

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 11/17/2023

Additional Operator Remarks

Location of Well

0. SHL: SESW / 445 FSL / 1370 FWL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0221257 / LONG: -103.7357522 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 1204 FWL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0211737 / LONG: -103.7362826 (TVD: 11621 feet, MD: 11700 feet)

BHL: NWSW / 2590 FSL / 1134 FWL / TWSP: 26S / RANGE: 31E / SECTION: 12 / LAT: 32.0573136 / LONG: -103.73663 (TVD: 11776 feet, MD: 24746 feet)

BLM Point of Contact

Name: JANET D ESTES

Title: ADJUDICATOR

Phone: (575) 234-6233

Email: JESTES@BLM.GOV

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 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-	2 Pool Code 98081	3 Pool Name Zia Hills; Wolfcamp
4 Property Code	5 Property Name ZIA HILLS UNIT 2431 WC	6 Well Number 703H
7 OGRID No. 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 3175.52'

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
N	24	26-S	31-E		445'	SOUTH	1370'	WEST	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
L	12	26-S	31-E		2590'	SOUTH	1134'	WEST	EDDY

12 Dedicated Acres 800	13 Joint or Infill Infill	14 Consolidation Code Unit	15 Order No. R-20080
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

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Unit Boundary

SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X=726536.88 LAT.= 32.02212576° N
Y=372300.31 LONG.= 103.73575224° W
445' FSL, 1370' FWL - SECTION 24

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=726375.03 LAT.= 32.02117379° N
Y=371953.10 LONG.= 103.73628261° W
100' FSL, 1204' FWL - SECTION 24

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=726194.97 LAT.= 32.05717617° N
Y=385049.41 LONG.= 103.73663012° W
2540' FSL, 1134' FWL - SECTION 12

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=726194.70 LAT.= 32.05731361° N
Y=385099.41 LONG.= 103.73663009° W
2590' FSL, 1134' FWL - SECTION 12

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.

Stan Wagner 11/14/22
Signature Date

Stan Wagner
Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

10/20/2022
Date of Survey

Signature and Seal of Professional Surveyor:
Charles L. Jurica
25490

Certificate Number

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: ConocoPhillips Company

OGRID: 217817

Date: 11/08/2022

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
Zia Hills Unit 2431 WC 701H	30-015-	M-24-26S-31E	445 FSL & 1310 FWL	± 695	± 2728	± 1621
Zia Hills Unit 2431 WC 702H	30-015-	N-24-26S-31E	445 FSL & 1340 FWL	± 572	± 2246	± 1335
Zia Hills Unit 2431 WC 703H	30-015-	N-24-26S-31E	445 FSL & 1370 FWL	± 818	± 3209	± 1907
Zia Hills Unit 2431 WC 704H	30-015-	N-24-26S-31E	445 FSL & 1400 FWL	± 818	± 3209	± 1907
Zia Hills Unit 2431 WC 705H	30-015-	N-24-26S-31E	445 FSL & 1430 FWL	± 818	± 3209	± 1907
Zia Hills Unit 2431 WC 706H	30-015-	N-24-26S-31E	445 FSL & 1460 FWL	± 818	± 3209	± 1907

IV. Central Delivery Point Name: Zia Hills Unit 2431 WC East Facility SWSW 24-26S-31E [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
Zia Hills Unit 2431 WC	Pending	± 2/1/2024	± 25 days from spud	TBD	TBD	TBD
701H, 702H, 703H, 704H, 705H, 706H						

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

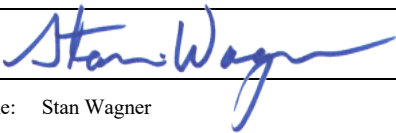
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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: 11/08/2022
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

All ConocoPhillips production facility equipment will be sized per industry standards (API 12J) with adequate retention time to effectively separate all phases of production. Each project will take into consideration the number of wells and type curves for each formation pool to ensure adequate facility capacity. Design considerations will also include review of all piping, tanks, VRU's and associated equipment to ensure optimized gas capture minimized risk of release.

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

- During drilling, flare stacks will be located a minimum of 100 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety, and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

C. Completion Operations

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- Individual well test separators will be set to properly separate gas and liquids. A temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline.

D. Venting and flaring during production operations

- During each phase of well life (drilling, completion and production) of a ConocoPhillips well, COP personnel will follow all necessary procedures to ensure both the operation and the equipment are within the NMAC 19.15.27.8 Subsection D guidelines.
- During well operations that require unloading of the well to atmospheric pressure, all reasonable actions will be taken to minimize vented gas
- Through the life of the well all flaring shall be measured, and venting events quantified using the data available and industry best practice.

E. Performance standards for separation, storage tank and flare equipment

- All storage tanks and separation equipment are designed minimize risk of liquid or vapor release and optimize gas capture. This includes automation for automatic gauging and pressure monitoring.

- All flare stacks are equipped with auto ignition devices and/or continuous pilots and are designed to operate at maximum combustion efficiency pursuant NMAC 19.15.27.8 Subsection E. Flares will follow COP spacing guidelines to ensure they are a safe distance from combustibles and operations equipment.
- COP personnel will conduct routine AVO inspections on a regular basis per NMAC 19.15.27.8 Subsection E guidelines.

F. Measurement of vented and flared natural gas.

- Measurement equipment will be installed to quantify gas flared during drilling, completion and production of the well.
- All measurement devices installed will meet accuracy ratings per AGA and API standards.
- Measurement devices will be installed without manifolds that allow diversion of gas around the metering element, except for the sole purpose of inspection of servicing the measurement device.

VIII. Best Management Practices

- Operator will curtail or shut in production, within reasonable limits, during upset conditions to minimize venting and flaring.
- When feasible, Operator will use equipment to capture gas that would otherwise be vented or flared.
- During completions and production operations Operator will minimize blowdowns to atmosphere
- When feasible, Operator will use electric or air actuated equipment to reduce bleed emissions

ConocoPhillips Company - Zia Hills Unit 2431 WC 703H

1. Geologic Formations

TVD of target	11,776' EOL	Pilot hole depth	NA
MD at TD:	24,746'	Deepest expected fresh water:	317'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1039	Water	
Top of Salt	1486	Salt	
Base of Salt	3967	Salt	
Lamar	4188	Salt Water	
Bell Canyon	4225	Salt Water	
Cherry Canyon	5105	Oil/Gas	
Brushy Canyon	6518	Oil/Gas	
Bone Spring Lime	8162	Oil/Gas	
1st Bone Spring Sand	9200	Oil/Gas	
2nd Bone Spring Sand	9859	Oil/Gas	
3rd Bone Spring Sand	11039	Oil/Gas	
Wolfcamp	11400	Oil/Gas	
Wolfcamp A	11621	Target	
Wolfcamp B	11919	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1350	10.75"	45.5	J55	BTC	3.38	1.11	11.64	12.96
9.875"	0	8500	7.625"	29.7	L80-ICY	BTC	1.45	1.13	2.88	2.90
8.750"	8500	11110	7.625"	29.7	P110-ICY	W513	1.38	1.71	3.24	1.94
6.75"	0	10610	5.5"	23	P110-CY	BTC	2.11	2.49	2.99	2.99
6.75"	10610	24,746	5.5"	23	P110-CY	W441	1.90	2.24	2.69	2.44
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5 1/2" W441 casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

ConocoPhillips Company - Zia Hills Unit 2431 WC 703H

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

ConocoPhillips Company - Zia Hills Unit 2431 WC 703H

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	644	12.8	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter. Stage 1	810	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	665	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	1190	13.2	1.34	5.7	19	Tail: 50:50:2 Class H Blend

If losses are encountered in the intermediate section a DV/ECP tool will be run ~50' above the Lamar Lime top, cement will be adjusted accordingly if this contingency is necessary.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	10,610'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Zia Hills Unit 2431 WC 703H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	5000psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

ConocoPhillips Company - Zia Hills Unit 2431 WC 703H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9.2	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 12.5	35-45	<20

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

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

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

ConocoPhillips Company - Zia Hills Unit 2431 WC 703H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7655 psi at 11776' TVD
Abnormal Temperature	NO 175 Deg. F.

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

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

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N H₂S is present

Y H₂S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

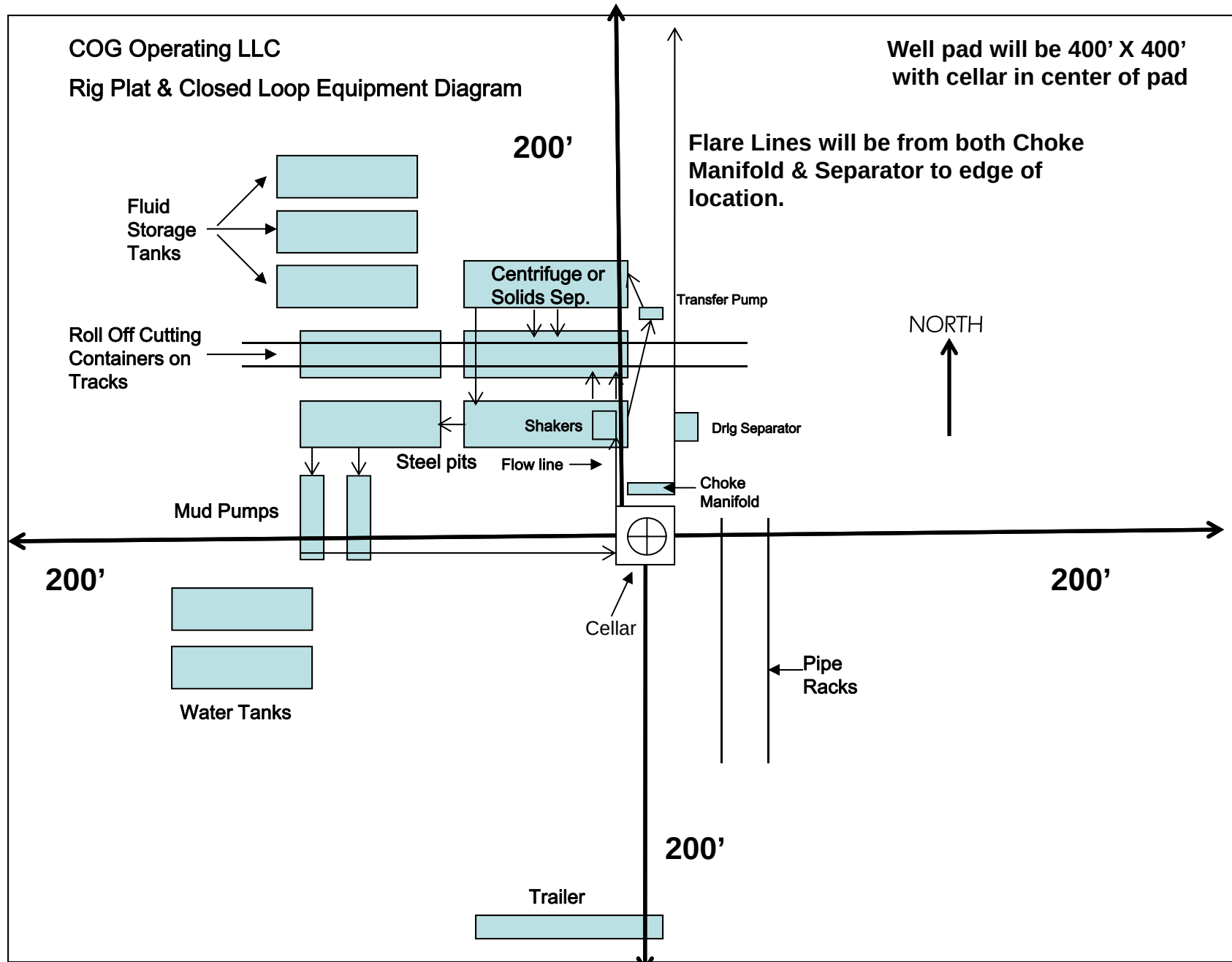


Exhibit 1

"I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
ZIA HILLS UNIT 2431 PROJECT
ZIA HILLS UNIT 2431 WC #703H**

**OWB
PWP0**

Anticollision Report

07 November, 2022

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference	PWP0		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,674.7usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/7/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	1,000.0	PWP0 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp-Initiald Cont. rev.5	
1,000.0	11,231.0	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5	
11,231.0	24,746.3	PWP0 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction rev.5	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
ZIA HILLS UNIT 2331 PROJECT						
GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP	9,532.6	14,160.0	848.3	756.2	9.214	CC, ES, SF
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP	9,050.8	13,450.0	705.1	625.4	8.842	CC, ES, SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	22,500.0	16,447.1	2,145.9	1,974.8	12.539	SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	24,746.9	14,200.2	2,126.2	1,967.4	13.386	CC, ES
SHETLAND 11 FEDERAL #734H - OWB - PWP0	22,500.0	16,685.2	1,486.9	1,315.1	8.656	SF
SHETLAND 11 FEDERAL #734H - OWB - PWP0	24,746.9	14,438.3	1,467.2	1,307.8	9.205	CC, ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	23,500.0	20,585.2	1,856.5	1,609.9	7.528	SF
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,746.9	19,381.4	1,818.1	1,580.4	7.649	CC, ES
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	22,047.1	21,724.9	2,031.7	1,869.5	12.524	CC, ES
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	22,200.0	21,724.9	2,037.4	1,874.3	12.492	SF
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	22,116.6	21,996.3	1,602.6	1,437.7	9.718	CC, ES
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	22,200.0	21,996.3	1,604.8	1,439.4	9.706	SF
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	22,114.9	21,875.5	1,226.1	1,059.8	7.373	CC, ES, SF
ZIA HILLS UNIT 2431 PROJECT						
SNAPPING 12 1 FEDERAL #332H - OWB - AWP	24,746.9	11,429.0	975.1	841.9	7.321	CC, ES, SF
SNAPPING 12 1 FEDERAL #621H - OWB - AWP	24,746.9	11,510.3	731.5	606.1	5.834	CC, ES, SF
SNAPPING 12 1 FEDERAL #711H - OWB - AWP	24,746.9	11,725.8	375.3	248.9	2.970	CC, ES, SF
SNAPPING 12 1 FEDERAL #712H - OWB - AWP	24,746.9	11,954.1	1,070.3	929.6	7.607	CC, ES, SF
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	1,368.0	1,366.6	55.0	46.0	6.152	CC, ES
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	24,746.9	24,799.9	804.0	599.8	3.938	SF
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	916.6	916.7	29.9	22.0	3.812	CC
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	1,000.0	1,000.0	29.9	21.9	3.736	ES
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	24,746.9	24,612.2	438.5	234.2	2.147	SF
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	916.5	916.9	30.1	22.2	3.834	CC
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	1,000.0	1,000.4	30.1	22.0	3.718	ES
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	24,746.9	24,580.8	438.2	235.1	2.158	SF
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	916.4	917.3	59.8	52.0	7.627	CC
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	1,000.0	1,000.9	59.8	51.8	7.396	ES
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	24,746.9	24,774.6	804.0	601.1	3.963	SF
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	916.5	917.1	90.2	82.4	11.519	CC
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	1,000.0	1,000.0	90.2	82.2	11.289	ES
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	24,746.9	24,586.9	1,189.2	984.4	5.806	SF

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central 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						
ZIA HILLS UNIT 2331 PROJECT						
GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP	24,746.9	14,160.0				Out of Range @TD
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP	24,746.9	13,450.0				Out of Range @TD
SHETLAND 11 FEDERAL #714H - OWB - PWP0	24,746.9	14,200.2	2,126.2	1,967.4	13.386	CC, ES
SHETLAND 11 FEDERAL #734H - OWB - PWP0	24,746.9	14,438.3	1,467.2	1,307.8	9.205	CC, ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,746.9	19,381.4	1,818.1	1,580.4	7.649	CC, ES
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	24,746.9	21,724.9				Out of Range @TD
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	24,746.9	21,996.3				Out of Range @TD
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	24,746.9	21,875.5				Out of Range @TD
ZIA HILLS UNIT 2431 PROJECT						
SNAPPING 12 1 FEDERAL #332H - OWB - AWP	24,746.9	11,429.0	975.1	841.9	7.321	CC, ES, SF
SNAPPING 12 1 FEDERAL #621H - OWB - AWP	24,746.9	11,510.3	731.5	606.1	5.834	CC, ES, SF
SNAPPING 12 1 FEDERAL #711H - OWB - AWP	24,746.9	11,725.8	375.3	248.9	2.970	CC, ES, SF
SNAPPING 12 1 FEDERAL #712H - OWB - AWP	24,746.9	11,954.1	1,070.3	929.6	7.607	CC, ES, SF
ZIA HILLS UNIT 2331 WC #701H - OWB - PWP0	24,746.9	24,799.9	804.0	599.8	3.938	SF
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	24,746.9	24,612.2	438.5	234.2	2.147	SF
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	24,746.9	24,580.8	438.2	235.1	2.158	SF
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	24,746.9	24,774.6	804.0	601.1	3.963	SF
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	24,746.9	24,586.9	1,189.2	984.4	5.806	SF

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP													Offset Site Error: 0.0 usft
Survey Program: 54-GYD-CT-CMS, 1153-MWD - OWSG R1													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,000.0	6,972.5	14,160.0	9,505.1	17.6	84.0	-117.96	-786.5	-911.1	2,670.9	2,613.9	57.00	46.861	
7,100.0	7,072.5	14,160.0	9,505.1	17.7	84.0	-117.96	-786.5	-911.1	2,576.3	2,518.7	57.52	44.788	
7,200.0	7,172.5	14,160.0	9,505.1	17.7	84.0	-117.96	-786.5	-911.1	2,482.1	2,424.0	58.08	42.735	
7,300.0	7,272.5	14,160.0	9,505.1	17.8	84.0	-117.96	-786.5	-911.1	2,388.3	2,329.6	58.68	40.701	
7,400.0	7,372.5	14,160.0	9,505.1	17.8	84.0	-117.96	-786.5	-911.1	2,295.1	2,235.8	59.32	38.689	
7,500.0	7,472.5	14,160.0	9,505.1	17.8	84.0	-117.96	-786.5	-911.1	2,202.5	2,142.5	60.01	36.699	
7,600.0	7,572.5	14,160.0	9,505.1	17.9	84.0	-117.96	-786.5	-911.1	2,110.6	2,049.8	60.76	34.734	
7,700.0	7,672.5	14,160.0	9,505.1	17.9	84.0	-117.96	-786.5	-911.1	2,019.4	1,957.8	61.58	32.795	
7,800.0	7,772.5	14,160.0	9,505.1	18.0	84.0	-117.96	-786.5	-911.1	1,929.1	1,866.6	62.46	30.884	
7,900.0	7,872.5	14,160.0	9,505.1	18.0	84.0	-117.96	-786.5	-911.1	1,839.8	1,776.4	63.43	29.004	
8,000.0	7,972.5	14,160.0	9,505.1	18.0	84.0	-117.96	-786.5	-911.1	1,751.7	1,687.2	64.50	27.160	
8,100.0	8,072.5	14,160.0	9,505.1	18.1	84.0	-117.96	-786.5	-911.1	1,664.9	1,599.2	65.66	25.355	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 54-GYD-CT-CMS, 1153-MWD - OWSG R1												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	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
8,200.0	8,172.5	14,160.0	9,505.1	18.1	84.0	-117.96	-786.5	-911.1	1,579.7	1,512.7	66.95	23.593	
8,300.0	8,272.5	14,160.0	9,505.1	18.2	84.0	-117.96	-786.5	-911.1	1,496.3	1,427.9	68.38	21.882	
8,400.0	8,372.5	14,160.0	9,505.1	18.2	84.0	-117.96	-786.5	-911.1	1,415.0	1,345.1	69.95	20.229	
8,500.0	8,472.5	14,160.0	9,505.1	18.2	84.0	-117.96	-786.5	-911.1	1,336.3	1,264.7	71.69	18.642	
8,600.0	8,572.5	14,160.0	9,505.1	18.3	84.0	-117.96	-786.5	-911.1	1,260.7	1,187.1	73.59	17.130	
8,700.0	8,672.5	14,160.0	9,505.1	18.3	84.0	-117.96	-786.5	-911.1	1,188.6	1,112.9	75.67	15.707	
8,800.0	8,772.5	14,160.0	9,505.1	18.4	84.0	-117.96	-786.5	-911.1	1,120.8	1,042.9	77.92	14.385	
8,900.0	8,872.5	14,160.0	9,505.1	18.4	84.0	-117.96	-786.5	-911.1	1,058.2	977.9	80.29	13.179	
9,000.0	8,972.5	14,160.0	9,505.1	18.5	84.0	-117.96	-786.5	-911.1	1,001.6	918.9	82.75	12.104	
9,100.0	9,072.5	14,160.0	9,505.1	18.5	84.0	-117.96	-786.5	-911.1	952.2	867.0	85.19	11.178	
9,200.0	9,172.5	14,160.0	9,505.1	18.5	84.0	-117.96	-786.5	-911.1	911.1	823.7	87.48	10.415	
9,300.0	9,272.5	14,160.0	9,505.1	18.6	84.0	-117.96	-786.5	-911.1	879.6	790.1	89.47	9.831	
9,400.0	9,372.5	14,160.0	9,505.1	18.6	84.0	-117.96	-786.5	-911.1	858.6	767.6	90.99	9.435	
9,500.0	9,472.5	14,160.0	9,505.1	18.7	84.0	-117.96	-786.5	-911.1	848.9	757.0	91.91	9.236	
9,532.6	9,505.1	14,160.0	9,505.1	18.7	84.0	-117.96	-786.5	-911.1	848.3	756.2	92.06	9.214 CC, ES, SF	
9,600.0	9,572.5	14,160.0	9,505.1	18.7	84.0	-117.96	-786.5	-911.1	850.9	758.8	92.14	9.235	
9,700.0	9,672.5	14,160.0	9,505.1	18.8	84.0	-117.96	-786.5	-911.1	864.6	772.9	91.71	9.428	
9,800.0	9,772.5	14,160.0	9,505.1	18.8	84.0	-117.96	-786.5	-911.1	889.4	798.7	90.71	9.805	
9,900.0	9,872.5	14,160.0	9,505.1	18.9	84.0	-117.96	-786.5	-911.1	924.4	835.1	89.30	10.351	
10,000.0	9,972.5	14,160.0	9,505.1	18.9	84.0	-117.96	-786.5	-911.1	968.5	880.9	87.64	11.050	
10,100.0	10,072.5	14,160.0	9,505.1	19.0	84.0	-117.96	-786.5	-911.1	1,020.5	934.6	85.88	11.883	
10,200.0	10,172.5	14,160.0	9,505.1	19.0	84.0	-117.96	-786.5	-911.1	1,079.3	995.2	84.13	12.829	
10,300.0	10,272.5	14,160.0	9,505.1	19.1	84.0	-117.96	-786.5	-911.1	1,143.9	1,061.4	82.47	13.870	
10,400.0	10,372.5	14,160.0	9,505.1	19.1	84.0	-117.96	-786.5	-911.1	1,213.2	1,132.3	80.94	14.989	
10,500.0	10,472.5	14,160.0	9,505.1	19.1	84.0	-117.96	-786.5	-911.1	1,286.6	1,207.1	79.56	16.171	
10,600.0	10,572.5	14,160.0	9,505.1	19.2	84.0	-117.96	-786.5	-911.1	1,363.4	1,285.1	78.35	17.402	
10,700.0	10,672.5	14,160.0	9,505.1	19.2	84.0	-117.96	-786.5	-911.1	1,443.0	1,365.7	77.29	18.670	
10,800.0	10,772.5	14,160.0	9,505.1	19.3	84.0	-117.96	-786.5	-911.1	1,525.1	1,448.7	76.38	19.966	
10,900.0	10,872.5	14,160.0	9,505.1	19.3	84.0	-117.96	-786.5	-911.1	1,609.1	1,533.5	75.61	21.282	
11,000.0	10,972.5	14,160.0	9,505.1	19.4	84.0	-117.96	-786.5	-911.1	1,694.9	1,620.0	74.96	22.611	
11,100.0	11,072.5	14,160.0	9,505.1	19.4	84.0	-117.96	-786.5	-911.1	1,782.2	1,707.8	74.42	23.948	
11,200.0	11,172.5	14,160.0	9,505.1	19.5	84.0	-117.96	-786.5	-911.1	1,870.8	1,796.8	73.98	25.289	
11,300.0	11,272.3	14,160.0	9,505.1	19.6	84.0	-103.05	-786.5	-911.1	1,961.1	1,887.4	73.73	26.599	
11,400.0	11,370.0	14,160.0	9,505.1	19.7	84.0	-78.81	-786.5	-911.1	2,053.6	1,980.2	73.42	27.969	
11,500.0	11,462.7	14,160.0	9,505.1	19.8	84.0	-57.20	-786.5	-911.1	2,145.6	2,072.4	73.18	29.321	
11,600.0	11,547.4	14,160.0	9,505.1	19.9	84.0	-42.41	-786.5	-911.1	2,234.5	2,161.5	72.98	30.619	
11,700.0	11,621.7	14,160.0	9,505.1	20.0	84.0	-33.09	-786.5	-911.1	2,318.1	2,245.3	72.81	31.837	
11,800.0	11,683.3	14,160.0	9,505.1	20.2	84.0	-27.14	-786.5	-911.1	2,394.5	2,321.8	72.67	32.952	
11,900.0	11,730.2	14,160.0	9,505.1	20.3	84.0	-23.22	-786.5	-911.1	2,462.2	2,389.6	72.53	33.948	
12,000.0	11,761.2	14,160.0	9,505.1	20.3	84.0	-20.58	-786.5	-911.1	2,519.9	2,447.5	72.39	34.811	
12,100.0	11,775.1	14,160.0	9,505.1	20.4	84.0	-18.79	-786.5	-911.1	2,566.6	2,494.3	72.24	35.527	
12,200.0	11,776.0	14,160.0	9,505.1	20.4	84.0	-18.38	-786.5	-911.1	2,605.2	2,533.1	72.03	36.166	
12,300.0	11,776.0	14,160.0	9,505.1	20.5	84.0	-18.38	-786.5	-911.1	2,646.3	2,574.5	71.81	36.849	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP													Offset Site Error: 0.0 usft
Survey Program: 100-SDI_KPR_WL_NS-CT, 8346-MWD - OWSGR1													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Rule Assigned:	
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)	Minimum Separation (usft)	Separation Factor
6,500.0	6,472.5	13,450.0	9,023.3	17.5	79.8	121.66		-758.9	438.3	2,646.5	2,594.4	52.08	50.817
6,600.0	6,572.5	13,450.0	9,023.3	17.5	79.8	121.66		-758.9	438.3	2,550.2	2,497.8	52.46	48.610
6,700.0	6,672.5	13,450.0	9,023.3	17.5	79.8	121.66		-758.9	438.3	2,454.3	2,401.4	52.87	46.420
6,800.0	6,772.5	13,450.0	9,023.3	17.6	79.8	121.66		-758.9	438.3	2,358.7	2,305.4	53.30	44.250
6,900.0	6,872.5	13,450.0	9,023.3	17.6	79.8	121.66		-758.9	438.3	2,263.5	2,209.7	53.77	42.099
7,000.0	6,972.5	13,450.0	9,023.3	17.6	79.8	121.66		-758.9	438.3	2,168.7	2,114.4	54.26	39.969
7,100.0	7,072.5	13,450.0	9,023.3	17.7	79.8	121.66		-758.9	438.3	2,074.4	2,019.6	54.79	37.860
7,200.0	7,172.5	13,450.0	9,023.3	17.7	79.8	121.66		-758.9	438.3	1,980.6	1,925.2	55.36	35.775
7,300.0	7,272.5	13,450.0	9,023.3	17.8	79.8	121.66		-758.9	438.3	1,887.5	1,831.5	55.98	33.715
7,400.0	7,372.5	13,450.0	9,023.3	17.8	79.8	121.66		-758.9	438.3	1,795.1	1,738.4	56.66	31.681
7,500.0	7,472.5	13,450.0	9,023.3	17.8	79.8	121.66		-758.9	438.3	1,703.6	1,646.2	57.41	29.677
7,600.0	7,572.5	13,450.0	9,023.3	17.9	79.8	121.66		-758.9	438.3	1,613.1	1,554.9	58.22	27.705
7,700.0	7,672.5	13,450.0	9,023.3	17.9	79.8	121.66		-758.9	438.3	1,523.8	1,464.7	59.13	25.769
7,800.0	7,772.5	13,450.0	9,023.3	18.0	79.8	121.66		-758.9	438.3	1,435.9	1,375.7	60.14	23.875
7,900.0	7,872.5	13,450.0	9,023.3	18.0	79.8	121.66		-758.9	438.3	1,349.7	1,288.4	61.27	22.029
8,000.0	7,972.5	13,450.0	9,023.3	18.0	79.8	121.66		-758.9	438.3	1,265.5	1,202.9	62.53	20.239
8,100.0	8,072.5	13,450.0	9,023.3	18.1	79.8	121.66		-758.9	438.3	1,183.7	1,119.8	63.94	18.514
8,200.0	8,172.5	13,450.0	9,023.3	18.1	79.8	121.66		-758.9	438.3	1,105.0	1,039.5	65.52	16.866
8,300.0	8,272.5	13,450.0	9,023.3	18.2	79.8	121.66		-758.9	438.3	1,030.0	962.7	67.27	15.312
8,400.0	8,372.5	13,450.0	9,023.3	18.2	79.8	121.66		-758.9	438.3	959.6	890.4	69.18	13.869
8,500.0	8,472.5	13,450.0	9,023.3	18.2	79.8	121.66		-758.9	438.3	894.8	823.5	71.24	12.560
8,600.0	8,572.5	13,450.0	9,023.3	18.3	79.8	121.66		-758.9	438.3	836.9	763.5	73.36	11.408
8,700.0	8,672.5	13,450.0	9,023.3	18.3	79.8	121.66		-758.9	438.3	787.6	712.1	75.43	10.440
8,800.0	8,772.5	13,450.0	9,023.3	18.4	79.8	121.66		-758.9	438.3	748.4	671.1	77.29	9.683
8,900.0	8,872.5	13,450.0	9,023.3	18.4	79.8	121.66		-758.9	438.3	721.0	642.3	78.73	9.158
9,000.0	8,972.5	13,450.0	9,023.3	18.5	79.8	121.66		-758.9	438.3	706.9	627.3	79.58	8.884
9,050.8	9,023.3	13,450.0	9,023.3	18.5	79.8	121.66		-758.9	438.3	705.1	625.4	79.74	8.842 CC, ES, SF
9,100.0	9,072.5	13,450.0	9,023.3	18.5	79.8	121.66		-758.9	438.3	706.8	627.1	79.73	8.865
9,200.0	9,172.5	13,450.0	9,023.3	18.5	79.8	121.66		-758.9	438.3	720.7	641.5	79.22	9.098
9,300.0	9,272.5	13,450.0	9,023.3	18.6	79.8	121.66		-758.9	438.3	747.8	669.7	78.16	9.567
9,400.0	9,372.5	13,450.0	9,023.3	18.6	79.8	121.66		-758.9	438.3	786.8	710.1	76.76	10.250
9,500.0	9,472.5	13,450.0	9,023.3	18.7	79.8	121.66		-758.9	438.3	836.0	760.8	75.19	11.118
9,600.0	9,572.5	13,450.0	9,023.3	18.7	79.8	121.66		-758.9	438.3	893.7	820.1	73.62	12.140
9,700.0	9,672.5	13,450.0	9,023.3	18.8	79.8	121.66		-758.9	438.3	958.4	886.3	72.14	13.286
9,800.0	9,772.5	13,450.0	9,023.3	18.8	79.8	121.66		-758.9	438.3	1,028.8	958.0	70.81	14.529
9,900.0	9,872.5	13,450.0	9,023.3	18.9	79.8	121.66		-758.9	438.3	1,103.7	1,034.1	69.65	15.846
10,000.0	9,972.5	13,450.0	9,023.3	18.9	79.8	121.66		-758.9	438.3	1,182.4	1,113.7	68.67	17.217
10,100.0	10,072.5	13,450.0	9,023.3	19.0	79.8	121.66		-758.9	438.3	1,264.1	1,196.2	67.86	18.628
10,200.0	10,172.5	13,450.0	9,023.3	19.0	79.8	121.66		-758.9	438.3	1,348.2	1,281.0	67.19	20.065
10,300.0	10,272.5	13,450.0	9,023.3	19.1	79.8	121.66		-758.9	438.3	1,434.4	1,367.8	66.66	21.518
10,400.0	10,372.5	13,450.0	9,023.3	19.1	79.8	121.66		-758.9	438.3	1,522.3	1,456.1	66.24	22.981
10,500.0	10,472.5	13,450.0	9,023.3	19.1	79.8	121.66		-758.9	438.3	1,611.6	1,545.7	65.92	24.447
10,600.0	10,572.5	13,450.0	9,023.3	19.2	79.8	121.66		-758.9	438.3	1,702.1	1,636.4	65.69	25.911
10,700.0	10,672.5	13,450.0	9,023.3	19.2	79.8	121.66		-758.9	438.3	1,793.6	1,728.0	65.53	27.371
10,800.0	10,772.5	13,450.0	9,023.3	19.3	79.8	121.66		-758.9	438.3	1,885.9	1,820.5	65.43	28.823
10,900.0	10,872.5	13,450.0	9,023.3	19.3	79.8	121.66		-758.9	438.3	1,979.0	1,913.6	65.39	30.266
11,000.0	10,972.5	13,450.0	9,023.3	19.4	79.8	121.66		-758.9	438.3	2,072.8	2,007.4	65.39	31.698
11,100.0	11,072.5	13,450.0	9,023.3	19.4	79.8	121.66		-758.9	438.3	2,167.1	2,101.6	65.44	33.117
11,200.0	11,172.5	13,450.0	9,023.3	19.5	79.8	121.66		-758.9	438.3	2,261.9	2,196.4	65.52	34.523
11,300.0	11,272.3	13,450.0	9,023.3	19.6	79.8	100.24		-758.9	438.3	2,357.6	2,291.9	65.66	35.904
11,400.0	11,370.0	13,450.0	9,023.3	19.7	79.8	63.36		-758.9	438.3	2,454.3	2,388.6	65.75	37.328
11,500.0	11,462.7	13,450.0	9,023.3	19.8	79.8	39.85		-758.9	438.3	2,549.2	2,483.4	65.82	38.733

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-SDI_KPR_WL_NS-CT, 8346-MWD - OWSG R1													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
11,600.0	11,547.4	13,450.0	9,023.3	19.9	79.8	27.92	-758.9	438.3	2,639.8	2,573.9	65.85	40.086		

