

Santa Fe Main Office  
Phone: (505) 476-3441  
General Information  
Phone: (505) 629-6116

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

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

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.	30-015-55902
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	The Horned Frog
8. Well Number	31H
9. OGRID Number	372290
10. Pool name or Wildcat	Atoka; Glorieta-Yes

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well  Gas Well  Other

2. Name of Operator  
Riley Permian Operating Company, LLC

3. Address of Operator  
29 E Reno Ave, Suite 500, Oklahoma City, OK. 73104

4. Well Location  
Unit Letter 1 : 1261 feet from the North line and 852 feet from the West line  
Section 19 Township 18S Range 27E NMPM County Eddy

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3288 Ground Level

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	


13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Riley Permian respectfully requests a lateral change to The Horned Frog 31H. Please see attached documents.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE  TITLE Sr. Regulatory Specialist DATE 2/26/2026

Type or print name Alex Rizzo E-mail address: alexrizzo@rileypermian.com PHONE: 918-839-2995  
**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
Conditions of Approval (if any): \_\_\_\_\_

<b>C-102</b> Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>	Revised July 9, 2024 <input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled
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Property Name and Well Number  
**THE HORNEF FROG 31H**

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-015-55902</b>	Pool Code <b>3250</b>	Pool Name <b>ATOKA; GLORIETTA-YESO</b>
Property Code <b>335042</b>	Property Name <b>THE HORNEF FROG</b>	
OGRID No. <b>372290</b>	Operator Name <b>RILEY PERMIAN OPERATING COMPANY LLC</b>	Well Number <b>31H</b>
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Ground Level Elevation <b>3288'</b>
Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		

**Surface Location**

UL or Lot No.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
1	19	18 S	27 E		1261 FNL	852 FWL	N 32.737149°	W 104.324094°	EDDY

**Bottom Hole Location If Different From Surface**

UL or Lot No.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	24	18 S	26 E		836 FNL	10 FWL	N 32.738290°	W 104.343892°	EDDY

Dedicated Acres <b>320</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API <b>N/A</b>	Overlapping Spacing Unit (Y/N) <b>N</b>	Consolidated Code <b>P</b>
Order Numbers <b>R-23931</b>			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

**Kick Off Point (KOP)**

UL or lot no.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
1	19	18 S	27 E		1242 FNL	826 FWL	N 32.737200°	W 104.324180°	EDDY

**First Take Point (FTP)**

UL or lot no.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	24	18 S	26 E		836 FNL	100 FEL	N 32.738332°	W 104.327190°	EDDY

**Last Take Point (LTP)**

UL or lot no.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	24	18 S	26 E		836 FNL	100 FWL	N 32.738291°	W 104.343599°	EDDY


Unitized Area or Area of Uniform Interest <b>R-23931 (INFILL)</b>	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation <b>3313'</b>
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**OPERATOR CERTIFICATION**

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

*If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.*

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2/26/2026  
 Signature Date

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Print Name  
**Alex Rizzo**

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E-mail Address  
**alexrizzo@rileypermian.com**

**SURVEYORS CERTIFICATION**



Signature and Seal of Professional Surveyor Date

*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.*

**MITCHELL L. MCDONALD, N.M. P.L.S.**

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Certificate Number **29821** Date of Survey **JANUARY 31, 2026**

Note: 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.

C-102

Submit Electronically  
Via OCD Permitting

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

Revised July 9, 2024

Submittal  
Type:

- Initial Submittal
- Amended Report
- As Drilled

Property Name and Well Number

THE HORNFROG 31H

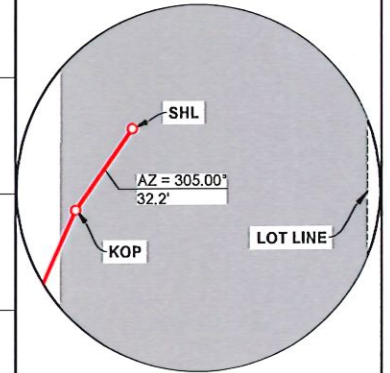
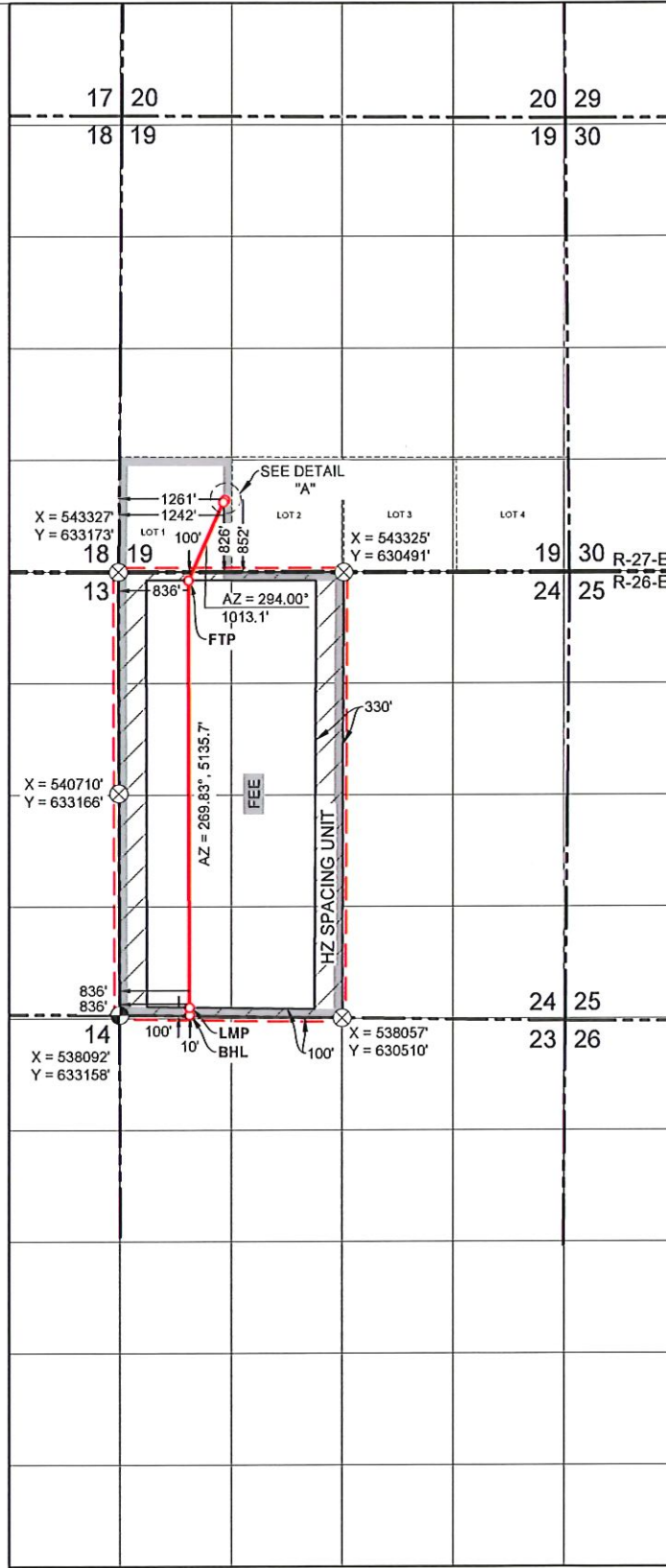
**SURFACE LOCATION**  
NEW MEXICO EAST  
NAD 1983  
X=544178' Y=631906'  
LAT=N32.737149°  
LONG=W104.324094°  
NAD 1927  
X=502999' Y=631844'  
LAT=N32.737034°  
LONG=W104.323579°  
1261' FNL 852' FWL

**KOP LOCATION**  
NEW MEXICO EAST  
NAD 1983  
X=544152' Y=631925'  
LAT=N32.737200°  
LONG=W104.324180°  
NAD 1927  
X=502973' Y=631863'  
LAT=N32.737085°  
LONG=W104.323665°  
1242' FNL 826' FWL

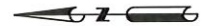
**FIRST TAKE POINT**  
NEW MEXICO EAST  
NAD 1983  
X=543227' Y=632337'  
LAT=N32.738332°  
LONG=W104.327190°  
NAD 1927  
X=502048' Y=632275'  
LAT=N32.738218°  
LONG=W104.326674°  
836' FNL 100' FEL

**LOWER MOST PERF.**  
NEW MEXICO EAST  
NAD 1983  
X=538181' Y=632322'  
LAT=N32.738291°  
LONG=W104.343599°  
NAD 1927  
X=497002' Y=632260'  
LAT=N32.738176°  
LONG=W104.343083°  
836' FNL 100' FWL

**BOTTOM HOLE LOCATION**  
NEW MEXICO EAST  
NAD 1983  
X=538091' Y=632322'  
LAT=N32.738290°  
LONG=W104.343892°  
NAD 1927  
X=496912' Y=632259'  
LAT=N32.738176°  
LONG=W104.343376°  
836' FNL 10' FWL



DETAIL "A"  
N.T.S.



Note: Bearings, coordinates, and distances (grid) shown hereon are based on the New Mexico State Plane Coordinate System, East Zone, NAD 83-2011 (EPOCH 2010) framework, as derived by OPUS Solution. The elevations shown hereon are based on NAVD 88.



# Riley Permian

Eddy County, New Mexico (NAD83)

The Horned Frog

The Horned Frog 31H

Wellbore #1

Design #1

## Anticollision Report

19 February, 2026





**Stryker Directional**  
Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

<b>Reference</b>	Design #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum ellipse separation of 1,000.00 usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	Date 2/19/2026	
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>
0.00	8,934.83	Design #1 (Wellbore #1)
		<b>Tool Name</b>
		MWD+HRGM
		<b>Description</b>
		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
<b>Offset Well - Wellbore - Design</b>						
Horned Frog/Maverick Offsets						
McCall #1 - Wellbore #1 - Surveys						Out of range
McCall #2 - Wellbore #1 - Surveys						Out of range
McCall #2 (2) - Wellbore #1 - Surveys						Out of range
Terry Evans #1 - Wellbore #1 - Surveys	5,618.63	3,074.29	1,170.90	1,045.01	9.301	CC, ES
Terry Evans #1 - Wellbore #1 - Surveys	5,700.00	3,072.16	1,173.73	1,046.66	9.237	SF
The Aggie						
The Aggie 1H - Wellbore #1 - Design #1	4,184.34	3,329.32	55.31	24.04	1.769	CC, ES, SF
The Aggie 2H - Wellbore #1 - Design #1	4,121.86	3,353.49	412.91	376.20	11.247	CC, ES
The Aggie 2H - Wellbore #1 - Design #1	4,200.00	3,285.87	415.19	377.54	11.026	SF
The Aggie 31H - Wellbore #1 - Design #1	3,300.00	3,831.68	114.67	81.46	3.453	ES, SF
The Aggie 31H - Wellbore #1 - Design #1	3,331.98	3,805.58	113.19	82.38	3.674	CC
The Aggie 32H - Wellbore #1 - Design #1	4,288.48	2,877.85	669.38	633.88	18.852	CC, ES
The Aggie 32H - Wellbore #1 - Design #1	4,300.00	2,874.06	669.46	633.91	18.827	SF
The Aggie 3H - Wellbore #1 - Design #1	4,398.13	2,918.17	647.80	608.06	16.301	CC
The Aggie 3H - Wellbore #1 - Design #1	4,400.00	2,917.95	647.81	608.05	16.294	ES, SF
The Horned Frog						
The Horned Frog 1H - Wellbore #1 - Design #1	1,500.00	1,500.00	24.74	15.21	2.595	CC, ES
The Horned Frog 1H - Wellbore #1 - Design #1	8,934.83	9,402.11	547.50	298.83	2.202	SF
The Horned Frog 2H - Wellbore #1 - Design #1	1,800.00	1,800.00	25.11	14.57	2.383	CC, ES
The Horned Frog 2H - Wellbore #1 - Design #1	8,934.83	9,140.62	551.85	302.01	2.209	SF
The Horned Frog 32H - Wellbore #1 - Design #1	1,800.00	1,800.00	50.21	39.68	4.766	CC, ES
The Horned Frog 32H - Wellbore #1 - Design #1	8,934.83	9,032.94	970.14	693.27	3.504	SF
The Horned Frog 3H - Wellbore #1 - Design #1	1,800.00	1,800.00	74.95	64.42	7.115	CC, ES
The Horned Frog 3H - Wellbore #1 - Design #1	8,934.83	9,577.19	1,487.18	1,216.08	5.486	SF

