

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 / 1340 FWL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0221252 / LONG: -103.7358485 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 793 FWL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0211643 / LONG: -103.7376086 (TVD: 11459 feet, MD: 11550 feet)

BHL: NWSW / 2590 FSL / 732 FWL / TWSP: 26S / RANGE: 31E / SECTION: 12 / LAT: 32.0573121 / LONG: -103.7379276 (TVD: 11601 feet, MD: 24614 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 702H
7 OGRID No. 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 3175.59'

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	1340'	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	732'	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.

16 Unit Boundary SURFACE HOLE LOCATION (SHL) NEW MEXICO EAST - NAD 83 X=726507.64 LAT.= 32.02212523° N Y=372299.95 LONG.= 103.73584856° W 445' FSL, 1340' FWL - SECTION 24 FIRST TAKE POINT (FTP) NEW MEXICO EAST - NAD 83 X=725964.07 LAT.= 32.02116433° N Y=371947.39 LONG.= 103.73760868° W 100' FSL, 793' FWL - SECTION 24 LAST TAKE POINT (LTP) NEW MEXICO EAST - NAD 83 X=725792.98 LAT.= 32.05717465° N Y=385046.64 LONG.= 103.73792770° W 2540' FSL, 732' FWL - SECTION 12 BOTTOM HOLE LOCATION (BHL) NEW MEXICO EAST - NAD 83 X=725792.71 LAT.= 32.05731210° N Y=385096.64 LONG.= 103.73792767° W 2590' FSL, 732' 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. <i>Stan Wagner</i> 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: <i>Charles A. Jurica</i> 25490 Certificate Number
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State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Electronically
Via E-permitting

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

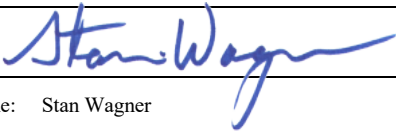
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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 702H

1. Geologic Formations

TVD of target	11,601' EOL	Pilot hole depth	NA
MD at TD:	24,614'	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	3966	Salt	
Lamar	4188	Salt Water	
Bell Canyon	4225	Salt Water	
Cherry Canyon	5105	Oil/Gas	
Brushy Canyon	6517	Oil/Gas	
Bone Spring Lime	8162	Oil/Gas	
1st Bone Spring Sand	9200	Oil/Gas	
2nd Bone Spring Sand	9858	Oil/Gas	
3rd Bone Spring Sand	11038	Oil/Gas	
Wolfcamp	11400	Target	
Wolfcamp A	11620	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	1.15	2.88	2.90
8.750"	8500	10975	7.625"	29.7	P110-ICY	W513	1.40	1.73	3.28	1.97
6.75"	0	10475	5.5"	23	P110-CY	BTC	2.14	2.52	3.03	3.03
6.75"	10475	24,614	5.5"	23	P110-CY	W441	1.93	2.28	2.73	2.48
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 702H

	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 702H

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	800	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	657	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	10,475'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Zia Hills Unit 2431 WC 702H

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 702H

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 702H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7545 psi at 11601' TVD
Abnormal Temperature	NO 170 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

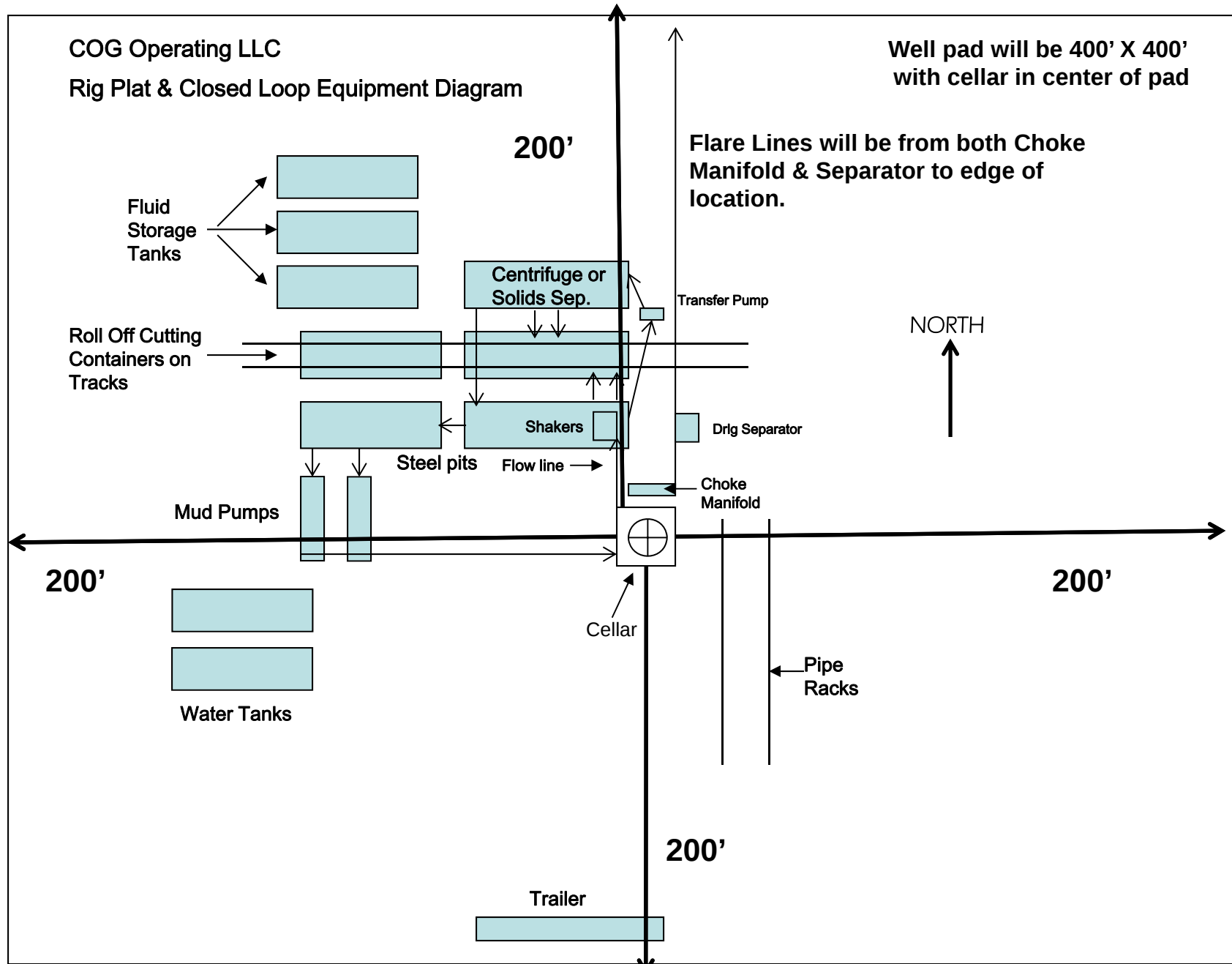


Exhibit 1

"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 #702H**

**OWB
PWP0**

Anticollision Report

07 November, 2022

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 2,661.4usft	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	11,094.3	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5
11,094.3	24,614.3	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
Offset Well - Wellbore - Design						
ZIA HILLS UNIT 2331 PROJECT						
GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP	9,549.1	14,160.0	515.1	429.8	6.039	CC, ES, SF
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP	9,067.3	13,450.0	1,076.1	982.7	11.527	CC, ES, SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	22,400.0	16,415.9	1,739.4	1,566.6	10.061	SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	24,614.3	14,201.6	1,722.0	1,561.5	10.731	CC, ES
SHETLAND 11 FEDERAL #734H - OWB - PWP0	22,400.0	16,654.0	1,114.2	942.0	6.469	SF
SHETLAND 11 FEDERAL #734H - OWB - PWP0	24,614.3	14,439.7	1,098.1	937.7	6.846	CC, ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	23,400.0	20,563.0	1,429.4	1,180.0	5.731	SF
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,600.0	19,396.4	1,391.7	1,151.2	5.787	ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,614.3	19,384.5	1,391.7	1,151.2	5.788	CC
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	22,075.9	22,089.0	2,386.1	2,123.4	9.081	ES, SF
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	24,532.5	19,628.0	2,366.8	2,124.7	9.777	CC
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	22,400.0	22,043.3	2,418.6	2,161.7	9.414	ES, SF
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	24,614.3	19,829.0	2,400.5	2,161.9	10.063	CC
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	21,972.5	21,956.2	2,013.5	1,848.4	12.197	CC
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	22,000.0	21,956.2	2,013.7	1,848.4	12.179	ES
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	22,100.0	21,956.2	2,017.5	1,851.5	12.149	SF
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	21,911.8	21,724.9	1,609.4	1,445.3	9.804	CC, ES
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	22,000.0	21,724.9	1,611.8	1,447.0	9.778	SF
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	21,980.8	21,996.3	1,192.2	1,025.2	7.141	CC
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	22,000.0	21,996.3	1,192.3	1,025.2	7.135	ES, SF
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	21,979.6	21,875.5	794.1	625.8	4.720	CC, ES
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	22,000.0	21,875.5	794.3	625.9	4.717	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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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

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 2431 PROJECT						
SNAPPING 12 1 FEDERAL #332H - OWB - AWP	24,614.3	11,402.4	1,263.5	1,124.2	9.072	CC, ES, SF
SNAPPING 12 1 FEDERAL #532H - OWB - AWP	24,614.3	9,292.0	2,547.6	2,426.9	21.096	CC, ES, SF
SNAPPING 12 1 FEDERAL #621H - OWB - AWP	24,614.3	11,419.6	423.6	311.9	3.794	CC, ES, SF
SNAPPING 12 1 FEDERAL #711H - OWB - AWP	24,614.3	11,632.3	677.2	535.5	4.778	CC, ES, SF
SNAPPING 12 1 FEDERAL #712H - OWB - AWP	24,614.3	11,713.0	1,479.7	1,336.5	10.333	CC, ES, SF
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	1,374.3	1,372.9	17.4	8.2	1.901	Advise and Monitor, CC, ES,
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	1,000.0	999.9	29.9	21.9	3.736	CC, ES
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	24,612.1	24,746.9	438.5	234.2	2.147	SF
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	916.6	916.9	59.9	52.1	7.638	CC
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	1,000.0	1,000.0	59.9	51.8	7.409	ES
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	24,614.3	24,580.8	804.0	601.3	3.967	SF
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	916.4	917.2	89.7	81.9	11.431	CC
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	1,000.0	1,000.0	89.7	81.6	11.088	ES
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	24,614.3	24,774.6	1,218.9	1,014.3	5.957	SF
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	916.5	917.0	120.1	112.2	15.332	CC
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	1,000.0	1,000.0	120.1	112.1	15.025	ES
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	24,614.3	24,586.9	1,578.4	1,372.5	7.663	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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	24,614.3	14,160.0				Out of Range @TD
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP	24,614.3	13,450.0				Out of Range @TD
SHETLAND 11 FEDERAL #714H - OWB - PWP0	24,614.3	14,201.6	1,722.0	1,561.5	10.731	CC, ES
SHETLAND 11 FEDERAL #734H - OWB - PWP0	24,614.3	14,439.7	1,098.1	937.7	6.846	CC, ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,614.3	19,384.5	1,391.7	1,151.2	5.788	CC
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	24,614.3	19,628.0	2,368.2	2,125.8	9.770	
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	24,614.3	19,829.0	2,400.5	2,161.9	10.063	CC
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	24,614.3	21,956.2				Out of Range @TD
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	24,614.3	21,724.9				Out of Range @TD
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	24,614.3	21,996.3				Out of Range @TD
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	24,614.3	21,875.5				Out of Range @TD
ZIA HILLS UNIT 2431 PROJECT						
SNAPPING 12 1 FEDERAL #332H - OWB - AWP	24,614.3	11,402.4	1,263.5	1,124.2	9.072	CC, ES, SF
SNAPPING 12 1 FEDERAL #532H - OWB - AWP	24,614.3	9,292.0	2,547.6	2,426.9	21.096	CC, ES, SF
SNAPPING 12 1 FEDERAL #621H - OWB - AWP	24,614.3	11,419.6	423.6	311.9	3.794	CC, ES, SF
SNAPPING 12 1 FEDERAL #711H - OWB - AWP	24,614.3	11,632.3	677.2	535.5	4.778	CC, ES, SF
SNAPPING 12 1 FEDERAL #712H - OWB - AWP	24,614.3	11,713.0	1,479.7	1,336.5	10.333	CC, ES, SF
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	24,614.3	24,801.5	438.2	231.7	2.122	
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	24,614.3	24,746.9	438.5	234.2	2.147	
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	24,614.3	24,580.8	804.0	601.3	3.967	SF
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	24,614.3	24,774.6	1,218.9	1,014.3	5.957	SF
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	24,614.3	24,586.9	1,578.4	1,372.5	7.663	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		Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	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)	
7,000.0	6,956.2	14,160.0	9,505.2	25.6	84.0	-139.25	-786.2	-881.2	2,600.6	2,547.2	53.42 48.685
7,100.0	7,056.2	14,160.0	9,505.2	25.6	84.0	-139.25	-786.2	-881.2	2,502.6	2,448.9	53.70 46.603
7,200.0	7,156.2	14,160.0	9,505.2	25.6	84.0	-139.25	-786.2	-881.2	2,404.9	2,350.9	54.00 44.536
7,300.0	7,256.2	14,160.0	9,505.2	25.7	84.0	-139.25	-786.2	-881.2	2,307.3	2,253.0	54.31 42.484
7,400.0	7,356.2	14,160.0	9,505.2	25.7	84.0	-139.25	-786.2	-881.2	2,209.9	2,155.3	54.64 40.447
7,500.0	7,456.2	14,160.0	9,505.2	25.7	84.0	-139.25	-786.2	-881.2	2,112.8	2,057.8	54.98 38.427
7,600.0	7,556.2	14,160.0	9,505.2	25.7	84.0	-139.25	-786.2	-881.2	2,016.0	1,960.6	55.35 36.422
7,700.0	7,656.2	14,160.0	9,505.2	25.8	84.0	-139.25	-786.2	-881.2	1,919.5	1,863.7	55.74 34.435
7,800.0	7,756.2	14,160.0	9,505.2	25.8	84.0	-139.25	-786.2	-881.2	1,823.3	1,767.2	56.17 32.464