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11 FEDERAL #714H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	10.0 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)			
21,000.0	11,776.0	16,466.2	11,659.2	72.3	88.0	-86.88	10,523.0	-2,454.2	2,618.1	2,480.7	137.34	19.063	
21,100.0	11,776.0	16,466.2	11,659.2	73.0	88.0	-86.88	10,523.0	-2,454.2	2,562.1	2,422.0	140.16	18.280	
21,200.0	11,776.0	16,466.2	11,659.2	73.8	88.0	-86.88	10,523.0	-2,454.2	2,508.9	2,365.9	143.00	17.544	
21,300.0	11,776.0	16,466.2	11,659.2	74.5	88.0	-86.88	10,523.0	-2,454.2	2,458.6	2,312.7	145.85	16.857	
21,400.0	11,776.0	16,466.2	11,659.2	75.3	88.0	-86.88	10,523.0	-2,454.2	2,411.4	2,262.7	148.69	16.218	
21,500.0	11,776.0	16,466.2	11,659.2	76.0	88.0	-86.88	10,523.0	-2,454.2	2,367.4	2,215.9	151.49	15.628	
21,600.0	11,776.0	16,466.2	11,659.2	76.8	88.0	-86.88	10,523.0	-2,454.2	2,327.0	2,172.7	154.22	15.088	
21,700.0	11,776.0	16,466.2	11,659.2	77.5	88.0	-86.88	10,523.0	-2,454.2	2,290.2	2,133.3	156.87	14.599	
21,800.0	11,776.0	16,466.2	11,659.2	78.3	88.0	-86.88	10,523.0	-2,454.2	2,257.2	2,097.8	159.40	14.160	
21,900.0	11,776.0	16,466.2	11,659.2	79.0	88.0	-86.88	10,523.0	-2,454.2	2,228.2	2,066.4	161.78	13.773	
22,000.0	11,776.0	16,466.2	11,659.2	79.8	88.0	-86.88	10,523.0	-2,454.2	2,203.4	2,039.4	163.99	13.436	
22,100.0	11,776.0	16,466.2	11,659.2	80.5	88.0	-86.88	10,523.0	-2,454.2	2,182.9	2,016.9	165.99	13.151	
22,200.0	11,776.0	16,466.2	11,659.2	81.3	88.0	-86.88	10,523.0	-2,454.2	2,166.8	1,999.1	167.75	12.917	
22,300.0	11,776.0	16,466.2	11,659.2	82.0	88.0	-86.88	10,523.0	-2,454.2	2,155.3	1,986.0	169.26	12.734	
22,400.0	11,776.0	16,466.2	11,659.2	82.8	88.0	-86.88	10,523.0	-2,454.2	2,148.3	1,977.8	170.49	12.601	
22,500.0	11,776.0	16,447.1	11,659.2	83.5	87.7	-86.88	10,542.2	-2,454.3	2,145.9	1,974.8	171.14	12.539 SF	
22,600.0	11,776.0	16,347.1	11,659.2	84.3	86.3	-86.88	10,642.2	-2,454.7	2,145.0	1,974.6	170.47	12.583	
22,700.0	11,776.0	16,247.1	11,659.2	85.0	84.9	-86.88	10,742.2	-2,455.2	2,144.2	1,974.4	169.80	12.628	
22,800.0	11,776.0	16,147.1	11,659.2	85.8	83.4	-86.87	10,842.2	-2,455.7	2,143.3	1,974.1	169.14	12.672	
22,900.0	11,776.0	16,047.1	11,659.2	86.5	82.0	-86.87	10,942.2	-2,456.2	2,142.4	1,973.9	168.49	12.715	
23,000.0	11,776.0	15,947.1	11,659.2	87.3	80.6	-86.87	11,042.2	-2,456.7	2,141.5	1,973.7	167.85	12.759	
23,100.0	11,776.0	15,847.1	11,659.2	88.0	79.3	-86.87	11,142.2	-2,457.2	2,140.7	1,973.4	167.22	12.802	
23,200.0	11,776.0	15,747.1	11,659.2	88.8	77.9	-86.87	11,242.1	-2,457.7	2,139.8	1,973.2	166.60	12.844	
23,300.0	11,776.0	15,647.1	11,659.2	89.6	76.5	-86.87	11,342.1	-2,458.2	2,138.9	1,972.9	165.99	12.886	
23,400.0	11,776.0	15,547.1	11,659.2	90.3	75.2	-86.87	11,442.1	-2,458.7	2,138.0	1,972.6	165.39	12.927	
23,500.0	11,776.0	15,447.1	11,659.2	91.1	73.8	-86.87	11,542.1	-2,459.1	2,137.1	1,972.3	164.80	12.968	
23,600.0	11,776.0	15,347.1	11,659.2	91.8	72.5	-86.86	11,642.1	-2,459.6	2,136.3	1,972.0	164.23	13.008	
23,700.0	11,776.0	15,247.1	11,659.2	92.6	71.2	-86.86	11,742.1	-2,460.1	2,135.4	1,971.7	163.67	13.047	
23,800.0	11,776.0	15,147.1	11,659.2	93.3	69.9	-86.86	11,842.1	-2,460.6	2,134.5	1,971.4	163.13	13.085	
23,900.0	11,776.0	15,047.1	11,659.2	94.1	68.6	-86.86	11,942.1	-2,461.1	2,133.6	1,971.0	162.60	13.122	
24,000.0	11,776.0	14,947.1	11,659.2	94.8	67.3	-86.86	12,042.1	-2,461.6	2,132.7	1,970.7	162.08	13.159	
24,100.0	11,776.0	14,847.1	11,659.2	95.6	66.1	-86.86	12,142.1	-2,462.1	2,131.9	1,970.3	161.58	13.194	
24,200.0	11,776.0	14,747.2	11,659.2	96.3	64.8	-86.86	12,242.1	-2,462.6	2,131.0	1,969.9	161.10	13.227	
24,300.0	11,776.0	14,647.2	11,659.2	97.1	63.6	-86.86	12,342.1	-2,463.1	2,130.1	1,969.5	160.64	13.260	
24,400.0	11,776.0	14,547.2	11,659.2	97.9	62.4	-86.85	12,442.1	-2,463.5	2,129.2	1,969.0	160.20	13.291	
24,500.0	11,776.0	14,447.2	11,659.2	98.6	61.2	-86.85	12,542.1	-2,464.0	2,128.4	1,968.6	159.78	13.321	
24,600.0	11,776.0	14,347.2	11,659.2	99.4	60.1	-86.85	12,642.1	-2,464.5	2,127.5	1,968.1	159.38	13.348	
24,700.0	11,776.0	14,247.2	11,659.2	100.1	58.9	-86.85	12,742.1	-2,465.0	2,126.6	1,967.6	159.01	13.374	
24,746.9	11,776.0	14,200.2	11,659.2	100.5	58.4	-86.85	12,789.0	-2,465.2	2,126.2	1,967.4	158.84	13.386 CC, ES	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11 FEDERAL #734H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-MWD - OWSG R1													Offset Well Error: 10.0 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)			
20,300.0	11,776.0	16,703.1	11,882.8	67.0	88.8	-94.12	10,527.5	-1,794.5	2,651.4	2,550.4	100.96	26.262	
20,400.0	11,776.0	16,703.1	11,882.8	67.8	88.8	-94.12	10,527.5	-1,794.5	2,569.2	2,466.0	103.21	24.892	
20,500.0	11,776.0	16,703.1	11,882.8	68.5	88.8	-94.12	10,527.5	-1,794.5	2,488.3	2,382.7	105.62	23.558	
20,600.0	11,776.0	16,703.1	11,882.8	69.3	88.8	-94.12	10,527.5	-1,794.5	2,408.9	2,300.7	108.20	22.264	
20,700.0	11,776.0	16,703.1	11,882.8	70.0	88.8	-94.12	10,527.5	-1,794.5	2,331.0	2,220.1	110.94	21.012	
20,800.0	11,776.0	16,703.1	11,882.8	70.8	88.8	-94.12	10,527.5	-1,794.5	2,254.9	2,141.1	113.85	19.805	
20,900.0	11,776.0	16,703.1	11,882.8	71.5	88.8	-94.12	10,527.5	-1,794.5	2,180.7	2,063.8	116.95	18.646	
21,000.0	11,776.0	16,703.1	11,882.8	72.3	88.8	-94.12	10,527.5	-1,794.5	2,108.7	1,988.5	120.23	17.539	
21,100.0	11,776.0	16,703.1	11,882.8	73.0	88.8	-94.12	10,527.5	-1,794.5	2,039.0	1,915.3	123.69	16.485	
21,200.0	11,776.0	16,703.1	11,882.8	73.8	88.8	-94.12	10,527.5	-1,794.5	1,971.9	1,844.6	127.33	15.487	
21,300.0	11,776.0	16,703.1	11,882.8	74.5	88.8	-94.12	10,527.5	-1,794.5	1,907.8	1,776.6	131.12	14.549	
21,400.0	11,776.0	16,703.1	11,882.8	75.3	88.8	-94.12	10,527.5	-1,794.5	1,846.8	1,711.7	135.06	13.674	
21,500.0	11,776.0	16,703.1	11,882.8	76.0	88.8	-94.12	10,527.5	-1,794.5	1,789.3	1,650.2	139.11	12.862	
21,600.0	11,776.0	16,703.1	11,882.8	76.8	88.8	-94.12	10,527.5	-1,794.5	1,735.6	1,592.4	143.23	12.118	
21,700.0	11,776.0	16,703.1	11,882.8	77.5	88.8	-94.12	10,527.5	-1,794.5	1,686.2	1,538.9	147.38	11.442	
21,800.0	11,776.0	16,703.1	11,882.8	78.3	88.8	-94.12	10,527.5	-1,794.5	1,641.5	1,490.0	151.48	10.836	
21,900.0	11,776.0	16,703.1	11,882.8	79.0	88.8	-94.12	10,527.5	-1,794.5	1,601.7	1,446.2	155.47	10.302	
22,000.0	11,776.0	16,703.1	11,882.8	79.8	88.8	-94.12	10,527.5	-1,794.5	1,567.3	1,408.0	159.25	9.841	
22,100.0	11,776.0	16,703.1	11,882.8	80.5	88.8	-94.12	10,527.5	-1,794.5	1,538.6	1,375.9	162.75	9.454	
22,200.0	11,776.0	16,703.1	11,882.8	81.3	88.8	-94.12	10,527.5	-1,794.5	1,516.0	1,350.2	165.86	9.140	
22,300.0	11,776.0	16,703.1	11,882.8	82.0	88.8	-94.12	10,527.5	-1,794.5	1,499.8	1,331.2	168.50	8.900	
22,400.0	11,776.0	16,703.1	11,882.8	82.8	88.8	-94.12	10,527.5	-1,794.5	1,490.0	1,319.4	170.61	8.734	
22,500.0	11,776.0	16,685.2	11,882.8	83.5	88.5	-94.12	10,545.4	-1,794.6	1,486.9	1,315.1	171.77	8.656 SF	
22,600.0	11,776.0	16,585.2	11,882.8	84.3	87.1	-94.12	10,645.4	-1,795.1	1,486.0	1,314.9	171.09	8.686	
22,700.0	11,776.0	16,485.2	11,882.8	85.0	85.7	-94.13	10,745.4	-1,795.6	1,485.1	1,314.7	170.41	8.715	
22,800.0	11,776.0	16,385.2	11,882.8	85.8	84.2	-94.13	10,845.4	-1,796.1	1,484.3	1,314.5	169.75	8.744	
22,900.0	11,776.0	16,285.2	11,882.8	86.5	82.8	-94.13	10,945.4	-1,796.5	1,483.4	1,314.3	169.10	8.773	
23,000.0	11,776.0	16,185.2	11,882.8	87.3	81.4	-94.13	11,045.4	-1,797.0	1,482.5	1,314.1	168.45	8.801	
23,100.0	11,776.0	16,085.2	11,882.8	88.0	80.0	-94.14	11,145.4	-1,797.5	1,481.6	1,313.8	167.81	8.829	
23,200.0	11,776.0	15,985.2	11,882.8	88.8	78.7	-94.14	11,245.4	-1,798.0	1,480.8	1,313.6	167.19	8.857	
23,300.0	11,776.0	15,885.2	11,882.8	89.6	77.3	-94.14	11,345.4	-1,798.5	1,479.9	1,313.3	166.58	8.884	
23,400.0	11,776.0	15,785.2	11,882.8	90.3	75.9	-94.14	11,445.4	-1,799.0	1,479.0	1,313.0	165.97	8.911	
23,500.0	11,776.0	15,685.2	11,882.8	91.1	74.6	-94.14	11,545.4	-1,799.5	1,478.1	1,312.7	165.38	8.938	
23,600.0	11,776.0	15,585.2	11,882.8	91.8	73.3	-94.15	11,645.4	-1,800.0	1,477.3	1,312.4	164.81	8.964	
23,700.0	11,776.0	15,485.2	11,882.8	92.6	72.0	-94.15	11,745.3	-1,800.5	1,476.4	1,312.1	164.24	8.989	
23,800.0	11,776.0	15,385.2	11,882.8	93.3	70.7	-94.15	11,845.3	-1,800.9	1,475.5	1,311.8	163.69	9.014	
23,900.0	11,776.0	15,285.2	11,882.8	94.1	69.4	-94.15	11,945.3	-1,801.4	1,474.6	1,311.5	163.16	9.038	
24,000.0	11,776.0	15,185.2	11,882.8	94.8	68.1	-94.16	12,045.3	-1,801.9	1,473.7	1,311.1	162.64	9.061	
24,100.0	11,776.0	15,085.2	11,882.8	95.6	66.9	-94.16	12,145.3	-1,802.4	1,472.9	1,310.7	162.14	9.084	
24,200.0	11,776.0	14,985.2	11,882.8	96.3	65.6	-94.16	12,245.3	-1,802.9	1,472.0	1,310.3	161.66	9.106	
24,300.0	11,776.0	14,885.3	11,882.8	97.1	64.4	-94.16	12,345.3	-1,803.4	1,471.1	1,309.9	161.20	9.126	
24,400.0	11,776.0	14,785.3	11,882.8	97.9	63.2	-94.17	12,445.3	-1,803.9	1,470.2	1,309.5	160.75	9.146	
24,500.0	11,776.0	14,685.3	11,882.8	98.6	62.0	-94.17	12,545.3	-1,804.4	1,469.4	1,309.0	160.33	9.165	
24,600.0	11,776.0	14,585.3	11,882.8	99.4	60.9	-94.17	12,645.3	-1,804.9	1,468.5	1,308.6	159.93	9.182	
24,700.0	11,776.0	14,485.3	11,882.8	100.1	59.8	-94.17	12,745.3	-1,805.3	1,467.6	1,308.1	159.55	9.198	
24,746.9	11,776.0	14,438.3	11,882.8	100.5	59.2	-94.18	12,792.2	-1,805.6	1,467.2	1,307.8	159.39	9.205 CC, ES	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 2-11 STATE FEDERAL COM #333H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 226-MWD												Offset Well Error:	10.0 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)			
20,500.0	11,776.0	21,907.0	11,380.8	68.5	178.7	-78.29	10,262.1	-2,214.7	2,608.6	2,421.1	187.53	13.910	
20,600.0	11,776.0	21,907.0	11,380.8	69.3	178.7	-78.29	10,262.1	-2,214.7	2,543.2	2,351.0	192.21	13.231	
20,700.0	11,776.0	21,907.0	11,380.8	70.0	178.7	-78.29	10,262.1	-2,214.7	2,480.0	2,283.1	197.00	12.589	
20,800.0	11,776.0	21,907.0	11,380.8	70.8	178.7	-78.29	10,262.1	-2,214.7	2,419.4	2,217.5	201.88	11.984	
20,900.0	11,776.0	21,907.0	11,380.8	71.5	178.7	-78.29	10,262.1	-2,214.7	2,361.4	2,154.6	206.84	11.417	
21,000.0	11,776.0	21,907.0	11,380.8	72.3	178.7	-78.29	10,262.1	-2,214.7	2,306.4	2,094.5	211.84	10.887	
21,100.0	11,776.0	21,907.0	11,380.8	73.0	178.7	-78.29	10,262.1	-2,214.7	2,254.4	2,037.5	216.84	10.396	
21,200.0	11,776.0	21,907.0	11,380.8	73.8	178.7	-78.29	10,262.1	-2,214.7	2,205.7	1,983.9	221.81	9.944	
21,300.0	11,776.0	21,907.0	11,380.8	74.5	178.7	-78.29	10,262.1	-2,214.7	2,160.6	1,933.9	226.70	9.530	
21,400.0	11,776.0	21,907.0	11,380.8	75.3	178.7	-78.29	10,262.1	-2,214.7	2,119.2	1,887.7	231.45	9.156	
21,500.0	11,776.0	21,907.0	11,380.8	76.0	178.7	-78.29	10,262.1	-2,214.7	2,081.8	1,845.8	236.00	8.821	
21,600.0	11,776.0	21,907.0	11,380.8	76.8	178.7	-78.29	10,262.1	-2,214.7	2,048.6	1,808.3	240.29	8.525	
21,700.0	11,776.0	21,907.0	11,380.8	77.5	178.7	-78.29	10,262.1	-2,214.7	2,019.8	1,775.5	244.26	8.269	
21,800.0	11,776.0	21,907.0	11,380.8	78.3	178.7	-78.29	10,262.1	-2,214.7	1,995.6	1,747.8	247.84	8.052	
21,900.0	11,776.0	21,907.0	11,380.8	79.0	178.7	-78.29	10,262.1	-2,214.7	1,976.2	1,725.2	250.97	7.874	
22,000.0	11,776.0	21,907.0	11,380.8	79.8	178.7	-78.29	10,262.1	-2,214.7	1,961.7	1,708.1	253.59	7.736	
22,100.0	11,776.0	21,867.9	11,381.9	80.5	178.1	-78.30	10,301.1	-2,211.9	1,951.8	1,697.2	254.62	7.666	
22,200.0	11,776.0	21,799.0	11,383.6	81.3	177.0	-78.32	10,369.8	-2,207.1	1,943.3	1,688.6	254.68	7.631	
22,300.0	11,776.0	21,733.2	11,383.8	82.0	176.0	-78.30	10,435.5	-2,203.4	1,936.5	1,681.8	254.74	7.602	
22,400.0	11,776.0	21,655.9	11,381.7	82.8	174.8	-78.21	10,512.7	-2,200.3	1,931.8	1,677.3	254.44	7.592	
22,500.0	11,776.0	21,514.7	11,378.2	83.5	172.6	-78.06	10,653.7	-2,194.1	1,926.8	1,674.2	252.57	7.629	
22,600.0	11,776.0	21,371.2	11,381.4	84.3	170.3	-78.09	10,796.9	-2,185.2	1,918.8	1,668.2	250.61	7.657	
22,700.0	11,776.0	21,268.1	11,387.5	85.0	168.7	-78.21	10,899.6	-2,178.3	1,909.7	1,659.9	249.79	7.645	
22,800.0	11,776.0	21,180.5	11,392.2	85.8	167.3	-78.31	10,986.9	-2,172.6	1,901.0	1,651.6	249.39	7.622	
22,900.0	11,776.0	21,092.7	11,396.7	86.5	166.0	-78.40	11,074.4	-2,167.5	1,892.9	1,643.9	248.97	7.603	
23,000.0	11,776.0	21,001.4	11,400.5	87.3	164.5	-78.48	11,165.5	-2,162.5	1,885.3	1,636.9	248.45	7.588	
23,100.0	11,776.0	20,912.2	11,403.6	88.0	163.2	-78.54	11,254.5	-2,158.0	1,878.3	1,630.3	247.97	7.575	
23,200.0	11,776.0	20,823.6	11,406.5	88.8	161.8	-78.59	11,343.0	-2,153.9	1,871.8	1,624.3	247.50	7.563	
23,300.0	11,776.0	20,734.2	11,408.6	89.6	160.4	-78.63	11,432.3	-2,150.2	1,866.0	1,619.0	246.99	7.555	
23,400.0	11,776.0	20,658.0	11,410.0	90.3	159.2	-78.64	11,508.4	-2,147.2	1,860.5	1,613.7	246.79	7.539	
23,500.0	11,776.0	20,585.2	11,410.3	91.1	158.1	-78.63	11,581.2	-2,145.1	1,856.5	1,609.9	246.61	7.528 SF	
23,600.0	11,776.0	20,501.4	11,408.8	91.8	156.7	-78.58	11,665.0	-2,144.1	1,854.3	1,608.1	246.15	7.533	
23,700.0	11,776.0	20,407.0	11,406.7	92.6	155.3	-78.50	11,759.4	-2,143.2	1,852.4	1,606.9	245.45	7.547	
23,800.0	11,776.0	20,311.0	11,404.1	93.3	153.8	-78.41	11,855.2	-2,142.4	1,850.8	1,606.1	244.71	7.563	
23,900.0	11,776.0	20,193.5	11,400.5	94.1	151.9	-78.28	11,972.7	-2,141.1	1,849.0	1,605.5	243.52	7.593	
24,000.0	11,776.0	20,066.6	11,397.1	94.8	149.9	-78.15	12,099.5	-2,138.2	1,846.1	1,604.0	242.09	7.625	
24,100.0	11,776.0	19,935.7	11,397.4	95.6	147.9	-78.11	12,230.4	-2,133.0	1,840.6	1,600.1	240.57	7.651	
24,200.0	11,776.0	19,849.9	11,397.8	96.3	146.6	-78.09	12,316.0	-2,129.7	1,835.4	1,595.3	240.14	7.643	
24,300.0	11,776.0	19,763.8	11,398.1	97.1	145.3	-78.08	12,402.1	-2,127.1	1,831.0	1,591.3	239.70	7.639	
24,400.0	11,776.0	19,667.1	11,398.2	97.9	143.8	-78.06	12,498.8	-2,124.6	1,827.2	1,588.2	239.00	7.645	
24,500.0	11,776.0	19,572.4	11,400.0	98.6	142.3	-78.09	12,593.5	-2,122.5	1,823.3	1,584.9	238.37	7.649	
24,600.0	11,776.0	19,493.3	11,401.0	99.4	141.1	-78.11	12,672.5	-2,121.3	1,820.2	1,582.2	238.06	7.646	
24,700.0	11,776.0	19,420.0	11,403.3	100.1	139.9	-78.17	12,745.8	-2,121.5	1,818.5	1,580.6	237.87	7.645	
24,746.9	11,776.0	19,381.4	11,405.1	100.5	139.3	-78.23	12,784.4	-2,122.1	1,818.1	1,580.4	237.68	7.649 CC, ES	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+MS, 10977-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Distance	Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	7.5	3.0	3.0	-99.52	-401.9	-2,396.5	2,430.0				
100.0	100.0	92.5	100.0	3.0	3.0	-99.52	-401.9	-2,396.5	2,429.9	2,423.9	6.04	402.033	
200.0	200.0	192.5	200.0	3.2	3.1	-99.52	-401.9	-2,396.5	2,429.9	2,423.7	6.28	386.949	
300.0	300.0	292.5	300.0	3.3	3.3	-99.52	-401.9	-2,396.5	2,429.9	2,423.4	6.52	372.753	
400.0	400.0	392.5	400.0	3.4	3.4	-99.52	-401.9	-2,396.5	2,429.9	2,423.2	6.75	360.100	
500.0	500.0	492.5	500.0	3.5	3.5	-99.52	-401.9	-2,396.5	2,429.9	2,423.0	6.97	348.657	
600.0	600.0	592.5	600.0	3.6	3.6	-99.52	-401.9	-2,396.5	2,429.9	2,422.8	7.18	338.234	
700.0	700.0	692.5	700.0	3.8	3.8	-99.52	-401.9	-2,396.5	2,429.9	2,422.5	7.39	328.687	
800.0	800.0	792.5	800.0	3.9	3.9	-99.52	-401.9	-2,396.5	2,429.9	2,422.3	7.60	319.899	
900.0	900.0	892.5	900.0	4.0	4.0	-99.52	-401.9	-2,396.5	2,429.9	2,422.1	7.79	311.773	
1,000.0	1,000.0	992.5	1,000.0	4.1	4.1	-99.52	-401.9	-2,396.5	2,429.9	2,422.0	7.99	304.230	
1,100.0	1,100.0	1,092.5	1,100.0	4.3	4.2	57.93	-401.9	-2,396.5	2,429.0	2,420.8	8.21	295.927	
1,200.0	1,199.8	1,192.3	1,199.8	4.6	4.4	58.08	-401.9	-2,396.5	2,426.2	2,417.7	8.51	284.955	
1,300.0	1,299.5	1,292.0	1,299.5	4.9	4.5	58.33	-401.9	-2,396.5	2,421.6	2,412.8	8.82	274.594	
1,400.0	1,398.7	1,391.2	1,398.7	5.3	4.6	58.69	-401.9	-2,396.5	2,415.2	2,406.1	9.12	264.716	
1,500.0	1,497.7	1,490.2	1,497.7	5.5	4.8	58.97	-401.9	-2,396.5	2,408.0	2,398.5	9.48	253.911	
1,600.0	1,596.8	1,589.3	1,596.8	5.8	4.9	59.25	-401.9	-2,396.5	2,400.8	2,390.9	9.84	243.946	
1,700.0	1,695.8	1,688.3	1,695.8	6.1	5.1	59.54	-401.9	-2,396.5	2,393.6	2,383.4	10.20	234.704	
1,800.0	1,794.8	1,787.3	1,794.8	6.4	5.2	59.82	-401.9	-2,396.5	2,386.6	2,376.0	10.56	226.094	
1,900.0	1,893.8	1,886.3	1,893.8	6.7	5.4	60.11	-401.9	-2,396.5	2,379.6	2,368.6	10.91	218.063	
2,000.0	1,992.9	1,985.4	1,992.9	7.1	5.5	60.40	-401.9	-2,396.5	2,372.6	2,361.3	11.27	210.561	
2,100.0	2,091.9	2,289.8	2,296.8	7.4	5.9	61.27	-401.4	-2,382.1	2,360.3	2,348.3	12.01	196.559	
2,200.0	2,190.9	2,387.9	2,394.6	7.8	6.0	61.55	-401.1	-2,373.6	2,344.9	2,332.5	12.40	189.149	
2,300.0	2,289.9	2,486.1	2,492.4	8.1	6.2	61.83	-400.8	-2,365.0	2,329.5	2,316.7	12.81	181.839	
2,400.0	2,389.0	2,584.2	2,590.1	8.5	6.5	62.12	-400.5	-2,356.5	2,314.2	2,301.0	13.24	174.761	
2,500.0	2,488.0	2,682.4	2,687.9	8.9	6.7	62.41	-400.2	-2,347.9	2,299.0	2,285.3	13.69	167.960	
2,600.0	2,587.0	2,780.5	2,785.7	9.2	6.9	62.70	-399.9	-2,339.4	2,283.8	2,269.6	14.15	161.444	
2,700.0	2,686.1	2,878.7	2,883.5	9.6	7.2	63.00	-399.6	-2,330.8	2,268.7	2,254.1	14.62	155.223	
2,800.0	2,785.1	2,976.8	2,981.2	10.0	7.5	63.30	-399.3	-2,322.3	2,253.6	2,238.5	15.09	149.297	
2,900.0	2,884.1	3,075.0	3,079.0	10.4	7.7	63.61	-399.0	-2,313.7	2,238.6	2,223.0	15.58	143.662	
3,000.0	2,983.1	3,173.1	3,176.8	10.8	8.0	63.92	-398.7	-2,305.2	2,223.7	2,207.6	16.08	138.310	
3,100.0	3,082.2	3,271.3	3,274.5	11.2	8.3	64.23	-398.4	-2,296.6	2,208.8	2,192.2	16.58	133.232	
3,200.0	3,181.2	3,369.4	3,372.3	11.6	8.6	64.55	-398.1	-2,288.1	2,194.0	2,176.9	17.08	128.417	
3,300.0	3,280.2	3,467.5	3,470.1	12.0	8.9	64.87	-397.8	-2,279.5	2,179.3	2,161.7	17.60	123.853	
3,400.0	3,379.2	3,565.7	3,567.9	12.4	9.2	65.20	-397.5	-2,271.0	2,164.6	2,146.5	18.11	119.526	
3,500.0	3,478.3	3,663.8	3,665.6	12.8	9.6	65.53	-397.2	-2,262.4	2,150.0	2,131.4	18.61	115.503	
3,600.0	3,577.3	3,749.2	3,750.7	13.2	9.8	65.82	-397.0	-2,255.2	2,135.7	2,116.6	19.08	111.916	
3,700.0	3,676.3	3,832.1	3,833.3	13.6	10.1	66.11	-396.7	-2,248.8	2,122.2	2,102.6	19.56	108.508	
3,800.0	3,775.3	3,915.1	3,916.2	14.0	10.4	66.40	-396.5	-2,242.9	2,109.5	2,089.5	20.03	105.325	
3,900.0	3,874.4	4,000.0	4,000.9	14.4	10.6	66.61	-396.4	-2,237.6	2,097.7	2,077.3	20.46	102.511	
4,000.0	3,973.7	4,082.0	4,082.8	14.8	10.9	66.76	-396.2	-2,233.0	2,087.5	2,066.5	20.91	99.815	
4,100.0	4,073.2	4,165.9	4,166.6	15.2	11.1	66.89	-396.1	-2,228.9	2,078.6	2,057.3	21.36	97.333	
4,200.0	4,172.9	4,250.1	4,250.7	15.6	11.4	67.00	-395.9	-2,225.5	2,071.3	2,049.5	21.79	95.074	
4,300.0	4,272.7	4,334.5	4,335.0	15.9	11.6	67.09	-395.8	-2,222.6	2,065.3	2,043.1	22.20	93.028	
4,400.0	4,372.6	4,419.1	4,419.6	16.3	11.9	67.16	-395.7	-2,220.4	2,060.8	2,038.2	22.60	91.191	
4,500.0	4,472.5	4,500.0	4,500.5	16.6	12.1	67.19	-395.7	-2,218.8	2,057.7	2,034.7	22.97	89.593	
4,600.0	4,572.5	4,588.6	4,589.0	16.8	12.3	67.21	-395.7	-2,217.7	2,056.0	2,032.7	23.32	88.183	
4,700.0	4,672.5	4,673.4	4,673.8	16.8	12.4	-90.19	-395.6	-2,217.4	2,055.6	2,032.1	23.46	87.612	
4,736.5	4,709.0	4,708.6	4,709.0	16.9	12.4	-90.19	-395.6	-2,217.4	2,055.6	2,032.1	23.50	87.488	
4,800.0	4,772.5	4,772.0	4,772.5	16.9	12.5	-90.19	-395.6	-2,217.4	2,055.6	2,032.0	23.56	87.237	
4,900.0	4,872.5	4,872.0	4,872.5	16.9	12.5	-90.19	-395.6	-2,217.4	2,055.6	2,031.9	23.67	86.843	
5,000.0	4,972.5	4,972.0	4,972.5	16.9	12.6	-90.19	-395.6	-2,217.4	2,055.6	2,031.8	23.78	86.451	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+MS, 10977-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,072.5	5,072.0	5,072.5	17.0	12.7	-90.19	-395.6	-2,217.4	2,055.6	2,031.7	23.89	86.059	
5,200.0	5,172.5	5,172.0	5,172.5	17.0	12.7	-90.19	-395.6	-2,217.4	2,055.6	2,031.6	23.99	85.669	
5,300.0	5,272.5	5,272.0	5,272.5	17.0	12.8	-90.19	-395.6	-2,217.4	2,055.6	2,031.4	24.10	85.280	
5,400.0	5,372.5	5,372.0	5,372.5	17.1	12.8	-90.19	-395.6	-2,217.4	2,055.6	2,031.3	24.21	84.893	
5,500.0	5,472.5	5,472.0	5,472.5	17.1	12.9	-90.19	-395.6	-2,217.4	2,055.6	2,031.2	24.32	84.506	
5,600.0	5,572.5	5,572.0	5,572.5	17.1	13.0	-90.19	-395.6	-2,217.4	2,055.6	2,031.1	24.44	84.122	
5,700.0	5,672.5	5,672.0	5,672.5	17.2	13.0	-90.19	-395.6	-2,217.4	2,055.6	2,031.0	24.55	83.739	
5,800.0	5,772.5	5,772.0	5,772.5	17.2	13.1	-90.19	-395.6	-2,217.4	2,055.6	2,030.9	24.66	83.357	
5,900.0	5,872.5	5,872.0	5,872.5	17.2	13.2	-90.19	-395.6	-2,217.4	2,055.6	2,030.8	24.77	82.977	
6,000.0	5,972.5	5,972.0	5,972.5	17.3	13.2	-90.19	-395.6	-2,217.4	2,055.6	2,030.7	24.89	82.599	
6,100.0	6,072.5	6,072.0	6,072.5	17.3	13.3	-90.19	-395.6	-2,217.4	2,055.6	2,030.6	25.00	82.222	
6,200.0	6,172.5	6,172.0	6,172.5	17.3	13.4	-90.19	-395.6	-2,217.4	2,055.6	2,030.4	25.11	81.847	
6,300.0	6,272.5	6,272.0	6,272.5	17.4	13.4	-90.19	-395.6	-2,217.4	2,055.6	2,030.3	25.23	81.474	
6,400.0	6,372.5	6,372.0	6,372.5	17.4	13.5	-90.19	-395.6	-2,217.4	2,055.6	2,030.2	25.35	81.102	
6,500.0	6,472.5	6,472.0	6,472.5	17.5	13.6	-90.19	-395.6	-2,217.4	2,055.6	2,030.1	25.46	80.732	
6,600.0	6,572.5	6,572.0	6,572.5	17.5	13.6	-90.19	-395.6	-2,217.4	2,055.6	2,030.0	25.58	80.364	
6,700.0	6,672.5	6,672.0	6,672.5	17.5	13.7	-90.19	-395.6	-2,217.4	2,055.6	2,029.9	25.70	79.998	
6,800.0	6,772.5	6,772.0	6,772.5	17.6	13.8	-90.19	-395.6	-2,217.4	2,055.6	2,029.7	25.81	79.633	
6,900.0	6,872.5	6,872.0	6,872.5	17.6	13.8	-90.19	-395.6	-2,217.4	2,055.6	2,029.6	25.93	79.270	
7,000.0	6,972.5	6,972.0	6,972.5	17.6	13.9	-90.19	-395.6	-2,217.4	2,055.6	2,029.5	26.05	78.909	
7,100.0	7,072.5	7,072.0	7,072.5	17.7	14.0	-90.19	-395.6	-2,217.4	2,055.6	2,029.4	26.17	78.550	
7,200.0	7,172.5	7,172.0	7,172.5	17.7	14.0	-90.19	-395.6	-2,217.4	2,055.6	2,029.3	26.29	78.192	
7,300.0	7,272.5	7,272.0	7,272.5	17.8	14.1	-90.19	-395.6	-2,217.4	2,055.6	2,029.1	26.41	77.837	
7,400.0	7,372.5	7,372.0	7,372.5	17.8	14.2	-90.19	-395.6	-2,217.4	2,055.6	2,029.0	26.53	77.483	
7,500.0	7,472.5	7,472.0	7,472.5	17.8	14.2	-90.19	-395.6	-2,217.4	2,055.6	2,028.9	26.65	77.131	
7,600.0	7,572.5	7,572.0	7,572.5	17.9	14.3	-90.19	-395.6	-2,217.4	2,055.6	2,028.8	26.77	76.782	
7,700.0	7,672.5	7,672.0	7,672.5	17.9	14.4	-90.19	-395.6	-2,217.4	2,055.6	2,028.7	26.89	76.434	
7,800.0	7,772.5	7,772.0	7,772.5	18.0	14.4	-90.19	-395.6	-2,217.4	2,055.6	2,028.5	27.02	76.087	
7,900.0	7,872.5	7,872.0	7,872.5	18.0	14.5	-90.19	-395.6	-2,217.4	2,055.6	2,028.4	27.14	75.743	
8,000.0	7,972.5	7,972.0	7,972.5	18.0	14.6	-90.19	-395.6	-2,217.4	2,055.6	2,028.3	27.26	75.401	
8,100.0	8,072.5	8,072.0	8,072.5	18.1	14.6	-90.19	-395.6	-2,217.4	2,055.6	2,028.2	27.39	75.061	
8,200.0	8,172.5	8,172.0	8,172.5	18.1	14.7	-90.19	-395.6	-2,217.4	2,055.6	2,028.0	27.51	74.722	
8,300.0	8,272.5	8,272.0	8,272.5	18.2	14.8	-90.19	-395.6	-2,217.4	2,055.6	2,027.9	27.63	74.386	
8,400.0	8,372.5	8,372.0	8,372.5	18.2	14.9	-90.19	-395.6	-2,217.4	2,055.6	2,027.8	27.76	74.051	
8,500.0	8,472.5	8,472.0	8,472.5	18.2	14.9	-90.19	-395.6	-2,217.4	2,055.6	2,027.7	27.88	73.719	
8,600.0	8,572.5	8,572.0	8,572.5	18.3	15.0	-90.19	-395.6	-2,217.4	2,055.6	2,027.5	28.01	73.388	
8,700.0	8,672.5	8,672.0	8,672.5	18.3	15.1	-90.19	-395.6	-2,217.4	2,055.6	2,027.4	28.14	73.059	
8,800.0	8,772.5	8,772.0	8,772.5	18.4	15.1	-90.19	-395.6	-2,217.4	2,055.6	2,027.3	28.26	72.732	
8,900.0	8,872.5	8,872.0	8,872.5	18.4	15.2	-90.19	-395.6	-2,217.4	2,055.6	2,027.2	28.39	72.408	
9,000.0	8,972.5	8,972.0	8,972.5	18.5	15.3	-90.19	-395.6	-2,217.4	2,055.6	2,027.0	28.52	72.085	
9,100.0	9,072.5	9,072.0	9,072.5	18.5	15.3	-90.19	-395.6	-2,217.4	2,055.6	2,026.9	28.64	71.764	
9,200.0	9,172.5	9,172.0	9,172.5	18.5	15.4	-90.19	-395.6	-2,217.4	2,055.6	2,026.8	28.77	71.445	
9,300.0	9,272.5	9,272.0	9,272.5	18.6	15.5	-90.19	-395.6	-2,217.4	2,055.6	2,026.7	28.90	71.128	
9,400.0	9,372.5	9,372.0	9,372.5	18.6	15.6	-90.19	-395.6	-2,217.4	2,055.6	2,026.5	29.03	70.812	
9,500.0	9,472.5	9,472.0	9,472.5	18.7	15.6	-90.19	-395.6	-2,217.4	2,055.6	2,026.4	29.16	70.499	
9,600.0	9,572.5	9,572.0	9,572.5	18.7	15.7	-90.19	-395.6	-2,217.4	2,055.6	2,026.3	29.29	70.188	
9,700.0	9,672.5	9,672.0	9,672.5	18.8	15.8	-90.19	-395.6	-2,217.4	2,055.6	2,026.1	29.42	69.879	
9,800.0	9,772.5	9,772.0	9,772.5	18.8	15.8	-90.19	-395.6	-2,217.4	2,055.6	2,026.0	29.55	69.571	
9,900.0	9,872.5	9,872.0	9,872.5	18.9	15.9	-90.19	-395.6	-2,217.4	2,055.6	2,025.9	29.68	69.266	
10,000.0	9,972.5	9,972.0	9,972.5	18.9	16.0	-90.19	-395.6	-2,217.4	2,055.6	2,025.7	29.81	68.962	
10,100.0	10,072.5	10,072.0	10,072.5	19.0	16.0	-90.19	-395.6	-2,217.4	2,055.6	2,025.6	29.94	68.660	
10,200.0	10,172.5	10,172.0	10,172.5	19.0	16.1	-90.19	-395.6	-2,217.4	2,055.6	2,025.5	30.07	68.361	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0													Offset Site Error: 0.0 usft	
Survey Program:		0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+MS, 10977-r.5 MWD+IFR1+MS							Rule Assigned:				Offset Well Error: 3.0 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.0	10,272.5	10,272.0	10,272.5	19.1	16.2	-90.19	-395.6	-2,217.4	2,055.6	2,025.4	30.20	68.063		
10,400.0	10,372.5	10,372.0	10,372.5	19.1	16.3	-90.19	-395.6	-2,217.4	2,055.6	2,025.2	30.33	67.767		
10,500.0	10,472.5	10,472.0	10,472.5	19.1	16.3	-90.19	-395.6	-2,217.4	2,055.6	2,025.1	30.46	67.473		
10,600.0	10,572.5	10,572.0	10,572.5	19.2	16.4	-90.19	-395.6	-2,217.4	2,055.6	2,025.0	30.60	67.180		
10,700.0	10,672.5	10,672.0	10,672.5	19.2	16.5	-90.19	-395.6	-2,217.4	2,055.6	2,024.8	30.73	66.890		
10,800.0	10,772.5	10,772.0	10,772.5	19.3	16.5	-90.19	-395.6	-2,217.4	2,055.6	2,024.7	30.86	66.602		
10,900.0	10,872.5	10,872.0	10,872.5	19.3	16.6	-90.19	-395.6	-2,217.4	2,055.6	2,024.6	31.00	66.315		
11,000.0	10,972.5	10,972.0	10,972.5	19.4	16.7	-90.19	-395.6	-2,217.4	2,055.6	2,024.4	31.11	66.067		
11,100.0	11,072.5	11,069.0	11,069.0	19.4	16.7	-89.98	-388.0	-2,217.4	2,055.6	2,024.4	31.17	65.948		
11,200.0	11,172.5	11,159.1	11,155.7	19.5	16.7	-89.30	-363.7	-2,217.7	2,056.1	2,024.9	31.19	65.926		
11,300.0	11,272.3	11,239.6	11,228.0	19.6	16.7	-87.52	-328.6	-2,218.0	2,057.3	2,026.2	31.16	66.031		
11,400.0	11,370.0	11,314.7	11,289.2	19.7	16.7	-86.50	-285.3	-2,218.4	2,059.3	2,028.1	31.15	66.103		
11,500.0	11,462.7	11,385.7	11,340.3	19.8	16.7	-85.51	-236.0	-2,218.8	2,061.8	2,030.6	31.19	66.102		
11,600.0	11,547.4	11,450.0	11,379.7	19.9	16.8	-84.61	-185.3	-2,219.3	2,064.6	2,033.3	31.29	65.984		
11,700.0	11,621.7	11,519.0	11,414.1	20.0	16.8	-83.71	-125.5	-2,219.8	2,067.6	2,036.1	31.43	65.781		
11,800.0	11,683.3	11,582.6	11,437.8	20.2	16.9	-82.93	-66.7	-2,220.4	2,070.5	2,038.8	31.64	65.437		
11,900.0	11,730.2	11,644.6	11,453.2	20.3	17.0	-82.26	-6.6	-2,220.9	2,073.2	2,041.3	31.91	64.976		
12,000.0	11,761.2	11,705.5	11,460.6	20.3	17.0	-81.72	53.8	-2,221.5	2,075.4	2,043.2	32.22	64.416		
12,100.0	11,775.1	11,786.7	11,461.5	20.4	17.2	-81.31	135.0	-2,222.2	2,076.8	2,044.3	32.55	63.805		
12,200.0	11,776.0	11,886.7	11,461.5	20.4	17.4	-81.29	235.0	-2,223.1	2,076.5	2,043.6	32.90	63.108		
12,300.0	11,776.0	11,986.7	11,461.5	20.5	17.6	-81.29	335.0	-2,224.0	2,076.1	2,042.7	33.34	62.278		
12,400.0	11,776.0	12,086.7	11,461.5	20.5	17.9	-81.28	435.0	-2,224.9	2,075.6	2,041.8	33.83	61.353		
12,500.0	11,776.0	12,186.7	11,461.5	20.6	18.2	-81.28	535.0	-2,225.8	2,075.1	2,040.8	34.39	60.347		
12,600.0	11,776.0	12,286.7	11,461.5	20.6	18.5	-81.28	635.0	-2,226.7	2,074.7	2,039.7	35.00	59.274		
12,700.0	11,776.0	12,386.7	11,461.5	20.7	18.9	-81.28	735.0	-2,227.6	2,074.2	2,038.6	35.67	58.149		
12,800.0	11,776.0	12,486.7	11,461.5	20.8	19.2	-81.28	835.0	-2,228.5	2,073.8	2,037.4	36.39	56.983		
12,900.0	11,776.0	12,586.7	11,461.5	20.9	19.6	-81.28	935.0	-2,229.5	2,073.3	2,036.2	37.16	55.788		
13,000.0	11,776.0	12,686.7	11,461.5	21.0	20.1	-81.27	1,035.0	-2,230.4	2,072.9	2,034.9	37.98	54.576		
13,100.0	11,776.0	12,786.7	11,461.5	21.1	20.5	-81.27	1,134.9	-2,231.3	2,072.4	2,033.6	38.84	53.356		
13,200.0	11,776.0	12,886.7	11,461.5	21.3	20.9	-81.27	1,234.9	-2,232.2	2,072.0	2,032.2	39.74	52.135		
13,300.0	11,776.0	12,986.7	11,461.5	21.5	21.4	-81.27	1,334.9	-2,233.1	2,071.5	2,030.8	40.68	50.921		
13,400.0	11,776.0	13,086.7	11,461.5	21.7	21.9	-81.27	1,434.9	-2,234.0	2,071.0	2,029.4	41.65	49.721		
13,500.0	11,776.0	13,186.7	11,461.5	21.9	22.4	-81.26	1,534.9	-2,234.9	2,070.6	2,027.9	42.66	48.537		
13,600.0	11,776.0	13,286.7	11,461.5	22.2	22.9	-81.26	1,634.9	-2,235.8	2,070.1	2,026.4	43.70	47.376		
13,700.0	11,776.0	13,386.7	11,461.5	22.5	23.5	-81.26	1,734.9	-2,236.7	2,069.7	2,024.9	44.76	46.239		
13,800.0	11,776.0	13,486.7	11,461.5	22.8	24.0	-81.26	1,834.9	-2,237.6	2,069.2	2,023.4	45.85	45.129		
13,900.0	11,776.0	13,586.7	11,461.5	23.2	24.6	-81.26	1,934.9	-2,238.5	2,068.8	2,021.8	46.97	44.047		
14,000.0	11,776.0	13,686.7	11,461.5	23.6	25.1	-81.25	2,034.9	-2,239.4	2,068.3	2,020.2	48.11	42.996		
14,100.0	11,776.0	13,786.7	11,461.5	24.1	25.7	-81.25	2,134.9	-2,240.3	2,067.9	2,018.6	49.26	41.975		
14,200.0	11,776.0	13,886.7	11,461.5	24.6	26.3	-81.25	2,234.9	-2,241.2	2,067.4	2,017.0	50.44	40.985		
14,300.0	11,776.0	13,986.7	11,461.5	25.1	26.9	-81.25	2,334.9	-2,242.2	2,067.0	2,015.3	51.64	40.025		
14,400.0	11,776.0	14,086.7	11,461.5	25.6	27.5	-81.25	2,434.9	-2,243.1	2,066.5	2,013.6	52.86	39.097		
14,500.0	11,776.0	14,186.7	11,461.5	26.2	28.1	-81.24	2,534.9	-2,244.0	2,066.0	2,012.0	54.09	38.199		
14,600.0	11,776.0	14,286.7	11,461.5	26.8	28.7	-81.24	2,634.9	-2,244.9	2,065.6	2,010.3	55.33	37.332		
14,700.0	11,776.0	14,386.7	11,461.5	27.3	29.4	-81.24	2,734.9	-2,245.8	2,065.1	2,008.5	56.59	36.493		
14,800.0	11,776.0	14,486.7	11,461.5	27.9	30.0	-81.24	2,834.9	-2,246.7	2,064.7	2,006.8	57.86	35.683		
14,900.0	11,776.0	14,586.7	11,461.5	28.6	30.6	-81.24	2,934.9	-2,247.6	2,064.2	2,005.1	59.15	34.900		
15,000.0	11,776.0	14,686.7	11,461.5	29.2	31.3	-81.23	3,034.8	-2,248.5	2,063.8	2,003.3	60.44	34.145		
15,100.0	11,776.0	14,786.7	11,461.5	29.8	31.9	-81.23	3,134.8	-2,249.4	2,063.3	2,001.6	61.75	33.415		
15,200.0	11,776.0	14,886.7	11,461.5	30.5	32.6	-81.23	3,234.8	-2,250.3	2,062.9	1,999.8	63.06	32.710		
15,300.0	11,776.0	14,986.7	11,461.5	31.1	33.2	-81.23	3,334.8	-2,251.2	2,062.4	1,998.0	64.39	32.030		
15,400.0	11,776.0	15,086.7	11,461.5	31.8	33.9	-81.23	3,434.8	-2,252.1	2,061.9	1,996.2	65.72	31.373		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+MS, 10977-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,500.0	11,776.0	15,186.7	11,461.5	32.4	34.6	-81.22	3,534.8	-2,253.0	2,061.5	1,994.4	67.07	30.738	
15,600.0	11,776.0	15,286.7	11,461.5	33.1	35.2	-81.22	3,634.8	-2,254.0	2,061.0	1,992.6	68.42	30.125	
15,700.0	11,776.0	15,386.7	11,461.5	33.8	35.9	-81.22	3,734.8	-2,254.9	2,060.6	1,990.8	69.77	29.532	
15,800.0	11,776.0	15,486.7	11,461.5	34.4	36.6	-81.22	3,834.8	-2,255.8	2,060.1	1,989.0	71.14	28.959	
15,900.0	11,776.0	15,586.7	11,461.5	35.1	37.3	-81.22	3,934.8	-2,256.7	2,059.7	1,987.2	72.51	28.405	
16,000.0	11,776.0	15,686.7	11,461.5	35.8	38.0	-81.21	4,034.8	-2,257.6	2,059.2	1,985.3	73.89	27.869	
16,100.0	11,776.0	15,786.7	11,461.5	36.5	38.6	-81.21	4,134.8	-2,258.5	2,058.8	1,983.5	75.27	27.351	
16,200.0	11,776.0	15,886.7	11,461.5	37.2	39.3	-81.21	4,234.8	-2,259.4	2,058.3	1,981.6	76.66	26.850	
16,300.0	11,776.0	15,986.7	11,461.5	37.9	40.0	-81.21	4,334.8	-2,260.3	2,057.8	1,979.8	78.05	26.364	
16,400.0	11,776.0	16,086.7	11,461.5	38.6	40.7	-81.21	4,434.8	-2,261.2	2,057.4	1,977.9	79.45	25.895	
16,500.0	11,776.0	16,186.7	11,461.5	39.3	41.4	-81.20	4,534.8	-2,262.1	2,056.9	1,976.1	80.86	25.439	
16,600.0	11,776.0	16,286.7	11,461.5	40.0	42.1	-81.20	4,634.8	-2,263.0	2,056.5	1,974.2	82.26	24.998	
16,700.0	11,776.0	16,386.7	11,461.5	40.7	42.8	-81.20	4,734.8	-2,263.9	2,056.0	1,972.3	83.68	24.571	
16,800.0	11,776.0	16,486.7	11,461.5	41.4	43.5	-81.20	4,834.8	-2,264.8	2,055.6	1,970.5	85.09	24.157	
16,900.0	11,776.0	16,586.7	11,461.5	42.1	44.2	-81.20	4,934.7	-2,265.8	2,055.1	1,968.6	86.51	23.755	
17,000.0	11,776.0	16,686.7	11,461.5	42.8	44.9	-81.19	5,034.7	-2,266.7	2,054.7	1,966.7	87.94	23.365	
17,100.0	11,776.0	16,786.7	11,461.5	43.6	45.7	-81.19	5,134.7	-2,267.6	2,054.2	1,964.8	89.36	22.987	
17,200.0	11,776.0	16,886.7	11,461.5	44.3	46.4	-81.19	5,234.7	-2,268.5	2,053.8	1,963.0	90.79	22.620	
17,300.0	11,776.0	16,986.7	11,461.5	45.0	47.1	-81.19	5,334.7	-2,269.4	2,053.3	1,961.1	92.23	22.263	
17,400.0	11,776.0	17,086.7	11,461.5	45.7	47.8	-81.19	5,434.7	-2,270.3	2,052.8	1,959.2	93.66	21.917	
17,500.0	11,776.0	17,186.7	11,461.5	46.4	48.5	-81.19	5,534.7	-2,271.2	2,052.4	1,957.3	95.10	21.581	
17,600.0	11,776.0	17,286.7	11,461.5	47.2	49.2	-81.18	5,634.7	-2,272.1	2,051.9	1,955.4	96.55	21.254	
17,700.0	11,776.0	17,386.7	11,461.5	47.9	50.0	-81.18	5,734.7	-2,273.0	2,051.5	1,953.5	97.99	20.936	
17,800.0	11,776.0	17,486.7	11,461.5	48.6	50.7	-81.18	5,834.7	-2,273.9	2,051.0	1,951.6	99.44	20.626	
17,900.0	11,776.0	17,586.7	11,461.5	49.3	51.4	-81.18	5,934.7	-2,274.8	2,050.6	1,949.7	100.89	20.325	
18,000.0	11,776.0	17,686.7	11,461.5	50.1	52.1	-81.18	6,034.7	-2,275.7	2,050.1	1,947.8	102.34	20.033	
18,100.0	11,776.0	17,786.7	11,461.5	50.8	52.8	-81.17	6,134.7	-2,276.6	2,049.7	1,945.9	103.79	19.748	
18,200.0	11,776.0	17,886.7	11,461.5	51.5	53.6	-81.17	6,234.7	-2,277.6	2,049.2	1,943.9	105.25	19.470	
18,300.0	11,776.0	17,986.7	11,461.5	52.3	54.3	-81.17	6,334.7	-2,278.5	2,048.7	1,942.0	106.71	19.200	
18,400.0	11,776.0	18,086.7	11,461.5	53.0	55.0	-81.17	6,434.7	-2,279.4	2,048.3	1,940.1	108.17	18.936	
18,500.0	11,776.0	18,186.7	11,461.5	53.7	55.8	-81.17	6,534.7	-2,280.3	2,047.8	1,938.2	109.63	18.680	
18,600.0	11,776.0	18,286.7	11,461.5	54.5	56.5	-81.16	6,634.7	-2,281.2	2,047.4	1,936.3	111.09	18.429	
18,700.0	11,776.0	18,386.7	11,461.5	55.2	57.2	-81.16	6,734.7	-2,282.1	2,046.9	1,934.4	112.56	18.185	
18,800.0	11,776.0	18,486.7	11,461.5	55.9	57.9	-81.16	6,834.7	-2,283.0	2,046.5	1,932.4	114.03	17.947	
18,900.0	11,776.0	18,586.7	11,461.5	56.7	58.7	-81.16	6,934.6	-2,283.9	2,046.0	1,930.5	115.49	17.715	
19,000.0	11,776.0	18,686.7	11,461.5	57.4	59.4	-81.16	7,034.6	-2,284.8	2,045.6	1,928.6	116.97	17.489	
19,100.0	11,776.0	18,786.7	11,461.5	58.1	60.1	-81.15	7,134.6	-2,285.7	2,045.1	1,926.7	118.44	17.267	
19,200.0	11,776.0	18,886.7	11,461.5	58.9	60.9	-81.15	7,234.6	-2,286.6	2,044.6	1,924.7	119.91	17.052	
19,300.0	11,776.0	18,986.7	11,461.5	59.6	61.6	-81.15	7,334.6	-2,287.5	2,044.2	1,922.8	121.38	16.841	
19,400.0	11,776.0	19,086.7	11,461.5	60.4	62.3	-81.15	7,434.6	-2,288.4	2,043.7	1,920.9	122.86	16.635	
19,500.0	11,776.0	19,186.7	11,461.5	61.1	63.1	-81.15	7,534.6	-2,289.3	2,043.3	1,918.9	124.34	16.433	
19,600.0	11,776.0	19,286.7	11,461.5	61.8	63.8	-81.14	7,634.6	-2,290.3	2,042.8	1,917.0	125.82	16.237	
19,700.0	11,776.0	19,386.6	11,461.5	62.6	64.6	-81.14	7,734.6	-2,291.2	2,042.4	1,915.1	127.30	16.044	
19,800.0	11,776.0	19,486.6	11,461.5	63.3	65.3	-81.14	7,834.6	-2,292.1	2,041.9	1,913.1	128.78	15.856	
19,900.0	11,776.0	19,586.6	11,461.5	64.1	66.0	-81.14	7,934.6	-2,293.0	2,041.5	1,911.2	130.26	15.672	
20,000.0	11,776.0	19,686.6	11,461.5	64.8	66.8	-81.14	8,034.6	-2,293.9	2,041.0	1,909.3	131.74	15.493	
20,100.0	11,776.0	19,786.6	11,461.5	65.6	67.5	-81.13	8,134.6	-2,294.8	2,040.6	1,907.3	133.22	15.317	
20,200.0	11,776.0	19,886.6	11,461.5	66.3	68.3	-81.13	8,234.6	-2,295.7	2,040.1	1,905.4	134.71	15.144	
20,300.0	11,776.0	19,986.6	11,461.5	67.0	69.0	-81.13	8,334.6	-2,296.6	2,039.6	1,903.4	136.19	14.976	
20,400.0	11,776.0	20,086.6	11,461.5	67.8	69.7	-81.13	8,434.6	-2,297.5	2,039.2	1,901.5	137.68	14.811	
20,500.0	11,776.0	20,186.6	11,461.5	68.5	70.5	-81.13	8,534.6	-2,298.4	2,038.7	1,899.6	139.17	14.649	
20,600.0	11,776.0	20,286.6	11,461.5	69.3	71.2	-81.12	8,634.6	-2,299.3	2,038.3	1,897.6	140.66	14.491	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+MS, 10977-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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	
20,700.0	11,776.0	20,386.6	11,461.5	70.0	72.0	-81.12	8,734.6	-2,300.2	2,037.8	1,895.7	142.15	14.336	
20,800.0	11,776.0	20,486.6	11,461.5	70.8	72.7	-81.12	8,834.5	-2,301.1	2,037.4	1,893.7	143.64	14.184	
20,900.0	11,776.0	20,586.6	11,461.5	71.5	73.4	-81.12	8,934.5	-2,302.1	2,036.9	1,891.8	145.13	14.035	
21,000.0	11,776.0	20,686.6	11,461.5	72.3	74.2	-81.12	9,034.5	-2,303.0	2,036.5	1,889.8	146.62	13.889	
21,100.0	11,776.0	20,786.6	11,461.5	73.0	74.9	-81.11	9,134.5	-2,303.9	2,036.0	1,887.9	148.11	13.746	
21,200.0	11,776.0	20,886.6	11,461.5	73.8	75.7	-81.11	9,234.5	-2,304.8	2,035.5	1,885.9	149.61	13.606	
21,300.0	11,776.0	20,986.6	11,461.5	74.5	76.4	-81.11	9,334.5	-2,305.7	2,035.1	1,884.0	151.10	13.469	
21,400.0	11,776.0	21,086.6	11,461.5	75.3	77.2	-81.11	9,434.5	-2,306.6	2,034.6	1,882.0	152.59	13.334	
21,500.0	11,776.0	21,186.6	11,461.5	76.0	77.9	-81.11	9,534.5	-2,307.5	2,034.2	1,880.1	154.09	13.201	
