

<b>Well Name:</b> VALKYRIE BS FED COM	<b>Well Location:</b> T23S / R28E / SEC 11 / NESE / 32.3193844 / -104.0511707	<b>County or Parish/State:</b> EDDY / NM
<b>Well Number:</b> 501H	<b>Type of Well:</b> OIL WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM32636	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b>	<b>Operator:</b> MARATHON OIL PERMIAN LLC	

**Notice of Intent**

**Sundry ID:** 2885698

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 12/08/2025

**Time Sundry Submitted:** 08:51

**Date proposed operation will begin:** 12/08/2025

**Procedure Description:** Marathon Oil Permian LLC requests a change to our approved APD for this well to reflect a change in SHL & BHL. Change SHL FROM: 2378' FSL & 537' FEL Change SHL TO: 2376' FSL & 537' FEL, 11-23S-28E Change BHL FROM: 1020' FSL & 100' FEL Change BHL TO: 670' FSL & 50' FEL, SESE 07-23S-29E, Eddy Co., NM. Revised C-102s, directional plans, and drill procedures attached.

**NOI Attachments**

**Procedure Description**

VALKYRIE\_FED\_COM\_501H\_PERMIT\_PLAN\_20260121145516.pdf

VALKYRIE\_FED\_COM\_501H\_AC\_REPORT\_20260121145516.pdf

VALKYRIE\_FED\_COM\_501H\_C102\_NAD83\_signed\_1\_20\_26\_20260121145456.pdf

Valkyrie\_Fed\_Com\_501H\_APD\_20260121145428.pdf

Well Name: VALKYRIE BS FED COM

Well Location: T23S / R28E / SEC 11 / NESE / 32.3193844 / -104.0511707

County or Parish/State: EDDY / NM

Well Number: 501H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM32636

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: MARATHON OIL PERMIAN LLC

### Operator

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

Operator Electronic Signature: STAN WAGNER

Signed on: JAN 21, 2026 02:55 PM

Name: MARATHON OIL PERMIAN LLC

Title: Regulatory Advisor

Street Address: 600 WEST ILLINOIS AVE

City: MIDLAND

State: TX

Phone: (432) 253-9685

Email address: STAN.S.WAGNER@CONOCOPHILLIPS.COM

### Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

### BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: CWALLS@BLM.GOV

Disposition: Approved

Disposition Date: 01/27/2026

Signature: Chris Walls

Form 3160-5  
(October 2024)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		5. Lease Serial No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

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

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

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

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

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

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

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

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

## SPECIFIC INSTRUCTIONS

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

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

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

## Additional Information

### Location of Well

0. SHL: NESE / 2378 FSL / 537 FEL / TWSP: 23S / RANGE: 28E / SECTION: 11 / LAT: 32.3193844 / LONG: -104.0511707 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSW / 1020 FSL / 100 FWL / TWSP: 23S / RANGE: 28E / SECTION: 12 / LAT: 32.3156637 / LONG: -104.049156 ( TVD: 7787 feet, MD: 8011 feet )

PPP: LOT 4 / 1020 FSL / 0 FEL / TWSP: 23S / RANGE: 29E / SECTION: 7 / LAT: 32.3156551 / LONG: -104.032043 ( TVD: 8469 feet, MD: 13672 feet )

BHL: SESE / 1020 FSL / 100 FEL / TWSP: 23S / RANGE: 29E / SECTION: 7 / LAT: 32.3151936 / LONG: -104.0157029 ( TVD: 8583 feet, MD: 18724 feet )

CONFIDENTIAL

# **DELAWARE BASIN WEST**

**EDDY COUNTY \_DBW\_NM\_E**

**VALKYRIE FED COM**

**\_VALKYRIE FED COM 501H**

**OWB**

**Plan: PWP0**

## **Standard Planning Report**

**20 January, 2026**

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

<b>Project</b>	EDDY COUNTY _DBW_NM_E		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	VALKYRIE FED COM				
<b>Site Position:</b>		<b>Northing:</b>	478,911.28 usft	<b>Latitude:</b>	32° 18' 58.612 N
<b>From:</b>	Map	<b>Easting:</b>	593,415.17 usft	<b>Longitude:</b>	104° 1' 51.409 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "		

<b>Well</b>	_VALKYRIE FED COM 501H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	479,982.68 usft	<b>Latitude:</b>	32° 19' 9.379 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	587,317.06 usft	<b>Longitude:</b>	104° 3' 2.438 W
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	2,992.00 usft
<b>Grid Convergence:</b>	0.15 °					

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2025	12/31/2026	6.51	59.86	47,003.30628963

<b>Design</b>	PWP0			
<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	99.61

<b>Plan Survey Tool Program</b>	<b>Date</b>	1/20/2026		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	19,241.70 PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR	
			OWSG MWD + IFR1 + SAG +	

