

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 344368

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701		2. OGRID Number 229137
		3. API Number 30-015-53971
4. Property Code 308205	5. Property Name MAN STATE	6. Well No. 501H

7. Surface Location

UL - Lot P	Section 32	Township 18S	Range 28E	Lot Idn	Feet From 530	N/S Line S	Feet From 405	E/W Line E	County Eddy
---------------	---------------	-----------------	--------------	---------	------------------	---------------	------------------	---------------	----------------

8. Proposed Bottom Hole Location

UL - Lot M	Section 32	Township 18S	Range 28E	Lot Idn M	Feet From 355	N/S Line S	Feet From 50	E/W Line W	County Eddy
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-----------------	---------------	----------------

9. Pool Information

TRAVIS; BONESPRING(O)	97257
-----------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3553
16. Multiple N	17. Proposed Depth 13204	18. Formation 3rd Bone Spring Sand	19. Contractor	20. Spud Date 1/1/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	45.5	500	500	0
Int1	9.875	7.625	29.7	7800	800	0
Prod	6.75	5.5	20	13204	1000	0

Casing/Cement Program: Additional Comments

See attached drill plan.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name: Electronically filed by Robyn Russell

Title: Supervisor Delaware Regulatory

Email Address: robyn.m.russell@conocophillips.com

Date: 7/6/2023

Phone: 432-685-4385

Approved By: Ward Rikala

Title:

Approved Date: 7/12/2023

Expiration Date: 7/12/2025

Conditions of Approval Attached

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Artec, NM 87410
District IV
1220 S. St Francis Dr., NM 87505
Phone: (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015- 53971	² Pool Code 97257	³ Pool Name Travis; Bone Spring
⁴ Property Code 308205	⁵ Property Name MAN STATE	⁶ Well Number 501H
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING LLC	⁹ Elevation 3,553'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	32	18-S	28-E		530'	SOUTH	405'	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	32	18-S	28-E		355'	SOUTH	50'	WEST	EDDY

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

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

¹⁶ SECTION 32 TOWNSHIP 18 SOUTH RANGE 28 EAST N.M.P.M. FTP/PPP1 SHL/KOP ELEV. 3,553' FTP TO LTP = 4,983.32' 530' 405' 100' 365'	SURFACE HOLE LOCATION / KICK OFF POINT 530' FSL & 405' FEL NEW MEXICO EAST-NAD 83 NORTH:617,772.88' EAST:585,261.39' LAT:32.69821888 LONG:-104.19054534 FIRST TAKE POINT / PENETRATION POINT 1 355' FSL & 100' FEL NEW MEXICO EAST-NAD 83 NORTH:617,601.86' EAST:585,567.08' LAT:32.69774766 LONG:-104.18955234 LAST TAKE POINT 355' FSL & 100' FWL NEW MEXICO EAST-NAD 83 NORTH:617,535.41' EAST:580,584.21' LAT:32.69758252 LONG:-104.20575084 BOTTOM HOLE LOCATION 355' FSL & 50' FWL NEW MEXICO EAST-NAD 83 NORTH:617,534.73' EAST:580,534.21' LAT:32.69758082 LONG:-104.20591337	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 7/6/23 Signature Date Stan Wagner Printed Name Date Email Address Date															
	CORNER COORDINATES NEW MEXICO EAST - NAD 83 <table border="1"><tr><td>A- FOUND IRON PIPE</td><td>N:622,455.76' E:580,453.44'</td></tr><tr><td>B- CALCULATED CORNER</td><td>N:622,490.18' E:583,050.50'</td></tr><tr><td>C- FOUND IRON PIPE</td><td>N:622,524.60' E:585,647.56'</td></tr><tr><td>D- FOUND IRON PIPE</td><td>N:619,887.97' E:585,657.81'</td></tr><tr><td>E- FOUND IRON PIPE</td><td>N:617,248.15' E:585,668.52'</td></tr><tr><td>F- FOUND IRON PIPE</td><td>N:617,214.32' E:583,077.67'</td></tr><tr><td>G- FOUND IRON PIPE</td><td>N:617,179.04' E:580,486.43'</td></tr><tr><td>H- CALCULATED CORNER</td><td>N:619,817.40' E:580,469.94'</td></tr></table>	A- FOUND IRON PIPE	N:622,455.76' E:580,453.44'	B- CALCULATED CORNER	N:622,490.18' E:583,050.50'	C- FOUND IRON PIPE	N:622,524.60' E:585,647.56'	D- FOUND IRON PIPE	N:619,887.97' E:585,657.81'	E- FOUND IRON PIPE	N:617,248.15' E:585,668.52'	F- FOUND IRON PIPE	N:617,214.32' E:583,077.67'	G- FOUND IRON PIPE	N:617,179.04' E:580,486.43'	H- CALCULATED CORNER	N:619,817.40' E:580,469.94'
A- FOUND IRON PIPE	N:622,455.76' E:580,453.44'																
B- CALCULATED CORNER	N:622,490.18' E:583,050.50'																
C- FOUND IRON PIPE	N:622,524.60' E:585,647.56'																
D- FOUND IRON PIPE	N:619,887.97' E:585,657.81'																
E- FOUND IRON PIPE	N:617,248.15' E:585,668.52'																
F- FOUND IRON PIPE	N:617,214.32' E:583,077.67'																
G- FOUND IRON PIPE	N:617,179.04' E:580,486.43'																
H- CALCULATED CORNER	N:619,817.40' E:580,469.94'																

District I

1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form APD Conditions

Permit 344368

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	API Number: 30-015-53971
	Well: MAN STATE #501H

OCD Reviewer	Condition
ward.rikala	Notify OCD 24 hours prior to casing & cement
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
ward.rikala	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
ward.rikala	Only fresh water (muds) to be while drilling surface

COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S. If H₂S greater than 100 ppm is encountered in the gas stream we will shut in and install H₂S equipment.

- a. Well Control Equipment:
 - Flare line.
 - Choke manifold with remotely operated choke.
 - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED***
- 2. HARD HATS REQUIRED***
- 3. SMOKING IN DESIGNATED AREAS ONLY***
- 4. BE WIND CONSCIOUS AT ALL TIMES***
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
Dallas Daley	432-818-2329	432-631-6977

EMERGENCY RESPONSE NUMBERS

	<u>OFFICE</u>
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: COG Operating LLC

OGRID: 229137

Date: 07/06/2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Man State 501H	30-015-	P-32-18S-28E	530 FSL & 405 FEL	± 200	± 515	± 1045
Man State 502H	30-015-	L-32-18S-28E	2310 FSL & 390 FWL	± 200	± 515	± 1045

IV. Central Delivery Point Name: CTB NWSW 32-18S-28E [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Man State 501H, 502H	Pending	± 8/1/2024	± 25 days from spud	TBD	TBD	TBD

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 06/05/2023
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Man State 501H

Casing and Cement

<u>String</u>	<u>Hole Size</u>	<u>Csg OD</u>	<u>PPF</u>	<u>Depth</u>	<u>Sx Cement</u>	<u>TOC</u>
Surface	14-3/4"	10-3/4"	45.5#	500'	500	0'
Intermediate	9-7/8" x 8-3/4"	7-5/8"	29.7#	7800'	800	0'
Production	6-3/4"	5-1/2"	20#	13204'	1000	0'

Well Plan

Drill 14-3/4" hole to ~500' w/ brine. Run 10-3/4" 45.5# J55 BTC casing to TD and cement to surface in one stage.

Drill 9-7/8" x 8-3/4" hole to ~7,800' with cut brine. Run 7-5/8 29.7# P110 BTC x 7-5/8 29.7# P110 W513 to TD and cement to surface in one stage.

Drill 6-3/4" vertical, curve and lateral to ~13,204' with OBM. Run 5.5" 20# P110 TXP-BTC x 5.5" 20# P110 W441 casing from TD to surface and cement to surface in one stage.

Well Control

After setting 10-3/4" casing and installing 5000 psi casing head, NU 13-5/8" Cameron BOP. Test casing to 1500 psi, annular to 2500psi and other BOP equipment to 5000 psi.

<u>Type</u>	<u>Working Pressure</u>	<u>Test Pressure</u>	<u>Manufacture</u>
Double Ram	5000 psi	5000 psi	Cameron

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

DELAWARE BASIN WEST

EDDY COUNTY (DBW)

MAN STATE PROJECT

***MAN STATE #501H**

OWB

Plan: PWP0

Standard Planning Report

05 July, 2023

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *MAN STATE #501H
Company:	DELAWARE BASIN WEST	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Project:	EDDY COUNTY (DBW)	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site:	MAN STATE PROJECT	North Reference:	Grid
Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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

Site		MAN STATE PROJECT			
Site Position:		Northing:	617,710.53 usft	Latitude:	32° 41' 53.169 N
From:	Map	Easting:	544,081.87 usft	Longitude:	104° 11' 24.126 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	*MAN STATE #501H					
Well Position	+N/-S	0.0 usft	Northing:	617,710.53 usft	Latitude:	32° 41' 53.169 N
	+E/-W	0.0 usft	Easting:	544,081.87 usft	Longitude:	104° 11' 24.126 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,553.0 usft
Grid Convergence:		0.08 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.07	60.57	49,008.45440758

Design	PWP0				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	267.12	

Plan Survey Tool Program	Date	7/5/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	13,203.9 PWP0 (OWB)	r.5 MWD+IFR1		
			OWSG MWD + IFR1 rev.5		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.7	8.01	119.23	1,899.4	-13.7	24.4	2.00	2.00	0.00	119.23	
3,811.2	8.01	119.23	3,791.2	-143.7	256.9	0.00	0.00	0.00	0.00	
4,612.6	0.00	0.00	4,590.0	-171.0	305.7	1.00	-1.00	0.00	180.00	
7,898.1	0.00	0.00	7,875.5	-171.0	305.7	0.00	0.00	0.00	0.00	
8,648.1	90.00	269.24	8,353.0	-177.4	-171.7	12.00	12.00	-12.10	269.24	
13,203.9	90.00	269.24	8,353.0	-238.1	-4,727.2	0.00	0.00	0.00	0.00	PBHL (MAN STATE #

