

Well Name: GOLDEN TEE 31 FED COM	Well Location: T22S / R35E / SEC 31 / NWNW /	County or Parish/State:
Well Number: 604H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM128836	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549390	Well Status: Approved Application for Permit to Drill	Operator: AVANT OPERATING LLC

Notice of Intent

Sundry ID: 2672521

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 05/19/2022	Time Sundry Submitted: 09:25
Date proposed operation will begin: 05/20/2022	

Procedure Description: Request to move SHL from 400' FNL & 1514' FEL to 400' FNL & 1547' FEL. BHL remains the same. This well will remain on the same pad. TVD will remain the same. MD will change from 18,868' to 19,332'. Cement volumes will change accordingly. See attached plats and revised directional survey and Anticollision report for additional information.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Avant_GoldenTee_604H_Sundry_Attachment_20220519092312.pdf

Well Name: GOLDEN TEE 31 FED COM	Well Location: T22S / R35E / SEC 31 / NWNE /	County or Parish/State:
Well Number: 604H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM128836	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549390	Well Status: Approved Application for Permit to Drill	Operator: AVANT OPERATING LLC

Operator

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

Operator Electronic Signature: BRIAN WOOD

Signed on: MAY 19, 2022 09:23 AM

Name: AVANT OPERATING LLC

Title: President

Street Address: 37 VERANO LOOP

City: SANTA FE

State: NM

Phone: (505) 466-8120

Email address: AFMSS@PERMITSWEST.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: Cody Layton

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 06/01/2022

Signature: Cody R. Layton

DISTRICT I1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720**DISTRICT II**811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720**DISTRICT III**1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170**DISTRICT IV**1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-49390	² Pool Code 2205	³ Pool Name Antelope Ridge; Bone Spring, North
⁴ Property Code 331355	⁵ Property Name Golden Tee 31 Fed Com	⁶ Well Number 604H
⁷ OGRID No. 330396	⁸ Operator Name Avant Operating, LLC	⁹ Elevation 3473

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	31	22 S	35 E		400	North	1547	East	Lea

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	6	23 S	35 E		2540	North	2178	East	Lea

¹² Dedicated Acres 240.15	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

NW/4 SEC 31
Y= 494247.50 N
X= 824856.64 E

N/4 SEC 31
Y= 494273.89 N
X= 827464.61 E

NE/4 SEC 31
Y= 494300.49 N
X= 830104.00 E

SURFACE LOCATION
NAD 83 NMSPC ZONE 3001
Y= 493884.92 N
X= 828560.88 E
LAT.= 32.3543303° N
LONG.= 103.4031933° W

FIRST TAKE POINT
NAD 83 NMSPC ZONE 3001
100' FNL, 2178' FEL
SEC. 31, T22S, R35E
Y= 494178.54 N
X= 827927.06 E
LAT.= 32.3551525° N
LONG.= 103.4052374° W

LAST TAKE POINT
NAD 83 NMSPC ZONE 3001
2540' FNL, 2178' FEL
SEC. 6, T23S, R35E
Y= 486460.13 N
X= 827997.74 E
LAT.= 32.3339368° N
LONG.= 103.4052252° W

BOTTOM HOLE LOCATION
NAD 83 NMSPC ZONE 3001
Y= 486460.13 N
X= 827997.74 E
LAT.= 32.3339368° N
LONG.= 103.4052252° W

Legend:
 ● = Surface Location
 ○ = Bottom Hole Location
 △ = First Take Point (FTP)
 □ = Last Take Point (LTP)
 ● = Found 1913 USGLO Brass Cap
 ● = Found 1918 USGLO Brass Cap
 ● = Found 1" Iron Rod
 ⊙ = Found 1/2" Rebar with Cap
 ○ = Found Cut Tee Post

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cory Walk **05-19-2022**
Signature Date
Cory Walk
Printed Name
cory@permitswest.com
E-mail Address

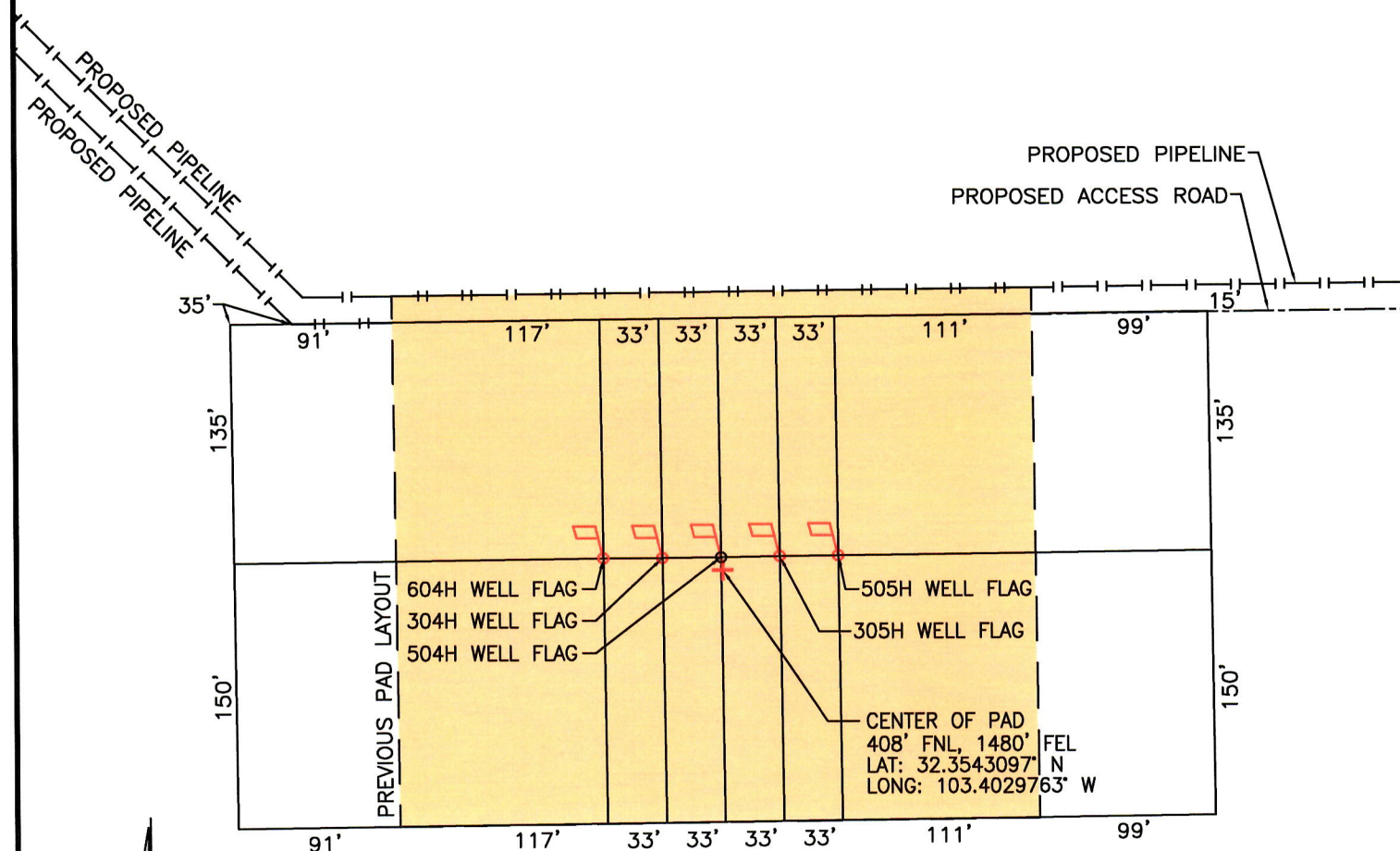
18 SURVEYOR CERTIFICATION

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.

12/27/21
Date of Survey
Plat Revised: 6/16/22
Signature and Seal of Professional Surveyor

MARSHALL W. LINDEEN
NEW MEXICO
PROFESSIONAL SURVEYOR
5-17-22
17078
Certificate Number

AVANT OPERATING, LLC
GOLDEN TEE 31 FED COM PAD #4
 SECTION 31, T-22-S, R-35-E, N.M.P.M.,
 LEA COUNTY, N.M.



0 50 100
 SCALE: 1"=100'



OVERALL DIMENSIONS: 285' X 550'

NOTE:
 FIELD WORK
 NOT COMPLETE AS OF
 05/16/22

WELL FLAG	FNL	FEL
604H	400'	1,547'
304H	400'	1,514'
504H	400'	1,481'
305H	400'	1,448'
505H	400'	1,415'

NOTES:

1. ALL BEARINGS, DISTANCES & COORDINATES SHOWN ARE BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83, IN U.S. SURVEY FEET.
2. CONTRACTOR SHALL CONTACT "ONE-CALL" FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINE OR CABLES ON WELL PAD AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
3. UNITED FIELD SERVICES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

I, MARSHALL W. LINDEEN, NEW MEXICO PROFESSIONAL SURVEYOR NO. 17078, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT.

Marshall W. Lindeen 5-17-22
 MARSHALL W. LINDEEN P.S. #17078 DATE

AVANT OPERATING, LLC

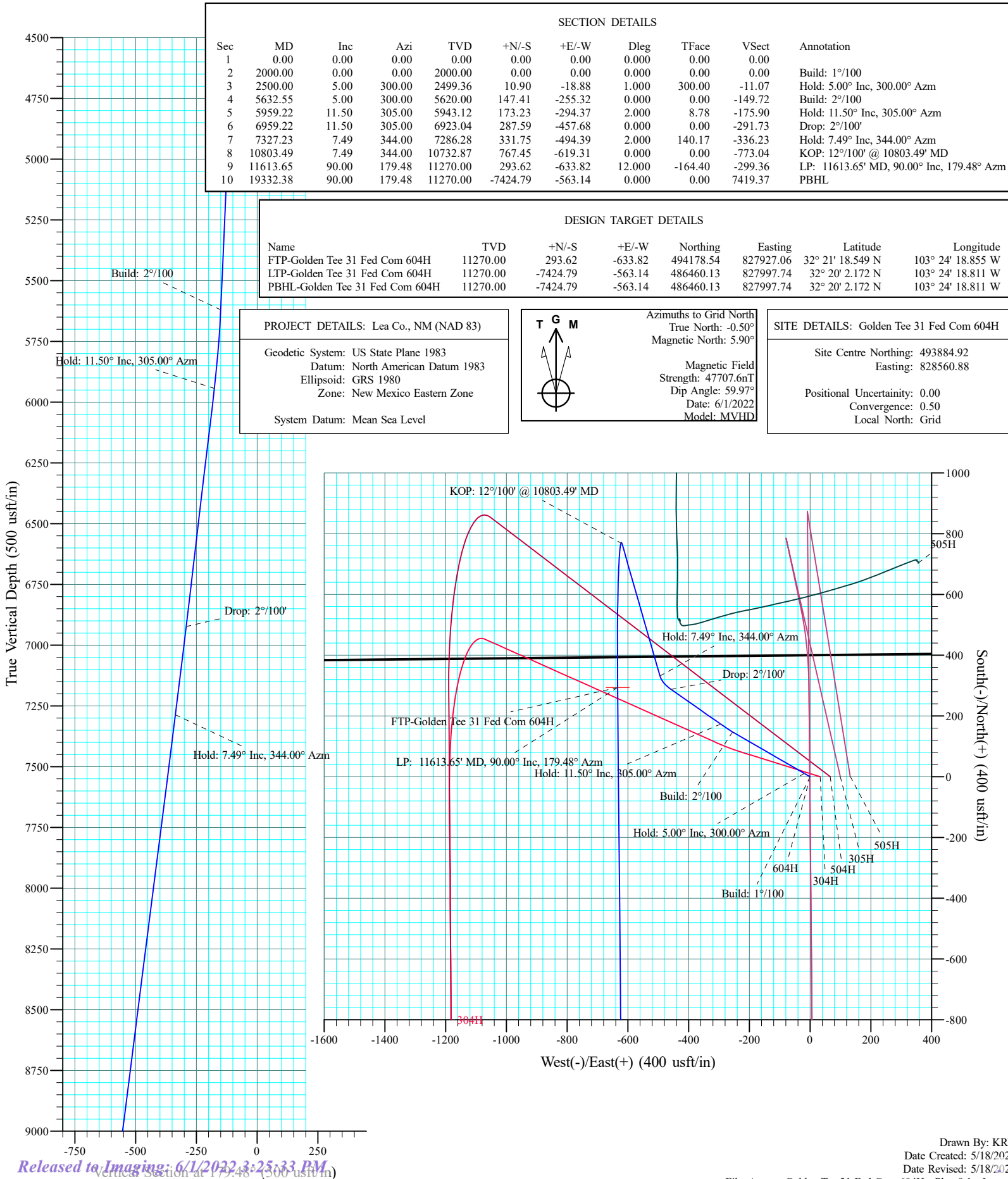
SURVEYED: 12/20/20, 12/27/21 & 3/17/22	REV. DATE/BY: 5/16/22/K.S.	APP. BY: M.W.L.
DRAWN BY: C.B.	DATE DRAWN: 12/30/20	FILE NAME: 11527-PAD4



P.O. BOX 3651
 FARMINGTON, NM 87499
 OFFICE: (505) 334-0408



Golden Tee 31 Fed Com 604H
Lea Co., NM (NAD 83)
Job No. WT-22-***
Plan 0.1



Released to Imaging: 6/1/2022 3:25:33 PM

Received by OCD: 6/1/2022 2:16:43 PM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00		
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.000	0.00	0.00		Build: 1°/100
3	2500.00	5.00	300.00	2499.36	10.90	-18.88	1.000	300.00	-11.07		Hold: 5.00° Inc, 300.00° Azm
4	5632.55	5.00	300.00	5620.00	147.41	-255.32	0.000	0.00	-149.72		Build: 2°/100
5	5959.22	11.50	305.00	5943.12	173.23	-294.37	2.000	8.78	-175.90		Hold: 11.50° Inc, 305.00° Azm
6	6959.22	11.50	305.00	6923.04	287.59	-457.68	0.000	0.00	-291.73		Drop: 2°/100'
7	7327.23	7.49	344.00	7286.28	331.75	-494.39	2.000	140.17	-336.23		Hold: 7.49° Inc, 344.00° Azm
8	10803.49	7.49	344.00	10732.87	767.45	-619.31	0.000	0.00	-773.04		KOP: 12°/100' @ 10803.49' MD
9	11613.65	90.00	179.48	11270.00	293.62	-633.82	12.000	-164.40	-299.36	FTP-Golden Tee 31 Fed Com 604H	LP: 11613.65' MD, 90.00° Inc, 179.48° Azm
10	19332.38	90.00	179.48	11270.00	-7424.79	-563.14	0.000	0.00	7419.37	PBHL-Golden Tee 31 Fed Com 604H	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP-Golden Tee 31 Fed Com 604H	11270.00	293.62	-633.82	494178.54	827927.06	32° 21' 18.549 N 103° 24' 18.855 W	
LTP-Golden Tee 31 Fed Com 604H	11270.00	-7424.79	-563.14	486460.13	827997.74	32° 20' 2.172 N 103° 24' 18.811 W	
PBHL-Golden Tee 31 Fed Com 604H	11270.00	-7424.79	-563.14	486460.13	827997.74	32° 20' 2.172 N 103° 24' 18.811 W	

SITE DETAILS: Golden Tee 31 Fed Com 604H

Site Centre Northing: 493884.92
Easting: 828560.88

Positional Uncertainty: 0.00
Convergence: 0.50
Local North: Grid

PROJECT DETAILS: Lea Co., NM (NAD 83)

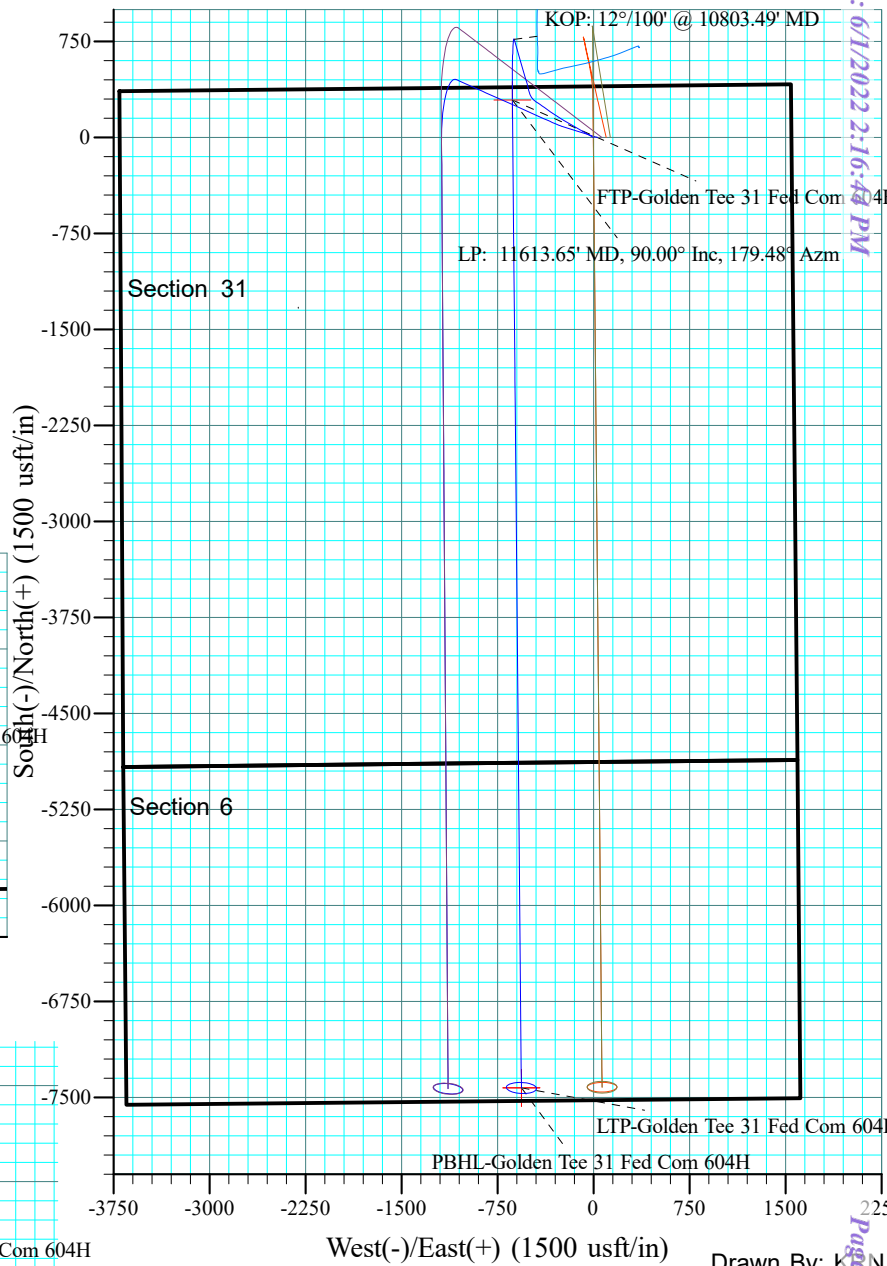
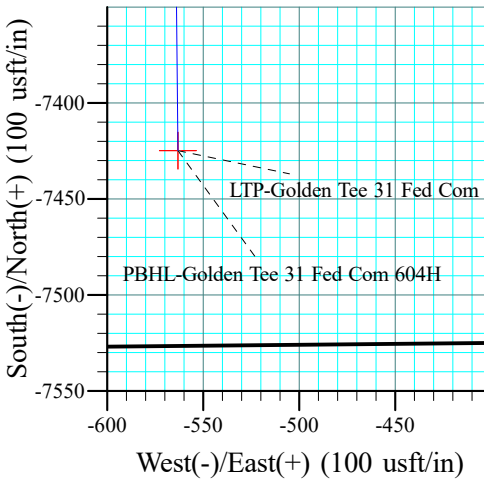
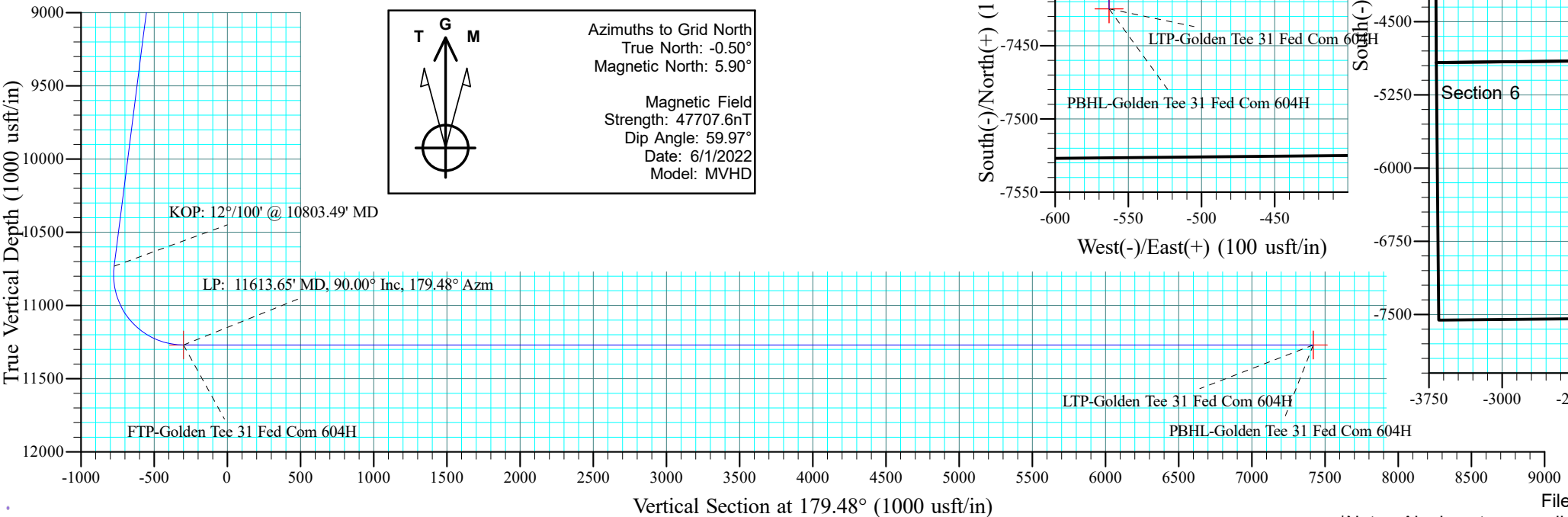
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level



Azimuths to Grid North
True North: -0.50°
Magnetic North: 5.90°

Magnetic Field
Strength: 47707.6nT
Dip Angle: 59.97°
Date: 6/1/2022
Model: MVHD





Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

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

Site	Golden Tee 31 Fed Com 604H		
Site Position:		Northing:	493,884.92 usft
From:	Map	Easting:	828,560.88 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 21' 15.589 N
		Longitude:	103° 24' 11.496 W
		Grid Convergence:	0.50 °

Well	604H		
Well Position	+N/-S	0.00 usft	Northing: 493,884.92 usft
	+E/-W	0.00 usft	Easting: 828,560.88 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 32° 21' 15.589 N
			Longitude: 103° 24' 11.496 W
			Ground Level: 3,473.00 usft

Wellbore	Planning				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	6/1/2022	6.40	59.97	47,707.552

Design	Plan 0.1			
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	179.48

Plan Survey Tool Program	Date	5/18/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,332.38	Plan 0.1 (Planning)	B001Mb_MWD+HRGM
				OWSG MWD + HRGM



Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.000	0.000	0.000	0.00	
2,500.00	5.00	300.00	2,499.36	10.90	-18.88	1.000	1.000	0.000	300.00	
5,632.55	5.00	300.00	5,620.00	147.41	-255.32	0.000	0.000	0.000	0.00	
5,959.22	11.50	305.00	5,943.12	173.23	-294.37	2.000	1.990	1.531	8.78	
6,959.22	11.50	305.00	6,923.04	287.59	-457.68	0.000	0.000	0.000	0.00	
7,327.23	7.49	344.00	7,286.28	331.75	-494.39	2.000	-1.089	10.598	140.17	
10,803.49	7.49	344.00	10,732.87	767.45	-619.31	0.000	0.000	0.000	0.00	
11,613.65	90.00	179.48	11,270.00	293.62	-633.82	12.000	10.184	-20.308	-164.40	FTP-Golden Tee 31
19,332.38	90.00	179.48	11,270.00	-7,424.79	-563.14	0.000	0.000	0.000	0.00	PBHL-Golden Tee 31



Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000
Build: 1°/100									
2,100.00	1.00	300.00	2,099.99	0.44	-0.76	-0.44	1.000	1.000	0.000
2,200.00	2.00	300.00	2,199.96	1.75	-3.02	-1.77	1.000	1.000	0.000
2,300.00	3.00	300.00	2,299.86	3.93	-6.80	-3.99	1.000	1.000	0.000
2,400.00	4.00	300.00	2,399.68	6.98	-12.09	-7.09	1.000	1.000	0.000
2,500.00	5.00	300.00	2,499.36	10.90	-18.88	-11.07	1.000	1.000	0.000
Hold: 5.00° Inc, 300.00° Azm									
2,600.00	5.00	300.00	2,598.99	15.26	-26.43	-15.50	0.000	0.000	0.000
2,700.00	5.00	300.00	2,698.60	19.62	-33.98	-19.92	0.000	0.000	0.000
2,800.00	5.00	300.00	2,798.22	23.97	-41.53	-24.35	0.000	0.000	0.000
2,900.00	5.00	300.00	2,897.84	28.33	-49.07	-28.78	0.000	0.000	0.000
3,000.00	5.00	300.00	2,997.46	32.69	-56.62	-33.20	0.000	0.000	0.000
3,100.00	5.00	300.00	3,097.08	37.05	-64.17	-37.63	0.000	0.000	0.000
3,200.00	5.00	300.00	3,196.70	41.41	-71.72	-42.06	0.000	0.000	0.000
3,300.00	5.00	300.00	3,296.32	45.76	-79.27	-46.48	0.000	0.000	0.000
3,400.00	5.00	300.00	3,395.94	50.12	-86.81	-50.91	0.000	0.000	0.000
3,500.00	5.00	300.00	3,495.56	54.48	-94.36	-55.33	0.000	0.000	0.000
3,600.00	5.00	300.00	3,595.18	58.84	-101.91	-59.76	0.000	0.000	0.000
3,700.00	5.00	300.00	3,694.80	63.19	-109.46	-64.19	0.000	0.000	0.000
3,800.00	5.00	300.00	3,794.42	67.55	-117.00	-68.61	0.000	0.000	0.000
3,900.00	5.00	300.00	3,894.04	71.91	-124.55	-73.04	0.000	0.000	0.000
4,000.00	5.00	300.00	3,993.66	76.27	-132.10	-77.46	0.000	0.000	0.000
4,100.00	5.00	300.00	4,093.28	80.63	-139.65	-81.89	0.000	0.000	0.000
4,200.00	5.00	300.00	4,192.90	84.98	-147.20	-86.32	0.000	0.000	0.000
4,300.00	5.00	300.00	4,292.52	89.34	-154.74	-90.74	0.000	0.000	0.000
4,400.00	5.00	300.00	4,392.14	93.70	-162.29	-95.17	0.000	0.000	0.000
4,500.00	5.00	300.00	4,491.76	98.06	-169.84	-99.59	0.000	0.000	0.000
4,600.00	5.00	300.00	4,591.37	102.41	-177.39	-104.02	0.000	0.000	0.000
4,700.00	5.00	300.00	4,690.99	106.77	-184.94	-108.45	0.000	0.000	0.000
4,800.00	5.00	300.00	4,790.61	111.13	-192.48	-112.87	0.000	0.000	0.000
4,900.00	5.00	300.00	4,890.23	115.49	-200.03	-117.30	0.000	0.000	0.000
5,000.00	5.00	300.00	4,989.85	119.85	-207.58	-121.73	0.000	0.000	0.000
5,100.00	5.00	300.00	5,089.47	124.20	-215.13	-126.15	0.000	0.000	0.000



Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	5.00	300.00	5,189.09	128.56	-222.68	-130.58	0.000	0.000	0.000
5,300.00	5.00	300.00	5,288.71	132.92	-230.22	-135.00	0.000	0.000	0.000
5,400.00	5.00	300.00	5,388.33	137.28	-237.77	-139.43	0.000	0.000	0.000
5,500.00	5.00	300.00	5,487.95	141.64	-245.32	-143.86	0.000	0.000	0.000
5,600.00	5.00	300.00	5,587.57	145.99	-252.87	-148.28	0.000	0.000	0.000
5,632.55	5.00	300.00	5,620.00	147.41	-255.32	-149.72	0.000	0.000	0.000
Build: 2°/100									
5,700.00	6.34	301.87	5,687.11	150.85	-261.03	-153.21	2.000	1.981	2.768
5,800.00	8.33	303.53	5,786.29	157.76	-271.75	-160.22	2.000	1.989	1.666
5,900.00	10.32	304.56	5,884.97	166.84	-285.16	-169.42	2.000	1.993	1.026
5,959.22	11.50	305.00	5,943.12	173.23	-294.37	-175.90	2.000	1.995	0.745
Hold: 11.50° Inc, 305.00° Azm									
6,000.00	11.50	305.00	5,983.08	177.90	-301.03	-180.62	0.000	0.000	0.000
6,100.00	11.50	305.00	6,081.07	189.33	-317.36	-192.21	0.000	0.000	0.000
6,200.00	11.50	305.00	6,179.06	200.77	-333.69	-203.79	0.000	0.000	0.000
6,300.00	11.50	305.00	6,277.05	212.20	-350.02	-215.37	0.000	0.000	0.000
6,400.00	11.50	305.00	6,375.05	223.64	-366.35	-226.95	0.000	0.000	0.000
6,500.00	11.50	305.00	6,473.04	235.07	-382.69	-238.54	0.000	0.000	0.000
6,600.00	11.50	305.00	6,571.03	246.51	-399.02	-250.12	0.000	0.000	0.000
6,700.00	11.50	305.00	6,669.02	257.94	-415.35	-261.70	0.000	0.000	0.000
6,800.00	11.50	305.00	6,767.02	269.38	-431.68	-273.29	0.000	0.000	0.000
6,900.00	11.50	305.00	6,865.01	280.82	-448.01	-284.87	0.000	0.000	0.000
6,959.22	11.50	305.00	6,923.04	287.59	-457.68	-291.73	0.000	0.000	0.000
Drop: 2°/100'									
7,000.00	10.89	307.77	6,963.04	292.28	-464.06	-296.48	2.000	-1.505	6.786
7,100.00	9.51	315.98	7,061.47	304.00	-477.26	-308.32	2.000	-1.378	8.213
7,200.00	8.38	326.65	7,160.26	316.03	-487.01	-320.44	2.000	-1.126	10.666
7,300.00	7.62	339.98	7,259.29	328.35	-493.29	-332.81	2.000	-0.762	13.330
7,327.23	7.49	344.00	7,286.28	331.75	-494.39	-336.23	2.000	-0.472	14.784
Hold: 7.49° Inc, 344.00° Azm									
7,400.00	7.49	344.00	7,358.43	340.87	-497.01	-345.37	0.000	0.000	0.000
7,500.00	7.49	344.00	7,457.58	353.41	-500.60	-357.93	0.000	0.000	0.000
7,600.00	7.49	344.00	7,556.73	365.94	-504.20	-370.50	0.000	0.000	0.000
7,700.00	7.49	344.00	7,655.87	378.47	-507.79	-383.07	0.000	0.000	0.000
7,800.00	7.49	344.00	7,755.02	391.01	-511.38	-395.63	0.000	0.000	0.000
7,900.00	7.49	344.00	7,854.17	403.54	-514.98	-408.20	0.000	0.000	0.000
8,000.00	7.49	344.00	7,953.31	416.07	-518.57	-420.76	0.000	0.000	0.000
8,100.00	7.49	344.00	8,052.46	428.61	-522.16	-433.33	0.000	0.000	0.000
8,200.00	7.49	344.00	8,151.60	441.14	-525.76	-445.89	0.000	0.000	0.000
8,300.00	7.49	344.00	8,250.75	453.67	-529.35	-458.46	0.000	0.000	0.000
8,400.00	7.49	344.00	8,349.90	466.21	-532.94	-471.03	0.000	0.000	0.000
8,500.00	7.49	344.00	8,449.04	478.74	-536.54	-483.59	0.000	0.000	0.000
8,600.00	7.49	344.00	8,548.19	491.28	-540.13	-496.16	0.000	0.000	0.000
8,700.00	7.49	344.00	8,647.34	503.81	-543.72	-508.72	0.000	0.000	0.000
8,800.00	7.49	344.00	8,746.48	516.34	-547.32	-521.29	0.000	0.000	0.000
8,900.00	7.49	344.00	8,845.63	528.88	-550.91	-533.85	0.000	0.000	0.000
9,000.00	7.49	344.00	8,944.78	541.41	-554.51	-546.42	0.000	0.000	0.000
9,100.00	7.49	344.00	9,043.92	553.94	-558.10	-558.99	0.000	0.000	0.000
9,200.00	7.49	344.00	9,143.07	566.48	-561.69	-571.55	0.000	0.000	0.000
9,300.00	7.49	344.00	9,242.21	579.01	-565.29	-584.12	0.000	0.000	0.000
9,400.00	7.49	344.00	9,341.36	591.54	-568.88	-596.68	0.000	0.000	0.000
9,500.00	7.49	344.00	9,440.51	604.08	-572.47	-609.25	0.000	0.000	0.000
9,600.00	7.49	344.00	9,539.65	616.61	-576.07	-621.81	0.000	0.000	0.000



Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,700.00	7.49	344.00	9,638.80	629.15	-579.66	-634.38	0.000	0.000	0.000
9,800.00	7.49	344.00	9,737.95	641.68	-583.25	-646.95	0.000	0.000	0.000
9,900.00	7.49	344.00	9,837.09	654.21	-586.85	-659.51	0.000	0.000	0.000
10,000.00	7.49	344.00	9,936.24	666.75	-590.44	-672.08	0.000	0.000	0.000
10,100.00	7.49	344.00	10,035.38	679.28	-594.03	-684.64	0.000	0.000	0.000
10,200.00	7.49	344.00	10,134.53	691.81	-597.63	-697.21	0.000	0.000	0.000
10,300.00	7.49	344.00	10,233.68	704.35	-601.22	-709.77	0.000	0.000	0.000
10,400.00	7.49	344.00	10,332.82	716.88	-604.81	-722.34	0.000	0.000	0.000
10,500.00	7.49	344.00	10,431.97	729.41	-608.41	-734.91	0.000	0.000	0.000
10,600.00	7.49	344.00	10,531.12	741.95	-612.00	-747.47	0.000	0.000	0.000
10,700.00	7.49	344.00	10,630.26	754.48	-615.59	-760.04	0.000	0.000	0.000
10,803.49	7.49	344.00	10,732.87	767.45	-619.31	-773.04	0.000	0.000	0.000
KOP: 12°/100' @ 10803.49' MD									
10,825.00	5.05	336.10	10,754.25	769.67	-620.08	-775.26	12.000	-11.337	-36.741
10,850.00	2.59	308.67	10,779.19	771.03	-620.97	-776.63	12.000	-9.845	-109.725
10,875.00	2.43	235.33	10,804.18	771.08	-621.85	-776.69	12.000	-0.658	-293.363
10,900.00	4.80	204.16	10,829.13	769.82	-622.71	-775.44	12.000	9.498	-124.666
10,925.00	7.63	194.66	10,853.98	767.26	-623.56	-772.89	12.000	11.312	-38.010
10,950.00	10.55	190.33	10,878.66	763.40	-624.39	-769.04	12.000	11.692	-17.310
10,975.00	13.51	187.87	10,903.11	758.26	-625.20	-763.90	12.000	11.826	-9.832
11,000.00	16.48	186.29	10,927.25	751.84	-625.99	-757.49	12.000	11.888	-6.346
11,025.00	19.46	185.17	10,951.03	744.16	-626.75	-749.82	12.000	11.922	-4.449
11,050.00	22.45	184.35	10,974.38	735.25	-627.49	-740.92	12.000	11.942	-3.306
11,075.00	25.44	183.71	10,997.22	725.13	-628.20	-730.81	12.000	11.955	-2.564
11,100.00	28.43	183.19	11,019.51	713.83	-628.88	-719.51	12.000	11.964	-2.057
11,125.00	31.42	182.77	11,041.17	701.38	-629.53	-707.06	12.000	11.970	-1.695
11,150.00	34.41	182.41	11,062.16	687.81	-630.14	-693.50	12.000	11.975	-1.427
11,175.00	37.41	182.10	11,082.40	673.16	-630.71	-678.85	12.000	11.979	-1.225
11,200.00	40.40	181.84	11,101.86	657.47	-631.25	-663.17	12.000	11.981	-1.068
11,225.00	43.40	181.60	11,120.46	640.78	-631.75	-646.49	12.000	11.983	-0.944
11,250.00	46.40	181.39	11,138.17	623.14	-632.21	-628.86	12.000	11.985	-0.845
11,275.00	49.39	181.20	11,154.93	604.60	-632.63	-610.32	12.000	11.987	-0.765
11,300.00	52.39	181.02	11,170.70	585.21	-633.01	-590.93	12.000	11.988	-0.699
11,325.00	55.39	180.86	11,185.43	565.02	-633.34	-570.74	12.000	11.989	-0.645
11,350.00	58.38	180.71	11,199.09	544.08	-633.63	-549.81	12.000	11.989	-0.600
11,375.00	61.38	180.57	11,211.63	522.46	-633.87	-528.19	12.000	11.990	-0.563
11,400.00	64.38	180.44	11,223.02	500.21	-634.06	-505.95	12.000	11.991	-0.531
11,425.00	67.38	180.31	11,233.24	477.40	-634.21	-483.14	12.000	11.991	-0.505
11,450.00	70.38	180.19	11,242.25	454.08	-634.32	-459.82	12.000	11.992	-0.484
11,475.00	73.37	180.08	11,250.02	430.33	-634.37	-436.07	12.000	11.992	-0.466
11,500.00	76.37	179.96	11,256.55	406.19	-634.38	-411.94	12.000	11.992	-0.452
11,525.00	79.37	179.85	11,261.80	381.76	-634.34	-387.50	12.000	11.992	-0.440
11,550.00	82.37	179.74	11,265.77	357.08	-634.25	-362.82	12.000	11.992	-0.432
11,575.00	85.37	179.64	11,268.44	332.22	-634.12	-337.96	12.000	11.993	-0.426
11,600.00	88.36	179.53	11,269.81	307.26	-633.94	-313.00	12.000	11.993	-0.422
11,613.65	90.00	179.48	11,270.00	293.62	-633.82	-299.36	12.000	11.993	-0.421
LP: 11613.65' MD, 90.00° Inc, 179.48° Azm									
11,700.00	90.00	179.48	11,270.00	207.27	-633.03	-213.01	0.000	0.000	0.000
11,800.00	90.00	179.48	11,270.00	107.27	-632.11	-113.01	0.000	0.000	0.000
11,900.00	90.00	179.48	11,270.00	7.28	-631.20	-13.01	0.000	0.000	0.000
12,000.00	90.00	179.48	11,270.00	-92.72	-630.28	86.99	0.000	0.000	0.000
12,100.00	90.00	179.48	11,270.00	-192.71	-629.37	186.99	0.000	0.000	0.000
12,200.00	90.00	179.48	11,270.00	-292.71	-628.45	286.99	0.000	0.000	0.000
12,300.00	90.00	179.48	11,270.00	-392.71	-627.54	386.99	0.000	0.000	0.000



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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,400.00	90.00	179.48	11,270.00	-492.70	-626.62	486.99	0.000	0.000	0.000
12,500.00	90.00	179.48	11,270.00	-592.70	-625.70	586.99	0.000	0.000	0.000
12,600.00	90.00	179.48	11,270.00	-692.69	-624.79	686.99	0.000	0.000	0.000
12,700.00	90.00	179.48	11,270.00	-792.69	-623.87	786.99	0.000	0.000	0.000
12,800.00	90.00	179.48	11,270.00	-892.69	-622.96	886.99	0.000	0.000	0.000
12,900.00	90.00	179.48	11,270.00	-992.68	-622.04	986.99	0.000	0.000	0.000
13,000.00	90.00	179.48	11,270.00	-1,092.68	-621.13	1,086.99	0.000	0.000	0.000
13,100.00	90.00	179.48	11,270.00	-1,192.67	-620.21	1,186.99	0.000	0.000	0.000
13,200.00	90.00	179.48	11,270.00	-1,292.67	-619.29	1,286.99	0.000	0.000	0.000
13,300.00	90.00	179.48	11,270.00	-1,392.66	-618.38	1,386.99	0.000	0.000	0.000
13,400.00	90.00	179.48	11,270.00	-1,492.66	-617.46	1,486.99	0.000	0.000	0.000
13,500.00	90.00	179.48	11,270.00	-1,592.66	-616.55	1,586.99	0.000	0.000	0.000
13,600.00	90.00	179.48	11,270.00	-1,692.65	-615.63	1,686.99	0.000	0.000	0.000
13,700.00	90.00	179.48	11,270.00	-1,792.65	-614.72	1,786.99	0.000	0.000	0.000
13,800.00	90.00	179.48	11,270.00	-1,892.64	-613.80	1,886.99	0.000	0.000	0.000
13,900.00	90.00	179.48	11,270.00	-1,992.64	-612.88	1,986.99	0.000	0.000	0.000
14,000.00	90.00	179.48	11,270.00	-2,092.63	-611.97	2,086.99	0.000	0.000	0.000
14,100.00	90.00	179.48	11,270.00	-2,192.63	-611.05	2,186.99	0.000	0.000	0.000
14,200.00	90.00	179.48	11,270.00	-2,292.63	-610.14	2,286.99	0.000	0.000	0.000
14,300.00	90.00	179.48	11,270.00	-2,392.62	-609.22	2,386.99	0.000	0.000	0.000
14,400.00	90.00	179.48	11,270.00	-2,492.62	-608.31	2,486.99	0.000	0.000	0.000
14,500.00	90.00	179.48	11,270.00	-2,592.61	-607.39	2,586.99	0.000	0.000	0.000
14,600.00	90.00	179.48	11,270.00	-2,692.61	-606.47	2,686.99	0.000	0.000	0.000
14,700.00	90.00	179.48	11,270.00	-2,792.61	-605.56	2,786.99	0.000	0.000	0.000
14,800.00	90.00	179.48	11,270.00	-2,892.60	-604.64	2,886.99	0.000	0.000	0.000
14,900.00	90.00	179.48	11,270.00	-2,992.60	-603.73	2,986.99	0.000	0.000	0.000
15,000.00	90.00	179.48	11,270.00	-3,092.59	-602.81	3,086.99	0.000	0.000	0.000
15,100.00	90.00	179.48	11,270.00	-3,192.59	-601.90	3,186.99	0.000	0.000	0.000
15,200.00	90.00	179.48	11,270.00	-3,292.58	-600.98	3,286.99	0.000	0.000	0.000
15,300.00	90.00	179.48	11,270.00	-3,392.58	-600.06	3,386.99	0.000	0.000	0.000
15,400.00	90.00	179.48	11,270.00	-3,492.58	-599.15	3,486.99	0.000	0.000	0.000
15,500.00	90.00	179.48	11,270.00	-3,592.57	-598.23	3,586.99	0.000	0.000	0.000
15,600.00	90.00	179.48	11,270.00	-3,692.57	-597.32	3,686.99	0.000	0.000	0.000
15,700.00	90.00	179.48	11,270.00	-3,792.56	-596.40	3,786.99	0.000	0.000	0.000
15,800.00	90.00	179.48	11,270.00	-3,892.56	-595.49	3,886.99	0.000	0.000	0.000
15,900.00	90.00	179.48	11,270.00	-3,992.56	-594.57	3,986.99	0.000	0.000	0.000
16,000.00	90.00	179.48	11,270.00	-4,092.55	-593.65	4,086.99	0.000	0.000	0.000
16,100.00	90.00	179.48	11,270.00	-4,192.55	-592.74	4,186.99	0.000	0.000	0.000
16,200.00	90.00	179.48	11,270.00	-4,292.54	-591.82	4,286.99	0.000	0.000	0.000
16,300.00	90.00	179.48	11,270.00	-4,392.54	-590.91	4,386.99	0.000	0.000	0.000
16,400.00	90.00	179.48	11,270.00	-4,492.53	-589.99	4,486.99	0.000	0.000	0.000
16,500.00	90.00	179.48	11,270.00	-4,592.53	-589.08	4,586.99	0.000	0.000	0.000
16,600.00	90.00	179.48	11,270.00	-4,692.53	-588.16	4,686.99	0.000	0.000	0.000
16,700.00	90.00	179.48	11,270.00	-4,792.52	-587.24	4,786.99	0.000	0.000	0.000
16,800.00	90.00	179.48	11,270.00	-4,892.52	-586.33	4,886.99	0.000	0.000	0.000
16,900.00	90.00	179.48	11,270.00	-4,992.51	-585.41	4,986.99	0.000	0.000	0.000
17,000.00	90.00	179.48	11,270.00	-5,092.51	-584.50	5,086.99	0.000	0.000	0.000
17,100.00	90.00	179.48	11,270.00	-5,192.51	-583.58	5,186.99	0.000	0.000	0.000
17,200.00	90.00	179.48	11,270.00	-5,292.50	-582.67	5,286.99	0.000	0.000	0.000
17,300.00	90.00	179.48	11,270.00	-5,392.50	-581.75	5,386.99	0.000	0.000	0.000
17,400.00	90.00	179.48	11,270.00	-5,492.49	-580.83	5,486.99	0.000	0.000	0.000
17,500.00	90.00	179.48	11,270.00	-5,592.49	-579.92	5,586.99	0.000	0.000	0.000
17,600.00	90.00	179.48	11,270.00	-5,692.48	-579.00	5,686.99	0.000	0.000	0.000
17,700.00	90.00	179.48	11,270.00	-5,792.48	-578.09	5,786.99	0.000	0.000	0.000



Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
17,800.00	90.00	179.48	11,270.00	-5,892.48	-577.17	5,886.99	0.000	0.000	0.000	
17,900.00	90.00	179.48	11,270.00	-5,992.47	-576.26	5,986.99	0.000	0.000	0.000	
18,000.00	90.00	179.48	11,270.00	-6,092.47	-575.34	6,086.99	0.000	0.000	0.000	
18,100.00	90.00	179.48	11,270.00	-6,192.46	-574.42	6,186.99	0.000	0.000	0.000	
18,200.00	90.00	179.48	11,270.00	-6,292.46	-573.51	6,286.99	0.000	0.000	0.000	
18,300.00	90.00	179.48	11,270.00	-6,392.45	-572.59	6,386.99	0.000	0.000	0.000	
18,400.00	90.00	179.48	11,270.00	-6,492.45	-571.68	6,486.99	0.000	0.000	0.000	
18,500.00	90.00	179.48	11,270.00	-6,592.45	-570.76	6,586.99	0.000	0.000	0.000	
18,600.00	90.00	179.48	11,270.00	-6,692.44	-569.85	6,686.99	0.000	0.000	0.000	
18,700.00	90.00	179.48	11,270.00	-6,792.44	-568.93	6,786.99	0.000	0.000	0.000	
18,800.00	90.00	179.48	11,270.00	-6,892.43	-568.01	6,886.99	0.000	0.000	0.000	
18,900.00	90.00	179.48	11,270.00	-6,992.43	-567.10	6,986.99	0.000	0.000	0.000	
19,000.00	90.00	179.48	11,270.00	-7,092.43	-566.18	7,086.99	0.000	0.000	0.000	
19,100.00	90.00	179.48	11,270.00	-7,192.42	-565.27	7,186.99	0.000	0.000	0.000	
19,200.00	90.00	179.48	11,270.00	-7,292.42	-564.35	7,286.99	0.000	0.000	0.000	
19,300.00	90.00	179.48	11,270.00	-7,392.41	-563.44	7,386.99	0.000	0.000	0.000	
19,332.38	90.00	179.48	11,270.00	-7,424.79	-563.14	7,419.37	0.000	0.000	0.000	
PBHL										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP-Golden Tee 31 F - plan hits target center - Point	0.00	0.00	11,270.00	293.62	-633.82	494,178.54	827,927.06	32° 21' 18.549 N	103° 24' 18.855 W	
PBHL-Golden Tee 31 - plan hits target center - Point	0.00	0.00	11,270.00	-7,424.79	-563.14	486,460.13	827,997.74	32° 20' 2.172 N	103° 24' 18.811 W	
LTP-Golden Tee 31 F - plan hits target center - Point	0.00	0.00	11,270.00	-7,424.79	-563.14	486,460.13	827,997.74	32° 20' 2.172 N	103° 24' 18.811 W	

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
19,341.44		20" Casing	20	24	



Aim Directional Services, LLC

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 604H
Company:	Avant Operating, LLC	TVD Reference:	Well @ 3498.00usft
Project:	Lea Co., NM (NAD 83)	MD Reference:	Well @ 3498.00usft
Site:	Golden Tee 31 Fed Com 604H	North Reference:	Grid
Well:	604H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.00	2,000.00	0.00	0.00	Build: 1°/100
2,500.00	2,499.36	10.90	-18.88	Hold: 5.00° Inc, 300.00° Azm
5,632.55	5,620.00	147.41	-255.32	Build: 2°/100
5,959.22	5,943.12	173.23	-294.37	Hold: 11.50° Inc, 305.00° Azm
6,959.22	6,923.04	287.59	-457.68	Drop: 2°/100'
7,327.23	7,286.28	331.75	-494.39	Hold: 7.49° Inc, 344.00° Azm
10,803.49	10,732.87	767.45	-619.31	KOP: 12°/100' @ 10803.49' MD
11,613.65	11,270.00	293.62	-633.82	LP: 11613.65' MD, 90.00° Inc, 179.48° Azm
19,332.38	11,270.00	-7,424.79	-563.14	PBHL



Avant Operating, LLC

**Lea Co., NM (NAD 83)
Golden Tee 31 Fed Com 604H
604H**

**Planning
Plan 0.1**

Anticollision Report

18 May, 2022





Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Reference	Plan 0.1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 100,000.00 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program	Date	5/18/2022
From (usft)	To (usft)	Survey (Wellbore)
0.00	19,332.38	Plan 0.1 (Planning)
		Tool Name
		B001Mb_MWD+HRGM
		Description
		OWSG MWD + HRGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Golden Tee 31 Fed Com 304H						
304H - Planning - Plan 0.2b	2,950.08	2,953.69	29.98	9.44	1.460	Level 3, CC
304H - Planning - Plan 0.2b	3,600.00	3,603.49	32.47	7.25	1.287	Level 3, ES
304H - Planning - Plan 0.2b	3,800.00	3,803.45	34.13	7.44	1.279	Level 3, SF
Golden Tee 31 Fed Com 305H						
305H - Planning - Plan 0.2b	2,000.33	2,001.33	99.03	85.13	7.126	CC
305H - Planning - Plan 0.2b	2,100.00	2,101.37	99.59	84.98	6.818	ES
305H - Planning - Plan 0.2b	2,400.00	2,402.15	108.27	91.53	6.470	SF
Golden Tee 31 Fed Com 504H						
504H - Planning - Plan 0.2b	2,012.54	2,013.66	66.09	52.11	4.726	CC
504H - Planning - Plan 0.2b	6,800.00	6,812.29	87.92	37.78	1.754	ES
504H - Planning - Plan 0.2b	7,200.00	7,210.64	92.21	38.91	1.730	SF
Golden Tee 31 Fed Com 505H						
505H - Planning - Plan 0.2b	2,000.21	2,001.22	132.07	118.17	9.504	CC
505H - Planning - Plan 0.2b	2,100.00	2,101.34	132.69	118.08	9.083	ES
505H - Planning - Plan 0.2b	19,332.38	18,602.38	995.66	815.64	5.531	SF
Winnebago 30 State Com						
505H - OH / 68126 - Surveys (H&P 296)	8,567.08	8,600.40	113.09	45.88	1.683	CC
505H - OH / 68126 - Surveys (H&P 296)	8,600.00	8,632.87	113.20	45.70	1.677	ES, SF
506H - OH / 68127 - Surveys (H&P 296)	4,017.67	4,064.28	694.55	665.09	23.578	CC
506H - OH / 68127 - Surveys (H&P 296)	4,100.00	4,138.97	695.02	664.98	23.141	ES
506H - OH / 68127 - Surveys (H&P 296)	10,600.00	10,593.63	1,015.85	943.58	14.056	SF

Offset Design	Golden Tee 31 Fed Com 304H - 304H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program:	0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.00	1.00	0.00	0.00	89.60	0.23	33.05	33.05					
100.00	100.00	101.00	101.00	0.13	0.14	89.60	0.23	33.05	33.05	32.78	0.27	121.315		
200.00	200.00	201.00	201.00	0.49	0.50	89.60	0.23	33.05	33.05	32.06	0.99	33.406		
300.00	300.00	301.00	301.00	0.85	0.85	89.60	0.23	33.05	33.05	31.34	1.71	19.370		
400.00	400.00	401.00	401.00	1.21	1.21	89.60	0.23	33.05	33.05	30.63	2.42	13.639		

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 304H - 304H - Planning - Plan 0.2b													Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
500.00	500.00	501.00	501.00	1.57	1.57	89.60	0.23	33.05	33.05	29.91	3.14	10.525		
600.00	600.00	601.00	601.00	1.93	1.93	89.60	0.23	33.05	33.05	29.19	3.86	8.569		
700.00	700.00	701.00	701.00	2.29	2.29	89.60	0.23	33.05	33.05	28.48	4.57	7.226		
800.00	800.00	801.00	801.00	2.64	2.65	89.60	0.23	33.05	33.05	27.76	5.29	6.247		
900.00	900.00	901.00	901.00	3.00	3.01	89.60	0.23	33.05	33.05	27.04	6.01	5.501		
1,000.00	1,000.00	1,001.00	1,001.00	3.36	3.36	89.60	0.23	33.05	33.05	26.33	6.72	4.915		
1,100.00	1,100.00	1,101.00	1,101.00	3.72	3.72	89.60	0.23	33.05	33.05	25.61	7.44	4.441		
1,200.00	1,200.00	1,201.00	1,201.00	4.08	4.08	89.60	0.23	33.05	33.05	24.89	8.16	4.051		
1,300.00	1,300.00	1,301.00	1,301.00	4.44	4.44	89.60	0.23	33.05	33.05	24.18	8.88	3.724		
1,400.00	1,400.00	1,401.00	1,401.00	4.79	4.80	89.60	0.23	33.05	33.05	23.46	9.59	3.445		
1,500.00	1,500.00	1,501.00	1,501.00	5.15	5.16	89.60	0.23	33.05	33.05	22.74	10.31	3.206		
1,600.00	1,600.00	1,601.00	1,601.00	5.51	5.52	89.60	0.23	33.05	33.05	22.02	11.03	2.997		
1,700.00	1,700.00	1,701.00	1,701.00	5.87	5.87	89.60	0.23	33.05	33.05	21.31	11.74	2.814		
1,800.00	1,800.00	1,801.00	1,801.00	6.23	6.23	89.60	0.23	33.05	33.05	20.59	12.46	2.652		
1,900.00	1,900.00	1,901.00	1,901.00	6.59	6.59	89.60	0.23	33.05	33.05	19.87	13.18	2.508		
2,000.00	2,000.00	2,001.01	2,001.01	6.95	6.95	89.60	0.23	33.05	33.05	19.16	13.89	2.379		
2,100.00	2,099.99	2,101.56	2,101.55	7.30	7.30	149.90	0.50	32.19	32.95	18.35	14.60	2.257		
2,200.00	2,199.96	2,202.11	2,202.06	7.65	7.65	150.81	1.29	29.65	32.69	17.40	15.29	2.138		
2,300.00	2,299.86	2,302.65	2,302.51	8.00	8.00	152.37	2.61	25.42	32.29	16.31	15.98	2.020		
2,400.00	2,399.68	2,403.19	2,402.85	8.36	8.36	154.62	4.46	19.51	31.78	15.11	16.67	1.906		
2,500.00	2,499.36	2,503.69	2,503.04	8.71	8.71	157.62	6.83	11.93	31.20	13.84	17.35	1.798		
2,600.00	2,598.99	2,603.68	2,602.65	9.07	9.07	161.06	9.43	3.61	30.72	12.66	18.06	1.701		
2,700.00	2,698.60	2,703.66	2,702.25	9.43	9.42	164.60	12.02	-4.70	30.36	11.60	18.76	1.618		
2,800.00	2,798.22	2,803.64	2,801.85	9.79	9.78	168.21	14.62	-13.02	30.11	10.65	19.47	1.547		
2,900.00	2,897.84	2,903.62	2,901.45	10.15	10.14	171.86	17.22	-21.34	29.99	9.82	20.18	1.486 Level 3		
2,950.08	2,947.74	2,953.69	2,951.33	10.33	10.32	173.70	18.52	-25.50	29.98	9.44	20.53	1.460 Level 3, CC		
3,000.00	2,997.46	3,003.60	3,001.05	10.51	10.50	175.53	19.82	-29.66	29.99	9.10	20.89	1.436 Level 3		
3,100.00	3,097.08	3,103.58	3,100.65	10.87	10.87	179.18	22.42	-37.97	30.11	8.51	21.60	1.394 Level 3		
3,200.00	3,196.70	3,203.56	3,200.25	11.24	11.23	-177.21	25.02	-46.29	30.36	8.04	22.32	1.360 Level 3		
3,300.00	3,296.32	3,303.55	3,299.85	11.60	11.59	-173.67	27.62	-54.61	30.72	7.68	23.04	1.333 Level 3		
3,400.00	3,395.94	3,403.53	3,399.46	11.97	11.96	-170.23	30.21	-62.93	31.20	7.43	23.77	1.313 Level 3		
3,500.00	3,495.56	3,503.51	3,499.06	12.33	12.32	-166.90	32.81	-71.24	31.78	7.29	24.49	1.298 Level 3		
3,600.00	3,595.18	3,603.49	3,598.66	12.70	12.69	-163.70	35.41	-79.56	32.47	7.25	25.22	1.287 Level 3, ES		
3,700.00	3,694.80	3,703.47	3,698.26	13.07	13.06	-160.65	38.01	-87.88	33.26	7.30	25.96	1.281 Level 3		
3,800.00	3,794.42	3,803.45	3,797.86	13.44	13.42	-157.74	40.61	-96.20	34.13	7.44	26.69	1.279 Level 3, SF		
3,900.00	3,894.04	3,903.44	3,897.46	13.81	13.79	-154.98	43.21	-104.51	35.09	7.66	27.43	1.279 Level 3		
4,000.00	3,993.66	4,003.42	3,997.06	14.17	14.16	-152.38	45.81	-112.83	36.13	7.96	28.17	1.283 Level 3		
4,100.00	4,093.28	4,103.40	4,096.66	14.54	14.53	-149.93	48.40	-121.15	37.23	8.32	28.91	1.288 Level 3		
4,200.00	4,192.90	4,203.38	4,196.26	14.91	14.90	-147.62	51.00	-129.47	38.40	8.75	29.65	1.295 Level 3		
4,300.00	4,292.52	4,303.36	4,295.87	15.28	15.27	-145.45	53.60	-137.78	39.63	9.24	30.39	1.304 Level 3		
4,400.00	4,392.14	4,403.34	4,395.47	15.65	15.64	-143.42	56.20	-146.10	40.91	9.77	31.14	1.314 Level 3		
4,500.00	4,491.76	4,503.32	4,495.07	16.02	16.01	-141.51	58.80	-154.42	42.24	10.36	31.88	1.325 Level 3		
4,600.00	4,591.37	4,603.31	4,594.67	16.40	16.38	-139.72	61.40	-162.74	43.62	10.99	32.63	1.337 Level 3		
4,700.00	4,690.99	4,703.29	4,694.27	16.77	16.75	-138.04	64.00	-171.05	45.03	11.65	33.38	1.349 Level 3		
4,800.00	4,790.61	4,803.27	4,793.87	17.14	17.12	-136.47	66.59	-179.37	46.48	12.36	34.12	1.362 Level 3		
4,900.00	4,890.23	4,903.25	4,893.47	17.51	17.50	-134.99	69.19	-187.69	47.96	13.09	34.87	1.375 Level 3		
5,000.00	4,989.85	5,003.23	4,993.07	17.88	17.87	-133.60	71.79	-196.01	49.48	13.86	35.62	1.389 Level 3		
5,100.00	5,089.47	5,103.21	5,092.67	18.25	18.24	-132.29	74.39	-204.32	51.02	14.65	36.37	1.403 Level 3		
5,200.00	5,189.09	5,203.20	5,192.27	18.63	18.61	-131.06	76.99	-212.64	52.58	15.47	37.12	1.417 Level 3		
5,300.00	5,288.71	5,303.18	5,291.88	19.00	18.98	-129.90	79.59	-220.96	54.17	16.31	37.87	1.431 Level 3		
5,400.00	5,388.33	5,403.16	5,391.48	19.37	19.36	-128.81	82.19	-229.28	55.78	17.17	38.61	1.445 Level 3		
5,500.00	5,487.95	5,503.14	5,491.08	19.74	19.73	-127.78	84.79	-237.59	57.41	18.05	39.36	1.458 Level 3		

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 304H - 304H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,600.00	5,587.57	5,603.12	5,590.68	20.12	20.10	-126.81	87.38	-245.91	59.06	18.94	40.11	1.472	Level 3
5,632.55	5,620.00	5,635.71	5,623.14	20.24	20.22	-126.50	88.23	-248.62	59.60	19.24	40.36	1.477	Level 3
5,700.00	5,687.11	5,703.93	5,691.02	20.49	20.48	-127.56	90.41	-255.08	60.79	19.93	40.86	1.488	Level 3
5,800.00	5,786.29	5,805.07	5,791.31	20.88	20.87	-127.73	95.03	-267.29	63.02	21.40	41.62	1.514	
5,900.00	5,884.97	5,906.19	5,891.06	21.27	21.27	-126.98	101.28	-282.62	65.81	23.41	42.40	1.552	
5,959.22	5,943.12	5,966.06	5,949.82	21.51	21.51	-126.26	105.74	-293.16	67.74	24.88	42.86	1.580	
6,000.00	5,983.08	6,007.27	5,990.12	21.67	21.68	-125.26	109.15	-301.05	69.01	25.82	43.19	1.598	
6,100.00	6,081.07	6,108.17	6,088.25	22.08	22.10	-121.17	118.63	-322.52	71.16	27.13	44.03	1.616	
6,200.00	6,179.06	6,207.95	6,184.91	22.48	22.52	-116.19	128.73	-345.15	73.11	28.18	44.92	1.627	
6,300.00	6,277.05	6,307.73	6,281.57	22.89	22.95	-111.51	138.83	-367.77	75.57	29.77	45.80	1.650	
6,400.00	6,375.05	6,407.52	6,378.23	23.30	23.38	-107.14	148.93	-390.39	78.51	31.85	46.66	1.683	
6,500.00	6,473.04	6,507.30	6,474.89	23.72	23.81	-103.11	159.03	-413.02	81.87	34.36	47.51	1.723	
6,600.00	6,571.03	6,607.09	6,571.55	24.13	24.24	-99.42	169.13	-435.64	85.61	37.26	48.35	1.771	
6,700.00	6,669.02	6,706.87	6,668.20	24.54	24.68	-96.04	179.24	-458.26	89.67	40.49	49.17	1.823	
6,800.00	6,767.02	6,806.65	6,764.86	24.96	25.12	-92.97	189.34	-480.89	94.01	44.02	49.99	1.881	
6,900.00	6,865.01	6,906.44	6,861.52	25.38	25.56	-90.17	199.44	-503.51	98.60	47.80	50.80	1.941	
6,959.22	6,923.04	6,965.53	6,918.77	25.63	25.83	-88.64	205.42	-516.91	101.42	50.14	51.28	1.978	
7,000.00	6,963.04	7,006.20	6,958.16	25.79	26.01	-90.26	209.54	-526.13	103.60	52.00	51.61	2.008	
7,100.00	7,061.47	7,105.72	7,054.57	26.20	26.45	-94.98	219.61	-548.69	110.84	58.48	52.37	2.117	
7,200.00	7,160.26	7,204.85	7,150.59	26.60	26.90	-101.54	229.65	-571.17	121.07	68.00	53.08	2.281	
7,300.00	7,259.29	7,303.45	7,246.10	26.98	27.34	-110.56	239.63	-593.52	134.61	80.87	53.74	2.505	
7,327.23	7,286.28	7,330.19	7,272.01	27.09	27.46	-113.42	242.34	-599.59	138.90	84.99	53.91	2.577	
7,400.00	7,358.43	7,401.60	7,341.18	27.36	27.79	-110.53	249.56	-615.78	150.92	96.54	54.37	2.776	
7,500.00	7,457.58	7,499.72	7,436.23	27.73	28.23	-107.24	259.50	-638.02	167.94	112.91	55.02	3.052	
7,600.00	7,556.73	7,597.85	7,531.28	28.11	28.68	-104.56	269.43	-660.27	185.40	129.70	55.69	3.329	
7,700.00	7,655.87	7,695.97	7,626.33	28.48	29.13	-102.34	279.36	-682.52	203.19	146.81	56.38	3.604	
7,800.00	7,755.02	7,794.10	7,721.39	28.86	29.58	-100.48	289.30	-704.76	221.22	164.15	57.07	3.876	
7,900.00	7,854.17	7,892.22	7,816.44	29.23	30.03	-98.90	299.23	-727.01	239.46	181.67	57.78	4.144	
8,000.00	7,953.31	7,990.35	7,911.49	29.61	30.49	-97.54	309.17	-749.26	257.84	199.34	58.50	4.408	
8,100.00	8,052.46	8,088.47	8,006.54	29.99	30.94	-96.37	319.10	-771.51	276.34	217.12	59.22	4.666	
8,200.00	8,151.60	8,186.60	8,101.59	30.36	31.40	-95.34	329.03	-793.75	294.94	234.99	59.96	4.919	
8,300.00	8,250.75	8,284.72	8,196.65	30.74	31.85	-94.43	338.97	-816.00	313.63	252.93	60.69	5.167	
8,400.00	8,349.90	8,382.85	8,291.70	31.12	32.31	-93.63	348.90	-838.25	332.38	270.94	61.44	5.410	
8,500.00	8,449.04	8,480.97	8,386.75	31.50	32.77	-92.91	358.83	-860.50	351.19	289.00	62.18	5.648	
8,600.00	8,548.19	8,579.10	8,481.80	31.88	33.23	-92.26	368.77	-882.74	370.04	307.11	62.93	5.880	
8,700.00	8,647.34	8,677.22	8,576.86	32.26	33.69	-91.68	378.70	-904.99	388.94	325.25	63.69	6.107	
8,800.00	8,746.48	8,775.35	8,671.91	32.64	34.15	-91.15	388.63	-927.24	407.87	343.43	64.45	6.329	
8,900.00	8,845.63	8,873.47	8,766.96	33.02	34.62	-90.67	398.57	-949.48	426.84	361.63	65.20	6.546	
9,000.00	8,944.78	8,971.60	8,862.01	33.40	35.08	-90.23	408.50	-971.73	445.82	379.86	65.97	6.758	
9,100.00	9,043.92	9,069.72	8,957.06	33.78	35.55	-89.82	418.43	-993.98	464.84	398.11	66.73	6.966	
9,200.00	9,143.07	9,167.85	9,052.12	34.16	36.01	-89.45	428.37	-1,016.23	483.87	416.37	67.50	7.169	
9,300.00	9,242.21	9,265.97	9,147.17	34.54	36.48	-89.10	438.30	-1,038.47	502.92	434.66	68.27	7.367	
9,400.00	9,341.36	9,364.10	9,242.22	34.92	36.94	-88.78	448.23	-1,060.72	521.99	452.95	69.04	7.561	
9,500.00	9,440.51	9,450.00	9,325.55	35.30	37.35	-88.69	458.30	-1,080.21	541.65	472.03	69.61	7.781	
9,600.00	9,539.65	9,525.00	9,398.39	35.69	37.67	-89.69	468.43	-1,097.18	560.55	490.06	69.99	8.074	
9,700.00	9,638.80	9,590.72	9,460.99	36.07	37.91	-91.43	478.63	-1,111.69	580.15	508.06	70.08	8.463	
9,800.00	9,737.95	9,650.00	9,515.45	36.45	38.10	-93.59	488.88	-1,124.26	600.15	526.86	69.88	8.968	
9,900.00	9,837.09	9,700.00	9,559.26	36.84	38.24	-95.76	499.18	-1,134.33	620.52	545.25	69.27	9.622	
10,000.00	9,936.24	9,750.00	9,600.61	37.22	38.35	-98.18	509.51	-1,143.79	640.69	564.16	68.53	10.399	
10,100.00	10,035.38	9,787.40	9,629.66	37.60	38.43	-100.12	520.00	-1,150.42	660.84	583.86	67.33	11.364	
10,200.00	10,134.53	9,825.00	9,657.04	37.99	38.49	-102.14	530.53	-1,156.63	681.00	603.46	66.14	12.453	
10,300.00	10,233.68	9,850.00	9,674.16	38.37	38.52	-103.51	541.12	-1,160.50	691.66	622.65	64.61	13.733	