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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		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)			
7,900.0	7,856.2	14,160.0	9,505.2	25.8	84.0	-139.25	-786.2	-881.2	1,727.6	1,671.0	56.62	30.510	
8,000.0	7,956.2	14,160.0	9,505.2	25.8	84.0	-139.25	-786.2	-881.2	1,632.5	1,575.3	57.13	28.575	
8,100.0	8,056.2	14,160.0	9,505.2	25.8	84.0	-139.25	-786.2	-881.2	1,537.9	1,480.2	57.69	26.659	
8,200.0	8,156.2	14,160.0	9,505.2	25.9	84.0	-139.25	-786.2	-881.2	1,444.1	1,385.7	58.31	24.764	
8,300.0	8,256.2	14,160.0	9,505.2	25.9	84.0	-139.25	-786.2	-881.2	1,351.1	1,292.1	59.02	22.891	
8,400.0	8,356.2	14,160.0	9,505.2	25.9	84.0	-139.25	-786.2	-881.2	1,259.2	1,199.4	59.84	21.044	
8,500.0	8,456.2	14,160.0	9,505.2	25.9	84.0	-139.25	-786.2	-881.2	1,168.7	1,107.9	60.79	19.225	
8,600.0	8,556.2	14,160.0	9,505.2	26.0	84.0	-139.25	-786.2	-881.2	1,079.8	1,017.9	61.91	17.441	
8,700.0	8,656.2	14,160.0	9,505.2	26.0	84.0	-139.25	-786.2	-881.2	993.1	929.8	63.26	15.699	
8,800.0	8,756.2	14,160.0	9,505.2	26.0	84.0	-139.25	-786.2	-881.2	909.1	844.2	64.89	14.011	
8,900.0	8,856.2	14,160.0	9,505.2	26.0	84.0	-139.25	-786.2	-881.2	828.6	761.8	66.86	12.393	
9,000.0	8,956.2	14,160.0	9,505.2	26.1	84.0	-139.25	-786.2	-881.2	752.9	683.6	69.26	10.870	
9,100.0	9,056.2	14,160.0	9,505.2	26.1	84.0	-139.25	-786.2	-881.2	683.4	611.2	72.12	9.475	
9,200.0	9,156.2	14,160.0	9,505.2	26.1	84.0	-139.25	-786.2	-881.2	622.2	546.8	75.42	8.250	
9,300.0	9,256.2	14,160.0	9,505.2	26.1	84.0	-139.25	-786.2	-881.2	572.1	493.2	78.94	7.248	
9,400.0	9,356.2	14,160.0	9,505.2	26.2	84.0	-139.25	-786.2	-881.2	536.2	454.0	82.24	6.521	
9,500.0	9,456.2	14,160.0	9,505.2	26.2	84.0	-139.25	-786.2	-881.2	517.4	432.8	84.63	6.114	
9,549.1	9,505.2	14,160.0	9,505.2	26.2	84.0	-139.25	-786.2	-881.2	515.1	429.8	85.29	6.039 CC, ES, SF	
9,600.0	9,556.2	14,160.0	9,505.2	26.2	84.0	-139.25	-786.2	-881.2	517.6	432.0	85.56	6.049	
9,700.0	9,656.2	14,160.0	9,505.2	26.2	84.0	-139.25	-786.2	-881.2	536.7	451.8	84.92	6.320	
9,800.0	9,756.2	14,160.0	9,505.2	26.3	84.0	-139.25	-786.2	-881.2	573.0	489.8	83.14	6.892	
9,900.0	9,856.2	14,160.0	9,505.2	26.3	84.0	-139.25	-786.2	-881.2	623.3	542.5	80.82	7.712	
10,000.0	9,956.2	14,160.0	9,505.2	26.3	84.0	-139.25	-786.2	-881.2	684.6	606.1	78.46	8.725	
10,100.0	10,056.2	14,160.0	9,505.2	26.3	84.0	-139.25	-786.2	-881.2	754.2	677.9	76.34	9.880	
10,200.0	10,156.2	14,160.0	9,505.2	26.4	84.0	-139.25	-786.2	-881.2	830.1	755.5	74.55	11.135	
10,300.0	10,256.2	14,160.0	9,505.2	26.4	84.0	-139.25	-786.2	-881.2	910.6	837.5	73.09	12.459	
10,400.0	10,356.2	14,160.0	9,505.2	26.4	84.0	-139.25	-786.2	-881.2	994.7	922.8	71.94	13.827	
10,500.0	10,456.2	14,160.0	9,505.2	26.5	84.0	-139.25	-786.2	-881.2	1,081.5	1,010.4	71.04	15.224	
10,600.0	10,556.2	14,160.0	9,505.2	26.5	84.0	-139.25	-786.2	-881.2	1,170.4	1,100.0	70.35	16.636	
10,700.0	10,656.2	14,160.0	9,505.2	26.5	84.0	-139.25	-786.2	-881.2	1,260.9	1,191.1	69.84	18.056	
10,800.0	10,756.2	14,160.0	9,505.2	26.5	84.0	-139.25	-786.2	-881.2	1,352.8	1,283.4	69.46	19.477	
10,900.0	10,856.2	14,160.0	9,505.2	26.6	84.0	-139.25	-786.2	-881.2	1,445.8	1,376.6	69.19	20.895	
11,000.0	10,956.2	14,160.0	9,505.2	26.6	84.0	-139.25	-786.2	-881.2	1,539.7	1,470.6	69.02	22.307	
11,100.0	11,056.2	14,160.0	9,505.2	26.6	84.0	-137.26	-786.2	-881.2	1,634.2	1,565.2	69.08	23.659	
11,200.0	11,155.5	14,160.0	9,505.2	26.7	84.0	-103.97	-786.2	-881.2	1,731.1	1,662.0	69.04	25.073	
11,300.0	11,251.7	14,160.0	9,505.2	26.7	84.0	-57.25	-786.2	-881.2	1,829.0	1,760.0	69.05	26.486	
11,400.0	11,341.8	14,160.0	9,505.2	26.8	84.0	-32.55	-786.2	-881.2	1,925.2	1,856.1	69.10	27.860	
11,500.0	11,423.0	14,160.0	9,505.2	26.8	84.0	-21.85	-786.2	-881.2	2,017.1	1,947.9	69.16	29.165	
11,600.0	11,492.8	14,160.0	9,505.2	26.9	84.0	-16.41	-786.2	-881.2	2,102.7	2,033.5	69.22	30.377	
11,700.0	11,549.2	14,160.0	9,505.2	26.9	84.0	-13.25	-786.2	-881.2	2,180.3	2,111.0	69.26	31.481	
11,800.0	11,590.5	14,160.0	9,505.2	27.0	84.0	-11.27	-786.2	-881.2	2,248.5	2,179.2	69.27	32.461	
11,900.0	11,615.3	14,160.0	9,505.2	27.1	84.0	-9.97	-786.2	-881.2	2,306.0	2,236.8	69.24	33.307	
12,000.0	11,622.9	14,160.0	9,505.2	27.1	84.0	-9.15	-786.2	-881.2	2,352.1	2,283.0	69.15	34.015	
12,100.0	11,622.8	14,160.0	9,505.2	27.2	84.0	-9.15	-786.2	-881.2	2,394.7	2,325.7	69.00	34.706	
12,200.0	11,622.6	14,160.0	9,505.2	27.3	84.0	-9.15	-786.2	-881.2	2,440.7	2,371.8	68.83	35.458	
12,300.0	11,622.4	14,160.0	9,505.2	27.5	84.0	-9.15	-786.2	-881.2	2,489.8	2,421.2	68.65	36.267	
12,400.0	11,622.3	14,160.0	9,505.2	27.6	84.0	-9.15	-786.2	-881.2	2,541.9	2,473.5	68.46	37.130	
12,500.0	11,622.1	14,160.0	9,505.2	27.7	84.0	-9.15	-786.2	-881.2	2,596.9	2,528.6	68.26	38.043	
12,600.0	11,621.9	14,160.0	9,505.2	27.9	84.0	-9.15	-786.2	-881.2	2,654.4	2,586.4	68.06	39.003	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
6,700.0	6,656.2	13,450.0	9,023.4	25.3	79.8	-125.51	-758.5	468.2	2,600.2	2,539.5	60.68	42.853	
6,800.0	6,756.2	13,450.0	9,023.4	25.5	79.8	-124.64	-758.5	468.2	2,509.7	2,448.2	61.52	40.794	
6,900.0	6,856.2	13,450.0	9,023.4	25.6	79.8	109.69	-758.5	468.2	2,419.7	2,357.4	62.37	38.796	
7,000.0	6,956.2	13,450.0	9,023.4	25.6	79.8	109.69	-758.5	468.2	2,330.6	2,267.3	63.28	36.831	
7,100.0	7,056.2	13,450.0	9,023.4	25.6	79.8	109.69	-758.5	468.2	2,242.4	2,178.1	64.25	34.899	
7,200.0	7,156.2	13,450.0	9,023.4	25.6	79.8	109.69	-758.5	468.2	2,155.2	2,089.9	65.30	33.004	
7,300.0	7,256.2	13,450.0	9,023.4	25.7	79.8	109.69	-758.5	468.2	2,069.1	2,002.7	66.43	31.149	
7,400.0	7,356.2	13,450.0	9,023.4	25.7	79.8	109.69	-758.5	468.2	1,984.4	1,916.8	67.64	29.338	
7,500.0	7,456.2	13,450.0	9,023.4	25.7	79.8	109.69	-758.5	468.2	1,901.1	1,832.2	68.94	27.575	
7,600.0	7,556.2	13,450.0	9,023.4	25.7	79.8	109.69	-758.5	468.2	1,819.6	1,749.2	70.35	25.866	
7,700.0	7,656.2	13,450.0	9,023.4	25.8	79.8	109.69	-758.5	468.2	1,739.9	1,668.1	71.86	24.214	
7,800.0	7,756.2	13,450.0	9,023.4	25.8	79.8	109.69	-758.5	468.2	1,662.5	1,589.0	73.47	22.628	
7,900.0	7,856.2	13,450.0	9,023.4	25.8	79.8	109.69	-758.5	468.2	1,587.6	1,512.4	75.20	21.112	
8,000.0	7,956.2	13,450.0	9,023.4	25.8	79.8	109.69	-758.5	468.2	1,515.6	1,438.6	77.03	19.675	
8,100.0	8,056.2	13,450.0	9,023.4	25.8	79.8	109.69	-758.5	468.2	1,446.9	1,368.0	78.96	18.325	
8,200.0	8,156.2	13,450.0	9,023.4	25.9	79.8	109.69	-758.5	468.2	1,382.1	1,301.1	80.96	17.070	
8,300.0	8,256.2	13,450.0	9,023.4	25.9	79.8	109.69	-758.5	468.2	1,321.6	1,238.6	83.01	15.920	
8,400.0	8,356.2	13,450.0	9,023.4	25.9	79.8	109.69	-758.5	468.2	1,266.2	1,181.1	85.07	14.884	
8,500.0	8,456.2	13,450.0	9,023.4	25.9	79.8	109.69	-758.5	468.2	1,216.4	1,129.4	87.07	13.971	
8,600.0	8,556.2	13,450.0	9,023.4	26.0	79.8	109.69	-758.5	468.2	1,173.2	1,084.2	88.94	13.191	
8,700.0	8,656.2	13,450.0	9,023.4	26.0	79.8	109.69	-758.5	468.2	1,137.0	1,046.4	90.58	12.552	
8,800.0	8,756.2	13,450.0	9,023.4	26.0	79.8	109.69	-758.5	468.2	1,108.8	1,016.9	91.92	12.063	
8,900.0	8,856.2	13,450.0	9,023.4	26.0	79.8	109.69	-758.5	468.2	1,089.0	996.1	92.85	11.729	
9,000.0	8,956.2	13,450.0	9,023.4	26.1	79.8	109.69	-758.5	468.2	1,078.2	984.9	93.32	11.554	
9,067.3	9,023.4	13,450.0	9,023.4	26.1	79.8	109.69	-758.5	468.2	1,076.1	982.7	93.35	11.527	CC, ES, SF
9,100.0	9,056.2	13,450.0	9,023.4	26.1	79.8	109.69	-758.5	468.2	1,076.6	983.3	93.29	11.541	
9,200.0	9,156.2	13,450.0	9,023.4	26.1	79.8	109.69	-758.5	468.2	1,084.2	991.5	92.77	11.688	
9,300.0	9,256.2	13,450.0	9,023.4	26.1	79.8	109.69	-758.5	468.2	1,100.9	1,009.1	91.81	11.991	
9,400.0	9,356.2	13,450.0	9,023.4	26.2	79.8	109.69	-758.5	468.2	1,126.3	1,035.8	90.51	12.445	
9,500.0	9,456.2	13,450.0	9,023.4	26.2	79.8	109.69	-758.5	468.2	1,159.8	1,070.9	88.95	13.039	
9,600.0	9,556.2	13,450.0	9,023.4	26.2	79.8	109.69	-758.5	468.2	1,200.7	1,113.5	87.24	13.763	
9,700.0	9,656.2	13,450.0	9,023.4	26.2	79.8	109.69	-758.5	468.2	1,248.3	1,162.8	85.47	14.606	
9,800.0	9,756.2	13,450.0	9,023.4	26.3	79.8	109.69	-758.5	468.2	1,301.8	1,218.1	83.71	15.552	
9,900.0	9,856.2	13,450.0	9,023.4	26.3	79.8	109.69	-758.5	468.2	1,360.6	1,278.6	82.01	16.590	
10,000.0	9,956.2	13,450.0	9,023.4	26.3	79.8	109.69	-758.5	468.2	1,424.0	1,343.6	80.42	17.707	
10,100.0	10,056.2	13,450.0	9,023.4	26.3	79.8	109.69	-758.5	468.2	1,491.4	1,412.5	78.96	18.889	
10,200.0	10,156.2	13,450.0	9,023.4	26.4	79.8	109.69	-758.5	468.2	1,562.4	1,484.7	77.63	20.127	
10,300.0	10,256.2	13,450.0	9,023.4	26.4	79.8	109.69	-758.5	468.2	1,636.3	1,559.9	76.43	21.409	
10,400.0	10,356.2	13,450.0	9,023.4	26.4	79.8	109.69	-758.5	468.2	1,712.9	1,637.5	75.37	22.726	
10,500.0	10,456.2	13,450.0	9,023.4	26.5	79.8	109.69	-758.5	468.2	1,791.8	1,717.4	74.44	24.071	
10,600.0	10,556.2	13,450.0	9,023.4	26.5	79.8	109.69	-758.5	468.2	1,872.7	1,799.1	73.62	25.437	
10,700.0	10,656.2	13,450.0	9,023.4	26.5	79.8	109.69	-758.5	468.2	1,955.4	1,882.5	72.92	26.817	
10,800.0	10,756.2	13,450.0	9,023.4	26.5	79.8	109.69	-758.5	468.2	2,039.7	1,967.3	72.31	28.206	
10,900.0	10,856.2	13,450.0	9,023.4	26.6	79.8	109.69	-758.5	468.2	2,125.3	2,053.5	71.80	29.600	
11,000.0	10,956.2	13,450.0	9,023.4	26.6	79.8	109.69	-758.5	468.2	2,212.1	2,140.7	71.37	30.995	
11,100.0	11,056.2	13,450.0	9,023.4	26.6	79.8	109.33	-758.5	468.2	2,300.0	2,229.0	70.93	32.425	
11,200.0	11,155.5	13,450.0	9,023.4	26.7	79.8	89.21	-758.5	468.2	2,389.8	2,319.2	70.61	33.847	
11,300.0	11,251.7	13,450.0	9,023.4	26.7	79.8	68.43	-758.5	468.2	2,480.3	2,410.1	70.28	35.292	
11,400.0	11,341.8	13,450.0	9,023.4	26.8	79.8	51.97	-758.5	468.2	2,568.9	2,498.9	69.96	36.717	
11,500.0	11,423.0	13,450.0	9,023.4	26.8	79.8	40.71	-758.5	468.2	2,653.0	2,583.4	69.65	38.090	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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		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)			
20,400.0	11,608.3	16,466.2	11,659.3	71.4	88.0	-91.79	10,523.4	-2,424.3	2,623.3	2,507.8	115.56	22.701	
20,500.0	11,608.2	16,466.2	11,659.3	72.1	88.0	-91.79	10,523.4	-2,424.3	2,549.3	2,431.0	118.29	21.552	
20,600.0	11,608.0	16,466.2	11,659.3	72.8	88.0	-91.79	10,523.4	-2,424.3	2,477.2	2,356.0	121.15	20.448	
20,700.0	11,607.8	16,466.2	11,659.3	73.5	88.0	-91.79	10,523.4	-2,424.3	2,407.0	2,282.9	124.13	19.391	
20,800.0	11,607.6	16,466.2	11,659.3	74.3	88.0	-91.79	10,523.4	-2,424.3	2,339.0	2,211.8	127.25	18.382	
20,900.0	11,607.5	16,466.2	11,659.3	75.0	88.0	-91.79	10,523.4	-2,424.3	2,273.4	2,142.9	130.48	17.424	
21,000.0	11,607.3	16,466.2	11,659.3	75.7	88.0	-91.79	10,523.4	-2,424.3	2,210.4	2,076.5	133.82	16.518	
21,100.0	11,607.1	16,466.2	11,659.3	76.4	88.0	-91.79	10,523.4	-2,424.3	2,150.1	2,012.9	137.25	15.666	
21,200.0	11,606.9	16,466.2	11,659.3	77.1	88.0	-91.79	10,523.4	-2,424.3	2,092.9	1,952.2	140.75	14.870	
21,300.0	11,606.8	16,466.2	11,659.3	77.9	88.0	-91.79	10,523.4	-2,424.3	2,039.0	1,894.7	144.30	14.131	
21,400.0	11,606.6	16,466.2	11,659.3	78.6	88.0	-91.79	10,523.4	-2,424.3	1,988.7	1,840.9	147.86	13.450	
21,500.0	11,606.4	16,466.2	11,659.3	79.3	88.0	-91.79	10,523.4	-2,424.3	1,942.2	1,790.8	151.40	12.829	
21,600.0	11,606.2	16,466.2	11,659.3	80.1	88.0	-91.79	10,523.4	-2,424.3	1,899.9	1,745.0	154.86	12.268	
21,700.0	11,606.1	16,466.2	11,659.3	80.8	88.0	-91.79	10,523.4	-2,424.3	1,862.0	1,703.8	158.21	11.769	
21,800.0	11,605.9	16,466.2	11,659.3	81.5	88.0	-91.79	10,523.4	-2,424.3	1,828.7	1,667.4	161.38	11.332	
21,900.0	11,605.7	16,466.2	11,659.3	82.2	88.0	-91.79	10,523.4	-2,424.3	1,800.4	1,636.1	164.31	10.957	
22,000.0	11,605.5	16,466.2	11,659.3	83.0	88.0	-91.79	10,523.4	-2,424.3	1,777.3	1,610.4	166.96	10.645	
22,100.0	11,605.4	16,466.2	11,659.3	83.7	88.0	-91.79	10,523.4	-2,424.3	1,759.6	1,590.3	169.27	10.395	
22,200.0	11,605.2	16,466.2	11,659.3	84.4	88.0	-91.79	10,523.4	-2,424.3	1,747.4	1,576.3	171.19	10.208	
22,300.0	11,605.0	16,466.2	11,659.3	85.2	88.0	-91.79	10,523.4	-2,424.3	1,740.9	1,568.3	172.67	10.082	
22,400.0	11,604.9	16,415.9	11,659.3	85.9	87.3	-91.79	10,573.7	-2,424.6	1,739.4	1,566.6	172.90	10.061 SF	
22,500.0	11,604.7	16,315.9	11,659.3	86.6	85.8	-91.80	10,673.7	-2,425.0	1,738.7	1,566.5	172.21	10.096	
22,600.0	11,604.5	16,215.9	11,659.3	87.4	84.4	-91.81	10,773.7	-2,425.5	1,737.9	1,566.3	171.52	10.132	
22,700.0	11,604.3	16,115.9	11,659.3	88.1	83.0	-91.81	10,873.7	-2,426.0	1,737.1	1,566.2	170.85	10.167	
22,800.0	11,604.2	16,015.9	11,659.3	88.8	81.6	-91.82	10,973.7	-2,426.5	1,736.3	1,566.1	170.19	10.202	
22,900.0	11,604.0	15,915.9	11,659.3	89.6	80.2	-91.83	11,073.7	-2,427.0	1,735.5	1,566.0	169.53	10.237	
23,000.0	11,603.8	15,815.9	11,659.3	90.3	78.8	-91.83	11,173.7	-2,427.5	1,734.7	1,565.8	168.89	10.271	
23,100.0	11,603.6	15,715.9	11,659.3	91.0	77.4	-91.84	11,273.7	-2,428.0	1,733.9	1,565.7	168.25	10.305	
23,200.0	11,603.5	15,615.9	11,659.3	91.8	76.1	-91.85	11,373.7	-2,428.5	1,733.1	1,565.5	167.63	10.339	
23,300.0	11,603.3	15,515.9	11,659.3	92.5	74.7	-91.85	11,473.7	-2,429.0	1,732.3	1,565.3	167.02	10.372	
23,400.0	11,603.1	15,415.9	11,659.3	93.2	73.4	-91.86	11,573.7	-2,429.4	1,731.6	1,565.1	166.42	10.404	
23,500.0	11,602.9	15,315.9	11,659.3	94.0	72.1	-91.87	11,673.7	-2,429.9	1,730.8	1,564.9	165.84	10.436	
23,600.0	11,602.8	15,215.9	11,659.3	94.7	70.8	-91.87	11,773.7	-2,430.4	1,730.0	1,564.7	165.27	10.468	
23,700.0	11,602.6	15,115.9	11,659.3	95.5	69.5	-91.88	11,873.7	-2,430.9	1,729.2	1,564.5	164.71	10.498	
23,800.0	11,602.4	15,015.9	11,659.3	96.2	68.2	-91.89	11,973.7	-2,431.4	1,728.4	1,564.2	164.17	10.528	
23,900.0	11,602.2	14,915.9	11,659.3	96.9	66.9	-91.89	12,073.7	-2,431.9	1,727.6	1,564.0	163.65	10.557	
24,000.0	11,602.1	14,815.9	11,659.3	97.7	65.7	-91.90	12,173.7	-2,432.4	1,726.8	1,563.7	163.14	10.585	
24,100.0	11,601.9	14,716.0	11,659.3	98.4	64.4	-91.91	12,273.7	-2,432.9	1,726.0	1,563.4	162.66	10.612	
24,200.0	11,601.7	14,616.0	11,659.3	99.2	63.2	-91.91	12,373.7	-2,433.4	1,725.2	1,563.1	162.19	10.637	
24,300.0	11,601.5	14,516.0	11,659.3	99.9	62.0	-91.92	12,473.7	-2,433.8	1,724.4	1,562.7	161.74	10.662	
24,400.0	11,601.4	14,416.0	11,659.3	100.6	60.9	-91.93	12,573.6	-2,434.3	1,723.7	1,562.3	161.31	10.685	
24,500.0	11,601.2	14,316.0	11,659.3	101.4	59.7	-91.93	12,673.6	-2,434.8	1,722.9	1,562.0	160.91	10.707	
24,600.0	11,601.0	14,216.0	11,659.3	102.1	58.6	-91.94	12,773.6	-2,435.3	1,722.1	1,561.6	160.53	10.728	
24,614.3	11,601.0	14,201.6	11,659.3	102.2	58.4	-91.94	12,788.0	-2,435.4	1,722.0	1,561.5	160.47	10.731 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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			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)		
20,000.0	11,609.0	16,703.1	11,882.9	68.5	88.8	-104.44	10,527.9	-1,764.7	2,609.0	2,522.8	86.26	30.248	
20,100.0	11,608.9	16,703.1	11,882.9	69.2	88.8	-104.44	10,527.9	-1,764.7	2,519.0	2,431.1	87.85	28.675	
20,200.0	11,608.7	16,703.1	11,882.9	70.0	88.8	-104.44	10,527.9	-1,764.7	2,429.7	2,340.1	89.58	27.122	
20,300.0	11,608.5	16,703.1	11,882.9	70.7	88.8	-104.44	10,527.9	-1,764.7	2,341.3	2,249.8	91.48	25.592	
20,400.0	11,608.3	16,703.1	11,882.9	71.4	88.8	-104.44	10,527.9	-1,764.7	2,253.8	2,160.3	93.56	24.089	
20,500.0	11,608.2	16,703.1	11,882.9	72.1	88.8	-104.44	10,527.9	-1,764.7	2,167.5	2,071.6	95.84	22.616	
20,600.0	11,608.0	16,703.1	11,882.9	72.8	88.8	-104.44	10,527.9	-1,764.7	2,082.4	1,984.0	98.33	21.178	
20,700.0	11,607.8	16,703.1	11,882.9	73.5	88.8	-104.44	10,527.9	-1,764.7	1,998.6	1,897.5	101.06	19.777	
20,800.0	11,607.6	16,703.1	11,882.9	74.3	88.8	-104.44	10,527.9	-1,764.7	1,916.4	1,812.4	104.04	18.419	
20,900.0	11,607.5	16,703.1	11,882.9	75.0	88.8	-104.44	10,527.9	-1,764.7	1,836.0	1,728.7	107.31	17.109	
21,000.0	11,607.3	16,703.1	11,882.9	75.7	88.8	-104.44	10,527.9	-1,764.7	1,757.6	1,646.7	110.87	15.852	
21,100.0	11,607.1	16,703.1	11,882.9	76.4	88.8	-104.44	10,527.9	-1,764.7	1,681.4	1,566.7	114.75	14.653	
21,200.0	11,606.9	16,703.1	11,882.9	77.1	88.8	-104.44	10,527.9	-1,764.7	1,607.9	1,489.0	118.96	13.517	
21,300.0	11,606.8	16,703.1	11,882.9	77.9	88.8	-104.44	10,527.9	-1,764.7	1,537.4	1,413.9	123.49	12.449	
21,400.0	11,606.6	16,703.1	11,882.9	78.6	88.8	-104.44	10,527.9	-1,764.7	1,470.3	1,342.0	128.34	11.456	
21,500.0	11,606.4	16,703.1	11,882.9	79.3	88.8	-104.44	10,527.9	-1,764.7	1,407.1	1,273.6	133.48	10.542	
21,600.0	11,606.2	16,703.1	11,882.9	80.1	88.8	-104.44	10,527.9	-1,764.7	1,348.4	1,209.6	138.85	9.711	
21,700.0	11,606.1	16,703.1	11,882.9	80.8	88.8	-104.44	10,527.9	-1,764.7	1,294.8	1,150.4	144.36	8.969	
21,800.0	11,605.9	16,703.1	11,882.9	81.5	88.8	-104.44	10,527.9	-1,764.7	1,246.8	1,096.9	149.91	8.317	
21,900.0	11,605.7	16,703.1	11,882.9	82.2	88.8	-104.44	10,527.9	-1,764.7	1,205.3	1,050.0	155.31	7.761	
22,000.0	11,605.5	16,703.1	11,882.9	83.0	88.8	-104.44	10,527.9	-1,764.7	1,170.9	1,010.5	160.39	7.300	
22,100.0	11,605.4	16,703.1	11,882.9	83.7	88.8	-104.44	10,527.9	-1,764.7	1,144.2	979.3	164.92	6.938	
22,200.0	11,605.2	16,703.1	11,882.9	84.4	88.8	-104.44	10,527.9	-1,764.7	1,125.8	957.1	168.69	6.674	
22,300.0	11,605.0	16,703.1	11,882.9	85.2	88.8	-104.44	10,527.9	-1,764.7	1,116.1	944.5	171.52	6.507	
22,400.0	11,604.9	16,654.0	11,882.9	85.9	88.1	-104.45	10,577.0	-1,764.9	1,114.2	942.0	172.23	6.469 SF	
22,500.0	11,604.7	16,554.0	11,882.9	86.6	86.6	-104.47	10,677.0	-1,765.4	1,113.5	941.9	171.56	6.490	
22,600.0	11,604.5	16,454.0	11,882.9	87.4	85.2	-104.49	10,777.0	-1,765.9	1,112.7	941.8	170.91	6.511	
22,700.0	11,604.3	16,354.0	11,882.9	88.1	83.8	-104.51	10,876.9	-1,766.4	1,112.0	941.7	170.26	6.531	
22,800.0	11,604.2	16,254.0	11,882.9	88.8	82.4	-104.53	10,976.9	-1,766.8	1,111.3	941.6	169.63	6.551	
22,900.0	11,604.0	16,154.0	11,882.9	89.6	81.0	-104.55	11,076.9	-1,767.3	1,110.5	941.5	169.00	6.571	
23,000.0	11,603.8	16,054.0	11,882.9	90.3	79.6	-104.57	11,176.9	-1,767.8	1,109.8	941.4	168.38	6.591	
23,100.0	11,603.6	15,954.0	11,882.9	91.0	78.2	-104.59	11,276.9	-1,768.3	1,109.1	941.3	167.78	6.610	
23,200.0	11,603.5	15,854.0	11,882.9	91.8	76.9	-104.61	11,376.9	-1,768.8	1,108.4	941.2	167.19	6.630	
23,300.0	11,603.3	15,754.0	11,882.9	92.5	75.5	-104.62	11,476.9	-1,769.3	1,107.6	941.0	166.60	6.648	
23,400.0	11,603.1	15,654.0	11,882.9	93.2	74.2	-104.64	11,576.9	-1,769.8	1,106.9	940.9	166.03	6.667	
23,500.0	11,602.9	15,554.0	11,882.9	94.0	72.9	-104.66	11,676.9	-1,770.3	1,106.2	940.7	165.48	6.685	
23,600.0	11,602.8	15,454.0	11,882.9	94.7	71.6	-104.68	11,776.9	-1,770.8	1,105.5	940.5	164.94	6.702	
23,700.0	11,602.6	15,354.0	11,882.9	95.5	70.3	-104.70	11,876.9	-1,771.2	1,104.7	940.3	164.41	6.720	
23,800.0	11,602.4	15,254.0	11,882.9	96.2	69.0	-104.72	11,976.9	-1,771.7	1,104.0	940.1	163.90	6.736	
23,900.0	11,602.2	15,154.0	11,882.9	96.9	67.7	-104.74	12,076.9	-1,772.2	1,103.3	939.9	163.40	6.752	
24,000.0	11,602.1	15,054.0	11,882.9	97.7	66.5	-104.76	12,176.9	-1,772.7	1,102.6	939.6	162.92	6.768	
24,100.0	11,601.9	14,954.0	11,882.9	98.4	65.2	-104.78	12,276.9	-1,773.2	1,101.8	939.4	162.46	6.782	
24,200.0	11,601.7	14,854.1	11,882.9	99.2	64.0	-104.80	12,376.9	-1,773.7	1,101.1	939.1	162.02	6.796	
24,300.0	11,601.5	14,754.1	11,882.9	99.9	62.8	-104.82	12,476.9	-1,774.2	1,100.4	938.8	161.60	6.810	
24,400.0	11,601.4	14,654.1	11,882.9	100.6	61.7	-104.84	12,576.9	-1,774.7	1,099.7	938.5	161.19	6.822	
24,500.0	11,601.2	14,554.1	11,882.9	101.4	60.5	-104.86	12,676.9	-1,775.2	1,098.9	938.1	160.82	6.834	
24,600.0	11,601.0	14,454.1	11,882.9	102.1	59.4	-104.88	12,776.9	-1,775.6	1,098.2	937.8	160.46	6.844	
24,614.3	11,601.0	14,439.7	11,882.9	102.2	59.3	-104.88	12,791.2	-1,775.7	1,098.1	937.7	160.41	6.846 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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			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)		
20,000.0	11,609.0	21,907.0	11,380.9	68.5	178.7	-81.51	10,262.5	-2,184.9	2,592.1	2,439.9	152.20	17.031	
20,100.0	11,608.9	21,907.0	11,380.9	69.2	178.7	-81.51	10,262.5	-2,184.9	2,511.7	2,355.3	156.45	16.055	
20,200.0	11,608.7	21,907.0	11,380.9	70.0	178.7	-81.51	10,262.5	-2,184.9	2,432.8	2,271.9	160.95	15.116	
20,300.0	11,608.5	21,907.0	11,380.9	70.7	178.7	-81.51	10,262.5	-2,184.9	2,355.6	2,189.9	165.70	14.216	
20,400.0	11,608.3	21,907.0	11,380.9	71.4	178.7	-81.51	10,262.5	-2,184.9	2,280.1	2,109.4	170.71	13.357	
20,500.0	11,608.2	21,907.0	11,380.9	72.1	178.7	-81.51	10,262.5	-2,184.9	2,206.5	2,030.6	175.98	12.539	
20,600.0	11,608.0	21,907.0	11,380.9	72.8	178.7	-81.51	10,262.5	-2,184.9	2,135.1	1,953.6	181.50	11.764	
20,700.0	11,607.8	21,907.0	11,380.9	73.5	178.7	-81.51	10,262.5	-2,184.9	2,066.1	1,878.8	187.27	11.033	
20,800.0	11,607.6	21,907.0	11,380.9	74.3	178.7	-81.51	10,262.5	-2,184.9	1,999.7	1,806.4	193.27	10.347	
20,900.0	11,607.5	21,907.0	11,380.9	75.0	178.7	-81.51	10,262.5	-2,184.9	1,936.2	1,736.7	199.47	9.707	
21,000.0	11,607.3	21,907.0	11,380.9	75.7	178.7	-81.51	10,262.5	-2,184.9	1,875.9	1,670.0	205.82	9.114	
21,100.0	11,607.1	21,907.0	11,380.9	76.4	178.7	-81.51	10,262.5	-2,184.9	1,819.0	1,606.7	212.29	8.569	
21,200.0	11,606.9	21,907.0	11,380.9	77.1	178.7	-81.51	10,262.5	-2,184.9	1,766.0	1,547.3	218.79	8.072	
21,300.0	11,606.8	21,907.0	11,380.9	77.9	178.7	-81.51	10,262.5	-2,184.9	1,717.2	1,492.0	225.25	7.624	
21,400.0	11,606.6	21,907.0	11,380.9	78.6	178.7	-81.51	10,262.5	-2,184.9	1,673.0	1,441.5	231.55	7.225	
21,500.0	11,606.4	21,907.0	11,380.9	79.3	178.7	-81.51	10,262.5	-2,184.9	1,633.7	1,396.1	237.58	6.876	
21,600.0	11,606.2	21,907.0	11,380.9	80.1	178.7	-81.51	10,262.5	-2,184.9	1,599.7	1,356.5	243.21	6.577	
21,700.0	11,606.1	21,907.0	11,380.9	80.8	178.7	-81.51	10,262.5	-2,184.9	1,571.3	1,323.0	248.31	6.328	
21,800.0	11,605.9	21,907.0	11,380.9	81.5	178.7	-81.51	10,262.5	-2,184.9	1,548.9	1,296.1	252.73	6.129	
21,900.0	11,605.7	21,907.0	11,380.9	82.2	178.7	-81.51	10,262.5	-2,184.9	1,532.7	1,276.3	256.35	5.979	
22,000.0	11,605.5	21,872.6	11,381.9	83.0	178.2	-81.53	10,296.8	-2,182.4	1,522.5	1,264.5	257.96	5.902	
22,100.0	11,605.4	21,799.0	11,383.7	83.7	177.0	-81.57	10,370.2	-2,177.3	1,514.0	1,256.0	258.02	5.868	
22,200.0	11,605.2	21,725.0	11,383.8	84.4	175.9	-81.55	10,444.1	-2,173.2	1,507.4	1,249.4	257.97	5.843	