21,600.0	11,776.0	21,286.6	11,461.5	76.8	78.7	-81.10	9,634.5	-2,308.4	2,033.7	1,878.1	155.59	13.071	
21,700.0	11,776.0	21,386.6	11,461.5	77.5	79.4	-81.10	9,734.5	-2,309.3	2,033.3	1,876.2	157.08	12.944	
21,800.0	11,776.0	21,486.6	11,461.5	78.3	80.2	-81.10	9,834.5	-2,310.2	2,032.8	1,874.2	158.58	12.819	
21,900.0	11,776.0	21,586.6	11,461.5	79.0	80.9	-81.10	9,934.5	-2,311.1	2,032.4	1,872.3	160.08	12.696	
22,000.0	11,776.0	21,686.6	11,461.5	79.8	81.7	-81.10	10,034.5	-2,312.0	2,031.9	1,870.3	161.58	12.576	
22,047.1	11,776.0	21,724.9	11,461.5	80.1	81.9	-81.09	10,072.7	-2,312.4	2,031.7	1,869.5	162.22	12.524 CC, ES	
22,100.0	11,776.0	21,724.9	11,461.5	80.5	81.9	-81.09	10,072.7	-2,312.4	2,032.4	1,869.8	162.62	12.498	
22,200.0	11,776.0	21,724.9	11,461.5	81.3	81.9	-81.09	10,072.7	-2,312.4	2,037.4	1,874.3	163.09	12.492 SF	
22,300.0	11,776.0	21,724.9	11,461.5	82.0	81.9	-81.09	10,072.7	-2,312.4	2,047.3	1,884.1	163.22	12.543	
22,400.0	11,776.0	21,724.9	11,461.5	82.8	81.9	-81.09	10,072.7	-2,312.4	2,062.1	1,899.0	163.02	12.649	
22,500.0	11,776.0	21,724.9	11,461.5	83.5	81.9	-81.09	10,072.7	-2,312.4	2,081.5	1,919.0	162.50	12.809	
22,600.0	11,776.0	21,724.9	11,461.5	84.3	81.9	-81.09	10,072.7	-2,312.4	2,105.5	1,943.8	161.68	13.023	
22,700.0	11,776.0	21,724.9	11,461.5	85.0	81.9	-81.09	10,072.7	-2,312.4	2,133.9	1,973.3	160.59	13.288	
22,800.0	11,776.0	21,724.9	11,461.5	85.8	81.9	-81.09	10,072.7	-2,312.4	2,166.6	2,007.3	159.26	13.604	
22,900.0	11,776.0	21,724.9	11,461.5	86.5	81.9	-81.09	10,072.7	-2,312.4	2,203.3	2,045.6	157.72	13.970	
23,000.0	11,776.0	21,724.9	11,461.5	87.3	81.9	-81.09	10,072.7	-2,312.4	2,243.9	2,087.9	156.00	14.384	
23,100.0	11,776.0	21,724.9	11,461.5	88.0	81.9	-81.09	10,072.7	-2,312.4	2,288.1	2,134.0	154.14	14.844	
23,200.0	11,776.0	21,724.9	11,461.5	88.8	81.9	-81.09	10,072.7	-2,312.4	2,335.8	2,183.7	152.17	15.350	
23,300.0	11,776.0	21,724.9	11,461.5	89.6	81.9	-81.09	10,072.7	-2,312.4	2,386.8	2,236.6	150.11	15.900	
23,400.0	11,776.0	21,724.9	11,461.5	90.3	81.9	-81.09	10,072.7	-2,312.4	2,440.7	2,292.7	147.99	16.493	
23,500.0	11,776.0	21,724.9	11,461.5	91.1	81.9	-81.09	10,072.7	-2,312.4	2,497.5	2,351.7	145.83	17.126	
23,600.0	11,776.0	21,724.9	11,461.5	91.8	81.9	-81.09	10,072.7	-2,312.4	2,557.0	2,413.3	143.66	17.799	
23,700.0	11,776.0	21,724.9	11,461.5	92.6	81.9	-81.09	10,072.7	-2,312.4	2,618.9	2,477.4	141.48	18.510	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK_1500-r.5 MWD+IFR1_11195-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	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	
0.0	0.0	0.0	7.5	3.0	3.0	-99.64	-401.7	-2,366.0	2,399.9				
100.0	100.0	92.5	100.0	3.0	3.0	-99.64	-401.7	-2,366.0	2,399.9	2,393.8	6.04	397.448	
200.0	200.0	192.5	200.0	3.2	3.1	-99.64	-401.7	-2,366.0	2,399.9	2,393.6	6.23	385.398	
300.0	300.0	292.5	300.0	3.3	3.2	-99.64	-401.7	-2,366.0	2,399.9	2,393.4	6.43	373.282	
400.0	400.0	392.5	400.0	3.4	3.3	-99.64	-401.7	-2,366.0	2,399.9	2,393.2	6.64	361.543	
500.0	500.0	492.5	500.0	3.5	3.4	-99.64	-401.7	-2,366.0	2,399.9	2,393.0	6.85	350.175	
600.0	600.0	592.5	600.0	3.6	3.5	-99.64	-401.7	-2,366.0	2,399.9	2,392.8	7.08	339.200	
700.0	700.0	692.5	700.0	3.8	3.7	-99.64	-401.7	-2,366.0	2,399.9	2,392.6	7.30	328.640	
800.0	800.0	792.5	800.0	3.9	3.8	-99.64	-401.7	-2,366.0	2,399.9	2,392.3	7.53	318.505	
900.0	900.0	892.5	900.0	4.0	4.0	-99.64	-401.7	-2,366.0	2,399.9	2,392.1	7.77	308.799	
1,000.0	1,000.0	992.5	1,000.0	4.1	4.1	-99.64	-401.7	-2,366.0	2,399.9	2,391.9	8.01	299.521	
1,100.0	1,100.0	1,092.5	1,100.0	4.3	4.3	57.81	-401.7	-2,366.0	2,398.9	2,390.7	8.29	289.416	
1,200.0	1,199.8	1,192.3	1,199.8	4.6	4.5	57.97	-401.7	-2,366.0	2,396.2	2,387.5	8.66	276.764	
1,300.0	1,299.5	1,292.0	1,299.5	4.9	4.7	58.22	-401.7	-2,366.0	2,391.5	2,382.5	9.03	264.811	
1,400.0	1,398.7	1,391.2	1,398.7	5.3	4.9	58.58	-401.7	-2,366.0	2,385.1	2,375.7	9.41	253.454	
1,500.0	1,497.7	1,490.2	1,497.7	5.5	5.1	58.86	-401.7	-2,366.0	2,377.8	2,368.1	9.77	243.406	
1,600.0	1,596.8	1,589.3	1,596.8	5.8	5.3	59.15	-401.7	-2,366.0	2,370.6	2,360.4	10.17	233.005	
1,700.0	1,695.8	1,688.3	1,695.8	6.1	5.4	59.44	-401.7	-2,366.0	2,363.5	2,352.9	10.53	224.510	
1,800.0	1,794.8	1,787.3	1,794.8	6.4	5.6	59.73	-401.7	-2,366.0	2,356.4	2,345.5	10.87	216.701	
1,900.0	1,893.8	1,886.3	1,893.8	6.7	5.7	60.02	-401.7	-2,366.0	2,349.3	2,338.1	11.22	209.375	
2,000.0	1,992.9	1,985.4	1,992.9	7.1	5.8	60.31	-401.7	-2,366.0	2,342.4	2,330.8	11.57	202.496	
2,100.0	2,091.9	2,367.6	2,374.0	7.4	6.5	61.40	-401.4	-2,342.1	2,328.8	2,316.2	12.57	185.307	
2,200.0	2,190.9	2,505.3	2,510.5	7.8	6.8	61.78	-401.1	-2,323.5	2,308.5	2,295.5	13.06	176.790	
2,300.0	2,289.9	2,602.6	2,606.8	8.1	7.0	62.05	-400.9	-2,309.9	2,288.1	2,274.6	13.49	169.607	
2,400.0	2,389.0	2,699.9	2,703.2	8.5	7.2	62.33	-400.7	-2,296.4	2,267.6	2,253.7	13.94	162.657	
2,500.0	2,488.0	2,797.2	2,799.5	8.9	7.5	62.61	-400.5	-2,282.9	2,247.3	2,232.9	14.41	155.964	
2,600.0	2,587.0	2,894.5	2,895.9	9.2	7.7	62.89	-400.3	-2,269.3	2,227.0	2,212.1	14.89	149.549	
2,700.0	2,686.1	2,991.8	2,992.2	9.6	8.0	63.19	-400.1	-2,255.8	2,206.7	2,191.4	15.39	143.422	
2,800.0	2,785.1	3,089.0	3,088.5	10.0	8.3	63.48	-399.9	-2,242.2	2,186.6	2,170.7	15.89	137.585	
2,900.0	2,884.1	3,186.3	3,184.9	10.4	8.6	63.79	-399.7	-2,228.7	2,166.4	2,150.0	16.41	132.033	
3,000.0	2,983.1	3,283.6	3,281.2	10.8	8.9	64.10	-399.5	-2,215.2	2,146.3	2,129.4	16.93	126.760	
3,100.0	3,082.2	3,380.9	3,377.6	11.2	9.3	64.41	-399.3	-2,201.6	2,126.3	2,108.9	17.46	121.758	
3,200.0	3,181.2	3,478.2	3,473.9	11.6	9.6	64.73	-399.1	-2,188.1	2,106.4	2,088.4	18.00	117.015	
3,300.0	3,280.2	3,575.5	3,570.3	12.0	9.9	65.06	-398.9	-2,174.6	2,086.5	2,068.0	18.54	112.519	
3,400.0	3,379.2	3,672.8	3,666.6	12.4	10.3	65.39	-398.7	-2,161.0	2,066.7	2,047.6	19.09	108.258	
3,500.0	3,478.3	3,770.1	3,763.0	12.8	10.6	65.73	-398.5	-2,147.5	2,047.0	2,027.3	19.64	104.219	
3,600.0	3,577.3	3,867.4	3,859.3	13.2	11.0	66.07	-398.3	-2,133.9	2,027.3	2,007.1	20.19	100.390	
3,700.0	3,676.3	3,964.7	3,955.7	13.6	11.3	66.43	-398.1	-2,120.4	2,007.7	1,986.9	20.75	96.758	
3,800.0	3,775.3	4,062.0	4,052.0	14.0	11.7	66.78	-397.9	-2,106.9	1,988.2	1,966.9	21.31	93.313	
3,900.0	3,874.4	4,159.4	4,148.4	14.4	12.1	67.00	-397.7	-2,093.3	1,968.9	1,947.1	21.83	90.187	
4,000.0	3,973.7	4,257.0	4,245.2	14.8	12.4	67.14	-397.5	-2,079.7	1,950.4	1,928.0	22.39	87.118	
4,100.0	4,073.2	4,355.0	4,342.2	15.2	12.8	67.25	-397.3	-2,066.1	1,932.5	1,909.6	22.94	84.235	
4,200.0	4,172.9	4,453.2	4,439.5	15.6	13.2	67.32	-397.1	-2,052.4	1,915.4	1,891.9	23.49	81.526	
4,300.0	4,272.7	4,551.7	4,537.0	15.9	13.6	67.35	-396.9	-2,038.7	1,899.0	1,874.9	24.04	78.978	
4,400.0	4,372.6	4,650.3	4,634.6	16.3	14.0	67.34	-396.7	-2,025.0	1,883.2	1,858.6	24.59	76.583	
4,500.0	4,472.5	4,749.2	4,732.5	16.6	14.4	67.29	-396.5	-2,011.2	1,868.1	1,843.0	25.13	74.333	
4,600.0	4,572.5	4,848.1	4,830.5	16.8	14.8	67.20	-396.3	-1,997.5	1,853.7	1,828.0	25.66	72.233	
4,700.0	4,672.5	4,947.1	4,928.5	16.8	15.1	-90.23	-396.1	-1,983.7	1,839.8	1,813.7	26.09	70.524	
4,800.0	4,772.5	5,046.2	5,026.6	16.9	15.5	-90.23	-395.9	-1,969.9	1,825.8	1,799.3	26.53	68.814	
4,900.0	4,872.5	5,145.2	5,124.7	16.9	15.9	-90.22	-395.7	-1,956.1	1,811.9	1,784.9	26.98	67.154	
5,000.0	4,972.5	5,244.2	5,222.7	16.9	16.3	-90.22	-395.5	-1,942.3	1,798.0	1,770.6	27.43	65.544	
5,100.0	5,072.5	5,343.2	5,320.8	17.0	16.7	-90.21	-395.3	-1,928.6	1,784.1	1,756.2	27.88	63.982	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK_1500-r.5 MWD+IFR1_11195-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Rule Assigned:				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,172.5	5,439.4	5,416.0	17.0	17.1	-90.21	-395.1	-1,915.2	1,770.2	1,741.9	28.32	62.507	
5,300.0	5,272.5	5,525.3	5,501.1	17.0	17.5	-90.20	-394.9	-1,903.7	1,756.8	1,728.1	28.73	61.159	
5,400.0	5,372.5	5,611.3	5,586.5	17.1	17.8	-90.20	-394.8	-1,892.8	1,744.2	1,715.0	29.13	59.867	
5,500.0	5,472.5	5,700.0	5,674.5	17.1	18.2	-90.19	-394.6	-1,882.3	1,732.3	1,702.7	29.55	58.629	
5,600.0	5,572.5	5,783.9	5,757.9	17.1	18.5	-90.19	-394.5	-1,872.9	1,721.1	1,691.2	29.94	57.491	
5,700.0	5,672.5	5,870.4	5,843.9	17.2	18.8	-90.19	-394.4	-1,864.0	1,710.7	1,680.4	30.33	56.402	
5,800.0	5,772.5	5,957.0	5,930.2	17.2	19.2	-90.18	-394.2	-1,855.6	1,701.1	1,670.4	30.72	55.375	
5,900.0	5,872.5	6,043.8	6,016.6	17.2	19.5	-90.18	-394.1	-1,847.9	1,692.2	1,661.1	31.10	54.409	
6,000.0	5,972.5	6,130.7	6,103.2	17.3	19.8	-90.18	-394.0	-1,840.8	1,684.1	1,652.6	31.48	53.502	
6,100.0	6,072.5	6,217.6	6,189.9	17.3	20.1	-90.18	-393.9	-1,834.4	1,676.7	1,644.8	31.85	52.651	
6,200.0	6,172.5	6,300.0	6,272.1	17.3	20.4	-90.17	-393.8	-1,828.9	1,670.1	1,637.9	32.19	51.882	
6,300.0	6,272.5	6,391.9	6,363.8	17.4	20.7	-90.17	-393.8	-1,823.5	1,664.2	1,631.6	32.56	51.117	
6,400.0	6,372.5	6,479.1	6,450.9	17.4	21.0	-90.17	-393.7	-1,819.1	1,659.1	1,626.2	32.90	50.432	
6,500.0	6,472.5	6,566.4	6,538.1	17.5	21.3	-90.17	-393.6	-1,815.3	1,654.7	1,621.5	33.23	49.800	
6,600.0	6,572.5	6,653.7	6,625.4	17.5	21.6	-90.17	-393.6	-1,812.1	1,651.2	1,617.6	33.55	49.221	
6,700.0	6,672.5	6,741.1	6,712.7	17.5	21.8	-90.17	-393.6	-1,809.7	1,648.3	1,614.5	33.85	48.697	
6,800.0	6,772.5	6,828.5	6,800.1	17.6	22.1	-90.17	-393.5	-1,807.9	1,646.3	1,612.2	34.13	48.229	
6,900.0	6,872.5	6,915.9	6,887.5	17.6	22.3	-90.17	-393.5	-1,806.7	1,645.0	1,610.6	34.40	47.826	
7,000.0	6,972.5	7,003.4	6,975.0	17.6	22.5	-90.16	-393.5	-1,806.3	1,644.5	1,609.8	34.61	47.508	
7,041.6	7,014.1	7,042.5	7,014.1	17.7	22.5	-90.16	-393.5	-1,806.3	1,644.4	1,609.8	34.65	47.455	
7,100.0	7,072.5	7,100.9	7,072.5	17.7	22.5	-90.16	-393.5	-1,806.3	1,644.4	1,609.7	34.70	47.393	
7,200.0	7,172.5	7,200.9	7,172.5	17.7	22.5	-90.16	-393.5	-1,806.3	1,644.4	1,609.7	34.78	47.275	
7,300.0	7,272.5	7,300.9	7,272.5	17.8	22.6	-90.16	-393.5	-1,806.3	1,644.4	1,609.6	34.87	47.156	
7,400.0	7,372.5	7,400.9	7,372.5	17.8	22.6	-90.16	-393.5	-1,806.3	1,644.4	1,609.5	34.96	47.038	
7,500.0	7,472.5	7,500.9	7,472.5	17.8	22.6	-90.16	-393.5	-1,806.3	1,644.4	1,609.4	35.05	46.919	
7,600.0	7,572.5	7,600.9	7,572.5	17.9	22.7	-90.16	-393.5	-1,806.3	1,644.4	1,609.3	35.14	46.800	
7,700.0	7,672.5	7,700.9	7,672.5	17.9	22.7	-90.16	-393.5	-1,806.3	1,644.4	1,609.2	35.23	46.681	
7,800.0	7,772.5	7,800.9	7,772.5	18.0	22.7	-90.16	-393.5	-1,806.3	1,644.4	1,609.1	35.32	46.562	
7,900.0	7,872.5	7,900.9	7,872.5	18.0	22.8	-90.16	-393.5	-1,806.3	1,644.4	1,609.0	35.41	46.443	
8,000.0	7,972.5	8,000.9	7,972.5	18.0	22.8	-90.16	-393.5	-1,806.3	1,644.4	1,608.9	35.50	46.323	
8,100.0	8,072.5	8,100.9	8,072.5	18.1	22.9	-90.16	-393.5	-1,806.3	1,644.4	1,608.9	35.59	46.204	
8,200.0	8,172.5	8,200.9	8,172.5	18.1	22.9	-90.16	-393.5	-1,806.3	1,644.4	1,608.8	35.68	46.085	
8,300.0	8,272.5	8,300.9	8,272.5	18.2	22.9	-90.16	-393.5	-1,806.3	1,644.4	1,608.7	35.78	45.965	
8,400.0	8,372.5	8,400.9	8,372.5	18.2	23.0	-90.16	-393.5	-1,806.3	1,644.4	1,608.6	35.87	45.846	
8,500.0	8,472.5	8,500.9	8,472.5	18.2	23.0	-90.16	-393.5	-1,806.3	1,644.4	1,608.5	35.96	45.726	
8,600.0	8,572.5	8,600.9	8,572.5	18.3	23.0	-90.16	-393.5	-1,806.3	1,644.4	1,608.4	36.06	45.607	
8,700.0	8,672.5	8,700.9	8,672.5	18.3	23.1	-90.16	-393.5	-1,806.3	1,644.4	1,608.3	36.15	45.487	
8,800.0	8,772.5	8,800.9	8,772.5	18.4	23.1	-90.16	-393.5	-1,806.3	1,644.4	1,608.2	36.25	45.368	
8,900.0	8,872.5	8,900.9	8,872.5	18.4	23.2	-90.16	-393.5	-1,806.3	1,644.4	1,608.1	36.34	45.248	
9,000.0	8,972.5	9,000.9	8,972.5	18.5	23.2	-90.16	-393.5	-1,806.3	1,644.4	1,608.0	36.44	45.129	
9,100.0	9,072.5	9,100.9	9,072.5	18.5	23.2	-90.16	-393.5	-1,806.3	1,644.4	1,607.9	36.54	45.009	
9,200.0	9,172.5	9,200.9	9,172.5	18.5	23.3	-90.16	-393.5	-1,806.3	1,644.4	1,607.8	36.63	44.890	
9,300.0	9,272.5	9,300.9	9,272.5	18.6	23.3	-90.16	-393.5	-1,806.3	1,644.4	1,607.7	36.73	44.771	
9,400.0	9,372.5	9,400.9	9,372.5	18.6	23.4	-90.16	-393.5	-1,806.3	1,644.4	1,607.6	36.83	44.651	
9,500.0	9,472.5	9,500.9	9,472.5	18.7	23.4	-90.16	-393.5	-1,806.3	1,644.4	1,607.5	36.93	44.532	
9,600.0	9,572.5	9,600.9	9,572.5	18.7	23.4	-90.16	-393.5	-1,806.3	1,644.4	1,607.4	37.03	44.413	
9,700.0	9,672.5	9,700.9	9,672.5	18.8	23.5	-90.16	-393.5	-1,806.3	1,644.4	1,607.3	37.13	44.294	
9,800.0	9,772.5	9,800.9	9,772.5	18.8	23.5	-90.16	-393.5	-1,806.3	1,644.4	1,607.2	37.23	44.175	
9,900.0	9,872.5	9,900.9	9,872.5	18.9	23.6	-90.16	-393.5	-1,806.3	1,644.4	1,607.1	37.33	44.057	
10,000.0	9,972.5	10,000.9	9,972.5	18.9	23.6	-90.16	-393.5	-1,806.3	1,644.4	1,607.0	37.43	43.938	
10,100.0	10,072.5	10,100.9	10,072.5	19.0	23.6	-90.16	-393.5	-1,806.3	1,644.4	1,606.9	37.53	43.820	
10,200.0	10,172.5	10,200.9	10,172.5	19.0	23.7	-90.16	-393.5	-1,806.3	1,644.4	1,606.8	37.63	43.701	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error: 0.0 usft	
Survey Program:		0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS						Rule Assigned:					Offset Well Error: 3.0 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,300.0	10,272.5	10,300.9	10,272.5	19.1	23.7	-90.16	-393.5	-1,806.3	1,644.4	1,606.7	37.73	43.583		
10,400.0	10,372.5	10,400.9	10,372.5	19.1	23.8	-90.16	-393.5	-1,806.3	1,644.4	1,606.6	37.83	43.465		
10,500.0	10,472.5	10,500.9	10,472.5	19.1	23.8	-90.16	-393.5	-1,806.3	1,644.4	1,606.5	37.94	43.347		
10,600.0	10,572.5	10,600.9	10,572.5	19.2	23.8	-90.16	-393.5	-1,806.3	1,644.4	1,606.4	38.04	43.230		
10,700.0	10,672.5	10,700.9	10,672.5	19.2	23.9	-90.16	-393.5	-1,806.3	1,644.4	1,606.3	38.14	43.112		
10,800.0	10,772.5	10,800.9	10,772.5	19.3	23.9	-90.16	-393.5	-1,806.3	1,644.4	1,606.2	38.25	42.995		
10,900.0	10,872.5	10,900.9	10,872.5	19.3	24.0	-90.16	-393.5	-1,806.3	1,644.4	1,606.1	38.35	42.878		
11,000.0	10,972.5	11,000.9	10,972.5	19.4	24.0	-90.16	-393.5	-1,806.3	1,644.4	1,606.0	38.46	42.761		
11,100.0	11,072.5	11,100.9	11,072.5	19.4	24.1	-90.16	-393.5	-1,806.3	1,644.4	1,605.9	38.56	42.644		
11,109.2	11,081.8	11,110.1	11,081.8	19.4	24.1	-90.16	-393.5	-1,806.3	1,644.4	1,605.9	38.57	42.634		
11,200.0	11,172.5	11,200.5	11,172.1	19.5	24.1	-90.15	-393.2	-1,806.3	1,644.4	1,605.8	38.65	42.542		
11,300.0	11,272.3	11,297.0	11,267.5	19.6	24.1	-89.04	-379.8	-1,806.4	1,644.5	1,605.9	38.65	42.553		
11,400.0	11,370.0	11,390.9	11,356.0	19.7	24.1	-88.60	-348.7	-1,806.7	1,644.6	1,606.0	38.62	42.585		
11,500.0	11,462.7	11,482.1	11,434.4	19.8	24.1	-88.11	-302.5	-1,807.1	1,644.8	1,606.2	38.59	42.622		
11,600.0	11,547.4	11,570.3	11,500.7	19.9	24.1	-87.58	-244.4	-1,807.6	1,645.1	1,606.6	38.58	42.645		
11,700.0	11,621.7	11,655.9	11,553.6	20.0	24.2	-87.03	-177.4	-1,808.2	1,645.6	1,607.0	38.60	42.632		
11,800.0	11,683.3	11,738.8	11,592.7	20.2	24.2	-86.48	-104.4	-1,808.9	1,646.2	1,607.5	38.67	42.565		
11,900.0	11,730.2	11,819.3	11,618.1	20.3	24.3	-85.94	-28.1	-1,809.6	1,646.9	1,608.0	38.81	42.430		
12,000.0	11,761.2	11,900.0	11,630.4	20.3	24.3	-85.41	51.6	-1,810.3	1,647.6	1,608.6	39.02	42.229		
12,100.0	11,775.1	11,987.2	11,631.5	20.4	24.4	-84.99	138.7	-1,811.1	1,648.2	1,608.9	39.27	41.968		
12,200.0	11,776.0	12,087.1	11,631.5	20.4	24.6	-84.97	238.7	-1,812.0	1,647.8	1,608.2	39.57	41.645		
12,300.0	11,776.0	12,187.1	11,631.5	20.5	24.8	-84.97	338.7	-1,812.9	1,647.4	1,607.4	39.94	41.250		
12,400.0	11,776.0	12,287.1	11,631.5	20.5	25.0	-84.97	438.7	-1,813.8	1,646.9	1,606.5	40.36	40.805		
12,500.0	11,776.0	12,387.1	11,631.5	20.6	25.2	-84.97	538.7	-1,814.8	1,646.4	1,605.6	40.84	40.314		
12,600.0	11,776.0	12,487.1	11,631.5	20.6	25.4	-84.96	638.7	-1,815.7	1,646.0	1,604.6	41.37	39.783		
12,700.0	11,776.0	12,587.1	11,631.5	20.7	25.7	-84.96	738.7	-1,816.6	1,645.5	1,603.6	41.96	39.218		
12,800.0	11,776.0	12,687.1	11,631.5	20.8	25.9	-84.96	838.6	-1,817.5	1,645.1	1,602.5	42.59	38.624		
12,900.0	11,776.0	12,787.1	11,631.5	20.9	26.2	-84.96	938.6	-1,818.4	1,644.6	1,601.4	43.27	38.008		
13,000.0	11,776.0	12,887.1	11,631.5	21.0	26.6	-84.96	1,038.6	-1,819.3	1,644.2	1,600.2	43.99	37.373		
13,100.0	11,776.0	12,987.1	11,631.5	21.1	26.9	-84.96	1,138.6	-1,820.2	1,643.7	1,599.0	44.76	36.725		
13,200.0	11,776.0	13,087.1	11,631.5	21.3	27.2	-84.96	1,238.6	-1,821.1	1,643.3	1,597.7	45.56	36.068		
13,300.0	11,776.0	13,187.1	11,631.5	21.5	27.6	-84.95	1,338.6	-1,822.0	1,642.8	1,596.4	46.40	35.405		
13,400.0	11,776.0	13,287.1	11,631.5	21.7	28.0	-84.95	1,438.6	-1,823.0	1,642.3	1,595.1	47.27	34.741		
13,500.0	11,776.0	13,387.1	11,631.5	21.9	28.4	-84.95	1,538.6	-1,823.9	1,641.9	1,593.7	48.18	34.077		
13,600.0	11,776.0	13,487.1	11,631.5	22.2	28.8	-84.95	1,638.6	-1,824.8	1,641.4	1,592.3	49.12	33.417		
13,700.0	11,776.0	13,587.1	11,631.5	22.5	29.2	-84.95	1,738.6	-1,825.7	1,641.0	1,590.9	50.09	32.763		
13,800.0	11,776.0	13,687.1	11,631.5	22.8	29.7	-84.95	1,838.6	-1,826.6	1,640.5	1,589.4	51.08	32.117		
13,900.0	11,776.0	13,787.1	11,631.5	23.2	30.1	-84.95	1,938.6	-1,827.5	1,640.1	1,588.0	52.10	31.479		
14,000.0	11,776.0	13,887.1	11,631.5	23.6	30.6	-84.94	2,038.6	-1,828.4	1,639.6	1,586.5	53.14	30.853		
14,100.0	11,776.0	13,987.1	11,631.5	24.1	31.1	-84.94	2,138.6	-1,829.3	1,639.2	1,584.9	54.21	30.237		
14,200.0	11,776.0	14,087.1	11,631.5	24.6	31.6	-84.94	2,238.6	-1,830.2	1,638.7	1,583.4	55.30	29.634		
14,300.0	11,776.0	14,187.1	11,631.5	25.1	32.1	-84.94	2,338.6	-1,831.1	1,638.2	1,581.8	56.40	29.044		
14,400.0	11,776.0	14,287.1	11,631.5	25.6	32.6	-84.94	2,438.6	-1,832.1	1,637.8	1,580.3	57.53	28.468		
14,500.0	11,776.0	14,387.1	11,631.5	26.2	33.1	-84.94	2,538.6	-1,833.0	1,637.3	1,578.7	58.67	27.905		
14,600.0	11,776.0	14,487.1	11,631.5	26.8	33.6	-84.94	2,638.6	-1,833.9	1,636.9	1,577.0	59.84	27.356		
14,700.0	11,776.0	14,587.1	11,631.5	27.3	34.2	-84.93	2,738.5	-1,834.8	1,636.4	1,575.4	61.01	26.821		
14,800.0	11,776.0	14,687.1	11,631.5	27.9	34.7	-84.93	2,838.5	-1,835.7	1,636.0	1,573.8	62.20	26.300		
14,900.0	11,776.0	14,787.1	11,631.5	28.6	35.3	-84.93	2,938.5	-1,836.6	1,635.5	1,572.1	63.41	25.793		
15,000.0	11,776.0	14,887.1	11,631.5	29.2	35.8	-84.93	3,038.5	-1,837.5	1,635.0	1,570.4	64.63	25.299		
15,100.0	11,776.0	14,987.1	11,631.5	29.8	36.4	-84.93	3,138.5	-1,838.4	1,634.6	1,568.7	65.86	24.819		
15,200.0	11,776.0	15,087.1	11,631.5	30.5	37.0	-84.93	3,238.5	-1,839.3	1,634.1	1,567.0	67.10	24.353		
15,300.0	11,776.0	15,187.1	11,631.5	31.1	37.6	-84.93	3,338.5	-1,840.2	1,633.7	1,565.3	68.36	23.899		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,400.0	11,776.0	15,287.1	11,631.5	31.8	38.1	-84.92	3,438.5	-1,841.2	1,633.2	1,563.6	69.62	23.458	
15,500.0	11,776.0	15,387.1	11,631.5	32.4	38.7	-84.92	3,538.5	-1,842.1	1,632.8	1,561.9	70.90	23.030	
15,600.0	11,776.0	15,487.1	11,631.5	33.1	39.3	-84.92	3,638.5	-1,843.0	1,632.3	1,560.1	72.18	22.614	
15,700.0	11,776.0	15,587.1	11,631.5	33.8	39.9	-84.92	3,738.5	-1,843.9	1,631.9	1,558.4	73.48	22.209	
15,800.0	11,776.0	15,687.1	11,631.5	34.4	40.6	-84.92	3,838.5	-1,844.8	1,631.4	1,556.6	74.78	21.816	
15,900.0	11,776.0	15,787.1	11,631.5	35.1	41.2	-84.92	3,938.5	-1,845.7	1,630.9	1,554.9	76.09	21.435	
16,000.0	11,776.0	15,887.1	11,631.5	35.8	41.8	-84.92	4,038.5	-1,846.6	1,630.5	1,553.1	77.41	21.064	
16,100.0	11,776.0	15,987.1	11,631.5	36.5	42.4	-84.91	4,138.5	-1,847.5	1,630.0	1,551.3	78.73	20.703	
16,200.0	11,776.0	16,087.1	11,631.5	37.2	43.1	-84.91	4,238.5	-1,848.4	1,629.6	1,549.5	80.07	20.353	
16,300.0	11,776.0	16,187.1	11,631.5	37.9	43.7	-84.91	4,338.5	-1,849.4	1,629.1	1,547.7	81.41	20.012	
16,400.0	11,776.0	16,287.1	11,631.5	38.6	44.3	-84.91	4,438.5	-1,850.3	1,628.7	1,545.9	82.75	19.681	
16,500.0	11,776.0	16,387.1	11,631.5	39.3	45.0	-84.91	4,538.5	-1,851.2	1,628.2	1,544.1	84.10	19.360	
16,600.0	11,776.0	16,487.1	11,631.5	40.0	45.6	-84.91	4,638.4	-1,852.1	1,627.8	1,542.3	85.46	19.047	
16,700.0	11,776.0	16,587.1	11,631.5	40.7	46.3	-84.91	4,738.4	-1,853.0	1,627.3	1,540.5	86.82	18.743	
16,800.0	11,776.0	16,687.1	11,631.5	41.4	46.9	-84.90	4,838.4	-1,853.9	1,626.8	1,538.6	88.19	18.447	
16,900.0	11,776.0	16,787.1	11,631.5	42.1	47.6	-84.90	4,938.4	-1,854.8	1,626.4	1,536.8	89.57	18.159	
17,000.0	11,776.0	16,887.1	11,631.5	42.8	48.2	-84.90	5,038.4	-1,855.7	1,625.9	1,535.0	90.94	17.878	
17,100.0	11,776.0	16,987.1	11,631.5	43.6	48.9	-84.90	5,138.4	-1,856.6	1,625.5	1,533.1	92.33	17.606	
17,200.0	11,776.0	17,087.1	11,631.5	44.3	49.6	-84.90	5,238.4	-1,857.5	1,625.0	1,531.3	93.71	17.340	
17,300.0	11,776.0	17,187.1	11,631.5	45.0	50.2	-84.90	5,338.4	-1,858.5	1,624.6	1,529.5	95.10	17.082	
17,400.0	11,776.0	17,287.1	11,631.5	45.7	50.9	-84.90	5,438.4	-1,859.4	1,624.1	1,527.6	96.50	16.830	
17,500.0	11,776.0	17,387.1	11,631.5	46.4	51.6	-84.89	5,538.4	-1,860.3	1,623.6	1,525.7	97.90	16.585	
17,600.0	11,776.0	17,487.1	11,631.5	47.2	52.3	-84.89	5,638.4	-1,861.2	1,623.2	1,523.9	99.30	16.346	
17,700.0	11,776.0	17,587.1	11,631.5	47.9	52.9	-84.89	5,738.4	-1,862.1	1,622.7	1,522.0	100.71	16.113	
17,800.0	11,776.0	17,687.1	11,631.5	48.6	53.6	-84.89	5,838.4	-1,863.0	1,622.3	1,520.2	102.12	15.886	
17,900.0	11,776.0	17,787.1	11,631.5	49.3	54.3	-84.89	5,938.4	-1,863.9	1,621.8	1,518.3	103.53	15.665	
18,000.0	11,776.0	17,887.1	11,631.5	50.1	55.0	-84.89	6,038.4	-1,864.8	1,621.4	1,516.4	104.95	15.449	
18,100.0	11,776.0	17,987.1	11,631.5	50.8	55.7	-84.89	6,138.4	-1,865.7	1,620.9	1,514.5	106.37	15.239	
18,200.0	11,776.0	18,087.1	11,631.5	51.5	56.4	-84.88	6,238.4	-1,866.7	1,620.5	1,512.7	107.79	15.033	
18,300.0	11,776.0	18,187.1	11,631.5	52.3	57.1	-84.88	6,338.4	-1,867.6	1,620.0	1,510.8	109.22	14.833	
18,400.0	11,776.0	18,287.1	11,631.5	53.0	57.8	-84.88	6,438.4	-1,868.5	1,619.5	1,508.9	110.64	14.637	
18,500.0	11,776.0	18,387.1	11,631.5	53.7	58.4	-84.88	6,538.4	-1,869.4	1,619.1	1,507.0	112.07	14.447	
18,600.0	11,776.0	18,487.1	11,631.5	54.5	59.1	-84.88	6,638.3	-1,870.3	1,618.6	1,505.1	113.51	14.260	
18,700.0	11,776.0	18,587.1	11,631.5	55.2	59.8	-84.88	6,738.3	-1,871.2	1,618.2	1,503.2	114.94	14.078	
18,800.0	11,776.0	18,687.1	11,631.5	55.9	60.5	-84.88	6,838.3	-1,872.1	1,617.7	1,501.3	116.38	13.900	
18,900.0	11,776.0	18,787.1	11,631.5	56.7	61.2	-84.87	6,938.3	-1,873.0	1,617.3	1,499.4	117.82	13.727	
19,000.0	11,776.0	18,887.1	11,631.5	57.4	61.9	-84.87	7,038.3	-1,873.9	1,616.8	1,497.5	119.26	13.557	
19,100.0	11,776.0	18,987.1	11,631.5	58.1	62.6	-84.87	7,138.3	-1,874.8	1,616.4	1,495.6	120.71	13.391	
19,200.0	11,776.0	19,087.1	11,631.5	58.9	63.4	-84.87	7,238.3	-1,875.8	1,615.9	1,493.7	122.15	13.229	
19,300.0	11,776.0	19,187.1	11,631.5	59.6	64.1	-84.87	7,338.3	-1,876.7	1,615.4	1,491.8	123.60	13.070	
19,400.0	11,776.0	19,287.1	11,631.5	60.4	64.8	-84.87	7,438.3	-1,877.6	1,615.0	1,489.9	125.05	12.915	
19,500.0	11,776.0	19,387.1	11,631.5	61.1	65.5	-84.87	7,538.3	-1,878.5	1,614.5	1,488.0	126.50	12.763	
19,600.0	11,776.0	19,487.1	11,631.5	61.8	66.2	-84.86	7,638.3	-1,879.4	1,614.1	1,486.1	127.96	12.614	
19,700.0	11,776.0	19,587.1	11,631.5	62.6	66.9	-84.86	7,738.3	-1,880.3	1,613.6	1,484.2	129.41	12.469	
19,800.0	11,776.0	19,687.1	11,631.5	63.3	67.6	-84.86	7,838.3	-1,881.2	1,613.2	1,482.3	130.87	12.327	
19,900.0	11,776.0	19,787.1	11,631.5	64.1	68.3	-84.86	7,938.3	-1,882.1	1,612.7	1,480.4	132.33	12.187	
20,000.0	11,776.0	19,887.1	11,631.5	64.8	69.0	-84.86	8,038.3	-1,883.0	1,612.2	1,478.5	133.79	12.051	
20,100.0	11,776.0	19,987.1	11,631.5	65.6	69.8	-84.86	8,138.3	-1,883.9	1,611.8	1,476.5	135.25	11.917	
20,200.0	11,776.0	20,087.1	11,631.5	66.3	70.5	-84.86	8,238.3	-1,884.9	1,611.3	1,474.6	136.71	11.787	
20,300.0	11,776.0	20,187.1	11,631.5	67.0	71.2	-84.85	8,338.3	-1,885.8	1,610.9	1,472.7	138.17	11.658	
20,400.0	11,776.0	20,287.1	11,631.5	67.8	71.9	-84.85	8,438.3	-1,886.7	1,610.4	1,470.8	139.64	11.533	
20,500.0	11,776.0	20,387.1	11,631.5	68.5	72.6	-84.85	8,538.2	-1,887.6	1,610.0	1,468.9	141.11	11.410	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS													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		
20,600.0	11,776.0	20,487.1	11,631.5	69.3	73.4	-84.85	8,638.2	-1,888.5	1,609.5	1,466.9	142.57	11.289		
20,700.0	11,776.0	20,587.1	11,631.5	70.0	74.1	-84.85	8,738.2	-1,889.4	1,609.1	1,465.0	144.04	11.171		
20,800.0	11,776.0	20,687.1	11,631.5	70.8	74.8	-84.85	8,838.2	-1,890.3	1,608.6	1,463.1	145.51	11.055		
20,900.0	11,776.0	20,787.0	11,631.5	71.5	75.5	-84.84	8,938.2	-1,891.2	1,608.1	1,461.2	146.99	10.941		
21,000.0	11,776.0	20,887.0	11,631.5	72.3	76.2	-84.84	9,038.2	-1,892.1	1,607.7	1,459.2	148.46	10.829		
21,100.0	11,776.0	20,987.0	11,631.5	73.0	77.0	-84.84	9,138.2	-1,893.1	1,607.2	1,457.3	149.93	10.720		
21,200.0	11,776.0	21,087.0	11,631.5	73.8	77.7	-84.84	9,238.2	-1,894.0	1,606.8	1,455.4	151.41	10.612		
21,300.0	11,776.0	21,187.0	11,631.5	74.5	78.4	-84.84	9,338.2	-1,894.9	1,606.3	1,453.4	152.88	10.507		
21,400.0	11,776.0	21,287.0	11,631.5	75.3	79.1	-84.84	9,438.2	-1,895.8	1,605.9	1,451.5	154.36	10.403		
21,500.0	11,776.0	21,387.0	11,631.5	76.0	79.9	-84.84	9,538.2	-1,896.7	1,605.4	1,449.6	155.84	10.302		
21,600.0	11,776.0	21,487.0	11,631.5	76.8	80.6	-84.83	9,638.2	-1,897.6	1,605.0	1,447.6	157.32	10.202		
21,700.0	11,776.0	21,587.0	11,631.5	77.5	81.3	-84.83	9,738.2	-1,898.5	1,604.5	1,445.7	158.80	10.104		
21,800.0	11,776.0	21,687.0	11,631.5	78.3	82.1	-84.83	9,838.2	-1,899.4	1,604.0	1,443.8	160.28	10.008		
21,900.0	11,776.0	21,787.0	11,631.5	79.0	82.8	-84.83	9,938.2	-1,900.3	1,603.6	1,441.8	161.76	9.913		
22,000.0	11,776.0	21,887.0	11,631.5	79.8	83.5	-84.83	10,038.2	-1,901.2	1,603.1	1,439.9	163.24	9.821		
22,100.0	11,776.0	21,987.0	11,631.5	80.5	84.3	-84.83	10,138.2	-1,902.2	1,602.7	1,438.0	164.72	9.729		
22,116.6	11,776.0	21,996.3	11,631.5	80.6	84.3	-84.83	10,147.5	-1,902.2	1,602.6	1,437.7	164.92	9.718 CC, ES		
22,200.0	11,776.0	21,996.3	11,631.5	81.3	84.3	-84.83	10,147.5	-1,902.2	1,604.8	1,439.4	165.34	9.706 SF		
22,300.0	11,776.0	21,996.3	11,631.5	82.0	84.3	-84.83	10,147.5	-1,902.2	1,613.1	1,447.7	165.33	9.757		
22,400.0	11,776.0	21,996.3	11,631.5	82.8	84.3	-84.83	10,147.5	-1,902.2	1,627.5	1,462.7	164.77	9.877		
22,500.0	11,776.0	21,996.3	11,631.5	83.5	84.3	-84.83	10,147.5	-1,902.2	1,647.8	1,484.1	163.71	10.065		
22,600.0	11,776.0	21,996.3	11,631.5	84.3	84.3	-84.83	10,147.5	-1,902.2	1,673.9	1,511.7	162.19	10.321		
22,700.0	11,776.0	21,996.3	11,631.5	85.0	84.3	-84.83	10,147.5	-1,902.2	1,705.5	1,545.2	160.27	10.641		
22,800.0	11,776.0	21,996.3	11,631.5	85.8	84.3	-84.83	10,147.5	-1,902.2	1,742.2	1,584.2	158.03	11.025		
22,900.0	11,776.0	21,996.3	11,631.5	86.5	84.3	-84.83	10,147.5	-1,902.2	1,783.8	1,628.3	155.52	11.470		
23,000.0	11,776.0	21,996.3	11,631.5	87.3	84.3	-84.83	10,147.5	-1,902.2	1,830.0	1,677.2	152.81	11.975		
23,100.0	11,776.0	21,996.3	11,631.5	88.0	84.3	-84.83	10,147.5	-1,902.2	1,880.3	1,730.3	149.96	12.538		
23,200.0	11,776.0	21,996.3	11,631.5	88.8	84.3	-84.83	10,147.5	-1,902.2	1,934.5	1,787.4	147.04	13.156		
23,300.0	11,776.0	21,996.3	11,631.5	89.6	84.3	-84.83	10,147.5	-1,902.2	1,992.2	1,848.1	144.07	13.828		
23,400.0	11,776.0	21,996.3	11,631.5	90.3	84.3	-84.83	10,147.5	-1,902.2	2,053.2	1,912.1	141.11	14.551		
23,500.0	11,776.0	21,996.3	11,631.5	91.1	84.3	-84.83	10,147.5	-1,902.2	2,117.1	1,978.9	138.17	15.322		
23,600.0	11,776.0	21,996.3	11,631.5	91.8	84.3	-84.83	10,147.5	-1,902.2	2,183.8	2,048.5	135.30	16.140		
23,700.0	11,776.0	21,996.3	11,631.5	92.6	84.3	-84.83	10,147.5	-1,902.2	2,252.9	2,120.4	132.50	17.003		
23,800.0	11,776.0	21,996.3	11,631.5	93.3	84.3	-84.83	10,147.5	-1,902.2	2,324.3	2,194.5	129.79	17.908		
23,900.0	11,776.0	21,996.3	11,631.5	94.1	84.3	-84.83	10,147.5	-1,902.2	2,397.7	2,270.5	127.18	18.852		
24,000.0	11,776.0	21,996.3	11,631.5	94.8	84.3	-84.83	10,147.5	-1,902.2	2,473.0	2,348.3	124.68	19.834		
24,100.0	11,776.0	21,996.3	11,631.5	95.6	84.3	-84.83	10,147.5	-1,902.2	2,549.9	2,427.7	122.29	20.852		
24,200.0	11,776.0	21,996.3	11,631.5	96.3	84.3	-84.83	10,147.5	-1,902.2	2,628.5	2,508.5	120.00	21.903		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside	Rule Assigned:							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	7.5	3.0	3.0	-99.75	-401.6	-2,336.0	2,370.3				
100.0	100.0	92.5	100.0	3.0	3.0	-99.75	-401.6	-2,336.0	2,370.3	2,364.2	6.04	392.547	
200.0	200.0	192.5	200.0	3.2	3.1	-99.75	-401.6	-2,336.0	2,370.3	2,364.1	6.23	380.645	
300.0	300.0	292.5	300.0	3.3	3.2	-99.75	-401.6	-2,336.0	2,370.3	2,363.8	6.43	368.678	
400.0	400.0	392.5	400.0	3.4	3.3	-99.75	-401.6	-2,336.0	2,370.3	2,363.6	6.64	357.083	
500.0	500.0	492.5	500.0	3.5	3.4	-99.75	-401.6	-2,336.0	2,370.3	2,363.4	6.85	345.854	
600.0	600.0	592.5	600.0	3.6	3.5	-99.75	-401.6	-2,336.0	2,370.3	2,363.2	7.08	335.014	
700.0	700.0	692.5	700.0	3.8	3.7	-99.75	-401.6	-2,336.0	2,370.3	2,363.0	7.30	324.583	
800.0	800.0	792.5	800.0	3.9	3.8	-99.75	-401.6	-2,336.0	2,370.3	2,362.7	7.53	314.572	
900.0	900.0	892.5	900.0	4.0	4.0	-99.75	-401.6	-2,336.0	2,370.3	2,362.5	7.77	304.985	
1,000.0	1,000.0	992.5	1,000.0	4.1	4.1	-99.75	-401.6	-2,336.0	2,370.3	2,362.3	8.01	295.820	
1,100.0	1,100.0	1,092.5	1,100.0	4.3	4.3	57.70	-401.6	-2,336.0	2,369.3	2,361.1	8.29	285.830	
1,200.0	1,199.8	1,192.3	1,199.8	4.6	4.5	57.85	-401.6	-2,336.0	2,366.6	2,357.9	8.66	273.323	
1,300.0	1,299.5	1,292.0	1,299.5	4.9	4.7	58.11	-401.6	-2,336.0	2,361.9	2,352.9	9.03	261.504	
1,400.0	1,398.7	1,391.2	1,398.7	5.3	4.9	58.47	-401.6	-2,336.0	2,355.5	2,346.1	9.41	250.272	
1,500.0	1,497.7	1,490.2	1,497.7	5.5	5.1	58.76	-401.6	-2,336.0	2,348.2	2,338.4	9.77	240.336	
1,600.0	1,596.8	1,594.4	1,596.8	5.8	6.1	60.04	-401.1	-2,298.5	2,333.8	2,322.6	11.13	209.651	
1,700.0	1,695.8	2,129.6	2,132.3	6.1	6.5	60.45	-400.7	-2,268.2	2,308.2	2,296.5	11.68	197.586	
1,800.0	1,794.8	2,225.8	2,226.7	6.4	6.7	60.69	-400.5	-2,249.8	2,282.4	2,270.2	12.16	187.674	
1,900.0	1,893.8	2,321.9	2,321.1	6.7	7.0	60.94	-400.2	-2,231.5	2,256.7	2,244.0	12.66	178.221	
2,000.0	1,992.9	2,418.1	2,415.5	7.1	7.3	61.20	-400.0	-2,213.2	2,231.0	2,217.8	13.18	169.254	
2,100.0	2,091.9	2,514.2	2,509.8	7.4	7.7	61.46	-399.7	-2,194.8	2,205.3	2,191.6	13.72	160.785	
2,200.0	2,190.9	2,610.4	2,604.2	7.8	8.0	61.73	-399.5	-2,176.5	2,179.7	2,165.5	14.26	152.808	
2,300.0	2,289.9	2,706.6	2,698.6	8.1	8.3	62.00	-399.3	-2,158.1	2,154.2	2,139.3	14.82	145.310	
2,400.0	2,389.0	2,802.7	2,793.0	8.5	8.7	62.28	-399.0	-2,139.8	2,128.7	2,113.3	15.39	138.271	
2,500.0	2,488.0	2,898.9	2,887.4	8.9	9.1	62.57	-398.8	-2,121.4	2,103.2	2,087.2	15.97	131.667	
2,600.0	2,587.0	2,995.0	2,981.8	9.2	9.4	62.86	-398.5	-2,103.1	2,077.8	2,061.2	16.56	125.472	
2,700.0	2,686.1	3,091.2	3,076.2	9.6	9.8	63.16	-398.3	-2,084.7	2,052.4	2,035.3	17.15	119.662	
2,800.0	2,785.1	3,187.3	3,170.6	10.0	10.2	63.47	-398.1	-2,066.4	2,027.1	2,009.4	17.75	114.210	
2,900.0	2,884.1	3,283.5	3,264.9	10.4	10.6	63.78	-397.8	-2,048.0	2,001.9	1,983.5	18.35	109.092	
3,000.0	2,983.1	3,379.6	3,359.3	10.8	11.0	64.11	-397.6	-2,029.7	1,976.7	1,957.7	18.95	104.284	
3,100.0	3,082.2	3,475.8	3,453.7	11.2	11.4	64.44	-397.3	-2,011.3	1,951.5	1,932.0	19.56	99.763	
3,200.0	3,181.2	3,571.9	3,548.1	11.6	11.8	64.78	-397.1	-1,993.0	1,926.5	1,906.3	20.17	95.508	
3,300.0	3,280.2	3,668.1	3,642.5	12.0	12.2	65.13	-396.9	-1,974.7	1,901.5	1,880.7	20.78	91.500	
3,400.0	3,379.2	3,764.3	3,736.9	12.4	12.6	65.49	-396.6	-1,956.3	1,876.6	1,855.2	21.39	87.720	
3,500.0	3,478.3	3,860.4	3,831.3	12.8	13.0	65.86	-396.4	-1,938.0	1,851.7	1,829.7	22.00	84.153	
3,600.0	3,577.3	3,956.6	3,925.7	13.2	13.4	66.23	-396.1	-1,919.6	1,826.9	1,804.3	22.62	80.783	
3,700.0	3,676.3	4,052.7	4,020.1	13.6	13.8	66.62	-395.9	-1,901.3	1,802.2	1,779.0	23.23	77.596	
3,800.0	3,775.3	4,148.9	4,114.4	14.0	14.2	67.02	-395.7	-1,882.9	1,777.6	1,753.7	23.84	74.579	
3,900.0	3,874.4	4,245.1	4,208.9	14.4	14.6	67.24	-395.4	-1,864.6	1,753.2	1,728.8	24.41	71.822	
4,000.0	3,973.7	4,341.7	4,303.7	14.8	15.1	67.37	-395.2	-1,846.1	1,729.6	1,704.6	25.02	69.139	
4,100.0	4,073.2	4,438.6	4,398.9	15.2	15.5	67.46	-394.9	-1,827.6	1,706.6	1,681.0	25.62	66.618	
4,200.0	4,172.9	4,535.8	4,494.3	15.6	15.9	67.51	-394.7	-1,809.1	1,684.4	1,658.2	26.22	64.247	
4,300.0	4,272.7	4,633.3	4,590.0	15.9	16.3	67.52	-394.4	-1,790.5	1,662.8	1,636.0	26.81	62.014	
4,400.0	4,372.6	4,731.0	4,685.8	16.3	16.8	67.48	-394.2	-1,771.9	1,641.9	1,614.5	27.41	59.911	
4,500.0	4,472.5	4,828.9	4,781.9	16.6	17.2	67.40	-394.0	-1,753.2	1,621.7	1,593.7	27.99	57.931	
4,600.0	4,572.5	4,926.9	4,878.2	16.8	17.6	67.26	-393.7	-1,734.5	1,602.1	1,573.5	28.57	56.075	
4,700.0	4,672.5	5,025.1	4,974.5	16.8	18.1	-90.17	-393.5	-1,715.8	1,583.0	1,554.0	29.04	54.506	
4,800.0	4,772.5	5,123.2	5,070.9	16.9	18.5	-90.17	-393.2	-1,697.0	1,563.9	1,534.4	29.54	52.949	
4,900.0	4,872.5	5,221.4	5,167.3	16.9	19.0	-90.16	-393.0	-1,678.3	1,544.9	1,514.8	30.03	51.441	
5,000.0	4,972.5	5,319.6	5,263.6	16.9	19.4	-90.15	-392.7	-1,659.6	1,525.8	1,495.2	30.53	49.980	
5,100.0	5,072.5	5,417.7	5,360.0	17.0	19.8	-90.14	-392.5	-1,640.8	1,506.7	1,475.7	31.03	48.564	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	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
5,200.0	5,172.5	5,515.9	5,456.3	17.0	20.3	-90.14	-392.2	-1,622.1	1,487.6	1,456.1	31.52	47.190	
5,300.0	5,272.5	5,614.1	5,552.7	17.0	20.7	-90.13	-392.0	-1,603.4	1,468.5	1,436.5	32.02	45.857	
5,400.0	5,372.5	5,712.2	5,649.1	17.1	21.2	-90.12	-391.8	-1,584.7	1,449.5	1,416.9	32.52	44.564	
5,500.0	5,472.5	5,810.4	5,745.4	17.1	21.6	-90.11	-391.5	-1,565.9	1,430.4	1,397.3	33.03	43.309	
5,600.0	5,572.5	5,908.5	5,841.8	17.1	22.1	-90.10	-391.3	-1,547.2	1,411.3	1,377.8	33.53	42.090	
5,700.0	5,672.5	6,006.7	5,938.1	17.2	22.5	-90.09	-391.0	-1,528.5	1,392.2	1,358.2	34.03	40.906	
5,800.0	5,772.5	6,104.9	6,034.5	17.2	22.9	-90.08	-390.8	-1,509.7	1,373.1	1,338.6	34.54	39.756	
5,900.0	5,872.5	6,192.6	6,120.7	17.2	23.3	-90.08	-390.6	-1,493.2	1,354.3	1,319.3	34.99	38.699	
6,000.0	5,972.5	6,272.4	6,199.2	17.3	23.7	-90.07	-390.4	-1,479.1	1,336.6	1,301.2	35.43	37.726	
6,100.0	6,072.5	6,352.5	6,278.2	17.3	24.0	-90.06	-390.2	-1,466.1	1,320.4	1,284.5	35.86	36.823	
6,200.0	6,172.5	6,432.9	6,357.7	17.3	24.4	-90.06	-390.0	-1,454.1	1,305.5	1,269.2	36.27	35.991	
6,300.0	6,272.5	6,513.7	6,437.8	17.4	24.7	-90.05	-389.9	-1,443.2	1,292.0	1,255.3	36.68	35.227	
6,400.0	6,372.5	6,600.0	6,523.5	17.4	25.1	-90.04	-389.8	-1,432.8	1,279.9	1,242.8	37.09	34.509	
6,500.0	6,472.5	6,676.1	6,599.1	17.5	25.4	-90.04	-389.7	-1,424.7	1,269.2	1,231.8	37.44	33.898	
6,600.0	6,572.5	6,757.7	6,680.3	17.5	25.7	-90.04	-389.6	-1,417.1	1,259.9	1,222.1	37.80	33.329	
6,700.0	6,672.5	6,839.4	6,761.9	17.5	26.0	-90.03	-389.5	-1,410.7	1,252.1	1,213.9	38.15	32.823	
6,800.0	6,772.5	6,921.4	6,843.6	17.6	26.3	-90.03	-389.4	-1,405.5	1,245.7	1,207.2	38.47	32.378	
6,900.0	6,872.5	7,000.0	6,922.2	17.6	26.6	-90.03	-389.4	-1,401.5	1,240.7	1,201.9	38.76	32.008	
7,000.0	6,972.5	7,085.6	7,007.7	17.6	26.8	-90.02	-389.3	-1,398.4	1,237.1	1,198.1	39.05	31.676	
7,100.0	7,072.5	7,167.8	7,089.9	17.7	27.1	-90.02	-389.3	-1,396.7	1,235.0	1,195.7	39.29	31.430	
7,200.0	7,172.5	7,250.4	7,172.5	17.7	27.2	-90.02	-389.3	-1,396.1	1,234.3	1,194.8	39.44	31.292	
7,300.0	7,272.5	7,350.4	7,272.5	17.8	27.2	-90.02	-389.3	-1,396.1	1,234.3	1,194.8	39.52	31.235	
7,400.0	7,372.5	7,450.4	7,372.5	17.8	27.3	-90.02	-389.3	-1,396.1	1,234.3	1,194.7	39.60	31.171	
7,500.0	7,472.5	7,550.4	7,472.5	17.8	27.3	-90.02	-389.3	-1,396.1	1,234.3	1,194.6	39.68	31.108	
7,600.0	7,572.5	7,650.4	7,572.5	17.9	27.3	-90.02	-389.3	-1,396.1	1,234.3	1,194.5	39.76	31.044	
7,700.0	7,672.5	7,750.4	7,672.5	17.9	27.3	-90.02	-389.3	-1,396.1	1,234.3	1,194.4	39.84	30.980	
7,800.0	7,772.5	7,850.4	7,772.5	18.0	27.4	-90.02	-389.3	-1,396.1	1,234.3	1,194.4	39.92	30.916	
7,900.0	7,872.5	7,950.4	7,872.5	18.0	27.4	-90.02	-389.3	-1,396.1	1,234.3	1,194.3	40.01	30.852	
8,000.0	7,972.5	8,050.4	7,972.5	18.0	27.4	-90.02	-389.3	-1,396.1	1,234.3	1,194.2	40.09	30.788	
8,100.0	8,072.5	8,150.4	8,072.5	18.1	27.5	-90.02	-389.3	-1,396.1	1,234.3	1,194.1	40.17	30.724	
8,200.0	8,172.5	8,250.4	8,172.5	18.1	27.5	-90.02	-389.3	-1,396.1	1,234.3	1,194.0	40.26	30.660	
8,300.0	8,272.5	8,350.4	8,272.5	18.2	27.5	-90.02	-389.3	-1,396.1	1,234.3	1,193.9	40.34	30.595	
8,400.0	8,372.5	8,450.4	8,372.5	18.2	27.5	-90.02	-389.3	-1,396.1	1,234.3	1,193.9	40.43	30.530	
8,500.0	8,472.5	8,550.4	8,472.5	18.2	27.6	-90.02	-389.3	-1,396.1	1,234.3	1,193.8	40.51	30.466	
8,600.0	8,572.5	8,650.4	8,572.5	18.3	27.6	-90.02	-389.3	-1,396.1	1,234.3	1,193.7	40.60	30.401	
8,700.0	8,672.5	8,750.4	8,672.5	18.3	27.6	-90.02	-389.3	-1,396.1	1,234.3	1,193.6	40.69	30.336	
8,800.0	8,772.5	8,850.4	8,772.5	18.4	27.7	-90.02	-389.3	-1,396.1	1,234.3	1,193.5	40.77	30.271	
