2,460.49	2,455.43	6.92	6.69	111.72	256.61	140.49	284.37	271.22	13.15	21.621		
2,600.00	2,591.36	2,552.39	2,546.43	7.13	6.87	116.39	263.36	151.39	305.46	291.95	13.51	22.606		
2,700.00	2,689.42	2,642.97	2,635.91	7.35	7.04	120.39	270.77	163.34	330.46	316.58	13.87	23.819		
2,800.00	2,787.23	2,732.48	2,724.11	7.54	7.22	122.81	278.83	176.34	358.44	344.21	14.23	25.185		
2,900.00	2,885.05	2,821.22	2,811.30	7.74	7.39	124.84	287.53	190.37	388.44	373.85	14.59	26.623		
3,000.00	2,982.86	2,909.52	2,897.79	7.94	7.58	126.54	296.89	205.47	420.30	405.35	14.95	28.109		
3,100.00	3,080.67	3,003.32	2,989.55	8.15	7.76	128.08	307.16	222.04	453.10	437.76	15.34	29.530		
3,200.00	3,178.49	3,097.13	3,081.30	8.35	7.95	129.42	317.43	238.61	486.16	470.42	15.74	30.882		
3,300.00	3,276.30	3,190.93	3,173.06	8.56	8.14	130.59	327.70	255.18	519.43	503.29	16.14	32.176		
3,400.00	3,374.12	3,284.73	3,264.81	8.78	8.33	131.62	337.98	271.75	552.87	536.32	16.55	33.414		
3,500.00	3,471.93	3,378.53	3,356.57	9.00	8.52	132.53	348.25	288.32	586.45	569.50	16.95	34.598		
3,600.00	3,569.75	3,472.34	3,448.32	9.22	8.72	133.34	358.52	304.89	620.15	602.79	17.36	35.730		
3,700.00	3,667.56	3,566.14	3,540.07	9.45	8.92	134.07	368.79	321.46	653.94	636.18	17.76	36.812		
3,800.00	3,765.38	3,659.94	3,631.83	9.68	9.12	134.73	379.06	338.03	687.83	669.65	18.17	37.847		
3,900.00	3,863.19	3,753.74	3,723.58	9.92	9.33	135.33	389.33	354.60	721.79	703.20	18.59	38.836		
4,000.00	3,961.01	3,847.55	3,815.34	10.16	9.55	135.87	399.61	371.17	755.81	736.81	19.00	39.783		
4,100.00	4,058.82	3,941.35	3,907.09	10.41	9.77	136.37	409.88	387.73	789.88	770.47	19.41	40.691		
4,200.00	4,156.64	4,035.15	3,998.85	10.66	9.99	136.83	420.15	404.30	824.01	804.19	19.82	41.581		
4,300.00	4,254.45	4,139.45	4,100.97	10.91	10.21	137.31	431.31	422.31	857.77	837.52	20.26	42.346		
4,400.00	4,352.27	4,249.26	4,208.87	11.16	10.47	137.82	442.03	439.61	890.01	869.26	20.74	42.907		
4,500.00	4,450.08	4,360.24	4,318.30	11.42	10.72	138.36	451.76	455.30	920.62	899.39	21.22	43.377		
4,600.00	4,547.89	4,472.32	4,429.17	11.68	10.95	138.91	460.46	469.32	949.59	927.90	21.70	43.765		
4,700.00	4,645.71	4,585.45	4,541.36	11.94	11.17	139.49	468.07	481.60	976.93	954.76	22.16	44.080		
4,800.00	4,743.52	4,699.53	4,654.77	12.20	11.38	140.10	474.56	492.08	1,002.60	979.98	22.62	44.327		
4,900.00	4,841.34	4,814.49	4,769.29	12.46	11.56	140.73	479.90	500.69	1,026.62	1,003.55	23.06	44.517		
5,000.00	4,939.15	4,930.26	4,884.78	12.72	11.74	141.40	484.05	507.39	1,048.97	1,025.48	23.49	44.655		

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

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Total Directional Anticollision Report

Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Offset Wellbore Centre				Rule Assigned: Distance		Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,036.97	5,046.73	5,001.12	12.99	11.90	142.09	486.99	512.12	1,069.66	1,045.76	23.90	44.752	
5,200.00	5,134.78	5,163.83	5,118.17	13.26	12.04	142.81	488.68	514.86	1,088.69	1,064.40	24.30	44.809	
5,300.00	5,232.60	5,278.26	5,232.60	13.52	12.14	143.54	489.13	515.58	1,106.11	1,081.49	24.62	44.932	
5,400.00	5,330.41	5,376.07	5,330.41	13.79	12.21	144.17	489.13	515.58	1,123.02	1,098.12	24.90	45.100	
5,500.00	5,428.44	5,474.10	5,428.44	14.04	12.29	144.87	489.13	515.58	1,139.23	1,114.04	25.18	45.238	
5,600.00	5,526.94	5,572.60	5,526.94	14.27	12.37	145.49	489.13	515.58	1,153.42	1,127.95	25.47	45.283	
5,700.00	5,625.86	5,671.52	5,625.86	14.49	12.45	145.99	489.13	515.58	1,165.55	1,139.80	25.75	45.266	
5,800.00	5,725.13	5,770.80	5,725.13	14.67	12.53	146.41	489.13	515.58	1,175.57	1,149.56	26.02	45.186	
5,900.00	5,824.69	5,870.35	5,824.69	14.84	12.61	146.72	489.13	515.58	1,183.45	1,157.18	26.27	45.047	
6,000.00	5,924.45	5,970.11	5,924.45	14.98	12.69	146.95	489.13	515.58	1,189.16	1,162.65	26.51	44.851	
6,100.00	6,024.36	6,070.02	6,024.36	15.09	12.77	147.09	489.13	515.58	1,192.69	1,165.95	26.74	44.602	
6,200.00	6,124.34	6,170.00	6,124.34	15.18	12.85	147.14	489.13	515.58	1,194.03	1,167.08	26.94	44.314	
6,300.00	6,224.34	6,270.00	6,224.34	15.24	12.93	89.61	489.13	515.58	1,194.04	1,166.96	27.08	44.093	
6,400.00	6,324.34	6,370.00	6,324.34	15.31	13.01	89.61	489.13	515.58	1,194.04	1,166.81	27.23	43.858	
6,500.00	6,424.34	6,470.00	6,424.34	15.38	13.09	89.61	489.13	515.58	1,194.04	1,166.67	27.37	43.625	
6,600.00	6,524.34	6,570.00	6,524.34	15.45	13.17	89.61	489.13	515.58	1,194.04	1,166.52	27.52	43.394	
6,700.00	6,624.34	6,670.00	6,624.34	15.52	13.25	89.61	489.13	515.58	1,194.04	1,166.38	27.66	43.165	
6,800.00	6,724.34	6,770.00	6,724.34	15.59	13.33	89.61	489.13	515.58	1,194.04	1,166.23	27.81	42.938	
6,900.00	6,824.34	6,870.00	6,824.34	15.66	13.41	89.61	489.13	515.58	1,194.04	1,166.08	27.95	42.713	
7,000.00	6,924.34	6,970.00	6,924.34	15.73	13.50	89.61	489.13	515.58	1,194.04	1,165.94	28.10	42.491	
7,100.00	7,024.34	7,070.00	7,024.34	15.80	13.58	89.61	489.13	515.58	1,194.04	1,165.79	28.25	42.270	
7,200.00	7,124.34	7,170.00	7,124.34	15.87	13.66	89.61	489.13	515.58	1,194.04	1,165.64	28.39	42.052	
7,300.00	7,224.34	7,270.00	7,224.34	15.94	13.74	89.61	489.13	515.58	1,194.04	1,165.50	28.54	41.835	
7,400.00	7,324.34	7,370.00	7,324.34	16.01	13.82	89.61	489.13	515.58	1,194.04	1,165.35	28.69	41.621	
7,500.00	7,424.34</												

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:		0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre				Distance		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
10,300.00	10,224.34	10,270.00	10,224.34	18.11	16.17	89.61	489.13	515.58	1,194.04	1,161.02	33.02	36.164			
10,400.00	10,324.34	10,370.00	10,324.34	18.18	16.25	89.61	489.13	515.58	1,194.04	1,160.87	33.17	35.999			
10,500.00	10,424.34	10,470.00	10,424.34	18.25	16.33	89.61	489.13	515.58	1,194.04	1,160.72	33.32	35.836			
10,600.00	10,524.34	10,570.00	10,524.34	18.33	16.41	89.61	489.13	515.58	1,194.04	1,160.57	33.47	35.674			
10,700.00	10,624.34	10,670.00	10,624.34	18.40	16.50	89.61	489.13	515.58	1,194.04	1,160.41	33.62	35.513			
10,800.00	10,724.34	10,770.00	10,724.34	18.47	16.58	89.61	489.13	515.58	1,194.04	1,160.26	33.77	35.353			
10,900.00	10,824.34	10,870.00	10,824.34	18.55	16.66	89.61	489.13	515.58	1,194.04	1,160.11	33.93	35.195			
11,000.00	10,924.34	10,970.00	10,924.34	18.62	16.74	89.61	489.13	515.58	1,194.04	1,159.96	34.08	35.039			
11,100.00	11,024.34	11,070.00	11,024.34	18.69	16.82	89.61	489.13	515.58	1,194.04	1,159.81	34.23	34.883			
11,200.00	11,124.34	11,170.00	11,124.34	18.77	16.90	89.61	489.13	515.58	1,194.04	1,159.66	34.38	34.729			
11,300.00	11,224.34	11,270.00	11,224.34	18.84	16.98	89.61	489.13	515.58	1,194.04	1,159.50	34.53	34.576			
11,400.00	11,324.34	11,370.00	11,324.34	18.92	17.06	89.61	489.13	515.58	1,194.04	1,159.35	34.69	34.424			
11,500.00	11,424.34	11,470.00	11,424.34	18.99	17.15	89.61	489.13	515.58	1,194.04	1,159.20	34.84	34.274			
11,600.00	11,524.34	11,570.00	11,524.34	19.06	17.23	89.61	489.13	515.58	1,194.04	1,159.05	34.99	34.125			
11,606.99	11,531.33	11,576.99	11,531.33	19.07	17.23	89.61	489.13	515.58	1,194.04	1,159.04	35.00	34.114			
11,700.00	11,624.34	11,669.40	11,623.56	19.14	17.32	89.81	484.89	515.62	1,194.05	1,158.98	35.07	34.043			
11,800.00	11,724.34	11,764.65	11,716.72	19.21	17.38	90.74	465.54	515.78	1,194.34	1,159.28	35.06	34.066			
11,900.00	11,824.34	11,850.00	11,796.45	19.29	17.43	92.19	435.31	516.04	1,195.67	1,160.65	35.02	34.139			
12,000.00	11,924.34	11,927.46	11,864.21	19.36	17.48	93.98	397.89	516.37	1,199.19	1,164.19	35.00	34.259			
12,100.00	12,024.34	11,992.44	11,916.73	19.44	17.52	95.80	359.70	516.69	1,206.08	1,171.00	35.08	34.385			
12,200.00	12,124.34	12,050.00	11,959.38	19.51	17.57	97.62	321.08	517.03	1,217.33	1,182.06	35.28	34.508			
12,300.00	12,224.34	12,100.00	11,993.13	19.59	17.61	99.35	284.21	517.34	1,233.72	1,198.07	35.65	34.604			
12,400.00	12,324.31	12,132.96	12,013.56	19.64	17.65	-83.97	258.36	517.57	1,255.47	1,219.22	36.25	34.633			
12,500.00	12,422.88	12,172.75	12,036.20	19.68	17.69	-80.05	225.64	517.85	1,281.10	1,244.24	36.86	34.753			
12,600.00	12,517.18	12,213.78	12,057.10	19.70	17.74	-76.08	190.35	518.15	1,308.77	1,271.23	37.53	34.869			
12,700.00	12,604.33	12,250.00	12,073.42	19.72	17.79	-72.41	158.02	518.43	1,336.96	1,298.70	38.26	34.943			
12,800.00	12,681.69	12,300.00	12,092.52	19.76	17.87	-68.81	111.83	518.83	1,364.23	1,325.33	38.90	35.073			
12,900.00	12,746.91	12,350.00	12,107.52	19.82	17.97	-65.75	64.15	519.24	1,389.52	1,350.01	39.50	35.177			
13,000.00	12,797.99	12,384.71	12,115.47	19.92	18.04	-63.39	30.37	519.53	1,411.64	1,371.56	40.09	35.215			
13,100.00	12,833.40	12,428.33	12,122.52	20.08	18.15	-61.51	-12.66	519.90	1,430.01	1,389.48	40.53	35.280			
13,200.00	12,852.06	12,472.08	12,126.29	20.30	18.26	-60.21	-56.24	520.28	1,443.98	1,403.12	40.86	35.341			
13,300.00	12,855.35	12,542.87	12,127.36	20.57	18.49	-59.89	-127.02	520.89	1,453.38	1,412.26	41.11	35.350			
13,400.00	12,856.23	12,642.62	12,128.23	20.89	18.86	-60.07	-226.75	521.74	1,459.49	1,417.96	41.53	35.145			
13,500.00	12,857.10	12,742.55	12,129.10	21.25	19.30	-60.15	-326.68	522.60	1,462.59	1,420.49	42.10	34.743			
13,600.00	12,857.98	12,842.55	12,129.97	21.64	19.82	-60.16	-426.67	523.47	1,463.01	1,420.22	42.79	34.193			
13,700.00	12,858.86	12,942.55	12,130.84	22.08	20.42	-60.16	-526.66	524.33	1,463.01	1,419.40	43.61	33.548			
13,800.00	12,859.74	13,042.55	12,131.71	22.59	21.09	-60.16	-626.65	525.19	1,463.02	1,418.47	44.55	32.842			
13,900.00	12,860.61	13,142.55	12,132.58	23.15	21.83	-60.16	-726.64	526.05	1,463.02	1,417.43	45.59	32.088			
14,000.00	12,861.49	13,242.55	12,133.45	23.77	22.62	-60.16	-826.64	526.91	1,463.02	1,416.28	46.74	31.301			
14,100.00	12,862.37	13,342.55	12,134.32	24.45	23.48	-60.16	-926.63	527.77	1,463.03	1,415.04	47.98	30.491			
14,200.00	12,863.25	13,442.55	12,135.20	25.18	24.38	-60.16	-1,026.62	528.63	1,463.03	1,413.72	49.31	29.669			
14,300.00	12,864.13	13,542.55	12,136.07	25.97	25.33	-60.16	-1,126.61	529.49	1,463.03	1,412.31	50.72	28.845			
14,400.00	12,865.00	13,642.55	12,136.94	26.80	26.31	-60.15	-1,226.61	530.35	1,463.04	1,410.84	52.20	28.026			
14,500.00	12,865.88	13,742.55	12,137.81	27.67	27.33	-60.15	-1,326.60	531.21	1,463.04	1,409.29	53.75	27.218			
14,600.00	12,866.76	13,842.55	12,138.68	28.59	28.39	-60.15	-1,426.59	532.08	1,463.05	1,407.68	55.37	26.425			
14,700.00	12,867.64	13,942.55	12,139.55	29.54	29.46	-60.15	-1,526.58	532.94	1,463.05	1,406.01	57.04	25.651			
14,800.00	12,868.51	14,042.55	12,140.42	30.52	30.57	-60.15	-1,626.58	533.80	1,463.05	1,404.30	58.76	24.900			
14,900.00	12,869.39	14,142.55	12,141.30	31.54	31.69	-60.15	-1,726.57	534.66	1,463.06	1,402.53	60.53	24.172			
15,000.00	12,870.27	14,242.55	12,142.17	32.58	32.83	-60.15	-1,826.56	535.52	1,463.06	1,400.72	62.34	23.468			
15,100.00	12,871.15	14,342.55	12,143.04	33.65	34.00	-60.15	-1,926.55	536.38	1,463.06	1,398.87	64.20	22.791			
15,200.00	12,872.03	14,442.55	12,143.91	34.73	35.17	-60.15	-2,026.55	537.24	1,463.07	1,396.98	66.09	22.139			
15,300.00	12,872.90	14,542.55	12,144.78	35.84	36.36	-60.15	-2,126.54	538.10	1,463.07	1,395.06	68.01	21.513			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre				Distance		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
15,400.00	12,873.78	14,642.55	12,145.65	36.97	37.57	-60.15	-2,226.53	538.96	1,463.08	1,393.11	69.96	20.912			
15,500.00	12,874.66	14,742.55	12,146.52	38.11	38.78	-60.15	-2,326.52	539.82	1,463.08	1,391.13	71.95	20.336			
15,600.00	12,875.54	14,842.55	12,147.40	39.27	40.00	-60.15	-2,426.52	540.69	1,463.08	1,389.13	73.96	19.783			
15,700.00	12,876.42	14,942.55	12,148.27	40.45	41.24	-60.15	-2,526.51	541.55	1,463.09	1,387.10	75.99	19.254			
15,800.00	12,877.29	15,042.55	12,149.14	41.63	42.48	-60.15	-2,626.50	542.41	1,463.09	1,385.05	78.04	18.747			
15,900.00	12,878.17	15,142.55	12,150.01	42.83	43.73	-60.15	-2,726.49	543.27	1,463.09	1,382.98	80.12	18.261			
16,000.00	12,879.05	15,242.55	12,150.88	44.03	44.99	-60.15	-2,826.49	544.13	1,463.10	1,380.88	82.21	17.796			
16,100.00	12,879.93	15,342.55	12,151.75	45.25	46.25	-60.15	-2,926.48	544.99	1,463.10	1,378.78	84.33	17.351			
16,200.00	12,880.81	15,442.55	12,152.62	46.48	47.52	-60.15	-3,026.47	545.85	1,463.11	1,376.65	86.45	16.923			
16,300.00	12,881.68	15,542.55	12,153.50	47.71	48.80	-60.15	-3,126.46	546.71	1,463.11	1,374.51	88.60	16.514			
16,400.00	12,882.56	15,642.55	12,154.37	48.95	50.08	-60.15	-3,226.46	547.57	1,463.11	1,372.36	90.75	16.122			
16,500.00	12,883.44	15,742.55	12,155.24	50.20	51.36	-60.15	-3,326.45	548.43	1,463.12	1,370.19	92.92	15.745			
16,600.00	12,884.32	15,842.55	12,156.11	51.45	52.65	-60.15	-3,426.44	549.30	1,463.12	1,368.01	95.11	15.384			
16,700.00	12,885.19	15,942.55	12,156.98	52.71	53.95	-60.15	-3,526.43	550.16	1,463.13	1,365.83	97.30	15.037			
16,800.00	12,886.07	16,042.55	12,157.85	53.98	55.24	-60.15	-3,626.43	551.02	1,463.13	1,363.63	99.50	14.704			
16,900.00	12,886.95	16,142.55	12,158.72	55.25	56.54	-60.15	-3,726.42	551.88	1,463.13	1,361.42	101.72	14.384			
17,000.00	12,887.83	16,242.55	12,159.60	56.53	57.85	-60.15	-3,826.41	552.74	1,463.14	1,359.20	103.94	14.077			
17,100.00	12,888.71	16,342.55	12,160.47	57.81	59.16	-60.15	-3,926.40	553.60	1,463.14	1,356.97	106.17	13.781			
17,200.00	12,889.58	16,442.55	12,161.34	59.09	60.47	-60.15	-4,026.40	554.46	1,463.14	1,354.73	108.41	13.496			
17,300.00	12,890.46	16,542.55	12,162.21	60.38	61.78	-60.15	-4,126.39	555.32	1,463.15	1,352.49	110.66	13.222			
17,400.00	12,891.34	16,642.55	12,163.08	61.67	63.09	-60.15	-4,226.38	556.18	1,463.15	1,350.24	112.91	12.958			
17,500.00	12,892.22	16,742.55	12,163.95	62.97	64.41	-60.15	-4,326.37	557.04	1,463.16	1,347.98	115.17	12.704			
17,600.00	12,893.10	16,842.55	12,164.82	64.27	65.73	-60.15	-4,426.3								

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:			Offset Well Error:		0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.00	12,919.43	19,842.55	12,190.97	104.09	105.91	-60.14	-7,426.14	583.73	1,463.27	1,276.03	187.24	7.815	
20,700.00	12,920.31	19,942.55	12,191.84	105.43	107.27	-60.14	-7,526.13	584.60	1,463.28	1,273.67	189.60	7.718	
20,800.00	12,921.19	20,042.55	12,192.71	106.78	108.62	-60.14	-7,626.13	585.46	1,463.28	1,271.31	191.97	7.623	
20,900.00	12,922.07	20,142.55	12,193.58	108.12	109.97	-60.14	-7,726.12	586.32	1,463.28	1,268.95	194.33	7.530	
21,000.00	12,922.94	20,242.55	12,194.45	109.47	111.32	-60.14	-7,826.11	587.18	1,463.29	1,266.59	196.70	7.439	
21,100.00	12,923.82	20,342.55	12,195.32	110.81	112.68	-60.14	-7,926.10	588.04	1,463.29	1,264.22	199.07	7.351	
21,200.00	12,924.70	20,442.55	12,196.19	112.16	114.03	-60.14	-8,026.10	588.90	1,463.30	1,261.86	201.44	7.264	
21,300.00	12,925.58	20,542.55	12,197.07	113.51	115.38	-60.14	-8,126.09	589.76	1,463.30	1,259.49	203.81	7.180	
21,400.00	12,926.46	20,642.55	12,197.94	114.86	116.74	-60.14	-8,226.08	590.62	1,463.30	1,257.12	206.18	7.097	
21,500.00	12,927.33	20,742.55	12,198.81	116.21	118.09	-60.14	-8,326.07	591.48	1,463.31	1,254.75	208.55	7.017	
21,600.00	12,928.21	20,842.55	12,199.68	117.56	119.45	-60.14	-8,426.07	592.34	1,463.31	1,252.39	210.93	6.938	
21,700.00	12,929.09	20,942.55	12,200.55	118.91	120.80	-60.14	-8,526.06	593.21	1,463.31	1,250.01	213.30	6.860	
21,800.00	12,929.97	21,042.55	12,201.42	120.26	122.16	-60.14	-8,626.05	594.07	1,463.32	1,247.64	215.68	6.785	
21,900.00	12,930.84	21,142.55	12,202.29	121.61	123.51	-60.14	-8,726.04	594.93	1,463.32	1,245.27	218.05	6.711	
22,000.00	12,931.72	21,242.55	12,203.17	122.96	124.87	-60.14	-8,826.04	595.79	1,463.33	1,242.90	220.43	6.639	
22,100.00	12,932.60	21,342.55	12,204.04	124.31	126.23	-60.14	-8,926.03	596.65	1,463.33	1,240.52	222.81	6.568	
22,200.00	12,933.48	21,442.55	12,204.91	125.66	127.58	-60.14	-9,026.02	597.51	1,463.33	1,238.15	225.19	6.498	
22,300.00	12,934.36	21,542.55	12,205.78	127.02	128.94	-60.14	-9,126.01	598.37	1,463.34	1,235.77	227.57	6.430	
22,400.00	12,935.23	21,642.55	12,206.65	128.37	130.30	-60.14	-9,226.01	599.23	1,463.34	1,233.39	229.95	6.364	
22,500.00	12,936.11	21,742.55	12,207.52	129.72	131.66	-60.14	-9,326.00	600.09	1,463.34	1,231.02	232.33	6.299	
22,600.00	12,936.99	21,842.55	12,208.39	131.08	133.01	-60.14	-9,425.99	600.95	1,463.35	1,228.64	234.71	6.235	
22,700.00	12,937.87	21,942.55	12,209.26	132.43	134.37	-60.14	-9,525.98	601.82	1,463.35	1,226.26	237.09	6.172	
22,800.00	12,938.75	22,042.55	12,210.14	133.78	135.73	-60.14	-9,625.98	602.68	1,463.36	1,223.88	239.48	6.111	
22,900.00	12,939.62	22,142.55	12,211.01	135.14	137.09	-60.14	-9,725.97	603.54	1,463.36	1,221.50	241.86	6.050	
23,000.00	12,940.50	22,242.55	12,211.88	136.49	138.45	-60.14	-9,825.96	604.40	1,463.36	1,219.12	244.25	5.991	
23,100.00	12,941.38	22,342.55	12,212.75	137.85	139.81	-60.14	-9,925.95	605.26	1,463.37	1,216.73	246.63	5.933	
23,107.35	12,941.44	22,349.90	12,212.81	137.94	139.91	-60.14	-9,933.31	605.32	1,463.37	1,216.57	246.80	5.929	
23,193.48	12,942.20	22,428.60	12,213.50	139.00	140.98	-60.14	-10,012.00	606.00	1,463.39	1,214.75	248.64	5.886	SF

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:					Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)	
0.00	0.00	0.00	1.00	0.50	0.50	45.00	25.00	25.00	35.37					
100.00	100.00	99.00	100.00	0.98	0.97	45.00	25.00	25.00	35.36	33.40	1.95	18.085		
200.00	200.00	199.00	200.00	1.56	1.56	45.00	25.00	25.00	35.36	32.24	3.12	11.346		
300.00	300.00	299.00	300.00	1.98	1.98	45.00	25.00	25.00	35.36	31.40	3.96	8.932		
400.00	400.00	399.00	400.00	2.33	2.33	45.00	25.00	25.00	35.36	30.70	4.66	7.595		
500.00	500.00	499.00	500.00	2.63	2.63	45.00	25.00	25.00	35.36	30.09	5.27	6.714		
600.00	600.00	599.00	600.00	2.91	2.91	45.00	25.00	25.00	35.36	29.54	5.82	6.078		
700.00	700.00	699.00	700.00	3.16	3.16	45.00	25.00	25.00	35.36	29.03	6.33	5.590		
800.00	799.99	798.99	799.99	3.46	3.40	87.12	25.00	25.00	35.27	28.47	6.80	5.188		
813.21	813.20	812.15	813.15	3.49	3.43	87.69	25.02	24.99	35.26	28.40	6.86	5.140		
900.00	899.91	898.63	899.62	3.73	3.68	91.51	26.19	24.56	35.67	28.42	7.24	4.923		
1,000.00	999.69	998.32	999.23	4.00	3.94	95.87	29.83	23.22	37.16	29.50	7.67	4.847		
1,100.00	1,099.32	1,098.23	1,099.01	4.11	4.14	100.88	34.74	21.41	39.45	31.47	7.98	4.945		
1,200.00	1,198.94	1,198.14	1,198.78	4.32	4.34	105.51	39.64	19.60	42.04	33.67	8.38	5.018		
1,300.00	1,298.56	1,298.05	1,298.54	4.52	4.45	109.20	44.83	17.69	44.88	36.21	8.67	5.174		
1,400.00	1,398.18	1,398.01	1,398.18	4.72	4.69	109.74	52.13	15.00	47.83	38.77	9.06	5.281		
1,500.00	1,497.80	1,497.92	1,497.55	4.92	4.93	107.26	61.86	11.41	50.82	41.39	9.43	5.390		
1,600.00	1,597.42	1,597.72	1,596.55	5.12	5.05	102.62	73.75	7.03	54.13	44.42	9.71	5.574		
1,700.00	1,697.04	1,697.56	1,695.53	5.32	5.24	98.19	85.98	2.52	57.83	47.75	10.08	5.735		
1,800.00	1,796.66	1,797.40	1,794.52	5.51	5.44	94.31	98.21	-1.98	61.83	51.37	10.46	5.911		
1,900.00	1,896.28	1,897.24	1,893.50	5.70	5.63	90.91	110.44	-6.49	66.09	55.25	10.84	6.097		
2,000.00	1,995.90	1,997.08	1,992.48	5.90	5.83	87.94	122.66	-11.00	70.54	59.32	11.22	6.289		
2,100.00	2,095.52	2,096.91	2,091.47	6.09	6.02	85.32	134.89	-15.51	75.16	63.57	11.59	6.484		
2,200.00	2,195.14	2,196.75	2,190.45	6.29	6.22	83.01	147.12	-20.01	79.92	67.95	11.98	6.673		
2,300.00	2,294.66	2,296.59	2,289.44	6.48	6.41	87.97	159.35	-24.52	85.21	72.87	12.34	6.904		
2,400.00	2,393.91	2,396.39	2,388.38	6.70	6.61	92.60	171.57	-29.03	91.45	78.74	12.71	7.195		
2,500.00	2,492.84	2,496.08	2,487.22	6.92	6.80	97.23	183.78	-33.53	98.68	85.60	13.08	7.547		
2,600.00	2,591.36	2,595.60	2,585.89	7.13	7.00	102.07	195.97	-38.02	107.09	93.64	13.45	7.964		
2,700.00	2,689.42	2,694.87	2,684.31	7.35	7.19	107.05	208.13	-42.50	116.95	103.13	13.82	8.462		
2,800.00	2,787.23	2,794.01	2,782.60	7.54	7.38	110.49	220.27	-46.98	127.84	113.63	14.21	8.997		
2,900.00	2,885.05	2,893.15	2,880.89	7.74	7.57	113.38	232.41	-51.45	139.11	124.51	14.61	9.525		
3,000.00	2,982.86	2,992.28	2,979.18	7.94	7.77	115.83	244.56	-55.93	150.68	135.68	15.01	10.042		
3,100.00	3,080.67	3,091.42	3,077.47	8.15	7.96	117.93	256.70	-60.41	162.49	147.08	15.41	10.545		
3,200.00	3,178.49	3,190.56	3,175.76	8.35	8.15	119.75	268.84	-64.88	174.48	158.66	15.81	11.032		
3,300.00	3,276.30	3,289.70	3,274.04	8.56	8.34	121.33	280.98	-69.36	186.62	170.40	16.22	11.504		
3,400.00	3,374.12	3,388.83	3,372.33	8.78	8.54	122.71	293.12	-73.83	198.88	182.25	16.63	11.959		
3,500.00	3,471.93	3,487.97	3,470.62	9.00	8.73	123.94	305.27	-78.31	211.25	194.21	17.04	12.397		
3,600.00	3,569.75	3,587.11	3,568.91	9.22	8.92	125.03	317.41	-82.79	223.70	206.25	17.45	12.820		
3,700.00	3,667.56	3,686.24	3,667.20	9.45	9.11	126.01	329.55	-87.26	236.22	218.36	17.86	13.226		
3,800.00	3,765.38	3,785.38	3,765.49	9.68	9.30	126.88	341.69	-91.74	248.81	230.53	18.27	13.617		
3,900.00	3,863.19	3,884.52	3,863.78	9.92	9.50	127.67	353.83	-96.21	261.44	242.76	18.68	13.993		
4,000.00	3,961.01	3,983.65	3,962.06	10.16	9.69	128.39	365.98	-100.69	274.12	255.03	19.10	14.355		
4,100.00	4,058.82	4,082.79	4,060.35	10.41	9.88	129.05	378.12	-105.16	286.84	267.33	19.51	14.703		
4,200.00	4,156.64	4,181.93	4,158.64	10.66	10.07	129.65	390.26	-109.64	299.59	279.67	19.92	15.039		
4,300.00	4,254.45	4,281.06	4,256.93	10.91	10.26	130.20	402.40	-114.12	312.38	292.04	20.33	15.362		
4,400.00	4,352.27	4,380.20	4,355.22	11.16	10.46	130.71	414.54	-118.59	325.18	304.44	20.75	15.673		
4,500.00	4,450.08	4,479.34	4,453.51	11.42	10.65	131.18	426.69	-123.07	338.02	316.85	21.16	15.973		
4,600.00	4,547.89	4,578.47	4,551.79	11.68	10.84	131.61	438.83	-127.54	350.87	329.29	21.58	16.262		
4,700.00	4,645.71	4,677.61	4,650.08	11.94	11.03	132.01	450.97	-132.02	363.74	341.75	21.99	16.540		
4,800.00	4,743.52	4,776.02	4,747.74	12.20	11.23	132.50	462.36	-136.22	376.70	354.30	22.40	16.820		
4,900.00	4,841.34	4,873.93	4,845.17	12.46	11.43	133.30	471.42	-139.56	389.96	367.18	22.78	17.119		
5,000.00	4,939.15	4,971.44	4,942.41	12.72	11.62	134.41	478.10	-142.02	403.62	380.48	23.14	17.443		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Offset Wellbore Centre				Rule Assigned: Distance		Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,036.97	5,068.41	5,039.27	12.99	11.80	135.78	482.44	-143.62	417.81	394.33	23.48	17.796	
5,200.00	5,134.78	5,164.73	5,135.57	13.26	11.94	137.37	484.47	-144.37	432.69	408.89	23.79	18.184	
5,300.00	5,232.60	5,261.76	5,232.60	13.52	12.05	139.11	484.64	-144.43	448.31	424.21	24.10	18.606	
5,400.00	5,330.41	5,359.58	5,330.41	13.79	12.13	140.78	484.64	-144.43	464.37	439.97	24.39	19.036	
5,500.00	5,428.44	5,457.60	5,428.44	14.04	12.22	142.39	484.64	-144.43	479.98	455.29	24.68	19.445	
5,600.00	5,526.94	5,556.11	5,526.94	14.27	12.30	143.72	484.64	-144.43	493.80	468.83	24.98	19.769	
5,700.00	5,625.86	5,655.03	5,625.86	14.49	12.39	144.80	484.64	-144.43	505.72	480.46	25.26	20.017	
5,800.00	5,725.13	5,754.30	5,725.13	14.67	12.48	145.66	484.64	-144.43	515.63	490.09	25.54	20.188	
5,900.00	5,824.69	5,853.85	5,824.69	14.84	12.57	146.30	484.64	-144.43	523.45	497.65	25.81	20.284	
6,000.00	5,924.45	5,953.61	5,924.45	14.98	12.65	146.76	484.64	-144.43	529.14	503.08	26.06	20.306	
6,100.00	6,024.36	6,053.52	6,024.36	15.09	12.74	147.04	484.64	-144.43	532.67	506.37	26.30	20.256	
6,200.00	6,124.34	6,153.51	6,124.34	15.18	12.83	147.14	484.64	-144.43	534.00	507.49	26.51	20.142	
6,300.00	6,224.34	6,253.51	6,224.34	15.24	12.91	89.61	484.64	-144.43	534.01	507.36	26.66	20.033	
6,400.00	6,324.34	6,353.51	6,324.34	15.31	13.00	89.61	484.64	-144.43	534.01	507.20	26.81	19.917	
6,500.00	6,424.34	6,453.51	6,424.34	15.38	13.09	89.61	484.64	-144.43	534.01	507.04	26.97	19.802	
6,600.00	6,524.34	6,553.51	6,524.34	15.45	13.18	89.61	484.64	-144.43	534.01	506.89	27.12	19.688	
6,700.00	6,624.34	6,653.51	6,624.34	15.52	13.26	89.61	484.64	-144.43	534.01	506.73	27.28	19.576	
6,800.00	6,724.34	6,753.51	6,724.34	15.59	13.35	89.61	484.64	-144.43	534.01	506.58	27.43	19.465	
6,900.00	6,824.34	6,853.51	6,824.34	15.66	13.44	89.61	484.64	-144.43	534.01	506.42	27.59	19.355	
7,000.00	6,924.34	6,953.51	6,924.34	15.73	13.52	89.61	484.64	-144.43	534.01	506.27	27.75	19.246	
7,100.00	7,024.34	7,053.51	7,024.34	15.80	13.61	89.61	484.64	-144.43	534.01	506.11	27.90	19.139	
7,200.00	7,124.34	7,153.51	7,124.34	15.87	13.70	89.61	484.64	-144.43	534.01	505.95	28.06	19.032	
7,300.00	7,224.34	7,253.51	7,224.34	15.94	13.78	89.61	484.64	-144.43	534.01	505.80	28.21	18.927	
7,400.00	7,324.34	7,353.51	7,324.34	16.01	13.87	89.61	484.64	-144.43	534.01	505.64	28.37	18.823	
7,500.00	7,424.34	7,453.51	7,424.34	16.09	13.96	89.61	484.64	-144.43	534.01	505			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:		0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre				Distance		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
10,300.00	10,224.34	10,253.51	10,224.34	18.11	16.36	89.61	484.64	-144.43	534.01	501.09	32.92	16.222			
10,400.00	10,324.34	10,353.51	10,324.34	18.18	16.44	89.61	484.64	-144.43	534.01	500.94	33.08	16.145			
10,500.00	10,424.34	10,453.51	10,424.34	18.25	16.53	89.61	484.64	-144.43	534.01	500.78	33.23	16.068			
10,600.00	10,524.34	10,553.51	10,524.34	18.33	16.61	89.61	484.64	-144.43	534.01	500.62	33.39	15.992			
10,700.00	10,624.34	10,653.51	10,624.34	18.40	16.70	89.61	484.64	-144.43	534.01	500.46	33.55	15.917			
10,800.00	10,724.34	10,753.51	10,724.34	18.47	16.78	89.61	484.64	-144.43	534.01	500.31	33.71	15.843			
10,900.00	10,824.34	10,853.51	10,824.34	18.55	16.87	89.61	484.64	-144.43	534.01	500.15	33.86	15.769			
11,000.00	10,924.34	10,953.51	10,924.34	18.62	16.95	89.61	484.64	-144.43	534.01	499.99	34.02	15.696			
11,100.00	11,024.34	11,053.51	11,024.34	18.69	17.04	89.61	484.64	-144.43	534.01	499.83	34.18	15.623			
11,200.00	11,124.34	11,153.51	11,124.34	18.77	17.12	89.61	484.64	-144.43	534.01	499.67	34.34	15.552			
11,300.00	11,224.34	11,253.51	11,224.34	18.84	17.21	89.61	484.64	-144.43	534.01	499.52	34.50	15.480			
11,400.00	11,324.34	11,353.51	11,324.34	18.92	17.29	89.61	484.64	-144.43	534.01	499.36	34.65	15.410			
11,500.00	11,424.34	11,453.51	11,424.34	18.99	17.38	89.61	484.64	-144.43	534.01	499.20	34.81	15.340			
11,600.00	11,524.34	11,553.51	11,524.34	19.06	17.46	89.61	484.64	-144.43	534.01	499.05	34.96	15.273			
11,601.89	11,526.23	11,555.39	11,526.23	19.07	17.46	89.61	484.64	-144.43	534.01	499.05	34.97	15.272			
11,700.00	11,624.34	11,653.01	11,623.66	19.14	17.49	90.09	480.14	-144.39	534.04	499.02	35.02	15.249			
11,800.00	11,724.34	11,748.31	11,716.79	19.21	17.51	92.20	460.43	-144.22	534.66	499.68	34.98	15.286			
11,900.00	11,824.34	11,835.02	11,797.64	19.29	17.52	95.52	429.32	-143.95	537.63	502.69	34.94	15.387			
12,000.00	11,924.34	11,910.91	11,863.84	19.36	17.52	99.41	392.35	-143.64	545.46	510.39	35.07	15.552			
12,100.00	12,024.34	11,975.71	11,916.10	19.44	17.53	103.34	354.08	-143.31	560.52	524.95	35.57	15.758			
12,200.00	12,124.34	12,030.38	11,956.59	19.51	17.53	106.99	317.39	-142.99	584.47	547.92	36.55	15.992			
12,300.00	12,224.34	12,076.32	11,987.78	19.59	17.53	110.22	283.68	-142.70	617.98	580.01	37.97	16.275			
12,400.00	12,324.31	12,115.74	12,012.32	19.64	17.53	-70.49	252.84	-142.43	660.40	620.76	39.64	16.659			
12,500.00	12,422.88														