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



Aim Directional Services, LLC

Anticollision Report



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Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 304H - 304H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWVD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.00	10,332.82	9,875.00	9,690.34	38.76	38.55	-104.89	285.33	-1,164.15	955.59	892.40	63.20	15.121	
10,500.00	10,431.97	9,900.00	9,705.55	39.14	38.58	-106.28	265.79	-1,167.56	1,027.98	966.04	61.94	16.597	
10,600.00	10,531.12	9,912.18	9,712.59	39.53	38.59	-106.95	255.98	-1,169.13	1,103.71	1,043.24	60.47	18.252	
10,700.00	10,630.26	9,925.00	9,719.75	39.91	38.60	-107.66	245.45	-1,170.73	1,182.43	1,123.22	59.21	19.969	
10,800.00	10,729.41	9,950.00	9,732.88	40.30	38.61	-109.04	224.39	-1,173.65	1,263.69	1,205.26	58.43	21.626	
10,803.49	10,732.87	9,950.00	9,732.88	40.31	38.61	-109.04	224.39	-1,173.65	1,266.56	1,208.17	58.39	21.692	
10,825.00	10,754.25	9,950.00	9,732.88	40.39	38.61	-104.14	224.39	-1,173.65	1,284.13	1,226.03	58.10	22.104	
10,850.00	10,779.19	9,950.00	9,732.88	40.48	38.61	-79.92	224.39	-1,173.65	1,304.27	1,246.52	57.75	22.586	
10,875.00	10,804.18	9,950.00	9,732.88	40.57	38.61	-9.51	224.39	-1,173.65	1,324.07	1,266.68	57.39	23.072	
10,900.00	10,829.13	9,950.00	9,732.88	40.65	38.61	18.98	224.39	-1,173.65	1,343.49	1,286.47	57.02	23.560	
10,925.00	10,853.98	9,961.81	9,738.72	40.72	38.62	25.72	214.20	-1,174.94	1,362.33	1,305.40	56.93	23.931	
10,950.00	10,878.66	9,975.00	9,744.93	40.79	38.63	27.57	202.65	-1,176.31	1,380.82	1,323.97	56.85	24.290	
10,975.00	10,903.11	9,975.00	9,744.93	40.85	38.63	28.11	202.65	-1,176.31	1,398.61	1,342.15	56.46	24.772	
11,000.00	10,927.25	9,975.00	9,744.93	40.91	38.63	27.97	202.65	-1,176.31	1,415.87	1,359.80	56.07	25.252	
11,025.00	10,951.03	9,975.00	9,744.93	40.97	38.63	27.50	202.65	-1,176.31	1,432.60	1,376.91	55.68	25.729	
11,050.00	10,974.38	9,986.48	9,750.09	41.02	38.63	26.74	192.46	-1,177.44	1,448.58	1,393.05	55.53	26.084	
11,075.00	10,997.22	10,000.00	9,755.86	41.06	38.63	25.94	180.30	-1,178.70	1,464.02	1,408.60	55.42	26.416	
11,100.00	11,019.51	10,000.00	9,755.86	41.10	38.63	25.32	180.30	-1,178.70	1,478.61	1,423.59	55.03	26.870	
11,125.00	11,041.17	10,000.00	9,755.86	41.14	38.63	24.71	180.30	-1,178.70	1,492.56	1,437.92	54.64	27.316	
11,150.00	11,062.16	10,000.00	9,755.86	41.17	38.63	24.12	180.30	-1,178.70	1,505.83	1,451.57	54.26	27.753	
11,175.00	11,082.40	10,014.77	9,761.77	41.20	38.64	23.48	166.83	-1,179.99	1,518.15	1,463.99	54.16	28.031	
11,200.00	11,101.86	10,025.00	9,765.63	41.22	38.64	22.93	157.39	-1,180.82	1,529.80	1,475.82	53.97	28.343	
11,225.00	11,120.46	10,025.00	9,765.63	41.24	38.64	22.48	157.39	-1,180.82	1,540.59	1,486.98	53.61	28.738	
11,250.00	11,138.17	10,025.00	9,765.63	41.25	38.64	22.07	157.39	-1,180.82	1,550.65	1,497.39	53.25	29.119	
11,275.00	11,154.93	10,039.19	9,770.65	41.26	38.64	21.66	144.16	-1,181.90	1,559.71	1,506.56	53.15	29.347	
11,300.00	11,170.70	10,050.00	9,774.22	41.26	38.64	21.31	133.98	-1,182.66	1,568.01	1,515.02	52.99	29.593	
11,325.00	11,185.43	10,050.00	9,774.22	41.26	38.64	21.03	133.98	-1,182.66	1,575.40	1,522.73	52.66	29.915	
11,350.00	11,199.09	10,050.00	9,774.22	41.26	38.64	20.79	133.98	-1,182.66	1,581.99	1,529.64	52.36	30.215	
11,375.00	11,211.63	10,064.64	9,778.70	41.25	38.64	20.57	120.08	-1,183.61	1,587.54	1,535.26	52.28	30.366	
11,400.00	11,223.02	10,075.00	9,781.61	41.24	38.64	20.40	110.15	-1,184.22	1,592.28	1,540.14	52.15	30.535	
11,425.00	11,233.24	10,075.00	9,781.61	41.22	38.64	20.28	110.15	-1,184.22	1,596.09	1,544.20	51.89	30.761	
11,450.00	11,242.25	10,075.00	9,781.61	41.21	38.64	20.18	110.15	-1,184.22	1,599.08	1,547.43	51.65	30.959	
11,475.00	11,250.02	10,090.66	9,785.62	41.19	38.64	20.14	95.04	-1,185.05	1,600.96	1,549.34	51.62	31.012	
11,500.00	11,256.55	10,100.00	9,787.78	41.17	38.64	20.13	85.96	-1,185.49	1,602.03	1,550.50	51.53	31.088	
11,525.00	11,261.80	10,100.00	9,787.78	41.14	38.64	20.15	85.96	-1,185.49	1,602.17	1,550.82	51.35	31.198	
11,550.00	11,265.77	10,110.30	9,789.95	41.11	38.64	20.23	75.91	-1,185.93	1,601.37	1,550.06	51.31	31.212	
11,575.00	11,268.44	10,125.00	9,792.70	41.09	38.64	20.35	61.47	-1,186.47	1,599.74	1,548.42	51.31	31.176	
11,600.00	11,269.81	10,125.00	9,792.70	41.06	38.64	20.48	61.47	-1,186.47	1,597.03	1,545.83	51.20	31.190	
11,613.65	11,270.00	10,125.00	9,792.70	41.04	38.64	20.57	61.47	-1,186.47	1,595.21	1,544.05	51.15	31.184	
11,700.00	11,270.00	10,150.00	9,796.37	40.95	38.64	20.65	36.76	-1,187.15	1,584.51	1,533.36	51.15	30.977	
11,800.00	11,270.00	10,175.00	9,798.77	40.86	38.64	20.70	11.88	-1,187.54	1,576.41	1,525.09	51.32	30.719	
11,900.00	11,270.00	10,200.00	9,799.90	40.81	38.63	20.72	-13.09	-1,187.63	1,572.95	1,521.24	51.70	30.422	
11,925.00	11,270.00	10,209.73	9,800.00	40.81	38.63	20.73	-22.82	-1,187.59	1,572.80	1,520.96	51.83	30.342	
12,000.00	11,270.00	10,283.51	9,800.00	40.93	38.63	20.73	-96.60	-1,187.07	1,572.85	1,520.63	52.22	30.120	
12,100.00	11,270.00	10,383.51	9,800.00	41.17	38.68	20.74	-196.59	-1,186.38	1,572.93	1,520.15	52.78	29.800	
12,200.00	11,270.00	10,483.51	9,800.00	41.46	38.76	20.75	-296.59	-1,185.68	1,573.01	1,519.61	53.40	29.457	
12,300.00	11,270.00	10,583.51	9,800.00	41.79	38.90	20.76	-396.59	-1,184.98	1,573.09	1,519.02	54.07	29.094	
12,400.00	11,270.00	10,683.51	9,800.00	42.16	39.10	20.76	-496.58	-1,184.29	1,573.17	1,518.38	54.79	28.714	
12,500.00	11,270.00	10,783.50	9,800.00	42.57	39.36	20.77	-596.58	-1,183.59	1,573.24	1,517.69	55.56	28.318	
12,600.00	11,270.00	10,883.50	9,800.00	43.02	39.69	20.78	-696.58	-1,182.89	1,573.32	1,516.95	56.37	27.911	
12,700.00	11,270.00	10,983.50	9,800.00	43.52	40.07	20.78	-796.58	-1,182.20	1,573.40	1,516.17	57.23	27.493	
12,800.00	11,270.00	11,083.50	9,800.00	44.05	40.52	20.79	-896.57	-1,181.50	1,573.48	1,515.35	58.13	27.068	

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Offset Design Golden Tee 31 Fed Com 304H - 304H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,900.00	11,270.00	11,183.50	9,800.00	44.62	41.02	20.80	-996.57	-1,180.81	1,573.55	1,514.48	59.07	26.638	
13,000.00	11,270.00	11,283.50	9,800.00	45.23	41.58	20.81	-1,096.57	-1,180.11	1,573.63	1,513.58	60.05	26.204	
13,100.00	11,270.00	11,383.50	9,800.00	45.87	42.18	20.81	-1,196.57	-1,179.41	1,573.71	1,512.64	61.07	25.769	
13,200.00	11,270.00	11,483.50	9,800.00	46.55	42.83	20.82	-1,296.56	-1,178.72	1,573.79	1,511.67	62.12	25.334	
13,300.00	11,270.00	11,583.50	9,800.00	47.26	43.52	20.83	-1,396.56	-1,178.02	1,573.87	1,510.66	63.21	24.900	
13,400.00	11,270.00	11,683.50	9,800.00	48.01	44.25	20.84	-1,496.56	-1,177.33	1,573.94	1,509.62	64.32	24.469	
13,500.00	11,270.00	11,783.50	9,800.00	48.78	45.02	20.84	-1,596.56	-1,176.63	1,574.02	1,508.55	65.47	24.041	
13,600.00	11,270.00	11,883.50	9,800.00	49.58	45.82	20.85	-1,696.55	-1,175.93	1,574.10	1,507.45	66.65	23.618	
13,700.00	11,270.00	11,983.50	9,800.00	50.41	46.65	20.86	-1,796.55	-1,175.24	1,574.18	1,506.33	67.85	23.201	
13,800.00	11,270.00	12,083.50	9,800.00	51.27	47.52	20.87	-1,896.55	-1,174.54	1,574.26	1,505.18	69.08	22.789	
13,900.00	11,270.00	12,183.50	9,800.00	52.15	48.41	20.87	-1,996.54	-1,173.84	1,574.34	1,504.00	70.33	22.385	
14,000.00	11,270.00	12,283.50	9,800.00	53.06	49.33	20.88	-2,096.54	-1,173.15	1,574.41	1,502.81	71.61	21.987	
14,100.00	11,270.00	12,383.50	9,800.00	53.99	50.27	20.89	-2,196.54	-1,172.45	1,574.49	1,501.59	72.90	21.597	
14,200.00	11,270.00	12,483.50	9,800.00	54.94	51.23	20.90	-2,296.54	-1,171.76	1,574.57	1,500.35	74.22	21.214	
14,300.00	11,270.00	12,583.50	9,800.00	55.91	52.22	20.90	-2,396.53	-1,171.06	1,574.65	1,499.09	75.56	20.840	
14,400.00	11,270.00	12,683.50	9,800.00	56.90	53.23	20.91	-2,496.53	-1,170.36	1,574.73	1,497.81	76.92	20.473	
14,500.00	11,270.00	12,783.50	9,800.00	57.91	54.26	20.92	-2,596.53	-1,169.67	1,574.81	1,496.51	78.29	20.115	
14,600.00	11,270.00	12,883.50	9,800.00	58.94	55.30	20.93	-2,696.53	-1,168.97	1,574.88	1,495.20	79.68	19.764	
14,700.00	11,270.00	12,983.50	9,800.00	59.99	56.37	20.93	-2,796.52	-1,168.27	1,574.96	1,493.87	81.09	19.422	
14,800.00	11,270.00	13,083.50	9,800.00	61.05	57.45	20.94	-2,896.52	-1,167.58	1,575.04	1,492.53	82.51	19.089	
14,900.00	11,270.00	13,183.50	9,800.00	62.12	58.54	20.95	-2,996.52	-1,166.88	1,575.12	1,491.17	83.95	18.763	
15,000.00	11,270.00	13,283.50	9,800.00	63.21	59.65	20.96	-3,096.52	-1,166.19	1,575.20	1,489.80	85.40	18.445	
15,100.00	11,270.00	13,383.50	9,800.00	64.32	60.78	20.96	-3,196.51	-1,165.49	1,575.28	1,488.41	86.86	18.135	
15,200.00	11,270.00	13,483.50	9,800.00	65.43	61.92	20.97	-3,296.51	-1,164.79	1,575.35	1,487.02	88.34	17.833	
15,300.00	11,270.00	13,583.50	9,800.00	66.56	63.07	20.98	-3,396.51	-1,164.10	1,575.43	1,485.61	89.83	17.539	
15,400.00	11,270.00	13,683.50	9,800.00	67.70	64.23	20.99	-3,496.50	-1,163.40	1,575.51	1,484.19	91.33	17.252	
15,500.00	11,270.00	13,783.50	9,800.00	68.85	65.40	20.99	-3,596.50	-1,162.70	1,575.59	1,482.76	92.83	16.972	
15,600.00	11,270.00	13,883.50	9,800.00	70.02	66.58	21.00	-3,696.50	-1,162.01	1,575.67	1,481.31	94.35	16.699	
15,700.00	11,270.00	13,983.50	9,800.00	71.19	67.77	21.01	-3,796.50	-1,161.31	1,575.75	1,479.86	95.88	16.434	
15,800.00	11,270.00	14,083.50	9,800.00	72.37	68.98	21.02	-3,896.49	-1,160.62	1,575.83	1,478.40	97.42	16.175	
15,900.00	11,270.00	14,183.50	9,800.00	73.56	70.19	21.02	-3,996.49	-1,159.92	1,575.91	1,476.93	98.97	15.923	
16,000.00	11,270.00	14,283.50	9,800.00	74.76	71.41	21.03	-4,096.49	-1,159.22	1,575.98	1,475.46	100.53	15.677	
16,100.00	11,270.00	14,383.50	9,800.00	75.97	72.63	21.04	-4,196.49	-1,158.53	1,576.06	1,473.97	102.09	15.438	
16,200.00	11,270.00	14,483.50	9,800.00	77.19	73.87	21.05	-4,296.48	-1,157.83	1,576.14	1,472.48	103.66	15.204	
16,300.00	11,270.00	14,583.50	9,800.00	78.41	75.11	21.05	-4,396.48	-1,157.13	1,576.22	1,470.98	105.24	14.977	
16,400.00	11,270.00	14,683.50	9,800.00	79.64	76.36	21.06	-4,496.48	-1,156.44	1,576.30	1,469.47	106.83	14.755	
16,500.00	11,270.00	14,783.50	9,800.00	80.88	77.61	21.07	-4,596.48	-1,155.74	1,576.38	1,467.95	108.42	14.539	
16,600.00	11,270.00	14,883.50	9,800.00	82.12	78.88	21.08	-4,696.47	-1,155.05	1,576.46	1,466.43	110.03	14.328	
16,700.00	11,270.00	14,983.49	9,800.00	83.37	80.14	21.08	-4,796.47	-1,154.35	1,576.54	1,464.90	111.63	14.123	
16,800.00	11,270.00	15,083.49	9,800.00	84.63	81.42	21.09	-4,896.47	-1,153.65	1,576.61	1,463.37	113.24	13.922	
16,900.00	11,270.00	15,183.49	9,800.00	85.89	82.70	21.10	-4,996.46	-1,152.96	1,576.69	1,461.83	114.86	13.727	
17,000.00	11,270.00	15,283.49	9,800.00	87.16	83.98	21.11	-5,096.46	-1,152.26	1,576.77	1,460.29	116.49	13.536	
17,100.00	11,270.00	15,383.49	9,800.00	88.43	85.27	21.11	-5,196.46	-1,151.57	1,576.85	1,458.74	118.12	13.350	
17,200.00	11,270.00	15,483.49	9,800.00	89.71	86.56	21.12	-5,296.46	-1,150.87	1,576.93	1,457.18	119.75	13.168	
17,300.00	11,270.00	15,583.49	9,800.00	90.99	87.86	21.13	-5,396.45	-1,150.17	1,577.01	1,455.62	121.39	12.991	
17,400.00	11,270.00	15,683.49	9,800.00	92.28	89.16	21.14	-5,496.45	-1,149.48	1,577.09	1,454.05	123.03	12.818	
17,500.00	11,270.00	15,783.49	9,800.00	93.57	90.47	21.14	-5,596.45	-1,148.78	1,577.17	1,452.49	124.68	12.649	
17,600.00	11,270.00	15,883.49	9,800.00	94.87	91.78	21.15	-5,696.45	-1,148.08	1,577.25	1,450.91	126.34	12.485	
17,700.00	11,270.00	15,983.49	9,800.00	96.17	93.09	21.16	-5,796.44	-1,147.39	1,577.33	1,449.33	127.99	12.323	
17,800.00	11,270.00	16,083.49	9,800.00	97.47	94.41	21.17	-5,896.44	-1,146.69	1,577.41	1,447.75	129.66	12.166	
17,900.00	11,270.00	16,183.49	9,800.00	98.78	95.73	21.17	-5,996.44	-1,146.00	1,577.49	1,446.16	131.32	12.012	
18,000.00	11,270.00	16,283.49	9,800.00	100.09	97.06	21.18	-6,096.44	-1,145.30	1,577.56	1,444.57	132.99	11.862	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 304H - 304H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,100.00	11,270.00	16,383.49	9,800.00	101.41	98.39	21.19	-6,196.43	-1,144.60	1,577.64	1,442.98	134.66	11.715	
18,200.00	11,270.00	16,483.49	9,800.00	102.73	99.72	21.19	-6,296.43	-1,143.91	1,577.72	1,441.38	136.34	11.572	
18,300.00	11,270.00	16,583.49	9,800.00	104.05	101.05	21.20	-6,396.43	-1,143.21	1,577.80	1,439.78	138.02	11.432	
18,400.00	11,270.00	16,683.49	9,800.00	105.37	102.39	21.21	-6,496.42	-1,142.51	1,577.88	1,438.18	139.70	11.295	
18,500.00	11,270.00	16,783.49	9,800.00	106.70	103.73	21.22	-6,596.42	-1,141.82	1,577.96	1,436.57	141.39	11.160	
18,600.00	11,270.00	16,883.49	9,800.00	108.03	105.07	21.22	-6,696.42	-1,141.12	1,578.04	1,434.96	143.08	11.029	
18,700.00	11,270.00	16,983.49	9,800.00	109.36	106.41	21.23	-6,796.42	-1,140.43	1,578.12	1,433.35	144.77	10.901	
18,800.00	11,270.00	17,083.49	9,800.00	110.70	107.76	21.24	-6,896.41	-1,139.73	1,578.20	1,431.73	146.47	10.775	
18,900.00	11,270.00	17,183.49	9,800.00	112.04	109.11	21.25	-6,996.41	-1,139.03	1,578.28	1,430.11	148.17	10.652	
19,000.00	11,270.00	17,283.49	9,800.00	113.38	110.46	21.25	-7,096.41	-1,138.34	1,578.36	1,428.49	149.87	10.532	
19,100.00	11,270.00	17,383.49	9,800.00	114.72	111.82	21.26	-7,196.41	-1,137.64	1,578.44	1,426.87	151.57	10.414	
19,200.00	11,270.00	17,483.49	9,800.00	116.07	113.17	21.27	-7,296.40	-1,136.94	1,578.52	1,425.24	153.28	10.298	
19,300.00	11,270.00	17,583.49	9,800.00	117.42	114.53	21.28	-7,396.40	-1,136.25	1,578.60	1,423.61	154.99	10.185	
19,332.38	11,270.00	17,615.87	9,800.00	117.85	114.97	21.28	-7,428.78	-1,136.02	1,578.62	1,423.08	155.54	10.149	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 305H - 305H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	1.00	0.00	0.00	89.42	1.01	99.02	99.03				
100.00	100.00	101.00	101.00	0.13	0.14	89.42	1.01	99.02	99.03	98.75	0.27	363.477	
200.00	200.00	201.00	201.00	0.49	0.50	89.42	1.01	99.02	99.03	98.04	0.99	100.088	
300.00	300.00	301.00	301.00	0.85	0.85	89.42	1.01	99.02	99.03	97.32	1.71	58.034	
400.00	400.00	401.00	401.00	1.21	1.21	89.42	1.01	99.02	99.03	96.60	2.42	40.864	
500.00	500.00	501.00	501.00	1.57	1.57	89.42	1.01	99.02	99.03	95.88	3.14	31.535	
600.00	600.00	601.00	601.00	1.93	1.93	89.42	1.01	99.02	99.03	95.17	3.86	25.673	
700.00	700.00	701.00	701.00	2.29	2.29	89.42	1.01	99.02	99.03	94.45	4.57	21.649	
800.00	800.00	801.00	801.00	2.64	2.65	89.42	1.01	99.02	99.03	93.73	5.29	18.716	
900.00	900.00	901.00	901.00	3.00	3.01	89.42	1.01	99.02	99.03	93.02	6.01	16.482	
1,000.00	1,000.00	1,001.00	1,001.00	3.36	3.36	89.42	1.01	99.02	99.03	92.30	6.72	14.725	
1,100.00	1,100.00	1,101.00	1,101.00	3.72	3.72	89.42	1.01	99.02	99.03	91.58	7.44	13.306	
1,200.00	1,200.00	1,201.00	1,201.00	4.08	4.08	89.42	1.01	99.02	99.03	90.87	8.16	12.137	
1,300.00	1,300.00	1,301.00	1,301.00	4.44	4.44	89.42	1.01	99.02	99.03	90.15	8.88	11.157	
1,400.00	1,400.00	1,401.00	1,401.00	4.79	4.80	89.42	1.01	99.02	99.03	89.43	9.59	10.323	
1,500.00	1,500.00	1,501.00	1,501.00	5.15	5.16	89.42	1.01	99.02	99.03	88.72	10.31	9.605	
1,600.00	1,600.00	1,601.00	1,601.00	5.51	5.52	89.42	1.01	99.02	99.03	88.00	11.03	8.981	
1,700.00	1,700.00	1,701.00	1,701.00	5.87	5.87	89.42	1.01	99.02	99.03	87.28	11.74	8.432	
1,800.00	1,800.00	1,801.00	1,801.00	6.23	6.23	89.42	1.01	99.02	99.03	86.56	12.46	7.947	
1,900.00	1,900.00	1,901.00	1,901.00	6.59	6.59	89.42	1.01	99.02	99.03	85.85	13.18	7.515	
2,000.00	2,000.00	2,001.00	2,001.00	6.95	6.95	89.42	1.01	99.02	99.03	85.13	13.89	7.127	
2,000.33	2,000.33	2,001.33	2,001.33	6.95	6.95	89.42	1.01	99.02	99.03	85.13	13.90	7.126 CC	
2,100.00	2,099.99	2,101.37	2,101.36	7.30	7.31	149.16	1.88	98.82	99.59	84.98	14.61	6.818 ES	
2,200.00	2,199.96	2,201.70	2,201.66	7.65	7.67	148.45	4.47	98.23	101.29	85.98	15.32	6.614	
2,300.00	2,299.86	2,301.97	2,301.83	8.00	8.03	147.32	8.77	97.26	104.17	88.15	16.02	6.501	
2,400.00	2,399.68	2,402.15	2,401.82	8.36	8.39	145.83	14.77	95.89	108.27	91.53	16.73	6.470 SF	
2,500.00	2,499.36	2,502.21	2,501.57	8.71	8.74	144.09	22.46	94.14	113.62	96.18	17.44	6.514	
2,600.00	2,598.99	2,601.97	2,600.95	9.07	9.10	142.39	30.94	92.22	119.68	101.53	18.15	6.592	
2,700.00	2,698.60	2,701.73	2,700.33	9.43	9.46	140.86	39.41	90.29	125.83	106.97	18.87	6.669	
2,800.00	2,798.22	2,801.48	2,799.70	9.79	9.82	139.47	47.89	88.36	132.07	112.49	19.58	6.744	
2,900.00	2,897.84	2,901.24	2,899.08	10.15	10.18	138.21	56.37	86.43	138.38	118.07	20.30	6.816	
3,000.00	2,997.46	3,001.00	2,998.46	10.51	10.55	137.05	64.85	84.50	144.74	123.72	21.02	6.886	
3,100.00	3,097.08	3,100.75	3,097.83	10.87	10.91	136.00	73.33	82.58	151.16	129.42	21.74	6.952	
3,200.00	3,196.70	3,200.51	3,197.21	11.24	11.27	135.03	81.80	80.65	157.63	135.17	22.47	7.016	
3,300.00	3,296.32	3,300.27	3,296.59	11.60	11.64	134.14	90.28	78.72	164.14	140.95	23.19	7.078	
3,400.00	3,395.94	3,400.02	3,395.97	11.97	12.00	133.31	98.76	76.79	170.69	146.77	23.92	7.137	
3,500.00	3,495.56	3,499.78	3,495.34	12.33	12.37	132.55	107.24	74.87	177.26	152.62	24.64	7.193	
3,600.00	3,595.18	3,599.54	3,594.72	12.70	12.73	131.84	115.72	72.94	183.87	158.50	25.37	7.247	
3,700.00	3,694.80	3,699.29	3,694.10	13.07	13.10	131.18	124.19	71.01	190.51	164.40	26.10	7.299	
3,800.00	3,794.42	3,799.05	3,793.47	13.44	13.47	130.57	132.67	69.08	197.16	170.33	26.83	7.348	
3,900.00	3,894.04	3,898.81	3,892.85	13.81	13.83	129.99	141.15	67.16	203.84	176.28	27.56	7.396	
4,000.00	3,993.66	3,998.56	3,992.23	14.17	14.20	129.45	149.63	65.23	210.54	182.24	28.29	7.441	
4,100.00	4,093.28	4,098.32	4,091.60	14.54	14.57	128.95	158.11	63.30	217.25	188.23	29.03	7.485	
4,200.00	4,192.90	4,198.08	4,190.98	14.91	14.94	128.48	166.58	61.37	223.98	194.22	29.76	7.526	
4,300.00	4,292.52	4,297.83	4,290.36	15.28	15.31	128.03	175.06	59.44	230.73	200.23	30.49	7.567	
4,400.00	4,392.14	4,397.59	4,389.74	15.65	15.68	127.61	183.54	57.52	237.48	206.26	31.23	7.605	
4,500.00	4,491.76	4,497.35	4,489.11	16.02	16.05	127.21	192.02	55.59	244.25	212.29	31.96	7.642	
4,600.00	4,591.37	4,597.10	4,588.49	16.40	16.42	126.83	200.50	53.66	251.04	218.34	32.70	7.677	
4,700.00	4,690.99	4,696.86	4,687.87	16.77	16.78	126.47	208.97	51.73	257.83	224.39	33.43	7.712	
4,800.00	4,790.61	4,796.62	4,787.24	17.14	17.15	126.14	217.45	49.81	264.63	230.46	34.17	7.744	
4,900.00	4,890.23	4,896.37	4,886.62	17.51	17.52	125.81	225.93	47.88	271.44	236.53	34.91	7.776	
5,000.00	4,989.85	4,996.13	4,986.00	17.88	17.89	125.51	234.41	45.95	278.25	242.61	35.64	7.807	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 305H - 305H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.47	5,095.89	5,085.37	18.25	18.27	125.22	242.89	44.02	285.08	248.70	36.38	7.836	
5,200.00	5,189.09	5,195.64	5,184.75	18.63	18.64	124.94	251.36	42.10	291.91	254.79	37.12	7.864	
5,300.00	5,288.71	5,295.40	5,284.13	19.00	19.01	124.68	259.84	40.17	298.75	260.89	37.86	7.892	
5,400.00	5,388.33	5,395.16	5,383.51	19.37	19.38	124.42	268.32	38.24	305.59	267.00	38.60	7.918	
5,500.00	5,487.95	5,494.91	5,482.88	19.74	19.75	124.18	276.80	36.31	312.44	273.11	39.33	7.943	
5,600.00	5,587.57	5,594.67	5,582.26	20.12	20.12	123.95	285.28	34.38	319.30	279.23	40.07	7.968	
5,632.55	5,620.00	5,627.15	5,614.61	20.24	20.24	123.88	288.04	33.76	321.53	281.22	40.31	7.976	
5,700.00	5,687.11	5,694.41	5,681.62	20.49	20.49	121.91	293.75	32.46	326.50	285.68	40.81	8.000	
5,800.00	5,786.29	5,794.00	5,780.83	20.88	20.86	120.52	302.22	30.53	335.09	293.53	41.56	8.063	
5,900.00	5,884.97	5,893.33	5,879.78	21.27	21.23	120.25	310.66	28.61	345.22	302.92	42.31	8.160	
5,959.22	5,943.12	5,951.98	5,938.21	21.51	21.45	120.45	315.64	27.48	352.00	309.25	42.75	8.234	
6,000.00	5,983.08	5,992.31	5,978.39	21.67	21.60	121.02	319.07	26.70	356.89	313.83	43.05	8.289	
6,100.00	6,081.07	6,091.22	6,076.92	22.08	21.97	122.35	327.48	24.79	369.02	325.22	43.80	8.424	
6,200.00	6,179.06	6,190.13	6,175.45	22.48	22.33	123.59	335.88	22.88	381.34	336.78	44.55	8.559	
6,300.00	6,277.05	6,287.82	6,272.69	22.89	22.70	124.61	345.09	20.78	393.94	348.64	45.30	8.696	
6,400.00	6,375.05	6,385.32	6,369.35	23.30	23.07	125.11	357.39	17.99	407.01	360.95	46.06	8.837	
6,500.00	6,473.04	6,482.83	6,465.55	23.72	23.46	125.12	372.90	14.47	420.47	373.65	46.82	8.980	
6,600.00	6,571.03	6,580.74	6,561.60	24.13	23.85	124.72	391.47	10.24	434.30	386.70	47.61	9.123	
6,700.00	6,669.02	6,679.70	6,658.53	24.54	24.25	124.25	410.92	5.83	448.24	399.84	48.40	9.261	
6,800.00	6,767.02	6,778.66	6,755.45	24.96	24.65	123.81	430.37	1.41	462.21	413.01	49.20	9.394	
6,900.00	6,865.01	6,877.62	6,852.38	25.38	25.05	123.39	449.82	-3.01	476.21	426.20	50.00	9.524	
6,959.22	6,923.04	6,936.23	6,909.78	25.63	25.29	123.16	461.34	-5.63	484.51	434.03	50.48	9.598	
7,000.00	6,963.04	6,976.61	6,949.34	25.79	25.45	120.31	469.28	-7.43	489.95	439.14	50.81	9.643	
7,100.00	7,061.47	7,075.91	7,046.60	26.20	25.86	111.81	488.80	-11.87	500.99	449.38	51.61	9.707	
7,200.00	7,160.26	7,175.47	7,144.12	26.60	26.26	100.74	508.37	-16.31	508.77	456.35	52.42	9.706	
7,300.00	7,259.29	7,275.17	7,241.78	26.98	26.67	86.87	527.96	-20.76	513.29	460.07	53.22	9.645	
7,327.23	7,286.28	7,302.33	7,268.38	27.09	26.79	82.68	533.30	-21.98	513.96	460.53	53.43	9.619	
7,400.00	7,358.43	7,374.91	7,339.47	27.36	27.08	82.12	547.56	-25.22	515.47	461.46	54.01	9.543	
7,500.00	7,457.58	7,474.65	7,437.15	27.73	27.50	81.35	567.17	-29.67	517.62	462.81	54.81	9.444	
7,600.00	7,556.73	7,574.38	7,534.84	28.11	27.91	80.59	586.77	-34.12	519.86	464.26	55.61	9.349	
7,700.00	7,655.87	7,674.12	7,632.53	28.48	28.32	79.83	606.37	-38.58	522.20	465.79	56.41	9.258	
7,800.00	7,755.02	7,773.85	7,730.22	28.86	28.74	79.08	625.98	-43.03	524.62	467.42	57.21	9.171	
7,900.00	7,854.17	7,873.59	7,827.91	29.23	29.15	78.34	645.58	-47.48	527.14	469.13	58.00	9.088	
8,000.00	7,953.31	7,973.32	7,925.60	29.61	29.57	77.61	665.18	-51.94	529.74	470.94	58.80	9.009	
8,100.00	8,052.46	8,073.06	8,023.29	29.99	29.99	76.88	684.78	-56.39	532.43	472.83	59.60	8.933	
8,200.00	8,151.60	8,172.79	8,120.97	30.36	30.41	76.16	704.39	-60.84	535.20	474.80	60.40	8.861	
8,300.00	8,250.75	8,272.53	8,218.66	30.74	30.83	75.45	723.99	-65.30	538.06	476.86	61.20	8.792	
8,400.00	8,349.90	8,377.15	8,321.36	31.12	31.26	74.83	743.43	-69.71	540.65	478.61	62.04	8.714	
8,500.00	8,449.04	8,483.49	8,426.41	31.50	31.69	74.58	759.51	-73.37	542.14	479.26	62.88	8.622	
8,600.00	8,548.19	8,589.88	8,532.05	31.88	32.10	74.74	771.79	-76.16	542.45	478.76	63.70	8.516	
8,700.00	8,647.34	8,696.03	8,637.84	32.26	32.50	75.28	780.22	-78.07	541.61	477.13	64.49	8.399	
8,800.00	8,746.48	8,801.65	8,743.35	32.64	32.87	76.23	784.81	-79.11	539.73	474.48	65.25	8.271	
8,900.00	8,845.63	8,904.94	8,846.63	33.02	33.21	77.52	785.76	-79.33	537.01	471.04	65.97	8.140	
9,000.00	8,944.78	9,004.09	8,945.78	33.40	33.55	78.88	785.76	-79.33	534.32	467.64	66.69	8.013	
9,100.00	9,043.92	9,103.23	9,044.92	33.78	33.88	80.24	785.76	-79.33	531.94	464.54	67.40	7.893	
9,200.00	9,143.07	9,202.38	9,144.07	34.16	34.22	81.62	785.76	-79.33	529.87	461.76	68.11	7.780	
9,300.00	9,242.21	9,301.53	9,243.21	34.54	34.55	83.01	785.76	-79.33	528.11	459.30	68.81	7.675	
9,400.00	9,341.36	9,406.11	9,347.77	34.92	34.88	84.58	784.87	-79.14	526.54	457.03	69.51	7.575	
9,500.00	9,440.51	9,518.52	9,458.13	35.30	35.16	88.30	765.26	-74.97	523.22	453.10	70.12	7.462	
9,596.84	9,536.52	9,608.71	9,541.35	35.67	35.33	93.23	731.62	-67.82	521.08	450.53	70.56	7.385	
9,600.00	9,539.65	9,611.32	9,543.65	35.69	35.33	93.40	730.43	-67.57	521.09	450.52	70.57	7.384	
9,700.00	9,638.80	9,684.04	9,604.90	36.07	35.42	98.52	692.20	-59.44	525.18	454.51	70.67	7.431	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 305H - 305H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.00	9,737.95	9,740.14	9,647.68	36.45	35.47	103.00	656.76	-51.91	539.33	469.24	70.10	7.694	
9,900.00	9,837.09	9,783.61	9,677.74	36.84	35.50	106.71	626.05	-45.38	565.41	496.72	68.69	8.232	
10,000.00	9,936.24	9,817.78	9,699.28	37.22	35.51	109.70	600.12	-39.87	603.48	536.90	66.58	9.064	
10,100.00	10,035.38	9,850.00	9,717.82	37.60	35.53	112.55	574.35	-34.39	652.45	588.25	64.20	10.163	
10,200.00	10,134.53	9,867.23	9,726.99	37.99	35.53	114.08	560.07	-31.36	710.58	649.06	61.52	11.550	
10,300.00	10,233.68	9,888.20	9,737.43	38.37	35.54	115.93	542.28	-27.63	776.22	717.07	59.15	13.122	
10,400.00	10,332.82	9,907.55	9,746.40	38.76	35.54	117.63	525.45	-24.39	847.71	790.65	57.06	14.857	
10,500.00	10,431.97	9,925.00	9,753.93	39.14	35.54	119.16	509.95	-21.65	923.87	868.62	55.25	16.722	
10,600.00	10,531.12	9,936.72	9,758.69	39.53	35.55	120.18	499.37	-19.91	1,003.79	950.14	53.65	18.710	
10,700.00	10,630.26	9,950.00	9,763.77	39.91	35.55	121.33	487.25	-18.05	1,086.74	1,034.37	52.37	20.752	
10,800.00	10,729.41	9,950.00	9,763.77	40.30	35.55	121.33	487.25	-18.05	1,172.18	1,121.05	51.13	22.926	
10,803.49	10,732.87	9,957.87	9,766.64	40.31	35.55	122.01	480.00	-17.00	1,175.14	1,123.93	51.21	22.946	
10,825.00	10,754.25	9,959.93	9,767.37	40.39	35.55	134.23	478.10	-16.73	1,193.72	1,142.71	51.01	23.404	
10,850.00	10,779.19	9,962.66	9,768.33	40.48	35.55	166.45	475.56	-16.37	1,215.20	1,164.43	50.77	23.935	
10,875.00	10,804.18	9,965.76	9,769.39	40.57	35.55	-115.73	472.68	-15.98	1,236.51	1,185.97	50.54	24.465	
10,900.00	10,829.13	9,975.00	9,772.48	40.65	35.55	-80.10	464.04	-14.84	1,257.63	1,207.23	50.40	24.952	
10,925.00	10,853.98	9,975.00	9,772.48	40.72	35.55	-67.05	464.04	-14.84	1,278.39	1,228.26	50.13	25.500	
10,950.00	10,878.66	9,975.00	9,772.48	40.79	35.55	-59.50	464.04	-14.84	1,298.85	1,248.98	49.87	26.044	
10,975.00	10,903.11	9,975.00	9,772.48	40.85	35.55	-54.12	464.04	-14.84	1,318.97	1,269.36	49.62	26.584	
11,000.00	10,927.25	9,985.79	9,775.88	40.91	35.55	-49.56	453.88	-13.57	1,338.58	1,289.09	49.50	27.043	
11,025.00	10,951.03	9,990.58	9,777.32	40.97	35.55	-45.99	449.34	-13.04	1,357.76	1,308.46	49.31	27.536	
11,050.00	10,974.38	10,000.00	9,780.02	41.02	35.55	-42.87	440.38	-12.02	1,376.46	1,327.28	49.17	27.992	
11,075.00	10,997.22	10,000.00	9,780.02	41.06	35.55	-40.41	440.38	-12.02	1,394.55	1,345.61	48.94	28.495	
11,100.00	11,019.51	10,000.00	9,780.02	41.10	35.55	-38.25	440.38	-12.02	1,412.13	1,363.41	48.72	28.985	
11,125.00	11,041.17	10,011.83	9,783.18	41.14	35.55	-36.18	429.04	-10.83	1,428.99	1,380.37	48.62	29.392	
11,150.00	11,062.16	10,025.00	9,786.38	41.17	35.55	-34.35	416.32	-9.61	1,445.31	1,396.78	48.53	29.782	
11,175.00	11,082.40	10,025.00	9,786.38	41.20	35.55	-32.91	416.32	-9.61	1,460.82	1,412.49	48.33	30.225	
11,200.00	11,101.86	10,025.00	9,786.38	41.22	35.55	-31.62	416.32	-9.61	1,475.70	1,427.55	48.15	30.649	
11,225.00	11,120.46	10,035.78	9,788.75	41.24	35.55	-30.38	405.85	-8.70	1,489.80	1,441.74	48.06	31.001	
11,250.00	11,138.17	10,050.00	9,791.54	41.25	35.55	-29.25	391.95	-7.61	1,503.22	1,455.24	47.99	31.325	
11,275.00	11,154.93	10,050.00	9,791.54	41.26	35.55	-28.36	391.95	-7.61	1,515.73	1,467.89	47.84	31.683	
11,300.00	11,170.70	10,050.00	9,791.54	41.26	35.55	-27.57	391.95	-7.61	1,527.52	1,479.80	47.71	32.016	
11,325.00	11,185.43	10,061.74	9,793.54	41.26	35.55	-26.80	380.41	-6.81	1,538.42	1,490.77	47.65	32.284	
11,350.00	11,199.09	10,075.00	9,795.49	41.26	35.55	-26.11	367.31	-6.02	1,548.56	1,500.95	47.61	32.529	
11,375.00	11,211.63	10,075.00	9,795.49	41.25	35.55	-25.57	367.31	-6.02	1,557.74	1,510.22	47.52	32.779	
11,400.00	11,223.02	10,075.00	9,795.49	41.24	35.55	-25.09	367.31	-6.02	1,566.15	1,518.69	47.46	32.999	
11,425.00	11,233.24	10,089.10	9,797.17	41.22	35.55	-24.63	353.33	-5.31	1,573.55	1,526.11	47.45	33.165	
11,450.00	11,242.25	10,100.00	9,798.21	41.21	35.55	-24.25	342.49	-4.86	1,580.13	1,532.70	47.43	33.312	
11,475.00	11,250.02	10,100.00	9,798.21	41.19	35.55	-23.96	342.49	-4.86	1,585.77	1,538.35	47.43	33.436	
11,500.00	11,256.55	10,110.23	9,798.96	41.17	35.55	-23.70	332.29	-4.50	1,590.49	1,543.05	47.44	33.524	
11,525.00	11,261.80	10,125.00	9,799.69	41.14	35.54	-23.48	317.55	-4.12	1,594.36	1,546.89	47.47	33.590	
11,550.00	11,265.77	10,125.00	9,799.69	41.11	35.54	-23.34	317.55	-4.12	1,597.17	1,549.65	47.52	33.612	
11,575.00	11,268.44	10,131.66	9,799.88	41.09	35.54	-23.24	310.90	-3.99	1,599.10	1,551.52	47.58	33.608	
11,600.00	11,269.81	10,142.59	9,800.00	41.06	35.54	-23.19	299.97	-3.85	1,600.10	1,552.46	47.65	33.582	
11,613.65	11,270.00	10,143.16	9,800.00	41.04	35.54	-23.18	299.40	-3.84	1,600.23	1,552.52	47.71	33.542	
11,700.00	11,270.00	10,229.51	9,800.00	40.95	35.55	-23.18	213.05	-3.05	1,600.23	1,552.37	47.87	33.431	
11,800.00	11,270.00	10,329.51	9,800.00	40.86	35.61	-23.18	113.05	-2.14	1,600.23	1,552.12	48.11	33.260	
11,900.00	11,270.00	10,429.51	9,800.00	40.81	35.72	-23.18	13.06	-1.22	1,600.23	1,551.81	48.43	33.045	
12,000.00	11,270.00	10,529.51	9,800.00	40.93	35.90	-23.18	-86.94	-0.30	1,600.23	1,551.43	48.81	32.787	
12,100.00	11,270.00	10,629.51	9,800.00	41.17	36.13	-23.18	-186.93	0.62	1,600.24	1,550.98	49.25	32.489	
12,200.00	11,270.00	10,729.51	9,800.00	41.46	36.41	-23.18	-286.93	1.53	1,600.24	1,550.47	49.76	32.156	
12,300.00	11,270.00	10,829.51	9,800.00	41.79	36.76	-23.18	-386.93	2.45	1,600.24	1,549.90	50.34	31.790	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 305H - 305H - Planning - Plan 0.2b													Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,400.00	11,270.00	10,929.51	9,800.00	42.16	37.15	-23.18	-486.92	3.37	1,600.24	1,549.27	50.97	31.396		
12,500.00	11,270.00	11,029.51	9,800.00	42.57	37.60	-23.19	-586.92	4.29	1,600.24	1,548.58	51.66	30.977		
12,600.00	11,270.00	11,129.51	9,800.00	43.02	38.10	-23.19	-686.91	5.20	1,600.24	1,547.83	52.40	30.537		
12,700.00	11,270.00	11,229.51	9,800.00	43.52	38.65	-23.19	-786.91	6.12	1,600.24	1,547.04	53.20	30.079		
12,800.00	11,270.00	11,329.51	9,800.00	44.05	39.24	-23.19	-886.91	7.04	1,600.24	1,546.19	54.05	29.607		
12,900.00	11,270.00	11,429.51	9,800.00	44.62	39.88	-23.19	-986.90	7.96	1,600.24	1,545.29	54.95	29.124		
13,000.00	11,270.00	11,529.51	9,800.00	45.23	40.55	-23.19	-1,086.90	8.87	1,600.24	1,544.35	55.89	28.633		
13,100.00	11,270.00	11,629.51	9,800.00	45.87	41.27	-23.19	-1,186.89	9.79	1,600.24	1,543.37	56.87	28.137		
13,200.00	11,270.00	11,729.51	9,800.00	46.55	42.02	-23.19	-1,286.89	10.71	1,600.24	1,542.34	57.90	27.638		
13,300.00	11,270.00	11,829.51	9,800.00	47.26	42.81	-23.19	-1,386.88	11.63	1,600.24	1,541.28	58.97	27.138		
13,400.00	11,270.00	11,929.51	9,800.00	48.01	43.63	-23.19	-1,486.88	12.54	1,600.24	1,540.17	60.07	26.640		
13,500.00	11,270.00	12,029.51	9,800.00	48.78	44.49	-23.19	-1,586.88	13.46	1,600.24	1,539.04	61.21	26.145		
13,600.00	11,270.00	12,129.51	9,800.00	49.58	45.37	-23.19	-1,686.87	14.38	1,600.25	1,537.87	62.38	25.654		
13,700.00	11,270.00	12,229.51	9,800.00	50.41	46.28	-23.19	-1,786.87	15.30	1,600.25	1,536.67	63.58	25.169		
13,800.00	11,270.00	12,329.51	9,800.00	51.27	47.22	-23.19	-1,886.86	16.21	1,600.25	1,535.43	64.81	24.690		
13,900.00	11,270.00	12,429.51	9,800.00	52.15	48.18	-23.19	-1,986.86	17.13	1,600.25	1,534.18	66.07	24.220		
14,000.00	11,270.00	12,529.51	9,800.00	53.06	49.17	-23.19	-2,086.86	18.05	1,600.25	1,532.89	67.36	23.757		
14,100.00	11,270.00	12,629.51	9,800.00	53.99	50.17	-23.19	-2,186.85	18.96	1,600.25	1,531.58	68.67	23.304		
14,200.00	11,270.00	12,729.51	9,800.00	54.94	51.20	-23.19	-2,286.85	19.88	1,600.25	1,530.25	70.00	22.859		
14,300.00	11,270.00	12,829.51	9,800.00	55.91	52.25	-23.19	-2,386.84	20.80	1,600.25	1,528.89	71.36	22.425		
14,400.00	11,270.00	12,929.51	9,800.00	56.90	53.31	-23.19	-2,486.84	21.72	1,600.25	1,527.51	72.74	22.000		
14,500.00	11,270.00	13,029.51	9,800.00	57.91	54.40	-23.19	-2,586.83	22.63	1,600.25	1,526.12	74.14	21.586		
14,600.00	11,270.00	13,129.51	9,800.00	58.94	55.50	-23.19	-2,686.83	23.55	1,600.25	1,524.70	75.55	21.181		
14,700.00	11,270.00	13,229.51	9,800.00	59.99	56.61	-23.19	-2,786.83	24.47	1,600.25	1,523.27	76.98	20.787		
14,800.00	11,270.00	13,329.51	9,800.00	61.05	57.74	-23.19	-2,886.82	25.39	1,600.25	1,521.82	78.44	20.402		
14,900.00	11,270.00	13,429.51	9,800.00	62.12	58.88	-23.19	-2,986.82	26.30	1,600.25	1,520.35	79.90	20.028		
15,000.00	11,270.00	13,529.51	9,800.00	63.21	60.04	-23.19	-3,086.81	27.22	1,600.25	1,518.87	81.38	19.663		
15,100.00	11,270.00	13,629.51	9,800.00	64.32	61.21	-23.19	-3,186.81	28.14	1,600.26	1,517.38	82.88	19.309		
15,200.00	11,270.00	13,729.51	9,800.00	65.43	62.38	-23.19	-3,286.80	29.06	1,600.26	1,515.87	84.39	18.963		
15,300.00	11,270.00	13,829.51	9,800.00	66.56	63.57	-23.19	-3,386.80	29.97	1,600.26	1,514.35	85.91	18.628		
15,400.00	11,270.00	13,929.51	9,800.00	67.70	64.77	-23.19	-3,486.80	30.89	1,600.26	1,512.82	87.44	18.301		
15,500.00	11,270.00	14,029.51	9,800.00	68.85	65.98	-23.19	-3,586.79	31.81	1,600.26	1,511.27	88.99	17.983		
15,600.00	11,270.00	14,129.51	9,800.00	70.02	67.20	-23.19	-3,686.79	32.73	1,600.26	1,509.72	90.54	17.674		
15,700.00	11,270.00	14,229.51	9,800.00	71.19	68.43	-23.19	-3,786.78	33.64	1,600.26	1,508.15	92.11	17.374		
15,800.00	11,270.00	14,329.51	9,800.00	72.37	69.66	-23.19	-3,886.78	34.56	1,600.26	1,506.58	93.68	17.082		
15,900.00	11,270.00	14,429.51	9,800.00	73.56	70.90	-23.19	-3,986.78	35.48	1,600.26	1,504.99	95.27	16.797		
16,000.00	11,270.00	14,529.51	9,800.00	74.76	72.15	-23.19	-4,086.77	36.39	1,600.26	1,503.40	96.86	16.521		
16,100.00	11,270.00	14,629.51	9,800.00	75.97	73.41	-23.19	-4,186.77	37.31	1,600.26	1,501.80	98.46	16.252		
16,200.00	11,270.00	14,729.51	9,800.00	77.19	74.68	-23.19	-4,286.76	38.23	1,600.26	1,500.19	100.07	15.991		
16,300.00	11,270.00	14,829.51	9,800.00	78.41	75.95	-23.19	-4,386.76	39.15	1,600.26	1,498.57	101.69	15.736		
16,400.00	11,270.00	14,929.51	9,800.00	79.64	77.22	-23.19	-4,486.75	40.06	1,600.26	1,496.95	103.32	15.489		
16,500.00	11,270.00	15,029.51	9,800.00	80.88	78.50	-23.19	-4,586.75	40.98	1,600.26	1,495.32	104.95	15.248		
16,600.00	11,270.00	15,129.51	9,800.00	82.12	79.79	-23.19	-4,686.75	41.90	1,600.27	1,493.68	106.59	15.014		
16,700.00	11,270.00	15,229.51	9,800.00	83.37	81.08	-23.19	-4,786.74	42.82	1,600.27	1,492.03	108.23	14.785		
16,800.00	11,270.00	15,329.51	9,800.00	84.63	82.38	-23.19	-4,886.74	43.73	1,600.27	1,490.38	109.88	14.563		
16,900.00	11,270.00	15,429.51	9,800.00	85.89	83.68	-23.19	-4,986.73	44.65	1,600.27	1,488.73	111.54	14.347		
17,000.00	11,270.00	15,529.51	9,800.00	87.16	84.99	-23.19	-5,086.73	45.57	1,600.27	1,487.07	113.20	14.136		
17,100.00	11,270.00	15,629.51	9,800.00	88.43	86.30	-23.19	-5,186.72	46.49	1,600.27	1,485.40	114.87	13.931		
17,200.00	11,270.00	15,729.51	9,800.00	89.71	87.61	-23.19	-5,286.72	47.40	1,600.27	1,483.73	116.54	13.731		
17,300.00	11,270.00	15,829.51	9,800.00	90.99	88.93	-23.19	-5,386.72	48.32	1,600.27	1,482.05	118.22	13.536		
17,400.00	11,270.00	15,929.51	9,800.00	92.28	90.25	-23.19	-5,486.71	49.24	1,600.27	1,480.37	119.90	13.346		
17,500.00	11,270.00	16,029.51	9,800.00	93.57	91.57	-23.19	-5,586.71	50.16	1,600.27	1,478.68	121.59	13.161		