8,900.0	8,872.5	8,950.4	8,872.5	18.4	27.7	-90.02	-389.3	-1,396.1	1,234.3	1,193.4	40.86	30.206	
9,000.0	8,972.5	9,050.4	8,972.5	18.5	27.7	-90.02	-389.3	-1,396.1	1,234.3	1,193.3	40.95	30.141	
9,100.0	9,072.5	9,150.4	9,072.5	18.5	27.8	-90.02	-389.3	-1,396.1	1,234.3	1,193.3	41.04	30.076	
9,200.0	9,172.5	9,250.4	9,172.5	18.5	27.8	-90.02	-389.3	-1,396.1	1,234.3	1,193.2	41.13	30.011	
9,300.0	9,272.5	9,350.4	9,272.5	18.6	27.8	-90.02	-389.3	-1,396.1	1,234.3	1,193.1	41.22	29.946	
9,400.0	9,372.5	9,450.4	9,372.5	18.6	27.8	-90.02	-389.3	-1,396.1	1,234.3	1,193.0	41.31	29.881	
9,500.0	9,472.5	9,550.4	9,472.5	18.7	27.9	-90.02	-389.3	-1,396.1	1,234.3	1,192.9	41.40	29.815	
9,600.0	9,572.5	9,650.4	9,572.5	18.7	27.9	-90.02	-389.3	-1,396.1	1,234.3	1,192.8	41.49	29.750	
9,700.0	9,672.5	9,750.4	9,672.5	18.8	27.9	-90.02	-389.3	-1,396.1	1,234.3	1,192.7	41.58	29.685	
9,800.0	9,772.5	9,850.4	9,772.5	18.8	28.0	-90.02	-389.3	-1,396.1	1,234.3	1,192.6	41.67	29.619	
9,900.0	9,872.5	9,950.4	9,872.5	18.9	28.0	-90.02	-389.3	-1,396.1	1,234.3	1,192.5	41.76	29.554	
10,000.0	9,972.5	10,050.4	9,972.5	18.9	28.0	-90.02	-389.3	-1,396.1	1,234.3	1,192.4	41.86	29.489	
10,100.0	10,072.5	10,150.4	10,072.5	19.0	28.1	-90.02	-389.3	-1,396.1	1,234.3	1,192.3	41.95	29.423	
10,200.0	10,172.5	10,250.4	10,172.5	19.0	28.1	-90.02	-389.3	-1,396.1	1,234.3	1,192.2	42.04	29.358	
10,300.0	10,272.5	10,350.4	10,272.5	19.1	28.1	-90.02	-389.3	-1,396.1	1,234.3	1,192.2	42.14	29.292	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	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
10,400.0	10,372.5	10,450.4	10,372.5	19.1	28.2	-90.02	-389.3	-1,396.1	1,234.3	1,192.1	42.23	29.227	
10,500.0	10,472.5	10,550.4	10,472.5	19.1	28.2	-90.02	-389.3	-1,396.1	1,234.3	1,192.0	42.33	29.162	
10,600.0	10,572.5	10,650.4	10,572.5	19.2	28.2	-90.02	-389.3	-1,396.1	1,234.3	1,191.9	42.42	29.096	
10,700.0	10,672.5	10,750.4	10,672.5	19.2	28.3	-90.02	-389.3	-1,396.1	1,234.3	1,191.8	42.52	29.031	
10,800.0	10,772.5	10,850.4	10,772.5	19.3	28.3	-90.02	-389.3	-1,396.1	1,234.3	1,191.7	42.61	28.966	
10,900.0	10,872.5	10,950.4	10,872.5	19.3	28.3	-90.02	-389.3	-1,396.1	1,234.3	1,191.6	42.71	28.900	
11,000.0	10,972.5	11,050.4	10,972.5	19.4	28.4	-90.02	-389.3	-1,396.1	1,234.3	1,191.5	42.80	28.839	
11,100.0	11,072.5	11,147.6	11,069.2	19.4	28.4	-89.67	-381.6	-1,396.2	1,234.4	1,191.6	42.83	28.821	
11,200.0	11,172.5	11,237.9	11,156.0	19.5	28.4	-88.54	-357.2	-1,396.4	1,235.1	1,192.3	42.76	28.883	
11,300.0	11,272.3	11,318.5	11,228.4	19.6	28.4	-86.10	-322.0	-1,396.7	1,237.2	1,194.6	42.59	29.047	
11,400.0	11,370.0	11,393.7	11,289.7	19.7	28.4	-84.39	-278.6	-1,397.1	1,240.5	1,198.1	42.44	29.227	
11,500.0	11,462.7	11,464.8	11,340.7	19.8	28.4	-82.74	-229.2	-1,397.6	1,244.7	1,202.4	42.35	29.392	
11,600.0	11,547.4	11,532.7	11,382.1	19.9	28.4	-81.18	-175.4	-1,398.1	1,249.5	1,207.2	42.33	29.517	
11,700.0	11,621.7	11,600.0	11,415.2	20.0	28.5	-79.71	-116.9	-1,398.6	1,254.7	1,212.3	42.40	29.591	
11,800.0	11,683.3	11,661.7	11,438.0	20.2	28.5	-78.44	-59.6	-1,399.1	1,259.7	1,217.1	42.57	29.591	
11,900.0	11,730.2	11,725.0	11,453.6	20.3	28.5	-77.31	1.7	-1,399.7	1,264.4	1,221.6	42.81	29.535	
12,000.0	11,761.2	11,784.6	11,460.7	20.3	28.6	-76.41	60.9	-1,400.2	1,268.4	1,225.3	43.12	29.415	
12,100.0	11,775.1	11,866.3	11,461.5	20.4	28.7	-75.72	142.5	-1,400.9	1,271.0	1,227.6	43.41	29.278	
12,200.0	11,776.0	11,966.3	11,461.5	20.4	28.8	-75.67	242.5	-1,401.8	1,270.8	1,227.1	43.69	29.089	
12,300.0	11,776.0	12,066.3	11,461.5	20.5	29.0	-75.67	342.5	-1,402.7	1,270.3	1,226.3	44.03	28.853	
12,400.0	11,776.0	12,166.3	11,461.5	20.5	29.1	-75.66	442.5	-1,403.6	1,269.9	1,225.5	44.42	28.587	
12,500.0	11,776.0	12,266.3	11,461.5	20.6	29.3	-75.66	542.5	-1,404.5	1,269.4	1,224.6	44.87	28.293	
12,600.0	11,776.0	12,366.3	11,461.5	20.6	29.5	-75.65	642.5	-1,405.4	1,269.0	1,223.6	45.36	27.974	
12,700.0	11,776.0	12,466.3	11,461.5	20.7	29.7	-75.65	742.5	-1,406.3	1,268.5	1,222.6	45.91	27.632	
12,800.0	11,776.0	12,566.3	11,461.5	20.8	30.0	-75.64	842.5	-1,407.2	1,268.1	1,221.6	46.50	27.272	
12,900.0	11,776.0	12,666.3	11,461.5	20.9	30.2	-75.63	942.5	-1,408.1	1,267.6	1,220.5	47.13	26.896	
13,000.0	11,776.0	12,766.3	11,461.5	21.0	30.5	-75.63	1,042.5	-1,409.0	1,267.2	1,219.4	47.81	26.506	
13,100.0	11,776.0	12,866.3	11,461.5	21.1	30.8	-75.62	1,142.5	-1,409.9	1,266.7	1,218.2	48.52	26.105	
13,200.0	11,776.0	12,966.3	11,461.5	21.3	31.1	-75.62	1,242.5	-1,410.9	1,266.3	1,217.0	49.28	25.697	
13,300.0	11,776.0	13,066.3	11,461.5	21.5	31.4	-75.61	1,342.5	-1,411.8	1,265.8	1,215.8	50.07	25.282	
13,400.0	11,776.0	13,166.3	11,461.5	21.7	31.8	-75.61	1,442.4	-1,412.7	1,265.4	1,214.5	50.89	24.864	
13,500.0	11,776.0	13,266.3	11,461.5	21.9	32.1	-75.60	1,542.4	-1,413.6	1,264.9	1,213.2	51.75	24.444	
13,600.0	11,776.0	13,366.3	11,461.5	22.2	32.5	-75.60	1,642.4	-1,414.5	1,264.5	1,211.8	52.63	24.024	
13,700.0	11,776.0	13,466.3	11,461.5	22.5	32.9	-75.59	1,742.4	-1,415.4	1,264.0	1,210.5	53.55	23.604	
13,800.0	11,776.0	13,566.3	11,461.5	22.8	33.3	-75.59	1,842.4	-1,416.3	1,263.6	1,209.1	54.49	23.188	
13,900.0	11,776.0	13,666.3	11,461.5	23.2	33.7	-75.58	1,942.4	-1,417.2	1,263.1	1,207.7	55.46	22.775	
14,000.0	11,776.0	13,766.3	11,461.5	23.6	34.1	-75.58	2,042.4	-1,418.1	1,262.7	1,206.2	56.45	22.366	
14,100.0	11,776.0	13,866.3	11,461.5	24.1	34.5	-75.57	2,142.4	-1,419.0	1,262.2	1,204.7	57.47	21.962	
14,200.0	11,776.0	13,966.3	11,461.5	24.6	35.0	-75.57	2,242.4	-1,419.9	1,261.8	1,203.3	58.51	21.565	
14,300.0	11,776.0	14,066.3	11,461.5	25.1	35.4	-75.56	2,342.4	-1,420.8	1,261.3	1,201.7	59.57	21.174	
14,400.0	11,776.0	14,166.3	11,461.5	25.6	35.9	-75.56	2,442.4	-1,421.7	1,260.9	1,200.2	60.65	20.790	
14,500.0	11,776.0	14,266.3	11,461.5	26.2	36.4	-75.55	2,542.4	-1,422.6	1,260.4	1,198.7	61.74	20.414	
14,600.0	11,776.0	14,366.3	11,461.5	26.8	36.9	-75.55	2,642.4	-1,423.5	1,260.0	1,197.1	62.86	20.044	
14,700.0	11,776.0	14,466.3	11,461.5	27.3	37.4	-75.54	2,742.4	-1,424.4	1,259.5	1,195.5	63.99	19.683	
14,800.0	11,776.0	14,566.2	11,461.5	27.9	37.9	-75.54	2,842.4	-1,425.3	1,259.1	1,193.9	65.14	19.330	
14,900.0	11,776.0	14,666.2	11,461.5	28.6	38.4	-75.53	2,942.4	-1,426.2	1,258.6	1,192.3	66.30	18.984	
15,000.0	11,776.0	14,766.2	11,461.5	29.2	38.9	-75.52	3,042.4	-1,427.1	1,258.2	1,190.7	67.47	18.646	
15,100.0	11,776.0	14,866.2	11,461.5	29.8	39.4	-75.52	3,142.4	-1,428.0	1,257.7	1,189.0	68.66	18.317	
15,200.0	11,776.0	14,966.2	11,461.5	30.5	40.0	-75.51	3,242.4	-1,428.9	1,257.3	1,187.4	69.87	17.995	
15,300.0	11,776.0	15,066.2	11,461.5	31.1	40.5	-75.51	3,342.3	-1,429.8	1,256.8	1,185.7	71.08	17.681	
15,400.0	11,776.0	15,166.2	11,461.5	31.8	41.0	-75.50	3,442.3	-1,430.7	1,256.4	1,184.0	72.31	17.375	
15,500.0	11,776.0	15,266.2	11,461.5	32.4	41.6	-75.50	3,542.3	-1,431.6	1,255.9	1,182.4	73.54	17.077	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS							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 (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,600.0	11,776.0	15,366.2	11,461.5	33.1	42.2	-75.49	3,642.3	-1,432.5	1,255.4	1,180.7	74.79	16.786		
15,700.0	11,776.0	15,466.2	11,461.5	33.8	42.7	-75.49	3,742.3	-1,433.4	1,255.0	1,179.0	76.05	16.503		
15,800.0	11,776.0	15,566.2	11,461.5	34.4	43.3	-75.48	3,842.3	-1,434.3	1,254.5	1,177.2	77.31	16.227		
15,900.0	11,776.0	15,666.2	11,461.5	35.1	43.9	-75.48	3,942.3	-1,435.2	1,254.1	1,175.5	78.59	15.957		
16,000.0	11,776.0	15,766.2	11,461.5	35.8	44.5	-75.47	4,042.3	-1,436.1	1,253.6	1,173.8	79.87	15.695		
16,100.0	11,776.0	15,866.2	11,461.5	36.5	45.1	-75.47	4,142.3	-1,437.0	1,253.2	1,172.0	81.17	15.440		
16,200.0	11,776.0	15,966.2	11,461.5	37.2	45.7	-75.46	4,242.3	-1,437.9	1,252.7	1,170.3	82.47	15.191		
16,300.0	11,776.0	16,066.2	11,461.5	37.9	46.3	-75.46	4,342.3	-1,438.8	1,252.3	1,168.5	83.77	14.948		
16,400.0	11,776.0	16,166.2	11,461.5	38.6	46.9	-75.45	4,442.3	-1,439.7	1,251.8	1,166.8	85.09	14.712		
16,500.0	11,776.0	16,266.2	11,461.5	39.3	47.5	-75.44	4,542.3	-1,440.6	1,251.4	1,165.0	86.41	14.482		
16,600.0	11,776.0	16,366.2	11,461.5	40.0	48.1	-75.44	4,642.3	-1,441.5	1,250.9	1,163.2	87.74	14.257		
16,700.0	11,776.0	16,466.2	11,461.5	40.7	48.7	-75.43	4,742.3	-1,442.4	1,250.5	1,161.4	89.07	14.039		
16,800.0	11,776.0	16,566.2	11,461.5	41.4	49.3	-75.43	4,842.3	-1,443.3	1,250.0	1,159.6	90.42	13.826		
16,900.0	11,776.0	16,666.2	11,461.5	42.1	49.9	-75.42	4,942.3	-1,444.2	1,249.6	1,157.8	91.76	13.618		
17,000.0	11,776.0	16,766.2	11,461.5	42.8	50.6	-75.42	5,042.3	-1,445.1	1,249.1	1,156.0	93.11	13.415		
17,100.0	11,776.0	16,866.2	11,461.5	43.6	51.2	-75.41	5,142.3	-1,446.1	1,248.7	1,154.2	94.47	13.218		
17,200.0	11,776.0	16,966.2	11,461.5	44.3	51.9	-75.41	5,242.3	-1,447.0	1,248.2	1,152.4	95.83	13.025		
17,300.0	11,776.0	17,066.2	11,461.5	45.0	52.5	-75.40	5,342.2	-1,447.9	1,247.8	1,150.6	97.20	12.837		
17,400.0	11,776.0	17,166.2	11,461.5	45.7	53.1	-75.40	5,442.2	-1,448.8	1,247.3	1,148.8	98.57	12.654		
17,500.0	11,776.0	17,266.2	11,461.5	46.4	53.8	-75.39	5,542.2	-1,449.7	1,246.9	1,146.9	99.95	12.476		
17,600.0	11,776.0	17,366.2	11,461.5	47.2	54.4	-75.39	5,642.2	-1,450.6	1,246.4	1,145.1	101.33	12.301		
17,700.0	11,776.0	17,466.2	11,461.5	47.9	55.1	-75.38	5,742.2	-1,451.5	1,246.0	1,143.3	102.71	12.131		
17,800.0	11,776.0	17,566.2	11,461.5	48.6	55.7	-75.37	5,842.2	-1,452.4	1,245.5	1,141.4	104.10	11.965		
17,900.0	11,776.0	17,666.2	11,461.5	49.3	56.4	-75.37	5,942.2	-1,453.3	1,245.1	1,139.6	105.49	11.803		
18,000.0	11,776.0	17,766.2	11,461.5	50.1	57.1	-75.36	6,042.2	-1,454.2	1,244.6	1,137.7	106.89	11.644		
18,100.0	11,776.0	17,866.2	11,461.5	50.8	57.7	-75.36	6,142.2	-1,455.1	1,244.2	1,135.9	108.29	11.490		
18,200.0	11,776.0	17,966.2	11,461.5	51.5	58.4	-75.35	6,242.2	-1,456.0	1,243.7	1,134.0	109.69	11.339		
18,300.0	11,776.0	18,066.2	11,461.5	52.3	59.1	-75.35	6,342.2	-1,456.9	1,243.3	1,132.2	111.09	11.191		
18,400.0	11,776.0	18,166.2	11,461.5	53.0	59.7	-75.34	6,442.2	-1,457.8	1,242.8	1,130.3	112.50	11.047		
18,500.0	11,776.0	18,266.2	11,461.5	53.7	60.4	-75.34	6,542.2	-1,458.7	1,242.4	1,128.5	113.92	10.906		
18,600.0	11,776.0	18,366.2	11,461.5	54.5	61.1	-75.33	6,642.2	-1,459.6	1,241.9	1,126.6	115.33	10.768		
18,700.0	11,776.0	18,466.2	11,461.5	55.2	61.7	-75.33	6,742.2	-1,460.5	1,241.5	1,124.7	116.75	10.634		
18,800.0	11,776.0	18,566.2	11,461.5	55.9	62.4	-75.32	6,842.2	-1,461.4	1,241.0	1,122.9	118.17	10.502		
18,900.0	11,776.0	18,666.2	11,461.5	56.7	63.1	-75.31	6,942.2	-1,462.3	1,240.6	1,121.0	119.59	10.373		
19,000.0	11,776.0	18,766.2	11,461.5	57.4	63.8	-75.31	7,042.2	-1,463.2	1,240.1	1,119.1	121.02	10.247		
19,100.0	11,776.0	18,866.2	11,461.5	58.1	64.5	-75.30	7,142.2	-1,464.1	1,239.7	1,117.2	122.45	10.124		
19,200.0	11,776.0	18,966.2	11,461.5	58.9	65.2	-75.30	7,242.1	-1,465.0	1,239.2	1,115.4	123.88	10.004		
19,300.0	11,776.0	19,066.2	11,461.5	59.6	65.8	-75.29	7,342.1	-1,465.9	1,238.8	1,113.5	125.31	9.886		
19,400.0	11,776.0	19,166.2	11,461.5	60.4	66.5	-75.29	7,442.1	-1,466.8	1,238.3	1,111.6	126.75	9.770		
19,500.0	11,776.0	19,266.2	11,461.5	61.1	67.2	-75.28	7,542.1	-1,467.7	1,237.9	1,109.7	128.18	9.657		
19,600.0	11,776.0	19,366.2	11,461.5	61.8	67.9	-75.28	7,642.1	-1,468.6	1,237.4	1,107.8	129.62	9.546		
19,700.0	11,776.0	19,466.2	11,461.5	62.6	68.6	-75.27	7,742.1	-1,469.5	1,237.0	1,105.9	131.06	9.438		
19,800.0	11,776.0	19,566.2	11,461.5	63.3	69.3	-75.27	7,842.1	-1,470.4	1,236.5	1,104.0	132.51	9.332		
19,900.0	11,776.0	19,666.2	11,461.5	64.1	70.0	-75.26	7,942.1	-1,471.3	1,236.1	1,102.1	133.95	9.228		
20,000.0	11,776.0	19,766.2	11,461.5	64.8	70.7	-75.25	8,042.1	-1,472.2	1,235.6	1,100.2	135.40	9.126		
20,100.0	11,776.0	19,866.2	11,461.5	65.6	71.4	-75.25	8,142.1	-1,473.1	1,235.2	1,098.3	136.85	9.026		
20,200.0	11,776.0	19,966.2	11,461.5	66.3	72.1	-75.24	8,242.1	-1,474.0	1,234.7	1,096.4	138.30	8.928		
20,300.0	11,776.0	20,066.2	11,461.5	67.0	72.8	-75.24	8,342.1	-1,474.9	1,234.3	1,094.5	139.75	8.832		
20,400.0	11,776.0	20,166.2	11,461.5	67.8	73.5	-75.23	8,442.1	-1,475.8	1,233.8	1,092.6	141.20	8.738		
20,500.0	11,776.0	20,266.2	11,461.5	68.5	74.2	-75.23	8,542.1	-1,476.7	1,233.4	1,090.7	142.66	8.646		
20,600.0	11,776.0	20,366.2	11,461.5	69.3	74.9	-75.22	8,642.1	-1,477.6	1,232.9	1,088.8	144.12	8.555		
20,700.0	11,776.0	20,466.2	11,461.5	70.0	75.6	-75.22	8,742.1	-1,478.5	1,232.5	1,086.9	145.57	8.466		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS													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		
20,800.0	11,776.0	20,566.2	11,461.5	70.8	76.3	-75.21	8,842.1	-1,479.4	1,232.0	1,085.0	147.03	8.379		
20,900.0	11,776.0	20,666.2	11,461.5	71.5	77.0	-75.21	8,942.1	-1,480.3	1,231.6	1,083.1	148.50	8.294		
21,000.0	11,776.0	20,766.2	11,461.5	72.3	77.8	-75.20	9,042.1	-1,481.3	1,231.1	1,081.2	149.96	8.210		
21,100.0	11,776.0	20,866.2	11,461.5	73.0	78.5	-75.19	9,142.0	-1,482.2	1,230.7	1,079.3	151.42	8.127		
21,200.0	11,776.0	20,966.2	11,461.5	73.8	79.2	-75.19	9,242.0	-1,483.1	1,230.2	1,077.3	152.89	8.047		
21,300.0	11,776.0	21,066.2	11,461.5	74.5	79.9	-75.18	9,342.0	-1,484.0	1,229.8	1,075.4	154.35	7.967		
21,400.0	11,776.0	21,166.2	11,461.5	75.3	80.6	-75.18	9,442.0	-1,484.9	1,229.3	1,073.5	155.82	7.889		
21,500.0	11,776.0	21,266.2	11,461.5	76.0	81.3	-75.17	9,542.0	-1,485.8	1,228.9	1,071.6	157.29	7.813		
21,600.0	11,776.0	21,366.2	11,461.5	76.8	82.0	-75.17	9,642.0	-1,486.7	1,228.4	1,069.7	158.76	7.738		
21,700.0	11,776.0	21,466.2	11,461.5	77.5	82.8	-75.16	9,742.0	-1,487.6	1,228.0	1,067.7	160.23	7.664		
21,800.0	11,776.0	21,566.2	11,461.5	78.3	83.5	-75.16	9,842.0	-1,488.5	1,227.5	1,065.8	161.70	7.591		
21,900.0	11,776.0	21,666.2	11,461.5	79.0	84.2	-75.15	9,942.0	-1,489.4	1,227.1	1,063.9	163.17	7.520		
22,000.0	11,776.0	21,766.2	11,461.5	79.8	84.9	-75.14	10,042.0	-1,490.3	1,226.6	1,062.0	164.65	7.450		
22,100.0	11,776.0	21,866.2	11,461.5	80.5	85.6	-75.14	10,142.0	-1,491.2	1,226.2	1,060.0	166.12	7.381		
22,114.9	11,776.0	21,875.5	11,461.5	80.6	85.7	-75.14	10,151.4	-1,491.3	1,226.1	1,059.8	166.30	7.373 CC, ES, SF		
22,200.0	11,776.0	21,875.5	11,461.5	81.3	85.7	-75.14	10,151.4	-1,491.3	1,229.1	1,062.5	166.57	7.378		
22,300.0	11,776.0	21,875.5	11,461.5	82.0	85.7	-75.14	10,151.4	-1,491.3	1,240.0	1,074.0	166.01	7.470		
22,400.0	11,776.0	21,875.5	11,461.5	82.8	85.7	-75.14	10,151.4	-1,491.3	1,258.8	1,094.3	164.55	7.650		
22,500.0	11,776.0	21,875.5	11,461.5	83.5	85.7	-75.14	10,151.4	-1,491.3	1,285.2	1,122.9	162.31	7.918		
22,600.0	11,776.0	21,875.5	11,461.5	84.3	85.7	-75.14	10,151.4	-1,491.3	1,318.6	1,159.2	159.42	8.271		
22,700.0	11,776.0	21,875.5	11,461.5	85.0	85.7	-75.14	10,151.4	-1,491.3	1,358.6	1,202.5	156.04	8.707		
22,800.0	11,776.0	21,875.5	11,461.5	85.8	85.7	-75.14	10,151.4	-1,491.3	1,404.5	1,252.2	152.31	9.221		
22,900.0	11,776.0	21,875.5	11,461.5	86.5	85.7	-75.14	10,151.4	-1,491.3	1,455.9	1,307.6	148.38	9.812		
23,000.0	11,776.0	21,875.5	11,461.5	87.3	85.7	-75.14	10,151.4	-1,491.3	1,512.2	1,367.9	144.35	10.476		
23,100.0	11,776.0	21,875.5	11,461.5	88.0	85.7	-75.14	10,151.4	-1,491.3	1,572.8	1,432.5	140.33	11.208		
23,200.0	11,776.0	21,875.5	11,461.5	88.8	85.7	-75.14	10,151.4	-1,491.3	1,637.3	1,501.0	136.37	12.006		
23,300.0	11,776.0	21,875.5	11,461.5	89.6	85.7	-75.14	10,151.4	-1,491.3	1,705.2	1,572.7	132.54	12.866		
23,400.0	11,776.0	21,875.5	11,461.5	90.3	85.7	-75.14	10,151.4	-1,491.3	1,776.2	1,647.3	128.86	13.784		
23,500.0	11,776.0	21,875.5	11,461.5	91.1	85.7	-75.14	10,151.4	-1,491.3	1,849.8	1,724.5	125.37	14.755		
23,600.0	11,776.0	21,875.5	11,461.5	91.8	85.7	-75.14	10,151.4	-1,491.3	1,925.9	1,803.8	122.06	15.778		
23,700.0	11,776.0	21,875.5	11,461.5	92.6	85.7	-75.14	10,151.4	-1,491.3	2,004.0	1,885.0	118.95	16.847		
23,800.0	11,776.0	21,875.5	11,461.5	93.3	85.7	-75.14	10,151.4	-1,491.3	2,084.0	1,967.9	116.04	17.959		
23,900.0	11,776.0	21,875.5	11,461.5	94.1	85.7	-75.14	10,151.4	-1,491.3	2,165.6	2,052.3	113.32	19.111		
24,000.0	11,776.0	21,875.5	11,461.5	94.8	85.7	-75.14	10,151.4	-1,491.3	2,248.8	2,138.0	110.78	20.299		
24,100.0	11,776.0	21,875.5	11,461.5	95.6	85.7	-75.14	10,151.4	-1,491.3	2,333.2	2,224.8	108.42	21.520		
24,200.0	11,776.0	21,875.5	11,461.5	96.3	85.7	-75.14	10,151.4	-1,491.3	2,418.9	2,312.7	106.22	22.772		
24,300.0	11,776.0	21,875.5	11,461.5	97.1	85.7	-75.14	10,151.4	-1,491.3	2,505.6	2,401.4	104.18	24.050		
24,400.0	11,776.0	21,875.5	11,461.5	97.9	85.7	-75.14	10,151.4	-1,491.3	2,593.3	2,491.0	102.29	25.353		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #332H - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program: 179-MWD - OWSG R1		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
22,500.0	11,776.0	11,144.0	11,070.3	83.5	38.9	48.36	12,957.4	449.3	2,619.1	2,537.5	81.62	32.088		
22,600.0	11,776.0	11,144.0	11,070.3	84.3	38.9	48.36	12,957.4	449.3	2,528.0	2,445.3	82.75	30.551		
22,700.0	11,776.0	11,144.0	11,070.3	85.0	38.9	48.36	12,957.4	449.3	2,437.6	2,353.7	83.96	29.034		
22,800.0	11,776.0	11,144.0	11,070.3	85.8	38.9	48.36	12,957.4	449.3	2,348.0	2,262.8	85.27	27.538		
22,900.0	11,776.0	11,144.0	11,070.3	86.5	38.9	48.36	12,957.4	449.3	2,259.3	2,172.6	86.68	26.065		
23,000.0	11,776.0	11,144.0	11,070.3	87.3	38.9	48.36	12,957.4	449.3	2,171.6	2,083.3	88.21	24.619		
23,100.0	11,776.0	11,144.0	11,070.3	88.0	38.9	48.36	12,957.4	449.3	2,084.9	1,995.0	89.86	23.201		
23,200.0	11,776.0	11,144.0	11,070.3	88.8	38.9	48.36	12,957.4	449.3	1,999.5	1,907.8	91.65	21.816		
23,300.0	11,776.0	11,144.0	11,070.3	89.6	38.9	48.36	12,957.4	449.3	1,915.5	1,821.9	93.59	20.466		
23,400.0	11,776.0	11,181.3	11,104.8	90.3	39.0	49.76	12,971.6	448.7	1,831.6	1,736.5	95.10	19.261		
23,500.0	11,776.0	11,192.4	11,114.9	91.1	39.0	50.18	12,976.4	448.4	1,750.1	1,652.9	97.14	18.015		
23,600.0	11,776.0	11,204.8	11,125.9	91.8	39.1	50.64	12,981.9	447.9	1,670.2	1,570.9	99.33	16.815		
23,700.0	11,776.0	11,239.0	11,155.6	92.6	39.2	51.89	12,998.7	445.9	1,592.7	1,491.4	101.23	15.733		
23,800.0	11,776.0	11,239.0	11,155.6	93.3	39.2	51.89	12,998.7	445.9	1,516.4	1,412.4	104.02	14.578		
23,900.0	11,776.0	11,239.0	11,155.6	94.1	39.2	51.89	12,998.7	445.9	1,443.1	1,336.1	107.02	13.484		
24,000.0	11,776.0	11,239.0	11,155.6	94.8	39.2	51.89	12,998.7	445.9	1,373.1	1,262.9	110.22	12.457		
24,100.0	11,776.0	11,275.6	11,185.7	95.6	39.3	53.18	13,019.4	443.2	1,305.0	1,192.3	112.74	11.575		
24,200.0	11,776.0	11,292.3	11,198.7	96.3	39.3	53.75	13,029.8	442.0	1,241.3	1,125.4	115.90	10.710		
24,300.0	11,776.0	11,335.0	11,229.7	97.1	39.4	55.15	13,059.0	438.8	1,182.5	1,064.0	118.50	9.979		
24,400.0	11,776.0	11,335.0	11,229.7	97.9	39.4	55.15	13,059.0	438.8	1,126.6	1,004.2	122.35	9.208		
24,500.0	11,776.0	11,335.0	11,229.7	98.6	39.4	55.15	13,059.0	438.8	1,077.0	950.8	126.19	8.535		
24,600.0	11,776.0	11,390.1	11,265.3	99.4	39.6	56.84	13,100.8	435.3	1,031.1	902.5	128.68	8.014		
24,700.0	11,776.0	11,429.0	11,288.1	100.1	39.6	57.98	13,132.3	433.5	991.6	860.0	131.51	7.540		
24,746.9	11,776.0	11,429.0	11,288.1	100.5	39.6	57.98	13,132.3	433.5	975.1	841.9	133.18	7.321	CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #621H - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program: 180-MWD - OWSG R1		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
22,400.0	11,776.0	11,117.0	11,046.2	82.8	38.9	-34.34	12,913.4	-842.5	2,621.3	2,545.3	76.04	34.471		
22,500.0	11,776.0	11,117.0	11,046.2	83.5	38.9	-34.34	12,913.4	-842.5	2,527.4	2,450.5	76.91	32.863		
22,600.0	11,776.0	11,117.0	11,046.2	84.3	38.9	-34.34	12,913.4	-842.5	2,433.9	2,356.1	77.85	31.266		
22,700.0	11,776.0	11,117.0	11,046.2	85.0	38.9	-34.34	12,913.4	-842.5	2,341.1	2,262.2	78.87	29.683		
22,800.0	11,776.0	11,117.0	11,046.2	85.8	38.9	-34.34	12,913.4	-842.5	2,248.8	2,168.8	79.98	28.116		
22,900.0	11,776.0	11,117.0	11,046.2	86.5	38.9	-34.34	12,913.4	-842.5	2,157.2	2,076.0	81.20	26.566		
23,000.0	11,776.0	11,160.5	11,087.7	87.3	39.0	-35.89	12,926.2	-842.0	2,063.6	1,981.8	81.80	25.227		
23,100.0	11,776.0	11,166.4	11,093.3	88.0	39.0	-36.10	12,928.3	-841.9	1,972.8	1,889.7	83.10	23.741		
23,200.0	11,776.0	11,172.8	11,099.2	88.8	39.1	-36.33	12,930.7	-841.8	1,882.9	1,798.4	84.51	22.280		
23,300.0	11,776.0	11,212.0	11,134.6	89.6	39.2	-37.76	12,947.3	-841.1	1,795.4	1,710.1	85.36	21.034		
23,400.0	11,776.0	11,212.0	11,134.6	90.3	39.2	-37.76	12,947.3	-841.1	1,706.8	1,619.6	87.16	19.582		
23,500.0	11,776.0	11,212.0	11,134.6	91.1	39.2	-37.76	12,947.3	-841.1	1,619.5	1,530.4	89.16	18.164		
23,600.0	11,776.0	11,212.0	11,134.6	91.8	39.2	-37.76	12,947.3	-841.1	1,533.8	1,442.4	91.39	16.784		
23,700.0	11,776.0	11,212.0	11,134.6	92.6	39.2	-37.76	12,947.3	-841.1	1,449.9	1,356.0	93.86	15.448		
23,800.0	11,776.0	11,212.0	11,134.6	93.3	39.2	-37.76	12,947.3	-841.1	1,368.1	1,271.5	96.60	14.163		
23,900.0	11,776.0	11,246.9	11,164.8	94.1	39.3	-39.05	12,964.7	-840.3	1,287.5	1,189.0	98.50	13.071		
24,000.0	11,776.0	11,264.7	11,179.8	94.8	39.3	-39.71	12,974.3	-839.9	1,209.5	1,108.3	101.19	11.953		
24,100.0	11,776.0	11,307.0	11,214.1	95.6	39.4	-41.29	12,999.1	-838.6	1,134.7	1,031.5	103.24	10.991		
24,200.0	11,776.0	11,307.0	11,214.1	96.3	39.4	-41.29	12,999.1	-838.6	1,061.5	954.4	107.17	9.906		
24,300.0	11,776.0	11,333.9	11,234.9	97.1	39.5	-42.30	13,016.1	-837.6	992.3	881.9	110.36	8.991		
24,400.0	11,776.0	11,364.8	11,257.8	97.9	39.5	-43.43	13,036.8	-836.1	926.5	812.9	113.68	8.150		
24,500.0	11,776.0	11,403.0	11,284.6	98.6	39.6	-44.79	13,063.9	-833.8	864.8	747.9	116.94	7.396		
24,600.0	11,776.0	11,439.7	11,309.0	99.4	39.7	-46.08	13,091.3	-831.4	807.4	686.9	120.51	6.700		
24,700.0	11,776.0	11,498.0	11,345.3	100.1	39.9	-48.16	13,136.8	-828.0	754.8	631.5	123.31	6.121		
24,746.9	11,776.0	11,510.3	11,352.6	100.5	39.9	-48.60	13,146.6	-827.4	731.5	606.1	125.39	5.834	CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #711H - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program: 180-MWD - OWSG R1		Offset							Rule Assigned:				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
22,200.0	11,776.0	11,445.9	11,339.6	81.3	41.1	30.07	12,878.6	-90.7	2,670.7	2,597.6	73.13	36.518		
22,300.0	11,776.0	11,448.4	11,342.0	82.0	41.1	30.21	12,879.0	-90.6	2,572.6	2,499.1	73.53	34.986		
22,400.0	11,776.0	11,451.0	11,344.6	82.8	41.1	30.37	12,879.4	-90.6	2,474.6	2,400.6	73.96	33.461		
22,500.0	11,776.0	11,453.9	11,347.4	83.5	41.1	30.54	12,879.9	-90.5	2,376.7	2,302.3	74.41	31.941		
22,600.0	11,776.0	11,456.9	11,350.4	84.3	41.1	30.72	12,880.5	-90.5	2,279.0	2,204.1	74.90	30.428		
22,700.0	11,776.0	11,499.0	11,391.3	85.0	41.2	33.39	12,890.2	-89.9	2,183.5	2,108.3	75.13	29.064		
22,800.0	11,776.0	11,499.0	11,391.3	85.8	41.2	33.39	12,890.2	-89.9	2,085.8	2,010.1	75.69	27.559		
22,900.0	11,776.0	11,499.0	11,391.3	86.5	41.2	33.39	12,890.2	-89.9	1,988.4	1,912.1	76.31	26.059		
23,000.0	11,776.0	11,499.0	11,391.3	87.3	41.2	33.39	12,890.2	-89.9	1,891.3	1,814.3	77.00	24.563		
23,100.0	11,776.0	11,499.0	11,391.3	88.0	41.2	33.39	12,890.2	-89.9	1,794.5	1,716.7	77.77	23.074		
23,200.0	11,776.0	11,499.0	11,391.3	88.8	41.2	33.39	12,890.2	-89.9	1,698.0	1,619.4	78.65	21.591		
23,300.0	11,776.0	11,499.0	11,391.3	89.6	41.2	33.39	12,890.2	-89.9	1,602.0	1,522.3	79.64	20.115		
23,400.0	11,776.0	11,499.0	11,391.3	90.3	41.2	33.39	12,890.2	-89.9	1,506.5	1,425.7	80.78	18.648		
23,500.0	11,776.0	11,499.0	11,391.3	91.1	41.2	33.39	12,890.2	-89.9	1,411.6	1,329.5	82.11	17.193		
23,600.0	11,776.0	11,499.0	11,391.3	91.8	41.2	33.39	12,890.2	-89.9	1,317.5	1,233.9	83.64	15.751		
23,700.0	11,776.0	11,499.0	11,391.3	92.6	41.2	33.39	12,890.2	-89.9	1,224.3	1,138.9	85.45	14.328		
23,800.0	11,776.0	11,499.0	11,391.3	93.3	41.2	33.39	12,890.2	-89.9	1,132.3	1,044.7	87.58	12.929		
23,900.0	11,776.0	11,533.5	11,424.1	94.1	41.3	35.82	12,900.9	-89.7	1,039.9	951.1	88.78	11.713		
24,000.0	11,776.0	11,545.1	11,434.9	94.8	41.3	36.69	12,905.1	-89.6	949.8	858.6	91.15	10.420		
24,100.0	11,776.0	11,558.5	11,447.2	95.6	41.4	37.72	12,910.2	-89.5	861.2	767.3	93.91	9.171		
24,200.0	11,776.0	11,594.0	11,479.3	96.3	41.5	40.63	12,925.6	-89.4	775.4	679.4	96.06	8.073		
24,300.0	11,776.0	11,594.0	11,479.3	97.1	41.5	40.63	12,925.6	-89.4	690.9	590.1	100.83	6.852		
24,400.0	11,776.0	11,594.0	11,479.3	97.9	41.5	40.63	12,925.6	-89.4	611.1	504.4	106.71	5.727		
24,500.0	11,776.0	11,638.4	11,517.4	98.6	41.6	44.57	12,948.2	-89.6	534.4	423.8	110.64	4.830		
24,600.0	11,776.0	11,689.0	11,558.0	99.4	41.7	49.38	12,978.4	-90.5	464.9	350.0	114.94	4.045		
24,700.0	11,776.0	11,689.0	11,558.0	100.1	41.7	49.38	12,978.4	-90.5	402.1	277.5	124.53	3.229		
24,746.9	11,776.0	11,725.8	11,585.2	100.5	41.7	53.04	13,003.1	-91.5	375.3	248.9	126.37	2.970	CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #712H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 179-MWD - OWSG R1													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)				
22,400.0	11,776.0	11,620.0	11,536.3	82.8	41.0	77.45	12,893.3	733.0	2,665.0	2,579.6	85.45	31.189		
22,500.0	11,776.0	11,620.0	11,536.3	83.5	41.0	77.45	12,893.3	733.0	2,574.3	2,487.7	86.61	29.723		
22,600.0	11,776.0	11,620.0	11,536.3	84.3	41.0	77.45	12,893.3	733.0	2,484.3	2,396.5	87.86	28.276		
22,700.0	11,776.0	11,620.0	11,536.3	85.0	41.0	77.45	12,893.3	733.0	2,395.1	2,305.9	89.21	26.850		
22,800.0	11,776.0	11,620.0	11,536.3	85.8	41.0	77.45	12,893.3	733.0	2,306.8	2,216.2	90.65	25.446		
22,900.0	11,776.0	11,620.0	11,536.3	86.5	41.0	77.45	12,893.3	733.0	2,219.5	2,127.3	92.22	24.068		
23,000.0	11,776.0	11,620.0	11,536.3	87.3	41.0	77.45	12,893.3	733.0	2,133.3	2,039.4	93.91	22.717		
23,100.0	11,776.0	11,620.0	11,536.3	88.0	41.0	77.45	12,893.3	733.0	2,048.3	1,952.6	95.73	21.397		
23,200.0	11,776.0	11,620.0	11,536.3	88.8	41.0	77.45	12,893.3	733.0	1,964.8	1,867.1	97.70	20.111		
23,300.0	11,776.0	11,620.0	11,536.3	89.6	41.0	77.45	12,893.3	733.0	1,882.9	1,783.1	99.83	18.861		
23,400.0	11,776.0	11,620.0	11,536.3	90.3	41.0	77.45	12,893.3	733.0	1,802.8	1,700.7	102.12	17.653		
23,500.0	11,776.0	11,653.2	11,569.1	91.1	41.1	79.12	12,898.2	732.4	1,724.0	1,619.5	104.51	16.496		
23,600.0	11,776.0	11,660.9	11,576.7	91.8	41.1	79.50	12,899.6	732.3	1,648.0	1,540.9	107.13	15.383		
23,700.0	11,776.0	11,669.4	11,585.1	92.6	41.1	79.94	12,901.1	732.1	1,574.6	1,464.6	109.94	14.323		
23,800.0	11,776.0	11,679.0	11,594.4	93.3	41.1	80.42	12,902.9	731.8	1,504.1	1,391.2	112.91	13.321		
23,900.0	11,776.0	11,689.6	11,604.9	94.1	41.2	80.96	12,905.1	731.5	1,437.0	1,320.9	116.05	12.383		
24,000.0	11,776.0	11,715.0	11,629.6	94.8	41.3	82.24	12,910.8	730.7	1,373.8	1,254.6	119.26	11.519		
24,100.0	11,776.0	11,715.0	11,629.6	95.6	41.3	82.24	12,910.8	730.7	1,314.8	1,192.1	122.70	10.716		
24,200.0	11,776.0	11,715.0	11,629.6	96.3	41.3	82.24	12,910.8	730.7	1,260.9	1,134.8	126.17	9.994		
24,300.0	11,776.0	11,747.5	11,660.9	97.1	41.3	83.87	12,919.5	729.2	1,212.3	1,082.8	129.46	9.365		
24,400.0	11,776.0	11,770.5	11,682.6	97.9	41.4	85.02	12,926.8	727.7	1,169.8	1,037.2	132.65	8.819		
24,500.0	11,776.0	11,801.0	11,710.9	98.6	41.5	86.51	12,938.1	725.3	1,133.8	998.2	135.57	8.363		
24,600.0	11,776.0	11,854.1	11,758.0	99.4	41.6	89.03	12,961.7	719.6	1,104.2	966.2	138.00	8.002		
24,700.0	11,776.0	11,925.2	11,815.9	100.1	41.8	92.17	13,001.4	708.4	1,079.9	940.0	139.91	7.719		
24,746.9	11,776.0	11,954.1	11,837.1	100.5	41.8	93.34	13,020.1	703.2	1,070.3	929.6	140.71	7.607	CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	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	0.3	3.0	3.0	-90.63	-0.7	-59.8	59.8				
100.0	100.0	99.7	100.0	3.0	3.0	-90.63	-0.7	-59.8	59.8	53.8	6.05	9.886	
200.0	200.0	199.7	200.0	3.2	3.2	-90.63	-0.7	-59.8	59.8	53.5	6.30	9.502	
300.0	300.0	299.7	300.0	3.3	3.3	-90.63	-0.7	-59.8	59.8	53.3	6.53	9.159	
400.0	400.0	399.7	400.0	3.4	3.4	-90.63	-0.7	-59.8	59.8	53.1	6.76	8.850	
500.0	500.0	499.7	500.0	3.5	3.5	-90.63	-0.7	-59.8	59.8	52.8	6.98	8.571	
600.0	600.0	599.7	600.0	3.6	3.6	-90.63	-0.7	-59.8	59.8	52.6	7.19	8.317	
700.0	700.0	699.7	700.0	3.8	3.8	-90.63	-0.7	-59.8	59.8	52.4	7.40	8.084	
800.0	800.0	799.7	800.0	3.9	3.9	-90.63	-0.7	-59.8	59.8	52.2	7.60	7.869	
900.0	900.0	899.7	900.0	4.0	4.0	-90.63	-0.7	-59.8	59.8	52.0	7.80	7.671	
1,000.0	1,000.0	999.7	1,000.0	4.1	4.1	-90.63	-0.7	-59.8	59.8	51.8	7.99	7.487	
1,100.0	1,100.0	1,099.7	1,100.0	4.3	4.2	68.33	-0.7	-59.8	59.2	51.0	8.19	7.221	
1,200.0	1,199.8	1,199.5	1,199.8	4.6	4.4	73.22	-0.7	-59.8	57.4	49.0	8.47	6.782	
1,300.0	1,299.5	1,299.2	1,299.5	4.9	4.5	81.86	-0.7	-59.8	55.5	46.8	8.74	6.358	
1,368.0	1,366.9	1,366.6	1,366.9	5.2	4.6	90.00	-0.7	-59.8	55.0	46.0	8.94	6.152 CC, ES	
1,400.0	1,398.7	1,398.4	1,398.7	5.3	4.6	94.41	-0.7	-59.8	55.1	46.1	9.05	6.096	
1,500.0	1,497.7	1,497.4	1,497.7	5.5	4.7	108.15	-0.7	-59.8	57.9	48.4	9.46	6.120	
1,600.0	1,596.8	1,596.0	1,596.3	5.8	4.8	118.96	-1.1	-60.9	64.0	54.1	9.92	6.449	
1,700.0	1,695.8	1,695.0	1,695.2	6.1	5.0	125.69	-2.6	-64.4	72.3	61.9	10.41	6.943	
1,800.0	1,794.8	1,794.3	1,794.3	6.4	5.2	129.19	-5.1	-70.2	81.5	70.7	10.86	7.509	
1,900.0	1,893.8	1,893.6	1,893.2	6.7	5.4	130.34	-8.6	-78.5	91.2	79.9	11.27	8.090	
2,000.0	1,992.9	1,993.0	1,991.9	7.1	5.6	129.80	-13.1	-89.1	101.0	89.3	11.64	8.673	
2,100.0	2,091.9	2,092.1	2,090.1	7.4	5.9	128.03	-18.6	-102.0	111.1	99.1	11.98	9.266	
2,200.0	2,190.9	2,191.1	2,187.6	7.8	6.2	125.35	-25.0	-117.2	121.6	109.3	12.30	9.888	
2,300.0	2,289.9	2,290.0	2,284.7	8.1	6.5	122.18	-32.3	-134.4	132.8	120.2	12.53	10.596	
2,400.0	2,389.0	2,389.1	2,382.0	8.5	6.8	119.42	-39.7	-151.8	144.3	131.5	12.84	11.245	
2,500.0	2,488.0	2,488.2	2,479.3	8.9	7.1	117.07	-47.1	-169.2	156.2	143.0	13.17	11.865	
2,600.0	2,587.0	2,587.3	2,576.6	9.2	7.5	115.05	-54.5	-186.6	168.3	154.8	13.51	12.456	
2,700.0	2,686.1	2,686.4	2,673.9	9.6	7.8	113.31	-61.9	-204.0	180.6	166.7	13.87	13.016	
2,800.0	2,785.1	2,785.5	2,771.1	10.0	8.2	111.78	-69.2	-221.4	193.0	178.7	14.25	13.545	
2,900.0	2,884.1	2,884.6	2,868.4	10.4	8.6	110.45	-76.6	-238.8	205.5	190.9	14.63	14.043	
3,000.0	2,983.1	2,983.7	2,965.7	10.8	9.0	109.26	-84.0	-256.2	218.1	203.1	15.03	14.511	
3,100.0	3,082.2	3,082.8	3,063.0	11.2	9.4	108.21	-91.4	-273.6	230.8	215.4	15.44	14.950	
3,200.0	3,181.2	3,181.9	3,160.3	11.6	9.8	107.26	-98.8	-291.0	243.6	227.7	15.86	15.362	
3,300.0	3,280.2	3,281.0	3,257.6	12.0	10.2	106.41	-106.2	-308.4	256.4	240.1	16.28	15.748	
3,400.0	3,379.2	3,380.1	3,354.8	12.4	10.6	105.64	-113.6	-325.8	269.3	252.6	16.72	16.111	
3,500.0	3,478.3	3,479.2	3,452.1	12.8	11.0	104.94	-121.0	-343.2	282.2	265.1	17.16	16.452	
3,600.0	3,577.3	3,578.3	3,549.4	13.2	11.4	104.31	-128.4	-360.7	295.2	277.6	17.60	16.773	
3,700.0	3,676.3	3,677.4	3,646.7	13.6	11.8	103.72	-135.7	-378.1	308.2	290.2	18.05	17.074	
3,800.0	3,775.3	3,776.5	3,744.0	14.0	12.3	103.19	-143.1	-395.5	321.2	302.7	18.51	17.357	
3,900.0	3,874.4	3,875.6	3,841.3	14.4	12.7	102.70	-150.5	-412.9	334.2	315.2	18.93	17.653	
4,000.0	3,973.7	3,974.7	3,938.5	14.8	13.1	102.02	-157.9	-430.3	346.8	327.4	19.39	17.882	
4,100.0	4,073.2	4,073.7	4,035.7	15.2	13.6	101.12	-165.3	-447.7	359.2	339.3	19.86	18.081	
4,200.0	4,172.9	4,172.7	4,132.9	15.6	14.0	100.01	-172.7	-465.1	371.3	351.0	20.34	18.252	
4,300.0	4,272.7	4,271.5	4,229.9	15.9	14.4	98.73	-180.0	-482.4	383.4	362.5	20.84	18.396	
4,400.0	4,372.6	4,370.2	4,326.8	16.3	14.9	97.29	-187.4	-499.7	395.4	374.1	21.36	18.514	
4,500.0	4,472.5	4,468.8	4,423.5	16.6	15.3	95.70	-194.7	-517.1	407.6	385.7	21.90	18.609	
4,600.0	4,572.5	4,567.1	4,520.0	16.8	15.7	93.98	-202.1	-534.3	420.0	397.5	22.48	18.682	
4,700.0	4,672.5	4,665.3	4,616.4	16.8	16.2	-65.28	-209.4	-551.6	432.7	409.7	23.01	18.804	
4,800.0	4,772.5	4,763.4	4,712.8	16.9	16.6	-67.08	-216.7	-568.8	445.9	422.3	23.59	18.898	
4,900.0	4,872.5	4,861.6	4,809.1	16.9	17.1	-68.78	-224.0	-586.1	459.5	435.3	24.20	18.988	
5,000.0	4,972.5	4,959.8	4,905.5	16.9	17.5	-70.37	-231.4	-603.3	473.5	448.6	24.82	19.078	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	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)	Factor	
5,100.0	5,072.5	5,057.9	5,001.8	17.0	17.9	-71.88	-238.7	-620.5	487.8	462.3	25.45	19.168	
5,200.0	5,172.5	5,156.1	5,098.2	17.0	18.4	-73.30	-246.0	-637.8	502.4	476.3	26.09	19.260	
5,300.0	5,272.5	5,254.3	5,194.6	17.0	18.8	-74.64	-253.3	-655.0	517.4	490.6	26.73	19.355	
5,400.0	5,372.5	5,352.4	5,290.9	17.1	19.3	-75.91	-260.6	-672.3	532.6	505.2	27.38	19.452	
5,500.0	5,472.5	5,450.6	5,387.3	17.1	19.7	-77.10	-267.9	-689.5	548.0	520.0	28.03	19.552	
5,600.0	5,572.5	5,548.7	5,483.6	17.1	20.2	-78.23	-275.3	-706.7	563.7	535.0	28.68	19.656	
5,700.0	5,672.5	5,646.9	5,580.0	17.2	20.6	-79.30	-282.6	-724.0	579.5	550.2	29.33	19.762	
5,800.0	5,772.5	5,745.1	5,676.3	17.2	21.0	-80.31	-289.9	-741.2	595.6	565.6	29.97	19.871	
5,900.0	5,872.5	5,843.2	5,772.7	17.2	21.5	-81.27	-297.2	-758.5	611.8	581.2	30.62	19.983	
6,000.0	5,972.5	5,941.4	5,869.1	17.3	21.9	-82.19	-304.5	-775.7	628.2	596.9	31.26	20.097	
6,100.0	6,072.5	6,040.5	5,966.3	17.3	22.4	-83.06	-311.9	-793.1	644.7	612.8	31.89	20.215	
6,200.0	6,172.5	6,143.9	6,068.0	17.3	22.8	-83.90	-319.4	-810.7	660.9	628.3	32.54	20.310	
6,300.0	6,272.5	6,247.6	6,170.1	17.4	23.3	-84.66	-326.5	-827.5	676.4	643.2	33.17	20.388	
6,400.0	6,372.5	6,351.7	6,272.7	17.4	23.8	-85.35	-333.3	-843.5	691.1	657.4	33.79	20.452	
6,500.0	6,472.5	6,456.2	6,375.8	17.5	24.2	-85.98	-339.8	-858.7	705.2	670.8	34.40	20.503	
6,600.0	6,572.5	6,560.9	6,479.4	17.5	24.7	-86.55	-345.8	-873.0	718.6	683.6	34.98	20.541	
6,700.0	6,672.5	6,665.8	6,583.3	17.5	25.1	-87.06	-351.6	-886.6	731.1	695.6	35.55	20.566	
6,800.0	6,772.5	6,771.1	6,687.7	17.6	25.6	-87.53	-357.0	-899.2	742.9	706.8	36.10	20.578	
6,900.0	6,872.5	6,876.6	6,792.4	17.6	26.0	-87.95	-362.0	-911.1	754.0	717.3	36.64	20.577	
7,000.0	6,972.5	6,982.3	6,897.4	17.6	26.5	-88.33	-366.6	-922.0	764.2	727.0	37.16	20.564	
7,100.0	7,072.5	7,088.3	7,002.8	17.7	26.9	-88.67	-370.9	-932.1	773.6	735.9	37.67	20.539	
7,200.0	7,172.5	7,194.4	7,108.5	17.7	27.3	-88.97	-374.8	-941.3	782.2	744.1	38.15	20.502	
7,300.0	7,272.5	7,300.7	7,214.4	17.8	27.7	-89.24	-378.4	-949.6	790.0	751.4	38.62	20.455	
7,400.0	7,372.5	7,407.2	7,320.6	17.8	28.1	-89.48	-381.5	-957.0	796.9	757.8	39.07	20.396	
7,500.0	7,472.5	7,513.8	7,426.9	17.8	28.5	-89.68	-384.3	-963.5	803.0	763.5	39.50	20.328	
7,600.0	7,572.5	7,620.5	7,533.5	17.9	28.9	-89.85	-386.6	-969.2	808.3	768.3	39.91	20.250	
7,700.0	7,672.5	7,727.4	7,640.2	17.9	29.2	-89.99	-388.6	-973.9	812.7	772.4	40.30	20.164	
7,800.0	7,772.5	7,834.3	7,747.1	18.0	29.6	-90.10	-390.3	-977.6	816.2	775.5	40.67	20.070	
7,900.0	7,872.5	7,941.3	7,854.0	18.0	29.9	-90.19	-391.5	-980.5	818.9	777.9	41.01	19.970	
8,000.0	7,972.5	8,048.3	7,961.0	18.0	30.2	-90.25	-392.3	-982.5	820.7	779.4	41.31	19.867	
8,100.0	8,072.5	8,155.4	8,068.1	18.1	30.4	-90.28	-392.7	-983.5	821.7	780.1	41.57	19.768	
8,200.0	8,172.5	8,259.8	8,172.5	18.1	30.6	-90.28	-392.8	-983.7	821.9	780.2	41.71	19.706	
8,300.0	8,272.5	8,359.8	8,272.5	18.2	30.6	-90.28	-392.8	-983.7	821.9	780.1	41.78	19.673	
8,400.0	8,372.5	8,459.8	8,372.5	18.2	30.6	-90.28	-392.8	-983.7	821.9	780.0	41.85	19.637	
8,500.0	8,472.5	8,559.8	8,472.5	18.2	30.6	-90.28	-392.8	-983.7	821.9	779.9	41.93	19.602	
8,600.0	8,572.5	8,659.8	8,572.5	18.3	30.6	-90.28	-392.8	-983.7	821.9	779.9	42.00	19.567	
8,700.0	8,672.5	8,759.8	8,672.5	18.3	30.6	-90.28	-392.8	-983.7	821.9	779.8	42.08	19.531	
8,800.0	8,772.5	8,859.8	8,772.5	18.4	30.7	-90.28	-392.8	-983.7	821.9	779.7	42.16	19.496	
8,900.0	8,872.5	8,959.8	8,872.5	18.4	30.7	-90.28	-392.8	-983.7	821.9	779.6	42.23	19.460	
9,000.0	8,972.5	9,059.8	8,972.5	18.5	30.7	-90.28	-392.8	-983.7	821.9	779.5	42.31	19.425	
9,100.0	9,072.5	9,159.8	9,072.5	18.5	30.7	-90.28	-392.8	-983.7	821.9	779.5	42.39	19.389	
9,200.0	9,172.5	9,259.8	9,172.5	18.5	30.7	-90.28	-392.8	-983.7	821.9	779.4	42.47	19.353	
9,300.0	9,272.5	9,359.8	9,272.5	18.6	30.8	-90.28	-392.8	-983.7	821.9	779.3	42.55	19.317	
9,400.0	9,372.5	9,459.8	9,372.5	18.6	30.8	-90.28	-392.8	-983.7	821.9	779.2	42.63	19.281	
9,500.0	9,472.5	9,559.8	9,472.5	18.7	30.8	-90.28	-392.8	-983.7	821.9	779.2	42.71	19.245	
9,600.0	9,572.5	9,659.8	9,572.5	18.7	30.8	-90.28	-392.8	-983.7	821.9	779.1	42.79	19.209	
9,700.0	9,672.5	9,759.8	9,672.5	18.8	30.8	-90.28	-392.8	-983.7	821.9	779.0	42.87	19.172	
9,800.0	9,772.5	9,859.8	9,772.5	18.8	30.9	-90.28	-392.8	-983.7	821.9	778.9	42.95	19.136	
9,900.0	9,872.5	9,959.8	9,872.5	18.9	30.9	-90.28	-392.8	-983.7	821.9	778.8	43.03	19.100	