<b>Offset Design</b>	Horned Frog/Maverick Offsets - Terry Evans #1 - Wellbore #1 - Surveys												<b>Offset Site Error:</b>	0.00 usft
<b>Survey Program:</b>	136-INC-ONLY												<b>Offset Well Error:</b>	0.00 usft
Reference	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)		Offset (usft)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)				Between Ellipses (usft)	
3,400.00	3,104.77	3,083.92	3,104.77	14.31	64.18	-72.51	-745.64	-2,769.44	2,467.85	2,390.44	77.42	31.878		
3,500.00	3,131.94	3,111.09	3,131.94	16.20	64.76	-77.43	-745.64	-2,769.44	2,399.49	2,320.05	79.44	30.205		
3,600.00	3,145.29	3,124.44	3,145.29	18.19	65.04	-85.43	-745.64	-2,769.44	2,323.92	2,242.76	81.17	28.632		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 136-INC-ONLY													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		
3,700.00	3,145.44	3,124.59	3,145.44	20.17	65.04	-92.12	-745.64	-2,769.44	2,243.33	2,160.78	82.55	27.176		
3,800.00	3,142.82	3,121.97	3,142.82	22.19	64.99	-92.16	-745.64	-2,769.44	2,161.46	2,077.56	83.90	25.762		
3,900.00	3,140.20	3,119.35	3,140.20	24.24	64.93	-92.20	-745.64	-2,769.44	2,079.10	1,993.79	85.31	24.370		
4,000.00	3,137.58	3,116.73	3,137.58	26.30	64.88	-92.07	-745.64	-2,769.44	1,997.29	1,910.48	86.81	23.008		
4,100.00	3,134.96	3,114.11	3,134.96	28.40	64.82	-91.95	-745.64	-2,769.44	1,917.20	1,828.75	88.45	21.676		
4,200.00	3,132.33	3,111.48	3,132.33	30.54	64.77	-91.82	-745.64	-2,769.44	1,839.06	1,748.82	90.24	20.380		
4,300.00	3,129.71	3,108.86	3,129.71	32.70	64.71	-91.69	-745.64	-2,769.44	1,763.12	1,670.94	92.19	19.126		
4,400.00	3,127.09	3,106.24	3,127.09	34.89	64.66	-91.56	-745.64	-2,769.44	1,689.69	1,595.39	94.30	17.919		
4,500.00	3,124.47	3,103.62	3,124.47	37.09	64.60	-91.43	-745.64	-2,769.44	1,619.10	1,522.53	96.57	16.766		
4,600.00	3,121.85	3,101.00	3,121.85	39.30	64.55	-91.31	-745.64	-2,769.44	1,551.74	1,452.73	99.01	15.672		
4,700.00	3,119.23	3,098.38	3,119.23	41.53	64.49	-91.18	-745.64	-2,769.44	1,488.06	1,386.44	101.61	14.644		
4,800.00	3,116.61	3,095.75	3,116.61	43.77	64.43	-91.05	-745.64	-2,769.44	1,428.53	1,324.18	104.35	13.689		
4,900.00	3,113.98	3,093.13	3,113.98	46.02	64.38	-90.92	-745.64	-2,769.44	1,373.71	1,266.50	107.21	12.813		
5,000.00	3,111.36	3,090.51	3,111.36	48.28	64.32	-90.79	-745.64	-2,769.44	1,324.18	1,214.04	110.14	12.022		
5,100.00	3,108.74	3,087.89	3,108.74	50.54	64.27	-90.67	-745.64	-2,769.44	1,280.55	1,167.45	113.10	11.322		
5,200.00	3,106.12	3,085.27	3,106.12	52.81	64.21	-90.54	-745.64	-2,769.44	1,243.44	1,127.42	116.02	10.718		
5,300.00	3,103.50	3,082.65	3,103.50	55.09	64.16	-90.41	-745.64	-2,769.44	1,213.45	1,094.64	118.81	10.213		
5,400.00	3,100.88	3,080.02	3,100.88	57.36	64.10	-90.28	-745.64	-2,769.44	1,191.13	1,069.74	121.39	9.812		
5,500.00	3,098.25	3,077.40	3,098.25	59.65	64.05	-90.15	-745.64	-2,769.44	1,176.89	1,053.22	123.67	9.516		
5,600.00	3,095.63	3,074.78	3,095.63	61.94	63.99	-90.02	-745.64	-2,769.44	1,171.05	1,045.47	125.58	9.325		
5,618.63	3,095.14	3,074.29	3,095.14	62.36	63.98	-90.00	-745.64	-2,769.44	1,170.90	1,045.01	125.89	9.301	CC, ES	
5,700.00	3,093.01	3,072.16	3,093.01	64.23	63.93	-89.90	-745.64	-2,769.44	1,173.73	1,046.66	127.06	9.237	SF	
5,800.00	3,090.39	3,069.54	3,090.39	66.52	63.88	-89.77	-745.64	-2,769.44	1,184.86	1,056.77	128.09	9.250		
5,900.00	3,087.77	3,066.92	3,087.77	68.81	63.82	-89.64	-745.64	-2,769.44	1,204.22	1,075.56	128.65	9.360		
6,000.00	3,085.15	3,064.30	3,085.15	71.11	63.77	-89.51	-745.64	-2,769.44	1,231.41	1,102.61	128.80	9.561		
6,100.00	3,082.52	3,061.67	3,082.52	73.41	63.71	-89.38	-745.64	-2,769.44	1,265.93	1,137.37	128.56	9.847		
6,200.00	3,079.90	3,059.05	3,079.90	75.72	63.66	-89.25	-745.64	-2,769.44	1,307.20	1,179.19	128.01	10.212		
6,300.00	3,077.28	3,056.43	3,077.28	78.02	63.60	-89.13	-745.64	-2,769.44	1,354.61	1,227.40	127.21	10.649		
6,400.00	3,074.66	3,053.81	3,074.66	80.33	63.55	-89.00	-745.64	-2,769.44	1,407.53	1,281.31	126.22	11.151		
6,500.00	3,072.04	3,051.19	3,072.04	82.63	63.49	-88.87	-745.64	-2,769.44	1,465.37	1,340.27	125.10	11.714		
6,600.00	3,069.42	3,048.57	3,069.42	84.94	63.44	-88.74	-745.64	-2,769.44	1,527.56	1,403.68	123.89	12.330		
6,700.00	3,066.80	3,045.94	3,066.80	87.25	63.38	-88.61	-745.64	-2,769.44	1,593.61	1,470.98	122.63	12.995		
6,800.00	3,064.17	3,043.32	3,064.17	89.56	63.32	-88.49	-745.64	-2,769.44	1,663.04	1,541.68	121.36	13.704		
6,900.00	3,061.55	3,040.70	3,061.55	91.87	63.27	-88.36	-745.64	-2,769.44	1,735.46	1,615.37	120.09	14.451		
7,000.00	3,058.93	3,038.08	3,058.93	94.19	63.21	-88.23	-745.64	-2,769.44	1,810.50	1,691.65	118.84	15.234		
7,100.00	3,056.31	3,035.46	3,056.31	96.50	63.16	-88.10	-745.64	-2,769.44	1,887.85	1,770.22	117.63	16.049		
7,200.00	3,053.69	3,032.84	3,053.69	98.82	63.10	-87.97	-745.64	-2,769.44	1,967.24	1,850.79	116.45	16.893		
7,300.00	3,051.07	3,030.22	3,051.07	101.13	63.05	-87.84	-745.64	-2,769.44	2,048.44	1,933.11	115.32	17.762		
7,400.00	3,048.44	3,027.59	3,048.44	103.45	62.99	-87.72	-745.64	-2,769.44	2,131.23	2,016.99	114.24	18.655		
7,500.00	3,045.82	3,024.97	3,045.82	105.77	62.94	-87.59	-745.64	-2,769.44	2,215.44	2,102.23	113.21	19.569		
7,600.00	3,043.20	3,022.35	3,043.20	108.09	62.88	-87.46	-745.64	-2,769.44	2,300.91	2,188.68	112.22	20.503		
7,700.00	3,040.58	3,019.73	3,040.58	110.40	62.82	-87.33	-745.64	-2,769.44	2,387.50	2,276.22	111.29	21.454		
7,800.00	3,037.96	3,017.11	3,037.96	112.72	62.77	-87.20	-745.64	-2,769.44	2,475.10	2,364.71	110.39	22.421		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.00 usft
Reference				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		
0.00	0.00	1.00	0.00	0.00	0.01	-89.61	10.82	-1,608.59	1,608.62					
100.00	100.00	101.00	100.00	0.92	0.93	-89.61	10.82	-1,608.59	1,608.62	1,606.77	1.85	867.453		
200.00	200.00	201.00	200.00	1.53	1.53	-89.61	10.82	-1,608.59	1,608.62	1,605.57	3.06	526.240		
300.00	300.00	301.00	300.00	1.95	1.96	-89.61	10.82	-1,608.59	1,608.62	1,604.71	3.91	411.248		
400.00	400.00	401.00	400.00	2.31	2.31	-89.61	10.82	-1,608.59	1,608.62	1,604.01	4.62	348.475		
500.00	500.00	501.00	500.00	2.61	2.62	-89.61	10.82	-1,608.59	1,608.62	1,603.39	5.23	307.475		
600.00	600.00	601.00	600.00	2.89	2.89	-89.61	10.82	-1,608.59	1,608.62	1,602.84	5.79	277.987		
700.00	700.00	701.00	700.00	3.15	3.15	-89.61	10.82	-1,608.59	1,608.62	1,602.33	6.30	255.453		
800.00	800.00	801.00	800.00	3.39	3.39	-89.61	10.82	-1,608.59	1,608.62	1,601.85	6.77	237.501		
900.00	900.00	901.00	900.00	3.61	3.61	-89.61	10.82	-1,608.59	1,608.62	1,601.40	7.22	222.755		
1,000.00	1,000.00	1,001.00	1,000.00	3.82	3.82	-89.61	10.82	-1,608.59	1,608.62	1,600.98	7.65	210.359		
1,100.00	1,100.00	1,101.00	1,100.00	4.03	4.03	-89.61	10.82	-1,608.59	1,608.62	1,600.57	8.05	199.743		
1,200.00	1,200.00	1,201.00	1,200.00	4.22	4.22	-89.61	10.82	-1,608.59	1,608.62	1,600.18	8.44	190.516		
1,300.00	1,300.00	1,301.00	1,300.00	4.41	4.41	-89.61	10.82	-1,608.59	1,608.62	1,599.81	8.82	182.398		
1,400.00	1,400.00	1,401.00	1,400.00	4.59	4.59	-89.61	10.82	-1,608.59	1,608.62	1,599.44	9.18	175.181		
1,500.00	1,500.00	1,501.47	1,500.47	4.77	4.77	-89.61	10.82	-1,608.59	1,608.62	1,599.09	9.54	168.686		
1,600.00	1,600.00	1,648.17	1,647.11	4.94	5.17	-89.50	13.95	-1,606.39	1,607.14	1,597.14	10.00	160.725		
1,700.00	1,700.00	1,764.42	1,763.10	5.10	5.44	-89.28	20.21	-1,602.01	1,603.38	1,593.00	10.38	154.528		
1,800.00	1,800.00	1,864.17	1,862.61	5.27	5.65	-89.07	25.91	-1,598.02	1,599.45	1,588.74	10.71	149.328		
1,900.00	1,899.98	1,963.91	1,962.10	5.52	5.87	-33.96	31.61	-1,594.03	1,594.10	1,583.00	11.11	143.536		
2,000.00	1,999.84	2,063.52	2,061.47	5.77	6.10	-33.95	37.30	-1,590.04	1,585.87	1,574.37	11.50	137.852		
2,100.00	2,099.59	4,762.81	3,392.41	5.94	34.85	54.59	883.51	-92.32	1,563.47	1,538.82	24.65	63.433		
2,200.00	2,199.35	4,758.69	3,392.30	6.14	34.76	54.30	883.29	-96.44	1,479.38	1,453.94	25.44	58.145		
2,300.00	2,299.11	4,754.58	3,392.20	6.35	34.68	54.02	883.06	-100.54	1,397.38	1,371.04	26.34	53.056		
2,400.00	2,398.78	4,749.37	3,392.06	6.55	34.57	56.94	882.76	-105.74	1,317.50	1,290.20	27.30	48.257		
2,500.00	2,496.85	4,731.66	3,391.59	6.96	34.21	65.22	881.68	-123.40	1,236.70	1,208.54	28.16	43.916		
2,600.00	2,591.30	4,699.28	3,390.74	7.39	33.54	73.40	879.42	-155.70	1,154.85	1,126.07	28.78	40.128		
2,700.00	2,680.30	4,653.68	3,389.53	7.82	32.61	81.32	875.62	-201.12	1,072.58	1,043.42	29.16	36.787		
2,800.00	2,762.11	4,596.82	3,388.02	8.23	31.45	89.05	869.87	-257.67	990.32	961.03	29.29	33.807		
2,900.00	2,835.14	4,531.00	3,386.27	8.62	30.10	96.83	861.82	-322.97	908.40	879.18	29.22	31.089		
3,000.00	2,897.98	4,458.69	3,384.35	8.97	28.64	104.96	851.24	-394.48	827.14	798.20	28.94	28.580		
3,100.00	2,955.33	4,385.91	3,382.41	9.73	27.18	102.72	838.77	-466.15	745.90	717.25	28.65	26.036		
3,200.00	3,012.69	4,316.81	3,380.57	11.03	25.80	100.16	825.25	-533.89	663.82	635.32	28.50	23.294		
3,300.00	3,064.62	4,242.93	3,378.61	12.56	24.34	108.93	808.99	-605.93	585.30	556.96	28.34	20.650		
3,400.00	3,104.77	4,158.03	3,376.36	14.31	22.69	115.43	788.02	-688.17	515.40	487.39	28.01	18.400		
3,500.00	3,131.94	4,064.95	3,373.89	16.20	20.92	120.83	762.24	-777.57	455.31	427.85	27.46	16.582		
3,600.00	3,145.29	3,966.40	3,371.29	18.19	19.08	125.90	731.80	-871.25	406.44	379.84	26.60	15.282		
3,700.00	3,145.44	3,853.54	3,368.07	20.17	17.08	131.02	692.86	-977.12	369.71	344.72	25.00	14.791		
3,800.00	3,142.82	3,647.96	3,329.40	22.19	13.65	140.04	596.21	-1,153.11	319.38	299.19	20.19	15.816		
3,900.00	3,140.20	3,511.02	3,274.65	24.24	11.70	148.81	514.39	-1,247.84	249.63	231.84	17.80	14.027		
4,000.00	3,137.58	3,422.11	3,228.30	26.30	10.91	164.26	456.35	-1,296.54	170.20	152.43	17.77	9.580		
4,100.00	3,134.96	3,370.37	3,198.67	28.40	10.75	-173.00	421.64	-1,320.93	92.13	71.65	20.47	4.500		
4,184.34	3,132.74	3,329.32	3,175.13	30.21	10.62	-140.04	394.09	-1,340.21	55.31	24.04	31.27	1.769 CC, ES, SF		
4,200.00	3,132.33	3,321.70	3,170.75	30.54	10.60	-133.18	388.98	-1,343.80	56.98	24.81	32.17	1.771		
4,300.00	3,129.71	3,273.02	3,142.83	32.70	10.47	-98.40	356.32	-1,366.67	115.18	88.49	26.69	4.316		
4,400.00	3,127.09	3,224.34	3,114.91	34.89	10.32	-81.14	323.66	-1,389.54	196.34	172.74	23.60	8.321		
4,500.00	3,124.47	3,177.86	3,087.60	37.09	10.16	-72.43	292.85	-1,411.10	281.37	259.16	22.22	12.665		
4,600.00	3,121.85	3,135.48	3,060.70	39.30	10.00	-66.91	266.03	-1,429.88	368.25	346.95	21.30	17.287		
4,700.00	3,119.23	3,100.00	3,036.72	41.53	9.86	-63.22	244.61	-1,444.88	456.51	435.97	20.54	22.224		
4,800.00	3,116.61	3,061.39	3,009.19	43.77	9.69	-59.81	222.44	-1,460.40	545.87	525.76	20.11	27.149		
4,900.00	3,113.98	3,029.16	2,985.12	46.02	9.55	-57.29	204.89	-1,472.70	636.22	616.53	19.68	32.324		
5,000.00	3,111.36	3,000.00	2,962.53	48.28	9.42	-55.20	189.79	-1,483.27	727.43	708.10	19.32	37.647		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design												Offset Site Error:	0.00 usft	
The Aggie - The Aggie 1H - Wellbore #1 - Design #1												Offset Well Error:	0.00 usft	
Survey Program: 0-MWD+HRGM														
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	3,108.74	2,972.93	2,940.91	50.54	9.30	-53.39	176.45	-1,492.61	819.40	800.37	19.03	43.050		
5,200.00	3,106.12	2,950.00	2,922.12	52.81	9.19	-51.93	165.68	-1,500.15	912.05	893.29	18.76	48.610		
5,300.00	3,103.50	2,925.96	2,901.98	55.09	9.08	-50.47	154.93	-1,507.68	1,005.31	986.74	18.57	54.144		
5,400.00	3,100.88	2,900.00	2,879.75	57.36	8.95	-48.95	143.95	-1,515.37	1,099.13	1,080.71	18.42	59.676		
5,500.00	3,098.25	2,886.45	2,867.96	59.65	8.89	-48.19	138.48	-1,519.19	1,193.40	1,175.17	18.22	65.482		
5,600.00	3,095.63	2,869.03	2,852.62	61.94	8.80	-47.22	131.72	-1,523.93	1,288.12	1,270.03	18.09	71.205		
5,700.00	3,093.01	2,850.00	2,835.64	64.23	8.71	-46.19	124.69	-1,528.85	1,383.24	1,365.26	17.99	76.909		
5,800.00	3,090.39	2,838.08	2,824.89	66.52	8.65	-45.55	120.48	-1,531.80	1,478.70	1,460.83	17.88	82.720		
5,900.00	3,087.77	2,824.30	2,812.35	68.81	8.58	-44.83	115.79	-1,535.09	1,574.49	1,556.70	17.79	88.487		
6,000.00	3,085.15	2,800.00	2,789.99	71.11	8.47	-43.58	108.00	-1,540.54	1,670.65	1,652.89	17.75	94.103		
6,100.00	3,082.52	2,800.00	2,789.99	73.41	8.47	-43.58	108.00	-1,540.54	1,766.90	1,749.24	17.66	100.033		
6,200.00	3,079.90	2,800.00	2,789.99	75.72	8.47	-43.58	108.00	-1,540.54	1,863.55	1,845.96	17.60	105.906		
6,300.00	3,077.28	2,778.12	2,769.59	78.02	8.36	-42.48	101.52	-1,545.07	1,960.27	1,942.69	17.58	111.492		
6,400.00	3,074.66	2,768.42	2,760.47	80.33	8.31	-42.00	98.81	-1,546.97	2,057.26	2,039.70	17.55	117.198		
6,500.00	3,072.04	2,750.00	2,743.03	82.63	8.22	-41.10	93.95	-1,550.37	2,154.47	2,136.93	17.54	122.827		
6,600.00	3,069.42	2,750.00	2,743.03	84.94	8.22	-41.10	93.95	-1,550.37	2,251.76	2,234.24	17.52	128.536		
6,700.00	3,066.80	2,750.00	2,743.03	87.25	8.22	-41.10	93.95	-1,550.37	2,349.27	2,331.77	17.51	134.187		
6,800.00	3,064.17	2,750.00	2,743.03	89.56	8.22	-41.10	93.95	-1,550.37	2,446.99	2,429.48	17.51	139.780		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.00 usft
Reference				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		
0.00	0.00	1.00	0.00	0.00	0.01	-91.03	-28.85	-1,609.20	1,609.46					
100.00	100.00	101.00	100.00	0.92	0.93	-91.03	-28.85	-1,609.20	1,609.46	1,607.60	1.85	867.902		
200.00	200.00	201.00	200.00	1.53	1.53	-91.03	-28.85	-1,609.20	1,609.46	1,606.40	3.06	526.512		
300.00	300.00	301.00	300.00	1.95	1.96	-91.03	-28.85	-1,609.20	1,609.46	1,605.55	3.91	411.461		
400.00	400.00	401.00	400.00	2.31	2.31	-91.03	-28.85	-1,609.20	1,609.46	1,604.84	4.62	348.655		
500.00	500.00	501.00	500.00	2.61	2.62	-91.03	-28.85	-1,609.20	1,609.46	1,604.23	5.23	307.634		
600.00	600.00	601.00	600.00	2.89	2.89	-91.03	-28.85	-1,609.20	1,609.46	1,603.67	5.79	278.130		
700.00	700.00	701.00	700.00	3.15	3.15	-91.03	-28.85	-1,609.20	1,609.46	1,603.16	6.30	255.585		
800.00	800.00	801.00	800.00	3.39	3.39	-91.03	-28.85	-1,609.20	1,609.46	1,602.68	6.77	237.624		
900.00	900.00	901.00	900.00	3.61	3.61	-91.03	-28.85	-1,609.20	1,609.46	1,602.24	7.22	222.871		
1,000.00	1,000.00	1,001.00	1,000.00	3.82	3.82	-91.03	-28.85	-1,609.20	1,609.46	1,601.81	7.65	210.467		
1,100.00	1,100.00	1,101.00	1,100.00	4.03	4.03	-91.03	-28.85	-1,609.20	1,609.46	1,601.40	8.05	199.846		
1,200.00	1,200.00	1,201.00	1,200.00	4.22	4.22	-91.03	-28.85	-1,609.20	1,609.46	1,601.01	8.44	190.615		
1,300.00	1,300.00	1,301.00	1,300.00	4.41	4.41	-91.03	-28.85	-1,609.20	1,609.46	1,600.64	8.82	182.493		
1,400.00	1,400.00	1,401.00	1,400.00	4.59	4.59	-91.03	-28.85	-1,609.20	1,609.46	1,600.27	9.18	175.272		
1,500.00	1,500.00	1,501.00	1,500.00	4.77	4.77	-91.03	-28.85	-1,609.20	1,609.46	1,599.92	9.53	168.796		
1,600.00	1,600.00	1,601.00	1,600.00	4.94	4.94	-91.03	-28.85	-1,609.20	1,609.46	1,599.58	9.88	162.944		
1,700.00	1,700.00	1,701.00	1,700.00	5.10	5.11	-91.03	-28.85	-1,609.20	1,609.46	1,599.25	10.21	157.622		
1,800.00	1,800.00	1,801.00	1,800.00	5.27	5.27	-91.03	-28.85	-1,609.20	1,609.46	1,598.92	10.54	152.752		
1,900.00	1,899.98	4,648.79	3,457.01	5.52	34.70	-149.99	20.63	-40.58	1,557.65	1,541.05	16.59	93.877		
2,000.00	1,999.84	4,646.87	3,456.96	5.77	34.65	-173.25	20.80	-42.49	1,457.68	1,441.02	16.67	87.466		
2,100.00	2,099.59	4,643.44	3,456.87	5.94	34.58	-171.28	21.10	-45.91	1,357.78	1,341.05	16.73	81.149		
2,200.00	2,199.35	4,640.01	3,456.78	6.14	34.50	-169.13	21.40	-49.33	1,257.88	1,241.07	16.80	74.863		
2,300.00	2,299.11	4,636.58	3,456.69	6.35	34.42	-166.77	21.70	-52.74	1,157.98	1,141.11	16.88	68.615		
2,400.00	2,398.78	4,632.28	3,456.58	6.55	34.32	-172.16	22.07	-57.03	1,058.16	1,041.22	16.95	62.438		
2,500.00	2,496.85	4,618.28	3,456.21	6.96	34.01	-174.70	23.29	-70.97	959.75	942.79	16.96	56.588		
2,600.00	2,591.30	4,592.53	3,455.54	7.39	33.43	-174.08	25.53	-96.60	864.95	848.00	16.95	51.036		
2,700.00	2,680.30	4,555.54	3,454.57	7.82	32.59	-172.55	28.76	-133.44	776.12	759.11	17.01	45.628		
2,800.00	2,762.11	4,508.02	3,453.33	8.23	31.52	-170.40	32.90	-180.77	695.86	678.56	17.30	40.228		
2,900.00	2,835.14	4,450.89	3,451.84	8.62	30.24	-167.63	37.87	-237.66	627.04	609.02	18.01	34.813		
3,000.00	2,897.98	4,385.28	3,450.12	8.97	28.78	-164.21	43.59	-303.00	572.63	553.34	19.30	29.672		
3,100.00	2,955.33	4,315.86	3,448.31	9.73	27.24	-159.10	49.64	-372.13	529.23	508.15	21.07	25.112		
3,200.00	3,012.69	4,246.44	3,446.49	11.03	25.71	-153.51	55.69	-441.26	492.56	469.18	23.38	21.067		
3,300.00	3,064.62	4,171.06	3,444.52	12.56	24.06	-146.19	62.25	-516.33	466.33	440.49	25.84	18.048		
3,400.00	3,104.77	4,088.11	3,442.35	14.31	22.26	-139.67	69.37	-598.95	451.31	423.47	27.84	16.213		
3,500.00	3,131.94	4,000.00	3,440.05	16.20	20.36	-134.47	74.91	-686.85	445.44	416.18	29.26	15.224		
3,533.32	3,137.95	3,975.62	3,439.41	16.86	19.84	-133.30	75.96	-711.19	445.07	415.38	29.69	14.990		
3,600.00	3,145.29	3,917.10	3,437.88	18.19	18.59	-131.26	77.65	-769.67	446.28	416.07	30.21	14.772		
3,700.00	3,145.44	3,803.73	3,431.88	20.17	16.25	-129.48	77.37	-882.81	450.55	420.11	30.44	14.800		
3,800.00	3,142.82	3,661.74	3,397.20	22.19	13.55	-125.27	69.36	-1,019.89	445.27	414.05	31.22	14.264		
3,900.00	3,140.20	3,541.31	3,342.97	24.24	11.61	-118.67	56.12	-1,126.35	431.69	398.77	32.92	13.114		
4,000.00	3,137.58	3,453.65	3,293.13	26.30	10.43	-112.07	43.76	-1,197.39	418.71	383.88	34.83	12.022		
4,100.00	3,134.96	3,371.46	3,245.98	28.40	9.40	-105.63	32.07	-1,263.70	413.10	376.69	36.41	11.345		
4,121.86	3,134.38	3,353.49	3,235.68	28.87	9.19	-104.21	29.52	-1,278.19	412.91	376.20	36.71	11.247 CC, ES		
4,200.00	3,132.33	3,285.87	3,196.38	30.54	8.46	-98.81	19.96	-1,332.38	415.19	377.54	37.66	11.026 SF		
4,300.00	3,129.71	3,203.76	3,142.87	32.70	8.16	-91.58	9.16	-1,393.65	424.74	386.33	38.42	11.056		
4,400.00	3,127.09	3,135.86	3,093.47	34.89	7.95	-85.12	1.07	-1,439.50	444.42	406.05	38.37	11.582		
4,500.00	3,124.47	3,079.70	3,049.44	37.09	7.78	-79.60	-4.97	-1,473.80	475.83	438.31	37.52	12.682		
4,600.00	3,121.85	3,033.02	3,010.85	39.30	7.63	-74.99	-9.53	-1,499.65	518.77	482.68	36.09	14.374		
4,700.00	3,119.23	3,000.00	2,982.56	41.53	7.52	-71.77	-12.49	-1,516.42	572.00	537.65	34.34	16.655		
4,800.00	3,116.61	2,960.88	2,948.08	43.77	7.40	-68.03	-15.69	-1,534.60	633.63	601.03	32.60	19.434		
4,900.00	3,113.98	2,932.71	2,922.64	46.02	7.31	-65.40	-17.80	-1,546.53	702.15	671.23	30.92	22.706		