22,300.0	11,605.0	21,637.0	11,381.2	85.2	174.5	-81.43	10,531.9	-2,169.8	1,502.7	1,245.2	257.44	5.837	
22,400.0	11,604.9	21,503.7	11,378.3	85.9	172.4	-81.28	10,665.0	-2,163.7	1,497.3	1,241.7	255.58	5.858	
22,500.0	11,604.7	21,377.9	11,381.2	86.6	170.4	-81.35	10,790.6	-2,155.8	1,489.4	1,235.4	253.93	5.865	
22,600.0	11,604.5	21,275.4	11,387.1	87.4	168.8	-81.53	10,892.6	-2,148.9	1,480.6	1,227.5	253.09	5.850	
22,700.0	11,604.3	21,184.5	11,392.1	88.1	167.4	-81.69	10,983.2	-2,143.0	1,472.1	1,219.4	252.62	5.827	
22,800.0	11,604.2	21,094.2	11,396.7	88.8	166.0	-81.84	11,073.3	-2,137.8	1,464.3	1,212.1	252.17	5.807	
22,900.0	11,604.0	21,000.4	11,400.7	89.6	164.5	-81.96	11,166.8	-2,132.6	1,457.0	1,205.4	251.59	5.791	
23,000.0	11,603.8	20,908.7	11,403.8	90.3	163.1	-82.06	11,258.3	-2,127.9	1,450.1	1,199.1	251.07	5.776	
23,100.0	11,603.6	20,817.6	11,406.8	91.0	161.7	-82.16	11,349.3	-2,123.8	1,443.9	1,193.3	250.55	5.763	
23,200.0	11,603.5	20,724.3	11,408.9	91.8	160.2	-82.22	11,442.5	-2,120.0	1,438.2	1,188.3	249.96	5.754	
23,300.0	11,603.3	20,636.0	11,410.4	92.5	158.8	-82.26	11,530.8	-2,116.5	1,432.9	1,183.4	249.49	5.743	
23,400.0	11,603.1	20,563.0	11,410.1	93.2	157.7	-82.24	11,603.7	-2,114.9	1,429.4	1,180.0	249.41	5.731 SF	
23,500.0	11,602.9	20,473.3	11,408.4	94.0	156.3	-82.16	11,693.4	-2,114.0	1,427.2	1,178.4	248.84	5.736	
23,600.0	11,602.8	20,378.7	11,406.1	94.7	154.8	-82.07	11,788.0	-2,113.1	1,425.3	1,177.2	248.13	5.744	
23,700.0	11,602.6	20,280.6	11,403.2	95.5	153.3	-81.95	11,886.0	-2,112.3	1,423.7	1,176.3	247.33	5.756	
23,800.0	11,602.4	20,162.0	11,399.7	96.2	151.4	-81.80	12,004.5	-2,110.7	1,421.4	1,175.4	246.02	5.778	
23,900.0	11,602.2	20,034.8	11,396.8	96.9	149.4	-81.66	12,131.7	-2,107.3	1,417.9	1,173.5	244.43	5.801	
24,000.0	11,602.1	19,925.4	11,397.6	97.7	147.8	-81.67	12,241.0	-2,102.7	1,412.3	1,169.0	243.35	5.804	
24,100.0	11,601.9	19,837.3	11,397.9	98.4	146.4	-81.66	12,329.0	-2,099.4	1,407.3	1,164.3	242.91	5.793	
24,200.0	11,601.7	19,747.1	11,398.2	99.2	145.0	-81.66	12,419.1	-2,096.8	1,403.0	1,160.6	242.39	5.788	
24,300.0	11,601.5	19,648.6	11,398.6	99.9	143.5	-81.66	12,517.7	-2,094.4	1,399.2	1,157.6	241.64	5.791	
24,400.0	11,601.4	19,556.6	11,400.3	100.6	142.1	-81.72	12,609.6	-2,092.4	1,395.5	1,154.5	241.08	5.789	
24,500.0	11,601.2	19,475.4	11,401.5	101.4	140.8	-81.76	12,690.8	-2,091.4	1,392.9	1,152.1	240.77	5.785	
24,600.0	11,601.0	19,396.4	11,404.5	102.1	139.6	-81.88	12,769.7	-2,092.0	1,391.7	1,151.2	240.51	5.787 ES	
24,614.3	11,601.0	19,384.5	11,405.0	102.2	139.4	-81.91	12,781.6	-2,092.2	1,391.7	1,151.2	240.45	5.788 CC	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #613H - 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)			
20,900.0	11,607.5	22,089.0	11,554.9	75.0	179.6	-88.79	10,227.4	-3,067.2	2,660.1	2,427.5	232.62	11.436	
21,000.0	11,607.3	22,089.0	11,554.9	75.7	179.6	-88.79	10,227.4	-3,067.2	2,617.5	2,381.0	236.45	11.070	
21,100.0	11,607.1	22,089.0	11,554.9	76.4	179.6	-88.79	10,227.4	-3,067.2	2,578.0	2,337.8	240.15	10.735	
21,200.0	11,606.9	22,089.0	11,554.9	77.1	179.6	-88.79	10,227.4	-3,067.2	2,541.8	2,298.1	243.70	10.430	
21,300.0	11,606.8	22,089.0	11,554.9	77.9	179.6	-88.79	10,227.4	-3,067.2	2,509.1	2,262.1	247.05	10.156	
21,400.0	11,606.6	22,089.0	11,554.9	78.6	179.6	-88.79	10,227.4	-3,067.2	2,480.0	2,229.8	250.16	9.914	
21,500.0	11,606.4	22,089.0	11,554.9	79.3	179.6	-88.79	10,227.4	-3,067.2	2,454.6	2,201.6	253.02	9.702	
21,600.0	11,606.2	22,089.0	11,554.9	80.1	179.6	-88.79	10,227.4	-3,067.2	2,433.1	2,177.6	255.57	9.521	
21,700.0	11,606.1	22,089.0	11,554.9	80.8	179.6	-88.79	10,227.4	-3,067.2	2,415.6	2,157.8	257.79	9.370	
21,800.0	11,605.9	22,089.0	11,554.9	81.5	179.6	-88.79	10,227.4	-3,067.2	2,402.0	2,142.4	259.65	9.251	
21,900.0	11,605.7	22,089.0	11,554.9	82.2	179.6	-88.79	10,227.4	-3,067.2	2,392.6	2,131.5	261.13	9.162	
22,000.0	11,605.5	22,089.0	11,554.9	83.0	179.6	-88.79	10,227.4	-3,067.2	2,387.3	2,125.1	262.21	9.105	
22,075.9	11,605.4	22,089.0	11,554.9	83.5	179.6	-88.79	10,227.4	-3,067.2	2,386.1	2,123.4	262.76	9.081 ES, SF	
22,100.0	11,605.4	22,078.2	11,555.6	83.7	179.4	-88.80	10,238.2	-3,067.4	2,386.2	2,123.5	262.74	9.082	
22,200.0	11,605.2	21,979.4	11,562.4	84.4	177.9	-88.97	10,336.8	-3,069.4	2,386.8	2,124.9	261.90	9.114	
22,300.0	11,605.0	21,912.0	11,567.5	85.2	176.8	-89.10	10,403.9	-3,070.8	2,387.7	2,126.2	261.46	9.132	
22,400.0	11,604.9	21,817.0	11,571.8	85.9	175.3	-89.20	10,498.7	-3,074.2	2,389.9	2,129.2	260.65	9.169	
22,500.0	11,604.7	21,750.4	11,572.5	86.6	174.2	-89.23	10,565.3	-3,077.4	2,393.2	2,133.1	260.17	9.199	
22,600.0	11,604.5	21,633.2	11,573.9	87.4	172.4	-89.27	10,682.3	-3,082.8	2,396.6	2,137.5	259.12	9.249	
22,700.0	11,604.3	21,532.2	11,574.9	88.1	170.8	-89.29	10,783.2	-3,087.0	2,399.4	2,141.2	258.25	9.291	
22,800.0	11,604.2	21,448.9	11,574.4	88.8	169.4	-89.29	10,866.4	-3,090.7	2,402.6	2,145.0	257.58	9.327	
22,900.0	11,604.0	21,365.2	11,572.9	89.6	168.1	-89.25	10,950.0	-3,095.0	2,406.5	2,149.6	256.90	9.367	
23,000.0	11,603.8	21,246.0	11,572.8	90.3	166.2	-89.26	11,069.0	-3,101.3	2,410.4	2,154.6	255.85	9.421	
23,100.0	11,603.6	21,151.0	11,574.1	91.0	164.7	-89.29	11,163.9	-3,105.9	2,414.0	2,158.9	255.05	9.465	
23,200.0	11,603.5	21,054.6	11,574.5	91.8	163.2	-89.31	11,260.2	-3,110.7	2,417.7	2,163.5	254.24	9.510	
23,300.0	11,603.3	20,925.1	11,575.9	92.5	161.2	-89.35	11,389.6	-3,116.5	2,420.9	2,167.8	253.07	9.566	
23,400.0	11,603.1	20,797.9	11,578.6	93.2	159.2	-89.42	11,516.7	-3,120.7	2,422.9	2,171.0	251.90	9.618	
23,500.0	11,602.9	20,528.6	11,570.7	94.0	154.9	-89.24	11,785.7	-3,120.3	2,422.6	2,174.2	248.41	9.752	
23,600.0	11,602.8	20,389.0	11,563.6	94.7	152.7	-89.07	11,924.8	-3,112.1	2,415.2	2,168.4	246.83	9.785	
23,700.0	11,602.6	20,294.0	11,563.3	95.5	151.3	-89.07	12,019.6	-3,106.5	2,408.1	2,162.0	246.12	9.784	
23,800.0	11,602.4	20,229.6	11,564.2	96.2	150.3	-89.09	12,083.9	-3,103.8	2,402.3	2,156.3	245.99	9.766	
23,900.0	11,602.2	20,150.3	11,568.5	96.9	149.0	-89.20	12,163.0	-3,100.7	2,397.1	2,151.5	245.55	9.762	
24,000.0	11,602.1	20,069.7	11,575.1	97.7	147.8	-89.36	12,243.4	-3,098.5	2,392.9	2,147.9	245.07	9.764	
24,100.0	11,601.9	19,885.6	11,586.2	98.4	144.9	-89.63	12,426.9	-3,091.7	2,388.3	2,145.7	242.67	9.842	
24,200.0	11,601.7	19,784.1	11,586.0	99.2	143.3	-89.63	12,528.1	-3,084.7	2,380.2	2,138.3	241.82	9.843	
24,300.0	11,601.5	19,724.0	11,585.7	99.9	142.4	-89.62	12,588.2	-3,081.8	2,373.9	2,132.1	241.79	9.818	
24,400.0	11,601.4	19,680.0	11,585.6	100.6	141.7	-89.62	12,632.2	-3,080.6	2,369.5	2,127.5	241.95	9.793	
24,500.0	11,601.2	19,628.0	11,585.6	101.4	140.8	-89.62	12,684.2	-3,079.9	2,367.0	2,125.1	241.87	9.786	
24,532.5	11,601.1	19,628.0	11,585.6	101.6	140.8	-89.62	12,684.2	-3,079.9	2,366.8	2,124.7	242.07	9.777 CC	
24,600.0	11,601.0	19,628.0	11,585.6	102.1	140.8	-89.62	12,684.2	-3,079.9	2,367.8	2,125.4	242.37	9.769	
24,614.3	11,601.0	19,628.0	11,585.6	102.2	140.8	-89.62	12,684.2	-3,079.9	2,368.2	2,125.8	242.41	9.770	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 2-11 STATE FEDERAL COM #733H - 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)			
21,300.0	11,606.8	22,097.6	11,919.8	77.9	173.7	-97.48	10,517.4	-3,083.7	2,643.2	2,411.0	232.23	11.382	
21,400.0	11,606.6	22,097.6	11,919.8	78.6	173.7	-97.48	10,517.4	-3,083.7	2,604.5	2,368.7	235.82	11.044	
21,500.0	11,606.4	22,097.6	11,919.8	79.3	173.7	-97.48	10,517.4	-3,083.7	2,569.1	2,329.8	239.25	10.738	
21,600.0	11,606.2	22,097.6	11,919.8	80.1	173.7	-97.48	10,517.4	-3,083.7	2,537.2	2,294.7	242.48	10.463	
21,700.0	11,606.1	22,097.6	11,919.8	80.8	173.7	-97.48	10,517.4	-3,083.7	2,508.8	2,263.3	245.49	10.220	
21,800.0	11,605.9	22,097.6	11,919.8	81.5	173.7	-97.48	10,517.4	-3,083.7	2,484.2	2,235.9	248.23	10.008	
21,900.0	11,605.7	22,097.6	11,919.8	82.2	173.7	-97.48	10,517.4	-3,083.7	2,463.3	2,212.6	250.68	9.827	
22,000.0	11,605.5	22,097.6	11,919.8	83.0	173.7	-97.48	10,517.4	-3,083.7	2,446.4	2,193.6	252.81	9.677	
22,100.0	11,605.4	22,097.6	11,919.8	83.7	173.7	-97.48	10,517.4	-3,083.7	2,433.5	2,178.9	254.59	9.559	
22,200.0	11,605.2	22,097.6	11,919.8	84.4	173.7	-97.48	10,517.4	-3,083.7	2,424.6	2,168.6	256.00	9.471	
22,300.0	11,605.0	22,097.6	11,919.8	85.2	173.7	-97.48	10,517.4	-3,083.7	2,419.8	2,162.8	257.02	9.415	
22,400.0	11,604.9	22,043.3	11,919.8	85.9	172.8	-97.48	10,571.8	-3,084.0	2,418.6	2,161.7	256.90	9.414 ES, SF	
22,500.0	11,604.7	21,943.3	11,919.8	86.6	171.2	-97.49	10,671.8	-3,084.4	2,417.8	2,161.7	256.05	9.442	
22,600.0	11,604.5	21,843.3	11,919.8	87.4	169.6	-97.50	10,771.8	-3,084.8	2,417.0	2,161.7	255.21	9.471	
22,700.0	11,604.3	21,743.3	11,919.8	88.1	168.0	-97.50	10,871.8	-3,085.3	2,416.1	2,161.8	254.36	9.499	
22,800.0	11,604.2	21,643.3	11,919.8	88.8	166.4	-97.51	10,971.8	-3,085.7	2,415.3	2,161.8	253.52	9.527	
22,900.0	11,604.0	21,543.3	11,919.8	89.6	164.9	-97.52	11,071.7	-3,086.1	2,414.5	2,161.8	252.68	9.556	
23,000.0	11,603.8	21,443.3	11,919.8	90.3	163.3	-97.52	11,171.7	-3,086.6	2,413.7	2,161.8	251.84	9.584	
23,100.0	11,603.6	21,343.3	11,919.8	91.0	161.7	-97.53	11,271.7	-3,087.0	2,412.9	2,161.9	251.00	9.613	
23,200.0	11,603.5	21,243.3	11,919.8	91.8	160.1	-97.54	11,371.7	-3,087.4	2,412.0	2,161.9	250.17	9.642	
23,300.0	11,603.3	21,143.3	11,919.8	92.5	158.5	-97.54	11,471.7	-3,087.9	2,411.2	2,161.9	249.33	9.671	
23,400.0	11,603.1	21,043.3	11,919.8	93.2	156.9	-97.55	11,571.7	-3,088.3	2,410.4	2,161.9	248.50	9.700	
23,500.0	11,602.9	20,943.3	11,919.8	94.0	155.4	-97.56	11,671.7	-3,088.8	2,409.6	2,161.9	247.67	9.729	
23,600.0	11,602.8	20,843.3	11,919.8	94.7	153.8	-97.57	11,771.7	-3,089.2	2,408.8	2,161.9	246.84	9.758	
23,700.0	11,602.6	20,743.3	11,919.8	95.5	152.2	-97.57	11,871.7	-3,089.6	2,408.0	2,161.9	246.01	9.788	
23,800.0	11,602.4	20,643.3	11,919.8	96.2	150.6	-97.58	11,971.7	-3,090.1	2,407.1	2,162.0	245.19	9.818	
23,900.0	11,602.2	20,543.3	11,919.8	96.9	149.1	-97.59	12,071.7	-3,090.5	2,406.3	2,162.0	244.36	9.847	
24,000.0	11,602.1	20,443.3	11,919.8	97.7	147.5	-97.59	12,171.7	-3,090.9	2,405.5	2,162.0	243.54	9.877	
24,100.0	11,601.9	20,343.3	11,919.8	98.4	145.9	-97.60	12,271.7	-3,091.4	2,404.7	2,162.0	242.72	9.907	
24,200.0	11,601.7	20,243.3	11,919.8	99.2	144.4	-97.61	12,371.7	-3,091.8	2,403.9	2,162.0	241.91	9.937	
24,300.0	11,601.5	20,143.3	11,919.8	99.9	142.8	-97.61	12,471.7	-3,092.2	2,403.1	2,162.0	241.09	9.967	
24,400.0	11,601.4	20,043.3	11,919.8	100.6	141.2	-97.62	12,571.7	-3,092.7	2,402.2	2,162.0	240.28	9.998	
24,500.0	11,601.2	19,943.3	11,919.8	101.4	139.7	-97.63	12,671.7	-3,093.1	2,401.4	2,162.0	239.47	10.028	
24,600.0	11,601.0	19,843.3	11,919.8	102.1	138.1	-97.63	12,771.7	-3,093.6	2,400.6	2,161.9	238.66	10.059	
24,614.3	11,601.0	19,829.0	11,919.8	102.2	137.9	-97.63	12,786.0	-3,093.6	2,400.5	2,161.9	238.54	10.063 CC	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #710H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11147-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	0.0	6.6	3.0	3.0	-99.52	-401.9	-2,396.6	2,430.0				
100.0	100.0	93.4	100.0	3.0	3.0	-99.52	-401.9	-2,396.6	2,430.0	2,424.0	6.04	402.027	
200.0	200.0	193.4	200.0	3.2	3.1	-99.52	-401.9	-2,396.6	2,430.0	2,423.8	6.28	386.873	
300.0	300.0	293.4	300.0	3.3	3.3	-99.52	-401.9	-2,396.6	2,430.0	2,423.5	6.52	372.701	
400.0	400.0	393.4	400.0	3.4	3.4	-99.52	-401.9	-2,396.6	2,430.0	2,423.3	6.75	360.057	
500.0	500.0	493.4	500.0	3.5	3.5	-99.52	-401.9	-2,396.6	2,430.0	2,423.1	6.97	348.620	
600.0	600.0	593.4	600.0	3.6	3.6	-99.52	-401.9	-2,396.6	2,430.0	2,422.8	7.19	338.202	
700.0	700.0	693.4	700.0	3.8	3.8	-99.52	-401.9	-2,396.6	2,430.0	2,422.6	7.39	328.658	
800.0	800.0	793.4	800.0	3.9	3.9	-99.52	-401.9	-2,396.6	2,430.0	2,422.4	7.60	319.873	
900.0	900.0	893.4	900.0	4.0	4.0	-99.52	-401.9	-2,396.6	2,430.0	2,422.2	7.79	311.750	
1,000.0	1,000.0	993.4	1,000.0	4.1	4.1	-99.52	-401.9	-2,396.6	2,430.0	2,422.0	7.99	304.209	
1,100.0	1,100.0	1,093.4	1,100.0	4.3	4.3	26.51	-401.9	-2,396.6	2,428.5	2,420.1	8.36	290.374	
1,200.0	1,199.8	1,193.2	1,199.8	4.6	4.5	26.61	-401.9	-2,396.6	2,423.8	2,415.0	8.82	274.832	
1,300.0	1,299.5	1,292.9	1,299.5	4.9	4.6	26.77	-401.9	-2,396.6	2,416.0	2,406.7	9.28	260.408	
1,400.0	1,398.7	1,392.1	1,398.7	5.2	4.8	27.00	-401.9	-2,396.6	2,405.1	2,395.4	9.74	246.840	
1,500.0	1,497.7	1,491.1	1,497.7	5.5	5.0	27.15	-401.9	-2,396.6	2,392.7	2,382.6	10.14	235.897	
1,600.0	1,596.8	1,590.2	1,596.8	5.7	5.1	27.31	-401.9	-2,396.6	2,380.3	2,369.7	10.55	225.540	
1,700.0	1,695.8	1,689.2	1,695.8	6.0	5.3	27.46	-401.9	-2,396.6	2,367.9	2,356.9	10.98	215.737	
1,800.0	1,794.8	1,788.2	1,794.8	6.4	5.4	27.62	-401.9	-2,396.6	2,355.5	2,344.1	11.41	206.489	
1,900.0	1,893.8	1,887.2	1,893.8	6.7	5.5	27.77	-401.9	-2,396.6	2,343.2	2,331.3	11.85	197.785	
2,000.0	1,992.9	1,986.3	1,992.9	7.0	5.7	27.93	-401.9	-2,396.6	2,330.9	2,318.6	12.29	189.605	
2,100.0	2,091.9	2,085.3	2,091.9	7.4	5.8	28.09	-401.9	-2,396.6	2,318.6	2,305.8	12.74	181.922	
2,200.0	2,190.9	2,184.3	2,190.9	7.7	6.0	28.26	-401.9	-2,396.6	2,306.3	2,293.1	13.20	174.708	
2,300.0	2,289.9	2,283.3	2,289.9	8.1	6.1	28.42	-401.9	-2,396.6	2,294.0	2,280.3	13.66	167.934	
2,400.0	2,389.0	2,382.4	2,389.0	8.4	6.2	28.59	-401.9	-2,396.6	2,281.7	2,267.6	14.12	161.569	
2,500.0	2,488.0	2,481.4	2,488.0	8.8	6.3	28.75	-401.9	-2,396.6	2,269.5	2,254.9	14.59	155.585	
2,600.0	2,587.0	2,580.4	2,587.0	9.2	6.5	28.92	-401.9	-2,396.6	2,257.3	2,242.2	15.05	149.955	
2,700.0	2,686.1	2,679.5	2,686.1	9.6	6.6	29.09	-401.9	-2,396.6	2,245.1	2,229.5	15.52	144.652	
2,800.0	2,785.1	2,778.5	2,785.1	10.0	6.7	29.27	-401.9	-2,396.6	2,232.9	2,216.9	15.99	139.653	
2,900.0	2,884.1	2,877.5	2,884.1	10.4	6.9	29.44	-401.9	-2,396.6	2,220.7	2,204.3	16.46	134.935	
3,000.0	2,983.1	2,976.5	2,983.1	10.8	7.0	29.62	-401.9	-2,396.6	2,208.6	2,191.7	16.93	130.478	
3,100.0	3,082.2	3,042.9	3,049.5	11.2	7.1	29.74	-401.9	-2,396.9	2,197.0	2,179.6	17.40	126.298	
3,200.0	3,181.2	3,100.0	3,106.6	11.6	7.1	29.85	-401.9	-2,398.3	2,187.4	2,169.5	17.86	122.450	
3,300.0	3,280.2	3,156.0	3,162.5	12.0	7.2	29.96	-401.8	-2,400.8	2,179.7	2,161.4	18.33	118.936	
3,400.0	3,379.2	3,212.7	3,219.1	12.4	7.3	30.08	-401.8	-2,404.5	2,174.0	2,155.2	18.77	115.796	
3,500.0	3,478.3	3,284.2	3,290.4	12.8	7.4	30.23	-401.7	-2,410.5	2,170.2	2,151.0	19.18	113.124	
3,600.0	3,577.3	3,383.8	3,389.6	13.2	7.5	30.44	-401.5	-2,419.1	2,166.8	2,147.1	19.68	110.120	
3,700.0	3,676.3	3,483.5	3,488.9	13.6	7.7	30.65	-401.4	-2,427.8	2,163.4	2,143.2	20.19	107.132	
3,800.0	3,775.3	3,583.1	3,588.1	14.0	7.8	30.86	-401.2	-2,436.5	2,160.1	2,139.4	20.73	104.217	
3,900.0	3,874.4	3,682.7	3,687.3	14.4	8.0	31.08	-401.1	-2,445.2	2,156.8	2,135.6	21.27	101.382	
4,000.0	3,973.4	3,782.3	3,786.6	14.8	8.3	31.29	-400.9	-2,453.9	2,153.6	2,131.7	21.83	98.631	
4,100.0	4,072.4	3,881.9	3,885.8	15.3	8.5	31.51	-400.8	-2,462.5	2,150.3	2,127.9	22.41	95.968	
4,200.0	4,171.5	3,981.6	3,985.1	15.7	8.7	31.72	-400.6	-2,471.2	2,147.1	2,124.2	22.99	93.395	
4,300.0	4,270.5	4,081.2	4,084.3	16.1	9.0	31.94	-400.5	-2,479.9	2,144.0	2,120.4	23.58	90.912	
4,400.0	4,369.5	4,180.8	4,183.5	16.5	9.2	32.16	-400.3	-2,488.6	2,140.8	2,116.7	24.19	88.519	
4,500.0	4,468.5	4,280.4	4,282.8	16.9	9.5	32.37	-400.2	-2,497.3	2,137.7	2,112.9	24.80	86.215	
4,600.0	4,567.6	4,380.0	4,382.0	17.3	9.7	32.59	-400.0	-2,505.9	2,134.7	2,109.3	25.41	83.998	
4,700.0	4,666.6	4,479.7	4,481.3	17.8	10.0	32.81	-399.9	-2,514.6	2,131.6	2,105.6	26.04	81.867	
4,800.0	4,765.6	4,579.3	4,580.5	18.2	10.3	33.03	-399.7	-2,523.3	2,128.6	2,101.9	26.67	79.819	
4,900.0	4,864.6	4,678.9	4,679.7	18.6	10.6	33.25	-399.6	-2,532.0	2,125.6	2,098.3	27.30	77.852	
5,000.0	4,963.7	4,778.5	4,779.0	19.0	10.9	33.47	-399.5	-2,540.7	2,122.7	2,094.7	27.94	75.962	
5,100.0	5,062.7	4,878.1	4,878.2	19.4	11.2	33.69	-399.3	-2,549.4	2,119.8	2,091.2	28.59	74.147	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #710H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11147-r.5 MWD+IFR1+MS													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
5,200.0	5,161.7	4,977.8	4,977.5	19.9	11.5	33.91	-399.2	-2,558.0	2,116.9	2,087.6	29.24	72.404	
5,300.0	5,260.8	5,077.4	5,076.7	20.3	11.8	34.13	-399.0	-2,566.7	2,114.2	2,084.3	29.87	70.789	
5,400.0	5,359.9	5,177.1	5,176.0	20.7	12.1	34.33	-398.9	-2,575.4	2,112.1	2,081.6	30.51	69.232	
5,500.0	5,459.2	5,328.7	5,327.2	21.1	12.6	34.62	-398.7	-2,586.9	2,109.8	2,078.5	31.28	67.452	
5,600.0	5,558.6	5,486.3	5,484.6	21.5	13.1	34.89	-398.5	-2,594.6	2,105.4	2,073.4	32.01	65.764	
5,700.0	5,658.0	5,643.6	5,641.9	21.9	13.4	35.13	-398.5	-2,598.0	2,099.1	2,066.4	32.62	64.344	
5,800.0	5,757.6	5,759.3	5,757.6	22.3	13.5	35.28	-398.5	-2,598.1	2,091.4	2,058.4	33.01	63.353	
5,900.0	5,857.2	5,858.9	5,857.2	22.7	13.6	35.40	-398.5	-2,598.1	2,084.4	2,051.0	33.38	62.446	
6,000.0	5,956.9	5,958.6	5,956.9	23.1	13.7	35.51	-398.5	-2,598.1	2,078.1	2,044.3	33.74	61.593	
6,100.0	6,056.7	6,058.4	6,056.7	23.4	13.7	35.60	-398.5	-2,598.1	2,072.5	2,038.4	34.09	60.790	
6,200.0	6,156.5	6,158.2	6,156.5	23.8	13.8	35.68	-398.5	-2,598.1	2,067.6	2,033.1	34.44	60.038	
6,300.0	6,256.3	6,258.1	6,256.3	24.1	13.8	35.75	-398.5	-2,598.1	2,063.4	2,028.6	34.77	59.336	
6,400.0	6,356.3	6,358.0	6,356.3	24.5	13.9	35.81	-398.5	-2,598.1	2,059.9	2,024.8	35.10	58.683	
6,500.0	6,456.2	6,457.9	6,456.2	24.8	14.0	35.86	-398.5	-2,598.1	2,057.2	2,021.8	35.42	58.081	
6,600.0	6,556.2	6,557.9	6,556.2	25.1	14.0	35.89	-398.5	-2,598.1	2,055.2	2,019.4	35.72	57.531	
6,700.0	6,656.2	6,657.9	6,656.2	25.3	14.1	35.92	-398.5	-2,598.1	2,053.8	2,017.8	36.01	57.039	
6,800.0	6,756.2	6,757.9	6,756.2	25.5	14.2	35.93	-398.5	-2,598.1	2,053.2	2,016.9	36.26	56.624	
6,894.8	6,851.0	6,852.7	6,851.0	25.6	14.2	35.93	-398.5	-2,598.1	2,053.1	2,016.7	36.35	56.476	
6,900.0	6,856.2	6,857.9	6,856.2	25.6	14.2	-90.07	-398.5	-2,598.1	2,053.1	2,016.8	36.36	56.470	
7,000.0	6,956.2	6,957.9	6,956.2	25.6	14.3	-90.07	-398.5	-2,598.1	2,053.1	2,016.7	36.45	56.333	
7,100.0	7,056.2	7,057.9	7,056.2	25.6	14.4	-90.07	-398.5	-2,598.1	2,053.1	2,016.6	36.54	56.196	
7,200.0	7,156.2	7,157.9	7,156.2	25.6	14.4	-90.07	-398.5	-2,598.1	2,053.1	2,016.5	36.62	56.059	
7,300.0	7,256.2	7,257.9	7,256.2	25.7	14.5	-90.07	-398.5	-2,598.1	2,053.1	2,016.4	36.71	55.921	
7,400.0	7,356.2	7,357.9	7,356.2	25.7	14.6	-90.07	-398.5	-2,598.1	2,053.1	2,016.3	36.81	55.784	
7,500.0	7,456.2	7,457.9	7,456.2	25.7	14.6	-90.07	-398.5	-2,598.1	2,053.1	2,016.2	36.90	55.647	
7,600.0	7,556.2	7,557.9	7,556.2	25.7	14.7	-90.07	-398.5	-2,598.1	2,053.1	2,016.2	36.99	55.510	
7,700.0	7,656.2	7,657.9	7,656.2	25.8	14.8	-90.07	-398.5	-2,598.1	2,053.1	2,016.1	37.08	55.373	
7,800.0	7,756.2	7,757.9	7,756.2	25.8	14.8	-90.07	-398.5	-2,598.1	2,053.1	2,016.0	37.17	55.236	
7,900.0	7,856.2	7,857.9	7,856.2	25.8	14.9	-90.07	-398.5	-2,598.1	2,053.1	2,015.9	37.26	55.099	
8,000.0	7,956.2	7,957.9	7,956.2	25.8	15.0	-90.07	-398.5	-2,598.1	2,053.1	2,015.8	37.36	54.962	
8,100.0	8,056.2	8,057.9	8,056.2	25.8	15.1	-90.07	-398.5	-2,598.1	2,053.1	2,015.7	37.45	54.825	
8,200.0	8,156.2	8,157.9	8,156.2	25.9	15.1	-90.07	-398.5	-2,598.1	2,053.1	2,015.6	37.54	54.689	
8,300.0	8,256.2	8,257.9	8,256.2	25.9	15.2	-90.07	-398.5	-2,598.1	2,053.1	2,015.5	37.64	54.552	
8,400.0	8,356.2	8,357.9	8,356.2	25.9	15.3	-90.07	-398.5	-2,598.1	2,053.1	2,015.4	37.73	54.416	
8,500.0	8,456.2	8,457.9	8,456.2	25.9	15.3	-90.07	-398.5	-2,598.1	2,053.1	2,015.3	37.83	54.279	
8,600.0	8,556.2	8,557.9	8,556.2	26.0	15.4	-90.07	-398.5	-2,598.1	2,053.1	2,015.2	37.92	54.143	
8,700.0	8,656.2	8,657.9	8,656.2	26.0	15.5	-90.07	-398.5	-2,598.1	2,053.1	2,015.1	38.02	54.007	
8,800.0	8,756.2	8,757.9	8,756.2	26.0	15.5	-90.07	-398.5	-2,598.1	2,053.1	2,015.0	38.11	53.871	
8,900.0	8,856.2	8,857.9	8,856.2	26.0	15.6	-90.07	-398.5	-2,598.1	2,053.1	2,014.9	38.21	53.735	
9,000.0	8,956.2	8,957.9	8,956.2	26.1	15.7	-90.07	-398.5	-2,598.1	2,053.1	2,014.8	38.31	53.600	
9,100.0	9,056.2	9,057.9	9,056.2	26.1	15.7	-90.07	-398.5	-2,598.1	2,053.1	2,014.7	38.40	53.464	
9,200.0	9,156.2	9,157.9	9,156.2	26.1	15.8	-90.07	-398.5	-2,598.1	2,053.1	2,014.6	38.50	53.329	
9,300.0	9,256.2	9,257.9	9,256.2	26.1	15.9	-90.07	-398.5	-2,598.1	2,053.1	2,014.5	38.60	53.194	
9,400.0	9,356.2	9,357.9	9,356.2	26.2	16.0	-90.07	-398.5	-2,598.1	2,053.1	2,014.4	38.70	53.059	
9,500.0	9,456.2	9,457.9	9,456.2	26.2	16.0	-90.07	-398.5	-2,598.1	2,053.1	2,014.3	38.79	52.924	
9,600.0	9,556.2	9,557.9	9,556.2	26.2	16.1	-90.07	-398.5	-2,598.1	2,053.1	2,014.3	38.89	52.789	
9,700.0	9,656.2	9,657.9	9,656.2	26.2	16.2	-90.07	-398.5	-2,598.1	2,053.1	2,014.2	38.99	52.655	
9,800.0	9,756.2	9,757.9	9,756.2	26.3	16.2	-90.07	-398.5	-2,598.1	2,053.1	2,014.1	39.09	52.521	
9,900.0	9,856.2	9,857.9	9,856.2	26.3	16.3	-90.07	-398.5	-2,598.1	2,053.1	2,014.0	39.19	52.387	
10,000.0	9,956.2	9,957.9	9,956.2	26.3	16.4	-90.07	-398.5	-2,598.1	2,053.1	2,013.9	39.29	52.253	
10,100.0	10,056.2	10,057.9	10,056.2	26.3	16.4	-90.07	-398.5	-2,598.1	2,053.1	2,013.8	39.39	52.119	
10,200.0	10,156.2	10,157.9	10,156.2	26.4	16.5	-90.07	-398.5	-2,598.1	2,053.1	2,013.6	39.49	51.986	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #710H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11147-r.5 MWD+IFR1+MS													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	10,256.2	10,257.9	10,256.2	26.4	16.6	-90.07	-398.5	-2,598.1	2,053.1	2,013.5	39.60	51.853	
10,400.0	10,356.2	10,357.9	10,356.2	26.4	16.7	-90.07	-398.5	-2,598.1	2,053.1	2,013.4	39.70	51.720	
10,500.0	10,456.2	10,457.9	10,456.2	26.5	16.7	-90.07	-398.5	-2,598.1	2,053.1	2,013.3	39.80	51.587	
10,600.0	10,556.2	10,557.9	10,556.2	26.5	16.8	-90.07	-398.5	-2,598.1	2,053.1	2,013.2	39.90	51.455	
10,700.0	10,656.2	10,657.9	10,656.2	26.5	16.9	-90.07	-398.5	-2,598.1	2,053.1	2,013.1	40.00	51.322	
10,800.0	10,756.2	10,757.9	10,756.2	26.5	16.9	-90.07	-398.5	-2,598.1	2,053.1	2,013.0	40.11	51.190	
10,900.0	10,856.2	10,857.9	10,856.2	26.6	17.0	-90.07	-398.5	-2,598.1	2,053.1	2,012.9	40.21	51.059	
11,000.0	10,956.2	10,957.9	10,956.2	26.6	17.1	-90.07	-398.5	-2,598.1	2,053.1	2,012.8	40.32	50.927	