**ConocoPhillips**

Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,927.34	18.55	175.86	1,911.23	-148.40	10.74	2.00	2.00	0.00	175.86	
5,899.98	18.55	175.86	5,677.55	-1,408.71	101.95	0.00	0.00	0.00	0.00	
7,754.65	0.00	0.00	7,500.00	-1,705.50	123.43	1.00	-1.00	0.00	180.00	
8,178.19	0.00	0.00	7,923.54	-1,705.50	123.43	0.00	0.00	0.00	0.00	
8,928.19	90.00	89.92	8,401.01	-1,704.86	600.89	12.00	12.00	11.99	89.92	
14,207.30	90.00	89.92	8,401.00	-1,697.80	5,880.00	0.00	0.00	0.00	0.00	
14,297.13	90.00	91.72	8,401.00	-1,699.09	5,969.82	2.00	0.00	2.00	90.00	
19,241.70	90.00	91.72	8,401.00	-1,847.50	10,912.16	0.00	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00
45.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00
75.00	0.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00
90.00	0.00	0.00	90.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	0.00	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
165.00	0.00	0.00	165.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00
195.00	0.00	0.00	195.00	0.00	0.00	0.00	0.00	0.00	0.00
210.00	0.00	0.00	210.00	0.00	0.00	0.00	0.00	0.00	0.00
225.00	0.00	0.00	225.00	0.00	0.00	0.00	0.00	0.00	0.00
240.00	0.00	0.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00
255.00	0.00	0.00	255.00	0.00	0.00	0.00	0.00	0.00	0.00
270.00	0.00	0.00	270.00	0.00	0.00	0.00	0.00	0.00	0.00
285.00	0.00	0.00	285.00	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
315.00	0.00	0.00	315.00	0.00	0.00	0.00	0.00	0.00	0.00
330.00	0.00	0.00	330.00	0.00	0.00	0.00	0.00	0.00	0.00
345.00	0.00	0.00	345.00	0.00	0.00	0.00	0.00	0.00	0.00
360.00	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00
375.00	0.00	0.00	375.00	0.00	0.00	0.00	0.00	0.00	0.00
390.00	0.00	0.00	390.00	0.00	0.00	0.00	0.00	0.00	0.00
405.00	0.00	0.00	405.00	0.00	0.00	0.00	0.00	0.00	0.00
420.00	0.00	0.00	420.00	0.00	0.00	0.00	0.00	0.00	0.00
435.00	0.00	0.00	435.00	0.00	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.00	450.00	0.00	0.00	0.00	0.00	0.00	0.00
465.00	0.00	0.00	465.00	0.00	0.00	0.00	0.00	0.00	0.00
480.00	0.00	0.00	480.00	0.00	0.00	0.00	0.00	0.00	0.00
495.00	0.00	0.00	495.00	0.00	0.00	0.00	0.00	0.00	0.00
510.00	0.00	0.00	510.00	0.00	0.00	0.00	0.00	0.00	0.00
525.00	0.00	0.00	525.00	0.00	0.00	0.00	0.00	0.00	0.00
540.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
555.00	0.00	0.00	555.00	0.00	0.00	0.00	0.00	0.00	0.00
570.00	0.00	0.00	570.00	0.00	0.00	0.00	0.00	0.00	0.00
585.00	0.00	0.00	585.00	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
615.00	0.00	0.00	615.00	0.00	0.00	0.00	0.00	0.00	0.00
630.00	0.00	0.00	630.00	0.00	0.00	0.00	0.00	0.00	0.00
645.00	0.00	0.00	645.00	0.00	0.00	0.00	0.00	0.00	0.00
660.00	0.00	0.00	660.00	0.00	0.00	0.00	0.00	0.00	0.00
675.00	0.00	0.00	675.00	0.00	0.00	0.00	0.00	0.00	0.00
690.00	0.00	0.00	690.00	0.00	0.00	0.00	0.00	0.00	0.00
705.00	0.00	0.00	705.00	0.00	0.00	0.00	0.00	0.00	0.00
720.00	0.00	0.00	720.00	0.00	0.00	0.00	0.00	0.00	0.00
735.00	0.00	0.00	735.00	0.00	0.00	0.00	0.00	0.00	0.00
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
765.00	0.00	0.00	765.00	0.00	0.00	0.00	0.00	0.00	0.00
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	0.00
795.00	0.00	0.00	795.00	0.00	0.00	0.00	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
810.00	0.00	0.00	810.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
825.00	0.00	0.00	825.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
840.00	0.00	0.00	840.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
855.00	0.00	0.00	855.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
870.00	0.00	0.00	870.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
885.00	0.00	0.00	885.00	0.00	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	0.00
915.00	0.00	0.00	915.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
930.00	0.00	0.00	930.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
945.00	0.00	0.00	945.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
960.00	0.00	0.00	960.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
975.00	0.00	0.00	975.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
990.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,005.00	0.10	175.86	1,005.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
1,020.00	0.40	175.86	1,020.00	-0.07	0.01	0.02	2.00	2.00	0.00	0.00
1,035.00	0.70	175.86	1,035.00	-0.21	0.02	0.05	2.00	2.00	0.00	0.00
1,050.00	1.00	175.86	1,050.00	-0.44	0.03	0.10	2.00	2.00	0.00	0.00
1,065.00	1.30	175.86	1,064.99	-0.74	0.05	0.18	2.00	2.00	0.00	0.00
1,080.00	1.60	175.86	1,079.99	-1.11	0.08	0.27	2.00	2.00	0.00	0.00
1,095.00	1.90	175.86	1,094.98	-1.57	0.11	0.37	2.00	2.00	0.00	0.00
1,110.00	2.20	175.86	1,109.97	-2.11	0.15	0.50	2.00	2.00	0.00	0.00
1,125.00	2.50	175.86	1,124.96	-2.72	0.20	0.65	2.00	2.00	0.00	0.00
1,140.00	2.80	175.86	1,139.94	-3.41	0.25	0.81	2.00	2.00	0.00	0.00
1,155.00	3.10	175.86	1,154.92	-4.18	0.30	1.00	2.00	2.00	0.00	0.00
1,170.00	3.40	175.86	1,169.90	-5.03	0.36	1.20	2.00	2.00	0.00	0.00
1,185.00	3.70	175.86	1,184.87	-5.96	0.43	1.42	2.00	2.00	0.00	0.00
1,200.00	4.00	175.86	1,199.84	-6.96	0.50	1.66	2.00	2.00	0.00	0.00
1,215.00	4.30	175.86	1,214.80	-8.04	0.58	1.92	2.00	2.00	0.00	0.00
1,230.00	4.60	175.86	1,229.75	-9.20	0.67	2.19	2.00	2.00	0.00	0.00
1,245.00	4.90	175.86	1,244.70	-10.44	0.76	2.49	2.00	2.00	0.00	0.00
1,260.00	5.20	175.86	1,259.64	-11.76	0.85	2.80	2.00	2.00	0.00	0.00
1,275.00	5.50	175.86	1,274.58	-13.15	0.95	3.13	2.00	2.00	0.00	0.00
1,290.00	5.80	175.86	1,289.50	-14.63	1.06	3.49	2.00	2.00	0.00	0.00
1,305.00	6.10	175.86	1,304.42	-16.18	1.17	3.86	2.00	2.00	0.00	0.00
1,320.00	6.40	175.86	1,319.33	-17.81	1.29	4.24	2.00	2.00	0.00	0.00
1,335.00	6.70	175.86	1,334.24	-19.51	1.41	4.65	2.00	2.00	0.00	0.00
1,350.00	7.00	175.86	1,349.13	-21.30	1.54	5.08	2.00	2.00	0.00	0.00
1,365.00	7.30	175.86	1,364.01	-23.16	1.68	5.52	2.00	2.00	0.00	0.00
1,380.00	7.60	175.86	1,378.89	-25.10	1.82	5.98	2.00	2.00	0.00	0.00
1,395.00	7.90	175.86	1,393.75	-27.12	1.96	6.46	2.00	2.00	0.00	0.00
1,410.00	8.20	175.86	1,408.60	-29.21	2.11	6.96	2.00	2.00	0.00	0.00
1,425.00	8.50	175.86	1,423.44	-31.39	2.27	7.48	2.00	2.00	0.00	0.00
1,440.00	8.80	175.86	1,438.27	-33.64	2.43	8.01	2.00	2.00	0.00	0.00
1,455.00	9.10	175.86	1,453.09	-35.96	2.60	8.57	2.00	2.00	0.00	0.00
1,470.00	9.40	175.86	1,467.89	-38.37	2.78	9.14	2.00	2.00	0.00	0.00
1,485.00	9.70	175.86	1,482.69	-40.85	2.96	9.73	2.00	2.00	0.00	0.00
1,500.00	10.00	175.86	1,497.47	-43.41	3.14	10.34	2.00	2.00	0.00	0.00
1,515.00	10.30	175.86	1,512.23	-46.05	3.33	10.97	2.00	2.00	0.00	0.00
1,530.00	10.60	175.86	1,526.98	-48.76	3.53	11.62	2.00	2.00	0.00	0.00
1,545.00	10.90	175.86	1,541.72	-51.55	3.73	12.28	2.00	2.00	0.00	0.00
1,560.00	11.20	175.86	1,556.44	-54.42	3.94	12.97	2.00	2.00	0.00	0.00
1,575.00	11.50	175.86	1,571.15	-57.36	4.15	13.67	2.00	2.00	0.00	0.00
1,590.00	11.80	175.86	1,585.84	-60.38	4.37	14.39	2.00	2.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)
1,605.00	12.10	175.86	1,600.51	-63.48	4.59	15.13	2.00	2.00	0.00
1,620.00	12.40	175.86	1,615.17	-66.65	4.82	15.88	2.00	2.00	0.00
1,635.00	12.70	175.86	1,629.81	-69.91	5.06	16.66	2.00	2.00	0.00
1,650.00	13.00	175.86	1,644.44	-73.23	5.30	17.45	2.00	2.00	0.00
1,665.00	13.30	175.86	1,659.04	-76.64	5.55	18.26	2.00	2.00	0.00
1,680.00	13.60	175.86	1,673.63	-80.12	5.80	19.09	2.00	2.00	0.00
1,695.00	13.90	175.86	1,688.20	-83.67	6.06	19.94	2.00	2.00	0.00
1,710.00	14.20	175.86	1,702.75	-87.30	6.32	20.80	2.00	2.00	0.00
1,725.00	14.50	175.86	1,717.29	-91.01	6.59	21.69	2.00	2.00	0.00
1,740.00	14.80	175.86	1,731.80	-94.80	6.86	22.59	2.00	2.00	0.00
1,755.00	15.10	175.86	1,746.29	-98.66	7.14	23.51	2.00	2.00	0.00
1,770.00	15.40	175.86	1,760.76	-102.59	7.42	24.45	2.00	2.00	0.00
1,785.00	15.70	175.86	1,775.21	-106.60	7.71	25.40	2.00	2.00	0.00
1,800.00	16.00	175.86	1,789.64	-110.69	8.01	26.38	2.00	2.00	0.00
1,815.00	16.30	175.86	1,804.05	-114.85	8.31	27.37	2.00	2.00	0.00
1,830.00	16.60	175.86	1,818.44	-119.09	8.62	28.38	2.00	2.00	0.00
1,845.00	16.90	175.86	1,832.80	-123.40	8.93	29.40	2.00	2.00	0.00
1,860.00	17.20	175.86	1,847.14	-127.78	9.25	30.45	2.00	2.00	0.00
1,875.00	17.50	175.86	1,861.46	-132.25	9.57	31.51	2.00	2.00	0.00
1,890.00	17.80	175.86	1,875.75	-136.78	9.90	32.59	2.00	2.00	0.00
1,905.00	18.10	175.86	1,890.02	-141.39	10.23	33.69	2.00	2.00	0.00
1,920.00	18.40	175.86	1,904.27	-146.08	10.57	34.81	2.00	2.00	0.00
1,927.34	18.55	175.86	1,911.23	-148.40	10.74	35.36	2.00	2.00	0.00
1,935.00	18.55	175.86	1,918.49	-150.83	10.92	35.94	0.00	0.00	0.00
1,950.00	18.55	175.86	1,932.71	-155.59	11.26	37.07	0.00	0.00	0.00
1,965.00	18.55	175.86	1,946.93	-160.34	11.60	38.21	0.00	0.00	0.00
1,980.00	18.55	175.86	1,961.15	-165.10	11.95	39.34	0.00	0.00	0.00
1,995.00	18.55	175.86	1,975.38	-169.86	12.29	40.48	0.00	0.00	0.00
2,010.00	18.55	175.86	1,989.60	-174.62	12.64	41.61	0.00	0.00	0.00
2,025.00	18.55	175.86	2,003.82	-179.38	12.98	42.74	0.00	0.00	0.00
2,040.00	18.55	175.86	2,018.04	-184.14	13.33	43.88	0.00	0.00	0.00
2,055.00	18.55	175.86	2,032.26	-188.90	13.67	45.01	0.00	0.00	0.00
2,070.00	18.55	175.86	2,046.48	-193.66	14.02	46.15	0.00	0.00	0.00
2,085.00	18.55	175.86	2,060.70	-198.41	14.36	47.28	0.00	0.00	0.00
2,100.00	18.55	175.86	2,074.92	-203.17	14.70	48.41	0.00	0.00	0.00
2,115.00	18.55	175.86	2,089.14	-207.93	15.05	49.55	0.00	0.00	0.00
2,130.00	18.55	175.86	2,103.36	-212.69	15.39	50.68	0.00	0.00	0.00
2,145.00	18.55	175.86	2,117.59	-217.45	15.74	51.82	0.00	0.00	0.00
2,160.00	18.55	175.86	2,131.81	-222.21	16.08	52.95	0.00	0.00	0.00
2,175.00	18.55	175.86	2,146.03	-226.97	16.43	54.08	0.00	0.00	0.00
2,190.00	18.55	175.86	2,160.25	-231.73	16.77	55.22	0.00	0.00	0.00
2,205.00	18.55	175.86	2,174.47	-236.48	17.11	56.35	0.00	0.00	0.00
2,220.00	18.55	175.86	2,188.69	-241.24	17.46	57.49	0.00	0.00	0.00
2,235.00	18.55	175.86	2,202.91	-246.00	17.80	58.62	0.00	0.00	0.00
2,250.00	18.55	175.86	2,217.13	-250.76	18.15	59.75	0.00	0.00	0.00
2,265.00	18.55	175.86	2,231.35	-255.52	18.49	60.89	0.00	0.00	0.00
2,280.00	18.55	175.86	2,245.57	-260.28	18.84	62.02	0.00	0.00	0.00
2,295.00	18.55	175.86	2,259.80	-265.04	19.18	63.15	0.00	0.00	0.00
2,310.00	18.55	175.86	2,274.02	-269.80	19.53	64.29	0.00	0.00	0.00
2,325.00	18.55	175.86	2,288.24	-274.55	19.87	65.42	0.00	0.00	0.00
2,340.00	18.55	175.86	2,302.46	-279.31	20.21	66.56	0.00	0.00	0.00
2,355.00	18.55	175.86	2,316.68	-284.07	20.56	67.69	0.00	0.00	0.00
2,370.00	18.55	175.86	2,330.90	-288.83	20.90	68.82	0.00	0.00	0.00
2,385.00	18.55	175.86	2,345.12	-293.59	21.25	69.96	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)	
2,400.00	18.55	175.86	2,359.34	-298.35	21.59	71.09	0.00	0.00	0.00	
2,415.00	18.55	175.86	2,373.56	-303.11	21.94	72.23	0.00	0.00	0.00	
2,430.00	18.55	175.86	2,387.78	-307.86	22.28	73.36	0.00	0.00	0.00	
2,445.00	18.55	175.86	2,402.00	-312.62	22.63	74.49	0.00	0.00	0.00	
2,460.00	18.55	175.86	2,416.23	-317.38	22.97	75.63	0.00	0.00	0.00	
2,475.00	18.55	175.86	2,430.45	-322.14	23.31	76.76	0.00	0.00	0.00	
2,490.00	18.55	175.86	2,444.67	-326.90	23.66	77.90	0.00	0.00	0.00	
2,505.00	18.55	175.86	2,458.89	-331.66	24.00	79.03	0.00	0.00	0.00	
2,520.00	18.55	175.86	2,473.11	-336.42	24.35	80.16	0.00	0.00	0.00	
2,535.00	18.55	175.86	2,487.33	-341.18	24.69	81.30	0.00	0.00	0.00	
2,550.00	18.55	175.86	2,501.55	-345.93	25.04	82.43	0.00	0.00	0.00	
2,565.00	18.55	175.86	2,515.77	-350.69	25.38	83.57	0.00	0.00	0.00	
2,580.00	18.55	175.86	2,529.99	-355.45	25.72	84.70	0.00	0.00	0.00	
2,595.00	18.55	175.86	2,544.21	-360.21	26.07	85.83	0.00	0.00	0.00	
2,610.00	18.55	175.86	2,558.44	-364.97	26.41	86.97	0.00	0.00	0.00	
2,625.00	18.55	175.86	2,572.66	-369.73	26.76	88.10	0.00	0.00	0.00	
2,640.00	18.55	175.86	2,586.88	-374.49	27.10	89.24	0.00	0.00	0.00	
2,655.00	18.55	175.86	2,601.10	-379.25	27.45	90.37	0.00	0.00	0.00	
2,670.00	18.55	175.86	2,615.32	-384.00	27.79	91.50	0.00	0.00	0.00	
2,685.00	18.55	175.86	2,629.54	-388.76	28.14	92.64	0.00	0.00	0.00	
2,700.00	18.55	175.86	2,643.76	-393.52	28.48	93.77	0.00	0.00	0.00	
2,715.00	18.55	175.86	2,657.98	-398.28	28.82	94.91	0.00	0.00	0.00	
2,730.00	18.55	175.86	2,672.20	-403.04	29.17	96.04	0.00	0.00	0.00	
2,745.00	18.55	175.86	2,686.42	-407.80	29.51	97.17	0.00	0.00	0.00	
2,760.00	18.55	175.86	2,700.65	-412.56	29.86	98.31	0.00	0.00	0.00	
2,775.00	18.55	175.86	2,714.87	-417.32	30.20	99.44	0.00	0.00	0.00	
2,790.00	18.55	175.86	2,729.09	-422.07	30.55	100.57	0.00	0.00	0.00	
2,805.00	18.55	175.86	2,743.31	-426.83	30.89	101.71	0.00	0.00	0.00	
2,820.00	18.55	175.86	2,757.53	-431.59	31.24	102.84	0.00	0.00	0.00	
2,835.00	18.55	175.86	2,771.75	-436.35	31.58	103.98	0.00	0.00	0.00	
2,850.00	18.55	175.86	2,785.97	-441.11	31.92	105.11	0.00	0.00	0.00	
2,865.00	18.55	175.86	2,800.19	-445.87	32.27	106.24	0.00	0.00	0.00	
2,880.00	18.55	175.86	2,814.41	-450.63	32.61	107.38	0.00	0.00	0.00	
2,895.00	18.55	175.86	2,828.63	-455.39	32.96	108.51	0.00	0.00	0.00	
2,910.00	18.55	175.86	2,842.85	-460.14	33.30	109.65	0.00	0.00	0.00	
2,925.00	18.55	175.86	2,857.08	-464.90	33.65	110.78	0.00	0.00	0.00	
2,940.00	18.55	175.86	2,871.30	-469.66	33.99	111.91	0.00	0.00	0.00	
2,955.00	18.55	175.86	2,885.52	-474.42	34.33	113.05	0.00	0.00	0.00	
2,970.00	18.55	175.86	2,899.74	-479.18	34.68	114.18	0.00	0.00	0.00	
2,985.00	18.55	175.86	2,913.96	-483.94	35.02	115.32	0.00	0.00	0.00	
3,000.00	18.55	175.86	2,928.18	-488.70	35.37	116.45	0.00	0.00	0.00	
3,015.00	18.55	175.86	2,942.40	-493.45	35.71	117.58	0.00	0.00	0.00	
3,030.00	18.55	175.86	2,956.62	-498.21	36.06	118.72	0.00	0.00	0.00	
3,045.00	18.55	175.86	2,970.84	-502.97	36.40	119.85	0.00	0.00	0.00	
3,060.00	18.55	175.86	2,985.06	-507.73	36.75	120.99	0.00	0.00	0.00	
3,075.00	18.55	175.86	2,999.29	-512.49	37.09	122.12	0.00	0.00	0.00	
3,090.00	18.55	175.86	3,013.51	-517.25	37.43	123.25	0.00	0.00	0.00	
3,105.00	18.55	175.86	3,027.73	-522.01	37.78	124.39	0.00	0.00	0.00	
3,120.00	18.55	175.86	3,041.95	-526.77	38.12	125.52	0.00	0.00	0.00	
3,135.00	18.55	175.86	3,056.17	-531.52	38.47	126.66	0.00	0.00	0.00	
3,150.00	18.55	175.86	3,070.39	-536.28	38.81	127.79	0.00	0.00	0.00	
3,165.00	18.55	175.86	3,084.61	-541.04	39.16	128.92	0.00	0.00	0.00	
3,180.00	18.55	175.86	3,098.83	-545.80	39.50	130.06	0.00	0.00	0.00	
3,195.00	18.55	175.86	3,113.05	-550.56	39.84	131.19	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)
3,210.00	18.55	175.86	3,127.27	-555.32	40.19	132.33	0.00	0.00	0.00
3,225.00	18.55	175.86	3,141.50	-560.08	40.53	133.46	0.00	0.00	0.00
3,240.00	18.55	175.86	3,155.72	-564.84	40.88	134.59	0.00	0.00	0.00
3,255.00	18.55	175.86	3,169.94	-569.59	41.22	135.73	0.00	0.00	0.00
3,270.00	18.55	175.86	3,184.16	-574.35	41.57	136.86	0.00	0.00	0.00
3,285.00	18.55	175.86	3,198.38	-579.11	41.91	137.99	0.00	0.00	0.00
3,300.00	18.55	175.86	3,212.60	-583.87	42.26	139.13	0.00	0.00	0.00
3,315.00	18.55	175.86	3,226.82	-588.63	42.60	140.26	0.00	0.00	0.00
3,330.00	18.55	175.86	3,241.04	-593.39	42.94	141.40	0.00	0.00	0.00
3,345.00	18.55	175.86	3,255.26	-598.15	43.29	142.53	0.00	0.00	0.00
3,360.00	18.55	175.86	3,269.48	-602.91	43.63	143.66	0.00	0.00	0.00
3,375.00	18.55	175.86	3,283.71	-607.66	43.98	144.80	0.00	0.00	0.00
3,390.00	18.55	175.86	3,297.93	-612.42	44.32	145.93	0.00	0.00	0.00
3,405.00	18.55	175.86	3,312.15	-617.18	44.67	147.07	0.00	0.00	0.00
3,420.00	18.55	175.86	3,326.37	-621.94	45.01	148.20	0.00	0.00	0.00
3,435.00	18.55	175.86	3,340.59	-626.70	45.36	149.33	0.00	0.00	0.00
3,450.00	18.55	175.86	3,354.81	-631.46	45.70	150.47	0.00	0.00	0.00
3,465.00	18.55	175.86	3,369.03	-636.22	46.04	151.60	0.00	0.00	0.00
3,480.00	18.55	175.86	3,383.25	-640.98	46.39	152.74	0.00	0.00	0.00
3,495.00	18.55	175.86	3,397.47	-645.73	46.73	153.87	0.00	0.00	0.00
3,510.00	18.55	175.86	3,411.69	-650.49	47.08	155.00	0.00	0.00	0.00
3,525.00	18.55	175.86	3,425.91	-655.25	47.42	156.14	0.00	0.00	0.00
3,540.00	18.55	175.86	3,440.14	-660.01	47.77	157.27	0.00	0.00	0.00
3,555.00	18.55	175.86	3,454.36	-664.77	48.11	158.41	0.00	0.00	0.00
3,570.00	18.55	175.86	3,468.58	-669.53	48.45	159.54	0.00	0.00	0.00
3,585.00	18.55	175.86	3,482.80	-674.29	48.80	160.67	0.00	0.00	0.00
3,600.00	18.55	175.86	3,497.02	-679.04	49.14	161.81	0.00	0.00	0.00
3,615.00	18.55	175.86	3,511.24	-683.80	49.49	162.94	0.00	0.00	0.00
3,630.00	18.55	175.86	3,525.46	-688.56	49.83	164.08	0.00	0.00	0.00
3,645.00	18.55	175.86	3,539.68	-693.32	50.18	165.21	0.00	0.00	0.00
3,660.00	18.55	175.86	3,553.90	-698.08	50.52	166.34	0.00	0.00	0.00
3,675.00	18.55	175.86	3,568.12	-702.84	50.87	167.48	0.00	0.00	0.00
3,690.00	18.55	175.86	3,582.35	-707.60	51.21	168.61	0.00	0.00	0.00
3,705.00	18.55	175.86	3,596.57	-712.36	51.55	169.75	0.00	0.00	0.00
3,720.00	18.55	175.86	3,610.79	-717.11	51.90	170.88	0.00	0.00	0.00
3,735.00	18.55	175.86	3,625.01	-721.87	52.24	172.01	0.00	0.00	0.00
3,750.00	18.55	175.86	3,639.23	-726.63	52.59	173.15	0.00	0.00	0.00
3,765.00	18.55	175.86	3,653.45	-731.39	52.93	174.28	0.00	0.00	0.00
3,780.00	18.55	175.86	3,667.67	-736.15	53.28	175.42	0.00	0.00	0.00
3,795.00	18.55	175.86	3,681.89	-740.91	53.62	176.55	0.00	0.00	0.00
3,810.00	18.55	175.86	3,696.11	-745.67	53.97	177.68	0.00	0.00	0.00
3,825.00	18.55	175.86	3,710.33	-750.43	54.31	178.82	0.00	0.00	0.00
3,840.00	18.55	175.86	3,724.56	-755.18	54.65	179.95	0.00	0.00	0.00
3,855.00	18.55	175.86	3,738.78	-759.94	55.00	181.08	0.00	0.00	0.00
3,870.00	18.55	175.86	3,753.00	-764.70	55.34	182.22	0.00	0.00	0.00
3,885.00	18.55	175.86	3,767.22	-769.46	55.69	183.35	0.00	0.00	0.00
3,900.00	18.55	175.86	3,781.44	-774.22	56.03	184.49	0.00	0.00	0.00
3,915.00	18.55	175.86	3,795.66	-778.98	56.38	185.62	0.00	0.00	0.00
3,930.00	18.55	175.86	3,809.88	-783.74	56.72	186.75	0.00	0.00	0.00
3,945.00	18.55	175.86	3,824.10	-788.50	57.06	187.89	0.00	0.00	0.00
3,960.00	18.55	175.86	3,838.32	-793.25	57.41	189.02	0.00	0.00	0.00
3,975.00	18.55	175.86	3,852.54	-798.01	57.75	190.16	0.00	0.00	0.00
3,990.00	18.55	175.86	3,866.76	-802.77	58.10	191.29	0.00	0.00	0.00
4,005.00	18.55	175.86	3,880.99	-807.53	58.44	192.42	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)	
4,020.00	18.55	175.86	3,895.21	-812.29	58.79	193.56	0.00	0.00	0.00	
4,035.00	18.55	175.86	3,909.43	-817.05	59.13	194.69	0.00	0.00	0.00	
4,050.00	18.55	175.86	3,923.65	-821.81	59.48	195.83	0.00	0.00	0.00	
4,065.00	18.55	175.86	3,937.87	-826.57	59.82	196.96	0.00	0.00	0.00	
4,080.00	18.55	175.86	3,952.09	-831.32	60.16	198.09	0.00	0.00	0.00	
4,095.00	18.55	175.86	3,966.31	-836.08	60.51	199.23	0.00	0.00	0.00	
4,110.00	18.55	175.86	3,980.53	-840.84	60.85	200.36	0.00	0.00	0.00	
4,125.00	18.55	175.86	3,994.75	-845.60	61.20	201.50	0.00	0.00	0.00	
4,140.00	18.55	175.86	4,008.97	-850.36	61.54	202.63	0.00	0.00	0.00	
4,155.00	18.55	175.86	4,023.20	-855.12	61.89	203.76	0.00	0.00	0.00	
4,170.00	18.55	175.86	4,037.42	-859.88	62.23	204.90	0.00	0.00	0.00	
4,185.00	18.55	175.86	4,051.64	-864.63	62.58	206.03	0.00	0.00	0.00	
4,200.00	18.55	175.86	4,065.86	-869.39	62.92	207.17	0.00	0.00	0.00	
4,215.00	18.55	175.86	4,080.08	-874.15	63.26	208.30	0.00	0.00	0.00	
4,230.00	18.55	175.86	4,094.30	-878.91	63.61	209.43	0.00	0.00	0.00	
4,245.00	18.55	175.86	4,108.52	-883.67	63.95	210.57	0.00	0.00	0.00	
4,260.00	18.55	175.86	4,122.74	-888.43	64.30	211.70	0.00	0.00	0.00	
4,275.00	18.55	175.86	4,136.96	-893.19	64.64	212.84	0.00	0.00	0.00	
4,290.00	18.55	175.86	4,151.18	-897.95	64.99	213.97	0.00	0.00	0.00	
4,305.00	18.55	175.86	4,165.41	-902.70	65.33	215.10	0.00	0.00	0.00	
4,320.00	18.55	175.86	4,179.63	-907.46	65.67	216.24	0.00	0.00	0.00	
4,335.00	18.55	175.86	4,193.85	-912.22	66.02	217.37	0.00	0.00	0.00	
4,350.00	18.55	175.86	4,208.07	-916.98	66.36	218.50	0.00	0.00	0.00	
4,365.00	18.55	175.86	4,222.29	-921.74	66.71	219.64	0.00	0.00	0.00	
4,380.00	18.55	175.86	4,236.51	-926.50	67.05	220.77	0.00	0.00	0.00	
4,395.00	18.55	175.86	4,250.73	-931.26	67.40	221.91	0.00	0.00	0.00	
4,410.00	18.55	175.86	4,264.95	-936.02	67.74	223.04	0.00	0.00	0.00	
4,425.00	18.55	175.86	4,279.17	-940.77	68.09	224.17	0.00	0.00	0.00	
4,440.00	18.55	175.86	4,293.39	-945.53	68.43	225.31	0.00	0.00	0.00	
4,455.00	18.55	175.86	4,307.61	-950.29	68.77	226.44	0.00	0.00	0.00	
4,470.00	18.55	175.86	4,321.84	-955.05	69.12	227.58	0.00	0.00	0.00	
4,485.00	18.55	175.86	4,336.06	-959.81	69.46	228.71	0.00	0.00	0.00	
4,500.00	18.55	175.86	4,350.28	-964.57	69.81	229.84	0.00	0.00	0.00	
4,515.00	18.55	175.86	4,364.50	-969.33	70.15	230.98	0.00	0.00	0.00	
4,530.00	18.55	175.86	4,378.72	-974.09	70.50	232.11	0.00	0.00	0.00	
4,545.00	18.55	175.86	4,392.94	-978.84	70.84	233.25	0.00	0.00	0.00	
4,560.00	18.55	175.86	4,407.16	-983.60	71.19	234.38	0.00	0.00	0.00	
4,575.00	18.55	175.86	4,421.38	-988.36	71.53	235.51	0.00	0.00	0.00	
4,590.00	18.55	175.86	4,435.60	-993.12	71.87	236.65	0.00	0.00	0.00	
4,605.00	18.55	175.86	4,449.82	-997.88	72.22	237.78	0.00	0.00	0.00	
4,620.00	18.55	175.86	4,464.05	-1,002.64	72.56	238.92	0.00	0.00	0.00	
4,635.00	18.55	175.86	4,478.27	-1,007.40	72.91	240.05	0.00	0.00	0.00	
4,650.00	18.55	175.86	4,492.49	-1,012.16	73.25	241.18	0.00	0.00	0.00	
4,665.00	18.55	175.86	4,506.71	-1,016.91	73.60	242.32	0.00	0.00	0.00	
4,680.00	18.55	175.86	4,520.93	-1,021.67	73.94	243.45	0.00	0.00	0.00	
4,695.00	18.55	175.86	4,535.15	-1,026.43	74.28	244.59	0.00	0.00	0.00	
4,710.00	18.55	175.86	4,549.37	-1,031.19	74.63	245.72	0.00	0.00	0.00	
4,725.00	18.55	175.86	4,563.59	-1,035.95	74.97	246.85	0.00	0.00	0.00	
4,740.00	18.55	175.86	4,577.81	-1,040.71	75.32	247.99	0.00	0.00	0.00	
4,755.00	18.55	175.86	4,592.03	-1,045.47	75.66	249.12	0.00	0.00	0.00	
4,770.00	18.55	175.86	4,606.26	-1,050.22	76.01	250.26	0.00	0.00	0.00	
4,785.00	18.55	175.86	4,620.48	-1,054.98	76.35	251.39	0.00	0.00	0.00	
4,800.00	18.55	175.86	4,634.70	-1,059.74	76.70	252.52	0.00	0.00	0.00	
4,815.00	18.55	175.86	4,648.92	-1,064.50	77.04	253.66	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)
4,830.00	18.55	175.86	4,663.14	-1,069.26	77.38	254.79	0.00	0.00	0.00
4,845.00	18.55	175.86	4,677.36	-1,074.02	77.73	255.92	0.00	0.00	0.00
4,860.00	18.55	175.86	4,691.58	-1,078.78	78.07	257.06	0.00	0.00	0.00
4,875.00	18.55	175.86	4,705.80	-1,083.54	78.42	258.19	0.00	0.00	0.00
4,890.00	18.55	175.86	4,720.02	-1,088.29	78.76	259.33	0.00	0.00	0.00
4,905.00	18.55	175.86	4,734.24	-1,093.05	79.11	260.46	0.00	0.00	0.00
4,920.00	18.55	175.86	4,748.47	-1,097.81	79.45	261.59	0.00	0.00	0.00
4,935.00	18.55	175.86	4,762.69	-1,102.57	79.79	262.73	0.00	0.00	0.00
4,950.00	18.55	175.86	4,776.91	-1,107.33	80.14	263.86	0.00	0.00	0.00
4,965.00	18.55	175.86	4,791.13	-1,112.09	80.48	265.00	0.00	0.00	0.00
4,980.00	18.55	175.86	4,805.35	-1,116.85	80.83	266.13	0.00	0.00	0.00
4,995.00	18.55	175.86	4,819.57	-1,121.61	81.17	267.26	0.00	0.00	0.00
5,010.00	18.55	175.86	4,833.79	-1,126.36	81.52	268.40	0.00	0.00	0.00
5,025.00	18.55	175.86	4,848.01	-1,131.12	81.86	269.53	0.00	0.00	0.00
5,040.00	18.55	175.86	4,862.23	-1,135.88	82.21	270.67	0.00	0.00	0.00
5,055.00	18.55	175.86	4,876.45	-1,140.64	82.55	271.80	0.00	0.00	0.00
5,070.00	18.55	175.86	4,890.67	-1,145.40	82.89	272.93	0.00	0.00	0.00
5,085.00	18.55	175.86	4,904.90	-1,150.16	83.24	274.07	0.00	0.00	0.00
5,100.00	18.55	175.86	4,919.12	-1,154.92	83.58	275.20	0.00	0.00	0.00
5,115.00	18.55	175.86	4,933.34	-1,159.68	83.93	276.34	0.00	0.00	0.00
5,130.00	18.55	175.86	4,947.56	-1,164.43	84.27	277.47	0.00	0.00	0.00
5,145.00	18.55	175.86	4,961.78	-1,169.19	84.62	278.60	0.00	0.00	0.00
5,160.00	18.55	175.86	4,976.00	-1,173.95	84.96	279.74	0.00	0.00	0.00
5,175.00	18.55	175.86	4,990.22	-1,178.71	85.31	280.87	0.00	0.00	0.00
5,190.00	18.55	175.86	5,004.44	-1,183.47	85.65	282.01	0.00	0.00	0.00
5,205.00	18.55	175.86	5,018.66	-1,188.23	85.99	283.14	0.00	0.00	0.00
5,220.00	18.55	175.86	5,032.88	-1,192.99	86.34	284.27	0.00	0.00	0.00
5,235.00	18.55	175.86	5,047.11	-1,197.75	86.68	285.41	0.00	0.00	0.00
5,250.00	18.55	175.86	5,061.33	-1,202.50	87.03	286.54	0.00	0.00	0.00
5,265.00	18.55	175.86	5,075.55	-1,207.26	87.37	287.68	0.00	0.00	0.00
5,280.00	18.55	175.86	5,089.77	-1,212.02	87.72	288.81	0.00	0.00	0.00
5,295.00	18.55	175.86	5,103.99	-1,216.78	88.06	289.94	0.00	0.00	0.00
5,310.00	18.55	175.86	5,118.21	-1,221.54	88.40	291.08	0.00	0.00	0.00
5,325.00	18.55	175.86	5,132.43	-1,226.30	88.75	292.21	0.00	0.00	0.00
5,340.00	18.55	175.86	5,146.65	-1,231.06	89.09	293.34	0.00	0.00	0.00
5,355.00	18.55	175.86	5,160.87	-1,235.81	89.44	294.48	0.00	0.00	0.00
5,370.00	18.55	175.86	5,175.09	-1,240.57	89.78	295.61	0.00	0.00	0.00
5,385.00	18.55	175.86	5,189.32	-1,245.33	90.13	296.75	0.00	0.00	0.00
5,400.00	18.55	175.86	5,203.54	-1,250.09	90.47	297.88	0.00	0.00	0.00
5,415.00	18.55	175.86	5,217.76	-1,254.85	90.82	299.01	0.00	0.00	0.00
5,430.00	18.55	175.86	5,231.98	-1,259.61	91.16	300.15	0.00	0.00	0.00
5,445.00	18.55	175.86	5,246.20	-1,264.37	91.50	301.28	0.00	0.00	0.00
5,460.00	18.55	175.86	5,260.42	-1,269.13	91.85	302.42	0.00	0.00	0.00
5,475.00	18.55	175.86	5,274.64	-1,273.88	92.19	303.55	0.00	0.00	0.00
5,490.00	18.55	175.86	5,288.86	-1,278.64	92.54	304.68	0.00	0.00	0.00
5,505.00	18.55	175.86	5,303.08	-1,283.40	92.88	305.82	0.00	0.00	0.00
5,520.00	18.55	175.86	5,317.30	-1,288.16	93.23	306.95	0.00	0.00	0.00
5,535.00	18.55	175.86	5,331.52	-1,292.92	93.57	308.09	0.00	0.00	0.00
5,550.00	18.55	175.86	5,345.75	-1,297.68	93.92	309.22	0.00	0.00	0.00
5,565.00	18.55	175.86	5,359.97	-1,302.44	94.26	310.35	0.00	0.00	0.00
5,580.00	18.55	175.86	5,374.19	-1,307.20	94.60	311.49	0.00	0.00	0.00
5,595.00	18.55	175.86	5,388.41	-1,311.95	94.95	312.62	0.00	0.00	0.00
5,610.00	18.55	175.86	5,402.63	-1,316.71	95.29	313.76	0.00	0.00	0.00
5,625.00	18.55	175.86	5,416.85	-1,321.47	95.64	314.89	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,640.00	18.55	175.86	5,431.07	-1,326.23	95.98	316.02	0.00	0.00	0.00	
5,655.00	18.55	175.86	5,445.29	-1,330.99	96.33	317.16	0.00	0.00	0.00	
5,670.00	18.55	175.86	5,459.51	-1,335.75	96.67	318.29	0.00	0.00	0.00	
5,685.00	18.55	175.86	5,473.73	-1,340.51	97.01	319.43	0.00	0.00	0.00	
5,700.00	18.55	175.86	5,487.96	-1,345.27	97.36	320.56	0.00	0.00	0.00	
5,715.00	18.55	175.86	5,502.18	-1,350.02	97.70	321.69	0.00	0.00	0.00	
5,730.00	18.55	175.86	5,516.40	-1,354.78	98.05	322.83	0.00	0.00	0.00	
5,745.00	18.55	175.86	5,530.62	-1,359.54	98.39	323.96	0.00	0.00	0.00	
5,760.00	18.55	175.86	5,544.84	-1,364.30	98.74	325.10	0.00	0.00	0.00	
5,775.00	18.55	175.86	5,559.06	-1,369.06	99.08	326.23	0.00	0.00	0.00	
5,790.00	18.55	175.86	5,573.28	-1,373.82	99.43	327.36	0.00	0.00	0.00	
5,805.00	18.55	175.86	5,587.50	-1,378.58	99.77	328.50	0.00	0.00	0.00	
5,820.00	18.55	175.86	5,601.72	-1,383.34	100.11	329.63	0.00	0.00	0.00	
5,835.00	18.55	175.86	5,615.94	-1,388.09	100.46	330.76	0.00	0.00	0.00	
5,850.00	18.55	175.86	5,630.17	-1,392.85	100.80	331.90	0.00	0.00	0.00	
5,865.00	18.55	175.86	5,644.39	-1,397.61	101.15	333.03	0.00	0.00	0.00	
5,880.00	18.55	175.86	5,658.61	-1,402.37	101.49	334.17	0.00	0.00	0.00	
5,895.00	18.55	175.86	5,672.83	-1,407.13	101.84	335.30	0.00	0.00	0.00	
5,899.98	18.55	175.86	5,677.55	-1,408.71	101.95	335.68	0.00	0.00	0.00	
5,910.00	18.45	175.86	5,687.05	-1,411.88	102.18	336.43	1.00	-1.00	0.00	
5,925.00	18.30	175.86	5,701.29	-1,416.59	102.52	337.56	1.00	-1.00	0.00	
5,940.00	18.15	175.86	5,715.54	-1,421.27	102.86	338.67	1.00	-1.00	0.00	
5,955.00	18.00	175.86	5,729.80	-1,425.91	103.20	339.78	1.00	-1.00	0.00	
5,970.00	17.85	175.86	5,744.07	-1,430.52	103.53	340.87	1.00	-1.00	0.00	
5,985.00	17.70	175.86	5,758.35	-1,435.08	103.86	341.96	1.00	-1.00	0.00	
6,000.00	17.55	175.86	5,772.65	-1,439.61	104.19	343.04	1.00	-1.00	0.00	
6,015.00	17.40	175.86	5,786.96	-1,444.10	104.51	344.11	1.00	-1.00	0.00	
6,030.00	17.25	175.86	5,801.28	-1,448.56	104.83	345.17	1.00	-1.00	0.00	
6,045.00	17.10	175.86	5,815.61	-1,452.98	105.15	346.23	1.00	-1.00	0.00	
6,060.00	16.95	175.86	5,829.95	-1,457.36	105.47	347.27	1.00	-1.00	0.00	
6,075.00	16.80	175.86	5,844.30	-1,461.70	105.79	348.30	1.00	-1.00	0.00	
6,090.00	16.65	175.86	5,858.67	-1,466.00	106.10	349.33	1.00	-1.00	0.00	
6,105.00	16.50	175.86	5,873.05	-1,470.27	106.41	350.35	1.00	-1.00	0.00	
6,120.00	16.35	175.86	5,887.43	-1,474.50	106.71	351.35	1.00	-1.00	0.00	
6,135.00	16.20	175.86	5,901.83	-1,478.69	107.02	352.35	1.00	-1.00	0.00	
6,150.00	16.05	175.86	5,916.24	-1,482.84	107.32	353.34	1.00	-1.00	0.00	
6,165.00	15.90	175.86	5,930.67	-1,486.96	107.61	354.32	1.00	-1.00	0.00	
6,180.00	15.75	175.86	5,945.10	-1,491.04	107.91	355.30	1.00	-1.00	0.00	
6,195.00	15.60	175.86	5,959.54	-1,495.08	108.20	356.26	1.00	-1.00	0.00	
6,210.00	15.45	175.86	5,973.99	-1,499.08	108.49	357.21	1.00	-1.00	0.00	
6,225.00	15.30	175.86	5,988.46	-1,503.05	108.78	358.16	1.00	-1.00	0.00	
6,240.00	15.15	175.86	6,002.93	-1,506.98	109.06	359.09	1.00	-1.00	0.00	
6,255.00	15.00	175.86	6,017.41	-1,510.87	109.34	360.02	1.00	-1.00	0.00	
6,270.00	14.85	175.86	6,031.91	-1,514.72	109.62	360.94	1.00	-1.00	0.00	
6,285.00	14.70	175.86	6,046.41	-1,518.54	109.90	361.85	1.00	-1.00	0.00	
6,300.00	14.55	175.86	6,060.93	-1,522.31	110.17	362.75	1.00	-1.00	0.00	
6,315.00	14.40	175.86	6,075.45	-1,526.05	110.44	363.64	1.00	-1.00	0.00	
6,330.00	14.25	175.86	6,089.98	-1,529.75	110.71	364.52	1.00	-1.00	0.00	
6,345.00	14.10	175.86	6,104.53	-1,533.41	110.98	365.39	1.00	-1.00	0.00	
6,360.00	13.95	175.86	6,119.08	-1,537.04	111.24	366.26	1.00	-1.00	0.00	
6,375.00	13.80	175.86	6,133.64	-1,540.63	111.50	367.11	1.00	-1.00	0.00	
6,390.00	13.65	175.86	6,148.21	-1,544.17	111.75	367.96	1.00	-1.00	0.00	
6,405.00	13.50	175.86	6,162.80	-1,547.69	112.01	368.79	1.00	-1.00	0.00	
6,420.00	13.35	175.86	6,177.39	-1,551.16	112.26	369.62	1.00	-1.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)
6,435.00	13.20	175.86	6,191.99	-1,554.59	112.51	370.44	1.00	-1.00	0.00
6,450.00	13.05	175.86	6,206.59	-1,557.99	112.75	371.25	1.00	-1.00	0.00
6,465.00	12.90	175.86	6,221.21	-1,561.35	113.00	372.05	1.00	-1.00	0.00
6,480.00	12.75	175.86	6,235.84	-1,564.67	113.24	372.84	1.00	-1.00	0.00
6,495.00	12.60	175.86	6,250.47	-1,567.95	113.48	373.62	1.00	-1.00	0.00
6,510.00	12.45	175.86	6,265.12	-1,571.19	113.71	374.40	1.00	-1.00	0.00
6,525.00	12.30	175.86	6,279.77	-1,574.40	113.94	375.16	1.00	-1.00	0.00
6,540.00	12.15	175.86	6,294.43	-1,577.57	114.17	375.91	1.00	-1.00	0.00
6,555.00	12.00	175.86	6,309.10	-1,580.69	114.40	376.66	1.00	-1.00	0.00
6,570.00	11.85	175.86	6,323.77	-1,583.78	114.62	377.40	1.00	-1.00	0.00
6,585.00	11.70	175.86	6,338.46	-1,586.84	114.84	378.12	1.00	-1.00	0.00
6,600.00	11.55	175.86	6,353.15	-1,589.85	115.06	378.84	1.00	-1.00	0.00
6,615.00	11.40	175.86	6,367.85	-1,592.83	115.28	379.55	1.00	-1.00	0.00
6,630.00	11.25	175.86	6,382.56	-1,595.76	115.49	380.25	1.00	-1.00	0.00
6,645.00	11.10	175.86	6,397.27	-1,598.66	115.70	380.94	1.00	-1.00	0.00
6,660.00	10.95	175.86	6,412.00	-1,601.52	115.90	381.62	1.00	-1.00	0.00
6,675.00	10.80	175.86	6,426.73	-1,604.34	116.11	382.29	1.00	-1.00	0.00
6,690.00	10.65	175.86	6,441.47	-1,607.13	116.31	382.96	1.00	-1.00	0.00
6,705.00	10.50	175.86	6,456.21	-1,609.87	116.51	383.61	1.00	-1.00	0.00
6,720.00	10.35	175.86	6,470.96	-1,612.58	116.71	384.26	1.00	-1.00	0.00
6,735.00	10.20	175.86	6,485.72	-1,615.25	116.90	384.89	1.00	-1.00	0.00
6,750.00	10.05	175.86	6,500.49	-1,617.87	117.09	385.52	1.00	-1.00	0.00
6,765.00	9.90	175.86	6,515.26	-1,620.47	117.28	386.14	1.00	-1.00	0.00
6,780.00	9.75	175.86	6,530.04	-1,623.02	117.46	386.74	1.00	-1.00	0.00
6,795.00	9.60	175.86	6,544.83	-1,625.53	117.64	387.34	1.00	-1.00	0.00
6,810.00	9.45	175.86	6,559.62	-1,628.01	117.82	387.93	1.00	-1.00	0.00
6,825.00	9.30	175.86	6,574.42	-1,630.44	118.00	388.51	1.00	-1.00	0.00
6,840.00	9.15	175.86	6,589.23	-1,632.84	118.17	389.08	1.00	-1.00	0.00
6,855.00	9.00	175.86	6,604.04	-1,635.20	118.34	389.65	1.00	-1.00	0.00
6,870.00	8.85	175.86	6,618.86	-1,637.52	118.51	390.20	1.00	-1.00	0.00
6,885.00	8.70	175.86	6,633.68	-1,639.80	118.68	390.74	1.00	-1.00	0.00
6,900.00	8.55	175.86	6,648.52	-1,642.04	118.84	391.28	1.00	-1.00	0.00
6,915.00	8.40	175.86	6,663.35	-1,644.25	119.00	391.80	1.00	-1.00	0.00
6,930.00	8.25	175.86	6,678.19	-1,646.41	119.15	392.32	1.00	-1.00	0.00
6,945.00	8.10	175.86	6,693.04	-1,648.54	119.31	392.83	1.00	-1.00	0.00
6,960.00	7.95	175.86	6,707.89	-1,650.63	119.46	393.32	1.00	-1.00	0.00
6,975.00	7.80	175.86	6,722.75	-1,652.67	119.61	393.81	1.00	-1.00	0.00
6,990.00	7.65	175.86	6,737.62	-1,654.68	119.75	394.29	1.00	-1.00	0.00
7,005.00	7.50	175.86	6,752.49	-1,656.66	119.90	394.76	1.00	-1.00	0.00
7,020.00	7.35	175.86	6,767.36	-1,658.59	120.03	395.22	1.00	-1.00	0.00
7,035.00	7.20	175.86	6,782.24	-1,660.48	120.17	395.67	1.00	-1.00	0.00
7,050.00	7.05	175.86	6,797.12	-1,662.34	120.31	396.11	1.00	-1.00	0.00
7,065.00	6.90	175.86	6,812.01	-1,664.15	120.44	396.55	1.00	-1.00	0.00
7,080.00	6.75	175.86	6,826.91	-1,665.93	120.57	396.97	1.00	-1.00	0.00
7,095.00	6.60	175.86	6,841.81	-1,667.67	120.69	397.38	1.00	-1.00	0.00
7,110.00	6.45	175.86	6,856.71	-1,669.37	120.81	397.79	1.00	-1.00	0.00
7,125.00	6.30	175.86	6,871.62	-1,671.03	120.94	398.18	1.00	-1.00	0.00
7,140.00	6.15	175.86	6,886.53	-1,672.65	121.05	398.57	1.00	-1.00	0.00
7,155.00	6.00	175.86	6,901.44	-1,674.23	121.17	398.95	1.00	-1.00	0.00
7,170.00	5.85	175.86	6,916.36	-1,675.77	121.28	399.32	1.00	-1.00	0.00
7,185.00	5.70	175.86	6,931.29	-1,677.28	121.39	399.67	1.00	-1.00	0.00
7,200.00	5.55	175.86	6,946.22	-1,678.74	121.49	400.02	1.00	-1.00	0.00
7,215.00	5.40	175.86	6,961.15	-1,680.17	121.60	400.36	1.00	-1.00	0.00
7,230.00	5.25	175.86	6,976.08	-1,681.56	121.70	400.69	1.00	-1.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)
7,245.00	5.10	175.86	6,991.02	-1,682.91	121.79	401.02	1.00	-1.00	0.00
7,260.00	4.95	175.86	7,005.96	-1,684.22	121.89	401.33	1.00	-1.00	0.00
7,275.00	4.80	175.86	7,020.91	-1,685.49	121.98	401.63	1.00	-1.00	0.00
7,290.00	4.65	175.86	7,035.86	-1,686.72	122.07	401.92	1.00	-1.00	0.00
7,305.00	4.50	175.86	7,050.81	-1,687.91	122.16	402.21	1.00	-1.00	0.00
7,320.00	4.35	175.86	7,065.77	-1,689.06	122.24	402.48	1.00	-1.00	0.00
7,335.00	4.20	175.86	7,080.72	-1,690.18	122.32	402.75	1.00	-1.00	0.00
7,350.00	4.05	175.86	7,095.69	-1,691.25	122.40	403.00	1.00	-1.00	0.00
7,365.00	3.90	175.86	7,110.65	-1,692.29	122.47	403.25	1.00	-1.00	0.00
7,380.00	3.75	175.86	7,125.62	-1,693.29	122.55	403.49	1.00	-1.00	0.00
7,395.00	3.60	175.86	7,140.59	-1,694.25	122.62	403.72	1.00	-1.00	0.00
7,410.00	3.45	175.86	7,155.56	-1,695.16	122.68	403.94	1.00	-1.00	0.00
7,425.00	3.30	175.86	7,170.53	-1,696.04	122.75	404.15	1.00	-1.00	0.00
7,440.00	3.15	175.86	7,185.51	-1,696.88	122.81	404.35	1.00	-1.00	0.00
7,455.00	3.00	175.86	7,200.49	-1,697.69	122.86	404.54	1.00	-1.00	0.00
7,470.00	2.85	175.86	7,215.47	-1,698.45	122.92	404.72	1.00	-1.00	0.00
7,485.00	2.70	175.86	7,230.45	-1,699.17	122.97	404.89	1.00	-1.00	0.00
7,500.00	2.55	175.86	7,245.43	-1,699.86	123.02	405.05	1.00	-1.00	0.00
7,515.00	2.40	175.86	7,260.42	-1,700.50	123.07	405.21	1.00	-1.00	0.00
7,530.00	2.25	175.86	7,275.41	-1,701.11	123.11	405.35	1.00	-1.00	0.00
7,545.00	2.10	175.86	7,290.40	-1,701.67	123.15	405.49	1.00	-1.00	0.00
7,560.00	1.95	175.86	7,305.39	-1,702.20	123.19	405.61	1.00	-1.00	0.00
7,575.00	1.80	175.86	7,320.38	-1,702.69	123.23	405.73	1.00	-1.00	0.00
7,590.00	1.65	175.86	7,335.37	-1,703.14	123.26	405.84	1.00	-1.00	0.00
7,605.00	1.50	175.86	7,350.37	-1,703.55	123.29	405.93	1.00	-1.00	0.00
7,620.00	1.35	175.86	7,365.36	-1,703.92	123.32	406.02	1.00	-1.00	0.00
7,635.00	1.20	175.86	7,380.36	-1,704.25	123.34	406.10	1.00	-1.00	0.00
7,650.00	1.05	175.86	7,395.36	-1,704.55	123.36	406.17	1.00	-1.00	0.00
7,665.00	0.90	175.86	7,410.35	-1,704.80	123.38	406.23	1.00	-1.00	0.00
7,680.00	0.75	175.86	7,425.35	-1,705.02	123.39	406.28	1.00	-1.00	0.00
7,695.00	0.60	175.86	7,440.35	-1,705.19	123.41	406.32	1.00	-1.00	0.00
7,710.00	0.45	175.86	7,455.35	-1,705.33	123.42	406.36	1.00	-1.00	0.00
7,725.00	0.30	175.86	7,470.35	-1,705.42	123.42	406.38	1.00	-1.00	0.00
7,740.00	0.15	175.86	7,485.35	-1,705.48	123.43	406.39	1.00	-1.00	0.00
7,754.65	0.00	0.00	7,500.00	-1,705.50	123.43	406.40	1.00	-1.00	0.00
7,755.00	0.00	0.00	7,500.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,770.00	0.00	0.00	7,515.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,785.00	0.00	0.00	7,530.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,800.00	0.00	0.00	7,545.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,815.00	0.00	0.00	7,560.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,830.00	0.00	0.00	7,575.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,845.00	0.00	0.00	7,590.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,860.00	0.00	0.00	7,605.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,875.00	0.00	0.00	7,620.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,890.00	0.00	0.00	7,635.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,905.00	0.00	0.00	7,650.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,920.00	0.00	0.00	7,665.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,935.00	0.00	0.00	7,680.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,950.00	0.00	0.00	7,695.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,965.00	0.00	0.00	7,710.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,980.00	0.00	0.00	7,725.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
7,995.00	0.00	0.00	7,740.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
8,010.00	0.00	0.00	7,755.35	-1,705.50	123.43	406.40	0.00	0.00	0.00
8,025.00	0.00	0.00	7,770.35	-1,705.50	123.43	406.40	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)	
8,040.00	0.00	0.00	7,785.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,055.00	0.00	0.00	7,800.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,070.00	0.00	0.00	7,815.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,085.00	0.00	0.00	7,830.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,845.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,115.00	0.00	0.00	7,860.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,130.00	0.00	0.00	7,875.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,145.00	0.00	0.00	7,890.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,160.00	0.00	0.00	7,905.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,175.00	0.00	0.00	7,920.35	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,178.19	0.00	0.00	7,923.54	-1,705.50	123.43	406.40	0.00	0.00	0.00	
8,190.00	1.42	89.92	7,935.35	-1,705.50	123.58	406.54	12.00	12.00	0.00	
8,205.00	3.22	89.92	7,950.34	-1,705.50	124.18	407.14	12.00	12.00	0.00	
8,220.00	5.02	89.92	7,965.30	-1,705.50	125.26	408.20	12.00	12.00	0.00	
8,235.00	6.82	89.92	7,980.22	-1,705.50	126.81	409.73	12.00	12.00	0.00	
8,250.00	8.62	89.92	7,995.08	-1,705.49	128.82	411.71	12.00	12.00	0.00	
8,265.00	10.42	89.92	8,009.87	-1,705.49	131.30	414.16	12.00	12.00	0.00	
8,280.00	12.22	89.92	8,024.58	-1,705.49	134.24	417.06	12.00	12.00	0.00	
8,295.00	14.02	89.92	8,039.19	-1,705.48	137.65	420.41	12.00	12.00	0.00	
8,310.00	15.82	89.92	8,053.68	-1,705.48	141.51	424.22	12.00	12.00	0.00	
8,325.00	17.62	89.92	8,068.05	-1,705.47	145.82	428.47	12.00	12.00	0.00	
8,340.00	19.42	89.92	8,082.27	-1,705.46	150.59	433.17	12.00	12.00	0.00	
8,355.00	21.22	89.92	8,096.34	-1,705.46	155.79	438.30	12.00	12.00	0.00	
8,370.00	23.02	89.92	8,110.23	-1,705.45	161.44	443.87	12.00	12.00	0.00	
8,385.00	24.82	89.92	8,123.94	-1,705.44	167.52	449.86	12.00	12.00	0.00	
8,400.00	26.62	89.92	8,137.46	-1,705.43	174.03	456.28	12.00	12.00	0.00	
8,415.00	28.42	89.92	8,150.76	-1,705.42	180.96	463.11	12.00	12.00	0.00	
8,430.00	30.22	89.92	8,163.84	-1,705.41	188.31	470.35	12.00	12.00	0.00	
8,445.00	32.02	89.92	8,176.68	-1,705.40	196.06	477.99	12.00	12.00	0.00	
8,460.00	33.82	89.92	8,189.27	-1,705.39	204.21	486.03	12.00	12.00	0.00	
8,475.00	35.62	89.92	8,201.60	-1,705.38	212.75	494.45	12.00	12.00	0.00	
8,490.00	37.42	89.92	8,213.65	-1,705.37	221.68	503.24	12.00	12.00	0.00	
8,505.00	39.22	89.92	8,225.42	-1,705.36	230.98	512.41	12.00	12.00	0.00	
8,520.00	41.02	89.92	8,236.89	-1,705.34	240.64	521.94	12.00	12.00	0.00	
8,535.00	42.82	89.92	8,248.05	-1,705.33	250.66	531.82	12.00	12.00	0.00	
8,550.00	44.62	89.92	8,258.89	-1,705.32	261.03	542.03	12.00	12.00	0.00	
8,565.00	46.42	89.92	8,269.40	-1,705.30	271.73	552.58	12.00	12.00	0.00	
8,580.00	48.22	89.92	8,279.57	-1,705.29	282.76	563.45	12.00	12.00	0.00	
8,595.00	50.02	89.92	8,289.39	-1,705.27	294.10	574.63	12.00	12.00	0.00	
8,610.00	51.82	89.92	8,298.85	-1,705.26	305.74	586.11	12.00	12.00	0.00	
8,625.00	53.62	89.92	8,307.93	-1,705.24	317.67	597.87	12.00	12.00	0.00	
8,640.00	55.42	89.92	8,316.64	-1,705.22	329.89	609.91	12.00	12.00	0.00	
8,655.00	57.22	89.92	8,324.96	-1,705.21	342.37	622.22	12.00	12.00	0.00	
8,670.00	59.02	89.92	8,332.88	-1,705.19	355.10	634.77	12.00	12.00	0.00	
8,685.00	60.82	89.92	8,340.40	-1,705.17	368.08	647.56	12.00	12.00	0.00	
8,700.00	62.62	89.92	8,347.51	-1,705.16	381.29	660.58	12.00	12.00	0.00	
8,715.00	64.42	89.92	8,354.19	-1,705.14	394.72	673.82	12.00	12.00	0.00	
8,730.00	66.22	89.92	8,360.46	-1,705.12	408.35	687.25	12.00	12.00	0.00	
8,745.00	68.02	89.92	8,366.29	-1,705.10	422.17	700.88	12.00	12.00	0.00	
8,760.00	69.82	89.92	8,371.69	-1,705.08	436.16	714.67	12.00	12.00	0.00	
8,775.00	71.62	89.92	8,376.64	-1,705.06	450.32	728.63	12.00	12.00	0.00	
8,790.00	73.42	89.92	8,381.15	-1,705.04	464.62	742.73	12.00	12.00	0.00	
8,805.00	75.22	89.92	8,385.20	-1,705.02	479.07	756.97	12.00	12.00	0.00	
8,820.00	77.02	89.92	8,388.80	-1,705.00	493.63	771.32	12.00	12.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
8,835.00	78.82	89.92	8,391.94	-1,704.99	508.29	785.78	12.00	12.00	0.00	
8,850.00	80.62	89.92	8,394.62	-1,704.97	523.05	800.32	12.00	12.00	0.00	
8,865.00	82.42	89.92	8,396.83	-1,704.95	537.89	814.95	12.00	12.00	0.00	
8,880.00	84.22	89.92	8,398.58	-1,704.93	552.79	829.63	12.00	12.00	0.00	
8,895.00	86.02	89.92	8,399.85	-1,704.91	567.73	844.37	12.00	12.00	0.00	
8,910.00	87.82	89.92	8,400.66	-1,704.89	582.71	859.13	12.00	12.00	0.00	
8,925.00	89.62	89.92	8,400.99	-1,704.87	597.70	873.91	12.00	12.00	0.00	
8,928.19	90.00	89.92	8,401.01	-1,704.86	600.89	877.06	12.00	12.00	0.00	
8,940.00	90.00	89.92	8,401.00	-1,704.85	612.70	888.70	0.00	0.00	0.00	
8,955.00	90.00	89.92	8,401.00	-1,704.83	627.70	903.48	0.00	0.00	0.00	
8,970.00	90.00	89.92	8,401.00	-1,704.81	642.70	918.27	0.00	0.00	0.00	
8,985.00	90.00	89.92	8,401.00	-1,704.79	657.70	933.06	0.00	0.00	0.00	
9,000.00	90.00	89.92	8,401.00	-1,704.77	672.70	947.84	0.00	0.00	0.00	
9,015.00	90.00	89.92	8,401.00	-1,704.75	687.70	962.63	0.00	0.00	0.00	
9,030.00	90.00	89.92	8,401.00	-1,704.73	702.70	977.41	0.00	0.00	0.00	
9,045.00	90.00	89.92	8,401.00	-1,704.71	717.70	992.20	0.00	0.00	0.00	
9,060.00	90.00	89.92	8,401.00	-1,704.69	732.70	1,006.99	0.00	0.00	0.00	
9,075.00	90.00	89.92	8,401.00	-1,704.67	747.70	1,021.77	0.00	0.00	0.00	
9,090.00	90.00	89.92	8,401.00	-1,704.64	762.70	1,036.56	0.00	0.00	0.00	
9,105.00	90.00	89.92	8,401.00	-1,704.62	777.70	1,051.35	0.00	0.00	0.00	
9,120.00	90.00	89.92	8,401.00	-1,704.60	792.70	1,066.13	0.00	0.00	0.00	
9,135.00	90.00	89.92	8,401.00	-1,704.58	807.70	1,080.92	0.00	0.00	0.00	
9,150.00	90.00	89.92	8,401.00	-1,704.56	822.70	1,095.70	0.00	0.00	0.00	
9,165.00	90.00	89.92	8,401.00	-1,704.54	837.70	1,110.49	0.00	0.00	0.00	
9,180.00	90.00	89.92	8,401.00	-1,704.52	852.70	1,125.28	0.00	0.00	0.00	
9,195.00	90.00	89.92	8,401.00	-1,704.50	867.70	1,140.06	0.00	0.00	0.00	
9,210.00	90.00	89.92	8,401.00	-1,704.48	882.70	1,154.85	0.00	0.00	0.00	
9,225.00	90.00	89.92	8,401.00	-1,704.46	897.70	1,169.63	0.00	0.00	0.00	
9,240.00	90.00	89.92	8,401.00	-1,704.44	912.70	1,184.42	0.00	0.00	0.00	
9,255.00	90.00	89.92	8,401.00	-1,704.42	927.70	1,199.21	0.00	0.00	0.00	
9,270.00	90.00	89.92	8,401.00	-1,704.40	942.70	1,213.99	0.00	0.00	0.00	
9,285.00	90.00	89.92	8,401.00	-1,704.38	957.70	1,228.78	0.00	0.00	0.00	
9,300.00	90.00	89.92	8,401.00	-1,704.36	972.70	1,243.57	0.00	0.00	0.00	
9,315.00	90.00	89.92	8,401.00	-1,704.34	987.70	1,258.35	0.00	0.00	0.00	
9,330.00	90.00	89.92	8,401.00	-1,704.32	1,002.70	1,273.14	0.00	0.00	0.00	
9,345.00	90.00	89.92	8,401.00	-1,704.30	1,017.70	1,287.92	0.00	0.00	0.00	
9,360.00	90.00	89.92	8,401.00	-1,704.28	1,032.70	1,302.71	0.00	0.00	0.00	
9,375.00	90.00	89.92	8,401.00	-1,704.26	1,047.70	1,317.50	0.00	0.00	0.00	
9,390.00	90.00	89.92	8,401.00	-1,704.24	1,062.70	1,332.28	0.00	0.00	0.00	
9,405.00	90.00	89.92	8,401.00	-1,704.22	1,077.70	1,347.07	0.00	0.00	0.00	
9,420.00	90.00	89.92	8,401.00	-1,704.20	1,092.70	1,361.86	0.00	0.00	0.00	
9,435.00	90.00	89.92	8,401.00	-1,704.18	1,107.70	1,376.64	0.00	0.00	0.00	
9,450.00	90.00	89.92	8,401.00	-1,704.16	1,122.70	1,391.43	0.00	0.00	0.00	
9,465.00	90.00	89.92	8,401.00	-1,704.14	1,137.70	1,406.21	0.00	0.00	0.00	
9,480.00	90.00	89.92	8,401.00	-1,704.12	1,152.70	1,421.00	0.00	0.00	0.00	
9,495.00	90.00	89.92	8,401.00	-1,704.10	1,167.70	1,435.79	0.00	0.00	0.00	
9,510.00	90.00	89.92	8,401.00	-1,704.08	1,182.70	1,450.57	0.00	0.00	0.00	
9,525.00	90.00	89.92	8,401.00	-1,704.06	1,197.70	1,465.36	0.00	0.00	0.00	
9,540.00	90.00	89.92	8,401.00	-1,704.04	1,212.70	1,480.14	0.00	0.00	0.00	
9,555.00	90.00	89.92	8,401.00	-1,704.02	1,227.70	1,494.93	0.00	0.00	0.00	
9,570.00	90.00	89.92	8,401.00	-1,704.00	1,242.70	1,509.72	0.00	0.00	0.00	
9,585.00	90.00	89.92	8,401.00	-1,703.98	1,257.70	1,524.50	0.00	0.00	0.00	
9,600.00	90.00	89.92	8,401.00	-1,703.96	1,272.70	1,539.29	0.00	0.00	0.00	