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



**Stryker Directional**  
Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Aggie - The Aggie 2H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	3,111.36	2,900.00	2,892.54	48.28	7.21	-62.44	-20.02	-1,559.12	776.15	746.75	29.40	26.397		
5,100.00	3,108.74	2,887.43	2,880.82	50.54	7.17	-61.33	-20.81	-1,563.60	854.25	826.20	28.05	30.458		
5,200.00	3,106.12	2,869.03	2,863.54	52.81	7.11	-59.74	-21.90	-1,569.79	935.80	908.93	26.87	34.826		
5,300.00	3,103.50	2,850.00	2,845.49	55.09	7.05	-58.13	-22.95	-1,575.73	1,020.06	994.21	25.85	39.467		
5,400.00	3,100.88	2,850.00	2,845.49	57.36	7.05	-58.13	-22.95	-1,575.73	1,106.61	1,081.63	24.98	44.307		
5,500.00	3,098.25	2,825.66	2,822.18	59.65	6.98	-56.13	-24.17	-1,582.64	1,194.66	1,170.46	24.20	49.359		
5,600.00	3,095.63	2,800.00	2,797.37	61.94	6.90	-54.11	-25.30	-1,589.07	1,284.50	1,260.99	23.52	54.622		
5,700.00	3,093.01	2,800.00	2,797.37	64.23	6.90	-54.11	-25.30	-1,589.07	1,375.17	1,352.21	22.96	59.893		
5,800.00	3,090.39	2,800.00	2,797.37	66.52	6.90	-54.11	-25.30	-1,589.07	1,467.05	1,444.57	22.48	65.261		
5,900.00	3,087.77	2,800.00	2,797.37	68.81	6.90	-54.11	-25.30	-1,589.07	1,559.93	1,537.86	22.06	70.701		
6,000.00	3,085.15	2,778.09	2,776.01	71.11	6.84	-52.44	-26.15	-1,593.87	1,653.19	1,631.53	21.66	76.339		
6,100.00	3,082.52	2,770.94	2,769.01	73.41	6.82	-51.91	-26.40	-1,595.29	1,747.27	1,725.94	21.32	81.939		
6,200.00	3,079.90	2,750.00	2,748.42	75.72	6.76	-50.38	-27.06	-1,599.07	1,842.07	1,821.08	21.00	87.735		
6,300.00	3,077.28	2,750.00	2,748.42	78.02	6.76	-50.38	-27.06	-1,599.07	1,937.04	1,916.28	20.76	93.328		
6,400.00	3,074.66	2,750.00	2,748.42	80.33	6.76	-50.38	-27.06	-1,599.07	2,032.49	2,011.94	20.55	98.926		
6,500.00	3,072.04	2,750.00	2,748.42	82.63	6.76	-50.38	-27.06	-1,599.07	2,128.35	2,107.99	20.36	104.522		
6,600.00	3,069.42	2,750.00	2,748.42	84.94	6.76	-50.38	-27.06	-1,599.07	2,224.59	2,204.38	20.20	110.108		
6,700.00	3,066.80	2,750.00	2,748.42	87.25	6.76	-50.38	-27.06	-1,599.07	2,321.13	2,301.07	20.07	115.679		
6,800.00	3,064.17	2,750.00	2,748.42	89.56	6.76	-50.38	-27.06	-1,599.07	2,417.96	2,398.02	19.95	121.228		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.00 usft
Reference				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	0.00	0.00	0.00	0.00	-90.33	-9.20	-1,608.89	1,608.92					
100.00	100.00	100.00	100.00	0.92	0.92	-90.33	-9.20	-1,608.89	1,608.92	1,607.07	1.85	870.438		
200.00	200.00	200.00	200.00	1.53	1.53	-90.33	-9.20	-1,608.89	1,608.92	1,605.87	3.05	527.074		
300.00	300.00	300.00	300.00	1.95	1.95	-90.33	-9.20	-1,608.89	1,608.92	1,605.01	3.91	411.695		
400.00	400.00	400.00	400.00	2.31	2.31	-90.33	-9.20	-1,608.89	1,608.92	1,604.31	4.61	348.772		
500.00	500.00	500.00	500.00	2.61	2.61	-90.33	-9.20	-1,608.89	1,608.92	1,603.69	5.23	307.695		
600.00	600.00	600.00	600.00	2.89	2.89	-90.33	-9.20	-1,608.89	1,608.92	1,603.14	5.78	278.160		
700.00	700.00	700.00	700.00	3.15	3.15	-90.33	-9.20	-1,608.89	1,608.92	1,602.63	6.29	255.597		
800.00	800.00	800.00	800.00	3.39	3.39	-90.33	-9.20	-1,608.89	1,608.92	1,602.15	6.77	237.623		
900.00	900.00	900.00	900.00	3.61	3.61	-90.33	-9.20	-1,608.89	1,608.92	1,601.70	7.22	222.862		
1,000.00	1,000.00	1,000.00	1,000.00	3.82	3.82	-90.33	-9.20	-1,608.89	1,608.92	1,601.27	7.65	210.453		
1,100.00	1,100.00	1,100.00	1,100.00	4.03	4.03	-90.33	-9.20	-1,608.89	1,608.92	1,600.87	8.05	199.828		
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-90.33	-9.20	-1,608.89	1,608.92	1,600.48	8.44	190.594		
1,300.00	1,300.00	1,300.00	1,300.00	4.41	4.41	-90.33	-9.20	-1,608.89	1,608.92	1,600.10	8.82	182.469		
1,400.00	1,400.00	1,400.00	1,400.00	4.59	4.59	-90.33	-9.20	-1,608.89	1,608.92	1,599.74	9.18	175.247		
1,500.00	1,500.00	4,276.84	3,016.47	4.77	34.56	-4.94	425.61	-36.81	1,575.50	1,556.98	18.51	85.107		
1,600.00	1,600.00	4,279.46	3,016.54	4.94	34.61	-4.59	425.59	-34.19	1,479.49	1,460.59	18.90	78.284		
1,700.00	1,700.00	4,282.08	3,016.61	5.10	34.67	-4.24	425.57	-31.57	1,384.04	1,364.69	19.35	71.530		
1,800.00	1,800.00	4,284.70	3,016.68	5.27	34.73	-3.89	425.56	-28.96	1,289.28	1,269.40	19.88	64.862		
1,900.00	1,899.98	4,285.88	3,016.71	5.52	34.75	55.81	425.55	-27.78	1,195.00	1,174.52	20.48	58.344		
2,000.00	1,999.84	4,284.19	3,016.67	5.77	34.72	60.24	425.56	-29.47	1,101.01	1,079.86	21.14	52.075		
2,100.00	2,099.59	4,281.06	3,016.58	5.94	34.65	59.77	425.58	-32.59	1,007.81	985.91	21.90	46.015		
2,200.00	2,199.35	4,277.93	3,016.50	6.14	34.58	59.30	425.60	-35.72	916.05	893.21	22.83	40.118		
2,300.00	2,299.11	4,274.81	3,016.42	6.35	34.51	58.83	425.62	-38.85	826.18	802.19	24.00	34.428		
2,400.00	2,398.78	4,270.85	3,016.32	6.55	34.42	62.90	425.65	-42.80	738.66	713.24	25.42	29.056		
2,500.00	2,496.85	4,267.68	3,015.97	6.96	34.14	73.75	425.74	-55.96	651.92	625.00	26.91	24.224		
2,600.00	2,591.30	4,233.34	3,015.33	7.39	33.60	82.70	425.91	-80.30	566.57	538.23	28.34	19.993		
2,700.00	2,680.30	4,198.30	3,014.42	7.82	32.83	89.16	426.15	-115.32	483.81	454.12	29.68	16.299		
2,800.00	2,762.11	4,153.25	3,013.24	8.23	31.85	93.12	426.45	-160.36	404.64	373.68	30.96	13.071		
2,900.00	2,835.14	4,099.05	3,011.82	8.62	30.68	94.77	426.82	-214.53	329.83	297.66	32.17	10.253		
3,000.00	2,897.98	4,036.78	3,010.19	8.97	29.34	94.24	427.25	-276.79	259.86	226.51	33.34	7.793		
3,100.00	2,955.33	3,970.88	3,008.46	9.73	27.93	83.20	427.70	-342.66	195.21	160.36	34.85	5.602		
3,200.00	3,012.69	3,904.98	3,006.74	11.03	26.53	66.45	428.15	-408.53	141.44	105.20	36.24	3.903		
3,300.00	3,064.62	3,831.68	3,004.82	12.56	25.01	50.12	428.45	-481.81	114.67	81.46	33.21	3.453 ES, SF		
3,331.98	3,078.80	3,805.58	3,004.13	13.12	24.46	43.23	428.20	-507.90	113.19	82.38	30.81	3.674 CC		
3,400.00	3,104.77	3,747.35	3,002.61	14.31	23.25	28.63	426.79	-566.09	118.30	93.26	25.04	4.725		
3,500.00	3,131.94	3,656.38	3,000.22	16.20	21.37	11.51	422.21	-656.91	134.44	115.24	19.20	7.001		
3,600.00	3,145.29	3,561.09	2,997.72	18.19	19.43	0.20	414.33	-751.83	147.62	130.56	17.07	8.651		
3,700.00	3,145.44	3,465.21	2,995.18	20.17	17.53	-7.67	403.20	-847.03	151.92	135.17	16.75	9.071		
3,800.00	3,142.82	3,387.55	2,988.15	22.19	16.03	-13.81	389.73	-923.12	162.74	145.55	17.19	9.469		
3,900.00	3,140.20	3,314.05	2,973.62	24.24	14.65	-19.28	371.84	-992.87	187.20	169.37	17.83	10.498		
4,000.00	3,137.58	3,250.00	2,954.89	26.30	13.49	-22.85	352.40	-1,050.92	224.15	205.88	18.27	12.267		
4,100.00	3,134.96	3,186.05	2,930.81	28.40	12.42	-25.83	329.66	-1,105.58	272.05	253.44	18.61	14.618		
4,200.00	3,132.33	3,132.78	2,906.85	30.54	11.59	-27.82	308.39	-1,148.12	329.05	310.34	18.70	17.594		
4,300.00	3,129.71	3,086.24	2,883.20	32.70	10.91	-29.23	288.23	-1,182.73	393.32	374.66	18.66	21.075		
4,400.00	3,127.09	3,042.58	2,858.86	34.89	10.32	-30.30	268.10	-1,212.87	463.40	444.80	18.60	24.914		
4,500.00	3,124.47	2,973.85	2,819.44	37.09	9.44	-31.61	235.81	-1,258.99	535.60	516.69	18.91	28.320		
4,600.00	3,121.85	2,905.13	2,780.02	39.30	8.76	-32.62	203.52	-1,305.10	607.91	588.55	19.36	31.397		
4,700.00	3,119.23	2,849.68	2,748.22	41.53	8.57	-33.27	177.47	-1,342.31	680.42	660.81	19.61	34.690		
4,800.00	3,116.61	2,800.00	2,718.33	43.77	8.40	-33.62	154.71	-1,374.81	754.58	734.84	19.74	38.217		
4,900.00	3,113.98	2,764.96	2,695.64	46.02	8.28	-33.67	139.40	-1,396.67	831.19	811.53	19.66	42.274		
5,000.00	3,111.36	2,731.09	2,672.48	48.28	8.16	-33.59	125.23	-1,416.92	909.90	890.32	19.58	46.472		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Aggie - The Aggie 31H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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	3,108.74	2,700.00	2,650.22	50.54	8.05	-33.41	112.78	-1,434.70	990.47	970.99	19.48	50.845		
5,200.00	3,106.12	2,671.28	2,628.84	52.81	7.94	-33.18	101.78	-1,450.40	1,072.70	1,053.32	19.39	55.336		
5,300.00	3,103.50	2,650.00	2,612.51	55.09	7.85	-32.97	93.96	-1,461.57	1,156.43	1,137.21	19.23	60.144		
5,400.00	3,100.88	2,620.66	2,589.34	57.36	7.74	-32.64	83.63	-1,476.32	1,241.44	1,222.26	19.18	64.722		
5,500.00	3,098.25	2,600.00	2,572.60	59.65	7.66	-32.37	76.69	-1,486.23	1,327.67	1,308.61	19.06	69.640		
5,600.00	3,095.63	2,577.67	2,554.11	61.94	7.57	-32.06	69.50	-1,496.50	1,414.96	1,395.97	18.99	74.518		
5,700.00	3,093.01	2,550.00	2,530.68	64.23	7.45	-31.64	61.06	-1,508.55	1,503.27	1,484.31	18.96	79.282		
5,800.00	3,090.39	2,550.00	2,530.68	66.52	7.45	-31.64	61.06	-1,508.55	1,592.39	1,573.64	18.75	84.927		
5,900.00	3,087.77	2,524.58	2,508.67	68.81	7.35	-31.22	53.77	-1,518.96	1,682.23	1,663.49	18.74	89.772		
6,000.00	3,085.15	2,500.00	2,486.97	71.11	7.25	-30.80	47.15	-1,528.42	1,772.90	1,754.18	18.72	94.688		
6,100.00	3,082.52	2,500.00	2,486.97	73.41	7.25	-30.80	47.15	-1,528.42	1,864.10	1,845.53	18.58	100.353		
6,200.00	3,079.90	2,482.04	2,470.88	75.72	7.18	-30.48	42.59	-1,534.94	1,955.91	1,937.37	18.55	105.457		
6,300.00	3,077.28	2,469.73	2,459.73	78.02	7.12	-30.26	39.59	-1,539.22	2,048.27	2,029.78	18.50	110.741		
6,400.00	3,074.66	2,450.00	2,441.68	80.33	7.04	-29.89	35.02	-1,545.74	2,141.17	2,122.68	18.49	115.813		
6,500.00	3,072.04	2,450.00	2,441.68	82.63	7.04	-29.89	35.02	-1,545.74	2,234.41	2,216.01	18.40	121.440		
6,600.00	3,069.42	2,450.00	2,441.68	84.94	7.04	-29.89	35.02	-1,545.74	2,328.21	2,309.88	18.32	127.052		
6,700.00	3,066.80	2,427.79	2,421.10	87.25	6.95	-29.47	30.22	-1,552.60	2,422.15	2,403.80	18.35	131.990		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.00 usft
Reference				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	0.00	0.00	0.00	0.00	-91.75	-49.22	-1,609.51	1,610.26					
100.00	100.00	100.00	100.00	0.92	0.92	-91.75	-49.22	-1,609.51	1,610.26	1,608.41	1.85	871.163		
200.00	200.00	200.00	200.00	1.53	1.53	-91.75	-49.22	-1,609.51	1,610.26	1,607.21	3.05	527.513		
300.00	300.00	300.00	300.00	1.95	1.95	-91.75	-49.22	-1,609.51	1,610.26	1,606.35	3.91	412.038		
400.00	400.00	400.00	400.00	2.31	2.31	-91.75	-49.22	-1,609.51	1,610.26	1,605.65	4.61	349.062		
500.00	500.00	500.00	500.00	2.61	2.61	-91.75	-49.22	-1,609.51	1,610.26	1,605.03	5.23	307.951		
600.00	600.00	600.00	600.00	2.89	2.89	-91.75	-49.22	-1,609.51	1,610.26	1,604.48	5.78	278.392		
700.00	700.00	700.00	700.00	3.15	3.15	-91.75	-49.22	-1,609.51	1,610.26	1,603.96	6.29	255.809		
800.00	800.00	800.00	800.00	3.39	3.39	-91.75	-49.22	-1,609.51	1,610.26	1,603.49	6.77	237.821		
900.00	900.00	900.00	900.00	3.61	3.61	-91.75	-49.22	-1,609.51	1,610.26	1,603.04	7.22	223.048		
1,000.00	1,000.00	1,000.00	1,000.00	3.82	3.82	-91.75	-49.22	-1,609.51	1,610.26	1,602.61	7.65	210.628		
1,100.00	1,100.00	1,100.00	1,100.00	4.03	4.03	-91.75	-49.22	-1,609.51	1,610.26	1,602.21	8.05	199.994		
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-91.75	-49.22	-1,609.51	1,610.26	1,601.82	8.44	190.752		
1,300.00	1,300.00	1,300.00	1,300.00	4.41	4.41	-91.75	-49.22	-1,609.51	1,610.26	1,601.44	8.82	182.621		
1,400.00	1,400.00	1,400.00	1,400.00	4.59	4.59	-91.75	-49.22	-1,609.51	1,610.26	1,601.08	9.18	175.393		
1,500.00	1,500.00	1,500.00	1,500.00	4.77	4.77	-91.75	-49.22	-1,609.51	1,610.26	1,600.73	9.53	168.911		
1,600.00	1,600.00	1,600.00	1,600.00	4.94	4.94	-91.75	-49.22	-1,609.51	1,610.26	1,600.38	9.88	163.053		
1,700.00	1,700.00	1,700.00	1,700.00	5.10	5.10	-91.75	-49.22	-1,609.51	1,610.26	1,600.05	10.21	157.726		
1,800.00	1,800.00	4,434.20	3,236.57	5.27	34.54	-171.92	-537.32	-76.31	1,535.67	1,515.41	20.26	75.808		
1,900.00	1,899.98	4,435.59	3,236.61	5.52	34.57	-121.41	-537.42	-74.93	1,442.87	1,422.01	20.86	69.174		
2,000.00	1,999.84	4,433.28	3,236.55	5.77	34.52	-124.87	-537.26	-77.24	1,351.86	1,330.32	21.54	62.755		
2,100.00	2,099.59	4,429.11	3,236.44	5.94	34.42	-124.47	-536.95	-81.39	1,262.65	1,240.32	22.33	56.536		
2,200.00	2,199.35	4,424.93	3,236.33	6.14	34.33	-124.06	-536.64	-85.56	1,175.17	1,151.90	23.27	50.502		
2,300.00	2,299.11	4,420.73	3,236.22	6.35	34.23	-123.65	-536.33	-89.74	1,089.83	1,065.46	24.37	44.718		
2,400.00	2,398.78	4,415.45	3,236.08	6.55	34.12	-126.56	-535.92	-95.01	1,007.51	981.88	25.63	39.308		
2,500.00	2,496.85	4,398.10	3,235.63	6.96	33.73	-131.99	-534.51	-112.29	933.14	906.07	27.07	34.471		
2,600.00	2,591.30	4,370.65	3,234.91	7.39	33.12	-134.56	-532.13	-139.63	870.63	841.96	28.67	30.364		
2,700.00	2,680.30	4,333.66	3,233.94	7.82	32.30	-135.06	-528.91	-176.47	823.01	792.68	30.33	27.134		
2,800.00	2,762.11	4,286.14	3,232.69	8.23	31.25	-133.82	-524.77	-223.79	792.44	760.59	31.86	24.876		
2,900.00	2,835.14	4,229.02	3,231.20	8.62	29.99	-131.14	-519.79	-280.67	779.72	746.65	33.07	23.577		
2,923.40	2,850.81	4,214.38	3,230.82	8.69	29.67	-130.33	-518.52	-295.25	779.26	745.94	33.32	23.389		
3,000.00	2,897.98	4,163.40	3,229.48	8.97	28.55	-127.24	-514.08	-346.02	784.00	750.11	33.89	23.137		
3,100.00	2,955.33	4,093.99	3,227.66	9.73	27.04	-123.62	-508.03	-415.14	799.23	764.85	34.38	23.245		
3,200.00	3,012.69	4,024.57	3,225.85	11.03	25.55	-120.05	-501.98	-484.27	820.52	785.81	34.71	23.642		
3,300.00	3,064.62	3,949.19	3,223.87	12.56	23.95	-110.22	-495.41	-559.34	844.71	809.85	34.86	24.232		
3,400.00	3,104.77	3,863.58	3,221.63	14.31	22.15	-102.59	-487.95	-644.60	866.56	831.72	34.84	24.873		
3,500.00	3,131.94	3,770.34	3,219.19	16.20	20.25	-97.42	-479.83	-737.45	883.05	848.26	34.79	25.381		
3,600.00	3,145.29	3,236.52	3,061.69	18.19	10.68	-82.56	-331.43	-1,206.46	875.42	846.72	28.70	30.502		
3,700.00	3,145.44	3,165.32	3,020.84	20.17	9.70	-81.22	-297.98	-1,254.25	834.33	804.81	29.51	28.269		
3,800.00	3,142.82	3,094.49	2,980.22	22.19	9.19	-77.67	-264.70	-1,301.77	792.41	761.92	30.48	25.994		
3,900.00	3,140.20	3,036.24	2,946.22	24.24	9.02	-74.39	-237.57	-1,340.51	751.97	720.37	31.60	23.799		
4,000.00	3,137.58	2,989.19	2,916.32	26.30	8.85	-71.56	-216.75	-1,370.26	716.82	684.00	32.82	21.844		
4,100.00	3,134.96	2,950.00	2,889.64	28.40	8.71	-69.02	-200.28	-1,393.77	690.33	656.30	34.03	20.286		
4,200.00	3,132.33	2,900.00	2,853.39	30.54	8.51	-65.57	-180.54	-1,421.97	674.20	639.42	34.78	19.387		
4,288.48	3,130.01	2,877.85	2,836.58	32.45	8.42	-63.99	-172.26	-1,433.78	669.38	633.88	35.51	18.852 CC, ES		
4,300.00	3,129.71	2,874.06	2,833.66	32.70	8.40	-63.72	-170.88	-1,435.76	669.46	633.91	35.56	18.827 SF		
4,400.00	3,127.09	2,850.00	2,814.83	34.89	8.31	-61.97	-162.29	-1,448.02	677.12	641.24	35.88	18.873		
4,500.00	3,124.47	2,814.99	2,786.55	37.09	8.16	-59.41	-150.46	-1,464.93	696.85	661.35	35.49	19.633		
4,600.00	3,121.85	2,800.00	2,774.14	39.30	8.10	-58.31	-145.63	-1,471.81	728.29	693.24	35.05	20.780		
4,700.00	3,119.23	2,766.65	2,745.92	41.53	7.95	-55.86	-135.45	-1,486.36	769.77	735.82	33.95	22.676		
4,800.00	3,116.61	2,750.00	2,731.53	43.77	7.88	-54.66	-130.64	-1,493.22	820.37	787.42	32.95	24.900		
4,900.00	3,113.98	2,726.71	2,711.08	46.02	7.78	-52.99	-124.25	-1,502.35	878.46	846.72	31.74	27.677		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Aggie - The Aggie 32H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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	3,111.36	2,700.00	2,687.20	48.28	7.66	-51.11	-117.39	-1,512.14	942.96	912.49	30.47	30.950		
5,100.00	3,108.74	2,700.00	2,687.20	50.54	7.66	-51.11	-117.39	-1,512.14	1,012.45	982.82	29.63	34.167		
5,200.00	3,106.12	2,678.67	2,667.81	52.81	7.57	-49.64	-112.29	-1,519.43	1,086.19	1,057.65	28.54	38.063		
5,300.00	3,103.50	2,650.00	2,641.36	55.09	7.44	-47.73	-105.95	-1,528.49	1,163.72	1,136.30	27.43	42.431		
5,400.00	3,100.88	2,650.00	2,641.36	57.36	7.44	-47.73	-105.95	-1,528.49	1,243.64	1,216.88	26.76	46.473		
5,500.00	3,098.25	2,650.00	2,641.36	59.65	7.44	-47.73	-105.95	-1,528.49	1,326.28	1,300.13	26.15	50.716		
5,600.00	3,095.63	2,630.39	2,623.02	61.94	7.36	-46.47	-101.97	-1,534.17	1,410.78	1,385.39	25.38	55.579		
5,700.00	3,093.01	2,620.40	2,613.61	64.23	7.32	-45.84	-100.05	-1,536.91	1,497.05	1,472.26	24.79	60.395		
5,800.00	3,090.39	2,600.00	2,594.24	66.52	7.23	-44.59	-96.37	-1,542.17	1,584.87	1,560.72	24.15	65.629		
5,900.00	3,087.77	2,600.00	2,594.24	68.81	7.23	-44.59	-96.37	-1,542.17	1,673.69	1,649.93	23.76	70.447		
6,000.00	3,085.15	2,600.00	2,594.24	71.11	7.23	-44.59	-96.37	-1,542.17	1,763.70	1,740.30	23.41	75.350		
6,100.00	3,082.52	2,600.00	2,594.24	73.41	7.23	-44.59	-96.37	-1,542.17	1,854.74	1,831.65	23.09	80.322		
6,200.00	3,079.90	2,579.47	2,574.58	75.72	7.14	-43.37	-92.99	-1,547.00	1,946.27	1,923.63	22.64	85.966		
6,300.00	3,077.28	2,572.72	2,568.08	78.02	7.11	-42.98	-91.95	-1,548.49	2,038.66	2,016.32	22.34	91.268		
6,400.00	3,074.66	2,550.00	2,546.07	80.33	7.02	-41.71	-88.70	-1,553.13	2,131.90	2,109.95	21.95	97.129		
6,500.00	3,072.04	2,550.00	2,546.07	82.63	7.02	-41.71	-88.70	-1,553.13	2,225.31	2,203.55	21.75	102.307		
6,600.00	3,069.42	2,550.00	2,546.07	84.94	7.02	-41.71	-88.70	-1,553.13	2,319.26	2,297.68	21.57	107.504		
6,700.00	3,066.80	2,550.00	2,546.07	87.25	7.02	-41.71	-88.70	-1,553.13	2,413.70	2,392.28	21.42	112.710		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-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	0.00	0.00	0.01	-92.46	-69.23	-1,609.51	1,611.00					
100.00	100.00	101.00	100.00	0.92	0.93	-92.46	-69.23	-1,609.51	1,611.00	1,609.14	1.85	868.732		
200.00	200.00	201.00	200.00	1.53	1.53	-92.46	-69.23	-1,609.51	1,611.00	1,607.94	3.06	527.016		
300.00	300.00	301.00	300.00	1.95	1.96	-92.46	-69.23	-1,609.51	1,611.00	1,607.09	3.91	411.855		
400.00	400.00	401.00	400.00	2.31	2.31	-92.46	-69.23	-1,609.51	1,611.00	1,606.38	4.62	348.989		
500.00	500.00	501.00	500.00	2.61	2.62	-92.46	-69.23	-1,609.51	1,611.00	1,605.77	5.23	307.928		
600.00	600.00	601.00	600.00	2.89	2.89	-92.46	-69.23	-1,609.51	1,611.00	1,605.21	5.79	278.396		
700.00	700.00	701.00	700.00	3.15	3.15	-92.46	-69.23	-1,609.51	1,611.00	1,604.70	6.30	255.830		
800.00	800.00	801.00	800.00	3.39	3.39	-92.46	-69.23	-1,609.51	1,611.00	1,604.22	6.77	237.851		
900.00	900.00	901.00	900.00	3.61	3.61	-92.46	-69.23	-1,609.51	1,611.00	1,603.78	7.22	223.084		
1,000.00	1,000.00	1,001.00	1,000.00	3.82	3.82	-92.46	-69.23	-1,609.51	1,611.00	1,603.35	7.65	210.669		
1,100.00	1,100.00	1,101.00	1,100.00	4.03	4.03	-92.46	-69.23	-1,609.51	1,611.00	1,602.94	8.05	200.037		
1,200.00	1,200.00	1,201.00	1,200.00	4.22	4.22	-92.46	-69.23	-1,609.51	1,611.00	1,602.55	8.44	190.797		
1,300.00	1,300.00	1,301.00	1,300.00	4.41	4.41	-92.46	-69.23	-1,609.51	1,611.00	1,602.18	8.82	182.667		
1,400.00	1,400.00	1,401.00	1,400.00	4.59	4.59	-92.46	-69.23	-1,609.51	1,611.00	1,601.81	9.18	175.440		
1,500.00	1,500.00	1,501.35	1,500.35	4.77	4.77	-92.46	-69.23	-1,609.51	1,611.00	1,601.46	9.54	168.945		
1,600.00	1,600.00	1,636.38	1,635.33	4.94	5.11	-92.57	-72.04	-1,607.89	1,609.89	1,599.95	9.93	162.081		
1,700.00	1,700.00	1,752.63	1,751.34	5.10	5.35	-92.80	-78.45	-1,604.18	1,606.92	1,596.65	10.27	156.516		
1,800.00	1,800.00	1,852.38	1,850.85	5.27	5.53	-93.02	-84.48	-1,600.70	1,603.74	1,593.17	10.57	151.756		
1,900.00	1,899.98	1,952.01	1,950.23	5.52	5.72	-38.34	-90.50	-1,597.23	1,599.21	1,588.29	10.92	146.425		
2,000.00	1,999.84	2,051.29	2,049.28	5.77	5.93	-38.77	-96.50	-1,593.77	1,591.99	1,580.72	11.28	141.190		
2,100.00	2,099.59	2,150.37	2,148.11	5.94	6.15	-39.15	-102.48	-1,590.31	1,583.49	1,571.90	11.59	136.675		
2,200.00	2,199.35	2,249.44	2,246.94	6.14	6.39	-39.53	-108.47	-1,586.86	1,575.05	1,563.14	11.91	132.287		