11,100.0	11,056.2	11,057.9	11,056.2	26.6	17.2	-89.34	-398.5	-2,598.1	2,053.1	2,012.7	40.41	50.802	
11,200.0	11,155.5	11,157.3	11,155.5	26.7	17.2	-89.61	-398.5	-2,598.1	2,053.1	2,012.5	40.52	50.669	
11,300.0	11,251.7	11,256.3	11,253.9	26.7	17.2	-90.08	-387.9	-2,598.2	2,053.0	2,012.4	40.60	50.565	
11,400.0	11,341.8	11,359.2	11,351.4	26.8	17.2	-90.46	-355.8	-2,598.5	2,052.9	2,012.3	40.65	50.504	
11,500.0	11,423.0	11,465.0	11,442.1	26.8	17.2	-90.72	-301.8	-2,599.0	2,052.8	2,012.1	40.67	50.475	
11,600.0	11,492.8	11,572.5	11,519.9	26.9	17.3	-90.85	-227.9	-2,599.7	2,052.6	2,011.9	40.68	50.451	
11,700.0	11,549.2	11,680.4	11,579.3	26.9	17.3	-90.84	-138.1	-2,600.5	2,052.3	2,011.5	40.72	50.396	
11,800.0	11,590.5	11,787.1	11,616.9	27.0	17.4	-90.69	-38.5	-2,601.4	2,051.8	2,011.0	40.81	50.273	
11,900.0	11,615.3	11,891.3	11,631.3	27.1	17.6	-90.41	64.4	-2,602.3	2,051.3	2,010.4	40.98	50.055	
12,000.0	11,622.9	11,991.4	11,631.6	27.1	17.8	-90.24	164.5	-2,603.2	2,050.9	2,009.7	41.24	49.729	
12,100.0	11,622.8	12,091.4	11,631.6	27.2	18.0	-90.25	264.5	-2,604.1	2,050.5	2,009.0	41.56	49.334	
12,200.0	11,622.6	12,191.4	11,631.6	27.3	18.2	-90.25	364.5	-2,605.1	2,050.2	2,008.2	41.94	48.883	
12,300.0	11,622.4	12,291.4	11,631.6	27.5	18.5	-90.26	464.5	-2,606.0	2,049.8	2,007.4	42.37	48.379	
12,400.0	11,622.3	12,391.4	11,631.6	27.6	18.8	-90.26	564.5	-2,606.9	2,049.4	2,006.6	42.85	47.830	
12,500.0	11,622.1	12,491.3	11,631.6	27.7	19.1	-90.27	664.5	-2,607.8	2,049.0	2,005.7	43.38	47.239	
12,600.0	11,621.9	12,591.3	11,631.6	27.9	19.5	-90.27	764.5	-2,608.7	2,048.7	2,004.7	43.95	46.613	
12,700.0	11,621.7	12,691.3	11,631.6	28.1	19.8	-90.28	864.5	-2,609.6	2,048.3	2,003.7	44.57	45.957	
12,800.0	11,621.6	12,791.3	11,631.6	28.3	20.2	-90.28	964.5	-2,610.5	2,047.9	2,002.7	45.23	45.276	
12,900.0	11,621.4	12,891.3	11,631.6	28.5	20.6	-90.29	1,064.4	-2,611.4	2,047.5	2,001.6	45.93	44.575	
13,000.0	11,621.2	12,991.3	11,631.6	28.7	21.1	-90.29	1,164.4	-2,612.3	2,047.2	2,000.5	46.68	43.858	
13,100.0	11,621.0	13,091.3	11,631.6	29.0	21.5	-90.30	1,264.4	-2,613.2	2,046.8	1,999.3	47.46	43.130	
13,200.0	11,620.9	13,191.3	11,631.6	29.2	22.0	-90.30	1,364.4	-2,614.1	2,046.4	1,998.1	48.27	42.394	
13,300.0	11,620.7	13,291.3	11,631.6	29.5	22.5	-90.31	1,464.4	-2,615.0	2,046.0	1,996.9	49.12	41.654	
13,400.0	11,620.5	13,391.3	11,631.6	29.8	23.0	-90.31	1,564.4	-2,615.9	2,045.7	1,995.7	50.00	40.913	
13,500.0	11,620.3	13,491.3	11,631.6	30.1	23.5	-90.31	1,664.4	-2,616.8	2,045.3	1,994.4	50.91	40.174	
13,600.0	11,620.2	13,591.3	11,631.6	30.4	24.0	-90.32	1,764.4	-2,617.8	2,044.9	1,993.1	51.85	39.439	
13,700.0	11,620.0	13,691.3	11,631.6	30.7	24.6	-90.32	1,864.4	-2,618.7	2,044.5	1,991.7	52.82	38.711	
13,800.0	11,619.8	13,791.3	11,631.6	31.1	25.1	-90.33	1,964.4	-2,619.6	2,044.2	1,990.3	53.81	37.990	
13,900.0	11,619.6	13,891.3	11,631.6	31.4	25.7	-90.33	2,064.4	-2,620.5	2,043.8	1,989.0	54.82	37.279	
14,000.0	11,619.5	13,991.3	11,631.6	31.8	26.3	-90.34	2,164.4	-2,621.4	2,043.4	1,987.5	55.86	36.579	
14,100.0	11,619.3	14,091.3	11,631.6	32.2	26.8	-90.34	2,264.4	-2,622.3	2,043.0	1,986.1	56.92	35.891	
14,200.0	11,619.1	14,191.3	11,631.6	32.6	27.4	-90.35	2,364.4	-2,623.2	2,042.6	1,984.6	58.00	35.215	
14,300.0	11,618.9	14,291.3	11,631.6	33.0	28.0	-90.35	2,464.4	-2,624.1	2,042.3	1,983.2	59.11	34.553	
14,400.0	11,618.8	14,391.3	11,631.6	33.5	28.6	-90.36	2,564.4	-2,625.0	2,041.9	1,981.7	60.22	33.905	
14,500.0	11,618.6	14,491.3	11,631.6	33.9	29.3	-90.36	2,664.4	-2,625.9	2,041.5	1,980.2	61.36	33.271	
14,600.0	11,618.4	14,591.3	11,631.6	34.4	29.9	-90.37	2,764.4	-2,626.8	2,041.1	1,978.6	62.51	32.651	
14,700.0	11,618.2	14,691.3	11,631.6	34.8	30.5	-90.37	2,864.4	-2,627.7	2,040.8	1,977.1	63.68	32.047	
14,800.0	11,618.1	14,791.3	11,631.6	35.3	31.1	-90.38	2,964.4	-2,628.6	2,040.4	1,975.5	64.86	31.456	
14,900.0	11,617.9	14,891.3	11,631.6	35.8	31.8	-90.38	3,064.3	-2,629.6	2,040.0	1,974.0	66.06	30.881	
15,000.0	11,617.7	14,991.3	11,631.6	36.3	32.4	-90.39	3,164.3	-2,630.5	2,039.6	1,972.4	67.27	30.320	
15,100.0	11,617.6	15,091.3	11,631.6	36.8	33.1	-90.39	3,264.3	-2,631.4	2,039.3	1,970.8	68.49	29.773	
15,200.0	11,617.4	15,191.3	11,631.6	37.3	33.7	-90.40	3,364.3	-2,632.3	2,038.9	1,969.2	69.73	29.240	
15,300.0	11,617.2	15,291.3	11,631.6	37.9	34.4	-90.40	3,464.3	-2,633.2	2,038.5	1,967.5	70.97	28.722	
15,400.0	11,617.0	15,391.3	11,631.6	38.4	35.0	-90.41	3,564.3	-2,634.1	2,038.1	1,965.9	72.23	28.217	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #710H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11147-r.5 MWD+IFR1+MS												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
15,500.0	11,616.9	15,491.3	11,631.6	39.0	35.7	-90.41	3,664.3	-2,635.0	2,037.8	1,964.3	73.50	27.725	
15,600.0	11,616.7	15,591.3	11,631.6	39.5	36.4	-90.42	3,764.3	-2,635.9	2,037.4	1,962.6	74.77	27.247	
15,700.0	11,616.5	15,691.3	11,631.6	40.1	37.1	-90.42	3,864.3	-2,636.8	2,037.0	1,961.0	76.06	26.782	
15,800.0	11,616.3	15,791.3	11,631.6	40.7	37.7	-90.43	3,964.3	-2,637.7	2,036.6	1,959.3	77.35	26.329	
15,900.0	11,616.2	15,891.3	11,631.6	41.2	38.4	-90.43	4,064.3	-2,638.6	2,036.3	1,957.6	78.66	25.888	
16,000.0	11,616.0	15,991.3	11,631.6	41.8	39.1	-90.44	4,164.3	-2,639.5	2,035.9	1,955.9	79.97	25.459	
16,100.0	11,615.8	16,091.3	11,631.6	42.4	39.8	-90.44	4,264.3	-2,640.4	2,035.5	1,954.2	81.28	25.042	
16,200.0	11,615.6	16,191.3	11,631.6	43.0	40.5	-90.45	4,364.3	-2,641.4	2,035.1	1,952.5	82.61	24.636	
16,300.0	11,615.5	16,291.3	11,631.6	43.6	41.2	-90.45	4,464.3	-2,642.3	2,034.8	1,950.8	83.94	24.240	
16,400.0	11,615.3	16,391.3	11,631.6	44.2	41.9	-90.46	4,564.3	-2,643.2	2,034.4	1,949.1	85.28	23.855	
16,500.0	11,615.1	16,491.3	11,631.6	44.8	42.6	-90.46	4,664.3	-2,644.1	2,034.0	1,947.4	86.62	23.481	
16,600.0	11,614.9	16,591.3	11,631.6	45.5	43.3	-90.47	4,764.3	-2,645.0	2,033.6	1,945.7	87.98	23.116	
16,700.0	11,614.8	16,691.3	11,631.6	46.1	44.0	-90.47	4,864.3	-2,645.9	2,033.3	1,943.9	89.33	22.761	
16,800.0	11,614.6	16,791.3	11,631.6	46.7	44.7	-90.48	4,964.3	-2,646.8	2,032.9	1,942.2	90.69	22.415	
16,900.0	11,614.4	16,891.3	11,631.6	47.4	45.4	-90.48	5,064.2	-2,647.7	2,032.5	1,940.5	92.06	22.078	
17,000.0	11,614.2	16,991.3	11,631.6	48.0	46.1	-90.49	5,164.2	-2,648.6	2,032.1	1,938.7	93.43	21.750	
17,100.0	11,614.1	17,091.3	11,631.6	48.6	46.8	-90.49	5,264.2	-2,649.5	2,031.8	1,937.0	94.81	21.430	
17,200.0	11,613.9	17,191.3	11,631.6	49.3	47.5	-90.50	5,364.2	-2,650.4	2,031.4	1,935.2	96.19	21.119	
17,300.0	11,613.7	17,291.3	11,631.6	49.9	48.2	-90.50	5,464.2	-2,651.3	2,031.0	1,933.4	97.57	20.815	
17,400.0	11,613.6	17,391.3	11,631.6	50.6	48.9	-90.51	5,564.2	-2,652.2	2,030.6	1,931.7	98.96	20.519	
17,500.0	11,613.4	17,491.3	11,631.6	51.3	49.7	-90.51	5,664.2	-2,653.2	2,030.3	1,929.9	100.36	20.230	
17,600.0	11,613.2	17,591.3	11,631.6	51.9	50.4	-90.52	5,764.2	-2,654.1	2,029.9	1,928.1	101.75	19.949	
17,700.0	11,613.0	17,691.3	11,631.6	52.6	51.1	-90.52	5,864.2	-2,655.0	2,029.5	1,926.4	103.16	19.674	
17,800.0	11,612.9	17,791.3	11,631.6	53.3	51.8	-90.53	5,964.2	-2,655.9	2,029.1	1,924.6	104.56	19.406	
17,900.0	11,612.7	17,891.3	11,631.6	53.9	52.5	-90.53	6,064.2	-2,656.8	2,028.8	1,922.8	105.97	19.145	
18,000.0	11,612.5	17,991.3	11,631.6	54.6	53.3	-90.54	6,164.2	-2,657.7	2,028.4	1,921.0	107.38	18.890	
18,100.0	11,612.3	18,091.3	11,631.6	55.3	54.0	-90.54	6,264.2	-2,658.6	2,028.0	1,919.2	108.79	18.641	
18,200.0	11,612.2	18,191.3	11,631.6	56.0	54.7	-90.55	6,364.2	-2,659.5	2,027.6	1,917.4	110.21	18.398	
18,300.0	11,612.0	18,291.3	11,631.6	56.6	55.4	-90.55	6,464.2	-2,660.4	2,027.3	1,915.6	111.63	18.160	
18,400.0	11,611.8	18,391.3	11,631.6	57.3	56.2	-90.56	6,564.2	-2,661.3	2,026.9	1,913.8	113.05	17.928	
18,500.0	11,611.6	18,491.3	11,631.6	58.0	56.9	-90.56	6,664.2	-2,662.2	2,026.5	1,912.0	114.48	17.702	
18,600.0	11,611.5	18,591.3	11,631.6	58.7	57.6	-90.57	6,764.2	-2,663.1	2,026.1	1,910.2	115.91	17.480	
18,700.0	11,611.3	18,691.3	11,631.6	59.4	58.3	-90.57	6,864.2	-2,664.0	2,025.8	1,908.4	117.34	17.264	
18,800.0	11,611.1	18,791.3	11,631.6	60.1	59.1	-90.58	6,964.2	-2,664.9	2,025.4	1,906.6	118.77	17.053	
18,900.0	11,610.9	18,891.3	11,631.6	60.8	59.8	-90.58	7,064.1	-2,665.9	2,025.0	1,904.8	120.21	16.846	
19,000.0	11,610.8	18,991.3	11,631.6	61.5	60.5	-90.59	7,164.1	-2,666.8	2,024.6	1,903.0	121.65	16.644	
19,100.0	11,610.6	19,091.3	11,631.6	62.2	61.3	-90.59	7,264.1	-2,667.7	2,024.3	1,901.2	123.09	16.446	
19,200.0	11,610.4	19,191.3	11,631.6	62.9	62.0	-90.60	7,364.1	-2,668.6	2,023.9	1,899.4	124.53	16.252	
19,300.0	11,610.2	19,291.3	11,631.6	63.6	62.7	-90.60	7,464.1	-2,669.5	2,023.5	1,897.5	125.97	16.063	
19,400.0	11,610.1	19,391.3	11,631.6	64.3	63.5	-90.61	7,564.1	-2,670.4	2,023.1	1,895.7	127.42	15.878	
19,500.0	11,609.9	19,491.3	11,631.6	65.0	64.2	-90.61	7,664.1	-2,671.3	2,022.8	1,893.9	128.87	15.697	
19,600.0	11,609.7	19,591.3	11,631.6	65.7	64.9	-90.62	7,764.1	-2,672.2	2,022.4	1,892.1	130.32	15.519	
19,700.0	11,609.6	19,691.3	11,631.6	66.4	65.7	-90.62	7,864.1	-2,673.1	2,022.0	1,890.2	131.77	15.345	
19,800.0	11,609.4	19,791.3	11,631.6	67.1	66.4	-90.63	7,964.1	-2,674.0	2,021.6	1,888.4	133.22	15.175	
19,900.0	11,609.2	19,891.3	11,631.6	67.8	67.2	-90.63	8,064.1	-2,674.9	2,021.3	1,886.6	134.68	15.008	
20,000.0	11,609.0	19,991.3	11,631.6	68.5	67.9	-90.64	8,164.1	-2,675.8	2,020.9	1,884.8	136.13	14.845	
20,100.0	11,608.9	20,091.3	11,631.6	69.2	68.6	-90.64	8,264.1	-2,676.7	2,020.5	1,882.9	137.59	14.685	
20,200.0	11,608.7	20,191.3	11,631.6	70.0	69.4	-90.65	8,364.1	-2,677.7	2,020.1	1,881.1	139.05	14.528	
20,300.0	11,608.5	20,291.3	11,631.6	70.7	70.1	-90.65	8,464.1	-2,678.6	2,019.8	1,879.3	140.51	14.374	
20,400.0	11,608.3	20,391.3	11,631.6	71.4	70.9	-90.66	8,564.1	-2,679.5	2,019.4	1,877.4	141.97	14.224	
20,500.0	11,608.2	20,491.3	11,631.6	72.1	71.6	-90.66	8,664.1	-2,680.4	2,019.0	1,875.6	143.44	14.076	
20,600.0	11,608.0	20,591.3	11,631.6	72.8	72.3	-90.67	8,764.1	-2,681.3	2,018.6	1,873.7	144.90	13.931	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #710H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11147-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	
20,700.0	11,607.8	20,691.3	11,631.6	73.5	73.1	-90.67	8,864.1	-2,682.2	2,018.3	1,871.9	146.37	13.789	
20,800.0	11,607.6	20,791.3	11,631.6	74.3	73.8	-90.68	8,964.1	-2,683.1	2,017.9	1,870.1	147.84	13.650	
20,900.0	11,607.5	20,891.3	11,631.6	75.0	74.6	-90.68	9,064.0	-2,684.0	2,017.5	1,868.2	149.30	13.513	
21,000.0	11,607.3	20,991.3	11,631.6	75.7	75.3	-90.69	9,164.0	-2,684.9	2,017.1	1,866.4	150.77	13.379	
21,100.0	11,607.1	21,091.3	11,631.6	76.4	76.0	-90.70	9,264.0	-2,685.8	2,016.8	1,864.5	152.25	13.247	
21,200.0	11,606.9	21,191.3	11,631.6	77.1	76.8	-90.70	9,364.0	-2,686.7	2,016.4	1,862.7	153.72	13.117	
21,300.0	11,606.8	21,291.3	11,631.6	77.9	77.5	-90.71	9,464.0	-2,687.6	2,016.0	1,860.8	155.19	12.991	
21,400.0	11,606.6	21,391.3	11,631.6	78.6	78.3	-90.71	9,564.0	-2,688.5	2,015.6	1,859.0	156.67	12.866	
21,500.0	11,606.4	21,491.3	11,631.6	79.3	79.0	-90.72	9,664.0	-2,689.5	2,015.3	1,857.1	158.14	12.744	
21,600.0	11,606.2	21,591.3	11,631.6	80.1	79.8	-90.72	9,764.0	-2,690.4	2,014.9	1,855.3	159.62	12.623	
21,700.0	11,606.1	21,691.3	11,631.6	80.8	80.5	-90.73	9,864.0	-2,691.3	2,014.5	1,853.4	161.09	12.505	
21,800.0	11,605.9	21,791.3	11,631.6	81.5	81.3	-90.73	9,964.0	-2,692.2	2,014.1	1,851.6	162.57	12.389	
21,900.0	11,605.7	21,891.3	11,631.6	82.2	82.0	-90.74	10,064.0	-2,693.1	2,013.8	1,849.7	164.05	12.275	
21,972.5	11,605.6	21,956.2	11,631.6	82.8	82.5	-90.74	10,128.9	-2,693.7	2,013.5	1,848.4	165.09	12.197 CC	
22,000.0	11,605.5	21,956.2	11,631.6	83.0	82.5	-90.74	10,128.9	-2,693.7	2,013.7	1,848.4	165.35	12.179 ES	
22,100.0	11,605.4	21,956.2	11,631.6	83.7	82.5	-90.74	10,128.9	-2,693.7	2,017.5	1,851.5	166.06	12.149 SF	
22,200.0	11,605.2	21,956.2	11,631.6	84.4	82.5	-90.74	10,128.9	-2,693.7	2,026.3	1,859.9	166.41	12.177	
22,300.0	11,605.0	21,956.2	11,631.6	85.2	82.5	-90.74	10,128.9	-2,693.7	2,040.0	1,873.6	166.41	12.259	
22,400.0	11,604.9	21,956.2	11,631.6	85.9	82.5	-90.74	10,128.9	-2,693.7	2,058.4	1,892.3	166.06	12.395	
22,500.0	11,604.7	21,956.2	11,631.6	86.6	82.5	-90.74	10,128.9	-2,693.7	2,081.5	1,916.1	165.40	12.585	
22,600.0	11,604.5	21,956.2	11,631.6	87.4	82.5	-90.74	10,128.9	-2,693.7	2,109.0	1,944.6	164.44	12.825	
22,700.0	11,604.3	21,956.2	11,631.6	88.1	82.5	-90.74	10,128.9	-2,693.7	2,140.9	1,977.7	163.22	13.117	
22,800.0	11,604.2	21,956.2	11,631.6	88.8	82.5	-90.74	10,128.9	-2,693.7	2,176.9	2,015.2	161.77	13.457	
22,900.0	11,604.0	21,956.2	11,631.6	89.6	82.5	-90.74	10,128.9	-2,693.7	2,216.9	2,056.8	160.13	13.844	
23,000.0	11,603.8	21,956.2	11,631.6	90.3	82.5	-90.74	10,128.9	-2,693.7	2,260.5	2,102.2	158.32	14.278	
23,100.0	11,603.6	21,956.2	11,631.6	91.0	82.5	-90.74	10,128.9	-2,693.7	2,307.7	2,151.3	156.39	14.757	
23,200.0	11,603.5	21,956.2	11,631.6	91.8	82.5	-90.74	10,128.9	-2,693.7	2,358.2	2,203.8	154.35	15.279	
23,300.0	11,603.3	21,956.2	11,631.6	92.5	82.5	-90.74	10,128.9	-2,693.7	2,411.8	2,259.5	152.24	15.842	
23,400.0	11,603.1	21,956.2	11,631.6	93.2	82.5	-90.74	10,128.9	-2,693.7	2,468.2	2,318.1	150.08	16.446	
23,500.0	11,602.9	21,956.2	11,631.6	94.0	82.5	-90.74	10,128.9	-2,693.7	2,527.4	2,379.5	147.89	17.089	
23,600.0	11,602.8	21,956.2	11,631.6	94.7	82.5	-90.74	10,128.9	-2,693.7	2,589.0	2,443.3	145.70	17.770	
23,700.0	11,602.6	21,956.2	11,631.6	95.5	82.5	-90.74	10,128.9	-2,693.7	2,653.0	2,509.5	143.51	18.487	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
0.0	0.0	0.0	7.6	3.0	3.0	-99.63	-401.6	-2,366.6	2,400.5				
100.0	100.0	92.4	100.0	3.0	3.0	-99.63	-401.6	-2,366.6	2,400.4	2,394.4	6.04	397.159	
200.0	200.0	192.4	200.0	3.2	3.1	-99.63	-401.6	-2,366.6	2,400.4	2,394.2	6.28	382.264	
300.0	300.0	292.4	300.0	3.3	3.3	-99.63	-401.6	-2,366.6	2,400.4	2,393.9	6.52	368.237	
400.0	400.0	392.4	400.0	3.4	3.4	-99.63	-401.6	-2,366.6	2,400.4	2,393.7	6.75	355.736	
500.0	500.0	492.4	500.0	3.5	3.5	-99.63	-401.6	-2,366.6	2,400.4	2,393.5	6.97	344.430	
600.0	600.0	592.4	600.0	3.6	3.6	-99.63	-401.6	-2,366.6	2,400.4	2,393.3	7.18	334.133	
700.0	700.0	692.4	700.0	3.8	3.8	-99.63	-401.6	-2,366.6	2,400.4	2,393.1	7.39	324.700	
800.0	800.0	792.4	800.0	3.9	3.9	-99.63	-401.6	-2,366.6	2,400.4	2,392.9	7.60	316.017	
900.0	900.0	892.4	900.0	4.0	4.0	-99.63	-401.6	-2,366.6	2,400.4	2,392.7	7.79	307.988	
1,000.0	1,000.0	992.4	1,000.0	4.1	4.1	-99.63	-401.6	-2,366.6	2,400.4	2,392.5	7.99	300.536	
1,100.0	1,100.0	1,092.4	1,100.0	4.3	4.2	26.40	-401.6	-2,366.6	2,398.9	2,390.6	8.27	289.993	
1,200.0	1,199.8	1,192.2	1,199.8	4.6	4.4	26.50	-401.6	-2,366.6	2,394.2	2,385.6	8.65	276.892	
1,300.0	1,299.5	1,291.9	1,299.5	4.9	4.5	26.66	-401.6	-2,366.6	2,386.4	2,377.4	9.03	264.330	
1,400.0	1,398.7	1,391.1	1,398.7	5.2	4.6	26.89	-401.6	-2,366.6	2,375.5	2,366.1	9.42	252.181	
1,500.0	1,497.7	1,490.1	1,497.7	5.5	4.8	27.05	-401.6	-2,366.6	2,363.1	2,353.2	9.83	240.449	
1,600.0	1,596.8	1,589.2	1,596.8	5.7	4.9	27.20	-401.6	-2,366.6	2,350.7	2,340.4	10.24	229.455	
1,700.0	1,695.8	1,688.2	1,695.8	6.0	5.1	27.36	-401.6	-2,366.6	2,338.3	2,327.6	10.67	219.124	
1,800.0	1,794.8	1,787.2	1,794.8	6.4	5.2	27.51	-401.6	-2,366.6	2,325.9	2,314.8	11.11	209.416	
1,900.0	1,893.8	1,886.2	1,893.8	6.7	5.4	27.67	-401.6	-2,366.6	2,313.5	2,302.0	11.55	200.313	
2,000.0	1,992.9	1,985.3	1,992.9	7.0	5.5	27.83	-401.6	-2,366.6	2,301.2	2,289.2	12.00	191.784	
2,100.0	2,091.9	2,282.6	2,289.8	7.4	5.9	28.29	-401.1	-2,352.9	2,283.8	2,271.0	12.81	178.236	
2,200.0	2,190.9	2,380.2	2,387.0	7.7	6.0	28.43	-400.8	-2,344.4	2,262.9	2,249.6	13.30	170.176	
2,300.0	2,289.9	2,477.9	2,484.3	8.1	6.2	28.58	-400.5	-2,335.9	2,242.1	2,228.3	13.82	162.275	
2,400.0	2,389.0	2,575.5	2,581.6	8.4	6.4	28.73	-400.2	-2,327.4	2,221.3	2,206.9	14.36	154.708	
2,500.0	2,488.0	2,673.2	2,678.8	8.8	6.7	28.88	-399.9	-2,318.9	2,200.5	2,185.6	14.92	147.512	
2,600.0	2,587.0	2,770.8	2,776.1	9.2	6.9	29.03	-399.6	-2,310.4	2,179.7	2,164.2	15.49	140.686	
2,700.0	2,686.1	2,868.5	2,873.4	9.6	7.2	29.19	-399.3	-2,301.9	2,158.9	2,142.8	16.08	134.227	
2,800.0	2,785.1	2,966.1	2,970.7	10.0	7.4	29.35	-399.0	-2,293.4	2,138.2	2,121.5	16.69	128.127	
2,900.0	2,884.1	3,063.8	3,067.9	10.4	7.7	29.51	-398.7	-2,284.8	2,117.4	2,100.1	17.30	122.371	
3,000.0	2,983.1	3,161.4	3,165.2	10.8	8.0	29.68	-398.4	-2,276.3	2,096.7	2,078.8	17.93	116.946	
3,100.0	3,082.2	3,259.0	3,262.5	11.2	8.3	29.85	-398.1	-2,267.8	2,076.0	2,057.4	18.56	111.832	
3,200.0	3,181.2	3,356.7	3,359.8	11.6	8.6	30.02	-397.8	-2,259.3	2,055.3	2,036.1	19.21	107.013	
3,300.0	3,280.2	3,454.3	3,457.0	12.0	8.9	30.20	-397.5	-2,250.8	2,034.6	2,014.8	19.86	102.471	
3,400.0	3,379.2	3,552.0	3,554.3	12.4	9.2	30.38	-397.2	-2,242.3	2,014.0	1,993.5	20.51	98.188	
3,500.0	3,478.3	3,649.6	3,651.6	12.8	9.5	30.57	-396.9	-2,233.8	1,993.4	1,972.2	21.16	94.191	
3,600.0	3,577.3	3,737.5	3,739.1	13.2	9.8	30.74	-396.6	-2,226.3	1,972.9	1,951.1	21.79	90.550	
3,700.0	3,676.3	3,821.0	3,822.4	13.6	10.0	30.90	-396.4	-2,219.7	1,953.2	1,930.7	22.42	87.107	
3,800.0	3,775.3	3,900.0	3,901.2	14.0	10.3	31.06	-396.2	-2,214.1	1,934.2	1,911.1	23.05	83.929	
3,900.0	3,874.4	3,988.8	3,989.8	14.4	10.6	31.24	-396.0	-2,208.4	1,915.9	1,892.2	23.68	80.891	
4,000.0	3,973.4	4,073.0	4,073.9	14.8	10.8	31.42	-395.8	-2,203.6	1,898.3	1,874.0	24.31	78.090	
4,100.0	4,072.4	4,157.5	4,158.2	15.3	11.1	31.61	-395.7	-2,199.5	1,881.6	1,856.6	24.93	75.477	
4,200.0	4,171.5	4,242.1	4,242.8	15.7	11.4	31.79	-395.6	-2,195.9	1,865.5	1,840.0	25.54	73.039	
4,300.0	4,270.5	4,326.9	4,327.6	16.1	11.6	31.98	-395.5	-2,193.0	1,850.2	1,824.1	26.15	70.768	
4,400.0	4,369.5	4,411.9	4,412.5	16.5	11.8	32.18	-395.4	-2,190.7	1,835.7	1,809.0	26.74	68.654	
4,500.0	4,468.5	4,500.0	4,500.6	16.9	12.1	32.38	-395.3	-2,188.9	1,822.0	1,794.6	27.32	66.682	
4,600.0	4,567.6	4,582.5	4,583.1	17.3	12.3	32.58	-395.3	-2,187.9	1,809.0	1,781.1	27.87	64.899	
4,700.0	4,666.6	4,668.0	4,668.6	17.8	12.4	32.78	-395.3	-2,187.5	1,796.7	1,768.4	28.35	63.372	
4,800.0	4,765.6	4,765.0	4,765.6	18.2	12.5	33.02	-395.3	-2,187.5	1,785.0	1,756.2	28.75	62.082	
4,900.0	4,864.6	4,864.1	4,864.6	18.6	12.5	33.26	-395.3	-2,187.5	1,773.3	1,744.2	29.15	60.828	
5,000.0	4,963.7	4,963.1	4,963.7	19.0	12.6	33.51	-395.3	-2,187.5	1,761.7	1,732.1	29.55	59.613	
5,100.0	5,062.7	5,062.1	5,062.7	19.4	12.6	33.76	-395.3	-2,187.5	1,750.0	1,720.1	29.95	58.435	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
5,200.0	5,161.7	5,161.2	5,161.7	19.9	12.7	34.02	-395.3	-2,187.5	1,738.4	1,708.1	30.34	57.292	
5,300.0	5,260.8	5,260.2	5,260.8	20.3	12.8	34.25	-395.3	-2,187.5	1,727.0	1,696.3	30.71	56.229	
5,400.0	5,359.9	5,359.4	5,359.9	20.7	12.8	34.46	-395.3	-2,187.5	1,716.3	1,685.2	31.10	55.182	
5,500.0	5,459.2	5,458.6	5,459.2	21.1	12.9	34.66	-395.3	-2,187.5	1,706.3	1,674.8	31.49	54.194	
5,600.0	5,558.6	5,558.0	5,558.6	21.5	13.0	34.85	-395.3	-2,187.5	1,697.1	1,665.2	31.86	53.261	
5,700.0	5,658.0	5,657.5	5,658.0	21.9	13.0	35.03	-395.3	-2,187.5	1,688.6	1,656.3	32.24	52.382	
5,800.0	5,757.6	5,757.0	5,757.6	22.3	13.1	35.19	-395.3	-2,187.5	1,680.8	1,648.2	32.60	51.555	
5,900.0	5,857.2	5,856.6	5,857.2	22.7	13.2	35.34	-395.3	-2,187.5	1,673.8	1,640.8	32.96	50.777	
6,000.0	5,956.9	5,956.3	5,956.9	23.1	13.2	35.48	-395.3	-2,187.5	1,667.4	1,634.1	33.32	50.046	
6,100.0	6,056.7	6,056.1	6,056.7	23.4	13.3	35.60	-395.3	-2,187.5	1,661.8	1,628.2	33.67	49.362	
6,200.0	6,156.5	6,155.9	6,156.5	23.8	13.4	35.70	-395.3	-2,187.5	1,657.0	1,623.0	34.01	48.723	
6,300.0	6,256.3	6,255.8	6,256.3	24.1	13.4	35.80	-395.3	-2,187.5	1,652.8	1,618.5	34.34	48.129	
6,400.0	6,356.3	6,355.7	6,356.3	24.5	13.5	35.87	-395.3	-2,187.5	1,649.3	1,614.7	34.67	47.578	
6,500.0	6,456.2	6,455.6	6,456.2	24.8	13.6	35.93	-395.3	-2,187.5	1,646.6	1,611.6	34.98	47.073	
6,600.0	6,556.2	6,555.6	6,556.2	25.1	13.6	35.98	-395.3	-2,187.5	1,644.6	1,609.3	35.28	46.613	
6,700.0	6,656.2	6,655.6	6,656.2	25.3	13.7	36.01	-395.3	-2,187.5	1,643.2	1,607.7	35.56	46.204	
6,800.0	6,756.2	6,755.6	6,756.2	25.5	13.8	36.02	-395.3	-2,187.5	1,642.6	1,606.8	35.82	45.861	
6,894.8	6,851.0	6,850.4	6,851.0	25.6	13.8	36.03	-395.3	-2,187.5	1,642.5	1,606.5	35.91	45.739	
6,900.0	6,856.2	6,855.6	6,856.2	25.6	13.8	-89.98	-395.3	-2,187.5	1,642.5	1,606.6	35.91	45.735	
7,000.0	6,956.2	6,955.6	6,956.2	25.6	13.9	-89.98	-395.3	-2,187.5	1,642.5	1,606.5	36.00	45.622	
7,100.0	7,056.2	7,055.6	7,056.2	25.6	14.0	-89.98	-395.3	-2,187.5	1,642.5	1,606.4	36.09	45.509	
7,200.0	7,156.2	7,155.6	7,156.2	25.6	14.0	-89.98	-395.3	-2,187.5	1,642.5	1,606.4	36.18	45.396	
7,300.0	7,256.2	7,255.6	7,256.2	25.7	14.1	-89.98	-395.3	-2,187.5	1,642.5	1,606.3	36.27	45.283	
7,400.0	7,356.2	7,355.6	7,356.2	25.7	14.2	-89.98	-395.3	-2,187.5	1,642.5	1,606.2	36.36	45.170	
7,500.0	7,456.2	7,455.6	7,456.2	25.7	14.2	-89.98	-395.3	-2,187.5	1,642.5	1,606.1	36.45	45.057	
7,600.0	7,556.2	7,555.6	7,556.2	25.7	14.3	-89.98	-395.3	-2,187.5	1,642.5	1,606.0	36.55	44.944	
7,700.0	7,656.2	7,655.6	7,656.2	25.8	14.4	-89.98	-395.3	-2,187.5	1,642.5	1,605.9	36.64	44.831	
7,800.0	7,756.2	7,755.6	7,756.2	25.8	14.4	-89.98	-395.3	-2,187.5	1,642.5	1,605.8	36.73	44.719	
7,900.0	7,856.2	7,855.6	7,856.2	25.8	14.5	-89.98	-395.3	-2,187.5	1,642.5	1,605.7	36.82	44.606	
8,000.0	7,956.2	7,955.6	7,956.2	25.8	14.6	-89.98	-395.3	-2,187.5	1,642.5	1,605.6	36.92	44.494	
8,100.0	8,056.2	8,055.6	8,056.2	25.8	14.6	-89.98	-395.3	-2,187.5	1,642.5	1,605.5	37.01	44.381	
8,200.0	8,156.2	8,155.6	8,156.2	25.9	14.7	-89.98	-395.3	-2,187.5	1,642.5	1,605.4	37.10	44.269	
8,300.0	8,256.2	8,255.6	8,256.2	25.9	14.8	-89.98	-395.3	-2,187.5	1,642.5	1,605.3	37.20	44.156	
8,400.0	8,356.2	8,355.6	8,356.2	25.9	14.8	-89.98	-395.3	-2,187.5	1,642.5	1,605.2	37.29	44.044	
8,500.0	8,456.2	8,455.6	8,456.2	25.9	14.9	-89.98	-395.3	-2,187.5	1,642.5	1,605.2	37.39	43.932	
8,600.0	8,556.2	8,555.6	8,556.2	26.0	15.0	-89.98	-395.3	-2,187.5	1,642.5	1,605.1	37.48	43.820	
8,700.0	8,656.2	8,655.6	8,656.2	26.0	15.0	-89.98	-395.3	-2,187.5	1,642.5	1,605.0	37.58	43.708	
8,800.0	8,756.2	8,755.6	8,756.2	26.0	15.1	-89.98	-395.3	-2,187.5	1,642.5	1,604.9	37.68	43.597	