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *MAN STATE #501H
Company:	DELAWARE BASIN WEST	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Project:	EDDY COUNTY (DBW)	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site:	MAN STATE PROJECT	North Reference:	Grid
Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	2.00	119.23	1,600.0	-0.9	1.5	-1.5	2.00	2.00	0.00
1,700.0	4.00	119.23	1,699.8	-3.4	6.1	-5.9	2.00	2.00	0.00
1,800.0	6.00	119.23	1,799.5	-7.7	13.7	-13.3	2.00	2.00	0.00
1,900.7	8.01	119.23	1,899.4	-13.7	24.4	-23.7	2.00	2.00	0.00
2,000.0	8.01	119.23	1,997.7	-20.4	36.5	-35.4	0.00	0.00	0.00
2,100.0	8.01	119.23	2,096.7	-27.2	48.7	-47.2	0.00	0.00	0.00
2,200.0	8.01	119.23	2,195.8	-34.0	60.8	-59.0	0.00	0.00	0.00
2,300.0	8.01	119.23	2,294.8	-40.8	73.0	-70.9	0.00	0.00	0.00
2,400.0	8.01	119.23	2,393.8	-47.6	85.2	-82.7	0.00	0.00	0.00
2,500.0	8.01	119.23	2,492.8	-54.5	97.3	-94.5	0.00	0.00	0.00
2,600.0	8.01	119.23	2,591.9	-61.3	109.5	-106.3	0.00	0.00	0.00
2,700.0	8.01	119.23	2,690.9	-68.1	121.7	-118.1	0.00	0.00	0.00
2,800.0	8.01	119.23	2,789.9	-74.9	133.8	-129.9	0.00	0.00	0.00
2,900.0	8.01	119.23	2,888.9	-81.7	146.0	-141.7	0.00	0.00	0.00
3,000.0	8.01	119.23	2,988.0	-88.5	158.2	-153.5	0.00	0.00	0.00
3,100.0	8.01	119.23	3,087.0	-95.3	170.3	-165.3	0.00	0.00	0.00
3,200.0	8.01	119.23	3,186.0	-102.1	182.5	-177.1	0.00	0.00	0.00
3,300.0	8.01	119.23	3,285.0	-108.9	194.7	-188.9	0.00	0.00	0.00
3,400.0	8.01	119.23	3,384.1	-115.7	206.8	-200.7	0.00	0.00	0.00
3,500.0	8.01	119.23	3,483.1	-122.5	219.0	-212.6	0.00	0.00	0.00
3,600.0	8.01	119.23	3,582.1	-129.3	231.2	-224.4	0.00	0.00	0.00
3,700.0	8.01	119.23	3,681.1	-136.1	243.3	-236.2	0.00	0.00	0.00
3,800.0	8.01	119.23	3,780.1	-142.9	255.5	-248.0	0.00	0.00	0.00
3,811.2	8.01	119.23	3,791.2	-143.7	256.9	-249.3	0.00	0.00	0.00
3,900.0	7.13	119.23	3,879.3	-149.4	267.1	-259.2	1.00	-1.00	0.00
4,000.0	6.13	119.23	3,978.6	-155.0	277.1	-269.0	1.00	-1.00	0.00
4,100.0	5.13	119.23	4,078.1	-159.8	285.7	-277.3	1.00	-1.00	0.00
4,200.0	4.13	119.23	4,177.8	-163.8	292.7	-284.1	1.00	-1.00	0.00
4,300.0	3.13	119.23	4,277.6	-166.9	298.3	-289.5	1.00	-1.00	0.00
4,400.0	2.13	119.23	4,377.5	-169.1	302.2	-293.4	1.00	-1.00	0.00
4,500.0	1.13	119.23	4,477.4	-170.5	304.7	-295.8	1.00	-1.00	0.00
4,600.0	0.13	119.23	4,577.4	-171.0	305.7	-296.7	1.00	-1.00	0.00
4,612.6	0.00	0.00	4,590.0	-171.0	305.7	-296.7	1.00	-1.00	0.00
4,700.0	0.00	0.00	4,677.4	-171.0	305.7	-296.7	0.00	0.00	0.00
4,800.0	0.00	0.00	4,777.4	-171.0	305.7	-296.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,877.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,000.0	0.00	0.00	4,977.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,100.0	0.00	0.00	5,077.4	-171.0	305.7	-296.7	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *MAN STATE #501H
Company:	DELAWARE BASIN WEST	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Project:	EDDY COUNTY (DBW)	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site:	MAN STATE PROJECT	North Reference:	Grid
Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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)
5,200.0	0.00	0.00	5,177.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,277.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,377.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,477.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,577.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,677.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,777.4	-171.0	305.7	-296.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,877.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,977.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,077.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,177.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,277.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,377.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,477.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,577.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,677.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,777.4	-171.0	305.7	-296.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,877.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,977.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,100.0	0.00	0.00	7,077.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,177.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,300.0	0.00	0.00	7,277.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,377.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,477.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,577.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,677.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,777.4	-171.0	305.7	-296.7	0.00	0.00	0.00
7,898.1	0.00	0.00	7,875.5	-171.0	305.7	-296.7	0.00	0.00	0.00
7,900.0	0.23	269.24	7,877.4	-171.0	305.7	-296.7	12.00	12.00	0.00
7,925.0	3.23	269.24	7,902.4	-171.0	304.9	-295.9	12.00	12.00	0.00
7,950.0	6.23	269.24	7,927.3	-171.1	302.9	-293.9	12.00	12.00	0.00
7,975.0	9.23	269.24	7,952.1	-171.1	299.5	-290.5	12.00	12.00	0.00
8,000.0	12.23	269.24	7,976.7	-171.2	294.9	-285.9	12.00	12.00	0.00
8,025.0	15.23	269.24	8,000.9	-171.2	288.9	-279.9	12.00	12.00	0.00
8,050.0	18.23	269.24	8,024.9	-171.3	281.7	-272.7	12.00	12.00	0.00
8,075.0	21.23	269.24	8,048.4	-171.5	273.3	-264.3	12.00	12.00	0.00
8,100.0	24.23	269.24	8,071.5	-171.6	263.6	-254.7	12.00	12.00	0.00
8,125.0	27.23	269.24	8,094.0	-171.7	252.8	-243.8	12.00	12.00	0.00
8,150.0	30.23	269.24	8,115.9	-171.9	240.8	-231.8	12.00	12.00	0.00
8,175.0	33.23	269.24	8,137.2	-172.1	227.6	-218.7	12.00	12.00	0.00
8,200.0	36.23	269.24	8,157.7	-172.3	213.4	-204.4	12.00	12.00	0.00
8,225.0	39.23	269.24	8,177.5	-172.5	198.1	-189.2	12.00	12.00	0.00
8,250.0	42.23	269.24	8,196.4	-172.7	181.8	-172.9	12.00	12.00	0.00
8,275.0	45.23	269.24	8,214.5	-172.9	164.5	-155.6	12.00	12.00	0.00
8,300.0	48.23	269.24	8,231.6	-173.1	146.3	-137.4	12.00	12.00	0.00
8,325.0	51.23	269.24	8,247.8	-173.4	127.2	-118.3	12.00	12.00	0.00
8,350.0	54.23	269.24	8,262.9	-173.7	107.3	-98.5	12.00	12.00	0.00
8,375.0	57.23	269.24	8,277.0	-173.9	86.7	-77.8	12.00	12.00	0.00
8,400.0	60.23	269.24	8,290.0	-174.2	65.3	-56.5	12.00	12.00	0.00
8,425.0	63.23	269.24	8,301.8	-174.5	43.3	-34.5	12.00	12.00	0.00
8,450.0	66.23	269.24	8,312.5	-174.8	20.7	-11.9	12.00	12.00	0.00
8,475.0	69.23	269.24	8,321.9	-175.1	-2.4	11.2	12.00	12.00	0.00
8,500.0	72.23	269.24	8,330.2	-175.4	-26.0	34.8	12.00	12.00	0.00
8,525.0	75.23	269.24	8,337.2	-175.8	-50.0	58.8	12.00	12.00	0.00

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *MAN STATE #501H
Company:	DELAWARE BASIN WEST	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Project:	EDDY COUNTY (DBW)	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site:	MAN STATE PROJECT	North Reference:	Grid
Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	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)	
8,550.0	78.23	269.24	8,342.9	-176.1	-74.4	83.1	12.00	12.00	0.00	
8,575.0	81.23	269.24	8,347.4	-176.4	-99.0	107.7	12.00	12.00	0.00	
8,600.0	84.23	269.24	8,350.5	-176.7	-123.7	132.5	12.00	12.00	0.00	
8,625.0	87.23	269.24	8,352.4	-177.1	-148.7	157.4	12.00	12.00	0.00	
8,648.1	90.00	269.24	8,353.0	-177.4	-171.7	180.4	12.00	12.00	0.00	
8,700.0	90.00	269.24	8,353.0	-178.1	-223.7	232.3	0.00	0.00	0.00	
8,800.0	90.00	269.24	8,353.0	-179.4	-323.6	332.3	0.00	0.00	0.00	
8,900.0	90.00	269.24	8,353.0	-180.7	-423.6	432.2	0.00	0.00	0.00	
9,000.0	90.00	269.24	8,353.0	-182.1	-523.6	532.1	0.00	0.00	0.00	
9,100.0	90.00	269.24	8,353.0	-183.4	-623.6	632.1	0.00	0.00	0.00	
9,200.0	90.00	269.24	8,353.0	-184.7	-723.6	732.0	0.00	0.00	0.00	
9,300.0	90.00	269.24	8,353.0	-186.1	-823.6	831.9	0.00	0.00	0.00	
9,400.0	90.00	269.24	8,353.0	-187.4	-923.6	931.9	0.00	0.00	0.00	
9,500.0	90.00	269.24	8,353.0	-188.7	-1,023.6	1,031.8	0.00	0.00	0.00	
9,600.0	90.00	269.24	8,353.0	-190.1	-1,123.6	1,131.7	0.00	0.00	0.00	
9,700.0	90.00	269.24	8,353.0	-191.4	-1,223.6	1,231.6	0.00	0.00	0.00	
9,800.0	90.00	269.24	8,353.0	-192.7	-1,323.6	1,331.6	0.00	0.00	0.00	
9,900.0	90.00	269.24	8,353.0	-194.1	-1,423.5	1,431.5	0.00	0.00	0.00	
10,000.0	90.00	269.24	8,353.0	-195.4	-1,523.5	1,531.4	0.00	0.00	0.00	
10,100.0	90.00	269.24	8,353.0	-196.7	-1,623.5	1,631.4	0.00	0.00	0.00	
10,200.0	90.00	269.24	8,353.0	-198.1	-1,723.5	1,731.3	0.00	0.00	0.00	
10,300.0	90.00	269.24	8,353.0	-199.4	-1,823.5	1,831.2	0.00	0.00	0.00	
10,400.0	90.00	269.24	8,353.0	-200.7	-1,923.5	1,931.2	0.00	0.00	0.00	
10,500.0	90.00	269.24	8,353.0	-202.1	-2,023.5	2,031.1	0.00	0.00	0.00	
10,600.0	90.00	269.24	8,353.0	-203.4	-2,123.5	2,131.0	0.00	0.00	0.00	
10,700.0	90.00	269.24	8,353.0	-204.7	-2,223.5	2,231.0	0.00	0.00	0.00	
10,800.0	90.00	269.24	8,353.0	-206.1	-2,323.5	2,330.9	0.00	0.00	0.00	
10,900.0	90.00	269.24	8,353.0	-207.4	-2,423.5	2,430.8	0.00	0.00	0.00	
11,000.0	90.00	269.24	8,353.0	-208.7	-2,523.5	2,530.8	0.00	0.00	0.00	
11,100.0	90.00	269.24	8,353.0	-210.1	-2,623.4	2,630.7	0.00	0.00	0.00	
11,200.0	90.00	269.24	8,353.0	-211.4	-2,723.4	2,730.6	0.00	0.00	0.00	
11,300.0	90.00	269.24	8,353.0	-212.7	-2,823.4	2,830.6	0.00	0.00	0.00	
11,400.0	90.00	269.24	8,353.0	-214.1	-2,923.4	2,930.5	0.00	0.00	0.00	
11,500.0	90.00	269.24	8,353.0	-215.4	-3,023.4	3,030.4	0.00	0.00	0.00	
11,600.0	90.00	269.24	8,353.0	-216.7	-3,123.4	3,130.3	0.00	0.00	0.00	
11,700.0	90.00	269.24	8,353.0	-218.1	-3,223.4	3,230.3	0.00	0.00	0.00	
11,800.0	90.00	269.24	8,353.0	-219.4	-3,323.4	3,330.2	0.00	0.00	0.00	
11,900.0	90.00	269.24	8,353.0	-220.7	-3,423.4	3,430.1	0.00	0.00	0.00	
12,000.0	90.00	269.24	8,353.0	-222.1	-3,523.4	3,530.1	0.00	0.00	0.00	
12,100.0	90.00	269.24	8,353.0	-223.4	-3,623.4	3,630.0	0.00	0.00	0.00	
12,200.0	90.00	269.24	8,353.0	-224.7	-3,723.3	3,729.9	0.00	0.00	0.00	
12,300.0	90.00	269.24	8,353.0	-226.1	-3,823.3	3,829.9	0.00	0.00	0.00	
12,400.0	90.00	269.24	8,353.0	-227.4	-3,923.3	3,929.8	0.00	0.00	0.00	
12,500.0	90.00	269.24	8,353.0	-228.7	-4,023.3	4,029.7	0.00	0.00	0.00	
12,600.0	90.00	269.24	8,353.0	-230.1	-4,123.3	4,129.7	0.00	0.00	0.00	
12,700.0	90.00	269.24	8,353.0	-231.4	-4,223.3	4,229.6	0.00	0.00	0.00	
12,800.0	90.00	269.24	8,353.0	-232.7	-4,323.3	4,329.5	0.00	0.00	0.00	
12,900.0	90.00	269.24	8,353.0	-234.1	-4,423.3	4,429.5	0.00	0.00	0.00	
13,000.0	90.00	269.24	8,353.0	-235.4	-4,523.3	4,529.4	0.00	0.00	0.00	
13,100.0	90.00	269.24	8,353.0	-236.7	-4,623.3	4,629.3	0.00	0.00	0.00	
13,203.9	90.00	269.24	8,353.0	-238.1	-4,727.2	4,733.2	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *MAN STATE #501H
Company:	DELAWARE BASIN WEST	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Project:	EDDY COUNTY (DBW)	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site:	MAN STATE PROJECT	North Reference:	Grid
Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PP (MAN STATE #501H - plan hits target center - Point	0.00	0.00	6,500.0	-171.0	305.7	617,539.51	544,387.56	32° 41' 51.473 N	104° 11' 20.552 W
LTP (MAN STATE #501H - plan hits target center - Point	0.00	0.00	8,353.0	-237.4	-4,677.2	617,473.09	539,404.68	32° 41' 50.879 N	104° 12' 18.865 W
FTP (MAN STATE #501H - plan misses target center by 197.8usft at 8275.0usft MD (8214.5 TVD, -172.9 N, 164.5 E) - Point	0.00	0.00	8,353.0	-171.0	305.7	617,539.51	544,387.56	32° 41' 51.473 N	104° 11' 20.552 W
PBHL (MAN STATE #501H - plan hits target center - Point	0.00	0.00	8,353.0	-238.1	-4,727.2	617,472.41	539,354.68	32° 41' 50.873 N	104° 12' 19.450 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
13,204.0	8,353.0	5-1/2" Production Casing	5-1/2	6-3/4	

DELAWARE BASIN WEST

EDDY COUNTY (DBW)

MAN STATE PROJECT

***MAN STATE #501H**

OWB

PWP0

Anticollision Report

05 July, 2023

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference	PWP0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,000.0usft	Error Surface:	Combined Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Added to Error Values

Survey Tool Program		Date	7/5/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	13,203.9	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5	

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						
MAN STATE PROJECT						
RESLER YATES STATE #380 - OWB - AWP						Out of range
*MAN STATE #502H - OWB - PWP0						Out of range
MAN STATE #1 (P&A) - OWB - AWP	1,000.0	1,027.4	1,283.7	1,233.3	25.481	CC
MAN STATE #1 (P&A) - OWB - AWP	8,719.0	8,353.4	1,436.3	1,079.8	4.029	ES, SF
MAN STATE #2H - OWB - AWP	6,957.5	11,355.0	1,924.9	1,764.6	12.004	CC, ES, SF
MAN STATE #3H - OWB - AWP	2,230.4	2,245.7	184.6	168.9	11.721	CC
MAN STATE #3H - OWB - AWP	2,300.0	2,315.1	184.9	168.8	11.500	ES
MAN STATE #3H - OWB - AWP	6,400.0	6,387.0	375.7	337.4	9.809	SF
RESLER-YATES STATE #376 - OWB - AWP						Out of range
STATE #1 (P&A) - OWB - AWP	3,200.0	3,125.0	829.0	690.6	5.989	SF
STATE #1 (P&A) - OWB - AWP	3,238.1	3,125.0	828.1	690.3	6.010	CC, ES
STATE #59 (T&A) - OWB - AWP						Out of range
STATE 647 #224 - OWB - AWP						Out of range
STATE BU #1 (T&A) - OWB - AWP	11,276.4	8,369.4	299.7	-66.9	0.818	Stop Drilling Now, CC, ES, S
STATE C #1 (T&A) - OWB - AWP	3,000.0	2,950.0	776.4	645.2	5.920	ES, SF
STATE C #1 (T&A) - OWB - AWP	3,004.4	2,950.0	776.4	645.3	5.921	CC
STATE WILSON #1 (P&A) - OWB - AWP	700.0	702.2	838.0	811.0	31.077	CC, ES
STATE WILSON #1 (P&A) - OWB - AWP	800.0	715.0	842.5	815.2	30.760	SF