10,000.0	9,972.5	10,059.8	9,972.5	18.9	30.9	-90.28	-392.8	-983.7	821.9	778.7	43.11	19.063	
10,100.0	10,072.5	10,159.8	10,072.5	19.0	30.9	-90.28	-392.8	-983.7	821.9	778.7	43.19	19.027	
10,200.0	10,172.5	10,259.8	10,172.5	19.0	31.0	-90.28	-392.8	-983.7	821.9	778.6	43.28	18.991	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.0	10,272.5	10,359.8	10,272.5	19.1	31.0	-90.28	-392.8	-983.7	821.9	778.5	43.36	18.954	
10,400.0	10,372.5	10,459.8	10,372.5	19.1	31.0	-90.28	-392.8	-983.7	821.9	778.4	43.44	18.917	
10,500.0	10,472.5	10,559.8	10,472.5	19.1	31.0	-90.28	-392.8	-983.7	821.9	778.3	43.53	18.881	
10,600.0	10,572.5	10,659.8	10,572.5	19.2	31.1	-90.28	-392.8	-983.7	821.9	778.2	43.61	18.844	
10,700.0	10,672.5	10,759.8	10,672.5	19.2	31.1	-90.28	-392.8	-983.7	821.9	778.2	43.70	18.807	
10,800.0	10,772.5	10,859.8	10,772.5	19.3	31.1	-90.28	-392.8	-983.7	821.9	778.1	43.78	18.771	
10,900.0	10,872.5	10,959.8	10,872.5	19.3	31.1	-90.28	-392.8	-983.7	821.9	778.0	43.87	18.734	
11,000.0	10,972.5	11,059.8	10,972.5	19.4	31.1	-90.28	-392.8	-983.7	821.9	777.9	43.96	18.697	
11,100.0	11,072.5	11,159.8	11,072.5	19.4	31.2	-90.28	-392.8	-983.7	821.9	777.8	44.04	18.660	
11,200.0	11,172.5	11,259.8	11,172.5	19.5	31.2	-90.28	-392.8	-983.7	821.9	777.7	44.13	18.624	
11,300.0	11,272.3	11,359.1	11,271.6	19.6	31.2	-89.50	-388.6	-983.7	821.9	777.7	44.16	18.611	
11,400.0	11,370.0	11,458.0	11,368.3	19.7	31.2	-89.50	-368.2	-984.0	821.8	777.6	44.17	18.604	
11,500.0	11,462.7	11,557.0	11,460.1	19.8	31.3	-89.53	-331.6	-984.4	821.8	777.6	44.18	18.601	
11,600.0	11,547.4	11,656.0	11,544.3	19.9	31.3	-89.57	-279.6	-985.1	821.7	777.5	44.18	18.599	
11,700.0	11,621.7	11,755.2	11,618.3	20.0	31.3	-89.62	-213.9	-985.9	821.6	777.4	44.19	18.594	
11,800.0	11,683.3	11,854.4	11,680.0	20.2	31.3	-89.68	-136.3	-986.8	821.5	777.3	44.21	18.580	
11,900.0	11,730.2	11,953.8	11,727.4	20.3	31.4	-89.76	-49.1	-987.9	821.4	777.1	44.28	18.551	
12,000.0	11,761.2	12,053.3	11,759.1	20.3	31.5	-89.84	45.1	-989.1	821.2	776.9	44.38	18.503	
12,100.0	11,775.1	12,153.1	11,774.1	20.4	31.5	-89.92	143.6	-990.3	821.1	776.6	44.54	18.433	
12,200.0	11,776.0	12,253.0	11,775.3	20.4	31.6	-89.95	243.5	-991.5	821.0	776.2	44.77	18.338	
12,300.0	11,776.0	12,353.0	11,775.3	20.5	31.7	-89.95	343.5	-992.8	820.8	775.8	45.07	18.214	
12,400.0	11,776.0	12,453.0	11,775.3	20.5	31.9	-89.95	443.5	-994.0	820.7	775.3	45.42	18.070	
12,500.0	11,776.0	12,553.0	11,775.3	20.6	32.0	-89.95	543.5	-995.2	820.6	774.7	45.82	17.907	
12,600.0	11,776.0	12,653.0	11,775.3	20.6	32.2	-89.95	643.5	-996.5	820.4	774.1	46.28	17.728	
12,700.0	11,776.0	12,753.0	11,775.3	20.7	32.3	-89.95	743.5	-997.7	820.3	773.5	46.78	17.534	
12,800.0	11,776.0	12,853.0	11,775.3	20.8	32.5	-89.95	843.5	-998.9	820.2	772.8	47.33	17.327	
12,900.0	11,776.0	12,953.0	11,775.3	20.9	32.7	-89.95	943.4	-1,000.2	820.0	772.1	47.93	17.109	
13,000.0	11,776.0	13,053.0	11,775.3	21.0	32.9	-89.95	1,043.4	-1,001.4	819.9	771.3	48.57	16.882	
13,100.0	11,776.0	13,153.0	11,775.3	21.1	33.2	-89.95	1,143.4	-1,002.6	819.7	770.5	49.24	16.647	
13,200.0	11,776.0	13,253.0	11,775.3	21.3	33.4	-89.95	1,243.4	-1,003.9	819.6	769.7	49.96	16.405	
13,300.0	11,776.0	13,353.0	11,775.3	21.5	33.7	-89.95	1,343.4	-1,005.1	819.5	768.8	50.71	16.160	
13,400.0	11,776.0	13,453.0	11,775.3	21.7	33.9	-89.95	1,443.4	-1,006.3	819.3	767.8	51.50	15.910	
13,500.0	11,776.0	13,553.0	11,775.3	21.9	34.2	-89.95	1,543.4	-1,007.6	819.2	766.9	52.32	15.658	
13,600.0	11,776.0	13,653.0	11,775.3	22.2	34.5	-89.95	1,643.4	-1,008.8	819.1	765.9	53.17	15.406	
13,700.0	11,776.0	13,753.0	11,775.3	22.5	34.8	-89.95	1,743.4	-1,010.0	818.9	764.9	54.05	15.153	
13,800.0	11,776.0	13,853.0	11,775.3	22.8	35.2	-89.95	1,843.4	-1,011.3	818.8	763.8	54.95	14.900	
13,900.0	11,776.0	13,953.0	11,775.3	23.2	35.5	-89.95	1,943.4	-1,012.5	818.7	762.8	55.88	14.649	
14,000.0	11,776.0	14,053.0	11,775.3	23.6	35.8	-89.95	2,043.4	-1,013.7	818.5	761.7	56.84	14.400	
14,100.0	11,776.0	14,153.0	11,775.3	24.1	36.2	-89.95	2,143.4	-1,015.0	818.4	760.6	57.82	14.153	
14,200.0	11,776.0	14,253.0	11,775.3	24.6	36.6	-89.95	2,243.3	-1,016.2	818.3	759.4	58.83	13.910	
14,300.0	11,776.0	14,353.0	11,775.3	25.1	36.9	-89.95	2,343.3	-1,017.4	818.1	758.3	59.85	13.669	
14,400.0	11,776.0	14,453.0	11,775.3	25.6	37.3	-89.95	2,443.3	-1,018.6	818.0	757.1	60.89	13.433	
14,500.0	11,776.0	14,553.0	11,775.3	26.2	37.7	-89.95	2,543.3	-1,019.9	817.9	755.9	61.96	13.200	
14,600.0	11,776.0	14,653.0	11,775.3	26.8	38.2	-89.95	2,643.3	-1,021.1	817.7	754.7	63.04	12.972	
14,700.0	11,776.0	14,753.0	11,775.3	27.3	38.6	-89.95	2,743.3	-1,022.3	817.6	753.4	64.14	12.747	
14,800.0	11,776.0	14,853.0	11,775.3	27.9	39.0	-89.95	2,843.3	-1,023.6	817.4	752.2	65.25	12.528	
14,900.0	11,776.0	14,953.0	11,775.3	28.6	39.5	-89.95	2,943.3	-1,024.8	817.3	750.9	66.38	12.312	
15,000.0	11,776.0	15,053.0	11,775.3	29.2	39.9	-89.95	3,043.3	-1,026.0	817.2	749.6	67.53	12.102	
15,100.0	11,776.0	15,153.0	11,775.3	29.8	40.4	-89.95	3,143.3	-1,027.3	817.0	748.4	68.68	11.896	
15,200.0	11,776.0	15,253.0	11,775.3	30.5	40.9	-89.95	3,243.3	-1,028.5	816.9	747.0	69.86	11.694	
15,300.0	11,776.0	15,353.0	11,775.3	31.1	41.3	-89.95	3,343.3	-1,029.7	816.8	745.7	71.04	11.497	
15,400.0	11,776.0	15,453.0	11,775.3	31.8	41.8	-89.95	3,443.3	-1,031.0	816.6	744.4	72.24	11.305	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,500.0	11,776.0	15,553.0	11,775.3	32.4	42.3	-89.95	3,543.2	-1,032.2	816.5	743.1	73.45	11.117	
15,600.0	11,776.0	15,653.0	11,775.3	33.1	42.8	-89.95	3,643.2	-1,033.4	816.4	741.7	74.67	10.934	
15,700.0	11,776.0	15,753.0	11,775.3	33.8	43.4	-89.95	3,743.2	-1,034.7	816.2	740.3	75.89	10.755	
15,800.0	11,776.0	15,853.0	11,775.3	34.4	43.9	-89.95	3,843.2	-1,035.9	816.1	739.0	77.13	10.580	
15,900.0	11,776.0	15,953.0	11,775.3	35.1	44.4	-89.95	3,943.2	-1,037.1	816.0	737.6	78.38	10.410	
16,000.0	11,776.0	16,053.0	11,775.3	35.8	44.9	-89.95	4,043.2	-1,038.4	815.8	736.2	79.64	10.244	
16,100.0	11,776.0	16,153.0	11,775.3	36.5	45.5	-89.95	4,143.2	-1,039.6	815.7	734.8	80.91	10.081	
16,200.0	11,776.0	16,253.0	11,775.3	37.2	46.0	-89.95	4,243.2	-1,040.8	815.5	733.4	82.18	9.923	
16,300.0	11,776.0	16,353.0	11,775.3	37.9	46.6	-89.95	4,343.2	-1,042.1	815.4	731.9	83.47	9.769	
16,400.0	11,776.0	16,453.0	11,775.3	38.6	47.2	-89.95	4,443.2	-1,043.3	815.3	730.5	84.76	9.619	
16,500.0	11,776.0	16,553.0	11,775.3	39.3	47.7	-89.95	4,543.2	-1,044.5	815.1	729.1	86.06	9.472	
16,600.0	11,776.0	16,653.0	11,775.3	40.0	48.3	-89.95	4,643.2	-1,045.8	815.0	727.6	87.36	9.329	
16,700.0	11,776.0	16,753.0	11,775.3	40.7	48.9	-89.95	4,743.2	-1,047.0	814.9	726.2	88.68	9.189	
16,800.0	11,776.0	16,853.0	11,775.3	41.4	49.5	-89.95	4,843.1	-1,048.2	814.7	724.7	89.99	9.053	
16,900.0	11,776.0	16,953.0	11,775.3	42.1	50.0	-89.95	4,943.1	-1,049.5	814.6	723.3	91.32	8.920	
17,000.0	11,776.0	17,053.0	11,775.3	42.8	50.6	-89.95	5,043.1	-1,050.7	814.5	721.8	92.65	8.791	
17,100.0	11,776.0	17,153.0	11,775.3	43.6	51.2	-89.95	5,143.1	-1,051.9	814.3	720.3	93.99	8.664	
17,200.0	11,776.0	17,253.0	11,775.3	44.3	51.8	-89.95	5,243.1	-1,053.2	814.2	718.9	95.33	8.541	
17,300.0	11,776.0	17,353.0	11,775.3	45.0	52.4	-89.95	5,343.1	-1,054.4	814.1	717.4	96.68	8.421	
17,400.0	11,776.0	17,453.0	11,775.3	45.7	53.1	-89.95	5,443.1	-1,055.6	813.9	715.9	98.03	8.303	
17,500.0	11,776.0	17,553.0	11,775.3	46.4	53.7	-89.95	5,543.1	-1,056.9	813.8	714.4	99.39	8.188	
17,600.0	11,776.0	17,653.0	11,775.3	47.2	54.3	-89.95	5,643.1	-1,058.1	813.7	712.9	100.75	8.076	
17,700.0	11,776.0	17,753.0	11,775.3	47.9	54.9	-89.95	5,743.1	-1,059.3	813.5	711.4	102.11	7.967	
17,800.0	11,776.0	17,853.0	11,775.3	48.6	55.5	-89.95	5,843.1	-1,060.6	813.4	709.9	103.48	7.860	
17,900.0	11,776.0	17,953.0	11,775.3	49.3	56.2	-89.95	5,943.1	-1,061.8	813.2	708.4	104.86	7.756	
18,000.0	11,776.0	18,053.0	11,775.3	50.1	56.8	-89.95	6,043.1	-1,063.0	813.1	706.9	106.24	7.654	
18,100.0	11,776.0	18,153.0	11,775.3	50.8	57.4	-89.95	6,143.0	-1,064.3	813.0	705.4	107.62	7.554	
18,200.0	11,776.0	18,253.0	11,775.3	51.5	58.1	-89.95	6,243.0	-1,065.5	812.8	703.8	109.01	7.457	
18,300.0	11,776.0	18,353.0	11,775.3	52.3	58.7	-89.95	6,343.0	-1,066.7	812.7	702.3	110.40	7.362	
18,400.0	11,776.0	18,453.0	11,775.3	53.0	59.4	-89.95	6,443.0	-1,068.0	812.6	700.8	111.79	7.269	
18,500.0	11,776.0	18,553.0	11,775.3	53.7	60.0	-89.95	6,543.0	-1,069.2	812.4	699.2	113.19	7.178	
18,600.0	11,776.0	18,653.0	11,775.3	54.5	60.7	-89.95	6,643.0	-1,070.4	812.3	697.7	114.59	7.089	
18,700.0	11,776.0	18,753.0	11,775.3	55.2	61.3	-89.95	6,743.0	-1,071.7	812.2	696.2	115.99	7.002	
18,800.0	11,776.0	18,853.0	11,775.3	55.9	62.0	-89.95	6,843.0	-1,072.9	812.0	694.6	117.40	6.917	
18,900.0	11,776.0	18,953.0	11,775.3	56.7	62.7	-89.95	6,943.0	-1,074.1	811.9	693.1	118.81	6.834	
19,000.0	11,776.0	19,053.0	11,775.3	57.4	63.3	-89.95	7,043.0	-1,075.4	811.8	691.5	120.22	6.752	
19,100.0	11,776.0	19,153.0	11,775.3	58.1	64.0	-89.95	7,143.0	-1,076.6	811.6	690.0	121.63	6.673	
19,200.0	11,776.0	19,253.0	11,775.3	58.9	64.7	-89.95	7,243.0	-1,077.8	811.5	688.4	123.05	6.595	
19,300.0	11,776.0	19,353.0	11,775.3	59.6	65.3	-89.95	7,343.0	-1,079.1	811.4	686.9	124.47	6.519	
19,400.0	11,776.0	19,453.0	11,775.3	60.4	66.0	-89.95	7,442.9	-1,080.3	811.2	685.3	125.89	6.444	
19,500.0	11,776.0	19,553.0	11,775.3	61.1	66.7	-89.95	7,542.9	-1,081.5	811.1	683.8	127.32	6.371	
19,600.0	11,776.0	19,653.0	11,775.3	61.8	67.3	-89.95	7,642.9	-1,082.8	810.9	682.2	128.74	6.299	
19,700.0	11,776.0	19,753.0	11,775.3	62.6	68.0	-89.95	7,742.9	-1,084.0	810.8	680.6	130.17	6.229	
19,800.0	11,776.0	19,853.0	11,775.3	63.3	68.7	-89.95	7,842.9	-1,085.2	810.7	679.1	131.60	6.160	
19,900.0	11,776.0	19,953.0	11,775.3	64.1	69.4	-89.95	7,942.9	-1,086.5	810.5	677.5	133.04	6.093	
20,000.0	11,776.0	20,053.0	11,775.3	64.8	70.1	-89.95	8,042.9	-1,087.7	810.4	675.9	134.47	6.027	
20,100.0	11,776.0	20,153.0	11,775.3	65.6	70.8	-89.95	8,142.9	-1,088.9	810.3	674.4	135.91	5.962	
20,200.0	11,776.0	20,253.0	11,775.3	66.3	71.4	-89.95	8,242.9	-1,090.1	810.1	672.8	137.35	5.898	
20,300.0	11,776.0	20,353.0	11,775.3	67.0	72.1	-89.95	8,342.9	-1,091.4	810.0	671.2	138.79	5.836	
20,400.0	11,776.0	20,453.0	11,775.3	67.8	72.8	-89.95	8,442.9	-1,092.6	809.9	669.6	140.23	5.775	
20,500.0	11,776.0	20,553.0	11,775.3	68.5	73.5	-89.95	8,542.9	-1,093.8	809.7	668.1	141.68	5.715	
20,600.0	11,776.0	20,653.0	11,775.3	69.3	74.2	-89.95	8,642.9	-1,095.1	809.6	666.5	143.12	5.657	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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	
20,700.0	11,776.0	20,753.0	11,775.3	70.0	74.9	-89.95	8,742.8	-1,096.3	809.5	664.9	144.57	5.599	
20,800.0	11,776.0	20,853.0	11,775.3	70.8	75.6	-89.95	8,842.8	-1,097.5	809.3	663.3	146.02	5.543	
20,900.0	11,776.0	20,953.0	11,775.3	71.5	76.3	-89.95	8,942.8	-1,098.8	809.2	661.7	147.47	5.487	
21,000.0	11,776.0	21,053.0	11,775.3	72.3	77.0	-89.95	9,042.8	-1,100.0	809.1	660.1	148.92	5.433	
21,100.0	11,776.0	21,153.0	11,775.3	73.0	77.7	-89.95	9,142.8	-1,101.2	808.9	658.5	150.38	5.379	
21,200.0	11,776.0	21,253.0	11,775.3	73.8	78.4	-89.95	9,242.8	-1,102.5	808.8	656.9	151.83	5.327	
21,300.0	11,776.0	21,353.0	11,775.3	74.5	79.1	-89.95	9,342.8	-1,103.7	808.6	655.4	153.29	5.275	
21,400.0	11,776.0	21,453.0	11,775.3	75.3	79.8	-89.95	9,442.8	-1,104.9	808.5	653.8	154.75	5.225	
21,500.0	11,776.0	21,553.0	11,775.3	76.0	80.5	-89.95	9,542.8	-1,106.2	808.4	652.2	156.21	5.175	
21,600.0	11,776.0	21,653.0	11,775.3	76.8	81.2	-89.95	9,642.8	-1,107.4	808.2	650.6	157.67	5.126	
21,700.0	11,776.0	21,753.0	11,775.3	77.5	81.9	-89.95	9,742.8	-1,108.6	808.1	649.0	159.13	5.078	
21,800.0	11,776.0	21,853.0	11,775.3	78.3	82.6	-89.95	9,842.8	-1,109.9	808.0	647.4	160.59	5.031	
21,900.0	11,776.0	21,953.0	11,775.3	79.0	83.3	-89.95	9,942.8	-1,111.1	807.8	645.8	162.06	4.985	
22,000.0	11,776.0	22,053.0	11,775.3	79.8	84.0	-89.95	10,042.7	-1,112.3	807.7	644.2	163.52	4.939	
22,100.0	11,776.0	22,153.0	11,775.3	80.5	84.8	-89.95	10,142.7	-1,113.6	807.6	642.6	164.99	4.895	
22,200.0	11,776.0	22,253.0	11,775.3	81.3	85.5	-89.95	10,242.7	-1,114.8	807.4	641.0	166.46	4.851	
22,300.0	11,776.0	22,353.0	11,775.3	82.0	86.2	-89.95	10,342.7	-1,116.0	807.3	639.4	167.93	4.807	
22,400.0	11,776.0	22,453.0	11,775.3	82.8	86.9	-89.95	10,442.7	-1,117.3	807.2	637.8	169.40	4.765	
22,500.0	11,776.0	22,553.0	11,775.3	83.5	87.6	-89.95	10,542.7	-1,118.5	807.0	636.2	170.87	4.723	
22,600.0	11,776.0	22,653.0	11,775.3	84.3	88.3	-89.95	10,642.7	-1,119.7	806.9	634.5	172.34	4.682	
22,700.0	11,776.0	22,753.0	11,775.3	85.0	89.0	-89.95	10,742.7	-1,121.0	806.7	632.9	173.81	4.641	
22,800.0	11,776.0	22,853.0	11,775.3	85.8	89.8	-89.95	10,842.7	-1,122.2	806.6	631.3	175.29	4.602	
22,900.0	11,776.0	22,953.0	11,775.3	86.5	90.5	-89.95	10,942.7	-1,123.4	806.5	629.7	176.76	4.563	
23,000.0	11,776.0	23,053.0	11,775.3	87.3	91.2	-89.95	11,042.7	-1,124.7	806.3	628.1	178.24	4.524	
23,100.0	11,776.0	23,153.0	11,775.3	88.0	91.9	-89.95	11,142.7	-1,125.9	806.2	626.5	179.71	4.486	
23,200.0	11,776.0	23,253.0	11,775.3	88.8	92.6	-89.95	11,242.7	-1,127.1	806.1	624.9	181.19	4.449	
23,300.0	11,776.0	23,353.0	11,775.3	89.6	93.4	-89.95	11,342.6	-1,128.4	805.9	623.3	182.67	4.412	
23,400.0	11,776.0	23,453.0	11,775.3	90.3	94.1	-89.95	11,442.6	-1,129.6	805.8	621.7	184.15	4.376	
23,500.0	11,776.0	23,553.0	11,775.3	91.1	94.8	-89.95	11,542.6	-1,130.8	805.7	620.0	185.63	4.340	
23,600.0	11,776.0	23,653.0	11,775.3	91.8	95.5	-89.95	11,642.6	-1,132.1	805.5	618.4	187.11	4.305	
23,700.0	11,776.0	23,753.0	11,775.3	92.6	96.2	-89.95	11,742.6	-1,133.3	805.4	616.8	188.59	4.271	
23,800.0	11,776.0	23,853.0	11,775.3	93.3	97.0	-89.95	11,842.6	-1,134.5	805.3	615.2	190.07	4.237	
23,900.0	11,776.0	23,953.0	11,775.3	94.1	97.7	-89.95	11,942.6	-1,135.8	805.1	613.6	191.55	4.203	
24,000.0	11,776.0	24,053.0	11,775.3	94.8	98.4	-89.95	12,042.6	-1,137.0	805.0	612.0	193.04	4.170	
24,100.0	11,776.0	24,153.0	11,775.3	95.6	99.1	-89.95	12,142.6	-1,138.2	804.9	610.3	194.52	4.138	
24,200.0	11,776.0	24,253.0	11,775.3	96.3	99.9	-89.95	12,242.6	-1,139.5	804.7	608.7	196.01	4.106	
24,300.0	11,776.0	24,353.0	11,775.3	97.1	100.6	-89.95	12,342.6	-1,140.7	804.6	607.1	197.49	4.074	
24,400.0	11,776.0	24,453.0	11,775.3	97.9	101.3	-89.95	12,442.6	-1,141.9	804.4	605.5	198.98	4.043	
24,500.0	11,776.0	24,553.0	11,775.3	98.6	102.1	-89.95	12,542.6	-1,143.2	804.3	603.8	200.46	4.012	
24,600.0	11,776.0	24,653.0	11,775.3	99.4	102.8	-89.95	12,642.5	-1,144.4	804.2	602.2	201.95	3.982	
24,700.0	11,776.0	24,753.0	11,775.3	100.1	103.5	-89.95	12,742.5	-1,145.6	804.0	600.6	203.44	3.952	
24,746.9	11,776.0	24,799.9	11,775.3	100.5	103.9	-89.95	12,789.5	-1,146.2	804.0	599.8	204.14	3.938 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.1	0.0	3.0	3.0	-90.69	-0.4	-29.8	29.9				
100.0	100.0	100.1	100.0	3.0	3.0	-90.69	-0.4	-29.8	29.9	23.8	6.05	4.933	
200.0	200.0	200.1	200.0	3.2	3.2	-90.69	-0.4	-29.8	29.9	23.6	6.30	4.741	
300.0	300.0	300.1	300.0	3.3	3.3	-90.69	-0.4	-29.8	29.9	23.3	6.53	4.570	
400.0	400.0	400.1	400.0	3.4	3.4	-90.69	-0.4	-29.8	29.9	23.1	6.76	4.416	
500.0	500.0	500.1	500.0	3.5	3.5	-90.69	-0.4	-29.8	29.9	22.9	6.98	4.277	
600.0	600.0	600.1	600.0	3.6	3.6	-90.69	-0.4	-29.8	29.9	22.7	7.19	4.150	
700.0	700.0	700.1	700.0	3.8	3.8	-90.69	-0.4	-29.8	29.9	22.5	7.40	4.034	
800.0	800.0	800.1	800.0	3.9	3.9	-90.69	-0.4	-29.8	29.9	22.2	7.60	3.927	
900.0	900.0	900.1	900.0	4.0	4.0	-90.69	-0.4	-29.8	29.9	22.1	7.80	3.828	
916.6	916.6	916.7	916.6	4.0	4.0	-90.69	-0.4	-29.8	29.9	22.0	7.83	3.812 CC	
1,000.0	1,000.0	1,000.0	999.9	4.1	4.1	-90.69	-0.4	-29.8	29.9	21.9	7.99	3.736 ES	
1,100.0	1,100.0	1,099.2	1,099.1	4.3	4.3	67.81	-1.4	-31.2	30.6	22.3	8.27	3.700	
1,200.0	1,199.8	1,198.3	1,198.1	4.6	4.6	70.82	-4.4	-35.4	32.8	24.1	8.69	3.776	
1,300.0	1,299.5	1,297.3	1,296.7	4.9	4.9	74.99	-9.4	-42.3	36.7	27.7	9.09	4.042	
1,400.0	1,398.7	1,396.2	1,394.8	5.3	5.2	79.48	-16.4	-52.0	42.5	33.0	9.46	4.488	
1,500.0	1,497.7	1,495.9	1,493.5	5.5	5.5	83.32	-24.6	-63.2	49.3	39.5	9.81	5.032	
1,600.0	1,596.8	1,595.6	1,592.3	5.8	5.7	86.22	-32.7	-74.4	56.4	46.2	10.16	5.552	
1,700.0	1,695.8	1,695.3	1,691.0	6.1	6.0	88.46	-40.9	-85.7	63.5	53.0	10.51	6.044	
1,800.0	1,794.8	1,795.0	1,789.8	6.4	6.3	90.25	-49.1	-96.9	70.8	59.9	10.87	6.509	
1,900.0	1,893.8	1,894.7	1,888.5	6.7	6.7	91.71	-57.2	-108.1	78.1	66.8	11.23	6.948	
2,000.0	1,992.9	1,994.4	1,987.3	7.1	7.0	92.92	-65.4	-119.3	85.4	73.8	11.60	7.362	
2,100.0	2,091.9	2,094.2	2,086.0	7.4	7.3	93.94	-73.5	-130.6	92.7	80.8	11.96	7.753	
2,200.0	2,190.9	2,193.9	2,184.7	7.8	7.7	94.80	-81.7	-141.8	100.1	87.8	12.33	8.122	
2,300.0	2,289.9	2,293.6	2,283.5	8.1	8.1	95.55	-89.8	-153.0	107.5	94.8	12.70	8.470	
2,400.0	2,389.0	2,393.3	2,382.2	8.5	8.4	96.20	-98.0	-164.2	115.0	101.9	13.06	8.800	
2,500.0	2,488.0	2,493.0	2,481.0	8.9	8.8	96.78	-106.2	-175.5	122.4	109.0	13.43	9.111	
2,600.0	2,587.0	2,592.7	2,579.7	9.2	9.2	97.28	-114.3	-186.7	129.8	116.0	13.80	9.406	
2,700.0	2,686.1	2,692.5	2,678.5	9.6	9.6	97.74	-122.5	-197.9	137.3	123.1	14.17	9.686	
2,800.0	2,785.1	2,792.2	2,777.2	10.0	9.9	98.14	-130.6	-209.2	144.8	130.2	14.55	9.951	
2,900.0	2,884.1	2,891.9	2,876.0	10.4	10.3	98.51	-138.8	-220.4	152.2	137.3	14.92	10.204	
3,000.0	2,983.1	2,991.6	2,974.7	10.8	10.7	98.84	-146.9	-231.6	159.7	144.4	15.29	10.443	
3,100.0	3,082.2	3,091.3	3,073.5	11.2	11.1	99.14	-155.1	-242.8	167.2	151.5	15.66	10.671	
3,200.0	3,181.2	3,191.0	3,172.2	11.6	11.5	99.42	-163.3	-254.1	174.6	158.6	16.04	10.889	
3,300.0	3,280.2	3,290.8	3,271.0	12.0	11.9	99.67	-171.4	-265.3	182.1	165.7	16.41	11.096	
3,400.0	3,379.2	3,390.5	3,369.7	12.4	12.3	99.90	-179.6	-276.5	189.6	172.8	16.79	11.294	
3,500.0	3,478.3	3,490.2	3,468.4	12.8	12.7	100.12	-187.7	-287.7	197.1	179.9	17.17	11.483	
3,600.0	3,577.3	3,589.9	3,567.2	13.2	13.1	100.32	-195.9	-299.0	204.6	187.1	17.54	11.664	
3,700.0	3,676.3	3,689.6	3,665.9	13.6	13.6	100.50	-204.0	-310.2	212.1	194.2	17.92	11.837	
3,800.0	3,775.3	3,789.3	3,764.7	14.0	14.0	100.68	-212.2	-321.4	219.6	201.3	18.30	12.002	
3,900.0	3,874.4	3,889.1	3,863.4	14.4	14.4	100.77	-220.4	-332.7	227.0	208.4	18.64	12.178	
4,000.0	3,973.7	3,988.8	3,962.2	14.8	14.8	100.47	-228.5	-343.9	234.1	215.1	19.03	12.303	
4,100.0	4,073.2	4,088.5	4,060.9	15.2	15.2	99.78	-236.7	-355.1	240.9	221.5	19.43	12.401	
4,200.0	4,172.9	4,188.2	4,159.6	15.6	15.6	98.73	-244.8	-366.3	247.5	227.7	19.84	12.473	
4,300.0	4,272.7	4,287.8	4,258.3	15.9	16.0	97.35	-253.0	-377.5	253.9	233.7	20.29	12.517	
4,400.0	4,372.6	4,387.3	4,356.8	16.3	16.4	95.66	-261.1	-388.8	260.4	239.6	20.77	12.534	
4,500.0	4,472.5	4,486.6	4,455.2	16.6	16.9	93.68	-269.2	-399.9	266.9	245.6	21.31	12.524	
4,600.0	4,572.5	4,585.8	4,553.4	16.8	17.3	91.46	-277.4	-411.1	273.7	251.8	21.92	12.485	
4,700.0	4,672.5	4,684.8	4,651.4	16.8	17.7	-68.36	-285.5	-422.3	281.0	258.4	22.52	12.473	
4,800.0	4,772.5	4,783.8	4,749.5	16.9	18.1	-70.68	-293.6	-433.4	288.7	265.5	23.20	12.445	
4,900.0	4,872.5	4,882.9	4,847.6	16.9	18.5	-72.87	-301.7	-444.6	296.9	273.0	23.90	12.420	
5,000.0	4,972.5	4,981.9	4,945.6	16.9	18.9	-74.95	-309.8	-455.7	305.5	280.9	24.63	12.402	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,072.5	5,080.9	5,043.7	17.0	19.4	-76.91	-317.9	-466.9	314.5	289.1	25.38	12.392	
5,200.0	5,172.5	5,179.9	5,141.7	17.0	19.8	-78.76	-326.0	-478.0	323.8	297.7	26.13	12.392	
5,300.0	5,272.5	5,279.8	5,240.7	17.0	20.2	-80.51	-334.1	-489.2	333.4	306.5	26.87	12.409	
5,400.0	5,372.5	5,381.1	5,341.0	17.1	20.6	-82.11	-341.9	-499.9	342.8	315.2	27.60	12.418	
5,500.0	5,472.5	5,482.6	5,441.8	17.1	21.0	-83.51	-349.2	-510.0	351.7	323.4	28.31	12.424	
5,600.0	5,572.5	5,584.3	5,542.8	17.1	21.4	-84.76	-356.0	-519.3	360.2	331.2	28.99	12.428	
5,700.0	5,672.5	5,686.2	5,644.2	17.2	21.9	-85.86	-362.3	-528.0	368.2	338.6	29.63	12.428	
5,800.0	5,772.5	5,788.3	5,745.8	17.2	22.3	-86.83	-368.0	-535.9	375.6	345.4	30.24	12.423	
5,900.0	5,872.5	5,890.5	5,847.7	17.2	22.6	-87.67	-373.3	-543.1	382.4	351.6	30.81	12.412	
6,000.0	5,972.5	5,993.0	5,949.8	17.3	23.0	-88.40	-378.0	-549.6	388.6	357.2	31.35	12.394	
6,100.0	6,072.5	6,095.5	6,052.1	17.3	23.4	-89.04	-382.2	-555.3	394.1	362.2	31.86	12.368	
6,200.0	6,172.5	6,198.2	6,154.6	17.3	23.8	-89.57	-385.8	-560.4	398.9	366.6	32.34	12.335	
6,300.0	6,272.5	6,301.0	6,257.2	17.4	24.1	-90.02	-388.9	-564.6	403.1	370.3	32.79	12.295	
6,400.0	6,372.5	6,403.8	6,360.0	17.4	24.5	-90.38	-391.5	-568.2	406.5	373.3	33.20	12.247	
6,500.0	6,472.5	6,506.7	6,462.8	17.5	24.8	-90.66	-393.5	-570.9	409.3	375.7	33.57	12.191	
6,600.0	6,572.5	6,609.7	6,565.8	17.5	25.1	-90.86	-395.0	-573.0	411.3	377.3	33.91	12.129	
6,700.0	6,672.5	6,712.7	6,668.8	17.5	25.4	-90.99	-395.9	-574.3	412.5	378.3	34.20	12.064	
6,800.0	6,772.5	6,815.8	6,771.8	17.6	25.6	-91.04	-396.3	-574.8	413.0	378.6	34.41	12.002	
6,900.0	6,872.5	6,916.5	6,872.5	17.6	25.6	-91.04	-396.3	-574.8	413.1	378.6	34.48	11.978	
7,000.0	6,972.5	7,016.5	6,972.5	17.6	25.6	-91.04	-396.3	-574.8	413.1	378.5	34.56	11.953	
7,100.0	7,072.5	7,116.5	7,072.5	17.7	25.6	-91.04	-396.3	-574.8	413.1	378.4	34.63	11.928	
7,200.0	7,172.5	7,216.5	7,172.5	17.7	25.6	-91.04	-396.3	-574.8	413.1	378.4	34.70	11.902	
7,300.0	7,272.5	7,316.5	7,272.5	17.8	25.7	-91.04	-396.3	-574.8	413.1	378.3	34.78	11.877	
7,400.0	7,372.5	7,416.5	7,372.5	17.8	25.7	-91.04	-396.3	-574.8	413.1	378.2	34.85	11.851	
7,500.0	7,472.5	7,516.5	7,472.5	17.8	25.7	-91.04	-396.3	-574.8	413.1	378.1	34.93	11.825	
7,600.0	7,572.5	7,616.5	7,572.5	17.9	25.7	-91.04	-396.3	-574.8	413.1	378.1	35.01	11.799	
7,700.0	7,672.5	7,716.5	7,672.5	17.9	25.8	-91.04	-396.3	-574.8	413.1	378.0	35.08	11.774	
7,800.0	7,772.5	7,816.5	7,772.5	18.0	25.8	-91.04	-396.3	-574.8	413.1	377.9	35.16	11.748	
7,900.0	7,872.5	7,916.5	7,872.5	18.0	25.8	-91.04	-396.3	-574.8	413.1	377.8	35.24	11.721	
8,000.0	7,972.5	8,016.5	7,972.5	18.0	25.8	-91.04	-396.3	-574.8	413.1	377.7	35.32	11.695	
8,100.0	8,072.5	8,116.5	8,072.5	18.1	25.8	-91.04	-396.3	-574.8	413.1	377.7	35.40	11.669	
8,200.0	8,172.5	8,216.5	8,172.5	18.1	25.9	-91.04	-396.3	-574.8	413.1	377.6	35.48	11.643	
8,300.0	8,272.5	8,316.5	8,272.5	18.2	25.9	-91.04	-396.3	-574.8	413.1	377.5	35.56	11.616	
8,400.0	8,372.5	8,416.5	8,372.5	18.2	25.9	-91.04	-396.3	-574.8	413.1	377.4	35.64	11.590	
8,500.0	8,472.5	8,516.5	8,472.5	18.2	25.9	-91.04	-396.3	-574.8	413.1	377.3	35.72	11.564	
8,600.0	8,572.5	8,616.5	8,572.5	18.3	26.0	-91.04	-396.3	-574.8	413.1	377.3	35.80	11.537	
8,700.0	8,672.5	8,716.5	8,672.5	18.3	26.0	-91.04	-396.3	-574.8	413.1	377.2	35.89	11.511	
8,800.0	8,772.5	8,816.5	8,772.5	18.4	26.0	-91.04	-396.3	-574.8	413.1	377.1	35.97	11.484	
8,900.0	8,872.5	8,916.5	8,872.5	18.4	26.0	-91.04	-396.3	-574.8	413.1	377.0	36.05	11.457	
9,000.0	8,972.5	9,016.5	8,972.5	18.5	26.1	-91.04	-396.3	-574.8	413.1	376.9	36.14	11.431	
9,100.0	9,072.5	9,116.5	9,072.5	18.5	26.1	-91.04	-396.3	-574.8	413.1	376.8	36.22	11.404	
9,200.0	9,172.5	9,216.5	9,172.5	18.5	26.1	-91.04	-396.3	-574.8	413.1	376.8	36.31	11.377	
9,300.0	9,272.5	9,316.5	9,272.5	18.6	26.1	-91.04	-396.3	-574.8	413.1	376.7	36.39	11.350	
9,400.0	9,372.5	9,416.5	9,372.5	18.6	26.2	-91.04	-396.3	-574.8	413.1	376.6	36.48	11.324	
9,500.0	9,472.5	9,516.5	9,472.5	18.7	26.2	-91.04	-396.3	-574.8	413.1	376.5	36.57	11.297	
9,600.0	9,572.5	9,616.5	9,572.5	18.7	26.2	-91.04	-396.3	-574.8	413.1	376.4	36.65	11.270	
9,700.0	9,672.5	9,716.5	9,672.5	18.8	26.2	-91.04	-396.3	-574.8	413.1	376.3	36.74	11.243	
9,800.0	9,772.5	9,816.5	9,772.5	18.8	26.3	-91.04	-396.3	-574.8	413.1	376.2	36.83	11.216	
9,900.0	9,872.5	9,916.5	9,872.5	18.9	26.3	-91.04	-396.3	-574.8	413.1	376.2	36.92	11.189	
10,000.0	9,972.5	10,016.5	9,972.5	18.9	26.3	-91.04	-396.3	-574.8	413.1	376.1	37.01	11.162	
10,100.0	10,072.5	10,116.5	10,072.5	19.0	26.3	-91.04	-396.3	-574.8	413.1	376.0	37.10	11.135	
10,200.0	10,172.5	10,216.5	10,172.5	19.0	26.4	-91.04	-396.3	-574.8	413.1	375.9	37.19	11.108	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	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)	Factor	
10,300.0	10,272.5	10,316.5	10,272.5	19.1	26.4	-91.04	-396.3	-574.8	413.1	375.8	37.28	11.081	
10,400.0	10,372.5	10,416.5	10,372.5	19.1	26.4	-91.04	-396.3	-574.8	413.1	375.7	37.37	11.054	
10,500.0	10,472.5	10,516.5	10,472.5	19.1	26.5	-91.04	-396.3	-574.8	413.1	375.6	37.46	11.027	
10,600.0	10,572.5	10,616.5	10,572.5	19.2	26.5	-91.04	-396.3	-574.8	413.1	375.5	37.55	11.000	
10,700.0	10,672.5	10,716.5	10,672.5	19.2	26.5	-91.04	-396.3	-574.8	413.1	375.4	37.64	10.973	
10,800.0	10,772.5	10,816.5	10,772.5	19.3	26.5	-91.04	-396.3	-574.8	413.1	375.3	37.74	10.946	
10,900.0	10,872.5	10,916.5	10,872.5	19.3	26.6	-91.04	-396.3	-574.8	413.1	375.2	37.83	10.919	
11,000.0	10,972.5	11,016.5	10,972.5	19.4	26.6	-91.04	-396.3	-574.8	413.1	375.1	37.92	10.893	
11,100.0	11,072.5	11,116.5	11,072.6	19.4	26.6	-90.98	-395.9	-574.8	413.1	375.1	37.99	10.872	
11,127.3	11,099.8	11,143.9	11,099.8	19.4	26.6	-90.74	-394.1	-574.9	413.1	375.1	37.95	10.884	
11,200.0	11,172.5	11,215.1	11,170.2	19.5	26.7	-89.27	-383.5	-575.0	413.2	375.6	37.64	10.978	
11,300.0	11,272.3	11,308.2	11,259.3	19.6	26.7	-85.17	-356.7	-575.3	414.6	377.7	36.94	11.225	
11,400.0	11,370.0	11,400.0	11,341.7	19.7	26.8	-81.86	-316.5	-575.9	417.4	381.0	36.39	11.468	
11,500.0	11,462.7	11,484.5	11,411.0	19.8	26.8	-78.97	-268.2	-576.5	421.1	384.8	36.30	11.599	
11,600.0	11,547.4	11,569.0	11,472.4	19.9	26.8	-76.35	-210.3	-577.2	425.3	388.8	36.51	11.649	
11,700.0	11,621.7	11,650.0	11,522.7	20.0	26.9	-74.16	-147.0	-578.0	429.6	392.5	37.12	11.574	
11,800.0	11,683.3	11,732.9	11,564.4	20.2	26.9	-72.33	-75.4	-579.0	433.5	395.7	37.86	11.451	
11,900.0	11,730.2	11,813.0	11,594.6	20.3	27.0	-70.98	-1.2	-579.9	436.7	397.9	38.83	11.247	
12,000.0	11,761.2	11,892.5	11,613.9	20.3	27.0	-70.09	75.8	-580.9	439.0	399.1	39.87	11.009	
12,100.0	11,775.1	11,971.5	11,622.4	20.4	27.1	-69.67	154.3	-581.9	440.0	399.1	40.89	10.762	
12,200.0	11,776.0	12,065.3	11,622.7	20.4	27.2	-69.62	248.1	-583.1	440.1	398.7	41.35	10.644	
12,300.0	11,776.0	12,165.3	11,622.6	20.5	27.3	-69.60	348.0	-584.4	440.0	398.4	41.66	10.562	
12,400.0	11,776.0	12,265.3	11,622.4	20.5	27.4	-69.57	448.0	-585.7	440.0	398.0	42.03	10.469	
12,500.0	11,776.0	12,365.3	11,622.2	20.6	27.5	-69.55	548.0	-587.0	440.0	397.5	42.46	10.364	
12,600.0	11,776.0	12,465.3	11,622.0	20.6	27.7	-69.52	648.0	-588.2	440.0	397.1	42.93	10.248	
12,700.0	11,776.0	12,565.3	11,621.9	20.7	27.9	-69.50	748.0	-589.5	440.0	396.5	43.46	10.124	
12,800.0	11,776.0	12,665.3	11,621.7	20.8	28.0	-69.47	848.0	-590.8	440.0	395.9	44.03	9.991	
12,900.0	11,776.0	12,765.3	11,621.5	20.9	28.2	-69.45	948.0	-592.1	439.9	395.3	44.65	9.852	
13,000.0	11,776.0	12,865.3	11,621.3	21.0	28.4	-69.42	1,048.0	-593.4	439.9	394.6	45.32	9.708	
13,100.0	11,776.0	12,965.3	11,621.2	21.1	28.6	-69.40	1,148.0	-594.7	439.9	393.9	46.02	9.559	
13,200.0	11,776.0	13,065.3	11,621.0	21.3	28.9	-69.37	1,248.0	-596.0	439.9	393.1	46.77	9.406	
13,300.0	11,776.0	13,165.3	11,620.8	21.5	29.1	-69.35	1,348.0	-597.2	439.9	392.3	47.55	9.251	
13,400.0	11,776.0	13,265.3	11,620.6	21.7	29.4	-69.32	1,448.0	-598.5	439.9	391.5	48.37	9.094	
13,500.0	11,776.0	13,365.3	11,620.5	21.9	29.7	-69.30	1,547.9	-599.8	439.8	390.6	49.22	8.936	
13,600.0	11,776.0	13,465.3	11,620.3	22.2	30.0	-69.27	1,647.9	-601.1	439.8	389.7	50.11	8.778	
13,700.0	11,776.0	13,565.3	11,620.1	22.5	30.3	-69.25	1,747.9	-602.4	439.8	388.8	51.02	8.620	
13,800.0	11,776.0	13,665.3	11,620.0	22.8	30.6	-69.22	1,847.9	-603.7	439.8	387.8	51.97	8.463	
13,900.0	11,776.0	13,765.3	11,619.8	23.2	31.0	-69.20	1,947.9	-604.9	439.8	386.8	52.94	8.307	
14,000.0	11,776.0	13,865.3	11,619.6	23.6	31.3	-69.17	2,047.9	-606.2	439.7	385.8	53.93	8.153	
14,100.0	11,776.0	13,965.3	11,619.4	24.1	31.7	-69.15	2,147.9	-607.5	439.7	384.8	54.96	8.002	
14,200.0	11,776.0	14,065.3	11,619.3	24.6	32.1	-69.12	2,247.9	-608.8	439.7	383.7	56.00	7.852	
14,300.0	11,776.0	14,165.3	11,619.1	25.1	32.5	-69.10	2,347.9	-610.1	439.7	382.6	57.07	7.705	
14,400.0	11,776.0	14,265.3	11,618.9	25.6	32.9	-69.07	2,447.9	-611.4	439.7	381.5	58.15	7.561	
14,500.0	11,776.0	14,365.3	11,618.7	26.2	33.3	-69.05	2,547.9	-612.6	439.7	380.4	59.26	7.419	
14,600.0	11,776.0	14,465.3	11,618.6	26.8	33.7	-69.02	2,647.9	-613.9	439.7	379.3	60.38	7.281	
14,700.0	11,776.0	14,565.3	11,618.4	27.3	34.2	-69.00	2,747.8	-615.2	439.6	378.1	61.53	7.146	
14,800.0	11,776.0	14,665.3	11,618.2	27.9	34.7	-68.97	2,847.8	-616.5	439.6	376.9	62.68	7.013	
14,900.0	11,776.0	14,765.3	11,618.0	28.6	35.1	-68.95	2,947.8	-617.8	439.6	375.7	63.86	6.884	
15,000.0	11,776.0	14,865.3	11,617.9	29.2	35.6	-68.92	3,047.8	-619.1	439.6	374.5	65.05	6.758	
15,100.0	11,776.0	14,965.3	11,617.7	29.8	36.1	-68.90	3,147.8	-620.4	439.6	373.3	66.25	6.635	
15,200.0	11,776.0	15,065.3	11,617.5	30.5	36.6	-68.87	3,247.8	-621.6	439.6	372.1	67.46	6.515	
15,300.0	11,776.0	15,165.3	11,617.3	31.1	37.2	-68.84	3,347.8	-622.9	439.5	370.9	68.69	6.399	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,400.0	11,776.0	15,265.3	11,617.2	31.8	37.7	-68.82	3,447.8	-624.2	439.5	369.6	69.93	6.285	
15,500.0	11,776.0	15,365.3	11,617.0	32.4	38.2	-68.79	3,547.8	-625.5	439.5	368.3	71.18	6.174	
15,600.0	11,776.0	15,465.3	11,616.8	33.1	38.8	-68.77	3,647.8	-626.8	439.5	367.1	72.44	6.067	
15,700.0	11,776.0	15,565.3	11,616.6	33.8	39.3	-68.74	3,747.8	-628.1	439.5	365.8	73.72	5.962	
15,800.0	11,776.0	15,665.3	11,616.5	34.4	39.9	-68.72	3,847.7	-629.3	439.5	364.5	75.00	5.860	
15,900.0	11,776.0	15,765.3	11,616.3	35.1	40.5	-68.69	3,947.7	-630.6	439.5	363.2	76.29	5.760	
16,000.0	11,776.0	15,865.3	11,616.1	35.8	41.0	-68.67	4,047.7	-631.9	439.4	361.8	77.59	5.664	
16,100.0	11,776.0	15,965.3	11,615.9	36.5	41.6	-68.64	4,147.7	-633.2	439.4	360.5	78.90	5.570	
16,200.0	11,776.0	16,065.3	11,615.8	37.2	42.2	-68.62	4,247.7	-634.5	439.4	359.2	80.21	5.478	
16,300.0	11,776.0	16,165.3	11,615.6	37.9	42.8	-68.59	4,347.7	-635.8	439.4	357.9	81.54	5.389	
16,400.0	11,776.0	16,265.3	11,615.4	38.6	43.4	-68.57	4,447.7	-637.0	439.4	356.5	82.87	5.302	
16,500.0	11,776.0	16,365.3	11,615.3	39.3	44.0	-68.54	4,547.7	-638.3	439.4	355.2	84.20	5.218	
16,600.0	11,776.0	16,465.3	11,615.1	40.0	44.6	-68.52	4,647.7	-639.6	439.4	353.8	85.55	5.136	
16,700.0	11,776.0	16,565.3	11,614.9	40.7	45.3	-68.49	4,747.7	-640.9	439.3	352.4	86.90	5.056	
16,800.0	11,776.0	16,665.3	11,614.7	41.4	45.9	-68.47	4,847.7	-642.2	439.3	351.1	88.25	4.978	
16,900.0	11,776.0	16,765.3	11,614.6	42.1	46.5	-68.44	4,947.7	-643.5	439.3	349.7	89.61	4.902	
17,000.0	11,776.0	16,865.3	11,614.4	42.8	47.1	-68.42	5,047.6	-644.8	439.3	348.3	90.98	4.828	
17,100.0	11,776.0	16,965.3	11,614.2	43.6	47.8	-68.39	5,147.6	-646.0	439.3	346.9	92.35	4.757	
17,200.0	11,776.0	17,065.3	11,614.0	44.3	48.4	-68.37	5,247.6	-647.3	439.3	345.5	93.73	4.687	
17,300.0	11,776.0	17,165.3	11,613.9	45.0	49.1	-68.34	5,347.6	-648.6	439.3	344.1	95.11	4.618	
17,400.0	11,776.0	17,265.3	11,613.7	45.7	49.7	-68.32	5,447.6	-649.9	439.2	342.7	96.50	4.552	
17,500.0	11,776.0	17,365.3	11,613.5	46.4	50.4	-68.29	5,547.6	-651.2	439.2	341.3	97.89	4.487	
17,600.0	11,776.0	17,465.3	11,613.3	47.2	51.0	-68.27	5,647.6	-652.5	439.2	339.9	99.28	4.424	
17,700.0	11,776.0	17,565.3	11,613.2	47.9	51.7	-68.24	5,747.6	-653.7	439.2	338.5	100.68	4.362	
17,800.0	11,776.0	17,665.3	11,613.0	48.6	52.4	-68.22	5,847.6	-655.0	439.2	337.1	102.08	4.302	
17,900.0	11,776.0	17,765.3	11,612.8	49.3	53.0	-68.19	5,947.6	-656.3	439.2	335.7	103.49	4.244	
18,000.0	11,776.0	17,865.3	11,612.6	50.1	53.7	-68.17	6,047.6	-657.6	439.2	334.3	104.90	4.186	
18,100.0	11,776.0	17,965.3	11,612.5	50.8	54.4	-68.14	6,147.5	-658.9	439.1	332.8	106.32	4.131	
18,200.0	11,776.0	18,065.3	11,612.3	51.5	55.0	-68.12	6,247.5	-660.2	439.1	331.4	107.73	4.076	
18,300.0	11,776.0	18,165.3	11,612.1	52.3	55.7	-68.09	6,347.5	-661.4	439.1	330.0	109.15	4.023	
18,400.0	11,776.0	18,265.3	11,611.9	53.0	56.4	-68.06	6,447.5	-662.7	439.1	328.5	110.57	3.971	
18,500.0	11,776.0	18,365.3	11,611.8	53.7	57.1	-68.04	6,547.5	-664.0	439.1	327.1	112.00	3.920	
18,600.0	11,776.0	18,465.3	11,611.6	54.5	57.8	-68.01	6,647.5	-665.3	439.1	325.7	113.43	3.871	
18,700.0	11,776.0	18,565.3	11,611.4	55.2	58.5	-67.99	6,747.5	-666.6	439.1	324.2	114.86	3.823	
18,800.0	11,776.0	18,665.3	11,611.3	55.9	59.2	-67.96	6,847.5	-667.9	439.1	322.8	116.30	3.775	
18,900.0	11,776.0	18,765.3	11,611.1	56.7	59.8	-67.94	6,947.5	-669.2	439.0	321.3	117.73	3.729	
19,000.0	11,776.0	18,865.3	11,610.9	57.4	60.5	-67.91	7,047.5	-670.4	439.0	319.9	119.17	3.684	
19,100.0	11,776.0	18,965.3	11,610.7	58.1	61.2	-67.89	7,147.5	-671.7	439.0	318.4	120.61	3.640	
19,200.0	11,776.0	19,065.3	11,610.6	58.9	61.9	-67.86	7,247.5	-673.0	439.0	317.0	122.06	3.597	
19,300.0	11,776.0	19,165.3	11,610.4	59.6	62.6	-67.84	7,347.4	-674.3	439.0	315.5	123.50	3.555	
19,400.0	11,776.0	19,265.3	11,610.2	60.4	63.3	-67.81	7,447.4	-675.6	439.0	314.0	124.95	3.513	
19,500.0	11,776.0	19,365.3	11,610.0	61.1	64.0	-67.79	7,547.4	-676.9	439.0	312.6	126.40	3.473	
19,600.0	11,776.0	19,465.3	11,609.9	61.8	64.7	-67.76	7,647.4	-678.1	439.0	311.1	127.85	3.433	
19,700.0	11,776.0	19,565.3	11,609.7	62.6	65.4	-67.74	7,747.4	-679.4	438.9	309.6	129.31	3.395	
19,800.0	11,776.0	19,665.3	11,609.5	63.3	66.2	-67.71	7,847.4	-680.7	438.9	308.2	130.76	3.357	
19,900.0	11,776.0	19,765.3	11,609.3	64.1	66.9	-67.69	7,947.4	-682.0	438.9	306.7	132.22	3.320	
20,000.0	11,776.0	19,865.3	11,609.2	64.8	67.6	-67.66	8,047.4	-683.3	438.9	305.2	133.68	3.283	
20,100.0	11,776.0	19,965.3	11,609.0	65.6	68.3	-67.64	8,147.4	-684.6	438.9	303.8	135.14	3.248	
20,200.0	11,776.0	20,065.3	11,608.8	66.3	69.0	-67.61	8,247.4	-685.8	438.9	302.3	136.60	3.213	
20,300.0	11,776.0	20,165.3	11,608.6	67.0	69.7	-67.59	8,347.4	-687.1	438.9	300.8	138.07	3.179	
20,400.0	11,776.0	20,265.3	11,608.5	67.8	70.4	-67.56	8,447.4	-688.4	438.9	299.3	139.53	3.145	
20,500.0	11,776.0	20,365.3	11,608.3	68.5	71.1	-67.54	8,547.3	-689.7	438.9	297.9	141.00	3.112	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.0	11,776.0	20,465.3	11,608.1	69.3	71.9	-67.51	8,647.3	-691.0	438.8	296.4	142.47	3.080	
20,700.0	11,776.0	20,565.3	11,607.9	70.0	72.6	-67.49	8,747.3	-692.3	438.8	294.9	143.94	3.049	
20,800.0	11,776.0	20,665.3	11,607.8	70.8	73.3	-67.46	8,847.3	-693.6	438.8	293.4	145.41	3.018	
20,900.0	11,776.0	20,765.3	11,607.6	71.5	74.0	-67.43	8,947.3	-694.8	438.8	291.9	146.88	2.988	
21,000.0	11,776.0	20,865.3	11,607.4	72.3	74.7	-67.41	9,047.3	-696.1	438.8	290.4	148.36	2.958	
21,100.0	11,776.0	20,965.3	11,607.2	73.0	75.5	-67.38	9,147.3	-697.4	438.8	289.0	149.83	2.929	
21,200.0	11,776.0	21,065.3	11,607.1	73.8	76.2	-67.36	9,247.3	-698.7	438.8	287.5	151.31	2.900	
21,300.0	11,776.0	21,165.3	11,606.9	74.5	76.9	-67.33	9,347.3	-700.0	438.8	286.0	152.79	2.872	
21,400.0	11,776.0	21,265.3	11,606.7	75.3	77.6	-67.31	9,447.3	-701.3	438.8	284.5	154.27	2.844	
21,500.0	11,776.0	21,365.3	11,606.6	76.0	78.3	-67.28	9,547.3	-702.5	438.8	283.0	155.75	2.817	
21,600.0	11,776.0	21,465.3	11,606.4	76.8	79.1	-67.26	9,647.2	-703.8	438.7	281.5	157.23	2.791	
21,700.0	11,776.0	21,565.3	11,606.2	77.5	79.8	-67.23	9,747.2	-705.1	438.7	280.0	158.71	2.764	
21,800.0	11,776.0	21,665.3	11,606.0	78.3	80.5	-67.21	9,847.2	-706.4	438.7	278.5	160.19	2.739	
21,900.0	11,776.0	21,765.3	11,605.9	79.0	81.3	-67.18	9,947.2	-707.7	438.7	277.0	161.68	2.714	
22,000.0	11,776.0	21,865.3	11,605.7	79.8	82.0	-67.16	10,047.2	-709.0	438.7	275.5	163.16	2.689	
22,100.0	11,776.0	21,965.3	11,605.5	80.5	82.7	-67.13	10,147.2	-710.2	438.7	274.0	164.65	2.664	
22,200.0	11,776.0	22,065.3	11,605.3	81.3	83.4	-67.11	10,247.2	-711.5	438.7	272.6	166.13	2.641	
22,300.0	11,776.0	22,165.3	11,605.2	82.0	84.2	-67.08	10,347.2	-712.8	438.7	271.1	167.62	2.617	
22,400.0	11,776.0	22,265.3	11,605.0	82.8	84.9	-67.06	10,447.2	-714.1	438.7	269.6	169.11	2.594	
22,500.0	11,776.0	22,365.3	11,604.8	83.5	85.6	-67.03	10,547.2	-715.4	438.7	268.1	170.60	2.571	
22,600.0	11,776.0	22,465.3	11,604.6	84.3	86.4	-67.01	10,647.2	-716.7	438.6	266.6	172.09	2.549	
22,700.0	11,776.0	22,565.3	11,604.5	85.0	87.1	-66.98	10,747.2	-718.0	438.6	265.1	173.58	2.527	
22,800.0	11,776.0	22,665.3	11,604.3	85.8	87.8	-66.96	10,847.1	-719.2	438.6	263.6	175.07	2.505	
22,900.0	11,776.0	22,765.3	11,604.1	86.5	88.6	-66.93	10,947.1	-720.5	438.6	262.1	176.57	2.484	
23,000.0	11,776.0	22,865.3	11,603.9	87.3	89.3	-66.90	11,047.1	-721.8	438.6	260.6	178.06	2.463	