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 305H - 305H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.00	11,270.00	16,129.51	9,800.00	94.87	92.90	-23.19	-5,686.70	51.07	1,600.27	1,476.99	123.28	12.981	
17,700.00	11,270.00	16,229.51	9,800.00	96.17	94.24	-23.19	-5,786.70	51.99	1,600.27	1,475.30	124.97	12.805	
17,800.00	11,270.00	16,329.51	9,800.00	97.47	95.57	-23.19	-5,886.70	52.91	1,600.27	1,473.60	126.67	12.633	
17,900.00	11,270.00	16,429.51	9,800.00	98.78	96.91	-23.19	-5,986.69	53.83	1,600.27	1,471.90	128.38	12.466	
18,000.00	11,270.00	16,529.51	9,800.00	100.09	98.25	-23.19	-6,086.69	54.74	1,600.27	1,470.19	130.08	12.302	
18,100.00	11,270.00	16,629.51	9,800.00	101.41	99.59	-23.19	-6,186.68	55.66	1,600.28	1,468.48	131.79	12.142	
18,200.00	11,270.00	16,729.51	9,800.00	102.73	100.94	-23.19	-6,286.68	56.58	1,600.28	1,466.77	133.50	11.987	
18,300.00	11,270.00	16,829.51	9,800.00	104.05	102.29	-23.19	-6,386.67	57.49	1,600.28	1,465.06	135.22	11.835	
18,400.00	11,270.00	16,929.51	9,800.00	105.37	103.64	-23.19	-6,486.67	58.41	1,600.28	1,463.34	136.94	11.686	
18,500.00	11,270.00	17,029.51	9,800.00	106.70	104.99	-23.19	-6,586.67	59.33	1,600.28	1,461.62	138.66	11.541	
18,600.00	11,270.00	17,129.51	9,800.00	108.03	106.35	-23.19	-6,686.66	60.25	1,600.28	1,459.89	140.39	11.399	
18,700.00	11,270.00	17,229.51	9,800.00	109.36	107.71	-23.19	-6,786.66	61.16	1,600.28	1,458.16	142.12	11.260	
18,800.00	11,270.00	17,329.51	9,800.00	110.70	109.07	-23.19	-6,886.65	62.08	1,600.28	1,456.43	143.85	11.125	
18,900.00	11,270.00	17,429.51	9,800.00	112.04	110.43	-23.19	-6,986.65	63.00	1,600.28	1,454.70	145.58	10.992	
19,000.00	11,270.00	17,529.51	9,800.00	113.38	111.79	-23.19	-7,086.64	63.92	1,600.28	1,452.97	147.32	10.863	
19,100.00	11,270.00	17,629.51	9,800.00	114.72	113.16	-23.19	-7,186.64	64.83	1,600.28	1,451.23	149.05	10.736	
19,200.00	11,270.00	17,729.51	9,800.00	116.07	114.53	-23.19	-7,286.64	65.75	1,600.28	1,449.49	150.79	10.612	
19,300.00	11,270.00	17,829.51	9,800.00	117.42	115.90	-23.19	-7,386.63	66.67	1,600.28	1,447.75	152.54	10.491	
19,303.11	11,270.00	17,832.62	9,800.00	117.46	115.94	-23.19	-7,389.74	66.70	1,600.28	1,447.69	152.59	10.487	
19,332.38	11,270.00	17,861.29	9,800.00	117.85	116.33	-23.19	-7,418.41	66.96	1,600.28	1,447.18	153.10	10.452	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 504H - 504H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	1.00	1.00	0.00	0.00	89.51	0.57	66.09	66.09				
100.00	100.00	101.00	101.00	0.13	0.14	89.51	0.57	66.09	66.09	65.82	0.27	242.596	
200.00	200.00	201.00	201.00	0.49	0.50	89.51	0.57	66.09	66.09	65.10	0.99	66.802	
300.00	300.00	301.00	301.00	0.85	0.85	89.51	0.57	66.09	66.09	64.39	1.71	38.734	
400.00	400.00	401.00	401.00	1.21	1.21	89.51	0.57	66.09	66.09	63.67	2.42	27.274	
500.00	500.00	501.00	501.00	1.57	1.57	89.51	0.57	66.09	66.09	62.95	3.14	21.047	
600.00	600.00	601.00	601.00	1.93	1.93	89.51	0.57	66.09	66.09	62.24	3.86	17.135	
700.00	700.00	701.00	701.00	2.29	2.29	89.51	0.57	66.09	66.09	61.52	4.57	14.449	
800.00	800.00	801.00	801.00	2.64	2.65	89.51	0.57	66.09	66.09	60.80	5.29	12.491	
900.00	900.00	901.00	901.00	3.00	3.01	89.51	0.57	66.09	66.09	60.08	6.01	11.001	
1,000.00	1,000.00	1,001.00	1,001.00	3.36	3.36	89.51	0.57	66.09	66.09	59.37	6.72	9.828	
1,100.00	1,100.00	1,101.00	1,101.00	3.72	3.72	89.51	0.57	66.09	66.09	58.65	7.44	8.881	
1,200.00	1,200.00	1,201.00	1,201.00	4.08	4.08	89.51	0.57	66.09	66.09	57.93	8.16	8.101	
1,300.00	1,300.00	1,301.00	1,301.00	4.44	4.44	89.51	0.57	66.09	66.09	57.22	8.88	7.446	
1,400.00	1,400.00	1,401.00	1,401.00	4.79	4.80	89.51	0.57	66.09	66.09	56.50	9.59	6.890	
1,500.00	1,500.00	1,501.00	1,501.00	5.15	5.16	89.51	0.57	66.09	66.09	55.78	10.31	6.411	
1,600.00	1,600.00	1,601.00	1,601.00	5.51	5.52	89.51	0.57	66.09	66.09	55.07	11.03	5.994	
1,700.00	1,700.00	1,701.00	1,701.00	5.87	5.87	89.51	0.57	66.09	66.09	54.35	11.74	5.628	
1,800.00	1,800.00	1,801.00	1,801.00	6.23	6.23	89.51	0.57	66.09	66.09	53.63	12.46	5.304	
1,900.00	1,900.00	1,901.00	1,901.00	6.59	6.59	89.51	0.57	66.09	66.09	52.92	13.18	5.016	
2,000.00	2,000.00	2,001.01	2,001.01	6.95	6.95	89.51	0.57	66.09	66.09	52.20	13.89	4.757	
2,012.54	2,012.54	2,013.66	2,013.66	6.99	6.99	149.50	0.58	66.08	66.09	52.11	13.98	4.726 CC	
2,100.00	2,099.99	2,101.93	2,101.92	7.30	7.31	149.41	1.12	65.37	66.13	51.53	14.61	4.528	
2,200.00	2,199.96	2,202.85	2,202.81	7.65	7.66	149.15	2.74	63.23	66.29	50.98	15.31	4.331	
2,300.00	2,299.86	2,303.76	2,303.62	8.00	8.02	148.72	5.44	59.68	66.56	50.55	16.01	4.158	
2,400.00	2,399.68	2,404.68	2,404.34	8.36	8.38	148.13	9.22	54.72	66.94	50.24	16.70	4.008	
2,500.00	2,499.36	2,505.54	2,504.88	8.71	8.74	147.39	14.06	48.35	67.46	50.06	17.40	3.877	
2,600.00	2,598.99	2,605.53	2,604.49	9.07	9.09	146.64	19.33	41.41	68.12	50.01	18.11	3.761	
2,700.00	2,698.60	2,705.52	2,704.11	9.43	9.45	145.91	24.61	34.48	68.78	49.96	18.82	3.655	
2,800.00	2,798.22	2,805.52	2,803.72	9.79	9.81	145.19	29.88	27.54	69.46	49.93	19.53	3.556	
2,900.00	2,897.84	2,905.51	2,903.33	10.15	10.18	144.49	35.16	20.60	70.15	49.91	20.25	3.465	
3,000.00	2,997.46	3,005.51	3,002.95	10.51	10.54	143.80	40.43	13.66	70.85	49.89	20.96	3.380	
3,100.00	3,097.08	3,105.50	3,102.56	10.87	10.90	143.12	45.71	6.73	71.56	49.89	21.68	3.301	
3,200.00	3,196.70	3,205.49	3,202.17	11.24	11.27	142.45	50.99	-0.21	72.28	49.89	22.40	3.227	
3,300.00	3,296.32	3,305.49	3,301.79	11.60	11.63	141.80	56.26	-7.15	73.02	49.90	23.12	3.158	
3,400.00	3,395.94	3,405.48	3,401.40	11.97	12.00	141.16	61.54	-14.08	73.75	49.91	23.84	3.094	
3,500.00	3,495.56	3,505.48	3,501.01	12.33	12.36	140.54	66.81	-21.02	74.50	49.94	24.56	3.033	
3,600.00	3,595.18	3,605.47	3,600.63	12.70	12.73	139.93	72.09	-27.96	75.26	49.97	25.29	2.976	
3,700.00	3,694.80	3,705.46	3,700.24	13.07	13.10	139.33	77.36	-34.90	76.02	50.01	26.01	2.922	
3,800.00	3,794.42	3,805.46	3,799.86	13.44	13.47	138.74	82.64	-41.83	76.80	50.06	26.74	2.872	
3,900.00	3,894.04	3,905.45	3,899.47	13.81	13.84	138.16	87.91	-48.77	77.58	50.11	27.47	2.824	
4,000.00	3,993.66	4,005.44	3,999.08	14.17	14.21	137.59	93.19	-55.71	78.37	50.17	28.20	2.779	
4,100.00	4,093.28	4,105.44	4,098.70	14.54	14.57	137.04	98.46	-62.64	79.17	50.24	28.93	2.737	
4,200.00	4,192.90	4,205.43	4,198.31	14.91	14.94	136.50	103.74	-69.58	79.97	50.31	29.66	2.696	
4,300.00	4,292.52	4,305.43	4,297.92	15.28	15.31	135.97	109.01	-76.52	80.78	50.39	30.39	2.658	
4,400.00	4,392.14	4,405.42	4,397.54	15.65	15.68	135.44	114.29	-83.46	81.60	50.48	31.12	2.622	
4,500.00	4,491.76	4,505.41	4,497.15	16.02	16.06	134.93	119.56	-90.39	82.42	50.57	31.85	2.588	
4,600.00	4,591.37	4,605.41	4,596.76	16.40	16.43	134.43	124.84	-97.33	83.25	50.67	32.59	2.555	
4,700.00	4,690.99	4,705.40	4,696.38	16.77	16.80	133.94	130.11	-104.27	84.09	50.77	33.32	2.524	
4,800.00	4,790.61	4,805.40	4,795.99	17.14	17.17	133.46	135.39	-111.20	84.93	50.88	34.06	2.494	
4,900.00	4,890.23	4,905.39	4,895.60	17.51	17.54	132.99	140.66	-118.14	85.78	50.99	34.79	2.466	
5,000.00	4,989.85	5,005.38	4,995.22	17.88	17.91	132.53	145.94	-125.08	86.64	51.11	35.53	2.438	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 504H - 504H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWVD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.00	5,089.47	5,105.38	5,094.83	18.25	18.28	132.07	151.21	-132.02	87.50	51.23	36.27	2.413	
5,200.00	5,189.09	5,205.37	5,194.44	18.63	18.66	131.63	156.49	-138.95	88.36	51.36	37.00	2.388	
5,300.00	5,288.71	5,305.37	5,294.06	19.00	19.03	131.19	161.76	-145.89	89.23	51.49	37.74	2.364	
5,400.00	5,388.33	5,405.36	5,393.67	19.37	19.40	130.77	167.04	-152.83	90.11	51.63	38.48	2.342	
5,500.00	5,487.95	5,505.35	5,493.28	19.74	19.77	130.35	172.31	-159.76	90.99	51.77	39.22	2.320	
5,600.00	5,587.57	5,605.35	5,592.90	20.12	20.15	129.94	177.59	-166.70	91.88	51.92	39.96	2.299	
5,632.55	5,620.00	5,637.99	5,625.42	20.24	20.27	129.80	179.31	-168.97	92.16	51.96	40.20	2.293	
5,700.00	5,687.11	5,706.62	5,693.69	20.49	20.53	127.59	183.51	-174.48	92.67	51.97	40.70	2.277	
5,800.00	5,786.29	5,808.35	5,794.55	20.88	20.92	125.42	191.56	-185.04	93.35	51.91	41.44	2.253	
5,900.00	5,884.97	5,910.07	5,894.86	21.27	21.32	123.89	201.78	-198.44	93.92	51.74	42.18	2.226	
5,959.22	5,943.12	5,970.31	5,953.96	21.51	21.56	123.15	208.85	-207.70	94.22	51.59	42.63	2.210	
6,000.00	5,983.08	6,011.78	5,994.49	21.67	21.73	122.78	214.15	-214.64	94.26	51.32	42.94	2.195	
6,100.00	6,081.07	6,113.33	6,093.20	22.08	22.15	120.54	228.65	-233.62	93.18	49.44	43.74	2.130	
6,200.00	6,179.06	6,213.67	6,190.01	22.48	22.58	116.68	244.63	-254.54	91.04	46.41	44.63	2.040	
6,300.00	6,277.05	6,313.44	6,286.23	22.89	23.01	112.53	260.66	-275.52	89.25	43.70	45.55	1.959	
6,400.00	6,375.05	6,413.21	6,382.44	23.30	23.44	108.24	276.70	-296.51	87.95	41.46	46.48	1.892	
6,500.00	6,473.04	6,512.98	6,478.65	23.72	23.88	103.84	292.73	-317.49	87.15	39.74	47.41	1.838	
6,600.00	6,571.03	6,612.75	6,574.86	24.13	24.32	99.39	308.76	-338.47	86.89	38.55	48.34	1.797	
6,601.07	6,572.08	6,613.82	6,575.90	24.13	24.32	99.34	308.93	-338.69	86.89	38.54	48.35	1.797	
6,700.00	6,669.02	6,712.52	6,671.08	24.54	24.76	94.94	324.79	-359.45	87.14	37.90	49.25	1.769	
6,800.00	6,767.02	6,812.29	6,767.29	24.96	25.20	90.54	340.82	-380.43	87.92	37.78	50.14	1.754 ES	
6,900.00	6,865.01	6,912.06	6,863.50	25.38	25.65	86.25	356.85	-401.41	89.22	38.20	51.01	1.749	
6,959.22	6,923.04	6,971.15	6,920.48	25.63	25.92	83.77	366.35	-413.84	90.21	38.69	51.52	1.751	
7,000.00	6,963.04	7,011.81	6,959.70	25.79	26.10	79.24	372.88	-422.39	90.84	38.98	51.86	1.752	
7,100.00	7,061.47	7,111.39	7,055.72	26.20	26.55	65.46	388.88	-443.33	91.66	39.02	52.64	1.741	
7,200.00	7,160.26	7,210.64	7,151.43	26.60	27.01	47.40	404.83	-464.20	92.21	38.91	53.30	1.730 SF	
7,300.00	7,259.29	7,309.44	7,246.71	26.98	27.46	24.89	420.71	-484.98	93.72	39.95	53.77	1.743	
7,327.23	7,286.28	7,336.25	7,272.57	27.09	27.58	18.09	425.02	-490.62	94.49	40.63	53.86	1.754	
7,400.00	7,358.43	7,407.84	7,341.61	27.36	27.91	10.65	436.52	-505.68	97.68	43.62	54.06	1.807	
7,500.00	7,457.58	7,506.22	7,436.48	27.73	28.37	1.37	452.33	-526.37	104.58	50.25	54.33	1.925	
7,600.00	7,556.73	7,604.60	7,531.35	28.11	28.82	-6.61	468.14	-547.06	113.91	59.25	54.66	2.084	
7,700.00	7,655.87	7,702.98	7,626.22	28.48	29.28	-13.29	483.94	-567.75	125.13	70.05	55.08	2.272	
7,800.00	7,755.02	7,801.37	7,721.10	28.86	29.74	-18.84	499.75	-588.43	137.78	82.19	55.59	2.479	
7,900.00	7,854.17	7,899.75	7,815.97	29.23	30.20	-23.43	515.56	-609.12	151.49	95.32	56.16	2.697	
8,000.00	7,953.31	7,998.13	7,910.84	29.61	30.67	-27.25	531.37	-629.81	166.00	109.21	56.79	2.923	
8,100.00	8,052.46	8,096.51	8,005.71	29.99	31.13	-30.45	547.18	-650.50	181.13	123.67	57.46	3.152	
8,200.00	8,151.60	8,194.89	8,100.59	30.36	31.60	-33.15	562.99	-671.19	196.73	138.57	58.16	3.383	
8,300.00	8,250.75	8,293.27	8,195.46	30.74	32.06	-35.45	578.79	-691.88	212.70	153.82	58.88	3.612	
8,400.00	8,349.90	8,391.65	8,290.33	31.12	32.53	-37.43	594.60	-712.57	228.95	169.34	59.61	3.841	
8,500.00	8,449.04	8,490.03	8,385.20	31.50	33.00	-39.15	610.41	-733.26	245.44	185.08	60.36	4.066	
8,600.00	8,548.19	8,588.41	8,480.08	31.88	33.47	-40.65	626.22	-753.95	262.12	201.01	61.11	4.289	
8,700.00	8,647.34	8,686.79	8,574.95	32.26	33.95	-41.98	642.03	-774.64	278.95	217.08	61.87	4.509	
8,800.00	8,746.48	8,785.17	8,669.82	32.64	34.42	-43.15	657.84	-795.33	295.91	233.28	62.63	4.725	
8,900.00	8,845.63	8,883.55	8,764.69	33.02	34.89	-44.19	673.64	-816.02	312.97	249.58	63.40	4.937	
9,000.00	8,944.78	8,981.93	8,859.57	33.40	35.37	-45.13	689.45	-836.71	330.13	265.96	64.17	5.145	
9,100.00	9,043.92	9,080.31	8,954.44	33.78	35.84	-45.97	705.26	-857.40	347.37	282.43	64.94	5.349	
9,200.00	9,143.07	9,178.69	9,049.31	34.16	36.32	-46.74	721.07	-878.09	364.67	298.95	65.71	5.549	
9,300.00	9,242.21	9,277.07	9,144.18	34.54	36.80	-47.43	736.88	-898.78	382.03	315.54	66.49	5.746	
9,400.00	9,341.36	9,375.45	9,239.06	34.92	37.28	-48.07	752.68	-919.47	399.44	332.17	67.27	5.938	
9,500.00	9,440.51	9,473.84	9,333.93	35.30	37.76	-48.65	768.49	-940.16	416.89	348.84	68.05	6.127	
9,600.00	9,539.65	9,572.22	9,428.80	35.69	38.24	-49.18	784.30	-960.84	434.38	365.55	68.82	6.311	
9,700.00	9,638.80	9,670.60	9,523.67	36.07	38.72	-49.68	800.11	-981.53	451.90	382.30	69.61	6.492	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 504H - 504H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWVD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.00	9,737.95	9,768.98	9,618.55	36.45	39.20	-50.13	815.92	-1,002.22	469.46	399.07	70.39	6.670	
9,900.00	9,837.09	9,867.36	9,713.42	36.84	39.68	-50.56	831.73	-1,022.91	487.04	415.87	71.17	6.844	
10,000.00	9,936.24	9,965.74	9,808.29	37.22	40.16	-50.95	847.53	-1,043.60	504.65	432.70	71.95	7.014	
10,100.00	10,035.38	10,091.22	9,929.97	37.60	40.75	-52.04	861.73	-1,070.10	520.81	447.62	73.20	7.115	
10,200.00	10,134.53	10,229.36	10,063.93	37.99	41.25	-56.14	847.43	-1,099.05	529.88	455.42	74.46	7.116	
10,300.00	10,233.68	10,347.05	10,172.71	38.37	41.54	-62.01	809.66	-1,122.39	535.30	459.78	75.52	7.089	
10,400.00	10,332.82	10,441.01	10,252.74	38.76	41.69	-68.11	763.69	-1,139.43	542.75	466.31	76.44	7.101	
10,500.00	10,431.97	10,514.08	10,309.27	39.14	41.76	-73.58	719.05	-1,151.38	556.98	480.05	76.93	7.240	
10,600.00	10,531.12	10,570.81	10,349.08	39.53	41.78	-78.15	679.54	-1,159.74	580.87	504.19	76.68	7.575	
10,700.00	10,630.26	10,615.33	10,377.53	39.91	41.78	-81.87	645.83	-1,165.68	615.45	539.84	75.61	8.140	
10,800.00	10,729.41	10,650.00	10,397.87	40.30	41.78	-84.80	618.07	-1,169.89	660.34	586.47	73.87	8.939	
10,803.49	10,732.87	10,650.00	10,397.87	40.31	41.78	-84.80	618.07	-1,169.89	662.08	588.31	73.77	8.975	
10,825.00	10,754.25	10,658.82	10,402.77	40.39	41.78	-79.17	610.81	-1,170.91	672.96	599.57	73.39	9.169	
10,850.00	10,779.19	10,667.19	10,407.33	40.48	41.77	-54.21	603.85	-1,171.85	685.88	613.00	72.88	9.411	
10,875.00	10,804.18	10,675.89	10,411.96	40.57	41.77	16.64	596.56	-1,172.80	699.02	626.66	72.36	9.661	
10,900.00	10,829.13	10,684.87	10,416.63	40.65	41.76	45.33	588.94	-1,173.76	712.29	640.47	71.82	9.918	
10,925.00	10,853.98	10,700.00	10,424.22	40.72	41.76	52.01	575.95	-1,175.32	725.66	654.22	71.44	10.158	
10,950.00	10,878.66	10,700.00	10,424.22	40.79	41.76	54.56	575.95	-1,175.32	738.97	668.33	70.64	10.461	
10,975.00	10,903.11	10,713.36	10,430.65	40.85	41.75	54.49	564.31	-1,176.63	752.23	682.03	70.20	10.716	
11,000.00	10,927.25	10,723.29	10,435.26	40.91	41.74	53.85	555.56	-1,177.57	765.38	695.72	69.66	10.987	
11,025.00	10,951.03	10,733.41	10,439.80	40.97	41.73	52.83	546.56	-1,178.49	778.36	709.22	69.14	11.258	
11,050.00	10,974.38	10,750.00	10,446.90	41.02	41.72	51.35	531.64	-1,179.93	791.16	722.39	68.77	11.504	
11,075.00	10,997.22	10,750.00	10,446.90	41.06	41.72	50.51	531.64	-1,179.93	803.62	735.61	68.01	11.816	
11,100.00	11,019.51	10,764.77	10,452.86	41.10	41.71	49.05	518.18	-1,181.13	815.77	748.15	67.62	12.065	
11,125.00	11,041.17	10,775.51	10,456.99	41.14	41.70	47.77	508.30	-1,181.95	827.59	760.45	67.14	12.327	
11,150.00	11,062.16	10,786.37	10,460.98	41.17	41.69	46.53	498.23	-1,182.75	839.01	772.34	66.68	12.584	
11,175.00	11,082.40	10,800.00	10,465.71	41.20	41.68	45.28	485.49	-1,183.69	850.03	783.74	66.29	12.824	
11,200.00	11,101.86	10,800.00	10,465.71	41.22	41.68	44.44	485.49	-1,183.69	860.65	795.01	65.64	13.111	
11,225.00	11,120.46	10,819.61	10,472.01	41.24	41.65	43.20	466.95	-1,184.92	870.63	805.23	65.40	13.312	
11,250.00	11,138.17	10,830.88	10,475.34	41.25	41.64	42.23	456.21	-1,185.57	880.19	815.17	65.03	13.536	
11,275.00	11,154.93	10,850.00	10,480.53	41.26	41.62	41.19	437.83	-1,186.57	889.28	824.49	64.80	13.724	
11,300.00	11,170.70	10,850.00	10,480.53	41.26	41.62	40.56	437.83	-1,186.57	897.70	833.41	64.29	13.964	
11,325.00	11,185.43	10,865.14	10,484.21	41.26	41.60	39.76	423.16	-1,187.27	905.58	841.54	64.04	14.141	
11,350.00	11,199.09	10,876.69	10,486.76	41.26	41.59	39.08	411.91	-1,187.74	912.88	849.11	63.77	14.316	
11,375.00	11,211.63	10,900.00	10,491.23	41.25	41.56	38.33	389.05	-1,188.55	919.72	856.06	63.66	14.448	
11,400.00	11,223.02	10,900.00	10,491.23	41.24	41.56	37.92	389.05	-1,188.55	925.64	862.32	63.31	14.621	
11,425.00	11,233.24	10,900.00	10,491.23	41.22	41.56	37.53	389.05	-1,188.55	931.21	868.19	63.02	14.776	
11,450.00	11,242.25	10,923.37	10,494.80	41.21	41.53	37.03	365.96	-1,189.16	935.84	872.86	62.98	14.860	
11,475.00	11,250.02	10,935.14	10,496.24	41.19	41.51	36.67	354.29	-1,189.40	939.96	877.10	62.86	14.953	
11,500.00	11,256.55	10,950.00	10,497.74	41.17	41.49	36.37	339.50	-1,189.62	943.43	880.63	62.80	15.024	
11,525.00	11,261.80	10,950.00	10,497.74	41.14	41.49	36.18	339.50	-1,189.62	946.28	883.58	62.70	15.093	
11,550.00	11,265.77	10,970.57	10,499.18	41.11	41.46	35.98	318.98	-1,189.79	948.29	885.57	62.72	15.120	
11,575.00	11,268.44	10,982.41	10,499.69	41.09	41.44	35.86	307.15	-1,189.82	949.71	886.97	62.74	15.138	
11,600.00	11,269.81	11,001.55	10,500.00	41.06	41.42	35.80	288.02	-1,189.75	950.49	887.70	62.79	15.137	
11,613.65	11,270.00	11,001.55	10,500.00	41.04	41.42	35.79	288.02	-1,189.75	950.54	887.71	62.84	15.127	
11,615.75	11,270.00	11,001.93	10,500.00	41.04	41.42	35.79	287.64	-1,189.75	950.54	887.70	62.84	15.125	
11,700.00	11,270.00	11,086.18	10,500.00	40.95	41.31	35.80	203.40	-1,189.16	950.65	887.50	63.15	15.054	
11,800.00	11,270.00	11,186.17	10,500.00	40.86	41.21	35.81	103.40	-1,188.46	950.78	887.21	63.57	14.956	
11,900.00	11,270.00	11,286.17	10,500.00	40.81	41.13	35.83	3.40	-1,187.77	950.91	886.85	64.06	14.844	
12,000.00	11,270.00	11,386.17	10,500.00	40.93	41.09	35.84	-96.60	-1,187.07	951.04	886.42	64.62	14.718	
12,100.00	11,270.00	11,486.17	10,500.00	41.17	41.09	35.85	-196.59	-1,186.38	951.17	885.93	65.23	14.581	
12,200.00	11,270.00	11,586.17	10,500.00	41.46	41.16	35.86	-296.59	-1,185.68	951.29	885.38	65.91	14.432	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 504H - 504H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,300.00	11,270.00	11,686.17	10,500.00	41.79	41.32	35.87	-396.59	-1,184.98	951.42	884.77	66.65	14.274	
12,400.00	11,270.00	11,786.17	10,500.00	42.16	41.58	35.88	-496.58	-1,184.29	951.55	884.10	67.45	14.107	
12,500.00	11,270.00	11,886.17	10,500.00	42.57	41.93	35.89	-596.58	-1,183.59	951.68	883.38	68.30	13.933	
12,600.00	11,270.00	11,986.17	10,500.00	43.02	42.36	35.90	-696.58	-1,182.89	951.81	882.60	69.21	13.752	
12,700.00	11,270.00	12,086.17	10,500.00	43.52	42.85	35.91	-796.58	-1,182.20	951.94	881.77	70.17	13.566	
12,800.00	11,270.00	12,186.17	10,500.00	44.05	43.40	35.92	-896.57	-1,181.50	952.07	880.88	71.18	13.375	
12,900.00	11,270.00	12,286.17	10,500.00	44.62	43.99	35.93	-996.57	-1,180.81	952.19	879.96	72.24	13.181	
13,000.00	11,270.00	12,386.17	10,500.00	45.23	44.62	35.94	-1,096.57	-1,180.11	952.32	878.98	73.34	12.985	
13,100.00	11,270.00	12,486.17	10,500.00	45.87	45.30	35.95	-1,196.57	-1,179.41	952.45	877.96	74.49	12.786	
13,200.00	11,270.00	12,586.17	10,500.00	46.55	46.00	35.96	-1,296.56	-1,178.72	952.58	876.90	75.68	12.587	
13,300.00	11,270.00	12,686.17	10,500.00	47.26	46.74	35.98	-1,396.56	-1,178.02	952.71	875.80	76.91	12.387	
13,400.00	11,270.00	12,786.17	10,500.00	48.01	47.52	35.99	-1,496.56	-1,177.33	952.84	874.66	78.18	12.188	
13,500.00	11,270.00	12,886.17	10,500.00	48.78	48.32	36.00	-1,596.56	-1,176.63	952.97	873.49	79.48	11.990	
13,600.00	11,270.00	12,986.17	10,500.00	49.58	49.15	36.01	-1,696.55	-1,175.93	953.10	872.28	80.82	11.793	
13,700.00	11,270.00	13,086.17	10,500.00	50.41	50.01	36.02	-1,796.55	-1,175.24	953.23	871.04	82.19	11.598	
13,800.00	11,270.00	13,186.17	10,500.00	51.27	50.89	36.03	-1,896.55	-1,174.54	953.36	869.76	83.59	11.405	
13,900.00	11,270.00	13,286.17	10,500.00	52.15	51.80	36.04	-1,996.54	-1,173.84	953.48	868.46	85.03	11.214	
14,000.00	11,270.00	13,386.17	10,500.00	53.06	52.73	36.05	-2,096.54	-1,173.15	953.61	867.12	86.49	11.026	
14,100.00	11,270.00	13,486.17	10,500.00	53.99	53.68	36.06	-2,196.54	-1,172.45	953.74	865.76	87.98	10.841	
14,200.00	11,270.00	13,586.17	10,500.00	54.94	54.65	36.07	-2,296.54	-1,171.76	953.87	864.38	89.49	10.659	
14,300.00	11,270.00	13,686.17	10,500.00	55.91	55.65	36.08	-2,396.53	-1,171.06	954.00	862.97	91.03	10.480	
14,400.00	11,270.00	13,786.17	10,500.00	56.90	56.66	36.09	-2,496.53	-1,170.36	954.13	861.54	92.59	10.304	
14,500.00	11,270.00	13,886.17	10,500.00	57.91	57.69	36.10	-2,596.53	-1,169.67	954.26	860.08	94.18	10.132	
14,600.00	11,270.00	13,986.17	10,500.00	58.94	58.73	36.11	-2,696.53	-1,168.97	954.39	858.61	95.78	9.964	
14,700.00	11,270.00	14,086.17	10,500.00	59.99	59.80	36.12	-2,796.52	-1,168.27	954.52	857.11	97.41	9.799	
14,800.00	11,270.00	14,186.17	10,500.00	61.05	60.87	36.14	-2,896.52	-1,167.58	954.65	855.59	99.05	9.638	
14,900.00	11,270.00	14,286.17	10,500.00	62.12	61.96	36.15	-2,996.52	-1,166.88	954.78	854.06	100.72	9.480	
15,000.00	11,270.00	14,386.17	10,500.00	63.21	63.07	36.16	-3,096.52	-1,166.19	954.91	852.51	102.40	9.325	
15,100.00	11,270.00	14,486.17	10,500.00	64.32	64.19	36.17	-3,196.51	-1,165.49	955.04	850.94	104.10	9.175	
15,200.00	11,270.00	14,586.17	10,500.00	65.43	65.32	36.18	-3,296.51	-1,164.79	955.17	849.36	105.81	9.027	
15,300.00	11,270.00	14,686.17	10,500.00	66.56	66.46	36.19	-3,396.51	-1,164.10	955.30	847.76	107.54	8.883	
15,400.00	11,270.00	14,786.17	10,500.00	67.70	67.61	36.20	-3,496.50	-1,163.40	955.43	846.14	109.28	8.743	
15,500.00	11,270.00	14,886.17	10,500.00	68.85	68.78	36.21	-3,596.50	-1,162.70	955.55	844.52	111.04	8.606	
15,600.00	11,270.00	14,986.17	10,500.00	70.02	69.95	36.22	-3,696.50	-1,162.01	955.68	842.88	112.81	8.472	
15,700.00	11,270.00	15,086.17	10,500.00	71.19	71.14	36.23	-3,796.50	-1,161.31	955.81	841.23	114.59	8.341	
15,800.00	11,270.00	15,186.17	10,500.00	72.37	72.33	36.24	-3,896.49	-1,160.62	955.94	839.56	116.38	8.214	
15,900.00	11,270.00	15,286.17	10,500.00	73.56	73.53	36.25	-3,996.49	-1,159.92	956.07	837.89	118.19	8.089	
16,000.00	11,270.00	15,386.16	10,500.00	74.76	74.74	36.26	-4,096.49	-1,159.22	956.20	836.20	120.00	7.968	
16,100.00	11,270.00	15,486.16	10,500.00	75.97	75.96	36.27	-4,196.49	-1,158.53	956.33	834.50	121.83	7.850	
16,200.00	11,270.00	15,586.16	10,500.00	77.19	77.18	36.28	-4,296.48	-1,157.83	956.46	832.79	123.67	7.734	
16,300.00	11,270.00	15,686.16	10,500.00	78.41	78.41	36.29	-4,396.48	-1,157.13	956.59	831.08	125.52	7.621	
16,400.00	11,270.00	15,786.16	10,500.00	79.64	79.65	36.31	-4,496.48	-1,156.44	956.72	829.35	127.37	7.511	
16,500.00	11,270.00	15,886.16	10,500.00	80.88	80.90	36.32	-4,596.48	-1,155.74	956.85	827.62	129.24	7.404	
16,600.00	11,270.00	15,986.16	10,500.00	82.12	82.15	36.33	-4,696.47	-1,155.05	956.98	825.87	131.11	7.299	
16,700.00	11,270.00	16,086.16	10,500.00	83.37	83.41	36.34	-4,796.47	-1,154.35	957.11	824.12	132.99	7.197	
16,800.00	11,270.00	16,186.16	10,500.00	84.63	84.67	36.35	-4,896.47	-1,153.65	957.24	822.36	134.88	7.097	
16,900.00	11,270.00	16,286.16	10,500.00	85.89	85.94	36.36	-4,996.46	-1,152.96	957.37	820.59	136.78	6.999	
17,000.00	11,270.00	16,386.16	10,500.00	87.16	87.21	36.37	-5,096.46	-1,152.26	957.50	818.82	138.68	6.904	
17,100.00	11,270.00	16,486.16	10,500.00	88.43	88.49	36.38	-5,196.46	-1,151.57	957.63	817.04	140.59	6.811	
17,200.00	11,270.00	16,586.16	10,500.00	89.71	89.78	36.39	-5,296.46	-1,150.87	957.76	815.25	142.51	6.721	
17,300.00	11,270.00	16,686.16	10,500.00	90.99	91.07	36.40	-5,396.45	-1,150.17	957.89	813.46	144.44	6.632	
17,400.00	11,270.00	16,786.16	10,500.00	92.28	92.36	36.41	-5,496.45	-1,149.48	958.02	811.66	146.37	6.545	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 504H - 504H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,500.00	11,270.00	16,886.16	10,500.00	93.57	93.65	36.42	-5,596.45	-1,148.78	958.15	809.85	148.31	6.461	
17,600.00	11,270.00	16,986.16	10,500.00	94.87	94.96	36.43	-5,696.45	-1,148.08	958.28	808.04	150.25	6.378	
17,700.00	11,270.00	17,086.16	10,500.00	96.17	96.26	36.44	-5,796.44	-1,147.39	958.42	806.22	152.20	6.297	
17,800.00	11,270.00	17,186.16	10,500.00	97.47	97.57	36.45	-5,896.44	-1,146.69	958.55	804.39	154.15	6.218	
17,900.00	11,270.00	17,286.16	10,500.00	98.78	98.88	36.46	-5,996.44	-1,146.00	958.68	802.57	156.11	6.141	
18,000.00	11,270.00	17,386.16	10,500.00	100.09	100.20	36.47	-6,096.44	-1,145.30	958.81	800.73	158.07	6.066	
18,100.00	11,270.00	17,486.16	10,500.00	101.41	101.52	36.48	-6,196.43	-1,144.60	958.94	798.89	160.04	5.992	
18,200.00	11,270.00	17,586.16	10,500.00	102.73	102.84	36.50	-6,296.43	-1,143.91	959.07	797.05	162.02	5.920	
18,300.00	11,270.00	17,686.16	10,500.00	104.05	104.16	36.51	-6,396.43	-1,143.21	959.20	795.20	164.00	5.849	
18,400.00	11,270.00	17,786.16	10,500.00	105.37	105.49	36.52	-6,496.42	-1,142.51	959.33	793.35	165.98	5.780	
18,500.00	11,270.00	17,886.16	10,500.00	106.70	106.82	36.53	-6,596.42	-1,141.82	959.46	791.49	167.97	5.712	
18,600.00	11,270.00	17,986.16	10,500.00	108.03	108.16	36.54	-6,696.42	-1,141.12	959.59	789.63	169.96	5.646	
18,700.00	11,270.00	18,086.16	10,500.00	109.36	109.49	36.55	-6,796.42	-1,140.43	959.72	787.77	171.95	5.581	
18,800.00	11,270.00	18,186.16	10,500.00	110.70	110.83	36.56	-6,896.41	-1,139.73	959.85	785.90	173.95	5.518	
18,900.00	11,270.00	18,286.16	10,500.00	112.04	112.17	36.57	-6,996.41	-1,139.03	959.98	784.03	175.96	5.456	
19,000.00	11,270.00	18,386.16	10,500.00	113.38	113.52	36.58	-7,096.41	-1,138.34	960.11	782.15	177.96	5.395	
19,100.00	11,270.00	18,486.16	10,500.00	114.72	114.86	36.59	-7,196.41	-1,137.64	960.24	780.27	179.97	5.336	
19,200.00	11,270.00	18,586.16	10,500.00	116.07	116.21	36.60	-7,296.40	-1,136.94	960.37	778.39	181.99	5.277	
19,300.00	11,270.00	18,686.16	10,500.00	117.42	117.56	36.61	-7,396.40	-1,136.25	960.51	776.50	184.00	5.220	
19,332.38	11,270.00	18,718.54	10,500.00	117.85	118.00	36.61	-7,428.78	-1,136.02	960.55	775.89	184.66	5.202	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 505H - 505H - Planning - Plan 0.2b													Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.00	1.00	0.00	0.00	89.41	1.37	132.06	132.07					
100.00	100.00	101.00	101.00	0.13	0.14	89.41	1.37	132.06	132.07	131.79	0.27	484.759		
200.00	200.00	201.00	201.00	0.49	0.50	89.41	1.37	132.06	132.07	131.08	0.99	133.484		
300.00	300.00	301.00	301.00	0.85	0.85	89.41	1.37	132.06	132.07	130.36	1.71	77.399		
400.00	400.00	401.00	401.00	1.21	1.21	89.41	1.37	132.06	132.07	129.64	2.42	54.500		
500.00	500.00	501.00	501.00	1.57	1.57	89.41	1.37	132.06	132.07	128.93	3.14	42.057		
600.00	600.00	601.00	601.00	1.93	1.93	89.41	1.37	132.06	132.07	128.21	3.86	34.240		
700.00	700.00	701.00	701.00	2.29	2.29	89.41	1.37	132.06	132.07	127.49	4.57	28.873		
800.00	800.00	801.00	801.00	2.64	2.65	89.41	1.37	132.06	132.07	126.78	5.29	24.961		
900.00	900.00	901.00	901.00	3.00	3.01	89.41	1.37	132.06	132.07	126.06	6.01	21.982		
1,000.00	1,000.00	1,001.00	1,001.00	3.36	3.36	89.41	1.37	132.06	132.07	125.34	6.72	19.638		
1,100.00	1,100.00	1,101.00	1,101.00	3.72	3.72	89.41	1.37	132.06	132.07	124.63	7.44	17.746		
1,200.00	1,200.00	1,201.00	1,201.00	4.08	4.08	89.41	1.37	132.06	132.07	123.91	8.16	16.187		
1,300.00	1,300.00	1,301.00	1,301.00	4.44	4.44	89.41	1.37	132.06	132.07	123.19	8.88	14.880		
1,400.00	1,400.00	1,401.00	1,401.00	4.79	4.80	89.41	1.37	132.06	132.07	122.47	9.59	13.767		
1,500.00	1,500.00	1,501.00	1,501.00	5.15	5.16	89.41	1.37	132.06	132.07	121.76	10.31	12.810		
1,600.00	1,600.00	1,601.00	1,601.00	5.51	5.52	89.41	1.37	132.06	132.07	121.04	11.03	11.977		
1,700.00	1,700.00	1,701.00	1,701.00	5.87	5.87	89.41	1.37	132.06	132.07	120.32	11.74	11.246		
1,800.00	1,800.00	1,801.00	1,801.00	6.23	6.23	89.41	1.37	132.06	132.07	119.61	12.46	10.599		
1,900.00	1,900.00	1,901.00	1,901.00	6.59	6.59	89.41	1.37	132.06	132.07	118.89	13.18	10.022		
2,000.00	2,000.00	2,001.00	2,001.00	6.95	6.95	89.41	1.37	132.06	132.07	118.17	13.89	9.505		
2,000.21	2,000.21	2,001.22	2,001.22	6.95	6.95	89.41	1.37	132.06	132.07	118.17	13.90	9.504 CC		
2,100.00	2,099.99	2,101.34	2,101.34	7.30	7.31	149.21	2.25	131.92	132.69	118.08	14.61	9.083 ES		
2,200.00	2,199.96	2,201.65	2,201.61	7.65	7.67	148.66	4.87	131.49	134.55	119.24	15.32	8.785		
2,300.00	2,299.86	2,301.89	2,301.75	8.00	8.03	147.77	9.22	130.79	137.69	121.67	16.02	8.593		
2,400.00	2,399.68	2,402.02	2,401.69	8.36	8.39	146.60	15.29	129.81	142.14	125.41	16.73	8.494		
2,500.00	2,499.36	2,502.02	2,501.38	8.71	8.74	145.20	23.07	128.55	147.93	130.49	17.44	8.481		
2,600.00	2,598.99	2,601.74	2,600.72	9.07	9.10	143.82	31.65	127.16	154.46	136.31	18.15	8.508		
2,700.00	2,698.60	2,701.46	2,700.06	9.43	9.46	142.55	40.22	125.77	161.07	142.20	18.87	8.537		
2,800.00	2,798.22	2,801.18	2,799.40	9.79	9.82	141.38	48.80	124.38	167.75	148.17	19.58	8.566		
2,900.00	2,897.84	2,900.90	2,898.74	10.15	10.18	140.31	57.38	122.99	174.50	154.20	20.30	8.596		
3,000.00	2,997.46	3,000.62	2,998.08	10.51	10.54	139.31	65.96	121.60	181.30	160.28	21.02	8.626		
3,100.00	3,097.08	3,100.34	3,097.42	10.87	10.91	138.39	74.54	120.21	188.15	166.41	21.74	8.655		
3,200.00	3,196.70	3,200.06	3,196.76	11.24	11.27	137.53	83.12	118.82	195.05	172.59	22.46	8.684		
3,300.00	3,296.32	3,299.78	3,296.11	11.60	11.64	136.72	91.70	117.43	201.99	178.81	23.19	8.712		
3,400.00	3,395.94	3,399.50	3,395.45	11.97	12.00	135.98	100.28	116.04	208.97	185.06	23.91	8.739		
3,500.00	3,495.56	3,499.22	3,494.79	12.33	12.37	135.28	108.86	114.65	215.98	191.34	24.64	8.766		
3,600.00	3,595.18	3,598.94	3,594.13	12.70	12.73	134.62	117.44	113.26	223.02	197.65	25.36	8.793		
3,700.00	3,694.80	3,698.67	3,693.47	13.07	13.10	134.01	126.02	111.87	230.08	203.99	26.09	8.818		
3,800.00	3,794.42	3,798.39	3,792.81	13.44	13.46	133.43	134.60	110.48	237.17	210.35	26.82	8.843		
3,900.00	3,894.04	3,898.11	3,892.15	13.81	13.83	132.88	143.18	109.09	244.29	216.74	27.55	8.867		
4,000.00	3,993.66	3,997.83	3,991.49	14.17	14.20	132.37	151.76	107.70	251.42	223.14	28.28	8.890		
4,100.00	4,093.28	4,097.55	4,090.83	14.54	14.57	131.89	160.34	106.31	258.58	229.56	29.01	8.912		
4,200.00	4,192.90	4,197.27	4,190.17	14.91	14.94	131.43	168.92	104.92	265.75	236.00	29.75	8.934		
4,300.00	4,292.52	4,296.99	4,289.52	15.28	15.30	130.99	177.50	103.53	272.94	242.46	30.48	8.955		
4,400.00	4,392.14	4,396.71	4,388.86	15.65	15.67	130.58	186.07	102.14	280.14	248.93	31.21	8.975		
4,500.00	4,491.76	4,496.43	4,488.20	16.02	16.04	130.19	194.65	100.75	287.36	255.41	31.95	8.995		
4,600.00	4,591.37	4,596.15	4,587.54	16.40	16.41	129.81	203.23	99.37	294.58	261.90	32.68	9.014		
4,700.00	4,690.99	4,695.87	4,686.88	16.77	16.78	129.46	211.81	97.98	301.83	268.41	33.42	9.032		
4,800.00	4,790.61	4,795.59	4,786.22	17.14	17.15	129.12	220.39	96.59	309.08	274.93	34.15	9.050		
4,900.00	4,890.23	4,895.31	4,885.56	17.51	17.52	128.80	228.97	95.20	316.34	281.45	34.89	9.068		
5,000.00	4,989.85	4,995.03	4,984.90	17.88	17.89	128.49	237.55	93.81	323.61	287.99	35.62	9.084		