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

TD 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						
MAN STATE PROJECT						
RESLER YATES STATE #380 - OWB - AWP	13,203.9	2,080.0				Out of Range @TD
*MAN STATE #502H - OWB - PWP0	13,203.9	8,043.3				Out of Range @TD
MAN STATE #1 (P&A) - OWB - AWP	13,203.9	8,353.6				Out of Range @TD
MAN STATE #2H - OWB - AWP	13,203.9	7,077.0				Out of Range @TD
MAN STATE #3H - OWB - AWP	13,203.9	11,118.0	1,672.2	1,592.7	21.010	
RESLER-YATES STATE #376 - OWB - AWP	13,203.9	2,060.0				Out of Range @TD
STATE #1 (P&A) - OWB - AWP	13,203.9	3,125.0				Out of Range @TD
STATE #59 (T&A) - OWB - AWP	13,203.9	2,049.0				Out of Range @TD
STATE 647 #224 - OWB - AWP	13,203.9	2,055.0				Out of Range @TD
STATE BU #1 (T&A) - OWB - AWP	13,203.9	8,369.6	1,950.7	1,593.3	5.457	
STATE C #1 (T&A) - OWB - AWP	13,203.9	2,950.0				Out of Range @TD
STATE WILSON #1 (P&A) - OWB - AWP	13,203.9	715.0				Out of Range @TD