9,615.00	90.00	89.92	8,401.00	-1,703.94	1,287.70	1,554.08	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
9,630.00	90.00	89.92	8,401.00	-1,703.92	1,302.70	1,568.86	0.00	0.00	0.00	
9,645.00	90.00	89.92	8,401.00	-1,703.90	1,317.70	1,583.65	0.00	0.00	0.00	
9,660.00	90.00	89.92	8,401.00	-1,703.88	1,332.70	1,598.43	0.00	0.00	0.00	
9,675.00	90.00	89.92	8,401.00	-1,703.86	1,347.70	1,613.22	0.00	0.00	0.00	
9,690.00	90.00	89.92	8,401.00	-1,703.84	1,362.70	1,628.01	0.00	0.00	0.00	
9,705.00	90.00	89.92	8,401.00	-1,703.82	1,377.70	1,642.79	0.00	0.00	0.00	
9,720.00	90.00	89.92	8,401.00	-1,703.80	1,392.70	1,657.58	0.00	0.00	0.00	
9,735.00	90.00	89.92	8,401.00	-1,703.78	1,407.70	1,672.36	0.00	0.00	0.00	
9,750.00	90.00	89.92	8,401.00	-1,703.76	1,422.70	1,687.15	0.00	0.00	0.00	
9,765.00	90.00	89.92	8,401.00	-1,703.74	1,437.70	1,701.94	0.00	0.00	0.00	
9,780.00	90.00	89.92	8,401.00	-1,703.72	1,452.70	1,716.72	0.00	0.00	0.00	
9,795.00	90.00	89.92	8,401.00	-1,703.70	1,467.70	1,731.51	0.00	0.00	0.00	
9,810.00	90.00	89.92	8,401.00	-1,703.68	1,482.70	1,746.30	0.00	0.00	0.00	
9,825.00	90.00	89.92	8,401.00	-1,703.66	1,497.70	1,761.08	0.00	0.00	0.00	
9,840.00	90.00	89.92	8,401.00	-1,703.64	1,512.70	1,775.87	0.00	0.00	0.00	
9,855.00	90.00	89.92	8,401.00	-1,703.62	1,527.70	1,790.65	0.00	0.00	0.00	
9,870.00	90.00	89.92	8,401.00	-1,703.60	1,542.70	1,805.44	0.00	0.00	0.00	
9,885.00	90.00	89.92	8,401.00	-1,703.58	1,557.70	1,820.23	0.00	0.00	0.00	
9,900.00	90.00	89.92	8,401.00	-1,703.56	1,572.70	1,835.01	0.00	0.00	0.00	
9,915.00	90.00	89.92	8,401.00	-1,703.54	1,587.70	1,849.80	0.00	0.00	0.00	
9,930.00	90.00	89.92	8,401.00	-1,703.52	1,602.70	1,864.58	0.00	0.00	0.00	
9,945.00	90.00	89.92	8,401.00	-1,703.50	1,617.70	1,879.37	0.00	0.00	0.00	
9,960.00	90.00	89.92	8,401.00	-1,703.48	1,632.70	1,894.16	0.00	0.00	0.00	
9,975.00	90.00	89.92	8,401.00	-1,703.46	1,647.70	1,908.94	0.00	0.00	0.00	
9,990.00	90.00	89.92	8,401.00	-1,703.44	1,662.70	1,923.73	0.00	0.00	0.00	
10,005.00	90.00	89.92	8,401.00	-1,703.42	1,677.70	1,938.52	0.00	0.00	0.00	
10,020.00	90.00	89.92	8,401.00	-1,703.40	1,692.70	1,953.30	0.00	0.00	0.00	
10,035.00	90.00	89.92	8,401.00	-1,703.38	1,707.70	1,968.09	0.00	0.00	0.00	
10,050.00	90.00	89.92	8,401.00	-1,703.36	1,722.70	1,982.87	0.00	0.00	0.00	
10,065.00	90.00	89.92	8,401.00	-1,703.34	1,737.70	1,997.66	0.00	0.00	0.00	
10,080.00	90.00	89.92	8,401.00	-1,703.32	1,752.70	2,012.45	0.00	0.00	0.00	
10,095.00	90.00	89.92	8,401.00	-1,703.30	1,767.70	2,027.23	0.00	0.00	0.00	
10,110.00	90.00	89.92	8,401.00	-1,703.28	1,782.70	2,042.02	0.00	0.00	0.00	
10,125.00	90.00	89.92	8,401.00	-1,703.26	1,797.70	2,056.80	0.00	0.00	0.00	
10,140.00	90.00	89.92	8,401.00	-1,703.24	1,812.70	2,071.59	0.00	0.00	0.00	
10,155.00	90.00	89.92	8,401.00	-1,703.22	1,827.70	2,086.38	0.00	0.00	0.00	
10,170.00	90.00	89.92	8,401.00	-1,703.20	1,842.70	2,101.16	0.00	0.00	0.00	
10,185.00	90.00	89.92	8,401.00	-1,703.18	1,857.70	2,115.95	0.00	0.00	0.00	
10,200.00	90.00	89.92	8,401.00	-1,703.16	1,872.70	2,130.74	0.00	0.00	0.00	
10,215.00	90.00	89.92	8,401.00	-1,703.14	1,887.70	2,145.52	0.00	0.00	0.00	
10,230.00	90.00	89.92	8,401.00	-1,703.12	1,902.70	2,160.31	0.00	0.00	0.00	
10,245.00	90.00	89.92	8,401.00	-1,703.10	1,917.70	2,175.09	0.00	0.00	0.00	
10,260.00	90.00	89.92	8,401.00	-1,703.08	1,932.70	2,189.88	0.00	0.00	0.00	
10,275.00	90.00	89.92	8,401.00	-1,703.06	1,947.70	2,204.67	0.00	0.00	0.00	
10,290.00	90.00	89.92	8,401.00	-1,703.04	1,962.70	2,219.45	0.00	0.00	0.00	
10,305.00	90.00	89.92	8,401.00	-1,703.02	1,977.70	2,234.24	0.00	0.00	0.00	
10,320.00	90.00	89.92	8,401.00	-1,703.00	1,992.70	2,249.03	0.00	0.00	0.00	
10,335.00	90.00	89.92	8,401.00	-1,702.98	2,007.70	2,263.81	0.00	0.00	0.00	
10,350.00	90.00	89.92	8,401.00	-1,702.96	2,022.70	2,278.60	0.00	0.00	0.00	
10,365.00	90.00	89.92	8,401.00	-1,702.94	2,037.70	2,293.38	0.00	0.00	0.00	
10,380.00	90.00	89.92	8,401.00	-1,702.92	2,052.70	2,308.17	0.00	0.00	0.00	
10,395.00	90.00	89.92	8,401.00	-1,702.90	2,067.70	2,322.96	0.00	0.00	0.00	
10,410.00	90.00	89.92	8,401.00	-1,702.88	2,082.70	2,337.74	0.00	0.00	0.00	
10,425.00	90.00	89.92	8,401.00	-1,702.86	2,097.70	2,352.53	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,440.00	90.00	89.92	8,401.00	-1,702.84	2,112.70	2,367.31	0.00	0.00	0.00
10,455.00	90.00	89.92	8,401.00	-1,702.82	2,127.70	2,382.10	0.00	0.00	0.00
10,470.00	90.00	89.92	8,401.00	-1,702.80	2,142.70	2,396.89	0.00	0.00	0.00
10,485.00	90.00	89.92	8,401.00	-1,702.78	2,157.70	2,411.67	0.00	0.00	0.00
10,500.00	90.00	89.92	8,401.00	-1,702.76	2,172.70	2,426.46	0.00	0.00	0.00
10,515.00	90.00	89.92	8,401.00	-1,702.74	2,187.70	2,441.25	0.00	0.00	0.00
10,530.00	90.00	89.92	8,401.00	-1,702.72	2,202.70	2,456.03	0.00	0.00	0.00
10,545.00	90.00	89.92	8,401.00	-1,702.70	2,217.70	2,470.82	0.00	0.00	0.00
10,560.00	90.00	89.92	8,401.00	-1,702.68	2,232.70	2,485.60	0.00	0.00	0.00
10,575.00	90.00	89.92	8,401.00	-1,702.66	2,247.70	2,500.39	0.00	0.00	0.00
10,590.00	90.00	89.92	8,401.00	-1,702.64	2,262.70	2,515.18	0.00	0.00	0.00
10,605.00	90.00	89.92	8,401.00	-1,702.62	2,277.70	2,529.96	0.00	0.00	0.00
10,620.00	90.00	89.92	8,401.00	-1,702.60	2,292.70	2,544.75	0.00	0.00	0.00
10,635.00	90.00	89.92	8,401.00	-1,702.58	2,307.70	2,559.53	0.00	0.00	0.00
10,650.00	90.00	89.92	8,401.00	-1,702.56	2,322.70	2,574.32	0.00	0.00	0.00
10,665.00	90.00	89.92	8,401.00	-1,702.54	2,337.70	2,589.11	0.00	0.00	0.00
10,680.00	90.00	89.92	8,401.00	-1,702.52	2,352.70	2,603.89	0.00	0.00	0.00
10,695.00	90.00	89.92	8,401.00	-1,702.50	2,367.70	2,618.68	0.00	0.00	0.00
10,710.00	90.00	89.92	8,401.00	-1,702.48	2,382.70	2,633.47	0.00	0.00	0.00
10,725.00	90.00	89.92	8,401.00	-1,702.46	2,397.70	2,648.25	0.00	0.00	0.00
10,740.00	90.00	89.92	8,401.00	-1,702.44	2,412.70	2,663.04	0.00	0.00	0.00
10,755.00	90.00	89.92	8,401.00	-1,702.42	2,427.70	2,677.82	0.00	0.00	0.00
10,770.00	90.00	89.92	8,401.00	-1,702.40	2,442.70	2,692.61	0.00	0.00	0.00
10,785.00	90.00	89.92	8,401.00	-1,702.38	2,457.70	2,707.40	0.00	0.00	0.00
10,800.00	90.00	89.92	8,401.00	-1,702.36	2,472.70	2,722.18	0.00	0.00	0.00
10,815.00	90.00	89.92	8,401.00	-1,702.34	2,487.70	2,736.97	0.00	0.00	0.00
10,830.00	90.00	89.92	8,401.00	-1,702.32	2,502.70	2,751.75	0.00	0.00	0.00
10,845.00	90.00	89.92	8,401.00	-1,702.30	2,517.70	2,766.54	0.00	0.00	0.00
10,860.00	90.00	89.92	8,401.00	-1,702.28	2,532.70	2,781.33	0.00	0.00	0.00
10,875.00	90.00	89.92	8,401.00	-1,702.26	2,547.70	2,796.11	0.00	0.00	0.00
10,890.00	90.00	89.92	8,401.00	-1,702.24	2,562.70	2,810.90	0.00	0.00	0.00
10,905.00	90.00	89.92	8,401.00	-1,702.22	2,577.70	2,825.69	0.00	0.00	0.00
10,920.00	90.00	89.92	8,401.00	-1,702.20	2,592.70	2,840.47	0.00	0.00	0.00
10,935.00	90.00	89.92	8,401.00	-1,702.18	2,607.70	2,855.26	0.00	0.00	0.00
10,950.00	90.00	89.92	8,401.00	-1,702.16	2,622.70	2,870.04	0.00	0.00	0.00
10,965.00	90.00	89.92	8,401.00	-1,702.14	2,637.70	2,884.83	0.00	0.00	0.00
10,980.00	90.00	89.92	8,401.00	-1,702.12	2,652.70	2,899.62	0.00	0.00	0.00
10,995.00	90.00	89.92	8,401.00	-1,702.10	2,667.70	2,914.40	0.00	0.00	0.00
11,010.00	90.00	89.92	8,401.00	-1,702.08	2,682.70	2,929.19	0.00	0.00	0.00
11,025.00	90.00	89.92	8,401.00	-1,702.06	2,697.70	2,943.97	0.00	0.00	0.00
11,040.00	90.00	89.92	8,401.00	-1,702.04	2,712.70	2,958.76	0.00	0.00	0.00
11,055.00	90.00	89.92	8,401.00	-1,702.02	2,727.70	2,973.55	0.00	0.00	0.00
11,070.00	90.00	89.92	8,401.00	-1,702.00	2,742.70	2,988.33	0.00	0.00	0.00
11,085.00	90.00	89.92	8,401.00	-1,701.98	2,757.70	3,003.12	0.00	0.00	0.00
11,100.00	90.00	89.92	8,401.00	-1,701.96	2,772.70	3,017.91	0.00	0.00	0.00
11,115.00	90.00	89.92	8,401.00	-1,701.94	2,787.70	3,032.69	0.00	0.00	0.00
11,130.00	90.00	89.92	8,401.00	-1,701.92	2,802.70	3,047.48	0.00	0.00	0.00
11,145.00	90.00	89.92	8,401.00	-1,701.90	2,817.70	3,062.26	0.00	0.00	0.00
11,160.00	90.00	89.92	8,401.00	-1,701.88	2,832.70	3,077.05	0.00	0.00	0.00
11,175.00	90.00	89.92	8,401.00	-1,701.86	2,847.70	3,091.84	0.00	0.00	0.00
11,190.00	90.00	89.92	8,401.00	-1,701.84	2,862.70	3,106.62	0.00	0.00	0.00
11,205.00	90.00	89.92	8,401.00	-1,701.82	2,877.70	3,121.41	0.00	0.00	0.00
11,220.00	90.00	89.92	8,401.00	-1,701.80	2,892.70	3,136.20	0.00	0.00	0.00
11,235.00	90.00	89.92	8,401.00	-1,701.78	2,907.70	3,150.98	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)
11,250.00	90.00	89.92	8,401.00	-1,701.76	2,922.70	3,165.77	0.00	0.00	0.00
11,265.00	90.00	89.92	8,401.00	-1,701.74	2,937.70	3,180.55	0.00	0.00	0.00
11,280.00	90.00	89.92	8,401.00	-1,701.72	2,952.70	3,195.34	0.00	0.00	0.00
11,295.00	90.00	89.92	8,401.00	-1,701.70	2,967.70	3,210.13	0.00	0.00	0.00
11,310.00	90.00	89.92	8,401.00	-1,701.68	2,982.70	3,224.91	0.00	0.00	0.00
11,325.00	90.00	89.92	8,401.00	-1,701.66	2,997.70	3,239.70	0.00	0.00	0.00
11,340.00	90.00	89.92	8,401.00	-1,701.64	3,012.70	3,254.48	0.00	0.00	0.00
11,355.00	90.00	89.92	8,401.00	-1,701.62	3,027.70	3,269.27	0.00	0.00	0.00
11,370.00	90.00	89.92	8,401.00	-1,701.60	3,042.70	3,284.06	0.00	0.00	0.00
11,385.00	90.00	89.92	8,401.00	-1,701.58	3,057.70	3,298.84	0.00	0.00	0.00
11,400.00	90.00	89.92	8,401.00	-1,701.56	3,072.70	3,313.63	0.00	0.00	0.00
11,415.00	90.00	89.92	8,401.00	-1,701.54	3,087.70	3,328.42	0.00	0.00	0.00
11,430.00	90.00	89.92	8,401.00	-1,701.51	3,102.70	3,343.20	0.00	0.00	0.00
11,445.00	90.00	89.92	8,401.00	-1,701.49	3,117.70	3,357.99	0.00	0.00	0.00
11,460.00	90.00	89.92	8,401.00	-1,701.47	3,132.70	3,372.77	0.00	0.00	0.00
11,475.00	90.00	89.92	8,401.00	-1,701.45	3,147.70	3,387.56	0.00	0.00	0.00
11,490.00	90.00	89.92	8,401.00	-1,701.43	3,162.70	3,402.35	0.00	0.00	0.00
11,505.00	90.00	89.92	8,401.00	-1,701.41	3,177.70	3,417.13	0.00	0.00	0.00
11,520.00	90.00	89.92	8,401.00	-1,701.39	3,192.70	3,431.92	0.00	0.00	0.00
11,535.00	90.00	89.92	8,401.00	-1,701.37	3,207.70	3,446.70	0.00	0.00	0.00
11,550.00	90.00	89.92	8,401.00	-1,701.35	3,222.70	3,461.49	0.00	0.00	0.00
11,565.00	90.00	89.92	8,401.00	-1,701.33	3,237.70	3,476.28	0.00	0.00	0.00
11,580.00	90.00	89.92	8,401.00	-1,701.31	3,252.70	3,491.06	0.00	0.00	0.00
11,595.00	90.00	89.92	8,401.00	-1,701.29	3,267.70	3,505.85	0.00	0.00	0.00
11,610.00	90.00	89.92	8,401.00	-1,701.27	3,282.70	3,520.64	0.00	0.00	0.00
11,625.00	90.00	89.92	8,401.00	-1,701.25	3,297.70	3,535.42	0.00	0.00	0.00
11,640.00	90.00	89.92	8,401.00	-1,701.23	3,312.70	3,550.21	0.00	0.00	0.00
11,655.00	90.00	89.92	8,401.00	-1,701.21	3,327.70	3,564.99	0.00	0.00	0.00
11,670.00	90.00	89.92	8,401.00	-1,701.19	3,342.70	3,579.78	0.00	0.00	0.00
11,685.00	90.00	89.92	8,401.00	-1,701.17	3,357.70	3,594.57	0.00	0.00	0.00
11,700.00	90.00	89.92	8,401.00	-1,701.15	3,372.70	3,609.35	0.00	0.00	0.00
11,715.00	90.00	89.92	8,401.00	-1,701.13	3,387.70	3,624.14	0.00	0.00	0.00
11,730.00	90.00	89.92	8,401.00	-1,701.11	3,402.70	3,638.92	0.00	0.00	0.00
11,745.00	90.00	89.92	8,401.00	-1,701.09	3,417.70	3,653.71	0.00	0.00	0.00
11,760.00	90.00	89.92	8,401.00	-1,701.07	3,432.70	3,668.50	0.00	0.00	0.00
11,775.00	90.00	89.92	8,401.00	-1,701.05	3,447.70	3,683.28	0.00	0.00	0.00
11,790.00	90.00	89.92	8,401.00	-1,701.03	3,462.70	3,698.07	0.00	0.00	0.00
11,805.00	90.00	89.92	8,401.00	-1,701.01	3,477.70	3,712.86	0.00	0.00	0.00
11,820.00	90.00	89.92	8,401.00	-1,700.99	3,492.70	3,727.64	0.00	0.00	0.00
11,835.00	90.00	89.92	8,401.00	-1,700.97	3,507.70	3,742.43	0.00	0.00	0.00
11,850.00	90.00	89.92	8,401.00	-1,700.95	3,522.70	3,757.21	0.00	0.00	0.00
11,865.00	90.00	89.92	8,401.00	-1,700.93	3,537.70	3,772.00	0.00	0.00	0.00
11,880.00	90.00	89.92	8,401.00	-1,700.91	3,552.70	3,786.79	0.00	0.00	0.00
11,895.00	90.00	89.92	8,401.00	-1,700.89	3,567.70	3,801.57	0.00	0.00	0.00
11,910.00	90.00	89.92	8,401.00	-1,700.87	3,582.70	3,816.36	0.00	0.00	0.00
11,925.00	90.00	89.92	8,401.00	-1,700.85	3,597.70	3,831.14	0.00	0.00	0.00
11,940.00	90.00	89.92	8,401.00	-1,700.83	3,612.70	3,845.93	0.00	0.00	0.00
11,955.00	90.00	89.92	8,401.00	-1,700.81	3,627.70	3,860.72	0.00	0.00	0.00
11,970.00	90.00	89.92	8,401.00	-1,700.79	3,642.70	3,875.50	0.00	0.00	0.00
11,985.00	90.00	89.92	8,401.00	-1,700.77	3,657.70	3,890.29	0.00	0.00	0.00
12,000.00	90.00	89.92	8,401.00	-1,700.75	3,672.70	3,905.08	0.00	0.00	0.00
12,015.00	90.00	89.92	8,401.00	-1,700.73	3,687.70	3,919.86	0.00	0.00	0.00
12,030.00	90.00	89.92	8,401.00	-1,700.71	3,702.70	3,934.65	0.00	0.00	0.00
12,045.00	90.00	89.92	8,401.00	-1,700.69	3,717.70	3,949.43	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)	
12,060.00	90.00	89.92	8,401.00	-1,700.67	3,732.70	3,964.22	0.00	0.00	0.00	
12,075.00	90.00	89.92	8,401.00	-1,700.65	3,747.70	3,979.01	0.00	0.00	0.00	
12,090.00	90.00	89.92	8,401.00	-1,700.63	3,762.70	3,993.79	0.00	0.00	0.00	
12,105.00	90.00	89.92	8,401.00	-1,700.61	3,777.70	4,008.58	0.00	0.00	0.00	
12,120.00	90.00	89.92	8,401.00	-1,700.59	3,792.70	4,023.37	0.00	0.00	0.00	
12,135.00	90.00	89.92	8,401.00	-1,700.57	3,807.70	4,038.15	0.00	0.00	0.00	
12,150.00	90.00	89.92	8,401.00	-1,700.55	3,822.70	4,052.94	0.00	0.00	0.00	
12,165.00	90.00	89.92	8,401.00	-1,700.53	3,837.70	4,067.72	0.00	0.00	0.00	
12,180.00	90.00	89.92	8,401.00	-1,700.51	3,852.70	4,082.51	0.00	0.00	0.00	
12,195.00	90.00	89.92	8,401.00	-1,700.49	3,867.70	4,097.30	0.00	0.00	0.00	
12,210.00	90.00	89.92	8,401.00	-1,700.47	3,882.70	4,112.08	0.00	0.00	0.00	
12,225.00	90.00	89.92	8,401.00	-1,700.45	3,897.70	4,126.87	0.00	0.00	0.00	
12,240.00	90.00	89.92	8,401.00	-1,700.43	3,912.70	4,141.65	0.00	0.00	0.00	
12,255.00	90.00	89.92	8,401.00	-1,700.41	3,927.70	4,156.44	0.00	0.00	0.00	
12,270.00	90.00	89.92	8,401.00	-1,700.39	3,942.70	4,171.23	0.00	0.00	0.00	
12,285.00	90.00	89.92	8,401.00	-1,700.37	3,957.70	4,186.01	0.00	0.00	0.00	
12,300.00	90.00	89.92	8,401.00	-1,700.35	3,972.70	4,200.80	0.00	0.00	0.00	
12,315.00	90.00	89.92	8,401.00	-1,700.33	3,987.70	4,215.59	0.00	0.00	0.00	
12,330.00	90.00	89.92	8,401.00	-1,700.31	4,002.70	4,230.37	0.00	0.00	0.00	
12,345.00	90.00	89.92	8,401.00	-1,700.29	4,017.70	4,245.16	0.00	0.00	0.00	
12,360.00	90.00	89.92	8,401.00	-1,700.27	4,032.70	4,259.94	0.00	0.00	0.00	
12,375.00	90.00	89.92	8,401.00	-1,700.25	4,047.70	4,274.73	0.00	0.00	0.00	
12,390.00	90.00	89.92	8,401.00	-1,700.23	4,062.70	4,289.52	0.00	0.00	0.00	
12,405.00	90.00	89.92	8,401.00	-1,700.21	4,077.70	4,304.30	0.00	0.00	0.00	
12,420.00	90.00	89.92	8,401.00	-1,700.19	4,092.70	4,319.09	0.00	0.00	0.00	
12,435.00	90.00	89.92	8,401.00	-1,700.17	4,107.70	4,333.87	0.00	0.00	0.00	
12,450.00	90.00	89.92	8,401.00	-1,700.15	4,122.70	4,348.66	0.00	0.00	0.00	
12,465.00	90.00	89.92	8,401.00	-1,700.13	4,137.70	4,363.45	0.00	0.00	0.00	
12,480.00	90.00	89.92	8,401.00	-1,700.11	4,152.70	4,378.23	0.00	0.00	0.00	
12,495.00	90.00	89.92	8,401.00	-1,700.09	4,167.70	4,393.02	0.00	0.00	0.00	
12,510.00	90.00	89.92	8,401.00	-1,700.07	4,182.70	4,407.81	0.00	0.00	0.00	
12,525.00	90.00	89.92	8,401.00	-1,700.05	4,197.70	4,422.59	0.00	0.00	0.00	
12,540.00	90.00	89.92	8,401.00	-1,700.03	4,212.70	4,437.38	0.00	0.00	0.00	
12,555.00	90.00	89.92	8,401.00	-1,700.01	4,227.70	4,452.16	0.00	0.00	0.00	
12,570.00	90.00	89.92	8,401.00	-1,699.99	4,242.70	4,466.95	0.00	0.00	0.00	
12,585.00	90.00	89.92	8,401.00	-1,699.97	4,257.70	4,481.74	0.00	0.00	0.00	
12,600.00	90.00	89.92	8,401.00	-1,699.95	4,272.70	4,496.52	0.00	0.00	0.00	
12,615.00	90.00	89.92	8,401.00	-1,699.93	4,287.70	4,511.31	0.00	0.00	0.00	
12,630.00	90.00	89.92	8,401.00	-1,699.91	4,302.70	4,526.09	0.00	0.00	0.00	
12,645.00	90.00	89.92	8,401.00	-1,699.89	4,317.70	4,540.88	0.00	0.00	0.00	
12,660.00	90.00	89.92	8,401.00	-1,699.87	4,332.70	4,555.67	0.00	0.00	0.00	
12,675.00	90.00	89.92	8,401.00	-1,699.85	4,347.70	4,570.45	0.00	0.00	0.00	
12,690.00	90.00	89.92	8,401.00	-1,699.83	4,362.70	4,585.24	0.00	0.00	0.00	
12,705.00	90.00	89.92	8,401.00	-1,699.81	4,377.70	4,600.03	0.00	0.00	0.00	
12,720.00	90.00	89.92	8,401.00	-1,699.79	4,392.70	4,614.81	0.00	0.00	0.00	
12,735.00	90.00	89.92	8,401.00	-1,699.77	4,407.70	4,629.60	0.00	0.00	0.00	
12,750.00	90.00	89.92	8,401.00	-1,699.75	4,422.70	4,644.38	0.00	0.00	0.00	
12,765.00	90.00	89.92	8,401.00	-1,699.73	4,437.70	4,659.17	0.00	0.00	0.00	
12,780.00	90.00	89.92	8,401.00	-1,699.71	4,452.70	4,673.96	0.00	0.00	0.00	
12,795.00	90.00	89.92	8,401.00	-1,699.69	4,467.70	4,688.74	0.00	0.00	0.00	
12,810.00	90.00	89.92	8,401.00	-1,699.67	4,482.70	4,703.53	0.00	0.00	0.00	
12,825.00	90.00	89.92	8,401.00	-1,699.65	4,497.70	4,718.31	0.00	0.00	0.00	
12,840.00	90.00	89.92	8,401.00	-1,699.63	4,512.70	4,733.10	0.00	0.00	0.00	
12,855.00	90.00	89.92	8,401.00	-1,699.61	4,527.70	4,747.89	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)
12,870.00	90.00	89.92	8,401.00	-1,699.59	4,542.70	4,762.67	0.00	0.00	0.00
12,885.00	90.00	89.92	8,401.00	-1,699.57	4,557.70	4,777.46	0.00	0.00	0.00
12,900.00	90.00	89.92	8,401.00	-1,699.55	4,572.70	4,792.25	0.00	0.00	0.00
12,915.00	90.00	89.92	8,401.00	-1,699.53	4,587.70	4,807.03	0.00	0.00	0.00
12,930.00	90.00	89.92	8,401.00	-1,699.51	4,602.70	4,821.82	0.00	0.00	0.00
12,945.00	90.00	89.92	8,401.00	-1,699.49	4,617.70	4,836.60	0.00	0.00	0.00
12,960.00	90.00	89.92	8,401.00	-1,699.47	4,632.70	4,851.39	0.00	0.00	0.00
12,975.00	90.00	89.92	8,401.00	-1,699.45	4,647.70	4,866.18	0.00	0.00	0.00
12,990.00	90.00	89.92	8,401.00	-1,699.43	4,662.70	4,880.96	0.00	0.00	0.00
13,005.00	90.00	89.92	8,401.00	-1,699.41	4,677.70	4,895.75	0.00	0.00	0.00
13,020.00	90.00	89.92	8,401.00	-1,699.39	4,692.70	4,910.54	0.00	0.00	0.00
13,035.00	90.00	89.92	8,401.00	-1,699.37	4,707.70	4,925.32	0.00	0.00	0.00
13,050.00	90.00	89.92	8,401.00	-1,699.35	4,722.70	4,940.11	0.00	0.00	0.00
13,065.00	90.00	89.92	8,401.00	-1,699.33	4,737.70	4,954.89	0.00	0.00	0.00
13,080.00	90.00	89.92	8,401.00	-1,699.31	4,752.70	4,969.68	0.00	0.00	0.00
13,095.00	90.00	89.92	8,401.00	-1,699.29	4,767.70	4,984.47	0.00	0.00	0.00
13,110.00	90.00	89.92	8,401.00	-1,699.27	4,782.70	4,999.25	0.00	0.00	0.00
13,125.00	90.00	89.92	8,401.00	-1,699.25	4,797.70	5,014.04	0.00	0.00	0.00
13,140.00	90.00	89.92	8,401.00	-1,699.23	4,812.70	5,028.82	0.00	0.00	0.00
13,155.00	90.00	89.92	8,401.00	-1,699.21	4,827.70	5,043.61	0.00	0.00	0.00
13,170.00	90.00	89.92	8,401.00	-1,699.19	4,842.70	5,058.40	0.00	0.00	0.00
13,185.00	90.00	89.92	8,401.00	-1,699.17	4,857.70	5,073.18	0.00	0.00	0.00
13,200.00	90.00	89.92	8,401.00	-1,699.15	4,872.70	5,087.97	0.00	0.00	0.00
13,215.00	90.00	89.92	8,401.00	-1,699.13	4,887.70	5,102.76	0.00	0.00	0.00
13,230.00	90.00	89.92	8,401.00	-1,699.11	4,902.70	5,117.54	0.00	0.00	0.00
13,245.00	90.00	89.92	8,401.00	-1,699.09	4,917.70	5,132.33	0.00	0.00	0.00
13,260.00	90.00	89.92	8,401.00	-1,699.07	4,932.70	5,147.11	0.00	0.00	0.00
13,275.00	90.00	89.92	8,401.00	-1,699.05	4,947.70	5,161.90	0.00	0.00	0.00
13,290.00	90.00	89.92	8,401.00	-1,699.03	4,962.70	5,176.69	0.00	0.00	0.00
13,305.00	90.00	89.92	8,401.00	-1,699.01	4,977.70	5,191.47	0.00	0.00	0.00
13,320.00	90.00	89.92	8,401.00	-1,698.99	4,992.70	5,206.26	0.00	0.00	0.00
13,335.00	90.00	89.92	8,401.00	-1,698.97	5,007.70	5,221.04	0.00	0.00	0.00
13,350.00	90.00	89.92	8,401.00	-1,698.95	5,022.70	5,235.83	0.00	0.00	0.00
13,365.00	90.00	89.92	8,401.00	-1,698.93	5,037.70	5,250.62	0.00	0.00	0.00
13,380.00	90.00	89.92	8,401.00	-1,698.91	5,052.70	5,265.40	0.00	0.00	0.00
13,395.00	90.00	89.92	8,401.00	-1,698.89	5,067.70	5,280.19	0.00	0.00	0.00
13,410.00	90.00	89.92	8,401.00	-1,698.87	5,082.70	5,294.98	0.00	0.00	0.00
13,425.00	90.00	89.92	8,401.00	-1,698.85	5,097.70	5,309.76	0.00	0.00	0.00
13,440.00	90.00	89.92	8,401.00	-1,698.83	5,112.70	5,324.55	0.00	0.00	0.00
13,455.00	90.00	89.92	8,401.00	-1,698.81	5,127.70	5,339.33	0.00	0.00	0.00
13,470.00	90.00	89.92	8,401.00	-1,698.79	5,142.70	5,354.12	0.00	0.00	0.00
13,485.00	90.00	89.92	8,401.00	-1,698.77	5,157.70	5,368.91	0.00	0.00	0.00
13,500.00	90.00	89.92	8,401.00	-1,698.75	5,172.70	5,383.69	0.00	0.00	0.00
13,515.00	90.00	89.92	8,401.00	-1,698.73	5,187.70	5,398.48	0.00	0.00	0.00
13,530.00	90.00	89.92	8,401.00	-1,698.71	5,202.70	5,413.26	0.00	0.00	0.00
13,545.00	90.00	89.92	8,401.00	-1,698.69	5,217.70	5,428.05	0.00	0.00	0.00
13,560.00	90.00	89.92	8,401.00	-1,698.67	5,232.70	5,442.84	0.00	0.00	0.00
13,575.00	90.00	89.92	8,401.00	-1,698.65	5,247.70	5,457.62	0.00	0.00	0.00
13,590.00	90.00	89.92	8,401.00	-1,698.63	5,262.70	5,472.41	0.00	0.00	0.00
13,605.00	90.00	89.92	8,401.00	-1,698.61	5,277.70	5,487.20	0.00	0.00	0.00
13,620.00	90.00	89.92	8,401.00	-1,698.59	5,292.70	5,501.98	0.00	0.00	0.00
13,635.00	90.00	89.92	8,401.00	-1,698.57	5,307.70	5,516.77	0.00	0.00	0.00
13,650.00	90.00	89.92	8,401.00	-1,698.55	5,322.70	5,531.55	0.00	0.00	0.00
13,665.00	90.00	89.92	8,401.00	-1,698.53	5,337.70	5,546.34	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
13,680.00	90.00	89.92	8,401.00	-1,698.51	5,352.70	5,561.13	0.00	0.00	0.00	
13,695.00	90.00	89.92	8,401.00	-1,698.49	5,367.70	5,575.91	0.00	0.00	0.00	
13,710.00	90.00	89.92	8,401.00	-1,698.47	5,382.70	5,590.70	0.00	0.00	0.00	
13,725.00	90.00	89.92	8,401.00	-1,698.45	5,397.70	5,605.48	0.00	0.00	0.00	
13,740.00	90.00	89.92	8,401.00	-1,698.43	5,412.70	5,620.27	0.00	0.00	0.00	
13,755.00	90.00	89.92	8,401.00	-1,698.41	5,427.70	5,635.06	0.00	0.00	0.00	
13,770.00	90.00	89.92	8,401.00	-1,698.38	5,442.70	5,649.84	0.00	0.00	0.00	
13,785.00	90.00	89.92	8,401.00	-1,698.36	5,457.70	5,664.63	0.00	0.00	0.00	
13,800.00	90.00	89.92	8,401.00	-1,698.34	5,472.70	5,679.42	0.00	0.00	0.00	
13,815.00	90.00	89.92	8,401.00	-1,698.32	5,487.70	5,694.20	0.00	0.00	0.00	
13,830.00	90.00	89.92	8,401.00	-1,698.30	5,502.70	5,708.99	0.00	0.00	0.00	
13,845.00	90.00	89.92	8,401.00	-1,698.28	5,517.70	5,723.77	0.00	0.00	0.00	
13,860.00	90.00	89.92	8,401.00	-1,698.26	5,532.70	5,738.56	0.00	0.00	0.00	
13,875.00	90.00	89.92	8,401.00	-1,698.24	5,547.70	5,753.35	0.00	0.00	0.00	
13,890.00	90.00	89.92	8,401.00	-1,698.22	5,562.70	5,768.13	0.00	0.00	0.00	
13,905.00	90.00	89.92	8,401.00	-1,698.20	5,577.70	5,782.92	0.00	0.00	0.00	
13,920.00	90.00	89.92	8,401.00	-1,698.18	5,592.70	5,797.71	0.00	0.00	0.00	
13,935.00	90.00	89.92	8,401.00	-1,698.16	5,607.70	5,812.49	0.00	0.00	0.00	
13,950.00	90.00	89.92	8,401.00	-1,698.14	5,622.70	5,827.28	0.00	0.00	0.00	
13,965.00	90.00	89.92	8,401.00	-1,698.12	5,637.70	5,842.06	0.00	0.00	0.00	
13,980.00	90.00	89.92	8,401.00	-1,698.10	5,652.70	5,856.85	0.00	0.00	0.00	
13,995.00	90.00	89.92	8,401.00	-1,698.08	5,667.70	5,871.64	0.00	0.00	0.00	
14,010.00	90.00	89.92	8,401.00	-1,698.06	5,682.70	5,886.42	0.00	0.00	0.00	
14,025.00	90.00	89.92	8,401.00	-1,698.04	5,697.70	5,901.21	0.00	0.00	0.00	
14,040.00	90.00	89.92	8,401.00	-1,698.02	5,712.70	5,915.99	0.00	0.00	0.00	
14,055.00	90.00	89.92	8,401.00	-1,698.00	5,727.70	5,930.78	0.00	0.00	0.00	
14,070.00	90.00	89.92	8,401.00	-1,697.98	5,742.70	5,945.57	0.00	0.00	0.00	
14,085.00	90.00	89.92	8,401.00	-1,697.96	5,757.70	5,960.35	0.00	0.00	0.00	
14,100.00	90.00	89.92	8,401.00	-1,697.94	5,772.70	5,975.14	0.00	0.00	0.00	
14,115.00	90.00	89.92	8,401.00	-1,697.92	5,787.70	5,989.93	0.00	0.00	0.00	
14,130.00	90.00	89.92	8,401.00	-1,697.90	5,802.70	6,004.71	0.00	0.00	0.00	
14,145.00	90.00	89.92	8,401.00	-1,697.88	5,817.70	6,019.50	0.00	0.00	0.00	
14,160.00	90.00	89.92	8,401.00	-1,697.86	5,832.70	6,034.28	0.00	0.00	0.00	
14,175.00	90.00	89.92	8,401.00	-1,697.84	5,847.70	6,049.07	0.00	0.00	0.00	
14,190.00	90.00	89.92	8,401.00	-1,697.82	5,862.70	6,063.86	0.00	0.00	0.00	
14,205.00	90.00	89.92	8,401.00	-1,697.80	5,877.70	6,078.64	0.00	0.00	0.00	
14,207.30	90.00	89.92	8,401.00	-1,697.80	5,880.00	6,080.91	0.00	0.00	0.00	
14,220.00	90.00	90.18	8,401.00	-1,697.81	5,892.70	6,093.43	2.00	0.00	2.00	
14,235.00	90.00	90.48	8,401.00	-1,697.90	5,907.70	6,108.24	2.00	0.00	2.00	
14,250.00	90.00	90.78	8,401.00	-1,698.06	5,922.70	6,123.05	2.00	0.00	2.00	
14,265.00	90.00	91.08	8,401.00	-1,698.30	5,937.70	6,137.88	2.00	0.00	2.00	
14,280.00	90.00	91.38	8,401.00	-1,698.63	5,952.69	6,152.72	2.00	0.00	2.00	
14,295.00	90.00	91.68	8,401.00	-1,699.02	5,967.69	6,167.57	2.00	0.00	2.00	
14,297.13	90.00	91.72	8,401.00	-1,699.09	5,969.82	6,169.68	2.00	0.00	2.00	
14,310.00	90.00	91.72	8,401.00	-1,699.47	5,982.68	6,182.43	0.00	0.00	0.00	
14,325.00	90.00	91.72	8,401.00	-1,699.92	5,997.67	6,197.29	0.00	0.00	0.00	
14,340.00	90.00	91.72	8,401.00	-1,700.37	6,012.67	6,212.15	0.00	0.00	0.00	
14,355.00	90.00	91.72	8,401.00	-1,700.83	6,027.66	6,227.00	0.00	0.00	0.00	
14,370.00	90.00	91.72	8,401.00	-1,701.28	6,042.65	6,241.86	0.00	0.00	0.00	
14,385.00	90.00	91.72	8,401.00	-1,701.73	6,057.65	6,256.72	0.00	0.00	0.00	
14,400.00	90.00	91.72	8,401.00	-1,702.18	6,072.64	6,271.58	0.00	0.00	0.00	
14,415.00	90.00	91.72	8,401.00	-1,702.63	6,087.63	6,286.44	0.00	0.00	0.00	
14,430.00	90.00	91.72	8,401.00	-1,703.08	6,102.63	6,301.29	0.00	0.00	0.00	
14,445.00	90.00	91.72	8,401.00	-1,703.53	6,117.62	6,316.15	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,460.00	90.00	91.72	8,401.00	-1,703.98	6,132.61	6,331.01	0.00	0.00	0.00	
14,475.00	90.00	91.72	8,401.00	-1,704.43	6,147.61	6,345.87	0.00	0.00	0.00	
14,490.00	90.00	91.72	8,401.00	-1,704.88	6,162.60	6,360.73	0.00	0.00	0.00	
14,505.00	90.00	91.72	8,401.00	-1,705.33	6,177.59	6,375.58	0.00	0.00	0.00	
14,520.00	90.00	91.72	8,401.00	-1,705.78	6,192.59	6,390.44	0.00	0.00	0.00	
14,535.00	90.00	91.72	8,401.00	-1,706.23	6,207.58	6,405.30	0.00	0.00	0.00	
14,550.00	90.00	91.72	8,401.00	-1,706.68	6,222.57	6,420.16	0.00	0.00	0.00	
14,565.00	90.00	91.72	8,401.00	-1,707.13	6,237.57	6,435.02	0.00	0.00	0.00	
14,580.00	90.00	91.72	8,401.00	-1,707.58	6,252.56	6,449.87	0.00	0.00	0.00	
14,595.00	90.00	91.72	8,401.00	-1,708.03	6,267.55	6,464.73	0.00	0.00	0.00	
14,610.00	90.00	91.72	8,401.00	-1,708.48	6,282.54	6,479.59	0.00	0.00	0.00	
14,625.00	90.00	91.72	8,401.00	-1,708.93	6,297.54	6,494.45	0.00	0.00	0.00	
14,640.00	90.00	91.72	8,401.00	-1,709.38	6,312.53	6,509.31	0.00	0.00	0.00	
14,655.00	90.00	91.72	8,401.00	-1,709.83	6,327.52	6,524.16	0.00	0.00	0.00	
14,670.00	90.00	91.72	8,401.00	-1,710.28	6,342.52	6,539.02	0.00	0.00	0.00	
14,685.00	90.00	91.72	8,401.00	-1,710.73	6,357.51	6,553.88	0.00	0.00	0.00	
14,700.00	90.00	91.72	8,401.00	-1,711.18	6,372.50	6,568.74	0.00	0.00	0.00	
14,715.00	90.00	91.72	8,401.00	-1,711.63	6,387.50	6,583.60	0.00	0.00	0.00	
14,730.00	90.00	91.72	8,401.00	-1,712.08	6,402.49	6,598.45	0.00	0.00	0.00	
14,745.00	90.00	91.72	8,401.00	-1,712.53	6,417.48	6,613.31	0.00	0.00	0.00	
14,760.00	90.00	91.72	8,401.00	-1,712.98	6,432.48	6,628.17	0.00	0.00	0.00	
14,775.00	90.00	91.72	8,401.00	-1,713.43	6,447.47	6,643.03	0.00	0.00	0.00	
14,790.00	90.00	91.72	8,401.00	-1,713.88	6,462.46	6,657.89	0.00	0.00	0.00	
14,805.00	90.00	91.72	8,401.00	-1,714.33	6,477.46	6,672.74	0.00	0.00	0.00	
14,820.00	90.00	91.72	8,401.00	-1,714.78	6,492.45	6,687.60	0.00	0.00	0.00	
14,835.00	90.00	91.72	8,401.00	-1,715.23	6,507.44	6,702.46	0.00	0.00	0.00	
14,850.00	90.00	91.72	8,401.00	-1,715.68	6,522.44	6,717.32	0.00	0.00	0.00	
14,865.00	90.00	91.72	8,401.00	-1,716.13	6,537.43	6,732.18	0.00	0.00	0.00	
14,880.00	90.00	91.72	8,401.00	-1,716.58	6,552.42	6,747.03	0.00	0.00	0.00	
14,895.00	90.00	91.72	8,401.00	-1,717.03	6,567.42	6,761.89	0.00	0.00	0.00	
14,910.00	90.00	91.72	8,401.00	-1,717.48	6,582.41	6,776.75	0.00	0.00	0.00	
14,925.00	90.00	91.72	8,401.00	-1,717.93	6,597.40	6,791.61	0.00	0.00	0.00	
14,940.00	90.00	91.72	8,401.00	-1,718.38	6,612.40	6,806.47	0.00	0.00	0.00	
14,955.00	90.00	91.72	8,401.00	-1,718.83	6,627.39	6,821.32	0.00	0.00	0.00	
14,970.00	90.00	91.72	8,401.00	-1,719.28	6,642.38	6,836.18	0.00	0.00	0.00	
14,985.00	90.00	91.72	8,401.00	-1,719.73	6,657.38	6,851.04	0.00	0.00	0.00	
15,000.00	90.00	91.72	8,401.00	-1,720.18	6,672.37	6,865.90	0.00	0.00	0.00	
15,015.00	90.00	91.72	8,401.00	-1,720.64	6,687.36	6,880.76	0.00	0.00	0.00	
15,030.00	90.00	91.72	8,401.00	-1,721.09	6,702.36	6,895.61	0.00	0.00	0.00	
15,045.00	90.00	91.72	8,401.00	-1,721.54	6,717.35	6,910.47	0.00	0.00	0.00	
15,060.00	90.00	91.72	8,401.00	-1,721.99	6,732.34	6,925.33	0.00	0.00	0.00	
15,075.00	90.00	91.72	8,401.00	-1,722.44	6,747.34	6,940.19	0.00	0.00	0.00	
15,090.00	90.00	91.72	8,401.00	-1,722.89	6,762.33	6,955.05	0.00	0.00	0.00	
15,105.00	90.00	91.72	8,401.00	-1,723.34	6,777.32	6,969.90	0.00	0.00	0.00	
15,120.00	90.00	91.72	8,401.00	-1,723.79	6,792.32	6,984.76	0.00	0.00	0.00	
15,135.00	90.00	91.72	8,401.00	-1,724.24	6,807.31	6,999.62	0.00	0.00	0.00	
15,150.00	90.00	91.72	8,401.00	-1,724.69	6,822.30	7,014.48	0.00	0.00	0.00	
15,165.00	90.00	91.72	8,401.00	-1,725.14	6,837.29	7,029.34	0.00	0.00	0.00	
15,180.00	90.00	91.72	8,401.00	-1,725.59	6,852.29	7,044.19	0.00	0.00	0.00	
15,195.00	90.00	91.72	8,401.00	-1,726.04	6,867.28	7,059.05	0.00	0.00	0.00	
15,210.00	90.00	91.72	8,401.00	-1,726.49	6,882.27	7,073.91	0.00	0.00	0.00	
15,225.00	90.00	91.72	8,401.00	-1,726.94	6,897.27	7,088.77	0.00	0.00	0.00	
15,240.00	90.00	91.72	8,401.00	-1,727.39	6,912.26	7,103.63	0.00	0.00	0.00	
15,255.00	90.00	91.72	8,401.00	-1,727.84	6,927.25	7,118.48	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
15,270.00	90.00	91.72	8,401.00	-1,728.29	6,942.25	7,133.34	0.00	0.00	0.00	
15,285.00	90.00	91.72	8,401.00	-1,728.74	6,957.24	7,148.20	0.00	0.00	0.00	
15,300.00	90.00	91.72	8,401.00	-1,729.19	6,972.23	7,163.06	0.00	0.00	0.00	
15,315.00	90.00	91.72	8,401.00	-1,729.64	6,987.23	7,177.92	0.00	0.00	0.00	
15,330.00	90.00	91.72	8,401.00	-1,730.09	7,002.22	7,192.78	0.00	0.00	0.00	
15,345.00	90.00	91.72	8,401.00	-1,730.54	7,017.21	7,207.63	0.00	0.00	0.00	
15,360.00	90.00	91.72	8,401.00	-1,730.99	7,032.21	7,222.49	0.00	0.00	0.00	
15,375.00	90.00	91.72	8,401.00	-1,731.44	7,047.20	7,237.35	0.00	0.00	0.00	
15,390.00	90.00	91.72	8,401.00	-1,731.89	7,062.19	7,252.21	0.00	0.00	0.00	
15,405.00	90.00	91.72	8,401.00	-1,732.34	7,077.19	7,267.07	0.00	0.00	0.00	
15,420.00	90.00	91.72	8,401.00	-1,732.79	7,092.18	7,281.92	0.00	0.00	0.00	
15,435.00	90.00	91.72	8,401.00	-1,733.24	7,107.17	7,296.78	0.00	0.00	0.00	
15,450.00	90.00	91.72	8,401.00	-1,733.69	7,122.17	7,311.64	0.00	0.00	0.00	
15,465.00	90.00	91.72	8,401.00	-1,734.14	7,137.16	7,326.50	0.00	0.00	0.00	
15,480.00	90.00	91.72	8,401.00	-1,734.59	7,152.15	7,341.36	0.00	0.00	0.00	
15,495.00	90.00	91.72	8,401.00	-1,735.04	7,167.15	7,356.21	0.00	0.00	0.00	
15,510.00	90.00	91.72	8,401.00	-1,735.49	7,182.14	7,371.07	0.00	0.00	0.00	
15,525.00	90.00	91.72	8,401.00	-1,735.94	7,197.13	7,385.93	0.00	0.00	0.00	
15,540.00	90.00	91.72	8,401.00	-1,736.39	7,212.13	7,400.79	0.00	0.00	0.00	
15,555.00	90.00	91.72	8,401.00	-1,736.84	7,227.12	7,415.65	0.00	0.00	0.00	
15,570.00	90.00	91.72	8,401.00	-1,737.29	7,242.11	7,430.50	0.00	0.00	0.00	
15,585.00	90.00	91.72	8,401.00	-1,737.74	7,257.11	7,445.36	0.00	0.00	0.00	
15,600.00	90.00	91.72	8,401.00	-1,738.19	7,272.10	7,460.22	0.00	0.00	0.00	
15,615.00	90.00	91.72	8,401.00	-1,738.64	7,287.09	7,475.08	0.00	0.00	0.00	
15,630.00	90.00	91.72	8,401.00	-1,739.09	7,302.09	7,489.94	0.00	0.00	0.00	
15,645.00	90.00	91.72	8,401.00	-1,739.54	7,317.08	7,504.79	0.00	0.00	0.00	
15,660.00	90.00	91.72	8,401.00	-1,739.99	7,332.07	7,519.65	0.00	0.00	0.00	
15,675.00	90.00	91.72	8,401.00	-1,740.45	7,347.07	7,534.51	0.00	0.00	0.00	
15,690.00	90.00	91.72	8,401.00	-1,740.90	7,362.06	7,549.37	0.00	0.00	0.00	
15,705.00	90.00	91.72	8,401.00	-1,741.35	7,377.05	7,564.23	0.00	0.00	0.00	
15,720.00	90.00	91.72	8,401.00	-1,741.80	7,392.04	7,579.08	0.00	0.00	0.00	
15,735.00	90.00	91.72	8,401.00	-1,742.25	7,407.04	7,593.94	0.00	0.00	0.00	
15,750.00	90.00	91.72	8,401.00	-1,742.70	7,422.03	7,608.80	0.00	0.00	0.00	
15,765.00	90.00	91.72	8,401.00	-1,743.15	7,437.02	7,623.66	0.00	0.00	0.00	
15,780.00	90.00	91.72	8,401.00	-1,743.60	7,452.02	7,638.52	0.00	0.00	0.00	
15,795.00	90.00	91.72	8,401.00	-1,744.05	7,467.01	7,653.37	0.00	0.00	0.00	
15,810.00	90.00	91.72	8,401.00	-1,744.50	7,482.00	7,668.23	0.00	0.00	0.00	
15,825.00	90.00	91.72	8,401.00	-1,744.95	7,497.00	7,683.09	0.00	0.00	0.00	
15,840.00	90.00	91.72	8,401.00	-1,745.40	7,511.99	7,697.95	0.00	0.00	0.00	
15,855.00	90.00	91.72	8,401.00	-1,745.85	7,526.98	7,712.81	0.00	0.00	0.00	
15,870.00	90.00	91.72	8,401.00	-1,746.30	7,541.98	7,727.66	0.00	0.00	0.00	
15,885.00	90.00	91.72	8,401.00	-1,746.75	7,556.97	7,742.52	0.00	0.00	0.00	
15,900.00	90.00	91.72	8,401.00	-1,747.20	7,571.96	7,757.38	0.00	0.00	0.00	
15,915.00	90.00	91.72	8,401.00	-1,747.65	7,586.96	7,772.24	0.00	0.00	0.00	
15,930.00	90.00	91.72	8,401.00	-1,748.10	7,601.95	7,787.10	0.00	0.00	0.00	
15,945.00	90.00	91.72	8,401.00	-1,748.55	7,616.94	7,801.95	0.00	0.00	0.00	
15,960.00	90.00	91.72	8,401.00	-1,749.00	7,631.94	7,816.81	0.00	0.00	0.00	
15,975.00	90.00	91.72	8,401.00	-1,749.45	7,646.93	7,831.67	0.00	0.00	0.00	
15,990.00	90.00	91.72	8,401.00	-1,749.90	7,661.92	7,846.53	0.00	0.00	0.00	
16,005.00	90.00	91.72	8,401.00	-1,750.35	7,676.92	7,861.39	0.00	0.00	0.00	
16,020.00	90.00	91.72	8,401.00	-1,750.80	7,691.91	7,876.24	0.00	0.00	0.00	
16,035.00	90.00	91.72	8,401.00	-1,751.25	7,706.90	7,891.10	0.00	0.00	0.00	
16,050.00	90.00	91.72	8,401.00	-1,751.70	7,721.90	7,905.96	0.00	0.00	0.00	
16,065.00	90.00	91.72	8,401.00	-1,752.15	7,736.89	7,920.82	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
16,080.00	90.00	91.72	8,401.00	-1,752.60	7,751.88	7,935.68	0.00	0.00	0.00	
16,095.00	90.00	91.72	8,401.00	-1,753.05	7,766.88	7,950.53	0.00	0.00	0.00	
16,110.00	90.00	91.72	8,401.00	-1,753.50	7,781.87	7,965.39	0.00	0.00	0.00	
16,125.00	90.00	91.72	8,401.00	-1,753.95	7,796.86	7,980.25	0.00	0.00	0.00	
16,140.00	90.00	91.72	8,401.00	-1,754.40	7,811.86	7,995.11	0.00	0.00	0.00	
16,155.00	90.00	91.72	8,401.00	-1,754.85	7,826.85	8,009.97	0.00	0.00	0.00	
16,170.00	90.00	91.72	8,401.00	-1,755.30	7,841.84	8,024.82	0.00	0.00	0.00	
16,185.00	90.00	91.72	8,401.00	-1,755.75	7,856.84	8,039.68	0.00	0.00	0.00	
16,200.00	90.00	91.72	8,401.00	-1,756.20	7,871.83	8,054.54	0.00	0.00	0.00	
16,215.00	90.00	91.72	8,401.00	-1,756.65	7,886.82	8,069.40	0.00	0.00	0.00	
16,230.00	90.00	91.72	8,401.00	-1,757.10	7,901.82	8,084.26	0.00	0.00	0.00	
16,245.00	90.00	91.72	8,401.00	-1,757.55	7,916.81	8,099.11	0.00	0.00	0.00	
16,260.00	90.00	91.72	8,401.00	-1,758.00	7,931.80	8,113.97	0.00	0.00	0.00	
16,275.00	90.00	91.72	8,401.00	-1,758.45	7,946.79	8,128.83	0.00	0.00	0.00	
16,290.00	90.00	91.72	8,401.00	-1,758.90	7,961.79	8,143.69	0.00	0.00	0.00	
16,305.00	90.00	91.72	8,401.00	-1,759.35	7,976.78	8,158.55	0.00	0.00	0.00	
16,320.00	90.00	91.72	8,401.00	-1,759.80	7,991.77	8,173.40	0.00	0.00	0.00	
16,335.00	90.00	91.72	8,401.00	-1,760.26	8,006.77	8,188.26	0.00	0.00	0.00	
16,350.00	90.00	91.72	8,401.00	-1,760.71	8,021.76	8,203.12	0.00	0.00	0.00	
16,365.00	90.00	91.72	8,401.00	-1,761.16	8,036.75	8,217.98	0.00	0.00	0.00	
16,380.00	90.00	91.72	8,401.00	-1,761.61	8,051.75	8,232.84	0.00	0.00	0.00	
16,395.00	90.00	91.72	8,401.00	-1,762.06	8,066.74	8,247.69	0.00	0.00	0.00	
16,410.00	90.00	91.72	8,401.00	-1,762.51	8,081.73	8,262.55	0.00	0.00	0.00	
16,425.00	90.00	91.72	8,401.00	-1,762.96	8,096.73	8,277.41	0.00	0.00	0.00	
16,440.00	90.00	91.72	8,401.00	-1,763.41	8,111.72	8,292.27	0.00	0.00	0.00	
16,455.00	90.00	91.72	8,401.00	-1,763.86	8,126.71	8,307.13	0.00	0.00	0.00	
16,470.00	90.00	91.72	8,401.00	-1,764.31	8,141.71	8,321.98	0.00	0.00	0.00	
16,485.00	90.00	91.72	8,401.00	-1,764.76	8,156.70	8,336.84	0.00	0.00	0.00	
16,500.00	90.00	91.72	8,401.00	-1,765.21	8,171.69	8,351.70	0.00	0.00	0.00	
16,515.00	90.00	91.72	8,401.00	-1,765.66	8,186.69	8,366.56	0.00	0.00	0.00	
16,530.00	90.00	91.72	8,401.00	-1,766.11	8,201.68	8,381.42	0.00	0.00	0.00	
16,545.00	90.00	91.72	8,401.00	-1,766.56	8,216.67	8,396.27	0.00	0.00	0.00	
16,560.00	90.00	91.72	8,401.00	-1,767.01	8,231.67	8,411.13	0.00	0.00	0.00	
16,575.00	90.00	91.72	8,401.00	-1,767.46	8,246.66	8,425.99	0.00	0.00	0.00	
16,590.00	90.00	91.72	8,401.00	-1,767.91	8,261.65	8,440.85	0.00	0.00	0.00	
16,605.00	90.00	91.72	8,401.00	-1,768.36	8,276.65	8,455.71	0.00	0.00	0.00	
16,620.00	90.00	91.72	8,401.00	-1,768.81	8,291.64	8,470.57	0.00	0.00	0.00	
16,635.00	90.00	91.72	8,401.00	-1,769.26	8,306.63	8,485.42	0.00	0.00	0.00	
16,650.00	90.00	91.72	8,401.00	-1,769.71	8,321.63	8,500.28	0.00	0.00	0.00	
16,665.00	90.00	91.72	8,401.00	-1,770.16	8,336.62	8,515.14	0.00	0.00	0.00	
16,680.00	90.00	91.72	8,401.00	-1,770.61	8,351.61	8,530.00	0.00	0.00	0.00	
16,695.00	90.00	91.72	8,401.00	-1,771.06	8,366.61	8,544.86	0.00	0.00	0.00	
16,710.00	90.00	91.72	8,401.00	-1,771.51	8,381.60	8,559.71	0.00	0.00	0.00	
16,725.00	90.00	91.72	8,401.00	-1,771.96	8,396.59	8,574.57	0.00	0.00	0.00	
16,740.00	90.00	91.72	8,401.00	-1,772.41	8,411.59	8,589.43	0.00	0.00	0.00	
16,755.00	90.00	91.72	8,401.00	-1,772.86	8,426.58	8,604.29	0.00	0.00	0.00	
16,770.00	90.00	91.72	8,401.00	-1,773.31	8,441.57	8,619.15	0.00	0.00	0.00	
16,785.00	90.00	91.72	8,401.00	-1,773.76	8,456.57	8,634.00	0.00	0.00	0.00	
16,800.00	90.00	91.72	8,401.00	-1,774.21	8,471.56	8,648.86	0.00	0.00	0.00	
16,815.00	90.00	91.72	8,401.00	-1,774.66	8,486.55	8,663.72	0.00	0.00	0.00	
16,830.00	90.00	91.72	8,401.00	-1,775.11	8,501.54	8,678.58	0.00	0.00	0.00	
16,845.00	90.00	91.72	8,401.00	-1,775.56	8,516.54	8,693.44	0.00	0.00	0.00	
16,860.00	90.00	91.72	8,401.00	-1,776.01	8,531.53	8,708.29	0.00	0.00	0.00	
16,875.00	90.00	91.72	8,401.00	-1,776.46	8,546.52	8,723.15	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)
16,890.00	90.00	91.72	8,401.00	-1,776.91	8,561.52	8,738.01	0.00	0.00	0.00
16,905.00	90.00	91.72	8,401.00	-1,777.36	8,576.51	8,752.87	0.00	0.00	0.00
16,920.00	90.00	91.72	8,401.00	-1,777.81	8,591.50	8,767.73	0.00	0.00	0.00
16,935.00	90.00	91.72	8,401.00	-1,778.26	8,606.50	8,782.58	0.00	0.00	0.00
16,950.00	90.00	91.72	8,401.00	-1,778.71	8,621.49	8,797.44	0.00	0.00	0.00
16,965.00	90.00	91.72	8,401.00	-1,779.16	8,636.48	8,812.30	0.00	0.00	0.00
16,980.00	90.00	91.72	8,401.00	-1,779.61	8,651.48	8,827.16	0.00	0.00	0.00
16,995.00	90.00	91.72	8,401.00	-1,780.07	8,666.47	8,842.02	0.00	0.00	0.00
17,010.00	90.00	91.72	8,401.00	-1,780.52	8,681.46	8,856.87	0.00	0.00	0.00
17,025.00	90.00	91.72	8,401.00	-1,780.97	8,696.46	8,871.73	0.00	0.00	0.00
17,040.00	90.00	91.72	8,401.00	-1,781.42	8,711.45	8,886.59	0.00	0.00	0.00
17,055.00	90.00	91.72	8,401.00	-1,781.87	8,726.44	8,901.45	0.00	0.00	0.00
17,070.00	90.00	91.72	8,401.00	-1,782.32	8,741.44	8,916.31	0.00	0.00	0.00
17,085.00	90.00	91.72	8,401.00	-1,782.77	8,756.43	8,931.16	0.00	0.00	0.00
17,100.00	90.00	91.72	8,401.00	-1,783.22	8,771.42	8,946.02	0.00	0.00	0.00
17,115.00	90.00	91.72	8,401.00	-1,783.67	8,786.42	8,960.88	0.00	0.00	0.00
17,130.00	90.00	91.72	8,401.00	-1,784.12	8,801.41	8,975.74	0.00	0.00	0.00
17,145.00	90.00	91.72	8,401.00	-1,784.57	8,816.40	8,990.60	0.00	0.00	0.00
17,160.00	90.00	91.72	8,401.00	-1,785.02	8,831.40	9,005.45	0.00	0.00	0.00
17,175.00	90.00	91.72	8,401.00	-1,785.47	8,846.39	9,020.31	0.00	0.00	0.00
17,190.00	90.00	91.72	8,401.00	-1,785.92	8,861.38	9,035.17	0.00	0.00	0.00
17,205.00	90.00	91.72	8,401.00	-1,786.37	8,876.38	9,050.03	0.00	0.00	0.00
17,220.00	90.00	91.72	8,401.00	-1,786.82	8,891.37	9,064.89	0.00	0.00	0.00
17,235.00	90.00	91.72	8,401.00	-1,787.27	8,906.36	9,079.74	0.00	0.00	0.00
17,250.00	90.00	91.72	8,401.00	-1,787.72	8,921.36	9,094.60	0.00	0.00	0.00
17,265.00	90.00	91.72	8,401.00	-1,788.17	8,936.35	9,109.46	0.00	0.00	0.00
17,280.00	90.00	91.72	8,401.00	-1,788.62	8,951.34	9,124.32	0.00	0.00	0.00
17,295.00	90.00	91.72	8,401.00	-1,789.07	8,966.34	9,139.18	0.00	0.00	0.00
17,310.00	90.00	91.72	8,401.00	-1,789.52	8,981.33	9,154.03	0.00	0.00	0.00
17,325.00	90.00	91.72	8,401.00	-1,789.97	8,996.32	9,168.89	0.00	0.00	0.00
17,340.00	90.00	91.72	8,401.00	-1,790.42	9,011.32	9,183.75	0.00	0.00	0.00
17,355.00	90.00	91.72	8,401.00	-1,790.87	9,026.31	9,198.61	0.00	0.00	0.00
17,370.00	90.00	91.72	8,401.00	-1,791.32	9,041.30	9,213.47	0.00	0.00	0.00
17,385.00	90.00	91.72	8,401.00	-1,791.77	9,056.29	9,228.32	0.00	0.00	0.00
17,400.00	90.00	91.72	8,401.00	-1,792.22	9,071.29	9,243.18	0.00	0.00	0.00
17,415.00	90.00	91.72	8,401.00	-1,792.67	9,086.28	9,258.04	0.00	0.00	0.00
17,430.00	90.00	91.72	8,401.00	-1,793.12	9,101.27	9,272.90	0.00	0.00	0.00
17,445.00	90.00	91.72	8,401.00	-1,793.57	9,116.27	9,287.76	0.00	0.00	0.00
17,460.00	90.00	91.72	8,401.00	-1,794.02	9,131.26	9,302.61	0.00	0.00	0.00
17,475.00	90.00	91.72	8,401.00	-1,794.47	9,146.25	9,317.47	0.00	0.00	0.00
17,490.00	90.00	91.72	8,401.00	-1,794.92	9,161.25	9,332.33	0.00	0.00	0.00
17,505.00	90.00	91.72	8,401.00	-1,795.37	9,176.24	9,347.19	0.00	0.00	0.00
17,520.00	90.00	91.72	8,401.00	-1,795.82	9,191.23	9,362.05	0.00	0.00	0.00
17,535.00	90.00	91.72	8,401.00	-1,796.27	9,206.23	9,376.90	0.00	0.00	0.00
17,550.00	90.00	91.72	8,401.00	-1,796.72	9,221.22	9,391.76	0.00	0.00	0.00
17,565.00	90.00	91.72	8,401.00	-1,797.17	9,236.21	9,406.62	0.00	0.00	0.00
17,580.00	90.00	91.72	8,401.00	-1,797.62	9,251.21	9,421.48	0.00	0.00	0.00
17,595.00	90.00	91.72	8,401.00	-1,798.07	9,266.20	9,436.34	0.00	0.00	0.00
17,610.00	90.00	91.72	8,401.00	-1,798.52	9,281.19	9,451.19	0.00	0.00	0.00
17,625.00	90.00	91.72	8,401.00	-1,798.97	9,296.19	9,466.05	0.00	0.00	0.00
17,640.00	90.00	91.72	8,401.00	-1,799.42	9,311.18	9,480.91	0.00	0.00	0.00
17,655.00	90.00	91.72	8,401.00	-1,799.88	9,326.17	9,495.77	0.00	0.00	0.00
17,670.00	90.00	91.72	8,401.00	-1,800.33	9,341.17	9,510.63	0.00	0.00	0.00
17,685.00	90.00	91.72	8,401.00	-1,800.78	9,356.16	9,525.48	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)	
17,700.00	90.00	91.72	8,401.00	-1,801.23	9,371.15	9,540.34	0.00	0.00	0.00	
17,715.00	90.00	91.72	8,401.00	-1,801.68	9,386.15	9,555.20	0.00	0.00	0.00	
17,730.00	90.00	91.72	8,401.00	-1,802.13	9,401.14	9,570.06	0.00	0.00	0.00	
17,745.00	90.00	91.72	8,401.00	-1,802.58	9,416.13	9,584.92	0.00	0.00	0.00	
17,760.00	90.00	91.72	8,401.00	-1,803.03	9,431.13	9,599.77	0.00	0.00	0.00	
17,775.00	90.00	91.72	8,401.00	-1,803.48	9,446.12	9,614.63	0.00	0.00	0.00	
17,790.00	90.00	91.72	8,401.00	-1,803.93	9,461.11	9,629.49	0.00	0.00	0.00	
17,805.00	90.00	91.72	8,401.00	-1,804.38	9,476.11	9,644.35	0.00	0.00	0.00	
17,820.00	90.00	91.72	8,401.00	-1,804.83	9,491.10	9,659.21	0.00	0.00	0.00	
17,835.00	90.00	91.72	8,401.00	-1,805.28	9,506.09	9,674.06	0.00	0.00	0.00	
17,850.00	90.00	91.72	8,401.00	-1,805.73	9,521.09	9,688.92	0.00	0.00	0.00	
17,865.00	90.00	91.72	8,401.00	-1,806.18	9,536.08	9,703.78	0.00	0.00	0.00	
17,880.00	90.00	91.72	8,401.00	-1,806.63	9,551.07	9,718.64	0.00	0.00	0.00	
17,895.00	90.00	91.72	8,401.00	-1,807.08	9,566.06	9,733.50	0.00	0.00	0.00	
17,910.00	90.00	91.72	8,401.00	-1,807.53	9,581.06	9,748.35	0.00	0.00	0.00	
17,925.00	90.00	91.72	8,401.00	-1,807.98	9,596.05	9,763.21	0.00	0.00	0.00	
17,940.00	90.00	91.72	8,401.00	-1,808.43	9,611.04	9,778.07	0.00	0.00	0.00	
17,955.00	90.00	91.72	8,401.00	-1,808.88	9,626.04	9,792.93	0.00	0.00	0.00	
17,970.00	90.00	91.72	8,401.00	-1,809.33	9,641.03	9,807.79	0.00	0.00	0.00	
17,985.00	90.00	91.72	8,401.00	-1,809.78	9,656.02	9,822.65	0.00	0.00	0.00	
18,000.00	90.00	91.72	8,401.00	-1,810.23	9,671.02	9,837.50	0.00	0.00	0.00	
18,015.00	90.00	91.72	8,401.00	-1,810.68	9,686.01	9,852.36	0.00	0.00	0.00	
18,030.00	90.00	91.72	8,401.00	-1,811.13	9,701.00	9,867.22	0.00	0.00	0.00	
18,045.00	90.00	91.72	8,401.00	-1,811.58	9,716.00	9,882.08	0.00	0.00	0.00	
18,060.00	90.00	91.72	8,401.00	-1,812.03	9,730.99	9,896.94	0.00	0.00	0.00	
18,075.00	90.00	91.72	8,401.00	-1,812.48	9,745.98	9,911.79	0.00	0.00	0.00	
18,090.00	90.00	91.72	8,401.00	-1,812.93	9,760.98	9,926.65	0.00	0.00	0.00	
18,105.00	90.00	91.72	8,401.00	-1,813.38	9,775.97	9,941.51	0.00	0.00	0.00	
18,120.00	90.00	91.72	8,401.00	-1,813.83	9,790.96	9,956.37	0.00	0.00	0.00	
18,135.00	90.00	91.72	8,401.00	-1,814.28	9,805.96	9,971.23	0.00	0.00	0.00	
18,150.00	90.00	91.72	8,401.00	-1,814.73	9,820.95	9,986.08	0.00	0.00	0.00	
18,165.00	90.00	91.72	8,401.00	-1,815.18	9,835.94	10,000.94	0.00	0.00	0.00	
18,180.00	90.00	91.72	8,401.00	-1,815.63	9,850.94	10,015.80	0.00	0.00	0.00	
18,195.00	90.00	91.72	8,401.00	-1,816.08	9,865.93	10,030.66	0.00	0.00	0.00	
18,210.00	90.00	91.72	8,401.00	-1,816.53	9,880.92	10,045.52	0.00	0.00	0.00	
18,225.00	90.00	91.72	8,401.00	-1,816.98	9,895.92	10,060.37	0.00	0.00	0.00	
18,240.00	90.00	91.72	8,401.00	-1,817.43	9,910.91	10,075.23	0.00	0.00	0.00	
18,255.00	90.00	91.72	8,401.00	-1,817.88	9,925.90	10,090.09	0.00	0.00	0.00	
18,270.00	90.00	91.72	8,401.00	-1,818.33	9,940.90	10,104.95	0.00	0.00	0.00	
18,285.00	90.00	91.72	8,401.00	-1,818.78	9,955.89	10,119.81	0.00	0.00	0.00	
18,300.00	90.00	91.72	8,401.00	-1,819.23	9,970.88	10,134.66	0.00	0.00	0.00	
18,315.00	90.00	91.72	8,401.00	-1,819.69	9,985.88	10,149.52	0.00	0.00	0.00	
18,330.00	90.00	91.72	8,401.00	-1,820.14	10,000.87	10,164.38	0.00	0.00	0.00	
18,345.00	90.00	91.72	8,401.00	-1,820.59	10,015.86	10,179.24	0.00	0.00	0.00	
18,360.00	90.00	91.72	8,401.00	-1,821.04	10,030.86	10,194.10	0.00	0.00	0.00	
18,375.00	90.00	91.72	8,401.00	-1,821.49	10,045.85	10,208.95	0.00	0.00	0.00	
18,390.00	90.00	91.72	8,401.00	-1,821.94	10,060.84	10,223.81	0.00	0.00	0.00	
18,405.00	90.00	91.72	8,401.00	-1,822.39	10,075.84	10,238.67	0.00	0.00	0.00	
18,420.00	90.00	91.72	8,401.00	-1,822.84	10,090.83	10,253.53	0.00	0.00	0.00	
18,435.00	90.00	91.72	8,401.00	-1,823.29	10,105.82	10,268.39	0.00	0.00	0.00	
18,450.00	90.00	91.72	8,401.00	-1,823.74	10,120.81	10,283.24	0.00	0.00	0.00	
18,465.00	90.00	91.72	8,401.00	-1,824.19	10,135.81	10,298.10	0.00	0.00	0.00	
18,480.00	90.00	91.72	8,401.00	-1,824.64	10,150.80	10,312.96	0.00	0.00	0.00	
18,495.00	90.00	91.72	8,401.00	-1,825.09	10,165.79	10,327.82	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