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 505H - 505H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWVD+HRGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,089.47	5,094.75	5,084.24	18.25	18.26	128.19	246.13	92.42	330.89	294.53	36.36	9.101	
5,200.00	5,189.09	5,194.47	5,183.58	18.63	18.63	127.91	254.71	91.03	338.18	301.08	37.10	9.116	
5,300.00	5,288.71	5,294.19	5,282.93	19.00	19.00	127.64	263.29	89.64	345.48	307.64	37.83	9.132	
5,400.00	5,388.33	5,393.91	5,382.27	19.37	19.37	127.38	271.87	88.25	352.78	314.21	38.57	9.146	
5,500.00	5,487.95	5,493.63	5,481.61	19.74	19.74	127.13	280.45	86.86	360.09	320.78	39.31	9.161	
5,600.00	5,587.57	5,593.35	5,580.95	20.12	20.11	126.90	289.03	85.47	367.41	327.36	40.05	9.174	
5,632.55	5,620.00	5,625.82	5,613.29	20.24	20.23	126.82	291.82	85.02	369.79	329.50	40.29	9.179	
5,700.00	5,687.11	5,691.20	5,678.37	20.49	20.48	124.73	298.04	84.01	375.25	334.48	40.78	9.203	
5,800.00	5,786.29	5,787.56	5,773.98	20.88	20.84	122.69	309.85	82.10	385.38	343.88	41.51	9.285	
5,900.00	5,884.97	5,885.61	5,870.90	21.27	21.22	121.33	324.46	79.73	397.77	355.51	42.26	9.412	
5,959.22	5,943.12	5,944.26	5,928.86	21.51	21.45	120.86	333.33	78.29	405.88	363.17	42.72	9.502	
6,000.00	5,983.08	5,984.62	5,968.74	21.67	21.61	120.99	339.43	77.31	411.66	368.63	43.03	9.567	
6,100.00	6,081.07	6,083.58	6,066.54	22.08	21.99	121.30	354.39	74.88	425.84	382.04	43.80	9.722	
6,200.00	6,179.06	6,182.55	6,164.34	22.48	22.38	121.58	369.34	72.46	440.03	395.45	44.58	9.871	
6,300.00	6,277.05	6,281.51	6,262.14	22.89	22.77	121.85	384.30	70.04	454.23	408.88	45.35	10.016	
6,400.00	6,375.05	6,380.48	6,359.93	23.30	23.15	122.10	399.26	67.62	468.44	422.31	46.13	10.155	
6,500.00	6,473.04	6,479.44	6,457.73	23.72	23.54	122.34	414.22	65.19	482.65	435.74	46.91	10.289	
6,600.00	6,571.03	6,578.41	6,555.53	24.13	23.93	122.56	429.18	62.77	496.88	449.19	47.69	10.419	
6,700.00	6,669.02	6,677.37	6,653.33	24.54	24.32	122.77	444.14	60.35	511.11	462.64	48.47	10.544	
6,800.00	6,767.02	6,776.34	6,751.13	24.96	24.71	122.97	459.10	57.92	525.35	476.09	49.26	10.666	
6,900.00	6,865.01	6,875.30	6,848.92	25.38	25.10	123.16	474.06	55.50	539.59	489.55	50.04	10.783	
6,959.22	6,923.04	6,933.92	6,906.84	25.63	25.33	123.27	482.92	54.07	548.03	497.52	50.51	10.851	
7,000.00	6,963.04	6,974.31	6,946.76	25.79	25.49	120.65	489.02	53.08	553.57	502.74	50.83	10.891	
7,100.00	7,061.47	7,073.67	7,044.95	26.20	25.88	112.71	504.04	50.65	564.81	513.19	51.61	10.943	
7,200.00	7,160.26	7,173.35	7,143.45	26.60	26.27	102.19	519.11	48.20	572.72	520.32	52.40	10.930	
7,300.00	7,259.29	7,273.23	7,242.16	26.98	26.67	88.89	534.21	45.76	577.30	524.12	53.18	10.856	
7,327.23	7,286.28	7,300.45	7,269.05	27.09	26.78	84.85	538.32	45.09	577.97	524.58	53.39	10.825	
7,400.00	7,358.43	7,373.19	7,340.94	27.36	27.07	84.71	549.32	43.31	579.43	525.47	53.96	10.739	
7,500.00	7,457.58	7,473.15	7,439.72	27.73	27.46	84.51	564.43	40.86	581.44	526.70	54.74	10.623	
7,600.00	7,556.73	7,573.11	7,538.50	28.11	27.86	84.31	579.54	38.42	583.46	527.94	55.52	10.510	
7,700.00	7,655.87	7,673.07	7,637.28	28.48	28.26	84.12	594.65	35.97	585.48	529.19	56.30	10.400	
7,800.00	7,755.02	7,773.03	7,736.06	28.86	28.65	83.92	609.76	33.52	587.51	530.44	57.08	10.294	
7,900.00	7,854.17	7,872.99	7,834.84	29.23	29.05	83.73	624.87	31.08	589.55	531.70	57.86	10.190	
8,000.00	7,953.31	7,972.95	7,933.62	29.61	29.45	83.54	639.98	28.63	591.60	532.96	58.64	10.089	
8,100.00	8,052.46	8,072.91	8,032.40	29.99	29.85	83.35	655.09	26.18	593.65	534.23	59.42	9.990	
8,200.00	8,151.60	8,172.86	8,131.18	30.36	30.25	83.16	670.19	23.73	595.71	535.50	60.20	9.895	
8,300.00	8,250.75	8,272.82	8,229.96	30.74	30.65	82.97	685.30	21.29	597.77	536.78	60.99	9.801	
8,400.00	8,349.90	8,372.78	8,328.74	31.12	31.05	82.78	700.41	18.84	599.84	538.07	61.77	9.711	
8,500.00	8,449.04	8,472.74	8,427.52	31.50	31.45	82.60	715.52	16.39	601.92	539.36	62.56	9.622	
8,600.00	8,548.19	8,572.70	8,526.30	31.88	31.85	82.42	730.63	13.95	604.00	540.66	63.34	9.536	
8,700.00	8,647.34	8,672.66	8,625.08	32.26	32.25	82.23	745.74	11.50	606.09	541.96	64.13	9.452	
8,800.00	8,746.48	8,772.62	8,723.87	32.64	32.65	82.05	760.85	9.05	608.19	543.27	64.91	9.369	
8,900.00	8,845.63	8,872.58	8,822.65	33.02	33.05	81.87	775.96	6.60	610.29	544.59	65.70	9.289	
9,000.00	8,944.78	8,972.54	8,921.43	33.40	33.45	81.69	791.07	4.16	612.39	545.91	66.48	9.211	
9,100.00	9,043.92	9,072.50	9,020.21	33.78	33.85	81.51	806.18	1.71	614.51	547.24	67.27	9.135	
9,200.00	9,143.07	9,172.46	9,118.99	34.16	34.25	81.34	821.29	-0.74	616.63	548.57	68.06	9.060	
9,300.00	9,242.21	9,272.42	9,217.77	34.54	34.65	81.16	836.40	-3.18	618.75	549.91	68.84	8.988	
9,400.00	9,341.36	9,377.30	9,321.59	34.92	35.07	81.09	851.05	-5.56	620.57	550.91	69.66	8.908	
9,500.00	9,440.51	9,483.42	9,427.11	35.30	35.48	81.36	862.12	-7.35	621.41	550.95	70.47	8.818	
9,600.00	9,539.65	9,589.21	9,532.64	35.69	35.86	81.97	869.31	-8.51	621.32	550.07	71.25	8.720	
9,700.00	9,638.80	9,694.38	9,637.75	36.07	36.23	82.92	872.64	-9.05	620.39	548.38	72.01	8.616	
9,800.00	9,737.95	9,795.58	9,738.95	36.45	36.56	84.11	872.90	-9.10	618.97	546.25	72.71	8.512	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 505H - 505H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,900.00	9,837.09	9,894.72	9,838.09	36.84	36.90	85.31	872.90	-9.10	617.75	544.33	73.42	8.414	
10,000.00	9,936.24	9,999.37	9,942.73	37.22	37.23	86.59	872.69	-9.09	616.77	542.64	74.13	8.320	
10,100.00	10,035.38	10,142.34	10,083.69	37.60	37.60	90.22	851.07	-8.90	611.67	536.94	74.73	8.185	
10,200.00	10,134.53	10,260.58	10,193.30	37.99	37.81	95.58	807.28	-8.50	603.11	527.93	75.18	8.022	
10,300.00	10,233.68	10,352.61	10,271.00	38.37	37.92	101.17	758.18	-8.05	596.72	521.06	75.66	7.887	
10,345.22	10,278.51	10,386.74	10,297.68	38.55	37.95	103.52	736.88	-7.85	595.88	520.05	75.82	7.859	
10,400.00	10,332.82	10,422.88	10,324.48	38.76	37.98	106.16	712.65	-7.63	597.27	521.37	75.90	7.869	
10,500.00	10,431.97	10,476.81	10,361.51	39.14	38.01	110.32	673.48	-7.27	607.95	532.40	75.55	8.047	
10,600.00	10,531.12	10,518.80	10,387.69	39.53	38.03	113.70	640.66	-6.97	630.22	555.79	74.43	8.468	
10,700.00	10,630.26	10,550.00	10,405.56	39.91	38.04	116.26	615.08	-6.74	664.14	591.54	72.60	9.148	
10,800.00	10,729.41	10,578.97	10,420.87	40.30	38.05	118.66	590.50	-6.51	708.76	638.37	70.40	10.068	
10,803.49	10,732.87	10,579.81	10,421.30	40.31	38.05	118.73	589.77	-6.50	710.50	640.18	70.31	10.105	
10,825.00	10,754.25	10,585.15	10,423.98	40.39	38.05	128.48	585.16	-6.46	721.33	651.53	69.80	10.334	
10,850.00	10,779.19	10,600.00	10,431.20	40.48	38.05	158.73	572.18	-6.34	734.24	664.89	69.34	10.588	
10,875.00	10,804.18	10,600.00	10,431.20	40.57	38.05	-126.26	572.18	-6.34	747.17	678.53	68.64	10.886	
10,900.00	10,829.13	10,600.00	10,431.20	40.65	38.05	-93.41	572.18	-6.34	760.34	692.42	67.92	11.194	
10,925.00	10,853.98	10,613.60	10,437.52	40.72	38.05	-81.32	560.14	-6.23	773.48	706.04	67.44	11.470	
10,950.00	10,878.66	10,621.50	10,441.06	40.79	38.05	-74.86	553.07	-6.17	786.64	719.79	66.86	11.766	
10,975.00	10,903.11	10,629.67	10,444.61	40.85	38.05	-70.33	545.73	-6.10	799.74	733.46	66.29	12.064	
11,000.00	10,927.25	10,650.00	10,453.01	40.91	38.06	-66.11	527.21	-5.93	812.89	746.97	65.92	12.331	
11,025.00	10,951.03	10,650.00	10,453.01	40.97	38.06	-63.56	527.21	-5.93	825.54	760.30	65.24	12.653	
11,050.00	10,974.38	10,650.00	10,453.01	41.02	38.06	-61.32	527.21	-5.93	838.15	773.56	64.58	12.977	
11,075.00	10,997.22	10,664.56	10,458.61	41.06	38.06	-58.70	513.77	-5.81	850.43	786.27	64.16	13.255	
11,100.00	11,019.51	10,673.75	10,461.97	41.10	38.06	-56.56	505.22	-5.73	862.44	798.77	63.66	13.547	
11,125.00	11,041.17	10,683.11	10,465.25	41.14	38.06	-54.61	496.46	-5.65	874.10	810.91	63.19	13.833	
11,150.00	11,062.16	10,700.00	10,470.81	41.17	38.06	-52.59	480.50	-5.50	885.45	822.62	62.83	14.093	
11,175.00	11,082.40	10,700.00	10,470.81	41.20	38.06	-51.27	480.50	-5.50	896.25	833.98	62.28	14.392	
11,200.00	11,101.86	10,700.00	10,470.81	41.22	38.06	-50.03	480.50	-5.50	906.84	845.08	61.76	14.684	
11,225.00	11,120.46	10,721.88	10,477.31	41.24	38.06	-48.35	459.62	-5.31	916.61	855.11	61.50	14.904	
11,250.00	11,138.17	10,731.85	10,480.00	41.25	38.06	-47.11	450.01	-5.22	926.06	864.92	61.14	15.147	
11,275.00	11,154.93	10,750.00	10,484.48	41.26	38.06	-45.82	432.43	-5.06	935.06	874.19	60.87	15.363	
11,300.00	11,170.70	10,750.00	10,484.48	41.26	38.06	-44.99	432.43	-5.06	943.36	882.89	60.47	15.602	
11,325.00	11,185.43	10,750.00	10,484.48	41.26	38.06	-44.22	432.43	-5.06	951.34	891.23	60.11	15.827	
11,350.00	11,199.09	10,772.62	10,489.27	41.26	38.06	-43.20	410.32	-4.86	958.38	898.45	59.93	15.991	
11,375.00	11,211.63	10,782.99	10,491.18	41.25	38.06	-42.46	400.13	-4.77	965.00	905.30	59.70	16.164	
11,400.00	11,223.02	10,800.00	10,493.90	41.24	38.06	-41.73	383.34	-4.61	971.05	911.53	59.52	16.314	
11,425.00	11,233.24	10,800.00	10,493.90	41.22	38.06	-41.26	383.34	-4.61	976.39	917.08	59.31	16.462	
11,450.00	11,242.25	10,814.41	10,495.82	41.21	38.05	-40.73	369.06	-4.48	981.11	921.92	59.18	16.578	
11,475.00	11,250.02	10,824.97	10,497.00	41.19	38.05	-40.31	358.57	-4.39	985.18	926.12	59.07	16.679	
11,500.00	11,256.55	10,835.56	10,497.98	41.17	38.05	-39.96	348.03	-4.29	988.60	929.62	58.99	16.759	
11,525.00	11,261.80	10,850.00	10,499.01	41.14	38.05	-39.66	333.62	-4.16	991.37	932.44	58.93	16.822	
11,550.00	11,265.77	10,850.00	10,499.01	41.11	38.05	-39.49	333.62	-4.16	993.49	934.55	58.94	16.857	
11,575.00	11,268.44	10,867.45	10,499.77	41.09	38.05	-39.33	316.19	-4.00	994.83	935.90	58.94	16.880	
11,600.00	11,269.81	10,883.67	10,500.00	41.06	38.05	-39.26	299.97	-3.85	995.59	936.63	58.96	16.886	
11,613.65	11,270.00	10,884.25	10,500.00	41.04	38.05	-39.25	299.39	-3.84	995.66	936.64	59.02	16.869	
11,700.00	11,270.00	10,970.61	10,500.00	40.95	38.07	-39.25	213.04	-3.05	995.66	936.56	59.10	16.848	
11,800.00	11,270.00	11,070.61	10,500.00	40.86	38.14	-39.25	113.04	-2.14	995.66	936.41	59.26	16.803	
11,900.00	11,270.00	11,170.61	10,500.00	40.81	38.27	-39.25	13.05	-1.22	995.66	936.17	59.50	16.735	
12,000.00	11,270.00	11,270.61	10,500.00	40.93	38.45	-39.25	-86.95	-0.31	995.66	935.85	59.81	16.646	
12,100.00	11,270.00	11,370.61	10,500.00	41.17	38.68	-39.25	-186.95	0.61	995.66	935.45	60.21	16.536	
12,200.00	11,270.00	11,470.61	10,500.00	41.46	38.97	-39.25	-286.94	1.52	995.66	934.98	60.68	16.408	
12,300.00	11,270.00	11,570.61	10,500.00	41.79	39.31	-39.25	-386.94	2.44	995.66	934.43	61.23	16.261	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 505H - 505H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.00	11,270.00	11,670.61	10,500.00	42.16	39.69	-39.25	-486.93	3.36	995.66	933.81	61.85	16.098	
12,500.00	11,270.00	11,770.61	10,500.00	42.57	40.13	-39.25	-586.93	4.27	995.66	933.12	62.54	15.920	
12,600.00	11,270.00	11,870.61	10,500.00	43.02	40.61	-39.25	-686.92	5.19	995.66	932.36	63.30	15.729	
12,700.00	11,270.00	11,970.61	10,500.00	43.52	41.14	-39.25	-786.92	6.10	995.66	931.54	64.13	15.527	
12,800.00	11,270.00	12,070.61	10,500.00	44.05	41.71	-39.25	-886.92	7.02	995.66	930.65	65.01	15.315	
12,900.00	11,270.00	12,170.61	10,500.00	44.62	42.32	-39.25	-986.91	7.93	995.66	929.70	65.96	15.094	
13,000.00	11,270.00	12,270.61	10,500.00	45.23	42.97	-39.25	-1,086.91	8.85	995.66	928.69	66.97	14.867	
13,100.00	11,270.00	12,370.61	10,500.00	45.87	43.66	-39.25	-1,186.90	9.77	995.66	927.63	68.03	14.635	
13,200.00	11,270.00	12,470.61	10,500.00	46.55	44.38	-39.25	-1,286.90	10.68	995.66	926.51	69.15	14.399	
13,300.00	11,270.00	12,570.61	10,500.00	47.26	45.14	-39.25	-1,386.90	11.60	995.66	925.35	70.31	14.160	
13,400.00	11,270.00	12,670.61	10,500.00	48.01	45.93	-39.25	-1,486.89	12.51	995.66	924.13	71.53	13.920	
13,500.00	11,270.00	12,770.61	10,500.00	48.78	46.76	-39.25	-1,586.89	13.43	995.66	922.87	72.79	13.679	
13,600.00	11,270.00	12,870.61	10,500.00	49.58	47.61	-39.25	-1,686.88	14.34	995.66	921.57	74.09	13.438	
13,700.00	11,270.00	12,970.61	10,500.00	50.41	48.49	-39.25	-1,786.88	15.26	995.66	920.23	75.44	13.199	
13,800.00	11,270.00	13,070.61	10,500.00	51.27	49.39	-39.25	-1,886.87	16.18	995.66	918.84	76.82	12.961	
13,900.00	11,270.00	13,170.61	10,500.00	52.15	50.32	-39.25	-1,986.87	17.09	995.66	917.42	78.24	12.726	
14,000.00	11,270.00	13,270.61	10,500.00	53.06	51.28	-39.25	-2,086.87	18.01	995.66	915.97	79.69	12.493	
14,100.00	11,270.00	13,370.61	10,500.00	53.99	52.25	-39.25	-2,186.86	18.92	995.66	914.48	81.18	12.264	
14,200.00	11,270.00	13,470.61	10,500.00	54.94	53.25	-39.25	-2,286.86	19.84	995.66	912.96	82.70	12.039	
14,300.00	11,270.00	13,570.61	10,500.00	55.91	54.27	-39.25	-2,386.85	20.75	995.66	911.41	84.25	11.818	
14,400.00	11,270.00	13,670.61	10,500.00	56.90	55.30	-39.25	-2,486.85	21.67	995.66	909.83	85.83	11.601	
14,500.00	11,270.00	13,770.61	10,500.00	57.91	56.36	-39.25	-2,586.85	22.59	995.66	908.23	87.43	11.388	
14,600.00	11,270.00	13,870.61	10,500.00	58.94	57.43	-39.25	-2,686.84	23.50	995.66	906.60	89.06	11.180	
14,700.00	11,270.00	13,970.61	10,500.00	59.99	58.51	-39.25	-2,786.84	24.42	995.66	904.95	90.71	10.976	
14,800.00	11,270.00	14,070.61	10,500.00	61.05	59.61	-39.25	-2,886.83	25.33	995.66	903.28	92.39	10.777	
14,900.00	11,270.00	14,170.61	10,500.00	62.12	60.73	-39.25	-2,986.83	26.25	995.66	901.58	94.08	10.583	
15,000.00	11,270.00	14,270.61	10,500.00	63.21	61.86	-39.25	-3,086.82	27.16	995.66	899.86	95.80	10.393	
15,100.00	11,270.00	14,370.61	10,500.00	64.32	63.00	-39.25	-3,186.82	28.08	995.66	898.13	97.53	10.208	
15,200.00	11,270.00	14,470.61	10,500.00	65.43	64.15	-39.25	-3,286.82	29.00	995.66	896.38	99.29	10.028	
15,300.00	11,270.00	14,570.61	10,500.00	66.56	65.32	-39.25	-3,386.81	29.91	995.66	894.61	101.06	9.853	
15,400.00	11,270.00	14,670.61	10,500.00	67.70	66.49	-39.25	-3,486.81	30.83	995.66	892.82	102.84	9.681	
15,500.00	11,270.00	14,770.61	10,500.00	68.85	67.68	-39.25	-3,586.80	31.74	995.66	891.02	104.64	9.515	
15,600.00	11,270.00	14,870.61	10,500.00	70.02	68.87	-39.25	-3,686.80	32.66	995.66	889.20	106.46	9.352	
15,700.00	11,270.00	14,970.61	10,500.00	71.19	70.08	-39.25	-3,786.79	33.57	995.66	887.37	108.29	9.194	
15,800.00	11,270.00	15,070.61	10,500.00	72.37	71.29	-39.25	-3,886.79	34.49	995.66	885.53	110.13	9.041	
15,900.00	11,270.00	15,170.61	10,500.00	73.56	72.51	-39.25	-3,986.79	35.41	995.66	883.67	111.99	8.891	
16,000.00	11,270.00	15,270.61	10,500.00	74.76	73.74	-39.25	-4,086.78	36.32	995.66	881.81	113.86	8.745	
16,100.00	11,270.00	15,370.61	10,500.00	75.97	74.98	-39.25	-4,186.78	37.24	995.66	879.93	115.74	8.603	
16,200.00	11,270.00	15,470.61	10,500.00	77.19	76.22	-39.25	-4,286.77	38.15	995.66	878.04	117.63	8.465	
16,300.00	11,270.00	15,570.61	10,500.00	78.41	77.47	-39.25	-4,386.77	39.07	995.66	876.14	119.53	8.330	
16,400.00	11,270.00	15,670.61	10,500.00	79.64	78.73	-39.25	-4,486.77	39.98	995.66	874.23	121.44	8.199	
16,500.00	11,270.00	15,770.61	10,500.00	80.88	79.99	-39.25	-4,586.76	40.90	995.66	872.31	123.36	8.072	
16,600.00	11,270.00	15,870.61	10,500.00	82.12	81.26	-39.25	-4,686.76	41.82	995.66	870.38	125.28	7.947	
16,700.00	11,270.00	15,970.61	10,500.00	83.37	82.54	-39.25	-4,786.75	42.73	995.66	868.44	127.22	7.826	
16,800.00	11,270.00	16,070.61	10,500.00	84.63	83.82	-39.25	-4,886.75	43.65	995.66	866.50	129.16	7.708	
16,900.00	11,270.00	16,170.61	10,500.00	85.89	85.10	-39.25	-4,986.74	44.56	995.66	864.54	131.12	7.594	
17,000.00	11,270.00	16,270.61	10,500.00	87.16	86.39	-39.25	-5,086.74	45.48	995.66	862.58	133.08	7.482	
17,100.00	11,270.00	16,370.61	10,500.00	88.43	87.69	-39.25	-5,186.74	46.39	995.66	860.62	135.04	7.373	
17,200.00	11,270.00	16,470.61	10,500.00	89.71	88.98	-39.25	-5,286.73	47.31	995.66	858.64	137.02	7.267	
17,300.00	11,270.00	16,570.61	10,500.00	90.99	90.29	-39.25	-5,386.73	48.23	995.66	856.66	139.00	7.163	
17,400.00	11,270.00	16,670.61	10,500.00	92.28	91.60	-39.25	-5,486.72	49.14	995.66	854.68	140.99	7.062	
17,500.00	11,270.00	16,770.61	10,500.00	93.57	92.91	-39.25	-5,586.72	50.06	995.66	852.68	142.98	6.964	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Golden Tee 31 Fed Com 505H - 505H - Planning - Plan 0.2b												Offset Site Error:	0.00 usft
Survey Program: 0-B001Mb_MWD+HRGM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.00	11,270.00	16,870.61	10,500.00	94.87	94.22	-39.25	-5,686.72	50.97	995.66	850.69	144.98	6.868	
17,700.00	11,270.00	16,970.61	10,500.00	96.17	95.54	-39.25	-5,786.71	51.89	995.66	848.68	146.98	6.774	
17,800.00	11,270.00	17,070.61	10,500.00	97.47	96.86	-39.25	-5,886.71	52.80	995.66	846.67	148.99	6.683	
17,900.00	11,270.00	17,170.61	10,500.00	98.78	98.19	-39.25	-5,986.70	53.72	995.66	844.66	151.00	6.594	
18,000.00	11,270.00	17,270.61	10,500.00	100.09	99.52	-39.25	-6,086.70	54.64	995.66	842.64	153.02	6.507	
18,100.00	11,270.00	17,370.61	10,500.00	101.41	100.85	-39.25	-6,186.69	55.55	995.66	840.62	155.05	6.422	
18,200.00	11,270.00	17,470.61	10,500.00	102.73	102.18	-39.25	-6,286.69	56.47	995.66	838.59	157.08	6.339	
18,300.00	11,270.00	17,570.61	10,500.00	104.05	103.52	-39.25	-6,386.69	57.38	995.66	836.55	159.11	6.258	
18,400.00	11,270.00	17,670.61	10,500.00	105.37	104.86	-39.25	-6,486.68	58.30	995.66	834.52	161.14	6.179	
18,500.00	11,270.00	17,770.61	10,500.00	106.70	106.20	-39.25	-6,586.68	59.21	995.66	832.48	163.19	6.101	
18,600.00	11,270.00	17,870.61	10,500.00	108.03	107.55	-39.25	-6,686.67	60.13	995.66	830.43	165.23	6.026	
18,700.00	11,270.00	17,970.61	10,500.00	109.36	108.90	-39.25	-6,786.67	61.04	995.66	828.38	167.28	5.952	
18,800.00	11,270.00	18,070.61	10,500.00	110.70	110.25	-39.25	-6,886.66	61.96	995.66	826.33	169.33	5.880	
18,900.00	11,270.00	18,170.61	10,500.00	112.04	111.60	-39.25	-6,986.66	62.88	995.66	824.28	171.39	5.809	
19,000.00	11,270.00	18,270.61	10,500.00	113.38	112.95	-39.25	-7,086.66	63.79	995.66	822.22	173.44	5.741	
19,100.00	11,270.00	18,370.61	10,500.00	114.72	114.31	-39.25	-7,186.65	64.71	995.66	820.16	175.51	5.673	
19,200.00	11,270.00	18,470.61	10,500.00	116.07	115.67	-39.25	-7,286.65	65.62	995.66	818.09	177.57	5.607	
19,300.00	11,270.00	18,570.61	10,500.00	117.42	116.87	-39.25	-7,386.64	66.54	995.66	816.22	179.44	5.549	
19,303.41	11,270.00	18,574.02	10,500.00	117.46	116.91	-39.25	-7,390.05	66.57	995.66	816.16	179.50	5.547	
19,332.38	11,270.00	18,602.38	10,500.00	117.85	117.24	-39.25	-7,418.41	66.83	995.66	815.64	180.02	5.531 SF	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	15.13	15.13	0.00	1.01	26.81	703.55	355.62	788.32				
100.00	100.00	116.00	116.00	0.13	1.35	26.82	703.47	355.61	788.25	786.77	1.48	531.156	
200.00	200.00	215.85	215.85	0.49	1.92	26.82	703.29	355.61	788.08	785.70	2.39	329.968	
227.34	227.34	242.34	242.34	0.59	2.06	26.82	703.27	355.62	788.07	785.47	2.59	303.698	
300.00	300.00	312.74	312.74	0.85	2.44	26.83	703.32	355.75	788.17	785.02	3.16	249.811	
400.00	400.00	409.66	409.66	1.21	2.94	26.84	703.69	356.05	788.66	784.75	3.91	201.837	
500.00	500.00	510.33	510.33	1.57	3.34	26.83	704.32	356.24	789.30	784.64	4.66	169.426	
600.00	600.00	609.77	609.77	1.93	3.69	26.81	705.01	356.25	789.92	784.52	5.41	146.017	
700.00	700.00	709.35	709.34	2.29	4.03	26.77	705.85	356.13	790.62	784.49	6.13	128.882	
800.00	800.00	809.34	809.33	2.64	4.35	26.73	706.74	355.92	791.32	784.49	6.83	115.811	
900.00	900.00	910.32	910.30	3.00	4.66	26.69	707.63	355.75	792.04	784.53	7.51	105.470	
1,000.00	1,000.00	1,012.28	1,012.26	3.36	5.00	26.64	708.37	355.31	792.49	784.31	8.18	96.905	
1,100.00	1,100.00	1,115.70	1,115.68	3.72	5.30	26.58	708.85	354.72	792.65	783.86	8.79	90.204	
1,200.00	1,200.00	1,215.25	1,215.22	4.08	5.55	26.54	709.04	354.11	792.55	783.17	9.38	84.504	
1,300.00	1,300.00	1,316.63	1,316.60	4.44	5.81	26.49	709.24	353.48	792.45	782.47	9.98	79.372	
1,400.00	1,400.00	1,416.21	1,416.18	4.79	6.08	26.44	709.43	352.71	792.27	781.68	10.59	74.796	
1,500.00	1,500.00	1,515.66	1,515.62	5.15	6.38	26.38	709.66	352.02	792.17	780.95	11.22	70.622	
1,600.00	1,600.00	1,616.02	1,615.98	5.51	6.67	26.35	709.74	351.60	792.06	780.21	11.84	66.889	
1,699.45	1,699.45	1,714.49	1,714.45	5.87	6.97	26.32	709.87	351.16	791.98	779.51	12.47	63.509	
1,700.00	1,700.00	1,715.03	1,714.99	5.87	6.97	26.32	709.87	351.16	791.98	779.50	12.47	63.491	
1,800.00	1,800.00	1,813.30	1,813.26	6.23	7.31	26.29	710.19	350.78	792.10	778.98	13.12	60.364	
1,900.00	1,900.00	1,912.27	1,912.23	6.59	7.67	26.26	710.63	350.53	792.39	778.61	13.78	57.497	
2,000.00	2,000.00	2,009.67	2,009.63	6.95	7.98	26.22	711.23	350.29	792.83	778.41	14.42	54.977	
2,100.00	2,099.99	2,104.72	2,104.67	7.30	8.25	86.27	712.06	350.75	793.76	778.69	15.08	52.649	
2,200.00	2,199.96	2,204.26	2,204.20	7.65	8.53	86.51	713.05	352.19	795.14	779.41	15.74	50.533	
2,300.00	2,299.86	2,317.70	2,317.63	8.00	8.86	86.84	713.74	352.12	795.40	778.96	16.45	48.364	
2,400.00	2,399.68	2,431.63	2,431.51	8.36	9.35	87.14	713.86	348.79	793.85	776.62	17.23	46.087	
2,500.00	2,499.36	2,550.00	2,549.70	8.71	9.85	87.48	712.77	342.52	790.24	772.35	17.90	44.155	
2,600.00	2,598.99	2,667.17	2,666.52	9.07	10.34	87.76	709.90	333.87	784.29	765.74	18.54	42.299	
2,700.00	2,698.60	2,786.17	2,784.82	9.43	11.15	87.89	705.50	321.92	776.00	756.51	19.48	39.825	
2,800.00	2,798.22	2,905.01	2,902.54	9.79	12.55	87.88	699.41	306.84	765.21	744.45	20.76	36.867	
2,900.00	2,897.84	3,020.43	3,016.37	10.15	13.47	87.72	691.97	289.25	752.06	730.28	21.78	34.526	
3,000.00	2,997.46	3,121.96	3,116.19	10.51	13.88	87.47	684.87	272.10	737.67	715.26	22.41	32.918	
3,100.00	3,097.08	3,220.15	3,212.69	10.87	14.22	87.21	678.04	255.31	723.22	700.22	23.00	31.444	
3,200.00	3,196.70	3,317.00	3,307.90	11.24	14.56	86.94	671.45	238.86	708.99	685.38	23.61	30.032	
3,300.00	3,296.32	3,413.24	3,402.57	11.60	14.92	86.66	665.18	222.66	695.10	670.87	24.23	28.683	
3,400.00	3,395.94	3,508.59	3,496.44	11.97	15.39	86.40	659.27	207.02	681.69	656.72	24.97	27.296	
3,500.00	3,495.56	3,604.53	3,591.00	12.33	15.85	86.15	653.61	191.83	668.83	643.12	25.71	26.011	
3,600.00	3,595.18	3,706.59	3,691.59	12.70	16.28	85.88	647.56	175.67	655.95	629.57	26.39	24.857	
3,700.00	3,694.80	3,807.30	3,790.73	13.07	16.69	85.55	641.53	158.99	642.71	615.67	27.05	23.764	
3,800.00	3,794.42	3,904.21	3,886.06	13.44	17.10	85.17	635.95	142.49	629.51	601.80	27.71	22.717	
3,900.00	3,894.04	3,998.82	3,979.17	13.81	17.50	84.76	631.17	126.47	617.01	588.63	28.38	21.739	
4,000.00	3,993.66	4,097.50	4,076.38	14.17	17.93	84.35	626.34	110.17	604.86	575.80	29.06	20.815	
4,100.00	4,093.28	4,196.70	4,174.14	14.54	18.37	83.95	621.44	94.03	592.81	563.07	29.74	19.932	
4,200.00	4,192.90	4,295.82	4,271.75	14.91	18.82	83.48	616.64	77.45	580.69	550.27	30.43	19.086	
4,300.00	4,292.52	4,394.98	4,369.42	15.28	19.27	83.00	611.99	61.03	568.81	537.70	31.11	18.282	
4,400.00	4,392.14	4,496.77	4,469.57	15.65	19.75	82.43	607.06	43.48	556.58	524.78	31.80	17.504	
4,500.00	4,491.76	4,595.19	4,566.31	16.02	20.21	81.81	602.23	26.06	544.16	511.68	32.48	16.752	
4,600.00	4,591.37	4,692.69	4,662.20	16.40	20.68	81.17	597.76	8.96	532.17	499.00	33.17	16.043	
4,700.00	4,690.99	4,790.60	4,758.57	16.77	21.15	80.55	593.28	-7.74	520.43	486.57	33.86	15.370	
4,800.00	4,790.61	4,887.09	4,853.61	17.14	21.62	79.94	589.10	-23.85	509.11	474.56	34.55	14.735	
4,900.00	4,890.23	4,988.47	4,953.49	17.51	22.13	79.26	585.02	-40.77	498.15	462.91	35.24	14.136	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,989.85	5,089.04	5,052.31	17.88	22.65	78.40	580.74	-58.92	486.59	450.67	35.92	13.546	
5,100.00	5,089.47	5,188.05	5,149.51	18.25	23.15	77.45	576.68	-77.35	475.12	438.54	36.59	12.985	