2,300.00	2,299.11	2,348.51	2,345.77	6.35	6.64	-39.92	-114.45	-1,583.40	1,566.68	1,554.44	12.24	128.032		
2,400.00	2,398.78	4,864.60	3,510.78	6.55	35.68	-123.35	-1,036.93	-170.53	1,541.04	1,512.21	28.83	53.458		
2,500.00	2,496.85	4,841.95	3,510.18	6.96	35.21	-127.54	-1,034.47	-193.03	1,478.22	1,448.50	29.73	49.727		
2,600.00	2,591.30	4,799.72	3,509.05	7.39	34.34	-129.49	-1,029.41	-234.94	1,426.38	1,395.91	30.47	46.814		
2,700.00	2,680.30	4,737.81	3,507.40	7.82	33.06	-129.66	-1,020.87	-296.24	1,386.70	1,355.72	30.98	44.755		
2,800.00	2,762.11	4,656.21	3,505.22	8.23	31.37	-128.39	-1,007.59	-376.72	1,359.48	1,328.28	31.20	43.574		
2,900.00	2,835.14	4,555.12	3,502.52	8.62	29.30	-125.96	-987.98	-475.84	1,343.97	1,312.89	31.08	43.237		
3,000.00	2,897.98	3,100.04	3,065.04	8.97	9.48	-74.85	-258.31	-1,500.35	1,315.99	1,300.28	15.71	83.753		
3,100.00	2,955.33	3,101.56	3,066.25	9.73	9.49	-74.93	-259.10	-1,499.89	1,265.18	1,248.54	16.65	76.008		
3,200.00	3,012.69	3,102.63	3,067.10	11.03	9.49	-74.97	-259.66	-1,499.57	1,220.46	1,202.67	17.79	68.586		
3,300.00	3,064.62	3,098.93	3,064.15	12.56	9.48	-73.32	-257.73	-1,500.68	1,175.61	1,156.40	19.21	61.204		
3,400.00	3,104.77	3,088.13	3,055.46	14.31	9.43	-73.30	-252.17	-1,503.89	1,124.41	1,103.63	20.78	54.107		
3,500.00	3,131.94	3,072.18	3,042.47	16.20	9.35	-74.84	-244.17	-1,508.51	1,067.41	1,044.94	22.47	47.503		
3,600.00	3,145.29	3,050.00	3,024.05	18.19	9.25	-77.77	-233.46	-1,514.69	1,005.18	980.97	24.21	41.522		
3,700.00	3,145.44	3,029.10	3,006.36	20.17	9.15	-79.92	-223.82	-1,520.25	938.83	912.82	26.01	36.095		
3,800.00	3,142.82	3,007.93	2,988.11	22.19	9.04	-78.03	-214.52	-1,525.62	873.88	845.95	27.93	31.287		
3,900.00	3,140.20	2,989.49	2,971.97	24.24	8.95	-76.25	-206.81	-1,530.08	812.51	782.49	30.02	27.069		
4,000.00	3,137.58	2,972.94	2,957.29	26.30	8.87	-74.86	-200.19	-1,533.90	757.29	725.06	32.23	23.497		
4,100.00	3,134.96	2,950.00	2,936.66	28.40	8.76	-72.91	-191.51	-1,538.91	711.41	677.03	34.38	20.694		
4,200.00	3,132.33	2,950.00	2,936.66	30.54	8.76	-72.91	-191.51	-1,538.91	676.69	639.89	36.80	18.390		
4,300.00	3,129.71	2,930.24	2,918.63	32.70	8.66	-71.22	-184.49	-1,542.96	655.00	616.50	38.50	17.011		
4,398.13	3,127.14	2,918.17	2,907.52	34.85	8.60	-70.18	-180.42	-1,545.31	647.80	608.06	39.74	16.301 CC		
4,400.00	3,127.09	2,917.95	2,907.32	34.89	8.60	-70.16	-180.35	-1,545.35	647.81	608.05	39.76	16.294 ES, SF		
4,500.00	3,124.47	2,900.00	2,890.64	37.09	8.51	-68.60	-174.60	-1,548.67	655.63	615.49	40.14	16.333		
4,600.00	3,121.85	2,900.00	2,890.64	39.30	8.51	-68.60	-174.60	-1,548.67	677.84	637.64	40.21	16.859		
4,700.00	3,119.23	2,885.76	2,877.30	41.53	8.44	-67.38	-170.30	-1,551.16	713.22	673.87	39.35	18.126		
4,800.00	3,116.61	2,876.36	2,868.43	43.77	8.40	-66.57	-167.58	-1,552.73	759.97	721.77	38.20	19.896		
4,900.00	3,113.98	2,867.53	2,860.07	46.02	8.36	-65.81	-165.12	-1,554.15	816.14	779.29	36.85	22.149		
5,000.00	3,111.36	2,850.00	2,843.37	48.28	8.27	-64.31	-160.51	-1,556.81	880.05	844.79	35.25	24.963		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Aggie - The Aggie 3H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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	3,108.74	2,850.00	2,843.37	50.54	8.27	-64.31	-160.51	-1,556.81	949.86	915.82	34.04	27.906		
5,200.00	3,106.12	2,850.00	2,843.37	52.81	8.27	-64.31	-160.51	-1,556.81	1,024.69	991.81	32.88	31.163		
5,300.00	3,103.50	2,850.00	2,843.37	55.09	8.27	-64.31	-160.51	-1,556.81	1,103.51	1,071.70	31.81	34.690		
5,400.00	3,100.88	2,830.42	2,824.57	57.36	8.18	-62.67	-155.77	-1,559.54	1,185.14	1,154.62	30.52	38.834		
5,500.00	3,098.25	2,824.16	2,818.53	59.65	8.15	-62.14	-154.36	-1,560.36	1,269.47	1,239.92	29.56	42.952		
5,600.00	3,095.63	2,818.22	2,812.78	61.94	8.12	-61.65	-153.05	-1,561.12	1,355.87	1,327.18	28.70	47.251		
5,700.00	3,093.01	2,800.00	2,795.08	64.23	8.03	-60.17	-149.31	-1,563.28	1,444.11	1,416.35	27.76	52.025		
5,800.00	3,090.39	2,800.00	2,795.08	66.52	8.03	-60.17	-149.31	-1,563.28	1,533.51	1,506.37	27.15	56.486		
5,900.00	3,087.77	2,800.00	2,795.08	68.81	8.03	-60.17	-149.31	-1,563.28	1,624.15	1,597.55	26.60	61.049		
6,000.00	3,085.15	2,800.00	2,795.08	71.11	8.03	-60.17	-149.31	-1,563.28	1,715.84	1,689.72	26.12	65.699		
6,100.00	3,082.52	2,800.00	2,795.08	73.41	8.03	-60.17	-149.31	-1,563.28	1,808.40	1,782.72	25.68	70.420		
6,200.00	3,079.90	2,800.00	2,795.08	75.72	8.03	-60.17	-149.31	-1,563.28	1,901.71	1,876.43	25.29	75.200		
6,300.00	3,077.28	2,800.00	2,795.08	78.02	8.03	-60.17	-149.31	-1,563.28	1,995.68	1,970.74	24.94	80.028		
6,400.00	3,074.66	2,779.84	2,775.38	80.33	7.94	-58.56	-145.62	-1,565.40	2,089.90	2,065.48	24.41	85.606		
6,500.00	3,072.04	2,775.95	2,771.57	82.63	7.92	-58.25	-144.97	-1,565.78	2,184.79	2,160.70	24.10	90.673		
6,600.00	3,069.42	2,772.23	2,767.91	84.94	7.90	-57.96	-144.36	-1,566.14	2,280.10	2,256.29	23.81	95.765		
6,700.00	3,066.80	2,768.65	2,764.39	87.25	7.88	-57.69	-143.78	-1,566.47	2,375.78	2,352.23	23.55	100.877		
6,800.00	3,064.17	2,750.00	2,746.01	89.56	7.80	-56.27	-141.05	-1,568.04	2,471.94	2,448.75	23.19	106.593		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-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		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.74	0.00	24.74					
100.00	100.00	100.00	100.00	0.92	0.92	0.00	24.74	0.00	24.74	22.89	1.85	13.385		
200.00	200.00	200.00	200.00	1.53	1.53	0.00	24.74	0.00	24.74	21.69	3.05	8.105		
300.00	300.00	300.00	300.00	1.95	1.95	0.00	24.74	0.00	24.74	20.83	3.91	6.331		
400.00	400.00	400.00	400.00	2.31	2.31	0.00	24.74	0.00	24.74	20.13	4.61	5.363		
500.00	500.00	500.00	500.00	2.61	2.61	0.00	24.74	0.00	24.74	19.51	5.23	4.732		
600.00	600.00	600.00	600.00	2.89	2.89	0.00	24.74	0.00	24.74	18.96	5.78	4.277		
700.00	700.00	700.00	700.00	3.15	3.15	0.00	24.74	0.00	24.74	18.45	6.29	3.930		
800.00	800.00	800.00	800.00	3.39	3.39	0.00	24.74	0.00	24.74	17.97	6.77	3.654		
900.00	900.00	900.00	900.00	3.61	3.61	0.00	24.74	0.00	24.74	17.52	7.22	3.427		
1,000.00	1,000.00	1,000.00	1,000.00	3.82	3.82	0.00	24.74	0.00	24.74	17.10	7.65	3.236		
1,100.00	1,100.00	1,100.00	1,100.00	4.03	4.03	0.00	24.74	0.00	24.74	16.69	8.05	3.073		
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	0.00	24.74	0.00	24.74	16.30	8.44	2.931		
1,300.00	1,300.00	1,300.00	1,300.00	4.41	4.41	0.00	24.74	0.00	24.74	15.92	8.82	2.806		
1,400.00	1,400.00	1,400.00	1,400.00	4.59	4.59	0.00	24.74	0.00	24.74	15.56	9.18	2.695		
1,500.00	1,500.00	1,500.00	1,500.00	4.77	4.77	0.00	24.74	0.00	24.74	15.21	9.53	2.595 CC, ES		
1,600.00	1,600.00	1,599.22	1,599.20	4.94	5.04	-1.88	26.23	-0.86	26.26	16.31	9.95	2.639		
1,700.00	1,700.00	1,698.20	1,698.04	5.10	5.31	-6.38	30.68	-3.43	30.93	20.56	10.37	2.983		
1,800.00	1,800.00	1,797.94	1,797.54	5.27	5.51	-10.66	36.70	-6.91	37.43	26.69	10.73	3.487		
1,900.00	1,899.98	1,897.78	1,897.14	5.52	5.72	42.81	42.73	-10.39	42.78	31.63	11.15	3.836		
2,000.00	1,999.84	1,997.73	1,996.84	5.77	5.95	44.56	48.77	-13.88	45.60	34.04	11.57	3.943		
2,100.00	2,099.59	2,097.68	2,096.55	5.94	6.19	47.66	54.81	-17.36	47.28	35.34	11.94	3.961		
2,200.00	2,199.35	2,197.64	2,196.26	6.14	6.44	50.54	60.85	-20.85	49.08	36.76	12.32	3.985		
2,300.00	2,299.11	2,297.59	2,295.97	6.35	6.71	53.21	66.89	-24.33	51.00	38.30	12.70	4.016		
2,400.00	2,398.78	2,397.52	2,395.66	6.55	6.98	56.57	72.92	-27.82	52.46	39.45	13.01	4.033		
2,500.00	2,496.85	2,496.56	2,494.46	6.96	7.26	71.15	78.91	-31.27	49.38	36.30	13.08	3.776		
2,546.82	2,541.63	2,542.10	2,539.89	7.16	7.39	83.56	81.66	-32.86	48.35	35.39	12.95	3.732		
2,600.00	2,591.30	2,592.85	2,590.51	7.39	7.53	100.83	84.72	-34.63	50.67	37.77	12.90	3.928		
2,700.00	2,680.30	2,687.06	2,683.80	7.82	7.96	126.09	95.69	-40.96	70.80	57.05	13.74	5.151		
2,800.00	2,762.11	2,784.11	2,777.30	8.23	8.42	137.05	117.96	-53.82	103.62	88.88	14.75	7.026		
2,900.00	2,835.14	2,884.07	2,869.06	8.62	8.91	140.65	152.12	-73.54	142.42	126.80	15.61	9.122		
3,000.00	2,897.98	2,987.08	2,956.93	8.97	9.40	140.77	198.53	-100.34	184.86	168.39	16.47	11.225		
3,100.00	2,955.33	3,095.71	3,040.26	9.73	9.88	140.10	258.75	-135.11	224.95	207.54	17.41	12.924		
3,200.00	3,012.69	3,209.22	3,115.05	11.03	10.33	136.22	332.56	-177.72	257.61	238.85	18.76	13.731		
3,300.00	3,064.62	3,303.91	3,169.62	12.56	10.61	135.87	399.56	-216.41	294.60	273.91	20.69	14.238		
3,400.00	3,104.77	3,387.19	3,217.40	14.31	10.86	135.07	458.65	-250.52	347.90	325.18	22.72	15.314		
3,500.00	3,131.94	3,532.07	3,296.19	16.20	12.11	132.27	559.75	-317.50	412.73	387.18	25.54	16.157		
3,600.00	3,145.29	3,886.36	3,399.92	18.19	18.02	125.93	754.72	-587.31	457.22	427.40	29.82	15.334		
3,700.00	3,145.44	4,062.85	3,399.83	20.17	21.28	122.78	810.08	-754.64	473.12	439.84	33.28	14.217		
3,800.00	3,142.82	4,177.16	3,396.82	22.19	23.47	121.43	838.53	-865.31	490.17	453.07	37.10	13.211		
3,900.00	3,140.20	4,292.53	3,393.77	24.24	25.73	120.20	862.74	-978.06	507.01	465.99	41.02	12.359		
4,000.00	3,137.58	4,409.28	3,390.68	26.30	28.05	119.07	882.60	-1,093.06	522.08	477.12	44.97	11.611		
4,100.00	3,134.96	4,527.52	3,387.55	28.40	30.43	118.24	897.91	-1,210.26	533.72	484.84	48.89	10.918		
4,200.00	3,132.33	4,646.88	3,384.40	30.54	32.84	117.69	908.45	-1,329.09	541.78	489.05	52.74	10.274		
4,300.00	3,129.71	4,766.94	3,381.24	32.70	35.28	117.40	914.05	-1,448.97	546.18	489.71	56.47	9.671		
4,400.00	3,127.09	4,880.84	3,378.26	34.89	37.58	117.34	914.89	-1,562.83	547.06	486.86	60.20	9.088		
4,500.00	3,124.47	4,980.84	3,375.65	37.09	39.62	117.34	914.59	-1,662.79	547.07	482.86	64.20	8.521		
4,600.00	3,121.85	5,080.84	3,373.03	39.30	41.69	117.34	914.29	-1,762.76	547.07	478.84	68.23	8.018		
4,700.00	3,119.23	5,180.84	3,370.42	41.53	43.79	117.34	913.99	-1,862.72	547.08	474.79	72.28	7.569		
4,800.00	3,116.61	5,280.84	3,367.80	43.77	45.91	117.34	913.68	-1,962.69	547.08	470.73	76.35	7.166		
4,900.00	3,113.98	5,380.84	3,365.19	46.02	48.04	117.34	913.38	-2,062.65	547.09	466.66	80.43	6.802		
5,000.00	3,111.36	5,480.84	3,362.58	48.28	50.20	117.34	913.08	-2,162.62	547.10	462.57	84.52	6.473		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Horned Frog - The Horned Frog 1H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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	3,108.74	5,580.84	3,359.96	50.54	52.37	117.34	912.78	-2,262.58	547.10	458.48	88.62	6.173		
5,200.00	3,106.12	5,680.84	3,357.35	52.81	54.55	117.35	912.48	-2,362.55	547.11	454.37	92.74	5.900		
5,300.00	3,103.50	5,780.84	3,354.73	55.09	56.74	117.35	912.18	-2,462.51	547.11	450.26	96.86	5.649		
5,400.00	3,100.88	5,880.84	3,352.12	57.36	58.95	117.35	911.88	-2,562.48	547.12	446.14	100.98	5.418		
5,500.00	3,098.25	5,980.84	3,349.51	59.65	61.16	117.35	911.58	-2,662.45	547.13	442.01	105.11	5.205		
5,600.00	3,095.63	6,080.84	3,346.89	61.94	63.39	117.35	911.28	-2,762.41	547.13	437.88	109.25	5.008		
5,700.00	3,093.01	6,180.84	3,344.28	64.23	65.62	117.35	910.97	-2,862.38	547.14	433.74	113.39	4.825		
5,800.00	3,090.39	6,280.84	3,341.66	66.52	67.85	117.35	910.67	-2,962.34	547.14	429.60	117.54	4.655		
5,900.00	3,087.77	6,380.84	3,339.05	68.81	70.10	117.35	910.37	-3,062.31	547.15	425.46	121.69	4.496		
6,000.00	3,085.15	6,480.84	3,336.44	71.11	72.34	117.35	910.07	-3,162.27	547.15	421.31	125.84	4.348		
6,100.00	3,082.52	6,580.84	3,333.82	73.41	74.60	117.35	909.77	-3,262.24	547.16	417.16	130.00	4.209		
6,200.00	3,079.90	6,680.84	3,331.21	75.72	76.86	117.35	909.47	-3,362.20	547.17	413.01	134.16	4.079		
6,300.00	3,077.28	6,780.84	3,328.59	78.02	79.12	117.35	909.17	-3,462.17	547.17	408.85	138.32	3.956		
6,400.00	3,074.66	6,880.84	3,325.98	80.33	81.39	117.35	908.87	-3,562.13	547.18	404.69	142.48	3.840		
6,500.00	3,072.04	6,980.84	3,323.37	82.63	83.66	117.35	908.57	-3,662.10	547.18	400.53	146.65	3.731		
6,600.00	3,069.42	7,080.84	3,320.75	84.94	85.93	117.35	908.26	-3,762.06	547.19	396.37	150.82	3.628		
6,700.00	3,066.80	7,180.84	3,318.14	87.25	88.21	117.35	907.96	-3,862.03	547.20	392.21	154.99	3.531		
6,800.00	3,064.17	7,280.84	3,315.52	89.56	90.49	117.35	907.66	-3,962.00	547.20	388.04	159.16	3.438		
6,900.00	3,061.55	7,380.84	3,312.91	91.87	92.77	117.35	907.36	-4,061.96	547.21	383.87	163.33	3.350		
7,000.00	3,058.93	7,480.84	3,310.30	94.19	95.05	117.36	907.06	-4,161.93	547.21	379.71	167.51	3.267		
7,100.00	3,056.31	7,580.84	3,307.68	96.50	97.34	117.36	906.76	-4,261.89	547.22	375.54	171.68	3.187		
7,200.00	3,053.69	7,680.84	3,305.07	98.82	99.63	117.36	906.46	-4,361.86	547.23	371.36	175.86	3.112		
7,300.00	3,051.07	7,780.84	3,302.45	101.13	101.92	117.36	906.16	-4,461.82	547.23	367.19	180.04	3.040		
7,400.00	3,048.44	7,880.84	3,299.84	103.45	104.21	117.36	905.86	-4,561.79	547.24	363.02	184.22	2.971		
7,500.00	3,045.82	7,980.84	3,297.23	105.77	106.51	117.36	905.55	-4,661.75	547.24	358.85	188.40	2.905		
7,600.00	3,043.20	8,080.84	3,294.61	108.09	108.80	117.36	905.25	-4,761.72	547.25	354.67	192.58	2.842		
7,700.00	3,040.58	8,180.84	3,292.00	110.40	111.10	117.36	904.95	-4,861.68	547.26	350.49	196.76	2.781		
7,800.00	3,037.96	8,280.84	3,289.38	112.72	113.40	117.36	904.65	-4,961.65	547.26	346.32	200.94	2.723		
7,900.00	3,035.34	8,380.84	3,286.77	115.04	115.70	117.36	904.35	-5,061.61	547.27	342.14	205.13	2.668		
8,000.00	3,032.72	8,480.84	3,284.16	117.36	118.00	117.36	904.05	-5,161.58	547.27	337.96	209.31	2.615		
8,100.00	3,030.09	8,580.84	3,281.54	119.68	120.31	117.36	903.75	-5,261.55	547.28	333.78	213.49	2.563		
8,200.00	3,027.47	8,680.84	3,278.93	122.01	122.61	117.36	903.45	-5,361.51	547.28	329.60	217.68	2.514		
8,300.00	3,024.85	8,780.84	3,276.31	124.33	124.91	117.36	903.15	-5,461.48	547.29	325.42	221.87	2.467		
8,400.00	3,022.23	8,880.84	3,273.70	126.65	127.22	117.36	902.84	-5,561.44	547.30	321.24	226.05	2.421		
8,500.00	3,019.61	8,980.84	3,271.09	128.97	129.53	117.36	902.54	-5,661.41	547.30	317.06	230.24	2.377		
8,600.00	3,016.99	9,080.84	3,268.47	131.30	131.84	117.36	902.24	-5,761.37	547.31	312.88	234.43	2.335		
8,700.00	3,014.36	9,180.84	3,265.86	133.62	134.15	117.37	901.94	-5,861.34	547.31	308.70	238.61	2.294		
8,800.00	3,011.74	9,280.84	3,263.24	135.94	136.46	117.37	901.64	-5,961.30	547.32	304.52	242.80	2.254		
8,900.00	3,009.12	9,380.84	3,260.63	138.27	138.77	117.37	901.34	-6,061.27	547.33	300.34	246.99	2.216		
8,901.57	3,009.08	9,382.41	3,260.59	138.30	138.80	117.37	901.33	-6,062.84	547.33	300.27	247.06	2.215		
8,934.83	3,008.21	9,402.11	3,260.07	139.08	139.26	117.37	901.28	-6,082.54	547.50	298.83	248.67	2.202 SF		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Horned Frog - The Horned Frog 2H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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	0.00	0.00	0.00	0.00	180.00	-25.11	0.00	25.11					
100.00	100.00	100.00	100.00	0.92	0.92	180.00	-25.11	0.00	25.11	23.26	1.85	13.582		
200.00	200.00	200.00	200.00	1.53	1.53	180.00	-25.11	0.00	25.11	22.05	3.05	8.224		
300.00	300.00	300.00	300.00	1.95	1.95	180.00	-25.11	0.00	25.11	21.20	3.91	6.424		
400.00	400.00	400.00	400.00	2.31	2.31	180.00	-25.11	0.00	25.11	20.49	4.61	5.442		
500.00	500.00	500.00	500.00	2.61	2.61	180.00	-25.11	0.00	25.11	19.88	5.23	4.801		
600.00	600.00	600.00	600.00	2.89	2.89	180.00	-25.11	0.00	25.11	19.32	5.78	4.340		
700.00	700.00	700.00	700.00	3.15	3.15	180.00	-25.11	0.00	25.11	18.81	6.29	3.988		
800.00	800.00	800.00	800.00	3.39	3.39	180.00	-25.11	0.00	25.11	18.33	6.77	3.708		
900.00	900.00	900.00	900.00	3.61	3.61	180.00	-25.11	0.00	25.11	17.89	7.22	3.477		
1,000.00	1,000.00	1,000.00	1,000.00	3.82	3.82	180.00	-25.11	0.00	25.11	17.46	7.65	3.284		
1,100.00	1,100.00	1,100.00	1,100.00	4.03	4.03	180.00	-25.11	0.00	25.11	17.05	8.05	3.118		
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	180.00	-25.11	0.00	25.11	16.66	8.44	2.974		
1,300.00	1,300.00	1,300.00	1,300.00	4.41	4.41	180.00	-25.11	0.00	25.11	16.29	8.82	2.847		
1,400.00	1,400.00	1,400.00	1,400.00	4.59	4.59	180.00	-25.11	0.00	25.11	15.92	9.18	2.735		
1,500.00	1,500.00	1,500.00	1,500.00	4.77	4.77	180.00	-25.11	0.00	25.11	15.57	9.53	2.633		
1,600.00	1,600.00	1,600.00	1,600.00	4.94	4.94	180.00	-25.11	0.00	25.11	15.23	9.88	2.542		
1,700.00	1,700.00	1,700.00	1,700.00	5.10	5.10	180.00	-25.11	0.00	25.11	14.90	10.21	2.459		
1,800.00	1,800.00	1,800.00	1,800.00	5.27	5.27	180.00	-25.11	0.00	25.11	14.57	10.53	2.383	CC, ES	
1,900.00	1,899.98	1,899.98	1,899.98	5.52	5.43	-128.12	-25.11	0.00	26.15	15.26	10.88	2.402		
2,000.00	1,999.84	1,999.84	1,999.84	5.77	5.58	-136.05	-25.11	0.00	29.66	18.41	11.26	2.636		
2,100.00	2,099.59	2,099.59	2,099.59	5.94	5.73	-143.98	-25.11	0.00	35.03	23.42	11.60	3.019		
2,200.00	2,199.35	2,199.35	2,199.35	6.14	5.88	-149.74	-25.11	0.00	40.88	28.92	11.96	3.419		
2,300.00	2,299.11	2,299.11	2,299.11	6.35	6.03	-154.02	-25.11	0.00	47.04	34.72	12.32	3.818		
2,400.00	2,398.78	2,398.78	2,398.78	6.55	6.18	-157.61	-25.11	0.00	54.33	41.66	12.67	4.289		
2,500.00	2,496.85	2,496.85	2,496.85	6.96	6.32	-162.95	-25.11	0.00	72.39	59.17	13.22	5.476		
2,600.00	2,591.30	2,591.30	2,591.30	7.39	6.46	-167.64	-25.11	0.00	104.05	90.25	13.81	7.535		
2,700.00	2,680.30	2,692.69	2,692.47	7.82	6.68	-169.53	-25.35	-5.35	145.65	131.27	14.39	10.124		
2,800.00	2,762.11	2,798.76	2,796.41	8.23	6.97	-167.51	-26.29	-26.02	190.83	175.91	14.92	12.791		
2,900.00	2,835.14	2,907.31	2,898.41	8.62	7.30	-163.46	-27.96	-62.79	239.33	223.89	15.44	15.503		
3,000.00	2,897.98	3,017.67	2,995.21	8.97	7.64	-158.24	-30.35	-115.51	291.31	275.27	16.05	18.153		
3,100.00	2,955.33	3,132.82	3,086.32	9.73	8.00	-153.69	-33.54	-185.66	341.35	324.49	16.86	20.243		
3,200.00	3,012.69	3,252.18	3,167.63	11.03	8.36	-147.82	-37.49	-272.76	384.63	366.38	18.25	21.080		
3,300.00	3,064.62	3,351.38	3,225.45	12.56	9.49	-135.24	-41.15	-353.27	425.29	405.04	20.25	20.998		
3,400.00	3,104.77	3,441.65	3,277.23	14.31	10.65	-127.00	-44.50	-427.14	467.63	445.21	22.42	20.856		
3,500.00	3,131.94	3,565.99	3,344.58	16.20	12.42	-122.53	-48.90	-531.43	508.67	483.37	25.30	20.107		
3,600.00	3,145.29	3,753.65	3,403.25	18.19	15.82	-120.12	-53.13	-708.74	535.99	505.81	30.18	17.758		
3,700.00	3,145.44	3,905.95	3,408.77	20.17	18.96	-118.80	-54.14	-860.66	545.93	510.89	35.04	15.581		
3,800.00	3,142.82	4,005.81	3,406.15	22.19	21.09	-118.55	-54.44	-960.48	550.54	511.71	38.83	14.178		
3,900.00	3,140.20	4,105.79	3,403.53	24.24	23.27	-118.50	-54.74	-1,060.43	552.10	509.43	42.67	12.939		
4,000.00	3,137.58	4,205.79	3,400.91	26.30	25.47	-118.50	-55.04	-1,160.39	552.09	505.56	46.53	11.866		
4,100.00	3,134.96	4,305.79	3,398.28	28.40	27.69	-118.50	-55.33	-1,260.36	552.09	501.65	50.44	10.946		
4,200.00	3,132.33	4,405.79	3,395.66	30.54	29.93	-118.50	-55.63	-1,360.32	552.08	497.70	54.38	10.151		
4,300.00	3,129.71	4,505.79	3,393.04	32.70	32.19	-118.50	-55.93	-1,460.29	552.08	493.71	58.36	9.459		
4,400.00	3,127.09	4,605.79	3,390.41	34.89	34.45	-118.50	-56.23	-1,560.25	552.07	489.70	62.37	8.852		
4,500.00	3,124.47	4,705.79	3,387.79	37.09	36.72	-118.50	-56.53	-1,660.22	552.07	485.67	66.39	8.315		
4,600.00	3,121.85	4,805.79	3,385.16	39.30	39.00	-118.50	-56.83	-1,760.18	552.06	481.62	70.44	7.838		
4,700.00	3,119.23	4,905.79	3,382.54	41.53	41.29	-118.50	-57.13	-1,860.15	552.06	477.56	74.49	7.411		
4,800.00	3,116.61	5,005.79	3,379.92	43.77	43.58	-118.50	-57.43	-1,960.11	552.05	473.49	78.56	7.027		