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)
18,510.00	90.00	91.72	8,401.00	-1,825.54	10,180.79	10,342.68	0.00	0.00	0.00
18,525.00	90.00	91.72	8,401.00	-1,825.99	10,195.78	10,357.53	0.00	0.00	0.00
18,540.00	90.00	91.72	8,401.00	-1,826.44	10,210.77	10,372.39	0.00	0.00	0.00
18,555.00	90.00	91.72	8,401.00	-1,826.89	10,225.77	10,387.25	0.00	0.00	0.00
18,570.00	90.00	91.72	8,401.00	-1,827.34	10,240.76	10,402.11	0.00	0.00	0.00
18,585.00	90.00	91.72	8,401.00	-1,827.79	10,255.75	10,416.97	0.00	0.00	0.00
18,600.00	90.00	91.72	8,401.00	-1,828.24	10,270.75	10,431.82	0.00	0.00	0.00
18,615.00	90.00	91.72	8,401.00	-1,828.69	10,285.74	10,446.68	0.00	0.00	0.00
18,630.00	90.00	91.72	8,401.00	-1,829.14	10,300.73	10,461.54	0.00	0.00	0.00
18,645.00	90.00	91.72	8,401.00	-1,829.59	10,315.73	10,476.40	0.00	0.00	0.00
18,660.00	90.00	91.72	8,401.00	-1,830.04	10,330.72	10,491.26	0.00	0.00	0.00
18,675.00	90.00	91.72	8,401.00	-1,830.49	10,345.71	10,506.11	0.00	0.00	0.00
18,690.00	90.00	91.72	8,401.00	-1,830.94	10,360.71	10,520.97	0.00	0.00	0.00
18,705.00	90.00	91.72	8,401.00	-1,831.39	10,375.70	10,535.83	0.00	0.00	0.00
18,720.00	90.00	91.72	8,401.00	-1,831.84	10,390.69	10,550.69	0.00	0.00	0.00
18,735.00	90.00	91.72	8,401.00	-1,832.29	10,405.69	10,565.55	0.00	0.00	0.00
18,750.00	90.00	91.72	8,401.00	-1,832.74	10,420.68	10,580.40	0.00	0.00	0.00
18,765.00	90.00	91.72	8,401.00	-1,833.19	10,435.67	10,595.26	0.00	0.00	0.00
18,780.00	90.00	91.72	8,401.00	-1,833.64	10,450.67	10,610.12	0.00	0.00	0.00
18,795.00	90.00	91.72	8,401.00	-1,834.09	10,465.66	10,624.98	0.00	0.00	0.00
18,810.00	90.00	91.72	8,401.00	-1,834.54	10,480.65	10,639.84	0.00	0.00	0.00
18,825.00	90.00	91.72	8,401.00	-1,834.99	10,495.65	10,654.69	0.00	0.00	0.00
18,840.00	90.00	91.72	8,401.00	-1,835.44	10,510.64	10,669.55	0.00	0.00	0.00
18,855.00	90.00	91.72	8,401.00	-1,835.89	10,525.63	10,684.41	0.00	0.00	0.00
18,870.00	90.00	91.72	8,401.00	-1,836.34	10,540.63	10,699.27	0.00	0.00	0.00
18,885.00	90.00	91.72	8,401.00	-1,836.79	10,555.62	10,714.13	0.00	0.00	0.00
18,900.00	90.00	91.72	8,401.00	-1,837.24	10,570.61	10,728.98	0.00	0.00	0.00
18,915.00	90.00	91.72	8,401.00	-1,837.69	10,585.61	10,743.84	0.00	0.00	0.00
18,930.00	90.00	91.72	8,401.00	-1,838.14	10,600.60	10,758.70	0.00	0.00	0.00
18,945.00	90.00	91.72	8,401.00	-1,838.59	10,615.59	10,773.56	0.00	0.00	0.00
18,960.00	90.00	91.72	8,401.00	-1,839.04	10,630.59	10,788.42	0.00	0.00	0.00
18,975.00	90.00	91.72	8,401.00	-1,839.50	10,645.58	10,803.27	0.00	0.00	0.00
18,990.00	90.00	91.72	8,401.00	-1,839.95	10,660.57	10,818.13	0.00	0.00	0.00
19,005.00	90.00	91.72	8,401.00	-1,840.40	10,675.56	10,832.99	0.00	0.00	0.00
19,020.00	90.00	91.72	8,401.00	-1,840.85	10,690.56	10,847.85	0.00	0.00	0.00
19,035.00	90.00	91.72	8,401.00	-1,841.30	10,705.55	10,862.71	0.00	0.00	0.00
19,050.00	90.00	91.72	8,401.00	-1,841.75	10,720.54	10,877.56	0.00	0.00	0.00
19,065.00	90.00	91.72	8,401.00	-1,842.20	10,735.54	10,892.42	0.00	0.00	0.00
19,080.00	90.00	91.72	8,401.00	-1,842.65	10,750.53	10,907.28	0.00	0.00	0.00
19,095.00	90.00	91.72	8,401.00	-1,843.10	10,765.52	10,922.14	0.00	0.00	0.00
19,110.00	90.00	91.72	8,401.00	-1,843.55	10,780.52	10,937.00	0.00	0.00	0.00
19,125.00	90.00	91.72	8,401.00	-1,844.00	10,795.51	10,951.85	0.00	0.00	0.00
19,140.00	90.00	91.72	8,401.00	-1,844.45	10,810.50	10,966.71	0.00	0.00	0.00
19,155.00	90.00	91.72	8,401.00	-1,844.90	10,825.50	10,981.57	0.00	0.00	0.00
19,170.00	90.00	91.72	8,401.00	-1,845.35	10,840.49	10,996.43	0.00	0.00	0.00
19,185.00	90.00	91.72	8,401.00	-1,845.80	10,855.48	11,011.29	0.00	0.00	0.00
19,200.00	90.00	91.72	8,401.00	-1,846.25	10,870.48	11,026.14	0.00	0.00	0.00
19,215.00	90.00	91.72	8,401.00	-1,846.70	10,885.47	11,041.00	0.00	0.00	0.00
19,230.00	90.00	91.72	8,401.00	-1,847.15	10,900.46	11,055.86	0.00	0.00	0.00
19,241.70	90.00	91.72	8,401.00	-1,847.50	10,912.16	11,067.45	0.00	0.00	0.00