5,200.00	5,189.09	5,288.98	5,248.49	18.63	23.66	76.36	572.52	-96.67	463.63	426.38	37.24	12.448	
5,300.00	5,288.71	5,389.06	5,346.59	19.00	24.18	75.23	568.05	-115.97	451.91	414.01	37.90	11.924	
5,400.00	5,388.33	5,485.76	5,441.42	19.37	24.68	74.11	563.75	-134.35	440.48	401.93	38.56	11.425	
5,500.00	5,487.95	5,583.20	5,537.08	19.74	25.17	72.97	559.78	-152.44	429.69	390.49	39.20	10.962	
5,600.00	5,587.57	5,680.68	5,632.93	20.12	25.68	71.86	556.01	-169.81	419.45	379.60	39.85	10.525	
5,632.55	5,620.00	5,712.48	5,664.22	20.24	25.84	71.50	554.84	-175.37	416.23	376.16	40.07	10.389	
5,700.00	5,687.11	5,778.51	5,729.21	20.49	26.18	69.12	552.49	-186.75	409.35	368.84	40.52	10.103	
5,800.00	5,786.29	5,876.41	5,825.69	20.88	26.69	67.12	549.15	-203.05	398.12	356.90	41.22	9.658	
5,900.00	5,884.97	5,974.58	5,922.57	21.27	27.20	66.30	546.03	-218.63	385.65	343.68	41.97	9.188	
5,959.22	5,943.12	6,033.49	5,980.70	21.51	27.51	66.21	544.21	-228.01	377.54	335.10	42.44	8.896	
6,000.00	5,983.08	6,077.52	6,024.07	21.67	27.77	66.37	542.68	-235.44	371.54	328.77	42.76	8.688	
6,100.00	6,081.07	6,182.82	6,127.30	22.08	28.40	66.41	537.84	-255.65	355.31	311.77	43.53	8.162	
6,200.00	6,179.06	6,282.05	6,224.34	22.48	28.96	66.31	532.38	-275.65	338.01	293.71	44.31	7.629	
6,300.00	6,277.05	6,379.83	6,320.10	22.89	29.48	66.32	527.13	-294.73	320.97	275.88	45.09	7.118	
6,400.00	6,375.05	6,478.03	6,416.42	23.30	30.01	66.49	521.82	-313.04	304.06	258.17	45.89	6.625	
6,500.00	6,473.04	6,576.88	6,513.54	23.72	30.54	66.85	516.36	-330.67	287.19	240.48	46.71	6.148	
6,600.00	6,571.03	6,671.99	6,607.15	24.13	31.06	67.43	511.29	-346.70	270.72	223.13	47.59	5.689	
6,700.00	6,669.02	6,769.15	6,703.03	24.54	31.59	68.35	507.04	-361.77	255.50	207.00	48.50	5.268	
6,800.00	6,767.02	6,865.33	6,798.09	24.96	32.10	69.51	503.27	-375.95	240.98	191.53	49.44	4.874	
6,900.00	6,865.01	6,958.96	6,890.85	25.38	32.60	71.05	500.85	-388.38	228.23	177.78	50.45	4.524	
6,959.22	6,923.04	7,016.13	6,947.64	25.63	32.92	72.24	500.14	-395.03	221.80	170.71	51.09	4.342	
7,000.00	6,963.04	7,056.18	6,987.45	25.79	33.14	70.35	499.64	-399.31	217.44	165.90	51.54	4.219	
7,100.00	7,061.47	7,155.43	7,086.22	26.20	33.65	64.13	498.15	-408.94	206.05	153.42	52.63	3.915	
7,200.00	7,160.26	7,250.10	7,180.55	26.60	34.13	55.02	497.13	-416.81	194.31	140.67	53.63	3.623	
7,300.00	7,259.29	7,342.95	7,273.24	26.98	34.54	43.01	498.11	-422.06	184.10	129.63	54.47	3.380	
7,327.23	7,286.28	7,368.62	7,298.89	27.09	34.64	39.33	498.77	-422.97	181.67	127.00	54.67	3.323	
7,400.00	7,358.43	7,438.60	7,368.80	27.36	34.84	40.33	501.14	-424.92	175.79	120.63	55.16	3.187	
7,500.00	7,457.58	7,539.79	7,469.91	27.73	35.05	42.18	504.59	-426.80	168.25	112.31	55.94	3.008	
7,600.00	7,556.73	7,639.54	7,569.63	28.11	35.22	44.60	506.76	-427.99	160.13	103.36	56.77	2.821	
7,700.00	7,655.87	7,738.26	7,668.33	28.48	35.33	47.50	508.71	-428.45	152.52	94.88	57.64	2.646	
7,800.00	7,755.02	7,837.47	7,767.52	28.86	35.40	50.91	510.63	-428.34	145.65	87.05	58.60	2.485	
7,900.00	7,854.17	7,936.68	7,866.71	29.23	35.47	54.75	512.49	-427.90	139.49	79.86	59.63	2.339	
8,000.00	7,953.31	8,036.78	7,966.79	29.61	35.56	58.85	514.37	-427.83	133.79	73.07	60.72	2.203	
8,100.00	8,052.46	8,136.89	8,066.89	29.99	35.71	63.17	516.01	-428.43	128.16	66.31	61.85	2.072	
8,200.00	8,151.60	8,236.25	8,166.24	30.36	35.88	67.94	517.26	-429.06	123.06	60.03	63.03	1.952	
8,300.00	8,250.75	8,335.47	8,265.46	30.74	36.04	73.21	518.32	-429.44	119.00	54.78	64.21	1.853	
8,400.00	8,349.90	8,435.10	8,365.08	31.12	36.23	78.81	519.35	-429.94	115.90	50.52	65.39	1.773	
8,500.00	8,449.04	8,534.45	8,464.42	31.50	36.43	84.64	520.24	-430.78	113.61	47.10	66.51	1.708	
8,567.08	8,515.55	8,600.40	8,530.36	31.75	36.54	89.27	519.68	-430.64	113.09	45.88	67.21	1.683 CC	
8,600.00	8,548.19	8,632.87	8,562.83	31.88	36.57	91.69	519.18	-430.42	113.20	45.70	67.51	1.677 ES, SF	
8,700.00	8,647.34	8,732.13	8,662.07	32.26	36.66	99.12	517.37	-429.67	114.86	46.64	68.22	1.684	
8,800.00	8,746.48	8,831.85	8,761.77	32.64	36.78	106.48	515.12	-429.60	117.73	49.08	68.65	1.715	
8,900.00	8,845.63	8,931.38	8,861.27	33.02	37.00	113.41	512.86	-430.11	121.86	52.97	68.89	1.769	
9,000.00	8,944.78	9,030.14	8,960.03	33.40	37.24	118.85	512.71	-430.64	127.14	58.10	69.04	1.842	
9,100.00	9,043.92	9,129.79	9,059.67	33.78	37.41	123.35	513.63	-430.61	133.71	64.53	69.18	1.933	
9,200.00	9,143.07	9,229.72	9,159.60	34.16	37.59	127.42	514.78	-431.11	140.45	71.11	69.34	2.025	
9,300.00	9,242.21	9,330.37	9,260.23	34.54	37.84	131.14	516.17	-432.17	147.23	77.66	69.57	2.116	
9,400.00	9,341.36	9,431.47	9,361.28	34.92	38.10	134.37	518.47	-433.97	153.51	83.64	69.87	2.197	
9,500.00	9,440.51	9,528.25	9,458.03	35.30	38.34	137.11	520.81	-435.42	160.38	90.32	70.06	2.289	
9,600.00	9,539.65	9,624.27	9,554.04	35.69	38.51	139.97	521.23	-435.86	169.57	99.52	70.06	2.421	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,700.00	9,638.80	9,725.12	9,654.89	36.07	38.64	142.66	521.30	-435.88	179.74	109.54	70.20	2.560	
9,800.00	9,737.95	9,845.05	9,774.42	36.45	38.82	143.83	528.72	-436.33	186.57	115.12	71.44	2.611	
9,900.00	9,837.09	9,968.50	9,892.25	36.84	39.05	137.92	564.61	-437.74	178.53	104.40	74.13	2.408	
10,000.00	9,936.24	10,068.23	9,981.59	37.22	39.31	127.57	608.82	-437.22	166.59	90.84	75.75	2.199	
10,100.00	10,035.38	10,165.90	10,060.67	37.60	39.74	111.14	665.85	-435.92	159.02	82.56	76.46	2.080	
10,110.45	10,045.74	10,175.14	10,067.58	37.64	39.81	109.26	671.98	-435.86	158.93	82.50	76.43	2.079	
10,200.00	10,134.53	10,247.99	10,119.25	37.99	40.50	93.54	723.28	-436.36	167.08	92.04	75.03	2.227	
10,300.00	10,233.68	10,317.30	10,163.52	38.37	40.99	78.66	776.54	-438.29	197.51	125.54	71.97	2.744	
10,400.00	10,332.82	10,368.58	10,192.74	38.76	41.35	68.78	818.61	-440.38	247.87	179.42	68.45	3.621	
10,500.00	10,431.97	10,404.34	10,210.03	39.14	41.59	62.70	849.89	-441.28	313.98	248.53	65.45	4.797	
10,600.00	10,531.12	10,439.00	10,224.03	39.53	41.83	57.58	881.58	-441.57	390.23	326.03	64.21	6.078	
10,700.00	10,630.26	10,461.14	10,231.80	39.91	41.92	54.72	902.30	-441.52	472.34	409.60	62.74	7.529	
10,800.00	10,729.41	10,488.13	10,240.52	40.30	42.02	51.64	927.85	-441.32	558.04	495.45	62.59	8.915	
10,803.49	10,732.87	10,489.01	10,240.79	40.31	42.02	51.55	928.68	-441.31	561.08	498.49	62.59	8.964	
10,825.00	10,754.25	10,494.08	10,242.33	40.39	42.04	61.76	933.51	-441.25	580.07	517.47	62.59	9.267	
10,850.00	10,779.19	10,499.13	10,243.83	40.48	42.06	92.57	938.34	-441.19	602.67	540.06	62.61	9.626	
10,875.00	10,804.18	10,503.33	10,245.06	40.57	42.08	170.25	942.35	-441.13	625.78	563.15	62.63	9.991	
10,900.00	10,829.13	10,506.68	10,246.02	40.65	42.09	-152.96	945.56	-441.08	649.31	586.64	62.66	10.362	
10,925.00	10,853.98	10,509.22	10,246.74	40.72	42.10	-136.20	947.99	-441.05	673.16	610.46	62.70	10.736	
10,950.00	10,878.66	10,510.98	10,247.24	40.79	42.11	-122.63	949.69	-441.02	697.27	634.53	62.74	11.113	
10,975.00	10,903.11	10,533.00	10,253.14	40.85	42.19	-115.72	970.89	-440.63	722.12	657.70	64.42	11.209	
11,000.00	10,927.25	10,533.00	10,253.14	40.91	42.19	-101.55	970.89	-440.63	746.47	682.05	64.42	11.587	
11,025.00	10,951.03	10,533.00	10,253.14	40.97	42.19	-86.95	970.89	-440.63	770.88	706.40	64.48	11.956	
11,050.00	10,974.38	10,533.00	10,253.14	41.02	42.19	-73.20	970.89	-440.63	795.29	730.70	64.59	12.314	
11,075.00	10,997.22	10,509.25	10,246.75	41.06	42.10	-55.83	948.02	-441.05	818.93	755.94	63.00	13.000	
11,100.00	11,019.51	10,507.02	10,246.12	41.10	42.09	-47.08	945.88	-441.08	843.02	779.96	63.05	13.370	
11,125.00	11,041.17	10,504.23	10,245.32	41.14	42.08	-40.21	943.22	-441.12	866.87	803.76	63.11	13.736	
11,150.00	11,062.16	10,500.92	10,244.36	41.17	42.07	-34.82	940.05	-441.16	890.45	827.28	63.17	14.097	
11,175.00	11,082.40	10,497.11	10,243.23	41.20	42.06	-30.55	936.41	-441.21	913.68	850.46	63.22	14.452	
11,200.00	11,101.86	10,492.83	10,241.95	41.22	42.04	-27.14	932.33	-441.26	936.54	873.26	63.28	14.800	
11,225.00	11,120.46	10,488.11	10,240.51	41.24	42.02	-24.37	927.83	-441.32	958.96	895.62	63.34	15.140	
11,250.00	11,138.17	10,482.98	10,238.92	41.25	42.00	-22.09	922.95	-441.37	980.90	917.50	63.40	15.472	
11,275.00	11,154.93	10,477.45	10,237.17	41.26	41.98	-20.20	917.70	-441.41	1,002.32	938.85	63.46	15.794	
11,300.00	11,170.70	10,471.55	10,235.26	41.26	41.96	-18.61	912.12	-441.46	1,023.17	959.65	63.52	16.107	
11,325.00	11,185.43	10,439.00	10,224.03	41.26	41.83	-16.73	881.58	-441.57	1,044.19	982.34	61.85	16.883	
11,350.00	11,199.09	10,439.00	10,224.03	41.26	41.83	-15.77	881.58	-441.57	1,063.48	1,001.12	62.36	17.053	
11,375.00	11,211.63	10,439.00	10,224.03	41.25	41.83	-14.94	881.58	-441.57	1,082.19	1,019.30	62.89	17.207	
11,400.00	11,223.02	10,439.00	10,224.03	41.24	41.83	-14.21	881.58	-441.57	1,100.30	1,036.87	63.44	17.345	
11,425.00	11,233.24	10,439.00	10,224.03	41.22	41.83	-13.56	881.58	-441.57	1,117.80	1,053.80	64.00	17.467	
11,450.00	11,242.25	10,439.00	10,224.03	41.21	41.83	-12.99	881.58	-441.57	1,134.65	1,070.09	64.57	17.574	
11,475.00	11,250.02	10,439.00	10,224.03	41.19	41.83	-12.48	881.58	-441.57	1,150.85	1,085.71	65.15	17.666	
11,500.00	11,256.55	10,439.00	10,224.03	41.17	41.83	-12.03	881.58	-441.57	1,166.38	1,100.65	65.74	17.743	
11,525.00	11,261.80	10,439.00	10,224.03	41.14	41.83	-11.63	881.58	-441.57	1,181.23	1,114.89	66.34	17.807	
11,550.00	11,265.77	10,439.00	10,224.03	41.11	41.83	-11.28	881.58	-441.57	1,195.37	1,128.43	66.94	17.857	
11,575.00	11,268.44	10,439.00	10,224.03	41.09	41.83	-10.97	881.58	-441.57	1,208.80	1,141.25	67.55	17.894	
11,600.00	11,269.81	10,402.89	10,209.39	41.06	41.58	-10.54	848.59	-441.26	1,219.30	1,153.51	65.79	18.533	
11,613.65	11,270.00	10,399.98	10,208.07	41.04	41.56	-10.40	845.99	-441.20	1,225.55	1,159.60	65.95	18.583	
11,700.00	11,270.00	10,381.92	10,199.52	40.95	41.44	-10.33	830.09	-440.79	1,266.15	1,199.17	66.98	18.903	
11,800.00	11,270.00	10,344.00	10,179.24	40.86	41.18	-10.20	798.09	-439.40	1,317.98	1,250.96	67.02	19.665	
11,900.00	11,270.00	10,344.00	10,179.24	40.81	41.18	-10.20	798.09	-439.40	1,372.91	1,303.63	69.28	19.817	
12,000.00	11,270.00	10,344.00	10,179.24	40.93	41.18	-10.20	798.09	-439.40	1,432.72	1,361.43	71.29	20.097	
12,100.00	11,270.00	10,286.57	10,144.50	41.17	40.77	-9.98	752.44	-437.26	1,493.64	1,422.83	70.81	21.092	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.00	11,270.00	10,249.00	10,119.93	41.46	40.51	-9.81	724.03	-436.38	1,558.21	1,487.12	71.09	21.918	
12,300.00	11,270.00	10,249.00	10,119.93	41.79	40.51	-9.81	724.03	-436.38	1,625.12	1,552.45	72.67	22.364	
12,400.00	11,270.00	10,214.11	10,095.86	42.16	40.13	-9.62	698.78	-435.93	1,694.12	1,621.73	72.39	23.403	
12,500.00	11,270.00	10,193.04	10,080.75	42.57	39.94	-9.50	684.10	-435.84	1,765.36	1,692.65	72.71	24.280	
12,600.00	11,270.00	10,155.00	10,052.41	43.02	39.68	-9.27	658.73	-436.01	1,838.82	1,766.62	72.20	25.468	
12,700.00	11,270.00	10,155.00	10,052.41	43.52	39.68	-9.27	658.73	-436.01	1,913.42	1,840.11	73.31	26.101	
12,800.00	11,270.00	10,155.00	10,052.41	44.05	39.68	-9.27	658.73	-436.01	1,990.26	1,915.96	74.29	26.790	
12,900.00	11,270.00	10,155.00	10,052.41	44.62	39.68	-9.27	658.73	-436.01	2,069.07	1,993.91	75.16	27.528	
13,000.00	11,270.00	10,155.00	10,052.41	45.23	39.68	-9.27	658.73	-436.01	2,149.64	2,073.71	75.93	28.309	
13,100.00	11,270.00	10,108.35	10,015.45	45.87	39.44	-8.97	630.31	-436.58	2,229.06	2,154.18	74.88	29.769	
13,200.00	11,270.00	10,060.00	9,974.43	46.55	39.29	-8.65	604.76	-437.37	2,313.21	2,239.41	73.80	31.346	
13,300.00	11,270.00	10,060.00	9,974.43	47.26	39.29	-8.65	604.76	-437.37	2,395.85	2,321.40	74.45	32.182	
13,400.00	11,270.00	10,060.00	9,974.43	48.01	39.29	-8.65	604.76	-437.37	2,479.76	2,404.73	75.03	33.050	
13,500.00	11,270.00	10,060.00	9,974.43	48.78	39.29	-8.65	604.76	-437.37	2,564.83	2,489.27	75.56	33.945	
13,600.00	11,270.00	10,060.00	9,974.43	49.58	39.29	-8.65	604.76	-437.37	2,650.94	2,574.91	76.03	34.865	
13,700.00	11,270.00	10,060.00	9,974.43	50.41	39.29	-8.65	604.76	-437.37	2,738.00	2,661.53	76.47	35.807	
13,800.00	11,270.00	10,060.00	9,974.43	51.27	39.29	-8.65	604.76	-437.37	2,825.91	2,749.05	76.86	36.768	
13,900.00	11,270.00	10,060.00	9,974.43	52.15	39.29	-8.65	604.76	-437.37	2,914.60	2,837.39	77.22	37.746	
14,000.00	11,270.00	10,022.82	9,941.54	53.06	39.18	-8.41	587.41	-437.83	3,002.97	2,926.45	76.52	39.243	
14,100.00	11,270.00	10,013.03	9,932.77	53.99	39.15	-8.35	583.08	-437.88	3,092.42	3,015.85	76.58	40.382	
14,200.00	11,270.00	10,003.68	9,924.34	54.94	39.13	-8.30	579.03	-437.90	3,182.37	3,105.74	76.63	41.530	
14,300.00	11,270.00	9,965.00	9,889.03	55.91	39.04	-8.10	563.25	-437.70	3,273.42	3,197.52	75.91	43.125	
14,400.00	11,270.00	9,965.00	9,889.03	56.90	39.04	-8.10	563.25	-437.70	3,363.95	3,287.77	76.18	44.159	
14,500.00	11,270.00	9,965.00	9,889.03	57.91	39.04	-8.10	563.25	-437.70	3,454.99	3,378.56	76.43	45.204	
14,600.00	11,270.00	9,965.00	9,889.03	58.94	39.04	-8.10	563.25	-437.70	3,546.52	3,469.86	76.67	46.260	
14,700.00	11,270.00	9,965.00	9,889.03	59.99	39.04	-8.10	563.25	-437.70	3,638.50	3,561.61	76.88	47.324	
14,800.00	11,270.00	9,965.00	9,889.03	61.05	39.04	-8.10	563.25	-437.70	3,730.88	3,653.79	77.09	48.397	
14,900.00	11,270.00	9,965.00	9,889.03	62.12	39.04	-8.10	563.25	-437.70	3,823.65	3,746.37	77.28	49.477	
15,000.00	11,270.00	9,965.00	9,889.03	63.21	39.04	-8.10	563.25	-437.70	3,916.78	3,839.32	77.46	50.564	
15,100.00	11,270.00	9,965.00	9,889.03	64.32	39.04	-8.10	563.25	-437.70	4,010.24	3,932.60	77.63	51.657	
15,200.00	11,270.00	9,965.00	9,889.03	65.43	39.04	-8.10	563.25	-437.70	4,104.00	4,026.21	77.79	52.756	
15,300.00	11,270.00	9,965.00	9,889.03	66.56	39.04	-8.10	563.25	-437.70	4,198.05	4,120.11	77.94	53.860	
15,400.00	11,270.00	9,965.00	9,889.03	67.70	39.04	-8.10	563.25	-437.70	4,292.38	4,214.29	78.09	54.968	
15,500.00	11,270.00	9,965.00	9,889.03	68.85	39.04	-8.10	563.25	-437.70	4,386.95	4,308.72	78.23	56.081	
15,600.00	11,270.00	9,965.00	9,889.03	70.02	39.04	-8.10	563.25	-437.70	4,481.76	4,403.40	78.36	57.197	
15,700.00	11,270.00	9,920.13	9,847.05	71.19	38.95	-7.88	547.48	-437.19	4,574.82	4,498.53	76.30	59.961	
15,800.00	11,270.00	9,916.68	9,843.76	72.37	38.94	-7.86	546.40	-437.15	4,669.75	4,593.49	76.26	61.233	
15,900.00	11,270.00	9,913.34	9,840.59	73.56	38.93	-7.84	545.38	-437.11	4,764.86	4,688.63	76.23	62.506	
16,000.00	11,270.00	9,871.00	9,799.81	74.76	38.86	-7.65	534.01	-436.61	4,861.64	4,787.22	74.42	65.328	
16,100.00	11,270.00	9,871.00	9,799.81	75.97	38.86	-7.65	534.01	-436.61	4,956.87	4,882.33	74.54	66.499	
16,200.00	11,270.00	9,871.00	9,799.81	77.19	38.86	-7.65	534.01	-436.61	5,052.28	4,977.62	74.66	67.672	
16,300.00	11,270.00	9,871.00	9,799.81	78.41	38.86	-7.65	534.01	-436.61	5,147.86	5,073.09	74.77	68.848	
16,400.00	11,270.00	9,871.00	9,799.81	79.64	38.86	-7.65	534.01	-436.61	5,243.61	5,168.73	74.88	70.025	
16,500.00	11,270.00	9,871.00	9,799.81	80.88	38.86	-7.65	534.01	-436.61	5,339.52	5,264.53	74.99	71.203	
16,600.00	11,270.00	9,871.00	9,799.81	82.12	38.86	-7.65	534.01	-436.61	5,435.57	5,360.48	75.09	72.383	
16,700.00	11,270.00	9,871.00	9,799.81	83.37	38.86	-7.65	534.01	-436.61	5,531.77	5,456.57	75.20	73.564	
16,800.00	11,270.00	9,871.00	9,799.81	84.63	38.86	-7.65	534.01	-436.61	5,628.09	5,552.80	75.30	74.745	
16,900.00	11,270.00	9,871.00	9,799.81	85.89	38.86	-7.65	534.01	-436.61	5,724.55	5,649.15	75.39	75.928	
17,000.00	11,270.00	9,871.00	9,799.81	87.16	38.86	-7.65	534.01	-436.61	5,821.12	5,745.63	75.49	77.110	
17,100.00	11,270.00	9,871.00	9,799.81	88.43	38.86	-7.65	534.01	-436.61	5,917.80	5,842.22	75.58	78.293	
17,200.00	11,270.00	9,871.00	9,799.81	89.71	38.86	-7.65	534.01	-436.61	6,014.60	5,938.92	75.68	79.477	
17,300.00	11,270.00	9,871.00	9,799.81	90.99	38.86	-7.65	534.01	-436.61	6,111.50	6,035.73	75.77	80.660	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Winnebago 30 State Com - 505H - OH / 68126 - Surveys (H&P 296)												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,400.00	11,270.00	9,871.00	9,799.81	92.28	38.86	-7.65	534.01	-436.61	6,208.49	6,132.63	75.86	81.843	
17,500.00	11,270.00	9,871.00	9,799.81	93.57	38.86	-7.65	534.01	-436.61	6,305.58	6,229.63	75.95	83.025	
17,600.00	11,270.00	9,871.00	9,799.81	94.87	38.86	-7.65	534.01	-436.61	6,402.76	6,326.72	76.04	84.208	
17,700.00	11,270.00	9,871.00	9,799.81	96.17	38.86	-7.65	534.01	-436.61	6,500.02	6,423.90	76.12	85.389	
17,800.00	11,270.00	9,871.00	9,799.81	97.47	38.86	-7.65	534.01	-436.61	6,597.37	6,521.16	76.21	86.570	
17,900.00	11,270.00	9,871.00	9,799.81	98.78	38.86	-7.65	534.01	-436.61	6,694.80	6,618.50	76.29	87.750	
18,000.00	11,270.00	9,871.00	9,799.81	100.09	38.86	-7.65	534.01	-436.61	6,792.30	6,715.92	76.38	88.929	
18,100.00	11,270.00	9,871.00	9,799.81	101.41	38.86	-7.65	534.01	-436.61	6,889.87	6,813.40	76.46	90.107	
18,200.00	11,270.00	9,871.00	9,799.81	102.73	38.86	-7.65	534.01	-436.61	6,987.51	6,910.96	76.55	91.284	
18,300.00	11,270.00	9,871.00	9,799.81	104.05	38.86	-7.65	534.01	-436.61	7,085.21	7,008.58	76.63	92.460	
18,400.00	11,270.00	9,871.00	9,799.81	105.37	38.86	-7.65	534.01	-436.61	7,182.98	7,106.27	76.71	93.635	
18,500.00	11,270.00	9,871.00	9,799.81	106.70	38.86	-7.65	534.01	-436.61	7,280.81	7,204.02	76.80	94.808	
18,600.00	11,270.00	9,871.00	9,799.81	108.03	38.86	-7.65	534.01	-436.61	7,378.70	7,301.82	76.88	95.979	
18,700.00	11,270.00	9,871.00	9,799.81	109.36	38.86	-7.65	534.01	-436.61	7,476.64	7,399.68	76.96	97.149	
18,800.00	11,270.00	9,871.00	9,799.81	110.70	38.86	-7.65	534.01	-436.61	7,574.64	7,497.60	77.04	98.317	
18,900.00	11,270.00	9,871.00	9,799.81	112.04	38.86	-7.65	534.01	-436.61	7,672.69	7,595.56	77.13	99.484	
19,000.00	11,270.00	9,871.00	9,799.81	113.38	38.86	-7.65	534.01	-436.61	7,770.79	7,693.58	77.21	100.648	
19,100.00	11,270.00	9,871.00	9,799.81	114.72	38.86	-7.65	534.01	-436.61	7,868.93	7,791.65	77.29	101.811	
19,200.00	11,270.00	9,871.00	9,799.81	116.07	38.86	-7.65	534.01	-436.61	7,967.13	7,889.76	77.37	102.972	
19,300.00	11,270.00	9,871.00	9,799.81	117.42	38.86	-7.65	534.01	-436.61	8,065.36	7,987.91	77.45	104.131	
19,332.38	11,270.00	9,871.00	9,799.81	117.85	38.86	-7.65	534.01	-436.61	8,097.18	8,019.70	77.48	104.506	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design													Winnebago 30 State Com - 506H - OH / 68127 - Surveys (H&P 296)		Offset Site Error:	0.00 usft
Survey Program: 191-															Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
0.00	0.00	16.18	16.18	0.00	1.01	29.03	703.92	390.61	805.03							
100.00	100.00	114.83	114.83	0.13	1.34	29.02	704.05	390.60	805.14	803.67	1.47	548.265				
200.00	200.00	213.56	213.56	0.49	1.91	29.01	704.37	390.59	805.42	803.02	2.40	336.025				
300.00	300.00	312.85	312.85	0.85	2.46	29.00	704.75	390.73	805.83	802.55	3.27	246.130				
400.00	400.00	412.57	412.57	1.21	2.93	29.01	705.12	390.99	806.28	802.25	4.03	200.027				
500.00	500.00	511.76	511.76	1.57	3.37	29.01	705.56	391.26	806.80	802.01	4.79	168.443				
600.00	600.00	611.66	611.65	1.93	3.80	29.01	706.09	391.55	807.40	801.84	5.56	145.277				
700.00	700.00	710.34	710.33	2.29	4.20	29.00	706.71	391.73	808.04	801.71	6.33	127.577				
800.00	800.00	811.93	811.92	2.64	4.67	29.00	707.34	392.04	808.73	801.59	7.14	113.262				
900.00	900.00	915.06	915.05	3.00	5.04	29.01	707.59	392.40	809.11	801.27	7.84	103.187				
1,000.00	1,000.00	1,016.89	1,016.88	3.36	5.28	29.02	707.54	392.52	809.13	800.72	8.41	96.246				
1,100.00	1,100.00	1,118.52	1,118.51	3.72	5.58	29.02	707.38	392.49	808.98	799.94	9.04	89.481				
1,200.00	1,200.00	1,220.70	1,220.69	4.08	5.90	29.03	706.99	392.37	808.59	798.88	9.70	83.338				
1,300.00	1,300.00	1,322.75	1,322.73	4.44	6.24	29.03	706.41	392.02	807.92	797.56	10.37	77.929				
1,400.00	1,400.00	1,422.76	1,422.74	4.79	6.58	29.02	705.77	391.52	807.12	796.10	11.02	73.254				
1,500.00	1,500.00	1,521.50	1,521.47	5.15	6.89	29.00	705.32	390.98	806.46	794.81	11.64	69.259				
1,600.00	1,600.00	1,622.90	1,622.87	5.51	7.19	28.97	704.87	390.20	805.69	793.43	12.26	65.697				
1,700.00	1,700.00	1,721.50	1,721.47	5.87	7.46	28.92	704.55	389.32	804.97	792.10	12.87	62.548				
1,800.00	1,800.00	1,822.36	1,822.32	6.23	7.74	28.88	704.30	388.53	804.38	790.89	13.49	59.624				
1,900.00	1,900.00	1,922.28	1,922.25	6.59	8.04	28.85	703.75	387.68	803.49	789.37	14.12	56.905				
1,985.83	1,985.83	2,002.27	2,002.23	6.89	8.22	28.81	703.71	387.08	803.14	788.54	14.60	55.020				
2,000.00	2,000.00	2,013.00	2,012.96	6.95	8.24	28.81	703.75	387.02	803.15	788.49	14.66	54.779				
2,100.00	2,099.99	2,105.96	2,105.91	7.30	8.59	88.84	704.44	387.14	803.86	788.57	15.29	52.558				
2,200.00	2,199.96	2,203.19	2,203.13	7.65	8.98	89.05	705.66	388.41	805.54	789.65	15.89	50.686				
2,300.00	2,299.86	2,314.40	2,314.32	8.00	9.31	89.50	705.82	390.48	806.52	789.94	16.59	48.627				
2,400.00	2,399.68	2,430.31	2,430.16	8.36	9.56	90.28	703.20	393.35	805.79	788.55	17.24	46.728				
2,500.00	2,499.36	2,557.16	2,556.78	8.71	9.95	91.45	696.47	396.37	802.57	784.62	17.95	44.703				
2,600.00	2,598.99	2,683.92	2,683.04	9.07	10.40	92.76	685.28	397.83	795.93	777.11	18.82	42.294				
2,700.00	2,698.60	2,796.38	2,794.67	9.43	10.76	94.09	671.71	399.18	786.89	767.26	19.63	40.086				
2,800.00	2,798.22	2,900.80	2,898.00	9.79	11.25	95.52	656.89	401.62	777.11	756.64	20.48	37.945				
2,900.00	2,897.84	3,004.09	3,000.05	10.15	11.83	97.02	641.18	404.18	767.06	745.71	21.35	35.926				
3,000.00	2,997.46	3,108.08	3,102.63	10.51	12.39	98.62	624.36	406.75	756.74	734.52	22.22	34.050				
3,100.00	3,097.08	3,211.77	3,204.75	10.87	12.95	100.30	606.53	409.21	746.14	723.04	23.10	32.306				
3,200.00	3,196.70	3,306.29	3,297.80	11.24	13.28	101.89	590.05	411.41	735.93	712.17	23.76	30.972				
3,300.00	3,296.32	3,401.31	3,391.38	11.60	13.62	103.52	573.73	413.72	726.62	702.20	24.42	29.760				
3,400.00	3,395.94	3,490.00	3,478.96	11.97	14.01	104.96	559.85	415.21	718.53	693.43	25.10	28.622				
3,500.00	3,495.56	3,585.00	3,573.09	12.33	14.49	106.37	547.02	415.99	711.89	686.06	25.83	27.560				
3,600.00	3,595.18	3,675.55	3,662.97	12.70	14.86	107.66	536.06	416.66	706.61	680.11	26.49	26.670				
3,700.00	3,694.80	3,771.68	3,758.54	13.07	15.23	108.95	525.72	416.95	702.34	675.18	27.16	25.856				
3,800.00	3,794.42	3,869.00	3,855.44	13.44	15.61	110.12	516.79	416.22	698.67	670.82	27.85	25.086				
3,900.00	3,894.04	3,963.00	3,949.18	13.81	15.99	111.11	509.86	414.79	695.84	667.28	28.56	24.360				
4,000.00	3,993.66	4,048.64	4,034.70	14.17	16.37	111.87	505.68	413.27	694.57	665.24	29.33	23.684				
4,017.67	4,011.26	4,064.28	4,050.33	14.24	16.44	112.00	505.18	412.98	694.55	665.09	29.46	23.578 CC				
4,100.00	4,093.28	4,138.97	4,124.99	14.54	16.68	112.54	503.51	411.70	695.02	664.98	30.03	23.141 ES				
4,200.00	4,192.90	4,237.16	4,223.16	14.91	16.95	113.19	502.31	410.13	696.39	665.71	30.69	22.693				
4,300.00	4,292.52	4,336.34	4,322.31	15.28	17.22	113.85	501.08	408.63	697.92	666.58	31.34	22.267				
4,400.00	4,392.14	4,434.08	4,420.04	15.65	17.49	114.49	499.95	407.28	699.71	667.71	32.00	21.867				
4,500.00	4,491.76	4,533.14	4,519.09	16.02	17.77	115.15	498.92	406.07	701.77	669.11	32.66	21.485				
4,600.00	4,591.37	4,631.10	4,617.03	16.40	18.06	115.79	497.97	405.01	704.09	670.76	33.33	21.125				
4,700.00	4,690.99	4,728.42	4,714.35	16.77	18.35	116.43	497.17	404.20	706.78	672.78	34.00	20.787				
4,800.00	4,790.61	4,826.33	4,812.25	17.14	18.66	117.06	496.52	403.63	709.86	675.18	34.68	20.467				
4,900.00	4,890.23	4,925.10	4,911.02	17.51	18.99	117.70	495.88	403.24	713.19	677.82	35.37	20.161				