8,900.0	8,856.2	8,855.6	8,856.2	26.0	15.2	-89.98	-395.3	-2,187.5	1,642.5	1,604.8	37.77	43.485	
9,000.0	8,956.2	8,955.6	8,956.2	26.1	15.3	-89.98	-395.3	-2,187.5	1,642.5	1,604.7	37.87	43.373	
9,100.0	9,056.2	9,055.6	9,056.2	26.1	15.3	-89.98	-395.3	-2,187.5	1,642.5	1,604.6	37.97	43.262	
9,200.0	9,156.2	9,155.6	9,156.2	26.1	15.4	-89.98	-395.3	-2,187.5	1,642.5	1,604.5	38.07	43.151	
9,300.0	9,256.2	9,255.6	9,256.2	26.1	15.5	-89.98	-395.3	-2,187.5	1,642.5	1,604.4	38.16	43.040	
9,400.0	9,356.2	9,355.6	9,356.2	26.2	15.5	-89.98	-395.3	-2,187.5	1,642.5	1,604.3	38.26	42.929	
9,500.0	9,456.2	9,455.6	9,456.2	26.2	15.6	-89.98	-395.3	-2,187.5	1,642.5	1,604.2	38.36	42.818	
9,600.0	9,556.2	9,555.6	9,556.2	26.2	15.7	-89.98	-395.3	-2,187.5	1,642.5	1,604.1	38.46	42.708	
9,700.0	9,656.2	9,655.6	9,656.2	26.2	15.8	-89.98	-395.3	-2,187.5	1,642.5	1,604.0	38.56	42.597	
9,800.0	9,756.2	9,755.6	9,756.2	26.3	15.8	-89.98	-395.3	-2,187.5	1,642.5	1,603.9	38.66	42.487	
9,900.0	9,856.2	9,855.6	9,856.2	26.3	15.9	-89.98	-395.3	-2,187.5	1,642.5	1,603.8	38.76	42.377	
10,000.0	9,956.2	9,955.6	9,956.2	26.3	16.0	-89.98	-395.3	-2,187.5	1,642.5	1,603.7	38.86	42.267	
10,100.0	10,056.2	10,055.6	10,056.2	26.3	16.0	-89.98	-395.3	-2,187.5	1,642.5	1,603.6	38.96	42.158	
10,200.0	10,156.2	10,155.6	10,156.2	26.4	16.1	-89.98	-395.3	-2,187.5	1,642.5	1,603.5	39.06	42.048	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
10,300.0	10,256.2	10,255.6	10,256.2	26.4	16.2	-89.98	-395.3	-2,187.5	1,642.5	1,603.4	39.17	41.939	
10,400.0	10,356.2	10,355.6	10,356.2	26.4	16.2	-89.98	-395.3	-2,187.5	1,642.5	1,603.3	39.27	41.830	
10,500.0	10,456.2	10,455.6	10,456.2	26.5	16.3	-89.98	-395.3	-2,187.5	1,642.5	1,603.2	39.37	41.721	
10,600.0	10,556.2	10,555.6	10,556.2	26.5	16.4	-89.98	-395.3	-2,187.5	1,642.5	1,603.1	39.47	41.612	
10,700.0	10,656.2	10,655.6	10,656.2	26.5	16.5	-89.98	-395.3	-2,187.5	1,642.5	1,603.0	39.58	41.504	
10,800.0	10,756.2	10,755.6	10,756.2	26.5	16.5	-89.98	-395.3	-2,187.5	1,642.5	1,602.9	39.68	41.395	
10,900.0	10,856.2	10,855.6	10,856.2	26.6	16.6	-89.98	-395.3	-2,187.5	1,642.5	1,602.8	39.78	41.287	
11,000.0	10,956.2	10,955.6	10,956.2	26.6	16.7	-89.98	-395.3	-2,187.5	1,642.5	1,602.7	39.87	41.193	
11,100.0	11,056.2	11,052.8	11,053.1	26.6	16.7	-89.07	-390.3	-2,187.6	1,642.6	1,602.7	39.89	41.174	
11,200.0	11,155.5	11,146.3	11,143.7	26.7	16.7	-88.57	-367.8	-2,187.8	1,642.8	1,603.0	39.84	41.234	
11,300.0	11,251.7	11,236.8	11,225.6	26.7	16.7	-88.03	-329.7	-2,188.1	1,643.1	1,603.3	39.80	41.285	
11,400.0	11,341.8	11,325.0	11,297.2	26.8	16.7	-87.44	-278.3	-2,188.6	1,643.6	1,603.8	39.79	41.311	
11,500.0	11,423.0	11,408.8	11,355.3	26.8	16.8	-86.85	-218.1	-2,189.1	1,644.3	1,604.4	39.83	41.279	
11,600.0	11,492.8	11,490.7	11,401.1	26.9	16.8	-86.26	-150.3	-2,189.7	1,645.0	1,605.1	39.94	41.185	
11,700.0	11,549.2	11,570.2	11,433.9	26.9	16.9	-85.69	-78.0	-2,190.4	1,645.9	1,605.8	40.13	41.016	
11,800.0	11,590.5	11,650.0	11,454.3	27.0	17.0	-85.14	-0.9	-2,191.1	1,646.9	1,606.5	40.38	40.786	
11,900.0	11,615.3	11,725.0	11,461.5	27.1	17.1	-84.65	73.6	-2,191.8	1,647.9	1,607.1	40.71	40.474	
12,000.0	11,622.9	11,819.6	11,461.6	27.1	17.2	-84.38	168.2	-2,192.6	1,648.2	1,607.2	41.01	40.191	
12,100.0	11,622.8	11,919.6	11,461.6	27.2	17.5	-84.39	268.2	-2,193.5	1,647.8	1,606.5	41.34	39.863	
12,200.0	11,622.6	12,019.6	11,461.6	27.3	17.7	-84.39	368.2	-2,194.5	1,647.4	1,605.7	41.72	39.490	
12,300.0	11,622.4	12,119.6	11,461.6	27.5	18.0	-84.40	468.2	-2,195.4	1,647.0	1,604.9	42.15	39.074	
12,400.0	11,622.3	12,219.6	11,461.6	27.6	18.3	-84.40	568.2	-2,196.3	1,646.6	1,604.0	42.64	38.621	
12,500.0	11,622.1	12,319.6	11,461.6	27.7	18.6	-84.40	668.2	-2,197.2	1,646.2	1,603.1	43.17	38.134	
12,600.0	11,621.9	12,419.6	11,461.6	27.9	19.0	-84.41	768.2	-2,198.1	1,645.9	1,602.1	43.75	37.620	
12,700.0	11,621.7	12,519.6	11,461.6	28.1	19.4	-84.41	868.2	-2,199.0	1,645.5	1,601.1	44.37	37.081	
12,800.0	11,621.6	12,619.6	11,461.6	28.3	19.8	-84.42	968.2	-2,199.9	1,645.1	1,600.0	45.04	36.522	
12,900.0	11,621.4	12,719.6	11,461.6	28.5	20.2	-84.42	1,068.2	-2,200.8	1,644.7	1,598.9	45.75	35.948	
13,000.0	11,621.2	12,819.6	11,461.6	28.7	20.6	-84.43	1,168.2	-2,201.7	1,644.3	1,597.8	46.50	35.361	
13,100.0	11,621.0	12,919.6	11,461.6	29.0	21.1	-84.43	1,268.2	-2,202.6	1,643.9	1,596.6	47.29	34.766	
13,200.0	11,620.9	13,019.6	11,461.6	29.2	21.6	-84.44	1,368.2	-2,203.5	1,643.5	1,595.4	48.11	34.164	
13,300.0	11,620.7	13,119.6	11,461.6	29.5	22.1	-84.44	1,468.2	-2,204.4	1,643.1	1,594.2	48.96	33.561	
13,400.0	11,620.5	13,219.6	11,461.6	29.8	22.6	-84.45	1,568.1	-2,205.3	1,642.7	1,592.9	49.85	32.956	
13,500.0	11,620.3	13,319.6	11,461.6	30.1	23.1	-84.45	1,668.1	-2,206.3	1,642.3	1,591.6	50.76	32.354	
13,600.0	11,620.2	13,419.6	11,461.6	30.4	23.6	-84.46	1,768.1	-2,207.2	1,641.9	1,590.2	51.70	31.756	
13,700.0	11,620.0	13,519.6	11,461.6	30.7	24.2	-84.46	1,868.1	-2,208.1	1,641.5	1,588.9	52.68	31.163	
13,800.0	11,619.8	13,619.6	11,461.6	31.1	24.8	-84.47	1,968.1	-2,209.0	1,641.2	1,587.5	53.67	30.577	
13,900.0	11,619.6	13,719.6	11,461.6	31.4	25.3	-84.47	2,068.1	-2,209.9	1,640.8	1,586.1	54.69	30.000	
14,000.0	11,619.5	13,819.6	11,461.6	31.8	25.9	-84.48	2,168.1	-2,210.8	1,640.4	1,584.6	55.74	29.431	
14,100.0	11,619.3	13,919.6	11,461.6	32.2	26.5	-84.48	2,268.1	-2,211.7	1,640.0	1,583.2	56.80	28.873	
14,200.0	11,619.1	14,019.6	11,461.6	32.6	27.1	-84.49	2,368.1	-2,212.6	1,639.6	1,581.7	57.89	28.325	
14,300.0	11,618.9	14,119.6	11,461.6	33.0	27.7	-84.49	2,468.1	-2,213.5	1,639.2	1,580.2	58.99	27.788	
14,400.0	11,618.8	14,219.6	11,461.6	33.5	28.3	-84.50	2,568.1	-2,214.4	1,638.8	1,578.7	60.11	27.262	
14,500.0	11,618.6	14,319.6	11,461.6	33.9	28.9	-84.50	2,668.1	-2,215.3	1,638.4	1,577.2	61.25	26.749	
14,600.0	11,618.4	14,419.6	11,461.6	34.4	29.6	-84.51	2,768.1	-2,216.2	1,638.0	1,575.6	62.41	26.247	
14,700.0	11,618.2	14,519.6	11,461.6	34.8	30.2	-84.51	2,868.1	-2,217.1	1,637.6	1,574.0	63.58	25.757	
14,800.0	11,618.1	14,619.6	11,461.6	35.3	30.8	-84.51	2,968.1	-2,218.0	1,637.2	1,572.5	64.77	25.280	
14,900.0	11,617.9	14,719.6	11,461.6	35.8	31.5	-84.52	3,068.1	-2,219.0	1,636.8	1,570.9	65.96	24.814	
15,000.0	11,617.7	14,819.6	11,461.6	36.3	32.1	-84.52	3,168.1	-2,219.9	1,636.5	1,569.3	67.18	24.360	
15,100.0	11,617.6	14,919.6	11,461.6	36.8	32.8	-84.53	3,268.1	-2,220.8	1,636.1	1,567.7	68.40	23.918	
15,200.0	11,617.4	15,019.6	11,461.6	37.3	33.5	-84.53	3,368.1	-2,221.7	1,635.7	1,566.0	69.64	23.487	
15,300.0	11,617.2	15,119.6	11,461.6	37.9	34.1	-84.54	3,468.1	-2,222.6	1,635.3	1,564.4	70.89	23.068	
15,400.0	11,617.0	15,219.6	11,461.6	38.4	34.8	-84.54	3,568.1	-2,223.5	1,634.9	1,562.7	72.15	22.661	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
15,500.0	11,616.9	15,319.6	11,461.6	39.0	35.5	-84.55	3,668.0	-2,224.4	1,634.5	1,561.1	73.42	22.264	
15,600.0	11,616.7	15,419.6	11,461.6	39.5	36.1	-84.55	3,768.0	-2,225.3	1,634.1	1,559.4	74.69	21.877	
15,700.0	11,616.5	15,519.6	11,461.6	40.1	36.8	-84.56	3,868.0	-2,226.2	1,633.7	1,557.7	75.98	21.501	
15,800.0	11,616.3	15,619.6	11,461.6	40.7	37.5	-84.56	3,968.0	-2,227.1	1,633.3	1,556.0	77.28	21.136	
15,900.0	11,616.2	15,719.6	11,461.6	41.2	38.2	-84.57	4,068.0	-2,228.0	1,632.9	1,554.3	78.58	20.780	
16,000.0	11,616.0	15,819.6	11,461.6	41.8	38.9	-84.57	4,168.0	-2,228.9	1,632.5	1,552.6	79.89	20.434	
16,100.0	11,615.8	15,919.6	11,461.6	42.4	39.6	-84.58	4,268.0	-2,229.8	1,632.1	1,550.9	81.21	20.097	
16,200.0	11,615.6	16,019.6	11,461.6	43.0	40.3	-84.58	4,368.0	-2,230.8	1,631.8	1,549.2	82.54	19.769	
16,300.0	11,615.5	16,119.6	11,461.6	43.6	41.0	-84.59	4,468.0	-2,231.7	1,631.4	1,547.5	83.87	19.450	
16,400.0	11,615.3	16,219.6	11,461.6	44.2	41.7	-84.59	4,568.0	-2,232.6	1,631.0	1,545.8	85.21	19.140	
16,500.0	11,615.1	16,319.6	11,461.6	44.8	42.4	-84.60	4,668.0	-2,233.5	1,630.6	1,544.0	86.56	18.838	
16,600.0	11,614.9	16,419.6	11,461.6	45.5	43.1	-84.60	4,768.0	-2,234.4	1,630.2	1,542.3	87.91	18.544	
16,700.0	11,614.8	16,519.6	11,461.6	46.1	43.8	-84.61	4,868.0	-2,235.3	1,629.8	1,540.5	89.27	18.257	
16,800.0	11,614.6	16,619.6	11,461.6	46.7	44.5	-84.61	4,968.0	-2,236.2	1,629.4	1,538.8	90.63	17.978	
16,900.0	11,614.4	16,719.6	11,461.6	47.4	45.2	-84.62	5,068.0	-2,237.1	1,629.0	1,537.0	92.00	17.707	
17,000.0	11,614.2	16,819.5	11,461.6	48.0	45.9	-84.62	5,168.0	-2,238.0	1,628.6	1,535.3	93.37	17.442	
17,100.0	11,614.1	16,919.5	11,461.6	48.6	46.6	-84.63	5,268.0	-2,238.9	1,628.2	1,533.5	94.75	17.185	
17,200.0	11,613.9	17,019.5	11,461.6	49.3	47.3	-84.63	5,368.0	-2,239.8	1,627.8	1,531.7	96.13	16.933	
17,300.0	11,613.7	17,119.5	11,461.6	49.9	48.0	-84.64	5,468.0	-2,240.7	1,627.4	1,529.9	97.52	16.689	
17,400.0	11,613.6	17,219.5	11,461.6	50.6	48.8	-84.64	5,568.0	-2,241.6	1,627.1	1,528.1	98.91	16.450	
17,500.0	11,613.4	17,319.5	11,461.6	51.3	49.5	-84.65	5,667.9	-2,242.6	1,626.7	1,526.4	100.30	16.218	
17,600.0	11,613.2	17,419.5	11,461.6	51.9	50.2	-84.65	5,767.9	-2,243.5	1,626.3	1,524.6	101.70	15.991	
17,700.0	11,613.0	17,519.5	11,461.6	52.6	50.9	-84.65	5,867.9	-2,244.4	1,625.9	1,522.8	103.10	15.770	
17,800.0	11,612.9	17,619.5	11,461.6	53.3	51.6	-84.66	5,967.9	-2,245.3	1,625.5	1,521.0	104.51	15.554	
17,900.0	11,612.7	17,719.5	11,461.6	53.9	52.4	-84.66	6,067.9	-2,246.2	1,625.1	1,519.2	105.92	15.343	
18,000.0	11,612.5	17,819.5	11,461.6	54.6	53.1	-84.67	6,167.9	-2,247.1	1,624.7	1,517.4	107.33	15.138	
18,100.0	11,612.3	17,919.5	11,461.6	55.3	53.8	-84.67	6,267.9	-2,248.0	1,624.3	1,515.6	108.74	14.937	
18,200.0	11,612.2	18,019.5	11,461.6	56.0	54.5	-84.68	6,367.9	-2,248.9	1,623.9	1,513.8	110.16	14.741	
18,300.0	11,612.0	18,119.5	11,461.6	56.6	55.3	-84.68	6,467.9	-2,249.8	1,623.5	1,512.0	111.58	14.550	
18,400.0	11,611.8	18,219.5	11,461.6	57.3	56.0	-84.69	6,567.9	-2,250.7	1,623.1	1,510.1	113.01	14.363	
18,500.0	11,611.6	18,319.5	11,461.6	58.0	56.7	-84.69	6,667.9	-2,251.6	1,622.8	1,508.3	114.43	14.181	
18,600.0	11,611.5	18,419.5	11,461.6	58.7	57.5	-84.70	6,767.9	-2,252.5	1,622.4	1,506.5	115.86	14.002	
18,700.0	11,611.3	18,519.5	11,461.6	59.4	58.2	-84.70	6,867.9	-2,253.4	1,622.0	1,504.7	117.29	13.828	
18,800.0	11,611.1	18,619.5	11,461.6	60.1	58.9	-84.71	6,967.9	-2,254.4	1,621.6	1,502.9	118.73	13.658	
18,900.0	11,610.9	18,719.5	11,461.6	60.8	59.6	-84.71	7,067.9	-2,255.3	1,621.2	1,501.0	120.16	13.491	
19,000.0	11,610.8	18,819.5	11,461.6	61.5	60.4	-84.72	7,167.9	-2,256.2	1,620.8	1,499.2	121.60	13.329	
19,100.0	11,610.6	18,919.5	11,461.6	62.2	61.1	-84.72	7,267.9	-2,257.1	1,620.4	1,497.4	123.04	13.169	
19,200.0	11,610.4	19,019.5	11,461.6	62.9	61.9	-84.73	7,367.9	-2,258.0	1,620.0	1,495.5	124.49	13.014	
19,300.0	11,610.2	19,119.5	11,461.6	63.6	62.6	-84.73	7,467.9	-2,258.9	1,619.6	1,493.7	125.93	12.861	
19,400.0	11,610.1	19,219.5	11,461.6	64.3	63.3	-84.74	7,567.9	-2,259.8	1,619.2	1,491.9	127.38	12.712	
19,500.0	11,609.9	19,319.5	11,461.6	65.0	64.1	-84.74	7,667.8	-2,260.7	1,618.8	1,490.0	128.82	12.566	
19,600.0	11,609.7	19,419.5	11,461.6	65.7	64.8	-84.75	7,767.8	-2,261.6	1,618.5	1,488.2	130.28	12.423	
19,700.0	11,609.6	19,519.5	11,461.6	66.4	65.5	-84.75	7,867.8	-2,262.5	1,618.1	1,486.3	131.73	12.283	
19,800.0	11,609.4	19,619.5	11,461.6	67.1	66.3	-84.76	7,967.8	-2,263.4	1,617.7	1,484.5	133.18	12.146	
19,900.0	11,609.2	19,719.5	11,461.6	67.8	67.0	-84.76	8,067.8	-2,264.3	1,617.3	1,482.6	134.64	12.012	
20,000.0	11,609.0	19,819.5	11,461.6	68.5	67.8	-84.77	8,167.8	-2,265.2	1,616.9	1,480.8	136.09	11.881	
20,100.0	11,608.9	19,919.5	11,461.6	69.2	68.5	-84.77	8,267.8	-2,266.2	1,616.5	1,478.9	137.55	11.752	
20,200.0	11,608.7	20,019.5	11,461.6	70.0	69.2	-84.78	8,367.8	-2,267.1	1,616.1	1,477.1	139.01	11.626	
20,300.0	11,608.5	20,119.5	11,461.6	70.7	70.0	-84.78	8,467.8	-2,268.0	1,615.7	1,475.2	140.47	11.502	
20,400.0	11,608.3	20,219.5	11,461.6	71.4	70.7	-84.79	8,567.8	-2,268.9	1,615.3	1,473.4	141.93	11.381	
20,500.0	11,608.2	20,319.5	11,461.6	72.1	71.5	-84.79	8,667.8	-2,269.8	1,614.9	1,471.5	143.40	11.262	
20,600.0	11,608.0	20,419.5	11,461.6	72.8	72.2	-84.80	8,767.8	-2,270.7	1,614.5	1,469.7	144.86	11.145	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	11,607.8	20,519.5	11,461.6	73.5	72.9	-84.80	8,867.8	-2,271.6	1,614.2	1,467.8	146.33	11.031	
20,800.0	11,607.6	20,619.5	11,461.6	74.3	73.7	-84.81	8,967.8	-2,272.5	1,613.8	1,466.0	147.80	10.919	
20,900.0	11,607.5	20,719.5	11,461.6	75.0	74.4	-84.81	9,067.8	-2,273.4	1,613.4	1,464.1	149.27	10.809	
21,000.0	11,607.3	20,819.5	11,461.6	75.7	75.2	-84.82	9,167.8	-2,274.3	1,613.0	1,462.2	150.74	10.701	
21,100.0	11,607.1	20,919.5	11,461.6	76.4	75.9	-84.82	9,267.8	-2,275.2	1,612.6	1,460.4	152.21	10.595	
21,200.0	11,606.9	21,019.5	11,461.6	77.1	76.7	-84.83	9,367.8	-2,276.1	1,612.2	1,458.5	153.68	10.490	
21,300.0	11,606.8	21,119.5	11,461.6	77.9	77.4	-84.83	9,467.8	-2,277.0	1,611.8	1,456.6	155.16	10.388	
21,400.0	11,606.6	21,219.5	11,461.6	78.6	78.2	-84.84	9,567.8	-2,277.9	1,611.4	1,454.8	156.63	10.288	
21,500.0	11,606.4	21,319.5	11,461.6	79.3	78.9	-84.84	9,667.7	-2,278.9	1,611.0	1,452.9	158.11	10.190	
21,600.0	11,606.2	21,419.5	11,461.6	80.1	79.7	-84.85	9,767.7	-2,279.8	1,610.6	1,451.1	159.58	10.093	
21,700.0	11,606.1	21,519.5	11,461.6	80.8	80.4	-84.85	9,867.7	-2,280.7	1,610.2	1,449.2	161.06	9.998	
21,800.0	11,605.9	21,619.5	11,461.6	81.5	81.2	-84.86	9,967.7	-2,281.6	1,609.9	1,447.3	162.54	9.904	
21,900.0	11,605.7	21,719.5	11,461.6	82.2	81.9	-84.86	10,067.7	-2,282.5	1,609.5	1,445.4	164.02	9.813	
21,911.8	11,605.7	21,724.9	11,461.6	82.3	81.9	-84.86	10,073.1	-2,282.5	1,609.4	1,445.3	164.16	9.804 CC, ES	
22,000.0	11,605.5	21,724.9	11,461.6	83.0	81.9	-84.86	10,073.1	-2,282.5	1,611.8	1,447.0	164.84	9.778 SF	
22,100.0	11,605.4	21,724.9	11,461.6	83.7	81.9	-84.86	10,073.1	-2,282.5	1,620.4	1,455.3	165.08	9.816	
22,200.0	11,605.2	21,724.9	11,461.6	84.4	81.9	-84.86	10,073.1	-2,282.5	1,635.1	1,470.3	164.77	9.923	
22,300.0	11,605.0	21,724.9	11,461.6	85.2	81.9	-84.86	10,073.1	-2,282.5	1,655.6	1,491.7	163.95	10.098	
22,400.0	11,604.9	21,724.9	11,461.6	85.9	81.9	-84.86	10,073.1	-2,282.5	1,681.9	1,519.2	162.66	10.340	
22,500.0	11,604.7	21,724.9	11,461.6	86.6	81.9	-84.86	10,073.1	-2,282.5	1,713.6	1,552.6	160.97	10.646	
22,600.0	11,604.5	21,724.9	11,461.6	87.4	81.9	-84.86	10,073.1	-2,282.5	1,750.4	1,591.5	158.93	11.014	
22,700.0	11,604.3	21,724.9	11,461.6	88.1	81.9	-84.86	10,073.1	-2,282.5	1,792.1	1,635.5	156.62	11.443	
22,800.0	11,604.2	21,724.9	11,461.6	88.8	81.9	-84.86	10,073.1	-2,282.5	1,838.3	1,684.2	154.09	11.930	
22,900.0	11,604.0	21,724.9	11,461.6	89.6	81.9	-84.86	10,073.1	-2,282.5	1,888.7	1,737.3	151.41	12.474	
23,000.0	11,603.8	21,724.9	11,461.6	90.3	81.9	-84.86	10,073.1	-2,282.5	1,942.9	1,794.2	148.64	13.071	
23,100.0	11,603.6	21,724.9	11,461.6	91.0	81.9	-84.86	10,073.1	-2,282.5	2,000.6	1,854.8	145.81	13.721	
23,200.0	11,603.5	21,724.9	11,461.6	91.8	81.9	-84.86	10,073.1	-2,282.5	2,061.6	1,918.6	142.96	14.420	
23,300.0	11,603.3	21,724.9	11,461.6	92.5	81.9	-84.86	10,073.1	-2,282.5	2,125.5	1,985.4	140.14	15.167	
23,400.0	11,603.1	21,724.9	11,461.6	93.2	81.9	-84.86	10,073.1	-2,282.5	2,192.1	2,054.8	137.35	15.960	
23,500.0	11,602.9	21,724.9	11,461.6	94.0	81.9	-84.86	10,073.1	-2,282.5	2,261.2	2,126.6	134.63	16.795	
23,600.0	11,602.8	21,724.9	11,461.6	94.7	81.9	-84.86	10,073.1	-2,282.5	2,332.5	2,200.6	131.99	17.672	
23,700.0	11,602.6	21,724.9	11,461.6	95.5	81.9	-84.86	10,073.1	-2,282.5	2,405.9	2,276.5	129.44	18.587	
23,800.0	11,602.4	21,724.9	11,461.6	96.2	81.9	-84.86	10,073.1	-2,282.5	2,481.1	2,354.2	126.98	19.539	
23,900.0	11,602.2	21,724.9	11,461.6	96.9	81.9	-84.86	10,073.1	-2,282.5	2,558.1	2,433.5	124.63	20.526	
24,000.0	11,602.1	21,724.9	11,461.6	97.7	81.9	-84.86	10,073.1	-2,282.5	2,636.6	2,514.2	122.38	21.545	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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
0.0	0.0	0.0	7.6	3.0	3.0	-99.75	-401.4	-2,336.2	2,370.4				
100.0	100.0	92.4	100.0	3.0	3.0	-99.75	-401.4	-2,336.2	2,370.4	2,364.3	6.04	392.569	
200.0	200.0	192.4	200.0	3.2	3.1	-99.75	-401.4	-2,336.2	2,370.4	2,364.2	6.23	380.670	
300.0	300.0	292.4	300.0	3.3	3.2	-99.75	-401.4	-2,336.2	2,370.4	2,364.0	6.43	368.702	
400.0	400.0	392.4	400.0	3.4	3.3	-99.75	-401.4	-2,336.2	2,370.4	2,363.7	6.64	357.107	
500.0	500.0	492.4	500.0	3.5	3.4	-99.75	-401.4	-2,336.2	2,370.4	2,363.5	6.85	345.877	
600.0	600.0	592.4	600.0	3.6	3.5	-99.75	-401.4	-2,336.2	2,370.4	2,363.3	7.07	335.037	
700.0	700.0	692.4	700.0	3.8	3.7	-99.75	-401.4	-2,336.2	2,370.4	2,363.1	7.30	324.605	
800.0	800.0	792.4	800.0	3.9	3.8	-99.75	-401.4	-2,336.2	2,370.4	2,362.9	7.53	314.594	
900.0	900.0	892.4	900.0	4.0	4.0	-99.75	-401.4	-2,336.2	2,370.4	2,362.6	7.77	305.006	
1,000.0	1,000.0	992.4	1,000.0	4.1	4.1	-99.75	-401.4	-2,336.2	2,370.4	2,362.4	8.01	295.841	
1,100.0	1,100.0	1,092.4	1,100.0	4.3	4.3	26.28	-401.4	-2,336.2	2,368.8	2,360.5	8.35	283.593	
1,200.0	1,199.8	1,192.2	1,199.8	4.6	4.5	26.38	-401.4	-2,336.2	2,364.1	2,355.3	8.79	268.960	
1,300.0	1,299.5	1,291.9	1,299.5	4.9	4.7	26.55	-401.4	-2,336.2	2,356.3	2,347.1	9.24	255.011	
1,400.0	1,398.7	1,391.1	1,398.7	5.2	4.9	26.78	-401.4	-2,336.2	2,345.4	2,335.7	9.71	241.641	
1,500.0	1,497.7	1,490.1	1,497.7	5.5	5.1	26.93	-401.4	-2,336.2	2,333.0	2,322.9	10.11	230.687	
1,600.0	1,596.8	1,589.2	1,596.8	5.7	5.3	27.09	-401.4	-2,336.2	2,320.5	2,310.0	10.58	219.392	
1,700.0	1,695.8	1,688.2	1,695.8	6.0	5.4	27.24	-401.4	-2,336.2	2,308.1	2,297.1	11.00	209.837	
1,800.0	1,794.8	1,787.2	1,794.8	6.4	5.6	27.40	-401.4	-2,336.2	2,295.8	2,284.3	11.42	200.945	
1,900.0	1,893.8	1,886.2	1,893.8	6.7	5.7	27.56	-401.4	-2,336.2	2,283.4	2,271.5	11.86	192.557	
2,000.0	1,992.9	1,985.3	1,992.9	7.0	5.8	27.72	-401.4	-2,336.2	2,271.0	2,258.7	12.30	184.659	
2,100.0	2,091.9	2,383.8	2,390.2	7.4	6.5	28.31	-401.0	-2,310.5	2,253.1	2,239.7	13.39	168.217	
2,200.0	2,190.9	2,492.9	2,498.3	7.7	6.7	28.45	-400.8	-2,295.4	2,227.2	2,213.3	13.93	159.890	
2,300.0	2,289.9	2,589.4	2,593.8	8.1	7.0	28.58	-400.6	-2,281.9	2,201.3	2,186.9	14.46	152.195	
2,400.0	2,389.0	2,685.9	2,689.4	8.4	7.2	28.71	-400.4	-2,268.5	2,175.5	2,160.5	15.02	144.829	
2,500.0	2,488.0	2,782.3	2,784.9	8.8	7.4	28.84	-400.2	-2,255.1	2,149.6	2,134.0	15.60	137.809	
2,600.0	2,587.0	2,878.8	2,880.5	9.2	7.7	28.98	-400.0	-2,241.7	2,123.8	2,107.6	16.19	131.142	
2,700.0	2,686.1	2,975.3	2,976.0	9.6	8.0	29.12	-399.8	-2,228.2	2,098.0	2,081.2	16.81	124.829	
2,800.0	2,785.1	3,071.8	3,071.5	10.0	8.3	29.26	-399.6	-2,214.8	2,072.2	2,054.7	17.43	118.861	
2,900.0	2,884.1	3,168.3	3,167.1	10.4	8.6	29.41	-399.4	-2,201.4	2,046.4	2,028.3	18.07	113.227	
3,000.0	2,983.1	3,264.7	3,262.6	10.8	8.9	29.56	-399.2	-2,187.9	2,020.6	2,001.9	18.72	107.913	
3,100.0	3,082.2	3,361.2	3,358.2	11.2	9.2	29.71	-399.0	-2,174.5	1,994.8	1,975.4	19.39	102.903	
3,200.0	3,181.2	3,457.7	3,453.7	11.6	9.5	29.87	-398.8	-2,161.1	1,969.1	1,949.0	20.06	98.180	
3,300.0	3,280.2	3,554.2	3,549.2	12.0	9.9	30.03	-398.6	-2,147.7	1,943.3	1,922.6	20.73	93.727	
3,400.0	3,379.2	3,650.7	3,644.8	12.4	10.2	30.20	-398.4	-2,134.2	1,917.6	1,896.2	21.42	89.528	
3,500.0	3,478.3	3,747.1	3,740.3	12.8	10.5	30.37	-398.2	-2,120.8	1,891.9	1,869.8	22.11	85.565	
3,600.0	3,577.3	3,843.6	3,835.9	13.2	10.9	30.55	-398.0	-2,107.4	1,866.2	1,843.4	22.81	81.824	
3,700.0	3,676.3	3,940.1	3,931.4	13.6	11.2	30.73	-397.8	-2,094.0	1,840.5	1,817.0	23.51	78.289	
3,800.0	3,775.3	4,036.6	4,027.0	14.0	11.6	30.92	-397.6	-2,080.5	1,814.8	1,790.6	24.21	74.947	
3,900.0	3,874.4	4,133.1	4,122.5	14.4	12.0	31.11	-397.4	-2,067.1	1,789.2	1,764.3	24.92	71.785	
4,000.0	3,973.4	4,229.5	4,218.0	14.8	12.3	31.31	-397.2	-2,053.7	1,763.6	1,737.9	25.64	68.791	
4,100.0	4,072.4	4,326.0	4,313.6	15.3	12.7	31.51	-397.0	-2,040.3	1,737.9	1,711.6	26.35	65.952	
4,200.0	4,171.5	4,422.5	4,409.1	15.7	13.1	31.72	-396.8	-2,026.8	1,712.4	1,685.3	27.07	63.259	
4,300.0	4,270.5	4,519.0	4,504.7	16.1	13.5	31.93	-396.6	-2,013.4	1,686.8	1,659.0	27.79	60.703	
4,400.0	4,369.5	4,615.5	4,600.2	16.5	13.8	32.15	-396.4	-2,000.0	1,661.3	1,632.8	28.51	58.273	
4,500.0	4,468.5	4,711.9	4,695.7	16.9	14.2	32.38	-396.2	-1,986.6	1,635.7	1,606.5	29.23	55.962	
4,600.0	4,567.6	4,808.4	4,791.3	17.3	14.6	32.62	-396.0	-1,973.1	1,610.3	1,580.3	29.95	53.762	
4,700.0	4,666.6	4,904.9	4,886.8	17.8	15.0	32.86	-395.8	-1,959.7	1,584.8	1,554.1	30.67	51.666	
4,800.0	4,765.6	5,001.4	4,982.4	18.2	15.4	33.11	-395.6	-1,946.3	1,559.4	1,528.0	31.40	49.667	
4,900.0	4,864.6	5,097.9	5,077.9	18.6	15.8	33.37	-395.4	-1,932.9	1,534.0	1,501.8	32.12	47.760	
5,000.0	4,963.7	5,194.3	5,173.4	19.0	16.1	33.64	-395.2	-1,919.4	1,508.6	1,475.7	32.84	45.939	
5,100.0	5,062.7	5,290.8	5,269.0	19.4	16.5	33.92	-395.1	-1,906.0	1,483.2	1,449.7	33.56	44.198	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,161.7	5,387.3	5,364.5	19.9	16.9	34.21	-394.9	-1,892.6	1,457.9	1,423.6	34.28	42.533	
5,300.0	5,260.8	5,476.8	5,453.2	20.3	17.3	34.44	-394.7	-1,880.3	1,432.9	1,398.0	34.95	41.001	
5,400.0	5,359.9	5,563.0	5,538.7	20.7	17.6	34.62	-394.5	-1,869.0	1,409.3	1,373.7	35.64	39.540	
5,500.0	5,459.2	5,649.7	5,624.7	21.1	18.0	34.80	-394.4	-1,858.3	1,387.1	1,350.8	36.33	38.181	
5,600.0	5,558.6	5,736.9	5,711.3	21.5	18.3	34.97	-394.2	-1,848.2	1,366.5	1,329.4	37.01	36.920	
5,700.0	5,658.0	5,824.5	5,798.4	21.9	18.7	35.14	-394.1	-1,838.8	1,347.2	1,309.6	37.68	35.753	
5,800.0	5,757.6	5,912.5	5,885.9	22.3	19.0	35.29	-393.9	-1,830.0	1,329.5	1,291.1	38.34	34.675	
5,900.0	5,857.2	6,000.0	5,973.1	22.7	19.3	35.44	-393.8	-1,821.8	1,313.2	1,274.2	38.99	33.682	
6,000.0	5,956.9	6,089.6	6,062.3	23.1	19.7	35.57	-393.7	-1,814.2	1,298.4	1,258.8	39.63	32.767	
6,100.0	6,056.7	6,178.6	6,151.0	23.4	20.0	35.69	-393.6	-1,807.3	1,285.1	1,244.9	40.25	31.929	
6,200.0	6,156.5	6,267.8	6,240.1	23.8	20.3	35.80	-393.5	-1,801.1	1,273.3	1,232.5	40.86	31.165	
6,300.0	6,256.3	6,357.3	6,329.4	24.1	20.6	35.90	-393.4	-1,795.6	1,263.0	1,221.5	41.45	30.471	
6,400.0	6,356.3	6,447.1	6,419.0	24.5	20.9	35.98	-393.4	-1,790.8	1,254.2	1,212.1	42.02	29.844	
6,500.0	6,456.2	6,537.0	6,508.8	24.8	21.2	36.04	-393.3	-1,786.6	1,246.8	1,204.2	42.58	29.284	