**ConocoPhillips**  
Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Company:</b>	DELAWARE BASIN WEST	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site:</b>	VALKYRIE FED COM	<b>North Reference:</b>	Grid
<b>Well:</b>	_VALKYRIE FED COM 501H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWPO		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PBHL_r_VALKYRIE FED - plan misses target center by 110.33usft at 19241.70usft MD (8401.00 TVD, -1847.50 N, 10912.16 E) - Rectangle (sides W100.00 H5,113.00 D20.00)	0.00	271.72	8,401.00	-1,851.14	11,022.43	478,131.54	598,339.49	32° 18' 50.754 N	104° 0' 54.052 W
PBHL_r_VALKYRIE FED - plan misses target center by 1319.85usft at 19241.70usft MD (8401.00 TVD, -1847.50 N, 10912.16 E) - Rectangle (sides W100.00 H5,058.00 D20.00)	0.00	271.71	8,401.00	-528.93	10,970.37	479,453.75	598,287.43	32° 19' 3.841 N	104° 0' 54.613 W
LTP_r_VALKYRIE FED C - plan misses target center by 1319.75usft at 19210.19usft MD (8401.00 TVD, -1846.55 N, 10880.66 E) - Circle (radius 50.00)	90.00	91.71	8,401.00	-527.40	10,920.27	479,455.28	598,237.33	32° 19' 3.857 N	104° 0' 55.197 W
LTP_r_VALKYRIE FED C - plan misses target center by 60.20usft at 19241.70usft MD (8401.00 TVD, -1847.50 N, 10912.16 E) - Circle (radius 50.00)	90.00	91.72	8,401.00	-1,849.61	10,972.33	478,133.07	598,289.39	32° 18' 50.771 N	104° 0' 54.636 W
PBHL_VALKYRIE FED ( ) - plan misses target center by 619.50usft at 19241.70usft MD (8401.00 TVD, -1847.50 N, 10912.16 E) - Rectangle (sides W100.00 H5,127.00 D20.00)	0.00	271.72	8,901.00	-2,191.72	11,035.84	477,790.96	598,352.90	32° 18' 47.384 N	104° 0' 53.908 W
PBHL_r_VALKYRIE FED - plan misses target center by 1181.35usft at 19241.70usft MD (8401.00 TVD, -1847.50 N, 10912.16 E) - Rectangle (sides W100.00 H5,068.00 D20.00)	0.00	271.71	8,901.00	-779.35	10,980.23	479,203.33	598,297.29	32° 19' 1.362 N	104° 0' 54.507 W
LTP_r_VALKYRIE FED C - plan misses target center by 1180.82usft at 19227.56usft MD (8401.00 TVD, -1847.08 N, 10898.02 E) - Circle (radius 50.00)	90.00	91.71	8,901.00	-777.82	10,930.13	479,204.86	598,247.19	32° 19' 1.379 N	104° 0' 55.091 W
LTP_VALKYRIE FED CC - plan misses target center by 610.61usft at 19241.70usft MD (8401.00 TVD, -1847.50 N, 10912.16 E) - Circle (radius 50.00)	90.00	91.72	8,901.00	-2,190.18	10,985.74	477,792.50	598,302.80	32° 18' 47.400 N	104° 0' 54.492 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
19,241.71	8,401.00	5-1/2" Production Casing	5-1/2	6-3/4	

# **DELAWARE BASIN WEST**

**EDDY COUNTY \_DBW\_NM\_E**

**VALKYRIE FED COM**

**\_VALKYRIE FED COM 501H**

**OWB**

**PWP0**

## **Anticollision Report**

**20 January, 2026**

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP0	<b>Offset TVD Reference:</b>	Reference Datum

<b>Reference</b>	PWP0		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations 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>	Max. Cent. Dist. of 1,000.00usft or Max. Ell. Sep. of 500.00usft	<b>Error Surface:</b>	Combined Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.79 Sigma	<b>Casing Method:</b>	Added to Error Values

<b>Survey Tool Program</b>	Date	1/20/2026		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	19,241.70	PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR	OWSG MWD + IFR1 + SAG + FDIR Corr.

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
<b>Summary</b>						
<b>Offset Well - Wellbore - Design</b>						
TROJAN SHIELD						
AMOCO FEDERAL 11 001_PA - OWB - AWP	2,672.27	2,585.95	430.40	336.32	4.575	CC
AMOCO FEDERAL 11 001_PA - OWB - AWP	2,800.00	2,707.11	432.33	334.53	4.420	ES
AMOCO FEDERAL 11 001_PA - OWB - AWP	3,500.00	3,370.86	504.54	382.73	4.142	SF
VALKYRIE FED COM						
_VALKYRIE FED COM 502H - OWB - PWP0	1,000.00	1,001.00	89.60	81.62	11.227	CC, ES
_VALKYRIE FED COM 502H - OWB - PWP0	1,100.00	1,100.98	91.28	82.79	10.761	SF
_VALKYRIE FED COM 551H - OWB - PWP0	1,209.17	1,206.08	29.95	20.81	3.278	CC
_VALKYRIE FED COM 551H - OWB - PWP0	1,800.00	1,791.07	30.70	19.02	2.629	Normal Operations, ES
_VALKYRIE FED COM 551H - OWB - PWP0	1,900.00	1,890.10	31.09	19.06	2.584	Normal Operations, SF
_VALKYRIE FED COM 552H - OWB - PWP0	1,000.00	999.00	59.62	51.64	7.469	CC, ES
_VALKYRIE FED COM 552H - OWB - PWP0	1,100.00	1,098.98	61.30	52.81	7.225	SF
ASTRODOG FEE 08 114H - OWB - AWP	19,241.70	8,144.19	999.29	915.89	11.982	CC, ES, SF
ASTRODOG FEE 0809 124H - OWB - AWP	19,241.70	8,676.61	321.63	254.94	4.822	CC, ES, SF
ASTRODOG FEE 0809 133H - OWB - AWP	19,241.70	8,577.04	868.88	693.50	4.954	CC, ES, SF
ASTRODOG FEE 0809 213H - OWB - AWP						Out of range
ASTRODOG FEE 0809 214H - OWB - AWP	19,241.70	8,741.13	431.08	341.18	4.795	CC, ES, SF
ASTRODOG FEE 0809 224H - OWB - AWP	15,307.51	8,677.15	249.44	128.91	2.069	Caution - Monitor Closely, CC, ES, SF
ASTRODOG FEE 0809 234H - OWB - AWP	19,241.70	8,789.41	213.50	75.26	1.544	Caution - Monitor Closely, CC, ES, SF
H F 7 FEDERAL COM 001 - 0°WB - 0°WP						Out of range
H F 7 FEDERAL COM 001 - 105° WB - 105° WP						Out of range
H F 7 FEDERAL COM 001 - 120° WB - 120° WP						Out of range
H F 7 FEDERAL COM 001 - 135° WB - 135° WP						Out of range
H F 7 FEDERAL COM 001 - 15° WB - 15° WP						Out of range
H F 7 FEDERAL COM 001 - 150° WB - 150° WP						Out of range
H F 7 FEDERAL COM 001 - 165° WB - 165° WP						Out of range
H F 7 FEDERAL COM 001 - 180° WB - 180° WP						Out of range
H F 7 FEDERAL COM 001 - 195° WB - 195° WP						Out of range
H F 7 FEDERAL COM 001 - 210° WB - 210° WP						Out of range
H F 7 FEDERAL COM 001 - 225° WB - 225° WP						Out of range
H F 7 FEDERAL COM 001 - 240° WB - 240° WP						Out of range
H F 7 FEDERAL COM 001 - 255°WB - 255°WP						Out of range
H F 7 FEDERAL COM 001 - 270° WB - 270° WP						Out of range
H F 7 FEDERAL COM 001 - 30°WB - 30°WP						Out of range

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
VALKYRIE FED COM						
H F 7 FEDERAL COM 001 - 330°WB - 330°WP						Out of range
H F 7 FEDERAL COM 001 - 345° WB - 345° WP						Out of range
VALKYRIE 12 WXY FEDERAL COM 011H - OWB - AWP	8,928.19	8,476.75	324.24	276.38	6.774 SF	
VALKYRIE 12 WXY FEDERAL COM 011H - OWB - AWP	9,000.00	8,476.76	310.58	265.73	6.925 ES	
VALKYRIE 12 WXY FEDERAL COM 011H - OWB - AWP	9,024.00	8,476.77	309.62	265.96	7.092 CC	

Offset Design: TROJAN SHIELD - AMOCO FEDERAL 11 OO1_PA - OWB - AWP														Offset Site Error: 0.00 usft
Survey Program: 200-r.5 INC-ONLY														Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	32.00	0.00	0.00	-136.01	-415.79	-401.43	578.84					
100.00	100.00	68.00	100.00	0.77	2.20	-136.01	-415.79	-401.43	577.95	574.20	3.75	153.933		
200.00	200.00	168.00	200.00	1.44	5.42	-136.01	-415.79	-401.43	577.95	569.62	8.34	69.317		
300.00	300.00	268.04	300.00	1.88	7.89	-136.01	-415.79	-401.43	577.95	566.13	11.82	48.882		
331.95	331.95	299.99	331.93	2.00	8.56	-135.95	-414.92	-401.43	577.33	564.55	12.77	45.201		
400.00	400.00	363.49	395.42	2.25	9.89	-135.97	-415.27	-401.43	577.60	562.93	14.66	39.387		
500.00	500.00	468.08	500.00	2.56	12.68	-136.01	-415.79	-401.43	577.95	559.40	18.56	31.143		
600.00	600.00	568.08	600.00	2.84	15.65	-136.01	-415.79	-401.43	577.95	555.26	22.70	25.466		
700.00	700.00	668.12	700.00	3.10	18.02	-136.01	-415.79	-401.43	577.95	551.94	26.02	22.216		
731.87	731.87	699.99	731.85	3.18	18.68	-135.95	-414.92	-401.43	577.33	550.38	26.95	21.422		
800.00	800.00	763.57	795.42	3.34	20.01	-135.97	-415.27	-401.43	577.60	548.78	28.82	20.044		
900.00	900.00	868.16	900.00	3.57	22.80	-136.01	-415.79	-401.43	577.95	545.25	32.70	17.674		
1,000.00	1,000.00	968.16	1,000.00	3.79	25.76	-136.01	-415.79	-401.43	577.95	541.12	36.83	15.690		
1,100.00	1,099.98	1,068.18	1,099.98	4.10	28.13	48.28	-415.79	-401.43	576.79	536.64	40.15	14.365		
1,200.00	1,199.84	1,163.56	1,195.33	4.38	30.12	48.73	-415.27	-401.43	572.97	530.02	42.95	13.341		
1,300.00	1,299.45	1,267.70	1,299.45	4.65	32.89	49.47	-415.79	-401.43	567.60	520.79	46.81	12.125		
1,400.00	1,398.70	1,366.95	1,398.70	4.91	35.84	50.53	-415.79	-401.43	559.73	508.81	50.92	10.993		
1,500.00	1,497.47	1,465.75	1,497.47	5.16	38.19	51.94	-415.79	-401.43	549.86	495.66	54.21	10.143		
1,600.00	1,595.62	1,560.24	1,591.93	5.41	40.16	53.69	-415.23	-401.43	537.84	480.88	56.97	9.441		
1,700.00	1,693.06	1,661.38	1,693.06	5.66	42.81	55.87	-415.79	-401.43	525.00	464.33	60.67	8.653		
1,800.00	1,789.64	1,757.97	1,789.64	5.90	45.68	58.47	-415.79	-401.43	510.62	445.96	64.66	7.896		
1,900.00	1,885.27	1,853.63	1,885.27	6.13	48.04	61.52	-415.79	-401.43	495.50	427.53	67.97	7.290		
1,927.34	1,911.23	1,879.59	1,911.23	6.16	48.59	62.44	-415.79	-401.43	491.31	422.59	68.72	7.149		
2,000.00	1,980.12	1,946.53	1,978.15	6.25	49.98	64.78	-415.11	-401.43	480.25	409.58	70.67	6.796		
2,100.00	2,074.92	2,043.33	2,074.92	6.42	52.38	68.15	-415.79	-401.43	467.31	393.28	74.02	6.313		
2,200.00	2,169.73	2,138.14	2,169.73	6.59	55.20	71.69	-415.79	-401.43	455.86	377.91	77.95	5.848		
2,300.00	2,264.54	2,232.98	2,264.54	6.76	57.72	75.38	-415.79	-401.43	446.39	364.91	81.48	5.479		
2,400.00	2,359.34	2,327.25	2,358.78	6.94	59.69	79.27	-414.98	-401.43	438.81	354.58	84.24	5.209		
2,500.00	2,454.15	2,422.64	2,454.15	7.12	61.88	83.12	-415.79	-401.43	433.87	346.57	87.30	4.970		
2,600.00	2,548.95	2,517.44	2,548.95	7.30	64.69	87.10	-415.79	-401.43	431.01	339.78	91.24	4.724		
2,672.27	2,617.47	2,585.95	2,617.47	7.44	66.72	90.00	-415.79	-401.43	430.40	336.32	94.08	4.575 CC		
2,700.00	2,643.76	2,612.29	2,643.76	7.49	67.39	91.11	-415.79	-401.43	430.49	335.47	95.03	4.530		
2,800.00	2,738.57	2,707.11	2,738.57	7.68	69.37	95.22	-414.92	-401.43	432.33	334.53	97.81	4.420 ES		
2,900.00	2,833.37	2,801.94	2,833.37	7.88	71.37	99.07	-415.79	-401.43	436.45	335.84	100.61	4.338		
3,000.00	2,928.18	2,896.75	2,928.18	8.07	74.18	102.93	-415.79	-401.43	442.85	338.29	104.55	4.236		
3,100.00	3,022.99	2,991.56	3,022.99	8.27	76.99	106.68	-415.79	-401.43	451.39	342.90	108.49	4.161		
3,200.00	3,117.79	3,086.40	3,117.79	8.48	79.05	110.29	-415.79	-401.43	461.98	350.60	111.38	4.148		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: TROJAN SHIELD - AMOCO FEDERAL 11 OO1_PA - OWB - AWP													Offset Site Error:	0.00 usft	
Survey Program: 200-r.5 INC-ONLY													Offset Well Error:		0.00 usft
Reference				Offset			Semi Major Axis		Offset Wellbore Centre		Distance			Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning		
3,300.00	3,212.60	3,183.75	3,215.10	8.68	81.08	113.86	-415.53	-401.43	474.56	360.33	114.23	4.154			
3,400.00	3,307.41	3,276.06	3,307.41	8.89	83.68	117.02	-415.79	-401.43	488.70	370.83	117.87	4.146			
3,500.00	3,402.21	3,370.86	3,402.21	9.10	86.49	120.11	-415.79	-401.43	504.54	382.73	121.81	4.142 SF			
3,600.00	3,497.02	3,465.71	3,497.02	9.31	88.72	123.02	-415.79	-401.43	521.85	396.90	124.95	4.176			
3,700.00	3,591.83	3,563.86	3,595.14	9.52	90.77	125.89	-415.27	-401.43	540.76	412.94	127.83	4.230			
3,800.00	3,686.63	3,655.36	3,686.63	9.75	93.17	128.31	-415.79	-401.43	560.28	429.09	131.19	4.271			
3,900.00	3,781.44	3,750.17	3,781.44	10.00	95.98	130.70	-415.79	-401.43	581.16	446.03	135.13	4.301			
4,000.00	3,876.25	3,845.02	3,876.25	10.27	98.40	132.93	-415.79	-401.43	602.99	464.48	138.52	4.353			
4,100.00	3,971.05	3,943.03	3,974.23	10.53	100.44	135.12	-415.08	-401.43	626.17	484.78	141.39	4.429			
4,200.00	4,065.86	4,034.67	4,065.86	10.80	102.66	136.95	-415.79	-401.43	649.14	504.64	144.50	4.492			
4,300.00	4,160.66	4,129.48	4,160.66	11.07	105.47	138.75	-415.79	-401.43	673.28	524.84	148.44	4.536			
4,400.00	4,255.47	4,224.32	4,255.47	11.34	108.07	140.44	-415.79	-401.43	698.04	545.96	152.08	4.590			
4,500.00	4,350.28	4,321.18	4,352.30	11.61	110.09	142.09	-414.96	-401.43	723.98	569.06	154.91	4.673			
4,600.00	4,445.08	4,413.98	4,445.08	11.88	112.15	143.48	-415.79	-401.43	749.15	591.34	157.81	4.747			
4,700.00	4,539.89	4,508.78	4,539.89	12.15	114.97	144.86	-415.79	-401.43	775.40	613.66	161.74	4.794			
4,800.00	4,634.70	4,603.63	4,634.70	12.43	117.75	146.15	-415.79	-401.43	802.05	636.41	165.63	4.842			
4,900.00	4,729.50	4,698.44	4,729.50	12.70	119.73	147.35	-415.79	-401.43	829.06	660.65	168.41	4.923			
5,000.00	4,824.31	4,806.50	4,837.52	12.97	121.98	148.63	-415.91	-401.43	856.42	684.86	171.56	4.992			
5,100.00	4,919.12	4,888.09	4,919.12	13.25	124.46	149.55	-415.79	-401.43	884.05	709.01	175.05	5.050			
5,200.00	5,013.92	4,982.90	5,013.92	13.52	127.27	150.55	-415.79	-401.43	911.97	732.99	178.98	5.095			
5,300.00	5,108.73	5,077.74	5,108.73	13.80	129.40	151.49	-415.79	-401.43	940.13	758.16	181.97	5.166			
5,400.00	5,203.54	5,185.01	5,215.96	14.08	131.64	152.50	-415.55	-401.43	968.81	783.71	185.10	5.234			
5,500.00	5,298.34	5,267.40	5,298.34	14.35	133.95	153.22	-415.79	-401.43	997.11	808.76	188.35	5.294			