23,100.0	11,776.0	22,965.3	11,603.8	88.0	90.0	-66.88	11,147.1	-723.1	438.6	259.0	179.55	2.443	
23,200.0	11,776.0	23,065.3	11,603.6	88.8	90.8	-66.85	11,247.1	-724.4	438.6	257.5	181.05	2.423	
23,300.0	11,776.0	23,165.3	11,603.4	89.6	91.5	-66.83	11,347.1	-725.7	438.6	256.0	182.54	2.403	
23,400.0	11,776.0	23,265.3	11,603.2	90.3	92.2	-66.80	11,447.1	-726.9	438.6	254.5	184.04	2.383	
23,500.0	11,776.0	23,365.3	11,603.1	91.1	93.0	-66.78	11,547.1	-728.2	438.6	253.0	185.54	2.364	
23,600.0	11,776.0	23,465.3	11,602.9	91.8	93.7	-66.75	11,647.1	-729.5	438.6	251.5	187.03	2.345	
23,700.0	11,776.0	23,565.3	11,602.7	92.6	94.5	-66.73	11,747.1	-730.8	438.6	250.0	188.53	2.326	
23,800.0	11,776.0	23,665.3	11,602.6	93.3	95.2	-66.70	11,847.1	-732.1	438.5	248.5	190.03	2.308	
23,900.0	11,776.0	23,765.3	11,602.4	94.1	95.9	-66.68	11,947.1	-733.4	438.5	247.0	191.53	2.290	
24,000.0	11,776.0	23,865.3	11,602.2	94.8	96.7	-66.65	12,047.0	-734.7	438.5	245.5	193.03	2.272	
24,100.0	11,776.0	23,965.3	11,602.0	95.6	97.4	-66.63	12,147.0	-735.9	438.5	244.0	194.53	2.254	
24,200.0	11,776.0	24,065.3	11,601.9	96.3	98.2	-66.60	12,247.0	-737.2	438.5	242.5	196.03	2.237	
24,300.0	11,776.0	24,165.3	11,601.7	97.1	98.9	-66.58	12,347.0	-738.5	438.5	241.0	197.54	2.220	
24,400.0	11,776.0	24,265.3	11,601.5	97.9	99.6	-66.55	12,447.0	-739.8	438.5	239.5	199.04	2.203	
24,500.0	11,776.0	24,365.3	11,601.3	98.6	100.4	-66.53	12,547.0	-741.1	438.5	237.9	200.54	2.187	
24,600.0	11,776.0	24,465.3	11,601.2	99.4	101.1	-66.50	12,647.0	-742.4	438.5	236.4	202.04	2.170	
24,700.0	11,776.0	24,565.3	11,601.0	100.1	101.9	-66.48	12,747.0	-743.6	438.5	234.9	203.55	2.154	
24,746.9	11,776.0	24,612.2	11,600.9	100.5	102.2	-66.46	12,793.9	-744.2	438.5	234.2	204.25	2.147 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11080-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.0	3.0	3.0	89.10	0.5	30.1	30.1				
100.0	100.0	100.4	100.0	3.0	3.0	89.10	0.5	30.1	30.1	24.0	6.05	4.971	
200.0	200.0	200.4	200.0	3.2	3.2	89.10	0.5	30.1	30.1	23.8	6.30	4.777	
300.0	300.0	300.4	300.0	3.3	3.3	89.10	0.5	30.1	30.1	23.6	6.53	4.605	
400.0	400.0	400.4	400.0	3.4	3.4	89.10	0.5	30.1	30.1	23.3	6.76	4.450	
500.0	500.0	500.4	500.0	3.5	3.5	89.10	0.5	30.1	30.1	23.1	6.98	4.310	
600.0	600.0	600.4	600.0	3.6	3.6	89.10	0.5	30.1	30.1	22.9	7.19	4.182	
700.0	700.0	700.4	700.0	3.8	3.8	89.10	0.5	30.1	30.1	22.7	7.40	4.065	
800.0	800.0	800.4	800.0	3.9	3.9	89.10	0.5	30.1	30.1	22.5	7.60	3.957	
900.0	900.0	900.4	900.0	4.0	4.0	89.10	0.5	30.1	30.1	22.3	7.80	3.857	
916.5	916.5	916.9	916.5	4.0	4.0	89.10	0.5	30.1	30.1	22.2	7.85	3.834 CC	
1,000.0	1,000.0	1,000.4	1,000.0	4.1	4.2	89.10	0.5	30.1	30.1	22.0	8.09	3.718 ES	
1,100.0	1,100.0	1,100.0	1,099.6	4.3	4.5	-113.57	-1.1	30.9	31.6	23.2	8.40	3.762	
1,200.0	1,199.8	1,199.2	1,198.7	4.6	4.8	-113.79	-5.6	33.4	36.1	27.4	8.79	4.111	
1,300.0	1,299.5	1,298.3	1,297.4	4.9	5.1	-114.04	-13.1	37.6	43.7	34.5	9.18	4.760	
1,400.0	1,398.7	1,397.0	1,395.3	5.3	5.4	-114.25	-23.5	43.4	54.3	44.7	9.57	5.668	
1,500.0	1,497.7	1,496.2	1,493.6	5.5	5.6	-114.49	-35.6	50.1	66.3	56.4	9.94	6.674	
1,600.0	1,596.8	1,595.5	1,591.9	5.8	5.9	-114.66	-47.7	56.8	78.4	68.1	10.32	7.602	
1,700.0	1,695.8	1,694.8	1,690.2	6.1	6.2	-114.78	-59.8	63.5	90.5	79.8	10.70	8.460	
1,800.0	1,794.8	1,794.0	1,788.5	6.4	6.5	-114.88	-71.9	70.2	102.6	91.5	11.09	9.251	
1,900.0	1,893.8	1,893.3	1,886.8	6.7	6.8	-114.95	-84.0	76.9	114.7	103.2	11.49	9.984	
2,000.0	1,992.9	1,992.6	1,985.1	7.1	7.1	-115.01	-96.0	83.6	126.8	114.9	11.89	10.662	
2,100.0	2,091.9	2,091.8	2,083.4	7.4	7.4	-115.06	-108.1	90.3	138.9	126.6	12.30	11.292	
2,200.0	2,190.9	2,191.1	2,181.7	7.8	7.8	-115.10	-120.2	97.0	151.0	138.3	12.71	11.876	
2,300.0	2,289.9	2,290.3	2,280.0	8.1	8.1	-115.14	-132.3	103.7	163.1	149.9	13.13	12.420	
2,400.0	2,389.0	2,389.6	2,378.3	8.5	8.5	-115.17	-144.4	110.4	175.2	161.6	13.55	12.926	
2,500.0	2,488.0	2,488.9	2,476.6	8.9	8.9	-115.20	-156.5	117.1	187.3	173.3	13.98	13.399	
2,600.0	2,587.0	2,588.1	2,574.9	9.2	9.2	-115.22	-168.5	123.8	199.4	184.9	14.40	13.840	
2,700.0	2,686.1	2,687.4	2,673.2	9.6	9.6	-115.24	-180.6	130.5	211.4	196.6	14.83	14.254	
2,800.0	2,785.1	2,786.7	2,771.5	10.0	10.0	-115.26	-192.7	137.2	223.5	208.3	15.27	14.641	
2,900.0	2,884.1	2,885.9	2,869.8	10.4	10.4	-115.27	-204.8	143.9	235.6	219.9	15.70	15.005	
3,000.0	2,983.1	2,985.2	2,968.1	10.8	10.8	-115.29	-216.9	150.6	247.7	231.6	16.14	15.347	
3,100.0	3,082.2	3,084.5	3,066.4	11.2	11.2	-115.30	-229.0	157.3	259.8	243.2	16.58	15.668	
3,200.0	3,181.2	3,183.7	3,164.7	11.6	11.6	-115.32	-241.0	164.0	271.9	254.9	17.02	15.972	
3,300.0	3,280.2	3,283.0	3,263.0	12.0	12.0	-115.33	-253.1	170.6	284.0	266.5	17.47	16.258	
3,400.0	3,379.2	3,382.3	3,361.3	12.4	12.4	-115.34	-265.2	177.3	296.1	278.2	17.91	16.529	
3,500.0	3,478.3	3,481.5	3,459.6	12.8	12.8	-115.35	-277.3	184.0	308.2	289.8	18.36	16.785	
3,600.0	3,577.3	3,580.8	3,557.9	13.2	13.2	-115.36	-289.4	190.7	320.3	301.5	18.81	17.028	
3,700.0	3,676.3	3,680.1	3,656.2	13.6	13.6	-115.36	-301.5	197.4	332.4	313.1	19.26	17.258	
3,800.0	3,775.3	3,779.3	3,754.5	14.0	14.0	-115.37	-313.5	204.1	344.5	324.7	19.71	17.476	
3,900.0	3,874.4	3,878.6	3,852.8	14.4	14.4	-115.39	-325.6	210.8	356.3	336.2	20.13	17.704	
4,000.0	3,973.7	3,978.0	3,951.2	14.8	14.8	-115.19	-337.7	217.5	367.5	346.9	20.57	17.864	
4,100.0	4,073.2	4,078.9	4,051.2	15.2	15.2	-114.78	-349.8	224.2	377.9	356.9	20.99	18.003	
4,200.0	4,172.9	4,181.6	4,153.1	15.6	15.6	-114.35	-360.7	230.3	386.8	365.4	21.42	18.058	
4,300.0	4,272.7	4,284.5	4,255.4	15.9	16.0	-113.93	-370.0	235.4	394.2	372.4	21.84	18.052	
4,400.0	4,372.6	4,387.6	4,358.1	16.3	16.4	-113.51	-377.7	239.7	400.2	377.9	22.24	17.995	
4,500.0	4,472.5	4,490.9	4,461.2	16.6	16.8	-113.09	-383.8	243.1	404.6	382.0	22.61	17.892	
4,600.0	4,572.5	4,594.3	4,564.5	16.8	17.1	-112.66	-388.3	245.6	407.5	384.5	22.96	17.750	
4,700.0	4,672.5	4,697.8	4,668.0	16.8	17.4	90.33	-391.2	247.2	409.0	385.9	23.17	17.654	
4,800.0	4,772.5	4,801.5	4,771.6	16.9	17.7	90.50	-392.4	247.8	409.7	386.3	23.37	17.529	
4,900.0	4,872.5	4,902.4	4,872.5	16.9	17.7	90.51	-392.4	247.9	409.7	386.3	23.44	17.479	
5,000.0	4,972.5	5,002.4	4,972.5	16.9	17.7	90.51	-392.4	247.9	409.7	386.2	23.52	17.417	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11080-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	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)	Factor	
5,100.0	5,072.5	5,102.4	5,072.5	17.0	17.8	90.51	-392.4	247.9	409.7	386.1	23.61	17.354	
5,200.0	5,172.5	5,202.4	5,172.5	17.0	17.8	90.51	-392.4	247.9	409.7	386.0	23.70	17.291	
5,300.0	5,272.5	5,302.4	5,272.5	17.0	17.8	90.51	-392.4	247.9	409.7	385.9	23.78	17.228	
5,400.0	5,372.5	5,402.4	5,372.5	17.1	17.9	90.51	-392.4	247.9	409.7	385.9	23.87	17.165	
5,500.0	5,472.5	5,502.4	5,472.5	17.1	17.9	90.51	-392.4	247.9	409.7	385.8	23.96	17.101	
5,600.0	5,572.5	5,602.4	5,572.5	17.1	17.9	90.51	-392.4	247.9	409.7	385.7	24.05	17.038	
5,700.0	5,672.5	5,702.4	5,672.5	17.2	18.0	90.51	-392.4	247.9	409.7	385.6	24.14	16.975	
5,800.0	5,772.5	5,802.4	5,772.5	17.2	18.0	90.51	-392.4	247.9	409.7	385.5	24.23	16.911	
5,900.0	5,872.5	5,902.4	5,872.5	17.2	18.0	90.51	-392.4	247.9	409.7	385.4	24.32	16.848	
6,000.0	5,972.5	6,002.4	5,972.5	17.3	18.1	90.51	-392.4	247.9	409.7	385.3	24.41	16.784	
6,100.0	6,072.5	6,102.4	6,072.5	17.3	18.1	90.51	-392.4	247.9	409.7	385.2	24.50	16.720	
6,200.0	6,172.5	6,202.4	6,172.5	17.3	18.1	90.51	-392.4	247.9	409.7	385.1	24.60	16.657	
6,300.0	6,272.5	6,302.4	6,272.5	17.4	18.2	90.51	-392.4	247.9	409.7	385.0	24.69	16.593	
6,400.0	6,372.5	6,402.4	6,372.5	17.4	18.2	90.51	-392.4	247.9	409.7	384.9	24.79	16.530	
6,500.0	6,472.5	6,502.4	6,472.5	17.5	18.2	90.51	-392.4	247.9	409.7	384.8	24.88	16.466	
6,600.0	6,572.5	6,602.4	6,572.5	17.5	18.3	90.51	-392.4	247.9	409.7	384.7	24.98	16.402	
6,700.0	6,672.5	6,702.4	6,672.5	17.5	18.3	90.51	-392.4	247.9	409.7	384.6	25.08	16.339	
6,800.0	6,772.5	6,802.4	6,772.5	17.6	18.3	90.51	-392.4	247.9	409.7	384.5	25.17	16.275	
6,900.0	6,872.5	6,902.4	6,872.5	17.6	18.4	90.51	-392.4	247.9	409.7	384.4	25.27	16.212	
7,000.0	6,972.5	7,002.4	6,972.5	17.6	18.4	90.51	-392.4	247.9	409.7	384.3	25.37	16.148	
7,100.0	7,072.5	7,102.4	7,072.5	17.7	18.4	90.51	-392.4	247.9	409.7	384.2	25.47	16.085	
7,200.0	7,172.5	7,202.4	7,172.5	17.7	18.5	90.51	-392.4	247.9	409.7	384.1	25.57	16.022	
7,300.0	7,272.5	7,302.4	7,272.5	17.8	18.5	90.51	-392.4	247.9	409.7	384.0	25.67	15.959	
7,400.0	7,372.5	7,402.4	7,372.5	17.8	18.6	90.51	-392.4	247.9	409.7	383.9	25.78	15.896	
7,500.0	7,472.5	7,502.4	7,472.5	17.8	18.6	90.51	-392.4	247.9	409.7	383.8	25.88	15.833	
7,600.0	7,572.5	7,602.4	7,572.5	17.9	18.6	90.51	-392.4	247.9	409.7	383.7	25.98	15.770	
7,700.0	7,672.5	7,702.4	7,672.5	17.9	18.7	90.51	-392.4	247.9	409.7	383.6	26.08	15.708	
7,800.0	7,772.5	7,802.4	7,772.5	18.0	18.7	90.51	-392.4	247.9	409.7	383.5	26.19	15.645	
7,900.0	7,872.5	7,902.4	7,872.5	18.0	18.7	90.51	-392.4	247.9	409.7	383.4	26.29	15.583	
8,000.0	7,972.5	8,002.4	7,972.5	18.0	18.8	90.51	-392.4	247.9	409.7	383.3	26.40	15.521	
8,100.0	8,072.5	8,102.4	8,072.5	18.1	18.8	90.51	-392.4	247.9	409.7	383.2	26.50	15.458	
8,200.0	8,172.5	8,202.4	8,172.5	18.1	18.9	90.51	-392.4	247.9	409.7	383.1	26.61	15.397	
8,300.0	8,272.5	8,302.4	8,272.5	18.2	18.9	90.51	-392.4	247.9	409.7	383.0	26.72	15.335	
8,400.0	8,372.5	8,402.4	8,372.5	18.2	18.9	90.51	-392.4	247.9	409.7	382.9	26.83	15.273	
8,500.0	8,472.5	8,502.4	8,472.5	18.2	19.0	90.51	-392.4	247.9	409.7	382.8	26.93	15.212	
8,600.0	8,572.5	8,602.4	8,572.5	18.3	19.0	90.51	-392.4	247.9	409.7	382.7	27.04	15.151	
8,700.0	8,672.5	8,702.4	8,672.5	18.3	19.1	90.51	-392.4	247.9	409.7	382.6	27.15	15.090	
8,800.0	8,772.5	8,802.4	8,772.5	18.4	19.1	90.51	-392.4	247.9	409.7	382.5	27.26	15.029	
8,900.0	8,872.5	8,902.4	8,872.5	18.4	19.1	90.51	-392.4	247.9	409.7	382.3	27.37	14.968	
9,000.0	8,972.5	9,002.4	8,972.5	18.5	19.2	90.51	-392.4	247.9	409.7	382.2	27.48	14.908	
9,100.0	9,072.5	9,102.4	9,072.5	18.5	19.2	90.51	-392.4	247.9	409.7	382.1	27.60	14.848	
9,200.0	9,172.5	9,202.4	9,172.5	18.5	19.3	90.51	-392.4	247.9	409.7	382.0	27.71	14.788	
9,300.0	9,272.5	9,302.4	9,272.5	18.6	19.3	90.51	-392.4	247.9	409.7	381.9	27.82	14.728	
9,400.0	9,372.5	9,402.4	9,372.5	18.6	19.4	90.51	-392.4	247.9	409.7	381.8	27.93	14.668	
9,500.0	9,472.5	9,502.4	9,472.5	18.7	19.4	90.51	-392.4	247.9	409.7	381.7	28.05	14.609	
9,600.0	9,572.5	9,602.4	9,572.5	18.7	19.4	90.51	-392.4	247.9	409.7	381.6	28.16	14.550	
9,700.0	9,672.5	9,702.4	9,672.5	18.8	19.5	90.51	-392.4	247.9	409.7	381.4	28.27	14.491	
9,800.0	9,772.5	9,802.4	9,772.5	18.8	19.5	90.51	-392.4	247.9	409.7	381.3	28.39	14.432	
9,900.0	9,872.5	9,902.4	9,872.5	18.9	19.6	90.51	-392.4	247.9	409.7	381.2	28.50	14.374	
10,000.0	9,972.5	10,002.4	9,972.5	18.9	19.6	90.51	-392.4	247.9	409.7	381.1	28.62	14.316	
10,100.0	10,072.5	10,102.4	10,072.5	19.0	19.7	90.51	-392.4	247.9	409.7	381.0	28.74	14.258	
10,200.0	10,172.5	10,202.4	10,172.5	19.0	19.7	90.51	-392.4	247.9	409.7	380.9	28.85	14.200	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11080-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.0	10,272.5	10,302.4	10,272.5	19.1	19.8	90.51	-392.4	247.9	409.7	380.8	28.97	14.143	
10,400.0	10,372.5	10,402.4	10,372.5	19.1	19.8	90.51	-392.4	247.9	409.7	380.6	29.09	14.085	
10,500.0	10,472.5	10,502.4	10,472.5	19.1	19.8	90.51	-392.4	247.9	409.7	380.5	29.21	14.028	
10,600.0	10,572.5	10,602.4	10,572.5	19.2	19.9	90.51	-392.4	247.9	409.7	380.4	29.32	13.972	
10,700.0	10,672.5	10,702.4	10,672.5	19.2	19.9	90.51	-392.4	247.9	409.7	380.3	29.44	13.915	
10,800.0	10,772.5	10,802.4	10,772.5	19.3	20.0	90.51	-392.4	247.9	409.7	380.2	29.56	13.859	
10,900.0	10,872.5	10,902.4	10,872.5	19.3	20.0	90.51	-392.4	247.9	409.7	380.0	29.68	13.803	
11,000.0	10,972.5	11,002.4	10,972.5	19.4	20.1	90.51	-392.4	247.9	409.7	379.9	29.80	13.748	
11,100.0	11,072.5	11,103.0	11,073.1	19.4	20.1	90.27	-390.7	247.8	409.7	379.8	29.89	13.708	
11,160.0	11,132.5	11,162.9	11,132.5	19.5	20.2	89.18	-382.9	247.7	409.6	379.7	29.91	13.696	
11,200.0	11,172.5	11,201.7	11,170.4	19.5	20.2	88.02	-374.6	247.6	409.7	379.8	29.92	13.694	
11,300.0	11,272.3	11,293.9	11,257.5	19.6	20.3	85.01	-344.7	247.2	411.3	381.4	29.93	13.739	
11,400.0	11,370.0	11,382.2	11,335.4	19.7	20.4	81.31	-303.4	246.6	414.7	384.6	30.07	13.791	
11,500.0	11,462.7	11,467.4	11,403.7	19.8	20.5	77.92	-252.6	245.9	419.4	389.0	30.37	13.810	
11,600.0	11,547.4	11,550.0	11,462.0	19.9	20.6	74.91	-194.2	245.0	424.8	393.9	30.85	13.772	
11,700.0	11,621.7	11,630.9	11,510.4	20.0	20.7	72.34	-129.5	244.1	430.4	398.9	31.48	13.671	
11,800.0	11,683.3	11,710.1	11,548.6	20.2	20.8	70.25	-60.2	243.1	435.5	403.3	32.21	13.521	
11,900.0	11,730.2	11,788.2	11,576.5	20.3	20.9	68.65	12.7	242.1	439.9	406.9	32.96	13.344	
12,000.0	11,761.2	11,865.5	11,594.0	20.3	20.9	67.56	87.9	241.0	443.0	409.3	33.66	13.161	
12,100.0	11,775.1	11,942.4	11,601.3	20.4	20.9	66.99	164.4	239.9	444.7	410.5	34.24	12.990	
12,200.0	11,776.0	12,037.5	11,601.6	20.4	21.0	66.92	259.5	238.6	444.9	410.3	34.57	12.870	
12,300.0	11,776.0	12,137.5	11,601.6	20.5	21.0	66.92	359.4	237.1	444.8	409.9	34.93	12.733	
12,400.0	11,776.0	12,237.5	11,601.6	20.5	21.1	66.91	459.4	235.7	444.7	409.4	35.36	12.577	
12,500.0	11,776.0	12,337.5	11,601.6	20.6	21.2	66.91	559.4	234.3	444.7	408.8	35.85	12.403	
12,600.0	11,776.0	12,437.5	11,601.6	20.6	21.3	66.91	659.4	232.9	444.6	408.2	36.40	12.215	
12,700.0	11,776.0	12,537.5	11,601.6	20.7	21.4	66.90	759.4	231.4	444.6	407.6	37.01	12.014	
12,800.0	11,776.0	12,637.5	11,601.6	20.8	21.5	66.90	859.4	230.0	444.5	406.9	37.66	11.803	
12,900.0	11,776.0	12,737.5	11,601.6	20.9	21.6	66.90	959.4	228.6	444.5	406.1	38.37	11.584	
13,000.0	11,776.0	12,837.5	11,601.6	21.0	21.7	66.90	1,059.4	227.2	444.4	405.3	39.13	11.359	
13,100.0	11,776.0	12,937.5	11,601.6	21.1	21.9	66.89	1,159.4	225.7	444.4	404.4	39.93	11.130	
13,200.0	11,776.0	13,037.5	11,601.6	21.3	22.0	66.89	1,259.4	224.3	444.3	403.6	40.77	10.899	
13,300.0	11,776.0	13,137.5	11,601.6	21.5	22.2	66.89	1,359.3	222.9	444.3	402.6	41.65	10.667	
13,400.0	11,776.0	13,237.5	11,601.6	21.7	22.4	66.88	1,459.3	221.5	444.2	401.6	42.57	10.435	
13,500.0	11,776.0	13,337.5	11,601.6	21.9	22.7	66.88	1,559.3	220.0	444.2	400.6	43.52	10.205	
13,600.0	11,776.0	13,437.5	11,601.6	22.2	23.0	66.88	1,659.3	218.6	444.1	399.6	44.51	9.978	
13,700.0	11,776.0	13,537.5	11,601.6	22.5	23.3	66.87	1,759.3	217.2	444.1	398.5	45.53	9.754	
13,800.0	11,776.0	13,637.5	11,601.6	22.8	23.6	66.87	1,859.3	215.8	444.0	397.4	46.57	9.534	
13,900.0	11,776.0	13,737.5	11,601.6	23.2	24.0	66.87	1,959.3	214.3	444.0	396.3	47.64	9.318	
14,000.0	11,776.0	13,837.5	11,601.6	23.6	24.4	66.87	2,059.3	212.9	443.9	395.2	48.74	9.107	
14,100.0	11,776.0	13,937.5	11,601.6	24.1	24.8	66.86	2,159.3	211.5	443.8	394.0	49.86	8.901	
14,200.0	11,776.0	14,037.5	11,601.6	24.6	25.3	66.86	2,259.3	210.1	443.8	392.8	51.00	8.701	
14,300.0	11,776.0	14,137.5	11,601.6	25.1	25.8	66.86	2,359.2	208.6	443.7	391.6	52.17	8.506	
14,400.0	11,776.0	14,237.5	11,601.6	25.6	26.3	66.85	2,459.2	207.2	443.7	390.3	53.35	8.317	
14,500.0	11,776.0	14,337.5	11,601.6	26.2	26.8	66.85	2,559.2	205.8	443.6	389.1	54.55	8.133	
14,600.0	11,776.0	14,437.5	11,601.6	26.8	27.4	66.85	2,659.2	204.4	443.6	387.8	55.76	7.955	
14,700.0	11,776.0	14,537.5	11,601.6	27.3	27.9	66.85	2,759.2	202.9	443.5	386.5	56.99	7.782	
14,800.0	11,776.0	14,637.5	11,601.6	27.9	28.5	66.84	2,859.2	201.5	443.5	385.2	58.24	7.615	
14,900.0	11,776.0	14,737.5	11,601.6	28.6	29.1	66.84	2,959.2	200.1	443.4	383.9	59.50	7.453	
15,000.0	11,776.0	14,837.5	11,601.6	29.2	29.7	66.84	3,059.2	198.7	443.4	382.6	60.77	7.296	
15,100.0	11,776.0	14,937.5	11,601.6	29.8	30.3	66.83	3,159.2	197.2	443.3	381.3	62.05	7.144	
15,200.0	11,776.0	15,037.5	11,601.6	30.5	31.0	66.83	3,259.2	195.8	443.3	379.9	63.35	6.997	
15,300.0	11,776.0	15,137.5	11,601.6	31.1	31.6	66.83	3,359.1	194.4	443.2	378.6	64.65	6.855	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11080-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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	
15,400.0	11,776.0	15,237.5	11,601.6	31.8	32.2	66.82	3,459.1	192.9	443.2	377.2	65.97	6.718	
15,500.0	11,776.0	15,337.5	11,601.6	32.4	32.9	66.82	3,559.1	191.5	443.1	375.8	67.29	6.585	
15,600.0	11,776.0	15,437.5	11,601.6	33.1	33.5	66.82	3,659.1	190.1	443.0	374.4	68.62	6.456	
15,700.0	11,776.0	15,537.5	11,601.6	33.8	34.2	66.82	3,759.1	188.7	443.0	373.0	69.97	6.332	
15,800.0	11,776.0	15,637.5	11,601.6	34.4	34.9	66.81	3,859.1	187.2	442.9	371.6	71.32	6.211	
15,900.0	11,776.0	15,737.5	11,601.6	35.1	35.5	66.81	3,959.1	185.8	442.9	370.2	72.67	6.094	
16,000.0	11,776.0	15,837.5	11,601.6	35.8	36.2	66.81	4,059.1	184.4	442.8	368.8	74.04	5.981	
16,100.0	11,776.0	15,937.5	11,601.6	36.5	36.9	66.80	4,159.1	183.0	442.8	367.4	75.41	5.872	
16,200.0	11,776.0	16,037.5	11,601.6	37.2	37.6	66.80	4,259.0	181.5	442.7	365.9	76.79	5.766	
16,300.0	11,776.0	16,137.5	11,601.6	37.9	38.3	66.80	4,359.0	180.1	442.7	364.5	78.17	5.663	
16,400.0	11,776.0	16,237.5	11,601.6	38.6	39.0	66.80	4,459.0	178.7	442.6	363.1	79.56	5.564	
16,500.0	11,776.0	16,337.5	11,601.6	39.3	39.7	66.79	4,559.0	177.3	442.6	361.6	80.95	5.467	
16,600.0	11,776.0	16,437.5	11,601.6	40.0	40.3	66.79	4,659.0	175.8	442.5	360.2	82.35	5.374	
16,700.0	11,776.0	16,537.5	11,601.6	40.7	41.0	66.79	4,759.0	174.4	442.5	358.7	83.75	5.283	
16,800.0	11,776.0	16,637.5	11,601.6	41.4	41.8	66.78	4,859.0	173.0	442.4	357.3	85.16	5.195	
16,900.0	11,776.0	16,737.5	11,601.6	42.1	42.5	66.78	4,959.0	171.6	442.4	355.8	86.58	5.110	
17,000.0	11,776.0	16,837.5	11,601.6	42.8	43.2	66.78	5,059.0	170.1	442.3	354.3	87.99	5.027	
17,100.0	11,776.0	16,937.5	11,601.6	43.6	43.9	66.78	5,159.0	168.7	442.3	352.8	89.41	4.946	
17,200.0	11,776.0	17,037.5	11,601.6	44.3	44.6	66.77	5,258.9	167.3	442.2	351.4	90.84	4.868	
17,300.0	11,776.0	17,137.5	11,601.6	45.0	45.3	66.77	5,358.9	165.9	442.1	349.9	92.27	4.792	
17,400.0	11,776.0	17,237.5	11,601.6	45.7	46.0	66.77	5,458.9	164.4	442.1	348.4	93.70	4.718	
17,500.0	11,776.0	17,337.5	11,601.6	46.4	46.7	66.76	5,558.9	163.0	442.0	346.9	95.13	4.647	
17,600.0	11,776.0	17,437.5	11,601.6	47.2	47.4	66.76	5,658.9	161.6	442.0	345.4	96.57	4.577	
17,700.0	11,776.0	17,537.5	11,601.6	47.9	48.2	66.76	5,758.9	160.2	441.9	343.9	98.01	4.509	
17,800.0	11,776.0	17,637.5	11,601.6	48.6	48.9	66.75	5,858.9	158.7	441.9	342.4	99.46	4.443	
17,900.0	11,776.0	17,737.5	11,601.6	49.3	49.6	66.75	5,958.9	157.3	441.8	340.9	100.90	4.379	
18,000.0	11,776.0	17,837.5	11,601.6	50.1	50.3	66.75	6,058.9	155.9	441.8	339.4	102.35	4.316	
18,100.0	11,776.0	17,937.5	11,601.6	50.8	51.1	66.75	6,158.9	154.5	441.7	337.9	103.80	4.255	
18,200.0	11,776.0	18,037.5	11,601.6	51.5	51.8	66.74	6,258.8	153.0	441.7	336.4	105.26	4.196	
18,300.0	11,776.0	18,137.5	11,601.6	52.3	52.5	66.74	6,358.8	151.6	441.6	334.9	106.71	4.138	
18,400.0	11,776.0	18,237.5	11,601.6	53.0	53.2	66.74	6,458.8	150.2	441.6	333.4	108.17	4.082	
18,500.0	11,776.0	18,337.5	11,601.6	53.7	54.0	66.73	6,558.8	148.7	441.5	331.9	109.63	4.027	
18,600.0	11,776.0	18,437.5	11,601.6	54.5	54.7	66.73	6,658.8	147.3	441.5	330.4	111.10	3.974	
18,700.0	11,776.0	18,537.5	11,601.6	55.2	55.4	66.73	6,758.8	145.9	441.4	328.8	112.56	3.922	
18,800.0	11,776.0	18,637.5	11,601.6	55.9	56.2	66.72	6,858.8	144.5	441.4	327.3	114.03	3.871	
18,900.0	11,776.0	18,737.5	11,601.6	56.7	56.9	66.72	6,958.8	143.0	441.3	325.8	115.50	3.821	
19,000.0	11,776.0	18,837.5	11,601.6	57.4	57.6	66.72	7,058.8	141.6	441.2	324.3	116.97	3.772	
19,100.0	11,776.0	18,937.5	11,601.6	58.1	58.4	66.72	7,158.8	140.2	441.2	322.8	118.44	3.725	
19,200.0	11,776.0	19,037.5	11,601.6	58.9	59.1	66.71	7,258.7	138.8	441.1	321.2	119.91	3.679	
19,300.0	11,776.0	19,137.5	11,601.6	59.6	59.8	66.71	7,358.7	137.3	441.1	319.7	121.39	3.634	
19,400.0	11,776.0	19,237.5	11,601.6	60.4	60.6	66.71	7,458.7	135.9	441.0	318.2	122.86	3.590	
19,500.0	11,776.0	19,337.5	11,601.6	61.1	61.3	66.70	7,558.7	134.5	441.0	316.6	124.34	3.547	
19,600.0	11,776.0	19,437.5	11,601.6	61.8	62.1	66.70	7,658.7	133.1	440.9	315.1	125.82	3.504	
19,700.0	11,776.0	19,537.5	11,601.6	62.6	62.8	66.70	7,758.7	131.6	440.9	313.6	127.30	3.463	
19,800.0	11,776.0	19,637.5	11,601.6	63.3	63.5	66.70	7,858.7	130.2	440.8	312.0	128.78	3.423	
19,900.0	11,776.0	19,737.5	11,601.6	64.1	64.3	66.69	7,958.7	128.8	440.8	310.5	130.27	3.384	
20,000.0	11,776.0	19,837.5	11,601.6	64.8	65.0	66.69	8,058.7	127.4	440.7	309.0	131.75	3.345	
20,100.0	11,776.0	19,937.5	11,601.6	65.6	65.8	66.69	8,158.7	125.9	440.7	307.4	133.24	3.307	
20,200.0	11,776.0	20,037.5	11,601.6	66.3	66.5	66.68	8,258.6	124.5	440.6	305.9	134.72	3.270	
20,300.0	11,776.0	20,137.5	11,601.6	67.0	67.3	66.68	8,358.6	123.1	440.6	304.3	136.21	3.234	
20,400.0	11,776.0	20,237.5	11,601.6	67.8	68.0	66.68	8,458.6	121.7	440.5	302.8	137.70	3.199	
20,500.0	11,776.0	20,337.5	11,601.6	68.5	68.7	66.67	8,558.6	120.2	440.5	301.3	139.19	3.164	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11080-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.0	11,776.0	20,437.5	11,601.6	69.3	69.5	66.67	8,658.6	118.8	440.4	299.7	140.68	3.130	
20,700.0	11,776.0	20,537.5	11,601.6	70.0	70.2	66.67	8,758.6	117.4	440.3	298.2	142.18	3.097	
20,800.0	11,776.0	20,637.5	11,601.6	70.8	71.0	66.67	8,858.6	116.0	440.3	296.6	143.67	3.065	
20,900.0	11,776.0	20,737.5	11,601.6	71.5	71.7	66.66	8,958.6	114.5	440.2	295.1	145.16	3.033	
21,000.0	11,776.0	20,837.5	11,601.6	72.3	72.5	66.66	9,058.6	113.1	440.2	293.5	146.66	3.001	
21,100.0	11,776.0	20,937.5	11,601.6	73.0	73.2	66.66	9,158.6	111.7	440.1	292.0	148.15	2.971	
21,200.0	11,776.0	21,037.5	11,601.6	73.8	74.0	66.65	9,258.5	110.3	440.1	290.4	149.65	2.941	
21,300.0	11,776.0	21,137.5	11,601.6	74.5	74.7	66.65	9,358.5	108.8	440.0	288.9	151.15	2.911	
21,400.0	11,776.0	21,237.5	11,601.6	75.3	75.5	66.65	9,458.5	107.4	440.0	287.3	152.65	2.882	
21,500.0	11,776.0	21,337.5	11,601.6	76.0	76.2	66.64	9,558.5	106.0	439.9	285.8	154.14	2.854	
21,600.0	11,776.0	21,437.5	11,601.6	76.8	77.0	66.64	9,658.5	104.5	439.9	284.2	155.64	2.826	
21,700.0	11,776.0	21,537.5	11,601.6	77.5	77.7	66.64	9,758.5	103.1	439.8	282.7	157.14	2.799	
21,800.0	11,776.0	21,637.5	11,601.6	78.3	78.5	66.64	9,858.5	101.7	439.8	281.1	158.64	2.772	
21,900.0	11,776.0	21,737.5	11,601.6	79.0	79.2	66.63	9,958.5	100.3	439.7	279.6	160.15	2.746	
22,000.0	11,776.0	21,837.5	11,601.6	79.8	79.9	66.63	10,058.5	98.8	439.7	278.0	161.65	2.720	
22,100.0	11,776.0	21,937.5	11,601.6	80.5	80.7	66.63	10,158.4	97.4	439.6	276.5	163.15	2.694	
22,200.0	11,776.0	22,037.5	11,601.6	81.3	81.4	66.62	10,258.4	96.0	439.6	274.9	164.66	2.670	
22,300.0	11,776.0	22,137.5	11,601.6	82.0	82.2	66.62	10,358.4	94.6	439.5	273.3	166.16	2.645	
22,400.0	11,776.0	22,237.5	11,601.6	82.8	82.9	66.62	10,458.4	93.1	439.4	271.8	167.66	2.621	
22,500.0	11,776.0	22,337.5	11,601.6	83.5	83.7	66.61	10,558.4	91.7	439.4	270.2	169.17	2.597	
22,600.0	11,776.0	22,437.5	11,601.6	84.3	84.5	66.61	10,658.4	90.3	439.3	268.7	170.68	2.574	
22,700.0	11,776.0	22,537.5	11,601.6	85.0	85.2	66.61	10,758.4	88.9	439.3	267.1	172.18	2.551	
22,800.0	11,776.0	22,637.5	11,601.6	85.8	86.0	66.61	10,858.4	87.4	439.2	265.5	173.69	2.529	
22,900.0	11,776.0	22,737.5	11,601.6	86.5	86.7	66.60	10,958.4	86.0	439.2	264.0	175.20	2.507	
23,000.0	11,776.0	22,837.5	11,601.6	87.3	87.5	66.60	11,058.4	84.6	439.1	262.4	176.71	2.485	
23,100.0	11,776.0	22,937.5	11,601.6	88.0	88.2	66.60	11,158.3	83.2	439.1	260.9	178.21	2.464	
23,200.0	11,776.0	23,037.5	11,601.6	88.8	89.0	66.59	11,258.3	81.7	439.0	259.3	179.72	2.443	
23,300.0	11,776.0	23,137.5	11,601.6	89.6	89.7	66.59	11,358.3	80.3	439.0	257.7	181.23	2.422	
23,400.0	11,776.0	23,237.5	11,601.6	90.3	90.5	66.59	11,458.3	78.9	438.9	256.2	182.74	2.402	
23,500.0	11,776.0	23,337.5	11,601.6	91.1	91.2	66.59	11,558.3	77.5	438.9	254.6	184.25	2.382	
23,600.0	11,776.0	23,437.5	11,601.6	91.8	92.0	66.58	11,658.3	76.0	438.8	253.1	185.76	2.362	
23,700.0	11,776.0	23,537.5	11,601.6	92.6	92.7	66.58	11,758.3	74.6	438.8	251.5	187.27	2.343	
23,800.0	11,776.0	23,637.5	11,601.6	93.3	93.5	66.58	11,858.3	73.2	438.7	249.9	188.79	2.324	
23,900.0	11,776.0	23,737.5	11,601.6	94.1	94.2	66.57	11,958.3	71.8	438.7	248.4	190.30	2.305	
24,000.0	11,776.0	23,837.5	11,601.6	94.8	95.0	66.57	12,058.3	70.3	438.6	246.8	191.81	2.287	
24,100.0	11,776.0	23,937.5	11,601.6	95.6	95.7	66.57	12,158.2	68.9	438.5	245.2	193.32	2.268	
24,200.0	11,776.0	24,037.5	11,601.6	96.3	96.5	66.56	12,258.2	67.5	438.5	243.7	194.84	2.251	
24,300.0	11,776.0	24,137.5	11,601.6	97.1	97.3	66.56	12,358.2	66.1	438.4	242.1	196.35	2.233	
24,400.0	11,776.0	24,237.5	11,601.6	97.9	98.0	66.56	12,458.2	64.6	438.4	240.5	197.86	2.216	
24,500.0	11,776.0	24,337.5	11,601.6	98.6	98.8	66.56	12,558.2	63.2	438.3	239.0	199.38	2.199	
24,600.0	11,776.0	24,437.5	11,601.6	99.4	99.5	66.55	12,658.2	61.8	438.3	237.4	200.89	2.182	
24,700.0	11,776.0	24,537.5	11,601.6	100.1	100.3	66.55	12,758.2	60.3	438.2	235.8	202.41	2.165	
24,743.4	11,776.0	24,580.8	11,601.6	100.4	100.6	66.55	12,801.6	59.7	438.2	235.1	203.06	2.158	
24,746.9	11,776.0	24,580.8	11,601.6	100.5	100.6	66.55	12,801.6	59.7	438.2	235.1	203.11	2.158 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.9	0.0	3.0	3.0	89.10	0.9	59.8	59.8				
100.0	100.0	100.9	100.0	3.0	3.0	89.10	0.9	59.8	59.8	53.8	6.05	9.888	
200.0	200.0	200.9	200.0	3.2	3.2	89.10	0.9	59.8	59.8	53.5	6.30	9.503	
300.0	300.0	300.9	300.0	3.3	3.3	89.10	0.9	59.8	59.8	53.3	6.53	9.160	
400.0	400.0	400.9	400.0	3.4	3.4	89.10	0.9	59.8	59.8	53.1	6.76	8.852	
500.0	500.0	500.9	500.0	3.5	3.5	89.10	0.9	59.8	59.8	52.9	6.98	8.573	
600.0	600.0	600.9	600.0	3.6	3.6	89.10	0.9	59.8	59.8	52.7	7.19	8.319	
700.0	700.0	700.9	700.0	3.8	3.8	89.10	0.9	59.8	59.8	52.4	7.40	8.086	
800.0	800.0	800.9	800.0	3.9	3.9	89.10	0.9	59.8	59.8	52.2	7.60	7.871	
900.0	900.0	900.9	900.0	4.0	4.0	89.10	0.9	59.8	59.8	52.0	7.80	7.672	
916.4	916.4	917.3	916.4	4.0	4.0	89.10	0.9	59.8	59.8	52.0	7.85	7.627 CC	
1,000.0	1,000.0	1,000.9	1,000.0	4.1	4.2	89.10	0.9	59.8	59.8	51.8	8.09	7.396 ES	
1,100.0	1,100.0	1,100.0	1,099.1	4.3	4.4	-114.04	0.0	61.3	62.0	53.5	8.46	7.331	
1,200.0	1,199.8	1,197.1	1,196.0	4.6	4.7	-115.44	-2.8	65.5	68.4	59.5	8.90	7.691	
1,300.0	1,299.5	1,294.5	1,293.1	4.9	5.0	-117.27	-7.3	72.5	79.1	69.8	9.34	8.474	
1,400.0	1,398.7	1,391.0	1,388.9	5.3	5.3	-119.09	-13.6	82.2	94.2	84.4	9.79	9.621	
1,500.0	1,497.7	1,489.2	1,486.1	5.5	5.6	-120.74	-21.0	93.6	111.7	101.5	10.20	10.948	
1,600.0	1,596.8	1,587.6	1,583.6	5.8	5.8	-121.94	-28.5	105.1	129.3	118.6	10.63	12.164	
1,700.0	1,695.8	1,686.0	1,681.1	6.1	6.1	-122.85	-35.9	116.6	146.9	135.8	11.07	13.271	
1,800.0	1,794.8	1,784.4	1,778.5	6.4	6.4	-123.57	-43.4	128.1	164.5	153.0	11.52	14.277	
1,900.0	1,893.8	1,882.9	1,876.0	6.7	6.7	-124.15	-50.8	139.6	182.2	170.2	11.99	15.193	
2,000.0	1,992.9	1,981.3	1,973.4	7.1	7.0	-124.63	-58.3	151.1	199.9	187.4	12.47	16.026	
2,100.0	2,091.9	2,079.7	2,070.9	7.4	7.4	-125.03	-65.8	162.6	217.6	204.6	12.96	16.786	
2,200.0	2,190.9	2,178.1	2,168.3	7.8	7.7	-125.36	-73.2	174.0	235.3	221.8	13.46	17.478	
2,300.0	2,289.9	2,276.5	2,265.8	8.1	8.1	-125.66	-80.7	185.5	253.0	239.0	13.97	18.112	
2,400.0	2,389.0	2,374.9	2,363.2	8.5	8.4	-125.91	-88.1	197.0	270.7	256.2	14.48	18.691	
2,500.0	2,488.0	2,473.3	2,460.7	8.9	8.8	-126.13	-95.6	208.5	288.4	273.4	15.00	19.223	
2,600.0	2,587.0	2,571.8	2,558.1	9.2	9.2	-126.33	-103.1	220.0	306.1	290.6	15.53	19.712	
2,700.0	2,686.1	2,670.2	2,655.6	9.6	9.5	-126.50	-110.5	231.5	323.8	307.8	16.06	20.162	
2,800.0	2,785.1	2,768.6	2,753.1	10.0	9.9	-126.66	-118.0	243.0	341.5	324.9	16.60	20.577	
2,900.0	2,884.1	2,867.0	2,850.5	10.4	10.3	-126.80	-125.4	254.4	359.3	342.1	17.14	20.962	
3,000.0	2,983.1	2,965.4	2,948.0	10.8	10.7	-126.93	-132.9	265.9	377.0	359.3	17.68	21.317	
3,100.0	3,082.2	3,063.8	3,045.4	11.2	11.1	-127.05	-140.4	277.4	394.7	376.5	18.23	21.648	
3,200.0	3,181.2	3,162.2	3,142.9	11.6	11.5	-127.15	-147.8	288.9	412.5	393.7	18.79	21.955	
3,300.0	3,280.2	3,260.6	3,240.3	12.0	11.9	-127.25	-155.3	300.4	430.2	410.8	19.34	22.241	
3,400.0	3,379.2	3,359.1	3,337.8	12.4	12.3	-127.34	-162.7	311.9	447.9	428.0	19.90	22.508	
3,500.0	3,478.3	3,457.5	3,435.2	12.8	12.6	-127.42	-170.2	323.4	465.7	445.2	20.46	22.758	
3,600.0	3,577.3	3,555.9	3,532.7	13.2	13.0	-127.50	-177.7	334.9	483.4	462.4	21.02	22.992	
3,700.0	3,676.3	3,654.3	3,630.2	13.6	13.5	-127.57	-185.1	346.3	501.1	479.5	21.59	23.211	
3,800.0	3,775.3	3,752.7	3,727.6	14.0	13.9	-127.64	-192.6	357.8	518.9	496.7	22.16	23.417	
3,900.0	3,874.4	3,851.2	3,825.1	14.4	14.3	-127.76	-200.0	369.3	536.3	513.6	22.70	23.630	
4,000.0	3,973.7	3,949.8	3,922.8	14.8	14.7	-127.77	-207.5	380.8	552.7	529.5	23.26	23.766	
4,100.0	4,073.2	4,048.6	4,020.6	15.2	15.1	-127.64	-215.0	392.4	568.1	544.3	23.81	23.860	
4,200.0	4,172.9	4,147.5	4,118.5	15.6	15.5	-127.38	-222.5	403.9	582.4	558.1	24.35	23.916	
4,300.0	4,272.7	4,246.5	4,216.6	15.9	15.9	-126.99	-230.0	415.5	595.8	570.9	24.89	23.939	
4,400.0	4,372.6	4,345.5	4,314.6	16.3	16.3	-126.48	-237.5	427.0	608.1	582.7	25.41	23.934	
4,500.0	4,472.5	4,444.5	4,412.7	16.6	16.7	-125.86	-245.0	438.6	619.5	593.6	25.91	23.907	
4,600.0	4,572.5	4,543.6	4,510.8	16.8	17.1	-125.13	-252.5	450.1	630.0	603.6	26.39	23.872	
4,700.0	4,672.5	4,642.6	4,608.9	16.8	17.5	78.33	-260.0	461.7	639.9	613.1	26.73	23.936	
4,800.0	4,772.5	4,741.6	4,706.9	16.9	18.0	79.19	-267.5	473.3	649.9	622.8	27.10	23.984	
4,900.0	4,872.5	4,840.7	4,805.0	16.9	18.4	80.02	-275.0	484.8	660.0	632.6	27.47	24.029	
5,000.0	4,972.5	4,939.7	4,903.1	16.9	18.8	80.83	-282.6	496.4	670.3	642.5	27.85	24.070	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	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)		
5,100.0	5,072.5	5,038.7	5,001.1	17.0	19.2	81.61	-290.1	507.9	680.8	652.5	28.24	24.109	
5,200.0	5,172.5	5,137.8	5,099.2	17.0	19.6	82.37	-297.6	519.5	691.3	662.7	28.63	24.146	
5,300.0	5,272.5	5,236.8	5,197.2	17.0	20.1	83.11	-305.1	531.1	702.0	672.9	29.03	24.180	
5,400.0	5,372.5	5,335.8	5,295.3	17.1	20.5	83.83	-312.6	542.6	712.7	683.3	29.44	24.211	
5,500.0	5,472.5	5,434.8	5,393.4	17.1	20.9	84.52	-320.1	554.2	723.6	693.8	29.85	24.241	
5,600.0	5,572.5	5,533.9	5,491.4	17.1	21.3	85.19	-327.6	565.7	734.6	704.4	30.26	24.276	
5,700.0	5,672.5	5,637.9	5,594.5	17.2	21.7	85.86	-335.3	577.5	745.4	714.7	30.69	24.285	
5,800.0	5,772.5	5,742.6	5,698.4	17.2	22.2	86.47	-342.5	588.6	755.5	724.4	31.14	24.263	
5,900.0	5,872.5	5,847.5	5,802.6	17.2	22.6	87.02	-349.2	598.9	765.0	733.4	31.58	24.225	
6,000.0	5,972.5	5,952.7	5,907.1	17.3	23.0	87.51	-355.4	608.5	773.8	741.8	32.01	24.171	
6,100.0	6,072.5	6,058.1	6,012.0	17.3	23.4	87.96	-361.0	617.2	781.9	749.5	32.44	24.103	
6,200.0	6,172.5	6,163.6	6,117.1	17.3	23.8	88.36	-366.2	625.2	789.3	756.4	32.86	24.021	
6,300.0	6,272.5	6,269.3	6,222.5	17.4	24.2	88.71	-370.8	632.3	795.9	762.7	33.27	23.926	
6,400.0	6,372.5	6,375.2	6,328.0	17.4	24.6	89.01	-375.0	638.7	801.9	768.2	33.67	23.819	
6,500.0	6,472.5	6,481.2	6,433.8	17.5	25.0	89.27	-378.5	644.2	807.0	773.0	34.05	23.701	
6,600.0	6,572.5	6,587.3	6,539.8	17.5	25.4	89.49	-381.6	648.9	811.4	777.0	34.42	23.573	
6,700.0	6,672.5	6,693.5	6,645.9	17.5	25.7	89.67	-384.1	652.8	815.1	780.3	34.78	23.437	
6,800.0	6,772.5	6,799.7	6,752.1	17.6	26.1	89.81	-386.1	655.9	818.0	782.9	35.12	23.293	
6,900.0	6,872.5	6,906.1	6,858.4	17.6	26.4	89.92	-387.6	658.1	820.1	784.7	35.43	23.146	
7,000.0	6,972.5	7,012.4	6,964.7	17.6	26.6	89.98	-388.5	659.5	821.4	785.7	35.72	22.998	
7,100.0	7,072.5	7,118.8	7,071.1	17.7	26.9	90.01	-388.9	660.1	822.0	786.0	35.94	22.869	
7,200.0	7,172.5	7,220.2	7,172.5	17.7	26.9	90.01	-388.9	660.2	822.0	786.0	36.02	22.823	
7,300.0	7,272.5	7,320.2	7,272.5	17.8	26.9	90.01	-388.9	660.2	822.0	785.9	36.09	22.776	
7,400.0	7,372.5	7,420.2	7,372.5	17.8	26.9	90.01	-388.9	660.2	822.0	785.8	36.17	22.729	
7,500.0	7,472.5	7,520.2	7,472.5	17.8	27.0	90.01	-388.9	660.2	822.0	785.8	36.24	22.682	
7,600.0	7,572.5	7,620.2	7,572.5	17.9	27.0	90.01	-388.9	660.2	822.0	785.7	36.32	22.634	
7,700.0	7,672.5	7,720.2	7,672.5	17.9	27.0	90.01	-388.9	660.2	822.0	785.6	36.39	22.587	
7,800.0	7,772.5	7,820.2	7,772.5	18.0	27.0	90.01	-388.9	660.2	822.0	785.5	36.47	22.539	
7,900.0	7,872.5	7,920.2	7,872.5	18.0	27.0	90.01	-388.9	660.2	822.0	785.4	36.55	22.492	
8,000.0	7,972.5	8,020.2	7,972.5	18.0	27.1	90.01	-388.9	660.2	822.0	785.4	36.62	22.444	
8,100.0	8,072.5	8,120.2	8,072.5	18.1	27.1	90.01	-388.9	660.2	822.0	785.3	36.70	22.396	
8,200.0	8,172.5	8,220.2	8,172.5	18.1	27.1	90.01	-388.9	660.2	822.0	785.2	36.78	22.347	
8,300.0	8,272.5	8,320.2	8,272.5	18.2	27.1	90.01	-388.9	660.2	822.0	785.1	36.86	22.299	
8,400.0	8,372.5	8,420.2	8,372.5	18.2	27.1	90.01	-388.9	660.2	822.0	785.1	36.94	22.251	
8,500.0	8,472.5	8,520.2	8,472.5	18.2	27.2	90.01	-388.9	660.2	822.0	785.0	37.02	22.202	
8,600.0	8,572.5	8,620.2	8,572.5	18.3	27.2	90.01	-388.9	660.2	822.0	784.9	37.10	22.154	
8,700.0	8,672.5	8,720.2	8,672.5	18.3	27.2	90.01	-388.9	660.2	822.0	784.8	37.19	22.105	
8,800.0	8,772.5	8,820.2	8,772.5	18.4	27.2	90.01	-388.9	660.2	822.0	784.7	37.27	22.056	
8,900.0	8,872.5	8,920.2	8,872.5	18.4	27.3	90.01	-388.9	660.2	822.0	784.6	37.35	22.007	
9,000.0	8,972.5	9,020.2	8,972.5	18.5	27.3	90.01	-388.9	660.2	822.0	784.6	37.43	21.959	
9,100.0	9,072.5	9,120.2	9,072.5	18.5	27.3	90.01	-388.9	660.2	822.0	784.5	37.52	21.910	
9,200.0	9,172.5	9,220.2	9,172.5	18.5	27.3	90.01	-388.9	660.2	822.0	784.4	37.60	21.860	
9,300.0	9,272.5	9,320.2	9,272.5	18.6	27.4	90.01	-388.9	660.2	822.0	784.3	37.69	21.811	
9,400.0	9,372.5	9,420.2	9,372.5	18.6	27.4	90.01	-388.9	660.2	822.0	784.2	37.77	21.762	
9,500.0	9,472.5	9,520.2	9,472.5	18.7	27.4	90.01	-388.9	660.2	822.0	784.1	37.86	21.713	
9,600.0	9,572.5	9,620.2	9,572.5	18.7	27.4	90.01	-388.9	660.2	822.0	784.1	37.94	21.664	
9,700.0	9,672.5	9,720.2	9,672.5	18.8	27.5	90.01	-388.9	660.2	822.0	784.0	38.03	21.614	
9,800.0	9,772.5	9,820.2	9,772.5	18.8	27.5	90.01	-388.9	660.2	822.0	783.9	38.12	21.565	
9,900.0	9,872.5	9,920.2	9,872.5	18.9	27.5	90.01	-388.9	660.2	822.0	783.8	38.20	21.515	
10,000.0	9,972.5	10,020.2	9,972.5	18.9	27.5	90.01	-388.9	660.2	822.0	783.7	38.29	21.466	
10,100.0	10,072.5	10,120.2	10,072.5	19.0	27.6	90.01	-388.9	660.2	822.0	783.6	38.38	21.416	
10,200.0	10,172.5	10,220.2	10,172.5	19.0	27.6	90.01	-388.9	660.2	822.0	783.5	38.47	21.367	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor	
10,300.0	10,272.5	10,320.2	10,272.5	19.1	27.6	90.01	-388.9	660.2	822.0	783.4	38.56	21.317	
10,400.0	10,372.5	10,420.2	10,372.5	19.1	27.6	90.01	-388.9	660.2	822.0	783.3	38.65	21.268	
10,500.0	10,472.5	10,520.2	10,472.5	19.1	27.7	90.01	-388.9	660.2	822.0	783.3	38.74	21.218	
10,600.0	10,572.5	10,620.2	10,572.5	19.2	27.7	90.01	-388.9	660.2	822.0	783.2	38.83	21.169	
10,700.0	10,672.5	10,720.2	10,672.5	19.2	27.7	90.01	-388.9	660.2	822.0	783.1	38.92	21.119	
10,800.0	10,772.5	10,820.2	10,772.5	19.3	27.7	90.01	-388.9	660.2	822.0	783.0	39.01	21.069	
10,900.0	10,872.5	10,920.2	10,872.5	19.3	27.8	90.01	-388.9	660.2	822.0	782.9	39.11	21.020	
11,000.0	10,972.5	11,020.2	10,972.5	19.4	27.8	90.01	-388.9	660.2	822.0	782.8	39.20	20.970	
11,100.0	11,072.5	11,120.2	11,072.5	19.4	27.8	90.01	-388.9	660.2	822.0	782.7	39.29	20.921	
11,200.0	11,172.5	11,220.2	11,172.5	19.5	27.9	90.01	-388.9	660.2	822.0	782.6	39.38	20.873	
11,300.0	11,272.3	11,321.7	11,273.9	19.6	27.9	90.80	-384.8	660.1	822.0	782.6	39.40	20.860	
11,400.0	11,370.0	11,424.0	11,373.7	19.7	27.9	90.80	-363.5	659.8	822.0	782.6	39.40	20.861	
11,500.0	11,462.7	11,526.2	11,468.2	19.8	28.0	90.77	-324.9	659.2	821.9	782.5	39.38	20.872	
11,600.0	11,547.4	11,628.3	11,554.3	19.9	28.0	90.72	-270.2	658.4	821.8	782.5	39.35	20.887	
11,700.0	11,621.7	11,730.1	11,629.1	20.0	28.0	90.64	-201.3	657.3	821.7	782.4	39.32	20.898	
11,800.0	11,683.3	11,831.8	11,690.5	20.2	28.1	90.55	-120.5	656.1	821.6	782.3	39.32	20.895	
11,900.0	11,730.2	11,933.1	11,736.5	20.3	28.2	90.44	-30.3	654.8	821.5	782.1	39.36	20.869	
12,000.0	11,761.2	12,034.1	11,765.8	20.3	28.2	90.31	66.1	653.3	821.3	781.8	39.46	20.812	
12,100.0	11,775.1	12,134.7	11,777.8	20.4	28.3	90.18	165.9	651.8	821.2	781.5	39.63	20.719	
12,200.0	11,776.0	12,234.8	11,778.1	20.4	28.4	90.15	266.0	650.3	821.0	781.2	39.87	20.591	
12,300.0	11,776.0	12,334.8	11,778.1	20.5	28.5	90.15	366.0	648.8	820.9	780.7	40.19	20.424	
12,400.0	11,776.0	12,434.8	11,778.1	20.5	28.6	90.15	465.9	647.3	820.8	780.2	40.57	20.231	