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance		Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,400.00	12,873.78	14,625.26	12,143.66	36.97	35.06	-39.83	-2,232.23	-121.04	950.78	886.59	64.19	14.812	
15,500.00	12,874.66	14,725.26	12,144.53	38.11	36.29	-39.83	-2,332.22	-120.18	950.78	885.32	65.47	14.523	
15,600.00	12,875.54	14,825.26	12,145.40	39.27	37.53	-39.83	-2,432.22	-119.32	950.79	884.02	66.77	14.240	
15,700.00	12,876.42	14,925.26	12,146.27	40.45	38.77	-39.83	-2,532.21	-118.45	950.79	882.69	68.10	13.962	
15,800.00	12,877.29	15,025.26	12,147.15	41.63	40.03	-39.83	-2,632.20	-117.59	950.80	881.34	69.46	13.689	
15,900.00	12,878.17	15,125.26	12,148.02	42.83	41.29	-39.83	-2,732.19	-116.73	950.80	879.97	70.84	13.422	
16,000.00	12,879.05	15,225.26	12,148.89	44.03	42.56	-39.83	-2,832.19	-115.87	950.81	878.57	72.24	13.161	
16,100.00	12,879.93	15,325.26	12,149.76	45.25	43.84	-39.83	-2,932.18	-115.01	950.82	877.15	73.67	12.907	
16,200.00	12,880.81	15,425.26	12,150.63	46.48	45.12	-39.83	-3,032.17	-114.15	950.82	875.71	75.11	12.658	
16,300.00	12,881.68	15,525.26	12,151.50	47.71	46.40	-39.83	-3,132.16	-113.29	950.83	874.25	76.58	12.416	
16,400.00	12,882.56	15,625.26	12,152.37	48.95	47.70	-39.83	-3,232.16	-112.43	950.83	872.77	78.06	12.180	
16,500.00	12,883.44	15,725.26	12,153.24	50.20	48.99	-39.83	-3,332.15	-111.57	950.84	871.27	79.56	11.951	
16,600.00	12,884.32	15,825.26	12,154.12	51.45	50.29	-39.83	-3,432.14	-110.71	950.84	869.76	81.08	11.727	
16,700.00	12,885.19	15,925.26	12,154.99	52.71	51.59	-39.83	-3,532.13	-109.84	950.85	868.23	82.61	11.510	
16,800.00	12,886.07	16,025.26	12,155.86	53.98	52.90	-39.83	-3,632.13	-108.98	950.85	866.69	84.16	11.298	
16,900.00	12,886.95	16,125.26	12,156.73	55.25	54.21	-39.83	-3,732.12	-108.12	950.86	865.14	85.72	11.092	
17,000.00	12,887.83	16,225.26	12,157.60	56.53	55.52	-39.83	-3,832.11	-107.26	950.86	863.57	87.29	10.893	
17,100.00	12,888.71	16,325.26	12,158.47	57.81	56.84	-39.83	-3,932.10	-106.40	950.87	861.99	88.88	10.698	
17,200.00	12,889.58	16,425.26	12,159.34	59.09	58.15	-39.83	-4,032.10	-105.54	950.88	860.40	90.48	10.510	
17,300.00	12,890.46	16,525.26	12,160.21	60.38	59.47	-39.83	-4,132.09	-104.68	950.88	858.80	92.09	10.326	
17,400.00	12,891.34	16,625.26	12,161.09	61.67	60.80	-39.83	-4,232.08	-103.82	950.89	857.18	93.70	10.148	
17,500.00	12,892.22	16,725.26	12,161.96	62.97	62.12	-39.83	-4,332.07	-102.96	950.89	855.56	95.33	9.974	
17,600.00	12,893.10	16,825.26	12,162.83	64.27	63.45	-39.82	-4,432.07	-102.10	950.90	853.93	96.97	9.806	
17,700.00	12,893.97	16,925.26	12,163.70	65.57	64.78	-39.82	-4,532.06	-101.24	950.90	852.28	98.62	9.642	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)			
20,600.00	12,919.43	19,825.26	12,188.97	104.09	103.76	-39.82	-7,431.84	-76.27	951.06	802.16	148.90	6.387			
20,700.00	12,920.31	19,925.26	12,189.84	105.43	105.12	-39.82	-7,531.83	-75.41	951.07	800.38	150.69	6.311			
20,800.00	12,921.19	20,025.26	12,190.71	106.78	106.47	-39.82	-7,631.83	-74.55	951.07	798.59	152.48	6.237			
20,900.00	12,922.07	20,125.26	12,191.58	108.12	107.83	-39.82	-7,731.82	-73.68	951.08	796.80	154.28	6.165			
21,000.00	12,922.94	20,225.26	12,192.45	109.47	109.18	-39.82	-7,831.81	-72.82	951.08	795.01	156.07	6.094			
21,100.00	12,923.82	20,325.26	12,193.32	110.81	110.54	-39.82	-7,931.80	-71.96	951.09	793.22	157.87	6.024			
21,200.00	12,924.70	20,425.26	12,194.19	112.16	111.90	-39.82	-8,031.80	-71.10	951.09	791.42	159.67	5.956			
21,300.00	12,925.58	20,525.26	12,195.07	113.51	113.25	-39.82	-8,131.79	-70.24	951.10	789.62	161.48	5.890			
21,400.00	12,926.46	20,625.26	12,195.94	114.86	114.61	-39.82	-8,231.78	-69.38	951.11	787.82	163.28	5.825			
21,500.00	12,927.33	20,725.26	12,196.81	116.21	115.97	-39.82	-8,331.77	-68.52	951.11	786.02	165.09	5.761			
21,600.00	12,928.21	20,825.26	12,197.68	117.56	117.32	-39.82	-8,431.77	-67.66	951.12	784.22	166.90	5.699			
21,700.00	12,929.09	20,925.26	12,198.55	118.91	118.68	-39.82	-8,531.76	-66.80	951.12	782.42	168.71	5.638			
21,800.00	12,929.97	21,025.26	12,199.42	120.26	120.04	-39.82	-8,631.75	-65.94	951.13	780.61	170.52	5.578			
21,900.00	12,930.84	21,125.26	12,200.29	121.61	121.40	-39.82	-8,731.74	-65.07	951.13	778.80	172.33	5.519			
22,000.00	12,931.72	21,225.26	12,201.16	122.96	122.76	-39.81	-8,831.74	-64.21	951.14	776.99	174.15	5.462			
22,100.00	12,932.60	21,325.26	12,202.04	124.31	124.12	-39.81	-8,931.73	-63.35	951.14	775.18	175.96	5.405			
22,200.00	12,933.48	21,425.26	12,202.91	125.66	125.47	-39.81	-9,031.72	-62.49	951.15	773.37	177.78	5.350			
22,300.00	12,934.36	21,525.26	12,203.78	127.02	126.83	-39.81	-9,131.71	-61.63	951.15	771.55	179.60	5.296			
22,400.00	12,935.23	21,625.26	12,204.65	128.37	128.19	-39.81	-9,231.71	-60.77	951.16	769.74	181.42	5.243			
22,500.00	12,936.11	21,725.26	12,205.52	129.72	129.55	-39.81	-9,331.70	-59.91	951.17	767.92	183.24	5.191			
22,600.00	12,936.99	21,825.26	12,206.39	131.08	130.91	-39.81	-9,431.69	-59.05	951.17	766.10	185.07	5.140			
22,700.00	12,937.87	21,925.26	12,207.26	132.43	132.27	-39.81	-9,531.68	-58.19	951.18	764.28	186.89	5.089			
22,800.00	12,938.75	22,025.26	12,208.13	133.78	133.63	-39.81	-9,631.68	-57.33	951.18	762.46	188.72	5.040			
22,900.00	12,939.62	22,125.26	12,209.01	135.14	134.99	-39.81	-9,731.67	-56.47	951.19	760.64	190.55	4.992			
23,000.00	12,940.50	22,225.26	12,209.88	136.49	136.35	-39.81	-9,831.66	-55.60	951.19	758.82	192.37	4.945			
23,100.00	12,941.38	22,325.26	12,210.75	137.85	137.71	-39.81	-9,931.65	-54.74	951.20	757.00	194.20	4.898			
23,107.48	12,941.45	22,332.74	12,210.81	137.94	137.82	-39.81	-9,939.13	-54.68	951.20	756.87	194.33	4.895			
23,193.48	12,942.20	22,411.61	12,211.50	139.00	138.89	-39.81	-10,018.00	-54.00	951.23	755.53	195.70	4.861			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	1.00	0.50	0.50	6.79	210.00	25.00	211.49				
100.00	100.00	99.00	100.00	0.98	0.97	6.79	210.00	25.00	211.48	209.53	1.95	108.179	
200.00	200.00	199.00	200.00	1.56	1.56	6.79	210.00	25.00	211.48	208.37	3.12	67.865	
300.00	300.00	299.00	300.00	1.98	1.98	6.79	210.00	25.00	211.48	207.52	3.96	53.431	CC
400.00	400.00	397.08	398.07	2.33	2.40	7.10	210.30	26.20	211.93	207.27	4.66	45.517	ES
500.00	500.00	495.02	495.94	2.63	2.76	8.04	211.19	29.83	213.33	208.06	5.27	40.501	
600.00	600.00	592.70	593.42	2.91	3.09	9.58	212.68	35.88	215.79	209.97	5.82	37.052	
700.00	700.00	691.41	691.76	3.16	3.24	11.59	214.69	44.03	219.31	213.09	6.22	35.242	
800.00	799.99	790.97	790.94	3.46	3.48	53.83	216.77	52.45	222.43	215.71	6.73	33.058	
900.00	899.91	890.35	889.95	3.73	3.72	56.57	218.84	60.86	224.45	217.24	7.21	31.121	
1,000.00	999.69	989.51	988.73	4.00	3.95	59.82	220.91	69.25	225.65	217.98	7.67	29.408	
1,100.00	1,099.32	1,088.43	1,087.28	4.11	4.17	63.47	222.97	77.62	226.68	218.67	8.01	28.298	
1,200.00	1,198.94	1,187.34	1,185.80	4.32	4.39	67.12	225.04	85.99	228.58	220.14	8.44	27.087	
1,300.00	1,298.56	1,286.24	1,284.33	4.52	4.61	70.69	227.10	94.36	231.40	222.55	8.86	26.123	
1,400.00	1,398.18	1,385.15	1,382.86	4.72	4.82	74.16	229.16	102.73	235.12	225.85	9.27	25.362	
1,500.00	1,497.80	1,484.05	1,481.39	4.92	5.03	77.52	231.23	111.10	239.70	230.02	9.68	24.771	
1,600.00	1,597.42	1,582.96	1,579.92	5.12	5.24	80.74	233.29	119.47	245.07	235.00	10.08	24.322	
1,700.00	1,697.04	1,681.86	1,678.45	5.32	5.45	83.82	235.36	127.84	251.20	240.73	10.47	23.991	
1,800.00	1,796.66	1,780.77	1,776.98	5.51	5.65	86.74	237.42	136.21	258.03	247.17	10.86	23.759	
1,900.00	1,896.28	1,879.68	1,875.51	5.70	5.85	89.51	239.48	144.58	265.51	254.26	11.25	23.609	
2,000.00	1,995.90	1,978.58	1,974.04	5.90	6.05	92.13	241.55	152.95	273.57	261.94	11.63	23.528	
2,100.00	2,095.52	2,077.49	2,072.57	6.09	6.25	94.59	243.61	161.32	282.18	270.17	12.01	23.504	
2,200.00	2,195.14	2,176.39	2,171.10	6.29	6.45	96.90	245.67	169.69	291.28	278.88	12.40	23.495	
2,300.00	2,294.66	2,270.27	2,264.57	6.48	6.65	105.37	247.76	178.15	302.11	289.35	12.76	23.673	
2,400.00	2,393.91	2,360.96	2,354.65	6.70	6.86	111.99	250.27	188.33	317.28	304.14	13.14	24.144	
2,500.00	2,492.84	2,450.19	2,443.01	6.92	7.06	117.34	253.24	200.37	337.09	323.56	13.53	24.917	
2,600.00	2,591.36	2,537.71	2,529.37	7.13	7.27	121.85	256.63	214.12	361.63	347.71	13.92	25.986	
2,700.00	2,689.42	2,623.26	2,613.46	7.35	7.47	125.68	260.40	229.41	390.93	376.64	14.30	27.343	
2,800.00	2,787.23	2,707.11	2,695.51	7.54	7.66	127.99	264.53	246.17	423.97	409.30	14.66	28.913	
2,900.00	2,885.05	2,789.57	2,775.82	7.74	7.86	129.98	269.01	264.36	459.67	444.65	15.02	30.606	
3,000.00	2,982.86	2,873.30	2,856.92	7.94	8.02	131.73	273.99	284.54	497.88	482.53	15.35	32.434	
3,100.00	3,080.67	2,961.03	2,941.66	8.15	8.19	133.32	279.42	306.59	537.51	521.80	15.71	34.218	
3,200.00	3,178.49	3,051.79	3,029.33	8.35	8.39	134.74	285.04	329.41	577.48	561.37	16.11	35.851	
3,300.00	3,276.30	3,142.56	3,117.00	8.56	8.58	135.99	290.67	352.22	617.72	601.21	16.51	37.420	
3,400.00	3,374.12	3,233.32	3,204.67	8.78	8.78	137.08	296.29	375.03	658.17	641.26	16.91	38.924	
3,500.00	3,471.93	3,324.08	3,292.34	9.00	8.98	138.05	301.91	397.85	698.80	681.49	17.31	40.365	
3,600.00	3,569.75	3,414.84	3,380.01	9.22	9.20	138.91	307.54	420.66	739.59	721.87	17.72	41.747	
3,700.00	3,667.56	3,505.61	3,467.67	9.45	9.44	139.68	313.16	443.48	780.50	762.38	18.12	43.069	
3,800.00	3,765.38	3,596.37	3,555.34	9.68	9.69	140.38	318.79	466.29	821.52	802.99	18.53	44.337	
3,900.00	3,863.19	3,687.13	3,643.01	9.92	9.96	141.01	324.41	489.10	862.63	843.69	18.94	45.551	
4,000.00	3,961.01	3,777.89	3,730.68	10.16	10.23	141.58	330.03	511.92	903.82	884.47	19.35	46.714	
4,100.00	4,058.82	3,868.66	3,818.35	10.41	10.52	142.11	335.66	534.73	945.08	925.32	19.76	47.830	
4,200.00	4,156.64	3,959.42	3,906.02	10.66	10.80	142.59	341.28	557.54	986.40	966.23	20.17	48.897	
4,300.00	4,254.45	4,050.18	3,993.69	10.91	11.09	143.03	346.90	580.36	1,027.77	1,007.18	20.59	49.924	
4,400.00	4,352.27	4,140.95	4,081.35	11.16	11.38	143.44	352.53	603.17	1,069.19	1,048.19	21.00	50.908	
4,500.00	4,450.08	4,231.71	4,169.02	11.42	11.67	143.82	358.15	625.98	1,110.66	1,089.24	21.42	51.853	
4,600.00	4,547.89	4,322.47	4,256.69	11.68	11.96	144.17	363.77	648.80	1,152.15	1,130.32	21.84	52.761	
4,700.00	4,645.71	4,413.23	4,344.36	11.94	12.26	144.50	369.40	671.61	1,193.69	1,171.43	22.26	53.633	
4,800.00	4,743.52	4,504.00	4,432.03	12.20	12.55	144.80	375.02	694.42	1,235.25	1,212.57	22.68	54.471	
4,900.00	4,841.34	4,594.76	4,519.70	12.46	12.85	145.08	380.64	717.24	1,276.84	1,253.74	23.10	55.277	
5,000.00	4,939.15	4,685.52	4,607.37	12.72	13.15	145.35	386.27	740.05	1,318.46	1,294.94	23.52	56.053	
5,100.00	5,036.97	4,776.28	4,695.03	12.99	13.45	145.60	391.89	762.86	1,360.09	1,336.15	23.95	56.799	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,134.78	4,867.05	4,782.70	13.26	13.75	145.84	397.51	785.68	1,401.75	1,377.38	24.37	57.518	
5,300.00	5,232.60	4,957.81	4,870.37	13.52	14.05	146.06	403.14	808.49	1,443.43	1,418.63	24.80	58.211	
5,400.00	5,330.41	5,048.57	4,958.04	13.79	14.35	146.27	408.76	831.30	1,485.12	1,459.90	25.22	58.879	
5,500.00	5,428.44	5,139.72	5,046.08	14.04	14.66	146.78	414.41	854.21	1,526.04	1,500.39	25.64	59.512	
5,600.00	5,526.94	5,231.79	5,135.01	14.27	14.97	147.23	420.11	877.35	1,564.96	1,538.89	26.07	60.032	
5,700.00	5,625.86	5,324.72	5,224.78	14.49	15.28	147.60	425.87	900.71	1,601.85	1,575.36	26.49	60.474	
5,800.00	5,725.13	5,418.46	5,315.32	14.67	15.60	147.89	431.68	924.28	1,636.68	1,609.78	26.90	60.843	
5,900.00	5,824.69	5,512.93	5,406.57	14.84	15.91	148.11	437.53	948.02	1,669.42	1,642.12	27.30	61.145	
6,000.00	5,924.45	5,608.08	5,498.47	14.98	16.24	148.26	443.42	971.94	1,700.06	1,672.36	27.69	61.386	
6,100.00	6,024.36	5,703.83	5,590.96	15.09	16.56	148.35	449.36	996.00	1,728.58	1,700.50	28.07	61.573	
6,200.00	6,124.34	5,800.12	5,683.97	15.18	16.89	148.38	455.32	1,020.21	1,754.97	1,726.54	28.43	61.727	
6,300.00	6,224.34	5,896.71	5,777.26	15.24	17.22	90.65	461.31	1,044.48	1,780.08	1,751.36	28.72	61.972	
6,400.00	6,324.34	6,059.43	5,935.11	15.31	17.72	90.33	470.76	1,082.82	1,803.78	1,774.49	29.29	61.575	
6,500.00	6,424.34	6,241.31	6,113.34	15.38	18.23	90.05	479.42	1,117.96	1,823.11	1,793.21	29.90	60.966	
6,600.00	6,524.34	6,426.33	6,296.20	15.45	18.64	89.84	486.13	1,145.20	1,837.86	1,807.40	30.45	60.352	
6,700.00	6,624.34	6,613.68	6,482.53	15.52	18.96	89.70	490.77	1,164.00	1,847.91	1,816.98	30.93	59.745	
6,800.00	6,724.34	6,802.50	6,671.05	15.59	19.18	89.62	493.22	1,173.95	1,853.19	1,821.86	31.32	59.162	
6,900.00	6,824.34	6,955.81	6,824.34	15.66	19.28	89.61	493.62	1,175.57	1,854.04	1,822.51	31.53	58.796	
7,000.00	6,924.34	7,055.81	6,924.34	15.73	19.32	89.61	493.62	1,175.57	1,854.04	1,822.39	31.65	58.582	
7,100.00	7,024.34	7,155.81	7,024.34	15.80	19.38	89.61	493.62	1,175.57	1,854.04	1,822.27	31.77	58.361	
7,200.00	7,124.34	7,255.81	7,124.34	15.87	19.43	89.61	493.62	1,175.57	1,854.04	1,822.15	31.89	58.142	
7,300.00	7,224.34	7,355.81	7,224.34	15.94	19.48	89.61	493.62	1,175.57	1,854.04	1,822.03	32.01	57.924	
7,400.00	7,324.34	7,455.81	7,324.34	16.01	19.53	89.61	493.62	1,175.57	1,854.04	1,821.91	32.13	57.706	
7,500.00	7,424.34	7,555.81	7,424.34	16.09	19.58	89.61	493.62	1,175.57	1,854.04	1,821.79	32.25	57.490	

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

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Total Directional Anticollision Report

Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,400.00	10,324.34	10,455.81	10,324.34	18.18	21.16	89.61	493.62	1,175.57	1,854.04	1,818.14	35.90	51.646	
10,500.00	10,424.34	10,555.81	10,424.34	18.25	21.21	89.61	493.62	1,175.57	1,854.04	1,818.01	36.03	51.460	
10,600.00	10,524.34	10,655.81	10,524.34	18.33	21.27	89.61	493.62	1,175.57	1,854.04	1,817.88	36.16	51.274	
10,700.00	10,624.34	10,755.81	10,624.34	18.40	21.33	89.61	493.62	1,175.57	1,854.04	1,817.75	36.29	51.089	
10,800.00	10,724.34	10,855.81	10,724.34	18.47	21.39	89.61	493.62	1,175.57	1,854.04	1,817.62	36.42	50.906	
10,900.00	10,824.34	10,955.81	10,824.34	18.55	21.44	89.61	493.62	1,175.57	1,854.04	1,817.49	36.55	50.723	
11,000.00	10,924.34	11,055.81	10,924.34	18.62	21.50	89.61	493.62	1,175.57	1,854.04	1,817.36	36.68	50.541	
11,100.00	11,024.34	11,155.81	11,024.34	18.69	21.56	89.61	493.62	1,175.57	1,854.04	1,817.23	36.82	50.361	
11,200.00	11,124.34	11,255.81	11,124.34	18.77	21.62	89.61	493.62	1,175.57	1,854.04	1,817.10	36.95	50.181	
11,300.00	11,224.34	11,355.81	11,224.34	18.84	21.67	89.61	493.62	1,175.57	1,854.04	1,816.96	37.08	50.002	
11,400.00	11,324.34	11,455.81	11,324.34	18.92	21.73	89.61	493.62	1,175.57	1,854.04	1,816.83	37.21	49.824	
11,500.00	11,424.34	11,555.81	11,424.34	18.99	21.79	89.61	493.62	1,175.57	1,854.04	1,816.70	37.34	49.647	
11,600.00	11,524.34	11,655.81	11,524.34	19.06	21.85	89.61	493.62	1,175.57	1,854.04	1,816.57	37.47	49.476	
11,602.90	11,527.24	11,658.71	11,527.24	19.07	21.85	89.61	493.62	1,175.57	1,854.04	1,816.57	37.48	49.472	
11,700.00	11,624.34	11,755.08	11,623.45	19.14	21.90	89.74	489.52	1,175.61	1,854.06	1,816.51	37.55	49.377	
11,800.00	11,724.34	11,850.00	11,716.32	19.21	21.95	90.33	470.44	1,175.77	1,854.25	1,816.68	37.57	49.352	
11,900.00	11,824.34	11,936.96	11,797.59	19.29	21.98	91.27	439.73	1,176.03	1,855.12	1,817.54	37.58	49.370	
12,000.00	11,924.34	12,013.02	11,864.16	19.36	22.01	92.41	403.06	1,176.35	1,857.39	1,819.80	37.59	49.415	
12,100.00	12,024.34	12,078.06	11,916.81	19.44	22.04	93.58	364.93	1,176.68	1,861.84	1,824.20	37.64	49.465	
12,200.00	12,124.34	12,132.99	11,957.67	19.51	22.07	94.71	328.27	1,176.99	1,869.15	1,831.40	37.74	49.522	
12,300.00	12,224.34	12,179.18	11,989.19	19.59	22.11	95.74	294.51	1,177.29	1,879.83	1,841.90	37.93	49.561	
12,400.00	12,324.31	12,218.83	12,014.00	19.64	22.15	-88.17	263.59	1,177.55	1,894.23	1,856.07	38.16	49.637	
12,500.00	12,422.88	12,250.00	12,031.97	19.68	22.19	-85.69	238.13	1,177.77	1,911.90	1,873.50	38.39	49.800	
12,600.00	12,517.18	12,300.00	12,057.82	19.70	22.26	-82.72	195.35	1,178.14	1,931.65	1,893.07	38.58	50.072	
12,700.00	12,604.33	12,350.00	12,079.85	19.72	22.35	-79.81	150.49	1,178.53	1,952.56	1,913.77	38.79	50.341	
12,800.00	12,681.69	12,384.37	12,092.68	19.76	22.43	-77.27	118.61	1,178.80	1,973.47	1,934.41	39.06	50.523	
12,900.00	12,746.91	12,427.47	12,106.04	19.82	22.54	-74.84	77.65	1,179.15	1,993.57	1,954.24	39.32	50.695	
13,000.00	12,797.99	12,470.90	12,116.34	19.92	22.66	-72.72	35.47	1,179.52	2,011.99	1,972.39	39.60	50.808	
13,100.00	12,833.40	12,514.55	12,123.45	20.08	22.80	-70.98	-7.59	1,179.89	2,028.05	1,988.17	39.88	50.854	
13,200.00	12,852.06	12,550.00	12,126.80	20.30	22.93	-69.66	-42.88	1,180.19	2,041.24	2,001.09	40.15	50.843	
13,300.00	12,855.35	12,628.47	12,128.35	20.57	23.24	-69.21	-121.32	1,180.87	2,051.07	2,010.58	40.49	50.655	
13,400.00	12,856.23	12,728.22	12,129.22	20.89	23.70	-69.31	-221.06	1,181.73	2,057.68	2,016.64	41.04	50.138	
13,500.00	12,857.10	12,828.15	12,130.09	21.25	24.21	-69.35	-320.98	1,182.59	2,061.02	2,019.27	41.75	49.367	
13,600.00	12,857.98	12,928.15	12,130.96	21.64	24.78	-69.35	-420.97	1,183.45	2,061.47	2,018.89	42.58	48.419	
13,700.00	12,858.86	13,028.15	12,131.83	22.08	25.39	-69.35	-520.96	1,184.31	2,061.47	2,017.92	43.55	47.336	
13,800.00	12,859.74	13,128.15	12,132.70	22.59	26.06	-69.35	-620.96	1,185.17	2,061.47	2,016.82	44.65	46.166	
13,900.00	12,860.61	13,228.15	12,133.57	23.15	26.77	-69.35	-720.95	1,186.03	2,061.48	2,015.60	45.88	44.936	
14,000.00	12,861.49	13,328.15	12,134.44	23.77	27.52	-69.35	-820.94	1,186.89	2,061.48	2,014.27	47.21	43.668	
14,100.00	12,862.37	13,428.15	12,135.32	24.45	28.31	-69.35	-920.93	1,187.75	2,061.48	2,012.84	48.64	42.380	
14,200.00	12,863.25	13,528.15	12,136.19	25.18	29.13	-69.35	-1,020.93	1,188.62	2,061.49	2,011.32	50.17	41.090	
14,300.00	12,864.13	13,628.15	12,137.06	25.97	30.00	-69.35	-1,120.92	1,189.48	2,061.49	2,009.71	51.78	39.812	
14,400.00	12,865.00	13,728.15	12,137.93	26.80	30.89	-69.35	-1,220.91	1,190.34	2,061.49	2,008.02	53.47	38.554	
14,500.00	12,865.88	13,828.15	12,138.80	27.67	31.82	-69.35	-1,320.90	1,191.20	2,061.50	2,006.27	55.23	37.327	
14,600.00	12,866.76	13,928.15	12,139.67	28.59	32.77	-69.35	-1,420.90	1,192.06	2,061.50	2,004.45	57.05	36.135	
14,700.00	12,867.64	14,028.15	12,140.55	29.54	33.75	-69.35	-1,520.89	1,192.92	2,061.50	2,002.57	58.93	34.983	
14,800.00	12,868.51	14,128.15	12,141.42	30.52	34.75	-69.35	-1,620.88	1,193.78	2,061.51	2,000.65	60.86	33.873	
14,900.00	12,869.39	14,228.15	12,142.29	31.54	35.78	-69.35	-1,720.87	1,194.64	2,061.51	1,998.67	62.84	32.806	
15,000.00	12,870.27	14,328.15	12,143.16	32.58	36.83	-69.35	-1,820.87	1,195.51	2,061.51	1,996.65	64.86	31.784	
15,100.00	12,871.15	14,428.15	12,144.03	33.65	37.90	-69.35	-1,920.86	1,196.37	2,061.51	1,994.59	66.92	30.805	
15,200.00	12,872.03	14,528.15	12,144.90	34.73	38.98	-69.35	-2,020.85	1,197.23	2,061.52	1,992.50	69.02	29.869	
15,300.00	12,872.90	14,628.15	12,145.78	35.84	40.08	-69.35	-2,120.84	1,198.09	2,061.52	1,990.38	71.15	28.976	
15,400.00	12,873.78	14,728.15	12,146.65	36.97	41.20	-69.35	-2,220.84	1,198.95	2,061.52	1,988.22	73.30	28.123	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Offset Well Error:		0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
15,500.00	12,874.66	14,828.15	12,147.52	38.11	42.33	-69.35	-2,320.83	1,199.81	2,061.53	1,986.04	75.49	27.309			
15,600.00	12,875.54	14,928.15	12,148.39	39.27	43.48	-69.35	-2,420.82	1,200.67	2,061.53	1,983.83	77.70	26.532			
15,700.00	12,876.42	15,028.15	12,149.26	40.45	44.63	-69.35	-2,520.81	1,201.53	2,061.53	1,981.60	79.93	25.791			
15,800.00	12,877.29	15,128.15	12,150.13	41.63	45.80	-69.34	-2,620.81	1,202.40	2,061.54	1,979.35	82.18	25.084			
15,900.00	12,878.17	15,228.15	12,151.01	42.83	46.98	-69.34	-2,720.80	1,203.26	2,061.54	1,977.08	84.46	24.410			
16,000.00	12,879.05	15,328.15	12,151.88	44.03	48.17	-69.34	-2,820.79	1,204.12	2,061.54	1,974.80	86.75	23.765			
16,100.00	12,879.93	15,428.15	12,152.75	45.25	49.37	-69.34	-2,920.78	1,204.98	2,061.55	1,972.49	89.05	23.150			
16,200.00	12,880.81	15,528.15	12,153.62	46.48	50.57	-69.34	-3,020.78	1,205.84	2,061.55	1,970.18	91.37	22.562			
16,300.00	12,881.68	15,628.15	12,154.49	47.71	51.79	-69.34	-3,120.77	1,206.70	2,061.55	1,967.85	93.71	22.000			
16,400.00	12,882.56	15,728.15	12,155.36	48.95	53.01	-69.34	-3,220.76	1,207.56	2,061.55	1,965.50	96.05	21.462			
16,500.00	12,883.44	15,828.15	12,156.23	50.20	54.24	-69.34	-3,320.75	1,208.43	2,061.56	1,963.14	98.41	20.948			
16,600.00	12,884.32	15,928.15	12,157.11	51.45	55.48	-69.34	-3,420.75	1,209.29	2,061.56	1,960.78	100.78	20.455			
16,700.00	12,885.19	16,028.15	12,157.98	52.71	56.72	-69.34	-3,520.74	1,210.15	2,061.56	1,958.40	103.16	19.983			
16,800.00	12,886.07	16,128.15	12,158.85	53.98	57.96	-69.34	-3,620.73	1,211.01	2,061.57	1,956.01	105.55	19.531			
16,900.00	12,886.95	16,228.15	12,159.72	55.25	59.22	-69.34	-3,720.72	1,211.87	2,061.57	1,953.62	107.95	19.097			
17,000.00	12,887.83	16,328.15	12,160.59	56.53	60.48	-69.34	-3,820.72	1,212.73	2,061.57	1,951.21	110.36	18.680			
17,100.00	12,888.71	16,428.15	12,161.46	57.81	61.74	-69.34	-3,920.71	1,213.59	2,061.58	1,948.80	112.78	18.280			
17,200.00	12,889.58	16,528.15	12,162.34	59.09	63.00	-69.34	-4,020.70	1,214.45	2,061.58	1,946.38	115.20	17.896			
17,300.00	12,890.46	16,628.15	12,163.21	60.38	64.28	-69.34	-4,120.69	1,215.32	2,061.58	1,943.95	117.63	17.526			
17,400.00	12,891.34	16,728.15	12,164.08	61.67	65.55	-69.34	-4,220.69	1,216.18	2,061.59	1,941.52	120.07	17.171			
17,500.00	12,892.22	16,828.15	12,164.95	62.97	66.83	-69.34	-4,320.68	1,217.04	2,061.59	1,939.08	122.51	16.828			
17,600.00	12,893.10	16,928.15	12,165.82	64.27	68.11	-69.34	-4,420.67	1,217.90	2,061.59	1,936.64	124.96	16.499			
17,700.00	12,893.97	17,028.15	12,												