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 502H - OWB - PWPO														Offset Site Error:	0.00 usft	
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)						
0.00	0.00	1.00	0.00	0.00	0.01	-20.47	83.94	-31.34	89.60							
100.00	100.00	101.00	100.00	0.77	0.77	-20.47	83.94	-31.34	89.60	87.57	2.03	44.157				
200.00	200.00	201.00	200.00	1.44	1.44	-20.47	83.94	-31.34	89.60	86.25	3.35	26.768				
300.00	300.00	301.00	300.00	1.88	1.89	-20.47	83.94	-31.34	89.60	85.37	4.23	21.181				
400.00	400.00	401.00	400.00	2.25	2.25	-20.47	83.94	-31.34	89.60	84.65	4.95	18.114				
500.00	500.00	501.00	500.00	2.56	2.56	-20.47	83.94	-31.34	89.60	84.03	5.57	16.095				
600.00	600.00	601.00	600.00	2.84	2.85	-20.47	83.94	-31.34	89.60	83.48	6.12	14.631				
700.00	700.00	701.00	700.00	3.10	3.11	-20.47	83.94	-31.34	89.60	82.96	6.63	13.504				
800.00	800.00	801.00	800.00	3.34	3.35	-20.47	83.94	-31.34	89.60	82.49	7.11	12.602				
900.00	900.00	901.00	900.00	3.57	3.57	-20.47	83.94	-31.34	89.60	82.04	7.56	11.856				
1,000.00	1,000.00	1,001.00	1,000.00	3.79	3.79	-20.47	83.94	-31.34	89.60	81.62	7.98	11.227 CC, ES				
1,100.00	1,099.98	1,100.98	1,099.98	4.10	3.99	163.96	83.94	-31.34	91.28	82.79	8.48	10.761 SF				
1,200.00	1,199.84	1,200.84	1,199.84	4.38	4.19	164.80	83.94	-31.34	96.32	87.37	8.95	10.766				
1,300.00	1,299.45	1,300.45	1,299.45	4.65	4.38	166.01	83.94	-31.34	104.75	95.36	9.40	11.149				
1,400.00	1,398.70	1,399.70	1,398.70	4.91	4.56	167.40	83.94	-31.34	116.62	106.78	9.83	11.859				
1,500.00	1,497.47	1,498.47	1,497.47	5.16	4.73	168.82	83.94	-31.34	131.93	121.67	10.26	12.858				
1,600.00	1,595.62	1,596.62	1,595.62	5.41	4.90	170.16	83.94	-31.34	150.71	140.03	10.68	14.113				
1,700.00	1,693.06	1,694.06	1,693.06	5.66	5.07	171.37	83.94	-31.34	172.93	161.84	11.09	15.597				
1,800.00	1,789.64	1,790.64	1,789.64	5.90	5.22	172.42	83.94	-31.34	198.57	187.08	11.49	17.286				
1,900.00	1,885.27	1,886.27	1,885.27	6.13	5.38	173.32	83.94	-31.34	227.60	215.72	11.88	19.160				
1,927.34	1,911.23	1,912.23	1,911.23	6.16	5.42	173.54	83.94	-31.34	236.12	224.17	11.95	19.765				
2,000.00	1,980.12	1,981.12	1,980.12	6.25	5.53	174.12	83.94	-31.34	259.11	246.96	12.14	21.337				
2,100.00	2,074.92	2,083.88	2,083.88	6.42	5.73	174.89	82.87	-30.74	289.74	277.23	12.51	23.154				
2,200.00	2,169.73	2,190.52	2,189.38	6.59	5.95	175.79	78.43	-28.22	317.18	304.30	12.88	24.620				
2,300.00	2,264.54	2,299.03	2,297.49	6.76	6.16	176.81	70.36	-23.67	341.31	328.06	13.25	25.765				
2,400.00	2,359.34	2,409.14	2,406.75	6.94	6.36	177.95	58.55	-16.99	362.09	348.49	13.60	26.622				
2,500.00	2,454.15	2,513.68	2,510.00	7.12	6.44	179.12	44.33	-8.96	379.97	366.11	13.86	27.423				
2,600.00	2,548.95	2,611.88	2,606.92	7.30	6.55	-179.85	30.55	-1.17	397.55	383.38	14.17	28.065				
2,700.00	2,643.76	2,710.08	2,703.84	7.49	6.67	-178.91	16.78	6.61	415.25	400.77	14.48	28.673				
2,800.00	2,738.57	2,808.28	2,800.76	7.68	6.80	-178.04	3.00	14.39	433.05	418.24	14.80	29.251				
2,900.00	2,833.37	2,906.48	2,897.67	7.88	6.92	-177.24	-10.78	22.18	450.94	435.80	15.13	29.798				
3,000.00	2,928.18	3,004.68	2,994.59	8.07	7.06	-176.51	-24.55	29.96	468.90	453.44	15.47	30.317				
3,100.00	3,022.99	3,102.88	3,091.51	8.27	7.19	-175.82	-38.33	37.74	486.94	471.13	15.80	30.809				
3,200.00	3,117.79	3,201.08	3,188.42	8.48	7.33	-175.19	-52.10	45.53	505.04	488.89	16.15	31.275				
3,300.00	3,212.60	3,299.28	3,285.34	8.68	7.46	-174.60	-65.88	53.31	523.19	506.69	16.50	31.717				
3,400.00	3,307.41	3,397.48	3,382.26	8.89	7.61	-174.05	-79.66	61.10	541.39	524.55	16.85	32.135				
3,500.00	3,402.21	3,495.68	3,479.17	9.10	7.75	-173.53	-93.43	68.88	559.64	542.44	17.20	32.532				
3,600.00	3,497.02	3,593.88	3,576.09	9.31	7.90	-173.05	-107.21	76.66	577.93	560.37	17.56	32.908				
3,700.00	3,591.83	3,692.08	3,673.01	9.52	8.05	-172.60	-120.98	84.45	596.26	578.34	17.92	33.265				
3,800.00	3,686.63	3,790.28	3,769.93	9.75	8.20	-172.17	-134.76	92.23	614.62	596.33	18.29	33.604				
3,900.00	3,781.44	3,888.48	3,866.84	10.00	8.35	-171.77	-148.54	100.02	633.02	614.36	18.66	33.925				
4,000.00	3,876.25	3,986.68	3,963.76	10.27	8.51	-171.39	-162.31	107.80	651.44	632.41	19.03	34.231				
4,100.00	3,971.05	4,084.88	4,060.68	10.53	8.66	-171.04	-176.09	115.58	669.88	650.48	19.40	34.521				
4,200.00	4,065.86	4,183.08	4,157.59	10.80	8.82	-170.70	-189.86	123.37	688.35	668.57	19.78	34.798				
4,300.00	4,160.66	4,281.28	4,254.51	11.07	8.98	-170.38	-203.64	131.15	706.85	686.69	20.16	35.060				
4,400.00	4,255.47	4,379.48	4,351.43	11.34	9.14	-170.07	-217.42	138.93	725.36	704.82	20.54	35.311				
4,500.00	4,350.28	4,477.68	4,448.34	11.61	9.31	-169.78	-231.19	146.72	743.89	722.97	20.93	35.549				
4,600.00	4,445.08	4,575.88	4,545.26	11.88	9.47	-169.51	-244.97	154.50	762.44	741.13	21.31	35.776				
4,700.00	4,539.89	4,674.08	4,642.18	12.15	9.64	-169.25	-258.74	162.29	781.01	759.31	21.70	35.993				
4,800.00	4,634.70	4,772.28	4,739.10	12.43	9.81	-169.00	-272.52	170.07	799.59	777.50	22.09	36.200				
4,900.00	4,729.50	4,870.48	4,836.01	12.70	9.97	-168.76	-286.30	177.85	818.18	795.70	22.48	36.398				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP0	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> VALKYRIE FED COM - _VALKYRIE FED COM 502H - OWB - PWP0													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 0-r.5 MWD+IFR1+SAG+FDIR													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,824.31	4,968.68	4,932.93	12.97	10.14	-168.53	-300.07	185.64	836.79	813.92	22.87	36.587	
5,100.00	4,919.12	5,066.88	5,029.85	13.25	10.32	-168.31	-313.85	193.42	855.41	832.14	23.27	36.767	
5,200.00	5,013.92	5,159.46	5,121.24	13.52	10.47	-168.12	-326.68	200.67	874.21	850.56	23.64	36.976	
5,300.00	5,108.73	5,246.67	5,207.52	13.80	10.63	-168.00	-337.74	206.92	894.07	870.07	24.01	37.240	
5,400.00	5,203.54	5,333.46	5,293.57	14.08	10.78	-167.93	-347.61	212.50	915.14	890.77	24.37	37.558	
5,500.00	5,298.34	5,419.81	5,379.33	14.35	10.92	-167.91	-356.30	217.41	937.38	912.66	24.72	37.922	
5,600.00	5,393.15	5,500.00	5,459.11	14.63	11.05	-167.94	-363.37	221.40	960.80	935.76	25.05	38.362	
5,700.00	5,487.96	5,591.00	5,549.77	14.91	11.20	-168.02	-370.20	225.26	985.36	959.95	25.41	38.781	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP0	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 551H - OWB - PWP0													Offset Site Error:	0.00 usft		
Survey Program: Reference		0-r.5 MWD+IFR1+SAG+FDIR Offset				Semi Major Axis		Offset Wellbore Centre		Distance			Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
0.00	0.00	0.00	1.00	0.00	0.00	158.93	-27.98	10.78	30.00							
100.00	100.00	99.00	100.00	0.77	0.77	158.93	-27.98	10.78	29.98	27.96	2.03	14.790				
200.00	200.00	199.00	200.00	1.44	1.44	158.93	-27.98	10.78	29.98	26.64	3.34	8.969				
300.00	300.00	299.00	300.00	1.88	1.88	158.93	-27.98	10.78	29.98	25.76	4.23	7.093				
400.00	400.00	399.00	400.00	2.25	2.25	158.93	-27.98	10.78	29.98	25.04	4.94	6.065				
500.00	500.00	499.00	500.00	2.56	2.56	158.93	-27.98	10.78	29.98	24.42	5.57	5.388				
600.00	600.00	599.00	600.00	2.84	2.84	158.93	-27.98	10.78	29.98	23.86	6.12	4.898				
700.00	700.00	699.00	700.00	3.10	3.10	158.93	-27.98	10.78	29.98	23.35	6.63	4.520				
800.00	800.00	799.00	800.00	3.34	3.34	158.93	-27.98	10.78	29.98	22.88	7.11	4.218				
900.00	900.00	899.00	900.00	3.57	3.57	158.93	-27.98	10.78	29.98	22.43	7.56	3.969				
1,000.00	1,000.00	999.00	1,000.00	3.79	3.79	158.93	-27.98	10.78	29.98	22.01	7.98	3.758				
1,100.00	1,099.98	1,098.01	1,098.99	4.10	4.09	-17.12	-29.64	10.99	29.96	21.39	8.57	3.496				
1,200.00	1,199.84	1,197.00	1,197.85	4.38	4.37	-17.65	-34.70	11.61	29.95	20.86	9.09	3.294				
1,209.17	1,208.98	1,206.08	1,206.90	4.40	4.40	-17.71	-35.33	11.69	29.95	20.81	9.14	3.278 CC				
1,300.00	1,299.45	1,296.00	1,296.48	4.65	4.64	-18.51	-43.14	12.66	29.96	20.38	9.58	3.127				
1,400.00	1,398.70	1,395.01	1,394.76	4.91	4.90	-19.72	-54.96	14.12	29.99	19.95	10.04	2.986 Normal Operations				
1,500.00	1,497.47	1,494.01	1,492.57	5.16	5.15	-21.25	-70.15	16.01	30.07	19.59	10.48	2.868 Normal Operations				
1,600.00	1,595.62	1,593.03	1,589.80	5.41	5.40	-23.11	-88.68	18.30	30.20	19.30	10.90	2.771 Normal Operations				
1,700.00	1,693.06	1,692.04	1,686.33	5.66	5.64	-25.27	-110.53	21.01	30.41	19.11	11.30	2.691 Normal Operations				
1,800.00	1,789.64	1,791.07	1,782.05	5.90	5.88	-27.71	-135.68	24.13	30.70	19.02	11.67	2.629 Normal Operations, ES				
1,900.00	1,885.27	1,890.10	1,876.85	6.13	6.11	-30.40	-164.11	27.65	31.09	19.06	12.03	2.584 Normal Operations, SF				
1,927.34	1,911.23	1,917.17	1,902.58	6.16	6.15	-31.18	-172.44	28.69	31.23	19.16	12.07	2.588 Normal Operations				
2,000.00	1,980.12	1,989.62	1,971.20	6.25	6.24	-32.83	-195.50	31.54	32.01	19.80	12.20	2.623 Normal Operations				
2,100.00	2,074.92	2,089.60	2,065.87	6.42	6.39	-34.88	-227.44	35.50	33.22	20.69	12.52	2.653 Normal Operations				
2,200.00	2,169.73	2,189.59	2,160.53	6.59	6.56	-36.78	-259.37	39.46	34.47	21.60	12.86	2.680 Normal Operations				
2,300.00	2,264.54	2,289.58	2,255.20	6.76	6.73	-38.55	-291.30	43.42	35.75	22.53	13.22	2.705 Normal Operations				
2,400.00	2,359.34	2,389.56	2,349.87	6.94	6.91	-40.19	-323.24	47.38	37.07	23.48	13.59	2.728 Normal Operations				
2,500.00	2,454.15	2,489.55	2,444.53	7.12	7.09	-41.72	-355.17	51.34	38.41	24.44	13.97	2.749 Normal Operations				
2,600.00	2,548.95	2,589.53	2,539.20	7.30	7.28	-43.15	-387.10	55.29	39.79	25.42	14.37	2.769 Normal Operations				
2,700.00	2,643.76	2,689.52	2,633.87	7.49	7.47	-44.48	-419.04	59.25	41.18	26.40	14.78	2.786 Normal Operations				
2,800.00	2,738.57	2,789.50	2,728.53	7.68	7.66	-45.72	-450.97	63.21	42.59	27.40	15.20	2.802 Normal Operations				
2,900.00	2,833.37	2,889.49	2,823.20	7.88	7.85	-46.88	-482.90	67.17	44.03	28.40	15.63	2.817 Normal Operations				
3,000.00	2,928.18	2,989.48	2,917.87	8.07	8.05	-47.97	-514.84	71.13	45.48	29.41	16.07	2.830 Normal Operations				
3,100.00	3,022.99	3,089.46	3,012.53	8.27	8.25	-48.99	-546.77	75.08	46.94	30.43	16.52	2.842 Normal Operations				
3,200.00	3,117.79	3,189.45	3,107.20	8.48	8.45	-49.95	-578.70	79.04	48.42	31.45	16.98	2.853 Normal Operations				
3,300.00	3,212.60	3,289.43	3,201.87	8.68	8.66	-50.85	-610.64	83.00	49.92	32.48	17.44	2.862 Normal Operations				
3,400.00	3,307.41	3,389.42	3,296.53	8.89	8.87	-51.70	-642.57	86.96	51.42	33.51	17.91	2.871 Normal Operations				
3,500.00	3,402.21	3,489.41	3,391.20	9.10	9.08	-52.50	-674.50	90.92	52.94	34.55	18.39	2.879 Normal Operations				
3,600.00	3,497.02	3,589.39	3,485.87	9.31	9.29	-53.25	-706.44	94.87	54.46	35.59	18.87	2.886 Normal Operations				
3,700.00	3,591.83	3,689.38	3,580.53	9.52	9.51	-53.97	-738.37	98.83	55.99	36.63	19.36	2.892 Normal Operations				
3,800.00	3,686.63	3,789.36	3,675.20	9.75	9.75	-54.65	-770.30	102.79	57.54	37.68	19.86	2.898 Normal Operations				
3,900.00	3,781.44	3,889.35	3,769.87	10.00	10.01	-55.29	-802.24	106.75	59.09	38.73	20.35	2.903 Normal Operations				
4,000.00	3,876.25	3,989.34	3,864.53	10.27	10.28	-55.89	-834.17	110.71	60.64	39.79	20.86	2.908 Normal Operations				
4,100.00	3,971.05	4,089.32	3,959.20	10.53	10.55	-56.47	-866.10	114.66	62.20	40.84	21.36	2.912 Normal Operations				
4,200.00	4,065.86	4,189.31	4,053.87	10.80	10.82	-57.02	-898.04	118.62	63.77	41.90	21.87	2.916 Normal Operations				
4,300.00	4,160.66	4,289.29	4,148.53	11.07	11.09	-57.54	-929.97	122.58	65.35	42.96	22.39	2.919 Normal Operations				
4,400.00	4,255.47	4,389.28	4,243.20	11.34	11.36	-58.04	-961.90	126.54	66.93	44.03	22.90	2.922 Normal Operations				
4,500.00	4,350.28	4,489.26	4,337.87	11.61	11.64	-58.52	-993.84	130.50	68.51	45.09	23.42	2.925 Normal Operations				
4,600.00	4,445.08	4,589.25	4,432.53	11.88	11.91	-58.97	-1,025.77	134.46	70.10	46.16	23.94	2.928 Normal Operations				
4,700.00	4,539.89	4,689.24	4,527.20	12.15	12.19	-59.40	-1,057.70	138.41	71.69	47.23	24.47	2.930 Normal Operations				
4,800.00	4,634.70	4,789.22	4,621.87	12.43	12.46	-59.82	-1,089.64	142.37	73.29	48.30	24.99	2.932 Normal Operations				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP0	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 551H - OWB - PWP0													Offset Site Error:	0.00 usft		
Survey Program: Reference		0-r.5 MWD+IFR1+SAG+FDIR Offset				Semi Major Axis		Offset Wellbore Centre		Distance			Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
4,900.00	4,729.50	4,889.21	4,716.53	12.70	12.74	-60.22	-1,121.57	146.33	74.89	49.37	25.52	2.934	Normal Operations			
5,000.00	4,824.31	4,989.19	4,811.20	12.97	13.02	-60.60	-1,153.50	150.29	76.50	50.44	26.05	2.936	Normal Operations			
5,100.00	4,919.12	5,089.18	4,905.87	13.25	13.29	-60.96	-1,185.44	154.25	78.10	51.52	26.58	2.938	Normal Operations			
5,200.00	5,013.92	5,189.17	5,000.53	13.52	13.57	-61.31	-1,217.37	158.20	79.71	52.60	27.12	2.940	Normal Operations			
5,300.00	5,108.73	5,289.15	5,095.20	13.80	13.85	-61.65	-1,249.30	162.16	81.33	53.67	27.65	2.941	Normal Operations			
5,400.00	5,203.54	5,389.14	5,189.87	14.08	14.13	-61.97	-1,281.23	166.12	82.94	54.75	28.19	2.942	Normal Operations			
5,500.00	5,298.34	5,489.12	5,284.53	14.35	14.41	-62.28	-1,313.17	170.08	84.56	55.83	28.73	2.943	Normal Operations			
5,600.00	5,393.15	5,589.11	5,379.20	14.63	14.69	-62.58	-1,345.10	174.04	86.18	56.91	29.27	2.945	Normal Operations			
5,700.00	5,487.96	5,689.09	5,473.87	14.91	14.97	-62.87	-1,377.03	177.99	87.81	58.00	29.81	2.946	Normal Operations			
5,800.00	5,582.76	5,789.08	5,568.53	15.19	15.25	-63.14	-1,408.97	181.95	89.43	59.08	30.35	2.946	Normal Operations			
5,899.98	5,677.55	5,889.05	5,663.18	15.46	15.53	-63.41	-1,440.89	185.91	91.06	60.16	30.89	2.947	Normal Operations			
6,000.00	5,772.65	5,989.04	5,757.86	15.74	15.82	-63.21	-1,472.83	189.87	93.08	61.65	31.43	2.962	Normal Operations			
6,100.00	5,868.25	6,088.99	5,852.48	16.00	16.10	-62.09	-1,504.75	193.83	95.90	63.97	31.93	3.003				
6,200.00	5,964.36	6,188.86	5,947.04	16.25	16.38	-60.17	-1,536.65	197.78	99.62	67.21	32.41	3.074				
6,300.00	6,060.93	6,288.64	6,041.51	16.49	16.66	-57.58	-1,568.51	201.73	104.37	71.52	32.86	3.176				
6,400.00	6,157.93	6,388.28	6,135.86	16.72	16.95	-54.50	-1,600.34	205.67	110.33	77.05	33.28	3.315				
6,500.00	6,255.35	6,487.77	6,230.06	16.94	17.23	-51.08	-1,632.11	209.61	117.67	83.99	33.68	3.494				
6,600.00	6,353.15	6,587.08	6,324.08	17.14	17.51	-47.51	-1,663.83	213.54	126.56	92.51	34.05	3.717				
6,700.00	6,451.29	6,686.16	6,417.89	17.33	17.79	-43.93	-1,695.47	217.47	137.14	102.72	34.41	3.985				
6,800.00	6,549.76	6,784.99	6,511.46	17.52	18.07	-40.45	-1,727.04	221.38	149.50	114.74	34.77	4.300				
6,900.00	6,648.52	6,884.77	6,606.01	17.69	18.34	-37.16	-1,758.69	225.30	163.55	128.44	35.11	4.659				
7,000.00	6,747.53	6,985.88	6,702.30	17.85	18.61	-34.32	-1,789.28	229.09	178.17	142.70	35.46	5.024				
7,100.00	6,846.77	7,087.29	6,799.42	17.99	18.87	-31.88	-1,818.27	232.69	193.09	157.27	35.82	5.390				
7,200.00	6,946.22	7,189.02	6,897.34	18.13	19.13	-29.79	-1,845.63	236.08	208.25	172.07	36.17	5.757				
7,300.00	7,045.83	7,291.07	6,996.04	18.26	19.37	-27.96	-1,871.33	239.26	223.58	187.06	36.52	6.123				
7,400.00	7,145.58	7,393.43	7,095.50	18.37	19.60	-26.35	-1,895.36	242.24	239.03	202.18	36.85	6.487				
7,500.00	7,245.43	7,496.12	7,195.69	18.47	19.82	-24.92	-1,917.69	245.01	254.57	217.41	37.16	6.850				
7,600.00	7,345.37	7,599.12	7,296.58	18.56	20.02	-23.64	-1,938.29	247.56	270.17	232.71	37.46	7.212				
7,700.00	7,445.35	7,702.45	7,398.14	18.64	20.22	-22.49	-1,957.15	249.90	285.81	248.07	37.74	7.574				
7,754.65	7,500.00	7,759.06	7,453.92	18.66	20.32	153.96	-1,966.71	251.08	294.37	256.52	37.84	7.779				
7,800.00	7,545.35	7,806.13	7,500.38	18.65	20.40	154.43	-1,974.25	252.02	301.30	263.39	37.91	7.949				
7,900.00	7,645.35	7,910.37	7,603.47	18.66	20.57	155.33	-1,989.58	253.92	315.41	277.34	38.06	8.286				
8,000.00	7,745.35	8,015.14	7,707.35	18.67	20.73	156.05	-2,003.11	255.60	327.84	289.63	38.21	8.580				
8,100.00	7,845.35	8,120.38	7,811.92	18.68	20.87	156.64	-2,014.80	257.05	338.58	300.23	38.35	8.828				
8,178.19	7,923.54	8,202.96	7,894.12	18.68	20.98	157.00	-2,022.64	258.02	345.77	307.32	38.45	8.993				
8,200.00	7,945.34	8,226.02	7,917.10	18.68	21.01	67.07	-2,024.61	258.26	347.39	308.92	38.47	9.030				
8,225.00	7,970.27	8,252.44	7,943.42	18.69	21.04	67.31	-2,026.77	258.53	348.67	310.17	38.50	9.056				
8,250.00	7,995.08	8,278.74	7,969.65	18.71	21.07	67.82	-2,028.79	258.78	349.37	310.84	38.53	9.068				
8,275.00	8,019.69	8,304.87	7,995.70	18.72	21.10	68.58	-2,030.69	259.01	349.51	310.96	38.55	9.067				
8,300.00	8,044.03	8,330.74	8,021.51	18.74	21.13	69.59	-2,032.44	259.23	349.14	310.58	38.56	9.054				
8,325.00	8,068.05	8,356.27	8,046.99	18.75	21.15	70.84	-2,034.07	259.43	348.32	309.75	38.57	9.031				
8,350.00	8,091.67	8,381.40	8,072.08	18.77	21.18	72.31	-2,035.55	259.62	347.13	308.55	38.58	8.998				
8,375.00	8,114.82	8,406.06	8,096.70	18.78	21.20	73.99	-2,036.90	259.79	345.66	307.08	38.58	8.960				
8,400.00	8,137.46	8,430.16	8,120.77	18.80	21.23	75.85	-2,038.13	259.94	344.01	305.43	38.57	8.918				
8,425.00	8,159.50	8,453.65	8,144.23	18.82	21.25	77.88	-2,039.22	260.07	342.30	303.73	38.57	8.875				
8,450.00	8,180.90	8,476.45	8,167.02	18.84	21.27	80.03	-2,040.19	260.19	340.67	302.10	38.57	8.833				
8,475.00	8,201.60	8,498.51	8,189.05	18.85	21.29	82.27	-2,041.04	260.30	339.24	300.67	38.57	8.796				
8,500.00	8,221.53	8,519.75	8,210.28	18.87	21.31	84.55	-2,041.78	260.39	338.18	299.61	38.57	8.768				
8,525.00	8,240.65	8,540.11	8,230.64	18.89	21.33	86.83	-2,042.42	260.47	337.63	299.05	38.58	8.752				
8,533.45	8,246.92	8,546.79	8,237.31	18.90	21.33	87.59	-2,042.61	260.49	337.59	299.01	38.58	8.749				
8,550.00	8,258.89	8,559.55	8,250.07	18.91	21.34	89.06	-2,042.96	260.54	337.76	299.16	38.60	8.750				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP0	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 551H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
8,575.00	8,276.22	8,578.01	8,268.51	18.93	21.36	91.19	-2,043.41	260.59	338.71	300.07	38.64	8.766			
8,600.00	8,292.58	8,595.42	8,285.93	18.95	21.37	93.18	-2,043.78	260.64	340.63	301.94	38.69	8.804			
8,625.00	8,307.93	8,611.76	8,302.26	18.97	21.38	94.98	-2,044.09	260.68	343.65	304.89	38.76	8.866			
8,650.00	8,322.23	8,626.96	8,317.46	19.00	21.39	96.55	-2,044.33	260.71	347.88	309.03	38.85	8.954			
8,675.00	8,335.43	8,641.00	8,331.49	19.02	21.40	97.85	-2,044.51	260.73	353.41	314.45	38.96	9.071			
8,700.00	8,347.51	8,653.82	8,344.32	19.05	21.41	98.85	-2,044.65	260.75	360.28	321.19	39.09	9.218			
8,725.00	8,358.42	8,665.41	8,355.90	19.08	21.42	99.52	-2,044.75	260.76	368.52	329.30	39.23	9.395			
8,750.00	8,368.14	8,675.72	8,366.22	19.12	21.43	99.84	-2,044.83	260.77	378.14	338.76	39.38	9.603			
8,775.00	8,376.64	8,684.73	8,375.23	19.16	21.44	99.79	-2,044.87	260.77	389.10	349.56	39.54	9.841			
8,800.00	8,383.90	8,692.42	8,382.92	19.21	21.44	99.33	-2,044.90	260.78	401.35	361.65	39.70	10.109			
8,825.00	8,389.90	8,698.77	8,389.27	19.26	21.45	98.45	-2,044.92	260.78	414.80	374.94	39.86	10.406			
8,850.00	8,394.62	8,703.76	8,394.26	19.32	21.45	97.13	-2,044.93	260.78	429.37	389.35	40.02	10.729			
8,875.00	8,398.05	8,707.38	8,397.88	19.38	21.45	95.35	-2,044.93	260.78	444.96	404.79	40.17	11.077			
8,900.00	8,400.17	8,709.63	8,400.13	19.45	21.45	93.10	-2,044.93	260.78	461.44	421.13	40.31	11.447			
8,925.00	8,400.99	8,710.50	8,400.99	19.52	21.45	90.38	-2,044.93	260.78	478.71	438.26	40.44	11.836			
8,928.19	8,401.01	8,710.51	8,401.01	19.53	21.45	90.00	-2,044.93	260.78	480.96	440.50	40.46	11.887			
9,000.00	8,401.00	8,710.51	8,401.01	19.77	21.45	90.00	-2,044.93	260.78	534.22	493.43	40.79	13.096			
9,100.00	8,401.00	9,517.98	8,901.01	20.16	22.37	145.82	-2,044.21	773.18	604.41	572.86	31.56	19.154			
9,200.00	8,401.00	9,617.98	8,901.01	20.61	22.69	145.82	-2,044.07	873.18	604.41	572.61	31.80	19.004			
9,300.00	8,401.00	9,717.98	8,901.01	21.12	23.07	145.82	-2,043.94	973.18	604.41	572.29	32.12	18.818			
9,400.00	8,401.00	9,817.98	8,901.01	21.67	23.51	145.82	-2,043.80	1,073.18	604.40	571.91	32.50	18.598			
9,500.00	8,401.00	9,917.98	8,901.01	22.26	24.00	145.82	-2,043.66	1,173.18	604.40	571.46	32.94	18.350			
9,600.00	8,401.00	10,017.98	8,901.01	22.89	24.53	145.82	-2,043.52	1,273.18	604.40	570.96	33.44	18.075			
9,700.00	8,401.00	10,117.98	8,901.01	23.55	25.11	145.82	-2,043.38	1,373.18	604.40	570.40	33.99	17.779			
9,800.00	8,401.00	10,217.98	8,901.01	24.25	25.71	145.82	-2,043.24	1,473.18	604.39	569.79	34.60	17.466			
9,900.00	8,401.00	10,317.98	8,901.01	24.97	26.36	145.82	-2,043.10	1,573.18	604.39	569.12	35.27	17.138			
10,000.00	8,401.00	10,417.98	8,901.01	25.73	27.03	145.82	-2,042.96	1,673.18	604.39	568.41	35.98	16.800			
10,100.00	8,401.00	10,517.98	8,901.01	26.51	27.73	145.82	-2,042.82	1,773.18	604.38	567.65	36.73	16.455			
10,200.00	8,401.00	10,617.98	8,901.01	27.31	28.46	145.82	-2,042.68	1,873.18	604.38	566.85	37.53	16.105			
10,300.00	8,401.00	10,717.98	8,901.01	28.14	29.21	145.82	-2,042.54	1,973.18	604.38	566.01	38.37	15.753			
10,400.00	8,401.00	10,817.98	8,901.01	28.98	29.99	145.82	-2,042.40	2,073.18	604.37	565.13	39.24	15.402			
10,500.00	8,401.00	10,917.98	8,901.01	29.84	30.78	145.82	-2,042.26	2,173.18	604.37	564.22	40.15	15.053			
10,600.00	8,401.00	11,017.98	8,901.01	30.72	31.60	145.82	-2,042.12	2,273.18	604.37	563.28	41.09	14.708			
10,700.00	8,401.00	11,117.98	8,901.01	31.62	32.43	145.82	-2,041.98	2,373.18	604.36	562.30	42.06	14.368			
10,800.00	8,401.00	11,217.98	8,901.01	32.53	33.28	145.82	-2,041.84	2,473.18	604.36	561.30	43.06	14.034			
10,900.00	8,401.00	11,317.98	8,901.01	33.45	34.15	145.83	-2,041.70	2,573.18	604.36	560.27	44.09	13.707			
11,000.00	8,401.00	11,417.98	8,901.01	34.38	35.03	145.83	-2,041.56	2,673.18	604.35	559.21	45.14	13.388			
11,100.00	8,401.00	11,517.98	8,901.01	35.32	35.93	145.83	-2,041.42	2,773.18	604.35	558.14	46.21	13.077			
11,200.00	8,401.00	11,617.98	8,901.01	36.28	36.83	145.83	-2,041.28	2,873.18	604.35	557.04	47.31	12.774			
11,300.00	8,401.00	11,717.98	8,901.01	37.24	37.75	145.83	-2,041.14	2,973.18	604.34	555.92	48.42	12.480			
11,400.00	8,401.00	11,817.98	8,901.01	38.22	38.68	145.83	-2,041.00	3,073.18	604.34	554.78	49.56	12.195			
11,500.00	8,401.00	11,917.98	8,901.01	39.20	39.62	145.83	-2,040.86	3,173.18	604.34	553.63	50.71	11.918			
11,600.00	8,401.00	12,017.98	8,901.01	40.18	40.56	145.83	-2,040.72	3,273.18	604.33	552.46	51.87	11.650			
11,700.00	8,401.00	12,117.98	8,901.01	41.18	41.52	145.83	-2,040.58	3,373.17	604.33	551.28	53.05	11.391			
11,800.00	8,401.00	12,217.98	8,901.01	42.18	42.48	145.83	-2,040.44	3,473.17	604.33	550.08	54.25	11.140			
11,900.00	8,401.00	12,317.98	8,901.01	43.19	43.46	145.83	-2,040.31	3,573.17	604.32	548.87	55.46	10.897			
12,000.00	8,401.00	12,417.98	8,901.01	44.20	44.44	145.83	-2,040.17	3,673.17	604.32	547.64	56.68	10.663			
12,100.00	8,401.00	12,517.98	8,901.01	45.22	45.42	145.83	-2,040.03	3,773.17	604.32	546.41	57.91	10.436			
12,200.00	8,401.00	12,617.98	8,901.01	46.24	46.41	145.83	-2,039.89	3,873.17	604.31	545.16	59.15	10.217			
12,300.00	8,401.00	12,717.98	8,901.01	47.27	47.41	145.83	-2,039.75	3,973.17	604.31	543.91	60.40	10.005			
12,400.00	8,401.00	12,817.98	8,901.01	48.30	48.41	145.83	-2,039.61	4,073.17	604.31	542.64	61.66	9.800			