6,600.0	6,556.2	6,627.0	6,598.8	25.1	21.5	36.09	-393.3	-1,783.2	1,240.9	1,197.8	43.10	28.790	
6,700.0	6,656.2	6,717.2	6,688.9	25.3	21.8	36.12	-393.2	-1,780.4	1,236.6	1,193.0	43.60	28.362	
6,800.0	6,756.2	6,807.4	6,779.1	25.5	22.0	36.13	-393.2	-1,778.4	1,233.7	1,189.6	44.05	28.008	
6,900.0	6,856.2	6,900.0	6,871.7	25.6	22.3	-89.87	-393.2	-1,777.1	1,232.2	1,187.9	44.32	27.801	
7,000.0	6,956.2	6,988.0	6,959.7	25.6	22.4	-89.87	-393.2	-1,776.5	1,231.5	1,187.0	44.53	27.655	
7,052.3	7,008.4	7,036.7	7,008.4	25.6	22.5	-89.87	-393.2	-1,776.4	1,231.4	1,186.9	44.59	27.618	
7,100.0	7,056.2	7,084.4	7,056.2	25.6	22.5	-89.87	-393.2	-1,776.4	1,231.4	1,186.8	44.61	27.604	
7,200.0	7,156.2	7,184.4	7,156.2	25.6	22.5	-89.87	-393.2	-1,776.4	1,231.4	1,186.8	44.67	27.570	
7,300.0	7,256.2	7,284.4	7,256.2	25.7	22.6	-89.87	-393.2	-1,776.4	1,231.4	1,186.7	44.72	27.534	
7,400.0	7,356.2	7,384.4	7,356.2	25.7	22.6	-89.87	-393.2	-1,776.4	1,231.4	1,186.7	44.78	27.499	
7,500.0	7,456.2	7,484.4	7,456.2	25.7	22.6	-89.87	-393.2	-1,776.4	1,231.4	1,186.6	44.84	27.463	
7,600.0	7,556.2	7,584.4	7,556.2	25.7	22.7	-89.87	-393.2	-1,776.4	1,231.4	1,186.5	44.90	27.426	
7,700.0	7,656.2	7,684.4	7,656.2	25.8	22.7	-89.87	-393.2	-1,776.4	1,231.4	1,186.5	44.96	27.390	
7,800.0	7,756.2	7,784.4	7,756.2	25.8	22.7	-89.87	-393.2	-1,776.4	1,231.4	1,186.4	45.02	27.353	
7,900.0	7,856.2	7,884.4	7,856.2	25.8	22.8	-89.87	-393.2	-1,776.4	1,231.4	1,186.4	45.08	27.317	
8,000.0	7,956.2	7,984.4	7,956.2	25.8	22.8	-89.87	-393.2	-1,776.4	1,231.4	1,186.3	45.14	27.280	
8,100.0	8,056.2	8,084.4	8,056.2	25.8	22.8	-89.87	-393.2	-1,776.4	1,231.4	1,186.2	45.20	27.242	
8,200.0	8,156.2	8,184.4	8,156.2	25.9	22.9	-89.87	-393.2	-1,776.4	1,231.4	1,186.2	45.27	27.205	
8,300.0	8,256.2	8,284.4	8,256.2	25.9	22.9	-89.87	-393.2	-1,776.4	1,231.4	1,186.1	45.33	27.167	
8,400.0	8,356.2	8,384.4	8,356.2	25.9	23.0	-89.87	-393.2	-1,776.4	1,231.4	1,186.0	45.39	27.130	
8,500.0	8,456.2	8,484.4	8,456.2	25.9	23.0	-89.87	-393.2	-1,776.4	1,231.4	1,186.0	45.45	27.092	
8,600.0	8,556.2	8,584.4	8,556.2	26.0	23.0	-89.87	-393.2	-1,776.4	1,231.4	1,185.9	45.52	27.053	
8,700.0	8,656.2	8,684.4	8,656.2	26.0	23.1	-89.87	-393.2	-1,776.4	1,231.4	1,185.9	45.58	27.015	
8,800.0	8,756.2	8,784.4	8,756.2	26.0	23.1	-89.87	-393.2	-1,776.4	1,231.4	1,185.8	45.65	26.977	
8,900.0	8,856.2	8,884.4	8,856.2	26.0	23.1	-89.87	-393.2	-1,776.4	1,231.4	1,185.7	45.71	26.938	
9,000.0	8,956.2	8,984.4	8,956.2	26.1	23.2	-89.87	-393.2	-1,776.4	1,231.4	1,185.7	45.78	26.899	
9,100.0	9,056.2	9,084.4	9,056.2	26.1	23.2	-89.87	-393.2	-1,776.4	1,231.4	1,185.6	45.85	26.860	
9,200.0	9,156.2	9,184.4	9,156.2	26.1	23.3	-89.87	-393.2	-1,776.4	1,231.4	1,185.5	45.91	26.821	
9,300.0	9,256.2	9,284.4	9,256.2	26.1	23.3	-89.87	-393.2	-1,776.4	1,231.4	1,185.5	45.98	26.781	
9,400.0	9,356.2	9,384.4	9,356.2	26.2	23.3	-89.87	-393.2	-1,776.4	1,231.4	1,185.4	46.05	26.742	
9,500.0	9,456.2	9,484.4	9,456.2	26.2	23.4	-89.87	-393.2	-1,776.4	1,231.4	1,185.3	46.12	26.702	
9,600.0	9,556.2	9,584.4	9,556.2	26.2	23.4	-89.87	-393.2	-1,776.4	1,231.4	1,185.3	46.19	26.662	
9,700.0	9,656.2	9,684.4	9,656.2	26.2	23.5	-89.87	-393.2	-1,776.4	1,231.4	1,185.2	46.26	26.622	
9,800.0	9,756.2	9,784.4	9,756.2	26.3	23.5	-89.87	-393.2	-1,776.4	1,231.4	1,185.1	46.33	26.582	
9,900.0	9,856.2	9,884.4	9,856.2	26.3	23.5	-89.87	-393.2	-1,776.4	1,231.4	1,185.0	46.40	26.542	
10,000.0	9,956.2	9,984.4	9,956.2	26.3	23.6	-89.87	-393.2	-1,776.4	1,231.4	1,185.0	46.47	26.501	
10,100.0	10,056.2	10,084.4	10,056.2	26.3	23.6	-89.87	-393.2	-1,776.4	1,231.4	1,184.9	46.54	26.461	
10,200.0	10,156.2	10,184.4	10,156.2	26.4	23.7	-89.87	-393.2	-1,776.4	1,231.4	1,184.8	46.61	26.420	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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			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	10,256.2	10,284.4	10,256.2	26.4	23.7	-89.87	-393.2	-1,776.4	1,231.4	1,184.8	46.68	26.379	
10,400.0	10,356.2	10,384.4	10,356.2	26.4	23.8	-89.87	-393.2	-1,776.4	1,231.4	1,184.7	46.76	26.338	
10,500.0	10,456.2	10,484.4	10,456.2	26.5	23.8	-89.87	-393.2	-1,776.4	1,231.4	1,184.6	46.83	26.297	
10,600.0	10,556.2	10,584.4	10,556.2	26.5	23.8	-89.87	-393.2	-1,776.4	1,231.4	1,184.5	46.90	26.256	
10,700.0	10,656.2	10,684.4	10,656.2	26.5	23.9	-89.87	-393.2	-1,776.4	1,231.4	1,184.5	46.98	26.214	
10,800.0	10,756.2	10,784.4	10,756.2	26.5	23.9	-89.87	-393.2	-1,776.4	1,231.4	1,184.4	47.05	26.173	
10,900.0	10,856.2	10,884.4	10,856.2	26.6	24.0	-89.87	-393.2	-1,776.4	1,231.4	1,184.3	47.13	26.131	
11,000.0	10,956.2	10,984.4	10,956.2	26.6	24.0	-89.87	-393.2	-1,776.4	1,231.4	1,184.2	47.20	26.089	
11,100.0	11,056.2	11,084.4	11,056.2	26.6	24.1	-89.14	-393.2	-1,776.4	1,231.4	1,184.2	47.27	26.050	
11,200.0	11,155.5	11,183.8	11,155.5	26.7	24.1	-89.60	-393.2	-1,776.4	1,231.3	1,183.9	47.40	25.978	
11,282.2	11,235.0	11,265.4	11,236.7	26.7	24.1	-90.24	-386.0	-1,776.5	1,231.3	1,183.8	47.51	25.914	
11,300.0	11,251.7	11,283.4	11,254.3	26.7	24.1	-90.37	-382.5	-1,776.5	1,231.3	1,183.7	47.54	25.903	
11,400.0	11,341.8	11,386.7	11,352.2	26.8	24.1	-90.98	-350.1	-1,776.8	1,231.3	1,183.7	47.62	25.858	
11,500.0	11,423.0	11,492.9	11,443.2	26.8	24.1	-91.39	-295.7	-1,777.3	1,231.3	1,183.6	47.65	25.840	
11,600.0	11,492.8	11,600.8	11,521.0	26.9	24.1	-91.57	-221.2	-1,778.0	1,231.1	1,183.5	47.65	25.838	
11,700.0	11,549.2	11,709.0	11,580.3	26.9	24.2	-91.51	-131.0	-1,778.8	1,230.8	1,183.1	47.64	25.833	
11,800.0	11,590.5	11,815.8	11,617.4	27.0	24.3	-91.22	-31.1	-1,779.7	1,230.2	1,182.6	47.67	25.806	
11,900.0	11,615.3	11,920.0	11,631.4	27.1	24.4	-90.71	71.9	-1,780.7	1,229.7	1,181.9	47.78	25.738	
12,000.0	11,622.9	12,020.0	11,631.6	27.1	24.5	-90.40	171.9	-1,781.6	1,229.2	1,181.2	47.98	25.621	
12,100.0	11,622.8	12,120.0	11,631.6	27.2	24.6	-90.41	271.9	-1,782.5	1,228.9	1,180.6	48.24	25.472	
12,200.0	11,622.6	12,220.0	11,631.6	27.3	24.8	-90.42	371.9	-1,783.4	1,228.5	1,179.9	48.56	25.301	
12,300.0	11,622.4	12,320.0	11,631.6	27.5	25.0	-90.43	471.9	-1,784.3	1,228.1	1,179.2	48.91	25.108	
12,400.0	11,622.3	12,420.0	11,631.6	27.6	25.2	-90.44	571.9	-1,785.2	1,227.7	1,178.4	49.32	24.896	
12,500.0	11,622.1	12,520.0	11,631.6	27.7	25.5	-90.44	671.9	-1,786.1	1,227.4	1,177.6	49.76	24.665	
12,600.0	11,621.9	12,620.0	11,631.6	27.9	25.8	-90.45	771.9	-1,787.0	1,227.0	1,176.7	50.25	24.418	
12,700.0	11,621.7	12,720.0	11,631.6	28.1	26.0	-90.46	871.9	-1,787.9	1,226.6	1,175.8	50.78	24.155	
12,800.0	11,621.6	12,820.0	11,631.6	28.3	26.3	-90.47	971.9	-1,788.8	1,226.2	1,174.9	51.35	23.880	
12,900.0	11,621.4	12,920.0	11,631.6	28.5	26.7	-90.48	1,071.9	-1,789.8	1,225.9	1,173.9	51.96	23.593	
13,000.0	11,621.2	13,020.0	11,631.6	28.7	27.0	-90.48	1,171.9	-1,790.7	1,225.5	1,172.9	52.61	23.296	
13,100.0	11,621.0	13,120.0	11,631.6	29.0	27.4	-90.49	1,271.9	-1,791.6	1,225.1	1,171.8	53.29	22.991	
13,200.0	11,620.9	13,220.0	11,631.6	29.2	27.7	-90.50	1,371.9	-1,792.5	1,224.8	1,170.8	54.00	22.679	
13,300.0	11,620.7	13,320.0	11,631.6	29.5	28.1	-90.51	1,471.9	-1,793.4	1,224.4	1,169.6	54.75	22.361	
13,400.0	11,620.5	13,420.0	11,631.6	29.8	28.5	-90.52	1,571.8	-1,794.3	1,224.0	1,168.5	55.54	22.040	
13,500.0	11,620.3	13,520.0	11,631.6	30.1	28.9	-90.53	1,671.8	-1,795.2	1,223.6	1,167.3	56.35	21.715	
13,600.0	11,620.2	13,620.0	11,631.6	30.4	29.4	-90.53	1,771.8	-1,796.1	1,223.3	1,166.1	57.19	21.389	
13,700.0	11,620.0	13,720.0	11,631.6	30.7	29.8	-90.54	1,871.8	-1,797.0	1,222.9	1,164.8	58.06	21.062	
13,800.0	11,619.8	13,820.0	11,631.6	31.1	30.3	-90.55	1,971.8	-1,798.0	1,222.5	1,163.6	58.96	20.735	
13,900.0	11,619.6	13,920.0	11,631.6	31.4	30.8	-90.56	2,071.8	-1,798.9	1,222.2	1,162.3	59.88	20.410	
14,000.0	11,619.5	14,020.0	11,631.6	31.8	31.2	-90.57	2,171.8	-1,799.8	1,221.8	1,161.0	60.83	20.086	
14,100.0	11,619.3	14,120.0	11,631.6	32.2	31.7	-90.58	2,271.8	-1,800.7	1,221.4	1,159.6	61.80	19.765	
14,200.0	11,619.1	14,220.0	11,631.6	32.6	32.2	-90.58	2,371.8	-1,801.6	1,221.0	1,158.2	62.79	19.446	
14,300.0	11,618.9	14,320.0	11,631.6	33.0	32.7	-90.59	2,471.8	-1,802.5	1,220.7	1,156.9	63.80	19.132	
14,400.0	11,618.8	14,420.0	11,631.6	33.5	33.3	-90.60	2,571.8	-1,803.4	1,220.3	1,155.5	64.84	18.821	
14,500.0	11,618.6	14,520.0	11,631.6	33.9	33.8	-90.61	2,671.8	-1,804.3	1,219.9	1,154.0	65.89	18.514	
14,600.0	11,618.4	14,620.0	11,631.6	34.4	34.3	-90.62	2,771.8	-1,805.2	1,219.5	1,152.6	66.96	18.213	
14,700.0	11,618.2	14,720.0	11,631.6	34.8	34.9	-90.63	2,871.8	-1,806.1	1,219.2	1,151.1	68.05	17.916	
14,800.0	11,618.1	14,820.0	11,631.6	35.3	35.4	-90.63	2,971.8	-1,807.1	1,218.8	1,149.6	69.16	17.624	
14,900.0	11,617.9	14,920.0	11,631.6	35.8	36.0	-90.64	3,071.8	-1,808.0	1,218.4	1,148.2	70.28	17.338	
15,000.0	11,617.7	15,020.0	11,631.6	36.3	36.6	-90.65	3,171.8	-1,808.9	1,218.1	1,146.6	71.41	17.057	
15,100.0	11,617.6	15,120.0	11,631.6	36.8	37.2	-90.66	3,271.8	-1,809.8	1,217.7	1,145.1	72.56	16.781	
15,200.0	11,617.4	15,220.0	11,631.6	37.3	37.7	-90.67	3,371.8	-1,810.7	1,217.3	1,143.6	73.73	16.511	
15,300.0	11,617.2	15,320.0	11,631.6	37.9	38.3	-90.68	3,471.8	-1,811.6	1,216.9	1,142.0	74.91	16.246	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 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)			
15,400.0	11,617.0	15,420.0	11,631.6	38.4	38.9	-90.69	3,571.7	-1,812.5	1,216.6	1,140.5	76.10	15.987	
15,500.0	11,616.9	15,520.0	11,631.6	39.0	39.5	-90.69	3,671.7	-1,813.4	1,216.2	1,138.9	77.30	15.734	
15,600.0	11,616.7	15,620.0	11,631.6	39.5	40.1	-90.70	3,771.7	-1,814.3	1,215.8	1,137.3	78.51	15.486	
15,700.0	11,616.5	15,720.0	11,631.6	40.1	40.8	-90.71	3,871.7	-1,815.3	1,215.5	1,135.7	79.73	15.244	
15,800.0	11,616.3	15,820.0	11,631.6	40.7	41.4	-90.72	3,971.7	-1,816.2	1,215.1	1,134.1	80.97	15.007	
15,900.0	11,616.2	15,920.0	11,631.6	41.2	42.0	-90.73	4,071.7	-1,817.1	1,214.7	1,132.5	82.21	14.775	
16,000.0	11,616.0	16,020.0	11,631.6	41.8	42.6	-90.74	4,171.7	-1,818.0	1,214.3	1,130.9	83.47	14.549	
16,100.0	11,615.8	16,120.0	11,631.6	42.4	43.3	-90.74	4,271.7	-1,818.9	1,214.0	1,129.2	84.73	14.328	
16,200.0	11,615.6	16,220.0	11,631.6	43.0	43.9	-90.75	4,371.7	-1,819.8	1,213.6	1,127.6	86.00	14.111	
16,300.0	11,615.5	16,320.0	11,631.6	43.6	44.5	-90.76	4,471.7	-1,820.7	1,213.2	1,125.9	87.28	13.900	
16,400.0	11,615.3	16,420.0	11,631.6	44.2	45.2	-90.77	4,571.7	-1,821.6	1,212.9	1,124.3	88.57	13.694	
16,500.0	11,615.1	16,520.0	11,631.6	44.8	45.8	-90.78	4,671.7	-1,822.5	1,212.5	1,122.6	89.86	13.493	
16,600.0	11,614.9	16,620.0	11,631.6	45.5	46.5	-90.79	4,771.7	-1,823.4	1,212.1	1,120.9	91.17	13.296	
16,700.0	11,614.8	16,720.0	11,631.6	46.1	47.1	-90.80	4,871.7	-1,824.4	1,211.7	1,119.3	92.47	13.104	
16,800.0	11,614.6	16,820.0	11,631.6	46.7	47.8	-90.80	4,971.7	-1,825.3	1,211.4	1,117.6	93.79	12.916	
16,900.0	11,614.4	16,920.0	11,631.6	47.4	48.5	-90.81	5,071.7	-1,826.2	1,211.0	1,115.9	95.11	12.732	
17,000.0	11,614.2	17,020.0	11,631.6	48.0	49.1	-90.82	5,171.7	-1,827.1	1,210.6	1,114.2	96.44	12.553	
17,100.0	11,614.1	17,120.0	11,631.6	48.6	49.8	-90.83	5,271.7	-1,828.0	1,210.3	1,112.5	97.77	12.378	
17,200.0	11,613.9	17,220.0	11,631.6	49.3	50.5	-90.84	5,371.7	-1,828.9	1,209.9	1,110.8	99.11	12.207	
17,300.0	11,613.7	17,320.0	11,631.6	49.9	51.1	-90.85	5,471.7	-1,829.8	1,209.5	1,109.1	100.46	12.040	
17,400.0	11,613.6	17,420.0	11,631.6	50.6	51.8	-90.85	5,571.6	-1,830.7	1,209.1	1,107.3	101.81	11.877	
17,500.0	11,613.4	17,520.0	11,631.6	51.3	52.5	-90.86	5,671.6	-1,831.6	1,208.8	1,105.6	103.16	11.717	
17,600.0	11,613.2	17,620.0	11,631.6	51.9	53.2	-90.87	5,771.6	-1,832.5	1,208.4	1,103.9	104.52	11.561	
17,700.0	11,613.0	17,720.0	11,631.6	52.6	53.8	-90.88	5,871.6	-1,833.5	1,208.0	1,102.1	105.89	11.409	
17,800.0	11,612.9	17,820.0	11,631.6	53.3	54.5	-90.89	5,971.6	-1,834.4	1,207.7	1,100.4	107.26	11.259	
17,900.0	11,612.7	17,920.0	11,631.6	53.9	55.2	-90.90	6,071.6	-1,835.3	1,207.3	1,098.7	108.63	11.114	
18,000.0	11,612.5	18,020.0	11,631.6	54.6	55.9	-90.91	6,171.6	-1,836.2	1,206.9	1,096.9	110.01	10.971	
18,100.0	11,612.3	18,120.0	11,631.6	55.3	56.6	-90.91	6,271.6	-1,837.1	1,206.5	1,095.2	111.39	10.832	
18,200.0	11,612.2	18,220.0	11,631.6	56.0	57.3	-90.92	6,371.6	-1,838.0	1,206.2	1,093.4	112.77	10.696	
18,300.0	11,612.0	18,320.0	11,631.6	56.6	58.0	-90.93	6,471.6	-1,838.9	1,205.8	1,091.6	114.16	10.562	
18,400.0	11,611.8	18,420.0	11,631.6	57.3	58.7	-90.94	6,571.6	-1,839.8	1,205.4	1,089.9	115.55	10.432	
18,500.0	11,611.6	18,520.0	11,631.6	58.0	59.4	-90.95	6,671.6	-1,840.7	1,205.1	1,088.1	116.95	10.304	
18,600.0	11,611.5	18,620.0	11,631.6	58.7	60.1	-90.96	6,771.6	-1,841.7	1,204.7	1,086.3	118.35	10.179	
18,700.0	11,611.3	18,720.0	11,631.6	59.4	60.8	-90.97	6,871.6	-1,842.6	1,204.3	1,084.6	119.75	10.057	
18,800.0	11,611.1	18,820.0	11,631.6	60.1	61.5	-90.97	6,971.6	-1,843.5	1,203.9	1,082.8	121.16	9.937	
18,900.0	11,610.9	18,920.0	11,631.6	60.8	62.2	-90.98	7,071.6	-1,844.4	1,203.6	1,081.0	122.56	9.820	
19,000.0	11,610.8	19,020.0	11,631.6	61.5	62.9	-90.99	7,171.6	-1,845.3	1,203.2	1,079.2	123.97	9.705	
19,100.0	11,610.6	19,120.0	11,631.6	62.2	63.6	-91.00	7,271.6	-1,846.2	1,202.8	1,077.4	125.39	9.593	
19,200.0	11,610.4	19,220.0	11,631.6	62.9	64.3	-91.01	7,371.6	-1,847.1	1,202.5	1,075.7	126.80	9.483	
19,300.0	11,610.2	19,320.0	11,631.6	63.6	65.0	-91.02	7,471.6	-1,848.0	1,202.1	1,073.9	128.22	9.375	
19,400.0	11,610.1	19,420.0	11,631.6	64.3	65.7	-91.03	7,571.5	-1,848.9	1,201.7	1,072.1	129.64	9.269	
19,500.0	11,609.9	19,520.0	11,631.6	65.0	66.4	-91.04	7,671.5	-1,849.8	1,201.4	1,070.3	131.07	9.166	
19,600.0	11,609.7	19,620.0	11,631.6	65.7	67.1	-91.04	7,771.5	-1,850.8	1,201.0	1,068.5	132.49	9.064	
19,700.0	11,609.6	19,720.0	11,631.6	66.4	67.8	-91.05	7,871.5	-1,851.7	1,200.6	1,066.7	133.92	8.965	
19,800.0	11,609.4	19,820.0	11,631.6	67.1	68.6	-91.06	7,971.5	-1,852.6	1,200.2	1,064.9	135.35	8.868	
19,900.0	11,609.2	19,919.9	11,631.6	67.8	69.3	-91.07	8,071.5	-1,853.5	1,199.9	1,063.1	136.78	8.772	
20,000.0	11,609.0	20,019.9	11,631.6	68.5	70.0	-91.08	8,171.5	-1,854.4	1,199.5	1,061.3	138.22	8.678	
20,100.0	11,608.9	20,119.9	11,631.6	69.2	70.7	-91.09	8,271.5	-1,855.3	1,199.1	1,059.5	139.66	8.586	
20,200.0	11,608.7	20,219.9	11,631.6	70.0	71.4	-91.10	8,371.5	-1,856.2	1,198.8	1,057.7	141.09	8.496	
20,300.0	11,608.5	20,319.9	11,631.6	70.7	72.2	-91.10	8,471.5	-1,857.1	1,198.4	1,055.9	142.53	8.408	
20,400.0	11,608.3	20,419.9	11,631.6	71.4	72.9	-91.11	8,571.5	-1,858.0	1,198.0	1,054.0	143.98	8.321	
20,500.0	11,608.2	20,519.9	11,631.6	72.1	73.6	-91.12	8,671.5	-1,858.9	1,197.6	1,052.2	145.42	8.236	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 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)			
20,600.0	11,608.0	20,619.9	11,631.6	72.8	74.3	-91.13	8,771.5	-1,859.9	1,197.3	1,050.4	146.87	8.152	
20,700.0	11,607.8	20,719.9	11,631.6	73.5	75.0	-91.14	8,871.5	-1,860.8	1,196.9	1,048.6	148.31	8.070	
20,800.0	11,607.6	20,819.9	11,631.6	74.3	75.8	-91.15	8,971.5	-1,861.7	1,196.5	1,046.8	149.76	7.990	
20,900.0	11,607.5	20,919.9	11,631.6	75.0	76.5	-91.16	9,071.5	-1,862.6	1,196.2	1,045.0	151.21	7.911	
21,000.0	11,607.3	21,019.9	11,631.6	75.7	77.2	-91.17	9,171.5	-1,863.5	1,195.8	1,043.1	152.66	7.833	
21,100.0	11,607.1	21,119.9	11,631.6	76.4	77.9	-91.17	9,271.5	-1,864.4	1,195.4	1,041.3	154.12	7.757	
21,200.0	11,606.9	21,219.9	11,631.6	77.1	78.7	-91.18	9,371.5	-1,865.3	1,195.1	1,039.5	155.57	7.682	
21,300.0	11,606.8	21,319.9	11,631.6	77.9	79.4	-91.19	9,471.5	-1,866.2	1,194.7	1,037.7	157.03	7.608	
21,400.0	11,606.6	21,419.9	11,631.6	78.6	80.1	-91.20	9,571.4	-1,867.1	1,194.3	1,035.8	158.49	7.536	
21,500.0	11,606.4	21,519.9	11,631.6	79.3	80.8	-91.21	9,671.4	-1,868.1	1,193.9	1,034.0	159.94	7.465	
21,600.0	11,606.2	21,619.9	11,631.6	80.1	81.6	-91.22	9,771.4	-1,869.0	1,193.6	1,032.2	161.40	7.395	
21,700.0	11,606.1	21,719.9	11,631.6	80.8	82.3	-91.23	9,871.4	-1,869.9	1,193.2	1,030.3	162.87	7.326	
21,800.0	11,605.9	21,819.9	11,631.6	81.5	83.0	-91.24	9,971.4	-1,870.8	1,192.8	1,028.5	164.33	7.259	
21,900.0	11,605.7	21,919.9	11,631.6	82.2	83.8	-91.24	10,071.4	-1,871.7	1,192.5	1,026.7	165.79	7.193	
21,980.8	11,605.6	21,996.3	11,631.6	82.8	84.3	-91.25	10,147.8	-1,872.4	1,192.2	1,025.2	166.95	7.141 CC	
22,000.0	11,605.5	21,996.3	11,631.6	83.0	84.3	-91.25	10,147.8	-1,872.4	1,192.3	1,025.2	167.11	7.135 ES, SF	
22,100.0	11,605.4	21,996.3	11,631.6	83.7	84.3	-91.25	10,147.8	-1,872.4	1,198.1	1,030.8	167.33	7.160	
22,200.0	11,605.2	21,996.3	11,631.6	84.4	84.3	-91.25	10,147.8	-1,872.4	1,212.2	1,045.6	166.54	7.278	
22,300.0	11,605.0	21,996.3	11,631.6	85.2	84.3	-91.25	10,147.8	-1,872.4	1,234.2	1,069.3	164.83	7.488	
22,400.0	11,604.9	21,996.3	11,631.6	85.9	84.3	-91.25	10,147.8	-1,872.4	1,263.7	1,101.4	162.32	7.785	
22,500.0	11,604.7	21,996.3	11,631.6	86.6	84.3	-91.25	10,147.8	-1,872.4	1,300.3	1,141.1	159.19	8.168	
22,600.0	11,604.5	21,996.3	11,631.6	87.4	84.3	-91.25	10,147.8	-1,872.4	1,343.4	1,187.8	155.59	8.634	
22,700.0	11,604.3	21,996.3	11,631.6	88.1	84.3	-91.25	10,147.8	-1,872.4	1,392.3	1,240.6	151.69	9.179	
22,800.0	11,604.2	21,996.3	11,631.6	88.8	84.3	-91.25	10,147.8	-1,872.4	1,446.5	1,298.9	147.62	9.799	
22,900.0	11,604.0	21,996.3	11,631.6	89.6	84.3	-91.25	10,147.8	-1,872.4	1,505.4	1,361.9	143.49	10.491	
23,000.0	11,603.8	21,996.3	11,631.6	90.3	84.3	-91.25	10,147.8	-1,872.4	1,568.4	1,429.0	139.40	11.252	
23,100.0	11,603.6	21,996.3	11,631.6	91.0	84.3	-91.25	10,147.8	-1,872.4	1,635.2	1,499.8	135.40	12.077	
23,200.0	11,603.5	21,996.3	11,631.6	91.8	84.3	-91.25	10,147.8	-1,872.4	1,705.2	1,573.6	131.55	12.962	
23,300.0	11,603.3	21,996.3	11,631.6	92.5	84.3	-91.25	10,147.8	-1,872.4	1,778.1	1,650.2	127.88	13.904	
23,400.0	11,603.1	21,996.3	11,631.6	93.2	84.3	-91.25	10,147.8	-1,872.4	1,853.5	1,729.1	124.40	14.899	
23,500.0	11,602.9	21,996.3	11,631.6	94.0	84.3	-91.25	10,147.8	-1,872.4	1,931.1	1,810.0	121.13	15.943	
23,600.0	11,602.8	21,996.3	11,631.6	94.7	84.3	-91.25	10,147.8	-1,872.4	2,010.7	1,892.7	118.05	17.032	
23,700.0	11,602.6	21,996.3	11,631.6	95.5	84.3	-91.25	10,147.8	-1,872.4	2,092.1	1,976.9	115.18	18.164	
23,800.0	11,602.4	21,996.3	11,631.6	96.2	84.3	-91.25	10,147.8	-1,872.4	2,175.0	2,062.5	112.50	19.334	
23,900.0	11,602.2	21,996.3	11,631.6	96.9	84.3	-91.25	10,147.8	-1,872.4	2,259.3	2,149.3	110.00	20.539	
24,000.0	11,602.1	21,996.3	11,631.6	97.7	84.3	-91.25	10,147.8	-1,872.4	2,344.9	2,237.2	107.68	21.776	
24,100.0	11,601.9	21,996.3	11,631.6	98.4	84.3	-91.25	10,147.8	-1,872.4	2,431.5	2,326.0	105.52	23.042	
24,200.0	11,601.7	21,996.3	11,631.6	99.2	84.3	-91.25	10,147.8	-1,872.4	2,519.1	2,415.6	103.52	24.335	
24,300.0	11,601.5	21,996.3	11,631.6	99.9	84.3	-91.25	10,147.8	-1,872.4	2,607.7	2,506.0	101.66	25.651	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	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	
0.0	0.0	0.0	7.6	3.0	3.0	-99.87	-401.2	-2,306.2	2,340.8				
100.0	100.0	92.4	100.0	3.0	3.0	-99.87	-401.2	-2,306.2	2,340.8	2,334.8	6.04	387.670	
200.0	200.0	192.4	200.0	3.2	3.1	-99.87	-401.2	-2,306.2	2,340.8	2,334.6	6.23	375.919	
300.0	300.0	292.4	300.0	3.3	3.2	-99.87	-401.2	-2,306.2	2,340.8	2,334.4	6.43	364.100	
400.0	400.0	392.4	400.0	3.4	3.3	-99.87	-401.2	-2,306.2	2,340.8	2,334.2	6.64	352.649	
500.0	500.0	492.4	500.0	3.5	3.4	-99.87	-401.2	-2,306.2	2,340.8	2,333.9	6.85	341.558	
600.0	600.0	592.4	600.0	3.6	3.5	-99.87	-401.2	-2,306.2	2,340.8	2,333.7	7.08	330.852	
700.0	700.0	692.4	700.0	3.8	3.7	-99.87	-401.2	-2,306.2	2,340.8	2,333.5	7.30	320.550	
800.0	800.0	792.4	800.0	3.9	3.8	-99.87	-401.2	-2,306.2	2,340.8	2,333.3	7.53	310.662	
900.0	900.0	892.4	900.0	4.0	4.0	-99.87	-401.2	-2,306.2	2,340.8	2,333.0	7.77	301.193	
1,000.0	1,000.0	992.4	1,000.0	4.1	4.1	-99.87	-401.2	-2,306.2	2,340.8	2,332.8	8.01	292.141	
1,100.0	1,100.0	1,092.4	1,100.0	4.3	4.3	26.16	-401.2	-2,306.2	2,339.2	2,330.9	8.35	280.037	
1,200.0	1,199.8	1,192.2	1,199.8	4.6	4.5	26.26	-401.2	-2,306.2	2,334.5	2,325.7	8.79	265.575	
1,300.0	1,299.5	1,291.9	1,299.5	4.9	4.7	26.43	-401.2	-2,306.2	2,326.7	2,317.5	9.24	251.783	
1,400.0	1,398.7	1,391.1	1,398.7	5.2	4.9	26.66	-401.2	-2,306.2	2,315.8	2,306.1	9.71	238.562	
1,500.0	1,497.7	1,490.1	1,497.7	5.5	5.1	26.81	-401.2	-2,306.2	2,303.4	2,293.2	10.11	227.729	
1,600.0	1,596.8	1,865.5	1,872.0	5.7	5.8	27.33	-400.9	-2,282.5	2,284.2	2,272.9	11.26	202.778	
1,700.0	1,695.8	2,118.2	2,121.2	6.0	6.4	27.60	-400.4	-2,240.5	2,254.1	2,242.0	12.10	186.356	
1,800.0	1,794.8	2,213.3	2,214.5	6.4	6.7	27.69	-400.1	-2,222.4	2,223.2	2,210.5	12.64	175.865	
1,900.0	1,893.8	2,308.3	2,307.8	6.7	7.0	27.79	-399.9	-2,204.2	2,192.3	2,179.1	13.22	165.883	
2,000.0	1,992.9	2,403.4	2,401.1	7.0	7.3	27.89	-399.7	-2,186.1	2,161.4	2,147.6	13.82	156.447	
2,100.0	2,091.9	2,498.4	2,494.4	7.4	7.6	28.00	-399.4	-2,168.0	2,130.5	2,116.1	14.44	147.572	
2,200.0	2,190.9	2,593.4	2,587.7	7.7	7.9	28.10	-399.2	-2,149.8	2,099.6	2,084.5	15.08	139.250	
2,300.0	2,289.9	2,688.5	2,681.0	8.1	8.3	28.21	-398.9	-2,131.7	2,068.7	2,053.0	15.74	131.468	
2,400.0	2,389.0	2,783.5	2,774.3	8.4	8.6	28.33	-398.7	-2,113.6	2,037.9	2,021.5	16.41	124.202	
2,500.0	2,488.0	2,878.6	2,867.6	8.8	9.0	28.44	-398.5	-2,095.4	2,007.0	1,989.9	17.09	117.420	
2,600.0	2,587.0	2,973.6	2,960.9	9.2	9.3	28.56	-398.2	-2,077.3	1,976.2	1,958.4	17.79	111.091	
2,700.0	2,686.1	3,068.6	3,054.1	9.6	9.7	28.69	-398.0	-2,059.2	1,945.3	1,926.8	18.49	105.184	
2,800.0	2,785.1	3,163.7	3,147.4	10.0	10.1	28.82	-397.8	-2,041.0	1,914.5	1,895.3	19.21	99.666	
2,900.0	2,884.1	3,258.7	3,240.7	10.4	10.5	28.95	-397.5	-2,022.9	1,883.7	1,863.8	19.93	94.509	
3,000.0	2,983.1	3,353.8	3,334.0	10.8	10.9	29.09	-397.3	-2,004.8	1,852.9	1,832.2	20.66	89.684	
3,100.0	3,082.2	3,448.8	3,427.3	11.2	11.2	29.23	-397.0	-1,986.7	1,822.1	1,800.7	21.39	85.165	
3,200.0	3,181.2	3,543.8	3,520.6	11.6	11.6	29.38	-396.8	-1,968.5	1,791.3	1,769.1	22.13	80.928	
3,300.0	3,280.2	3,638.9	3,613.9	12.0	12.0	29.53	-396.6	-1,950.4	1,760.5	1,737.6	22.88	76.950	
3,400.0	3,379.2	3,733.9	3,707.2	12.4	12.4	29.69	-396.3	-1,932.3	1,729.7	1,706.1	23.63	73.211	
3,500.0	3,478.3	3,828.9	3,800.5	12.8	12.8	29.85	-396.1	-1,914.1	1,699.0	1,674.6	24.38	69.692	