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
20,700.00	12,920.31	20,028.15	12,192.84	105.43	108.93	-69.34	-7,520.44	1,244.60	2,061.69	1,859.16	202.52	10.180		
20,800.00	12,921.19	20,128.15	12,193.71	106.78	110.26	-69.34	-7,620.43	1,245.46	2,061.69	1,856.63	205.06	10.054		
20,900.00	12,922.07	20,228.15	12,194.59	108.12	111.60	-69.34	-7,720.42	1,246.32	2,061.69	1,854.10	207.59	9.931		
21,000.00	12,922.94	20,328.15	12,195.46	109.47	112.94	-69.34	-7,820.42	1,247.18	2,061.70	1,851.57	210.13	9.811		
21,100.00	12,923.82	20,428.15	12,196.33	110.81	114.28	-69.34	-7,920.41	1,248.04	2,061.70	1,849.03	212.67	9.694		
21,200.00	12,924.70	20,528.15	12,197.20	112.16	115.62	-69.34	-8,020.40	1,248.91	2,061.70	1,846.49	215.21	9.580		
21,300.00	12,925.58	20,628.15	12,198.07	113.51	116.96	-69.34	-8,120.39	1,249.77	2,061.71	1,843.96	217.75	9.468		
21,400.00	12,926.46	20,728.15	12,198.94	114.86	118.30	-69.34	-8,220.39	1,250.63	2,061.71	1,841.42	220.29	9.359		
21,500.00	12,927.33	20,828.15	12,199.82	116.21	119.65	-69.34	-8,320.38	1,251.49	2,061.71	1,838.88	222.83	9.252		
21,600.00	12,928.21	20,928.15	12,200.69	117.56	120.99	-69.34	-8,420.37	1,252.35	2,061.72	1,836.34	225.38	9.148		
21,700.00	12,929.09	21,028.15	12,201.56	118.91	122.33	-69.34	-8,520.36	1,253.21	2,061.72	1,833.80	227.92	9.046		
21,800.00	12,929.97	21,128.15	12,202.43	120.26	123.68	-69.34	-8,620.36	1,254.07	2,061.72	1,831.26	230.46	8.946		
21,900.00	12,930.84	21,228.15	12,203.30	121.61	125.02	-69.34	-8,720.35	1,254.93	2,061.72	1,828.71	233.01	8.848		
22,000.00	12,931.72	21,328.15	12,204.17	122.96	126.37	-69.34	-8,820.34	1,255.80	2,061.73	1,826.17	235.56	8.753		
22,100.00	12,932.60	21,428.15	12,205.05	124.31	127.71	-69.34	-8,920.33	1,256.66	2,061.73	1,823.63	238.10	8.659		
22,200.00	12,933.48	21,528.15	12,205.92	125.66	129.06	-69.34	-9,020.33	1,257.52	2,061.73	1,821.08	240.65	8.567		
22,300.00	12,934.36	21,628.15	12,206.79	127.02	130.41	-69.33	-9,120.32	1,258.38	2,061.74	1,818.54	243.20	8.477		
22,400.00	12,935.23	21,728.15	12,207.66	128.37	131.75	-69.33	-9,220.31	1,259.24	2,061.74	1,815.99	245.75	8.390		
22,500.00	12,936.11	21,828.15	12,208.53	129.72	133.10	-69.33	-9,320.30	1,260.10	2,061.74	1,813.44	248.30	8.303		
22,600.00	12,936.99	21,928.15	12,209.40	131.08	134.45	-69.33	-9,420.30	1,260.96	2,061.75	1,810.89	250.85	8.219		
22,700.00	12,937.87	22,028.15	12,210.28	132.43	135.80	-69.33	-9,520.29	1,261.82	2,061.75	1,808.34	253.40	8.136		
22,800.00	12,938.75	22,128.15	12,211.15	133.78	137.15	-69.33	-9,620.28	1,262.69	2,061.75	1,805.80	255.96	8.055		
22,900.00	12,939.62	22,228.15	12,212.02	135.14	138.50	-69.33	-9,720.27	1,263.55	2,061.76	1,803.25	258.51	7.976		
23,000.00	12,940.50	22,328.15	12,212.89	136.49	139.85	-69.33	-9,820.27	1,264.41	2,061.76	1,800.70	261.06	7.898		
23,100.00	12,941.38	22,428.15	12,213.76	137.85	141.20	-69.33	-9,920.26	1,265.27	2,061.76	1,798.14	263.62	7.821		
23,106.83	12,941.44	22,434.98	12,213.82	137.93	141.29	-69.33	-9,927.09	1,265.33	2,061.76	1,797.98	263.78	7.816		
23,193.48	12,942.20	22,512.90	12,214.50	139.00	142.34	-69.33	-10,005.00	1,266.00	2,061.78	1,796.00	265.78	7.757	SF	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Axis (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.50	0.50	26.57	50.00	25.00	55.90				
100.00	100.00	100.00	100.00	0.98	0.98	26.57	50.00	25.00	55.90	53.94	1.96	28.490	
200.00	200.00	200.00	200.00	1.56	1.56	26.57	50.00	25.00	55.90	52.78	3.12	17.904	
300.00	300.00	300.00	300.00	1.98	1.98	26.57	50.00	25.00	55.90	51.94	3.96	14.108	
400.00	400.00	400.00	400.00	2.33	2.33	26.57	50.00	25.00	55.90	51.24	4.66	11.999	
500.00	500.00	500.00	500.00	2.63	2.63	26.57	50.00	25.00	55.90	50.63	5.27	10.609	
600.00	600.00	600.03	600.02	2.91	2.98	25.22	50.54	23.81	55.87	50.05	5.82	9.605	
624.93	624.93	624.95	624.93	2.97	3.05	24.47	50.85	23.14	55.86	49.92	5.94	9.401	
700.00	700.00	699.92	699.83	3.16	3.28	21.20	52.17	20.24	55.96	49.64	6.32	8.855	
800.00	799.99	799.63	799.32	3.46	3.57	55.70	54.87	14.31	55.96	49.15	6.81	8.216	
900.00	899.91	899.40	898.73	3.73	3.70	50.30	58.41	6.53	55.30	48.12	7.18	7.698	
1,000.00	999.69	999.32	998.26	4.00	3.92	46.64	62.01	-1.40	53.37	45.71	7.66	6.970	
1,100.00	1,099.32	1,099.24	1,097.81	4.11	4.14	44.29	65.62	-9.32	50.20	42.20	8.00	6.277	
1,200.00	1,198.94	1,199.17	1,197.35	4.32	4.35	41.74	69.23	-17.25	47.01	38.58	8.43	5.575	
1,300.00	1,298.56	1,298.59	1,296.28	4.52	4.60	37.41	73.32	-26.25	44.49	35.62	8.87	5.015	
1,386.90	1,385.13	1,384.84	1,381.87	4.70	4.82	30.92	77.74	-35.95	43.65	34.38	9.28	4.706	CC
1,400.00	1,398.18	1,397.83	1,394.73	4.72	4.85	29.74	78.47	-37.56	43.67	34.34	9.34	4.677	ES
1,500.00	1,497.80	1,496.75	1,492.52	4.92	5.10	19.58	84.66	-51.15	45.48	35.65	9.83	4.627	SF
1,600.00	1,597.42	1,595.24	1,589.46	5.12	5.34	8.80	91.85	-66.97	50.72	40.40	10.31	4.918	
1,700.00	1,697.04	1,693.99	1,686.28	5.32	5.48	-0.63	99.92	-84.70	59.34	48.65	10.68	5.554	
1,800.00	1,796.66	1,793.18	1,783.47	5.51	5.68	-7.64	108.11	-102.69	69.36	58.26	11.10	6.248	
1,900.00	1,896.28	1,892.37	1,880.67	5.70	5.89	-12.83	116.30	-120.68	80.14	68.64	11.50	6.967	
2,000.00	1,995.90	1,991.56	1,977.87	5.90	6.09	-16.77	124.49	-138.67	91.43	79.53	11.90	7.685	
2,100.00	2,095.52	2,090.75	2,075.07	6.09	6.30	-19.84	132.68	-156.66	103.04	90.76	12.29	8.386	
2,200.00	2,195.14	2,189.94	2,172.27	6.29	6.51	-22.28	140.86	-174.65	114.89	102.21	12.68	9.059	
2,300.00	2,294.66	2,289.26	2,269.60	6.48	6.72	-17.90	149.06	-192.67	125.74	112.66	13.08	9.614	
2,400.00	2,393.91	2,388.85	2,367.19	6.70	6.94	-15.15	157.29	-210.73	134.10	120.61	13.49	9.939	
2,500.00	2,492.84	2,488.62	2,464.96	6.92	7.17	-13.52	165.52	-228.83	139.95	126.04	13.91	10.060	
2,600.00	2,591.36	2,588.52	2,562.86	7.13	7.41	-12.59	173.77	-246.95	143.25	128.91	14.33	9.993	
2,700.00	2,689.42	2,688.47	2,660.80	7.35	7.66	-12.17	182.02	-265.08	143.99	129.24	14.75	9.761	
2,800.00	2,787.23	2,788.43	2,758.75	7.54	7.91	-13.34	190.27	-283.21	143.56	128.40	15.16	9.472	
2,900.00	2,885.05	2,888.38	2,856.70	7.74	8.17	-14.52	198.52	-301.34	143.19	127.63	15.56	9.202	
3,000.00	2,982.86	2,988.34	2,954.65	7.94	8.43	-15.70	206.77	-319.47	142.88	126.91	15.97	8.948	
3,100.00	3,080.67	3,088.29	3,052.61	8.15	8.69	-16.89	215.03	-337.60	142.63	126.25	16.38	8.709	
3,200.00	3,178.49	3,188.25	3,150.56	8.35	8.95	-18.08	223.28	-355.73	142.44	125.65	16.79	8.485	
3,300.00	3,276.30	3,288.21	3,248.51	8.56	9.22	-19.27	231.53	-373.86	142.31	125.11	17.20	8.274	
3,400.00	3,374.12	3,388.16	3,346.46	8.78	9.48	-20.47	239.78	-392.00	142.25	124.63	17.62	8.075	
3,454.11	3,427.05	3,442.25	3,399.46	8.90	9.62	-21.12	244.25	-401.81	142.24	124.40	17.84	7.972	
3,500.00	3,471.93	3,488.12	3,444.41	9.00	9.74	-21.67	248.03	-410.13	142.24	124.21	18.03	7.888	
3,600.00	3,569.75	3,588.07	3,542.36	9.22	10.01	-22.86	256.28	-428.26	142.30	123.85	18.46	7.711	
3,700.00	3,667.56	3,688.03	3,640.31	9.45	10.27	-24.06	264.54	-446.39	142.42	123.54	18.88	7.544	
3,800.00	3,765.38	3,787.98	3,738.26	9.68	10.54	-25.25	272.79	-464.52	142.61	123.30	19.31	7.386	
3,900.00	3,863.19	3,887.94	3,836.21	9.92	10.81	-26.44	281.04	-482.65	142.85	123.11	19.74	7.237	
4,000.00	3,961.01	3,987.90	3,934.16	10.16	11.07	-27.62	289.29	-500.78	143.16	122.98	20.18	7.095	
4,100.00	4,058.82	4,087.85	4,032.11	10.41	11.34	-28.80	297.54	-518.91	143.53	122.91	20.62	6.962	
4,200.00	4,156.64	4,187.81	4,130.06	10.66	11.61	-29.97	305.79	-537.04	143.95	122.89	21.06	6.835	
4,300.00	4,254.45	4,287.76	4,228.02	10.91	11.88	-31.14	314.04	-555.17	144.44	122.93	21.51	6.715	
4,400.00	4,352.27	4,387.72	4,325.97	11.16	12.15	-32.29	322.30	-573.30	144.99	123.02	21.97	6.601	
4,500.00	4,450.08	4,487.68	4,423.92	11.42	12.41	-33.44	330.55	-591.43	145.59	123.17	22.42	6.493	
4,600.00	4,547.89	4,587.63	4,521.87	11.68	12.68	-34.58	338.80	-609.56	146.26	123.37	22.89	6.390	
4,700.00	4,645.71	4,687.59	4,619.82	11.94	12.95	-35.70	347.05	-627.69	146.98	123.62	23.36	6.293	
4,800.00	4,743.52	4,787.54	4,717.77	12.20	13.22	-36.82	355.30	-645.82	147.75	123.93	23.83	6.200	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:					Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
4,900.00	4,841.34	4,887.50	4,815.72	12.46	13.49	-37.92	363.55	-663.95	148.59	124.28	24.31	6.113	
5,000.00	4,939.15	4,987.45	4,913.67	12.72	13.76	-39.01	371.81	-682.08	149.47	124.68	24.79	6.029	
5,100.00	5,036.97	5,087.41	5,011.62	12.99	14.03	-40.09	380.06	-700.22	150.41	125.13	25.28	5.950	
5,200.00	5,134.78	5,187.37	5,109.57	13.26	14.30	-41.15	388.31	-718.35	151.41	125.63	25.77	5.875	
5,300.00	5,232.60	5,287.32	5,207.52	13.52	14.57	-42.20	396.56	-736.48	152.45	126.18	26.27	5.803	
5,400.00	5,330.41	5,387.28	5,305.47	13.79	14.84	-43.24	404.81	-754.61	153.55	126.77	26.77	5.735	
5,500.00	5,428.44	5,487.24	5,403.43	14.04	15.11	-44.01	413.06	-772.74	155.44	128.18	27.26	5.703	
5,600.00	5,526.94	5,587.16	5,501.35	14.27	15.39	-44.12	421.31	-790.86	159.22	131.50	27.72	5.745	
5,700.00	5,625.86	5,686.99	5,599.17	14.49	15.66	-43.61	429.55	-808.97	164.88	136.75	28.13	5.861	
5,800.00	5,725.13	5,786.64	5,696.83	14.67	15.93	-42.57	437.78	-827.05	172.48	143.97	28.51	6.050	
5,900.00	5,824.69	5,886.05	5,794.25	14.84	16.20	-41.09	445.99	-845.08	182.10	153.24	28.86	6.310	
6,000.00	5,924.45	5,988.75	5,895.05	14.98	16.47	-39.36	454.10	-862.90	193.11	163.92	29.20	6.614	
6,100.00	6,024.36	6,092.64	5,997.53	15.09	16.71	-37.72	461.18	-878.47	204.05	174.54	29.52	6.913	
6,200.00	6,124.34	6,196.91	6,100.79	15.18	16.93	-36.18	467.13	-891.53	214.86	185.06	29.80	7.210	
6,300.00	6,224.34	6,301.65	6,204.89	15.24	17.12	-92.32	471.93	-902.07	224.67	194.66	30.00	7.488	
6,400.00	6,324.34	6,406.96	6,309.83	15.31	17.27	-91.35	475.55	-910.04	232.13	201.92	30.21	7.684	
6,500.00	6,424.34	6,512.67	6,415.37	15.38	17.40	-90.73	477.99	-915.39	237.15	206.76	30.40	7.802	
6,600.00	6,524.34	6,618.62	6,521.29	15.45	17.50	-90.43	479.21	-918.09	239.68	209.13	30.55	7.845	
6,700.00	6,624.34	6,721.68	6,624.34	15.52	17.55	-90.39	479.37	-918.43	240.01	209.35	30.65	7.830	
6,800.00	6,724.34	6,821.68	6,724.34	15.59	17.61	-90.39	479.37	-918.43	240.01	209.23	30.78	7.798	
6,900.00	6,824.34	6,921.68	6,824.34	15.66	17.67	-90.39	479.37	-918.43	240.01	209.10	30.90	7.766	
7,000.00	6,924.34	7,021.68	6,924.34	15.73	17.73	-90.39	479.37	-918.43	240.01	208.98	31.03	7.735	
7,100.00	7,024.34	7,121.68	7,024.34	15.80	17.79	-90.39	479.37	-918.43	240.01	208.85	31.16	7.703	
7,200.00	7,124.34	7,221.68	7,124.34	15.87	17.85	-90.39	479.37	-918.43	240.01	208.72	31.28	7.672	
7,300.00	7,224.34	7,321.68	7,224.34	15.94	17.90	-90.39	479.37	-918.43	240.01	208.59	31.41	7.641	
7,400.00	7,324.34	7,421.68	7,324.34	16.01	17.96	-90.39	479.37	-918.43	240.01	208.47	31.54	7.610	
7,500.00	7,424.34	7,521.68	7,424.34	16.09	18.02	-90.39	479.37	-918.43	240.01	208.34	31.67	7.579	
7,600.00	7,524.34	7,621.68	7,524.34	16.16	18.08	-90.39	479.37	-918.43	240.01	208.21	31.80	7.548	
7,700.00	7,624.34	7,721.68	7,624.34	16.23	18.14	-90.39	479.37	-918.43	240.01	208.08	31.92	7.518	
7,800.00	7,724.34	7,821.68	7,724.34	16.30	18.20	-90.39	479.37	-918.43	240.01	207.95	32.05	7.488	
7,900.00	7,824.34	7,921.68	7,824.34	16.37	18.27	-90.39	479.37	-918.43	240.01	207.82	32.18	7.458	
8,000.00	7,924.34	8,021.68	7,924.34	16.44	18.33	-90.39	479.37	-918.43	240.01	207.69	32.31	7.428	
8,100.00	8,024.34	8,121.68	8,024.34	16.51	18.39	-90.39	479.37	-918.43	240.01	207.56	32.44	7.398	
8,200.00	8,124.34	8,221.68	8,124.34	16.58	18.45	-90.39	479.37	-918.43	240.01	207.43	32.57	7.368	
8,300.00	8,224.34	8,321.68	8,224.34	16.66	18.51	-90.39	479.37	-918.43	240.01	207.30	32.70	7.339	
8,400.00	8,324.34	8,421.68	8,324.34	16.73	18.57	-90.39	479.37	-918.43	240.01	207.17	32.83	7.310	
8,500.00	8,424.34	8,521.68	8,424.34	16.80	18.63	-90.39	479.37	-918.43	240.01	207.04	32.97	7.281	
8,600.00	8,524.34	8,621.68	8,524.34	16.87	18.69	-90.39	479.37	-918.43	240.01	206.91	33.10	7.252	
8,700.00	8,624.34	8,721.68	8,624.34	16.94	18.76	-90.39	479.37	-918.43	240.01	206.78	33.23	7.223	
8,800.00	8,724.34	8,821.68	8,724.34	17.01	18.82	-90.39	479.37	-918.43	240.01	206.65	33.36	7.194	
8,900.00	8,824.34	8,921.68	8,824.34	17.09	18.88	-90.39	479.37	-918.43	240.01	206.51	33.49	7.166	
9,000.00	8,924.34	9,021.68	8,924.34	17.16	18.94	-90.39	479.37	-918.43	240.01	206.38	33.63	7.138	
9,100.00	9,024.34	9,121.68	9,024.34	17.23	19.00	-90.39	479.37	-918.43	240.01	206.25	33.76	7.110	
9,200.00	9,124.34	9,221.68	9,124.34	17.30	19.07	-90.39	479.37	-918.43	240.01	206.11	33.89	7.082	
9,300.00	9,224.34	9,321.68	9,224.34	17.38	19.13	-90.39	479.37	-918.43	240.01	205.98	34.02	7.054	
9,400.00	9,324.34	9,421.68	9,324.34	17.45	19.19	-90.39	479.37	-918.43	240.01	205.85	34.16	7.026	
9,500.00	9,424.34	9,521.68	9,424.34	17.52	19.25	-90.39	479.37	-918.43	240.01	205.71	34.29	6.999	
9,600.00	9,524.34	9,621.68	9,524.34	17.59	19.32	-90.39	479.37	-918.43	240.01	205.58	34.43	6.972	
9,700.00	9,624.34	9,721.68	9,624.34	17.67	19.38	-90.39	479.37	-918.43	240.01	205.45	34.56	6.945	
9,800.00	9,724.34	9,821.68	9,724.34	17.74	19.44	-90.39	479.37	-918.43	240.01	205.31	34.69	6.918	
9,900.00	9,824.34	9,921.68	9,824.34	17.81	19.51	-90.39	479.37	-918.43	240.01	205.18	34.83	6.891	
10,000.00	9,924.34	10,021.68	9,924.34	17.89	19.57	-90.39	479.37	-918.43	240.01	205.04	34.96	6.864	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)					Rule Assigned:				Offset Well Error:		0.50 usft
Reference	Offset	Semi Major Axis		Distance		Offset Wellbore Centre		Between Centres		Between Ellipses	Minimum Separation	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,024.34	10,121.68	10,024.34	17.96	19.64	-90.39	479.37	-918.43	240.01	204.91	35.10	6.838	
10,200.00	10,124.34	10,221.68	10,124.34	18.03	19.70	-90.39	479.37	-918.43	240.01	204.77	35.23	6.812	
10,300.00	10,224.34	10,321.68	10,224.34	18.11	19.76	-90.39	479.37	-918.43	240.01	204.64	35.37	6.785	
10,400.00	10,324.34	10,421.68	10,324.34	18.18	19.83	-90.39	479.37	-918.43	240.01	204.50	35.51	6.760	
10,500.00	10,424.34	10,521.68	10,424.34	18.25	19.89	-90.39	479.37	-918.43	240.01	204.36	35.64	6.734	
10,600.00	10,524.34	10,621.68	10,524.34	18.33	19.96	-90.39	479.37	-918.43	240.01	204.23	35.78	6.708	
10,700.00	10,624.34	10,721.68	10,624.34	18.40	20.02	-90.39	479.37	-918.43	240.01	204.09	35.92	6.683	
10,800.00	10,724.34	10,821.68	10,724.34	18.47	20.09	-90.39	479.37	-918.43	240.01	203.95	36.05	6.657	
10,900.00	10,824.34	10,921.68	10,824.34	18.55	20.15	-90.39	479.37	-918.43	240.01	203.82	36.19	6.632	
11,000.00	10,924.34	11,021.68	10,924.34	18.62	20.22	-90.39	479.37	-918.43	240.01	203.68	36.33	6.607	
11,100.00	11,024.34	11,121.68	11,024.34	18.69	20.28	-90.39	479.37	-918.43	240.01	203.54	36.46	6.582	
11,176.00	11,100.34	11,197.69	11,100.34	18.75	20.31	-90.49	478.93	-918.43	240.01	203.46	36.55	6.567	
11,200.00	11,124.34	11,221.62	11,124.23	18.77	20.32	-90.84	477.50	-918.41	240.01	203.45	36.56	6.564	
11,300.00	11,224.34	11,318.72	11,219.89	18.84	20.35	-94.64	461.52	-918.28	240.68	204.01	36.67	6.563	
11,400.00	11,324.34	11,408.15	11,304.46	18.92	20.35	-101.39	432.72	-918.03	245.22	208.31	36.91	6.643	
11,500.00	11,424.34	11,487.06	11,374.56	18.99	20.34	-109.42	396.65	-917.72	258.56	221.05	37.50	6.894	
11,600.00	11,524.34	11,550.00	11,426.53	19.06	20.33	-116.63	361.18	-917.41	284.67	245.96	38.71	7.353	
11,700.00	11,624.34	11,611.94	11,473.56	19.14	20.33	-123.85	320.93	-917.07	324.51	284.38	40.13	8.087	
11,800.00	11,724.34	11,660.00	11,506.89	19.21	20.34	-129.24	286.33	-916.77	376.81	335.02	41.79	9.017	
11,900.00	11,824.34	11,700.00	11,532.35	19.29	20.35	-133.45	255.48	-916.50	439.08	395.74	43.34	10.130	
12,000.00	11,924.34	11,734.57	11,552.57	19.36	20.37	-136.83	227.45	-916.26	508.98	464.27	44.71	11.384	
12,100.00	12,024.34	11,763.61	11,568.23	19.44	20.39	-139.48	203.00	-916.05	584.63	538.72	45.91	12.734	
12,200.00	12,124.34	11,800.00	11,586.06	19.51	20.42	-142.54	171.29	-915.78	664.83	618.03	46.80	14.206	
12,300.00	12,224.34	11,800.00	11,586.06	19.59	20.42	-142.54	171.29	-915.78	748.10	700.11	48.00	15.586	
12,400.00	12,324.31	11,829.20	11,598.90	19.64	20.45	26.54	145.06	-915.55	833.18	784.46	48.72	17.102	
12,500.00	12,422.88	11,850.00	11,607.21	19.68	20.48	20.22	126.00	-915.39	913.55	864.01	49.54	18.441	
12,600.00	12,517.18	11,875.87	11,616.59	19.70	20.52	16.15	101.89	-915.18	986.41	936.08	50.33	19.601	
12,700.00	12,604.33	11,900.00	11,624.34	19.72	20.56	13.52	79.04	-914.98	1,050.64	999.52	51.12	20.553	
12,800.00	12,681.69	11,931.60	11,633.02	19.76	20.62	11.65	48.66	-914.72	1,105.30	1,053.46	51.84	21.323	
12,900.00	12,746.91	11,950.00	11,637.30	19.82	20.66	10.49	30.77	-914.57	1,149.87	1,097.29	52.58	21.869	
13,000.00	12,797.99	12,000.00	11,646.01	19.92	20.77	9.45	-18.45	-914.14	1,183.34	1,130.21	53.14	22.270	
13,100.00	12,833.40	12,024.06	11,648.67	20.08	20.84	8.92	-42.36	-913.94	1,205.61	1,151.88	53.73	22.437	
13,200.00	12,852.06	12,050.00	11,650.40	20.30	20.91	8.60	-68.24	-913.72	1,216.49	1,162.25	54.24	22.427	
13,300.00	12,855.35	12,125.22	11,651.41	20.57	21.15	8.25	-143.44	-913.07	1,216.80	1,162.26	54.54	22.311	
13,400.00	12,856.23	12,224.97	11,652.28	20.89	21.52	7.96	-243.18	-912.21	1,215.81	1,161.07	54.74	22.209	
13,500.00	12,857.10	12,324.90	11,653.14	21.25	21.95	7.82	-343.11	-911.35	1,215.33	1,160.38	54.96	22.115	
13,595.26	12,857.94	12,420.15	11,653.97	21.62	22.41	7.78	-438.35	-910.53	1,215.22	1,160.06	55.16	22.030	
13,600.00	12,857.98	12,424.89	11,654.01	21.64	22.44	7.81	-443.10	-910.49	1,215.28	1,160.11	55.17	22.027	
13,700.00	12,858.86	12,524.89	11,654.87	22.08	22.98	7.81	-543.09	-909.63	1,215.29	1,159.88	55.41	21.933	
13,800.00	12,859.74	12,624.89	11,655.74	22.59	23.57	7.81	-643.08	-908.77	1,215.30	1,159.64	55.66	21.833	
13,900.00	12,860.61	12,724.89	11,656.60	23.15	24.21	7.81	-743.07	-907.91	1,215.31	1,159.38	55.93	21.728	
14,000.00	12,861.49	12,824.89	11,657.47	23.77	24.91	7.81	-843.07	-907.05	1,215.33	1,159.11	56.22	21.618	
14,100.00	12,862.37	12,924.89	11,658.34	24.45	25.65	7.81	-943.06	-906.19	1,215.34	1,158.82	56.52	21.504	
14,200.00	12,863.25	13,024.89	11,659.20	25.18	26.43	7.80	-1,043.05	-905.33	1,215.35	1,158.52	56.83	21.384	
14,300.00	12,864.13	13,124.89	11,660.07	25.97	27.26	7.80	-1,143.04	-904.46	1,215.36	1,158.20	57.16	21.261	
14,400.00	12,865.00	13,224.89	11,660.93	26.80	28.12	7.80	-1,243.04	-903.60	1,215.37	1,157.86	57.51	21.134	
14,500.00	12,865.88	13,324.89	11,661.80	27.67	29.03	7.80	-1,343.03	-902.74	1,215.38	1,157.52	57.87	21.003	
14,600.00	12,866.76	13,424.89	11,662.67	28.59	29.96	7.80	-1,443.02	-901.88	1,215.40	1,157.15	58.24	20.868	
14,700.00	12,867.64	13,524.89	11,663.53	29.54	30.93	7.80	-1,543.01	-901.02	1,215.41	1,156.78	58.63	20.731	
14,800.00	12,868.51	13,624.89	11,664.40	30.52	31.93	7.80	-1,643.01	-900.16	1,215.42	1,156.39	59.03	20.590	
14,900.00	12,869.39	13,724.89	11,665.26	31.54	32.95	7.80	-1,743.00	-899.30	1,215.43	1,155.99	59.44	20.447	
15,000.00	12,870.27	13,824.89	11,666.13	32.58	33.99	7.80	-1,842.99	-898.44	1,215.44	1,155.57	59.87	20.301	

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 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,100.00	12,871.15	13,924.89	11,667.00	33.65	35.06	7.80	-1,942.98	-897.58	1,215.45	1,155.14	60.31	20.154	
15,200.00	12,872.03	14,024.89	11,667.86	34.73	36.15	7.80	-2,042.98	-896.72	1,215.47	1,154.70	60.76	20.004	
15,300.00	12,872.90	14,124.89	11,668.73	35.84	37.26	7.80	-2,142.97	-895.86	1,215.48	1,154.25	61.23	19.852	
15,400.00	12,873.78	14,224.89	11,669.59	36.97	38.38	7.80	-2,242.96	-895.00	1,215.49	1,153.79	61.70	19.699	
15,500.00	12,874.66	14,324.89	11,670.46	38.11	39.52	7.80	-2,342.95	-894.14	1,215.50	1,153.31	62.19	19.545	
15,600.00	12,875.54	14,424.90	11,671.33	39.27	40.67	7.80	-2,442.95	-893.27	1,215.51	1,152.83	62.69	19.390	
15,700.00	12,876.42	14,524.90	11,672.19	40.45	41.84	7.80	-2,542.94	-892.41	1,215.52	1,152.33	63.20	19.234	
15,800.00	12,877.29	14,624.90	11,673.06	41.63	43.02	7.80	-2,642.93	-891.55	1,215.54	1,151.82	63.72	19.077	
15,900.00	12,878.17	14,724.90	11,673.92	42.83	44.21	7.80	-2,742.92	-890.69	1,215.55	1,151.30	64.25	18.919	
16,000.00	12,879.05	14,824.90	11,674.79	44.03	45.41	7.80	-2,842.92	-889.83	1,215.56	1,150.77	64.79	18.761	
16,100.00	12,879.93	14,924.90	11,675.66	45.25	46.62	7.80	-2,942.91	-888.97	1,215.57	1,150.23	65.34	18.603	
16,200.00	12,880.81	15,024.90	11,676.52	46.48	47.84	7.80	-3,042.90	-888.11	1,215.58	1,149.68	65.90	18.445	
16,300.00	12,881.68	15,124.90	11,677.39	47.71	49.06	7.80	-3,142.89	-887.25	1,215.60	1,149.12	66.47	18.287	
16,400.00	12,882.56	15,224.90	11,678.25	48.95	50.30	7.80	-3,242.89	-886.39	1,215.61	1,148.55	67.05	18.129	
16,500.00	12,883.44	15,324.90	11,679.12	50.20	51.54	7.80	-3,342.88	-885.53	1,215.62	1,147.98	67.64	17.971	
16,600.00	12,884.32	15,424.90	11,679.99	51.45	52.79	7.80	-3,442.87	-884.67	1,215.63	1,147.39	68.24	17.814	
16,700.00	12,885.19	15,524.90	11,680.85	52.71	54.04	7.80	-3,542.87	-883.81	1,215.64	1,146.80	68.85	17.657	
16,800.00	12,886.07	15,624.90	11,681.72	53.98	55.30	7.80	-3,642.86	-882.95	1,215.65	1,146.19	69.46	17.501	
16,900.00	12,886.95	15,724.90	11,682.58	55.25	56.56	7.80	-3,742.85	-882.09	1,215.67	1,145.58	70.08	17.346	
17,000.00	12,887.83	15,824.90	11,683.45	56.53	57.83	7.80	-3,842.84	-881.22	1,215.68	1,144.96	70.71	17.191	
17,100.00	12,888.71	15,924.90	11,684.32	57.81	59.11	7.80	-3,942.84	-880.36	1,215.69	1,144.34	71.35	17.038	
17,200.00	12,889.58	16,024.90	11,685.18	59.09	60.38	7.80	-4,042.83	-879.50	1,215.70	1,143.70	72.00	16.885	
17,300.00	12,890.46	16,124.90	11,686.05	60.38	61.67	7.80	-4,142.82	-878.64	1,215.71	1,143.06	72.65	16.734	
17,400.00	12,891.34	16,224.90	11,686.91	61.67	62.9								

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:						Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Axis (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
20,300.00	12,916.80	19,124.90	11,712.03	100.06	101.21	7.80	-7,142.60	-852.82	1,216.06	1,121.25	94.82	12.825			
20,400.00	12,917.68	19,224.90	11,712.89	101.40	102.55	7.80	-7,242.59	-851.96	1,216.08	1,120.45	95.62	12.717			
20,500.00	12,918.55	19,324.90	11,713.76	102.74	103.89	7.80	-7,342.58	-851.10	1,216.09	1,119.66	96.43	12.611			
20,600.00	12,919.43	19,424.90	11,714.63	104.09	105.23	7.80	-7,442.57	-850.24	1,216.10	1,118.86	97.24	12.506			
20,700.00	12,920.31	19,524.90	11,715.49	105.43	106.57	7.80	-7,542.57	-849.38	1,216.11	1,118.06	98.05	12.403			
20,800.00	12,921.19	19,624.90	11,716.36	106.78	107.92	7.80	-7,642.56	-848.52	1,216.12	1,117.25	98.87	12.300			
20,900.00	12,922.07	19,724.90	11,717.22	108.12	109.26	7.80	-7,742.55	-847.66	1,216.13	1,116.45	99.69	12.200			
21,000.00	12,922.94	19,824.90	11,718.09	109.47	110.60	7.80	-7,842.54	-846.80	1,216.15	1,115.64	100.51	12.100			
21,100.00	12,923.82	19,924.90	11,718.96	110.81	111.95	7.80	-7,942.54	-845.93	1,216.16	1,114.83	101.33	12.002			
21,200.00	12,924.70	20,024.90	11,719.82	112.16	113.29	7.80	-8,042.53	-845.07	1,216.17	1,114.01	102.16	11.905			
21,300.00	12,925.58	20,124.90	11,720.69	113.51	114.64	7.80	-8,142.52	-844.21	1,216.18	1,113.19	102.99	11.809			
21,400.00	12,926.46	20,224.90	11,721.55	114.86	115.98	7.80	-8,242.51	-843.35	1,216.19	1,112.37	103.82	11.714			
21,500.00	12,927.33	20,324.90	11,722.42	116.21	117.33	7.80	-8,342.51	-842.49	1,216.21	1,111.55	104.65	11.621			
21,600.00	12,928.21	20,424.90	11,723.29	117.56	118.68	7.80	-8,442.50	-841.63	1,216.22	1,110.73	105.49	11.529			
21,700.00	12,929.09	20,524.90	11,724.15	118.91	120.03	7.80	-8,542.49	-840.77	1,216.23	1,109.90	106.33	11.438			
21,800.00	12,929.97	20,624.90	11,725.02	120.26	121.37	7.80	-8,642.48	-839.91	1,216.24	1,109.07	107.17	11.349			
21,900.00	12,930.84	20,724.90	11,725.88	121.61	122.72	7.80	-8,742.48	-839.05	1,216.25	1,108.24	108.01	11.260			
22,000.00	12,931.72	20,824.90	11,726.75	122.96	124.07	7.80	-8,842.47	-838.19	1,216.26	1,107.41	108.86	11.173			
22,100.00	12,932.60	20,924.90	11,727.62	124.31	125.42	7.80	-8,942.46	-837.33	1,216.28	1,106.57	109.71	11.087			
22,200.00	12,933.48	21,024.90	11,728.48	125.66	126.77	7.80	-9,042.46	-836.47	1,216.29	1,105.73	110.56	11.002			
22,300.00	12,934.36	21,124.90	11,729.35	127.02	128.12	7.80	-9,142.45	-835.61	1,216.30	1,104.89	111.41	10.918			
22,400.00	12,935.23	21,224.90	11,730.21	128.37	129.47	7.80	-9,242.44	-834.74	1,216.31	1,104.05	112.26	10.835			
22,500.00	12,936.11	21,324.90	11,731.08	129.72	130.82	7.80	-9,342.43	-833.88	1,216.32	1,103.21	113.12	10.753			
22,600.00	12,936.99	21,424.90	11,731.95	131.08	132.18	7.80	-9,442.43	-833.02	1,216.33	1,102.36	113.97	10.672			
22,700.00	12,937.87	21,524.90	11,732.81	132.43	133.53	7.80	-9,542.42	-832.16	1,216.35	1,101.51	114.83	10.592			
22,800.00	12,938.75	21,624.90	11,733.68	133.78	134.88	7.80	-9,642.41	-831.30	1,216.36	1,100.66	115.69	10.514			
22,900.00	12,939.62	21,724.90	11,734.54	135.14	136.23	7.80	-9,742.40	-830.44	1,216.37	1,099.81	116.56	10.436			
23,000.00	12,940.50	21,824.90	11,735.41	136.49	137.59	7.80	-9,842.40	-829.58	1,216.38	1,098.96	117.42	10.359			
23,100.00	12,941.38	21,924.90	11,736.28	137.85	138.94	7.80	-9,942.39	-828.72	1,216.39	1,098.11	118.29	10.283			
23,105.95	12,941.43	21,930.84	11,736.33	137.92	139.02	7.80	-9,948.34	-828.67	1,216.39	1,098.07	118.33	10.280			
23,193.48	12,942.20	22,008.51	11,737.00	139.00	140.07	7.80	-10,026.00	-828.00	1,216.44	1,097.36	119.08	10.215			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance			Offset Well Error:		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
0.00	0.00	0.00	1.00	0.50	0.50	6.07	235.00	25.00	236.33							
100.00	100.00	99.00	100.00	0.98	0.97	6.07	235.00	25.00	236.33	234.37	1.95	120.887	CC, ES			
200.00	200.00	199.00	200.00	1.56	1.56	6.07	235.00	25.00	236.33	233.21	3.12	75.837				
300.00	300.00	299.00	300.00	1.98	1.98	6.07	235.00	25.00	236.33	232.37	3.96	59.707				
400.00	400.00	395.19	396.18	2.33	2.39	6.29	235.66	25.98	237.12	232.45	4.67	50.730				
500.00	500.00	491.23	492.15	2.63	2.75	6.95	237.67	28.97	239.56	234.26	5.30	45.186				
600.00	600.00	587.02	587.75	2.91	3.08	8.02	241.02	33.94	243.70	237.83	5.87	41.505				
700.00	700.00	684.66	685.05	3.16	3.24	9.43	245.61	40.77	249.42	243.14	6.28	39.721				
800.00	799.99	784.26	784.26	3.46	3.47	51.01	250.46	47.97	254.67	247.89	6.78	37.557				
900.00	899.91	883.76	883.39	3.73	3.71	53.00	255.30	55.17	258.54	251.27	7.27	35.570				
1,000.00	999.69	983.11	982.35	4.00	3.94	55.40	260.13	62.35	261.24	253.50	7.74	33.773				
1,100.00	1,099.32	1,082.28	1,081.15	4.11	4.17	58.13	264.95	69.53	263.32	255.25	8.07	32.610				
1,200.00	1,198.94	1,181.44	1,179.93	4.32	4.39	60.85	269.78	76.70	265.94	257.43	8.50	31.270				
1,300.00	1,298.56	1,280.60	1,278.71	4.52	4.61	63.52	274.60	83.87	269.15	260.22	8.92	30.157				
1,400.00	1,398.18	1,379.76	1,377.50	4.72	4.83	66.11	279.43	91.04	272.94	263.60	9.34	29.232				
1,500.00	1,497.80	1,478.92	1,476.28	4.92	5.04	68.63	284.25	98.21	277.28	267.53	9.74	28.462				
1,600.00	1,597.42	1,578.08	1,575.06	5.12	5.25	71.07	289.07	105.38	282.14	272.00	10.14	27.825				
1,700.00	1,697.04	1,677.24	1,673.85	5.32	5.45	73.43	293.90	112.55	287.51	276.98	10.53	27.298				
1,800.00	1,796.66	1,776.40	1,772.63	5.51	5.66	75.69	298.72	119.72	293.35	282.43	10.92	26.866				
1,900.00	1,896.28	1,875.56	1,871.41	5.70	5.86	77.87	303.55	126.89	299.63	288.33	11.30	26.514				
2,000.00	1,995.90	1,974.72	1,970.19	5.90	6.06	79.95	308.37	134.06	306.33	294.65	11.68	26.232				
2,100.00	2,095.52	2,073.88	2,068.98	6.09	6.26	81.95	313.19	141.23	313.42	301.37	12.05	26.008				
2,200.00	2,195.14	2,173.04	2,167.76	6.29	6.46	83.85	318.02	148.40	320.88	308.44	12.44	25.800				
2,300.00	2,294.66	2,266.90	2,261.22	6.48	6.66	91.98	322.85	155.59	329.68	316.89	12.79	25.769				
2,400.00	2,393.91	2,357.29	2,351.00	6.70	6.87	98.28	328.64	164.19	342.25	329.09	13.16	26.006				
2,500.00	2,492.84	2,446.49	2,439.35	6.92	7.07	103.39	335.51	174.40	358.89	345.36	13.53	26.520				
2,600.00	2,591.36	2,534.28	2,525.99	7.13	7.25	107.73	343.39	186.12	379.78	365.91	13.87	27.373				
2,700.00	2,689.42	2,628.98	2,619.26	7.35	7.41	111.72	352.57	199.76	404.06	389.82	14.24	28.379				
2,800.00	2,787.23	2,723.86	2,712.70	7.54	7.61	114.27	361.77	213.43	429.83	415.19	14.64	29.356				
2,900.00	2,885.05	2,818.75	2,806.14	7.74	7.80	116.54	370.96	227.10	456.33	441.29	15.05	30.327				
3,000.00	2,982.86	2,913.63	2,899.59	7.94	8.00	118.56	380.16	240.77	483.45	467.99	15.45	31.285				
3,100.00	3,080.67	3,008.51	2,993.03	8.15	8.19	120.37	389.36	254.44	511.07	495.21	15.86	32.225				
3,200.00	3,178.49	3,103.40	3,086.47	8.35	8.39	122.00	398.55	268.11	539.13	522.86	16.27	33.143				
3,300.00	3,276.30	3,198.28	3,179.91	8.56	8.59	123.47	407.75	281.78	567.56	550.89	16.68	34.037				
3,400.00	3,374.12	3,293.17	3,273.35	8.78	8.78	124.80	416.95	295.45	596.31	579.22	17.08	34.905				
3,500.00	3,471.93	3,388.05	3,366.80	9.00	8.98	126.01	426.14	309.12	625.33	607.83	17.49	35.746				
3,600.00	3,569.75	3,482.93	3,460.24	9.22	9.17	127.12	435.34	322.79	654.58	636.68	17.90	36.561				
3,700.00	3,667.56	3,577.82	3,553.68	9.45	9.37	128.13	444.54	336.46	684.05	665.73	18.32	37.348				
3,800.00	3,765.38	3,672.70	3,647.12	9.68	9.56	129.05	453.73	350.13	713.69	694.97	18.72	38.117				
3,900.00	3,863.19	3,783.88	3,756.78	9.92	9.80	130.07	463.95	365.31	742.71	723.49	19.22	38.647				
4,000.00	3,961.01	3,901.77	3,873.58	10.16	10.06	131.15	472.87	378.57	769.18	749.45	19.73	38.983				
4,100.00	4,058.82	4,021.19	3,992.34	10.41	10.31	132.24	479.85	388.95	793.01	772.79	20.22	39.212				
4,200.00	4,156.64	4,141.95	4,112.76	10.66	10.55	133.36	484.80	396.31	814.17	793.47	20.69	39.345				
4,300.00	4,254.45	4,263.80	4,234.51	10.91	10.78	134.53	487.64	400.53	832.64	811.51	21.13	39.401				
4,400.00	4,352.27	4,381.57	4,352.27	11.16	10.90	135.69	488.35	401.58	848.49	827.03	21.46	39.532				
4,500.00	4,450.08	4,479.38	4,450.08	11.42	10.97	136.64	488.35	401.58	863.65	841.90	21.75	39.711				
4,600.00	4,547.89	4,577.20	4,547.89	11.68	11.06	137.56	488.35	401.58	879.04	856.99	22.04	39.880				
4,700.00	4,645.71	4,675.01	4,645.71	11.94	11.14	138.45	488.35	401.58	894.64	872.31	22.34	40.055				
4,800.00	4,743.52	4,772.83	4,743.52	12.20	11.22	139.31	488.35	401.58	910.45	887.83	22.63	40.236				
4,900.00	4,841.34	4,870.64	4,841.34	12.46	11.30	140.14	488.35	401.58	926.46	903.54	22.92	40.420				
5,000.00	4,939.15	4,968.46	4,939.15	12.72	11.38	140.95	488.35	401.58	942.66	919.45	23.21	40.609				
5,100.00	5,036.97	5,066.27	5,036.97	12.99	11.46	141.72	488.35	401.58	959.03	935.53	23.51	40.801				

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:
												Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)	Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Ellipses (usft)			
5,200.00	5,134.78	5,164.09	5,134.78	13.26	11.54	142.47	488.35	401.58	975.57	951.78	23.80	40.995
5,300.00	5,232.60	5,261.90	5,232.60	13.52	11.63	143.20	488.35	401.58	992.28	968.19	24.09	41.192
5,400.00	5,330.41	5,359.72	5,330.41	13.79	11.71	143.90	488.35	401.58	1,009.13	984.75	24.38	41.390
5,500.00	5,428.44	5,457.74	5,428.44	14.04	11.79	144.67	488.35	401.58	1,025.29	1,000.62	24.66	41.573
5,600.00	5,526.94	5,556.25	5,526.94	14.27	11.87	145.34	488.35	401.58	1,039.45	1,014.50	24.95	41.660
5,700.00	5,625.86	5,655.17	5,625.86	14.49	11.95	145.90	488.35	401.58	1,051.57	1,026.34	25.23	41.680
5,800.00	5,725.13	5,754.44	5,725.13	14.67	12.03	146.34	488.35	401.58	1,061.58	1,036.08	25.50	41.633
5,900.00	5,824.69	5,853.99	5,824.69	14.84	12.12	146.69	488.35	401.58	1,069.45	1,043.69	25.76	41.522
6,000.00	5,924.45	5,953.75	5,924.45	14.98	12.20	146.93	488.35	401.58	1,075.16	1,049.16	26.00	41.349
6,100.00	6,024.36	6,053.66	6,024.36	15.09	12.28	147.08	488.35	401.58	1,078.69	1,052.46	26.23	41.119
6,200.00	6,124.34	6,153.65	6,124.34	15.18	12.37	147.14	488.35	401.58	1,080.02	1,053.58	26.44	40.845
6,300.00	6,224.34	6,253.65	6,224.34	15.24	12.45	89.61	488.35	401.58	1,080.04	1,053.45	26.58	40.630
6,400.00	6,324.34	6,353.65	6,324.34	15.31	12.53	89.61	488.35	401.58	1,080.04	1,053.30	26.73	40.402
6,500.00	6,424.34	6,453.65	6,424.34	15.38	12.62	89.61	488.35	401.58	1,080.04	1,053.15	26.88	40.176
6,600.00	6,524.34	6,553.65	6,524.34	15.45	12.70	89.61	488.35	401.58	1,080.04	1,053.00	27.03	39.952
6,700.00	6,624.34	6,653.65	6,624.34	15.52	12.78	89.61	488.35	401.58	1,080.04	1,052.85	27.18	39.730
6,800.00	6,724.34	6,753.65	6,724.34	15.59	12.86	89.61	488.35	401.58	1,080.04	1,052.70	27.34	39.511
6,900.00	6,824.34	6,853.65	6,824.34	15.66	12.95	89.61	488.35	401.58	1,080.04	1,052.55	27.49	39.294
7,000.00	6,924.34	6,953.65	6,924.34	15.73	13.03	89.61	488.35	401.58	1,080.04	1,052.40	27.64	39.079
7,100.00	7,024.34	7,053.65	7,024.34	15.80	13.11	89.61	488.35	401.58	1,080.04	1,052.25	27.79	38.867
7,200.00	7,124.34	7,153.65	7,124.34	15.87	13.20	89.61	488.35	401.58	1,080.04	1,052.10	27.94	38.656
7,300.00	7,224.34	7,253.65	7,224.34	15.94	13.28	89.61	488.35	401.58	1,080.04	1,051.94	28.09	38.448
7,400.00	7,324.34	7,353.65	7,324.34	16.01	13.36	89.61	488.35	401.58	1,080.04	1,051.79	28.24	38.241
7,500.00	7,424.34	7,453.65	7,424.34	16.09	13.45	89.61	488.35	401.58	1,080.04	1,051.64	28.39	38.037
7,600.00	7,524.34	7,553.65	7,524.34	16.16	13.53	89.61	488.35	401.58	1,080.04	1,051.49	28.55	37.835
7,700.00	7,624.34	7,653.65	7,624.34	16.23	13.61	89.61	488.35	401.58	1,080.04	1,051.34	28.70	37.635
7,800.00	7,724.34	7,753.65	7,724.34	16.30	13.70	89.61	488.35	401.58	1,080.04	1,051.19	28.85	37.436
7,900.00	7,824.34	7,853.65	7,824.34	16.37	13.78	89.61	488.35	401.58	1,080.04	1,051.03	29.00	37.240
8,000.00	7,924.34	7,953.65	7,924.34	16.44	13.86	89.61	488.35	401.58	1,080.04	1,050.88	29.15	37.046
8,100.00	8,024.34	8,053.65	8,024.34	16.51	13.94	89.61	488.35	401.58	1,080.04	1,050.73	29.31	36.853
8,200.00	8,124.34	8,153.65	8,124.34	16.58	14.03	89.61	488.35	401.58	1,080.04	1,050.58	29.46	36.663
8,300.00	8,224.34	8,253.65	8,224.34	16.66	14.11	89.61	488.35	401.58	1,080.04	1,050.42	29.61	36.474
8,400.00	8,324.34	8,353.65	8,324.34	16.73	14.19	89.61	488.35	401.58	1,080.04	1,050.27	29.76	36.287
8,500.00	8,424.34	8,453.65	8,424.34	16.80	14.28	89.61	488.35	401.58	1,080.04	1,050.12	29.92	36.102
8,600.00	8,524.34	8,553.65	8,524.34	16.87	14.36	89.61	488.35	401.58	1,080.04	1,049.97	30.07	35.918
8,700.00	8,624.34	8,653.65	8,624.34	16.94	14.44	89.61	488.35	401.58	1,080.04	1,049.81	30.22	35.736
8,800.00	8,724.34	8,753.65	8,724.34	17.01	14.53	89.61	488.35	401.58	1,080.04	1,049.66	30.38	35.556
8,900.00	8,824.34	8,853.65	8,824.34	17.09	14.61	89.61	488.35	401.58	1,080.04	1,049.51	30.53	35.378
9,000.00	8,924.34	8,953.65	8,924.34	17.16	14.69	89.61	488.35	401.58	1,080.04	1,049.35	30.68	35.201
9,100.00	9,024.34	9,053.65	9,024.34	17.23	14.77	89.61	488.35	401.58	1,080.04	1,049.20	30.83	35.026
9,200.00	9,124.34	9,153.65	9,124.34	17.30	14.86	89.61	488.35	401.58	1,080.04	1,049.05	30.99	34.853
9,300.00	9,224.34	9,253.65	9,224.34	17.38	14.94	89.61	488.35	401.58	1,080.04	1,048.89	31.14	34.681
9,400.00	9,324.34	9,353.65	9,324.34	17.45	15.02	89.61	488.35	401.58	1,080.04	1,048.74	31.30	34.511
9,500.00	9,424.34	9,453.65	9,424.34	17.52	15.11	89.61	488.35	401.58	1,080.04	1,048.59	31.45	34.343
9,600.00	9,524.34	9,553.65	9,524.34	17.59	15.19	89.61	488.35	401.58	1,080.04	1,048.43	31.60	34.176
9,700.00	9,624.34	9,653.65	9,624.34	17.67	15.27	89.61	488.35	401.58	1,080.04	1,048.28	31.76	34.010
9,800.00	9,724.34	9,753.65	9,724.34	17.74	15.35	89.61	488.35	401.58	1,080.04	1,048.12	31.91	33.846
9,900.00	9,824.34	9,853.65	9,824.34	17.81	15.44	89.61	488.35	401.58	1,080.04	1,047.97	32.06	33.684
10,000.00	9,924.34	9,953.65	9,924.34	17.89	15.52	89.61	488.35	401.58	1,080.04	1,047.82	32.22	33.523
10,100.00	10,024.34	10,053.65	10,024.34	17.96	15.60	89.61	488.35	401.58	1,080.04	1,047.66	32.37	33.363
10,200.00	10,124.34	10,153.65	10,124.34	18.03	15.69	89.61	488.35	401.58	1,080.04	1,047.51	32.53	33.205
10,300.00	10,224.34	10,253.65	10,224.34	18.11	15.77	89.61	488.35	401.58	1,080.04	1,047.35	32.68	33.048