Offset Design: MAN STATE PROJECT - MAN STATE #1 (P&A) - OWB - AWP

Survey Program: 500-INC-ONLY													Offset Site Error: 0.0 usft	
Reference Offset				Semi Major Axis					Rule Assigned:				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	10.0	3.0	3.0	-11.76	1,257.0	-261.8	1,284.0	1,277.5	6.43	199.723		
100.0	100.0	90.0	100.0	3.2	4.6	-11.76	1,257.0	-261.8	1,283.9	1,275.5	8.40	152.920		
200.0	200.0	190.0	200.0	3.5	8.0	-11.76	1,257.0	-261.8	1,283.9	1,271.2	12.72	100.937		
300.0	300.0	290.0	300.0	3.7	11.8	-11.76	1,257.0	-261.8	1,283.9	1,266.2	17.72	72.476		
400.0	400.0	390.0	400.0	3.9	15.6	-11.76	1,257.0	-261.8	1,283.9	1,261.0	22.94	55.975		
500.0	500.0	490.0	500.0	4.1	19.5	-11.76	1,257.0	-261.8	1,283.9	1,255.7	28.26	45.434		
600.0	600.0	590.2	600.0	4.2	22.5	-11.76	1,257.0	-261.8	1,283.9	1,251.5	32.47	39.542		
700.0	700.0	690.2	700.0	4.4	25.5	-11.76	1,257.0	-261.8	1,283.9	1,247.4	36.56	35.120		
800.0	800.0	796.4	806.1	4.6	28.6	-11.74	1,260.1	-261.8	1,287.0	1,246.1	40.91	31.460		
900.0	900.0	911.9	921.5	4.8	32.0	-11.75	1,258.9	-261.8	1,286.0	1,240.3	45.64	28.174		
1,000.0	1,000.0	1,027.4	1,036.9	4.9	35.4	-11.77	1,256.2	-261.8	1,283.7	1,233.3	50.38	25.481	CC	
1,029.1	1,029.1	1,019.6	1,029.1	5.0	35.2	-11.76	1,257.0	-261.8	1,283.9	1,233.8	50.10	25.630		
1,100.0	1,100.0	1,090.6	1,100.0	5.1	37.3	-11.76	1,257.0	-261.8	1,283.9	1,230.9	53.03	24.210		
1,200.0	1,200.0	1,190.6	1,200.0	5.2	40.3	-11.76	1,257.0	-261.8	1,283.9	1,226.7	57.18	22.455		
1,300.0	1,300.0	1,292.4	1,301.9	5.4	43.3	-11.75	1,258.0	-261.8	1,285.0	1,223.6	61.40	20.927		
1,400.0	1,400.0	1,397.1	1,406.5	5.5	46.4	-11.76	1,257.7	-261.8	1,284.6	1,218.9	65.74	19.540		
1,500.0	1,500.0	1,501.7	1,511.1	5.7	49.6	-11.76	1,256.9	-261.8	1,284.0	1,213.9	70.08	18.320		
1,509.1	1,509.1	1,511.2	1,520.6	5.7	49.8	-130.99	1,256.9	-261.8	1,283.9	1,213.4	70.48	18.216		
1,600.0	1,600.0	1,590.9	1,600.0	5.9	52.2	-131.03	1,257.0	-261.8	1,285.1	1,211.3	73.80	17.412		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - MAN STATE #1 (P&A) - OWB - AWP													Offset Site Error: 0.0 usft
Survey Program: 500-INC-ONLY													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
1,700.0	1,699.8	1,690.7	1,699.8	6.1	55.2	-131.15	1,257.0	-261.8	1,288.5	1,210.6	77.96	16.527	
1,800.0	1,799.5	1,796.6	1,805.6	6.4	58.4	-131.35	1,260.1	-261.8	1,297.4	1,215.0	82.37	15.750	
1,900.0	1,898.7	1,911.4	1,920.3	6.6	61.8	-131.72	1,258.9	-261.8	1,304.4	1,217.3	87.15	14.968	
2,000.0	1,997.7	2,026.2	2,035.0	6.8	65.2	-132.26	1,256.2	-261.8	1,311.6	1,219.7	91.90	14.271	
2,100.0	2,096.7	2,088.0	2,096.7	7.0	67.1	-132.53	1,257.0	-261.8	1,321.2	1,226.6	94.53	13.977	
2,200.0	2,195.8	2,187.0	2,195.8	7.3	70.0	-132.97	1,257.0	-261.8	1,330.7	1,232.0	98.66	13.487	
2,300.0	2,294.8	2,287.7	2,296.5	7.5	73.0	-133.40	1,258.0	-261.8	1,341.3	1,238.4	102.87	13.039	
2,400.0	2,393.8	2,391.5	2,400.3	7.8	76.1	-133.86	1,257.7	-261.8	1,350.7	1,243.5	107.21	12.599	
2,500.0	2,492.8	2,495.4	2,504.1	8.1	79.2	-134.30	1,257.0	-261.8	1,359.8	1,248.2	111.55	12.190	
2,600.0	2,591.9	2,583.4	2,591.9	8.4	81.9	-134.67	1,257.0	-261.8	1,369.5	1,254.3	115.24	11.884	
2,700.0	2,690.9	2,682.4	2,690.9	8.7	84.8	-135.08	1,257.0	-261.8	1,379.4	1,260.0	119.38	11.554	
2,800.0	2,789.9	2,786.7	2,795.0	9.0	88.0	-135.47	1,260.2	-261.8	1,392.4	1,268.7	123.74	11.252	
2,900.0	2,888.9	2,902.1	2,910.4	9.3	91.4	-135.95	1,259.0	-261.8	1,401.5	1,272.9	128.56	10.901	
3,000.0	2,988.0	3,017.9	3,026.1	9.7	94.9	-136.43	1,256.5	-261.8	1,409.5	1,276.1	133.37	10.568	
3,100.0	3,087.0	3,078.9	3,087.0	10.0	96.7	-136.67	1,257.0	-261.8	1,419.6	1,283.6	135.99	10.439	
3,200.0	3,186.0	3,177.9	3,186.0	10.4	99.7	-137.05	1,257.0	-261.8	1,429.8	1,289.7	140.14	10.203	
3,300.0	3,285.0	3,278.3	3,286.4	10.7	102.7	-137.41	1,258.0	-261.8	1,441.1	1,296.8	144.35	9.983	
3,400.0	3,384.1	3,382.3	3,390.4	11.1	105.8	-137.81	1,257.7	-261.8	1,451.2	1,302.5	148.72	9.758	
3,500.0	3,483.1	3,486.4	3,494.5	11.4	108.9	-138.20	1,257.1	-261.8	1,461.0	1,307.9	153.08	9.544	
3,600.0	3,582.1	3,574.3	3,582.1	11.8	111.5	-138.52	1,257.0	-261.8	1,471.3	1,314.5	156.78	9.385	
3,700.0	3,681.1	3,673.3	3,681.1	12.2	114.5	-138.88	1,257.0	-261.8	1,481.8	1,320.9	160.93	9.208	
3,800.0	3,780.1	3,776.3	3,784.0	12.6	117.6	-139.20	1,260.2	-261.8	1,495.4	1,330.2	165.25	9.049	
3,900.0	3,879.3	3,892.8	3,900.4	13.0	121.1	-139.65	1,259.2	-261.8	1,504.7	1,334.6	170.13	8.845	
4,000.0	3,978.6	4,009.8	4,017.4	13.3	124.6	-140.06	1,256.7	-261.8	1,511.6	1,336.6	175.00	8.638	
4,100.0	4,078.1	4,070.6	4,078.1	13.7	126.4	-140.24	1,257.0	-261.8	1,518.9	1,341.3	177.62	8.551	
4,200.0	4,177.8	4,170.3	4,177.8	14.0	129.4	-140.47	1,257.0	-261.8	1,525.1	1,343.3	181.80	8.389	
4,300.0	4,277.6	4,271.2	4,278.6	14.4	132.4	-140.64	1,258.0	-261.8	1,531.0	1,345.0	186.03	8.230	
4,400.0	4,377.5	4,376.3	4,383.8	14.7	135.5	-140.78	1,257.8	-261.8	1,534.3	1,343.9	190.43	8.057	
4,500.0	4,477.4	4,481.6	4,489.0	15.0	138.7	-140.87	1,257.1	-261.8	1,535.9	1,341.1	194.84	7.883	
4,600.0	4,577.4	4,570.3	4,577.4	15.2	141.3	-140.90	1,257.0	-261.8	1,536.6	1,338.0	198.56	7.739	
4,700.0	4,677.4	4,670.3	4,677.4	15.2	144.3	-21.67	1,257.0	-261.8	1,536.6	1,333.9	202.72	7.580	
4,800.0	4,777.4	4,773.9	4,781.0	15.3	147.4	-21.63	1,260.2	-261.8	1,539.6	1,332.6	207.04	7.436	
4,900.0	4,877.4	4,891.8	4,898.8	15.3	151.0	-21.64	1,259.2	-261.8	1,538.8	1,326.9	211.93	7.261	
5,000.0	4,977.4	5,009.7	5,016.6	15.4	154.5	-21.68	1,256.7	-261.8	1,536.9	1,320.1	216.80	7.089	
5,025.0	5,002.4	5,039.2	5,046.1	15.4	155.4	-21.69	1,255.9	-261.8	1,536.2	1,318.2	218.01	7.046	
5,100.0	5,077.4	5,070.6	5,077.4	15.4	156.3	-21.67	1,257.0	-261.8	1,536.6	1,317.2	219.41	7.003	
5,200.0	5,177.4	5,170.6	5,177.4	15.5	159.3	-21.67	1,257.0	-261.8	1,536.6	1,313.0	223.58	6.873	
5,300.0	5,277.4	5,271.7	5,278.5	15.5	162.4	-21.66	1,258.0	-261.8	1,537.6	1,309.8	227.79	6.750	
5,400.0	5,377.4	5,377.0	5,383.8	15.6	165.5	-21.66	1,257.8	-261.8	1,537.4	1,305.2	232.18	6.621	
5,500.0	5,477.4	5,482.3	5,489.1	15.6	168.7	-21.67	1,257.1	-261.8	1,536.8	1,300.2	236.57	6.496	
5,528.7	5,506.1	5,512.5	5,519.3	15.7	169.6	-21.67	1,256.8	-261.8	1,536.5	1,298.7	237.83	6.461	
5,600.0	5,577.4	5,571.0	5,577.4	15.7	171.3	-21.67	1,257.0	-261.8	1,536.6	1,296.3	240.27	6.395	
5,700.0	5,677.4	5,671.0	5,677.4	15.7	174.3	-21.67	1,257.0	-261.8	1,536.6	1,292.2	244.45	6.286	
5,800.0	5,777.4	5,774.7	5,781.1	15.8	177.4	-21.63	1,260.2	-261.8	1,539.6	1,290.8	248.77	6.189	
5,900.0	5,877.4	5,892.6	5,898.9	15.8	180.9	-21.64	1,259.2	-261.8	1,538.8	1,285.1	253.67	6.066	
6,000.0	5,977.4	6,010.5	6,016.7	15.9	184.5	-21.68	1,256.7	-261.8	1,536.8	1,278.3	258.53	5.945	
6,025.0	6,002.4	6,040.0	6,046.2	15.9	185.4	-21.69	1,255.8	-261.8	1,536.2	1,276.4	259.74	5.914	
6,100.0	6,077.4	6,071.3	6,077.4	16.0	186.3	-21.67	1,257.0	-261.8	1,536.6	1,275.4	261.15	5.884	
6,200.0	6,177.4	6,171.3	6,177.4	16.0	189.3	-21.67	1,257.0	-261.8	1,536.6	1,271.3	265.32	5.791	
6,300.0	6,277.4	6,272.4	6,278.5	16.1	192.3	-21.66	1,258.0	-261.8	1,537.6	1,268.1	269.54	5.705	
6,400.0	6,377.4	6,377.7	6,383.8	16.1	195.5	-21.66	1,257.8	-261.8	1,537.4	1,263.4	273.93	5.612	
6,500.0	6,477.4	6,483.0	6,489.1	16.2	198.6	-21.67	1,257.1	-261.8	1,536.8	1,258.5	278.32	5.522	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - MAN STATE #1 (P&A) - OWB - AWP													Offset Site Error: 0.0 usft
Survey Program: 500-INC-ONLY													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,562.0	6,539.4	6,533.6	6,539.4	16.2	200.1	-21.67	1,257.0	-261.8	1,536.6	1,256.2	280.44	5.479	
6,600.0	6,577.4	6,571.6	6,577.4	16.2	201.3	-21.67	1,257.0	-261.8	1,536.6	1,254.6	282.03	5.448	
6,700.0	6,677.4	6,671.6	6,677.4	16.3	204.3	-21.67	1,257.0	-261.8	1,536.6	1,250.4	286.20	5.369	
6,800.0	6,777.4	6,775.5	6,781.2	16.3	207.4	-21.63	1,260.2	-261.8	1,539.6	1,249.1	290.54	5.299	
6,900.0	6,877.4	6,893.3	6,899.0	16.4	210.9	-21.64	1,259.2	-261.8	1,538.8	1,243.4	295.43	5.209	
7,000.0	6,977.4	7,011.3	7,016.8	16.4	214.5	-21.68	1,256.7	-261.8	1,536.8	1,236.5	300.28	5.118	
7,025.0	7,002.4	7,040.8	7,046.3	16.4	215.3	-21.69	1,255.8	-261.8	1,536.2	1,234.7	301.49	5.095	
7,100.0	7,077.4	7,071.9	7,077.4	16.5	216.3	-21.67	1,257.0	-261.8	1,536.6	1,233.7	302.91	5.073	
7,200.0	7,177.4	7,171.9	7,177.4	16.5	219.3	-21.67	1,257.0	-261.8	1,536.6	1,229.5	307.09	5.004	
7,300.0	7,277.4	7,273.1	7,278.6	16.6	222.3	-21.66	1,258.0	-261.8	1,537.6	1,226.3	311.31	4.939	
7,400.0	7,377.4	7,378.4	7,383.8	16.7	225.5	-21.66	1,257.8	-261.8	1,537.4	1,221.7	315.70	4.870	
7,500.0	7,477.4	7,483.7	7,489.1	16.7	228.6	-21.67	1,257.1	-261.8	1,536.8	1,216.7	320.09	4.801	
7,560.3	7,537.8	7,532.6	7,537.8	16.7	230.1	-21.67	1,257.0	-261.8	1,536.6	1,214.5	322.15	4.770	
7,600.0	7,577.4	7,572.3	7,577.4	16.8	231.3	-21.67	1,257.0	-261.8	1,536.6	1,212.8	323.80	4.745	
7,700.0	7,677.4	7,672.3	7,677.4	16.8	234.3	-21.67	1,257.0	-261.8	1,536.6	1,208.6	327.98	4.685	
7,800.0	7,777.4	7,776.3	7,781.3	16.9	237.4	-21.63	1,260.2	-261.8	1,539.6	1,207.3	332.32	4.633	
7,900.0	7,877.4	7,894.1	7,899.1	16.9	240.9	69.13	1,259.1	-261.8	1,538.8	1,201.6	337.21	4.563	
8,000.0	7,976.7	8,011.1	8,016.1	16.7	244.4	70.19	1,256.7	-261.8	1,533.0	1,191.0	342.00	4.482	
8,100.0	8,071.5	8,066.6	8,071.5	16.5	246.1	72.17	1,257.0	-261.8	1,522.1	1,177.7	344.41	4.419	
8,200.0	8,157.7	8,152.9	8,157.7	16.2	248.7	75.63	1,257.0	-261.8	1,506.1	1,158.1	348.00	4.328	
8,300.0	8,231.6	8,226.8	8,231.6	16.0	250.9	79.77	1,257.0	-261.8	1,487.2	1,136.1	351.07	4.236	
8,400.0	8,290.0	8,287.0	8,291.8	15.9	252.7	83.99	1,258.0	-261.8	1,469.1	1,115.5	353.59	4.155	
8,500.0	8,330.2	8,329.4	8,334.2	16.0	253.9	87.52	1,257.9	-261.8	1,452.6	1,097.3	355.38	4.088	
8,600.0	8,350.5	8,350.8	8,355.6	16.4	254.6	89.72	1,257.9	-261.8	1,441.3	1,084.9	356.32	4.045	
8,700.0	8,353.0	8,353.4	8,358.2	17.1	254.7	90.21	1,257.9	-261.8	1,436.5	1,080.0	356.50	4.029	
8,719.0	8,353.0	8,353.4	8,358.2	17.2	254.7	90.21	1,257.9	-261.8	1,436.3	1,079.8	356.51	4.029 ES, SF	
8,800.0	8,353.0	8,353.4	8,358.2	18.0	254.7	90.21	1,257.9	-261.8	1,438.6	1,082.0	356.59	4.034	
8,900.0	8,353.0	8,353.4	8,358.2	19.2	254.7	90.21	1,257.9	-261.8	1,447.7	1,091.0	356.70	4.059	
9,000.0	8,353.0	8,353.4	8,358.2	20.6	254.7	90.21	1,257.9	-261.8	1,463.6	1,106.7	356.83	4.102	
9,100.0	8,353.0	8,353.4	8,358.2	22.0	254.7	90.21	1,257.9	-261.8	1,486.0	1,129.0	356.96	4.163	
9,200.0	8,353.0	8,353.4	8,358.2	23.6	254.7	90.21	1,257.9	-261.8	1,514.7	1,157.6	357.11	4.242	