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP0	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 551H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
12,500.00	8,401.00	12,917.98	8,901.01	49.34	49.42	145.83	-2,039.47	4,173.17	604.31	541.37	62.93	9.602			
12,600.00	8,401.00	13,017.98	8,901.01	50.38	50.44	145.83	-2,039.33	4,273.17	604.30	540.09	64.21	9.411			
12,700.00	8,401.00	13,117.98	8,901.01	51.42	51.45	145.83	-2,039.19	4,373.17	604.30	538.80	65.50	9.226			
12,800.00	8,401.00	13,217.98	8,901.01	52.47	52.48	145.83	-2,039.05	4,473.17	604.30	537.50	66.79	9.047			
12,900.00	8,401.00	13,317.98	8,901.01	53.52	53.50	145.83	-2,038.91	4,573.17	604.29	536.20	68.09	8.874			
13,000.00	8,401.00	13,417.98	8,901.01	54.57	54.53	145.84	-2,038.77	4,673.17	604.29	534.89	69.40	8.707			
13,100.00	8,401.00	13,517.98	8,901.01	55.63	55.56	145.84	-2,038.63	4,773.17	604.29	533.57	70.71	8.545			
13,200.00	8,401.00	13,617.98	8,901.01	56.68	56.60	145.84	-2,038.49	4,873.17	604.28	532.25	72.03	8.389			
13,300.00	8,401.00	13,717.98	8,901.01	57.75	57.64	145.84	-2,038.35	4,973.17	604.28	530.92	73.36	8.237			
13,400.00	8,401.00	13,817.98	8,901.01	58.81	58.69	145.84	-2,038.21	5,073.17	604.28	529.59	74.69	8.091			
13,500.00	8,401.00	13,917.98	8,901.01	59.87	59.73	145.84	-2,038.07	5,173.17	604.27	528.25	76.02	7.948			
13,600.00	8,401.00	14,017.98	8,901.01	60.94	60.78	145.84	-2,037.93	5,273.17	604.27	526.91	77.36	7.811			
13,700.00	8,401.00	14,117.98	8,901.01	62.01	61.83	145.84	-2,037.79	5,373.17	604.27	525.56	78.71	7.677			
13,800.00	8,401.00	14,217.98	8,901.01	63.08	62.89	145.84	-2,037.65	5,473.17	604.26	524.21	80.06	7.548			
13,900.00	8,401.00	14,317.98	8,901.01	64.16	63.94	145.84	-2,037.51	5,573.17	604.26	522.85	81.41	7.423			
14,000.00	8,401.00	14,417.98	8,901.01	65.23	65.00	145.84	-2,037.37	5,673.17	604.26	521.49	82.76	7.301			
14,100.00	8,401.00	14,517.98	8,901.01	66.31	66.06	145.84	-2,037.23	5,773.17	604.25	520.13	84.12	7.183			
14,199.97	8,401.00	14,617.95	8,901.01	67.39	67.12	145.84	-2,037.09	5,873.14	604.25	518.76	85.49	7.068			
14,207.30	8,401.00	14,625.28	8,901.01	67.47	67.20	145.84	-2,037.08	5,880.47	604.25	518.66	85.59	7.060			
14,297.13	8,401.00	14,706.42	8,901.01	68.44	68.06	145.87	-2,037.91	5,961.61	604.05	517.21	86.83	6.956			
14,300.00	8,401.00	14,708.99	8,901.01	68.47	68.09	145.87	-2,037.97	5,964.17	604.04	517.16	86.87	6.953			
14,320.00	8,401.00	14,727.32	8,901.01	68.69	68.29	145.87	-2,038.49	5,982.50	604.02	516.87	87.15	6.931			
14,400.00	8,401.00	14,807.32	8,901.01	69.56	69.14	145.87	-2,040.89	6,062.47	604.02	515.77	88.25	6.845			
14,500.00	8,401.00	14,907.32	8,901.01	70.65	70.22	145.87	-2,043.89	6,162.42	604.02	514.40	89.62	6.740			
14,600.00	8,401.00	15,007.32	8,901.01	71.73	71.29	145.87	-2,046.89	6,262.38	604.02	513.02	91.00	6.638			
14,700.00	8,401.00	15,107.32	8,901.01	72.82	72.37	145.87	-2,049.89	6,362.33	604.02	511.64	92.38	6.538			
14,800.00	8,401.00	15,207.32	8,901.01	73.91	73.45	145.87	-2,052.90	6,462.29	604.02	510.25	93.76	6.442			
14,900.00	8,401.00	15,307.32	8,901.01	75.00	74.52	145.87	-2,055.90	6,562.24	604.02	508.87	95.15	6.348			
15,000.00	8,401.00	15,407.32	8,901.01	76.09	75.60	145.87	-2,058.90	6,662.20	604.02	507.48	96.54	6.257			
15,100.00	8,401.00	15,507.32	8,901.01	77.19	76.69	145.87	-2,061.90	6,762.15	604.02	506.09	97.93	6.168			
15,200.00	8,401.00	15,607.32	8,901.01	78.28	77.77	145.87	-2,064.90	6,862.11	604.02	504.70	99.32	6.082			
15,300.00	8,401.00	15,707.32	8,901.01	79.38	78.85	145.87	-2,067.90	6,962.06	604.02	503.30	100.71	5.997			
15,400.00	8,401.00	15,807.32	8,901.01	80.47	79.94	145.87	-2,070.91	7,062.02	604.02	501.91	102.11	5.915			
15,500.00	8,401.00	15,907.32	8,901.01	81.57	81.02	145.87	-2,073.91	7,161.97	604.02	500.51	103.51	5.835			
15,600.00	8,401.00	16,007.32	8,901.01	82.67	82.11	145.87	-2,076.91	7,261.93	604.02	499.11	104.91	5.758			
15,700.00	8,401.00	16,107.32	8,901.01	83.76	83.20	145.87	-2,079.91	7,361.88	604.02	497.71	106.31	5.682			
15,800.00	8,401.00	16,207.32	8,901.01	84.86	84.29	145.87	-2,082.91	7,461.84	604.02	496.30	107.71	5.608			
15,900.00	8,401.00	16,307.32	8,901.01	85.96	85.38	145.87	-2,085.91	7,561.79	604.02	494.90	109.12	5.535			
16,000.00	8,401.00	16,407.32	8,901.01	87.06	86.47	145.87	-2,088.91	7,661.75	604.02	493.49	110.52	5.465			
16,100.00	8,401.00	16,507.32	8,901.01	88.16	87.56	145.87	-2,091.92	7,761.70	604.02	492.08	111.93	5.396			
16,200.00	8,401.00	16,607.32	8,901.01	89.27	88.65	145.87	-2,094.92	7,861.66	604.02	490.67	113.34	5.329			
16,300.00	8,401.00	16,707.32	8,901.01	90.37	89.75	145.87	-2,097.92	7,961.61	604.02	489.26	114.75	5.264			
16,400.00	8,401.00	16,807.32	8,901.01	91.47	90.84	145.87	-2,100.92	8,061.57	604.02	487.85	116.17	5.200			
16,500.00	8,401.00	16,907.32	8,901.01	92.57	91.94	145.87	-2,103.92	8,161.52	604.02	486.44	117.58	5.137			
16,600.00	8,401.00	17,007.32	8,901.01	93.68	93.03	145.87	-2,106.92	8,261.48	604.02	485.02	118.99	5.076			
16,700.00	8,401.00	17,107.32	8,901.01	94.78	94.13	145.87	-2,109.93	8,361.43	604.02	483.61	120.41	5.016			
16,800.00	8,401.00	17,207.32	8,901.01	95.89	95.23	145.87	-2,112.93	8,461.39	604.02	482.19	121.83	4.958			
16,900.00	8,401.00	17,307.32	8,901.01	96.99	96.32	145.87	-2,115.93	8,561.34	604.02	480.77	123.24	4.901			
17,000.00	8,401.00	17,407.32	8,901.01	98.10	97.42	145.87	-2,118.93	8,661.30	604.02	479.35	124.66	4.845			
17,100.00	8,401.00	17,507.32	8,901.01	99.21	98.52	145.87	-2,121.93	8,761.25	604.02	477.93	126.08	4.791			
17,200.00	8,401.00	17,607.32	8,901.01	100.31	99.62	145.87	-2,124.93	8,861.21	604.02	476.51	127.51	4.737			

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 551H - OWB - PWPO													Offset Site Error:	0.00 usft		
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft		
Reference				Offset		Semi Major Axis		Highside		Distance			Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor				
17,300.00	8,401.00	17,707.32	8,901.01	101.42	100.72	145.87	-2,127.93	8,961.16	604.02	475.09	128.93	4.685				
17,400.00	8,401.00	17,807.32	8,901.01	102.53	101.82	145.87	-2,130.94	9,061.12	604.02	473.66	130.35	4.634				
17,500.00	8,401.00	17,907.32	8,901.01	103.64	102.92	145.87	-2,133.94	9,161.07	604.02	472.24	131.78	4.584				
17,596.79	8,401.00	18,004.12	8,901.01	104.71	103.99	145.87	-2,136.84	9,257.82	604.02	470.86	133.15	4.536				
17,600.00	8,401.00	18,007.32	8,901.01	104.74	104.02	145.87	-2,136.94	9,261.03	604.02	470.82	133.20	4.535				
17,700.00	8,401.00	18,107.32	8,901.01	105.85	105.13	145.87	-2,139.94	9,360.98	604.02	469.39	134.63	4.487				
17,800.00	8,401.00	18,207.32	8,901.01	106.96	106.23	145.87	-2,142.94	9,460.94	604.02	467.96	136.05	4.440				
17,900.00	8,401.00	18,307.32	8,901.01	108.07	107.33	145.87	-2,145.94	9,560.89	604.02	466.54	137.48	4.393				
18,000.00	8,401.00	18,407.32	8,901.01	109.18	108.44	145.87	-2,148.94	9,660.85	604.02	465.11	138.91	4.348				
18,100.00	8,401.00	18,507.32	8,901.01	110.29	109.54	145.87	-2,151.95	9,760.80	604.02	463.68	140.34	4.304				
18,200.00	8,401.00	18,607.32	8,901.01	111.40	110.64	145.87	-2,154.95	9,860.76	604.02	462.25	141.77	4.261				
18,300.00	8,401.00	18,707.32	8,901.01	112.51	111.75	145.87	-2,157.95	9,960.71	604.02	460.82	143.20	4.218				
18,400.00	8,401.00	18,807.32	8,901.01	113.62	112.85	145.87	-2,160.95	10,060.67	604.02	459.39	144.63	4.176				
18,500.00	8,401.00	18,907.32	8,901.01	114.74	113.96	145.87	-2,163.95	10,160.62	604.02	457.96	146.06	4.135				
18,600.00	8,401.00	19,007.32	8,901.01	115.85	115.07	145.87	-2,166.95	10,260.58	604.02	456.52	147.49	4.095				
18,700.00	8,401.00	19,107.32	8,901.01	116.96	116.17	145.87	-2,169.96	10,360.53	604.02	455.09	148.93	4.056				
18,800.00	8,401.00	19,207.32	8,901.01	118.07	117.28	145.87	-2,172.96	10,460.49	604.02	453.66	150.36	4.017				
18,900.00	8,401.00	19,307.32	8,901.01	119.18	118.39	145.87	-2,175.96	10,560.44	604.02	452.22	151.79	3.979				
19,000.00	8,401.00	19,407.32	8,901.01	120.30	119.49	145.87	-2,178.96	10,660.40	604.02	450.79	153.23	3.942				
19,100.00	8,401.00	19,507.32	8,901.01	121.41	120.60	145.87	-2,181.96	10,760.35	604.02	449.35	154.66	3.905				
19,200.00	8,401.00	19,607.32	8,901.01	122.52	121.71	145.87	-2,184.96	10,860.31	604.02	447.92	156.10	3.869				
19,204.17	8,401.00	19,611.49	8,901.01	122.57	121.75	145.87	-2,185.09	10,864.47	604.02	447.86	156.16	3.868				
19,241.70	8,401.00	19,630.00	8,901.01	122.99	121.96	145.87	-2,185.64	10,882.97	604.32	447.62	156.69	3.857				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 552H - OWB - PWPO													Offset Site Error:	0.00 usft		
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
0.00	0.00	0.00	1.00	0.00	0.00	-20.17	55.96	-20.56	59.63							
100.00	100.00	99.00	100.00	0.77	0.78	-20.17	55.96	-20.56	59.62	57.58	2.04	29.223				
200.00	200.00	199.00	200.00	1.44	1.44	-20.17	55.96	-20.56	59.62	56.27	3.35	17.796				
300.00	300.00	299.00	300.00	1.88	1.89	-20.17	55.96	-20.56	59.62	55.38	4.23	14.085				
400.00	400.00	399.00	400.00	2.25	2.25	-20.17	55.96	-20.56	59.62	54.67	4.95	12.047				
500.00	500.00	499.00	500.00	2.56	2.57	-20.17	55.96	-20.56	59.62	54.05	5.57	10.705				
600.00	600.00	599.00	600.00	2.84	2.85	-20.17	55.96	-20.56	59.62	53.49	6.13	9.732				
700.00	700.00	699.00	700.00	3.10	3.11	-20.17	55.96	-20.56	59.62	52.98	6.64	8.983				
800.00	800.00	799.00	800.00	3.34	3.35	-20.17	55.96	-20.56	59.62	52.51	7.11	8.383				
900.00	900.00	899.00	900.00	3.57	3.57	-20.17	55.96	-20.56	59.62	52.06	7.56	7.887				
1,000.00	1,000.00	999.00	1,000.00	3.79	3.79	-20.17	55.96	-20.56	59.62	51.64	7.98	7.469 CC, ES				
1,100.00	1,099.98	1,098.98	1,099.98	4.10	3.99	164.41	55.96	-20.56	61.30	52.81	8.48	7.225 SF				
1,200.00	1,199.84	1,198.84	1,199.84	4.38	4.19	165.60	55.96	-20.56	66.35	57.40	8.95	7.415				
1,300.00	1,299.45	1,298.45	1,299.45	4.65	4.38	167.22	55.96	-20.56	74.83	65.43	9.40	7.960				
1,400.00	1,398.70	1,397.70	1,398.70	4.91	4.56	168.95	55.96	-20.56	86.76	76.92	9.84	8.817				
1,500.00	1,497.47	1,496.47	1,497.47	5.16	4.73	170.58	55.96	-20.56	102.16	91.89	10.27	9.949				
1,600.00	1,595.62	1,594.62	1,595.62	5.41	4.90	172.01	55.96	-20.56	121.03	110.34	10.69	11.326				
1,700.00	1,693.06	1,692.06	1,693.06	5.66	5.07	173.20	55.96	-20.56	143.34	132.25	11.09	12.921				
1,800.00	1,789.64	1,788.64	1,789.64	5.90	5.23	174.19	55.96	-20.56	169.08	157.59	11.49	14.712				
1,900.00	1,885.27	1,884.27	1,885.27	6.13	5.38	174.99	55.96	-20.56	198.20	186.31	11.88	16.677				
1,927.34	1,911.23	1,910.23	1,911.23	6.16	5.42	175.18	55.96	-20.56	206.74	194.79	11.95	17.299				
2,000.00	1,980.12	1,979.12	1,980.12	6.25	5.53	175.67	55.96	-20.56	229.79	217.64	12.15	18.915				
2,100.00	2,074.92	2,081.14	2,082.13	6.42	5.73	176.28	54.88	-20.17	260.50	247.98	12.52	20.808				
2,200.00	2,169.73	2,187.18	2,188.05	6.59	5.94	176.95	50.22	-18.46	287.90	275.00	12.89	22.331				
2,300.00	2,264.54	2,295.24	2,295.72	6.76	6.15	177.68	41.68	-15.35	311.81	298.55	13.26	23.515				
2,400.00	2,359.34	2,405.05	2,404.70	6.94	6.36	178.49	29.11	-10.75	332.16	318.53	13.63	24.376				
2,500.00	2,454.15	2,516.33	2,514.54	7.12	6.57	179.38	12.37	-4.64	348.90	334.90	13.99	24.935				
2,600.00	2,548.95	2,628.77	2,624.74	7.30	6.79	-179.62	-8.60	3.01	361.98	347.62	14.36	25.211				
2,700.00	2,643.76	2,737.17	2,730.11	7.49	6.98	-178.55	-32.45	11.72	371.63	356.92	14.71	25.259				
2,800.00	2,738.57	2,836.56	2,826.53	7.68	7.10	-177.58	-55.13	20.00	380.58	365.54	15.04	25.307				
2,900.00	2,833.37	2,935.96	2,922.95	7.88	7.22	-176.66	-77.80	28.28	389.64	374.26	15.38	25.342				
3,000.00	2,928.18	3,035.36	3,019.37	8.07	7.35	-175.78	-100.47	36.56	398.79	383.07	15.72	25.371				
3,100.00	3,022.99	3,134.75	3,115.79	8.27	7.49	-174.94	-123.15	44.84	408.03	391.96	16.07	25.394				
3,200.00	3,117.79	3,234.15	3,212.21	8.48	7.63	-174.14	-145.82	53.12	417.36	400.93	16.42	25.412				
3,300.00	3,212.60	3,333.55	3,308.64	8.68	7.77	-173.37	-168.50	61.40	426.76	409.98	16.79	25.425				
3,400.00	3,307.41	3,432.94	3,405.06	8.89	7.92	-172.63	-191.17	69.68	436.24	419.09	17.15	25.434				
3,500.00	3,402.21	3,532.34	3,501.48	9.10	8.07	-171.93	-213.85	77.96	445.78	428.26	17.52	25.439				
3,600.00	3,497.02	3,631.74	3,597.90	9.31	8.22	-171.25	-236.52	86.24	455.39	437.49	17.90	25.440				
3,700.00	3,591.83	3,731.13	3,694.32	9.52	8.38	-170.60	-259.19	94.52	465.06	446.78	18.28	25.438				
3,800.00	3,686.63	3,830.53	3,790.74	9.75	8.54	-169.98	-281.87	102.80	474.79	456.12	18.67	25.433				
3,900.00	3,781.44	3,929.93	3,887.16	10.00	8.70	-169.39	-304.54	111.08	484.57	465.51	19.06	25.426				
4,000.00	3,876.25	4,029.32	3,983.58	10.27	8.87	-168.82	-327.22	119.36	494.39	474.94	19.45	25.417				
4,100.00	3,971.05	4,128.72	4,080.00	10.53	9.04	-168.27	-349.89	127.64	504.27	484.42	19.85	25.406				
4,200.00	4,065.86	4,228.11	4,176.42	10.80	9.21	-167.74	-372.57	135.92	514.19	493.94	20.25	25.393				
4,300.00	4,160.66	4,327.51	4,272.84	11.07	9.38	-167.23	-395.24	144.20	524.15	503.50	20.65	25.378				
4,400.00	4,255.47	4,426.91	4,369.27	11.34	9.56	-166.74	-417.91	152.48	534.15	513.09	21.06	25.362				
4,500.00	4,350.28	4,526.30	4,465.69	11.61	9.74	-166.27	-440.59	160.76	544.19	522.72	21.47	25.345				
4,600.00	4,445.08	4,625.70	4,562.11	11.88	9.91	-165.81	-463.26	169.04	554.27	532.39	21.88	25.334				
4,700.00	4,539.89	4,721.13	4,654.73	12.15	10.06	-165.40	-484.86	176.93	564.55	542.29	22.26	25.356				
4,800.00	4,634.70	4,812.55	4,743.75	12.43	10.23	-165.08	-504.37	184.05	576.07	553.40	22.67	25.414				
4,900.00	4,729.50	4,900.00	4,829.21	12.70	10.39	-164.86	-521.78	190.41	588.98	565.93	23.05	25.550				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - _VALKYRIE FED COM 552H - OWB - PWPO													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR										Rule Assigned:			Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,824.31	4,994.53	4,921.91	12.97	10.56	-164.70	-539.23	196.78	603.22	579.77	23.45	25.722		
5,100.00	4,919.12	5,085.02	5,010.90	13.25	10.72	-164.63	-554.57	202.38	618.83	594.99	23.84	25.962		
5,200.00	5,013.92	5,175.11	5,099.76	13.52	10.88	-164.63	-568.54	207.48	635.77	611.55	24.21	26.256		
5,300.00	5,108.73	5,264.76	5,188.40	13.80	11.04	-164.69	-581.14	212.08	654.03	629.45	24.59	26.601		
5,400.00	5,203.54	5,353.94	5,276.77	14.08	11.19	-164.81	-592.37	216.19	673.62	648.67	24.95	26.996		
5,500.00	5,298.34	5,442.59	5,364.79	14.35	11.34	-164.98	-602.26	219.80	694.51	669.20	25.31	27.439		
5,600.00	5,393.15	5,530.69	5,452.42	14.63	11.49	-165.20	-610.81	222.92	716.72	691.05	25.66	27.927		
5,700.00	5,487.96	5,618.20	5,539.59	14.91	11.63	-165.46	-618.06	225.57	740.22	714.22	26.01	28.461		
5,800.00	5,582.76	5,700.00	5,621.17	15.19	11.76	-165.73	-623.70	227.63	765.05	738.73	26.32	29.066		
5,899.98	5,677.55	5,791.30	5,712.31	15.46	11.90	-166.07	-628.70	229.45	791.12	764.45	26.68	29.658		
6,000.00	5,772.65	5,877.07	5,798.00	15.74	12.03	-166.47	-632.16	230.72	817.70	790.71	26.99	30.293		
6,100.00	5,868.25	5,962.56	5,883.46	16.00	12.14	-166.87	-634.41	231.54	843.93	816.63	27.30	30.916		
6,200.00	5,964.36	6,047.79	5,968.68	16.25	12.23	-167.25	-635.45	231.92	869.81	842.24	27.57	31.549		
6,300.00	6,060.93	6,140.04	6,060.93	16.49	12.28	-167.66	-635.54	231.95	895.09	867.25	27.84	32.150		
6,400.00	6,157.93	6,237.05	6,157.93	16.72	12.33	-168.03	-635.54	231.95	918.85	890.72	28.14	32.656		
6,500.00	6,255.35	6,334.46	6,255.35	16.94	12.38	-168.36	-635.54	231.95	940.97	912.55	28.42	33.104		
6,600.00	6,353.15	6,432.26	6,353.15	17.14	12.43	-168.65	-635.54	231.95	961.44	932.73	28.71	33.490		
6,700.00	6,451.29	6,530.41	6,451.29	17.33	12.49	-168.91	-635.54	231.95	980.25	951.26	28.99	33.816		
6,800.00	6,549.76	6,628.87	6,549.76	17.52	12.54	-169.14	-635.54	231.95	997.38	968.12	29.26	34.084		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> VALKYRIE FED COM - ASTRODOG FEE 08 114H - OWB - AWP													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 109-r.5 MWD+IFR1											<b>Rule Assigned:</b>		<b>Offset Well Error:</b> 0.00 usft
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Semi Major Axis Reference (usft)</b>	<b>Offset (usft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>No-Go Distance (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
19,241.70	8,401.00	8,144.19	7,514.92	122.99	37.73	5.20	-1,941.73	11,364.44	999.29	915.89	83.40	11.982	CC, ES, SF

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> VALKYRIE FED COM - ASTRODOG FEE 0809 124H - OWB - AWP													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 109-r.5 MWD+IFR1											<b>Rule Assigned:</b>		<b>Offset Well Error:</b> 0.00 usft
Measured Reference Depth (usft)	Vertical Reference Depth (usft)	Measured Offset Depth (usft)	Vertical Offset Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
18,600.00	8,401.00	8,526.98	8,116.42	115.85	39.42	-0.30	-1,852.90	11,141.76	916.65	856.34	60.32	15.198	
18,700.00	8,401.00	8,558.00	8,145.68	116.96	39.55	0.09	-1,855.10	11,151.80	822.11	761.45	60.66	13.553	
18,800.00	8,401.00	8,558.00	8,145.68	118.07	39.55	0.09	-1,855.10	11,151.80	727.72	666.12	61.60	11.814	
18,900.00	8,401.00	8,584.76	8,170.65	119.18	39.69	0.60	-1,857.40	11,161.14	634.18	571.95	62.23	10.191	
19,000.00	8,401.00	8,609.50	8,193.48	120.30	39.82	1.40	-1,860.34	11,170.22	541.40	478.35	63.06	8.586	
19,100.00	8,401.00	8,636.79	8,218.32	121.41	39.96	2.80	-1,864.49	11,180.71	449.53	385.44	64.09	7.014	
19,200.00	8,401.00	8,653.00	8,232.89	122.52	40.05	3.96	-1,867.40	11,187.17	359.17	292.98	66.19	5.426	
19,241.70	8,401.00	8,676.61	8,253.79	122.99	40.21	6.26	-1,872.22	11,197.06	321.63	254.94	66.70	4.822 CC, ES, SF	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> VALKYRIE FED COM - ASTRODOG FEE 0809 133H - OWB - AWP													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 213-r.5 MWD+IFR1											<b>Rule Assigned:</b>		<b>Offset Well Error:</b> 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
18,900.00	8,401.00	8,553.14	8,409.67	119.18	34.55	-90.57	-985.79	11,025.94	965.60	810.22	155.37	6.215	
19,000.00	8,401.00	8,560.39	8,416.88	120.30	34.58	-91.05	-986.15	11,026.48	925.42	762.81	162.61	5.691	
19,100.00	8,401.00	8,567.42	8,423.88	121.41	34.61	-91.52	-986.49	11,026.99	894.61	725.68	168.94	5.296	
19,200.00	8,401.00	8,574.25	8,430.69	122.52	34.63	-91.97	-986.82	11,027.48	874.16	700.31	173.85	5.028	
19,241.70	8,401.00	8,577.04	8,433.47	122.99	34.64	-92.15	-986.95	11,027.68	868.88	693.50	175.38	4.954 CC, ES, SF	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> VALKYRIE FED COM - ASTRODOG FEE 0809 214H - OWB - AWP													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 173-r.5 MWD+IFR1											<b>Rule Assigned:</b>		<b>Offset Well Error:</b> 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
18,700.00	8,401.00	8,706.84	8,315.24	116.96	39.78	62.85	-2,026.34	11,296.55	950.06	885.15	64.90	14.638	
18,800.00	8,401.00	8,713.00	8,321.34	118.07	39.81	64.64	-2,027.16	11,296.94	852.24	785.51	66.72	12.773	
18,900.00	8,401.00	8,719.24	8,327.51	119.18	39.83	66.48	-2,027.99	11,297.35	754.94	685.73	69.20	10.909	
19,000.00	8,401.00	8,725.56	8,333.75	120.30	39.86	68.38	-2,028.85	11,297.76	658.37	585.69	72.68	9.058	
19,100.00	8,401.00	8,731.95	8,340.07	121.41	39.89	70.34	-2,029.72	11,298.17	562.94	485.17	77.77	7.239	
19,200.00	8,401.00	8,738.41	8,346.46	122.52	39.92	72.35	-2,030.62	11,298.60	469.31	383.82	85.49	5.489	
19,241.70	8,401.00	8,741.13	8,349.15	122.99	39.93	73.21	-2,031.00	11,298.77	431.08	341.18	89.90	4.795 CC, ES, SF	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - ASTRODOG FEE 0809 224H - OWB - AWP													Offset Site Error:	0.00 usft
Survey Program: 213-r.5 MWD+IFR1											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Offset Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
14,400.00	8,401.00	8,705.65	8,441.65	69.56	37.25	-99.32	-1,481.76	6,986.32	940.77	885.66	55.10	17.072		
14,500.00	8,401.00	8,702.32	8,438.32	70.65	37.25	-98.56	-1,481.60	6,986.43	844.81	788.10	56.71	14.896		
14,600.00	8,401.00	8,699.03	8,435.04	71.73	37.24	-97.81	-1,481.44	6,986.53	749.89	690.99	58.90	12.731		
14,700.00	8,401.00	8,695.79	8,431.81	72.82	37.24	-97.08	-1,481.28	6,986.64	656.48	594.52	61.96	10.596		
14,800.00	8,401.00	8,692.61	8,428.63	73.91	37.23	-96.35	-1,481.13	6,986.74	565.30	498.97	66.33	8.523		
14,900.00	8,401.00	8,689.47	8,425.49	75.00	37.23	-95.63	-1,480.97	6,986.84	477.64	404.94	72.70	6.570		
15,000.00	8,401.00	8,686.37	8,422.41	76.09	37.23	-94.92	-1,480.83	6,986.93	395.86	313.81	82.05	4.825		
15,100.00	8,401.00	8,683.32	8,419.36	77.19	37.22	-94.22	-1,480.68	6,987.03	324.42	229.23	95.19	3.408		
15,200.00	8,401.00	8,680.32	8,416.36	78.28	37.22	-93.53	-1,480.53	6,987.12	271.61	161.01	110.60	2.456	Caution - Monitor Closely	
15,300.00	8,401.00	8,677.37	8,413.42	79.38	37.21	-92.85	-1,480.39	6,987.21	249.56	129.21	120.34	2.074	Caution - Monitor Closely	
15,307.51	8,401.00	8,677.15	8,413.20	79.46	37.21	-92.80	-1,480.38	6,987.22	249.44	128.91	120.53	2.069	Caution - Monitor Closely, CC, ES, SF	
15,400.00	8,401.00	8,674.43	8,410.48	80.47	37.21	-92.18	-1,480.25	6,987.30	266.02	149.98	116.05	2.292	Caution - Monitor Closely	
15,500.00	8,401.00	8,671.49	8,407.55	81.57	37.21	-91.50	-1,480.11	6,987.39	315.03	211.87	103.16	3.054		
15,600.00	8,401.00	8,668.55	8,404.61	82.67	37.20	-90.83	-1,479.97	6,987.48	384.32	293.75	90.57	4.243		
15,700.00	8,401.00	8,665.60	8,401.67	83.76	37.20	-90.15	-1,479.83	6,987.58	464.91	383.86	81.04	5.737		
15,800.00	8,401.00	8,662.66	8,398.73	84.86	37.19	-89.48	-1,479.69	6,987.67	551.87	477.58	74.29	7.429		
15,900.00	8,401.00	8,659.72	8,395.79	85.96	37.19	-88.81	-1,479.55	6,987.76	642.62	573.10	69.52	9.243		
16,000.00	8,401.00	8,656.77	8,392.85	87.06	37.19	-88.13	-1,479.41	6,987.85	735.76	669.66	66.10	11.130		
16,100.00	8,401.00	8,653.83	8,389.91	88.16	37.18	-87.46	-1,479.26	6,987.94	830.49	766.89	63.60	13.057		
16,200.00	8,401.00	8,650.88	8,386.97	89.27	37.18	-86.79	-1,479.12	6,988.03	926.32	864.59	61.74	15.005		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> VALKYRIE FED COM - ASTRODOG FEE 0809 234H - OWB - AWP													<b>Offset Site Error:</b> 0.00 usft
<b>Survey Program:</b> 113-r.5 MWD+IFR1											<b>Rule Assigned:</b>		<b>Offset Well Error:</b> 0.00 usft
Measured Reference Depth (usft)	Vertical Reference Depth (usft)	Measured Offset Depth (usft)	Vertical Offset Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
18,400.00	8,401.00	8,806.36	8,413.48	113.62	37.89	94.39	-2,014.00	11,046.34	994.25	938.27	55.99	17.759	
18,500.00	8,401.00	8,804.52	8,411.64	114.74	37.89	93.75	-2,013.91	11,046.39	895.75	838.33	57.42	15.599	
18,600.00	8,401.00	8,802.64	8,409.76	115.85	37.88	93.09	-2,013.81	11,046.43	797.62	738.25	59.37	13.435	
18,700.00	8,401.00	8,800.71	8,407.83	116.96	37.88	92.41	-2,013.72	11,046.47	700.01	637.92	62.09	11.274	
18,800.00	8,401.00	8,798.73	8,405.86	118.07	37.87	91.72	-2,013.62	11,046.52	603.17	537.15	66.03	9.135	
18,900.00	8,401.00	8,796.71	8,403.84	119.18	37.87	91.00	-2,013.52	11,046.57	507.56	435.58	71.98	7.052	
19,000.00	8,401.00	8,794.63	8,401.77	120.30	37.87	90.27	-2,013.42	11,046.62	414.01	332.64	81.37	5.088	
19,100.00	8,401.00	8,792.51	8,399.65	121.41	37.86	89.52	-2,013.32	11,046.67	324.32	227.41	96.91	3.347	
19,200.00	8,401.00	8,790.33	8,397.47	122.52	37.86	88.75	-2,013.22	11,046.72	242.80	119.65	123.15	1.972	Caution - Monitor Closely
19,241.70	8,401.00	8,789.41	8,396.55	122.99	37.85	88.42	-2,013.17	11,046.75	213.50	75.26	138.23	1.544	Caution - Monitor Closely, CC, ES, SF