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:			Offset Site Error:		0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre				Distance		Offset Well Error:		0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
10,400.00	10,324.34	10,353.65	10,324.34	18.18	15.85	89.61	488.35	401.58	1,080.04	1,047.20	32.84	32.893				
10,500.00	10,424.34	10,453.65	10,424.34	18.25	15.93	89.61	488.35	401.58	1,080.04	1,047.05	32.99	32.739				
10,600.00	10,524.34	10,553.65	10,524.34	18.33	16.02	89.61	488.35	401.58	1,080.04	1,046.89	33.14	32.586				
10,700.00	10,624.34	10,653.65	10,624.34	18.40	16.10	89.61	488.35	401.58	1,080.04	1,046.74	33.30	32.435				
10,800.00	10,724.34	10,753.65	10,724.34	18.47	16.18	89.61	488.35	401.58	1,080.04	1,046.58	33.45	32.285				
10,900.00	10,824.34	10,853.65	10,824.34	18.55	16.27	89.61	488.35	401.58	1,080.04	1,046.43	33.61	32.136				
11,000.00	10,924.34	10,953.65	10,924.34	18.62	16.35	89.61	488.35	401.58	1,080.04	1,046.27	33.76	31.989				
11,100.00	11,024.34	11,053.65	11,024.34	18.69	16.43	89.61	488.35	401.58	1,080.04	1,046.12	33.92	31.841				
11,108.26	11,032.60	11,061.91	11,032.60	18.70	16.44	89.61	488.35	401.58	1,080.04	1,046.10	33.93	31.828				
11,200.00	11,124.34	11,153.38	11,124.02	18.77	16.51	89.71	486.42	401.60	1,080.04	1,046.00	34.04	31.732				
11,300.00	11,224.34	11,250.00	11,219.19	18.84	16.54	90.56	470.43	401.73	1,080.23	1,046.20	34.03	31.741				
11,400.00	11,324.34	11,339.09	11,303.44	18.92	16.59	92.08	441.71	401.98	1,081.33	1,047.33	33.99	31.809				
11,500.00	11,424.34	11,417.70	11,373.29	18.99	16.64	93.98	405.80	402.29	1,084.54	1,050.57	33.97	31.925				
11,600.00	11,524.34	11,485.17	11,428.86	19.06	16.69	95.99	367.59	402.62	1,091.17	1,057.14	34.02	32.070				
11,700.00	11,624.34	11,542.23	11,472.07	19.14	16.74	97.93	330.37	402.94	1,102.38	1,068.16	34.21	32.220				
11,800.00	11,724.34	11,590.22	11,505.40	19.21	16.79	99.71	295.86	403.24	1,119.02	1,084.44	34.58	32.356				
11,900.00	11,824.34	11,630.60	11,531.13	19.29	16.83	101.30	264.75	403.51	1,141.63	1,106.48	35.15	32.477				
12,000.00	11,924.34	11,664.74	11,551.13	19.36	16.87	102.70	237.09	403.74	1,170.42	1,134.51	35.91	32.595				
12,100.00	12,024.34	11,700.00	11,570.01	19.44	16.91	104.19	207.32	404.00	1,205.39	1,168.61	36.78	32.774				
12,200.00	12,124.34	11,718.67	11,579.26	19.51	16.94	104.99	191.11	404.14	1,246.24	1,208.38	37.86	32.920				
12,300.00	12,224.34	11,750.00	11,593.58	19.59	16.99	106.35	163.25	404.38	1,292.79	1,253.89	38.90	33.231				
12,400.00	12,324.31	11,750.00	11,593.58	19.64	16.99	-76.59	163.25	404.38	1,344.15	1,304.00	40.15	33.481				
12,500.00	12,422.88	11,781.33	11,606.35	19.68	17.04	-69.42	134.64	404.63	1,396.97	1,355.83	41.14	33.954				
12,600.00	12,517.18	11,800.00	11,613.22	19.70	17.07	-63.27	117.28	404.78	1,448.88	1,406.71	42.17	34.362				
12,700.00	12,604.33	11,833.14	11,623.99	19.72	17.13	-57.59	85.94	405.04	1,497.82	1,454.78	43.04	34.798				
12,800.00	12,681.69	11,850.00	11,628.77	19.76	17.17	-53.18	69.78	405.18	1,542.44	1,498.54	43.89	35.139				
12,900.00	12,746.91	11,900.00	11,640.12	19.82	17.28	-49.31	21.10	405.60	1,581.07	1,536.54	44.53	35.509				
13,000.00	12,797.99	11,922.75	11,643.88	19.92	17.33	-46.66	-1.33	405.80	1,612.88	1,567.76	45.12	35.745				
13,100.00	12,833.40	11,950.00	11,647.19	20.08	17.41	-44.76	-28.38	406.03	1,637.17	1,591.60	45.57	35.928				
13,200.00	12,852.06	12,001.28	11,649.94	20.30	17.56	-43.61	-79.57	406.47	1,653.48	1,607.60	45.88	36.036				
13,300.00	12,855.35	12,053.93	11,650.40	20.57	17.74	-43.44	-132.21	406.92	1,661.48	1,615.40	46.08	36.057				
13,400.00	12,856.23	12,153.68	11,651.27	20.89	18.14	-43.67	-231.95	407.78	1,666.34	1,619.99	46.36	35.946				
13,500.00	12,857.10	12,253.61	11,652.15	21.25	18.63	-43.78	-331.88	408.64	1,668.81	1,622.07	46.75	35.700				
13,600.00	12,857.98	12,353.61	11,653.02	21.64	19.20	-43.79	-431.86	409.50	1,669.14	1,621.92	47.22	35.348				
13,700.00	12,858.86	12,453.61	11,653.90	22.08	19.86	-43.79	-531.86	410.36	1,669.14	1,621.36	47.78	34.931				
13,800.00	12,859.74	12,553.61	11,654.78	22.59	20.58	-43.79	-631.85	411.23	1,669.15	1,620.72	48.42	34.470				
13,900.00	12,860.61	12,653.61	11,655.65	23.15	21.38	-43.79	-731.84	412.09	1,669.15	1,620.01	49.14	33.970				
14,000.00	12,861.49	12,753.61	11,656.53	23.77	22.24	-43.79	-831.83	412.95	1,669.15	1,619.23	49.92	33.438				
14,100.00	12,862.37	12,853.61	11,657.41	24.45	23.15	-43.79	-931.83	413.81	1,669.15	1,618.39	50.77	32.879				
14,200.00	12,863.25	12,953.61	11,658.28	25.18	24.10	-43.79	-1,031.82	414.67	1,669.15	1,617.47	51.68	32.299				
14,300.00	12,864.13	13,053.61	11,659.16	25.97	25.10	-43.79	-1,131.81	415.53	1,669.15	1,616.50	52.65	31.703				
14,400.00	12,865.00	13,153.61	11,660.04	26.80	26.13	-43.79	-1,231.80	416.39	1,669.16	1,615.48	53.68	31.096				
14,500.00	12,865.88	13,253.61	11,660.91	27.67	27.19	-43.79	-1,331.80	417.25	1,669.16	1,614.40	54.76	30.481				
14,600.00	12,866.76	13,353.61	11,661.79	28.59	28.29	-43.79	-1,431.79	418.11	1,669.16	1,613.26	55.89	29.863				
14,700.00	12,867.64	13,453.61	11,662.66	29.54	29.40	-43.79	-1,531.78	418.97	1,669.16	1,612.09	57.07	29.245				
14,800.00	12,868.51	13,553.61	11,663.54	30.52	30.54	-43.79	-1,631.77	419.83	1,669.16	1,610.86	58.30	28.631				
14,900.00	12,869.39	13,653.61	11,664.42	31.54	31.69	-43.79	-1,731.77	420.70	1,669.16	1,609.60	59.57	28.022				
15,000.00	12,870.27	13,753.61	11,665.29	32.58	32.86	-43.79	-1,831.76	421.56	1,669.16	1,608.29	60.87	27.420				
15,100.00	12,871.15	13,853.61	11,666.17	33.65	34.05	-43.79	-1,931.75	422.42	1,669.17	1,606.95	62.22	26.828				
15,200.00	12,872.03	13,953.61	11,667.05	34.73	35.25	-43.79	-2,031.74	423.28	1,669.17	1,605.57	63.60	26.246				
15,300.00	12,872.90	14,053.61	11,667.92	35.84	36.47	-43.79	-2,131.74	424.14	1,669.17	1,604.16	65.01	25.676				
15,400.00	12,873.78	14,153.61	11,668.80	36.97	37.69	-43.79	-2,231.73	425.00	1,669.17	1,602.72	66.45	25.119				

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Rule Assigned:					Offset Well Error:		0.50 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,500.00	12,874.66	14,253.61	11,669.68	38.11	38.93	-43.79	-2,331.72	425.86	1,669.17	1,601.25	67.92	24.575	
15,600.00	12,875.54	14,353.61	11,670.55	39.27	40.17	-43.79	-2,431.71	426.72	1,669.17	1,599.76	69.42	24.045	
15,700.00	12,876.42	14,453.61	11,671.43	40.45	41.42	-43.79	-2,531.71	427.58	1,669.17	1,598.23	70.94	23.529	
15,800.00	12,877.29	14,553.61	11,672.30	41.63	42.68	-43.79	-2,631.70	428.44	1,669.18	1,596.69	72.49	23.028	
15,900.00	12,878.17	14,653.61	11,673.18	42.83	43.95	-43.79	-2,731.69	429.31	1,669.18	1,595.12	74.05	22.540	
16,000.00	12,879.05	14,753.61	11,674.06	44.03	45.22	-43.79	-2,831.68	430.17	1,669.18	1,593.54	75.64	22.067	
16,100.00	12,879.93	14,853.61	11,674.93	45.25	46.50	-43.79	-2,931.68	431.03	1,669.18	1,591.93	77.25	21.607	
16,200.00	12,880.81	14,953.61	11,675.81	46.48	47.78	-43.79	-3,031.67	431.89	1,669.18	1,590.31	78.88	21.162	
16,300.00	12,881.68	15,053.61	11,676.69	47.71	49.07	-43.79	-3,131.66	432.75	1,669.18	1,588.66	80.52	20.730	
16,400.00	12,882.56	15,153.61	11,677.56	48.95	50.36	-43.79	-3,231.65	433.61	1,669.19	1,587.01	82.18	20.311	
16,500.00	12,883.44	15,253.61	11,678.44	50.20	51.65	-43.79	-3,331.65	434.47	1,669.19	1,585.33	83.85	19.906	
16,600.00	12,884.32	15,353.61	11,679.32	51.45	52.95	-43.79	-3,431.64	435.33	1,669.19	1,583.64	85.54	19.513	
16,700.00	12,885.19	15,453.61	11,680.19	52.71	54.26	-43.79	-3,531.63	436.19	1,669.19	1,581.94	87.25	19.132	
16,800.00	12,886.07	15,553.61	11,681.07	53.98	55.56	-43.79	-3,631.62	437.05	1,669.19	1,580.23	88.96	18.763	
16,900.00	12,886.95	15,653.61	11,681.95	55.25	56.87	-43.79	-3,731.62	437.92	1,669.19	1,578.50	90.69	18.406	
17,000.00	12,887.83	15,753.61	11,682.82	56.53	58.19	-43.79	-3,831.61	438.78	1,669.19	1,576.77	92.43	18.059	
17,100.00	12,888.71	15,853.61	11,683.70	57.81	59.50	-43.79	-3,931.60	439.64	1,669.20	1,575.02	94.18	17.724	
17,200.00	12,889.58	15,953.61	11,684.57	59.09	60.82	-43.79	-4,031.59	440.50	1,669.20	1,573.26	95.94	17.399	
17,300.00	12,890.46	16,053.61	11,685.45	60.38	62.14	-43.79	-4,131.59	441.36	1,669.20	1,571.49	97.71	17.084	
17,400.00	12,891.34	16,153.61	11,686.33	61.67	63.46	-43.79	-4,231.58	442.22	1,669.20	1,569.72	99.48	16.779	
17,500.00	12,892.22	16,253.61	11,687.20	62.97	64.78	-43.79	-4,331.57	443.08	1,669.20	1,567.93	101.27	16.483	
17,600.00	12,893.10	16,353.61	11,688.08	64.27	66.11	-43.79	-4,431.56	443.94	1,669.20	1,566.14	103.07	16.196	
17,700.00	12,893.97	16,453.61	11,688.96	65.57	67.44	-43.79	-4,531.56	444.80	1,669.20	1,564.34	104.87	15.917	
17,800.00	12,894.85	16,553.61	11,689.83	66.87	68.77	-43.79	-4,631.55	445.66	1,669.21	1,562.53	106.68	15.647	
17,900.00	12,895.73	16,653.61	11,690.71	68.18	70.10	-43.79	-4,731.54	446.52	1,669.21	1,560.71	108.49	15.385	
18,000.00	12,896.61	16,753.61	11,691.59	69.49	71.43	-43.79	-4,831.53	447.39	1,669.21	1,558.89	110.32	15.131	
18,100.00	12,897.49	16,853.61	11,692.46	70.80	72.76	-43.79	-4,931.53	448.25	1,669.21	1,557.06	112.15	14.884	
18,200.00	12,898.36	16,953.61	11,693.34	72.11	74.10	-43.79	-5,031.52	449.11	1,669.21	1,555.23	113.98	14.644	
18,300.00	12,899.24	17,053.61	11,694.22	73.43	75.43	-43.79	-5,131.51	449.97	1,669.21	1,553.39	115.83	14.411	
18,400.00	12,900.12	17,153.61	11,695.09	74.75	76.77	-43.79	-5,231.50	450.83	1,669.22	1,551.54	117.67	14.185	
18,500.00	12,901.00	17,253.61	11,695.97	76.07	78.11	-43.79	-5,331.50	451.69	1,669.22	1,549.69	119.52	13.966	
18,600.00	12,901.87	17,353.61	11,696.84	77.39	79.45	-43.79	-5,431.49	452.55	1,669.22	1,547.84	121.38	13.752	
18,700.00	12,902.75	17,453.61	11,697.72	78.71	80.79	-43.79	-5,531.48	453.41	1,669.22	1,545.98	123.24	13.544	
18,800.00	12,903.63	17,553.61	11,698.60	80.04	82.13	-43.79	-5,631.47	454.27	1,669.22	1,544.11	125.11	13.342	
18,900.00	12,904.51	17,653.61	11,699.47	81.36	83.47	-43.79	-5,731.47	455.13	1,669.22	1,542.24	126.98	13.146	
19,000.00	12,905.39	17,753.61	11,700.35	82.69	84.82	-43.78	-5,831.46	456.00	1,669.22	1,540.37	128.85	12.954	
19,100.00	12,906.26	17,853.61	11,701.23	84.02	86.16	-43.78	-5,931.45	456.86	1,669.23	1,538.49	130.73	12.768	
19,200.00	12,907.14	17,953.61	11,702.10	85.35	87.51	-43.78	-6,031.44	457.72	1,669.23	1,536.61	132.62	12.587	
19,300.00	12,908.02	18,053.61	11,702.98	86.68	88.85	-43.78	-6,131.43	458.58	1,669.23	1,534.73	134.50	12.411	
19,400.00	12,908.90	18,153.61	11,703.86	88.01	90.20	-43.78	-6,231.43	459.44	1,669.23	1,532.84	136.39	12.239	
19,500.00	12,909.78	18,253.61	11,704.73	89.35	91.55	-43.78	-6,331.42	460.30	1,669.23	1,530.95	138.28	12.071	
19,600.00	12,910.65	18,353.61	11,705.61	90.68	92.90	-43.78	-6,431.41	461.16	1,669.23	1,529.05	140.18	11.908	
19,700.00	12,911.53	18,453.61	11,706.48	92.02	94.24	-43.78	-6,531.40	462.02	1,669.23	1,527.16	142.08	11.749	
19,800.00	12,912.41	18,553.61	11,707.36	93.36	95.59	-43.78	-6,631.40	462.88	1,669.24	1,525.26	143.98	11.593	
19,900.00	12,913.29	18,653.61	11,708.24	94.70	96.94	-43.78	-6,731.39	463.74	1,669.24	1,523.35	145.89	11.442	
20,000.00	12,914.17	18,753.61	11,709.11	96.03	98.29	-43.78	-6,831.38	464.61	1,669.24	1,521.45	147.79	11.294	
20,100.00	12,915.04	18,853.61	11,709.99	97.37	99.64	-43.78	-6,931.37	465.47	1,669.24	1,519.54	149.70	11.150	
20,200.00	12,915.92	18,953.61	11,710.87	98.72	101.00	-43.78	-7,031.37	466.33	1,669.24	1,517.63	151.62	11.010	
20,300.00	12,916.80	19,053.61	11,711.74	100.06	102.35	-43.78	-7,131.36	467.19	1,669.24	1,515.71	153.53	10.872	
20,400.00	12,917.68	19,153.61	11,712.62	101.40	103.70	-43.78	-7,231.35	468.05	1,669.25	1,513.80	155.45	10.738	
20,500.00	12,918.55	19,253.61	11,713.50	102.74	105.05	-43.78	-7,331.34	468.91	1,669.25	1,511.88	157.37	10.607	
20,600.00	12,919.43	19,353.61	11,714.37	104.09	106.41	-43.78	-7,431.34	469.77	1,669.25	1,509.96	159.29	10.479	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,700.00	12,920.31	19,453.61	11,715.25	105.43	107.76	-43.78	-7,531.33	470.63	1,669.25	1,508.04	161.21	10.354	
20,800.00	12,921.19	19,553.61	11,716.13	106.78	109.11	-43.78	-7,631.32	471.49	1,669.25	1,506.11	163.14	10.232	
20,900.00	12,922.07	19,653.61	11,717.00	108.12	110.47	-43.78	-7,731.31	472.35	1,669.25	1,504.19	165.07	10.113	
21,000.00	12,922.94	19,753.61	11,717.88	109.47	111.82	-43.78	-7,831.31	473.21	1,669.25	1,502.26	167.00	9.996	
21,100.00	12,923.82	19,853.61	11,718.75	110.81	113.18	-43.78	-7,931.30	474.08	1,669.26	1,500.33	168.93	9.881	
21,200.00	12,924.70	19,953.61	11,719.63	112.16	114.53	-43.78	-8,031.29	474.94	1,669.26	1,498.40	170.86	9.770	
21,300.00	12,925.58	20,053.61	11,720.51	113.51	115.89	-43.78	-8,131.28	475.80	1,669.26	1,496.46	172.80	9.660	
21,400.00	12,926.46	20,153.61	11,721.38	114.86	117.25	-43.78	-8,231.28	476.66	1,669.26	1,494.53	174.73	9.553	
21,500.00	12,927.33	20,253.61	11,722.26	116.21	118.60	-43.78	-8,331.27	477.52	1,669.26	1,492.59	176.67	9.448	
21,600.00	12,928.21	20,353.61	11,723.14	117.56	119.96	-43.78	-8,431.26	478.38	1,669.26	1,490.65	178.61	9.346	
21,700.00	12,929.09	20,453.61	11,724.01	118.91	121.32	-43.78	-8,531.25	479.24	1,669.26	1,488.71	180.55	9.245	
21,800.00	12,929.97	20,553.61	11,724.89	120.26	122.67	-43.78	-8,631.25	480.10	1,669.27	1,486.77	182.50	9.147	
21,900.00	12,930.84	20,653.61	11,725.77	121.61	124.03	-43.78	-8,731.24	480.96	1,669.27	1,484.83	184.44	9.051	
22,000.00	12,931.72	20,753.61	11,726.64	122.96	125.39	-43.78	-8,831.23	481.82	1,669.27	1,482.88	186.38	8.956	
22,100.00	12,932.60	20,853.61	11,727.52	124.31	126.75	-43.78	-8,931.22	482.69	1,669.27	1,480.94	188.33	8.863	
22,200.00	12,933.48	20,953.61	11,728.40	125.66	128.11	-43.78	-9,031.22	483.55	1,669.27	1,478.99	190.28	8.773	
22,300.00	12,934.36	21,053.61	11,729.27	127.02	129.46	-43.78	-9,131.21	484.41	1,669.27	1,477.05	192.23	8.684	
22,400.00	12,935.23	21,153.61	11,730.15	128.37	130.82	-43.78	-9,231.20	485.27	1,669.27	1,475.10	194.18	8.597	
22,500.00	12,936.11	21,253.61	11,731.02	129.72	132.18	-43.78	-9,331.19	486.13	1,669.28	1,473.15	196.13	8.511	
22,600.00	12,936.99	21,353.61	11,731.90	131.08	133.54	-43.78	-9,431.19	486.99	1,669.28	1,471.20	198.08	8.427	
22,700.00	12,937.87	21,453.61	11,732.78	132.43	134.90	-43.78	-9,531.18	487.85	1,669.28	1,469.24	200.04	8.345	
22,800.00	12,938.75	21,553.61	11,733.65	133.78	136.26	-43.78	-9,631.17	488.71	1,669.28	1,467.29	201.99	8.264	
22,900.00	12,939.62	21,653.61	11,734.53	135.14	137.62	-43.78	-9,731.16	489.57	1,669.28	1,465.34	203.95	8.185	
23,000.00	12,940.50	21,753.61	11,735.41	136.49	138.98	-43.78	-9,831.16	490.43	1,669.28	1,463.38	205.90	8.107	
23,100.00	12,941.38	21,853.61	11,736.28	137.85	140.34	-43.78	-9,931.15	491.30	1,669.29	1,461.42	207.86	8.031	
23,105.89	12,941.43	21,859.50	11,736.33	137.92	140.42	-43.78	-9,937.04	491.35	1,669.29	1,461.32	207.97	8.027	
23,193.48	12,942.20	21,935.47	11,737.00	139.00	141.45	-43.78	-10,013.00	492.00	1,669.33	1,459.87	209.46	7.970	SF

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.50	0.50	0.00	25.00	0.00	25.00				
100.00	100.00	100.00	100.00	0.98	0.98	0.00	25.00	0.00	25.00	23.04	1.96	12.741	
200.00	200.00	200.00	200.00	1.56	1.56	0.00	25.00	0.00	25.00	21.88	3.12	8.007	
300.00	300.00	300.00	300.00	1.98	1.98	0.00	25.00	0.00	25.00	21.04	3.96	6.309	CC
400.00	400.00	399.72	399.71	2.33	2.41	-2.69	25.50	-1.20	25.53	20.86	4.67	5.466	ES
500.00	500.00	499.31	499.22	2.63	2.78	-10.06	27.01	-4.79	27.45	22.14	5.31	5.172	
600.00	600.00	598.63	598.33	2.91	3.11	-20.02	29.52	-10.76	31.46	25.55	5.91	5.326	
700.00	700.00	698.06	697.39	3.16	3.25	-29.55	32.81	-18.60	37.81	31.48	6.33	5.973	
800.00	799.99	797.77	796.72	3.46	3.50	3.76	36.18	-26.61	43.73	36.84	6.89	6.344	
900.00	899.91	897.61	896.18	3.73	3.74	-1.35	39.55	-34.64	47.48	40.06	7.42	6.396	
1,000.00	999.69	997.52	995.71	4.00	3.97	-5.98	42.92	-42.67	48.96	41.03	7.93	6.173	
1,100.00	1,099.32	1,097.44	1,095.25	4.11	4.20	-10.74	46.29	-50.70	48.73	40.45	8.28	5.886	
1,158.51	1,157.61	1,155.89	1,153.48	4.23	4.33	-13.56	48.26	-55.39	48.67	40.14	8.53	5.704	
1,200.00	1,198.94	1,197.35	1,194.78	4.32	4.42	-15.56	49.66	-58.72	48.70	39.99	8.71	5.591	
1,300.00	1,298.56	1,296.71	1,293.74	4.52	4.55	-20.36	53.11	-66.94	49.27	40.23	9.04	5.452	
1,400.00	1,398.18	1,395.27	1,391.68	4.72	4.81	-25.07	57.36	-77.07	52.36	42.89	9.47	5.528	
1,500.00	1,497.80	1,493.59	1,489.07	4.92	5.07	-29.13	62.58	-89.49	58.34	48.45	9.90	5.896	
1,600.00	1,597.42	1,591.54	1,585.72	5.12	5.32	-32.22	68.74	-104.15	67.12	56.81	10.31	6.512	
1,700.00	1,697.04	1,689.00	1,681.45	5.32	5.57	-34.34	75.82	-121.01	78.57	67.86	10.71	7.336	
1,800.00	1,796.66	1,785.85	1,776.08	5.51	5.81	-35.68	83.79	-139.99	92.60	81.49	11.11	8.337	
1,900.00	1,896.28	1,883.72	1,871.28	5.70	5.99	-36.51	92.58	-160.92	108.61	97.15	11.46	9.480	
2,000.00	1,995.90	1,982.39	1,967.22	5.90	6.20	-37.12	101.50	-182.16	124.78	112.93	11.85	10.528	
2,100.00	2,095.52	2,081.07	2,063.17	6.09	6.41	-37.58	110.42	-203.41	140.97	128.72	12.25	11.505	
2,200.00	2,195.14	2,179.74	2,159.12	6.29	6.63	-37.95	119.34	-224.65	157.16	144.50	12.66	12.413	
2,300.00	2,294.66	2,278.60	2,255.24	6.48	6.85	-31.95	128.28	-245.93	172.21	159.14	13.07	13.179	
2,400.00	2,393.91	2,377.80	2,351.70	6.70	7.09	-28.04	137.24	-267.29	184.70	171.21	13.49	13.692	
2,500.00	2,492.84	2,47											

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre				Distance		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,100.00	5,036.97	5,074.35	4,973.72	12.99	15.29	-35.55	381.02	-847.81	301.72	276.03	25.69	11.746			
5,200.00	5,134.78	5,174.24	5,070.85	13.26	15.61	-35.90	390.05	-869.32	305.88	279.71	26.17	11.688			
5,300.00	5,232.60	5,274.14	5,167.99	13.52	15.92	-36.24	399.08	-890.82	310.05	283.39	26.65	11.633			
5,400.00	5,330.41	5,374.04	5,265.12	13.79	16.24	-36.57	408.11	-912.33	314.23	287.09	27.14	11.578			
5,500.00	5,428.44	5,473.90	5,362.22	14.04	16.55	-36.82	417.14	-933.83	319.25	291.64	27.61	11.563			
5,600.00	5,526.94	5,573.65	5,459.21	14.27	16.87	-36.81	426.16	-955.30	326.36	298.29	28.07	11.626			
5,700.00	5,625.86	5,673.20	5,556.01	14.49	17.18	-36.56	435.16	-976.73	335.57	307.06	28.51	11.772			
5,800.00	5,725.13	5,779.08	5,659.16	14.67	17.50	-36.10	444.41	-998.76	346.18	317.23	28.95	11.956			
5,900.00	5,824.69	5,887.44	5,765.35	14.84	17.80	-35.60	452.75	-1,018.63	356.48	327.10	29.38	12.133			
6,000.00	5,924.45	5,996.17	5,872.47	14.98	18.07	-35.08	459.95	-1,035.77	366.39	336.62	29.77	12.308			
6,100.00	6,024.36	6,105.25	5,980.43	15.09	18.31	-34.54	465.98	-1,050.14	375.90	345.79	30.11	12.483			
6,200.00	6,124.34	6,214.68	6,089.14	15.18	18.51	-33.98	470.83	-1,061.68	385.01	354.61	30.41	12.662			
6,300.00	6,224.34	6,324.54	6,198.59	15.24	18.67	-90.95	474.49	-1,070.39	392.86	362.25	30.61	12.834			
6,400.00	6,324.34	6,434.85	6,308.72	15.31	18.80	-90.59	476.93	-1,076.20	398.10	367.30	30.80	12.925			
6,500.00	6,424.34	6,545.44	6,419.26	15.38	18.91	-90.41	478.14	-1,079.08	400.70	369.75	30.95	12.948			
6,600.00	6,524.34	6,650.53	6,524.34	15.45	18.97	-90.39	478.28	-1,079.42	401.00	369.94	31.06	12.911			
6,700.00	6,624.34	6,750.53	6,624.34	15.52	19.03	-90.39	478.28	-1,079.42	401.00	369.82	31.18	12.861			
6,800.00	6,724.34	6,850.53	6,724.34	15.59	19.08	-90.39	478.28	-1,079.42	401.00	369.70	31.30	12.810			
6,900.00	6,824.34	6,950.53	6,824.34	15.66	19.14	-90.39	478.28	-1,079.42	401.00	369.57	31.43	12.760			
7,000.00	6,924.34	7,050.53	6,924.34	15.73	19.19	-90.39	478.28	-1,079.42	401.00	369.45	31.55	12.710			
7,100.00	7,024.34	7,150.53	7,024.34	15.80	19.25	-90.39	478.28	-1,079.42	401.00	369.32	31.68	12.660			
7,200.00	7,124.34	7,250.53	7,124.34	15.87	19.30	-90.39	478.28	-1,079.42	401.00	369.20	31.80	12.610			
7,300.00	7,224.34	7,350.53	7,224.34	15.94	19.35	-90.39	478.28	-1,079.42	401.00	369.07	31.92	12.561			
7,400.00	7,324.34	7,450.53	7,324.34	16.01	19.41	-90.39	478.28	-1,079.42	401.00	368.95	32.0				