9,300.0	8,353.0	8,353.4	8,358.2	25.2	254.7	90.21	1,257.9	-261.8	1,549.4	1,192.2	357.25	4.337	
9,400.0	8,353.0	8,353.4	8,358.2	26.9	254.7	90.21	1,257.9	-261.8	1,589.6	1,232.2	357.39	4.448	
9,500.0	8,353.0	8,353.4	8,358.2	28.7	254.7	90.21	1,257.9	-261.8	1,635.0	1,277.4	357.52	4.573	
9,600.0	8,353.0	8,353.4	8,358.2	30.4	254.7	90.21	1,257.9	-261.8	1,685.0	1,327.4	357.65	4.711	
9,700.0	8,353.0	8,353.4	8,358.2	32.2	254.7	90.21	1,257.9	-261.8	1,739.4	1,381.6	357.77	4.862	
9,800.0	8,353.0	8,353.4	8,358.2	34.1	254.7	90.21	1,257.9	-261.8	1,797.7	1,439.8	357.89	5.023	
9,900.0	8,353.0	8,353.4	8,358.2	35.9	254.7	90.21	1,257.9	-261.8	1,859.5	1,501.6	357.99	5.194	
10,000.0	8,353.0	8,353.4	8,358.2	37.8	254.7	90.21	1,257.9	-261.8	1,924.6	1,566.5	358.08	5.375	
10,100.0	8,353.0	8,353.4	8,358.2	39.7	254.7	90.21	1,257.9	-261.8	1,992.6	1,634.4	358.17	5.563	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - MAN STATE #2H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-r.5 GYRO-NS, 6254-r.5 MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,500.0	6,477.4	11,355.0	6,934.9	16.2	115.3	-9.12	1,729.6	0.5	1,978.6	1,822.0	156.56	12.638		
6,600.0	6,577.4	11,355.0	6,934.9	16.2	115.3	-9.12	1,729.6	0.5	1,957.9	1,799.9	158.00	12.391		
6,700.0	6,677.4	11,355.0	6,934.9	16.3	115.3	-9.12	1,729.6	0.5	1,942.1	1,783.0	159.12	12.205		
6,800.0	6,777.4	11,355.0	6,934.9	16.3	115.3	-9.12	1,729.6	0.5	1,931.4	1,771.5	159.89	12.079		
6,900.0	6,877.4	11,355.0	6,934.9	16.4	115.3	-9.12	1,729.6	0.5	1,925.8	1,765.5	160.30	12.014		
6,957.5	6,934.9	11,355.0	6,934.9	16.4	115.3	-9.12	1,729.6	0.5	1,924.9	1,764.6	160.36	12.004	CC, ES, SF	
7,000.0	6,977.4	11,355.0	6,934.9	16.4	115.3	-9.12	1,729.6	0.5	1,925.4	1,765.1	160.33	12.009		
7,100.0	7,077.4	11,355.0	6,934.9	16.5	115.3	-9.12	1,729.6	0.5	1,930.2	1,770.2	159.99	12.065		
7,200.0	7,177.4	11,355.0	6,934.9	16.5	115.3	-9.12	1,729.6	0.5	1,940.2	1,780.9	159.28	12.181		
7,300.0	7,277.4	11,355.0	6,934.9	16.6	115.3	-9.12	1,729.6	0.5	1,955.2	1,797.0	158.22	12.357		
7,400.0	7,377.4	11,355.0	6,934.9	16.7	115.3	-9.12	1,729.6	0.5	1,975.2	1,818.3	156.84	12.593		
7,500.0	7,477.4	11,355.0	6,934.9	16.7	115.3	-9.12	1,729.6	0.5	1,999.9	1,844.8	155.17	12.889		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - MAN STATE #3H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-r.5 GYRO-NS, 6387-r.5 MWD													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	22.0	0.0	3.0	3.0	179.82	-200.0	0.6	200.0	193.6	6.43	31.108		
100.0	100.0	122.0	100.0	3.2	3.0	179.77	-200.0	0.8	200.0	193.3	6.71	29.827		
200.0	200.0	221.7	199.7	3.5	3.1	179.70	-200.1	1.1	200.1	193.1	7.03	28.466		
300.0	300.0	321.7	299.7	3.7	3.3	179.59	-200.3	1.4	200.3	192.9	7.38	27.159		
400.0	400.0	422.0	400.0	3.9	3.5	179.43	-200.4	2.0	200.4	192.7	7.74	25.898		
500.0	500.0	522.5	500.5	4.1	3.6	179.10	-200.2	3.2	200.2	192.1	8.12	24.657		
534.1	534.1	556.1	534.1	4.1	3.7	178.97	-200.1	3.6	200.1	191.9	8.25	24.264		
600.0	600.0	621.7	599.7	4.2	3.9	178.77	-200.2	4.3	200.3	191.7	8.52	23.494		
700.0	700.0	722.7	700.7	4.4	4.2	178.86	-200.1	4.0	200.1	191.1	8.99	22.268		
800.0	800.0	822.5	800.5	4.6	4.4	179.14	-199.8	3.0	199.8	190.4	9.40	21.266		
900.0	900.0	922.7	900.7	4.8	4.7	179.41	-199.6	2.0	199.6	189.8	9.82	20.330		
1,000.0	1,000.0	1,023.1	1,001.1	4.9	5.0	179.65	-199.0	1.2	199.0	188.8	10.24	19.429		
1,078.5	1,078.5	1,100.6	1,078.5	5.0	5.2	179.84	-198.8	0.6	198.8	188.2	10.58	18.791		
1,100.0	1,100.0	1,121.8	1,099.8	5.1	5.2	179.89	-198.8	0.4	198.8	188.2	10.67	18.628		
1,200.0	1,200.0	1,221.0	1,199.0	5.2	5.5	-179.89	-199.2	-0.4	199.2	188.1	11.11	17.927		
1,300.0	1,300.0	1,320.9	1,298.9	5.4	5.8	-179.76	-199.7	-0.8	199.8	188.2	11.55	17.288		
1,400.0	1,400.0	1,421.6	1,399.6	5.5	6.1	-179.58	-200.2	-1.5	200.2	188.2	12.01	16.672		
1,500.0	1,500.0	1,522.2	1,500.2	5.7	6.4	-179.36	-200.1	-2.2	200.1	187.7	12.46	16.061		
1,600.0	1,600.0	1,621.2	1,599.1	5.9	6.7	62.11	-200.3	-3.1	199.5	186.6	12.92	15.441		
1,700.0	1,699.8	1,720.5	1,698.5	6.1	7.0	63.74	-200.8	-4.0	197.7	184.3	13.37	14.781		
1,800.0	1,799.5	1,819.5	1,797.4	6.4	7.3	66.34	-201.6	-5.0	194.9	181.0	13.82	14.095		
1,900.0	1,898.7	1,918.7	1,896.6	6.6	7.7	70.08	-202.5	-6.3	191.4	177.1	14.28	13.405		
2,000.0	1,997.7	2,018.2	1,996.1	6.8	8.0	74.45	-203.2	-7.7	188.0	173.3	14.72	12.775		
2,100.0	2,096.7	2,117.2	2,095.1	7.0	8.3	78.99	-203.6	-9.3	185.7	170.5	15.17	12.242		
2,200.0	2,195.8	2,215.5	2,193.4	7.3	8.6	83.56	-204.2	-10.8	184.7	169.1	15.61	11.829		
2,230.4	2,225.9	2,245.7	2,223.6	7.3	8.7	84.97	-204.5	-11.3	184.6	168.9	15.75	11.721 CC		
2,300.0	2,294.8	2,315.1	2,293.0	7.5	8.9	88.22	-204.8	-12.4	184.9	168.8	16.08	11.500 ES		
2,400.0	2,393.8	2,415.1	2,393.0	7.8	9.3	93.00	-204.6	-14.0	185.6	169.1	16.55	11.215		
2,500.0	2,492.8	2,512.8	2,490.7	8.1	9.6	97.61	-204.4	-15.7	187.8	170.7	17.03	11.024		
2,600.0	2,591.9	2,611.3	2,589.1	8.4	9.9	101.97	-204.8	-17.2	191.5	173.9	17.54	10.916		
2,700.0	2,690.9	2,708.9	2,686.7	8.7	10.2	106.02	-205.8	-18.8	196.7	178.7	18.07	10.890		
2,800.0	2,789.9	2,808.2	2,786.0	9.0	10.6	109.93	-206.8	-20.5	203.1	184.5	18.62	10.907		
2,900.0	2,888.9	2,907.1	2,884.9	9.3	10.9	113.65	-207.5	-22.4	210.3	191.1	19.20	10.949		
3,000.0	2,988.0	3,006.0	2,983.7	9.7	11.2	117.13	-208.2	-24.2	218.2	198.4	19.81	11.018		
3,100.0	3,087.0	3,105.1	3,082.8	10.0	11.6	120.30	-209.0	-25.9	226.9	206.4	20.43	11.105		
3,200.0	3,186.0	3,203.6	3,181.3	10.4	11.9	123.25	-209.8	-27.6	236.2	215.1	21.07	11.209		
3,300.0	3,285.0	3,301.1	3,278.8	10.7	12.2	125.99	-210.5	-29.7	246.4	224.7	21.72	11.345		
3,400.0	3,384.1	3,401.0	3,378.7	11.1	12.6	128.56	-211.3	-31.9	257.2	234.8	22.40	11.482		
3,500.0	3,483.1	3,499.7	3,477.3	11.4	12.9	130.86	-212.1	-33.9	268.3	245.2	23.09	11.622		
3,600.0	3,582.1	3,599.5	3,577.1	11.8	13.3	133.01	-212.8	-35.7	279.6	255.9	23.79	11.755		
3,700.0	3,681.1	3,698.7	3,676.3	12.2	13.6	135.01	-213.4	-37.3	291.1	266.6	24.50	11.883		
3,800.0	3,780.1	3,797.4	3,775.0	12.6	13.9	136.84	-213.9	-38.9	302.9	277.6	25.21	12.013		
3,900.0	3,879.3	3,896.3	3,873.9	13.0	14.3	138.56	-214.3	-40.5	314.4	288.5	25.94	12.122		
4,000.0	3,978.6	3,995.5	3,973.0	13.3	14.6	140.04	-214.3	-42.3	324.9	298.2	26.64	12.194		
4,100.0	4,078.1	4,096.2	4,073.8	13.7	14.9	141.28	-214.0	-43.8	334.0	306.7	27.34	12.214		
4,200.0	4,177.8	4,195.9	4,173.4	14.0	15.3	142.29	-213.6	-45.2	341.6	313.6	28.02	12.190		
4,300.0	4,277.6	4,294.6	4,272.1	14.4	15.6	143.06	-213.1	-46.7	348.1	319.4	28.67	12.139		
4,400.0	4,377.5	4,394.9	4,372.4	14.7	16.0	143.56	-213.2	-48.2	353.3	323.9	29.30	12.054		
4,500.0	4,477.4	4,493.8	4,471.3	15.0	16.3	143.82	-213.6	-49.7	357.1	327.2	29.89	11.946		
4,600.0	4,577.4	4,595.0	4,572.5	15.2	16.7	143.94	-213.8	-51.3	359.6	329.1	30.45	11.809		
4,700.0	4,677.4	4,694.3	4,671.7	15.2	17.0	-96.86	-214.1	-52.7	361.0	330.2	30.87	11.694		
4,800.0	4,777.4	4,793.2	4,770.7	15.3	17.3	-96.93	-214.8	-54.3	362.7	331.5	31.28	11.595		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - MAN STATE #3H - OWB - AWP													Offset Site Error: 0.0 usft
Survey Program: 100-r.5 GYRO-NS, 6387-r.5 MWD													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,877.4	4,892.8	4,870.2	15.3	17.7	-96.98	-215.3	-56.2	364.7	333.0	31.70	11.502	
5,000.0	4,977.4	4,991.7	4,969.2	15.4	18.0	-96.99	-215.7	-58.3	366.8	334.6	32.12	11.417	
5,100.0	5,077.4	5,091.4	5,068.8	15.4	18.4	-96.97	-215.8	-60.6	369.1	336.5	32.55	11.338	
5,200.0	5,177.4	5,199.1	5,176.5	15.5	18.7	-96.88	-215.4	-62.1	370.5	337.4	33.05	11.211	
5,300.0	5,277.4	5,299.0	5,276.4	15.5	19.1	-96.71	-214.3	-62.5	370.7	337.2	33.49	11.070	
5,400.0	5,377.4	5,397.0	5,374.3	15.6	19.4	-96.59	-213.6	-63.1	371.3	337.4	33.92	10.946	
5,500.0	5,477.4	5,503.6	5,480.9	15.6	19.8	-96.39	-212.3	-63.2	371.2	336.8	34.42	10.785	
5,600.0	5,577.4	5,601.0	5,578.3	15.7	20.1	-96.12	-210.5	-62.8	370.6	335.8	34.86	10.632	
5,700.0	5,677.4	5,701.3	5,678.6	15.7	20.5	-95.93	-209.3	-62.7	370.3	335.0	35.31	10.487	
5,757.8	5,735.2	5,757.9	5,735.2	15.8	20.7	-95.86	-208.8	-62.6	370.2	334.7	35.56	10.411	
5,800.0	5,777.4	5,800.0	5,777.3	15.8	20.8	-95.81	-208.5	-62.7	370.3	334.5	35.75	10.357	
5,900.0	5,877.4	5,899.1	5,876.4	15.8	21.2	-95.69	-207.8	-63.0	370.6	334.4	36.20	10.237	
6,000.0	5,977.4	5,998.0	5,975.3	15.9	21.5	-95.60	-207.2	-63.5	371.0	334.3	36.64	10.125	
6,100.0	6,077.4	6,096.0	6,073.4	16.0	21.8	-95.52	-206.8	-64.4	371.8	334.7	37.08	10.028	
6,200.0	6,177.4	6,196.2	6,173.6	16.0	22.2	-95.45	-206.5	-65.5	372.9	335.4	37.53	9.936	
6,300.0	6,277.4	6,296.2	6,273.5	16.1	22.5	-95.36	-206.0	-66.6	373.9	336.0	37.99	9.844	
6,400.0	6,377.4	6,387.0	6,364.3	16.1	22.8	-95.34	-206.0	-68.1	375.7	337.4	38.30	9.809 SF	
6,500.0	6,477.4	6,458.1	6,435.1	16.2	22.8	-95.22	-205.7	-73.8	383.5	345.3	38.17	10.046	
6,600.0	6,577.4	6,527.5	6,503.8	16.2	22.8	-94.87	-204.2	-83.6	397.6	359.7	37.90	10.491	
6,700.0	6,677.4	6,582.6	6,557.1	16.3	22.9	-94.23	-200.8	-96.9	421.2	383.9	37.29	11.295	
6,800.0	6,777.4	6,638.0	6,609.1	16.3	22.9	-93.56	-197.3	-115.6	454.4	417.9	36.58	12.424	
6,900.0	6,877.4	6,679.7	6,646.7	16.4	22.9	-93.18	-195.4	-133.5	496.7	461.2	35.50	13.991	
7,000.0	6,977.4	6,730.0	6,690.2	16.4	23.0	-92.88	-194.4	-158.7	546.6	511.8	34.71	15.748	
7,100.0	7,077.4	6,762.0	6,716.7	16.5	23.0	-92.70	-193.8	-176.7	602.8	569.3	33.56	17.964	
7,200.0	7,177.4	6,806.2	6,751.5	16.5	23.0	-92.47	-193.0	-203.9	664.5	631.6	32.88	20.209	
7,300.0	7,277.4	6,841.9	6,778.2	16.6	23.1	-92.20	-191.5	-227.6	730.7	698.6	32.15	22.729	
7,400.0	7,377.4	6,877.5	6,803.6	16.7	23.1	-91.95	-190.0	-252.6	800.8	769.2	31.57	25.370	
7,500.0	7,477.4	6,907.9	6,824.2	16.7	23.2	-91.68	-188.0	-274.7	874.0	843.0	31.01	28.181	
7,600.0	7,577.4	6,932.7	6,840.2	16.8	23.2	-91.47	-186.4	-293.6	950.2	919.7	30.49	31.162	
7,700.0	7,677.4	6,952.0	6,852.1	16.8	23.3	-91.32	-185.2	-308.8	1,029.1	999.1	30.00	34.298	
7,800.0	7,777.4	6,984.0	6,870.5	16.9	23.4	-91.09	-183.2	-334.8	1,110.3	1,080.5	29.84	37.213	
7,900.0	7,877.4	6,984.0	6,870.5	16.9	23.4	-0.32	-183.2	-334.8	1,193.4	1,164.1	29.28	40.763	
8,000.0	7,976.7	7,015.0	6,887.0	16.7	23.6	-0.08	-181.2	-361.0	1,271.9	1,242.9	29.05	43.782	
8,100.0	8,071.5	7,032.8	6,895.7	16.5	23.6	0.02	-179.8	-376.5	1,338.8	1,310.2	28.52	46.939	
8,200.0	8,157.7	7,047.0	6,902.3	16.2	23.7	0.09	-178.4	-389.0	1,392.5	1,364.6	27.93	49.865	
8,300.0	8,231.6	7,078.0	6,915.5	16.0	23.9	0.26	-174.6	-416.7	1,431.4	1,403.9	27.53	51.992	