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: VALKYRIE FED COM - VALKYRIE 12 WXY FEDERAL COM 011H - OWB - AWP														Offset Site Error:	0.00 usft	
Survey Program: 237-r.5 MWD+IFR1										Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)						
4,600.00	4,445.08	4,597.39	4,555.80	11.88	16.40	-81.75	-1,110.85	1,047.26	988.08	963.50	24.58	40.192				
4,700.00	4,539.89	4,697.40	4,654.55	12.15	16.80	-83.01	-1,120.49	1,034.72	971.55	946.28	25.28	38.433				
4,800.00	4,634.70	4,793.76	4,749.63	12.43	17.19	-84.23	-1,130.14	1,022.41	955.27	929.28	25.99	36.761				
4,900.00	4,729.50	4,883.00	4,837.76	12.70	17.55	-85.41	-1,139.09	1,011.57	940.05	913.35	26.70	35.212				
5,000.00	4,824.31	4,966.81	4,920.67	12.97	17.89	-86.58	-1,146.97	1,002.29	926.33	898.93	27.41	33.797				
5,100.00	4,919.12	5,058.12	5,011.14	13.25	18.25	-87.91	-1,155.07	992.90	913.96	885.81	28.15	32.466				
5,200.00	5,013.92	5,151.16	5,103.35	13.52	18.63	-89.29	-1,163.42	983.76	902.62	873.71	28.91	31.223				
5,300.00	5,108.73	5,247.72	5,199.03	13.80	19.02	-90.73	-1,172.57	974.51	892.10	862.41	29.68	30.054				
5,400.00	5,203.54	5,349.05	5,299.35	14.08	19.43	-92.23	-1,182.91	964.60	881.93	851.45	30.48	28.935				
5,500.00	5,298.34	5,443.18	5,392.53	14.35	19.82	-93.66	-1,192.39	955.23	872.18	840.90	31.28	27.885				
5,600.00	5,393.15	5,551.52	5,499.81	14.63	20.26	-95.42	-1,202.18	943.76	862.59	830.44	32.15	26.827				
5,700.00	5,487.96	5,640.72	5,588.14	14.91	20.62	-96.93	-1,209.84	934.05	853.48	820.48	33.00	25.864				
5,800.00	5,582.76	5,737.00	5,683.56	15.19	21.01	-98.60	-1,217.96	923.98	845.55	811.68	33.87	24.961				
5,899.98	5,677.55	5,849.69	5,795.05	15.46	21.47	-100.59	-1,227.63	910.82	837.18	802.35	34.83	24.036				
6,000.00	5,772.65	5,943.22	5,887.51	15.74	21.86	-102.13	-1,235.92	899.44	828.92	793.20	35.72	23.206				
6,100.00	5,868.25	6,037.82	5,981.07	16.00	22.25	-103.60	-1,244.38	888.19	821.26	784.67	36.59	22.447				
6,200.00	5,964.36	6,135.26	6,077.47	16.25	22.66	-105.03	-1,253.10	877.05	814.24	776.80	37.44	21.747				
6,300.00	6,060.93	6,247.14	6,187.89	16.49	23.14	-106.55	-1,264.11	862.87	805.82	767.49	38.33	21.022				
6,400.00	6,157.93	6,340.68	6,280.14	16.72	23.54	-107.68	-1,273.83	850.79	797.00	757.87	39.13	20.366				
6,500.00	6,255.35	6,428.62	6,367.01	16.94	23.91	-108.68	-1,282.47	840.17	789.02	749.14	39.89	19.782				
6,600.00	6,353.15	6,514.44	6,451.99	17.14	24.27	-109.63	-1,289.80	830.73	782.29	741.69	40.60	19.269				
6,700.00	6,451.29	6,600.47	6,537.38	17.33	24.62	-110.54	-1,296.23	822.45	776.96	735.68	41.27	18.825				
6,800.00	6,549.76	6,694.23	6,630.58	17.52	24.99	-111.44	-1,302.74	814.45	772.48	730.53	41.95	18.416				
6,900.00	6,648.52	6,814.15	6,749.59	17.69	25.49	-112.32	-1,313.20	804.26	766.92	724.18	42.73	17.946				
7,000.00	6,747.53	6,928.04	6,862.02	17.85	26.00	-112.87	-1,326.50	791.92	757.21	713.73	43.47	17.417				
7,100.00	6,846.77	7,013.04	6,946.03	17.99	26.37	-113.20	-1,335.73	782.80	747.49	703.42	44.07	16.963				
7,200.00	6,946.22	7,106.42	7,038.63	18.13	26.76	-113.56	-1,344.01	774.11	739.25	694.58	44.67	16.548				
7,300.00	7,045.83	7,214.54	7,145.77	18.26	27.21	-113.97	-1,352.74	762.53	729.51	684.16	45.35	16.086				
7,400.00	7,145.58	7,315.45	7,245.70	18.37	27.62	-114.28	-1,360.47	750.75	718.45	672.46	45.98	15.624				
7,500.00	7,245.43	7,411.66	7,340.98	18.47	28.02	-114.47	-1,367.67	739.56	706.82	660.25	46.57	15.177				
7,600.00	7,345.37	7,501.58	7,430.14	18.56	28.38	-114.56	-1,373.78	729.60	695.32	648.23	47.10	14.764				
7,700.00	7,445.35	7,589.78	7,517.76	18.64	28.73	-114.53	-1,379.16	721.10	684.69	637.13	47.57	14.394				
7,754.65	7,500.00	7,638.34	7,566.07	18.66	28.92	61.40	-1,381.87	716.98	679.26	631.48	47.79	14.215				
7,800.00	7,545.35	7,679.47	7,607.02	18.65	29.07	61.43	-1,384.02	713.73	674.98	627.03	47.95	14.077				
7,900.00	7,645.35	7,768.04	7,695.27	18.66	29.40	61.48	-1,388.15	707.50	666.59	618.28	48.31	13.800				
8,000.00	7,745.35	7,855.61	7,782.65	18.67	29.71	61.52	-1,391.29	702.71	660.06	611.44	48.62	13.575				
8,100.00	7,845.35	7,941.80	7,868.74	18.68	29.97	61.50	-1,393.05	698.98	655.31	606.42	48.89	13.404				
8,178.19	7,923.54	8,007.00	7,933.92	18.68	30.16	61.48	-1,393.61	697.49	653.40	604.36	49.04	13.324				
8,200.00	7,945.34	8,025.14	7,952.05	18.68	30.17	-28.50	-1,393.67	697.28	652.70	603.67	49.03	13.312				
8,225.00	7,970.27	8,047.95	7,974.87	18.69	30.18	-28.68	-1,393.73	697.09	650.91	601.86	49.05	13.270				
8,250.00	7,995.08	8,070.66	7,997.58	18.71	30.20	-28.97	-1,393.77	696.97	648.05	598.98	49.08	13.205				
8,275.00	8,019.69	8,093.20	8,020.12	18.72	30.22	-29.37	-1,393.77	696.91	644.15	595.04	49.11	13.117				
8,300.00	8,044.03	8,116.84	8,043.76	18.74	30.22	-29.92	-1,393.77	696.92	639.19	590.05	49.14	13.008				
8,325.00	8,068.05	8,140.86	8,067.77	18.75	30.21	-30.60	-1,393.77	696.93	633.15	583.98	49.17	12.878				
8,350.00	8,091.67	8,164.48	8,091.40	18.77	30.21	-31.44	-1,393.78	696.95	626.04	576.84	49.20	12.724				
8,375.00	8,114.82	8,187.65	8,114.57	18.78	30.20	-32.43	-1,393.80	696.97	617.90	568.65	49.24	12.548				
8,400.00	8,137.46	8,210.51	8,137.42	18.80	30.21	-33.60	-1,393.83	697.00	608.76	559.45	49.31	12.345				
8,425.00	8,159.50	8,232.89	8,159.80	18.82	30.23	-34.96	-1,393.87	697.01	598.66	549.26	49.40	12.119				
8,450.00	8,180.90	8,254.60	8,181.52	18.84	30.24	-36.52	-1,393.92	697.02	587.64	538.15	49.49	11.874				
8,475.00	8,201.60	8,275.59	8,202.51	18.85	30.26	-38.30	-1,393.97	697.03	575.76	526.17	49.59	11.611				
8,500.00	8,221.53	8,295.85	8,222.76	18.87	30.28	-40.32	-1,394.03	697.02	563.08	513.39	49.70	11.331				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well_VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY_DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

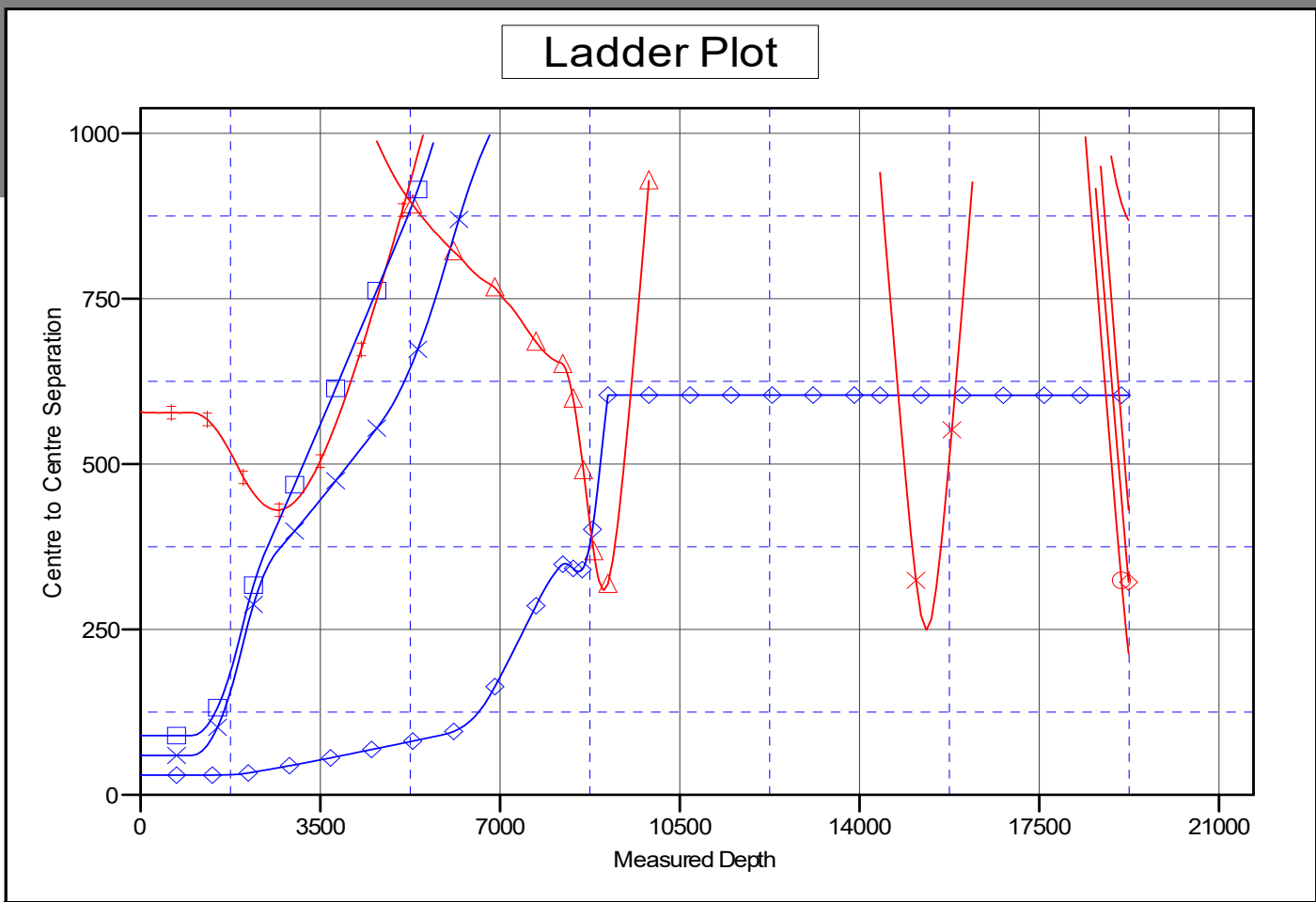
Offset Design: VALKYRIE FED COM - VALKYRIE 12 WXY FEDERAL COM 011H - OWB - AWP														Offset Site Error: 0.00 usft
Survey Program: 237-r.5 MWD+IFR1														Offset Well Error: 0.00 usft
Reference														Rule Assigned:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
8,525.00	8,240.65	8,315.37	8,242.29	18.89	30.32	-42.59	-1,394.11	697.01	549.67	499.85	49.82	11.032		
8,550.00	8,258.89	8,333.99	8,260.90	18.91	30.35	-45.12	-1,394.18	696.99	535.60	485.65	49.95	10.722		
8,575.00	8,276.22	8,351.65	8,278.56	18.93	30.38	-47.93	-1,394.27	696.96	520.96	470.87	50.08	10.402		
8,600.00	8,292.58	8,368.30	8,295.22	18.95	30.41	-51.00	-1,394.36	696.92	505.82	455.62	50.21	10.074		
8,625.00	8,307.93	8,383.91	8,310.82	18.97	30.44	-54.31	-1,394.45	696.89	490.31	439.98	50.33	9.742		
8,650.00	8,322.23	8,398.13	8,325.05	19.00	30.46	-57.82	-1,394.53	696.85	474.53	424.09	50.43	9.409		
8,675.00	8,335.43	8,411.26	8,338.18	19.02	30.49	-61.48	-1,394.62	696.82	458.59	408.08	50.52	9.078		
8,700.00	8,347.51	8,423.28	8,350.20	19.05	30.51	-65.25	-1,394.70	696.80	442.64	392.06	50.58	8.751		
8,725.00	8,358.42	8,434.16	8,361.07	19.08	30.53	-69.04	-1,394.78	696.79	426.82	376.20	50.61	8.433		
8,750.00	8,368.14	8,443.85	8,370.76	19.12	30.55	-72.76	-1,394.86	696.78	411.26	360.66	50.60	8.128		
8,775.00	8,376.64	8,452.34	8,379.25	19.16	30.56	-76.33	-1,394.92	696.77	396.15	345.62	50.53	7.840		
8,800.00	8,383.90	8,459.60	8,386.51	19.21	30.58	-79.64	-1,394.98	696.77	381.65	331.27	50.38	7.575		
8,825.00	8,389.90	8,465.60	8,392.51	19.26	30.59	-82.63	-1,395.03	696.77	367.96	317.81	50.15	7.337		
8,850.00	8,394.62	8,470.33	8,397.24	19.32	30.60	-85.24	-1,395.07	696.77	355.27	305.46	49.81	7.132		
8,875.00	8,398.05	8,473.77	8,400.68	19.38	30.60	-87.41	-1,395.10	696.77	343.79	294.44	49.34	6.967		
8,900.00	8,400.17	8,475.91	8,402.82	19.45	30.61	-89.13	-1,395.12	696.77	333.70	284.97	48.73	6.847		
8,925.00	8,400.99	8,476.74	8,403.65	19.52	30.61	-90.37	-1,395.13	696.77	325.21	277.23	47.97	6.779		
8,928.19	8,401.01	8,476.75	8,403.66	19.53	30.61	-90.49	-1,395.13	696.77	324.24	276.38	47.87	6.774 SF		
9,000.00	8,401.00	8,476.76	8,403.67	19.77	30.61	-90.49	-1,395.13	696.77	310.58	265.73	44.85	6.925 ES		
9,024.00	8,401.00	8,476.77	8,403.68	19.86	30.61	-90.49	-1,395.13	696.77	309.62	265.96	43.66	7.092 CC		
9,100.00	8,401.00	8,476.78	8,403.69	20.16	30.61	-90.50	-1,395.13	696.77	318.70	278.92	39.77	8.013		
9,200.00	8,401.00	8,476.79	8,403.71	20.61	30.61	-90.50	-1,395.13	696.77	355.91	319.89	36.02	9.880		
9,300.00	8,401.00	8,476.81	8,403.72	21.12	30.61	-90.50	-1,395.13	696.77	414.46	379.89	34.57	11.990		
9,400.00	8,401.00	8,476.83	8,403.74	21.67	30.61	-90.51	-1,395.13	696.77	486.70	452.11	34.59	14.070		
9,500.00	8,401.00	8,476.84	8,403.75	22.26	30.61	-90.51	-1,395.13	696.77	567.44	532.23	35.20	16.119		
9,600.00	8,401.00	8,476.86	8,403.77	22.89	30.61	-90.51	-1,395.13	696.77	653.52	617.57	35.96	18.176		
9,700.00	8,401.00	8,476.87	8,403.79	23.55	30.61	-90.51	-1,395.13	696.77	743.10	706.42	36.68	20.260		
9,800.00	8,401.00	8,476.89	8,403.80	24.25	30.61	-90.52	-1,395.13	696.77	835.04	797.72	37.32	22.373		
9,900.00	8,401.00	8,476.91	8,403.82	24.97	30.61	-90.52	-1,395.13	696.77	928.66	890.77	37.89	24.512		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to KB @ 3024.00usft (NABORS X09)      Coordinates are relative to: \_VALKYRIE FED COM 501H  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30  
 Central Meridian is 104° 20' 0.000 W      Grid Convergence at Surface is: 0.15°



**LEGEND**

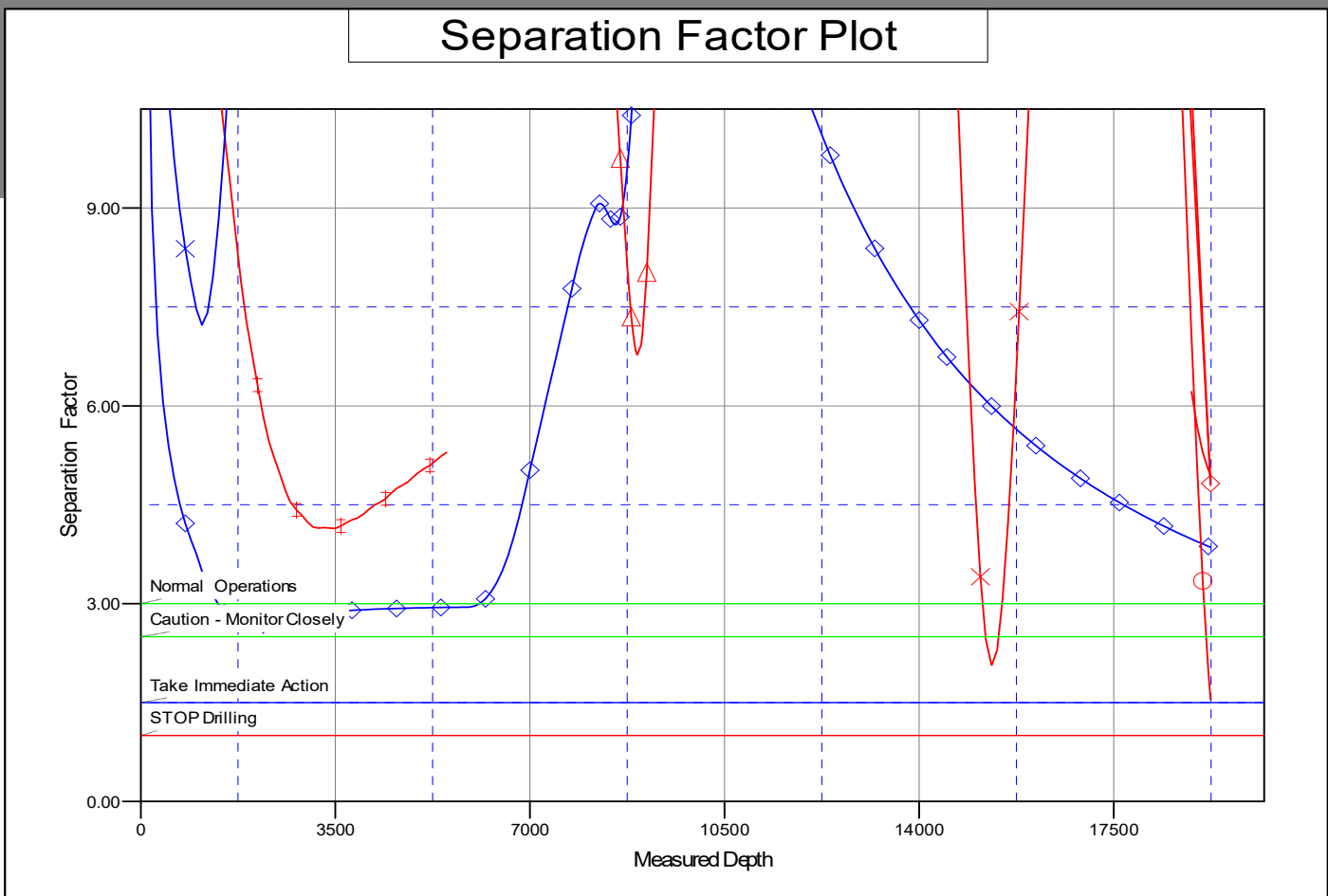
-  AMOCO FEDERAL 11 001 FA, OWB, AWP V0  
 \_VALKYRIE FED COM 502H, OWB, PWPO V0  
 \_VALKYRIE FED COM 551H, OWB, PWPO V0  
 ASTRODOG FEE 0809 234H, OWB, AWP V0
-  ASTRODOG FEE 0809 224H, OWB, AWP V0  
 ASTRODOG FEE 08 114H, OWB, AWP V0  
 ASTRODOG FEE 0809 124H, OWB, AWP V0  
 ASTRODOG FEE 0809 214H, OWB, AWP V0
-  ASTRODOG FEE 0809 133H, OWB, AWP V0  
 \_VALKYRIE FED COM 552H, OWB, PWPO V0  
 VALKYRIE 12 WXY FEDERALCOM 011H, OWB, AWP V0

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN WEST	<b>Local Co-ordinate Reference:</b>	Well _VALKYRIE FED COM 501H
<b>Project:</b>	EDDY COUNTY _DBW_NM_E	<b>TVD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Reference Site:</b>	VALKYRIE FED COM	<b>MD Reference:</b>	KB @ 3024.00usft (NABORS X09)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	_VALKYRIE FED COM 501H	<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>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWPO	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to KB @ 3024.00usft (NABORS X09)      Coordinates are relative to: \_VALKYRIE FED COM 501H  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30  
 Central Meridian is 104° 20' 0.000 W      Grid Convergence at Surface is: 0.15°



**LEGEND**

AMOCO FEDERAL 11 001_PA, OWB, AWP V0	ASTRODOG FEE 0809 224H, OWB, AWP V0	ASTRODOG FEE 0809 133H, OWB, AWP V0
_VALKYRIE FED COM 502H, OWB, PWPO V0	ASTRODOG FEE 08 114H, OWB, AWP V0	_VALKYRIE FED COM 552H, OWB, PWPO V0
_VALKYRIE FED COM 551H, OWB, PWPO V0	ASTRODOG FEE 0809 124H, OWB, AWP V0	VALKYRIE 12 WXY FEDERALCOM 011H, OWB, AWP V0
ASTRODOG FEE 0809 234H, OWB, AWP V0	ASTRODOG FEE 0809 214H, OWB, AWP V0	

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

<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  Submittal Type: <input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled
---	--	--

WELL LOCATION INFORMATION

API Number 30-015-57022	Pool Code 15011	Pool Name Culebra Bluff; Bone Spring, South
Property Code 337450	Property Name <b>VALKYRIE FED COM</b>	
OGRID No. <b>372098</b>	Operator Name <b>MARATHON OIL PERMIAN LLC</b>	Well Number <b>501H</b>
Ground Level Elevation <b>2,992'</b>		
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	11	23S	28E		2,376' FSL	537' FEL	32.319393°	-104.051172°	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	7	23S	29E		670' FSL	50' FEL	32.314220°	-104.015508°	EDDY

Dedicated Acres 634.72	Infill or Defining Well Defining	Defining Well API 30-015-57022	Overlapping Spacing Unit (Y/N)	Consolidation Code Com
Order Numbers.			Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	11	23S	28E		2,376' FSL	537' FEL	32.319393°	-104.051172°	EDDY

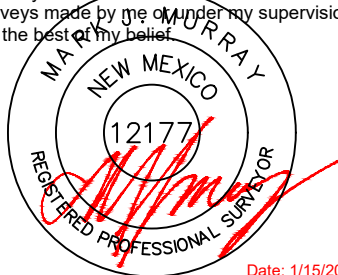
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	12	23S	28E		670' FSL	100' FWL	32.314702°	-104.049168°	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	7	23S	29E		670' FSL	100' FEL	32.314225°	-104.015670°	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation:
---	--	-------------------------

<p><b>OPERATOR CERTIFICATIONS</b></p> <p>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.</p> <p>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.</p>	<p><b>SURVEYOR CERTIFICATIONS</b></p> <p>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.</p> <div style="text-align: center;">  <p>Date: 1/15/2026</p> </div>		
Signature <i>Stan Wagner</i>	Date 1/20/26	Signature and Seal of Professional Surveyor	
Printed Name Stan Wagner	Email Address	Certificate Number 12177	Date of Survey 1/15/2026
		Revision Number 1	

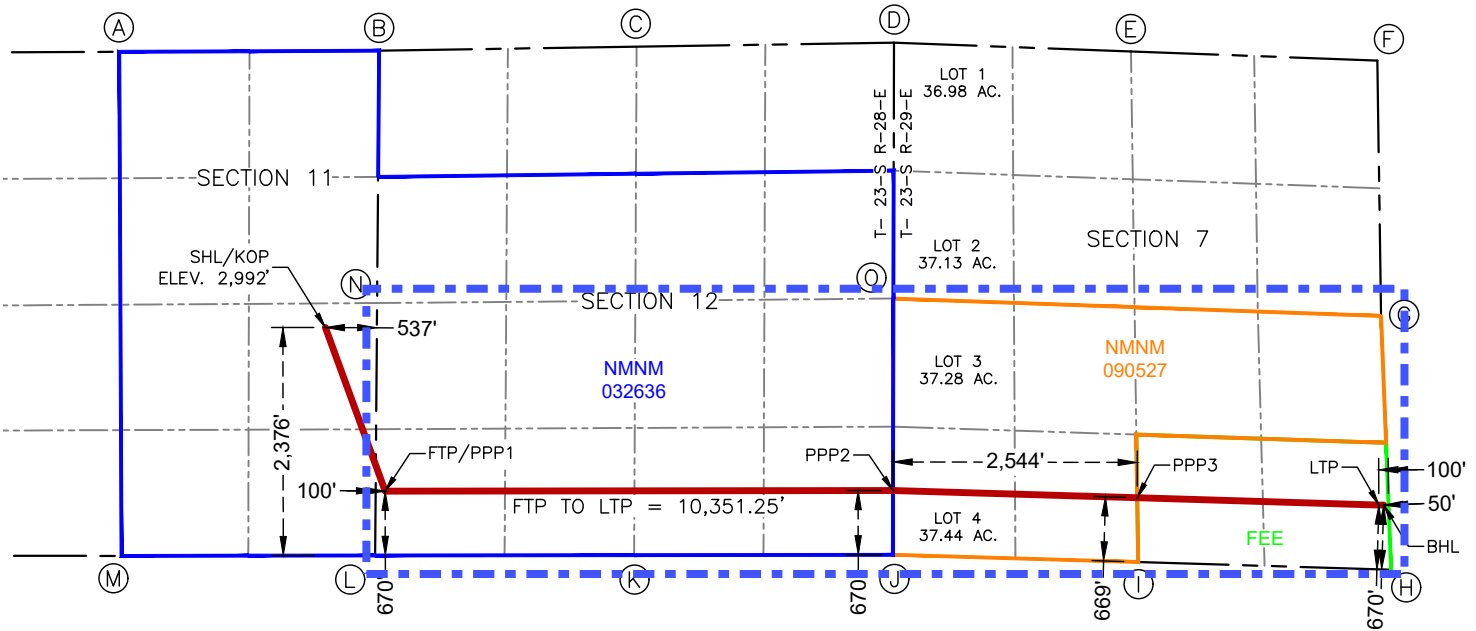
Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

**VALKYRIE FED COM 501H**



**SURFACE HOLE LOCATION & KICK-OFF POINT**  
2,376' FSL & 537' FEL  
ELEV.=2,992'

NAD 83 X = 628,499.74'  
NAD 83 Y = 480,042.21'  
NAD 83 LAT = 32.319393°  
NAD 83 LONG = -104.051172°

**PENETRATION POINT 3**  
669' FSL & 2,544' FWL

NAD 83 X = 636,955.10'  
NAD 83 Y = 478,268.91'  
NAD 83 LAT = 32.314454°  
NAD 83 LONG = -104.023817°

**FIRST TAKE POINT & PENETRATION POINT 1**  
670' FSL & 100' FWL

NAD 83 X = 629,123.31'  
NAD 83 Y = 478,337.24'  
NAD 83 LAT = 32.314702°  
NAD 83 LONG = -104.049168°

**LAST TAKE POINT**  
670' FSL & 100' FEL

NAD 83 X = 639,472.28'  
NAD 83 Y = 478,192.68'  
NAD 83 LAT = 32.314225°  
NAD 83 LONG = -104.015670°

**PENETRATION POINT 2**  
670' FSL & 0' FWL

NAD 83 X = 634,411.29'  
NAD 83 Y = 478,344.42'  
NAD 83 LAT = 32.314682°  
NAD 83 LONG = -104.032051°

**BOTTOM HOLE LOCATION**  
670' FSL & 50' FEL

NAD 83 X = 639,522.38'  
NAD 83 Y = 478,191.15'  
NAD 83 LAT = 32.314220°  
NAD 83 LONG = -104.015508°

**CORNER COORDINATES  
NEW MEXICO EAST - NAD 83**

A	N:482,913.27' E:626,359.83'
B	N:482,925.02' E:629,059.50'
C	N:482,966.63' E:631,741.28'
D	N:483,007.92' E:634,422.58'
E	N:482,916.72' E:636,890.24'
F	N:482,821.70' E:639,456.31'
G	N:480,162.43' E:639,494.75'
H	N:477,518.50' E:639,598.93'
I	N:477,598.98' E:636,964.45'
J	N:477,674.42' E:634,409.91'
K	N:477,670.11' E:631,715.39'
L	N:477,667.13' E:629,018.02'
M	N:477,662.44' E:626,376.12'
N	N:480,296.05' E:629,041.43'
O	N:480,343.16' E:634,418.08'

## ConocoPhillips - Valkyrie Fed Com 501H

### 1. Geologic Formations

TVD of target	8,401' EOL	Pilot hole depth	N/A
MD at TD:	19,241'	Deepest expected fresh water:	90'

Formation	Depth (KB TVD)	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	200	Water	
Top of Salt	412	Salt	
Base of Salt	2417	Salt	
Lamar	2637	Salt Water	
Bell Canyon	2675	Salt Water	
Cherry Canyon	3487	Oil/Gas	
Brushy Canyon	4785	Oil/Gas	
Bone Spring	6231	Oil/Gas	
1st Bone Spring Sand	7312	Oil/Gas	
2nd Bone Spring Sand	8040	Target Oil/Gas	
		Not Penetrated	
		Not Penetrated	
		Not Penetrated	
		Not Penetrated	

### 2a. Casing Program: Big Hole & WBM

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
17.50"	0	270'	13.375"	54.5	J55	BTC	9.15	16.56	57.97	61.77
12.250"	0	2,587	9.625"	40	L80-IC	BTC	2.69	10.70	8.85	9.15
8.75"	0	8,080	5.500"	20	P110-ICY	TXP-BTC	6.68	4.07	4.51	4.51
7.875"	8,080	19,241	5.500"	20	P110-ICY	TXP-BTC	6.68	4.07	4.51	4.51
COP Minimum Safety Factor							1.05	1.15	1.4	1.4

- Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse.
- Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.
- All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172.
- New casing meeting API standards will be utilized.

### ConocoPhillips - Valkyrie Fed Com 501H

#### 2b. Contingency Casing Program: Slim Hole & OBM

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	270	10.750"	45.5	J55	BTC	16.92	21.72	58.20	64.79
9.875"	0	8,200	7.625"	29.7	L80-ICY	BTC	3.76	1.73	2.98	2.63
8.75"	8,200	8,080	7.625"	29.7	P110-ICY	W513	4.70	2.51	4.45	2.67
6.75"	0	7,880	5.500"	20	P110-ICY	TXP-BTC	7.88	3.26	4.63	4.63
6.75"	7,880	19,241	5.500"	20	P110-ICY	W441	6.84	3.26	1.89	1.54
COP Minimum Safety Factor							1.05	1.15	1.4	1.4

- Contingency casing design will be used where water based mud is not deemed applicable.
- If drilling conditions dictate, 9.875" open hole may be taken to section TD.
- Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse.
- Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.
- All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172.
- New casing meeting API standards will be utilized.
- The 5-1/2" W441 casing will be run back 200' into intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
<b>Capitan Reef</b>	
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
<b>SOPA</b>	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
<b>R-111-P</b>	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
<b>High Cave/Karst</b>	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
<b>Critical Cave/Karst</b>	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

### ConocoPhillips - Valkyrie Fed Com 501H

#### 3a. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft <sup>3</sup> / sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hrs)	Slurry Description
Surface	0	13.5	1.75	9	12	Lead: Class C
	160	14.8	1.34	6.34	8	Tail: Class C
Intermediate	530	12.8	1.8	9.21	12	Lead: Class C
	190	14.8	1.34	6.52	8	Tail: Class C
Production	790	11	2.63	16.17	72	Lead: Class C
	1340	13.2	1.45	7.46	19	Tail: Class H

- Surface and intermediate cement jobs to be performed offline.
- Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results
- Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50% in OH
1st Intermediate	0'	50% in OH
Production	2,087'	20% OH in Lateral

### ConocoPhillips - Valkyrie Fed Com 501H

#### 3b. Cementing Program for OBM Design

Casing	# Sks	Wt. lb/ gal	Yld ft <sup>3</sup> / sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hrs)	Slurry Description
Surface	110	13.5	1.75	9	12	Lead: Class C
	160	14.8	1.34	6.34	8	Tail: Class C
Intermediate Stage 1	1400	12.8	1.75	9.21	12	Lead: Class C
	120	14.8	1.35	6.6	8	Tail: Class C
Intermediate Stage 2	180	10.5	3.3	22	24	Lead: Class C
	160	14.8	1.35	6.6	8	Tail: Class H
Production	440	12.7	1.68	9.09	72	Lead: Class C
	970	14.5	1.18	5.26	19	Tail: Class H

- Surface and intermediate cement jobs to be performed offline.
- Cement design to be run in the event the deep set intermediate design is used.
- If losses are encountered, a DV tool will be run ~50' into the Lamar to ensure cement to surface.
- Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results.
- Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1st Stage Int	0'	50%
2nd Stage Int (if necessary)	0'	50%
Production	7,580'	20% OH in Lateral

### ConocoPhillips - Valkyrie Fed Com 501H

#### 4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
Y	A variance is requested for the use of BOPE break testing on intermediate skids (in accordance with the 30 day full BOPE test requirements).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4" or 9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8-3/4" (int)	13-5/8"	5M	5M Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8-3/4" (prod) or 6-3/4"	13-5/8"	10M	5M Annular	x	5000psi
			Blind Ram	x	10000 psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

### ConocoPhillips - Valkyrie Fed Com 501H

Y	Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.	
	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with 43 CFR Part 3170 Subpart 3172.	
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per 43 CFR Part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.	

#### 5a. Mud Program

Depth		Type	Weight (ppg)	Visc.	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf. Shoe	9-5/8" Int 1 shoe	Saturated Brine	9 - 10	28-34	N/C
9-5/8" Int 1 shoe	Lateral TD	WBM	8.6 - 10	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

#### 5b. Mud Program

Depth		Type	Weight (ppg)	Visc.	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf. Shoe	7 5/8" Int 1 shoe	Brine Diesel Emulsion	9 - 10	28-34	N/C
7 5/8" Int 1 shoe	Lateral TD	OBM	9.6 - 12	35-45	<20

Mud program to be used in the event 4-string design is run. Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

### ConocoPhillips - Valkyrie Fed Com 501H

#### 6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
N	CBL	Production casing
Y	Mud log	Intermediate shoe to TD
N	PEX	

#### 7a. Drilling Conditions (WBM)

Condition	Specify what type and where?
BH Pressure at deepest TVD	4370 psi at 8401' TVD
Abnormal Temperature	NO 145 Deg. F.

#### 7a. Drilling Conditions (OBM)

Condition	Specify what type and where?
BH Pressure at deepest TVD	5245 psi at 8401' TVD
Abnormal Temperature	NO 145 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR Part 3170 Subpart 3176. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

#### 8. Other Facets of Operation

Y	Is it a walking operation?
N	Is casing pre-set?
X	H2S Plan.
X	BOP & Choke Schematics.
X	Directional Plan

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

General Information  
Phone: (505) 629-6116

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

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

CONDITIONS

Action 547602

**CONDITIONS**

Operator: MARATHON OIL PERMIAN LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 372098
	Action Number: 547602
	Action Type: [C-103A] 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.	4/13/2026