4,900.00	3,113.98	5,105.79	3,377.29	46.02	45.88	-118.50	-57.73	-2,060.08	552.05	469.40	82.64	6.680		
5,000.00	3,111.36	5,205.79	3,374.67	48.28	48.17	-118.50	-58.03	-2,160.04	552.04	465.31	86.73	6.365		
5,100.00	3,108.74	5,305.79	3,372.05	50.54	50.48	-118.50	-58.33	-2,260.01	552.04	461.21	90.83	6.078		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Horned Frog - The Horned Frog 2H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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		
5,200.00	3,106.12	5,405.79	3,369.42	52.81	52.78	-118.50	-58.63	-2,359.97	552.03	457.10	94.93	5.815		
5,300.00	3,103.50	5,505.79	3,366.80	55.09	55.09	-118.50	-58.93	-2,459.94	552.03	452.99	99.04	5.574		
5,400.00	3,100.88	5,605.79	3,364.17	57.36	57.40	-118.50	-59.23	-2,559.90	552.02	448.87	103.15	5.351		
5,500.00	3,098.25	5,705.79	3,361.55	59.65	59.71	-118.50	-59.53	-2,659.87	552.02	444.75	107.27	5.146		
5,600.00	3,095.63	5,805.79	3,358.93	61.94	62.02	-118.50	-59.83	-2,759.83	552.01	440.62	111.39	4.955		
5,700.00	3,093.01	5,905.79	3,356.30	64.23	64.34	-118.50	-60.13	-2,859.80	552.01	436.49	115.52	4.778		
5,800.00	3,090.39	6,005.79	3,353.68	66.52	66.65	-118.50	-60.43	-2,959.76	552.00	432.35	119.65	4.613		
5,900.00	3,087.77	6,105.79	3,351.05	68.81	68.97	-118.50	-60.73	-3,059.73	552.00	428.22	123.78	4.459		
6,000.00	3,085.15	6,205.79	3,348.43	71.11	71.29	-118.50	-61.03	-3,159.69	551.99	424.08	127.92	4.315		
6,100.00	3,082.52	6,305.79	3,345.81	73.41	73.60	-118.50	-61.33	-3,259.66	551.99	419.93	132.06	4.180		
6,200.00	3,079.90	6,405.79	3,343.18	75.72	75.92	-118.50	-61.62	-3,359.62	551.98	415.79	136.20	4.053		
6,300.00	3,077.28	6,505.79	3,340.56	78.02	78.24	-118.50	-61.92	-3,459.59	551.98	411.64	140.34	3.933		
6,400.00	3,074.66	6,605.79	3,337.94	80.33	80.57	-118.50	-62.22	-3,559.55	551.97	407.49	144.48	3.820		
6,500.00	3,072.04	6,705.79	3,335.31	82.63	82.89	-118.50	-62.52	-3,659.52	551.97	403.34	148.63	3.714		
6,600.00	3,069.42	6,805.79	3,332.69	84.94	85.21	-118.50	-62.82	-3,759.49	551.96	399.19	152.77	3.613		
6,700.00	3,066.80	6,905.79	3,330.06	87.25	87.53	-118.50	-63.12	-3,859.45	551.96	395.04	156.92	3.517		
6,800.00	3,064.17	7,005.79	3,327.44	89.56	89.86	-118.50	-63.42	-3,959.42	551.95	390.88	161.07	3.427		
6,900.00	3,061.55	7,105.79	3,324.82	91.87	92.18	-118.50	-63.72	-4,059.38	551.95	386.73	165.22	3.341		
7,000.00	3,058.93	7,205.79	3,322.19	94.19	94.51	-118.50	-64.02	-4,159.35	551.94	382.57	169.37	3.259		
7,100.00	3,056.31	7,305.79	3,319.57	96.50	96.83	-118.50	-64.32	-4,259.31	551.94	378.42	173.52	3.181		
7,200.00	3,053.69	7,405.79	3,316.95	98.82	99.16	-118.50	-64.62	-4,359.28	551.93	374.26	177.68	3.106		
7,300.00	3,051.07	7,505.79	3,314.32	101.13	101.48	-118.50	-64.92	-4,459.24	551.93	370.10	181.83	3.035		
7,400.00	3,048.44	7,605.79	3,311.70	103.45	103.81	-118.50	-65.22	-4,559.21	551.93	365.94	185.99	2.968		
7,500.00	3,045.82	7,705.79	3,309.07	105.77	106.13	-118.50	-65.52	-4,659.17	551.92	361.78	190.14	2.903		
7,600.00	3,043.20	7,805.79	3,306.45	108.09	108.46	-118.50	-65.82	-4,759.14	551.92	357.61	194.30	2.841		
7,700.00	3,040.58	7,905.79	3,303.83	110.40	110.79	-118.50	-66.12	-4,859.10	551.91	353.45	198.46	2.781		
7,800.00	3,037.96	8,005.79	3,301.20	112.72	113.11	-118.50	-66.42	-4,959.07	551.91	349.29	202.62	2.724		
7,900.00	3,035.34	8,105.79	3,298.58	115.04	115.44	-118.50	-66.72	-5,059.03	551.90	345.12	206.78	2.669		
8,000.00	3,032.72	8,205.79	3,295.96	117.36	117.77	-118.50	-67.02	-5,159.00	551.90	340.96	210.94	2.616		
8,100.00	3,030.09	8,305.79	3,293.33	119.68	120.10	-118.50	-67.32	-5,258.96	551.89	336.80	215.10	2.566		
8,200.00	3,027.47	8,405.79	3,290.71	122.01	122.42	-118.50	-67.62	-5,358.93	551.89	332.63	219.26	2.517		
8,300.00	3,024.85	8,505.79	3,288.08	124.33	124.75	-118.50	-67.91	-5,458.89	551.88	328.46	223.42	2.470		
8,400.00	3,022.23	8,605.79	3,285.46	126.65	127.08	-118.50	-68.21	-5,558.86	551.88	324.30	227.58	2.425		
8,500.00	3,019.61	8,705.79	3,282.84	128.97	129.41	-118.50	-68.51	-5,658.82	551.87	320.13	231.74	2.381		
8,600.00	3,016.99	8,805.79	3,280.21	131.30	131.74	-118.50	-68.81	-5,758.79	551.87	315.96	235.90	2.339		
8,700.00	3,014.36	8,905.79	3,277.59	133.62	134.07	-118.50	-69.11	-5,858.75	551.86	311.80	240.07	2.299		
8,800.00	3,011.74	9,005.79	3,274.97	135.94	136.40	-118.50	-69.41	-5,958.72	551.86	307.63	244.23	2.260		
8,900.00	3,009.12	9,105.79	3,272.34	138.27	138.73	-118.50	-69.71	-6,058.68	551.85	303.46	248.39	2.222		
8,934.83	3,008.21	9,140.62	3,271.43	139.08	139.54	-118.50	-69.82	-6,093.50	551.85	302.01	249.84	2.209 SF		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-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 Tooflance (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	180.00	-50.21	0.00	50.21					
100.00	100.00	100.00	100.00	0.92	0.92	180.00	-50.21	0.00	50.21	48.36	1.85	27.164		
200.00	200.00	200.00	200.00	1.53	1.53	180.00	-50.21	0.00	50.21	47.16	3.05	16.449		
300.00	300.00	300.00	300.00	1.95	1.95	180.00	-50.21	0.00	50.21	46.30	3.91	12.848		
400.00	400.00	400.00	400.00	2.31	2.31	180.00	-50.21	0.00	50.21	45.60	4.61	10.884		
500.00	500.00	500.00	500.00	2.61	2.61	180.00	-50.21	0.00	50.21	44.98	5.23	9.602		
600.00	600.00	600.00	600.00	2.89	2.89	180.00	-50.21	0.00	50.21	44.43	5.78	8.681		
700.00	700.00	700.00	700.00	3.15	3.15	180.00	-50.21	0.00	50.21	43.92	6.29	7.977		
800.00	800.00	800.00	800.00	3.39	3.39	180.00	-50.21	0.00	50.21	43.44	6.77	7.416		
900.00	900.00	900.00	900.00	3.61	3.61	180.00	-50.21	0.00	50.21	42.99	7.22	6.955		
1,000.00	1,000.00	1,000.00	1,000.00	3.82	3.82	180.00	-50.21	0.00	50.21	42.57	7.65	6.568		
1,100.00	1,100.00	1,100.00	1,100.00	4.03	4.03	180.00	-50.21	0.00	50.21	42.16	8.05	6.236		
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	180.00	-50.21	0.00	50.21	41.77	8.44	5.948		
1,300.00	1,300.00	1,300.00	1,300.00	4.41	4.41	180.00	-50.21	0.00	50.21	41.39	8.82	5.694		
1,400.00	1,400.00	1,400.00	1,400.00	4.59	4.59	180.00	-50.21	0.00	50.21	41.03	9.18	5.469		
1,500.00	1,500.00	1,500.00	1,500.00	4.77	4.77	180.00	-50.21	0.00	50.21	40.68	9.53	5.267		
1,600.00	1,600.00	1,600.00	1,600.00	4.94	4.94	180.00	-50.21	0.00	50.21	40.33	9.88	5.084		
1,700.00	1,700.00	1,700.00	1,700.00	5.10	5.10	180.00	-50.21	0.00	50.21	40.00	10.21	4.918		
1,800.00	1,800.00	1,800.00	1,800.00	5.27	5.27	180.00	-50.21	0.00	50.21	39.68	10.53	4.766	CC, ES	
1,900.00	1,899.98	1,899.98	1,899.98	5.52	5.43	-126.59	-50.21	0.00	51.23	40.35	10.88	4.708		
2,000.00	1,999.84	1,999.84	1,999.84	5.77	5.58	-130.95	-50.21	0.00	54.51	43.28	11.24	4.851		
2,100.00	2,099.59	2,099.59	2,099.59	5.94	5.73	-136.04	-50.21	0.00	59.33	47.75	11.57	5.126		
2,200.00	2,199.35	2,199.35	2,199.35	6.14	5.88	-140.34	-50.21	0.00	64.54	52.62	11.92	5.416		
2,300.00	2,299.11	2,299.11	2,299.11	6.35	6.03	-143.98	-50.21	0.00	70.05	57.78	12.27	5.709		
2,400.00	2,398.78	2,397.15	2,397.12	6.55	6.38	-146.12	-51.25	-1.24	77.17	64.46	12.71	6.072		
2,500.00	2,496.85	2,491.31	2,490.38	6.96	6.64	-144.14	-59.27	-10.79	97.29	84.22	13.07	7.443		
2,600.00	2,591.30	2,579.76	2,575.79	7.39	6.90	-140.26	-73.90	-28.23	132.47	119.04	13.42	9.868		
2,700.00	2,680.30	2,660.13	2,650.44	7.82	7.14	-135.84	-92.97	-50.96	181.41	167.61	13.80	13.147		
2,800.00	2,762.11	2,731.20	2,713.32	8.23	7.36	-131.03	-114.22	-76.28	242.17	227.94	14.23	17.018		
2,900.00	2,835.14	2,792.75	2,764.90	8.62	7.55	-125.48	-135.79	-101.98	312.58	297.85	14.73	21.216		
3,000.00	2,897.98	2,845.15	2,806.41	8.97	7.72	-118.71	-156.33	-126.46	390.55	375.24	15.31	25.517		
3,100.00	2,955.33	2,892.03	2,841.47	9.73	7.86	-120.15	-176.32	-150.29	472.37	456.46	15.91	29.690		
3,200.00	3,012.69	2,936.42	2,872.74	11.03	7.99	-120.60	-196.57	-174.42	555.53	538.99	16.54	33.589		
3,300.00	3,064.62	2,979.56	2,901.20	12.56	8.11	-103.70	-217.40	-199.25	638.34	621.05	17.29	36.916		
3,400.00	3,104.77	3,023.23	2,927.96	14.31	8.23	-91.63	-239.58	-225.68	718.12	699.89	18.22	39.406		
3,500.00	3,131.94	3,077.57	2,959.23	16.20	8.50	-83.99	-268.14	-259.72	793.19	773.69	19.50	40.670		
3,600.00	3,145.29	3,136.17	2,992.84	18.19	9.11	-79.63	-299.00	-296.49	861.98	840.83	21.15	40.757		
3,700.00	3,145.44	3,193.56	3,025.76	20.17	9.74	-79.36	-329.22	-332.51	924.62	901.75	22.87	40.421		
3,800.00	3,142.82	3,813.78	3,186.34	22.19	20.08	-92.43	-527.69	-869.28	961.52	922.02	39.50	24.342		
3,900.00	3,140.20	3,964.08	3,182.41	24.24	23.09	-92.44	-537.35	-1,019.19	969.41	924.58	44.83	21.624		
4,000.00	3,137.58	4,098.11	3,178.90	26.30	25.82	-92.44	-539.51	-1,153.16	970.57	920.75	49.82	19.481		
4,100.00	3,134.96	4,198.11	3,176.29	28.40	27.90	-92.44	-539.81	-1,253.12	970.56	916.40	54.17	17.918		
4,200.00	3,132.33	4,298.11	3,173.68	30.54	30.02	-92.44	-540.10	-1,353.09	970.55	911.99	58.56	16.573		
4,300.00	3,129.71	4,398.11	3,171.07	32.70	32.16	-92.44	-540.40	-1,453.05	970.54	907.55	62.99	15.407		
4,400.00	3,127.09	4,498.11	3,168.46	34.89	34.33	-92.44	-540.69	-1,553.02	970.54	903.08	67.46	14.387		
4,500.00	3,124.47	4,598.11	3,165.85	37.09	36.52	-92.44	-540.98	-1,652.98	970.53	898.58	71.95	13.489		
4,600.00	3,121.85	4,698.11	3,163.24	39.30	38.73	-92.45	-541.28	-1,752.95	970.52	894.06	76.46	12.694		
4,700.00	3,119.23	4,798.11	3,160.63	41.53	40.95	-92.45	-541.57	-1,852.91	970.51	889.52	80.98	11.984		
4,800.00	3,116.61	4,898.11	3,158.02	43.77	43.19	-92.45	-541.87	-1,952.88	970.50	884.97	85.53	11.347		
4,900.00	3,113.98	4,998.11	3,155.41	46.02	45.43	-92.45	-542.16	-2,052.84	970.49	880.41	90.08	10.774		
5,000.00	3,111.36	5,098.11	3,152.80	48.28	47.68	-92.45	-542.46	-2,152.81	970.48	875.84	94.65	10.254		
5,100.00	3,108.74	5,198.11	3,150.19	50.54	49.94	-92.45	-542.75	-2,252.78	970.47	871.25	99.22	9.781		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design												Offset Site Error:	0.00 usft	
The Horned Frog - The Horned Frog 32H - Wellbore #1 - Design #1												Offset Well Error:	0.00 usft	
Survey Program: 0-MWD+HRGM														
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		
5,200.00	3,106.12	5,298.11	3,147.58	52.81	52.20	-92.45	-543.05	-2,352.74	970.47	866.66	103.80	9.349		
5,300.00	3,103.50	5,398.11	3,144.97	55.09	54.47	-92.45	-543.34	-2,452.71	970.46	862.07	108.39	8.953		
5,400.00	3,100.88	5,498.11	3,142.36	57.36	56.75	-92.45	-543.64	-2,552.67	970.45	857.46	112.99	8.589		
5,500.00	3,098.25	5,598.11	3,139.74	59.65	59.03	-92.45	-543.93	-2,652.64	970.44	852.85	117.59	8.253		
5,600.00	3,095.63	5,698.11	3,137.13	61.94	61.32	-92.45	-544.23	-2,752.60	970.43	848.24	122.19	7.942		
5,700.00	3,093.01	5,798.11	3,134.52	64.23	63.60	-92.45	-544.52	-2,852.57	970.42	843.62	126.80	7.653		
5,800.00	3,090.39	5,898.11	3,131.91	66.52	65.89	-92.45	-544.81	-2,952.53	970.41	839.00	131.41	7.384		
5,900.00	3,087.77	5,998.11	3,129.30	68.81	68.19	-92.45	-545.11	-3,052.50	970.41	834.38	136.03	7.134		
6,000.00	3,085.15	6,098.11	3,126.69	71.11	70.48	-92.45	-545.40	-3,152.46	970.40	829.75	140.65	6.899		
6,100.00	3,082.52	6,198.11	3,124.08	73.41	72.78	-92.46	-545.70	-3,252.43	970.39	825.12	145.27	6.680		
6,200.00	3,079.90	6,298.11	3,121.47	75.72	75.08	-92.46	-545.99	-3,352.40	970.38	820.48	149.90	6.474		
6,300.00	3,077.28	6,398.11	3,118.86	78.02	77.39	-92.46	-546.29	-3,452.36	970.37	815.85	154.52	6.280		
6,400.00	3,074.66	6,498.11	3,116.25	80.33	79.69	-92.46	-546.58	-3,552.33	970.36	811.21	159.15	6.097		
6,500.00	3,072.04	6,598.11	3,113.64	82.63	82.00	-92.46	-546.88	-3,652.29	970.35	806.57	163.78	5.925		
6,600.00	3,069.42	6,698.11	3,111.03	84.94	84.31	-92.46	-547.17	-3,752.26	970.34	801.93	168.42	5.762		
6,700.00	3,066.80	6,798.11	3,108.42	87.25	86.61	-92.46	-547.47	-3,852.22	970.34	797.28	173.05	5.607		
6,800.00	3,064.17	6,898.11	3,105.81	89.56	88.92	-92.46	-547.76	-3,952.19	970.33	792.64	177.69	5.461		
6,900.00	3,061.55	6,998.11	3,103.20	91.87	91.24	-92.46	-548.06	-4,052.15	970.32	787.99	182.32	5.322		
7,000.00	3,058.93	7,098.11	3,100.59	94.19	93.55	-92.46	-548.35	-4,152.12	970.31	783.35	186.96	5.190		
7,100.00	3,056.31	7,198.11	3,097.98	96.50	95.86	-92.46	-548.65	-4,252.09	970.30	778.70	191.60	5.064		
7,200.00	3,053.69	7,298.11	3,095.37	98.82	98.18	-92.46	-548.94	-4,352.05	970.29	774.05	196.24	4.944		
7,300.00	3,051.07	7,398.11	3,092.75	101.13	100.49	-92.46	-549.23	-4,452.02	970.28	769.40	200.88	4.830		
7,400.00	3,048.44	7,498.11	3,090.14	103.45	102.81	-92.46	-549.53	-4,551.98	970.27	764.75	205.53	4.721		
7,500.00	3,045.82	7,598.11	3,087.53	105.77	105.12	-92.46	-549.82	-4,651.95	970.27	760.09	210.17	4.617		
7,600.00	3,043.20	7,698.11	3,084.92	108.09	107.44	-92.47	-550.12	-4,751.91	970.26	755.44	214.81	4.517		
7,700.00	3,040.58	7,798.11	3,082.31	110.40	109.76	-92.47	-550.41	-4,851.88	970.25	750.79	219.46	4.421		
7,800.00	3,037.96	7,898.11	3,079.70	112.72	112.08	-92.47	-550.71	-4,951.84	970.24	746.13	224.11	4.329		
7,900.00	3,035.34	7,998.11	3,077.09	115.04	114.40	-92.47	-551.00	-5,051.81	970.23	741.48	228.75	4.241		
8,000.00	3,032.72	8,098.11	3,074.48	117.36	116.72	-92.47	-551.30	-5,151.77	970.22	736.82	233.40	4.157		
8,100.00	3,030.09	8,198.11	3,071.87	119.68	119.04	-92.47	-551.59	-5,251.74	970.21	732.17	238.05	4.076		
8,200.00	3,027.47	8,298.11	3,069.26	122.01	121.36	-92.47	-551.89	-5,351.71	970.20	727.51	242.70	3.998		
8,300.00	3,024.85	8,398.11	3,066.65	124.33	123.68	-92.47	-552.18	-5,451.67	970.20	722.85	247.35	3.922		
8,400.00	3,022.23	8,498.11	3,064.04	126.65	126.00	-92.47	-552.48	-5,551.64	970.19	718.19	251.99	3.850		
8,500.00	3,019.61	8,598.11	3,061.43	128.97	128.33	-92.47	-552.77	-5,651.60	970.18	713.53	256.64	3.780		
8,600.00	3,016.99	8,698.11	3,058.82	131.30	130.65	-92.47	-553.06	-5,751.57	970.17	708.87	261.30	3.713		
8,700.00	3,014.36	8,798.11	3,056.21	133.62	132.97	-92.47	-553.36	-5,851.53	970.16	704.21	265.95	3.648		
8,800.00	3,011.74	8,898.11	3,053.60	135.94	135.29	-92.47	-553.65	-5,951.50	970.15	699.55	270.60	3.585		
8,900.00	3,009.12	8,998.11	3,050.99	138.27	137.62	-92.47	-553.95	-6,051.46	970.14	694.89	275.25	3.525		
8,934.83	3,008.21	9,032.94	3,050.08	139.08	138.43	-92.47	-554.05	-6,086.28	970.14	693.27	276.87	3.504 SF		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Horned Frog - The Horned Frog 3H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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	0.00	0.00	0.00	0.00	180.00	-74.95	0.01	74.95					
100.00	100.00	100.00	100.00	0.92	0.92	180.00	-74.95	0.01	74.95	73.10	1.85	40.550		
200.00	200.00	200.00	200.00	1.53	1.53	180.00	-74.95	0.01	74.95	71.90	3.05	24.554		
300.00	300.00	300.00	300.00	1.95	1.95	180.00	-74.95	0.01	74.95	71.04	3.91	19.179		
400.00	400.00	400.00	400.00	2.31	2.31	180.00	-74.95	0.01	74.95	70.34	4.61	16.248		
500.00	500.00	500.00	500.00	2.61	2.61	180.00	-74.95	0.01	74.95	69.72	5.23	14.334		
600.00	600.00	600.00	600.00	2.89	2.89	180.00	-74.95	0.01	74.95	69.17	5.78	12.958		
700.00	700.00	700.00	700.00	3.15	3.15	180.00	-74.95	0.01	74.95	68.66	6.29	11.907		
800.00	800.00	800.00	800.00	3.39	3.39	180.00	-74.95	0.01	74.95	68.18	6.77	11.070		
900.00	900.00	900.00	900.00	3.61	3.61	180.00	-74.95	0.01	74.95	67.73	7.22	10.382		
1,000.00	1,000.00	1,000.00	1,000.00	3.82	3.82	180.00	-74.95	0.01	74.95	67.31	7.65	9.804		
1,100.00	1,100.00	1,100.00	1,100.00	4.03	4.03	180.00	-74.95	0.01	74.95	66.90	8.05	9.309		
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	180.00	-74.95	0.01	74.95	66.51	8.44	8.879		
1,300.00	1,300.00	1,300.00	1,300.00	4.41	4.41	180.00	-74.95	0.01	74.95	66.13	8.82	8.500		
1,400.00	1,400.00	1,400.00	1,400.00	4.59	4.59	180.00	-74.95	0.01	74.95	65.77	9.18	8.164		
1,500.00	1,500.00	1,500.00	1,500.00	4.77	4.77	180.00	-74.95	0.01	74.95	65.42	9.53	7.862		
1,600.00	1,600.00	1,600.00	1,600.00	4.94	4.94	180.00	-74.95	0.01	74.95	65.08	9.88	7.590		
1,700.00	1,700.00	1,700.00	1,700.00	5.10	5.10	180.00	-74.95	0.01	74.95	64.74	10.21	7.342		
1,800.00	1,800.00	1,800.00	1,800.00	5.27	5.27	180.00	-74.95	0.01	74.95	64.42	10.53	7.115 CC, ES		
1,900.00	1,899.98	1,899.98	1,899.98	5.52	5.43	-126.07	-74.95	0.01	75.97	65.09	10.88	6.981		
2,000.00	1,999.84	1,999.84	1,999.84	5.77	5.58	-129.08	-74.95	0.01	79.16	67.93	11.23	7.048		
2,100.00	2,099.59	2,099.59	2,099.59	5.94	5.73	-132.78	-74.95	0.01	83.74	72.18	11.56	7.244		
2,200.00	2,199.35	2,199.35	2,199.35	6.14	5.88	-136.09	-74.95	0.01	88.63	76.74	11.90	7.450		
2,300.00	2,299.11	2,299.11	2,299.11	6.35	6.03	-139.04	-74.95	0.01	93.79	81.55	12.24	7.661		
2,400.00	2,398.78	2,398.78	2,398.78	6.55	6.18	-141.90	-74.95	0.01	99.95	87.39	12.56	7.957		
2,500.00	2,496.85	2,496.85	2,496.85	6.96	6.32	-147.03	-74.95	0.01	115.65	102.57	13.07	8.846		
2,600.00	2,591.30	2,591.30	2,591.30	7.39	6.45	-152.94	-74.95	0.01	144.31	130.64	13.67	10.558		
2,700.00	2,680.30	2,671.13	2,671.02	7.82	6.63	-156.15	-78.06	-1.44	188.34	174.16	14.19	13.275		
2,800.00	2,762.11	2,740.41	2,739.54	8.23	6.80	-156.14	-87.21	-5.71	248.31	233.71	14.61	17.002		
2,900.00	2,835.14	2,800.00	2,797.45	8.62	6.96	-153.98	-99.85	-11.60	321.07	306.10	14.98	21.439		
3,000.00	2,897.98	2,843.71	2,839.09	8.97	7.08	-149.65	-111.87	-17.21	403.76	388.50	15.26	26.453		
3,100.00	2,955.33	2,881.87	2,874.72	9.73	7.19	-150.59	-124.23	-22.97	491.11	475.61	15.50	31.685		
3,200.00	3,012.69	2,917.24	2,907.07	11.03	7.30	-150.79	-137.21	-29.02	579.53	563.80	15.73	36.850		
3,300.00	3,064.62	2,950.00	2,936.35	12.56	7.39	-127.47	-150.51	-35.22	669.57	653.57	16.00	41.851		
3,400.00	3,104.77	2,974.30	2,957.62	14.31	7.46	-106.09	-161.14	-40.19	760.25	743.99	16.26	46.767		
3,500.00	3,131.94	3,000.00	2,979.68	16.20	7.54	-90.01	-173.10	-45.76	849.64	833.06	16.58	51.259		
3,600.00	3,145.29	3,012.67	2,990.37	18.19	7.58	-77.79	-179.26	-48.63	936.14	919.33	16.81	55.690		
3,700.00	3,145.44	3,026.06	3,001.54	20.17	7.62	-73.35	-185.95	-51.75	1,018.97	1,001.90	17.07	59.690		
3,800.00	3,142.82	3,040.45	3,013.39	22.19	7.66	-75.49	-193.36	-55.21	1,101.71	1,084.33	17.38	63.404		
3,900.00	3,140.20	3,057.37	3,027.11	24.24	7.72	-77.65	-202.33	-59.39	1,185.08	1,167.37	17.71	66.928		
4,000.00	3,137.58	3,076.45	3,042.29	26.30	7.77	-79.16	-212.80	-64.27	1,269.66	1,251.61	18.06	70.317		
4,100.00	3,134.96	3,100.00	3,060.60	28.40	7.84	-80.93	-226.23	-70.54	1,355.99	1,337.53	18.47	73.430		
4,200.00	3,132.33	3,119.58	3,075.44	30.54	7.90	-82.33	-237.80	-75.93	1,443.71	1,424.86	18.84	76.619		
4,300.00	3,129.71	4,785.02	3,444.72	32.70	31.19	-102.21	-1,007.79	-1,301.98	1,479.10	1,420.34	58.75	25.175		
4,400.00	3,127.09	4,986.74	3,439.40	34.89	35.25	-102.09	-1,023.20	-1,502.99	1,486.27	1,421.26	65.01	22.863		
4,500.00	3,124.47	5,142.35	3,435.32	37.09	38.40	-102.07	-1,025.77	-1,658.52	1,487.28	1,416.94	70.34	21.145		
4,600.00	3,121.85	5,242.35	3,432.71	39.30	40.45	-102.07	-1,026.07	-1,758.49	1,487.28	1,412.55	74.73	19.901		
4,700.00	3,119.23	5,342.35	3,430.10	41.53	42.53	-102.07	-1,026.37	-1,858.46	1,487.28	1,408.13	79.15	18.791		
4,800.00	3,116.61	5,442.35	3,427.49	43.77	44.64	-102.07	-1,026.67	-1,958.42	1,487.28	1,403.69	83.58	17.794		
4,900.00	3,113.98	5,542.35	3,424.87	46.02	46.76	-102.07	-1,026.97	-2,058.39	1,487.27	1,399.24	88.03	16.895		
5,000.00	3,111.36	5,642.35	3,422.26	48.28	48.91	-102.07	-1,027.27	-2,158.35	1,487.27	1,394.78	92.49	16.080		
5,100.00	3,108.74	5,742.35	3,419.65	50.54	51.07	-102.07	-1,027.57	-2,258.32	1,487.27	1,390.31	96.96	15.339		