8,400.0	8,290.0	7,110.0	6,927.7	15.9	24.1	0.43	-170.4	-446.0	1,455.1	1,427.9	27.21	53.477	
8,500.0	8,330.2	7,140.0	6,937.6	16.0	24.3	0.56	-167.0	-474.2	1,463.0	1,436.0	26.98	54.232	
8,600.0	8,350.5	7,172.0	6,946.4	16.4	24.6	0.73	-163.5	-504.7	1,454.9	1,428.0	26.89	54.103	
8,700.0	8,353.0	7,203.0	6,953.3	17.1	24.9	0.91	-160.1	-534.7	1,433.9	1,407.0	26.92	53.260	
8,800.0	8,353.0	7,219.3	6,956.2	18.0	25.0	0.99	-158.2	-550.7	1,415.3	1,388.2	27.05	52.314	
8,900.0	8,353.0	7,235.0	6,958.5	19.2	25.2	1.08	-156.4	-566.1	1,402.0	1,374.6	27.40	51.173	
9,000.0	8,353.0	7,267.0	6,961.7	20.6	25.5	1.25	-152.7	-597.7	1,393.5	1,365.6	27.95	49.853	
9,100.0	8,353.0	7,298.0	6,963.0	22.0	25.8	1.40	-149.5	-628.5	1,390.3	1,361.7	28.66	48.513	
9,104.4	8,353.0	7,298.0	6,963.0	22.1	25.8	1.40	-149.5	-628.5	1,390.3	1,361.6	28.70	48.451	
9,200.0	8,353.0	7,330.0	6,962.7	23.6	26.2	1.52	-146.9	-660.4	1,392.3	1,362.8	29.50	47.202	
9,300.0	8,353.0	7,369.7	6,960.0	25.2	26.7	1.61	-145.2	-700.0	1,399.1	1,368.7	30.42	45.996	
9,400.0	8,353.0	7,455.2	6,952.1	26.9	27.8	1.57	-147.2	-785.0	1,408.3	1,377.0	31.27	45.043	
9,500.0	8,353.0	7,536.3	6,943.3	28.7	28.9	1.44	-151.3	-865.6	1,419.0	1,386.8	32.18	44.096	
9,600.0	8,353.0	7,661.9	6,930.2	30.4	30.8	1.13	-160.3	-990.2	1,429.3	1,396.3	33.03	43.274	
9,700.0	8,353.0	7,755.7	6,921.6	32.2	32.3	0.85	-168.4	-1,083.2	1,438.5	1,404.5	34.01	42.291	
9,800.0	8,353.0	7,858.4	6,910.9	34.1	34.1	0.56	-176.7	-1,185.0	1,448.8	1,413.8	35.02	41.365	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - MAN STATE #3H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-r.5 GYRO-NS, 6387-r.5 MWD												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,900.0	8,353.0	7,998.8	6,899.5	35.9	36.6	0.23	-187.0	-1,324.5	1,456.9	1,420.8	36.02	40.442	
10,000.0	8,353.0	8,066.8	6,894.0	37.8	37.9	0.07	-191.8	-1,392.1	1,464.9	1,427.7	37.16	39.421	
10,100.0	8,353.0	8,177.8	6,884.1	39.7	40.0	-0.13	-198.5	-1,502.5	1,473.8	1,435.5	38.27	38.510	
10,200.0	8,353.0	8,251.2	6,877.5	41.6	41.5	-0.22	-201.9	-1,575.6	1,482.9	1,443.5	39.44	37.597	
10,300.0	8,353.0	8,360.6	6,866.6	43.5	43.7	-0.34	-206.4	-1,684.3	1,492.9	1,452.3	40.61	36.766	
10,400.0	8,353.0	8,488.6	6,856.2	45.4	46.3	-0.41	-210.1	-1,811.8	1,501.0	1,459.2	41.79	35.915	
10,500.0	8,353.0	8,588.5	6,848.7	47.3	48.4	-0.39	-210.9	-1,911.4	1,508.5	1,465.5	43.01	35.077	
10,600.0	8,353.0	8,684.6	6,841.7	49.2	50.5	-0.31	-209.9	-2,007.2	1,515.8	1,471.5	44.23	34.266	
10,700.0	8,353.0	8,767.5	6,834.7	51.2	52.3	-0.25	-209.7	-2,089.9	1,524.1	1,478.7	45.48	33.512	
10,800.0	8,353.0	8,863.6	6,826.4	53.1	54.4	-0.14	-208.0	-2,185.6	1,532.7	1,486.0	46.74	32.793	
10,900.0	8,353.0	8,935.7	6,819.3	55.1	56.0	-0.04	-206.4	-2,257.3	1,542.7	1,494.7	48.00	32.138	
11,000.0	8,353.0	9,080.7	6,805.8	57.0	59.2	0.09	-204.7	-2,401.6	1,552.0	1,502.7	49.32	31.465	
11,100.0	8,353.0	9,231.3	6,796.4	59.0	62.5	0.06	-207.6	-2,552.0	1,558.2	1,507.6	50.68	30.746	
11,200.0	8,353.0	9,313.0	6,791.7	60.9	64.4	0.00	-210.2	-2,633.5	1,563.9	1,511.9	52.01	30.069	
11,300.0	8,353.0	9,407.3	6,785.9	62.9	66.5	-0.06	-213.2	-2,727.5	1,570.0	1,516.7	53.39	29.406	
11,400.0	8,353.0	9,511.8	6,779.6	64.9	68.9	-0.09	-215.3	-2,831.8	1,576.1	1,521.3	54.79	28.767	
11,500.0	8,353.0	9,619.2	6,773.9	66.8	71.3	-0.05	-215.8	-2,939.1	1,581.3	1,525.2	56.16	28.159	
11,600.0	8,353.0	9,701.9	6,768.9	68.8	73.2	-0.04	-216.5	-3,021.7	1,587.3	1,529.8	57.51	27.602	
11,700.0	8,353.0	9,814.2	6,762.7	70.8	75.8	0.02	-216.4	-3,133.7	1,592.8	1,533.9	58.90	27.041	
11,800.0	8,353.0	9,887.2	6,757.9	72.8	77.5	0.06	-216.1	-3,206.6	1,599.4	1,539.1	60.25	26.544	
11,900.0	8,353.0	10,000.5	6,749.9	74.8	80.1	0.12	-216.0	-3,319.6	1,606.4	1,544.8	61.67	26.050	
12,000.0	8,353.0	10,123.0	6,743.2	76.7	82.9	0.14	-217.1	-3,441.9	1,611.8	1,548.7	63.11	25.541	
12,100.0	8,353.0	10,279.2	6,737.7	78.7	86.6	0.12	-219.5	-3,598.0	1,615.5	1,550.9	64.60	25.007	
12,200.0	8,353.0	10,372.8	6,736.2	80.7	88.8	0.12	-221.0	-3,691.5	1,617.1	1,551.1	66.02	24.494	
12,300.0	8,353.0	10,448.2	6,734.1	82.7	90.5	0.10	-222.4	-3,766.9	1,619.8	1,552.4	67.42	24.026	
12,400.0	8,353.0	10,564.3	6,730.6	84.7	93.2	0.04	-225.7	-3,882.9	1,622.9	1,554.0	68.88	23.562	
12,500.0	8,353.0	10,664.6	6,728.6	86.7	95.6	0.02	-227.8	-3,983.2	1,624.9	1,554.6	70.32	23.107	
12,600.0	8,353.0	10,730.0	6,726.3	88.7	97.1	0.01	-228.8	-4,048.5	1,628.4	1,556.7	71.72	22.707	
12,700.0	8,353.0	10,823.0	6,721.7	90.7	99.3	-0.01	-230.5	-4,141.4	1,633.3	1,560.2	73.15	22.329	
12,800.0	8,353.0	10,940.7	6,716.9	92.7	102.1	-0.05	-233.2	-4,258.9	1,637.4	1,562.8	74.64	21.938	
12,900.0	8,353.0	11,009.8	6,713.5	94.7	103.7	-0.07	-234.8	-4,328.0	1,642.3	1,566.2	76.04	21.598	
13,000.0	8,353.0	11,093.1	6,708.0	96.7	105.7	-0.10	-236.8	-4,411.1	1,648.8	1,571.3	77.46	21.287	
13,100.0	8,353.0	11,118.0	6,706.3	98.7	106.2	-0.11	-237.5	-4,435.9	1,657.3	1,578.7	78.64	21.074	
13,200.0	8,353.0	11,118.0	6,706.3	100.6	106.2	-0.11	-237.5	-4,435.9	1,671.6	1,592.0	79.56	21.010	
13,203.9	8,353.0	11,118.0	6,706.3	100.7	106.2	-0.11	-237.5	-4,435.9	1,672.2	1,592.7	79.59	21.010	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - STATE #1 (P&A) - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 500-INC-ONLY												Offset Well Error:	3.0 usft
Reference	Offset	Reference	Offset	Semi Major Axis	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	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)	Separation (usft)		
0.0	0.0	4.0	0.0	3.0	3.0	139.20	-772.0	666.3	1,019.7	1,013.3	6.43	158.510	
100.0	100.0	104.0	100.0	3.2	5.2	139.20	-772.0	666.3	1,019.7	1,010.7	9.02	113.081	
200.0	200.0	204.0	200.0	3.5	8.8	139.20	-772.0	666.3	1,019.7	1,006.1	13.68	74.534	
300.0	300.0	304.0	300.0	3.7	12.7	139.20	-772.0	666.3	1,019.7	1,000.8	18.91	53.938	
400.0	400.0	404.0	400.0	3.9	16.6	139.20	-772.0	666.3	1,019.7	995.4	24.32	41.923	
500.0	500.0	504.2	500.0	4.1	20.6	139.20	-772.0	666.3	1,019.7	990.0	29.78	34.242	
600.0	600.0	604.2	600.0	4.2	23.5	139.20	-772.0	666.3	1,019.7	985.9	33.86	30.116	
700.0	700.0	704.2	700.0	4.4	26.5	139.20	-772.0	666.3	1,019.7	981.8	37.95	26.867	
745.8	745.8	750.0	745.7	4.5	27.8	139.08	-768.7	666.3	1,017.3	977.4	39.83	25.538	
800.0	800.0	800.2	795.9	4.6	29.3	139.09	-768.8	666.3	1,017.4	975.5	41.90	24.283	
900.0	900.0	892.9	888.6	4.8	32.0	139.12	-769.8	666.3	1,018.1	972.4	45.71	22.275	
1,000.0	1,000.0	1,004.6	1,000.0	4.9	35.4	139.20	-772.0	666.3	1,019.7	969.4	50.30	20.273	
1,100.0	1,100.0	1,104.6	1,100.0	5.1	38.3	139.20	-772.0	666.3	1,019.7	965.3	54.44	18.730	
1,200.0	1,200.0	1,204.6	1,200.0	5.2	41.3	139.20	-772.0	666.3	1,019.7	961.1	58.59	17.405	
1,245.7	1,245.7	1,250.3	1,245.7	5.3	42.7	139.16	-770.9	666.3	1,018.9	958.4	60.48	16.846	
1,300.0	1,300.0	1,303.1	1,298.6	5.4	44.2	139.16	-770.9	666.3	1,018.9	956.3	62.68	16.256	
1,400.0	1,400.0	1,400.5	1,396.0	5.5	47.1	139.18	-771.3	666.3	1,019.2	952.5	66.72	15.275	
1,500.0	1,500.0	1,504.9	1,500.0	5.7	50.2	139.20	-772.0	666.3	1,019.7	948.7	71.06	14.351	
1,600.0	1,600.0	1,604.9	1,600.0	5.9	53.2	20.02	-772.0	666.3	1,018.1	942.9	75.23	13.534	
1,700.0	1,699.8	1,704.7	1,699.8	6.1	56.2	20.16	-772.0	666.3	1,013.2	933.8	79.39	12.762	
1,800.0	1,799.5	1,800.4	1,795.4	6.4	59.1	20.26	-768.8	666.3	1,002.6	919.2	83.38	12.024	
1,900.0	1,898.7	1,892.5	1,887.5	6.6	61.8	20.60	-769.8	666.3	992.0	904.7	87.23	11.371	
2,000.0	1,997.7	2,002.9	1,997.7	6.8	65.1	21.00	-772.0	666.3	980.5	888.7	91.84	10.676	
2,100.0	2,096.7	2,102.0	2,096.7	7.0	68.1	21.29	-772.0	666.3	967.5	871.5	95.98	10.081	
2,200.0	2,195.8	2,201.0	2,195.8	7.3	71.0	21.60	-772.0	666.3	954.5	854.4	100.12	9.534	
2,300.0	2,294.8	2,298.8	2,293.5	7.5	74.0	21.87	-770.9	666.3	940.7	836.5	104.21	9.028	
2,400.0	2,393.8	2,395.4	2,390.2	7.8	76.9	22.19	-771.2	666.3	928.1	819.8	108.25	8.573	
2,500.0	2,492.8	2,492.1	2,486.8	8.1	79.7	22.54	-771.9	666.3	915.7	803.4	112.30	8.154	
2,600.0	2,591.9	2,597.4	2,591.9	8.4	82.9	22.90	-772.0	666.3	902.8	786.1	116.71	7.735	
2,700.0	2,690.9	2,696.4	2,690.9	8.7	85.9	23.25	-772.0	666.3	890.0	769.1	120.86	7.364	
2,800.0	2,789.9	2,792.4	2,786.8	9.0	88.7	23.47	-768.8	666.3	874.7	749.8	124.89	7.003	
2,900.0	2,888.9	2,885.0	2,879.3	9.3	91.5	23.85	-769.6	666.3	862.6	733.8	128.77	6.699	
3,000.0	2,988.0	2,977.7	2,972.0	9.7	94.3	24.27	-771.4	666.3	851.4	718.7	132.65	6.418	
3,100.0	3,087.0	3,092.9	3,087.0	10.0	97.7	24.75	-772.0	666.3	839.0	701.5	137.49	6.102	
3,200.0	3,186.0	3,125.0	3,119.0	10.4	98.7	24.88	-772.0	666.3	829.0	690.6	138.43	5.989 SF	
3,238.1	3,223.8	3,125.0	3,119.0	10.5	98.7	24.88	-772.0	666.3	828.1	690.3	137.80	6.010 CC, ES	
3,300.0	3,285.0	3,125.0	3,119.0	10.7	98.7	24.88	-772.0	666.3	830.4	694.3	136.18	6.098	
3,400.0	3,384.1	3,125.0	3,119.0	11.1	98.7	24.88	-772.0	666.3	843.8	711.7	132.08	6.389	
3,500.0	3,483.1	3,125.0	3,119.0	11.4	98.7	24.88	-772.0	666.3	868.5	742.1	126.47	6.867	
3,600.0	3,582.1	3,125.0	3,119.0	11.8	98.7	24.88	-772.0	666.3	903.7	783.9	119.82	7.542	
3,700.0	3,681.1	3,125.0	3,119.0	12.2	98.7	24.88	-772.0	666.3	948.2	835.6	112.60	8.421	
3,800.0	3,780.1	3,125.0	3,119.0	12.6	98.7	24.88	-772.0	666.3	1,000.7	895.5	105.22	9.511	
3,900.0	3,879.3	3,125.0	3,119.0	13.0	98.7	25.16	-772.0	666.3	1,060.6	962.6	98.01	10.821	
4,000.0	3,978.6	3,125.0	3,119.0	13.3	98.7	25.55	-772.0	666.3	1,127.3	1,036.1	91.24	12.355	
4,100.0	4,078.1	3,125.0	3,119.0	13.7	98.7	26.00	-772.0	666.3	1,199.7	1,114.7	85.04	14.109	
4,200.0	4,177.8	3,125.0	3,119.0	14.0	98.7	26.54	-772.0	666.3	1,276.9	1,197.4	79.44	16.073	
4,300.0	4,277.6	3,125.0	3,119.0	14.4	98.7	27.17	-772.0	666.3	1,357.9	1,283.4	74.45	18.238	
4,400.0	4,377.5	3,125.0	3,119.0	14.7	98.7	27.89	-772.0	666.3	1,442.1	1,372.0	70.04	20.589	
4,500.0	4,477.4	3,125.0	3,119.0	15.0	98.7	28.72	-772.0	666.3	1,529.0	1,462.8	66.16	23.110	
4,600.0	4,577.4	3,125.0	3,119.0	15.2	98.7	29.68	-772.0	666.3	1,618.0	1,555.3	62.76	25.781	
4,700.0	4,677.4	3,125.0	3,119.0	15.2	98.7	149.03	-772.0	666.3	1,708.7	1,649.0	59.74	28.602	
4,800.0	4,777.4	3,125.0	3,119.0	15.3	98.7	149.03	-772.0	666.3	1,800.4	1,743.4	57.02	31.577	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - STATE #1 (P&A) - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 500-INC-ONLY													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,877.4	3,125.0	3,119.0	15.3	98.7	149.03	-772.0	666.3	1,892.9	1,838.3	54.55	34.698		
5,000.0	4,977.4	3,125.0	3,119.0	15.4	98.7	149.03	-772.0	666.3	1,986.1	1,933.8	52.32	37.960		