12,500.0	11,776.0	12,534.8	11,778.1	20.6	28.7	90.15	565.9	645.8	820.6	779.6	41.00	20.014	
12,600.0	11,776.0	12,634.8	11,778.1	20.6	28.9	90.15	665.9	644.3	820.5	779.0	41.49	19.776	
12,700.0	11,776.0	12,734.8	11,778.1	20.7	29.1	90.15	765.9	642.8	820.3	778.3	42.03	19.519	
12,800.0	11,776.0	12,834.8	11,778.1	20.8	29.2	90.15	865.9	641.3	820.2	777.6	42.62	19.247	
12,900.0	11,776.0	12,934.8	11,778.1	20.9	29.4	90.15	965.9	639.8	820.1	776.8	43.25	18.961	
13,000.0	11,776.0	13,034.8	11,778.1	21.0	29.6	90.15	1,065.9	638.3	819.9	776.0	43.93	18.665	
13,100.0	11,776.0	13,134.8	11,778.1	21.1	29.8	90.15	1,165.9	636.8	819.8	775.2	44.65	18.360	
13,200.0	11,776.0	13,234.8	11,778.1	21.3	30.1	90.15	1,265.9	635.3	819.7	774.3	45.41	18.049	
13,300.0	11,776.0	13,334.8	11,778.1	21.5	30.3	90.15	1,365.8	633.8	819.5	773.3	46.21	17.734	
13,400.0	11,776.0	13,434.8	11,778.1	21.7	30.6	90.15	1,465.8	632.3	819.4	772.3	47.05	17.416	
13,500.0	11,776.0	13,534.8	11,778.1	21.9	30.9	90.15	1,565.8	630.8	819.3	771.3	47.92	17.097	
13,600.0	11,776.0	13,634.8	11,778.1	22.2	31.1	90.15	1,665.8	629.3	819.1	770.3	48.82	16.778	
13,700.0	11,776.0	13,734.8	11,778.1	22.5	31.5	90.15	1,765.8	627.7	819.0	769.2	49.75	16.462	
13,800.0	11,776.0	13,834.8	11,778.1	22.8	31.8	90.15	1,865.8	626.2	818.9	768.1	50.71	16.147	
13,900.0	11,776.0	13,934.8	11,778.1	23.2	32.1	90.15	1,965.8	624.7	818.7	767.0	51.70	15.837	
14,000.0	11,776.0	14,034.8	11,778.1	23.6	32.5	90.15	2,065.8	623.2	818.6	765.9	52.71	15.530	
14,100.0	11,776.0	14,134.8	11,778.1	24.1	32.8	90.15	2,165.8	621.7	818.4	764.7	53.75	15.228	
14,200.0	11,776.0	14,234.8	11,778.1	24.6	33.2	90.15	2,265.7	620.2	818.3	763.5	54.80	14.932	
14,300.0	11,776.0	14,334.8	11,778.1	25.1	33.6	90.15	2,365.7	618.7	818.2	762.3	55.88	14.641	
14,400.0	11,776.0	14,434.8	11,778.1	25.6	34.0	90.15	2,465.7	617.2	818.0	761.1	56.98	14.356	
14,500.0	11,776.0	14,534.8	11,778.1	26.2	34.4	90.15	2,565.7	615.7	817.9	759.8	58.10	14.078	
14,600.0	11,776.0	14,634.8	11,778.1	26.8	34.8	90.15	2,665.7	614.2	817.8	758.5	59.23	13.806	
14,700.0	11,776.0	14,734.8	11,778.1	27.3	35.3	90.15	2,765.7	612.7	817.6	757.2	60.39	13.540	
14,800.0	11,776.0	14,834.8	11,778.1	27.9	35.7	90.15	2,865.7	611.2	817.5	755.9	61.55	13.281	
14,900.0	11,776.0	14,934.8	11,778.1	28.6	36.2	90.15	2,965.7	609.7	817.4	754.6	62.74	13.028	
15,000.0	11,776.0	15,034.8	11,778.1	29.2	36.7	90.15	3,065.7	608.2	817.2	753.3	63.93	12.782	
15,100.0	11,776.0	15,134.8	11,778.1	29.8	37.1	90.15	3,165.6	606.7	817.1	751.9	65.14	12.543	
15,200.0	11,776.0	15,234.8	11,778.1	30.5	37.6	90.15	3,265.6	605.2	816.9	750.6	66.37	12.310	
15,300.0	11,776.0	15,334.8	11,778.1	31.1	38.1	90.15	3,365.6	603.7	816.8	749.2	67.60	12.083	
15,400.0	11,776.0	15,434.8	11,778.1	31.8	38.7	90.15	3,465.6	602.2	816.7	747.8	68.85	11.862	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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	
15,500.0	11,776.0	15,534.8	11,778.1	32.4	39.2	90.15	3,565.6	600.7	816.5	746.4	70.10	11.647	
15,600.0	11,776.0	15,634.8	11,778.1	33.1	39.7	90.15	3,665.6	599.2	816.4	745.0	71.37	11.439	
15,700.0	11,776.0	15,734.8	11,778.1	33.8	40.3	90.15	3,765.6	597.7	816.3	743.6	72.65	11.236	
15,800.0	11,776.0	15,834.8	11,778.1	34.4	40.8	90.15	3,865.6	596.2	816.1	742.2	73.94	11.038	
15,900.0	11,776.0	15,934.8	11,778.1	35.1	41.4	90.15	3,965.5	594.7	816.0	740.8	75.23	10.847	
16,000.0	11,776.0	16,034.8	11,778.1	35.8	41.9	90.15	4,065.5	593.2	815.9	739.3	76.53	10.660	
16,100.0	11,776.0	16,134.8	11,778.1	36.5	42.5	90.15	4,165.5	591.6	815.7	737.9	77.85	10.479	
16,200.0	11,776.0	16,234.8	11,778.1	37.2	43.1	90.15	4,265.5	590.1	815.6	736.4	79.16	10.302	
16,300.0	11,776.0	16,334.8	11,778.1	37.9	43.7	90.15	4,365.5	588.6	815.5	735.0	80.49	10.131	
16,400.0	11,776.0	16,434.8	11,778.1	38.6	44.3	90.15	4,465.5	587.1	815.3	733.5	81.82	9.964	
16,500.0	11,776.0	16,534.8	11,778.1	39.3	44.9	90.15	4,565.5	585.6	815.2	732.0	83.16	9.802	
16,600.0	11,776.0	16,634.8	11,778.1	40.0	45.5	90.15	4,665.5	584.1	815.0	730.5	84.51	9.645	
16,700.0	11,776.0	16,734.8	11,778.1	40.7	46.1	90.15	4,765.5	582.6	814.9	729.0	85.86	9.491	
16,800.0	11,776.0	16,834.8	11,778.1	41.4	46.7	90.15	4,865.4	581.1	814.8	727.6	87.22	9.342	
16,900.0	11,776.0	16,934.8	11,778.1	42.1	47.3	90.15	4,965.4	579.6	814.6	726.1	88.58	9.197	
17,000.0	11,776.0	17,034.8	11,778.1	42.8	47.9	90.15	5,065.4	578.1	814.5	724.6	89.95	9.055	
17,100.0	11,776.0	17,134.8	11,778.1	43.6	48.6	90.15	5,165.4	576.6	814.4	723.0	91.32	8.918	
17,200.0	11,776.0	17,234.8	11,778.1	44.3	49.2	90.15	5,265.4	575.1	814.2	721.5	92.70	8.784	
17,300.0	11,776.0	17,334.8	11,778.1	45.0	49.8	90.15	5,365.4	573.6	814.1	720.0	94.08	8.653	
17,400.0	11,776.0	17,434.8	11,778.1	45.7	50.5	90.15	5,465.4	572.1	814.0	718.5	95.47	8.526	
17,500.0	11,776.0	17,534.8	11,778.1	46.4	51.1	90.15	5,565.4	570.6	813.8	717.0	96.86	8.402	
17,600.0	11,776.0	17,634.8	11,778.1	47.2	51.8	90.15	5,665.4	569.1	813.7	715.4	98.25	8.282	
17,700.0	11,776.0	17,734.8	11,778.1	47.9	52.4	90.15	5,765.3	567.6	813.5	713.9	99.65	8.164	
17,800.0	11,776.0	17,834.8	11,778.1	48.6	53.1	90.15	5,865.3	566.1	813.4	712.4	101.05	8.049	
17,900.0	11,776.0	17,934.8	11,778.1	49.3	53.7	90.15	5,965.3	564.6	813.3	710.8	102.46	7.938	
18,000.0	11,776.0	18,034.8	11,778.1	50.1	54.4	90.15	6,065.3	563.1	813.1	709.3	103.87	7.829	
18,100.0	11,776.0	18,134.8	11,778.1	50.8	55.0	90.15	6,165.3	561.6	813.0	707.7	105.28	7.722	
18,200.0	11,776.0	18,234.8	11,778.1	51.5	55.7	90.15	6,265.3	560.1	812.9	706.2	106.69	7.619	
18,300.0	11,776.0	18,334.8	11,778.1	52.3	56.4	90.15	6,365.3	558.6	812.7	704.6	108.11	7.517	
18,400.0	11,776.0	18,434.8	11,778.1	53.0	57.1	90.15	6,465.3	557.1	812.6	703.1	109.53	7.419	
18,500.0	11,776.0	18,534.8	11,778.1	53.7	57.7	90.15	6,565.3	555.5	812.5	701.5	110.96	7.322	
18,600.0	11,776.0	18,634.8	11,778.1	54.5	58.4	90.15	6,665.2	554.0	812.3	699.9	112.39	7.228	
18,700.0	11,776.0	18,734.8	11,778.1	55.2	59.1	90.15	6,765.2	552.5	812.2	698.4	113.82	7.136	
18,800.0	11,776.0	18,834.8	11,778.1	55.9	59.8	90.15	6,865.2	551.0	812.1	696.8	115.25	7.046	
18,900.0	11,776.0	18,934.8	11,778.1	56.7	60.5	90.15	6,965.2	549.5	811.9	695.2	116.68	6.958	
19,000.0	11,776.0	19,034.8	11,778.1	57.4	61.1	90.15	7,065.2	548.0	811.8	693.7	118.12	6.873	
19,100.0	11,776.0	19,134.8	11,778.1	58.1	61.8	90.15	7,165.2	546.5	811.6	692.1	119.56	6.789	
19,200.0	11,776.0	19,234.8	11,778.1	58.9	62.5	90.15	7,265.2	545.0	811.5	690.5	121.00	6.707	
19,300.0	11,776.0	19,334.8	11,778.1	59.6	63.2	90.15	7,365.2	543.5	811.4	688.9	122.44	6.627	
19,400.0	11,776.0	19,434.8	11,778.1	60.4	63.9	90.15	7,465.1	542.0	811.2	687.3	123.89	6.548	
19,500.0	11,776.0	19,534.8	11,778.1	61.1	64.6	90.15	7,565.1	540.5	811.1	685.8	125.33	6.472	
19,600.0	11,776.0	19,634.8	11,778.1	61.8	65.3	90.15	7,665.1	539.0	811.0	684.2	126.78	6.396	
19,700.0	11,776.0	19,734.8	11,778.1	62.6	66.0	90.15	7,765.1	537.5	810.8	682.6	128.23	6.323	
19,800.0	11,776.0	19,834.8	11,778.1	63.3	66.7	90.15	7,865.1	536.0	810.7	681.0	129.69	6.251	
19,900.0	11,776.0	19,934.8	11,778.1	64.1	67.4	90.15	7,965.1	534.5	810.6	679.4	131.14	6.181	
20,000.0	11,776.0	20,034.8	11,778.1	64.8	68.1	90.15	8,065.1	533.0	810.4	677.8	132.60	6.112	
20,100.0	11,776.0	20,134.8	11,778.1	65.6	68.8	90.15	8,165.1	531.5	810.3	676.2	134.05	6.044	
20,200.0	11,776.0	20,234.8	11,778.1	66.3	69.5	90.15	8,265.1	530.0	810.1	674.6	135.51	5.978	
20,300.0	11,776.0	20,334.8	11,778.1	67.0	70.2	90.15	8,365.0	528.5	810.0	673.0	136.97	5.914	
20,400.0	11,776.0	20,434.8	11,778.1	67.8	70.9	90.15	8,465.0	527.0	809.9	671.4	138.44	5.850	
20,500.0	11,776.0	20,534.8	11,778.1	68.5	71.7	90.15	8,565.0	525.5	809.7	669.8	139.90	5.788	
20,600.0	11,776.0	20,634.8	11,778.1	69.3	72.4	90.15	8,665.0	524.0	809.6	668.2	141.36	5.727	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,700.0	11,776.0	20,734.8	11,778.1	70.0	73.1	90.15	8,765.0	522.5	809.5	666.6	142.83	5.667	
20,800.0	11,776.0	20,834.8	11,778.1	70.8	73.8	90.15	8,865.0	521.0	809.3	665.0	144.30	5.609	
20,900.0	11,776.0	20,934.8	11,778.1	71.5	74.5	90.15	8,965.0	519.4	809.2	663.4	145.77	5.551	
21,000.0	11,776.0	21,034.8	11,778.1	72.3	75.2	90.15	9,065.0	517.9	809.1	661.8	147.24	5.495	
21,100.0	11,776.0	21,134.8	11,778.1	73.0	75.9	90.15	9,165.0	516.4	808.9	660.2	148.71	5.440	
21,200.0	11,776.0	21,234.8	11,778.1	73.8	76.7	90.15	9,264.9	514.9	808.8	658.6	150.18	5.386	
21,300.0	11,776.0	21,334.8	11,778.1	74.5	77.4	90.15	9,364.9	513.4	808.7	657.0	151.65	5.332	
21,400.0	11,776.0	21,434.8	11,778.1	75.3	78.1	90.15	9,464.9	511.9	808.5	655.4	153.13	5.280	
21,500.0	11,776.0	21,534.8	11,778.1	76.0	78.8	90.15	9,564.9	510.4	808.4	653.8	154.60	5.229	
21,600.0	11,776.0	21,634.8	11,778.1	76.8	79.5	90.15	9,664.9	508.9	808.2	652.2	156.08	5.178	
21,700.0	11,776.0	21,734.8	11,778.1	77.5	80.3	90.15	9,764.9	507.4	808.1	650.6	157.55	5.129	
21,800.0	11,776.0	21,834.8	11,778.1	78.3	81.0	90.15	9,864.9	505.9	808.0	648.9	159.03	5.081	
21,900.0	11,776.0	21,934.8	11,778.1	79.0	81.7	90.15	9,964.9	504.4	807.8	647.3	160.51	5.033	
22,000.0	11,776.0	22,034.8	11,778.1	79.8	82.4	90.15	10,064.9	502.9	807.7	645.7	161.99	4.986	
22,100.0	11,776.0	22,134.8	11,778.1	80.5	83.2	90.15	10,164.8	501.4	807.6	644.1	163.47	4.940	
22,200.0	11,776.0	22,234.8	11,778.1	81.3	83.9	90.15	10,264.8	499.9	807.4	642.5	164.96	4.895	
22,300.0	11,776.0	22,334.8	11,778.1	82.0	84.6	90.15	10,364.8	498.4	807.3	640.9	166.44	4.850	
22,400.0	11,776.0	22,434.8	11,778.1	82.8	85.3	90.15	10,464.8	496.9	807.2	639.2	167.92	4.807	
22,500.0	11,776.0	22,534.8	11,778.1	83.5	86.1	90.15	10,564.8	495.4	807.0	637.6	169.41	4.764	
22,600.0	11,776.0	22,634.8	11,778.1	84.3	86.8	90.15	10,664.8	493.9	806.9	636.0	170.89	4.722	
22,700.0	11,776.0	22,734.8	11,778.1	85.0	87.5	90.15	10,764.8	492.4	806.7	634.4	172.38	4.680	
22,800.0	11,776.0	22,834.8	11,778.1	85.8	88.3	90.15	10,864.8	490.9	806.6	632.7	173.86	4.639	
22,900.0	11,776.0	22,934.8	11,778.1	86.5	89.0	90.15	10,964.7	489.4	806.5	631.1	175.35	4.599	
23,000.0	11,776.0	23,034.8	11,778.1	87.3	89.7	90.15	11,064.7	487.9	806.3	629.5	176.84	4.560	
23,100.0	11,776.0	23,134.8	11,778.1	88.0	90.5	90.15	11,164.7	486.4	806.2	627.9	178.33	4.521	
23,200.0	11,776.0	23,234.8	11,778.1	88.8	91.2	90.15	11,264.7	484.9	806.1	626.3	179.82	4.483	
23,300.0	11,776.0	23,334.8	11,778.1	89.6	91.9	90.15	11,364.7	483.3	805.9	624.6	181.31	4.445	
23,400.0	11,776.0	23,434.8	11,778.1	90.3	92.7	90.15	11,464.7	481.8	805.8	623.0	182.80	4.408	
23,500.0	11,776.0	23,534.8	11,778.1	91.1	93.4	90.15	11,564.7	480.3	805.7	621.4	184.29	4.372	
23,600.0	11,776.0	23,634.8	11,778.1	91.8	94.1	90.15	11,664.7	478.8	805.5	619.7	185.78	4.336	
23,700.0	11,776.0	23,734.8	11,778.1	92.6	94.9	90.15	11,764.7	477.3	805.4	618.1	187.27	4.301	
23,800.0	11,776.0	23,834.8	11,778.1	93.3	95.6	90.15	11,864.6	475.8	805.3	616.5	188.76	4.266	
23,900.0	11,776.0	23,934.8	11,778.1	94.1	96.3	90.15	11,964.6	474.3	805.1	614.9	190.26	4.232	
24,000.0	11,776.0	24,034.8	11,778.1	94.8	97.1	90.15	12,064.6	472.8	805.0	613.2	191.75	4.198	
24,100.0	11,776.0	24,134.8	11,778.1	95.6	97.8	90.15	12,164.6	471.3	804.8	611.6	193.25	4.165	
24,200.0	11,776.0	24,234.8	11,778.1	96.3	98.5	90.15	12,264.6	469.8	804.7	610.0	194.74	4.132	
24,300.0	11,776.0	24,334.8	11,778.1	97.1	99.3	90.15	12,364.6	468.3	804.6	608.3	196.24	4.100	
24,400.0	11,776.0	24,434.8	11,778.1	97.9	100.0	90.15	12,464.6	466.8	804.4	606.7	197.73	4.068	
24,500.0	11,776.0	24,534.8	11,778.1	98.6	100.8	90.15	12,564.6	465.3	804.3	605.1	199.23	4.037	
24,600.0	11,776.0	24,634.8	11,778.1	99.4	101.5	90.15	12,664.6	463.8	804.2	603.4	200.73	4.006	
24,700.0	11,776.0	24,734.8	11,778.1	100.1	102.2	90.15	12,764.5	462.3	804.0	601.8	202.22	3.976	
24,740.9	11,776.0	24,774.6	11,778.1	100.4	102.5	90.15	12,804.3	461.7	804.0	601.1	202.83	3.964	
24,746.9	11,776.0	24,774.6	11,778.1	100.5	102.5	90.15	12,804.3	461.7	804.0	601.1	202.90	3.963 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Offset Wellbore Centre	Distance	Rule Assigned:								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.6	0.0	3.0	3.0	89.10	1.4	90.2	90.2				
100.0	100.0	100.6	100.0	3.0	3.0	89.10	1.4	90.2	90.2	84.1	6.05	14.904	
200.0	200.0	200.6	200.0	3.2	3.2	89.10	1.4	90.2	90.2	83.9	6.30	14.324	
300.0	300.0	300.6	300.0	3.3	3.3	89.10	1.4	90.2	90.2	83.7	6.53	13.807	
400.0	400.0	400.6	400.0	3.4	3.4	89.10	1.4	90.2	90.2	83.4	6.76	13.342	
500.0	500.0	500.6	500.0	3.5	3.5	89.10	1.4	90.2	90.2	83.2	6.98	12.922	
600.0	600.0	600.6	600.0	3.6	3.6	89.10	1.4	90.2	90.2	83.0	7.19	12.538	
700.0	700.0	700.6	700.0	3.8	3.8	89.10	1.4	90.2	90.2	82.8	7.40	12.187	
800.0	800.0	800.6	800.0	3.9	3.9	89.10	1.4	90.2	90.2	82.6	7.60	11.864	
900.0	900.0	900.6	900.0	4.0	4.0	89.10	1.4	90.2	90.2	82.4	7.80	11.565	
916.5	916.5	917.1	916.5	4.0	4.0	89.10	1.4	90.2	90.2	82.4	7.83	11.519 CC	
1,000.0	1,000.0	1,000.0	999.4	4.1	4.1	89.10	1.4	90.2	90.2	82.2	7.99	11.289 ES	
1,100.0	1,100.0	1,097.7	1,097.1	4.3	4.3	-114.04	0.8	91.7	92.5	84.2	8.29	11.155	
1,200.0	1,199.8	1,194.4	1,193.7	4.6	4.5	-115.50	-0.9	96.3	99.4	90.6	8.76	11.343	
1,300.0	1,299.5	1,290.5	1,289.4	4.9	4.8	-117.51	-3.9	103.9	110.9	101.7	9.24	12.010	
1,400.0	1,398.7	1,385.5	1,383.8	5.3	5.1	-119.67	-7.9	114.4	127.2	117.5	9.72	13.090	
1,500.0	1,497.7	1,479.5	1,476.6	5.5	5.5	-121.49	-12.9	127.6	147.4	137.2	10.19	14.471	
1,600.0	1,596.8	1,575.4	1,571.0	5.8	5.7	-122.46	-19.0	143.3	169.9	159.2	10.61	16.011	
1,700.0	1,695.8	1,672.8	1,666.9	6.1	6.0	-123.18	-25.2	159.5	192.5	181.4	11.08	17.379	
1,800.0	1,794.8	1,770.1	1,762.7	6.4	6.3	-123.75	-31.4	175.7	215.2	203.6	11.57	18.598	
1,900.0	1,893.8	1,867.5	1,858.5	6.7	6.6	-124.21	-37.6	191.8	237.8	225.8	12.08	19.691	
2,000.0	1,992.9	1,964.9	1,954.3	7.1	7.0	-124.59	-43.8	208.0	260.5	247.9	12.60	20.673	
2,100.0	2,091.9	2,062.3	2,050.2	7.4	7.3	-124.91	-50.0	224.2	283.2	270.1	13.14	21.555	
2,200.0	2,190.9	2,159.6	2,146.0	7.8	7.7	-125.18	-56.2	240.4	306.0	292.3	13.69	22.349	
2,300.0	2,289.9	2,257.0	2,241.8	8.1	8.1	-125.42	-62.4	256.6	328.7	314.4	14.25	23.066	
2,400.0	2,389.0	2,354.4	2,337.6	8.5	8.4	-125.62	-68.7	272.7	351.4	336.6	14.82	23.715	
2,500.0	2,488.0	2,451.8	2,433.5	8.9	8.8	-125.80	-74.9	288.9	374.1	358.7	15.39	24.303	
2,600.0	2,587.0	2,549.2	2,529.3	9.2	9.2	-125.96	-81.1	305.1	396.9	380.9	15.98	24.838	
2,700.0	2,686.1	2,646.5	2,625.1	9.6	9.6	-126.10	-87.3	321.3	419.6	403.0	16.57	25.325	
2,800.0	2,785.1	2,743.9	2,720.9	10.0	10.0	-126.23	-93.5	337.4	442.3	425.2	17.16	25.770	
2,900.0	2,884.1	2,841.3	2,816.8	10.4	10.4	-126.34	-99.7	353.6	465.1	447.3	17.76	26.178	
3,000.0	2,983.1	2,938.7	2,912.6	10.8	10.8	-126.45	-105.9	369.8	487.8	469.4	18.37	26.553	
3,100.0	3,082.2	3,036.0	3,008.4	11.2	11.2	-126.54	-112.1	386.0	510.5	491.5	18.98	26.897	
3,200.0	3,181.2	3,133.4	3,104.2	11.6	11.6	-126.63	-118.3	402.1	533.3	513.7	19.59	27.215	
3,300.0	3,280.2	3,230.8	3,200.0	12.0	12.0	-126.71	-124.5	418.3	556.0	535.8	20.21	27.509	
3,400.0	3,379.2	3,328.2	3,295.9	12.4	12.5	-126.78	-130.7	434.5	578.7	557.9	20.83	27.781	
3,500.0	3,478.3	3,425.5	3,391.7	12.8	12.9	-126.85	-137.0	450.7	601.5	580.0	21.46	28.034	
3,600.0	3,577.3	3,522.9	3,487.5	13.2	13.3	-126.91	-143.2	466.9	624.2	602.2	22.08	28.269	
3,700.0	3,676.3	3,620.3	3,583.3	13.6	13.7	-126.97	-149.4	483.0	647.0	624.3	22.71	28.488	
3,800.0	3,775.3	3,717.7	3,679.2	14.0	14.1	-127.03	-155.6	499.2	669.7	646.4	23.34	28.692	
3,900.0	3,874.4	3,815.1	3,775.0	14.4	14.6	-127.18	-161.8	515.4	692.2	668.2	23.94	28.908	
4,000.0	3,973.7	3,912.8	3,871.2	14.8	15.0	-127.26	-168.0	531.6	713.6	689.1	24.57	29.046	
4,100.0	4,073.2	4,010.6	3,967.4	15.2	15.4	-127.23	-174.3	547.9	734.1	708.9	25.19	29.146	
4,200.0	4,172.9	4,108.7	4,063.9	15.6	15.8	-127.09	-180.5	564.2	753.5	727.7	25.79	29.211	
4,300.0	4,272.7	4,206.8	4,160.5	15.9	16.3	-126.85	-186.8	580.5	771.9	745.5	26.39	29.248	
4,400.0	4,372.6	4,305.1	4,257.2	16.3	16.7	-126.52	-193.0	596.8	789.3	762.3	26.97	29.260	
4,500.0	4,472.5	4,403.4	4,354.0	16.6	17.2	-126.10	-199.3	613.1	805.8	778.2	27.54	29.256	
4,600.0	4,572.5	4,501.8	4,450.8	16.8	17.6	-125.60	-205.6	629.5	821.3	793.2	28.08	29.248	
4,700.0	4,672.5	4,600.2	4,547.6	16.8	18.0	77.64	-211.9	645.8	836.2	807.7	28.48	29.359	
4,800.0	4,772.5	4,698.6	4,644.5	16.9	18.5	78.30	-218.1	662.2	851.2	822.3	28.90	29.451	
4,900.0	4,872.5	4,797.0	4,741.3	16.9	18.9	78.93	-224.4	678.5	866.3	836.9	29.33	29.538	
5,000.0	4,972.5	4,895.4	4,838.1	16.9	19.3	79.54	-230.7	694.9	881.5	851.7	29.76	29.621	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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	
5,100.0	5,072.5	4,993.8	4,935.0	17.0	19.8	80.14	-237.0	711.2	896.8	866.6	30.19	29.700	
5,200.0	5,172.5	5,092.3	5,031.8	17.0	20.2	80.71	-243.2	727.6	912.1	881.5	30.63	29.775	
5,300.0	5,272.5	5,190.7	5,128.6	17.0	20.7	81.26	-249.5	743.9	927.6	896.5	31.08	29.847	
5,400.0	5,372.5	5,289.1	5,225.5	17.1	21.1	81.79	-255.8	760.3	943.2	911.6	31.53	29.915	
5,500.0	5,472.5	5,387.5	5,322.3	17.1	21.5	82.31	-262.1	776.6	958.8	926.8	31.98	29.980	
5,600.0	5,572.5	5,485.9	5,419.1	17.1	22.0	82.81	-268.3	792.9	974.5	942.1	32.44	30.041	
5,700.0	5,672.5	5,584.3	5,516.0	17.2	22.4	83.30	-274.6	809.3	990.3	957.4	32.90	30.100	
5,800.0	5,772.5	5,682.7	5,612.8	17.2	22.9	83.76	-280.9	825.6	1,006.1	972.7	33.36	30.157	
5,900.0	5,872.5	5,781.1	5,709.6	17.2	23.3	84.22	-287.2	842.0	1,022.0	988.2	33.83	30.210	
6,000.0	5,972.5	5,879.5	5,806.5	17.3	23.8	84.66	-293.4	858.3	1,038.0	1,003.7	34.30	30.262	
6,100.0	6,072.5	5,977.9	5,903.3	17.3	24.2	85.09	-299.7	874.7	1,054.0	1,019.2	34.77	30.311	
6,200.0	6,172.5	6,076.3	6,000.1	17.3	24.7	85.50	-306.0	891.0	1,070.1	1,034.8	35.25	30.358	
6,300.0	6,272.5	6,179.2	6,101.5	17.4	25.1	85.92	-312.5	908.0	1,086.1	1,050.4	35.74	30.390	
6,400.0	6,372.5	6,287.2	6,207.9	17.4	25.6	86.33	-319.0	925.0	1,101.5	1,065.2	36.26	30.375	
6,500.0	6,472.5	6,395.5	6,314.7	17.5	26.1	86.70	-325.2	941.1	1,116.0	1,079.2	36.78	30.341	
6,600.0	6,572.5	6,504.1	6,422.1	17.5	26.5	87.05	-331.1	956.4	1,129.7	1,092.4	37.29	30.292	
6,700.0	6,672.5	6,613.0	6,529.9	17.5	27.0	87.36	-336.6	970.7	1,142.6	1,104.8	37.80	30.228	
6,800.0	6,772.5	6,722.1	6,638.2	17.6	27.5	87.65	-341.7	984.1	1,154.7	1,116.4	38.30	30.151	
6,900.0	6,872.5	6,831.6	6,746.8	17.6	27.9	87.91	-346.5	996.5	1,165.9	1,127.1	38.79	30.059	
7,000.0	6,972.5	6,941.3	6,855.8	17.6	28.4	88.15	-350.9	1,008.0	1,176.3	1,137.0	39.27	29.956	
7,100.0	7,072.5	7,051.2	6,965.2	17.7	28.8	88.36	-354.9	1,018.6	1,185.7	1,146.0	39.74	29.841	
7,200.0	7,172.5	7,161.4	7,074.8	17.7	29.3	88.55	-358.6	1,028.1	1,194.4	1,154.2	40.19	29.715	
7,300.0	7,272.5	7,271.7	7,184.7	17.8	29.7	88.72	-361.9	1,036.8	1,202.1	1,161.5	40.64	29.579	
7,400.0	7,372.5	7,382.2	7,294.9	17.8	30.1	88.86	-364.9	1,044.4	1,209.0	1,167.9	41.07	29.434	
7,500.0	7,472.5	7,492.8	7,405.3	17.8	30.5	88.99	-367.4	1,051.1	1,214.9	1,173.4	41.49	29.281	
7,600.0	7,572.5	7,603.6	7,515.9	17.9	30.9	89.10	-369.6	1,056.7	1,220.0	1,178.1	41.89	29.121	
7,700.0	7,672.5	7,714.5	7,626.7	17.9	31.2	89.19	-371.4	1,061.4	1,224.2	1,181.9	42.28	28.956	
7,800.0	7,772.5	7,825.4	7,737.6	18.0	31.6	89.25	-372.8	1,065.1	1,227.5	1,184.9	42.64	28.787	
7,900.0	7,872.5	7,936.4	7,848.6	18.0	31.9	89.30	-373.8	1,067.7	1,229.9	1,186.9	42.98	28.618	
8,000.0	7,972.5	8,047.5	7,959.6	18.0	32.2	89.33	-374.5	1,069.4	1,231.4	1,188.1	43.28	28.453	
8,100.0	8,072.5	8,158.6	8,070.7	18.1	32.4	89.35	-374.7	1,070.1	1,232.0	1,188.5	43.49	28.331	
8,200.0	8,172.5	8,260.4	8,172.5	18.1	32.4	89.35	-374.7	1,070.1	1,232.0	1,188.4	43.57	28.279	
8,300.0	8,272.5	8,360.4	8,272.5	18.2	32.4	89.35	-374.7	1,070.1	1,232.0	1,188.4	43.64	28.232	
8,400.0	8,372.5	8,460.4	8,372.5	18.2	32.5	89.35	-374.7	1,070.1	1,232.0	1,188.3	43.71	28.184	
8,500.0	8,472.5	8,560.4	8,472.5	18.2	32.5	89.35	-374.7	1,070.1	1,232.0	1,188.2	43.79	28.136	
8,600.0	8,572.5	8,660.4	8,572.5	18.3	32.5	89.35	-374.7	1,070.1	1,232.0	1,188.1	43.86	28.088	
8,700.0	8,672.5	8,760.4	8,672.5	18.3	32.5	89.35	-374.7	1,070.1	1,232.0	1,188.1	43.94	28.039	
8,800.0	8,772.5	8,860.4	8,772.5	18.4	32.5	89.35	-374.7	1,070.1	1,232.0	1,188.0	44.01	27.991	
8,900.0	8,872.5	8,960.4	8,872.5	18.4	32.6	89.35	-374.7	1,070.1	1,232.0	1,187.9	44.09	27.942	
9,000.0	8,972.5	9,060.4	8,972.5	18.5	32.6	89.35	-374.7	1,070.1	1,232.0	1,187.8	44.17	27.894	
9,100.0	9,072.5	9,160.4	9,072.5	18.5	32.6	89.35	-374.7	1,070.1	1,232.0	1,187.8	44.24	27.845	
9,200.0	9,172.5	9,260.4	9,172.5	18.5	32.6	89.35	-374.7	1,070.1	1,232.0	1,187.7	44.32	27.796	
9,300.0	9,272.5	9,360.4	9,272.5	18.6	32.6	89.35	-374.7	1,070.1	1,232.0	1,187.6	44.40	27.747	
9,400.0	9,372.5	9,460.4	9,372.5	18.6	32.7	89.35	-374.7	1,070.1	1,232.0	1,187.5	44.48	27.698	
9,500.0	9,472.5	9,560.4	9,472.5	18.7	32.7	89.35	-374.7	1,070.1	1,232.0	1,187.4	44.56	27.649	
9,600.0	9,572.5	9,660.4	9,572.5	18.7	32.7	89.35	-374.7	1,070.1	1,232.0	1,187.4	44.64	27.599	
9,700.0	9,672.5	9,760.4	9,672.5	18.8	32.7	89.35	-374.7	1,070.1	1,232.0	1,187.3	44.72	27.550	
9,800.0	9,772.5	9,860.4	9,772.5	18.8	32.7	89.35	-374.7	1,070.1	1,232.0	1,187.2	44.80	27.501	
9,900.0	9,872.5	9,960.4	9,872.5	18.9	32.8	89.35	-374.7	1,070.1	1,232.0	1,187.1	44.88	27.451	
10,000.0	9,972.5	10,060.4	9,972.5	18.9	32.8	89.35	-374.7	1,070.1	1,232.0	1,187.0	44.96	27.401	
10,100.0	10,072.5	10,160.4	10,072.5	19.0	32.8	89.35	-374.7	1,070.1	1,232.0	1,187.0	45.04	27.352	
10,200.0	10,172.5	10,260.4	10,172.5	19.0	32.8	89.35	-374.7	1,070.1	1,232.0	1,186.9	45.13	27.302	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	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)		
10,300.0	10,272.5	10,360.4	10,272.5	19.1	32.8	89.35	-374.7	1,070.1	1,232.0	1,186.8	45.21	27.252	
10,400.0	10,372.5	10,460.4	10,372.5	19.1	32.9	89.35	-374.7	1,070.1	1,232.0	1,186.7	45.29	27.202	
10,500.0	10,472.5	10,560.4	10,472.5	19.1	32.9	89.35	-374.7	1,070.1	1,232.0	1,186.6	45.37	27.152	
10,600.0	10,572.5	10,660.4	10,572.5	19.2	32.9	89.35	-374.7	1,070.1	1,232.0	1,186.5	45.46	27.102	
10,700.0	10,672.5	10,760.4	10,672.5	19.2	32.9	89.35	-374.7	1,070.1	1,232.0	1,186.5	45.54	27.052	
10,800.0	10,772.5	10,860.4	10,772.5	19.3	33.0	89.35	-374.7	1,070.1	1,232.0	1,186.4	45.63	27.002	
10,900.0	10,872.5	10,960.4	10,872.5	19.3	33.0	89.35	-374.7	1,070.1	1,232.0	1,186.3	45.71	26.951	
11,000.0	10,972.5	11,060.4	10,972.5	19.4	33.0	89.35	-374.7	1,070.1	1,232.0	1,186.2	45.80	26.901	
11,100.0	11,072.5	11,160.9	11,073.0	19.4	33.0	89.27	-373.1	1,070.1	1,232.0	1,186.1	45.86	26.861	
11,153.9	11,126.4	11,214.7	11,126.4	19.5	33.0	88.97	-366.6	1,069.9	1,232.0	1,186.1	45.88	26.852	
11,200.0	11,172.5	11,259.5	11,170.2	19.5	33.0	88.54	-357.4	1,069.8	1,232.0	1,186.1	45.88	26.851	
11,300.0	11,272.3	11,351.7	11,257.4	19.6	33.0	88.08	-327.8	1,069.2	1,232.5	1,186.7	45.84	26.889	
11,400.0	11,370.0	11,440.0	11,335.5	19.7	33.1	86.85	-286.8	1,068.5	1,233.6	1,187.8	45.81	26.928	
11,500.0	11,462.7	11,525.2	11,404.0	19.8	33.1	85.72	-236.2	1,067.6	1,235.0	1,189.2	45.81	26.957	
11,600.0	11,547.4	11,608.1	11,462.7	19.9	33.1	84.71	-177.9	1,066.5	1,236.6	1,190.7	45.86	26.965	
11,700.0	11,621.7	11,688.9	11,511.3	20.0	33.1	83.83	-113.3	1,065.4	1,238.2	1,192.2	45.95	26.944	
11,800.0	11,683.3	11,768.3	11,549.7	20.2	33.2	83.11	-43.9	1,064.1	1,239.6	1,193.5	46.10	26.889	
11,900.0	11,730.2	11,850.0	11,578.8	20.3	33.2	82.54	32.3	1,062.8	1,240.8	1,194.5	46.28	26.809	
12,000.0	11,761.2	11,924.0	11,595.6	20.3	33.3	82.19	104.3	1,061.5	1,241.5	1,194.9	46.54	26.675	
12,100.0	11,775.1	12,000.0	11,603.1	20.4	33.3	82.02	179.9	1,060.1	1,241.6	1,194.8	46.82	26.521	
12,200.0	11,776.0	12,095.9	11,603.4	20.4	33.4	82.01	275.7	1,058.4	1,241.3	1,194.2	47.05	26.380	
12,300.0	11,776.0	12,195.9	11,603.4	20.5	33.5	82.00	375.7	1,056.6	1,240.8	1,193.5	47.35	26.208	
12,400.0	11,776.0	12,295.9	11,603.4	20.5	33.7	82.00	475.7	1,054.8	1,240.4	1,192.7	47.69	26.010	
12,500.0	11,776.0	12,395.9	11,603.4	20.6	33.8	82.00	575.7	1,053.0	1,240.0	1,191.9	48.09	25.786	
12,600.0	11,776.0	12,495.9	11,603.4	20.6	33.9	82.00	675.6	1,051.2	1,239.6	1,191.0	48.53	25.541	
12,700.0	11,776.0	12,595.9	11,603.4	20.7	34.1	81.99	775.6	1,049.4	1,239.1	1,190.1	49.03	25.275	
12,800.0	11,776.0	12,695.9	11,603.4	20.8	34.3	81.99	875.6	1,047.6	1,238.7	1,189.2	49.57	24.992	
12,900.0	11,776.0	12,795.9	11,603.4	20.9	34.5	81.99	975.6	1,045.8	1,238.3	1,188.1	50.15	24.693	
13,000.0	11,776.0	12,895.9	11,603.4	21.0	34.7	81.98	1,075.6	1,044.0	1,237.9	1,187.1	50.77	24.381	
13,100.0	11,776.0	12,995.9	11,603.4	21.1	34.9	81.98	1,175.6	1,042.2	1,237.4	1,186.0	51.43	24.059	
13,200.0	11,776.0	13,095.9	11,603.4	21.3	35.1	81.98	1,275.5	1,040.4	1,237.0	1,184.9	52.13	23.728	
13,300.0	11,776.0	13,195.9	11,603.4	21.5	35.4	81.98	1,375.5	1,038.6	1,236.6	1,183.7	52.87	23.389	
13,400.0	11,776.0	13,295.9	11,603.4	21.7	35.7	81.97	1,475.5	1,036.8	1,236.2	1,182.5	53.64	23.046	
13,500.0	11,776.0	13,395.9	11,603.4	21.9	35.9	81.97	1,575.5	1,035.0	1,235.7	1,181.3	54.44	22.699	
13,600.0	11,776.0	13,495.9	11,603.4	22.2	36.2	81.97	1,675.5	1,033.2	1,235.3	1,180.0	55.27	22.349	
13,700.0	11,776.0	13,595.9	11,603.4	22.5	36.5	81.97	1,775.5	1,031.4	1,234.9	1,178.8	56.13	21.999	
13,800.0	11,776.0	13,695.9	11,603.4	22.8	36.8	81.96	1,875.4	1,029.6	1,234.5	1,177.4	57.02	21.649	
13,900.0	11,776.0	13,795.9	11,603.4	23.2	37.1	81.96	1,975.4	1,027.8	1,234.0	1,176.1	57.94	21.300	
14,000.0	11,776.0	13,895.9	11,603.4	23.6	37.5	81.96	2,075.4	1,026.0	1,233.6	1,174.7	58.87	20.954	
14,100.0	11,776.0	13,995.9	11,603.4	24.1	37.8	81.95	2,175.4	1,024.2	1,233.2	1,173.4	59.83	20.610	
14,200.0	11,776.0	14,095.9	11,603.4	24.6	38.2	81.95	2,275.4	1,022.4	1,232.8	1,171.9	60.82	20.270	
14,300.0	11,776.0	14,195.9	11,603.4	25.1	38.5	81.95	2,375.4	1,020.6	1,232.3	1,170.5	61.82	19.933	
14,400.0	11,776.0	14,295.9	11,603.4	25.6	38.9	81.95	2,475.3	1,018.8	1,231.9	1,169.1	62.85	19.602	
14,500.0	11,776.0	14,395.8	11,603.4	26.2	39.3	81.94	2,575.3	1,017.0	1,231.5	1,167.6	63.89	19.275	
14,600.0	11,776.0	14,495.8	11,603.4	26.8	39.7	81.94	2,675.3	1,015.2	1,231.1	1,166.1	64.95	18.953	
14,700.0	11,776.0	14,595.8	11,603.4	27.3	40.1	81.94	2,775.3	1,013.4	1,230.6	1,164.6	66.03	18.637	
14,800.0	11,776.0	14,695.8	11,603.4	27.9	40.5	81.93	2,875.3	1,011.7	1,230.2	1,163.1	67.13	18.327	
14,900.0	11,776.0	14,795.8	11,603.4	28.6	41.0	81.93	2,975.3	1,009.9	1,229.8	1,161.6	68.24	18.022	
15,000.0	11,776.0	14,895.8	11,603.4	29.2	41.4	81.93	3,075.2	1,008.1	1,229.4	1,160.0	69.36	17.724	
15,100.0	11,776.0	14,995.8	11,603.4	29.8	41.9	81.93	3,175.2	1,006.3	1,228.9	1,158.4	70.50	17.431	
15,200.0	11,776.0	15,095.8	11,603.4	30.5	42.3	81.92	3,275.2	1,004.5	1,228.5	1,156.9	71.66	17.144	
15,300.0	11,776.0	15,195.8	11,603.4	31.1	42.8	81.92	3,375.2	1,002.7	1,228.1	1,155.3	72.82	16.864	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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	
15,400.0	11,776.0	15,295.8	11,603.4	31.8	43.3	81.92	3,475.2	1,000.9	1,227.7	1,153.7	74.00	16.590	
15,500.0	11,776.0	15,395.8	11,603.4	32.4	43.8	81.91	3,575.2	999.1	1,227.2	1,152.0	75.19	16.321	
15,600.0	11,776.0	15,495.8	11,603.4	33.1	44.2	81.91	3,675.1	997.3	1,226.8	1,150.4	76.39	16.059	
15,700.0	11,776.0	15,595.8	11,603.4	33.8	44.7	81.91	3,775.1	995.5	1,226.4	1,148.8	77.61	15.803	
15,800.0	11,776.0	15,695.8	11,603.4	34.4	45.2	81.91	3,875.1	993.7	1,226.0	1,147.1	78.83	15.552	
15,900.0	11,776.0	15,795.8	11,603.4	35.1	45.8	81.90	3,975.1	991.9	1,225.5	1,145.5	80.06	15.308	
16,000.0	11,776.0	15,895.8	11,603.4	35.8	46.3	81.90	4,075.1	990.1	1,225.1	1,143.8	81.30	15.069	
16,100.0	11,776.0	15,995.8	11,603.4	36.5	46.8	81.90	4,175.1	988.3	1,224.7	1,142.1	82.55	14.835	
16,200.0	11,776.0	16,095.8	11,603.4	37.2	47.3	81.89	4,275.0	986.5	1,224.3	1,140.5	83.81	14.607	
16,300.0	11,776.0	16,195.8	11,603.4	37.9	47.9	81.89	4,375.0	984.7	1,223.8	1,138.8	85.08	14.385	
16,400.0	11,776.0	16,295.8	11,603.4	38.6	48.4	81.89	4,475.0	982.9	1,223.4	1,137.1	86.36	14.167	
16,500.0	11,776.0	16,395.8	11,603.4	39.3	49.0	81.89	4,575.0	981.1	1,223.0	1,135.3	87.64	13.955	
16,600.0	11,776.0	16,495.8	11,603.4	40.0	49.5	81.88	4,675.0	979.3	1,222.6	1,133.6	88.93	13.748	
16,700.0	11,776.0	16,595.8	11,603.4	40.7	50.1	81.88	4,774.9	977.5	1,222.1	1,131.9	90.23	13.545	
16,800.0	11,776.0	16,695.8	11,603.4	41.4	50.7	81.88	4,874.9	975.7	1,221.7	1,130.2	91.53	13.347	
16,900.0	11,776.0	16,795.8	11,603.4	42.1	51.3	81.87	4,974.9	973.9	1,221.3	1,128.4	92.84	13.154	
17,000.0	11,776.0	16,895.8	11,603.4	42.8	51.8	81.87	5,074.9	972.1	1,220.9	1,126.7	94.16	12.966	
17,100.0	11,776.0	16,995.8	11,603.4	43.6	52.4	81.87	5,174.9	970.3	1,220.4	1,125.0	95.48	12.782	
17,200.0	11,776.0	17,095.8	11,603.4	44.3	53.0	81.87	5,274.9	968.5	1,220.0	1,123.2	96.81	12.602	
17,300.0	11,776.0	17,195.8	11,603.4	45.0	53.6	81.86	5,374.8	966.7	1,219.6	1,121.4	98.15	12.426	
17,400.0	11,776.0	17,295.8	11,603.4	45.7	54.2	81.86	5,474.8	964.9	1,219.2	1,119.7	99.48	12.255	
17,500.0	11,776.0	17,395.8	11,603.4	46.4	54.8	81.86	5,574.8	963.1	1,218.7	1,117.9	100.83	12.087	
17,600.0	11,776.0	17,495.8	11,603.4	47.2	55.4	81.85	5,674.8	961.3	1,218.3	1,116.1	102.18	11.923	
17,700.0	11,776.0	17,595.8	11,603.4	47.9	56.0	81.85	5,774.8	959.5	1,217.9	1,114.4	103.53	11.763	
17,800.0	11,776.0	17,695.8	11,603.4	48.6	56.6	81.85	5,874.8	957.7	1,217.5	1,112.6	104.89	11.607	
17,900.0	11,776.0	17,795.8	11,603.4	49.3	57.3	81.85	5,974.7	955.9	1,217.0	1,110.8	106.26	11.454	
18,000.0	11,776.0	17,895.8	11,603.4	50.1	57.9	81.84	6,074.7	954.1	1,216.6	1,109.0	107.62	11.304	
18,100.0	11,776.0	17,995.8	11,603.4	50.8	58.5	81.84	6,174.7	952.3	1,216.2	1,107.2	109.00	11.158	
18,200.0	11,776.0	18,095.8	11,603.4	51.5	59.1	81.84	6,274.7	950.5	1,215.8	1,105.4	110.37	11.015	
18,300.0	11,776.0	18,195.8	11,603.4	52.3	59.8	81.83	6,374.7	948.7	1,215.3	1,103.6	111.75	10.875	
18,400.0	11,776.0	18,295.8	11,603.4	53.0	60.4	81.83	6,474.7	946.9	1,214.9	1,101.8	113.13	10.739	
18,500.0	11,776.0	18,395.8	11,603.4	53.7	61.0	81.83	6,574.6	945.1	1,214.5	1,100.0	114.52	10.605	
18,600.0	11,776.0	18,495.8	11,603.4	54.5	61.7	81.83	6,674.6	943.3	1,214.1	1,098.1	115.91	10.474	
18,700.0	11,776.0	18,595.8	11,603.4	55.2	62.3	81.82	6,774.6	941.5	1,213.6	1,096.3	117.30	10.346	
18,800.0	11,776.0	18,695.8	11,603.4	55.9	63.0	81.82	6,874.6	939.7	1,213.2	1,094.5	118.70	10.221	
18,900.0	11,776.0	18,795.8	11,603.4	56.7	63.6	81.82	6,974.6	938.0	1,212.8	1,092.7	120.10	10.098	
19,000.0	11,776.0	18,895.8	11,603.4	57.4	64.3	81.81	7,074.6	936.2	1,212.4	1,090.9	121.50	9.978	
19,100.0	11,776.0	18,995.8	11,603.4	58.1	64.9	81.81	7,174.5	934.4	1,211.9	1,089.0	122.91	9.860	
19,200.0	11,776.0	19,095.8	11,603.4	58.9	65.6	81.81	7,274.5	932.6	1,211.5	1,087.2	124.32	9.745	
19,300.0	11,776.0	19,195.8	11,603.4	59.6	66.3	81.81	7,374.5	930.8	1,211.1	1,085.4	125.73	9.632	
19,400.0	11,776.0	19,295.8	11,603.4	60.4	66.9	81.80	7,474.5	929.0	1,210.7	1,083.5	127.14	9.522	
19,500.0	11,776.0	19,395.8	11,603.4	61.1	67.6	81.80	7,574.5	927.2	1,210.2	1,081.7	128.56	9.414	
19,600.0	11,776.0	19,495.8	11,603.4	61.8	68.3	81.80	7,674.5	925.4	1,209.8	1,079.8	129.98	9.308	
19,700.0	11,776.0	19,595.8	11,603.4	62.6	68.9	81.79	7,774.4	923.6	1,209.4	1,078.0	131.40	9.204	
19,800.0	11,776.0	19,695.8	11,603.4	63.3	69.6	81.79	7,874.4	921.8	1,209.0	1,076.1	132.82	9.102	
19,900.0	11,776.0	19,795.8	11,603.4	64.1	70.3	81.79	7,974.4	920.0	1,208.5	1,074.3	134.25	9.002	
20,000.0	11,776.0	19,895.8	11,603.4	64.8	71.0	81.78	8,074.4	918.2	1,208.1	1,072.4	135.68	8.904	
20,100.0	11,776.0	19,995.8	11,603.4	65.6	71.6	81.78	8,174.4	916.4	1,207.7	1,070.6	137.11	8.808	
20,200.0	11,776.0	20,095.8	11,603.4	66.3	72.3	81.78	8,274.4	914.6	1,207.3	1,068.7	138.54	8.714	
20,300.0	11,776.0	20,195.8	11,603.4	67.0	73.0	81.78	8,374.3	912.8	1,206.8	1,066.9	139.98	8.622	
20,400.0	11,776.0	20,295.8	11,603.4	67.8	73.7	81.77	8,474.3	911.0	1,206.4	1,065.0	141.41	8.531	
20,500.0	11,776.0	20,395.8	11,603.4	68.5	74.4	81.77	8,574.3	909.2	1,206.0	1,063.1	142.85	8.442	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
20,600.0	11,776.0	20,495.8	11,603.4	69.3	75.0	81.77	8,674.3	907.4	1,205.6	1,061.3	144.29	8.355	
20,700.0	11,776.0	20,595.8	11,603.4	70.0	75.7	81.76	8,774.3	905.6	1,205.1	1,059.4	145.73	8.269	
20,800.0	11,776.0	20,695.8	11,603.4	70.8	76.4	81.76	8,874.2	903.8	1,204.7	1,057.5	147.18	8.185	
20,900.0	11,776.0	20,795.8	11,603.4	71.5	77.1	81.76	8,974.2	902.0	1,204.3	1,055.7	148.62	8.103	
21,000.0	11,776.0	20,895.8	11,603.4	72.3	77.8	81.76	9,074.2	900.2	1,203.9	1,053.8	150.07	8.022	
21,100.0	11,776.0	20,995.8	11,603.4	73.0	78.5	81.75	9,174.2	898.4	1,203.4	1,051.9	151.52	7.943	
21,200.0	11,776.0	21,095.8	11,603.4	73.8	79.2	81.75	9,274.2	896.6	1,203.0	1,050.0	152.97	7.864	
21,300.0	11,776.0	21,195.8	11,603.4	74.5	79.9	81.75	9,374.2	894.8	1,202.6	1,048.2	154.42	7.788	
21,400.0	11,776.0	21,295.8	11,603.4	75.3	80.6	81.74	9,474.1	893.0	1,202.2	1,046.3	155.87	7.712	
21,500.0	11,776.0	21,395.8	11,603.4	76.0	81.3	81.74	9,574.1	891.2	1,201.7	1,044.4	157.33	7.638	
21,600.0	11,776.0	21,495.8	11,603.4	76.8	82.0	81.74	9,674.1	889.4	1,201.3	1,042.5	158.78	7.566	
21,700.0	11,776.0	21,595.8	11,603.4	77.5	82.7	81.73	9,774.1	887.6	1,200.9	1,040.6	160.24	7.494	
21,800.0	11,776.0	21,695.8	11,603.4	78.3	83.4	81.73	9,874.1	885.8	1,200.5	1,038.8	161.70	7.424	
21,900.0	11,776.0	21,795.8	11,603.4	79.0	84.1	81.73	9,974.1	884.0	1,200.0	1,036.9	163.16	7.355	
22,000.0	11,776.0	21,895.8	11,603.4	79.8	84.8	81.73	10,074.0	882.2	1,199.6	1,035.0	164.62	7.287	
22,100.0	11,776.0	21,995.8	11,603.4	80.5	85.5	81.72	10,174.0	880.4	1,199.2	1,033.1	166.08	7.220	
22,200.0	11,776.0	22,095.8	11,603.4	81.3	86.2	81.72	10,274.0	878.6	1,198.8	1,031.2	167.54	7.155	
22,300.0	11,776.0	22,195.8	11,603.4	82.0	86.9	81.72	10,374.0	876.8	1,198.3	1,029.3	169.01	7.090	
22,400.0	11,776.0	22,295.8	11,603.4	82.8	87.6	81.71	10,474.0	875.0	1,197.9	1,027.4	170.47	7.027	
22,500.0	11,776.0	22,395.8	11,603.4	83.5	88.3	81.71	10,574.0	873.2	1,197.5	1,025.5	171.94	6.964	
22,600.0	11,776.0	22,495.8	11,603.4	84.3	89.0	81.71	10,673.9	871.4	1,197.1	1,023.7	173.41	6.903	
22,700.0	11,776.0	22,595.8	11,603.4	85.0	89.8	81.71	10,773.9	869.6	1,196.6	1,021.8	174.88	6.843	
22,800.0	11,776.0	22,695.8	11,603.4	85.8	90.5	81.70	10,873.9	867.8	1,196.2	1,019.9	176.35	6.783	
22,900.0	11,776.0	22,795.8	11,603.4	86.5	91.2	81.70	10,973.9	866.0	1,195.8	1,018.0	177.82	6.725	
23,000.0	11,776.0	22,895.8	11,603.4	87.3	91.9	81.70	11,073.9	864.3	1,195.4	1,016.1	179.29	6.667	
23,100.0	11,776.0	22,995.8	11,603.4	88.0	92.6	81.69	11,173.9	862.5	1,194.9	1,014.2	180.76	6.610	
23,200.0	11,776.0	23,095.8	11,603.4	88.8	93.3	81.69	11,273.8	860.7	1,194.5	1,012.3	182.24	6.555	
23,300.0	11,776.0	23,195.8	11,603.4	89.6	94.0	81.69	11,373.8	858.9	1,194.1	1,010.4	183.71	6.500	
23,400.0	11,776.0	23,295.8	11,603.4	90.3	94.8	81.68	11,473.8	857.1	1,193.7	1,008.5	185.19	6.446	
23,500.0	11,776.0	23,395.8	11,603.4	91.1	95.5	81.68	11,573.8	855.3	1,193.2	1,006.6	186.67	6.392	
23,600.0	11,776.0	23,495.8	11,603.4	91.8	96.2	81.68	11,673.8	853.5	1,192.8	1,004.7	188.14	6.340	
23,700.0	11,776.0	23,595.8	11,603.4	92.6	96.9	81.68	11,773.8	851.7	1,192.4	1,002.8	189.62	6.288	
23,800.0	11,776.0	23,695.8	11,603.4	93.3	97.6	81.67	11,873.7	849.9	1,192.0	1,000.9	191.10	6.237	
23,900.0	11,776.0	23,795.8	11,603.4	94.1	98.4	81.67	11,973.7	848.1	1,191.5	999.0	192.58	6.187	
24,000.0	11,776.0	23,895.8	11,603.4	94.8	99.1	81.67	12,073.7	846.3	1,191.1	997.1	194.06	6.138	
24,100.0	11,776.0	23,995.8	11,603.4	95.6	99.8	81.66	12,173.7	844.5	1,190.7	995.1	195.54	6.089	
24,200.0	11,776.0	24,095.8	11,603.4	96.3	100.5	81.66	12,273.7	842.7	1,190.3	993.2	197.02	6.041	
24,300.0	11,776.0	24,195.8	11,603.4	97.1	101.3	81.66	12,373.7	840.9	1,189.8	991.3	198.51	5.994	
24,400.0	11,776.0	24,295.8	11,603.4	97.9	102.0	81.65	12,473.6	839.1	1,189.4	989.4	199.99	5.947	
24,500.0	11,776.0	24,395.8	11,603.4	98.6	102.7	81.65	12,573.6	837.3	1,189.0	987.5	201.47	5.901	
24,600.0	11,776.0	24,495.8	11,603.4	99.4	103.4	81.65	12,673.6	835.5	1,188.6	985.6	202.96	5.856	
24,696.2	11,776.0	24,586.9	11,603.4	100.1	104.1	81.65	12,764.8	833.9	1,188.2	983.8	204.38	5.814	
24,700.0	11,776.0	24,586.9	11,603.4	100.1	104.1	81.65	12,764.8	833.9	1,188.2	983.7	204.42	5.812	
24,746.9	11,776.0	24,586.9	11,603.4	100.5	104.1	81.65	12,764.8	833.9	1,189.2	984.4	204.83	5.806 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB 27 @ 3202.5usft