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Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,989.85	5,022.86	5,008.78	17.88	19.33	118.34	495.31	403.04	716.82	680.76	36.06	19.881	
5,100.00	5,089.47	5,121.13	5,107.05	18.25	19.66	118.96	494.94	402.97	720.76	684.04	36.71	19.631	
5,200.00	5,189.09	5,220.04	5,205.96	18.63	19.96	119.57	494.70	403.00	724.93	687.60	37.33	19.418	
5,300.00	5,288.71	5,319.80	5,305.72	19.00	20.24	120.20	494.35	403.12	729.22	691.29	37.93	19.228	
5,400.00	5,388.33	5,418.81	5,404.73	19.37	20.51	120.81	493.95	403.24	733.56	695.06	38.50	19.054	
5,500.00	5,487.95	5,515.56	5,501.48	19.74	20.70	121.41	493.65	403.62	738.27	699.28	38.99	18.933	
5,600.00	5,587.57	5,615.86	5,601.77	20.12	20.86	122.01	493.52	404.11	743.24	703.75	39.49	18.823	
5,632.55	5,620.00	5,648.68	5,634.59	20.24	20.92	122.20	493.49	404.22	744.84	705.19	39.65	18.785	
5,700.00	5,687.11	5,716.87	5,702.78	20.49	21.05	120.73	493.46	404.38	748.44	708.43	40.01	18.707	
5,800.00	5,786.29	5,818.40	5,804.32	20.88	21.26	119.82	493.36	404.38	754.84	714.27	40.57	18.605	
5,900.00	5,884.97	5,917.69	5,903.61	21.27	21.41	119.70	493.53	403.93	762.61	721.49	41.12	18.544	
5,959.22	5,943.12	5,974.74	5,960.66	21.51	21.47	119.85	493.76	403.68	768.12	726.68	41.44	18.536	
6,000.00	5,983.08	6,014.32	6,000.24	21.67	21.51	120.34	493.99	403.52	772.21	730.55	41.66	18.534	
6,100.00	6,081.07	6,112.01	6,097.92	22.08	21.62	121.52	494.71	403.14	782.55	740.33	42.22	18.534	
6,200.00	6,179.06	6,209.97	6,195.88	22.48	21.74	122.70	495.07	402.94	793.24	750.45	42.79	18.539	
6,300.00	6,277.05	6,308.26	6,294.17	22.89	21.88	123.83	495.67	402.64	804.27	760.90	43.37	18.545	
6,400.00	6,375.05	6,407.21	6,393.11	23.30	22.01	124.93	496.45	402.21	815.55	771.59	43.96	18.553	
6,500.00	6,473.04	6,508.09	6,493.98	23.72	22.14	126.01	497.33	401.54	826.92	782.38	44.55	18.562	
6,600.00	6,571.03	6,605.94	6,591.83	24.13	22.26	127.03	497.96	400.72	838.34	793.22	45.13	18.578	
6,700.00	6,669.02	6,703.52	6,689.40	24.54	22.39	128.03	498.71	400.00	850.16	804.45	45.71	18.599	
6,800.00	6,767.02	6,801.34	6,787.22	24.96	22.53	128.99	499.53	399.30	862.27	815.96	46.31	18.621	
6,900.00	6,865.01	6,898.48	6,884.36	25.38	22.68	129.91	500.45	398.66	874.69	827.78	46.91	18.646	
6,959.22	6,923.04	6,955.62	6,941.49	25.63	22.78	130.45	500.97	398.35	882.23	834.96	47.27	18.663	
7,000.00	6,963.04	6,994.93	6,980.80	25.79	22.85	128.11	501.33	398.19	887.22	839.70	47.52	18.670	
7,100.00	7,061.47	7,093.65	7,079.51	26.20	23.03	120.91	502.38	397.79	897.26	849.11	48.15	18.635	
7,200.00	7,160.26	7,191.04	7,176.89	26.60	23.22	111.17	503.63	397.40	904.09	855.31	48.77	18.537	
7,300.00	7,259.29	7,288.88	7,274.72	26.98	23.42	98.72	505.03	397.15	907.80	858.40	49.40	18.376	
7,327.23	7,286.28	7,315.38	7,301.22	27.09	23.48	94.92	505.41	397.11	908.27	858.69	49.57	18.322	
7,400.00	7,358.43	7,386.10	7,371.93	27.36	23.63	95.44	506.34	397.11	909.31	859.28	50.03	18.176	
7,500.00	7,457.58	7,488.44	7,474.27	27.73	23.86	96.20	507.62	397.03	910.78	860.11	50.68	17.972	
7,600.00	7,556.73	7,588.36	7,574.18	28.11	24.08	96.92	509.12	396.69	912.19	860.87	51.32	17.774	
7,700.00	7,655.87	7,684.90	7,670.69	28.48	24.30	97.59	510.94	396.45	913.89	861.93	51.95	17.590	
7,800.00	7,755.02	7,782.10	7,767.87	28.86	24.52	98.23	513.25	396.37	915.95	863.36	52.59	17.416	
7,900.00	7,854.17	7,878.24	7,863.98	29.23	24.75	98.85	515.82	396.66	918.55	865.32	53.23	17.257	
8,000.00	7,953.31	7,981.10	7,966.79	29.61	25.00	99.50	518.61	396.76	921.06	867.17	53.89	17.090	
8,100.00	8,052.46	8,078.70	8,064.36	29.99	25.26	100.13	521.18	396.95	923.77	869.23	54.54	16.937	
8,200.00	8,151.60	8,179.30	8,164.92	30.36	25.53	100.75	524.05	397.04	926.52	871.31	55.21	16.782	
8,300.00	8,250.75	8,275.84	8,261.42	30.74	25.80	101.33	527.04	397.20	929.47	873.61	55.86	16.641	
8,400.00	8,349.90	8,371.46	8,356.98	31.12	26.07	101.90	530.09	397.80	932.98	876.48	56.50	16.514	
8,500.00	8,449.04	8,469.61	8,455.09	31.50	26.37	102.50	532.87	398.66	936.82	879.66	57.16	16.389	
8,600.00	8,548.19	8,571.84	8,557.30	31.88	26.77	103.38	531.52	399.81	940.83	882.93	57.90	16.249	
8,700.00	8,647.34	8,674.00	8,659.43	32.26	27.13	104.31	529.21	400.40	944.48	885.86	58.61	16.114	
8,800.00	8,746.48	8,775.01	8,760.43	32.64	27.43	105.17	527.63	400.85	948.24	888.96	59.27	15.998	
8,900.00	8,845.63	8,870.41	8,855.82	33.02	27.66	105.95	526.78	401.17	952.10	892.25	59.86	15.907	
9,000.00	8,944.78	8,969.40	8,954.81	33.40	27.83	106.68	526.97	401.94	956.58	896.18	60.40	15.837	
9,100.00	9,043.92	9,068.74	9,049.15	33.78	28.04	107.49	527.48	402.06	960.55	899.55	60.99	15.748	
9,200.00	9,143.07	9,167.10	9,152.50	34.16	28.28	108.21	528.48	400.97	963.50	901.89	61.60	15.641	
9,300.00	9,242.21	9,266.74	9,252.10	34.54	28.54	108.86	530.39	399.40	966.07	903.83	62.24	15.522	
9,400.00	9,341.36	9,365.62	9,346.95	34.92	28.80	109.49	532.55	397.52	968.43	905.56	62.87	15.404	
9,500.00	9,440.51	9,464.69	9,446.95	35.30	29.06	110.16	534.76	394.75	970.17	906.68	63.50	15.279	
9,600.00	9,539.65	9,563.47	9,549.66	35.69	29.29	110.72	537.15	391.86	971.54	907.45	64.10	15.158	
9,700.00	9,638.80	9,662.31	9,648.48	36.07	29.51	111.27	538.36	390.36	974.33	909.66	64.68	15.065	