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



### Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
The Horned Frog - The Horned Frog 3H - Wellbore #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD+HRGM														
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		
5,200.00	3,106.12	5,842.35	3,417.04	52.81	53.25	-102.07	-1,027.87	-2,358.28	1,487.27	1,385.82	101.44	14.661		
5,300.00	3,103.50	5,942.35	3,414.43	55.09	55.44	-102.07	-1,028.17	-2,458.25	1,487.26	1,381.33	105.93	14.040		
5,400.00	3,100.88	6,042.35	3,411.82	57.36	57.64	-102.07	-1,028.47	-2,558.21	1,487.26	1,376.83	110.43	13.468		
5,500.00	3,098.25	6,142.35	3,409.20	59.65	59.86	-102.07	-1,028.76	-2,658.18	1,487.26	1,372.33	114.93	12.940		
5,600.00	3,095.63	6,242.35	3,406.59	61.94	62.08	-102.07	-1,029.06	-2,758.14	1,487.26	1,367.82	119.44	12.452		
5,700.00	3,093.01	6,342.35	3,403.98	64.23	64.31	-102.07	-1,029.36	-2,858.11	1,487.25	1,363.30	123.95	11.998		
5,800.00	3,090.39	6,442.35	3,401.37	66.52	66.54	-102.07	-1,029.66	-2,958.08	1,487.25	1,358.78	128.47	11.576		
5,900.00	3,087.77	6,542.35	3,398.76	68.81	68.79	-102.07	-1,029.96	-3,058.04	1,487.25	1,354.26	132.99	11.183		
6,000.00	3,085.15	6,642.35	3,396.15	71.11	71.04	-102.07	-1,030.26	-3,158.01	1,487.25	1,349.73	137.52	10.815		
6,100.00	3,082.52	6,742.35	3,393.53	73.41	73.29	-102.07	-1,030.56	-3,257.97	1,487.25	1,345.20	142.05	10.470		
6,200.00	3,079.90	6,842.35	3,390.92	75.72	75.55	-102.08	-1,030.86	-3,357.94	1,487.24	1,340.66	146.58	10.146		
6,300.00	3,077.28	6,942.35	3,388.31	78.02	77.82	-102.08	-1,031.16	-3,457.90	1,487.24	1,336.13	151.11	9.842		
6,400.00	3,074.66	7,042.35	3,385.70	80.33	80.08	-102.08	-1,031.46	-3,557.87	1,487.24	1,331.59	155.65	9.555		
6,500.00	3,072.04	7,142.35	3,383.09	82.63	82.35	-102.08	-1,031.76	-3,657.83	1,487.24	1,327.05	160.19	9.284		
6,600.00	3,069.42	7,242.35	3,380.48	84.94	84.63	-102.08	-1,032.06	-3,757.80	1,487.23	1,322.50	164.73	9.028		
6,700.00	3,066.80	7,342.35	3,377.86	87.25	86.91	-102.08	-1,032.36	-3,857.76	1,487.23	1,317.96	169.28	8.786		
6,800.00	3,064.17	7,442.35	3,375.25	89.56	89.19	-102.08	-1,032.66	-3,957.73	1,487.23	1,313.41	173.82	8.556		
6,900.00	3,061.55	7,542.35	3,372.64	91.87	91.47	-102.08	-1,032.96	-4,057.69	1,487.23	1,308.86	178.37	8.338		
7,000.00	3,058.93	7,642.35	3,370.03	94.19	93.76	-102.08	-1,033.26	-4,157.66	1,487.23	1,304.31	182.92	8.131		
7,100.00	3,056.31	7,742.35	3,367.42	96.50	96.05	-102.08	-1,033.56	-4,257.63	1,487.22	1,299.76	187.46	7.933		
7,200.00	3,053.69	7,842.35	3,364.81	98.82	98.34	-102.08	-1,033.86	-4,357.59	1,487.22	1,295.21	192.02	7.745		
7,300.00	3,051.07	7,942.35	3,362.19	101.13	100.63	-102.08	-1,034.16	-4,457.56	1,487.22	1,290.65	196.57	7.566		
7,400.00	3,048.44	8,042.35	3,359.58	103.45	102.93	-102.08	-1,034.45	-4,557.52	1,487.22	1,286.10	201.12	7.395		
7,500.00	3,045.82	8,142.35	3,356.97	105.77	105.22	-102.08	-1,034.75	-4,657.49	1,487.21	1,281.54	205.67	7.231		
7,600.00	3,043.20	8,242.35	3,354.36	108.09	107.52	-102.08	-1,035.05	-4,757.45	1,487.21	1,276.98	210.23	7.074		
7,700.00	3,040.58	8,342.35	3,351.75	110.40	109.82	-102.08	-1,035.35	-4,857.42	1,487.21	1,272.43	214.79	6.924		
7,800.00	3,037.96	8,442.35	3,349.14	112.72	112.12	-102.08	-1,035.65	-4,957.38	1,487.21	1,267.87	219.34	6.780		
7,900.00	3,035.34	8,542.35	3,346.52	115.04	114.42	-102.08	-1,035.95	-5,057.35	1,487.21	1,263.31	223.90	6.642		
8,000.00	3,032.72	8,642.35	3,343.91	117.36	116.73	-102.08	-1,036.25	-5,157.31	1,487.20	1,258.75	228.46	6.510		
8,100.00	3,030.09	8,742.35	3,341.30	119.68	119.03	-102.08	-1,036.55	-5,257.28	1,487.20	1,254.18	233.02	6.382		
8,200.00	3,027.47	8,842.35	3,338.69	122.01	121.34	-102.08	-1,036.85	-5,357.25	1,487.20	1,249.62	237.58	6.260		
8,300.00	3,024.85	8,942.35	3,336.08	124.33	123.64	-102.08	-1,037.15	-5,457.21	1,487.20	1,245.06	242.14	6.142		
8,400.00	3,022.23	9,042.35	3,333.47	126.65	125.95	-102.08	-1,037.45	-5,557.18	1,487.19	1,240.50	246.70	6.028		
8,500.00	3,019.61	9,142.35	3,330.85	128.97	128.26	-102.08	-1,037.75	-5,657.14	1,487.19	1,235.93	251.26	5.919		
8,600.00	3,016.99	9,242.35	3,328.24	131.30	130.57	-102.09	-1,038.05	-5,757.11	1,487.19	1,231.37	255.82	5.813		
8,700.00	3,014.36	9,342.35	3,325.63	133.62	132.88	-102.09	-1,038.35	-5,857.07	1,487.19	1,226.80	260.38	5.712		
8,800.00	3,011.74	9,442.35	3,323.02	135.94	135.19	-102.09	-1,038.65	-5,957.04	1,487.19	1,222.24	264.95	5.613		
8,900.00	3,009.12	9,542.35	3,320.41	138.27	137.50	-102.09	-1,038.95	-6,057.00	1,487.18	1,217.67	269.51	5.518		
8,934.83	3,008.21	9,577.19	3,319.50	139.08	138.31	-102.09	-1,039.05	-6,091.82	1,487.18	1,216.08	271.10	5.486 SF		