3,600.0	3,577.3	3,924.0	3,893.8	13.2	13.2	30.02	-395.9	-1,896.0	1,668.2	1,643.1	25.13	66.377	
3,700.0	3,676.3	4,019.0	3,987.1	13.6	13.7	30.19	-395.6	-1,877.9	1,637.5	1,611.6	25.89	63.249	
3,800.0	3,775.3	4,114.1	4,080.4	14.0	14.1	30.38	-395.4	-1,859.7	1,606.8	1,580.1	26.65	60.295	
3,900.0	3,874.4	4,209.1	4,173.7	14.4	14.5	30.57	-395.1	-1,841.6	1,576.1	1,548.7	27.41	57.501	
4,000.0	3,973.4	4,304.1	4,267.0	14.8	14.9	30.76	-394.9	-1,823.5	1,545.4	1,517.2	28.17	54.856	
4,100.0	4,072.4	4,399.2	4,360.2	15.3	15.3	30.97	-394.7	-1,805.3	1,514.7	1,485.8	28.93	52.349	
4,200.0	4,171.5	4,494.2	4,453.5	15.7	15.7	31.18	-394.4	-1,787.2	1,484.1	1,454.4	29.70	49.971	
4,300.0	4,270.5	4,589.3	4,546.8	16.1	16.1	31.40	-394.2	-1,769.1	1,453.4	1,423.0	30.46	47.712	
4,400.0	4,369.5	4,684.3	4,640.1	16.5	16.6	31.63	-394.0	-1,750.9	1,422.8	1,391.6	31.23	45.564	
4,500.0	4,468.5	4,779.3	4,733.4	16.9	17.0	31.87	-393.7	-1,732.8	1,392.2	1,360.3	31.99	43.520	
4,600.0	4,567.6	4,874.4	4,826.7	17.3	17.4	32.13	-393.5	-1,714.7	1,361.7	1,328.9	32.75	41.573	
4,700.0	4,666.6	4,969.4	4,920.0	17.8	17.8	32.39	-393.2	-1,696.5	1,331.1	1,297.6	33.52	39.716	
4,800.0	4,765.6	5,064.4	5,013.3	18.2	18.3	32.67	-393.0	-1,678.4	1,300.6	1,266.4	34.28	37.945	
4,900.0	4,864.6	5,159.5	5,106.6	18.6	18.7	32.96	-392.8	-1,660.3	1,270.1	1,235.1	35.04	36.252	
5,000.0	4,963.7	5,254.5	5,199.9	19.0	19.1	33.26	-392.5	-1,642.1	1,239.7	1,203.9	35.79	34.635	
5,100.0	5,062.7	5,349.6	5,293.2	19.4	19.5	33.58	-392.3	-1,624.0	1,209.3	1,172.7	36.55	33.088	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	5,161.7	5,444.6	5,386.5	19.9	20.0	33.91	-392.1	-1,605.9	1,178.9	1,141.6	37.30	31.607	
5,300.0	5,260.8	5,539.7	5,479.8	20.3	20.4	34.21	-391.8	-1,587.7	1,148.7	1,110.7	38.03	30.208	
5,400.0	5,359.9	5,635.0	5,573.4	20.7	20.8	34.46	-391.6	-1,569.5	1,119.1	1,080.4	38.77	28.867	
5,500.0	5,459.2	5,730.6	5,667.2	21.1	21.3	34.71	-391.3	-1,551.3	1,090.3	1,050.8	39.51	27.598	
5,600.0	5,558.6	5,826.4	5,761.2	21.5	21.7	34.95	-391.1	-1,533.0	1,062.2	1,022.0	40.24	26.397	
5,700.0	5,658.0	5,922.4	5,855.5	21.9	22.1	35.18	-390.9	-1,514.7	1,034.9	993.9	40.97	25.259	
5,800.0	5,757.6	6,018.6	5,949.9	22.3	22.6	35.40	-390.6	-1,496.3	1,008.2	966.5	41.69	24.181	
5,900.0	5,857.2	6,115.1	6,044.6	22.7	23.0	35.61	-390.4	-1,477.9	982.2	939.8	42.41	23.161	
6,000.0	5,956.9	6,200.0	6,128.0	23.1	23.4	35.77	-390.2	-1,462.0	957.3	914.2	43.12	22.202	
6,100.0	6,056.7	6,286.2	6,212.9	23.4	23.7	35.93	-390.0	-1,446.9	934.4	890.5	43.83	21.320	
6,200.0	6,156.5	6,370.4	6,296.0	23.8	24.1	36.06	-389.8	-1,433.5	913.6	869.1	44.52	20.520	
6,300.0	6,256.3	6,455.2	6,379.9	24.1	24.5	36.18	-389.6	-1,421.1	895.0	849.8	45.20	19.801	
6,400.0	6,356.3	6,540.6	6,464.5	24.5	24.8	36.28	-389.5	-1,410.0	878.5	832.6	45.85	19.159	
6,500.0	6,456.2	6,626.5	6,549.9	24.8	25.2	36.36	-389.4	-1,400.0	864.2	817.7	46.48	18.591	
6,600.0	6,556.2	6,712.8	6,635.7	25.1	25.5	36.43	-389.3	-1,391.3	852.1	805.0	47.09	18.096	
6,700.0	6,656.2	6,800.0	6,722.6	25.3	25.9	36.46	-389.2	-1,383.8	842.2	794.5	47.66	17.671	
6,800.0	6,756.2	6,886.4	6,808.9	25.5	26.2	36.48	-389.1	-1,377.7	834.5	786.3	48.18	17.322	
6,900.0	6,856.2	6,973.6	6,895.9	25.6	26.5	-89.52	-389.0	-1,372.9	828.9	780.4	48.52	17.084	
7,000.0	6,956.2	7,061.0	6,983.2	25.6	26.8	-89.51	-389.0	-1,369.3	824.8	776.0	48.82	16.895	
7,100.0	7,056.2	7,148.4	7,070.5	25.6	27.0	-89.51	-388.9	-1,367.2	822.3	773.2	49.08	16.754	
7,200.0	7,156.2	7,235.8	7,158.0	25.6	27.2	-89.51	-388.9	-1,366.3	821.3	772.1	49.27	16.672	
7,239.1	7,195.2	7,273.1	7,195.2	25.7	27.2	-89.51	-388.9	-1,366.3	821.3	772.0	49.29	16.664	
7,300.0	7,256.2	7,334.0	7,256.2	25.7	27.2	-89.51	-388.9	-1,366.3	821.3	772.0	49.31	16.655	
7,400.0	7,356.2	7,434.0	7,356.2	25.7	27.2	-89.51	-388.9	-1,366.3	821.3	772.0	49.36	16.638	
7,500.0	7,456.2	7,534.0	7,456.2	25.7	27.3	-89.51	-388.9	-1,366.3	821.3	771.9	49.42	16.621	
7,600.0	7,556.2	7,634.0	7,556.2	25.7	27.3	-89.51	-388.9	-1,366.3	821.3	771.9	49.47	16.603	
7,700.0	7,656.2	7,734.0	7,656.2	25.8	27.3	-89.51	-388.9	-1,366.3	821.3	771.8	49.52	16.586	
7,800.0	7,756.2	7,834.0	7,756.2	25.8	27.4	-89.51	-388.9	-1,366.3	821.3	771.7	49.57	16.568	
7,900.0	7,856.2	7,934.0	7,856.2	25.8	27.4	-89.51	-388.9	-1,366.3	821.3	771.7	49.62	16.551	
8,000.0	7,956.2	8,034.0	7,956.2	25.8	27.4	-89.51	-388.9	-1,366.3	821.3	771.6	49.68	16.533	
8,100.0	8,056.2	8,134.0	8,056.2	25.8	27.4	-89.51	-388.9	-1,366.3	821.3	771.6	49.73	16.515	
8,200.0	8,156.2	8,234.0	8,156.2	25.9	27.5	-89.51	-388.9	-1,366.3	821.3	771.5	49.79	16.497	
8,300.0	8,256.2	8,334.0	8,256.2	25.9	27.5	-89.51	-388.9	-1,366.3	821.3	771.5	49.84	16.479	
8,400.0	8,356.2	8,434.0	8,356.2	25.9	27.5	-89.51	-388.9	-1,366.3	821.3	771.4	49.90	16.461	
8,500.0	8,456.2	8,534.0	8,456.2	25.9	27.6	-89.51	-388.9	-1,366.3	821.3	771.4	49.95	16.442	
8,600.0	8,556.2	8,634.0	8,556.2	26.0	27.6	-89.51	-388.9	-1,366.3	821.3	771.3	50.01	16.424	
8,700.0	8,656.2	8,734.0	8,656.2	26.0	27.6	-89.51	-388.9	-1,366.3	821.3	771.3	50.06	16.405	
8,800.0	8,756.2	8,834.0	8,756.2	26.0	27.7	-89.51	-388.9	-1,366.3	821.3	771.2	50.12	16.386	
8,900.0	8,856.2	8,934.0	8,856.2	26.0	27.7	-89.51	-388.9	-1,366.3	821.3	771.1	50.18	16.368	
9,000.0	8,956.2	9,034.0	8,956.2	26.1	27.7	-89.51	-388.9	-1,366.3	821.3	771.1	50.24	16.349	
9,100.0	9,056.2	9,134.0	9,056.2	26.1	27.7	-89.51	-388.9	-1,366.3	821.3	771.0	50.30	16.330	
9,200.0	9,156.2	9,234.0	9,156.2	26.1	27.8	-89.51	-388.9	-1,366.3	821.3	771.0	50.36	16.310	
9,300.0	9,256.2	9,334.0	9,256.2	26.1	27.8	-89.51	-388.9	-1,366.3	821.3	770.9	50.41	16.291	
9,400.0	9,356.2	9,434.0	9,356.2	26.2	27.8	-89.51	-388.9	-1,366.3	821.3	770.8	50.47	16.272	
9,500.0	9,456.2	9,534.0	9,456.2	26.2	27.9	-89.51	-388.9	-1,366.3	821.3	770.8	50.54	16.252	
9,600.0	9,556.2	9,634.0	9,556.2	26.2	27.9	-89.51	-388.9	-1,366.3	821.3	770.7	50.60	16.233	
9,700.0	9,656.2	9,734.0	9,656.2	26.2	27.9	-89.51	-388.9	-1,366.3	821.3	770.7	50.66	16.213	
9,800.0	9,756.2	9,834.0	9,756.2	26.3	28.0	-89.51	-388.9	-1,366.3	821.3	770.6	50.72	16.193	
9,900.0	9,856.2	9,934.0	9,856.2	26.3	28.0	-89.51	-388.9	-1,366.3	821.3	770.5	50.78	16.174	
10,000.0	9,956.2	10,034.0	9,956.2	26.3	28.0	-89.51	-388.9	-1,366.3	821.3	770.5	50.84	16.154	
10,100.0	10,056.2	10,134.0	10,056.2	26.3	28.1	-89.51	-388.9	-1,366.3	821.3	770.4	50.91	16.134	
10,200.0	10,156.2	10,234.0	10,156.2	26.4	28.1	-89.51	-388.9	-1,366.3	821.3	770.3	50.97	16.113	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	Highside	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	Warning
10,300.0	10,256.2	10,334.0	10,256.2	26.4	28.1	-89.51	-388.9	-1,366.3	821.3	770.3	51.04	16.093	
10,400.0	10,356.2	10,434.0	10,356.2	26.4	28.2	-89.51	-388.9	-1,366.3	821.3	770.2	51.10	16.073	
10,500.0	10,456.2	10,534.0	10,456.2	26.5	28.2	-89.51	-388.9	-1,366.3	821.3	770.2	51.16	16.053	
10,600.0	10,556.2	10,634.0	10,556.2	26.5	28.2	-89.51	-388.9	-1,366.3	821.3	770.1	51.23	16.032	
10,700.0	10,656.2	10,734.0	10,656.2	26.5	28.3	-89.51	-388.9	-1,366.3	821.3	770.0	51.30	16.011	
10,800.0	10,756.2	10,834.0	10,756.2	26.5	28.3	-89.51	-388.9	-1,366.3	821.3	770.0	51.36	15.991	
10,900.0	10,856.2	10,934.0	10,856.2	26.6	28.3	-89.51	-388.9	-1,366.3	821.3	769.9	51.43	15.970	
11,000.0	10,956.2	11,034.0	10,956.2	26.6	28.4	-89.51	-388.9	-1,366.3	821.3	769.8	51.49	15.950	
11,100.0	11,056.2	11,131.4	11,053.3	26.6	28.4	-88.42	-383.9	-1,366.3	821.4	770.0	51.46	15.962	
11,200.0	11,155.5	11,225.0	11,144.0	26.7	28.4	-87.43	-361.3	-1,366.5	821.9	770.6	51.29	16.025	
11,300.0	11,251.7	11,315.7	11,226.1	26.7	28.4	-86.32	-323.1	-1,366.9	822.6	771.5	51.11	16.095	
11,400.0	11,341.8	11,403.3	11,297.1	26.8	28.4	-85.14	-272.0	-1,367.3	823.7	772.7	50.96	16.162	
11,500.0	11,423.0	11,487.9	11,355.8	26.8	28.4	-83.93	-211.2	-1,367.9	825.2	774.3	50.89	16.215	
11,600.0	11,492.8	11,569.9	11,401.5	26.9	28.5	-82.72	-143.3	-1,368.5	827.0	776.1	50.92	16.243	
11,700.0	11,549.2	11,650.0	11,434.4	26.9	28.5	-81.55	-70.3	-1,369.1	829.1	778.1	51.05	16.241	
11,800.0	11,590.5	11,725.0	11,453.7	27.0	28.5	-80.47	2.1	-1,369.8	831.4	780.0	51.33	16.196	
11,900.0	11,615.3	11,802.6	11,461.5	27.1	28.6	-79.44	79.2	-1,370.5	833.7	782.0	51.66	16.138	
12,000.0	11,622.9	11,899.1	11,461.6	27.1	28.7	-78.85	175.7	-1,371.4	834.7	782.9	51.86	16.094	
12,100.0	11,622.8	11,999.1	11,461.6	27.2	28.9	-78.86	275.7	-1,372.3	834.3	782.2	52.11	16.011	
12,200.0	11,622.6	12,099.1	11,461.6	27.3	29.0	-78.87	375.7	-1,373.2	833.9	781.5	52.40	15.914	
12,300.0	11,622.4	12,199.1	11,461.6	27.5	29.2	-78.87	475.7	-1,374.1	833.5	780.8	52.73	15.806	
12,400.0	11,622.3	12,299.1	11,461.6	27.6	29.4	-78.88	575.7	-1,375.0	833.1	780.0	53.11	15.687	
12,500.0	11,622.1	12,399.1	11,461.6	27.7	29.6	-78.89	675.7	-1,375.9	832.7	779.2	53.52	15.557	
12,600.0	11,621.9	12,499.1	11,461.6	27.9	29.8	-78.89	775.7	-1,376.8	832.3	778.3	53.98	15.418	
12,700.0	11,621.7	12,599.1	11,461.6	28.1	30.1	-78.90	875.7	-1,377.7	831.9	777.4	54.48	15.270	
12,800.0	11,621.6	12,699.1	11,461.6	28.3	30.3	-78.91	975.7	-1,378.6	831.5	776.5	55.01	15.115	
12,900.0	11,621.4	12,799.1	11,461.6	28.5	30.6	-78.91	1,075.7	-1,379.5	831.1	775.5	55.58	14.952	
13,000.0	11,621.2	12,899.1	11,461.6	28.7	30.9	-78.92	1,175.7	-1,380.4	830.6	774.5	56.19	14.783	
13,100.0	11,621.0	12,999.1	11,461.6	29.0	31.2	-78.93	1,275.7	-1,381.3	830.2	773.4	56.83	14.609	
13,200.0	11,620.9	13,099.1	11,461.6	29.2	31.5	-78.93	1,375.7	-1,382.2	829.8	772.3	57.51	14.430	
13,300.0	11,620.7	13,199.1	11,461.6	29.5	31.9	-78.94	1,475.7	-1,383.1	829.4	771.2	58.21	14.248	
13,400.0	11,620.5	13,299.1	11,461.6	29.8	32.3	-78.95	1,575.6	-1,384.0	829.0	770.1	58.95	14.062	
13,500.0	11,620.3	13,399.1	11,461.6	30.1	32.6	-78.95	1,675.6	-1,384.9	828.6	768.9	59.72	13.874	
13,600.0	11,620.2	13,499.1	11,461.6	30.4	33.0	-78.96	1,775.6	-1,385.8	828.2	767.7	60.52	13.684	
13,700.0	11,620.0	13,599.1	11,461.6	30.7	33.4	-78.97	1,875.6	-1,386.7	827.8	766.4	61.35	13.493	
13,800.0	11,619.8	13,699.1	11,461.6	31.1	33.8	-78.97	1,975.6	-1,387.6	827.4	765.2	62.20	13.302	
13,900.0	11,619.6	13,799.1	11,461.6	31.4	34.2	-78.98	2,075.6	-1,388.5	827.0	763.9	63.08	13.110	
14,000.0	11,619.5	13,899.1	11,461.6	31.8	34.7	-78.99	2,175.6	-1,389.4	826.6	762.6	63.98	12.919	
14,100.0	11,619.3	13,999.1	11,461.6	32.2	35.1	-78.99	2,275.6	-1,390.3	826.2	761.3	64.91	12.728	
14,200.0	11,619.1	14,099.1	11,461.6	32.6	35.6	-79.00	2,375.6	-1,391.2	825.8	759.9	65.86	12.538	
14,300.0	11,618.9	14,199.1	11,461.6	33.0	36.1	-79.01	2,475.6	-1,392.1	825.3	758.5	66.83	12.350	
14,400.0	11,618.8	14,299.1	11,461.6	33.5	36.5	-79.01	2,575.6	-1,393.0	824.9	757.1	67.82	12.164	
14,500.0	11,618.6	14,399.1	11,461.6	33.9	37.0	-79.02	2,675.6	-1,393.9	824.5	755.7	68.83	11.979	
14,600.0	11,618.4	14,499.1	11,461.6	34.4	37.5	-79.03	2,775.6	-1,394.8	824.1	754.3	69.86	11.797	
14,700.0	11,618.2	14,599.1	11,461.6	34.8	38.0	-79.04	2,875.6	-1,395.7	823.7	752.8	70.91	11.617	
14,800.0	11,618.1	14,699.1	11,461.6	35.3	38.5	-79.04	2,975.6	-1,396.6	823.3	751.3	71.97	11.439	
14,900.0	11,617.9	14,799.1	11,461.6	35.8	39.1	-79.05	3,075.6	-1,397.5	822.9	749.8	73.05	11.264	
15,000.0	11,617.7	14,899.1	11,461.6	36.3	39.6	-79.06	3,175.6	-1,398.4	822.5	748.3	74.15	11.092	
15,100.0	11,617.6	14,999.1	11,461.6	36.8	40.1	-79.06	3,275.6	-1,399.3	822.1	746.8	75.26	10.923	
15,200.0	11,617.4	15,099.1	11,461.6	37.3	40.7	-79.07	3,375.6	-1,400.3	821.7	745.3	76.39	10.756	
15,300.0	11,617.2	15,199.1	11,461.6	37.9	41.2	-79.08	3,475.6	-1,401.2	821.3	743.7	77.53	10.593	
15,400.0	11,617.0	15,299.1	11,461.6	38.4	41.8	-79.08	3,575.5	-1,402.1	820.9	742.2	78.68	10.433	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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
15,500.0	11,616.9	15,399.1	11,461.6	39.0	42.3	-79.09	3,675.5	-1,403.0	820.5	740.6	79.85	10.275	
15,600.0	11,616.7	15,499.1	11,461.6	39.5	42.9	-79.10	3,775.5	-1,403.9	820.0	739.0	81.03	10.121	
15,700.0	11,616.5	15,599.1	11,461.6	40.1	43.5	-79.10	3,875.5	-1,404.8	819.6	737.4	82.22	9.969	
15,800.0	11,616.3	15,699.1	11,461.6	40.7	44.1	-79.11	3,975.5	-1,405.7	819.2	735.8	83.42	9.821	
15,900.0	11,616.2	15,799.1	11,461.6	41.2	44.7	-79.12	4,075.5	-1,406.6	818.8	734.2	84.63	9.676	
16,000.0	11,616.0	15,899.1	11,461.6	41.8	45.3	-79.13	4,175.5	-1,407.5	818.4	732.6	85.85	9.533	
16,100.0	11,615.8	15,999.1	11,461.6	42.4	45.8	-79.13	4,275.5	-1,408.4	818.0	730.9	87.08	9.394	
16,200.0	11,615.6	16,099.1	11,461.6	43.0	46.5	-79.14	4,375.5	-1,409.3	817.6	729.3	88.32	9.257	
16,300.0	11,615.5	16,199.1	11,461.6	43.6	47.1	-79.15	4,475.5	-1,410.2	817.2	727.6	89.57	9.123	
16,400.0	11,615.3	16,299.1	11,461.6	44.2	47.7	-79.15	4,575.5	-1,411.1	816.8	726.0	90.83	8.993	
16,500.0	11,615.1	16,399.1	11,461.6	44.8	48.3	-79.16	4,675.5	-1,412.0	816.4	724.3	92.09	8.865	
16,600.0	11,614.9	16,499.1	11,461.6	45.5	48.9	-79.17	4,775.5	-1,412.9	816.0	722.6	93.37	8.739	
16,700.0	11,614.8	16,599.1	11,461.6	46.1	49.5	-79.17	4,875.5	-1,413.8	815.6	720.9	94.65	8.617	
16,800.0	11,614.6	16,699.1	11,461.6	46.7	50.2	-79.18	4,975.5	-1,414.7	815.2	719.2	95.94	8.497	
16,900.0	11,614.4	16,799.1	11,461.6	47.4	50.8	-79.19	5,075.5	-1,415.6	814.7	717.5	97.23	8.375	
17,000.0	11,614.2	16,899.1	11,461.6	48.0	51.4	-79.19	5,175.5	-1,416.5	814.3	715.8	98.53	8.265	
17,100.0	11,614.1	16,999.1	11,461.6	48.6	52.1	-79.20	5,275.5	-1,417.4	813.9	714.1	99.84	8.152	
17,200.0	11,613.9	17,099.1	11,461.6	49.3	52.7	-79.21	5,375.5	-1,418.3	813.5	712.4	101.16	8.042	
17,300.0	11,613.7	17,199.1	11,461.6	49.9	53.3	-79.22	5,475.5	-1,419.2	813.1	710.6	102.48	7.935	
17,400.0	11,613.6	17,299.1	11,461.6	50.6	54.0	-79.22	5,575.4	-1,420.1	812.7	708.9	103.80	7.829	
17,500.0	11,613.4	17,399.1	11,461.6	51.3	54.6	-79.23	5,675.4	-1,421.0	812.3	707.2	105.14	7.726	
17,600.0	11,613.2	17,499.1	11,461.6	51.9	55.3	-79.24	5,775.4	-1,421.9	811.9	705.4	106.47	7.625	
17,700.0	11,613.0	17,599.1	11,461.6	52.6	56.0	-79.24	5,875.4	-1,422.8	811.5	703.7	107.81	7.527	
17,800.0	11,612.9	17,699.1	11,461.6	53.3	56.6	-79.25	5,975.4	-1,423.7	811.1	701.9	109.16	7.430	
17,900.0	11,612.7	17,799.1	11,461.6	53.9	57.3	-79.26	6,075.4	-1,424.6	810.7	700.2	110.51	7.335	
18,000.0	11,612.5	17,899.1	11,461.6	54.6	57.9	-79.27	6,175.4	-1,425.5	810.3	698.4	111.87	7.243	
18,100.0	11,612.3	17,999.1	11,461.6	55.3	58.6	-79.27	6,275.4	-1,426.4	809.9	696.6	113.23	7.152	
18,200.0	11,612.2	18,099.1	11,461.6	56.0	59.3	-79.28	6,375.4	-1,427.3	809.4	694.9	114.59	7.064	
18,300.0	11,612.0	18,199.1	11,461.6	56.6	59.9	-79.29	6,475.4	-1,428.2	809.0	693.1	115.96	6.977	
18,400.0	11,611.8	18,299.1	11,461.6	57.3	60.6	-79.29	6,575.4	-1,429.1	808.6	691.3	117.34	6.892	
18,500.0	11,611.6	18,399.1	11,461.6	58.0	61.3	-79.30	6,675.4	-1,430.0	808.2	689.5	118.71	6.808	
18,600.0	11,611.5	18,499.1	11,461.6	58.7	62.0	-79.31	6,775.4	-1,430.9	807.8	687.7	120.09	6.727	
18,700.0	11,611.3	18,599.1	11,461.6	59.4	62.7	-79.32	6,875.4	-1,431.8	807.4	685.9	121.48	6.647	
18,800.0	11,611.1	18,699.1	11,461.6	60.1	63.3	-79.32	6,975.4	-1,432.7	807.0	684.1	122.86	6.568	
18,900.0	11,610.9	18,799.1	11,461.6	60.8	64.0	-79.33	7,075.4	-1,433.6	806.6	682.3	124.25	6.491	
19,000.0	11,610.8	18,899.1	11,461.6	61.5	64.7	-79.34	7,175.4	-1,434.5	806.2	680.5	125.65	6.416	
19,100.0	11,610.6	18,999.1	11,461.6	62.2	65.4	-79.34	7,275.4	-1,435.5	805.8	678.7	127.05	6.342	
19,200.0	11,610.4	19,099.1	11,461.6	62.9	66.1	-79.35	7,375.4	-1,436.4	805.4	676.9	128.45	6.270	
19,300.0	11,610.2	19,199.1	11,461.6	63.6	66.8	-79.36	7,475.4	-1,437.3	805.0	675.1	129.85	6.199	
19,400.0	11,610.1	19,299.1	11,461.6	64.3	67.5	-79.37	7,575.3	-1,438.2	804.6	673.3	131.25	6.130	
19,500.0	11,609.9	19,399.1	11,461.6	65.0	68.2	-79.37	7,675.3	-1,439.1	804.1	671.5	132.66	6.062	
19,600.0	11,609.7	19,499.1	11,461.6	65.7	68.8	-79.38	7,775.3	-1,440.0	803.7	669.7	134.07	5.995	
19,700.0	11,609.6	19,599.1	11,461.6	66.4	69.5	-79.39	7,875.3	-1,440.9	803.3	667.8	135.49	5.929	
19,800.0	11,609.4	19,699.1	11,461.6	67.1	70.2	-79.39	7,975.3	-1,441.8	802.9	666.0	136.90	5.865	
19,900.0	11,609.2	19,799.1	11,461.6	67.8	70.9	-79.40	8,075.3	-1,442.7	802.5	664.2	138.32	5.802	
20,000.0	11,609.0	19,899.1	11,461.6	68.5	71.6	-79.41	8,175.3	-1,443.6	802.1	662.4	139.74	5.740	
20,100.0	11,608.9	19,999.0	11,461.6	69.2	72.3	-79.42	8,275.3	-1,444.5	801.7	660.5	141.16	5.679	
20,200.0	11,608.7	20,099.0	11,461.6	70.0	73.0	-79.42	8,375.3	-1,445.4	801.3	658.7	142.59	5.620	
20,300.0	11,608.5	20,199.0	11,461.6	70.7	73.7	-79.43	8,475.3	-1,446.3	800.9	656.9	144.02	5.561	
20,400.0	11,608.3	20,299.0	11,461.6	71.4	74.4	-79.44	8,575.3	-1,447.2	800.5	655.0	145.44	5.504	
20,500.0	11,608.2	20,399.0	11,461.6	72.1	75.2	-79.44	8,675.3	-1,448.1	800.1	653.2	146.88	5.447	
20,600.0	11,608.0	20,499.0	11,461.6	72.8	75.9	-79.45	8,775.3	-1,449.0	799.7	651.4	148.31	5.392	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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			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	
20,700.0	11,607.8	20,599.0	11,461.6	73.5	76.6	-79.46	8,875.3	-1,449.9	799.3	649.5	149.74	5.338	
20,800.0	11,607.6	20,699.0	11,461.6	74.3	77.3	-79.47	8,975.3	-1,450.8	798.9	647.7	151.18	5.284	
20,900.0	11,607.5	20,799.0	11,461.6	75.0	78.0	-79.47	9,075.3	-1,451.7	798.4	645.8	152.62	5.232	
21,000.0	11,607.3	20,899.0	11,461.6	75.7	78.7	-79.48	9,175.3	-1,452.6	798.0	644.0	154.06	5.180	
21,100.0	11,607.1	20,999.0	11,461.6	76.4	79.4	-79.49	9,275.3	-1,453.5	797.6	642.1	155.50	5.129	
21,200.0	11,606.9	21,099.0	11,461.6	77.1	80.1	-79.50	9,375.3	-1,454.4	797.2	640.3	156.94	5.080	
21,300.0	11,606.8	21,199.0	11,461.6	77.9	80.8	-79.50	9,475.3	-1,455.3	796.8	638.4	158.39	5.031	
21,400.0	11,606.6	21,299.0	11,461.6	78.6	81.6	-79.51	9,575.2	-1,456.2	796.4	636.6	159.84	4.983	
21,500.0	11,606.4	21,399.0	11,461.6	79.3	82.3	-79.52	9,675.2	-1,457.1	796.0	634.7	161.28	4.935	
21,600.0	11,606.2	21,499.0	11,461.6	80.1	83.0	-79.53	9,775.2	-1,458.0	795.6	632.9	162.73	4.889	
21,700.0	11,606.1	21,599.0	11,461.6	80.8	83.7	-79.53	9,875.2	-1,458.9	795.2	631.0	164.19	4.843	
21,800.0	11,605.9	21,699.0	11,461.6	81.5	84.4	-79.54	9,975.2	-1,459.8	794.8	629.1	165.64	4.798	
21,900.0	11,605.7	21,799.0	11,461.6	82.2	85.1	-79.55	10,075.2	-1,460.7	794.4	627.3	167.09	4.754	
21,979.6	11,605.6	21,875.5	11,461.6	82.8	85.7	-79.55	10,151.7	-1,461.4	794.1	625.8	168.24	4.720 CC, ES	
22,000.0	11,605.5	21,875.5	11,461.6	83.0	85.7	-79.55	10,151.7	-1,461.4	794.3	625.9	168.40	4.717 SF	
22,100.0	11,605.4	21,875.5	11,461.6	83.7	85.7	-79.55	10,151.7	-1,461.4	803.1	635.3	167.81	4.786	
22,200.0	11,605.2	21,875.5	11,461.6	84.4	85.7	-79.55	10,151.7	-1,461.4	824.0	659.0	165.07	4.992	
22,300.0	11,605.0	21,875.5	11,461.6	85.2	85.7	-79.55	10,151.7	-1,461.4	856.2	695.6	160.61	5.331	
22,400.0	11,604.9	21,875.5	11,461.6	85.9	85.7	-79.55	10,151.7	-1,461.4	898.4	743.4	154.99	5.796	
22,500.0	11,604.7	21,875.5	11,461.6	86.6	85.7	-79.55	10,151.7	-1,461.4	949.3	800.6	148.76	6.382	
22,600.0	11,604.5	21,875.5	11,461.6	87.4	85.7	-79.55	10,151.7	-1,461.4	1,007.6	865.3	142.34	7.079	
22,700.0	11,604.3	21,875.5	11,461.6	88.1	85.7	-79.55	10,151.7	-1,461.4	1,072.1	936.0	136.04	7.881	
22,800.0	11,604.2	21,875.5	11,461.6	88.8	85.7	-79.55	10,151.7	-1,461.4	1,141.6	1,011.6	130.06	8.778	
22,900.0	11,604.0	21,875.5	11,461.6	89.6	85.7	-79.55	10,151.7	-1,461.4	1,215.5	1,091.0	124.50	9.763	
23,000.0	11,603.8	21,875.5	11,461.6	90.3	85.7	-79.55	10,151.7	-1,461.4	1,292.9	1,173.4	119.42	10.826	
23,100.0	11,603.6	21,875.5	11,461.6	91.0	85.7	-79.55	10,151.7	-1,461.4	1,373.1	1,258.3	114.80	11.961	
23,200.0	11,603.5	21,875.5	11,461.6	91.8	85.7	-79.55	10,151.7	-1,461.4	1,455.9	1,345.2	110.64	13.158	
23,300.0	11,603.3	21,875.5	11,461.6	92.5	85.7	-79.55	10,151.7	-1,461.4	1,540.7	1,433.8	106.90	14.412	
23,400.0	11,603.1	21,875.5	11,461.6	93.2	85.7	-79.55	10,151.7	-1,461.4	1,627.2	1,523.6	103.55	15.713	
23,500.0	11,602.9	21,875.5	11,461.6	94.0	85.7	-79.55	10,151.7	-1,461.4	1,715.1	1,614.6	100.55	17.058	
23,600.0	11,602.8	21,875.5	11,461.6	94.7	85.7	-79.55	10,151.7	-1,461.4	1,804.4	1,706.5	97.86	18.438	
23,700.0	11,602.6	21,875.5	11,461.6	95.5	85.7	-79.55	10,151.7	-1,461.4	1,894.7	1,799.2	95.45	19.850	
23,800.0	11,602.4	21,875.5	11,461.6	96.2	85.7	-79.55	10,151.7	-1,461.4	1,985.9	1,892.6	93.29	21.287	
23,900.0	11,602.2	21,875.5	11,461.6	96.9	85.7	-79.55	10,151.7	-1,461.4	2,078.0	1,986.6	91.35	22.747	
24,000.0	11,602.1	21,875.5	11,461.6	97.7	85.7	-79.55	10,151.7	-1,461.4	2,170.7	2,081.1	89.61	24.224	
24,100.0	11,601.9	21,875.5	11,461.6	98.4	85.7	-79.55	10,151.7	-1,461.4	2,264.1	2,176.0	88.04	25.716	
24,200.0	11,601.7	21,875.5	11,461.6	99.2	85.7	-79.55	10,151.7	-1,461.4	2,358.0	2,271.4	86.63	27.219	
24,300.0	11,601.5	21,875.5	11,461.6	99.9	85.7	-79.55	10,151.7	-1,461.4	2,452.4	2,367.0	85.35	28.731	
24,400.0	11,601.4	21,875.5	11,461.6	100.6	85.7	-79.55	10,151.7	-1,461.4	2,547.2	2,463.0	84.21	30.250	
24,500.0	11,601.2	21,875.5	11,461.6	101.4	85.7	-79.55	10,151.7	-1,461.4	2,642.4	2,559.2	83.17	31.772	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		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)			
22,500.0	11,604.7	11,144.0	11,070.4	86.6	38.9	66.08	12,957.8	479.1	2,612.3	2,520.8	91.52	28.542	
22,600.0	11,604.5	11,144.0	11,070.4	87.4	38.9	66.08	12,957.8	479.1	2,526.2	2,433.2	92.99	27.168	
22,700.0	11,604.3	11,144.0	11,070.4	88.1	38.9	66.08	12,957.8	479.1	2,441.2	2,346.7	94.54	25.821	
22,800.0	11,604.2	11,144.0	11,070.4	88.8	38.9	66.08	12,957.8	479.1	2,357.4	2,261.2	96.20	24.504	
22,900.0	11,604.0	11,144.0	11,070.4	89.6	38.9	66.08	12,957.8	479.1	2,274.9	2,176.9	97.97	23.219	
23,000.0	11,603.8	11,144.0	11,070.4	90.3	38.9	66.08	12,957.8	479.1	2,193.8	2,093.9	99.86	21.970	
23,100.0	11,603.6	11,144.0	11,070.4	91.0	38.9	66.08	12,957.8	479.1	2,114.4	2,012.5	101.86	20.758	
23,200.0	11,603.5	11,144.0	11,070.4	91.8	38.9	66.08	12,957.8	479.1	2,036.7	1,932.7	103.99	19.587	
23,300.0	11,603.3	11,144.0	11,070.4	92.5	38.9	66.08	12,957.8	479.1	1,961.1	1,854.9	106.24	18.459	
23,400.0	11,603.1	11,144.0	11,070.4	93.2	38.9	66.08	12,957.8	479.1	1,887.8	1,779.2	108.62	17.379	