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Rule Assigned:		Offset Site Error:		Offset Well Error:							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,224.34	10,350.53	10,224.34	18.11	21.08	-90.39	478.28	-1,079.42	401.00	365.19	35.81	11.198	
10,400.00	10,324.34	10,450.53	10,324.34	18.18	21.14	-90.39	478.28	-1,079.42	401.00	365.05	35.94	11.156	
10,500.00	10,424.34	10,550.53	10,424.34	18.25	21.20	-90.39	478.28	-1,079.42	401.00	364.92	36.08	11.115	
10,600.00	10,524.34	10,650.53	10,524.34	18.33	21.27	-90.39	478.28	-1,079.42	401.00	364.79	36.21	11.073	
10,700.00	10,624.34	10,750.53	10,624.34	18.40	21.33	-90.39	478.28	-1,079.42	401.00	364.65	36.35	11.032	
10,800.00	10,724.34	10,850.53	10,724.34	18.47	21.39	-90.39	478.28	-1,079.42	401.00	364.52	36.48	10.992	
10,900.00	10,824.34	10,950.53	10,824.34	18.55	21.45	-90.39	478.28	-1,079.42	401.00	364.38	36.62	10.951	
11,000.00	10,924.34	11,050.53	10,924.34	18.62	21.51	-90.39	478.28	-1,079.42	401.00	364.25	36.75	10.911	
11,100.00	11,024.34	11,150.53	11,024.34	18.69	21.57	-90.39	478.28	-1,079.42	401.00	364.11	36.89	10.871	
11,200.00	11,124.34	11,250.53	11,124.34	18.77	21.63	-90.39	478.28	-1,079.42	401.00	363.98	37.02	10.831	
11,300.00	11,224.34	11,350.53	11,224.34	18.84	21.69	-90.39	478.28	-1,079.42	401.00	363.84	37.16	10.792	
11,400.00	11,324.34	11,450.53	11,324.34	18.92	21.75	-90.39	478.28	-1,079.42	401.00	363.70	37.29	10.752	
11,500.00	11,424.34	11,550.53	11,424.34	18.99	21.82	-90.39	478.28	-1,079.42	401.00	363.57	37.43	10.713	
11,600.00	11,524.34	11,650.53	11,524.34	19.06	21.88	-90.39	478.28	-1,079.42	401.00	363.43	37.57	10.674	
11,700.00	11,624.34	11,750.53	11,624.34	19.14	21.94	-90.39	478.28	-1,079.42	401.00	363.30	37.70	10.636	
11,800.00	11,724.34	11,850.53	11,724.34	19.21	22.00	-90.39	478.28	-1,079.42	401.00	363.16	37.84	10.597	
11,900.00	11,824.34	11,950.53	11,824.34	19.29	22.06	-90.39	478.28	-1,079.42	401.00	363.02	37.98	10.559	
12,000.00	11,924.34	12,050.53	11,924.34	19.36	22.12	-90.39	478.28	-1,079.42	401.00	362.89	38.11	10.523	
12,042.60	11,966.94	12,093.13	11,966.94	19.39	22.13	-90.49	477.55	-1,079.41	401.00	362.85	38.15	10.512	
12,100.00	12,024.34	12,150.00	12,023.50	19.44	22.15	-91.31	471.87	-1,079.36	401.04	362.85	38.19	10.501	
12,200.00	12,124.34	12,244.56	12,115.41	19.51	22.16	-94.41	450.12	-1,079.18	402.03	363.75	38.29	10.501	
12,300.00	12,224.34	12,330.02	12,194.40	19.59	22.14	-98.98	417.71	-1,078.90	406.54	368.05	38.49	10.562	
12,400.00	12,324.31	12,405.13	12,259.18	19.64	22.11	69.93	379.80	-1,078.57	417.33	378.39	38.94	10.717	
12,500.00	12,422.88	12,475.74	12,315.07	19.68	22.08	64.18	336.72	-1,078.20	431.47	391.87	39.60	10.895	
12,600.00	12,517.18	12,550.00	12,367.66	19.70	22.06	58.87	284.37	-1,077.75	446.54	406.13	40.41	11.050	
12,700.00	12,604.33	12,610.20	12,405.05	19.72	22.06	54.94	237.22	-1,077.35	460.83	419.17	41.66	11.061	
12,800.00	12,681.69	12,675.10	12,439.57	19.76	22.07	51.48	182.30	-1,076.87	473.27	430.30	42.97	11.013	
12,900.00	12,746.91	12,738.95	12,467.25	19.82	22.11	48.76	124.81	-1,076.38	482.84	438.47	44.37	10.881	
13,000.00	12,797.99	12,800.00	12,487.60	19.92	22.18	46.80	67.28	-1,075.88	488.82	442.99	45.82	10.668	
13,100.00	12,833.40	12,864.59	12,502.32	20.08	22.28	45.41	4.43	-1,075.34	490.66	443.52	47.14	10.409	
13,200.00	12,852.06	12,926.85	12,509.74	20.30	22.41	44.71	-57.35	-1,074.81	488.08	439.71	48.36	10.092	
13,300.00	12,855.35	13,006.94	12,511.35	20.57	22.62	44.27	-137.41	-1,074.12	481.67	432.46	49.22	9.787	
13,400.00	12,856.23	13,106.68	12,512.22	20.89	22.94	43.75	-237.15	-1,073.26	476.76	426.94	49.82	9.569	
13,500.00	12,857.10	13,206.61	12,513.10	21.25	23.32	43.49	-337.07	-1,072.40	474.30	423.90	50.40	9.411	
13,599.74	12,857.98	13,306.35	12,513.97	21.64	23.76	43.42	-436.80	-1,071.54	473.68	422.72	50.95	9.296	
13,600.00	12,857.98	13,306.61	12,513.97	21.64	23.76	43.46	-437.06	-1,071.54	473.98	423.04	50.94	9.304	
13,700.00	12,858.86	13,406.61	12,514.84	22.08	24.26	43.46	-537.05	-1,070.68	473.98	422.43	51.55	9.194	
13,800.00	12,859.74	13,506.61	12,515.72	22.59	24.80	43.46	-637.04	-1,069.82	473.99	421.76	52.23	9.075	
13,900.00	12,860.61	13,606.61	12,516.59	23.15	25.40	43.46	-737.04	-1,068.96	473.99	421.01	52.97	8.947	
14,000.00	12,861.49	13,706.61	12,517.46	23.77	26.05	43.46	-837.03	-1,068.10	473.99	420.21	53.78	8.813	
14,100.00	12,862.37	13,806.61	12,518.33	24.45	26.74	43.46	-937.02	-1,067.24	474.00	419.34	54.65	8.673	
14,200.00	12,863.25	13,906.61	12,519.21	25.18	27.48	43.46	-1,037.01	-1,066.38	474.00	418.42	55.58	8.528	
14,300.00	12,864.13	14,006.61	12,520.08	25.97	28.26	43.46	-1,137.01	-1,065.52	474.00	417.44	56.56	8.380	
14,400.00	12,865.00	14,106.61	12,520.95	26.80	29.08	43.46	-1,237.00	-1,064.66	474.00	416.41	57.60	8.230	
14,500.00	12,865.88	14,206.61	12,521.83	27.67	29.94	43.46	-1,336.99	-1,063.80	474.01	415.33	58.68	8.078	
14,600.00	12,866.76	14,306.61	12,522.70	28.59	30.83	43.46	-1,436.98	-1,062.94	474.01	414.20	59.81	7.925	
14,700.00	12,867.64	14,406.61	12,523.57	29.54	31.76	43.46	-1,536.98	-1,062.07	474.01	413.03	60.99	7.772	
14,800.00	12,868.51	14,506.61	12,524.45	30.52	32.71	43.46	-1,636.97	-1,061.21	474.02	411.81	62.20	7.620	
14,900.00	12,869.39	14,606.61	12,525.32	31.54	33.70	43.46	-1,736.96	-1,060.35	474.02	410.56	63.46	7.469	
15,000.00	12,870.27	14,706.61	12,526.19	32.58	34.70	43.46	-1,836.95	-1,059.49	474.02	409.27	64.75	7.320	
15,100.00	12,871.15	14,806.61	12,527.07	33.65	35.73	43.46	-1,936.95	-1,058.63	474.03	407.94	66.08	7.173	
15,200.00	12,872.03	14,906.61	12,527.94	34.73	36.79	43.46	-2,036.94	-1,057.77	474.03	406.59	67.45	7.028	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,300.00	12,872.90	15,006.61	12,528.81	35.84	37.86	43.46	-2,136.93	-1,056.91	474.03	405.20	68.84	6.886	
15,400.00	12,873.78	15,106.61	12,529.68	36.97	38.95	43.46	-2,236.92	-1,056.05	474.04	403.78	70.26	6.747	
15,500.00	12,874.66	15,206.61	12,530.56	38.11	40.06	43.45	-2,336.92	-1,055.19	474.04	402.33	71.71	6.611	
15,600.00	12,875.54	15,306.61	12,531.43	39.27	41.18	43.45	-2,436.91	-1,054.33	474.04	400.86	73.18	6.478	
15,700.00	12,876.42	15,406.61	12,532.30	40.45	42.32	43.45	-2,536.90	-1,053.47	474.05	399.37	74.68	6.348	
15,800.00	12,877.29	15,506.61	12,533.18	41.63	43.48	43.45	-2,636.89	-1,052.61	474.05	397.85	76.20	6.221	
15,900.00	12,878.17	15,606.61	12,534.05	42.83	44.64	43.45	-2,736.89	-1,051.75	474.05	396.31	77.75	6.098	
16,000.00	12,879.05	15,706.61	12,534.92	44.03	45.82	43.45	-2,836.88	-1,050.89	474.06	394.75	79.31	5.977	
16,100.00	12,879.93	15,806.61	12,535.80	45.25	47.00	43.45	-2,936.87	-1,050.03	474.06	393.17	80.89	5.861	
16,200.00	12,880.81	15,906.61	12,536.67	46.48	48.20	43.45	-3,036.86	-1,049.16	474.06	391.57	82.49	5.747	
16,300.00	12,881.68	16,006.61	12,537.54	47.71	49.40	43.45	-3,136.86	-1,048.30	474.07	389.96	84.11	5.637	
16,400.00	12,882.56	16,106.61	12,538.41	48.95	50.62	43.45	-3,236.85	-1,047.44	474.07	388.33	85.74	5.529	
16,500.00	12,883.44	16,206.61	12,539.29	50.20	51.84	43.45	-3,336.84	-1,046.58	474.07	386.69	87.39	5.425	
16,600.00	12,884.32	16,306.61	12,540.16	51.45	53.07	43.45	-3,436.83	-1,045.72	474.08	385.03	89.05	5.324	
16,700.00	12,885.19	16,406.61	12,541.03	52.71	54.30	43.45	-3,536.83	-1,044.86	474.08	383.36	90.72	5.226	
16,800.00	12,886.07	16,506.61	12,541.91	53.98	55.54	43.45	-3,636.82	-1,044.00	474.08	381.67	92.41	5.130	
16,900.00	12,886.95	16,606.61	12,542.78	55.25	56.79	43.45	-3,736.81	-1,043.14	474.09	379.98	94.11	5.038	
17,000.00	12,887.83	16,706.61	12,543.65	56.53	58.05	43.45	-3,836.80	-1,042.28	474.09	378.27	95.82	4.948	
17,100.00	12,888.71	16,806.61	12,544.53	57.81	59.30	43.45	-3,936.80	-1,041.42	474.09	376.55	97.54	4.860	
17,200.00	12,889.58	16,906.61	12,545.40	59.09	60.57	43.45	-4,036.79	-1,040.56	474.10	374.82	99.28	4.776	
17,300.00	12,890.46	17,006.61	12,546.27	60.38	61.84	43.45	-4,136.78	-1,039.70	474.10	373.08	101.02	4.693	
17,400.00	12,891.34	17,106.61	12,547.15	61.67	63.11	43.45	-4,236.77	-1,038.84	474.10	371.33	102.77	4.613	
17,500.00	12,892.22	17,206.61	12,548.02	62.97	64.39	43.45	-4,336.77	-1,037.98	474.11	369.58	104.53	4.536	
17,600.00	12,893.10	17,306.61	12,548.89	64.27	65.67	43.45	-4,436.76	-1,037.12	474.11	367.81	106.30	4.460	
17,700.00	12,893.97	17,406.61	12,549.76	65.57	66.95	43.45	-4,536.75	-1,036.26	474.11	366.04	108.07	4.387	
17,800.00	12,894.85	17,506.61	12,550.64	66.87	68.24	43.44	-4,636.74	-1,035.39	474.12	364.26	109.86	4.316	
17,900.00	12,895.73	17,606.61	12,551.51	68.18	69.53	43.44	-4,736.74	-1,034.53	474.12	362.47	111.65	4.247	
18,000.00	12,896.61	17,706.61	12,552.38	69.49	70.82	43.44	-4,836.73	-1,033.67	474.12	360.68	113.44	4.179	
18,100.00	12,897.49	17,806.61	12,553.26	70.80	72.12	43.44	-4,936.72	-1,032.81	474.13	358.88	115.25	4.114	
18,200.00	12,898.36	17,906.61	12,554.13	72.11	73.42	43.44	-5,036.71	-1,031.95	474.13	357.07	117.06	4.050	
18,300.00	12,899.24	18,006.61	12,555.00	73.43	74.72	43.44	-5,136.71	-1,031.09	474.13	355.26	118.87	3.989	
18,400.00	12,900.12	18,106.61	12,555.88	74.75	76.02	43.44	-5,236.70	-1,030.23	474.14	353.44	120.69	3.928	
18,500.00	12,901.00	18,206.61	12,556.75	76.07	77.33	43.44	-5,336.69	-1,029.37	474.14	351.62	122.52	3.870	
18,600.00	12,901.87	18,306.61	12,557.62	77.39	78.64	43.44	-5,436.68	-1,028.51	474.14	349.79	124.35	3.813	
18,700.00	12,902.75	18,406.61	12,558.49	78.71	79.95	43.44	-5,536.68	-1,027.65	474.15	347.96	126.19	3.757	
18,800.00	12,903.63	18,506.61	12,559.37	80.04	81.26	43.44	-5,636.67	-1,026.79	474.15	346.12	128.03	3.703	
18,900.00	12,904.51	18,606.61	12,560.24	81.36	82.57	43.44	-5,736.66	-1,025.93	474.15	344.28	129.88	3.651	
19,000.00	12,905.39	18,706.61	12,561.11	82.69	83.89	43.44	-5,836.65	-1,025.07	474.16	342.43	131.73	3.600	
19,100.00	12,906.26	18,806.61	12,561.99	84.02	85.21	43.44	-5,936.65	-1,024.21	474.16	340.58	133.58	3.550	
19,200.00	12,907.14	18,906.61	12,562.86	85.35	86.53	43.44	-6,036.64	-1,023.35	474.16	338.72	135.44	3.501	
19,300.00	12,908.02	19,006.61	12,563.73	86.68	87.85	43.44	-6,136.63	-1,022.48	474.17	336.87	137.30	3.453	
19,400.00	12,908.90	19,106.61	12,564.61	88.01	89.17	43.44	-6,236.62	-1,021.62	474.17	335.00	139.17	3.407	
19,500.00	12,909.78	19,206.61	12,565.48	89.35	90.50	43.44	-6,336.62	-1,020.76	474.17	333.14	141.04	3.362	
19,600.00	12,910.65	19,306.61	12,566.35	90.68	91.82	43.44	-6,436.61	-1,019.90	474.18	331.27	142.91	3.318	
19,700.00	12,911.53	19,406.61	12,567.23	92.02	93.15	43.44	-6,536.60	-1,019.04	474.18	329.40	144.79	3.275	
19,800.00	12,912.41	19,506.61	12,568.10	93.36	94.48	43.44	-6,636.59	-1,018.18	474.18	327.52	146.66	3.233	
19,900.00	12,913.29	19,606.61	12,568.97	94.70	95.80	43.44	-6,736.59	-1,017.32	474.19	325.64	148.55	3.192	
20,000.00	12,914.17	19,706.61	12,569.84	96.03	97.14	43.44	-6,836.58	-1,016.46	474.19	323.76	150.43	3.152	
20,100.00	12,915.04	19,806.61	12,570.72	97.37	98.47	43.43	-6,936.57	-1,015.60	474.19	321.88	152.32	3.113	
20,200.00	12,915.92	19,906.61	12,571.59	98.72	99.80	43.43	-7,036.56	-1,014.74	474.20	319.99	154.21	3.075	
20,300.00	12,916.80	20,006.61	12,572.46	100.06	101.13	43.43	-7,136.56	-1,013.88	474.20	318.10	156.10	3.038	
20,400.00	12,917.68	20,106.61	12,573.34	101.40	102.47	43.43	-7,236.55	-1,013.02	474.20	316.21	158.00	3.001	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)												Rule Assigned:		Warning	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
20,500.00	12,918.55	20,206.61	12,574.21	102.74	103.80	43.43	-7,336.54	-1,012.16	474.21	314.31	159.89	2.966			
20,600.00	12,919.43	20,306.61	12,575.08	104.09	105.14	43.43	-7,436.53	-1,011.30	474.21	312.42	161.79	2.931			
20,700.00	12,920.31	20,406.61	12,575.96	105.43	106.48	43.43	-7,536.53	-1,010.44	474.21	310.52	163.70	2.897			
20,800.00	12,921.19	20,506.61	12,576.83	106.78	107.81	43.43	-7,636.52	-1,009.58	474.22	308.62	165.60	2.864			
20,900.00	12,922.07	20,606.61	12,577.70	108.12	109.15	43.43	-7,736.51	-1,008.71	474.22	306.71	167.51	2.831			
21,000.00	12,922.94	20,706.61	12,578.57	109.47	110.49	43.43	-7,836.50	-1,007.85	474.22	304.81	169.41	2.799			
21,100.00	12,923.82	20,806.61	12,579.45	110.81	111.83	43.43	-7,936.50	-1,006.99	474.23	302.90	171.32	2.768			
21,200.00	12,924.70	20,906.61	12,580.32	112.16	113.17	43.43	-8,036.49	-1,006.13	474.23	300.99	173.24	2.737			
21,300.00	12,925.58	21,006.61	12,581.19	113.51	114.51	43.43	-8,136.48	-1,005.27	474.23	299.08	175.15	2.708			
21,400.00	12,926.46	21,106.61	12,582.07	114.86	115.86	43.43	-8,236.47	-1,004.41	474.24	297.17	177.07	2.678			
21,500.00	12,927.33	21,206.61	12,582.94	116.21	117.20	43.43	-8,336.47	-1,003.55	474.24	295.26	178.98	2.650			
21,600.00	12,928.21	21,306.61	12,583.81	117.56	118.54	43.43	-8,436.46	-1,002.69	474.24	293.34	180.90	2.622			
21,700.00	12,929.09	21,406.61	12,584.69	118.91	119.89	43.43	-8,536.45	-1,001.83	474.25	291.43	182.82	2.594			
21,800.00	12,929.97	21,506.61	12,585.56	120.26	121.23	43.43	-8,636.44	-1,000.97	474.25	289.51	184.74	2.567			
21,900.00	12,930.84	21,606.61	12,586.43	121.61	122.58	43.43	-8,736.44	-1,000.11	474.25	287.59	186.67	2.541			
22,000.00	12,931.72	21,706.61	12,587.31	122.96	123.92	43.43	-8,836.43	-999.25	474.26	285.67	188.59	2.515			
22,100.00	12,932.60	21,806.61	12,588.18	124.31	125.27	43.43	-8,936.42	-998.39	474.26	283.74	190.52	2.489			
22,200.00	12,933.48	21,906.61	12,589.05	125.66	126.62	43.43	-9,036.41	-997.53	474.26	281.82	192.45	2.464			
22,300.00	12,934.36	22,006.61	12,589.92	127.02	127.96	43.43	-9,136.40	-996.67	474.27	279.89	194.37	2.440			
22,400.00	12,935.23	22,106.61	12,590.80	128.37	129.31	43.43	-9,236.40	-995.80	474.27	277.97	196.30	2.416			
22,500.00	12,936.11	22,206.61	12,591.67	129.72	130.66	43.42	-9,336.39	-994.94	474.27	276.04	198.24	2.392			
22,600.00	12,936.99	22,306.61	12,592.54	131.08	132.01	43.42	-9,436.38	-994.08	474.28	274.11	200.17	2.369			
22,700.00	12,937.87	22,406.61	12,593.42	132.43	133.36	43.42	-9,536.37	-993.22	474.28	272.18	202.10	2.347			
22,800.00	12,938.75	22,506.61	12,594.29	133.78	134.71	43.42	-9,636.37	-992.36	474.28	270.25	204.04	2.324			
22,900.00	12,939.62	22,606.61	12,595.16	135.14	136.06	43.42	-9,736.36	-991.50	474.29	268.31	205.97	2.303			
23,000.00	12,940.50	22,706.61	12,596.04	136.49	137.41	43.42	-9,836.35	-990.64	474.29	266.38	207.91	2.281			
23,100.00	12,941.38	22,806.61	12,596.91	137.85	138.76	43.42	-9,936.34	-989.78	474.29	264.45	209.85	2.260			
23,109.20	12,941.46	22,815.81	12,596.99	137.96	138.88	43.42	-9,945.54	-989.70	474.29	264.28	210.01	2.258			
23,193.48	12,942.20	22,897.27	12,597.70	139.00	139.98	43.42	-10,027.00	-989.00	474.31	262.65	211.65	2.241	SF		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	1.00	0.50	0.50	0.00	210.00	0.00	210.00	210.00					
100.00	100.00	99.00	100.00	0.98	0.97	0.00	210.00	0.00	210.00	208.05	1.95	107.421			
200.00	200.00	199.00	200.00	1.56	1.56	0.00	210.00	0.00	210.00	206.88	3.12	67.389			
300.00	300.00	299.00	300.00	1.98	1.98	0.00	210.00	0.00	210.00	206.04	3.96	53.056			
400.00	400.00	399.00	400.00	2.33	2.33	0.00	210.00	0.00	210.00	205.34	4.66	45.110			
500.00	500.00	499.00	500.00	2.63	2.63	0.00	210.00	0.00	210.00	204.73	5.27	39.879			
600.00	600.00	599.00	600.00	2.91	2.91	0.00	210.00	0.00	210.00	204.18	5.82	36.099			
700.00	700.00	699.00	700.00	3.16	3.16	0.00	210.00	0.00	210.00	203.67	6.33	33.201			
800.00	799.99	798.99	799.99	3.46	3.40	40.24	210.00	0.00	209.00	202.17	6.83	30.591			
900.00	899.91	898.91	899.91	3.73	3.62	40.97	210.00	0.00	206.02	198.71	7.31	28.194			
1,000.00	999.69	998.69	999.69	4.00	3.83	42.24	210.00	0.00	201.12	193.37	7.76	25.927			
1,100.00	1,099.32	1,098.32	1,099.32	4.11	4.03	43.96	210.00	0.00	194.85	186.79	8.07	24.154			
1,200.00	1,198.94	1,197.94	1,198.94	4.32	4.23	45.79	210.00	0.00	188.66	180.20	8.46	22.298			
1,300.00	1,298.56	1,297.56	1,298.56	4.52	4.42	47.75	210.00	0.00	182.68	173.84	8.84	20.657			
1,400.00	1,398.18	1,397.18	1,398.18	4.72	4.60	49.83	210.00	0.00	176.93	167.71	9.22	19.198			
1,500.00	1,497.80	1,496.80	1,497.80	4.92	4.77	52.05	210.00	0.00	171.42	161.84	9.58	17.897			
1,600.00	1,597.42	1,596.42	1,597.42	5.12	4.94	54.42	210.00	0.00	166.19	156.26	9.93	16.734			
1,700.00	1,697.04	1,696.04	1,697.04	5.32	5.11	56.93	210.00	0.00	161.26	150.99	10.28	15.692			
1,800.00	1,796.66	1,795.66	1,796.66	5.51	5.27	59.59	210.00	0.00	156.66	146.05	10.61	14.761			
1,900.00	1,896.28	1,895.28	1,896.28	5.70	5.43	62.41	210.00	0.00	152.43	141.48	10.94	13.929			
2,000.00	1,995.90	1,994.90	1,995.90	5.90	5.58	65.38	210.00	0.00	148.58	137.31	11.27	13.188			
2,100.00	2,095.52	2,094.52	2,095.52	6.09	5.73	68.50	210.00	0.00	145.15	133.57	11.58	12.532			
2,200.00	2,195.14	2,194.14	2,195.14	6.29	5.88	71.76	210.00	0.00	142.18	130.28	11.90	11.945			
2,279.19	2,273.97	2,270.38	2,271.38	6.44	6.01	79.92	210.49	0.42	141.02	128.86	12.15	11.602	CC, ES		
2,300.00	2,294.66	2,290.34	2,291.33	6.48	6.05	81.86	210.81	0.69	141.09	128.87	12.22	11.543			
2,400.00	2,393.91	2,385.98	2,386.90	6.70	6.22	90.87	213.44	2.94	144.00	131.46	12.55	11.477			
2,500.00	2,492.84	2,481.01	2,481.75	6.92	6.38	99.02	217.86	6.71	151.49	138.61	12.87	11.768			
2,600.00	2,591.36	2,575.19	2,575.59	7.13	6.55	106.36	224.01	11.95	163.92	150.72	13.21	12.414			
2,700.00	2,689.42	2,668.30	2,668.13	7.35	6.71	112.75	231.81	18.61	181.47	167.93	13.54	13.401			
2,800.00	2,787.23	2,761.81	2,760.80	7.54	6.82	116.97	241.29	26.70	203.11	189.27	13.84	14.679			
2,900.00	2,885.05	2,858.27	2,856.32	7.74	6.94	120.44	251.50	35.41	226.20	212.03	14.17	15.961			
3,000.00	2,982.86	2,954.73	2,951.84	7.94	7.08	123.26	261.71	44.13	249.94	235.42	14.53	17.204			
3,100.00	3,080.67	3,051.19	3,047.36	8.15	7.23	125.60	271.92	52.84	274.17	259.28	14.89	18.417			
3,200.00	3,178.49	3,147.65	3,142.89	8.35	7.38	127.56	282.13	61.55	298.75	283.51	15.25	19.595			
3,300.00	3,276.30	3,244.11	3,238.41	8.56	7.52	129.22	292.33	70.26	323.62	308.01	15.61	20.733			
3,400.00	3,374.12	3,340.57	3,333.93	8.78	7.68	130.65	302.54	78.97	348.71	332.74	15.97	21.831			
3,500.00	3,471.93	3,437.03	3,429.45	9.00	7.83	131.89	312.75	87.69	373.98	357.64	16.34	22.889			
3,600.00	3,569.75	3,533.49	3,524.97	9.22	7.98	132.96	322.96	96.40	399.38	382.68	16.71	23.906			
3,700.00	3,667.56	3,629.95	3,620.50	9.45	8.14	133.91	333.17	105.11	424.91	407.83	17.08	24.883			
3,800.00	3,765.38	3,726.41	3,716.02	9.68	8.30	134.76	343.38	113.82	450.53	433.08	17.45	25.822			
3,900.00	3,863.19	3,822.87	3,811.54	9.92	8.45	135.51	353.59	122.53	476.24	458.42	17.82	26.724			
4,000.00	3,961.01	3,919.33	3,907.06	10.16	8.61	136.19	363.80	131.25	502.01	483.82	18.19	27.591			
4,100.00	4,058.82	4,015.79	4,002.58	10.41	8.78	136.80	374.01	139.96	527.84	509.27	18.57	28.423			
4,200.00	4,156.64	4,112.25	4,098.11	10.66	8.94	137.35	384.22	148.67	553.73	534.78	18.95	29.223			
4,300.00	4,254.45	4,208.71	4,193.63	10.91	9.10	137.85	394.42	157.38	579.65	560.33	19.33	29.992			
4,400.00	4,352.27	4,305.17	4,289.15	11.16	9.27	138.31	404.63	166.09	605.62	585.91	19.71	30.730			
4,500.00	4,450.08	4,401.63	4,384.67	11.42	9.43	138.74	414.84	174.81	631.62	611.53	20.09	31.441			
4,600.00	4,547.89	4,498.09	4,480.19	11.68	9.60	139.12	425.05	183.52	657.65	637.18	20.47	32.124			
4,700.00	4,645.71	4,594.55	4,575.72	11.94	9.77	139.48	435.26	192.23	683.70	662.85	20.86	32.782			
4,800.00	4,743.52	4,691.01	4,671.24	12.20	9.93	139.82	445.47	200.94	709.78	688.54	21.24	33.415			
4,900.00	4,841.34	4,787.47	4,766.76	12.46	10.10	140.13	455.68	209.66	735.88	714.25	21.63	34.025			
5,000.00	4,939.15	4,894.98	4,873.32	12.72	10.27	140.49	466.48	218.87	761.52	739.49	22.04	34.558			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning		
							+N/-S (usft)	+E/-W (usft)							
5,100.00	5,036.97	5,008.56	4,986.28	12.99	10.48	141.01	475.51	226.58	785.23	762.75	22.48	34.927			
5,200.00	5,134.78	5,122.96	5,100.35	13.26	10.69	141.66	482.02	232.13	806.91	784.00	22.91	35.223			
5,300.00	5,232.60	5,237.98	5,215.25	13.52	10.88	142.46	485.94	235.48	826.60	803.28	23.31	35.458			
5,400.00	5,330.41	5,353.41	5,330.67	13.79	11.03	143.38	487.23	236.58	844.33	820.68	23.66	35.687			
5,500.00	5,428.44	5,451.18	5,428.44	14.04	11.10	144.29	487.23	236.58	860.40	836.47	23.93	35.953			
5,600.00	5,526.94	5,549.68	5,526.94	14.27	11.19	145.07	487.23	236.58	874.51	850.28	24.23	36.092			
5,700.00	5,625.86	5,648.61	5,625.86	14.49	11.29	145.71	487.23	236.58	886.59	862.07	24.52	36.159			
5,800.00	5,725.13	5,747.88	5,725.13	14.67	11.38	146.22	487.23	236.58	896.59	871.79	24.80	36.155			
5,900.00	5,824.69	5,847.43	5,824.69	14.84	11.47	146.62	487.23	236.58	904.45	879.38	25.07	36.082			
6,000.00	5,924.45	5,947.19	5,924.45	14.98	11.57	146.90	487.23	236.58	910.16	884.84	25.32	35.942			
6,100.00	6,024.36	6,047.10	6,024.36	15.09	11.66	147.08	487.23	236.58	913.69	888.12	25.56	35.740			
6,200.00	6,124.34	6,147.09	6,124.34	15.18	11.75	147.14	487.23	236.58	915.02	889.24	25.78	35.489			
6,300.00	6,224.34	6,247.09	6,224.34	15.24	11.84	89.61	487.23	236.58	915.03	889.10	25.93	35.284			
6,400.00	6,324.34	6,347.09	6,324.34	15.31	11.94	89.61	487.23	236.58	915.03	888.94	26.09	35.068			
6,500.00	6,424.34	6,447.09	6,424.34	15.38	12.03	89.61	487.23	236.58	915.03	888.78	26.25	34.854			
6,600.00	6,524.34	6,547.09	6,524.34	15.45	12.12	89.61	487.23	236.58	915.03	888.62	26.41	34.642			
6,700.00	6,624.34	6,647.09	6,624.34	15.52	12.21	89.61	487.23	236.58	915.03	888.46	26.57	34.434			
6,800.00	6,724.34	6,747.09	6,724.34	15.59	12.31	89.61	487.23	236.58	915.03	888.30	26.73	34.228			
6,900.00	6,824.34	6,847.09	6,824.34	15.66	12.40	89.61	487.23	236.58	915.03	888.14	26.89	34.024			
7,000.00	6,924.34	6,947.09	6,924.34	15.73	12.49	89.61	487.23	236.58	915.03	887.98	27.05	33.823			
7,100.00	7,024.34	7,047.09	7,024.34	15.80	12.58	89.61	487.23	236.58	915.03	887.82	27.21	33.624			
7,200.00	7,124.34	7,147.09	7,124.34	15.87	12.67	89.61	487.23	236.58	915.03	887.66	27.37	33.427			
7,300.00	7,224.34	7,247.09	7,224.34	15.94	12.76	89.61	487.23	236.58	915.03	887.50	27.53	33.233			
7,400.00	7,324.34	7,347.09	7,324.34	16.01	12.86	89.61	487.23	236.58	915.03	887.34	27.69	33.041			
7,500.00	7,424.34	7,447.09	7,424.34	16.09	12.95	89.61	487.23	236.58	915.03	887.18	27.85	32.851			
7,600.00	7,524.34	7,547.09	7,524.34	16.16	13.04	89.61	487.23	236.58	915.03	887.02	28.01	32.663			
7,700.00	7,624.34	7,647.09	7,624.34	16.23	13.13	89.61	487.23	236.58	915.03	886.86	28.17	32.478			
7,800.00	7,724.34	7,747.09	7,724.34	16.30	13.22	89.61	487.23	236.58	915.03	886.70	28.33	32.295			
7,900.00	7,824.34	7,847.09	7,824.34	16.37	13.31	89.61	487.23	236.58	915.03	886.54	28.49	32.113			
8,000.00	7,924.34	7,947.09	7,924.34	16.44	13.40	89.61	487.23	236.58	915.03	886.38	28.65	31.934			
8,100.00	8,024.34	8,047.09	8,024.34	16.51	13.49	89.61	487.23	236.58	915.03	886.22	28.81	31.757			
8,200.00	8,124.34	8,147.09	8,124.34	16.58	13.58	89.61	487.23	236.58	915.03	886.06	28.97	31.581			
8,300.00	8,224.34	8,247.09	8,224.34	16.66	13.67	89.61	487.23	236.58	915.03	885.90	29.13	31.408			
8,400.00	8,324.34	8,347.09	8,324.34	16.73	13.76	89.61	487.23	236.58	915.03	885.74	29.29	31.236			
8,500.00	8,424.34	8,447.09	8,424.34	16.80	13.85	89.61	487.23	236.58	915.03	885.58	29.45	31.067			
8,600.00	8,524.34	8,547.09	8,524.34	16.87	13.94	89.61	487.23	236.58	915.03	885.42	29.61	30.899			
8,700.00	8,624.34	8,647.09	8,624.34	16.94	14.03	89.61	487.23	236.58	915.03	885.26	29.77	30.733			
8,800.00	8,724.34	8,747.09	8,724.34	17.01	14.12	89.61	487.23	236.58	915.03	885.10	29.93	30.568			
8,900.00	8,824.34	8,847.09	8,824.34	17.09	14.21	89.61	487.23	236.58	915.03	884.94	30.09	30.406			
9,000.00	8,924.34	8,947.09	8,924.34	17.16	14.30	89.61	487.23	236.58	915.03	884.78	30.25	30.245			
9,100.00	9,024.34	9,047.09	9,024.34	17.23	14.39	89.61	487.23	236.58	915.03	884.62	30.41	30.086			
9,200.00	9,124.34	9,147.09	9,124.34	17.30	14.48	89.61	487.23	236.58	915.03	884.46	30.57	29.928			
9,300.00	9,224.34	9,247.09	9,224.34	17.38	14.57	89.61	487.23	236.58	915.03	884.30	30.73	29.772			
9,400.00	9,324.34	9,347.09	9,324.34	17.45	14.66	89.61	487.23	236.58	915.03	884.14	30.89	29.618			
9,500.00	9,424.34	9,447.09	9,424.34	17.52	14.75	89.61	487.23	236.58	915.03	883.98	31.05	29.466			
9,600.00	9,524.34	9,547.09	9,524.34	17.59	14.84	89.61	487.23	236.58	915.03	883.82	31.21	29.314			
9,700.00	9,624.34	9,647.09	9,624.34	17.67	14.93	89.61	487.23	236.58	915.03	883.66	31.37	29.165			
9,800.00	9,724.34	9,747.09	9,724.34	17.74	15.02	89.61	487.23	236.58	915.03	883.50	31.53	29.017			
9,900.00	9,824.34	9,847.09	9,824.34	17.81	15.10	89.61	487.23	236.58	915.03	883.34	31.69	28.870			
10,000.00	9,924.34	9,947.09	9,924.34	17.89	15.19	89.61	487.23	236.58	915.03	883.18	31.85	28.725			
10,100.00	10,024.34	10,047.09	10,024.34	17.96	15.28	89.61	487.23	236.58	915.03	883.02	32.01	28.581			
10,200.00	10,124.34	10,147.09	10,124.34	18.03	15.37	89.61	487.23	236.58	915.03	882.86	32.18	28.439			

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Well Error:	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	10,224.34	10,247.09	10,224.34	18.11	15.46	89.61	487.23	236.58	915.03	882.70	32.34	28.298	
10,400.00	10,324.34	10,347.09	10,324.34	18.18	15.55	89.61	487.23	236.58	915.03	882.54	32.50	28.159	
10,500.00	10,424.34	10,447.09	10,424.34	18.25	15.64	89.61	487.23	236.58	915.03	882.38	32.66	28.021	
10,600.00	10,524.34	10,547.09	10,524.34	18.33	15.72	89.61	487.23	236.58	915.03	882.22	32.82	27.884	
10,700.00	10,624.34	10,647.09	10,624.34	18.40	15.81	89.61	487.23	236.58	915.03	882.06	32.98	27.748	
10,800.00	10,724.34	10,747.09	10,724.34	18.47	15.90	89.61	487.23	236.58	915.03	881.89	33.14	27.614	
10,900.00	10,824.34	10,847.09	10,824.34	18.55	15.99	89.61	487.23	236.58	915.03	881.73	33.30	27.481	
11,000.00	10,924.34	10,947.09	10,924.34	18.62	16.08	89.61	487.23	236.58	915.03	881.57	33.46	27.350	
11,100.00	11,024.34	11,047.09	11,024.34	18.69	16.17	89.61	487.23	236.58	915.03	881.41	33.62	27.219	
11,200.00	11,124.34	11,147.09	11,124.34	18.77	16.25	89.61	487.23	236.58	915.03	881.25	33.78	27.090	
11,300.00	11,224.34	11,247.09	11,224.34	18.84	16.34	89.61	487.23	236.58	915.03	881.09	33.94	26.962	
11,400.00	11,324.34	11,347.09	11,324.34	18.92	16.43	89.61	487.23	236.58	915.03	880.93	34.10	26.835	
11,500.00	11,424.34	11,447.09	11,424.34	18.99	16.52	89.61	487.23	236.58	915.03	880.77	34.26	26.710	
11,600.00	11,524.34	11,547.09	11,524.34	19.06	16.60	89.61	487.23	236.58	915.03	880.61	34.42	26.585	
11,700.00	11,624.34	11,647.09	11,624.34	19.14	16.69	89.61	487.23	236.58	915.03	880.45	34.58	26.462	
11,800.00	11,724.34	11,747.09	11,724.34	19.21	16.78	89.61	487.23	236.58	915.03	880.29	34.74	26.340	
11,900.00	11,824.34	11,847.09	11,824.34	19.29	16.87	89.61	487.23	236.58	915.03	880.13	34.90	26.219	
12,000.00	11,924.34	11,947.09	11,924.34	19.36	16.95	89.61	487.23	236.58	915.03	879.98	35.05	26.106	
12,003.91	11,928.26	11,951.00	11,928.26	19.36	16.95	89.61	487.23	236.58	915.03	879.97	35.06	26.101	
12,100.00	12,024.34	12,046.34	12,023.34	19.44	16.99	89.96	481.71	236.63	915.06	879.95	35.11	26.065	
12,200.00	12,124.34	12,140.99	12,115.57	19.51	17.04	91.26	460.94	236.81	915.50	880.42	35.08	26.099	
12,300.00	12,224.34	12,226.82	12,195.23	19.59	17.08	93.24	429.21	237.08	917.44	882.40	35.04	26.183	
12,400.00	12,324.31	12,300.00	12,258.78	19.64	17.11	-89.81	393.02	237.39	922.37	887.33	35.04	26.323	
12,500.00	12,422.88	12,373.56	12,317.49	19.68	17.15	-86.82	348.78	237.77	931.01	895.98	35.04	26.572	
12,600.00	12,517.18	12,442.20	12,366.74	19.70	17.19	-83.92	301.03	238.18	942.62</				

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,400.00	12,873.78	15,006.74	12,535.67	36.97	37.15	-71.14	-2,225.54	259.94	1,046.15	974.84	71.31	14.671	
15,500.00	12,874.66	15,106.74	12,536.54	38.11	38.39	-71.14	-2,325.53	260.80	1,046.15	972.60	73.55	14.223	
15,600.00	12,875.54	15,206.74	12,537.42	39.27	39.63	-71.14	-2,425.53	261.66	1,046.15	970.33	75.82	13.797	
15,700.00	12,876.42	15,306.74	12,538.29	40.45	40.88	-71.14	-2,525.52	262.52	1,046.16	968.04	78.11	13.393	
15,800.00	12,877.29	15,406.74	12,539.16	41.63	42.14	-71.14	-2,625.51	263.38	1,046.16	965.73	80.42	13.008	
15,900.00	12,878.17	15,506.74	12,540.04	42.83	43.41	-71.14	-2,725.50	264.24	1,046.16	963.41	82.75	12.642	
16,000.00	12,879.05	15,606.74	12,540.91	44.03	44.68	-71.14	-2,825.50	265.10	1,046.16	961.07	85.10	12.294	
16,100.00	12,879.93	15,706.74	12,541.78	45.25	45.96	-71.14	-2,925.49	265.96	1,046.16	958.71	87.46	11.962	
16,200.00	12,880.81	15,806.74	12,542.66	46.48	47.24	-71.14	-3,025.48	266.83	1,046.17	956.34	89.83	11.646	
16,300.00	12,881.68	15,906.74	12,543.53	47.71	48.53	-71.14	-3,125.47	267.69	1,046.17	953.95	92.22	11.345	
16,400.00	12,882.56	16,006.74	12,544.40	48.95	49.82	-71.14	-3,225.47	268.55	1,046.17	951.56	94.61	11.057	
16,500.00	12,883.44	16,106.74	12,545.28	50.20	51.12	-71.14	-3,325.46	269.41	1,046.17	949.15	97.02	10.783	
16,600.00	12,884.32	16,206.74	12,546.15	51.45	52.42	-71.14	-3,425.45	270.27	1,046.17	946.73	99.44	10.520	
16,700.00	12,885.19	16,306.74	12,547.02	52.71	53.72	-71.14	-3,525.44	271.13	1,046.18	944.31	101.87	10.270	
16,800.00	12,886.07	16,406.74	12,547.90	53.98	55.03	-71.14	-3,625.44	271.99	1,046.18	941.87	104.31	10.030	
16,900.00	12,886.95	16,506.74	12,548.77	55.25	56.34	-71.14	-3,725.43	272.85	1,046.18	939.43	106.75	9.800	
17,000.00	12,887.83	16,606.74	12,549.65	56.53	57.65	-71.14	-3,825.42	273.71	1,046.18	936.98	109.21	9.580	
17,100.00	12,888.71	16,706.74	12,550.52	57.81	58.97	-71.14	-3,925.41	274.57	1,046.18	934.52	111.67	9.369	
17,200.00	12,889.58	16,806.74	12,551.39	59.09	60.28	-71.14	-4,025.41	275.44	1,046.19	932.05	114.13	9.166	
17,300.00	12,890.46	16,906.74	12,552.27	60.38	61.60	-71.14	-4,125.40	276.30	1,046.19	929.58	116.61	8.972	
17,400.00	12,891.34	17,006.74	12,553.14	61.67	62.93	-71.14	-4,225.39	277.16	1,046.19	927.10	119.09	8.785	
17,500.00	12,892.22	17,106.74	12,554.01	62.97	64.25	-71.14	-4,325.38	278.02	1,046.19	924.62	121.57	8.606	
17,600.00	12,893.10	17,206.74	12,554.89	64.27	65.58	-71.14	-4,425.38	278.88	1,046.19	922.13	124.06	8.433	
17,700.00	12,893.97	17,306.74	12,555.76	65.57	66.91	-71.14	-4,525.37	279.74	1,046.20	919.64	126.55	8.267	
17,800.00	12,894.85	17,406.74	12,556.63	66.87	68.23	-71.14	-4,625.36	280.60	1,046.20	917.15	129.05	8.107	
17,900.00	12,895.73	17,506.74	12,557.51	68.18	69.57	-71.14	-4,725.35	281.46	1,046.20	914.64	131.56	7.952	
18,000.00	12,896.61	17,606.74	12,558.38	69.49	70.90	-71.14	-4,825.35	282.32	1,046.20	912.14	134.06	7.804	
18,100.00	12,897.49	17,706.74	12,559.25	70.80	72.23	-71.14	-4,925.34	283.18	1,046.21	909.63	136.58	7.660	
18,200.00	12,898.36	17,806.74	12,560.13	72.11	73.57	-71.14	-5,025.33	284.05	1,046.21	907.12	139.09	7.522	
18,300.00	12,899.24	17,906.74	12,561.00	73.43	74.90	-71.14	-5,125.32	284.91	1,046.21	904.60	141.61	7.388	
18,400.00	12,900.12	18,006.74	12,561.87	74.75	76.24	-71.14	-5,225.32	285.77	1,046.21	902.08	144.13	7.259	
18,500.00	12,901.00	18,106.74	12,562.75	76.07	77.58	-71.14	-5,325.31	286.63	1,046.21	899.56	146.65	7.134	
18,600.00	12,901.87	18,206.74	12,563.62	77.39	78.92	-71.14	-5,425.30	287.49	1,046.22	897.03	149.18	7.013	
18,700.00	12,902.75	18,306.74	12,564.49	78.71	80.26	-71.14	-5,525.29	288.35	1,046.22	894.50	151.71	6.896	
18,800.00	12,903.63	18,406.74	12,565.37	80.04	81.60	-71.14	-5,625.29	289.21	1,046.22	891.97	154.25	6.783	
18,900.00	12,904.51	18,506.74	12,566.24	81.36	82.95	-71.14	-5,725.28	290.07	1,046.22	889.44	156.78	6.673	
19,000.00	12,905.39	18,606.74	12,567.11	82.69	84.29	-71.13	-5,825.27	290.93	1,046.22	886.90	159.32	6.567	
19,100.00	12,906.26	18,706.74	12,567.99	84.02	85.63	-71.13	-5,925.26	291.79	1,046.23	884.37	161.86	6.464	
19,200.00	12,907.14	18,806.74	12,568.86	85.35	86.98	-71.13	-6,025.26	292.66	1,046.23	881.83	164.40	6.364	
19,300.00	12,908.02	18,906.74	12,569.73	86.68	88.33	-71.13	-6,125.25	293.52	1,046.23	879.28	166.95	6.267	
19,400.00	12,908.90	19,006.74	12,570.61	88.01	89.67	-71.13	-6,225.24	294.38	1,046.23	876.74	169.49	6.173	
19,500.00	12,909.78	19,106.74	12,571.48	89.35	91.02	-71.13	-6,325.23	295.24	1,046.23	874.19	172.04	6.081	
19,600.00	12,910.65	19,206.74	12,572.35	90.68	92.37	-71.13	-6,425.23	296.10	1,046.24	871.65	174.59	5.993	
19,700.00	12,911.53	19,306.74	12,573.23	92.02	93.72	-71.13	-6,525.22	296.96	1,046.24	869.10	177.14	5.906	
19,800.00	12,912.41	19,406.74	12,574.10	93.36	95.07	-71.13	-6,625.21	297.82	1,046.24	866.54	179.69	5.822	
19,900.00	12,913.29	19,506.74	12,574.97	94.70	96.42	-71.13	-6,725.20	298.68	1,046.24	863.99	182.25	5.741	
20,000.00	12,914.17	19,606.74	12,575.85	96.03	97.77	-71.13	-6,825.20	299.54	1,046.24	861.44	184.81	5.661	
20,100.00	12,915.04	19,706.74	12,576.72	97.37	99.12	-71.13	-6,925.19	300.40	1,046.25	858.88	187.36	5.584	
20,200.00	12,915.92	19,806.74	12,577.59	98.72	100.47	-71.13	-7,025.18	301.27	1,046.25	856.32	189.92	5.509	
20,300.00	12,916.80	19,906.74	12,578.47	100.06	101.82	-71.13	-7,125.17	302.13	1,046.25	853.77	192.48	5.436	
20,400.00	12,917.68	20,006.74	12,579.34	101.40	103.17	-71.13	-7,225.17	302.99	1,046.25	851.21	195.05	5.364	
20,500.00	12,918.55	20,106.74	12,580.21	102.74	104.53	-71.13	-7,325.16	303.85	1,046.25	848.64	197.61	5.295	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)												Rule Assigned:			
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
20,600.00	12,919.43	20,206.74	12,581.09	104.09	105.88	-71.13	-7,425.15	304.71	1,046.26	846.08	200.17	5.227			
20,700.00	12,920.31	20,306.74	12,581.96	105.43	107.23	-71.13	-7,525.14	305.57	1,046.26	843.52	202.74	5.161			
20,800.00	12,921.19	20,406.74	12,582.83	106.78	108.59	-71.13	-7,625.14	306.43	1,046.26	840.95	205.31	5.096			
20,900.00	12,922.07	20,506.74	12,583.71	108.12	109.94	-71.13	-7,725.13	307.29	1,046.26	838.39	207.87	5.033			
21,000.00	12,922.94	20,606.74	12,584.58	109.47	111.30	-71.13	-7,825.12	308.15	1,046.26	835.82	210.44	4.972			
21,100.00	12,923.82	20,706.74	12,585.45	110.81	112.65	-71.13	-7,925.11	309.01	1,046.27	833.25	213.01	4.912			
21,200.00	12,924.70	20,806.74	12,586.33	112.16	114.01	-71.13	-8,025.11	309.87	1,046.27	830.69	215.58	4.853			
21,300.00	12,925.58	20,906.74	12,587.20	113.51	115.36	-71.13	-8,125.10	310.74	1,046.27	828.12	218.15	4.796			
21,400.00	12,926.46	21,006.74	12,588.07	114.86	116.72	-71.13	-8,225.09	311.60	1,046.27	825.55	220.73	4.740			
21,500.00	12,927.33	21,106.74	12,588.95	116.21	118.08	-71.13	-8,325.08	312.46	1,046.27	822.97	223.30	4.686			
21,600.00	12,928.21	21,206.74	12,589.82	117.56	119.43	-71.13	-8,425.08	313.32	1,046.28	820.40	225.87	4.632			
21,700.00	12,929.09	21,306.74	12,590.69	118.91	120.79	-71.13	-8,525.07	314.18	1,046.28	817.83	228.45	4.580			
21,800.00	12,929.97	21,406.74	12,591.57	120.26	122.15	-71.13	-8,625.06	315.04	1,046.28	815.26	231.02	4.529			
21,900.00	12,930.84	21,506.74	12,592.44	121.61	123.51	-71.13	-8,725.05	315.90	1,046.28	812.68	233.60	4.479			
22,000.00	12,931.72	21,606.74	12,593.32	122.96	124.87	-71.13	-8,825.05	316.76	1,046.28	810.11	236.18	4.430			
22,100.00	12,932.60	21,706.74	12,594.19	124.31	126.22	-71.13	-8,925.04	317.62	1,046.29	807.53	238.76	4.382			
22,200.00	12,933.48	21,806.74	12,595.06	125.66	127.58	-71.13	-9,025.03	318.48	1,046.29	804.95	241.33	4.335			
22,300.00	12,934.36	21,906.74	12,595.94	127.02	128.94	-71.13	-9,125.02	319.35	1,046.29	802.38	243.91	4.290			
22,400.00	12,935.23	22,006.74	12,596.81	128.37	130.30	-71.13	-9,225.02	320.21	1,046.29	799.80	246.49	4.245			
22,500.00	12,936.11	22,106.74	12,597.68	129.72	131.66	-71.13	-9,325.01	321.07	1,046.29	797.22	249.07	4.201			
22,600.00	12,936.99	22,206.74	12,598.56	131.08	133.02	-71.13	-9,425.00	321.93	1,046.30	794.64	251.66	4.158			
22,700.00	12,937.87	22,306.74	12,599.43	132.43	134.38	-71.13	-9,524.99	322.79	1,046.30	792.06	254.24	4.115			
22,800.00	12,938.75	22,406.74	12,600.30	133.78	135.74	-71.13	-9,624.99	323.65	1,046.30	789.48	256.82	4.074			
22,900.00	12,939.62	22,506.74	12,601.18	135.14	137.10	-71.13	-9,724.98	324.51	1,046.30	786.90	259.40	4.034			
23,000.00	12,940.50	22,606.74	12,602.05	136.49	138.46	-71.13	-9,824.97	325.37	1,046.31	784.32	261.98	3.994			
23,100.00	12,941.38	22,706.74	12,602.92	137.85	139.82	-71.13	-9,924.96	326.23	1,046.31	781.74	264.57	3.955			
23,108.79	12,941.46	22,715.53	12,603.00	137.96	139.94	-71.13	-9,933.75	326.31	1,046.31	781.52	264.78	3.952			
23,193.48	12,942.20	22,796.26	12,603.70	139.00	141.04	-71.13	-10,014.48	327.00	1,046.32	779.54	266.78	3.922	SF		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:			Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Offset Well Error:		0.50 usft			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
1,400.00	1,398.18	2,050.94	2,034.67	4.72	6.04	109.58	927.44	2,224.04	2,506.12	2,495.76	10.36	241.937				
1,500.00	1,497.80	2,147.44	2,127.88	4.92	6.24	109.89	913.80	2,203.12	2,483.52	2,472.78	10.74	231.158				
1,600.00	1,597.42	2,243.94	2,221.08	5.12	6.48	110.21	900.17	2,182.19	2,460.99	2,449.84	11.15	220.674				
1,700.00	1,697.04	2,340.43	2,314.29	5.32	6.75	110.53	886.53	2,161.27	2,438.53	2,426.99	11.54	211.274				
1,800.00	1,796.66	2,436.93	2,407.50	5.51	7.03	110.86	872.90	2,140.34	2,416.15	2,404.22	11.94	202.401				
1,900.00	1,896.28	2,533.42	2,500.71	5.70	7.33	111.20	859.26	2,119.41	2,393.85	2,381.52	12.33	194.100				
2,000.00	1,995.90	2,629.92	2,593.91	5.90	7.62	111.54	845.62	2,098.49	2,371.63	2,358.90	12.73	186.321				
2,100.00	2,095.52	2,726.42	2,687.12	6.09	7.93	111.88	831.99	2,077.56	2,349.49	2,336.37	13.12	179.014				
2,200.00	2,195.14	2,822.91	2,780.33	6.29	8.23	112.24	818.35	2,056.64	2,327.44	2,313.91	13.53	172.025				
2,300.00	2,294.66	2,919.49	2,873.62	6.48	8.55	119.14	804.70	2,035.70	2,306.39	2,292.46	13.93	165.628				
2,400.00	2,393.91	3,016.21	2,967.05	6.70	8.86	124.06	791.03	2,014.72	2,287.46	2,273.12	14.34	159.519				
2,500.00	2,492.84	3,113.01	3,060.55	6.92	9.18	127.65	777.36	1,993.73	2,270.72	2,255.95	14.77	153.768				
2,600.00	2,591.36	3,209.82	3,154.06	7.13	9.50	130.45	763.68	1,972.74	2,256.21	2,241.01	15.21	148.362				
2,700.00	2,689.42	3,306.58	3,247.51	7.35	9.82	132.70	750.00	1,951.75	2,244.00	2,228.35	15.65	143.367				
2,800.00	2,787.23	3,403.29	3,340.93	7.54	10.14	133.28	736.34	1,930.78	2,233.02	2,216.92	16.10	138.660				
2,900.00	2,885.05	3,500.00	3,434.34	7.74	10.47	133.86	722.67	1,909.81	2,222.28	2,205.72	16.56	134.186				
3,000.00	2,982.86	3,596.70	3,527.75	7.94	10.80	134.44	709.00	1,888.84	2,211.77	2,194.75	17.02	129.930				
3,100.00	3,080.67	3,693.41	3,621.16	8.15	11.13	135.03	695.34	1,867.87	2,201.51	2,184.02	17.49	125.882				
3,200.00	3,178.49	3,790.12	3,714.58	8.35	11.46	135.63	681.67	1,846.90	2,191.50	2,173.54	17.96	122.030				
3,300.00	3,276.30	3,886.83	3,807.99	8.56	11.79	136.23	668.01	1,825.93	2,181.74	2,163.30	18.43	118.363				
3,400.00	3,374.12	3,983.54	3,901.40	8.78	12.12	136.84	654.34	1,804.95	2,172.23	2,153.32	18.91	114.869				
3,500.00	3,471.93	4,080.24	3,994.81	9.00	12.46	137.45	640.67	1,783.98	2,162.98	2,143.58	19.39	111.540				
3,600.00	3,569.75	4,176.95	4,088.23	9.22	12.79	138.06	627.01	1,763.01	2,153.99	2,134.11	19.88	108.366				
3,700.00	3,667.56	4,273.66	4,181.64	9.45	13.13	138.69	613.34	1,742.04	2,145.26	2,124.90	20.37	105.338				
3,800.00	3,765.38	4,370.37	4,275.05	9.68	13.46	139.31	599.67	1,721.07	2,136.80	2,115.95	20.86	102.448				
3,900.00	3,863.19	4,467.08	4,368.46	9.92	13.80	139.94	586.01	1,700.10	2,128.62	2,107.26	21.35	99.688				
4,000.00	3,961.01	4,563.78	4,461.88	10.16	14.14	140.58	572.34	1,679.13	2,120.70	2,098.85	21.85	97.056				
4,100.00	4,058.82	4,639.74	4,535.30	10.41	14.40	141.08	561.73	1,662.84	2,113.37	2,091.06	22.31	94.713				
4,200.00	4,156.64	4,700.00	4,593.79	10.66	14.60	141.46	553.81	1,650.68	2,107.70	2,084.96	22.75	92.660				
4,300.00	4,254.45	4,769.40	4,661.42	10.91	14.81	141.90	545.31	1,637.65	2,103.77	2,080.58	23.19	90.723				
4,400.00	4,352.27	4,834.68	4,725.29	11.16	15.00	142.29	537.93	1,626.33	2,101.58	2,077.96	23.61	88.994				
4,472.49	4,423.17	4,882.17	4,771.88	11.35	15.14	142.57	532.94	1,618.67	2,101.06	2,077.14	23.92	87.842	CC			
4,500.00	4,450.08	4,900.00	4,789.41	11.42	15.19	142.67	531.15	1,615.91	2,101.10	2,077.07	24.03	87.426				
4,600.00	4,547.89	4,965.96	4,854.38	11.68	15.35	143.05	524.91	1,606.33	2,102.33	2,077.89	24.44	86.021				
4,700.00	4,645.71	5,031.89	4,919.49	11.94	15.51	143.40	519.28	1,597.70	2,105.25	2,080.42	24.84	84.761				
4,800.00	4,743.52	5,100.00	4,986.94	12.20	15.66	143.76	514.11	1,589.77	2,109.85	2,084.62	25.23	83.622				
4,900.00	4,841.34	5,164.12	5,050.58	12.46	15.79	144.07	509.85	1,583.23	2,116.09	2,090.49	25.60	82.660				
5,000.00	4,939.15	5,230.34	5,116.44	12.72	15.91	144.39	506.06	1,577.41	2,123.96	2,098.00	25.96	81.805				
5,100.00	5,036.97	5,300.00	5,185.83	12.99	16.02	144.70	502.74	1,572.33	2,133.45	2,107.12	26.33	81.042				
5,200.00	5,134.78	5,362.81	5,248.48	13.26	16.11	144.96	500.35	1,568.65	2,144.52	2,117.86	26.65	80.458				
5,300.00	5,232.60	5,428.97	5,314.55	13.52	16.19	145.22	498.43	1,565.71	2,157.16	2,130.18	26.98	79.956				
5,400.00	5,330.41	5,500.00	5,385.54	13.79	16.27	145.48	497.07	1,563.62	2,171.35	2,144.05	27.30	79.525				
5,500.00	5,428.44	5,561.10	5,446.63	14.04	16.31	145.79	496.48	1,562.71	2,186.20	2,158.65	27.55	79.366				
5,600.00	5,526.94	5,641.42	5,526.94	14.27	16.35	146.11	496.38	1,562.56	2,200.29	2,172.49	27.80	79.145				
5,700.00	5,625.86	5,740.34	5,625.86	14.49	16.39	146.42	496.38	1,562.56	2,212.49	2,184.44	28.05	78.871				
5,800.00	5,725.13	5,839.61	5,725.13	14.67	16.42	146.68	496.38	1,562.56	2,222.55	2,194.26	28.29	78.564				
5,900.00	5,824.69	5,939.16	5,824.69	14.84	16.46	146.88	496.38	1,562.56	2,230.45	2,201.93	28.51	78.225				
6,000.00	5,924.45	6,038.92	5,924.45	14.98	16.50	147.02	496.38	1,562.56	2,236.17	2,207.45	28.72	77.856				
6,100.00	6,024.36	6,138.83	6,024.36	15.09	16.54	147.11	496.38	1,562.56	2,239.70	2,210.78	28.91	77.464				
6,200.00	6,124.34	6,238.82	6,124.34	15.18	16.57	147.14	496.38	1,562.56	2,241.03	2,211.95	29.08	77.069				
6,300.00	6,224.34	6,338.82	6,224.34	15.24	16.61	89.61	496.38	1,562.56	2,241.04	2,211.87	29.17	76.816				
6,400.00	6,324.34	6,438.82	6,324.34	15.31	16.65	89.61	496.38	1,562.56	2,241.04	2,211.76	29.28	76.537				