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

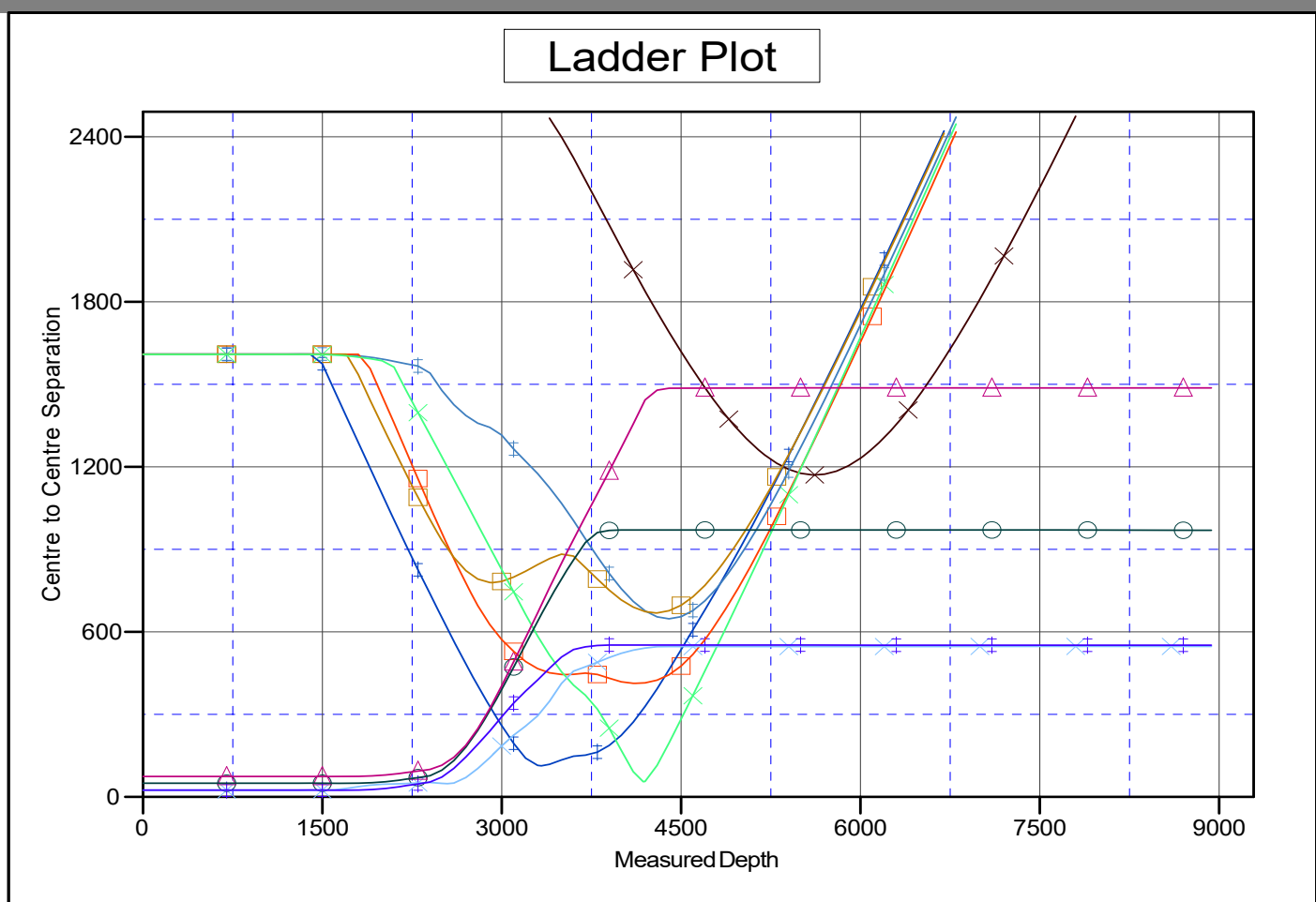


# Stryker Directional Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to RKB @ 3311.00usft (20' Rig)      Coordinates are relative to: The Horned Frog 31H  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
 Central Meridian is -104.333334      Grid Convergence at Surface is: 0.00°



### LEGEND

- Terry Evans #1, Wellbore #1, Surveys V0
- The Aggie 31H, Wellbore #1, Design #1 V0
- The Aggie 3H, Wellbore #1, Design #1 V0
- The Aggie 2H, Wellbore #1, Design #1 V0
- The Aggie 32H, Wellbore #1, Design #1 V0
- The Aggie 1H, Wellbore #1, Design #1 V0
- The Homed Frog 1H, Wellbore #1, Design #1 V0
- The Homed Frog 32H, Wellbore #1, Design #1 V0
- The Homed Frog 3H, Wellbore #1, Design #1
- The Homed Frog 2H, Wellbore #1, Design #1



**Stryker Directional**  
Anticollision Report



<b>Company:</b>	Riley Permian	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Reference Site:</b>	The Horned Frog	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000 Server
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to RKB @ 3311.00usft (20' Rig)

Coordinates are relative to: The Horned Frog 31H

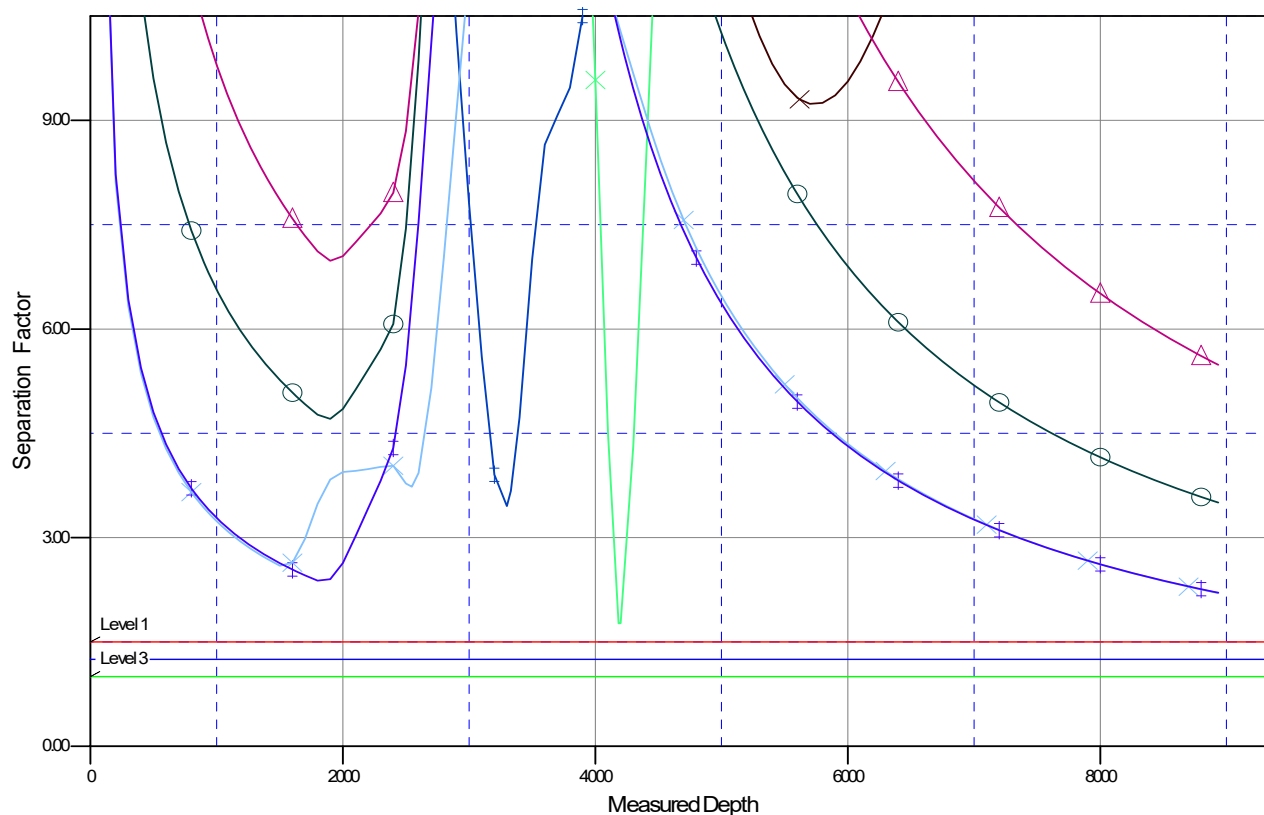
Offset Depths are relative to Offset Datum

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

Central Meridian is -104.333334

Grid Convergence at Surface is: 0.00°

### Separation Factor Plot



#### LEGEND

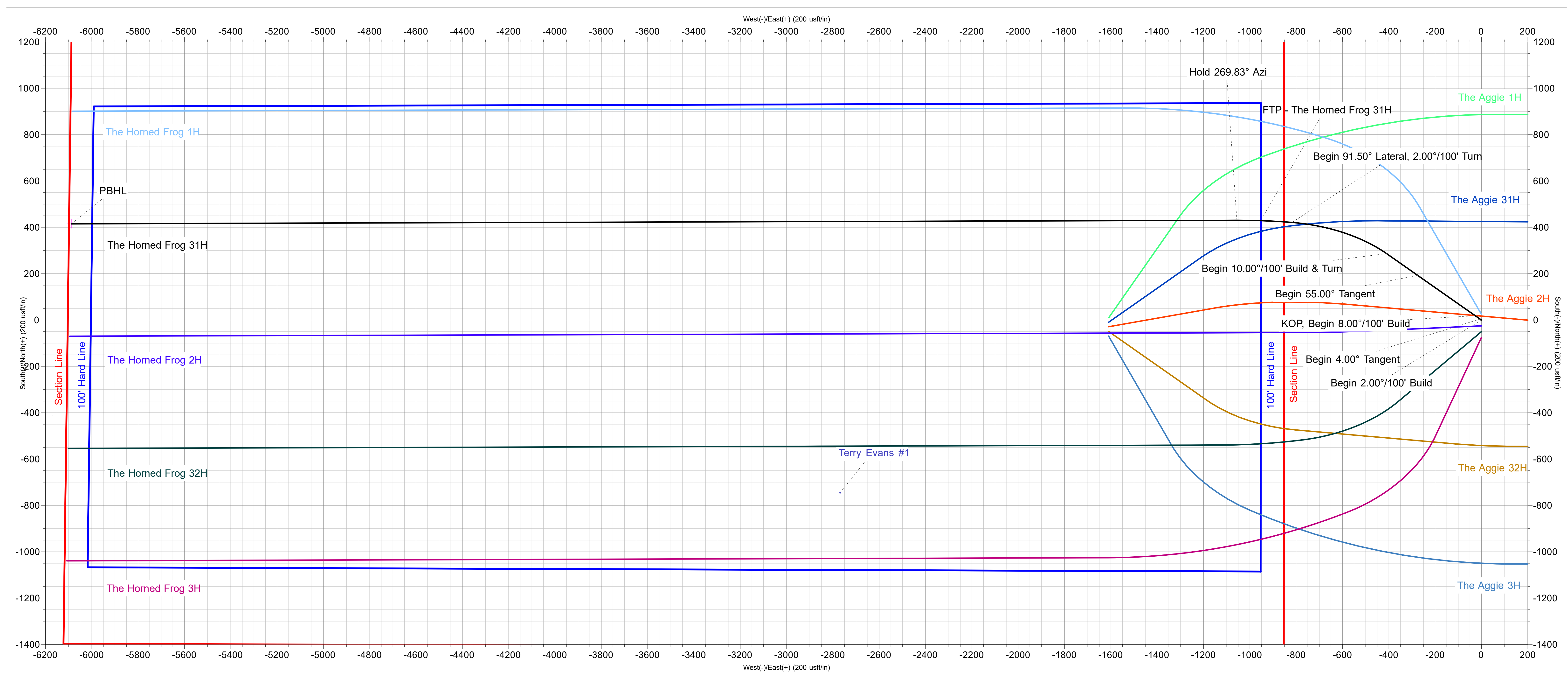
- |  |  |  |
|--|--|--|
| Terry Evans #1, Wellbore #1, Surveys V0  | The Aggie 32H, Wellbore #1, Design #1 V0       | The Horned Frog 3H, Wellbore #1, Design #1 |
| The Aggie 31H, Wellbore #1, Design #1 V0 | The Aggie 1H, Wellbore #1, Design #1 V0        | The Horned Frog 2H, Wellbore #1, Design #1 |
| The Aggie 3H, Wellbore #1, Design #1 V0  | The Horned Frog 1H, Wellbore #1, Design #1 V0  |  |
| The Aggie 2H, Wellbore #1, Design #1 V0  | The Horned Frog 32H, Wellbore #1, Design #1 V0 |  |



Company: Riley Permian  
Site: The Horned Frog  
Well: The Horned Frog 31H  
Project: Eddy County, New Mexico (NAD83)  
Rig: 20' Rig

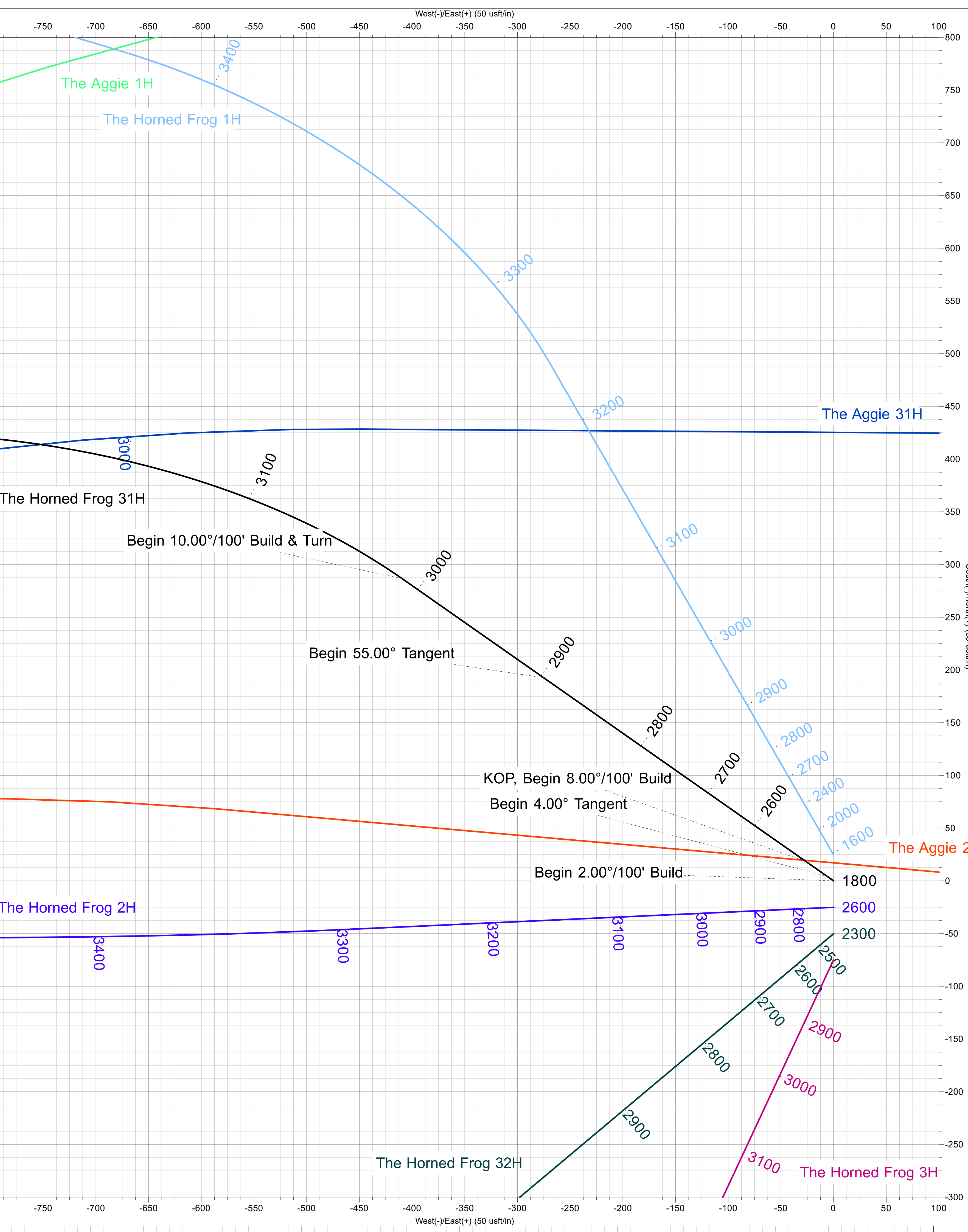


To convert a Magnetic Direction to a Grid Direction, Add 6.58°



ANNOTATIONS

MD	Inc	Azi	TVD	+N-S	+E-W	Vsect	Departure	Annotation
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	Begin 2.00°/100' Build
2000.00	4.00	305.00	1999.84	4.00	-5.72	5.98	6.98	Begin 4.00° Tangent
2362.04	4.00	305.00	2361.00	18.49	-26.40	27.60	32.23	KOP, Begin 8.00°/100' Build
2999.54	55.00	305.00	2897.72	192.66	-275.15	287.62	335.89	Begin 55.00° Tangent
3199.54	55.00	305.00	3012.43	286.63	-409.35	427.90	499.72	Begin 10.00°/100' Build & Turn
3662.23	91.50	274.60	3146.43	421.27	-817.53	844.30	934.37	Begin 91.50° Lateral, 2.00°/100' Turn
3900.86	91.50	269.83	3140.18	430.48	-1055.83	1082.67	1172.91	Hold 269.83° Azi
8934.83	91.50	269.83	3008.21	415.18	-6088.05	6102.19	6205.16	PBHL

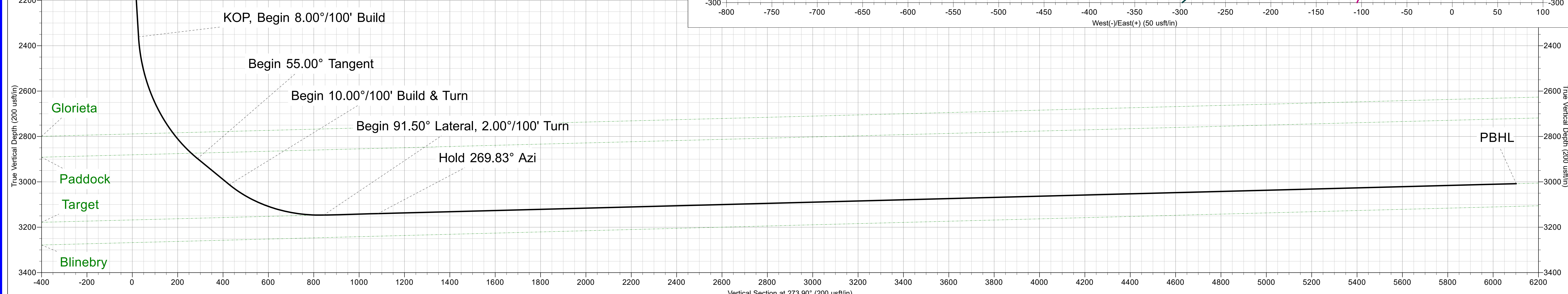
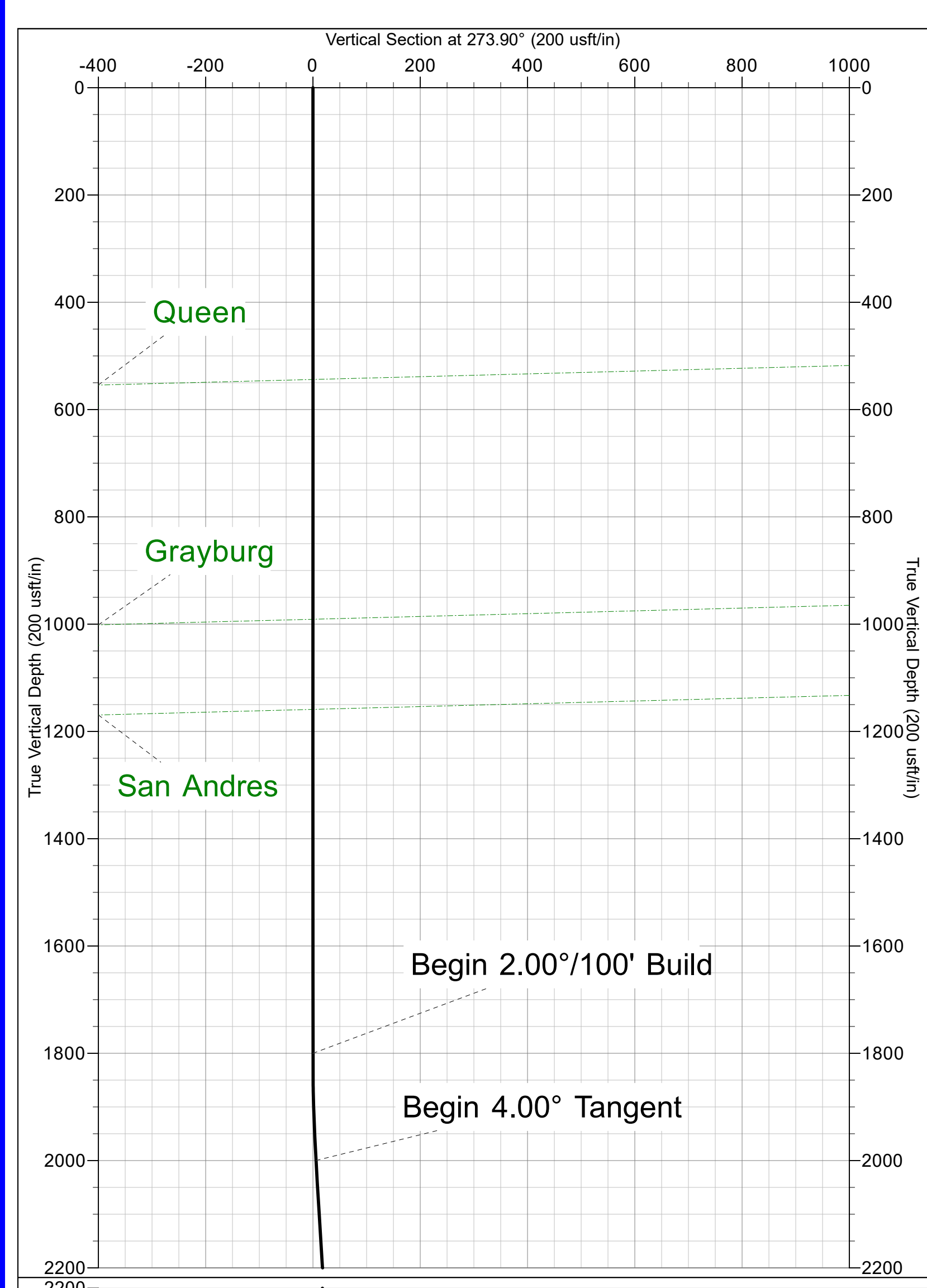