Offset Depths are relative to Offset Datum

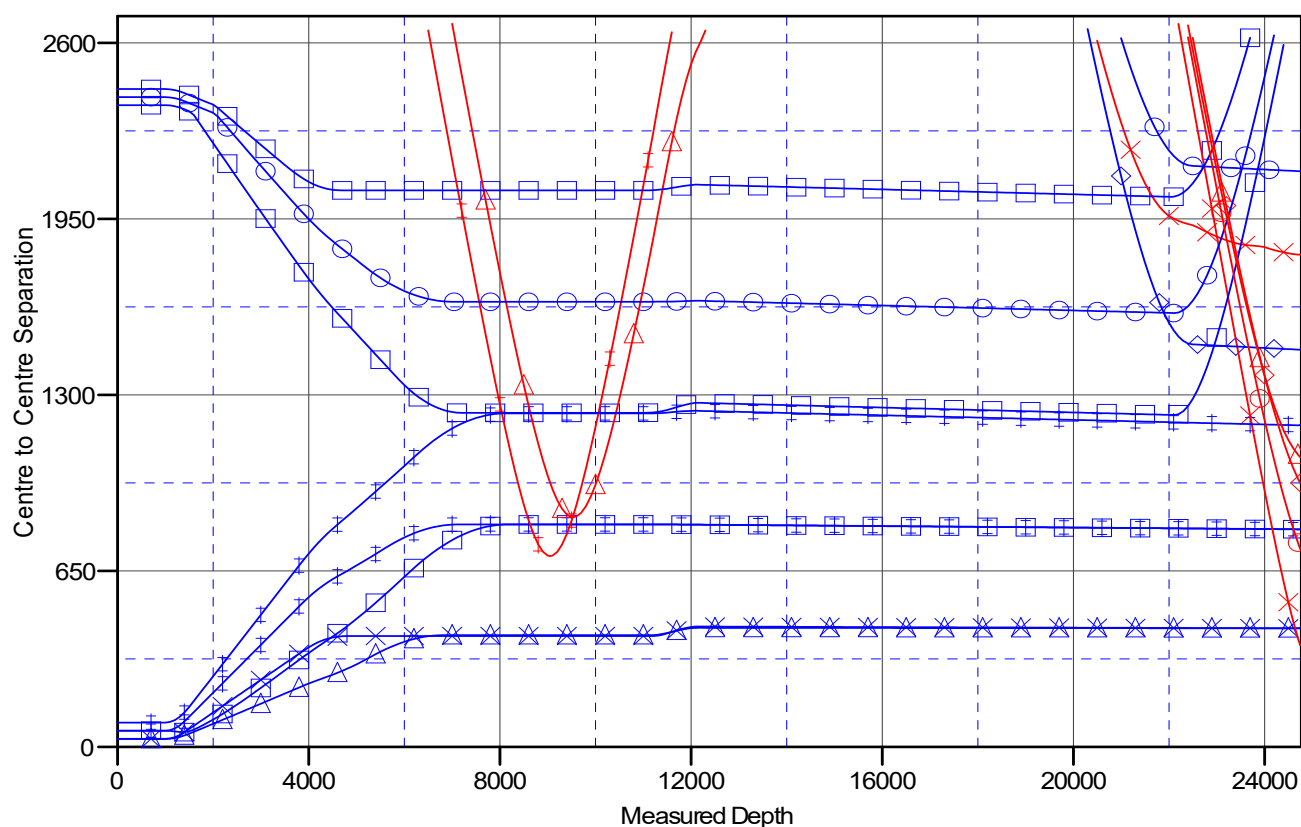
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2431 WC #703H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.32°

Ladder Plot



LEGEND

ZIA HILLS UNIT 2431 WC #704H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #701H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #702H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #703H, OWB, PWP0 V0
 SNAPPING 12 1 FEDERAL #71H, OWB, AWP V0
 ZIA HILLS UNIT 2431 WC #708H, OWB, PWP0 V0

GOLDEN SPUR 25 FBS #3H (P&A), OWB, AWP V0
 GOLDEN SPUR FEDERAL #1H (P&A), STD, AWP V0
 SHETLAND 11 FEDERAL #71H, OWB, PWP0 V0
 SHETLAND 11 FEDERAL #73H, OWB, PWP0 V0
 SHETLAND 2-11 STATE FEDERAL COM #333H, OWB, AWP V0
 ZIA HILLS UNIT 2331 WC #711H, OWB, PWP0 V0

ZIA HILLS UNIT 2331 WC #713H, OWB, PWP0 V0
 ZIA HILLS UNIT 2331 WC #713H, OWB, PWP0 V0
 SNAPPING 12 1 FEDERAL #32H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #21H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #72H, OWB, AWP V0

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

ConocoPhillips

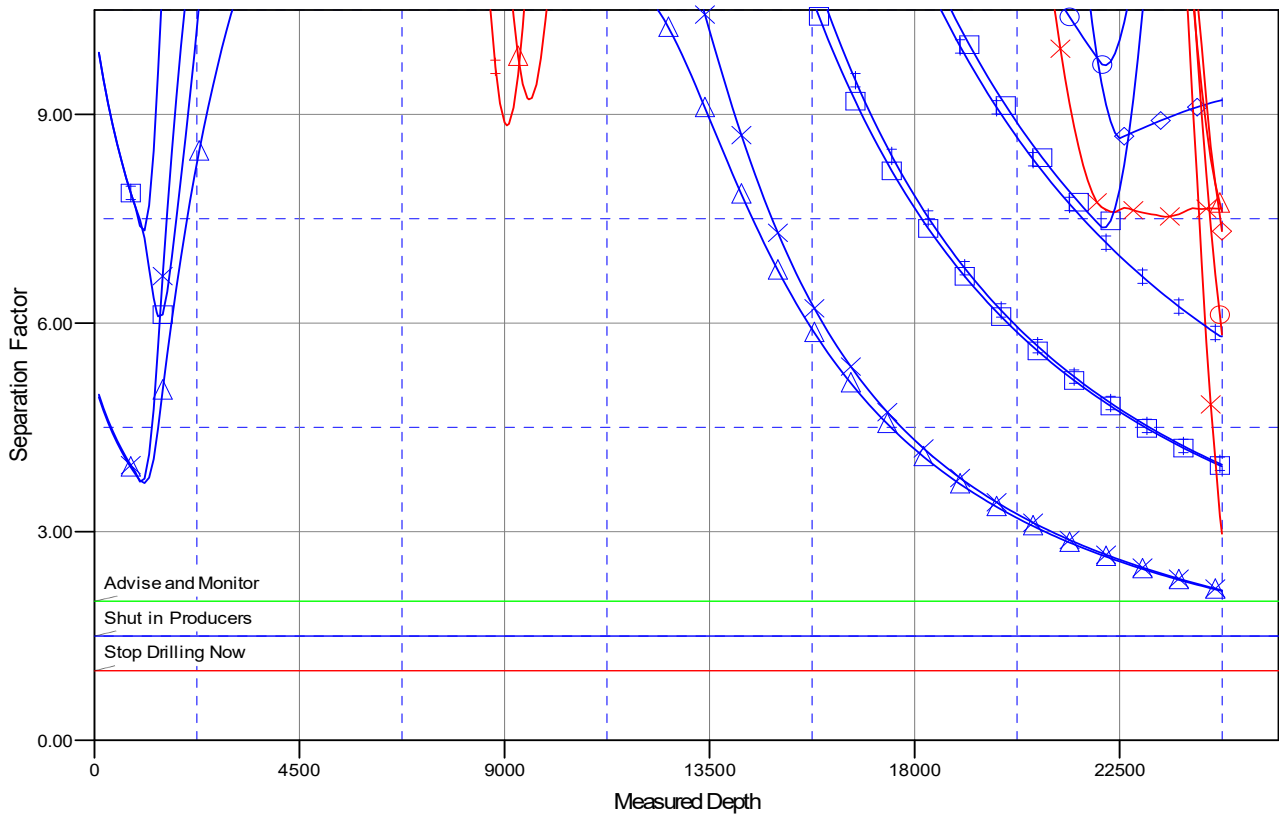
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.5usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.5usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB 27 @ 3202.5usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2431 WC #703H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.32°

Separation Factor Plot



LEGEND

ZIA HILLS UNIT 2431 WC #704H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #701H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #702H, OWB, PWP0 V0
 SNAPPING 12 1 FEDERAL #71H, OWB, AWP V0
 ZIA HILLS UNIT 2431 WC #708H, OWB, PWP0 V0

GOLDEN SPUR 25 FBS #3H (P&A), OWB, AWP V0
 GOLDEN SPUR FEDERAL #1H (P&A), STD, AWP V0
 SHETLAND 11 FEDERAL #73H, OWB, PWP0 V0
 SHETLAND 2-11 STATE FEDERAL COM #33H, OWB, AWP V0
 ZIA HILLS UNIT 2331 WC #711H, OWB, PWP0 V0

ZIA HILLS UNIT 2331 WC #712H, OWB, PWP0 V0
 ZIA HILLS UNIT 2331 WC #713H, OWB, PWP0 V0
 SNAPPING 12 1 FEDERAL #32H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #21H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #12H, OWB, AWP V0

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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

ZIA HILLS UNIT 2431 PROJECT

ZIA HILLS UNIT 2431 WC #703H

OWB

Plan: PWP0

Standard Planning Report

07 November, 2022

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Project	BULLDOG PROSPECT (NM-E)		
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		

Well	ZIA HILLS UNIT 2431 WC #703H			
Well Position	+N/-S	464.0 usft	Northing:	372,243.15 usft
	+E/-W	1,365.4 usft	Easting:	685,350.46 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	
			Latitude:	32° 1' 19.202 N
			Longitude:	103° 44' 7.009 W
			Ground Level:	3,175.5 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2022	12/31/2023	6.34	59.52	47,263.52030797

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	358.47

Plan Survey Tool Program	Date	11/7/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	1,000.0 PWP0 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp
2	1,000.0	11,231.0 PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5
3	11,231.0	24,746.3 PWP0 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-St

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	8.00	202.60	1,398.7	-25.7	-10.7	2.00	2.00	0.00	202.60	
3,824.9	8.00	202.60	3,800.0	-337.3	-140.4	0.00	0.00	0.00	0.00	
4,624.9	0.00	0.00	4,597.4	-388.8	-161.8	1.00	-1.00	0.00	180.00	
11,230.5	0.00	0.00	11,203.0	-388.8	-161.8	0.00	0.00	0.00	0.00	
12,130.5	90.00	359.22	11,776.0	184.1	-169.7	10.00	10.00	-0.09	359.22	
24,746.3	90.00	359.22	11,776.0	12,798.8	-342.3	0.00	0.00	0.00	0.00	

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Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	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	2.00	202.60	1,100.0	-1.6	-0.7	-1.6	2.00	2.00	0.00
1,200.0	4.00	202.60	1,199.8	-6.4	-2.7	-6.4	2.00	2.00	0.00
1,300.0	6.00	202.60	1,299.5	-14.5	-6.0	-14.3	2.00	2.00	0.00
1,400.0	8.00	202.60	1,398.7	-25.7	-10.7	-25.4	2.00	2.00	0.00
1,500.0	8.00	202.60	1,497.7	-38.6	-16.1	-38.1	0.00	0.00	0.00
1,600.0	8.00	202.60	1,596.8	-51.4	-21.4	-50.8	0.00	0.00	0.00
1,700.0	8.00	202.60	1,695.8	-64.3	-26.8	-63.5	0.00	0.00	0.00
1,800.0	8.00	202.60	1,794.8	-77.1	-32.1	-76.2	0.00	0.00	0.00
1,900.0	8.00	202.60	1,893.8	-90.0	-37.5	-88.9	0.00	0.00	0.00
2,000.0	8.00	202.60	1,992.9	-102.8	-42.8	-101.6	0.00	0.00	0.00
2,100.0	8.00	202.60	2,091.9	-115.7	-48.2	-114.4	0.00	0.00	0.00
2,200.0	8.00	202.60	2,190.9	-128.5	-53.5	-127.1	0.00	0.00	0.00
2,300.0	8.00	202.60	2,289.9	-141.4	-58.8	-139.8	0.00	0.00	0.00
2,400.0	8.00	202.60	2,389.0	-154.2	-64.2	-152.5	0.00	0.00	0.00
2,500.0	8.00	202.60	2,488.0	-167.1	-69.5	-165.2	0.00	0.00	0.00
2,600.0	8.00	202.60	2,587.0	-179.9	-74.9	-177.9	0.00	0.00	0.00
2,700.0	8.00	202.60	2,686.1	-192.8	-80.2	-190.6	0.00	0.00	0.00
2,800.0	8.00	202.60	2,785.1	-205.6	-85.6	-203.3	0.00	0.00	0.00
2,900.0	8.00	202.60	2,884.1	-218.5	-90.9	-216.0	0.00	0.00	0.00
3,000.0	8.00	202.60	2,983.1	-231.3	-96.3	-228.7	0.00	0.00	0.00
3,100.0	8.00	202.60	3,082.2	-244.2	-101.6	-241.4	0.00	0.00	0.00
3,200.0	8.00	202.60	3,181.2	-257.0	-107.0	-254.1	0.00	0.00	0.00
3,300.0	8.00	202.60	3,280.2	-269.9	-112.3	-266.8	0.00	0.00	0.00
3,400.0	8.00	202.60	3,379.2	-282.7	-117.7	-279.5	0.00	0.00	0.00
3,500.0	8.00	202.60	3,478.3	-295.6	-123.0	-292.2	0.00	0.00	0.00
3,600.0	8.00	202.60	3,577.3	-308.4	-128.4	-304.9	0.00	0.00	0.00
3,700.0	8.00	202.60	3,676.3	-321.3	-133.7	-317.6	0.00	0.00	0.00
3,800.0	8.00	202.60	3,775.3	-334.1	-139.1	-330.3	0.00	0.00	0.00
3,824.9	8.00	202.60	3,800.0	-337.3	-140.4	-333.4	0.00	0.00	0.00
3,900.0	7.25	202.60	3,874.4	-346.5	-144.2	-342.5	1.00	-1.00	0.00
4,000.0	6.25	202.60	3,973.7	-357.4	-148.8	-353.2	1.00	-1.00	0.00
4,100.0	5.25	202.60	4,073.2	-366.6	-152.6	-362.4	1.00	-1.00	0.00
4,200.0	4.25	202.60	4,172.9	-374.2	-155.8	-369.9	1.00	-1.00	0.00
4,300.0	3.25	202.60	4,272.7	-380.3	-158.3	-375.9	1.00	-1.00	0.00
4,400.0	2.25	202.60	4,372.6	-384.7	-160.1	-380.3	1.00	-1.00	0.00
4,500.0	1.25	202.60	4,472.5	-387.5	-161.3	-383.1	1.00	-1.00	0.00
4,600.0	0.25	202.60	4,572.5	-388.7	-161.8	-384.3	1.00	-1.00	0.00
4,624.9	0.00	0.00	4,597.4	-388.8	-161.8	-384.3	1.00	-1.00	0.00
4,700.0	0.00	0.00	4,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
4,800.0	0.00	0.00	4,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
4,900.0	0.00	0.00	4,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,000.0	0.00	0.00	4,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,100.0	0.00	0.00	5,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	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	5,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,300.0	0.00	0.00	5,272.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,400.0	0.00	0.00	5,372.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,500.0	0.00	0.00	5,472.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,600.0	0.00	0.00	5,572.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,700.0	0.00	0.00	5,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,800.0	0.00	0.00	5,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
5,900.0	0.00	0.00	5,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,100.0	0.00	0.00	6,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,272.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,372.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,472.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,572.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,300.0	0.00	0.00	7,272.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,400.0	0.00	0.00	7,372.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,500.0	0.00	0.00	7,472.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,572.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,700.0	0.00	0.00	7,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,800.0	0.00	0.00	7,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
7,900.0	0.00	0.00	7,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,000.0	0.00	0.00	7,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,100.0	0.00	0.00	8,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,200.0	0.00	0.00	8,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,300.0	0.00	0.00	8,272.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,400.0	0.00	0.00	8,372.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,500.0	0.00	0.00	8,472.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,600.0	0.00	0.00	8,572.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,700.0	0.00	0.00	8,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,800.0	0.00	0.00	8,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
8,900.0	0.00	0.00	8,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,000.0	0.00	0.00	8,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,100.0	0.00	0.00	9,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,200.0	0.00	0.00	9,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,300.0	0.00	0.00	9,272.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,400.0	0.00	0.00	9,372.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,500.0	0.00	0.00	9,472.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,600.0	0.00	0.00	9,572.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,700.0	0.00	0.00	9,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,800.0	0.00	0.00	9,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
9,900.0	0.00	0.00	9,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,000.0	0.00	0.00	9,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,100.0	0.00	0.00	10,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,200.0	0.00	0.00	10,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,300.0	0.00	0.00	10,272.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,400.0	0.00	0.00	10,372.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,500.0	0.00	0.00	10,472.5	-388.8	-161.8	-384.3	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	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)
10,600.0	0.00	0.00	10,572.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,700.0	0.00	0.00	10,672.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,800.0	0.00	0.00	10,772.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
10,900.0	0.00	0.00	10,872.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
11,000.0	0.00	0.00	10,972.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
11,100.0	0.00	0.00	11,072.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
11,200.0	0.00	0.00	11,172.5	-388.8	-161.8	-384.3	0.00	0.00	0.00
11,230.5	0.00	0.00	11,203.0	-388.8	-161.8	-384.3	0.00	0.00	0.00
11,250.0	1.95	359.22	11,222.5	-388.5	-161.8	-384.0	10.00	10.00	0.00
11,300.0	6.95	359.22	11,272.3	-384.6	-161.9	-380.1	10.00	10.00	0.00
11,350.0	11.95	359.22	11,321.6	-376.4	-162.0	-371.9	10.00	10.00	0.00
11,400.0	16.95	359.22	11,370.0	-363.9	-162.2	-359.4	10.00	10.00	0.00
11,450.0	21.95	359.22	11,417.2	-347.3	-162.4	-342.8	10.00	10.00	0.00
11,500.0	26.95	359.22	11,462.7	-326.6	-162.7	-322.1	10.00	10.00	0.00
11,550.0	31.95	359.22	11,506.2	-302.0	-163.0	-297.5	10.00	10.00	0.00
11,600.0	36.95	359.22	11,547.4	-273.7	-163.4	-269.3	10.00	10.00	0.00
11,650.0	41.95	359.22	11,586.0	-242.0	-163.8	-237.5	10.00	10.00	0.00
11,700.0	46.95	359.22	11,621.7	-207.0	-164.3	-202.5	10.00	10.00	0.00
11,750.0	51.95	359.22	11,654.2	-169.0	-164.8	-164.5	10.00	10.00	0.00
11,800.0	56.95	359.22	11,683.3	-128.3	-165.4	-123.9	10.00	10.00	0.00
11,850.0	61.95	359.22	11,708.7	-85.3	-166.0	-80.8	10.00	10.00	0.00
11,900.0	66.95	359.22	11,730.2	-40.2	-166.6	-35.7	10.00	10.00	0.00
11,950.0	71.95	359.22	11,747.8	6.6	-167.2	11.1	10.00	10.00	0.00
12,000.0	76.95	359.22	11,761.2	54.8	-167.9	59.2	10.00	10.00	0.00
12,050.0	81.95	359.22	11,770.3	103.9	-168.6	108.4	10.00	10.00	0.00
12,100.0	86.95	359.22	11,775.1	153.6	-169.3	158.1	10.00	10.00	0.00
12,130.5	90.00	359.22	11,776.0	184.1	-169.7	188.6	10.00	10.00	0.00
12,200.0	90.00	359.22	11,776.0	253.6	-170.6	258.1	0.00	0.00	0.00
12,300.0	90.00	359.22	11,776.0	353.6	-172.0	358.1	0.00	0.00	0.00
12,400.0	90.00	359.22	11,776.0	453.6	-173.4	458.1	0.00	0.00	0.00
12,500.0	90.00	359.22	11,776.0	553.6	-174.7	558.1	0.00	0.00	0.00
12,600.0	90.00	359.22	11,776.0	653.6	-176.1	658.1	0.00	0.00	0.00
12,700.0	90.00	359.22	11,776.0	753.6	-177.5	758.0	0.00	0.00	0.00
12,800.0	90.00	359.22	11,776.0	853.6	-178.8	858.0	0.00	0.00	0.00
12,900.0	90.00	359.22	11,776.0	953.6	-180.2	958.0	0.00	0.00	0.00
13,000.0	90.00	359.22	11,776.0	1,053.5	-181.6	1,058.0	0.00	0.00	0.00
13,100.0	90.00	359.22	11,776.0	1,153.5	-182.9	1,158.0	0.00	0.00	0.00
13,200.0	90.00	359.22	11,776.0	1,253.5	-184.3	1,258.0	0.00	0.00	0.00
13,300.0	90.00	359.22	11,776.0	1,353.5	-185.7	1,358.0	0.00	0.00	0.00
13,400.0	90.00	359.22	11,776.0	1,453.5	-187.0	1,458.0	0.00	0.00	0.00
13,500.0	90.00	359.22	11,776.0	1,553.5	-188.4	1,558.0	0.00	0.00	0.00
13,600.0	90.00	359.22	11,776.0	1,653.5	-189.8	1,658.0	0.00	0.00	0.00
13,700.0	90.00	359.22	11,776.0	1,753.5	-191.1	1,758.0	0.00	0.00	0.00
13,800.0	90.00	359.22	11,776.0	1,853.5	-192.5	1,858.0	0.00	0.00	0.00
13,900.0	90.00	359.22	11,776.0	1,953.5	-193.9	1,957.9	0.00	0.00	0.00
14,000.0	90.00	359.22	11,776.0	2,053.5	-195.3	2,057.9	0.00	0.00	0.00
14,100.0	90.00	359.22	11,776.0	2,153.4	-196.6	2,157.9	0.00	0.00	0.00
14,200.0	90.00	359.22	11,776.0	2,253.4	-198.0	2,257.9	0.00	0.00	0.00
14,300.0	90.00	359.22	11,776.0	2,353.4	-199.4	2,357.9	0.00	0.00	0.00
14,400.0	90.00	359.22	11,776.0	2,453.4	-200.7	2,457.9	0.00	0.00	0.00
14,500.0	90.00	359.22	11,776.0	2,553.4	-202.1	2,557.9	0.00	0.00	0.00
14,600.0	90.00	359.22	11,776.0	2,653.4	-203.5	2,657.9	0.00	0.00	0.00
14,700.0	90.00	359.22	11,776.0	2,753.4	-204.8	2,757.9	0.00	0.00	0.00
14,800.0	90.00	359.22	11,776.0	2,853.4	-206.2	2,857.9	0.00	0.00	0.00

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Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	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)
14,900.0	90.00	359.22	11,776.0	2,953.4	-207.6	2,957.9	0.00	0.00	0.00
15,000.0	90.00	359.22	11,776.0	3,053.4	-208.9	3,057.9	0.00	0.00	0.00
15,100.0	90.00	359.22	11,776.0	3,153.3	-210.3	3,157.8	0.00	0.00	0.00
15,200.0	90.00	359.22	11,776.0	3,253.3	-211.7	3,257.8	0.00	0.00	0.00
15,300.0	90.00	359.22	11,776.0	3,353.3	-213.0	3,357.8	0.00	0.00	0.00
15,400.0	90.00	359.22	11,776.0	3,453.3	-214.4	3,457.8	0.00	0.00	0.00
15,500.0	90.00	359.22	11,776.0	3,553.3	-215.8	3,557.8	0.00	0.00	0.00
15,600.0	90.00	359.22	11,776.0	3,653.3	-217.1	3,657.8	0.00	0.00	0.00
15,700.0	90.00	359.22	11,776.0	3,753.3	-218.5	3,757.8	0.00	0.00	0.00
15,800.0	90.00	359.22	11,776.0	3,853.3	-219.9	3,857.8	0.00	0.00	0.00
15,900.0	90.00	359.22	11,776.0	3,953.3	-221.2	3,957.8	0.00	0.00	0.00
16,000.0	90.00	359.22	11,776.0	4,053.3	-222.6	4,057.8	0.00	0.00	0.00
16,100.0	90.00	359.22	11,776.0	4,153.3	-224.0	4,157.8	0.00	0.00	0.00
16,200.0	90.00	359.22	11,776.0	4,253.2	-225.4	4,257.8	0.00	0.00	0.00
16,300.0	90.00	359.22	11,776.0	4,353.2	-226.7	4,357.7	0.00	0.00	0.00
16,400.0	90.00	359.22	11,776.0	4,453.2	-228.1	4,457.7	0.00	0.00	0.00
16,500.0	90.00	359.22	11,776.0	4,553.2	-229.5	4,557.7	0.00	0.00	0.00
16,600.0	90.00	359.22	11,776.0	4,653.2	-230.8	4,657.7	0.00	0.00	0.00
16,700.0	90.00	359.22	11,776.0	4,753.2	-232.2	4,757.7	0.00	0.00	0.00
16,800.0	90.00	359.22	11,776.0	4,853.2	-233.6	4,857.7	0.00	0.00	0.00
16,900.0	90.00	359.22	11,776.0	4,953.2	-234.9	4,957.7	0.00	0.00	0.00
17,000.0	90.00	359.22	11,776.0	5,053.2	-236.3	5,057.7	0.00	0.00	0.00
17,100.0	90.00	359.22	11,776.0	5,153.2	-237.7	5,157.7	0.00	0.00	0.00
17,200.0	90.00	359.22	11,776.0	5,253.2	-239.0	5,257.7	0.00	0.00	0.00
17,300.0	90.00	359.22	11,776.0	5,353.1	-240.4	5,357.7	0.00	0.00	0.00
17,400.0	90.00	359.22	11,776.0	5,453.1	-241.8	5,457.6	0.00	0.00	0.00
17,500.0	90.00	359.22	11,776.0	5,553.1	-243.1	5,557.6	0.00	0.00	0.00
17,600.0	90.00	359.22	11,776.0	5,653.1	-244.5	5,657.6	0.00	0.00	0.00
17,700.0	90.00	359.22	11,776.0	5,753.1	-245.9	5,757.6	0.00	0.00	0.00
17,800.0	90.00	359.22	11,776.0	5,853.1	-247.2	5,857.6	0.00	0.00	0.00
17,900.0	90.00	359.22	11,776.0	5,953.1	-248.6	5,957.6	0.00	0.00	0.00
18,000.0	90.00	359.22	11,776.0	6,053.1	-250.0	6,057.6	0.00	0.00	0.00
18,100.0	90.00	359.22	11,776.0	6,153.1	-251.3	6,157.6	0.00	0.00	0.00
18,200.0	90.00	359.22	11,776.0	6,253.1	-252.7	6,257.6	0.00	0.00	0.00
18,300.0	90.00	359.22	11,776.0	6,353.0	-254.1	6,357.6	0.00	0.00	0.00
18,400.0	90.00	359.22	11,776.0	6,453.0	-255.5	6,457.6	0.00	0.00	0.00
18,500.0	90.00	359.22	11,776.0	6,553.0	-256.8	6,557.6	0.00	0.00	0.00
18,600.0	90.00	359.22	11,776.0	6,653.0	-258.2	6,657.5	0.00	0.00	0.00
18,700.0	90.00	359.22	11,776.0	6,753.0	-259.6	6,757.5	0.00	0.00	0.00
18,800.0	90.00	359.22	11,776.0	6,853.0	-260.9	6,857.5	0.00	0.00	0.00
18,900.0	90.00	359.22	11,776.0	6,953.0	-262.3	6,957.5	0.00	0.00	0.00
19,000.0	90.00	359.22	11,776.0	7,053.0	-263.7	7,057.5	0.00	0.00	0.00
19,100.0	90.00	359.22	11,776.0	7,153.0	-265.0	7,157.5	0.00	0.00	0.00
19,200.0	90.00	359.22	11,776.0	7,253.0	-266.4	7,257.5	0.00	0.00	0.00
19,300.0	90.00	359.22	11,776.0	7,353.0	-267.8	7,357.5	0.00	0.00	0.00
19,400.0	90.00	359.22	11,776.0	7,452.9	-269.1	7,457.5	0.00	0.00	0.00
19,500.0	90.00	359.22	11,776.0	7,552.9	-270.5	7,557.5	0.00	0.00	0.00
19,600.0	90.00	359.22	11,776.0	7,652.9	-271.9	7,657.5	0.00	0.00	0.00
19,700.0	90.00	359.22	11,776.0	7,752.9	-273.2	7,757.5	0.00	0.00	0.00
19,800.0	90.00	359.22	11,776.0	7,852.9	-274.6	7,857.4	0.00	0.00	0.00
19,900.0	90.00	359.22	11,776.0	7,952.9	-276.0	7,957.4	0.00	0.00	0.00
20,000.0	90.00	359.22	11,776.0	8,052.9	-277.3	8,057.4	0.00	0.00	0.00
20,100.0	90.00	359.22	11,776.0	8,152.9	-278.7	8,157.4	0.00	0.00	0.00
20,200.0	90.00	359.22	11,776.0	8,252.9	-280.1	8,257.4	0.00	0.00	0.00

ConocoPhillips

Planning Report

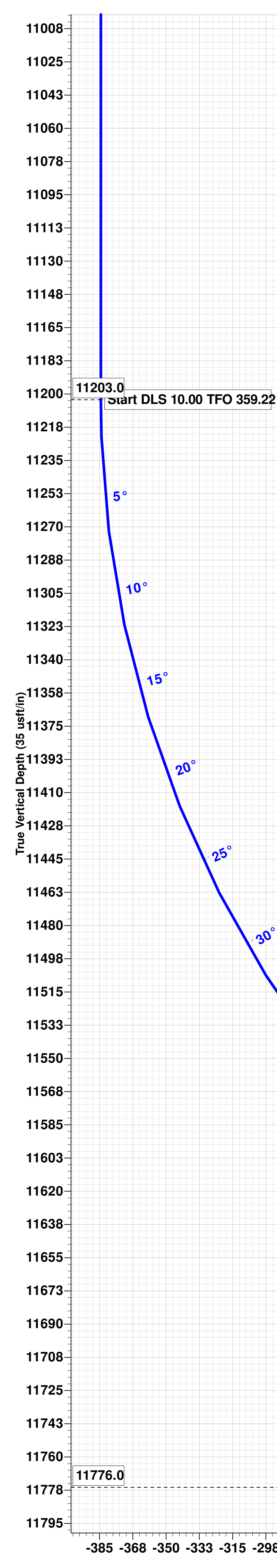
Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	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)	
20,300.0	90.00	359.22	11,776.0	8,352.9	-281.4	8,357.4	0.00	0.00	0.00	
20,400.0	90.00	359.22	11,776.0	8,452.9	-282.8	8,457.4	0.00	0.00	0.00	
20,500.0	90.00	359.22	11,776.0	8,552.8	-284.2	8,557.4	0.00	0.00	0.00	
20,600.0	90.00	359.22	11,776.0	8,652.8	-285.6	8,657.4	0.00	0.00	0.00	
20,700.0	90.00	359.22	11,776.0	8,752.8	-286.9	8,757.4	0.00	0.00	0.00	
20,800.0	90.00	359.22	11,776.0	8,852.8	-288.3	8,857.4	0.00	0.00	0.00	
20,900.0	90.00	359.22	11,776.0	8,952.8	-289.7	8,957.4	0.00	0.00	0.00	
21,000.0	90.00	359.22	11,776.0	9,052.8	-291.0	9,057.3	0.00	0.00	0.00	
21,100.0	90.00	359.22	11,776.0	9,152.8	-292.4	9,157.3	0.00	0.00	0.00	
21,200.0	90.00	359.22	11,776.0	9,252.8	-293.8	9,257.3	0.00	0.00	0.00	
21,300.0	90.00	359.22	11,776.0	9,352.8	-295.1	9,357.3	0.00	0.00	0.00	
21,400.0	90.00	359.22	11,776.0	9,452.8	-296.5	9,457.3	0.00	0.00	0.00	
21,500.0	90.00	359.22	11,776.0	9,552.8	-297.9	9,557.3	0.00	0.00	0.00	
21,600.0	90.00	359.22	11,776.0	9,652.7	-299.2	9,657.3	0.00	0.00	0.00	
21,700.0	90.00	359.22	11,776.0	9,752.7	-300.6	9,757.3	0.00	0.00	0.00	
21,800.0	90.00	359.22	11,776.0	9,852.7	-302.0	9,857.3	0.00	0.00	0.00	
21,900.0	90.00	359.22	11,776.0	9,952.7	-303.3	9,957.3	0.00	0.00	0.00	
22,000.0	90.00	359.22	11,776.0	10,052.7	-304.7	10,057.3	0.00	0.00	0.00	
22,100.0	90.00	359.22	11,776.0	10,152.7	-306.1	10,157.2	0.00	0.00	0.00	
22,200.0	90.00	359.22	11,776.0	10,252.7	-307.4	10,257.2	0.00	0.00	0.00	
22,300.0	90.00	359.22	11,776.0	10,352.7	-308.8	10,357.2	0.00	0.00	0.00	
22,400.0	90.00	359.22	11,776.0	10,452.7	-310.2	10,457.2	0.00	0.00	0.00	
22,500.0	90.00	359.22	11,776.0	10,552.7	-311.5	10,557.2	0.00	0.00	0.00	
22,600.0	90.00	359.22	11,776.0	10,652.6	-312.9	10,657.2	0.00	0.00	0.00	
22,700.0	90.00	359.22	11,776.0	10,752.6	-314.3	10,757.2	0.00	0.00	0.00	
22,800.0	90.00	359.22	11,776.0	10,852.6	-315.7	10,857.2	0.00	0.00	0.00	
22,900.0	90.00	359.22	11,776.0	10,952.6	-317.0	10,957.2	0.00	0.00	0.00	
23,000.0	90.00	359.22	11,776.0	11,052.6	-318.4	11,057.2	0.00	0.00	0.00	
23,100.0	90.00	359.22	11,776.0	11,152.6	-319.8	11,157.2	0.00	0.00	0.00	
23,200.0	90.00	359.22	11,776.0	11,252.6	-321.1	11,257.2	0.00	0.00	0.00	
23,300.0	90.00	359.22	11,776.0	11,352.6	-322.5	11,357.1	0.00	0.00	0.00	
23,400.0	90.00	359.22	11,776.0	11,452.6	-323.9	11,457.1	0.00	0.00	0.00	
23,500.0	90.00	359.22	11,776.0	11,552.6	-325.2	11,557.1	0.00	0.00	0.00	
23,600.0	90.00	359.22	11,776.0	11,652.6	-326.6	11,657.1	0.00	0.00	0.00	
23,700.0	90.00	359.22	11,776.0	11,752.5	-328.0	11,757.1	0.00	0.00	0.00	
23,800.0	90.00	359.22	11,776.0	11,852.5	-329.3	11,857.1	0.00	0.00	0.00	
23,900.0	90.00	359.22	11,776.0	11,952.5	-330.7	11,957.1	0.00	0.00	0.00	
24,000.0	90.00	359.22	11,776.0	12,052.5	-332.1	12,057.1	0.00	0.00	0.00	
24,100.0	90.00	359.22	11,776.0	12,152.5	-333.4	12,157.1	0.00	0.00	0.00	
24,200.0	90.00	359.22	11,776.0	12,252.5	-334.8	12,257.1	0.00	0.00	0.00	
24,300.0	90.00	359.22	11,776.0	12,352.5	-336.2	12,357.1	0.00	0.00	0.00	
24,400.0	90.00	359.22	11,776.0	12,452.5	-337.5	12,457.1	0.00	0.00	0.00	
24,500.0	90.00	359.22	11,776.0	12,552.5	-338.9	12,557.0	0.00	0.00	0.00	
24,600.0	90.00	359.22	11,776.0	12,652.5	-340.3	12,657.0	0.00	0.00	0.00	
24,700.0	90.00	359.22	11,776.0	12,752.5	-341.6	12,757.0	0.00	0.00	0.00	
24,746.3	90.00	359.22	11,776.0	12,798.8	-342.3	12,803.4	0.00	0.00	0.00	

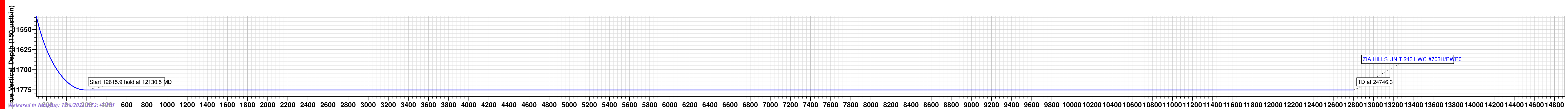
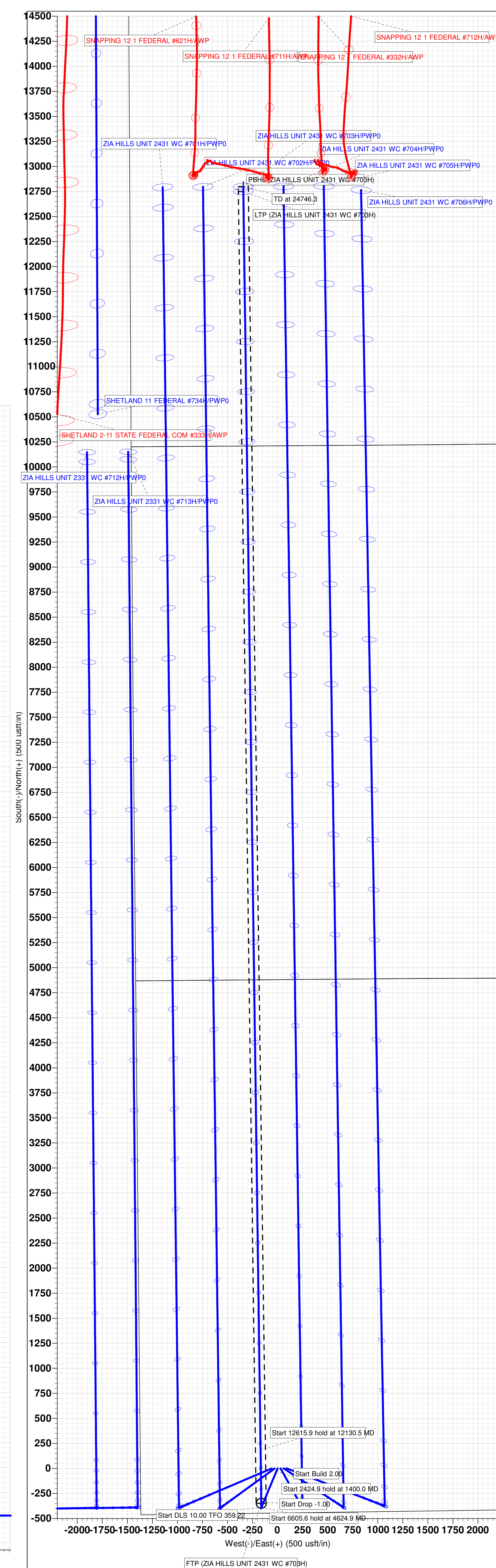
ConocoPhillips
Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #703H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.5usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.5usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #703H	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)		
PBHL (ZIA HILLS UNIT : - plan hits target center - Rectangle (sides W100.0 H13,150.0 D20.0)	0.00	179.22	11,776.0	12,798.8	-342.3	385,041.94	685,008.18	32° 3' 25.879 N	103° 44' 10.163 W
FTP (ZIA HILLS UNIT 24 - plan misses target center by 208.5usft at 11700.0usft MD (11621.7 TVD, -207.0 N, -164.3 E) - Circle (radius 50.0)	0.00	0.00	11,776.0	-347.2	-162.5	371,895.94	685,187.99	32° 1' 15.775 N	103° 44' 8.919 W
LTP (ZIA HILLS UNIT 24 - plan misses target center by 0.4usft at 24696.4usft MD (11776.0 TVD, 12748.8 N, -341.6 E) - Point	0.00	0.00	11,776.0	12,748.8	-342.0	384,991.95	685,008.44	32° 3' 25.384 N	103° 44' 10.163 W



MD	Inc	z	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0
1000.0	0.00	0.00	1000.0	0.0	0.0	0.0	0.0	0.0
140.0	0.00	202.60	1398.7	-25.7	-10.7	2.00	202.60	-25.4
3824.9	8.00	202.60	3800.0	-337.3	-140.4	0.00	0.00	-333.4
4264.9	0.00	0.00	4597.4	-388.8	-161.8	1.00	180.00	-384.3
11230.5	0.00	0.00	11203.5	-388.8	-161.8	0.00	0.00	-388.8
121.55	90.00	359.22	181.61	-169.7	10.00	339.22	181.61	-169.7
24746.3	0.00	359.22	11776.0	12798.8	-342.3	0.00	0.00	12603.4



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	ConocoPhillips
LEASE NO.:	NMLC064756
LOCATION:	Section 24, T.26 S, R.31 E., NMPM
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	Zia Hills Unit 2431 WC 703H
SURFACE HOLE FOOTAGE:	445'/S & 1370'/W
BOTTOM HOLE FOOTAGE:	2590'/S & 1134'/W

COA

H₂S	☒ Yes	☐ No		
Potash / WIPP	☒ None	☐ Secretary	☐ R-111-P	☐ WIPP
Cave / Karst	☐ Low	☒ Medium	☐ High	☐ Critical
Wellhead	☐ Conventional	☒ Multibowl	☐ Both	☐ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	☐ COM	☒ Unit
Variance	☒ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ Batch APD / Sundry				

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware Group** formation. As a result, the Hydrogen Sulfide area must meet all requirements from **43 CFR 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **1350** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the casing shoe shall be **10,000 (10M) psi**. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. (This is not necessary for secondary recovery unit wells)

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.

- BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.

- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

ZS 11/1/2023

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

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 288308

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 288308
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	12/8/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/8/2023
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	12/8/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	12/8/2023
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	12/8/2023
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	12/8/2023
ward.rikala	SW/4-T26S-R31E is in the Purplesage Wolfcamp Pool. This well can not be produced until a C-102 is received with the correct acreage for the Purplesage Wolfcamp Pool and a C-102 for the correct acreage for the Zia Hills Wolfcamp Pool.	12/8/2023