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
6,500.00	6,424.34	6,538.82	6,424.34	15.38	16.69	89.61	496.38	1,562.56	2,241.04	2,211.66	29.39	76.259		
6,600.00	6,524.34	6,638.82	6,524.34	15.45	16.73	89.61	496.38	1,562.56	2,241.04	2,211.55	29.49	75.981		
6,700.00	6,624.34	6,738.82	6,624.34	15.52	16.77	89.61	496.38	1,562.56	2,241.04	2,211.44	29.60	75.704		
6,800.00	6,724.34	6,838.82	6,724.34	15.59	16.81	89.61	496.38	1,562.56	2,241.04	2,211.33	29.71	75.428		
6,900.00	6,824.34	6,938.82	6,824.34	15.66	16.85	89.61	496.38	1,562.56	2,241.04	2,211.22	29.82	75.153		
7,000.00	6,924.34	7,038.82	6,924.34	15.73	16.89	89.61	496.38	1,562.56	2,241.04	2,211.11	29.93	74.879		
7,100.00	7,024.34	7,138.82	7,024.34	15.80	16.93	89.61	496.38	1,562.56	2,241.04	2,211.00	30.04	74.605		
7,200.00	7,124.34	7,238.82	7,124.34	15.87	16.97	89.61	496.38	1,562.56	2,241.04	2,210.89	30.15	74.333		
7,300.00	7,224.34	7,338.82	7,224.34	15.94	17.01	89.61	496.38	1,562.56	2,241.04	2,210.78	30.26	74.061		
7,400.00	7,324.34	7,438.82	7,324.34	16.01	17.05	89.61	496.38	1,562.56	2,241.04	2,210.67	30.37	73.790		
7,500.00	7,424.34	7,538.82	7,424.34	16.09	17.09	89.61	496.38	1,562.56	2,241.04	2,210.56	30.48	73.520		
7,600.00	7,524.34	7,638.82	7,524.34	16.16	17.14	89.61	496.38	1,562.56	2,241.04	2,210.45	30.59	73.251		
7,700.00	7,624.34	7,738.82	7,624.34	16.23	17.18	89.61	496.38	1,562.56	2,241.04	2,210.34	30.71	72.983		
7,800.00	7,724.34	7,838.82	7,724.34	16.30	17.22	89.61	496.38	1,562.56	2,241.04	2,210.22	30.82	72.716		
7,900.00	7,824.34	7,938.82	7,824.34	16.37	17.26	89.61	496.38	1,562.56	2,241.04	2,210.11	30.93	72.450		
8,000.00	7,924.34	8,038.82	7,924.34	16.44	17.31	89.61	496.38	1,562.56	2,241.04	2,210.00	31.05	72.184		
8,100.00	8,024.34	8,138.82	8,024.34	16.51	17.35	89.61	496.38	1,562.56	2,241.04	2,209.88	31.16	71.920		
8,200.00	8,124.34	8,238.82	8,124.34	16.58	17.39	89.61	496.38	1,562.56	2,241.04	2,209.77	31.27	71.657		
8,300.00	8,224.34	8,338.82	8,224.34	16.66	17.44	89.61	496.38	1,562.56	2,241.04	2,209.65	31.39	71.394		
8,400.00	8,324.34	8,438.82	8,324.34	16.73	17.48	89.61	496.38	1,562.56	2,241.04	2,209.54	31.50	71.133		
8,500.00	8,424.34	8,538.82	8,424.34	16.80	17.53	89.61	496.38	1,562.56	2,241.04	2,209.42	31.62	70.873		
8,600.00	8,524.34	8,638.82	8,524.34	16.87	17.57	89.61	496.38	1,562.56	2,241.04	2,209.31	31.74	70.613		
8,700.00	8,624.34	8,738.82	8,624.34	16.94	17.62	89.61	496.38	1,562.56	2,241.04	2,209.19	31.85	70.355		
8,800.00	8,724.34	8,838.82	8,724.34	17.01	17.66	89.61	496.38	1,562.56	2,241.04	2,209.07	31.97	70.098		
8,900.00	8,824.34	8,938.82	8,824.34	17.09	17.71	89.61	496.38	1,562.56	2,241.04	2,208.96	32.09	69.841		
9,000.00	8,924.34	9,038.82	8,924.34	17.16	17.76	89.61	496.38	1,562.56	2,241.04	2,208.84	32.21	69.586		
9,100.00	9,024.34	9,138.82	9,024.34	17.23	17.80	89.61	496.38	1,562.56	2,241.04	2,208.72	32.32	69.332		
9,200.00	9,124.34	9,238.82	9,124.34	17.30	17.85	89.61	496.38	1,562.56	2,241.04	2,208.60	32.44	69.079		
9,300.00	9,224.34	9,338.82	9,224.34	17.38	17.90	89.61	496.38	1,562.56	2,241.04	2,208.48	32.56	68.827		
9,400.00	9,324.34	9,438.82	9,324.34	17.45	17.94	89.61	496.38	1,562.56	2,241.04	2,208.36	32.68	68.576		
9,500.00	9,424.34	9,538.82	9,424.34	17.52	17.99	89.61	496.38	1,562.56	2,241.04	2,208.24	32.80	68.326		
9,600.00	9,524.34	9,638.82	9,524.34	17.59	18.04	89.61	496.38	1,562.56	2,241.04	2,208.12	32.92	68.077		
9,700.00	9,624.34	9,738.82	9,624.34	17.67	18.09	89.61	496.38	1,562.56	2,241.04	2,208.00	33.04	67.829		
9,800.00	9,724.34	9,838.82	9,724.34	17.74	18.13	89.61	496.38	1,562.56	2,241.04	2,207.88	33.16	67.582		
9,900.00	9,824.34	9,938.82	9,824.34	17.81	18.18	89.61	496.38	1,562.56	2,241.04	2,207.76	33.28	67.337		
10,000.00	9,924.34	10,038.82	9,924.34	17.89	18.23	89.61	496.38	1,562.56	2,241.04	2,207.64	33.40	67.092		
10,100.00	10,024.34	10,138.82	10,024.34	17.96	18.28	89.61	496.38	1,562.56	2,241.04	2,207.52	33.52	66.849		
10,200.00	10,124.34	10,238.82	10,124.34	18.03	18.33	89.61	496.38	1,562.56	2,241.04	2,207.40	33.65	66.606		
10,300.00	10,224.34	10,338.82	10,224.34	18.11	18.38	89.61	496.38	1,562.56	2,241.04	2,207.27	33.77	66.365		
10,400.00	10,324.34	10,438.82	10,324.34	18.18	18.43	89.61	496.38	1,562.56	2,241.04	2,207.15	33.89	66.125		
10,500.00	10,424.34	10,538.82	10,424.34	18.25	18.48	89.61	496.38	1,562.56	2,241.04	2,207.03	34.01	65.886		
10,600.00	10,524.34	10,638.82	10,524.34	18.33	18.53	89.61	496.38	1,562.56	2,241.04	2,206.91	34.14	65.648		
10,700.00	10,624.34	10,738.82	10,624.34	18.40	18.58	89.61	496.38	1,562.56	2,241.04	2,206.78	34.26	65.411		
10,800.00	10,724.34	10,838.82	10,724.34	18.47	18.63	89.61	496.38	1,562.56	2,241.04	2,206.66	34.39	65.175		
10,900.00	10,824.34	10,938.82	10,824.34	18.55	18.68	89.61	496.38	1,562.56	2,241.04	2,206.53	34.51	64.940		
11,000.00	10,924.34	11,038.82	10,924.34	18.62	18.73	89.61	496.38	1,562.56	2,241.04	2,206.41	34.63	64.707		
11,100.00	11,024.34	11,138.82	11,024.34	18.69	18.78	89.61	496.38	1,562.56	2,241.04	2,206.28	34.76	64.474		
11,200.00	11,124.34	11,238.82	11,124.34	18.77	18.83	89.61	496.38	1,562.56	2,241.04	2,206.16	34.88	64.243		
11,300.00	11,224.34	11,338.82	11,224.34	18.84	18.88	89.61	496.38	1,562.56	2,241.04	2,206.03	35.01	64.012		
11,400.00	11,324.34	11,438.82	11,324.34	18.92	18.93	89.61	496.38	1,562.56	2,241.04	2,205.91	35.14	63.783		
11,500.00	11,424.34	11,538.82	11,424.34	18.99	18.99	89.61	496.38	1,562.56	2,241.04	2,205.78	35.26	63.555		
11,600.00	11,524.34	11,638.82	11,524.34	19.06	19.04	89.61	496.38	1,562.56	2,241.04	2,205.65	35.39	63.328		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - 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	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Offset		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Tooflance (")	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,700.00	11,624.34	11,738.82	11,624.34	19.14	19.09	89.61	496.38	1,562.56	2,241.04	2,205.53	35.51	63.102		
11,800.00	11,724.34	11,838.82	11,724.34	19.21	19.14	89.61	496.38	1,562.56	2,241.04	2,205.40	35.64	62.877		
11,900.00	11,824.34	11,938.82	11,824.34	19.29	19.20	89.61	496.38	1,562.56	2,241.04	2,205.27	35.77	62.655		
11,906.92	11,831.26	11,945.73	11,831.26	19.29	19.20	89.61	496.38	1,562.56	2,241.04	2,205.27	35.78	62.640		
12,000.00	11,924.34	12,038.39	11,923.88	19.36	19.27	89.65	494.85	1,562.57	2,241.05	2,205.16	35.88	62.452		
12,100.00	12,024.34	12,134.88	12,019.07	19.44	19.43	90.03	479.74	1,562.71	2,241.15	2,205.09	36.06	62.155		
12,200.00	12,124.34	12,224.04	12,103.63	19.51	19.63	90.75	451.78	1,562.96	2,241.68	2,205.36	36.32	61.719		
12,300.00	12,224.34	12,300.00	12,171.53	19.59	19.85	91.61	417.85	1,563.27	2,243.21	2,206.56	36.64	61.218		
12,400.00	12,324.31	12,371.59	12,230.89	19.64	20.11	-92.72	377.91	1,563.63	2,246.45	2,209.44	37.00	60.707		
12,500.00	12,422.88	12,436.40	12,279.96	19.68	20.37	-91.27	335.63	1,564.01	2,252.30	2,215.01	37.30	60.390		
12,600.00	12,517.18	12,500.00	12,323.17	19.70	20.67	-89.70	289.01	1,564.43	2,260.50	2,222.92	37.58	60.156		
12,700.00	12,604.33	12,560.97	12,359.50	19.72	20.99	-88.07	240.09	1,564.87	2,270.53	2,232.67	37.86	59.978		
12,800.00	12,681.69	12,621.53	12,390.25	19.76	21.35	-86.41	187.95	1,565.33	2,281.84	2,243.69	38.15	59.819		
12,900.00	12,746.91	12,681.32	12,415.03	19.82	21.75	-84.79	133.57	1,565.82	2,293.90	2,255.44	38.46	59.650		
13,000.00	12,797.99	12,750.00	12,436.34	19.92	22.25	-83.23	68.32	1,566.41	2,306.21	2,267.32	38.88	59.310		
13,100.00	12,833.40	12,800.00	12,446.86	20.08	22.64	-81.89	19.46	1,566.85	2,318.20	2,279.01	39.19	59.157		
13,200.00	12,852.06	12,850.00	12,453.07	20.30	23.05	-80.69	-30.13	1,567.30	2,329.55	2,290.02	39.53	58.938		
13,300.00	12,855.35	12,932.80	12,455.16	20.57	23.78	-80.16	-112.87	1,568.04	2,339.61	2,299.31	40.30	58.053		
13,400.00	12,856.23	13,032.54	12,455.68	20.89	24.70	-80.18	-212.61	1,568.94	2,346.66	2,305.22	41.44	56.622		
13,500.00	12,857.10	13,132.47	12,456.21	21.25	25.67	-80.19	-312.54	1,569.84	2,350.28	2,307.55	42.73	55.009		
13,600.00	12,857.98	13,232.46	12,456.73	21.64	26.68	-80.17	-412.53	1,570.74	2,350.84	2,306.75	44.10	53.311		
13,700.00	12,858.86	13,332.46	12,457.26	22.08	27.72	-80.16	-512.52	1,571.63	2,350.94	2,305.35	45.60	51.558		
13,800.00	12,859.74	13,432.46	12,457.79	22.59	28.79	-80.16	-612.51	1,572.53	2,351.04	2,303.84	47.21	49.803		
13,900.00	12,860.61	13,532.46	12,458.31	23.15										

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Site Error: 0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre				Rule Assigned: Distance			Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
16,800.00	12,886.07	16,432.44	12,473.57	53.98	66.13	-79.91	-3,612.33	1,599.52	2,354.02	2,237.33	116.69	20.173		
16,900.00	12,886.95	16,532.44	12,474.10	55.25	67.45	-79.90	-3,712.33	1,600.42	2,354.12	2,234.85	119.27	19.738		
17,000.00	12,887.83	16,632.44	12,474.62	56.53	68.77	-79.89	-3,812.32	1,601.32	2,354.22	2,232.37	121.85	19.321		
17,100.00	12,888.71	16,732.44	12,475.15	57.81	70.09	-79.88	-3,912.31	1,602.22	2,354.32	2,229.89	124.43	18.920		
17,200.00	12,889.58	16,832.44	12,475.68	59.09	71.41	-79.87	-4,012.31	1,603.11	2,354.42	2,227.40	127.02	18.535		
17,300.00	12,890.46	16,932.44	12,476.20	60.38	72.74	-79.87	-4,112.30	1,604.01	2,354.52	2,224.91	129.62	18.165		
17,400.00	12,891.34	17,032.44	12,476.73	61.67	74.07	-79.86	-4,212.30	1,604.91	2,354.62	2,222.41	132.22	17.809		
17,500.00	12,892.22	17,132.44	12,477.26	62.97	75.39	-79.85	-4,312.29	1,605.81	2,354.72	2,219.90	134.82	17.466		
17,600.00	12,893.10	17,232.44	12,477.78	64.27	76.72	-79.84	-4,412.28	1,606.71	2,354.82	2,217.40	137.43	17.135		
17,700.00	12,893.97	17,332.44	12,478.31	65.57	78.05	-79.83	-4,512.28	1,607.61	2,354.93	2,214.89	140.04	16.817		
17,800.00	12,894.85	17,432.44	12,478.83	66.87	79.39	-79.83	-4,612.27	1,608.51	2,355.03	2,212.38	142.65	16.509		
17,900.00	12,895.73	17,532.44	12,479.36	68.18	80.72	-79.82	-4,712.27	1,609.41	2,355.13	2,209.86	145.26	16.213		
18,000.00	12,896.61	17,632.44	12,479.89	69.49	82.05	-79.81	-4,812.26	1,610.31	2,355.23	2,207.34	147.88	15.926		
18,100.00	12,897.49	17,732.44	12,480.41	70.80	83.39	-79.80	-4,912.25	1,611.21	2,355.33	2,204.82	150.51	15.649		
18,200.00	12,898.36	17,832.43	12,480.94	72.11	84.73	-79.79	-5,012.25	1,612.11	2,355.43	2,202.30	153.13	15.382		
18,300.00	12,899.24	17,932.43	12,481.46	73.43	86.06	-79.78	-5,112.24	1,613.01	2,355.53	2,199.77	155.76	15.123		
18,400.00	12,900.12	18,032.43	12,481.99	74.75	87.40	-79.78	-5,212.24	1,613.91	2,355.63	2,197.25	158.39	14.873		
18,500.00	12,901.00	18,132.43	12,482.52	76.07	88.74	-79.77	-5,312.23	1,614.81	2,355.73	2,194.71	161.02	14.630		
18,600.00	12,901.87	18,232.43	12,483.04	77.39	90.08	-79.76	-5,412.22	1,615.71	2,355.83	2,192.18	163.65	14.396		
18,700.00	12,902.75	18,332.43	12,483.57	78.71	91.42	-79.75	-5,512.22	1,616.61	2,355.93	2,189.65	166.28	14.168		
18,800.00	12,903.63	18,432.43	12,484.10	80.04	92.77	-79.74	-5,612.21	1,617.51	2,356.03	2,187.11	168.92	13.947		
18,900.00	12,904.51	18,532.43	12,484.62	81.36	94.11	-79.73	-5,712.21	1,618.41	2,356.14	2,184.57	171.56	13.734		
19,000.00	12,905.39	18,632.43	12,485.15	82.69										

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
22,000.00	12,931.72	21,632.41	12,500.93	122.96	136.00	-79.48	-8,812.02	1,646.29	2,359.29	2,105.38	253.91	9.292	
22,100.00	12,932.60	21,732.41	12,501.46	124.31	137.36	-79.47	-8,912.01	1,647.19	2,359.40	2,102.82	256.58	9.196	
22,200.00	12,933.48	21,832.41	12,501.99	125.66	138.71	-79.46	-9,012.01	1,648.09	2,359.50	2,100.25	259.24	9.101	
22,300.00	12,934.36	21,932.41	12,502.51	127.02	140.07	-79.45	-9,112.00	1,648.99	2,359.60	2,097.69	261.91	9.009	
22,400.00	12,935.23	22,032.41	12,503.04	128.37	141.43	-79.45	-9,211.99	1,649.89	2,359.70	2,095.12	264.58	8.919	
22,500.00	12,936.11	22,132.41	12,503.56	129.72	142.79	-79.44	-9,311.99	1,650.78	2,359.81	2,092.56	267.25	8.830	
22,600.00	12,936.99	22,232.41	12,504.09	131.08	144.14	-79.43	-9,411.98	1,651.68	2,359.91	2,089.99	269.92	8.743	
22,700.00	12,937.87	22,332.41	12,504.62	132.43	145.50	-79.42	-9,511.98	1,652.58	2,360.01	2,087.43	272.59	8.658	
22,800.00	12,938.75	22,432.41	12,505.14	133.78	146.86	-79.41	-9,611.97	1,653.48	2,360.12	2,084.86	275.26	8.574	
22,900.00	12,939.62	22,532.41	12,505.67	135.14	148.22	-79.41	-9,711.96	1,654.38	2,360.22	2,082.29	277.93	8.492	
23,000.00	12,940.50	22,632.41	12,506.19	136.49	149.58	-79.40	-9,811.96	1,655.28	2,360.32	2,079.72	280.60	8.412	
23,100.00	12,941.38	22,732.40	12,506.72	137.85	150.94	-79.39	-9,911.95	1,656.18	2,360.42	2,077.16	283.27	8.333	
23,193.48	12,942.20	22,823.46	12,507.20	139.00	152.16	-79.38	-10,003.00	1,657.00	2,360.52	2,074.99	285.54	8.267	ES, SF

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

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Total Directional Anticollision Report

Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:					Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre			Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
0.00	0.00	0.00	1.00	0.50	0.50	0.00	50.00	0.00	50.01					
100.00	100.00	99.00	100.00	0.98	0.97	0.00	50.00	0.00	50.00	48.05	1.95	25.576	CC, ES	
200.00	200.00	199.00	200.00	1.56	1.56	0.00	50.00	0.00	50.00	46.88	3.12	16.045		
300.00	300.00	299.00	300.00	1.98	1.98	0.00	50.00	0.00	50.00	46.04	3.96	12.632		
400.00	400.00	398.01	398.99	2.33	2.40	-0.92	50.95	-0.82	50.97	46.27	4.70	10.843		
500.00	500.00	496.87	497.78	2.63	2.78	-3.51	53.85	-3.31	53.99	48.64	5.35	10.085		
600.00	600.00	595.47	596.18	2.91	3.11	-7.23	58.66	-7.45	59.26	53.30	5.95	9.957		
700.00	700.00	694.60	694.94	3.16	3.26	-11.26	65.07	-12.96	66.54	60.18	6.36	10.465		
800.00	799.99	794.32	794.29	3.46	3.50	25.83	71.66	-18.62	73.08	66.19	6.90	10.598		
900.00	899.91	894.20	893.79	3.73	3.74	24.19	78.26	-24.30	77.39	69.98	7.41	10.444		
1,000.00	999.69	994.18	993.38	4.00	3.98	23.46	84.87	-29.98	79.34	71.44	7.90	10.037		
1,100.00	1,099.32	1,094.18	1,093.00	4.11	4.21	23.35	91.48	-35.66	79.43	71.18	8.25	9.629		
1,200.00	1,198.94	1,194.18	1,192.62	4.32	4.44	23.28	98.09	-41.35	79.39	70.70	8.69	9.137		
1,210.20	1,209.10	1,204.34	1,202.75	4.34	4.46	23.27	98.76	-41.92	79.39	70.65	8.73	9.090		
1,300.00	1,298.56	1,292.45	1,290.42	4.52	4.69	22.91	105.38	-47.62	80.33	71.20	9.13	8.798		
1,400.00	1,398.18	1,390.45	1,387.67	4.72	4.94	21.86	114.54	-55.49	83.64	74.06	9.58	8.734		
1,500.00	1,497.80	1,489.35	1,485.52	4.92	5.09	20.37	125.42	-64.85	89.02	79.09	9.93	8.966		
1,600.00	1,597.42	1,589.16	1,584.23	5.12	5.30	18.99	136.61	-74.47	94.71	84.36	10.35	9.152		
1,700.00	1,697.04	1,688.97	1,682.95	5.32	5.52	17.76	147.80	-84.10	100.45	89.68	10.77	9.326		
1,800.00	1,796.66	1,788.79	1,781.67	5.51	5.73	16.66	158.99	-93.72	106.23	95.04	11.19	9.494		
1,900.00	1,896.28	1,888.60	1,880.38	5.70	5.94	15.68	170.18	-103.34	112.05	100.44	11.61	9.655		
2,000.00	1,995.90	1,988.41	1,979.10	5.90	6.16	14.79	181.37	-112.96	117.90	105.88	12.02	9.810		
2,100.00	2,095.52	2,088.23	2,077.81	6.09	6.37	13.99	192.56	-122.58	123.77	111.34	12.43	9.960		
2,200.00	2,195.14	2,188.04	2,176.53	6.29	6.58	13.26	203.74	-132.21	129.66	116.82	12.84	10.096		
2,300.00	2,294.66	2,287.91	2,275.30	6.48	6.79	19.21	214.94	-141.83	134.70	121.44	13.26	10.162		
2,400.00	2,393.91	2,387.85	2,374.15	6.70	7.00	23.92	226.14	-151.47	137.80	124.12	13.68	10.074		
2,500.00	2,492.84	2,487.80	2,473.00	6.92	7.20	28.02	237.35	-161.10	139.00	124.89	14.10	9.857		
2,600.00	2,591.36	2,587.69	2,571.79	7.13	7.41	32.05	248.55	-170.73	138.40	123.88	14.52	9.532		
2,700.00	2,689.42	2,687.46	2,670.46	7.35	7.62	36.36	259.73	-180.35	136.19	121.26	14.93	9.124		
2,800.00	2,787.23	2,787.14	2,769.05	7.54	7.83	39.54	270.90	-189.96	133.51	118.19	15.32	8.713		
2,900.00	2,885.05	2,886.82	2,867.63	7.74	8.03	42.84	282.08	-199.57	131.27	115.55	15.72	8.350		
3,000.00	2,982.86	2,986.50	2,966.22	7.94	8.24	46.25	293.25	-209.18	129.48	113.36	16.12	8.032		
3,100.00	3,080.67	3,086.19	3,064.81	8.15	8.45	49.73	304.43	-218.79	128.15	111.63	16.52	7.758		
3,200.00	3,178.49	3,185.87	3,163.39	8.35	8.65	53.28	315.60	-228.40	127.32	110.40	16.92	7.523		
3,300.00	3,276.30	3,285.55	3,261.98	8.56	8.86	56.85	326.78	-238.01	126.98	109.65	17.33	7.328		
3,317.92	3,293.83	3,303.41	3,279.64	8.60	8.89	57.50	328.78	-239.73	126.97	109.57	17.40	7.296		
3,400.00	3,374.12	3,385.23	3,360.57	8.78	9.06	60.44	337.95	-247.62	127.14	109.40	17.74	7.167		
3,500.00	3,471.93	3,484.91	3,459.15	9.00	9.27	63.99	349.12	-257.23	127.80	109.65	18.15	7.041		
3,600.00	3,569.75	3,584.60	3,557.74	9.22	9.47	67.50	360.30	-266.84	128.95	110.38	18.57	6.944		
3,700.00	3,667.56	3,684.28	3,656.33	9.45	9.68	70.94	371.47	-276.45	130.57	111.58	18.99	6.876		
3,800.00	3,765.38	3,783.96	3,754.91	9.68	9.88	74.28	382.65	-286.05	132.66	113.24	19.42	6.833		
3,900.00	3,863.19	3,883.64	3,853.50	9.92	10.09	77.51	393.82	-295.66	135.18	115.34	19.84	6.812		
4,000.00	3,961.01	3,983.32	3,952.08	10.16	10.29	80.61	405.00	-305.27	138.12	117.84	20.28	6.812		
4,100.00	4,058.82	4,083.01	4,050.67	10.41	10.50	83.57	416.17	-314.88	141.45	120.74	20.71	6.830		
4,200.00	4,156.64	4,182.69	4,149.26	10.66	10.70	86.39	427.35	-324.49	145.13	123.99	21.15	6.863		
4,300.00	4,254.45	4,282.37	4,247.84	10.91	10.91	89.06	438.52	-334.10	149.16	127.57	21.59	6.910		
4,400.00	4,352.27	4,382.05	4,346.43	11.16	11.11	91.59	449.69	-343.71	153.49	131.47	22.02	6.970		
4,500.00	4,450.08	4,482.49	4,445.91	11.42	11.32	94.35	460.22	-352.76	157.90	135.45	22.45	7.033		
4,600.00	4,547.89	4,582.69	4,545.46	11.68	11.53	97.84	468.76	-360.10	162.23	139.39	22.85	7.100		
4,700.00	4,645.71	4,682.35	4,644.75	11.94	11.73	102.01	475.28	-365.72	166.91	143.70	23.21	7.191		
4,800.00	4,743.52	4,781.35	4,743.56	12.20	11.91	106.76	479.82	-369.62	172.42	148.88	23.54	7.326		
4,900.00	4,841.34	4,879.56	4,841.72	12.46	12.08	111.96	482.40	-371.84	179.28	155.45	23.83	7.524		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:			Offset Well Error:		0.50 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Axis (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,939.15	4,977.01	4,939.15	12.72	12.18	117.46	483.09	-372.43	188.00	163.94	24.06	7.813	
5,100.00	5,036.97	5,074.82	5,036.97	12.99	12.25	122.70	483.09	-372.43	198.61	174.30	24.31	8.171	
5,200.00	5,134.78	5,172.64	5,134.78	13.26	12.33	127.40	483.09	-372.43	210.74	186.17	24.57	8.578	
5,300.00	5,232.60	5,270.45	5,232.60	13.52	12.41	131.57	483.09	-372.43	224.14	199.31	24.83	9.026	
5,400.00	5,330.41	5,368.27	5,330.41	13.79	12.49	135.27	483.09	-372.43	238.60	213.50	25.10	9.506	
5,500.00	5,428.44	5,466.29	5,428.44	14.04	12.57	138.52	483.09	-372.43	253.17	227.81	25.36	9.981	
5,600.00	5,526.94	5,564.79	5,526.94	14.27	12.65	141.09	483.09	-372.43	266.41	240.77	25.64	10.391	
5,700.00	5,625.86	5,663.72	5,625.86	14.49	12.73	143.08	483.09	-372.43	277.99	252.08	25.91	10.730	
5,800.00	5,725.13	5,762.99	5,725.13	14.67	12.81	144.60	483.09	-372.43	287.73	261.56	26.17	10.995	
5,900.00	5,824.69	5,862.54	5,824.69	14.84	12.89	145.72	483.09	-372.43	295.48	269.06	26.42	11.182	
6,000.00	5,924.45	5,962.30	5,924.45	14.98	12.98	146.50	483.09	-372.43	301.15	274.48	26.67	11.293	
6,100.00	6,024.36	6,062.21	6,024.36	15.09	13.06	146.97	483.09	-372.43	304.66	277.77	26.90	11.327	
6,200.00	6,124.34	6,162.20	6,124.34	15.18	13.14	147.14	483.09	-372.43	305.99	278.89	27.10	11.290	
6,300.00	6,224.34	6,262.20	6,224.34	15.24	13.22	89.61	483.09	-372.43	306.01	278.77	27.24	11.233	
6,400.00	6,324.34	6,362.20	6,324.34	15.31	13.30	89.61	483.09	-372.43	306.01	278.62	27.39	11.173	
6,500.00	6,424.34	6,462.20	6,424.34	15.38	13.39	89.61	483.09	-372.43	306.01	278.47	27.54	11.112	
6,600.00	6,524.34	6,562.20	6,524.34	15.45	13.47	89.61	483.09	-372.43	306.01	278.32	27.69	11.053	
6,700.00	6,624.34	6,662.20	6,624.34	15.52	13.55	89.61	483.09	-372.43	306.01	278.17	27.83	10.994	
6,800.00	6,724.34	6,762.20	6,724.34	15.59	13.63	89.61	483.09	-372.43	306.01	278.02	27.98	10.935	
6,900.00	6,824.34	6,862.20	6,824.34	15.66	13.71	89.61	483.09	-372.43	306.01	277.87	28.13	10.877	
7,000.00	6,924.34	6,962.20	6,924.34	15.73	13.80	89.61	483.09	-372.43	306.01	277.73	28.28	10.820	
7,100.00	7,024.34	7,062.20	7,024.34	15.80	13.88	89.61	483.09	-372.43	306.01	277.58	28.43	10.763	
7,200.00	7,124.34	7,162.20	7,124.34	15.87	13.96	89.61	483.09	-372.43	306.01	277.43	28.58	10.707	
7,300.00	7,224.34	7,262.20	7,224.34	15.94	14.04	89.61	483.09	-372.43	306.01	277.28	28.73	10.651	
7,400.00	7,324.34	7,362.20	7,324.34	16.01	14.12	89.61	483.09	-372.43	306.01	277.13	28.88	10.596	
7,500.00	7,424.34	7,462.20	7,424.34	16.09	14.21	89.61	483.09	-372.43	306.01	276.98	29.03	10.541	
7,600.00	7,524.34	7,562.20	7,524.34	16.16	14.29	89.61	483.09	-372.43	306.01	276.83	29.18	10.487	
7,700.00	7,624.34	7,662.20	7,624.34	16.23	14.37	89.61	483.09	-372.43	306.01	276.68	29.33	10.433	
7,800.00	7,724.34	7,762.20	7,724.34	16.30	14.45	89.61	483.09	-372.43	306.01	276.53	29.48	10.380	
7,900.00	7,824.34	7,862.20	7,824.34	16.37	14.53	89.61	483.09	-372.43	306.01	276.38	29.63	10.328	
8,000.00	7,924.34	7,962.20	7,924.34	16.44	14.62	89.61	483.09	-372.43	306.01	276.23	29.78	10.275	
8,100.00	8,024.34	8,062.20	8,024.34	16.51	14.70	89.61	483.09	-372.43	306.01	276.08	29.93	10.224	
8,200.00	8,124.34	8,162.20	8,124.34	16.58	14.78	89.61	483.09	-372.43	306.01	275.93	30.08	10.172	
8,300.00	8,224.34	8,262.20	8,224.34	16.66	14.86	89.61	483.09	-372.43	306.01	275.77	30.23	10.122	
8,400.00	8,324.34	8,362.20	8,324.34	16.73	14.94	89.61	483.09	-372.43	306.01	275.62	30.38	10.071	
8,500.00	8,424.34	8,462.20	8,424.34	16.80	15.03	89.61	483.09	-372.43	306.01	275.47	30.53	10.022	
8,600.00	8,524.34	8,562.20	8,524.34	16.87	15.11	89.61	483.09	-372.43	306.01	275.32	30.69	9.972	
8,700.00	8,624.34	8,662.20	8,624.34	16.94	15.19	89.61	483.09	-372.43	306.01	275.17	30.84	9.923	
8,800.00	8,724.34	8,762.20	8,724.34	17.01	15.27	89.61	483.09	-372.43	306.01	275.02	30.99	9.875	
8,900.00	8,824.34	8,862.20	8,824.34	17.09	15.35	89.61	483.09	-372.43	306.01	274.87	31.14	9.827	
9,000.00	8,924.34	8,962.20	8,924.34	17.16	15.44	89.61	483.09	-372.43	306.01	274.72	31.29	9.779	
9,100.00	9,024.34	9,062.20	9,024.34	17.23	15.52	89.61	483.09	-372.43	306.01	274.56	31.44	9.732	
9,200.00	9,124.34	9,162.20	9,124.34	17.30	15.60	89.61	483.09	-372.43	306.01	274.41	31.60	9.685	
9,300.00	9,224.34	9,262.20	9,224.34	17.38	15.68	89.61	483.09	-372.43	306.01	274.26	31.75	9.639	
9,400.00	9,324.34	9,362.20	9,324.34	17.45	15.77	89.61	483.09	-372.43	306.01	274.11	31.90	9.593	
9,500.00	9,424.34	9,462.20	9,424.34	17.52	15.85	89.61	483.09	-372.43	306.01	273.96	32.05	9.547	
9,600.00	9,524.34	9,562.20	9,524.34	17.59	15.93	89.61	483.09	-372.43	306.01	273.80	32.20	9.502	
9,700.00	9,624.34	9,662.20	9,624.34	17.67	16.01	89.61	483.09	-372.43	306.01	273.65	32.36	9.457	
9,800.00	9,724.34	9,762.20	9,724.34	17.74	16.09	89.61	483.09	-372.43	306.01	273.50	32.51	9.413	
9,900.00	9,824.34	9,862.20	9,824.34	17.81	16.18	89.61	483.09	-372.43	306.01	273.35	32.66	9.369	
10,000.00	9,924.34	9,962.20	9,924.34	17.89	16.26	89.61	483.09	-372.43	306.01	273.19	32.81	9.325	
10,100.00	10,024.34	10,062.20	10,024.34	17.96	16.34	89.61	483.09	-372.43	306.01	273.04	32.97	9.282	

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

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Total Directional Anticollision Report

Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		Offset		Semi Major Axis		Highside Tooltface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error: 0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,200.00	10,124.34	10,162.20	10,124.34	18.03	16.42	89.61	483.09	-372.43	306.01	272.89	33.12	9.239		
10,300.00	10,224.34	10,262.20	10,224.34	18.11	16.50	89.61	483.09	-372.43	306.01	272.73	33.27	9.197		
10,400.00	10,324.34	10,362.20	10,324.34	18.18	16.59	89.61	483.09	-372.43	306.01	272.58	33.43	9.155		
10,500.00	10,424.34	10,462.20	10,424.34	18.25	16.67	89.61	483.09	-372.43	306.01	272.43	33.58	9.113		
10,600.00	10,524.34	10,562.20	10,524.34	18.33	16.75	89.61	483.09	-372.43	306.01	272.28	33.73	9.072		
10,700.00	10,624.34	10,662.20	10,624.34	18.40	16.83	89.61	483.09	-372.43	306.01	272.12	33.89	9.031		
10,800.00	10,724.34	10,762.20	10,724.34	18.47	16.91	89.61	483.09	-372.43	306.01	271.97	34.04	8.990		
10,900.00	10,824.34	10,862.20	10,824.34	18.55	17.00	89.61	483.09	-372.43	306.01	271.82	34.19	8.950		
11,000.00	10,924.34	10,962.20	10,924.34	18.62	17.08	89.61	483.09	-372.43	306.01	271.66	34.35	8.910		
11,100.00	11,024.34	11,062.20	11,024.34	18.69	17.16	89.61	483.09	-372.43	306.01	271.51	34.50	8.870		
11,200.00	11,124.34	11,162.20	11,124.34	18.77	17.24	89.61	483.09	-372.43	306.01	271.35	34.65	8.831		
11,300.00	11,224.34	11,262.20	11,224.34	18.84	17.33	89.61	483.09	-372.43	306.01	271.20	34.81	8.792		
11,400.00	11,324.34	11,362.20	11,324.34	18.92	17.41	89.61	483.09	-372.43	306.01	271.05	34.96	8.753		
11,500.00	11,424.34	11,462.20	11,424.34	18.99	17.49	89.61	483.09	-372.43	306.01	270.89	35.11	8.714		
11,600.00	11,524.34	11,562.20	11,524.34	19.06	17.57	89.61	483.09	-372.43	306.01	270.74	35.27	8.676		
11,700.00	11,624.34	11,662.20	11,624.34	19.14	17.65	89.61	483.09	-372.43	306.01	270.58	35.42	8.639		
11,800.00	11,724.34	11,762.20	11,724.34	19.21	17.74	89.61	483.09	-372.43	306.01	270.43	35.58	8.601		
11,900.00	11,824.34	11,862.20	11,824.34	19.29	17.82	89.61	483.09	-372.43	306.01	270.28	35.73	8.564		
12,000.00	11,924.34	11,962.20	11,924.34	19.36	17.89	89.61	483.09	-372.43	306.01	270.13	35.88	8.529		
12,007.35	11,931.69	11,969.55	11,931.69	19.37	17.90	89.61	483.09	-372.43	306.01	270.12	35.89	8.527		
12,100.00	12,024.34	12,061.47	12,023.30	19.44	17.92	90.80	476.71	-372.38	306.09	270.17	35.91	8.523		
12,200.00	12,124.34	12,155.85	12,115.06	19.51	17.95	94.84	455.05	-372.19	307.48	271.58	35.89	8.566		
12,300.00	12,224.34	12,241.18	12,193.94	19.59	17.97	100.76	422.75	-371.91	313.48	277.43	36.05	8.696		
12,400.00	12,324.31	12,316.21	12,258.69	19.64	17.98	-77.58	384.94	-371.58	327.84	291.12	36.73	8.926		
12,500.00	12,422.88	12,386.76	12,314.58	19.68	18.00	-70.15	341.96	-371.21	349.17	311.24	37.93	9.206		
12,600.00	12,517.18	12,450.00	12,359.85	19.70	18.02	-64.00	297.85	-370.84	374.20	334.54	39.66	9.435		
12,700.00	12,604.33	12,521.15	12,404.62	19.72	18.05	-58.48	242.62	-370.36	400.28	359.07	41.21	9.712		
12,800.00	12,681.69	12,586.02	12,439.20	19.76	18.08	-54.32	187.77	-369.89	425.62	382.78	42.84	9.934		
12,900.00	12,746.91	12,650.00	12,467.02	19.82	18.12	-51.16	130.19	-369.39	448.80	404.56	44.24	10.144		
13,000.00	12,797.99	12,712.92	12,487.95	19.92	18.17	-48.91	70.90	-368.88	468.85	423.52	45.33	10.343		
13,100.00	12,833.40	12,775.47	12,502.19	20.08	18.24	-47.46	10.02	-368.36	485.12	439.09	46.04	10.538		
13,200.00	12,852.06	12,837.72	12,509.69	20.30	18.32	-46.73	-51.75	-367.83	497.20	450.88	46.32	10.733		
13,300.00	12,855.35	12,917.33	12,511.34	20.57	18.45	-47.01	-131.32	-367.14	505.12	458.91	46.21	10.932		
13,400.00	12,856.23	13,017.08	12,512.21	20.89	18.66	-47.60	-231.06	-366.28	510.31	464.12	46.19	11.048		
13,500.00	12,857.10	13,117.01	12,513.09	21.25	18.93	-47.89	-330.98	-365.42	512.96	466.58	46.38	11.060		
13,600.00	12,857.98	13,217.01	12,513.96	21.64	19.27	-47.92	-430.97	-364.56	513.32	466.58	46.73	10.984		
13,700.00	12,858.86	13,317.01	12,514.83	22.08	19.70	-47.92	-530.97	-363.70	513.32	466.12	47.20	10.875		
13,800.00	12,859.74	13,417.01	12,515.71	22.59	20.21	-47.92	-630.96	-362.84	513.32	465.57	47.76	10.749		
13,900.00	12,860.61	13,517.01	12,516.58	23.15	20.81	-47.92	-730.95	-361.98	513.33	464.93	48.40	10.606		
14,000.00	12,861.49	13,617.01	12,517.45	23.77	21.49	-47.91	-830.94	-361.12	513.33	464.20	49.13	10.449		
14,100.00	12,862.37	13,717.01	12,518.33	24.45	22.25	-47.91	-930.94	-360.26	513.33	463.40	49.93	10.280		
14,200.00	12,863.25	13,817.01	12,519.20	25.18	23.08	-47.91	-1,030.93	-359.39	513.34	462.52	50.82	10.102		
14,300.00	12,864.13	13,917.01	12,520.07	25.97	23.96	-47.91	-1,130.92	-358.53	513.34	461.57	51.77	9.915		
14,400.00	12,865.00	14,017.01	12,520.94	26.80	24.89	-47.91	-1,230.91	-357.67	513.35	460.55	52.80	9.723		
14,500.00	12,865.88	14,117.01	12,521.82	27.67	25.87	-47.91	-1,330.91	-356.81	513.35	459.47	53.88	9.527		
14,600.00	12,866.76	14,217.01	12,522.69	28.59	26.88	-47.91	-1,430.90	-355.95	513.35	458.32	55.03	9.329		
14,700.00	12,867.64	14,317.01	12,523.56	29.54	27.93	-47.91	-1,530.89	-355.09	513.36	457.12	56.23	9.129		
14,800.00	12,868.51	14,417.01	12,524.44	30.52	29.00	-47.91	-1,630.88	-354.23	513.36	455.87	57.49	8.929		
14,900.00	12,869.39	14,517.01	12,525.31	31.54	30.10	-47.91	-1,730.88	-353.37	513.36	454.56	58.80	8.731		
15,000.00	12,870.27	14,617.01	12,526.18	32.58	31.23	-47.91	-1,830.87	-352.51	513.37	453.21	60.15	8.534		
15,100.00	12,871.15	14,717.01	12,527.06	33.65	32.37	-47.91	-1,930.86	-351.65	513.37	451.82	61.55	8.341		
15,200.00	12,872.03	14,817.01	12,527.93	34.73	33.54	-47.91	-2,030.85	-350.79	513.37	450.39	62.99	8.150		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,300.00	12,872.90	14,917.01	12,528.80	35.84	34.71	-47.91	-2,130.85	-349.92	513.38	448.91	64.46	7.964	
15,400.00	12,873.78	15,017.01	12,529.68	36.97	35.91	-47.91	-2,230.84	-349.06	513.38	447.41	65.97	7.781	
15,500.00	12,874.66	15,117.01	12,530.55	38.11	37.11	-47.91	-2,330.83	-348.20	513.38	445.87	67.52	7.604	
15,600.00	12,875.54	15,217.01	12,531.42	39.27	38.33	-47.91	-2,430.82	-347.34	513.39	444.29	69.09	7.430	
15,700.00	12,876.42	15,317.01	12,532.30	40.45	39.56	-47.91	-2,530.82	-346.48	513.39	442.69	70.70	7.262	
15,800.00	12,877.29	15,417.01	12,533.17	41.63	40.79	-47.91	-2,630.81	-345.62	513.40	441.07	72.33	7.098	
15,900.00	12,878.17	15,517.01	12,534.04	42.83	42.04	-47.91	-2,730.80	-344.76	513.40	439.42	73.98	6.940	
16,000.00	12,879.05	15,617.01	12,534.92	44.03	43.29	-47.91	-2,830.79	-343.90	513.40	437.74	75.66	6.786	
16,100.00	12,879.93	15,717.01	12,535.79	45.25	44.55	-47.91	-2,930.79	-343.04	513.41	436.05	77.36	6.637	
16,200.00	12,880.81	15,817.01	12,536.66	46.48	45.82	-47.91	-3,030.78	-342.18	513.41	434.33	79.08	6.492	
16,300.00	12,881.68	15,917.01	12,537.54	47.71	47.09	-47.91	-3,130.77	-341.32	513.41	432.59	80.82	6.352	
16,400.00	12,882.56	16,017.01	12,538.41	48.95	48.37	-47.91	-3,230.76	-340.45	513.42	430.84	82.58	6.217	
16,500.00	12,883.44	16,117.01	12,539.28	50.20	49.65	-47.91	-3,330.76	-339.59	513.42	429.07	84.35	6.087	
16,600.00	12,884.32	16,217.01	12,540.16	51.45	50.94	-47.91	-3,430.75	-338.73	513.42	427.28	86.14	5.960	
16,700.00	12,885.19	16,317.01	12,541.03	52.71	52.23	-47.91	-3,530.74	-337.87	513.43	425.48	87.95	5.838	
16,800.00	12,886.07	16,417.01	12,541.90	53.98	53.52	-47.91	-3,630.73	-337.01	513.43	423.66	89.77	5.720	
16,900.00	12,886.95	16,517.01	12,542.78	55.25	54.82	-47.90	-3,730.73	-336.15	513.43	421.84	91.60	5.605	
17,000.00	12,887.83	16,617.01	12,543.65	56.53	56.13	-47.90	-3,830.72	-335.29	513.44	419.99	93.44	5.495	
17,100.00	12,888.71	16,717.01	12,544.52	57.81	57.43	-47.90	-3,930.71	-334.43	513.44	418.14	95.30	5.388	
17,200.00	12,889.58	16,817.01	12,545.40	59.09	58.74	-47.90	-4,030.70	-333.57	513.44	416.28	97.17	5.284	
17,300.00	12,890.46	16,917.01	12,546.27	60.38	60.05	-47.90	-4,130.70	-332.71	513.45	414.41	99.04	5.184	
17,400.00	12,891.34	17,017.01	12,547.14	61.67	61.37	-47.90	-4,230.69	-331.85	513.45	412.52	100.93	5.087	
17,500.00	12,892.22	17,117.01	12,548.02	62.97	62.68	-47.90	-4,330.68	-330.98	513.46	410.63	102.83	4.993	
17,600.00	12,893.10	17,217.01	12,548.89	64.27	64.00	-47.90	-4,430.67	-330.12	513.46	408.73	104.73	4.903	
17,700.00	12,893.97	17,317.01	12,549.76	65.57	65.32	-47.90	-4,530.67	-329.26	513.46	406.82	106.64	4.815	
17,800.00	12,894.85	17,417.01	12,550.63	66.87	66.65	-47.90	-4,630.66	-328.40	513.47	404.90	108.56	4.730	
17,900.00	12,895.73	17,517.01	12,551.51	68.18	67.97	-47.90	-4,730.65	-327.54	513.47	402.98	110.49	4.647	
18,000.00	12,896.61	17,617.01	12,552.38	69.49	69.30	-47.90	-4,830.64	-326.68	513.47	401.05	112.43	4.567	
18,100.00	12,897.49	17,717.01	12,553.25	70.80	70.63	-47.90	-4,930.63	-325.82	513.48	399.11	114.37	4.490	
18,200.00	12,898.36	17,817.01	12,554.13	72.11	71.96	-47.90	-5,030.63	-324.96	513.48	397.16	116.32	4.414	
18,300.00	12,899.24	17,917.01	12,555.00	73.43	73.29	-47.90	-5,130.62	-324.10	513.48	395.21	118.27	4.342	
18,400.00	12,900.12	18,017.01	12,555.87	74.75	74.62	-47.90	-5,230.61	-323.24	513.49	393.26	120.23	4.271	
18,500.00	12,901.00	18,117.01	12,556.75	76.07	75.96	-47.90	-5,330.60	-322.37	513.49	391.29	122.20	4.202	
18,600.00	12,901.87	18,217.01	12,557.62	77.39	77.29	-47.90	-5,430.60	-321.51	513.49	389.33	124.17	4.136	
18,700.00	12,902.75	18,317.01	12,558.49	78.71	78.63	-47.90	-5,530.59	-320.65	513.50	387.36	126.14	4.071	
18,800.00	12,903.63	18,417.01	12,559.37	80.04	79.97	-47.90	-5,630.58	-319.79	513.50	385.38	128.12	4.008	
18,900.00	12,904.51	18,517.01	12,560.24	81.36	81.31	-47.90	-5,730.57	-318.93	513.50	383.40	130.11	3.947	
19,000.00	12,905.39	18,617.01	12,561.11	82.69	82.65	-47.90	-5,830.57	-318.07	513.51	381.41	132.09	3.887	
19,100.00	12,906.26	18,717.01	12,561.99	84.02	83.99	-47.90	-5,930.56	-317.21	513.51	379.42	134.09	3.830	
19,200.00	12,907.14	18,817.01	12,562.86	85.35	85.33	-47.90	-6,030.55	-316.35	513.52	377.43	136.08	3.774	
19,300.00	12,908.02	18,917.01	12,563.73	86.68	86.67	-47.90	-6,130.54	-315.49	513.52	375.43	138.08	3.719	
19,400.00	12,908.90	19,017.01	12,564.61	88.01	88.01	-47.90	-6,230.54	-314.63	513.52	373.43	140.09	3.666	
19,500.00	12,909.78	19,117.01	12,565.48	89.35	89.36	-47.90	-6,330.53	-313.77	513.53	371.43	142.10	3.614	
19,600.00	12,910.65	19,217.01	12,566.35	90.68	90.70	-47.90	-6,430.52	-312.90	513.53	369.42	144.11	3.564	
19,700.00	12,911.53	19,317.01	12,567.23	92.02	92.05	-47.90	-6,530.51	-312.04	513.53	367.41	146.12	3.514	
19,800.00	12,912.41	19,417.01	12,568.10	93.36	93.40	-47.89	-6,630.51	-311.18	513.54	365.40	148.14	3.467	
19,900.00	12,913.29	19,517.01	12,568.97	94.70	94.74	-47.89	-6,730.50	-310.32	513.54	363.38	150.16	3.420	
20,000.00	12,914.17	19,617.01	12,569.85	96.03	96.09	-47.89	-6,830.49	-309.46	513.54	361.36	152.18	3.375	
20,100.00	12,915.04	19,717.01	12,570.72	97.37	97.44	-47.89	-6,930.48	-308.60	513.55	359.34	154.21	3.330	
20,200.00	12,915.92	19,817.01	12,571.59	98.72	98.79	-47.89	-7,030.48	-307.74	513.55	357.32	156.23	3.287	
20,300.00	12,916.80	19,917.01	12,572.47	100.06	100.14	-47.89	-7,130.47	-306.88	513.55	355.29	158.26	3.245	
20,400.00	12,917.68	20,017.01	12,573.34	101.40	101.49	-47.89	-7,230.46	-306.02	513.56	353.26	160.30	3.204	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,500.00	12,918.55	20,117.01	12,574.21	102.74	102.84	-47.89	-7,330.45	-305.16	513.56	351.23	162.33	3.164			
20,600.00	12,919.43	20,217.01	12,575.09	104.09	104.19	-47.89	-7,430.45	-304.30	513.57	349.20	164.37	3.124			
20,700.00	12,920.31	20,317.01	12,575.96	105.43	105.54	-47.89	-7,530.44	-303.43	513.57	347.16	166.41	3.086			
20,800.00	12,921.19	20,417.01	12,576.83	106.78	106.89	-47.89	-7,630.43	-302.57	513.57	345.12	168.45	3.049			
20,900.00	12,922.07	20,517.01	12,577.71	108.12	108.25	-47.89	-7,730.42	-301.71	513.58	343.08	170.49	3.012			
21,000.00	12,922.94	20,617.01	12,578.58	109.47	109.60	-47.89	-7,830.42	-300.85	513.58	341.04	172.54	2.977			
21,100.00	12,923.82	20,717.01	12,579.45	110.81	110.95	-47.89	-7,930.41	-299.99	513.58	339.00	174.58	2.942			
21,200.00	12,924.70	20,817.01	12,580.33	112.16	112.31	-47.89	-8,030.40	-299.13	513.59	336.95	176.63	2.908			
21,300.00	12,925.58	20,917.01	12,581.20	113.51	113.66	-47.89	-8,130.39	-298.27	513.59	334.91	178.68	2.874			
21,400.00	12,926.46	21,017.01	12,582.07	114.86	115.02	-47.89	-8,230.39	-297.41	513.59	332.86	180.73	2.842			
21,500.00	12,927.33	21,117.01	12,582.94	116.21	116.37	-47.89	-8,330.38	-296.55	513.60	330.81	182.79	2.810			
21,600.00	12,928.21	21,217.01	12,583.82	117.56	117.73	-47.89	-8,430.37	-295.69	513.60	328.76	184.84	2.779			
21,700.00	12,929.09	21,317.01	12,584.69	118.91	119.08	-47.89	-8,530.36	-294.83	513.60	326.70	186.90	2.748			
21,800.00	12,929.97	21,417.01	12,585.56	120.26	120.44	-47.89	-8,630.36	-293.96	513.61	324.65	188.96	2.718			
21,900.00	12,930.84	21,517.01	12,586.44	121.61	121.79	-47.89	-8,730.35	-293.10	513.61	322.59	191.02	2.689			
22,000.00	12,931.72	21,617.01	12,587.31	122.96	123.15	-47.89	-8,830.34	-292.24	513.61	320.54	193.08	2.660			
22,100.00	12,932.60	21,717.01	12,588.18	124.31	124.51	-47.89	-8,930.33	-291.38	513.62	318.48	195.14	2.632			
22,200.00	12,933.48	21,817.01	12,589.06	125.66	125.87	-47.89	-9,030.33	-290.52	513.62	316.42	197.20	2.605			
22,300.00	12,934.36	21,917.01	12,589.93	127.02	127.22	-47.89	-9,130.32	-289.66	513.63	314.36	199.27	2.578			
22,400.00	12,935.23	22,017.01	12,590.80	128.37	128.58	-47.89	-9,230.31	-288.80	513.63	312.30	201.33	2.551			
22,500.00	12,936.11	22,117.01	12,591.68	129.72	129.94	-47.89	-9,330.30	-287.94	513.63	310.23	203.40	2.525			
22,600.00	12,936.99	22,217.01	12,592.55	131.08	131.30	-47.89	-9,430.30	-287.08	513.64	308.17	205.47	2.500			
22,700.00	12,937.87	22,317.01	12,593.42	132.43	132.66	-47.88	-9,530.29	-286.22	513.64	306.10	207.54	2.475			
22,800.00	12,938.75	22,417.01	12,594.30	133.78	134.01	-47.88	-9,630.28	-285.36	513.64	304.04	209.61	2.450			
22,900.00	12,939.62	22,517.01	12,595.17	135.14	135.37	-47.88	-9,730.27	-284.49	513.65	301.97	211.68	2.427			
23,000.00	12,940.50	22,617.01	12,596.04	136.49	136.73	-47.88	-9,830.27	-283.63	513.65	299.90	213.75	2.403			
23,100.00	12,941.38	22,717.01	12,596.92	137.85	138.09	-47.88	-9,930.26	-282.77	513.65	297.83	215.82	2.380			
23,108.90	12,941.46	22,725.91	12,596.99	137.96	138.21	-47.88	-9,939.16	-282.70	513.65	297.66	216.00	2.378			
23,193.48	12,942.20	22,806.75	12,597.70	139.00	139.31	-47.88	-10,020.00	-282.00	513.67	296.13	217.54	2.361	SF		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.00	0.00	0.00	0.00	0.50	0.50	0.00	235.00	0.00	235.00			
100.00	100.00	100.00	100.00	0.98	0.98	0.00	235.00	0.00	235.00	233.04	1.96	119.765
200.00	200.00	200.00	200.00	1.56	1.56	0.00	235.00	0.00	235.00	231.88	3.12	75.266
300.00	300.00	300.00	300.00	1.98	1.98	0.00	235.00	0.00	235.00	231.04	3.96	59.309
400.00	400.00	400.00	400.00	2.33	2.33	0.00	235.00	0.00	235.00	230.34	4.66	50.442
500.00	500.00	500.00	500.00	2.63	2.63	0.00	235.00	0.00	235.00	229.73	5.27	44.600
600.00	600.00	600.00	600.00	2.91	2.91	0.00	235.00	0.00	235.00	229.18	5.82	40.377
700.00	700.00	700.00	700.00	3.16	3.16	0.00	235.00	0.00	235.00	228.67	6.33	37.139
800.00	799.99	799.99	799.99	3.46	3.40	40.22	235.00	0.00	234.00	227.16	6.83	34.239
900.00	899.91	899.91	899.91	3.73	3.62	40.87	235.00	0.00	231.01	223.70	7.31	31.604
1,000.00	999.69	999.69	999.69	4.00	3.76	42.02	235.00	0.05	226.11	218.42	7.68	29.423
1,100.00	1,099.32	1,099.12	1,099.10	4.11	4.00	44.00	234.94	1.86	219.86	211.88	7.98	27.550
1,200.00	1,198.94	1,198.06	1,197.94	4.32	4.23	46.77	234.78	6.22	213.98	205.62	8.36	25.593
1,300.00	1,298.56	1,296.42	1,296.06	4.52	4.46	50.36	234.54	13.09	208.99	200.26	8.73	23.937
1,400.00	1,398.18	1,395.02	1,394.28	4.72	4.59	54.57	234.24	21.64	205.24	196.19	9.05	22.677
1,500.00	1,497.80	1,493.75	1,492.64	4.92	4.77	58.92	233.94	30.24	202.68	193.27	9.41	21.539
1,600.00	1,597.42	1,592.48	1,591.00	5.12	4.94	63.35	233.64	38.84	201.33	191.57	9.77	20.614
1,657.61	1,654.81	1,649.36	1,647.65	5.23	5.05	65.92	233.47	43.79	201.13	191.16	9.97	20.173
1,700.00	1,697.04	1,691.21	1,689.35	5.32	5.12	67.81	233.34	47.44	201.24	191.12	10.12	19.884
1,800.00	1,796.66	1,789.95	1,787.71	5.51	5.30	72.25	233.04	56.04	202.39	191.92	10.47	19.327
1,900.00	1,896.28	1,888.68	1,886.07	5.70	5.47	76.61	232.74	64.64	204.77	193.95	10.82	18.921
2,000.00	1,995.90	1,987.41	1,984.42	5.90	5.65	80.86	232.44	73.24	208.34	197.17	11.17	18.648
2,100.00	2,095.52	2,086.14	2,082.78	6.09	5.83	84.94	232.14	81.84	213.03	201.51	11.52	18.489
2,200.00	2,195.14	2,184.87	2,181.13	6.29	6.01	88.83	231.84	90.44	218.78	206.89	11.89	18.404
2,300.00	2,294.66	2,279.02	2,274.86	6.48	6.19	98.85	231.89	99.30	226.89	214.66	12.23	18.557
2,400.00	2,393.91	2,371.07	2,366.29	6.70	6.37	107.00	232.92	109.91	239.86	227.27	12.59	19.054
2,500.00	2,492.84	2,461.77	2,456.12	6.92	6.56	113.74	234.91	122.29	257.98	245.02	12.96	19.901
2,600.00	2,591.36	2,550.85	2,544.04	7.13	6.75	119.43	237.80	136.30	281.34	268.00	13.34	21.083
2,700.00	2,689.42	2,638.08	2,629.80	7.35	6.94	124.20	241.53	151.79	309.88	296.16	13.72	22.581
2,800.00	2,787.23	2,723.72	2,713.63	7.54	7.12	127.18	246.05	168.69	342.45	328.36	14.09	24.309
2,900.00	2,885.05	2,808.09	2,795.83	7.74	7.30	129.59	251.35	186.98	377.87	363.43	14.44	26.167
3,000.00	2,982.86	2,891.15	2,876.32	7.94	7.47	131.53	257.37	206.56	415.84	401.06	14.78	28.132
3,100.00	3,080.67	2,981.38	2,963.48	8.15	7.65	133.27	264.42	228.81	455.35	440.19	15.16	30.030
3,200.00	3,178.49	3,072.41	3,051.40	8.35	7.82	134.75	271.53	251.28	495.18	479.63	15.55	31.842
3,300.00	3,276.30	3,163.43	3,139.32	8.56	7.99	136.01	278.65	273.74	535.24	519.30	15.94	33.578
3,400.00	3,374.12	3,254.46	3,227.25	8.78	8.17	137.10	285.76	296.20	575.50	559.17	16.33	35.240
3,500.00	3,471.93	3,345.48	3,315.17	9.00	8.36	138.04	292.87	318.66	615.91	599.19	16.73	36.824
3,600.00	3,569.75	3,436.51	3,403.09	9.22	8.62	138.87	299.99	341.12	656.44	639.32	17.12	38.345
3,700.00	3,667.56	3,527.53	3,491.01	9.45	8.88	139.61	307.10	363.58	697.08	679.56	17.52	39.796
3,800.00	3,765.38	3,618.56	3,578.94	9.68	9.14	140.26	314.22	386.04	737.80	719.89	17.92	41.183
3,900.00	3,863.19	3,709.58	3,666.86	9.92	9.41	140.84	321.33	408.50	778.60	760.28	18.32	42.509
4,000.00	3,961.01	3,800.61	3,754.78	10.16	9.68	141.37	328.44	430.96	819.45	800.73	18.72	43.777
4,100.00	4,058.82	3,891.63	3,842.71	10.41	9.95	141.85	335.56	453.42	860.36	841.23	19.12	44.990
4,200.00	4,156.64	3,982.66	3,930.63	10.66	10.23	142.28	342.67	475.88	901.31	881.78	19.53	46.150
4,300.00	4,254.45	4,073.68	4,018.55	10.91	10.51	142.68	349.79	498.34	942.30	922.37	19.94	47.261
4,400.00	4,352.27	4,164.71	4,106.48	11.16	10.79	143.04	356.90	520.81	983.33	962.98	20.35	48.325
4,500.00	4,450.08	4,255.74	4,194.40	11.42	11.07	143.38	364.01	543.27	1,024.39	1,003.63	20.76	49.344
4,600.00	4,547.89	4,346.76	4,282.32	11.68	11.36	143.69	371.13	565.73	1,065.47	1,044.30	21.17	50.320
4,700.00	4,645.71	4,437.79	4,370.25	11.94	11.64	143.97	378.24	588.19	1,106.58	1,084.99	21.59	51.257
4,800.00	4,743.52	4,528.81	4,458.17	12.20	11.93	144.24	385.36	610.65	1,147.71	1,125.71	22.01	52.156
4,900.00	4,841.34	4,619.84	4,546.09	12.46	12.22	144.49	392.47	633.11	1,188.86	1,166.44	22.42	53.018
5,000.00	4,939.15	4,710.86	4,634.02	12.72	12.51	144.72	399.58	655.57	1,230.03	1,207.18	22.84	53.847

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
5,100.00	5,036.97	4,801.89	4,721.94	12.99	12.81	144.93	406.70	678.03	1,271.21	1,247.94	23.26	54.643
5,200.00	5,134.78	4,892.91	4,809.86	13.26	13.10	145.14	413.81	700.49	1,312.40	1,288.72	23.69	55.408
5,300.00	5,232.60	4,983.94	4,897.79	13.52	13.40	145.33	420.92	722.95	1,353.61	1,329.50	24.11	56.144
5,400.00	5,330.41	5,074.96	4,985.71	13.79	13.69	145.51	428.04	745.41	1,394.83	1,370.30	24.53	56.852
5,500.00	5,428.44	5,166.36	5,073.99	14.04	13.99	145.98	435.18	767.97	1,435.27	1,410.32	24.95	57.524
5,600.00	5,526.94	5,258.65	5,163.13	14.27	14.30	146.40	442.39	790.74	1,473.74	1,448.36	25.37	58.079
5,700.00	5,625.86	5,351.77	5,253.08	14.49	14.60	146.74	449.67	813.72	1,510.18	1,484.39	25.79	58.563
5,800.00	5,725.13	5,479.73	5,376.94	14.67	15.00	146.98	459.37	844.35	1,543.98	1,517.63	26.35	58.596
5,900.00	5,824.69	5,636.71	5,530.19	14.84	15.46	147.13	469.63	876.73	1,572.34	1,545.33	27.01	58.215
6,000.00	5,924.45	5,797.96	5,688.92	14.98	15.85	147.23	478.18	903.72	1,594.74	1,567.11	27.62	57.730
6,100.00	6,024.36	5,962.55	5,852.03	15.09	16.18	147.26	484.81	924.65	1,610.98	1,582.80	28.18	57.170
6,200.00	6,124.34	6,129.48	6,018.26	15.18	16.44	147.23	489.36	939.02	1,620.94	1,592.28	28.66	56.559
6,300.00	6,224.34	6,297.63	6,186.22	15.24	16.63	89.62	491.72	946.48	1,625.39	1,596.39	29.01	56.033
6,400.00	6,324.34	6,435.76	6,324.34	15.31	16.73	89.61	492.07	947.58	1,626.05	1,596.87	29.18	55.729
6,500.00	6,424.34	6,535.76	6,424.34	15.38	16.78	89.61	492.07	947.58	1,626.05	1,596.74	29.30	55.488
6,600.00	6,524.34	6,635.76	6,524.34	15.45	16.84	89.61	492.07	947.58	1,626.05	1,596.62	29.43	55.249
6,700.00	6,624.34	6,735.76	6,624.34	15.52	16.90	89.61	492.07	947.58	1,626.05	1,596.49	29.56	55.012
6,800.00	6,724.34	6,835.76	6,724.34	15.59	16.96	89.61	492.07	947.58	1,626.05	1,596.36	29.69	54.775
6,900.00	6,824.34	6,935.76	6,824.34	15.66	17.02	89.61	492.07	947.58	1,626.05	1,596.23	29.81	54.540
7,000.00	6,924.34	7,035.76	6,924.34	15.73	17.08	89.61	492.07	947.58	1,626.05	1,596.11	29.94	54.307
7,100.00	7,024.34	7,135.76	7,024.34	15.80	17.13	89.61	492.07	947.58	1,626.05	1,595.98	30.07	54.075
7,200.00	7,124.34	7,235.76	7,124.34	15.87	17.19	89.61	492.07	947.58	1,626.05	1,595.85	30.20	53.844
7,300.00	7,224.34	7,335.76	7,224.34	15.94	17.25	89.61	492.07	947.58	1,626.05	1,595.72	30.33	53.615
7,400.00	7,324.34	7,435.76	7,324.34	16.01	17.31	89.61	492.07	947.58	1,626.05	1,595.59	30.46	53.387
7,500.00	7,424.34	7,535.76	7,424.34	16.09	17.37	89.61	492.07	947.58	1,626.05	1,595.46	30.59	53.160
7,600.00	7,524.34	7,635.76	7,524.34	16.16	17.43	89.61	492.07	947.58	1,626.05	1,595.33	30.72	52.935
7,700.00	7,624.34	7,735.76	7,624.34	16.23	17.49	89.61	492.07	947.58	1,626.05	1,595.20	30.85	52.711
7,800.00	7,724.34	7,835.76	7,724.34	16.30	17.55	89.61	492.07	947.58	1,626.05	1,595.07	30.98	52.489
7,900.00	7,824.34	7,935.76	7,824.34	16.37	17.61	89.61	492.07	947.58	1,626.05	1,594.94	31.11	52.268
8,000.00	7,924.34	8,035.76	7,924.34	16.44	17.67	89.61	492.07	947.58	1,626.05	1,594.81	31.24	52.048
8,100.00	8,024.34	8,135.76	8,024.34	16.51	17.73	89.61	492.07	947.58	1,626.05	1,594.67	31.37	51.829
8,200.00	8,124.34	8,235.76	8,124.34	16.58	17.79	89.61	492.07	947.58	1,626.05	1,594.54	31.50	51.612
8,300.00	8,224.34	8,335.76	8,224.34	16.66	17.85	89.61	492.07	947.58	1,626.05	1,594.41	31.64	51.397
8,400.00	8,324.34	8,435.76	8,324.34	16.73	17.91	89.61	492.07	947.58	1,626.05	1,594.28	31.77	51.182
8,500.00	8,424.34	8,535.76	8,424.34	16.80	17.98	89.61	492.07	947.58	1,626.05	1,594.15	31.90	50.969
8,600.00	8,524.34	8,635.76	8,524.34	16.87	18.04	89.61	492.07	947.58	1,626.05	1,594.01	32.04	50.757
8,700.00	8,624.34	8,735.76	8,624.34	16.94	18.10	89.61	492.07	947.58	1,626.05	1,593.88	32.17	50.547
8,800.00	8,724.34	8,835.76	8,724.34	17.01	18.16	89.61	492.07	947.58	1,626.05	1,593.75	32.30	50.338
8,900.00	8,824.34	8,935.76	8,824.34	17.09	18.22	89.61	492.07	947.58	1,626.05	1,593.61	32.44	50.130
9,000.00	8,924.34	9,035.76	8,924.34	17.16	18.28	89.61	492.07	947.58	1,626.05	1,593.48	32.57	49.924
9,100.00	9,024.34	9,135.76	9,024.34	17.23	18.35	89.61	492.07	947.58	1,626.05	1,593.34	32.71	49.719
9,200.00	9,124.34	9,235.76	9,124.34	17.30	18.41	89.61	492.07	947.58	1,626.05	1,593.21	32.84	49.515
9,300.00	9,224.34	9,335.76	9,224.34	17.38	18.47	89.61	492.07	947.58	1,626.05	1,593.07	32.97	49.312
9,400.00	9,324.34	9,435.76	9,324.34	17.45	18.53	89.61	492.07	947.58	1,626.05	1,592.94	33.11	49.111
9,500.00	9,424.34	9,535.76	9,424.34	17.52	18.60	89.61	492.07	947.58	1,626.05	1,592.80	33.25	48.911
9,600.00	9,524.34	9,635.76	9,524.34	17.59	18.66	89.61	492.07	947.58	1,626.05	1,592.67	33.38	48.712
9,700.00	9,624.34	9,735.76	9,624.34	17.67	18.72	89.61	492.07	947.58	1,626.05	1,592.53	33.52	48.514
9,800.00	9,724.34	9,835.76	9,724.34	17.74	18.79	89.61	492.07	947.58	1,626.05	1,592.39	33.65	48.318
9,900.00	9,824.34	9,935.76	9,824.34	17.81	18.85	89.61	492.07	947.58	1,626.05	1,592.26	33.79	48.123
10,000.00	9,924.34	10,035.76	9,924.34	17.89	18.91	89.61	492.07	947.58	1,626.05	1,592.12	33.93	47.929
10,100.00	10,024.34	10,135.76	10,024.34	17.96	18.98	89.61	492.07	947.58	1,626.05	1,591.98	34.06	47.736
10,200.00	10,124.34	10,235.76	10,124.34	18.03	19.04	89.61	492.07	947.58	1,626.05	1,591.85	34.20	47.545

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	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)				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned: Distance			Offset Well Error: 0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.00	10,224.34	10,335.76	10,224.34	18.11	19.10	89.61	492.07	947.58	1,626.05	1,591.71	34.34	47.355		
10,400.00	10,324.34	10,435.76	10,324.34	18.18	19.17	89.61	492.07	947.58	1,626.05	1,591.57	34.47	47.166		
10,500.00	10,424.34	10,535.76	10,424.34	18.25	19.23	89.61	492.07	947.58	1,626.05	1,591.43	34.61	46.978		
10,600.00	10,524.34	10,635.76	10,524.34	18.33	19.30	89.61	492.07	947.58	1,626.05	1,591.30	34.75	46.792		
10,700.00	10,624.34	10,735.76	10,624.34	18.40	19.36	89.61	492.07	947.58	1,626.05	1,591.16	34.89	46.606		
10,800.00	10,724.34	10,835.76	10,724.34	18.47	19.43	89.61	492.07	947.58	1,626.05	1,591.02	35.03	46.422		
10,900.00	10,824.34	10,935.76	10,824.34	18.55	19.49	89.61	492.07	947.58	1,626.05	1,590.88	35.17	46.239		
11,000.00	10,924.34	11,035.76	10,924.34	18.62	19.56	89.61	492.07	947.58	1,626.05	1,590.74	35.30	46.057		
11,100.00	11,024.34	11,135.76	11,024.34	18.69	19.62	89.61	492.07	947.58	1,626.05	1,590.60	35.44	45.877		
11,200.00	11,124.34	11,235.76	11,124.34	18.77	19.69	89.61	492.07	947.58	1,626.05	1,590.46	35.58	45.697		
11,300.00	11,224.34	11,335.76	11,224.34	18.84	19.75	89.61	492.07	947.58	1,626.05	1,590.33	35.72	45.519		
11,400.00	11,324.34	11,435.76	11,324.34	18.92	19.82	89.61	492.07	947.58	1,626.05	1,590.19	35.86	45.341		
11,500.00	11,424.34	11,535.76	11,424.34	18.99	19.88	89.61	492.07	947.58	1,626.05	1,590.05	36.00	45.165		
11,600.00	11,524.34	11,635.76	11,524.34	19.06	19.95	89.61	492.07	947.58	1,626.05	1,589.91	36.14	44.990		
11,700.00	11,624.34	11,735.76	11,624.34	19.14	20.01	89.61	492.07	947.58	1,626.05	1,589.77	36.28	44.816		
11,800.00	11,724.34	11,835.76	11,724.34	19.21	20.08	89.61	492.07	947.58	1,626.05	1,589.62	36.42	44.644		
11,900.00	11,824.34	11,935.76	11,824.34	19.29	20.14	89.61	492.07	947.58	1,626.05	1,589.48	36.56	44.472		
12,000.00	11,924.34	12,035.76	11,924.34	19.36	20.20	89.61	492.07	947.58	1,626.05	1,589.35	36.70	44.312		
12,001.65	11,926.00	12,037.42	11,926.00	19.36	20.20	89.61	492.07	947.58	1,626.05	1,589.35	36.70	44.310		
12,100.00	12,024.34	12,134.66	12,022.92	19.44	20.27	89.84	485.59	947.64	1,626.07	1,589.32	36.75	44.249		
12,200.00	12,124.34	12,228.62	12,114.25	19.51	20.32	90.60	463.97	947.82	1,626.37	1,589.61	36.76	44.239		
12,300.00	12,224.34	12,313.59	12,192.81	19.59	20.35	91.73	431.80	948.10	1,627.58	1,590.81	36.77	44.267		
12,400.00	12,324.31	12,388.36	12,257.34	19.64	20.38	-92.32	394.15	948.42	1,630.61	1,593.86	36.75			

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,400.00	12,873.78	15,087.20	12,528.66	36.97	40.05	-78.53	-2,219.48	970.93	1,735.68	1,662.09	73.59	23.584	
15,500.00	12,874.66	15,187.20	12,529.54	38.11	41.22	-78.53	-2,319.47	971.79	1,735.68	1,659.74	75.94	22.856	
15,600.00	12,875.54	15,287.20	12,530.41	39.27	42.39	-78.53	-2,419.46	972.65	1,735.68	1,657.37	78.31	22.164	
15,700.00	12,876.42	15,387.20	12,531.28	40.45	43.58	-78.53	-2,519.46	973.52	1,735.69	1,654.99	80.70	21.508	
15,800.00	12,877.29	15,487.20	12,532.16	41.63	44.78	-78.53	-2,619.45	974.38	1,735.69	1,652.58	83.11	20.885	
15,900.00	12,878.17	15,587.20	12,533.03	42.83	45.99	-78.53	-2,719.44	975.24	1,735.69	1,650.16	85.53	20.293	
16,000.00	12,879.05	15,687.20	12,533.91	44.03	47.21	-78.53	-2,819.43	976.10	1,735.69	1,647.72	87.97	19.730	
16,100.00	12,879.93	15,787.20	12,534.78	45.25	48.44	-78.53	-2,919.43	976.96	1,735.69	1,645.27	90.43	19.195	
16,200.00	12,880.81	15,887.20	12,535.65	46.48	49.67	-78.53	-3,019.42	977.82	1,735.69	1,642.80	92.89	18.685	
16,300.00	12,881.68	15,987.20	12,536.53	47.71	50.91	-78.53	-3,119.41	978.68	1,735.70	1,640.32	95.37	18.199	
16,400.00	12,882.56	16,087.20	12,537.40	48.95	52.16	-78.53	-3,219.40	979.54	1,735.70	1,637.83	97.86	17.736	
16,500.00	12,883.44	16,187.20	12,538.27	50.20	53.41	-78.53	-3,319.40	980.41	1,735.70	1,635.33	100.37	17.294	
16,600.00	12,884.32	16,287.20	12,539.15	51.45	54.67	-78.53	-3,419.39	981.27	1,735.70	1,632.82	102.88	16.872	
16,700.00	12,885.19	16,387.20	12,540.02	52.71	55.93	-78.53	-3,519.38	982.13	1,735.70	1,630.31	105.40	16.468	
16,800.00	12,886.07	16,487.20	12,540.89	53.98	57.20	-78.53	-3,619.37	982.99	1,735.70	1,627.78	107.92	16.083	
16,900.00	12,886.95	16,587.20	12,541.77	55.25	58.47	-78.53	-3,719.37	983.85	1,735.71	1,625.24	110.46	15.713	
17,000.00	12,887.83	16,687.20	12,542.64	56.53	59.75	-78.53	-3,819.36	984.71	1,735.71	1,622.70	113.00	15.360	
17,100.00	12,888.71	16,787.20	12,543.52	57.81	61.03	-78.53	-3,919.35	985.57	1,735.71	1,620.16	115.55	15.021	
17,200.00	12,889.58	16,887.20	12,544.39	59.09	62.32	-78.53	-4,019.34	986.43	1,735.71	1,617.60	118.11	14.696	
17,300.00	12,890.46	16,987.20	12,545.26	60.38	63.60	-78.53	-4,119.34	987.29	1,735.71	1,615.04	120.67	14.384	
17,400.00	12,891.34	17,087.20	12,546.14	61.67	64.90	-78.53	-4,219.33	988.16	1,735.71	1,612.47	123.24	14.084	
17,500.00	12,892.22	17,187.20	12,547.01	62.97	66.19	-78.53	-4,319.32	989.02	1,735.72	1,609.90	125.81	13.796	
17,600.00	12,893.10	17,287.20	12,547.88	64.27	67.49	-78.53	-4,419.31	989.88	1,735.72	1,607.33	128.39	13.519	
17,700.00	12,893.97	17,387.20											

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
20,600.00	12,919.43	20,287.20	12,574.09	104.09	107.27	-78.52	-7,419.09	1,015.71	1,735.77	1,528.70	207.07	8.383
20,700.00	12,920.31	20,387.20	12,574.96	105.43	108.61	-78.52	-7,519.08	1,016.57	1,735.77	1,526.05	209.72	8.277
20,800.00	12,921.19	20,487.20	12,575.84	106.78	109.95	-78.52	-7,619.07	1,017.43	1,735.77	1,523.40	212.37	8.173
20,900.00	12,922.07	20,587.20	12,576.71	108.12	111.30	-78.52	-7,719.07	1,018.30	1,735.77	1,520.75	215.02	8.073
21,000.00	12,922.94	20,687.20	12,577.59	109.47	112.64	-78.52	-7,819.06	1,019.16	1,735.77	1,518.10	217.67	7.974
21,100.00	12,923.82	20,787.20	12,578.46	110.81	113.99	-78.52	-7,919.05	1,020.02	1,735.77	1,515.45	220.33	7.878
21,200.00	12,924.70	20,887.20	12,579.33	112.16	115.33	-78.52	-8,019.04	1,020.88	1,735.78	1,512.79	222.98	7.784
21,300.00	12,925.58	20,987.20	12,580.21	113.51	116.68	-78.52	-8,119.04	1,021.74	1,735.78	1,510.14	225.64	7.693
21,400.00	12,926.46	21,087.20	12,581.08	114.86	118.03	-78.52	-8,219.03	1,022.60	1,735.78	1,507.49	228.29	7.603
21,500.00	12,927.33	21,187.20	12,581.95	116.21	119.37	-78.52	-8,319.02	1,023.46	1,735.78	1,504.83	230.95	7.516
21,600.00	12,928.21	21,287.20	12,582.83	117.56	120.72	-78.52	-8,419.01	1,024.32	1,735.78	1,502.18	233.61	7.430
21,700.00	12,929.09	21,387.20	12,583.70	118.91	122.07	-78.52	-8,519.01	1,025.19	1,735.78	1,499.52	236.27	7.347
21,800.00	12,929.97	21,487.20	12,584.57	120.26	123.42	-78.52	-8,619.00	1,026.05	1,735.79	1,496.86	238.92	7.265
21,900.00	12,930.84	21,587.20	12,585.45	121.61	124.77	-78.52	-8,718.99	1,026.91	1,735.79	1,494.20	241.58	7.185
22,000.00	12,931.72	21,687.20	12,586.32	122.96	126.12	-78.52	-8,818.98	1,027.77	1,735.79	1,491.54	244.25	7.107
22,100.00	12,932.60	21,787.20	12,587.19	124.31	127.47	-78.52	-8,918.98	1,028.63	1,735.79	1,488.88	246.91	7.030
22,200.00	12,933.48	21,887.20	12,588.07	125.66	128.82	-78.52	-9,018.97	1,029.49	1,735.79	1,486.22	249.57	6.955
22,300.00	12,934.36	21,987.20	12,588.94	127.02	130.17	-78.52	-9,118.96	1,030.35	1,735.79	1,483.56	252.23	6.882
22,400.00	12,935.23	22,087.20	12,589.82	128.37	131.52	-78.52	-9,218.95	1,031.21	1,735.80	1,480.90	254.89	6.810
22,500.00	12,936.11	22,187.20	12,590.69	129.72	132.87	-78.52	-9,318.94	1,032.07	1,735.80	1,478.24	257.56	6.739
22,600.00	12,936.99	22,287.20	12,591.56	131.08	134.23	-78.52	-9,418.94	1,032.94	1,735.80	1,475.58	260.22	6.670
22,700.00	12,937.87	22,387.20	12,592.44	132.43	135.58	-78.52	-9,518.93	1,033.80	1,735.80	1,472.91	262.89	6.603
22,800.00	12,938.75	22,487.20	12,593.31	133.78	136.93	-78.52	-9,618.92	1,034.66	1,735.80	1,470.25	265.55	6.537
22,900.00	12,939.62	22,587.20	12,594.18	135.14	138.29	-78.52	-9,718.91	1,035.52	1,735.80	1,467.59	268.22	6.472
23,000.00	12,940.50	22,687.20	12,595.06	136.49	139.64	-78.52	-9,818.91	1,036.38	1,735.81	1,464.92	270.88	6.408
23,100.00	12,941.38	22,787.20	12,595.93	137.85	140.99	-78.52	-9,918.90	1,037.24	1,735.81	1,462.26	273.55	6.345
23,108.27	12,941.45	22,795.46	12,596.00	137.95	141.10	-78.52	-9,927.17	1,037.31	1,735.81	1,462.05	273.76	6.341
23,193.48	12,942.20	22,875.30	12,596.70	139.00	142.19	-78.52	-10,007.00	1,038.00	1,735.82	1,459.97	275.84	6.293 SF