**Azimuths to Grid North**  
True North: 0.00°  
Magnetic North: 6.58°

**Magnetic Field**  
Strength: 47241.1nT  
Dip Angle: 60.24°  
Date: 2/19/2026  
Model: ROUNDLAB\_HRCM

US State Plane 1983  
New Mexico Eastern Zone

Created By: JAB  
Date: 15:41, February 19 2026  
Plan: Design #1





# Riley Permian

Eddy County, New Mexico (NAD83)

The Horned Frog

The Horned Frog 31H

Wellbore #1

Plan: Design #1

## Standard Planning Report

19 February, 2026





**Stryker Directional**  
Planning Report



<b>Database:</b>	EDM 5000 Server	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Company:</b>	Riley Permian	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site:</b>	The Horned Frog	<b>North Reference:</b>	Grid
<b>Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Eddy County, New Mexico (NAD83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		Using geodetic scale factor

<b>Site</b>	The Horned Frog				
<b>Site Position:</b>		<b>Northing:</b>	631,931.33 usft	<b>Latitude:</b>	32.737217
<b>From:</b>	Lat/Long	<b>Easting:</b>	544,178.43 usft	<b>Longitude:</b>	-104.324094
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.00 °

<b>Well</b>	The Horned Frog 31H					
<b>Well Position</b>	<b>+N/-S</b>	-24.74 usft	<b>Northing:</b>	631,906.59 usft	<b>Latitude:</b>	32.737149
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	544,178.43 usft	<b>Longitude:</b>	-104.324094
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	3,291.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	OUNDLAB_HRGM	2/19/2026	6.58	60.24	47,241.07277873

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	273.90

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	4.00	305.00	1,999.84	4.00	-5.72	2.00	2.00	0.00	305.00	
2,362.04	4.00	305.00	2,361.00	18.49	-26.40	0.00	0.00	0.00	0.00	
2,999.54	55.00	305.00	2,897.72	192.66	-275.15	8.00	8.00	0.00	0.00	
3,199.54	55.00	305.00	3,012.43	286.63	-409.35	0.00	0.00	0.00	0.00	
3,662.23	91.50	274.60	3,146.43	421.27	-817.53	10.00	7.89	-6.57	-44.43	
3,900.86	91.50	269.83	3,140.18	430.48	-1,055.83	2.00	0.00	-2.00	-89.91	
8,934.83	91.50	269.83	3,008.21	415.18	-6,088.05	0.00	0.00	0.00	0.00	PBHL - The Horned



**Stryker Directional**  
Planning Report



<b>Database:</b>	EDM 5000 Server	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Company:</b>	Riley Permian	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site:</b>	The Horned Frog	<b>North Reference:</b>	Grid
<b>Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Begin 2.00°/100' Build</b>									
1,900.00	2.00	305.00	1,899.98	1.00	-1.43	1.49	2.00	2.00	0.00
2,000.00	4.00	305.00	1,999.84	4.00	-5.72	5.98	2.00	2.00	0.00
<b>Begin 4.00° Tangent</b>									
2,100.00	4.00	305.00	2,099.59	8.00	-11.43	11.95	0.00	0.00	0.00
2,200.00	4.00	305.00	2,199.35	12.00	-17.14	17.92	0.00	0.00	0.00
2,300.00	4.00	305.00	2,299.11	16.01	-22.86	23.89	0.00	0.00	0.00
2,362.04	4.00	305.00	2,361.00	18.49	-26.40	27.60	0.00	0.00	0.00
<b>KOP, Begin 8.00°/100' Build</b>									
2,400.00	7.04	305.00	2,398.78	20.58	-29.39	30.73	8.00	8.00	0.00
2,450.00	11.04	305.00	2,448.14	25.09	-35.83	37.45	8.00	8.00	0.00
2,500.00	15.04	305.00	2,496.85	31.55	-45.06	47.10	8.00	8.00	0.00
2,550.00	19.04	305.00	2,544.64	39.95	-57.06	59.65	8.00	8.00	0.00
2,600.00	23.04	305.00	2,591.30	50.25	-71.76	75.01	8.00	8.00	0.00
2,650.00	27.04	305.00	2,636.59	62.38	-89.09	93.13	8.00	8.00	0.00
2,700.00	31.04	305.00	2,680.30	76.30	-108.96	113.90	8.00	8.00	0.00
2,750.00	35.04	305.00	2,722.21	91.93	-131.29	137.24	8.00	8.00	0.00
2,800.00	39.04	305.00	2,762.11	109.20	-155.95	163.02	8.00	8.00	0.00
2,850.00	43.04	305.00	2,799.82	128.02	-182.84	191.12	8.00	8.00	0.00
2,900.00	47.04	305.00	2,835.14	148.31	-211.81	221.41	8.00	8.00	0.00
2,950.00	51.04	305.00	2,867.92	169.96	-242.73	253.73	8.00	8.00	0.00
2,999.54	55.00	305.00	2,897.72	192.66	-275.15	287.62	8.00	8.00	0.00
<b>Begin 55.00° Tangent</b>									
3,100.00	55.00	305.00	2,955.33	239.86	-342.55	358.08	0.00	0.00	0.00
3,199.54	55.00	305.00	3,012.43	286.63	-409.35	427.90	0.00	0.00	0.00
<b>Begin 10.00°/100' Build &amp; Turn</b>									
3,250.00	58.67	300.87	3,040.03	309.55	-444.80	464.83	10.00	7.28	-8.19
3,300.00	62.44	297.08	3,064.62	330.61	-482.88	504.26	10.00	7.52	-7.57
3,350.00	66.29	293.55	3,086.25	349.86	-523.63	546.22	10.00	7.71	-7.06
3,400.00	70.22	290.23	3,104.77	367.15	-566.71	590.38	10.00	7.87	-6.65
3,450.00	74.22	287.06	3,120.04	382.35	-611.81	636.41	10.00	7.98	-6.33
3,500.00	78.25	284.02	3,131.94	395.35	-658.59	683.96	10.00	8.07	-6.08
3,550.00	82.32	281.07	3,140.38	406.05	-706.68	732.67	10.00	8.13	-5.91
3,600.00	86.40	278.17	3,145.29	414.35	-755.72	782.16	10.00	8.17	-5.79
3,650.00	90.50	275.30	3,146.64	420.22	-805.35	832.07	10.00	8.19	-5.74



**Stryker Directional**  
Planning Report



<b>Database:</b>	EDM 5000 Server	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Company:</b>	Riley Permian	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site:</b>	The Horned Frog	<b>North Reference:</b>	Grid
<b>Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,662.23	91.50	274.60	3,146.43	421.27	-817.53	844.30	10.00	8.19	-5.74	
<b>Begin 91.50° Lateral, 2.00°/100' Turn</b>										
3,700.00	91.50	273.84	3,145.44	424.05	-855.18	882.05	2.00	0.00	-2.00	
3,800.00	91.50	271.84	3,142.82	429.01	-955.02	982.00	2.00	0.00	-2.00	
3,900.86	91.50	269.83	3,140.18	430.48	-1,055.83	1,082.67	2.00	0.00	-2.00	
<b>Hold 269.83° Azi</b>										
4,000.00	91.50	269.83	3,137.58	430.18	-1,154.93	1,181.53	0.00	0.00	0.00	
4,100.00	91.50	269.83	3,134.96	429.87	-1,254.90	1,281.24	0.00	0.00	0.00	
4,200.00	91.50	269.83	3,132.33	429.57	-1,354.86	1,380.95	0.00	0.00	0.00	
4,300.00	91.50	269.83	3,129.71	429.27	-1,454.83	1,480.66	0.00	0.00	0.00	
4,400.00	91.50	269.83	3,127.09	428.96	-1,554.79	1,580.38	0.00	0.00	0.00	
4,500.00	91.50	269.83	3,124.47	428.66	-1,654.76	1,680.09	0.00	0.00	0.00	
4,600.00	91.50	269.83	3,121.85	428.35	-1,754.73	1,779.80	0.00	0.00	0.00	
4,700.00	91.50	269.83	3,119.23	428.05	-1,854.69	1,879.52	0.00	0.00	0.00	
4,800.00	91.50	269.83	3,116.61	427.75	-1,954.66	1,979.23	0.00	0.00	0.00	
4,900.00	91.50	269.83	3,113.98	427.44	-2,054.62	2,078.94	0.00	0.00	0.00	
5,000.00	91.50	269.83	3,111.36	427.14	-2,154.59	2,178.65	0.00	0.00	0.00	
5,100.00	91.50	269.83	3,108.74	426.84	-2,254.55	2,278.37	0.00	0.00	0.00	
5,200.00	91.50	269.83	3,106.12	426.53	-2,354.52	2,378.08	0.00	0.00	0.00	
5,300.00	91.50	269.83	3,103.50	426.23	-2,454.48	2,477.79	0.00	0.00	0.00	
5,400.00	91.50	269.83	3,100.88	425.92	-2,554.45	2,577.51	0.00	0.00	0.00	
5,500.00	91.50	269.83	3,098.25	425.62	-2,654.41	2,677.22	0.00	0.00	0.00	
5,600.00	91.50	269.83	3,095.63	425.32	-2,754.38	2,776.93	0.00	0.00	0.00	
5,700.00	91.50	269.83	3,093.01	425.01	-2,854.34	2,876.64	0.00	0.00	0.00	
5,800.00	91.50	269.83	3,090.39	424.71	-2,954.31	2,976.36	0.00	0.00	0.00	
5,900.00	91.50	269.83	3,087.77	424.40	-3,054.27	3,076.07	0.00	0.00	0.00	
6,000.00	91.50	269.83	3,085.15	424.10	-3,154.24	3,175.78	0.00	0.00	0.00	
6,100.00	91.50	269.83	3,082.52	423.80	-3,254.20	3,275.50	0.00	0.00	0.00	
6,200.00	91.50	269.83	3,079.90	423.49	-3,354.17	3,375.21	0.00	0.00	0.00	
6,300.00	91.50	269.83	3,077.28	423.19	-3,454.13	3,474.92	0.00	0.00	0.00	
6,400.00	91.50	269.83	3,074.66	422.89	-3,554.10	3,574.63	0.00	0.00	0.00	
6,500.00	91.50	269.83	3,072.04	422.58	-3,654.06	3,674.35	0.00	0.00	0.00	
6,600.00	91.50	269.83	3,069.42	422.28	-3,754.03	3,774.06	0.00	0.00	0.00	
6,700.00	91.50	269.83	3,066.80	421.97	-3,853.99	3,873.77	0.00	0.00	0.00	
6,800.00	91.50	269.83	3,064.17	421.67	-3,953.96	3,973.49	0.00	0.00	0.00	
6,900.00	91.50	269.83	3,061.55	421.37	-4,053.92	4,073.20	0.00	0.00	0.00	
7,000.00	91.50	269.83	3,058.93	421.06	-4,153.89	4,172.91	0.00	0.00	0.00	
7,100.00	91.50	269.83	3,056.31	420.76	-4,253.85	4,272.62	0.00	0.00	0.00	
7,200.00	91.50	269.83	3,053.69	420.45	-4,353.82	4,372.34	0.00	0.00	0.00	
7,300.00	91.50	269.83	3,051.07	420.15	-4,453.78	4,472.05	0.00	0.00	0.00	
7,400.00	91.50	269.83	3,048.44	419.85	-4,553.75	4,571.76	0.00	0.00	0.00	
7,500.00	91.50	269.83	3,045.82	419.54	-4,653.72	4,671.48	0.00	0.00	0.00	
7,600.00	91.50	269.83	3,043.20	419.24	-4,753.68	4,771.19	0.00	0.00	0.00	
7,700.00	91.50	269.83	3,040.58	418.94	-4,853.65	4,870.90	0.00	0.00	0.00	
7,800.00	91.50	269.83	3,037.96	418.63	-4,953.61	4,970.61	0.00	0.00	0.00	
7,900.00	91.50	269.83	3,035.34	418.33	-5,053.58	5,070.33	0.00	0.00	0.00	
8,000.00	91.50	269.83	3,032.72	418.02	-5,153.54	5,170.04	0.00	0.00	0.00	
8,100.00	91.50	269.83	3,030.09	417.72	-5,253.51	5,269.75	0.00	0.00	0.00	
8,200.00	91.50	269.83	3,027.47	417.42	-5,353.47	5,369.47	0.00	0.00	0.00	
8,300.00	91.50	269.83	3,024.85	417.11	-5,453.44	5,469.18	0.00	0.00	0.00	
8,400.00	91.50	269.83	3,022.23	416.81	-5,553.40	5,568.89	0.00	0.00	0.00	
8,500.00	91.50	269.83	3,019.61	416.50	-5,653.37	5,668.60	0.00	0.00	0.00	
8,600.00	91.50	269.83	3,016.99	416.20	-5,753.33	5,768.32	0.00	0.00	0.00	



**Stryker Directional**  
Planning Report



<b>Database:</b>	EDM 5000 Server	<b>Local Co-ordinate Reference:</b>	Well The Horned Frog 31H
<b>Company:</b>	Riley Permian	<b>TVD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Project:</b>	Eddy County, New Mexico (NAD83)	<b>MD Reference:</b>	RKB @ 3311.00usft (20' Rig)
<b>Site:</b>	The Horned Frog	<b>North Reference:</b>	Grid
<b>Well:</b>	The Horned Frog 31H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.00	91.50	269.83	3,014.36	415.90	-5,853.30	5,868.03	0.00	0.00	0.00
8,800.00	91.50	269.83	3,011.74	415.59	-5,953.26	5,967.74	0.00	0.00	0.00
8,900.00	91.50	269.83	3,009.12	415.29	-6,053.23	6,067.46	0.00	0.00	0.00
8,934.83	91.50	269.83	3,008.21	415.18	-6,088.05	6,102.19	0.00	0.00	0.00
<b>PBHL</b>									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL - The Horned F - hit/miss target - Shape - Point	0.00	360.00	3,008.21	415.18	-6,088.05	632,321.74	538,090.94	32.738290	-104.343892
FTP - The Horned Frc - plan misses target center by 1.44usft at 3797.13usft MD (3142.90 TVD, 428.92 N, -952.15 E) - Point	0.00	0.01	3,142.90	430.36	-952.08	632,336.91	543,226.44	32.738332	-104.327190

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
544.00	544.00	Queen		-1.50	273.90	
991.00	991.00	Grayburg		-1.50	273.90	
1,159.00	1,159.00	San Andres		-1.50	273.90	
2,829.06	2,784.31	Glorieta		-1.50	273.90	
2,960.05	2,874.18	Paddock		-1.50	273.90	
3,634.76	3,146.61	Target		-1.50	273.90	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,800.00	1,800.00	0.00	0.00	Begin 2.00°/100' Build
2,000.00	1,999.84	4.00	-5.72	Begin 4.00° Tangent
2,362.04	2,361.00	18.49	-26.40	KOP, Begin 8.00°/100' Build
2,999.54	2,897.72	192.66	-275.15	Begin 55.00° Tangent
3,199.54	3,012.43	286.63	-409.35	Begin 10.00°/100' Build & Turn
3,662.23	3,146.43	421.27	-817.53	Begin 91.50° Lateral, 2.00°/100' Turn
3,900.86	3,140.18	430.48	-1,055.83	Hold 269.83° Azi
8,934.83	3,008.21	415.18	-6,088.05	PBHL

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Burnett Oil Co., Inc. **OGRID:** 03080 **Date:** 12 / 10 / 2025

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

If Other, please describe: Amended to reflect well name changes and pooling concerns.

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
THE HORNEF FROG #1H	30-015-54438	D-19-18S-27E	1226 FNL 809 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE HORNEF FROG #31H	30-015-55902	1-19-18S-27E	1246 FNL 809 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE HORNEF FROG #2H	30-015-54437	D-19-18S-27E	1266 FNL 809 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE HORNEF FROG #32H	30-015-55901	1-19-18S-27E	1286FNL 809FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE HORNEF FROG #3H	30-015-54439	D-19-18S-27E	1306 FNL 809 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE MAVERICK #1H	30-015-54684	L-19-18S-27E	1368 FSL 828 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE MAVERICK #31H	30-015-55903	3-19-18S-27E	1348FSL 828FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE MAVERICK #2H	30-015-54685	L-19-18S-27E	1328 FSL 828 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE MAVERICK 32H	30-015-55900	4-19-18S-27E	1308 FSL 828 FWL	550 BBL/D	550 MCF/D	2500 BBL/D
THE MAVERICK #3H	30-015-54686	M-19-18S-27E	1288 FSL 828FWL	550 BBL/D	550 MCF/D	2500 BBL/D

**IV. Central Delivery Point Name:** THE MAVERICK BATTERY [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
THE HORNEF FROG #1H	30-015-54438	2/15/2026	2/24/2026	4/08/2026	4/22/2026	4/22/2026
THE HORNEF FROG #31H	30-015-55902	1/5/2026	1/15/2026	3/1/2026	3/11/2026	3/11/2026
THE HORNEF FROG #2H	30-015-54437	2/25/2026	3/03/2026	5/12/2026	5/28/2026	5/28/2026
THE HORNEF FROG #32H	30-015-55901	1/16/2026	1/26/2026	3/5/2026	3/15/2026	3/15/2026
THE HORNEF FROG #3H	30-015-54439	3/04/2026	3/14/2026	5/16/2026	6/2/2026	6/02/2026
THE MAVERICK #1H	30-015-54684	3/15/2026	3/25/2026	4/1/2026	4/16/2026	4/16/2026
THE MAVERICK #31H	30-015-55903	4/1/2026	4/11/2026	5/30/2026	6/10/2026	6/10/2026
THE MAVERICK #2H	30-015-54685	4/26/2026	5/05/2026	6/04/2026	6/20/2026	6/20/2026
THE MAVERICK #32H	30-015-55900	4/12/2026	4/22/2026	5/4/2026	5/14/2026	5/14/2026
THE MAVERICK #3H	30-015-54686	3/06/2026	3/16/2026	4/08/2026	4/25/2026	4/25/2026

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

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

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

**Section 2 – Enhanced Plan**  
**EFFECTIVE APRIL 1, 2022**

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

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

**IX. Anticipated Natural Gas Production:**

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

**X. Natural Gas Gathering System (NGGS):**

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

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

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

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

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

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

### **Section 3 - Certifications**

**Effective May 25, 2021**

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

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

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

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

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

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

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

### **Section 4 - Notices**

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

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

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

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

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

Signature: <i>Randy Bolles</i>
Printed Name: Randy Bolles
Title: Regulatory Consultant
E-mail Address: rbolles@cox.net
Date: 12/10/2025
Phone: 405-738-0183
<b>OIL CONSERVATION DMSION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

## NATURAL GAS MANAGEMENT PLAN

### Section 1 – Attachments

Company: Burnett Oil Co., Inc. Well Name: THE HORNEF FROG 1H API 30-015-54438

- VI. Separation Equipment:** Description of how Operator will size separation equipment to optimize gas capture.
- A. This well will be added to an existing tank battery.
  - B. The engineered system is designed to handle 11,500 MCF/D. It will produce through the following vessels:
    1. 2-phase separator,
    2. free-water knockout,
    3. heater treater, and then finally a
    4. 2-phase gas scrubber.
  - C. Current battery throughput is 0 MCF/D.
  - D. The referenced well is anticipated to produce a maximum of 550 MCF/D for a total throughput of 550 MCF/D.
- VII. Operational Practices:** Description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.
- A. In all circumstances, the operator shall flare rather than vent natural gas except when flaring is technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring.
  - B. During drilling operations a mud/gas separator will be on location. If needed, it will be utilized to capture natural gas for purposes of flaring. If flaring is required, a properly-sized flare stack will be at a minimum of 100' from the nearest surface hole location unless otherwise approved by the division.
  - C. Venting and flaring during completion or recompletion operations
    1. During completion or recompletion, gas is trapped/retained in the wellbore through use of properly weighted "kill" fluids.
    2. During the completion phase, the well will be routed directly into an existing battery. With this initial flowback already being connected to the existing battery, all flowback gasses will be routed, if applicable, only to flare. No venting will occur during this initial flowback period. As soon as it is feasible, the existing separation will be utilized.
  - D. Equipment redundancies within the system, along with the overall battery design, enables us to service equipment without interruption to gas flow in most scenarios. With the existing battery compression at this

facility, in most cases we can avoid flaring during times of elevated transmission line pressures caused by mid-stream maintenance. Additionally, we have gas takeaway with two (2) midstream companies to try and keep gas going to sales in case one of them has a problem.

#### E. Performance Standards

1. The existing facility is designed for maximum anticipated throughput and pressure to minimize waste.
2. The existing storage tanks are routed to a combustor.
3. The existing flare stack is properly sized and designed to ensure proper combustion efficiency.
4. The existing flare stack is securely anchored and located at least 100 feet from the storage tanks.
5. AVO inspections are conducted weekly.
6. NA
7. NA
8. We strive to minimize waste and shall resolve emergencies as quickly and safely as possible.

#### F. Measurement or estimation of vented and flared natural gas

1. We shall measure or estimate the volume of natural gas that is vented, flared, or beneficially used during drilling, completion and production operations regardless of the reason or authorization for such venting or flaring.
2. The existing flare has a meter to measure the gas going to it.
3. The measurement equipment conforms to an industry standard such as American Petroleum Institute (API) Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares
4. The measuring equipment is not equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.
5. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, the operator will estimate the volume of vented or flared natural gas using a methodology that can be independently verified.
6. NA
7. The operator shall install measuring equipment whenever the division determines that metering is practicable or the existing measuring equipment or GOR test is not sufficient to measure the volume of vented and flared natural gas.

#### VIII. **Best Management Practices:** Operator's best management practices to minimize venting during active and planned maintenance.

- A. The existing facility is designed for maximum anticipated throughput and pressure to minimize waste.
- B. Equipment redundancies within the system, along with the overall battery design, enables us to service equipment without interruption to gas flow in most scenarios. With the existing battery compression at this facility, in most cases we can avoid flaring during times of elevated transmission line pressures caused by mid-stream maintenance.
- C. During well maintenance, gas is trapped/retained in the wellbore through use of properly weighted "kill" fluids.
- D. Additionally, we have gas takeaway with two (2) midstream companies to try and keep gas going to sales in case one of them has a problem.

Sante Fe Main Office  
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General Information  
Phone: (505) 629-6116

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

CONDITIONS

Action 558504

**CONDITIONS**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 558504
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	3/16/2026