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Aim Directional Services, LLC

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Survey Program: 191-												Offset Well Error:	1.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.00	9,737.95	9,776.84	9,762.00	36.45	29.77	111.88	539.40	389.59	978.24	912.93	65.31	14.979	
9,900.00	9,837.09	9,879.95	9,865.09	36.84	30.08	112.54	540.71	388.72	982.21	916.22	65.99	14.884	
10,000.00	9,936.24	9,972.34	9,957.45	37.22	30.38	113.05	543.24	388.25	986.46	919.82	66.64	14.802	
10,100.00	10,035.38	10,074.88	10,058.32	37.60	32.30	112.76	560.28	389.98	991.21	923.77	67.43	14.699	
10,200.00	10,134.53	10,213.97	10,185.89	37.99	37.16	110.53	614.87	392.53	993.76	925.34	68.42	14.524	
10,300.00	10,233.68	10,299.31	10,258.19	38.37	38.51	108.46	660.12	393.12	995.36	926.22	69.15	14.395	
10,400.00	10,332.82	10,376.87	10,319.13	38.76	39.48	106.16	707.96	395.38	1,000.69	930.87	69.82	14.333	
10,500.00	10,431.97	10,538.67	10,421.03	39.14	41.51	99.82	832.78	393.55	1,007.64	936.12	71.53	14.088	
10,600.00	10,531.12	10,593.63	10,447.90	39.53	41.80	97.32	880.53	389.41	1,015.85	943.58	72.27	14.056 SF	
10,700.00	10,630.26	10,627.00	10,462.64	39.91	41.97	95.75	910.36	386.82	1,031.02	958.37	72.65	14.191	
10,800.00	10,729.41	10,659.06	10,475.55	40.30	42.05	94.21	939.61	384.67	1,053.83	981.01	72.83	14.470	
10,803.49	10,732.87	10,659.86	10,475.85	40.31	42.05	94.17	940.35	384.63	1,054.77	981.95	72.83	14.483	
10,825.00	10,754.25	10,664.51	10,477.61	40.39	42.07	102.55	944.66	384.38	1,060.87	988.05	72.81	14.570	
10,850.00	10,779.19	10,669.29	10,479.39	40.48	42.08	130.65	949.08	384.14	1,068.61	995.83	72.79	14.681	
10,875.00	10,804.18	10,673.39	10,480.89	40.57	42.09	-155.22	952.90	383.94	1,077.06	1,004.31	72.75	14.805	
10,900.00	10,829.13	10,676.84	10,482.13	40.65	42.10	-123.12	956.11	383.79	1,086.19	1,013.49	72.70	14.941	
10,925.00	10,853.98	10,679.65	10,483.13	40.72	42.10	-112.57	958.73	383.67	1,095.96	1,023.32	72.64	15.088	
10,950.00	10,878.66	10,681.83	10,483.90	40.79	42.11	-107.05	960.78	383.58	1,106.35	1,033.78	72.58	15.244	
10,975.00	10,903.11	10,683.42	10,484.46	40.85	42.11	-103.28	962.26	383.52	1,117.32	1,044.82	72.51	15.410	
11,000.00	10,927.25	10,684.43	10,484.81	40.91	42.12	-100.25	963.20	383.48	1,128.83	1,056.39	72.44	15.584	
11,025.00	10,951.03	10,684.88	10,484.97	40.97	42.12	-97.58	963.62	383.47	1,140.83	1,068.46	72.36	15.765	
11,050.00	10,974.38	10,684.79	10,484.94	41.02	42.12	-95.08	963.54	383.47	1,153.27	1,080.98	72.29	15.953	
11,075.00	10,997.22	10,684.20	10,484.73	41.06	42.11	-92.66	962.99	383.49	1,166.12	1,093.89	72.22	16.147	
11,100.00	11,019.51	10,683.12	10,484.35	41.10	42.11	-90.28	961.98	383.53	1,179.31	1,107.15	72.15	16.344	
11,125.00	11,041.17	10,681.57	10,483.81	41.14	42.11	-87.91	960.53	383.59	1,192.80	1,120.71	72.09	16.545	
11,150.00	11,062.16	10,679.59	10,483.11	41.17	42.10	-85.54	958.67	383.68	1,206.54	1,134.51	72.04	16.749	
11,175.00	11,082.40	10,677.18	10,482.25	41.20	42.10	-83.17	956.43	383.78	1,220.48	1,148.49	71.99	16.954	
11,200.00	11,101.86	10,674.37	10,481.24	41.22	42.09	-80.81	953.81	383.90	1,234.56	1,162.61	71.95	17.160	
11,225.00	11,120.46	10,671.19	10,480.09	41.24	42.08	-78.47	950.85	384.05	1,248.74	1,176.82	71.91	17.365	
11,250.00	11,138.17	10,667.66	10,478.78	41.25	42.07	-76.15	947.57	384.22	1,262.96	1,191.07	71.89	17.568	
11,275.00	11,154.93	10,663.78	10,477.34	41.26	42.06	-73.86	943.98	384.42	1,277.18	1,205.30	71.88	17.769	
11,300.00	11,170.70	10,659.59	10,475.75	41.26	42.05	-71.63	940.11	384.64	1,291.34	1,219.47	71.87	17.967	
11,325.00	11,185.43	10,627.00	10,462.64	41.26	41.97	-68.32	910.36	386.82	1,306.29	1,235.13	71.16	18.357	
11,350.00	11,199.09	10,627.00	10,462.64	41.26	41.97	-66.46	910.36	386.82	1,319.94	1,248.64	71.30	18.513	
11,375.00	11,211.63	10,627.00	10,462.64	41.25	41.97	-64.67	910.36	386.82	1,333.45	1,262.00	71.45	18.662	
11,400.00	11,223.02	10,627.00	10,462.64	41.24	41.97	-62.95	910.36	386.82	1,346.78	1,275.15	71.63	18.802	
11,425.00	11,233.24	10,627.00	10,462.64	41.22	41.97	-61.30	910.36	386.82	1,359.90	1,288.08	71.82	18.934	
11,450.00	11,242.25	10,627.00	10,462.64	41.21	41.97	-59.72	910.36	386.82	1,372.79	1,300.75	72.04	19.057	
11,475.00	11,250.02	10,627.00	10,462.64	41.19	41.97	-58.21	910.36	386.82	1,385.40	1,313.14	72.26	19.172	
11,500.00	11,256.55	10,627.00	10,462.64	41.17	41.97	-56.79	910.36	386.82	1,397.72	1,325.22	72.51	19.278	
11,525.00	11,261.80	10,627.00	10,462.64	41.14	41.97	-55.43	910.36	386.82	1,409.73	1,336.97	72.76	19.374	
11,550.00	11,265.77	10,593.14	10,447.67	41.11	41.80	-53.54	880.10	389.45	1,420.53	1,348.48	72.05	19.717	
11,575.00	11,268.44	10,583.49	10,443.18	41.09	41.75	-52.25	871.59	390.19	1,431.26	1,359.21	72.05	19.865	
11,600.00	11,269.81	10,573.66	10,438.50	41.06	41.70	-51.06	862.97	390.93	1,441.45	1,369.39	72.06	20.003	
11,613.65	11,270.00	10,568.22	10,435.87	41.04	41.67	-50.46	858.23	391.34	1,446.77	1,374.70	72.07	20.074	
11,700.00	11,270.00	10,533.00	10,418.08	40.95	41.49	-49.94	827.96	393.97	1,481.20	1,409.07	72.13	20.535	
11,800.00	11,270.00	10,491.12	10,394.87	40.86	40.97	-49.25	793.18	396.23	1,524.07	1,452.34	71.73	21.248	
11,900.00	11,270.00	10,438.00	10,361.91	40.81	40.32	-48.22	751.56	396.72	1,570.11	1,499.24	70.87	22.154	
12,000.00	11,270.00	10,438.00	10,361.91	40.93	40.32	-48.22	751.56	396.72	1,619.33	1,547.27	72.06	22.473	
12,100.00	11,270.00	10,402.06	10,337.40	41.17	39.82	-47.45	725.29	396.03	1,671.76	1,599.83	71.92	23.244	
12,200.00	11,270.00	10,382.26	10,323.12	41.46	39.55	-47.00	711.60	395.53	1,727.74	1,655.43	72.32	23.892	
12,300.00	11,270.00	10,343.00	10,293.24	41.79	39.01	-46.09	686.16	394.31	1,787.31	1,715.30	72.01	24.820	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 191-												Offset Well Error:	1.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.00	11,270.00	10,343.00	10,293.24	42.16	39.01	-46.09	686.16	394.31	1,848.88	1,775.90	72.98	25.334	
12,500.00	11,270.00	10,343.00	10,293.24	42.57	39.01	-46.09	686.16	394.31	1,913.70	1,839.83	73.87	25.905	
12,600.00	11,270.00	10,343.00	10,293.24	43.02	39.01	-46.09	686.16	394.31	1,981.45	1,906.76	74.69	26.529	
12,700.00	11,270.00	10,295.93	10,255.42	43.52	38.47	-44.98	658.18	393.06	2,049.90	1,975.58	74.32	27.581	
12,800.00	11,270.00	10,249.00	10,216.14	44.05	37.93	-43.89	632.52	392.65	2,122.07	2,048.12	73.95	28.696	
12,900.00	11,270.00	10,249.00	10,216.14	44.62	37.93	-43.89	632.52	392.65	2,194.62	2,119.98	74.64	29.403	
13,000.00	11,270.00	10,249.00	10,216.14	45.23	37.93	-43.89	632.52	392.65	2,269.25	2,193.98	75.27	30.149	
13,100.00	11,270.00	10,249.00	10,216.14	45.87	37.93	-43.89	632.52	392.65	2,345.78	2,269.93	75.84	30.929	
13,200.00	11,270.00	10,249.00	10,216.14	46.55	37.93	-43.89	632.52	392.65	2,424.01	2,347.65	76.37	31.742	
13,300.00	11,270.00	10,208.84	10,181.39	47.26	37.05	-42.97	612.40	392.49	2,502.63	2,427.04	75.59	33.106	
13,400.00	11,270.00	10,195.97	10,170.05	48.01	36.76	-42.67	606.31	392.38	2,582.96	2,507.31	75.66	34.141	
13,500.00	11,270.00	10,154.00	10,132.42	48.78	35.84	-41.70	587.74	391.77	2,665.05	2,590.22	74.82	35.618	
13,600.00	11,270.00	10,154.00	10,132.42	49.58	35.84	-41.70	587.74	391.77	2,747.12	2,671.90	75.23	36.518	
13,700.00	11,270.00	10,154.00	10,132.42	50.41	35.84	-41.70	587.74	391.77	2,830.35	2,754.75	75.60	37.439	
13,800.00	11,270.00	10,154.00	10,132.42	51.27	35.84	-41.70	587.74	391.77	2,914.64	2,838.70	75.94	38.379	
13,900.00	11,270.00	10,154.00	10,132.42	52.15	35.84	-41.70	587.74	391.77	2,999.89	2,923.63	76.26	39.338	
14,000.00	11,270.00	10,154.00	10,132.42	53.06	35.84	-41.70	587.74	391.77	3,086.02	3,009.47	76.55	40.312	
14,100.00	11,270.00	10,154.00	10,132.42	53.99	35.84	-41.70	587.74	391.77	3,172.97	3,096.15	76.82	41.302	
14,200.00	11,270.00	10,154.00	10,132.42	54.94	35.84	-41.70	587.74	391.77	3,260.67	3,183.59	77.08	42.305	
14,300.00	11,270.00	10,154.00	10,132.42	55.91	35.84	-41.70	587.74	391.77	3,349.06	3,271.75	77.31	43.320	
14,400.00	11,270.00	10,154.00	10,132.42	56.90	35.84	-41.70	587.74	391.77	3,438.08	3,360.55	77.53	44.346	
14,500.00	11,270.00	10,154.00	10,132.42	57.91	35.84	-41.70	587.74	391.77	3,527.69	3,449.96	77.73	45.383	
14,600.00	11,270.00	10,109.19	10,090.98	58.94	33.83	-40.67	570.76	390.84	3,615.70	3,540.17	75.53	47.874	
14,700.00	11,270.00	10,104.94	10,086.97	59.99	33.64	-40.57	569.35	390.74	3,705.94	3,630.43	75.50	49.085	
14,800.00	11,270.00	10,060.00	10,043.96	61.05	31.65	-39.54	556.43	389.57	3,798.41	3,724.85	73.56	51.638	
14,900.00	11,270.00	10,060.00	10,043.96	62.12	31.65	-39.54	556.43	389.57	3,889.20	3,815.47	73.73	52.747	
15,000.00	11,270.00	10,060.00	10,043.96	63.21	31.65	-39.54	556.43	389.57	3,980.43	3,906.53	73.90	53.863	
15,100.00	11,270.00	10,060.00	10,043.96	64.32	31.65	-39.54	556.43	389.57	4,072.07	3,998.02	74.06	54.985	
15,200.00	11,270.00	10,060.00	10,043.96	65.43	31.65	-39.54	556.43	389.57	4,164.10	4,089.89	74.21	56.114	
15,300.00	11,270.00	10,060.00	10,043.96	66.56	31.65	-39.54	556.43	389.57	4,256.49	4,182.14	74.35	57.248	
15,400.00	11,270.00	10,060.00	10,043.96	67.70	31.65	-39.54	556.43	389.57	4,349.21	4,274.72	74.49	58.387	
15,500.00	11,270.00	10,060.00	10,043.96	68.85	31.65	-39.54	556.43	389.57	4,442.25	4,367.63	74.62	59.531	
15,600.00	11,270.00	10,060.00	10,043.96	70.02	31.65	-39.54	556.43	389.57	4,535.59	4,460.84	74.75	60.679	
15,700.00	11,270.00	10,060.00	10,043.96	71.19	31.65	-39.54	556.43	389.57	4,629.20	4,554.33	74.87	61.830	
15,800.00	11,270.00	10,060.00	10,043.96	72.37	31.65	-39.54	556.43	389.57	4,723.08	4,648.09	74.99	62.985	
15,900.00	11,270.00	10,060.00	10,043.96	73.56	31.65	-39.54	556.43	389.57	4,817.20	4,742.10	75.10	64.143	
16,000.00	11,270.00	10,060.00	10,043.96	74.76	31.65	-39.54	556.43	389.57	4,911.56	4,836.35	75.21	65.303	
16,100.00	11,270.00	10,060.00	10,043.96	75.97	31.65	-39.54	556.43	389.57	5,006.13	4,930.81	75.32	66.466	
16,200.00	11,270.00	10,060.00	10,043.96	77.19	31.65	-39.54	556.43	389.57	5,100.91	5,025.49	75.42	67.631	
16,300.00	11,270.00	10,060.00	10,043.96	78.41	31.65	-39.54	556.43	389.57	5,195.89	5,120.36	75.52	68.798	
16,400.00	11,270.00	10,060.00	10,043.96	79.64	31.65	-39.54	556.43	389.57	5,291.05	5,215.43	75.62	69.966	
16,500.00	11,270.00	10,060.00	10,043.96	80.88	31.65	-39.54	556.43	389.57	5,386.39	5,310.67	75.72	71.136	
16,600.00	11,270.00	10,060.00	10,043.96	82.12	31.65	-39.54	556.43	389.57	5,481.89	5,406.08	75.81	72.307	
16,700.00	11,270.00	10,060.00	10,043.96	83.37	31.65	-39.54	556.43	389.57	5,577.55	5,501.64	75.91	73.479	
16,800.00	11,270.00	10,060.00	10,043.96	84.63	31.65	-39.54	556.43	389.57	5,673.36	5,597.36	76.00	74.651	
16,900.00	11,270.00	10,060.00	10,043.96	85.89	31.65	-39.54	556.43	389.57	5,769.32	5,693.23	76.09	75.824	
17,000.00	11,270.00	10,060.00	10,043.96	87.16	31.65	-39.54	556.43	389.57	5,865.40	5,789.23	76.18	76.998	
17,100.00	11,270.00	10,060.00	10,043.96	88.43	31.65	-39.54	556.43	389.57	5,961.62	5,885.36	76.26	78.171	
17,200.00	11,270.00	10,060.00	10,043.96	89.71	31.65	-39.54	556.43	389.57	6,057.96	5,981.61	76.35	79.345	
17,300.00	11,270.00	10,060.00	10,043.96	90.99	31.65	-39.54	556.43	389.57	6,154.41	6,077.98	76.43	80.518	
17,400.00	11,270.00	10,060.00	10,043.96	92.28	31.65	-39.54	556.43	389.57	6,250.98	6,174.46	76.52	81.692	
17,500.00	11,270.00	10,060.00	10,043.96	93.57	31.65	-39.54	556.43	389.57	6,347.66	6,271.05	76.60	82.865	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design Winnebago 30 State Com - 506H - OH / 68127 - Surveys (H&P 296)												Offset Site Error: 0.00 usft	
Survey Program: 191-Reference												Offset Well Error: 1.00 usft	
Offset		Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
17,600.00	11,270.00	10,060.00	10,043.96	94.87	31.65	-39.54	556.43	389.57	6,444.43	6,367.75	76.69	84.037	
17,700.00	11,270.00	10,060.00	10,043.96	96.17	31.65	-39.54	556.43	389.57	6,541.30	6,464.54	76.77	85.209	
17,800.00	11,270.00	10,060.00	10,043.96	97.47	31.65	-39.54	556.43	389.57	6,638.27	6,561.42	76.85	86.380	
17,900.00	11,270.00	10,060.00	10,043.96	98.78	31.65	-39.54	556.43	389.57	6,735.32	6,658.39	76.93	87.550	
18,000.00	11,270.00	10,060.00	10,043.96	100.09	31.65	-39.54	556.43	389.57	6,832.46	6,755.45	77.01	88.719	
18,100.00	11,270.00	10,060.00	10,043.96	101.41	31.65	-39.54	556.43	389.57	6,929.68	6,852.59	77.09	89.887	
18,200.00	11,270.00	10,060.00	10,043.96	102.73	31.65	-39.54	556.43	389.57	7,026.98	6,949.80	77.17	91.054	
18,300.00	11,270.00	10,060.00	10,043.96	104.05	31.65	-39.54	556.43	389.57	7,124.35	7,047.10	77.25	92.220	
18,400.00	11,270.00	10,060.00	10,043.96	105.37	31.65	-39.54	556.43	389.57	7,221.80	7,144.46	77.33	93.385	
18,500.00	11,270.00	10,060.00	10,043.96	106.70	31.65	-39.54	556.43	389.57	7,319.31	7,241.90	77.41	94.548	
18,600.00	11,270.00	10,060.00	10,043.96	108.03	31.65	-39.54	556.43	389.57	7,416.89	7,339.40	77.49	95.709	
18,700.00	11,270.00	10,060.00	10,043.96	109.36	31.65	-39.54	556.43	389.57	7,514.53	7,436.96	77.57	96.869	
18,800.00	11,270.00	10,060.00	10,043.96	110.70	31.65	-39.54	556.43	389.57	7,612.24	7,534.58	77.65	98.027	
18,900.00	11,270.00	10,060.00	10,043.96	112.04	31.65	-39.54	556.43	389.57	7,710.00	7,632.27	77.73	99.184	
19,000.00	11,270.00	10,060.00	10,043.96	113.38	31.65	-39.54	556.43	389.57	7,807.82	7,730.01	77.81	100.338	
19,100.00	11,270.00	10,060.00	10,043.96	114.72	31.65	-39.54	556.43	389.57	7,905.70	7,827.80	77.90	101.491	
19,200.00	11,270.00	10,060.00	10,043.96	116.07	31.65	-39.54	556.43	389.57	8,003.62	7,925.65	77.98	102.642	
19,300.00	11,270.00	10,060.00	10,043.96	117.42	31.65	-39.54	556.43	389.57	8,101.60	8,023.54	78.06	103.791	
19,332.38	11,270.00	10,060.00	10,043.96	117.85	31.65	-39.54	556.43	389.57	8,133.34	8,055.25	78.08	104.163	

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



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 3498.00usft

Offset Depths are relative to Offset Datum

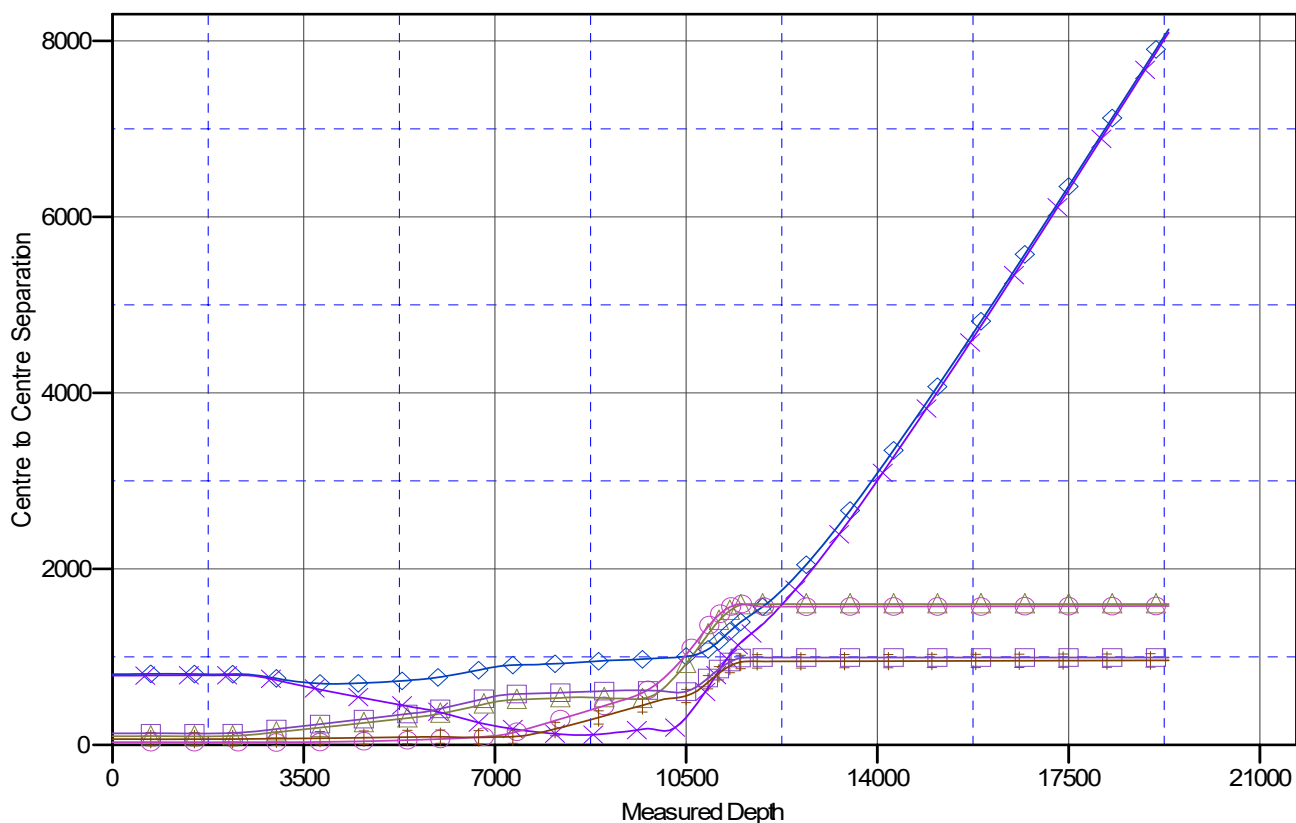
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 604H

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

Grid Convergence at Surface is: 0.50°

Ladder Plot



LEGEND

305H, Planning, Plan 0.2b V0
 509H, OH / 6826, Surveys (H&P 296) V0
 504H, Planning, Plan 0.2b V0
 508H, OH / 6827, Surveys (H&P 296) V0
 304H, Planning, Plan 0.2b V0
 509H, Planning, Plan 0.2b V0



Aim Directional Services, LLC

Anticollision Report



Company:	Avant Operating, LLC	Local Co-ordinate Reference:	Well 604H
Project:	Lea Co., NM (NAD 83)	TVD Reference:	Well @ 3498.00usft
Reference Site:	Golden Tee 31 Fed Com 604H	MD Reference:	Well @ 3498.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	604H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Planning	Database:	RTOC- EDM 5000.1 Single User Db
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 3498.00usft

Offset Depths are relative to Offset Datum

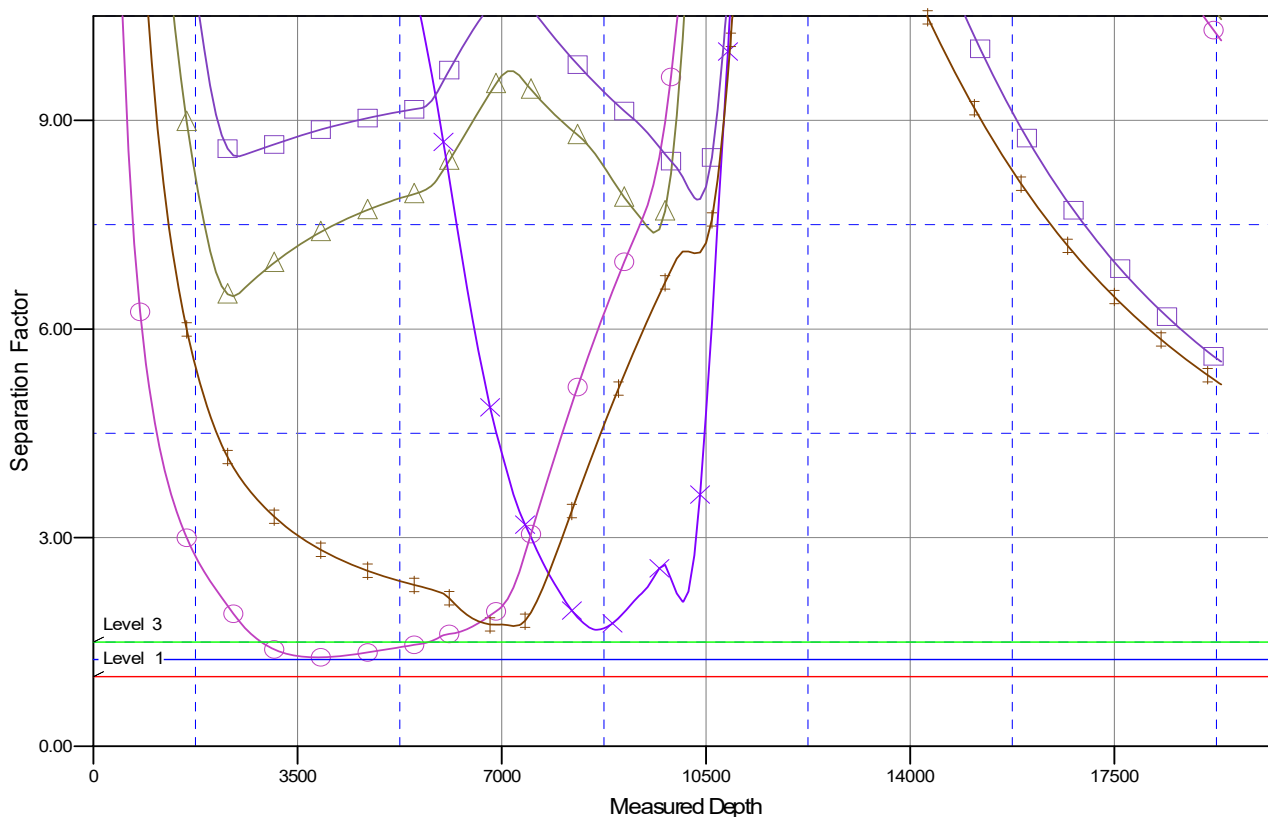
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 604H

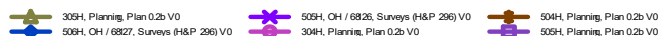
Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.50°

Separation Factor Plot



LEGEND



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 112770

CONDITIONS

Operator: Avant Operating, LLC 1515 Wynkoop Street Denver, CO 80202	OGRID: 330396
	Action Number: 112770
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	6/1/2022