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - STATE BU #1 (T&A) - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 500-INC-ONLY												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
9,300.0	8,353.0	8,369.3	8,354.1	25.2	254.9	90.22	87.3	-2,803.8	1,998.9	1,642.2	356.73	5.604	
9,400.0	8,353.0	8,369.3	8,354.1	26.9	254.9	90.22	87.3	-2,803.8	1,900.1	1,543.4	356.74	5.326	
9,500.0	8,353.0	8,369.3	8,354.1	28.7	254.9	90.22	87.3	-2,803.8	1,801.5	1,444.7	356.76	5.050	
9,600.0	8,353.0	8,369.3	8,354.1	30.4	254.9	90.22	87.3	-2,803.8	1,702.9	1,346.2	356.78	4.773	
9,700.0	8,353.0	8,369.3	8,354.1	32.2	254.9	90.22	87.3	-2,803.8	1,604.6	1,247.8	356.80	4.497	
9,800.0	8,353.0	8,369.3	8,354.1	34.1	254.9	90.22	87.3	-2,803.8	1,506.5	1,149.6	356.83	4.222	
9,900.0	8,353.0	8,369.3	8,354.2	35.9	254.9	90.22	87.3	-2,803.8	1,408.6	1,051.7	356.86	3.947	
10,000.0	8,353.0	8,369.4	8,354.2	37.8	254.9	90.22	87.3	-2,803.8	1,311.1	954.2	356.91	3.673	
10,100.0	8,353.0	8,369.4	8,354.2	39.7	254.9	90.23	87.3	-2,803.8	1,213.9	857.0	356.97	3.401	
10,200.0	8,353.0	8,369.4	8,354.2	41.6	254.9	90.23	87.3	-2,803.8	1,117.3	760.3	357.05	3.129	
10,300.0	8,353.0	8,369.4	8,354.2	43.5	254.9	90.23	87.3	-2,803.8	1,021.3	664.2	357.15	2.860	
10,400.0	8,353.0	8,369.4	8,354.2	45.4	254.9	90.23	87.3	-2,803.8	926.2	568.9	357.29	2.592	
10,500.0	8,353.0	8,369.4	8,354.2	47.3	254.9	90.23	87.3	-2,803.8	832.2	474.7	357.49	2.328	
10,600.0	8,353.0	8,369.4	8,354.2	49.2	254.9	90.23	87.3	-2,803.8	739.8	382.0	357.77	2.068	
10,700.0	8,353.0	8,369.4	8,354.2	51.2	254.9	90.23	87.3	-2,803.8	649.6	291.4	358.19	1.814 Advise and Monitor	
10,800.0	8,353.0	8,369.4	8,354.2	53.1	254.9	90.23	87.3	-2,803.8	562.8	204.0	358.82	1.568 Advise and Monitor	
10,900.0	8,353.0	8,369.4	8,354.2	55.1	254.9	90.24	87.3	-2,803.8	481.1	121.3	359.78	1.337 Shut in Produces	
11,000.0	8,353.0	8,369.4	8,354.2	57.0	254.9	90.24	87.3	-2,803.8	407.7	46.4	361.26	1.128 Shut in Produces	
11,100.0	8,353.0	8,369.4	8,354.2	59.0	254.9	90.24	87.3	-2,803.8	347.8	-15.6	363.35	0.957 Stop Drilling Now	
11,200.0	8,353.0	8,369.4	8,354.2	60.9	254.9	90.24	87.3	-2,803.8	309.3	-56.3	365.60	0.846 Stop Drilling Now	
11,276.4	8,353.0	8,369.4	8,354.2	62.4	254.9	90.24	87.3	-2,803.8	299.7	-66.9	366.61	0.818 Stop Drilling Now, CC, ES, SF	
11,300.0	8,353.0	8,369.4	8,354.2	62.9	254.9	90.24	87.3	-2,803.8	300.7	-66.0	366.68	0.820 Stop Drilling Now	
11,400.0	8,353.0	8,369.4	8,354.3	64.9	254.9	90.24	87.3	-2,803.8	324.2	-41.6	365.82	0.886 Stop Drilling Now	
11,500.0	8,353.0	8,369.5	8,354.3	66.8	254.9	90.24	87.3	-2,803.8	374.0	10.0	363.99	1.027 Shut in Produces	
11,600.0	8,353.0	8,369.5	8,354.3	68.8	254.9	90.24	87.3	-2,803.8	441.1	78.8	362.27	1.218 Shut in Produces	
11,700.0	8,353.0	8,369.5	8,354.3	70.8	254.9	90.25	87.3	-2,803.8	519.0	158.0	360.98	1.438 Shut in Produces	
11,800.0	8,353.0	8,369.5	8,354.3	72.8	254.9	90.25	87.3	-2,803.8	603.4	243.3	360.06	1.676 Advise and Monitor	
11,900.0	8,353.0	8,369.5	8,354.3	74.8	254.9	90.25	87.3	-2,803.8	691.9	332.5	359.42	1.925 Advise and Monitor	
12,000.0	8,353.0	8,369.5	8,354.3	76.7	254.9	90.25	87.3	-2,803.8	783.3	424.3	358.95	2.182	
12,100.0	8,353.0	8,369.5	8,354.3	78.7	254.9	90.25	87.3	-2,803.8	876.5	517.9	358.61	2.444	
12,200.0	8,353.0	8,369.5	8,354.3	80.7	254.9	90.25	87.3	-2,803.8	971.1	612.7	358.35	2.710	
12,300.0	8,353.0	8,369.5	8,354.3	82.7	254.9	90.25	87.3	-2,803.8	1,066.6	708.5	358.16	2.978	
12,400.0	8,353.0	8,369.5	8,354.3	84.7	254.9	90.25	87.3	-2,803.8	1,162.9	804.9	358.00	3.248	
12,500.0	8,353.0	8,369.5	8,354.3	86.7	254.9	90.26	87.3	-2,803.8	1,259.8	901.9	357.88	3.520	
12,600.0	8,353.0	8,369.5	8,354.3	88.7	254.9	90.26	87.3	-2,803.8	1,357.2	999.4	357.78	3.793	
12,700.0	8,353.0	8,369.5	8,354.3	90.7	254.9	90.26	87.3	-2,803.8	1,454.9	1,097.2	357.70	4.067	
12,800.0	8,353.0	8,369.5	8,354.3	92.7	254.9	90.26	87.3	-2,803.8	1,552.9	1,195.2	357.64	4.342	
12,900.0	8,353.0	8,369.5	8,354.3	94.7	254.9	90.26	87.3	-2,803.8	1,651.1	1,293.5	357.58	4.617	
13,000.0	8,353.0	8,369.5	8,354.4	96.7	254.9	90.26	87.3	-2,803.8	1,749.5	1,392.0	357.54	4.893	
13,100.0	8,353.0	8,369.6	8,354.4	98.7	254.9	90.26	87.3	-2,803.8	1,848.1	1,490.6	357.50	5.170	
13,200.0	8,353.0	8,369.6	8,354.4	100.6	254.9	90.26	87.3	-2,803.8	1,946.9	1,589.4	357.47	5.446	
13,203.9	8,353.0	8,369.6	8,354.4	100.7	254.9	90.26	87.3	-2,803.8	1,950.7	1,593.3	357.47	5.457	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - STATE C #1 (T&A) - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 500-INC-ONLY												Offset Well Error:	3.0 usft
Reference												Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.0	0.0	3.0	3.0	174.32	-860.3	85.5	864.6	858.1	6.43	134.456	
100.0	100.0	102.0	100.0	3.2	5.1	174.32	-860.3	85.5	864.6	855.6	8.94	96.704	
200.0	200.0	202.0	200.0	3.5	8.7	174.32	-860.3	85.5	864.6	851.0	13.58	63.651	
300.0	300.0	302.0	300.0	3.7	12.6	174.32	-860.3	85.5	864.6	845.8	18.80	45.986	
400.0	400.0	402.0	400.0	3.9	16.5	174.32	-860.3	85.5	864.6	840.3	24.22	35.702	
500.0	500.0	502.2	500.0	4.1	20.5	174.32	-860.3	85.5	864.6	834.9	29.70	29.110	
600.0	600.0	602.2	600.0	4.2	23.5	174.32	-860.3	85.5	864.6	830.8	33.78	25.594	
700.0	700.0	702.2	700.0	4.4	26.4	174.32	-860.3	85.5	864.6	826.7	37.87	22.827	
751.9	751.9	753.8	751.5	4.5	27.9	174.30	-857.0	85.5	861.3	821.3	39.99	21.538	
800.0	800.0	798.0	795.6	4.6	29.2	174.30	-857.2	85.5	861.4	819.6	41.80	20.607	
900.0	900.0	889.9	887.5	4.8	32.0	174.31	-858.1	85.5	862.4	816.8	45.58	18.921	
1,000.0	1,000.0	1,002.6	1,000.0	4.9	35.3	174.32	-860.3	85.5	864.6	814.3	50.22	17.216	
1,100.0	1,100.0	1,102.6	1,100.0	5.1	38.3	174.32	-860.3	85.5	864.6	810.2	54.36	15.904	
1,200.0	1,200.0	1,202.6	1,200.0	5.2	41.2	174.32	-860.3	85.5	864.6	806.0	58.51	14.777	
1,247.3	1,247.3	1,249.9	1,247.3	5.3	42.7	174.32	-859.2	85.5	863.5	803.0	60.47	14.279	
1,300.0	1,300.0	1,301.0	1,298.5	5.4	44.2	174.32	-859.3	85.5	863.5	800.9	62.59	13.796	
1,400.0	1,400.0	1,398.1	1,395.6	5.5	47.1	174.32	-859.6	85.5	863.9	797.2	66.62	12.966	
1,500.0	1,500.0	1,502.9	1,500.0	5.7	50.2	174.32	-860.3	85.5	864.6	793.6	70.97	12.181	
1,600.0	1,600.0	1,602.9	1,600.0	5.9	53.2	55.21	-860.3	85.5	863.6	788.4	75.14	11.493	
1,700.0	1,699.8	1,702.7	1,699.8	6.1	56.2	55.55	-860.3	85.5	860.6	781.3	79.29	10.853	
1,800.0	1,799.5	1,798.1	1,795.1	6.4	59.0	56.06	-857.2	85.5	852.5	769.3	83.27	10.239	
1,900.0	1,898.7	1,889.5	1,886.5	6.6	61.7	56.79	-858.1	85.5	846.8	759.7	87.07	9.725	
2,000.0	1,997.7	2,000.9	1,997.7	6.8	65.1	57.69	-860.3	85.5	841.3	749.6	91.72	9.173	
2,100.0	2,096.7	2,100.0	2,096.7	7.0	68.0	58.49	-860.3	85.5	833.9	738.1	95.85	8.700	
2,200.0	2,195.8	2,199.0	2,195.8	7.3	71.0	59.31	-860.3	85.5	826.6	726.7	99.98	8.268	
2,300.0	2,294.8	2,296.7	2,293.5	7.5	73.9	60.13	-859.3	85.5	818.5	714.5	104.05	7.866	
2,400.0	2,393.8	2,393.0	2,389.8	7.8	76.8	60.96	-859.6	85.5	811.9	703.9	108.07	7.513	
2,500.0	2,492.8	2,489.4	2,486.1	8.1	79.7	61.79	-860.2	85.5	805.9	693.8	112.09	7.189	
2,600.0	2,591.9	2,595.4	2,591.9	8.4	82.8	62.72	-860.3	85.5	799.4	682.9	116.52	6.861	
2,700.0	2,690.9	2,694.4	2,690.9	8.7	85.8	63.61	-860.3	85.5	793.1	672.4	120.66	6.573	
2,800.0	2,789.9	2,793.5	2,789.9	9.0	88.8	64.51	-860.3	85.5	786.9	662.1	124.79	6.306	
2,900.0	2,888.9	2,892.5	2,888.9	9.3	91.7	65.43	-860.3	85.5	781.0	652.1	128.93	6.057	
3,000.0	2,988.0	2,950.0	2,946.2	9.7	93.4	65.97	-860.3	85.5	776.4	645.2	131.15	5.920 ES, SF	
3,004.4	2,992.4	2,950.0	2,946.2	9.7	93.4	65.97	-860.3	85.5	776.4	645.3	131.11	5.921 CC	
3,100.0	3,087.0	2,950.0	2,946.2	10.0	93.4	65.97	-860.3	85.5	782.5	653.2	129.25	6.054	
3,200.0	3,186.0	2,950.0	2,946.2	10.4	93.4	65.97	-860.3	85.5	801.1	675.7	125.46	6.386	
3,300.0	3,285.0	2,950.0	2,946.2	10.7	93.4	65.97	-860.3	85.5	831.5	711.3	120.19	6.918	
3,400.0	3,384.1	2,950.0	2,946.2	11.1	93.4	65.97	-860.3	85.5	872.3	758.3	113.98	7.653	
3,500.0	3,483.1	2,950.0	2,946.2	11.4	93.4	65.97	-860.3	85.5	922.2	814.9	107.32	8.593	
3,600.0	3,582.1	2,950.0	2,946.2	11.8	93.4	65.97	-860.3	85.5	979.8	879.2	100.61	9.739	
3,700.0	3,681.1	2,950.0	2,946.2	12.2	93.4	65.97	-860.3	85.5	1,043.8	949.7	94.12	11.091	
3,800.0	3,780.1	2,950.0	2,946.2	12.6	93.4	65.97	-860.3	85.5	1,113.1	1,025.1	88.01	12.648	
3,900.0	3,879.3	2,950.0	2,946.2	13.0	93.4	66.87	-860.3	85.5	1,187.0	1,104.6	82.38	14.410	
4,000.0	3,978.6	2,950.0	2,946.2	13.3	93.4	68.01	-860.3	85.5	1,264.9	1,187.7	77.25	16.375	
4,100.0	4,078.1	2,950.0	2,946.2	13.7	93.4	69.31	-860.3	85.5	1,346.1	1,273.5	72.62	18.537	
4,200.0	4,177.8	2,950.0	2,946.2	14.0	93.4	70.76	-860.3	85.5	1,430.0	1,361.6	68.45	20.891	
4,300.0	4,277.6	2,950.0	2,946.2	14.4	93.4	72.37	-860.3	85.5	1,516.2	1,451.5	64.72	23.428	
4,400.0	4,377.5	2,950.0	2,946.2	14.7	93.4	74.15	-860.3	85.5	1,604.2	1,542.8	61.37	26.141	
4,500.0	4,477.4	2,950.0	2,946.2	15.0	93.4	76.09	-860.3	85.5	1,693.7	1,635.4	58.36	29.022	
4,600.0	4,577.4	2,950.0	2,946.2	15.2	93.4	78.21	-860.3	85.5	1,784.6	1,728.9	55.67	32.059	
4,700.0	4,677.4	2,950.0	2,946.2	15.2	93.4	-162.28	-860.3	85.5	1,876.4	1,823.2	53.23	35.248	
4,800.0	4,777.4	2,950.0	2,946.2	15.3	93.4	-162.28	-860.3	85.5	1,969.1	1,918.0	51.03	38.585	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: MAN STATE PROJECT - STATE WILSON #1 (P&A) - OWB - AWP													Offset Site Error: 0.0 usft
Survey Program: 100-INC-ONLY													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	2.0	0.0	3.0	3.0	172.06	-830.0	115.8	838.0	831.6	6.43	130.345	
100.0	100.0	102.0	100.0	3.2	3.7	172.06	-830.0	115.8	838.0	830.6	7.37	113.637	
200.0	200.0	202.0	200.0	3.5	5.6	172.06	-830.0	115.8	838.0	828.4	9.64	86.886	
300.0	300.0	302.1	300.0	3.7	7.8	172.06	-830.0	115.8	838.0	825.5	12.53	66.892	
400.0	400.0	402.1	400.0	3.9	9.8	172.06	-830.0	115.8	838.0	822.8	15.19	55.167	
500.0	500.0	502.1	500.0	4.1	12.2	172.06	-830.0	115.8	838.0	819.5	18.48	45.341	
600.0	600.0	602.2	600.0	4.2	15.5	172.06	-830.0	115.8	838.0	815.1	22.95	36.512	
700.0	700.0	702.2	700.0	4.4	18.4	172.06	-830.0	115.8	838.0	811.0	26.97	31.077 CC, ES	
800.0	800.0	715.0	712.7	4.6	18.8	172.06	-830.0	115.8	842.5	815.2	27.39	30.760 SF	
900.0	900.0	715.0	712.7	4.8	18.8	172.06	-830.0	115.8	858.7	831.7	26.96	31.846	
1,000.0	1,000.0	715.0	712.7	4.9	18.8	172.06	-830.0	115.8	885.9	859.6	26.24	33.757	
1,100.0	1,100.0	715.0	712.7	5.1	18.8	172.06	-830.0	115.8	923.2	897.9	25.31	36.477	
1,200.0	1,200.0	715.0	712.7	5.2	18.8	172.06	-830.0	115.8	969.4	945.2	24.24	39.987	
1,300.0	1,300.0	715.0	712.7	5.4	18.8	172.06	-830.0	115.8	1,023.3	1,000.2	23.12	44.263	
1,400.0	1,400.0	715.0	712.7	5.5	18.8	172.06	-830.0	115.8	1,083.8	1,061.8	21.99	49.278	
1,500.0	1,500.0	715.0	712.7	5.7	18.8	172.06	-830.0	115.8	1,149.8	1,128.9	20.91	55.001	
1,600.0	1,600.0	715.0	712.7	5.9	18.8	51.29	-830.0	115.8	1,219.7	1,199.9	19.87	61.382	
1,700.0	1,699.8	715.0	712.7	6.1	18.8	49.67	-830.0	115.8	1,292.2	1,273.3	18.88	68.425	
1,800.0	1,799.5	715.0	712.7	6.4	18.8	47.99	-830.0	115.8	1,366.6	1,348.7	17.96	76.100	
1,900.0	1,898.7	715.0	712.7	6.6	18.8	46.27	-830.0	115.8	1,442.7	1,425.6	17.10	84.382	
2,000.0	1,997.7	715.0	712.7	6.8	18.8	46.26	-830.0	115.8	1,520.8	1,504.5	16.30	93.297	
2,100.0	2,096.7	715.0	712.7	7.0	18.8	46.26	-830.0	115.8	1,601.4	1,585.8	15.59	102.723	
2,200.0	2,195.8	715.0	712.7	7.3	18.8	46.26	-830.0	115.8	1,684.1	1,669.1	14.95	112.610	
2,300.0	2,294.8	715.0	712.7	7.5	18.8	46.26	-830.0	115.8	1,768.5	1,754.1	14.39	122.885	
2,400.0	2,393.8	715.0	712.7	7.8	18.8	46.26	-830.0	115.8	1,854.5	1,840.6	13.89	133.473	
2,500.0	2,492.8	715.0	712.7	8.1	18.8	46.26	-830.0	115.8	1,941.8	1,928.4	13.46	144.293	