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Site Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:			Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	1.00	0.50	0.50	0.00	185.00	0.00	185.00					
100.00	100.00	99.00	100.00	0.98	0.97	0.00	185.00	0.00	185.00	183.05	1.95	94.633		
200.00	200.00	199.00	200.00	1.56	1.56	0.00	185.00	0.00	185.00	181.88	3.12	59.366		
300.00	300.00	299.00	300.00	1.98	1.98	0.00	185.00	0.00	185.00	181.04	3.96	46.740		
400.00	400.00	399.00	400.00	2.33	2.33	0.00	185.00	0.00	185.00	180.34	4.66	39.739		
500.00	500.00	499.00	500.00	2.63	2.63	0.00	185.00	0.00	185.00	179.73	5.27	35.131		
600.00	600.00	599.00	600.00	2.91	2.91	0.00	185.00	0.00	185.00	179.18	5.82	31.801		
700.00	700.00	699.00	700.00	3.16	3.16	0.00	185.00	0.00	185.00	178.67	6.33	29.249		
800.00	799.99	798.99	799.99	3.46	3.40	40.27	185.00	0.00	184.00	177.17	6.83	26.932		
900.00	899.91	898.91	899.91	3.73	3.62	41.10	185.00	0.00	181.02	173.71	7.31	24.774		
1,000.00	999.69	998.69	999.69	4.00	3.83	42.55	185.00	0.00	176.14	168.39	7.76	22.709		
1,100.00	1,099.32	1,098.32	1,099.32	4.11	4.03	44.52	185.00	0.00	169.92	161.85	8.07	21.068		
1,200.00	1,198.94	1,197.94	1,198.94	4.32	4.23	46.66	185.00	0.00	163.81	155.35	8.46	19.366		
1,300.00	1,298.56	1,297.56	1,298.56	4.52	4.42	48.95	185.00	0.00	157.94	149.10	8.84	17.867		
1,400.00	1,398.18	1,397.18	1,398.18	4.72	4.60	51.42	185.00	0.00	152.34	143.13	9.21	16.540		
1,500.00	1,497.80	1,496.80	1,497.80	4.92	4.77	54.07	185.00	0.00	147.05	137.48	9.57	15.364		
1,600.00	1,597.42	1,594.97	1,595.96	5.12	4.97	57.30	185.14	1.17	142.59	132.67	9.92	14.378		
1,700.00	1,697.04	1,692.74	1,693.66	5.32	5.16	61.61	185.59	4.83	139.83	129.58	10.25	13.644		
1,770.01	1,766.78	1,760.90	1,761.70	5.45	5.29	65.22	186.09	8.84	139.20	128.73	10.48	13.287	CC, ES	
1,800.00	1,796.66	1,790.02	1,790.74	5.51	5.34	66.89	186.34	10.92	139.33	128.75	10.57	13.176		
1,900.00	1,896.28	1,887.96	1,888.33	5.70	5.43	72.86	187.35	19.15	141.45	130.62	10.83	13.063		
2,000.00	1,995.90	1,986.78	1,986.78	5.90	5.57	78.71	188.40	27.70	145.29	134.12	11.14	13.038		
2,100.00	2,095.52	2,085.61	2,085.23	6.09	5.73	84.21	189.45	36.25	150.58	139.12	11.47	13.132		
2,200.00	2,195.14	2,184.44	2,183.68	6.29	5.88	89.30	190.50	44.80	157.19	145.39	11.80	13.316		
2,300.00	2,294.66	2,279.70	2,278.52	6.48	6.04	100.32	192.03	53.64	166.42	154.30	12.12	13.729		
2,400.00	2,393.91	2,373.32	2,371.51	6.70	6.21	109.20	195.01	64.05	180.72	168.26	12.46	14.502		
2,500.00	2,492.84	2,465.74	2,463.04	6.92	6.39	116.33	199.41	76.01	200.18	187.37	12.81	15.622		
2,600.00	2,591.36	2,556.71	2,552.83	7.13	6.56	122.08	205.16	89.42	224.71	211.54	13.17	17.057		
2,700.00	2,689.42	2,646.02	2,640.63	7.35	6.73	126.67	212.16	104.16	254.09	240.55	13.54	18.772		
2,800.00	2,787.23	2,736.05	2,728.78	7.54	6.90	129.34	220.49	120.47	286.93	273.04	13.89	20.652		
2,900.00	2,885.05	2,829.56	2,820.25	7.74	7.06	131.51	229.42	137.73	320.66	306.40	14.26	22.480		
3,000.00	2,982.86	2,923.06	2,911.71	7.94	7.22	133.28	238.35	155.00	354.72	340.09	14.64	24.232		
3,100.00	3,080.67	3,016.57	3,003.17	8.15	7.38	134.73	247.27	172.26	389.03	374.02	15.01	25.911		
3,200.00	3,178.49	3,110.07	3,094.64	8.35	7.54	135.95	256.20	189.52	423.53	408.14	15.39	27.516		
3,300.00	3,276.30	3,203.58	3,186.10	8.56	7.71	136.99	265.13	206.79	458.18	442.40	15.77	29.049		
3,400.00	3,374.12	3,297.08	3,277.56	8.78	7.88	137.89	274.06	224.05	492.94	476.78	16.16	30.512		
3,500.00	3,471.93	3,390.59	3,369.03	9.00	8.05	138.66	282.99	241.31	527.79	511.25	16.54	31.909		
3,600.00	3,569.75	3,484.10	3,460.49	9.22	8.25	139.34	291.92	258.58	562.71	545.78	16.93	33.241		
3,700.00	3,667.56	3,577.60	3,551.95	9.45	8.47	139.94	300.84	275.84	597.70	580.38	17.32	34.514		
3,800.00	3,765.38	3,671.11	3,643.42	9.68	8.68	140.48	309.77	293.10	632.74	615.03	17.71	35.729		
3,900.00	3,863.19	3,764.61	3,734.88	9.92	8.90	140.96	318.70	310.37	667.82	649.72	18.10	36.890		
4,000.00	3,961.01	3,858.12	3,826.34	10.16	9.13	141.39	327.63	327.63	702.94	684.44	18.50	37.998		
4,100.00	4,058.82	3,951.62	3,917.81	10.41	9.35	141.78	336.56	344.89	738.09	719.19	18.90	39.058		
4,200.00	4,156.64	4,045.13	4,009.27	10.66	9.58	142.13	345.48	362.16	773.27	753.97	19.30	40.071		
4,300.00	4,254.45	4,138.64	4,100.73	10.91	9.80	142.46	354.41	379.42	808.47	788.77	19.70	41.041		
4,400.00	4,352.27	4,232.14	4,192.20	11.16	10.03	142.75	363.34	396.68	843.69	823.59	20.10	41.969		
4,500.00	4,450.08	4,325.65	4,283.66	11.42	10.27	143.03	372.27	413.95	878.93	858.43	20.51	42.858		
4,600.00	4,547.89	4,419.15	4,375.12	11.68	10.50	143.28	381.20	431.21	914.19	893.28	20.92	43.710		
4,700.00	4,645.71	4,512.66	4,466.59	11.94	10.73	143.51	390.12	448.47	949.46	928.14	21.32	44.526		
4,800.00	4,743.52	4,606.16	4,558.05	12.20	10.97	143.73	399.05	465.74	984.75	963.01	21.73	45.310		
4,900.00	4,841.34	4,699.67	4,649.51	12.46	11.21	143.93	407.98	483.00	1,020.04	997.90	22.14	46.062		
5,000.00	4,939.15	4,793.17	4,740.98	12.72	11.45	144.12	416.91	500.26	1,055.35	1,032.79	22.56	46.784		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
5,100.00	5,036.97	4,886.68	4,832.44	12.99	11.68	144.30	425.84	517.53	1,090.66	1,067.69	22.97	47.478	
5,200.00	5,134.78	4,980.19	4,923.90	13.26	11.93	144.46	434.77	534.79	1,125.99	1,102.60	23.39	48.145	
5,300.00	5,232.60	5,073.69	5,015.37	13.52	12.17	144.62	443.69	552.05	1,161.32	1,137.51	23.80	48.787	
5,400.00	5,330.41	5,171.11	5,110.67	13.79	12.40	144.77	452.98	570.02	1,196.64	1,172.43	24.22	49.417	
5,500.00	5,428.44	5,303.24	5,240.45	14.04	12.71	145.24	464.35	592.00	1,229.42	1,204.64	24.78	49.612	
5,600.00	5,526.94	5,438.89	5,374.49	14.27	12.99	145.69	473.87	610.41	1,257.17	1,231.82	25.34	49.603	
5,700.00	5,625.86	5,577.53	5,512.18	14.49	13.25	146.08	481.34	624.84	1,279.71	1,253.84	25.87	49.459	
5,800.00	5,725.13	5,718.59	5,652.76	14.67	13.46	146.42	486.57	634.96	1,296.93	1,270.57	26.36	49.202	
5,900.00	5,824.69	5,861.39	5,795.43	14.84	13.62	146.72	489.44	640.51	1,308.70	1,281.91	26.79	48.851	
6,000.00	5,924.45	5,990.43	5,924.45	14.98	13.70	146.96	489.99	641.57	1,315.16	1,288.09	27.07	48.581	
6,100.00	6,024.36	6,090.34	6,024.36	15.09	13.77	147.09	489.99	641.57	1,318.68	1,291.39	27.29	48.321	
6,200.00	6,124.34	6,190.32	6,124.34	15.18	13.84	147.14	489.99	641.57	1,320.02	1,292.53	27.49	48.021	
6,300.00	6,224.34	6,290.32	6,224.34	15.24	13.92	89.61	489.99	641.57	1,320.03	1,292.41	27.62	47.797	
6,400.00	6,324.34	6,390.32	6,324.34	15.31	13.99	89.61	489.99	641.57	1,320.03	1,292.27	27.76	47.556	
6,500.00	6,424.34	6,490.32	6,424.34	15.38	14.06	89.61	489.99	641.57	1,320.03	1,292.13	27.90	47.318	
6,600.00	6,524.34	6,590.32	6,524.34	15.45	14.14	89.61	489.99	641.57	1,320.03	1,291.99	28.04	47.082	
6,700.00	6,624.34	6,690.32	6,624.34	15.52	14.21	89.61	489.99	641.57	1,320.03	1,291.85	28.18	46.847	
6,800.00	6,724.34	6,790.32	6,724.34	15.59	14.28	89.61	489.99	641.57	1,320.03	1,291.71	28.32	46.615	
6,900.00	6,824.34	6,890.32	6,824.34	15.66	14.36	89.61	489.99	641.57	1,320.03	1,291.57	28.46	46.384	
7,000.00	6,924.34	6,990.32	6,924.34	15.73	14.43	89.61	489.99	641.57	1,320.03	1,291.43	28.60	46.155	
7,100.00	7,024.34	7,090.32	7,024.34	15.80	14.51	89.61	489.99	641.57	1,320.03	1,291.29	28.74	45.929	
7,200.00	7,124.34	7,190.32	7,124.34	15.87	14.58	89.61	489.99	641.57	1,320.03	1,291.15	28.88	45.704	
7,300.00	7,224.34	7,290.32	7,224.34	15.94	14.65	89.61	489.99	641.57	1,320.03	1,291.01	29.02	45.480	
7,400.00	7,324.34	7,390.32	7,324.34	16.01	14.73	89.61	489.99	641.57	1,320.03	1,290.86	29.17	45.259	
7,500.00	7,424.34	7,490.32	7,424.34	16.09	14.80	89.61	489.99	641.57	1,320.03	1,290.72	29.31	45.040	
7,600.00	7,524.34	7,590.32	7,524.34	16.16	14.88	89.61	489.99	641.57	1,320.03	1,290.58	29.45	44.822	
7,700.00	7,624.34	7,690.32	7,624.34	16.23	14.95	89.61	489.99	641.57	1,320.03	1,290.44	29.59	44.606	
7,800.00	7,724.34	7,790.32	7,724.34	16.30	15.02	89.61	489.99	641.57	1,320.03	1,290.29	29.74	44.392	
7,900.00	7,824.34	7,890.32	7,824.34	16.37	15.10	89.61	489.99	641.57	1,320.03	1,290.15	29.88	44.179	
8,000.00	7,924.34	7,990.32	7,924.34	16.44	15.17	89.61	489.99	641.57	1,320.03	1,290.01	30.02	43.969	
8,100.00	8,024.34	8,090.32	8,024.34	16.51	15.25	89.61	489.99	641.57	1,320.03	1,289.87	30.17	43.760	
8,200.00	8,124.34	8,190.32	8,124.34	16.58	15.32	89.61	489.99	641.57	1,320.03	1,289.72	30.31	43.552	
8,300.00	8,224.34	8,290.32	8,224.34	16.66	15.40	89.61	489.99	641.57	1,320.03	1,289.58	30.45	43.347	
8,400.00	8,324.34	8,390.32	8,324.34	16.73	15.47	89.61	489.99	641.57	1,320.03	1,289.43	30.60	43.143	
8,500.00	8,424.34	8,490.32	8,424.34	16.80	15.55	89.61	489.99	641.57	1,320.03	1,289.29	30.74	42.940	
8,600.00	8,524.34	8,590.32	8,524.34	16.87	15.62	89.61	489.99	641.57	1,320.03	1,289.15	30.89	42.740	
8,700.00	8,624.34	8,690.32	8,624.34	16.94	15.70	89.61	489.99	641.57	1,320.03	1,289.00	31.03	42.540	
8,800.00	8,724.34	8,790.32	8,724.34	17.01	15.77	89.61	489.99	641.57	1,320.03	1,288.86	31.17	42.343	
8,900.00	8,824.34	8,890.32	8,824.34	17.09	15.85	89.61	489.99	641.57	1,320.03	1,288.71	31.32	42.147	
9,000.00	8,924.34	8,990.32	8,924.34	17.16	15.92	89.61	489.99	641.57	1,320.03	1,288.57	31.46	41.953	
9,100.00	9,024.34	9,090.32	9,024.34	17.23	16.00	89.61	489.99	641.57	1,320.03	1,288.42	31.61	41.760	
9,200.00	9,124.34	9,190.32	9,124.34	17.30	16.07	89.61	489.99	641.57	1,320.03	1,288.28	31.76	41.569	
9,300.00	9,224.34	9,290.32	9,224.34	17.38	16.15	89.61	489.99	641.57	1,320.03	1,288.13	31.90	41.379	
9,400.00	9,324.34	9,390.32	9,324.34	17.45	16.23	89.61	489.99	641.57	1,320.03	1,287.98	32.05	41.191	
9,500.00	9,424.34	9,490.32	9,424.34	17.52	16.30	89.61	489.99	641.57	1,320.03	1,287.84	32.19	41.004	
9,600.00	9,524.34	9,590.32	9,524.34	17.59	16.38	89.61	489.99	641.57	1,320.03	1,287.69	32.34	40.819	
9,700.00	9,624.34	9,690.32	9,624.34	17.67	16.45	89.61	489.99	641.57	1,320.03	1,287.55	32.49	40.635	
9,800.00	9,724.34	9,790.32	9,724.34	17.74	16.53	89.61	489.99	641.57	1,320.03	1,287.40	32.63	40.453	
9,900.00	9,824.34	9,890.32	9,824.34	17.81	16.60	89.61	489.99	641.57	1,320.03	1,287.25	32.78	40.272	
10,000.00	9,924.34	9,990.32	9,924.34	17.89	16.68	89.61	489.99	641.57	1,320.03	1,287.11	32.92	40.092	
10,100.00	10,024.34	10,090.32	10,024.34	17.96	16.76	89.61	489.99	641.57	1,320.03	1,286.96	33.07	39.914	
10,200.00	10,124.34	10,190.32	10,124.34	18.03	16.83	89.61	489.99	641.57	1,320.03	1,286.81	33.22	39.738	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.50 usft		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,224.34	10,290.32	10,224.34	18.11	16.91	89.61	489.99	641.57	1,320.03	1,286.66	33.37	39.562	
10,400.00	10,324.34	10,390.32	10,324.34	18.18	16.99	89.61	489.99	641.57	1,320.03	1,286.52	33.51	39.388	
10,500.00	10,424.34	10,490.32	10,424.34	18.25	17.06	89.61	489.99	641.57	1,320.03	1,286.37	33.66	39.216	
10,600.00	10,524.34	10,590.32	10,524.34	18.33	17.14	89.61	489.99	641.57	1,320.03	1,286.22	33.81	39.044	
10,700.00	10,624.34	10,690.32	10,624.34	18.40	17.21	89.61	489.99	641.57	1,320.03	1,286.07	33.96	38.875	
10,800.00	10,724.34	10,790.32	10,724.34	18.47	17.29	89.61	489.99	641.57	1,320.03	1,285.93	34.10	38.706	
10,900.00	10,824.34	10,890.32	10,824.34	18.55	17.37	89.61	489.99	641.57	1,320.03	1,285.78	34.25	38.539	
11,000.00	10,924.34	10,990.32	10,924.34	18.62	17.44	89.61	489.99	641.57	1,320.03	1,285.63	34.40	38.373	
11,100.00	11,024.34	11,090.32	11,024.34	18.69	17.52	89.61	489.99	641.57	1,320.03	1,285.48	34.55	38.208	
11,200.00	11,124.34	11,190.32	11,124.34	18.77	17.60	89.61	489.99	641.57	1,320.03	1,285.33	34.70	38.045	
11,300.00	11,224.34	11,290.32	11,224.34	18.84	17.67	89.61	489.99	641.57	1,320.03	1,285.19	34.85	37.882	
11,400.00	11,324.34	11,390.32	11,324.34	18.92	17.75	89.61	489.99	641.57	1,320.03	1,285.04	34.99	37.721	
11,500.00	11,424.34	11,490.32	11,424.34	18.99	17.83	89.61	489.99	641.57	1,320.03	1,284.89	35.14	37.562	
11,600.00	11,524.34	11,590.32	11,524.34	19.06	17.90	89.61	489.99	641.57	1,320.03	1,284.74	35.29	37.403	
11,700.00	11,624.34	11,690.32	11,624.34	19.14	17.98	89.61	489.99	641.57	1,320.03	1,284.59	35.44	37.246	
11,800.00	11,724.34	11,790.32	11,724.34	19.21	18.06	89.61	489.99	641.57	1,320.03	1,284.44	35.59	37.090	
11,900.00	11,824.34	11,890.32	11,824.34	19.29	18.13	89.61	489.99	641.57	1,320.03	1,284.29	35.74	36.935	
12,000.00	11,924.34	11,990.32	11,924.34	19.36	18.21	89.61	489.99	641.57	1,320.03	1,284.14	35.89	36.781	
12,100.00	12,024.34	12,090.32	12,024.34	19.44	18.29	89.61	489.99	641.57	1,320.03	1,283.99	36.04	36.628	
12,200.00	12,124.34	12,190.32	12,124.34	19.51	18.36	89.61	489.99	641.57	1,320.03	1,283.84	36.19	36.477	
12,300.00	12,224.34	12,290.32	12,224.34	19.59	18.44	89.61	489.99	641.57	1,320.03	1,283.69	36.34	36.326	
12,400.00	12,324.31	12,402.19	12,336.15	19.64	18.52	-95.88	487.80	641.36	1,320.02	1,283.61	36.40	36.259	
12,500.00	12,422.88	12,532.53	12,463.58	19.68	18.57	-95.70	461.91	638.87	1,319.61	1,283.38	36.23	36.426	
12,600.00	12,517.18	12,660.51	12,579.83	19.70	18.59	-95.28	409.28	633.80	1,318.73	1,282.81	35.93	36.706	
12,700.00	12,604.33	12,784.63	12,678.69	19.72	18.61	-94.66	334.97	626.64	1,317.54	1,281.98	35.55	37.056	
12,800.00	12,681.69	12,903.94	12,756.46	19.76	18.67	-93.89	245.19	618.00	1,316.21	1,281.03	35.18	37.410	
12,900.00	12,746.91	13,018.02	12,811.85	19.82	18.77	-93.01	146.13	608.46	1,314.97	1,280.06	34.90	37.676	
13,000.00	12,797.99	13,126.88	12,845.36	19.92	18.93	-92.06	43.20	598.55	1,313.96	1,279.18	34.78	37.779	
13,100.00	12,833.40	13,230.83	12,858.57	20.08	19.16	-91.07	-59.29	588.68	1,313.30	1,278.44	34.87	37.666	
13,129.13	12,840.60	13,255.79	12,859.01	20.14	19.22	-90.82	-84.13	586.30	1,313.21	1,278.28	34.94	37.590	
13,200.00	12,852.06	13,300.00	12,859.40	20.30	19.34	-90.45	-128.17	582.54	1,313.91	1,278.82	35.09	37.443	
13,300.00	12,855.35	13,372.23	12,860.03	20.57	19.59	-90.22	-200.25	577.86	1,316.68	1,281.15	35.52	37.064	
13,400.00	12,856.23	13,440.71	12,860.63	20.89	19.87	-90.20	-268.67	575.10	1,318.85	1,282.73	36.11	36.522	
13,500.00	12,857.10	13,509.17	12,861.22	21.25	20.18	-90.18	-337.12	573.97	1,319.91	1,283.10	36.81	35.856	
13,600.00	12,857.98	13,591.91	12,861.94	21.64	20.60	-90.17	-419.85	574.44	1,320.03	1,282.36	37.67	35.038	
13,700.00	12,858.86	13,691.91	12,862.81	22.08	21.19	-90.17	-519.85	575.30	1,320.03	1,281.21	38.83	33.998	
13,800.00	12,859.74	13,791.91	12,863.68	22.59	21.84	-90.17	-619.84	576.16	1,320.04	1,279.90	40.13	32.893	
13,900.00	12,860.61	13,891.91	12,864.54	23.15	22.56	-90.17	-719.83	577.02	1,320.04	1,278.46	41.58	31.750	
14,000.00	12,861.49	13,991.91	12,865.41	23.77	23.33	-90.17	-819.82	577.88	1,320.04	1,276.89	43.15	30.595	
14,100.00	12,862.37	14,091.91	12,866.28	24.45	24.16	-90.17	-919.82	578.75	1,320.04	1,275.21	44.83	29.447	
14,200.00	12,863.25	14,191.91	12,867.15	25.18	25.03	-90.17	-1,019.81	579.61	1,320.04	1,273.43	46.61	28.320	
14,300.00	12,864.13	14,291.91	12,868.02	25.97	25.95	-90.17	-1,119.80	580.47	1,320.04	1,271.55	48.48	27.226	
14,400.00	12,865.00	14,391.91	12,868.88	26.80	26.91	-90.17	-1,219.79	581.33	1,320.04	1,269.60	50.44	26.173	
14,500.00	12,865.88	14,491.91	12,869.75	27.67	27.91	-90.17	-1,319.79	582.19	1,320.04	1,267.58	52.46	25.164	
14,600.00	12,866.76	14,591.91	12,870.62	28.59	28.93	-90.17	-1,419.78	583.05	1,320.04	1,265.49	54.54	24.202	
14,700.00	12,867.64	14,691.91	12,871.49	29.54	29.98	-90.17	-1,519.77	583.91	1,320.04	1,263.35	56.68	23.288	
14,800.00	12,868.51	14,791.91	12,872.36	30.52	31.06	-90.17	-1,619.76	584.77	1,320.04	1,261.16	58.87	22.421	
14,900.00	12,869.39	14,891.91	12,873.22	31.54	32.17	-90.17	-1,719.76	585.63	1,320.04	1,258.93	61.11	21.601	
15,000.00	12,870.27	14,991.91	12,874.09	32.58	33.29	-90.17	-1,819.75	586.49	1,320.04	1,256.65	63.38	20.826	
15,100.00	12,871.15	15,091.91	12,874.96	33.65	34.43	-90.17	-1,919.74	587.35	1,320.04	1,254.34	65.69	20.093	
15,200.00	12,872.03	15,191.91	12,875.83	34.73	35.58	-90.17	-2,019.73	588.21	1,320.04	1,252.00	68.04	19.402	
15,300.00	12,872.90	15,291.91	12,876.70	35.84	36.76	-90.16	-2,119.73	589.07	1,320.04	1,249.63	70.41	18.748	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre			Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
15,400.00	12,873.78	15,391.91	12,877.56	36.97	37.94	-90.16	-2,219.72	589.93	1,320.04	1,247.24	72.81	18.131		
15,500.00	12,874.66	15,491.91	12,878.43	38.11	39.14	-90.16	-2,319.71	590.80	1,320.04	1,244.82	75.23	17.548		
15,600.00	12,875.54	15,591.91	12,879.30	39.27	40.35	-90.16	-2,419.70	591.66	1,320.04	1,242.37	77.67	16.996		
15,700.00	12,876.42	15,691.91	12,880.17	40.45	41.57	-90.16	-2,519.70	592.52	1,320.04	1,239.91	80.13	16.474		
15,800.00	12,877.29	15,791.91	12,881.04	41.63	42.80	-90.16	-2,619.69	593.38	1,320.04	1,237.44	82.61	15.980		
15,900.00	12,878.17	15,891.91	12,881.90	42.83	44.03	-90.16	-2,719.68	594.24	1,320.04	1,234.94	85.10	15.511		
16,000.00	12,879.05	15,991.91	12,882.77	44.03	45.28	-90.16	-2,819.67	595.10	1,320.04	1,232.43	87.61	15.067		
16,100.00	12,879.93	16,091.91	12,883.64	45.25	46.53	-90.16	-2,919.67	595.96	1,320.04	1,229.91	90.13	14.646		
16,200.00	12,880.81	16,191.91	12,884.51	46.48	47.79	-90.16	-3,019.66	596.82	1,320.04	1,227.38	92.67	14.245		
16,300.00	12,881.68	16,291.91	12,885.38	47.71	49.05	-90.16	-3,119.65	597.68	1,320.04	1,224.83	95.21	13.864		
16,400.00	12,882.56	16,391.91	12,886.24	48.95	50.32	-90.16	-3,219.64	598.54	1,320.04	1,222.27	97.77	13.501		
16,500.00	12,883.44	16,491.91	12,887.11	50.20	51.60	-90.16	-3,319.64	599.40	1,320.04	1,219.71	100.34	13.156		
16,600.00	12,884.32	16,591.91	12,887.98	51.45	52.88	-90.16	-3,419.63	600.26	1,320.04	1,217.13	102.91	12.827		
16,700.00	12,885.19	16,691.91	12,888.85	52.71	54.16	-90.16	-3,519.62	601.12	1,320.04	1,214.55	105.50	12.513		
16,800.00	12,886.07	16,791.91	12,889.72	53.98	55.45	-90.16	-3,619.61	601.98	1,320.05	1,211.96	108.09	12.213		
16,900.00	12,886.95	16,891.91	12,890.58	55.25	56.74	-90.16	-3,719.61	602.85	1,320.05	1,209.36	110.69	11.926		
17,000.00	12,887.83	16,991.91	12,891.45	56.53	58.04	-90.16	-3,819.60	603.71	1,320.05	1,206.75	113.29	11.652		
17,100.00	12,888.71	17,091.91	12,892.32	57.81	59.34	-90.16	-3,919.59	604.57	1,320.05	1,204.14	115.90	11.389		
17,200.00	12,889.58	17,191.91	12,893.19	59.09	60.64	-90.16	-4,019.58	605.43	1,320.05	1,201.53	118.52	11.138		
17,300.00	12,890.46	17,291.91	12,894.06	60.38	61.95	-90.16	-4,119.58	606.29	1,320.05	1,198.90	121.14	10.897		
17,400.00	12,891.34	17,391.91	12,894.92	61.67	63.26	-90.16	-4,219.57	607.15	1,320.05	1,196.28	123.77	10.665		
17,500.00	12,892.22	17,491.91	12,895.79	62.97	64.57	-90.16	-4,319.56	608.01	1,320.05	1,193.64	126.40	10.443		
17,600.00	12,893.10	17,591.91	12,896.66	64.27	65.88	-90.15	-4,419.55	608.87	1,320.05	1,191.01	129.04	10.230		
17,700.00	12,893.97	17,691.91	12,897.53	65.57	67.19	-90.15	-4,519.55	609.73	1,320.05	1,188.37	131.68	10.025		
17,800.00	12,894.85	17,791.91	12,898.40	66.87	68.51	-90.15	-4,619.54	610.59	1,320.05	1,185.72	134.33	9.827		
17,900.00	12,895.73	17,891.91	12,899.27	68.18	69.83	-90.15	-4,719.53	611.45	1,320.05	1,183.07	136.98	9.637		
18,000.00	12,896.61	17,991.91	12,900.13	69.49	71.15	-90.15	-4,819.52	612.31	1,320.05	1,180.42	139.63	9.454		
18,100.00	12,897.49	18,091.91	12,901.00	70.80	72.48	-90.15	-4,919.52	613.17	1,320.05	1,177.77	142.28	9.278		
18,200.00	12,898.36	18,191.91	12,901.87	72.11	73.80	-90.15	-5,019.51	614.03	1,320.05	1,175.11	144.94	9.107		
18,300.00	12,899.24	18,291.91	12,902.74	73.43	75.13	-90.15	-5,119.50	614.90	1,320.05	1,172.45	147.60	8.943		
18,400.00	12,900.12	18,391.91	12,903.61	74.75	76.46	-90.15	-5,219.49	615.76	1,320.05	1,169.78	150.27	8.785		
18,500.00	12,901.00	18,491.91	12,904.47	76.07	77.79	-90.15	-5,319.49	616.62	1,320.05	1,167.12	152.94	8.631		
18,600.00	12,901.87	18,591.91	12,905.34	77.39	79.12	-90.15	-5,419.48	617.48	1,320.05	1,164.45	155.61	8.483		
18,700.00	12,902.75	18,691.91	12,906.21	78.71	80.45	-90.15	-5,519.47	618.34	1,320.05	1,161.77	158.28	8.340		
18,800.00	12,903.63	18,791.91	12,907.08	80.04	81.78	-90.15	-5,619.46	619.20	1,320.05	1,159.10	160.95	8.202		
18,900.00	12,904.51	18,891.91	12,907.95	81.36	83.12	-90.15	-5,719.46	620.06	1,320.05	1,156.42	163.63	8.067		
19,000.00	12,905.39	18,991.91	12,908.81	82.69	84.46	-90.15	-5,819.45	620.92	1,320.05	1,153.75	166.31	7.937		
19,100.00	12,906.26	19,091.91	12,909.68	84.02	85.79	-90.15	-5,919.44	621.78	1,320.05	1,151.07	168.99	7.812		
19,200.00	12,907.14	19,191.91	12,910.55	85.35	87.13	-90.15	-6,019.43	622.64	1,320.05	1,148.38	171.67	7.690		
19,300.00	12,908.02	19,291.91	12,911.42	86.68	88.47	-90.15	-6,119.43	623.50	1,320.05	1,145.70	174.35	7.571		
19,400.00	12,908.90	19,391.91	12,912.29	88.01	89.81	-90.15	-6,219.42	624.36	1,320.05	1,143.01	177.04	7.456		
19,500.00	12,909.78	19,491.91	12,913.15	89.35	91.15	-90.15	-6,319.41	625.22	1,320.05	1,140.33	179.73	7.345		
19,600.00	12,910.65	19,591.91	12,914.02	90.68	92.49	-90.15	-6,419.40	626.08	1,320.05	1,137.64	182.42	7.237		
19,700.00	12,911.53	19,691.91	12,914.89	92.02	93.83	-90.15	-6,519.40	626.95	1,320.05	1,134.95	185.11	7.131		
19,800.00	12,912.41	19,791.91	12,915.76	93.36	95.18	-90.15	-6,619.39	627.81	1,320.06	1,132.26	187.80	7.029		
19,900.00	12,913.29	19,891.91	12,916.63	94.70	96.52	-90.14	-6,719.38	628.67	1,320.06	1,129.56	190.49	6.930		
20,000.00	12,914.17	19,991.91	12,917.49	96.03	97.87	-90.14	-6,819.37	629.53	1,320.06	1,126.87	193.19	6.833		
20,100.00	12,915.04	20,091.91	12,918.36	97.37	99.21	-90.14	-6,919.37	630.39	1,320.06	1,124.17	195.88	6.739		
20,200.00	12,915.92	20,191.91	12,919.23	98.72	100.56	-90.14	-7,019.36	631.25	1,320.06	1,121.48	198.58	6.647		
20,300.00	12,916.80	20,291.91	12,920.10	100.06	101.91	-90.14	-7,119.35	632.11	1,320.06	1,118.78	201.28	6.558		
20,400.00	12,917.68	20,391.91	12,920.97	101.40	103.25	-90.14	-7,219.34	632.97	1,320.06	1,116.08	203.98	6.472		
20,500.00	12,918.55	20,491.91	12,921.83	102.74	104.60	-90.14	-7,319.34	633.83	1,320.06	1,113.38	206.68	6.387		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:		Offset Well Error:		0.50 usft			
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.00	12,919.43	20,591.91	12,922.70	104.09	105.95	-90.14	-7,419.33	634.69	1,320.06	1,110.68	209.38	6.305	
20,700.00	12,920.31	20,691.91	12,923.57	105.43	107.30	-90.14	-7,519.32	635.55	1,320.06	1,107.98	212.08	6.224	
20,800.00	12,921.19	20,791.91	12,924.44	106.78	108.65	-90.14	-7,619.31	636.41	1,320.06	1,105.27	214.78	6.146	
20,900.00	12,922.07	20,891.91	12,925.31	108.12	110.00	-90.14	-7,719.31	637.27	1,320.06	1,102.57	217.49	6.070	
21,000.00	12,922.94	20,991.91	12,926.17	109.47	111.35	-90.14	-7,819.30	638.13	1,320.06	1,099.87	220.19	5.995	
21,100.00	12,923.82	21,091.91	12,927.04	110.81	112.70	-90.14	-7,919.29	639.00	1,320.06	1,097.16	222.90	5.922	
21,200.00	12,924.70	21,191.91	12,927.91	112.16	114.05	-90.14	-8,019.28	639.86	1,320.06	1,094.45	225.61	5.851	
21,300.00	12,925.58	21,291.91	12,928.78	113.51	115.40	-90.14	-8,119.28	640.72	1,320.06	1,091.75	228.31	5.782	
21,400.00	12,926.46	21,391.91	12,929.65	114.86	116.76	-90.14	-8,219.27	641.58	1,320.06	1,089.04	231.02	5.714	
21,500.00	12,927.33	21,491.91	12,930.51	116.21	118.11	-90.14	-8,319.26	642.44	1,320.06	1,086.33	233.73	5.648	
21,600.00	12,928.21	21,591.91	12,931.38	117.56	119.46	-90.14	-8,419.25	643.30	1,320.06	1,083.62	236.44	5.583	
21,700.00	12,929.09	21,691.91	12,932.25	118.91	120.82	-90.14	-8,519.25	644.16	1,320.06	1,080.91	239.15	5.520	
21,800.00	12,929.97	21,791.91	12,933.12	120.26	122.17	-90.14	-8,619.24	645.02	1,320.06	1,078.20	241.86	5.458	
21,900.00	12,930.84	21,891.91	12,933.99	121.61	123.52	-90.14	-8,719.23	645.88	1,320.06	1,075.49	244.57	5.397	
22,000.00	12,931.72	21,991.91	12,934.85	122.96	124.88	-90.14	-8,819.23	646.74	1,320.06	1,072.78	247.29	5.338	
22,100.00	12,932.60	22,091.91	12,935.72	124.31	126.23	-90.14	-8,919.22	647.60	1,320.06	1,070.06	250.00	5.280	
22,200.00	12,933.48	22,191.91	12,936.59	125.66	127.59	-90.14	-9,019.21	648.46	1,320.06	1,067.35	252.71	5.224	
22,300.00	12,934.36	22,291.91	12,937.46	127.02	128.94	-90.13	-9,119.20	649.32	1,320.06	1,064.64	255.43	5.168	
22,400.00	12,935.23	22,391.91	12,938.33	128.37	130.30	-90.13	-9,219.20	650.18	1,320.06	1,061.92	258.14	5.114	
22,500.00	12,936.11	22,491.91	12,939.19	129.72	131.66	-90.13	-9,319.19	651.05	1,320.06	1,059.21	260.86	5.060	
22,600.00	12,936.99	22,591.91	12,940.06	131.08	133.01	-90.13	-9,419.18	651.91	1,320.06	1,056.49	263.57	5.008	
22,700.00	12,937.87	22,691.91	12,940.93	132.43	134.37	-90.13	-9,519.17	652.77	1,320.06	1,053.78	266.29	4.957	
22,800.00	12,938.75	22,791.91	12,941.80	133.78	135.73	-90.13	-9,619.17	653.63	1,320.07	1,051.06	269.01	4.907	
22,900.00	12,939.62	22,891.91	12,942.67	135.14	137.08	-90.13	-9,719.16	654.49	1,320.07	1,048.34	271.72	4.858	
23,000.00	12,940.50	22,991.91	12,943.53	136.49	138.44	-90.13	-9,819.15	655.35	1,320.07	1,045.63	274.44	4.810	
23,100.00	12,941.38	23,091.91	12,944.40	137.85	139.80	-90.13	-9,919.14	656.21	1,320.07	1,042.91	277.16	4.763	
23,109.90	12,941.47	23,101.81	12,944.49	137.97	139.93	-90.13	-9,929.04	656.29	1,320.07	1,042.65	277.41	4.758	
23,193.48	12,942.20	23,184.44	12,945.21	139.00	141.07	-90.13	-10,011.66	657.01	1,320.07	1,040.52	279.54	4.722	SF

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3221 + 26 @ 3247.00usft (26' KB) Coordinates are relative to: Junior Mint Fed 221H

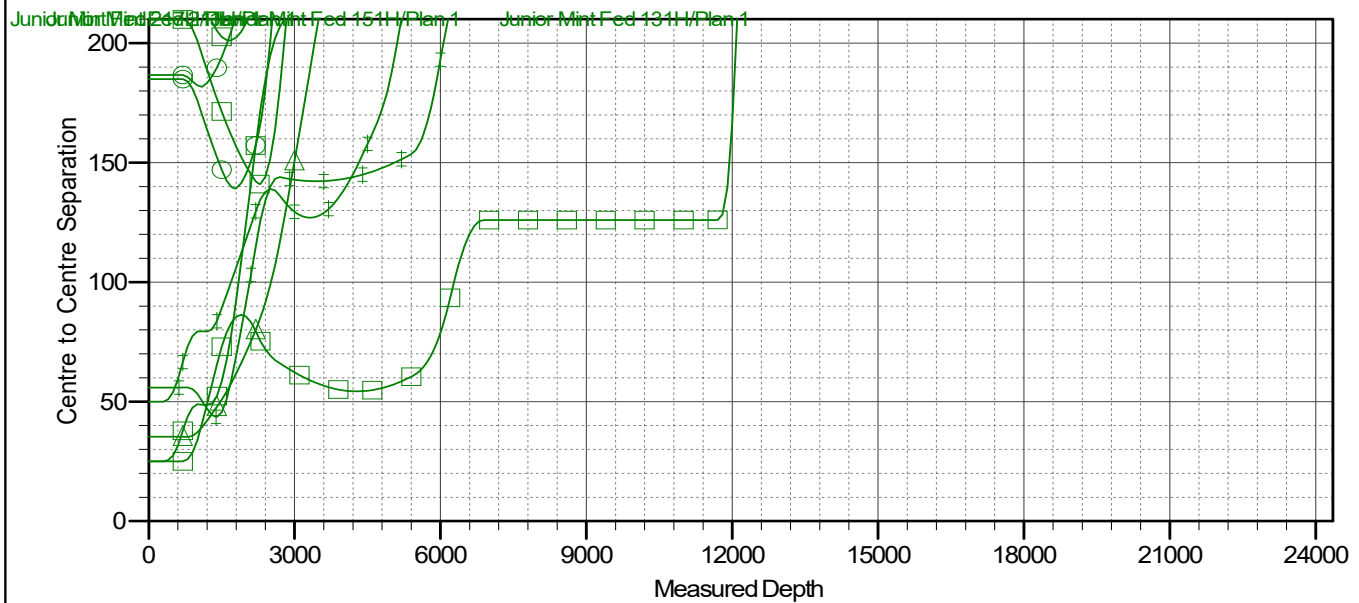
Offset Depths are relative to Offset Datum

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 151H, OH, Plan 1 V0	Junior Mint Fed 222H, OH, Plan 1 V0
Junior Mint Fed 131H, OH, Plan 1 V0	Junior Mint Fed 137H, OH, Plan 1 V0	Junior Mint Fed 132H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan 1 V0	Junior Mint Fed 211H, OH, Plan 1 V0	Junior Mint Fed 135H, OH, Plan 1 V0
Junior Mint Fed 213H, OH, Plan 1 V0	Junior Mint Fed 212H, OH, Plan 1 V0	(O) Montera Federal 023H, OH, OH V0
(O) Montera Federal Com601H, OH, OH V0	Junior Mint Fed 215H, OH, Plan 1 V0	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 221H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221 + 26 @ 3247.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 221H	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 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3221 + 26 @ 3247.00usft (26' KB)Coordinates are relative to: Junior Mint Fed 221H

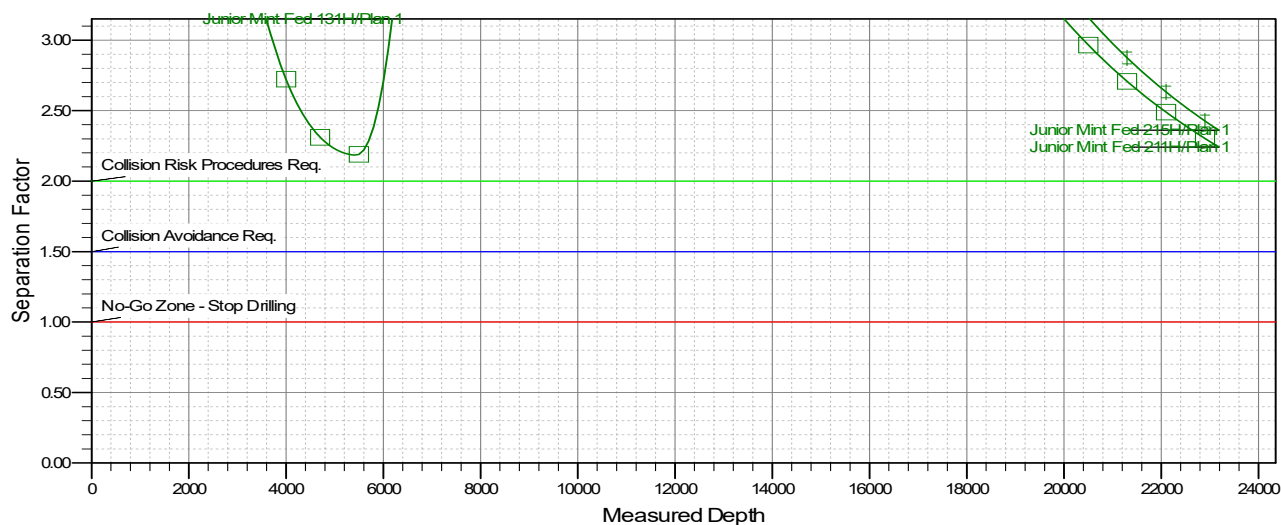
Offset Depths are relative to Offset Datum

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 151H, OH, Plan 1 V0	Junior Mint Fed 222H, OH, Plan 1 V0
Junior Mint Fed 131H, OH, Plan 1 V0	Junior Mint Fed 137H, OH, Plan 1 V0	Junior Mint Fed 132H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan 1 V0	Junior Mint Fed 211H, OH, Plan 1 V0	Junior Mint Fed 135H, OH, Plan 1 V0
Junior Mint Fed 213H, OH, Plan 1 V0	Junior Mint Fed 212H, OH, Plan 1 V0	(O) Monteria Federal 023H, OH, OH V0
(O) Monteria Federal Com601H, OH, OH V0	Junior Mint Fed 215H, OH, Plan 1 V0	

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

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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 475364

CONDITIONS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 475364
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	6/26/2025