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

ConocoPhillips

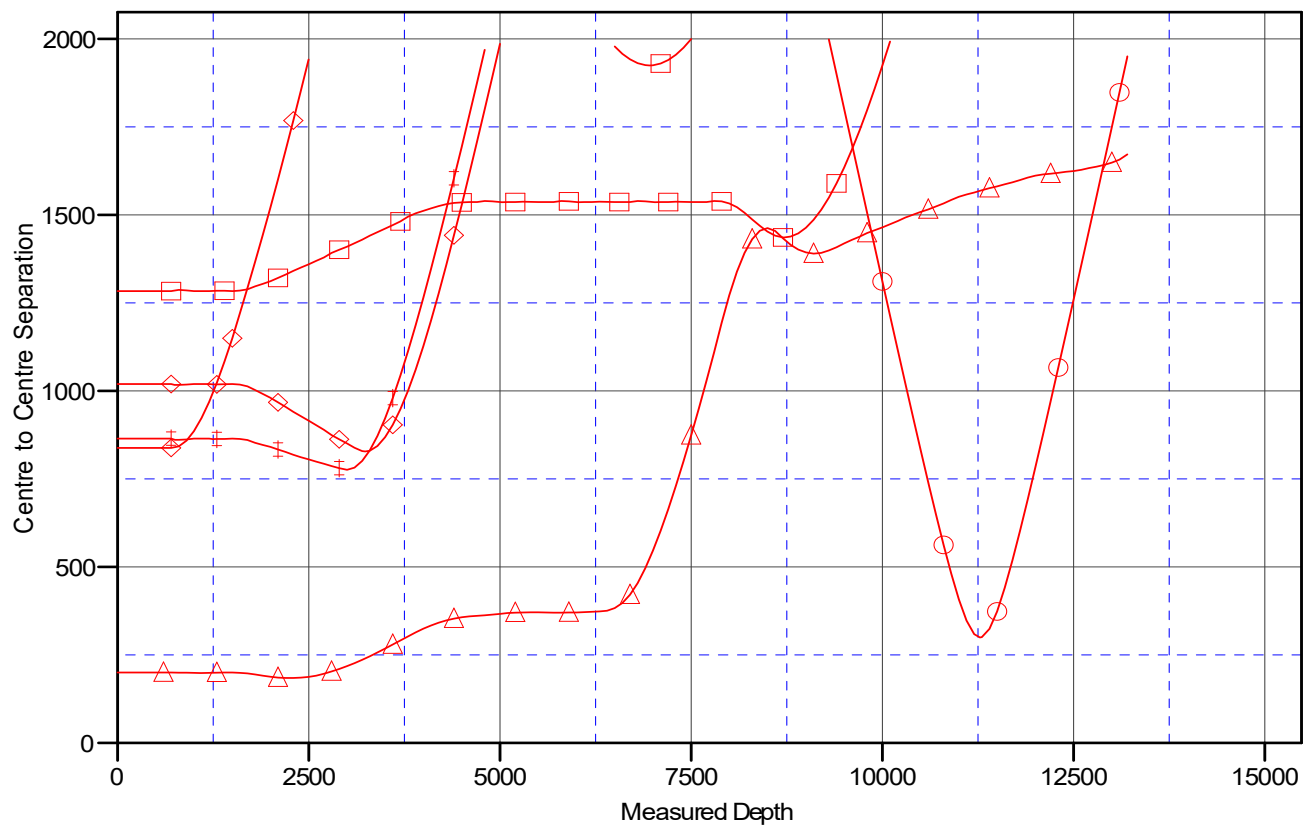
Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to WELL @ 3553.0usft (Original Well Ele)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: *MAN STATE #501H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.08°

Ladder Plot



LEGEND

STATE WILSON #1 (P&A), OWB, AWP V0	MAN STATE #1 (P&A), OWB, AWP V0	MAN STATE #3H, OWB, AWP V0
MAN STATE #2H, OWB, AWP V0	STATE BU #1 (T&A), OWB, AWP V0	
STATE C #1 (T&A), OWB, AWP V0	STATE #1 (P&A), OWB, AWP V0	

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

ConocoPhillips

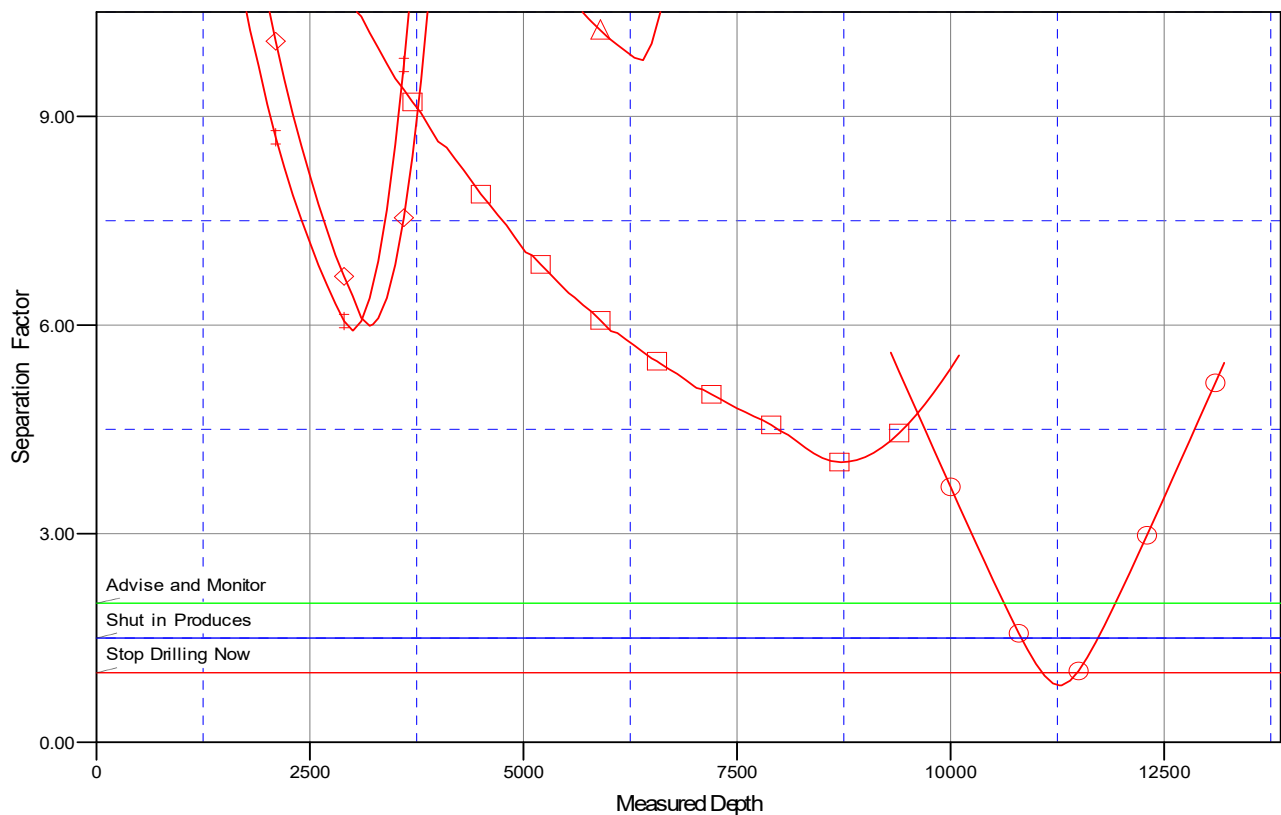
Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well *MAN STATE #501H
Project:	EDDY COUNTY (DBW)	TVD Reference:	WELL @ 3553.0usft (Original Well Elev)
Reference Site:	MAN STATE PROJECT	MD Reference:	WELL @ 3553.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*MAN STATE #501H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to WELL @ 3553.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: *MAN STATE #501H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.08°

Separation Factor Plot



LEGEND

STATE WILSON #1 (P&A), OWB, AWP V0	MAN STATE #1 (P&A), OWB, AWP V0	MAN STATE #3H, OWB, AWP V0
MAN STATE #2H, OWB, AWP V0	STATE BU #1 (T&A), OWB, AWP V0	
STATE C #1 (T&A), OWB, AWP V0	STATE #1 (P&A), OWB, AWP V0	

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



Project: EDDY COUNTY (DBW)
Site: MAN STATE PROJECT
Well: *MAN STATE #501H
Wellbore: OWB
Design: PWP0
GL: 3553.0
WELL @ 3553.0usft (Original Well Elev)

WELL DETAILS: *MAN STATE #501H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	617710.53	544081.87	32° 41' 53.169 N	104° 11' 24.126 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	
PP (MAN STATE #501H)	6500.0	-171.0	305.7	617539.51	544387.56	
FTP (MAN STATE #501H)	8353.0	-171.0	305.7	617539.51	544387.56	
LTP (MAN STATE #501H)	8353.0	-237.4	-4677.2	617473.09	539404.68	
PBHL (MAN STATE #501H)	8353.0	-238.1	-4727.2	617472.41	539354.68	

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0
1900.7	8.01	119.23	1899.4	-13.7	24.4	2.00	119.23	-23.7
3811.2	8.01	119.23	3791.2	-143.7	256.9	0.00	0.00	-249.3
4612.6	0.00	0.00	4590.0	-171.0	305.7	1.00	180.00	-296.7
7898.1	0.00	0.00	7875.5	-171.0	305.7	0.00	0.00	-296.7
8648.1	90.00	269.24	8353.0	-177.4	-171.7	12.00	269.24	180.4
13203.9	90.00	269.24	8353.0	-238.1	-4727.2	0.00	0.00	4733.2