23,500.0	11,602.9	11,144.0	11,070.4	94.0	38.9	66.08	12,957.8	479.1	1,817.0	1,705.9	111.13	16.351	
23,600.0	11,602.8	11,178.1	11,102.0	94.7	39.0	67.35	12,970.6	478.7	1,748.1	1,634.6	113.48	15.405	
23,700.0	11,602.6	11,193.5	11,115.9	95.5	39.0	67.92	12,977.2	478.2	1,682.4	1,566.3	116.07	14.494	
23,800.0	11,602.4	11,239.0	11,155.7	96.2	39.2	69.54	12,999.1	475.7	1,620.3	1,501.9	118.43	13.682	
23,900.0	11,602.2	11,239.0	11,155.7	96.9	39.2	69.54	12,999.1	475.7	1,560.4	1,439.1	121.35	12.859	
24,000.0	11,602.1	11,239.0	11,155.7	97.7	39.2	69.54	12,999.1	475.7	1,504.8	1,380.5	124.31	12.105	
24,100.0	11,601.9	11,239.0	11,155.7	98.4	39.2	69.54	12,999.1	475.7	1,453.9	1,326.7	127.26	11.425	
24,200.0	11,601.7	11,285.5	11,193.6	99.2	39.3	71.11	13,025.9	472.4	1,406.0	1,276.3	129.69	10.841	
24,300.0	11,601.5	11,335.0	11,229.8	99.9	39.4	72.64	13,059.4	468.7	1,364.4	1,232.5	131.98	10.338	
24,400.0	11,601.4	11,335.0	11,229.8	100.6	39.4	72.64	13,059.4	468.7	1,326.3	1,191.6	134.74	9.844	
24,500.0	11,601.2	11,363.8	11,248.9	101.4	39.5	73.47	13,080.8	466.7	1,294.1	1,157.1	136.99	9.447	
24,600.0	11,601.0	11,397.3	11,269.8	102.1	39.6	74.38	13,106.9	464.8	1,267.0	1,128.0	139.01	9.114	
24,614.3	11,601.0	11,402.4	11,272.9	102.2	39.6	74.52	13,110.9	464.5	1,263.5	1,124.2	139.28	9.072 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 - SNAPPING 12 1 FEDERAL #532H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 197-MWD+HDGM, 1151-MWD+HDGM, 4281-MWD+HDGM, 9377-MWD+HDGM													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	
24,200.0	11,601.7	9,265.0	9,083.6	99.2	21.5	1.39	13,202.1	-658.8	2,648.7	2,534.5	114.26	23.181		
24,300.0	11,601.5	9,265.0	9,083.6	99.9	21.5	1.39	13,202.1	-658.8	2,619.3	2,503.4	115.99	22.582		
24,400.0	11,601.4	9,292.0	9,090.8	100.6	21.5	1.37	13,228.1	-659.8	2,592.9	2,475.4	117.43	22.080		
24,500.0	11,601.2	9,292.0	9,090.8	101.4	21.5	1.37	13,228.1	-659.8	2,569.6	2,450.6	119.04	21.586		
24,600.0	11,601.0	9,292.0	9,090.8	102.1	21.5	1.37	13,228.1	-659.8	2,550.1	2,429.6	120.56	21.153		
24,614.3	11,601.0	9,292.0	9,090.8	102.2	21.5	1.37	13,228.1	-659.8	2,547.6	2,426.9	120.77	21.096 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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						Rule Assigned:				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
22,200.0	11,605.2	11,117.0	11,046.3	84.4	38.9	-9.90	12,913.8	-812.7	2,595.7	2,524.4	71.25	36.431	
22,300.0	11,605.0	11,117.0	11,046.3	85.2	38.9	-9.90	12,913.8	-812.7	2,498.2	2,426.5	71.71	34.836	
22,400.0	11,604.9	11,117.0	11,046.3	85.9	38.9	-9.90	12,913.8	-812.7	2,400.8	2,328.6	72.22	33.245	
22,500.0	11,604.7	11,117.0	11,046.3	86.6	38.9	-9.90	12,913.8	-812.7	2,303.8	2,231.0	72.77	31.658	
22,600.0	11,604.5	11,117.0	11,046.3	87.4	38.9	-9.90	12,913.8	-812.7	2,206.9	2,133.5	73.38	30.076	
22,700.0	11,604.3	11,117.0	11,046.3	88.1	38.9	-9.90	12,913.8	-812.7	2,110.4	2,036.3	74.05	28.499	
22,800.0	11,604.2	11,117.0	11,046.3	88.8	38.9	-9.90	12,913.8	-812.7	2,014.2	1,939.4	74.80	26.928	
22,900.0	11,604.0	11,117.0	11,046.3	89.6	38.9	-9.90	12,913.8	-812.7	1,918.4	1,842.7	75.63	25.364	
23,000.0	11,603.8	11,117.0	11,046.3	90.3	38.9	-9.90	12,913.8	-812.7	1,823.0	1,746.4	76.57	23.808	
23,100.0	11,603.6	11,117.0	11,046.3	91.0	38.9	-9.90	12,913.8	-812.7	1,728.2	1,650.5	77.63	22.261	
23,200.0	11,603.5	11,117.0	11,046.3	91.8	38.9	-9.90	12,913.8	-812.7	1,633.9	1,555.1	78.83	20.727	
23,300.0	11,603.3	11,156.8	11,084.4	92.5	39.0	-10.55	12,925.3	-812.2	1,537.9	1,458.8	79.07	19.450	
23,400.0	11,603.1	11,163.9	11,091.1	93.2	39.0	-10.67	12,927.8	-812.1	1,444.2	1,363.9	80.29	17.988	
23,500.0	11,602.9	11,171.8	11,098.4	94.0	39.1	-10.80	12,930.7	-812.0	1,351.3	1,269.6	81.65	16.549	
23,600.0	11,602.8	11,212.0	11,134.7	94.7	39.2	-11.51	12,947.7	-811.3	1,260.8	1,178.8	81.99	15.377	
23,700.0	11,602.6	11,212.0	11,134.7	95.5	39.2	-11.51	12,947.7	-811.3	1,168.8	1,084.8	84.01	13.913	
23,800.0	11,602.4	11,212.0	11,134.7	96.2	39.2	-11.51	12,947.7	-811.3	1,078.2	991.8	86.39	12.480	
23,900.0	11,602.2	11,212.0	11,134.7	96.9	39.2	-11.51	12,947.7	-811.3	989.5	900.2	89.24	11.088	
24,000.0	11,602.1	11,212.0	11,134.7	97.7	39.2	-11.51	12,947.7	-811.3	903.0	810.4	92.63	9.749	
24,100.0	11,601.9	11,252.9	11,170.0	98.4	39.3	-12.27	12,968.2	-810.3	817.2	723.2	93.98	8.695	
24,200.0	11,601.7	11,275.9	11,189.2	99.2	39.3	-12.72	12,981.0	-809.7	734.1	637.3	96.88	7.578	
24,300.0	11,601.5	11,307.0	11,214.2	99.9	39.4	-13.35	12,999.4	-808.7	653.7	554.0	99.70	6.557	
24,400.0	11,601.4	11,333.6	11,234.8	100.6	39.5	-13.89	13,016.3	-807.8	576.3	472.8	103.54	5.566	
24,500.0	11,601.2	11,370.0	11,261.6	101.4	39.6	-14.62	13,040.7	-806.0	502.6	395.3	107.25	4.686	
24,600.0	11,601.0	11,403.0	11,284.7	102.1	39.6	-15.24	13,064.3	-803.9	433.3	321.1	112.18	3.863	
24,614.3	11,601.0	11,419.6	11,295.9	102.2	39.7	-15.55	13,076.6	-802.8	423.6	311.9	111.65	3.794	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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 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)				
22,200.0	11,605.2	11,403.0	11,297.1	84.4	40.9	65.06	12,874.0	-61.9	2,586.5	2,506.4	80.06	32.308		
22,300.0	11,605.0	11,403.0	11,297.1	85.2	40.9	65.06	12,874.0	-61.9	2,490.6	2,409.8	80.83	30.814		
22,400.0	11,604.9	11,403.0	11,297.1	85.9	40.9	65.06	12,874.0	-61.9	2,395.1	2,313.4	81.66	29.329		
22,500.0	11,604.7	11,403.0	11,297.1	86.6	40.9	65.06	12,874.0	-61.9	2,299.9	2,217.3	82.57	27.854		
22,600.0	11,604.5	11,403.0	11,297.1	87.4	40.9	65.06	12,874.0	-61.9	2,205.1	2,121.6	83.56	26.390		
22,700.0	11,604.3	11,403.0	11,297.1	88.1	40.9	65.06	12,874.0	-61.9	2,110.9	2,026.2	84.64	24.939		
22,800.0	11,604.2	11,403.0	11,297.1	88.8	40.9	65.06	12,874.0	-61.9	2,017.2	1,931.4	85.83	23.503		
22,900.0	11,604.0	11,403.0	11,297.1	89.6	40.9	65.06	12,874.0	-61.9	1,924.1	1,837.0	87.14	22.082		
23,000.0	11,603.8	11,403.0	11,297.1	90.3	40.9	65.06	12,874.0	-61.9	1,831.8	1,743.2	88.58	20.679		
23,100.0	11,603.6	11,443.3	11,337.1	91.0	41.1	68.05	12,878.5	-60.9	1,738.2	1,648.2	90.03	19.308		
23,200.0	11,603.5	11,447.0	11,340.7	91.8	41.1	68.33	12,879.1	-60.8	1,647.3	1,555.6	91.76	17.952		
23,300.0	11,603.3	11,451.1	11,344.8	92.5	41.1	68.64	12,879.8	-60.7	1,557.5	1,463.8	93.70	16.622		
23,400.0	11,603.1	11,455.7	11,349.3	93.2	41.1	68.98	12,880.6	-60.6	1,468.9	1,373.1	95.86	15.324		
23,500.0	11,602.9	11,460.8	11,354.3	94.0	41.1	69.37	12,881.6	-60.5	1,381.9	1,283.6	98.27	14.061		
23,600.0	11,602.8	11,499.0	11,391.4	94.7	41.2	72.28	12,890.6	-60.1	1,297.9	1,197.2	100.70	12.889		
23,700.0	11,602.6	11,499.0	11,391.4	95.5	41.2	72.28	12,890.6	-60.1	1,214.3	1,110.5	103.75	11.704		
23,800.0	11,602.4	11,499.0	11,391.4	96.2	41.2	72.28	12,890.6	-60.1	1,133.3	1,026.1	107.19	10.573		
23,900.0	11,602.2	11,499.0	11,391.4	96.9	41.2	72.28	12,890.6	-60.1	1,055.6	944.6	111.02	9.508		
24,000.0	11,602.1	11,499.0	11,391.4	97.7	41.2	72.28	12,890.6	-60.1	982.0	866.7	115.27	8.518		
24,100.0	11,601.9	11,499.0	11,391.4	98.4	41.2	72.28	12,890.6	-60.1	913.3	793.4	119.91	7.617		
24,200.0	11,601.7	11,525.4	11,416.5	99.2	41.3	74.30	12,898.6	-59.9	850.0	725.5	124.49	6.828		
24,300.0	11,601.5	11,542.3	11,432.4	99.9	41.3	75.60	12,904.4	-59.8	793.9	664.6	129.34	6.138		
24,400.0	11,601.4	11,563.2	11,451.7	100.6	41.4	77.20	12,912.5	-59.7	746.1	612.1	134.01	5.568		
24,500.0	11,601.2	11,594.0	11,479.4	101.4	41.5	79.52	12,925.9	-59.6	708.0	569.9	138.11	5.126		
24,600.0	11,601.0	11,626.0	11,507.2	102.1	41.5	81.89	12,941.9	-59.7	680.3	539.0	141.36	4.813		
24,614.3	11,601.0	11,632.3	11,512.5	102.2	41.6	82.34	12,945.2	-59.7	677.2	535.5	141.73	4.778 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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)				
22,500.0	11,604.7	11,573.3	11,489.9	86.6	40.8	85.71	12,889.2	763.3	2,643.6	2,544.7	98.86	26.740		
22,600.0	11,604.5	11,574.6	11,491.2	87.4	40.8	85.76	12,889.3	763.3	2,561.4	2,460.9	100.48	25.492		
22,700.0	11,604.3	11,576.1	11,492.7	88.1	40.8	85.82	12,889.4	763.3	2,480.5	2,378.3	102.19	24.274		
22,800.0	11,604.2	11,577.7	11,494.3	88.8	40.8	85.88	12,889.5	763.3	2,401.1	2,297.1	103.99	23.089		
22,900.0	11,604.0	11,579.4	11,496.0	89.6	40.8	85.94	12,889.6	763.3	2,323.3	2,217.4	105.90	21.939		
23,000.0	11,603.8	11,581.2	11,497.8	90.3	40.8	86.01	12,889.8	763.3	2,247.2	2,139.3	107.90	20.826		
23,100.0	11,603.6	11,583.3	11,499.8	91.0	40.8	86.09	12,889.9	763.2	2,173.0	2,063.0	110.00	19.754		
23,200.0	11,603.5	11,585.5	11,502.0	91.8	40.8	86.18	12,890.1	763.2	2,101.0	1,988.8	112.21	18.724		
23,300.0	11,603.3	11,620.0	11,536.4	92.5	41.0	87.50	12,893.6	762.8	2,032.1	1,917.5	114.58	17.735		
23,400.0	11,603.1	11,620.0	11,536.4	93.2	41.0	87.50	12,893.6	762.8	1,964.9	1,848.0	116.96	16.800		
23,500.0	11,602.9	11,620.0	11,536.4	94.0	41.0	87.50	12,893.6	762.8	1,900.6	1,781.2	119.41	15.916		
23,600.0	11,602.8	11,620.0	11,536.4	94.7	41.0	87.50	12,893.6	762.8	1,839.5	1,717.6	121.93	15.086		
23,700.0	11,602.6	11,620.0	11,536.4	95.5	41.0	87.50	12,893.6	762.8	1,781.9	1,657.4	124.50	14.313		
23,800.0	11,602.4	11,620.0	11,536.4	96.2	41.0	87.50	12,893.6	762.8	1,728.2	1,601.1	127.07	13.600		
23,900.0	11,602.2	11,620.0	11,536.4	96.9	41.0	87.50	12,893.6	762.8	1,678.7	1,549.1	129.63	12.951		
24,000.0	11,602.1	11,620.0	11,536.4	97.7	41.0	87.50	12,893.6	762.8	1,633.9	1,501.8	132.12	12.367		
24,100.0	11,601.9	11,620.0	11,536.4	98.4	41.0	87.50	12,893.6	762.8	1,594.1	1,459.6	134.50	11.852		
24,200.0	11,601.7	11,633.4	11,549.7	99.2	41.0	88.02	12,895.5	762.6	1,559.6	1,422.9	136.74	11.406		
24,300.0	11,601.5	11,646.4	11,562.5	99.9	41.0	88.51	12,897.5	762.4	1,530.8	1,392.0	138.76	11.032		
24,400.0	11,601.4	11,662.4	11,578.3	100.6	41.1	89.12	12,900.2	762.1	1,507.9	1,367.4	140.51	10.731		
24,500.0	11,601.2	11,682.5	11,598.0	101.4	41.2	89.89	12,904.0	761.6	1,491.1	1,349.2	141.96	10.504		
24,600.0	11,601.0	11,708.6	11,623.5	102.1	41.2	90.88	12,909.6	760.7	1,480.7	1,337.6	143.07	10.349		
24,614.3	11,601.0	11,713.0	11,627.7	102.2	41.2	91.04	12,910.6	760.6	1,479.7	1,336.5	143.20	10.333	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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 (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	0.4	3.0	3.0	-90.57	-0.3	-30.0	30.0				
100.0	100.0	99.6	100.0	3.0	3.0	-90.57	-0.3	-30.0	30.0	23.9	6.05	4.953	
200.0	200.0	199.6	200.0	3.2	3.2	-90.57	-0.3	-30.0	30.0	23.7	6.30	4.761	
300.0	300.0	299.6	300.0	3.3	3.3	-90.57	-0.3	-30.0	30.0	23.4	6.53	4.589	
400.0	400.0	399.6	400.0	3.4	3.4	-90.57	-0.3	-30.0	30.0	23.2	6.76	4.434	
500.0	500.0	499.6	500.0	3.5	3.5	-90.57	-0.3	-30.0	30.0	23.0	6.98	4.294	
600.0	600.0	599.6	600.0	3.6	3.6	-90.57	-0.3	-30.0	30.0	22.8	7.19	4.167	
700.0	700.0	699.6	700.0	3.8	3.8	-90.57	-0.3	-30.0	30.0	22.6	7.40	4.050	
800.0	800.0	799.6	800.0	3.9	3.9	-90.57	-0.3	-30.0	30.0	22.4	7.60	3.943	
900.0	900.0	899.6	900.0	4.0	4.0	-90.57	-0.3	-30.0	30.0	22.2	7.80	3.843	
1,000.0	1,000.0	999.6	1,000.0	4.1	4.1	-90.57	-0.3	-30.0	30.0	22.0	7.99	3.751	
1,100.0	1,100.0	1,099.6	1,100.0	4.3	4.2	37.47	-0.3	-30.0	28.6	20.3	8.25	3.462	
1,200.0	1,199.8	1,199.4	1,199.8	4.6	4.4	44.95	-0.3	-30.0	24.6	16.0	8.58	2.869	
1,300.0	1,299.5	1,299.1	1,299.5	4.9	4.5	63.45	-0.3	-30.0	19.4	10.6	8.86	2.194	
1,374.3	1,373.3	1,372.9	1,373.3	5.1	4.6	90.00	-0.3	-30.0	17.4	8.2	9.14	1.901 Advise and Monitor, CC, ES, SF	
1,400.0	1,398.7	1,398.3	1,398.7	5.2	4.6	101.15	-0.3	-30.0	17.7	8.4	9.30	1.905 Advise and Monitor	
1,500.0	1,497.7	1,497.3	1,497.7	5.5	4.7	134.72	-0.3	-30.0	24.6	14.6	9.94	2.471	
1,600.0	1,596.8	1,597.0	1,597.4	5.7	4.8	149.44	-0.8	-31.1	34.9	24.5	10.41	3.352	
1,700.0	1,695.8	1,697.3	1,697.6	6.0	5.0	155.22	-2.3	-34.7	44.3	33.4	10.90	4.068	
1,800.0	1,794.8	1,798.0	1,798.1	6.4	5.2	157.31	-4.8	-40.7	51.9	40.5	11.40	4.553	
1,900.0	1,893.8	1,899.0	1,898.7	6.7	5.4	157.37	-8.4	-49.1	57.4	45.5	11.92	4.815	
2,000.0	1,992.9	2,000.2	1,999.2	7.0	5.6	155.96	-13.1	-60.1	60.7	48.3	12.43	4.884	
2,100.0	2,091.9	2,101.5	2,099.4	7.4	5.9	153.16	-18.8	-73.5	62.0	49.1	12.92	4.800	
2,200.0	2,190.9	2,202.6	2,199.0	7.7	6.2	148.81	-25.5	-89.3	61.5	48.2	13.35	4.610	
2,300.0	2,289.9	2,302.7	2,297.3	8.1	6.5	143.03	-32.9	-106.8	60.1	46.5	13.61	4.415	
2,400.0	2,389.0	2,402.5	2,395.3	8.4	6.8	136.94	-40.3	-124.3	59.2	45.4	13.85	4.275	
2,478.2	2,466.4	2,480.5	2,471.9	8.7	7.1	132.11	-46.1	-138.0	59.0	45.0	13.98	4.220	
2,500.0	2,488.0	2,502.3	2,493.3	8.8	7.2	130.75	-47.8	-141.8	59.0	45.0	14.01	4.213	
2,600.0	2,587.0	2,602.1	2,591.2	9.2	7.5	124.59	-55.2	-159.3	59.5	45.4	14.10	4.220	
2,700.0	2,686.1	2,701.9	2,689.2	9.6	7.9	118.60	-62.7	-176.9	60.7	46.5	14.16	4.285	
2,800.0	2,785.1	2,801.7	2,787.2	10.0	8.3	112.89	-70.1	-194.4	62.5	48.3	14.22	4.394	
2,900.0	2,884.1	2,901.5	2,885.1	10.4	8.6	107.56	-77.5	-211.9	64.9	50.6	14.32	4.531	
3,000.0	2,983.1	3,001.3	2,983.1	10.8	9.0	102.64	-85.0	-229.5	67.8	53.3	14.48	4.682	
3,100.0	3,082.2	3,101.1	3,081.0	11.2	9.4	98.15	-92.4	-247.0	71.2	56.5	14.72	4.836	
3,200.0	3,181.2	3,200.9	3,179.0	11.6	9.8	94.09	-99.9	-264.5	74.9	59.9	15.04	4.984	
3,300.0	3,280.2	3,300.7	3,277.0	12.0	10.3	90.44	-107.3	-282.0	79.0	63.6	15.43	5.122	
3,400.0	3,379.2	3,400.5	3,374.9	12.4	10.7	87.16	-114.7	-299.6	83.4	67.5	15.90	5.248	
3,500.0	3,478.3	3,500.3	3,472.9	12.8	11.1	84.21	-122.2	-317.1	88.1	71.7	16.43	5.361	
3,600.0	3,577.3	3,600.1	3,570.8	13.2	11.5	81.57	-129.6	-334.6	92.9	75.9	17.01	5.464	
3,700.0	3,676.3	3,699.8	3,668.8	13.6	11.9	79.19	-137.1	-352.1	98.0	80.3	17.63	5.557	
3,800.0	3,775.3	3,799.6	3,766.8	14.0	12.4	77.05	-144.5	-369.7	103.2	84.9	18.28	5.642	
3,900.0	3,874.4	3,899.4	3,864.7	14.4	12.8	75.11	-151.9	-387.2	108.5	89.5	18.96	5.720	
4,000.0	3,973.4	3,999.2	3,962.7	14.8	13.2	73.36	-159.4	-404.7	113.9	94.2	19.67	5.792	
4,100.0	4,072.4	4,099.0	4,060.7	15.3	13.7	71.76	-166.8	-422.3	119.4	99.0	20.38	5.859	
4,200.0	4,171.5	4,198.8	4,158.6	15.7	14.1	70.31	-174.3	-439.8	125.0	103.9	21.11	5.921	
4,300.0	4,270.5	4,298.6	4,256.6	16.1	14.5	68.99	-181.7	-457.3	130.7	108.8	21.85	5.981	
4,400.0	4,369.5	4,398.4	4,354.5	16.5	15.0	67.77	-189.1	-474.8	136.4	113.8	22.60	6.037	
4,500.0	4,468.5	4,498.2	4,452.5	16.9	15.4	66.66	-196.6	-492.4	142.2	118.9	23.36	6.090	
4,600.0	4,567.6	4,598.0	4,550.5	17.3	15.9	65.63	-204.0	-509.9	148.1	124.0	24.11	6.141	
4,700.0	4,666.6	4,697.8	4,648.4	17.8	16.3	64.68	-211.5	-527.4	154.0	129.1	24.88	6.190	
4,800.0	4,765.6	4,797.6	4,746.4	18.2	16.8	63.80	-218.9	-545.0	159.9	134.3	25.64	6.236	
4,900.0	4,864.6	4,897.4	4,844.3	18.6	17.2	62.98	-226.3	-562.5	165.9	139.5	26.41	6.281	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,963.7	4,997.2	4,942.3	19.0	17.7	62.22	-233.8	-580.0	171.9	144.7	27.18	6.324	
5,100.0	5,062.7	5,097.0	5,040.3	19.4	18.1	61.51	-241.2	-597.5	177.9	150.0	27.95	6.365	
5,200.0	5,161.7	5,196.8	5,138.2	19.9	18.6	60.85	-248.7	-615.1	184.0	155.2	28.72	6.404	
5,300.0	5,260.8	5,296.6	5,236.2	20.3	19.0	60.20	-256.1	-632.6	190.1	160.6	29.48	6.449	
5,400.0	5,359.9	5,396.3	5,334.1	20.7	19.5	59.41	-263.5	-650.1	196.7	166.4	30.32	6.487	
5,500.0	5,459.2	5,496.0	5,431.9	21.1	19.9	58.46	-271.0	-667.6	203.8	172.6	31.22	6.526	
5,600.0	5,558.6	5,595.6	5,529.7	21.5	20.4	57.37	-278.4	-685.1	211.4	179.2	32.18	6.569	
5,700.0	5,658.0	5,695.2	5,627.5	21.9	20.8	56.18	-285.8	-702.6	219.5	186.4	33.19	6.615	
5,800.0	5,757.6	5,794.7	5,725.1	22.3	21.3	54.90	-293.2	-720.1	228.3	194.1	34.24	6.668	
5,900.0	5,857.2	5,894.1	5,822.7	22.7	21.7	53.55	-300.6	-737.5	237.7	202.4	35.33	6.727	
6,000.0	5,956.9	5,993.4	5,920.2	23.1	22.2	52.15	-308.1	-755.0	247.7	211.3	36.45	6.796	
6,100.0	6,056.7	6,093.9	6,018.9	23.4	22.6	50.72	-315.5	-772.4	258.3	220.7	37.58	6.874	
6,200.0	6,156.5	6,195.0	6,118.3	23.8	23.1	49.37	-322.6	-789.2	268.9	230.2	38.70	6.949	
6,300.0	6,256.3	6,296.2	6,218.0	24.1	23.5	48.09	-329.4	-805.2	279.5	239.7	39.79	7.025	
6,400.0	6,356.3	6,397.5	6,318.0	24.5	24.0	46.88	-335.8	-820.4	290.1	249.2	40.85	7.101	
6,500.0	6,456.2	6,498.9	6,418.2	24.8	24.4	45.72	-341.9	-834.8	300.7	258.8	41.88	7.179	
6,600.0	6,556.2	6,600.5	6,518.7	25.1	24.9	44.62	-347.7	-848.4	311.2	268.4	42.88	7.258	
6,700.0	6,656.2	6,702.2	6,619.4	25.3	25.3	43.56	-353.1	-861.2	321.8	278.0	43.84	7.340	
6,800.0	6,756.2	6,804.0	6,720.4	25.5	25.7	42.54	-358.2	-873.2	332.3	287.6	44.76	7.425	
6,900.0	6,856.2	6,905.9	6,821.6	25.6	26.1	-84.45	-363.0	-884.3	342.7	297.2	45.50	7.532	
7,000.0	6,956.2	7,008.0	6,923.1	25.6	26.6	-85.32	-367.4	-894.7	352.4	306.2	46.18	7.632	
7,100.0	7,056.2	7,110.4	7,024.9	25.6	27.0	-86.09	-371.4	-904.2	361.4	314.6	46.81	7.721	
7,200.0	7,156.2	7,212.9	7,127.0	25.6	27.4	-86.76	-375.1	-912.9	369.7	322.3	47.40	7.800	
7,300.0	7,256.2	7,315.5	7,229.3	25.7	27.8	-87.33	-378.5	-920.8	377.2	329.3	47.95	7.867	
7,400.0	7,356.2	7,418.3	7,331.8	25.7	28.1	-87.83	-381.4	-927.9	384.0	335.5	48.46	7.923	
7,500.0	7,456.2	7,521.3	7,434.5	25.7	28.5	-88.25	-384.1	-934.1	389.9	341.0	48.93	7.968	
7,600.0	7,556.2	7,624.3	7,537.4	25.7	28.9	-88.61	-386.4	-939.5	395.1	345.7	49.37	8.002	
7,700.0	7,656.2	7,727.5	7,640.4	25.8	29.2	-88.90	-388.3	-944.0	399.4	349.6	49.77	8.024	
7,800.0	7,756.2	7,830.7	7,743.6	25.8	29.6	-89.13	-389.8	-947.7	402.9	352.8	50.14	8.036	
7,900.0	7,856.2	7,934.0	7,846.8	25.8	29.9	-89.31	-391.0	-950.5	405.7	355.2	50.47	8.038	
8,000.0	7,956.2	8,037.3	7,950.1	25.8	30.2	-89.43	-391.9	-952.5	407.5	356.8	50.75	8.030	
8,100.0	8,056.2	8,140.7	8,053.5	25.8	30.4	-89.49	-392.3	-953.6	408.6	357.6	50.98	8.015	
8,200.0	8,156.2	8,243.3	8,156.2	25.9	30.6	-89.51	-392.5	-953.8	408.9	357.8	51.10	8.001	
8,300.0	8,256.2	8,343.3	8,256.2	25.9	30.6	-89.51	-392.5	-953.8	408.9	357.7	51.14	7.994	
8,400.0	8,356.2	8,443.3	8,356.2	25.9	30.6	-89.51	-392.5	-953.8	408.9	357.7	51.19	7.987	
8,500.0	8,456.2	8,543.3	8,456.2	25.9	30.6	-89.51	-392.5	-953.8	408.9	357.6	51.23	7.980	
8,600.0	8,556.2	8,643.3	8,556.2	26.0	30.6	-89.51	-392.5	-953.8	408.9	357.6	51.28	7.973	
8,700.0	8,656.2	8,743.3	8,656.2	26.0	30.6	-89.51	-392.5	-953.8	408.9	357.5	51.33	7.966	
8,800.0	8,756.2	8,843.3	8,756.2	26.0	30.7	-89.51	-392.5	-953.8	408.9	357.5	51.37	7.959	
8,900.0	8,856.2	8,943.3	8,856.2	26.0	30.7	-89.51	-392.5	-953.8	408.9	357.4	51.42	7.951	
9,000.0	8,956.2	9,043.3	8,956.2	26.1	30.7	-89.51	-392.5	-953.8	408.9	357.4	51.47	7.944	
9,100.0	9,056.2	9,143.3	9,056.2	26.1	30.7	-89.51	-392.5	-953.8	408.9	357.3	51.52	7.937	
9,200.0	9,156.2	9,243.3	9,156.2	26.1	30.7	-89.51	-392.5	-953.8	408.9	357.3	51.56	7.929	
9,300.0	9,256.2	9,343.3	9,256.2	26.1	30.8	-89.51	-392.5	-953.8	408.9	357.2	51.61	7.922	
9,400.0	9,356.2	9,443.3	9,356.2	26.2	30.8	-89.51	-392.5	-953.8	408.9	357.2	51.66	7.914	
9,500.0	9,456.2	9,543.3	9,456.2	26.2	30.8	-89.51	-392.5	-953.8	408.9	357.2	51.71	7.906	
9,600.0	9,556.2	9,643.3	9,556.2	26.2	30.8	-89.51	-392.5	-953.8	408.9	357.1	51.76	7.899	
9,700.0	9,656.2	9,743.3	9,656.2	26.2	30.8	-89.51	-392.5	-953.8	408.9	357.0	51.82	7.891	
9,800.0	9,756.2	9,843.3	9,756.2	26.3	30.9	-89.51	-392.5	-953.8	408.9	357.0	51.87	7.883	
9,900.0	9,856.2	9,943.3	9,856.2	26.3	30.9	-89.51	-392.5	-953.8	408.9	356.9	51.92	7.875	
10,000.0	9,956.2	10,043.3	9,956.2	26.3	30.9	-89.51	-392.5	-953.8	408.9	356.9	51.97	7.867	
10,100.0	10,056.2	10,143.3	10,056.2	26.3	30.9	-89.51	-392.5	-953.8	408.9	356.8	52.02	7.859	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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
10,200.0	10,156.2	10,243.3	10,156.2	26.4	31.0	-89.51	-392.5	-953.8	408.9	356.8	52.08	7.851	
10,300.0	10,256.2	10,343.3	10,256.2	26.4	31.0	-89.51	-392.5	-953.8	408.9	356.7	52.13	7.843	
10,400.0	10,356.2	10,443.3	10,356.2	26.4	31.0	-89.51	-392.5	-953.8	408.9	356.7	52.19	7.835	
10,500.0	10,456.2	10,543.3	10,456.2	26.5	31.0	-89.51	-392.5	-953.8	408.9	356.6	52.24	7.827	
10,600.0	10,556.2	10,643.3	10,556.2	26.5	31.0	-89.51	-392.5	-953.8	408.9	356.6	52.30	7.818	
10,700.0	10,656.2	10,743.3	10,656.2	26.5	31.1	-89.51	-392.5	-953.8	408.9	356.5	52.35	7.810	
10,800.0	10,756.2	10,843.3	10,756.2	26.5	31.1	-89.51	-392.5	-953.8	408.9	356.5	52.41	7.802	
10,900.0	10,856.2	10,943.3	10,856.2	26.6	31.1	-89.51	-392.5	-953.8	408.9	356.4	52.46	7.793	
11,000.0	10,956.2	11,043.3	10,956.2	26.6	31.1	-89.51	-392.5	-953.8	408.9	356.3	52.52	7.785	
11,100.0	11,056.2	11,143.3	11,056.2	26.6	31.2	-88.78	-392.5	-953.8	408.9	356.3	52.58	7.777	
11,194.0	11,149.7	11,236.9	11,149.7	26.7	31.2	-90.00	-392.5	-953.8	408.8	355.8	52.99	7.714	
11,200.0	11,155.5	11,242.7	11,155.5	26.7	31.2	-90.15	-392.5	-953.8	408.8	355.7	53.04	7.707	
11,300.0	11,251.7	11,341.3	11,254.1	26.7	31.2	-93.47	-390.1	-953.9	409.6	355.5	54.03	7.581	
11,400.0	11,341.8	11,444.9	11,355.8	26.8	31.2	-97.02	-371.5	-954.1	412.1	357.3	54.75	7.527	
11,500.0	11,423.0	11,554.1	11,457.6	26.8	31.3	-100.42	-332.5	-954.6	416.0	361.0	55.03	7.560	
11,600.0	11,492.8	11,669.3	11,554.9	26.9	31.3	-103.53	-271.2	-955.3	420.9	366.1	54.85	7.674	
11,700.0	11,549.2	11,790.9	11,642.2	26.9	31.3	-106.23	-186.8	-956.4	426.2	371.9	54.27	7.852	
11,800.0	11,590.5	11,918.5	11,712.4	27.0	31.4	-108.37	-80.7	-957.7	430.9	377.5	53.39	8.071	
11,900.0	11,615.3	12,050.9	11,758.6	27.1	31.5	-109.81	43.1	-959.2	434.4	382.1	52.30	8.306	
12,000.0	11,622.9	12,186.3	11,775.3	27.1	31.6	-110.46	177.2	-960.9	436.0	384.9	51.12	8.529	
12,100.0	11,622.8	12,287.2	11,775.4	27.2	31.7	-110.49	278.1	-962.1	436.0	384.7	51.30	8.499	
12,200.0	11,622.6	12,387.2	11,775.4	27.3	31.8	-110.51	378.1	-963.3	436.0	384.5	51.56	8.457	
12,300.0	11,622.4	12,487.2	11,775.4	27.5	31.9	-110.53	478.0	-964.6	436.0	384.2	51.86	8.408	
12,400.0	11,622.3	12,587.2	11,775.4	27.6	32.1	-110.56	578.0	-965.8	436.0	383.8	52.21	8.352	
12,500.0	11,622.1	12,687.2	11,775.4	27.7	32.2	-110.58	678.0	-967.0	436.0	383.5	52.59	8.291	
12,600.0	11,621.9	12,787.2	11,775.4	27.9	32.4	-110.60	778.0	-968.3	436.1	383.0	53.03	8.223	
12,700.0	11,621.7	12,887.2	11,775.4	28.1	32.6	-110.63	878.0	-969.5	436.1	382.6	53.50	8.151	
12,800.0	11,621.6	12,987.2	11,775.4	28.3	32.8	-110.65	978.0	-970.7	436.1	382.1	54.01	8.074	
12,900.0	11,621.4	13,087.2	11,775.4	28.5	33.0	-110.68	1,078.0	-972.0	436.1	381.5	54.56	7.993	
13,000.0	11,621.2	13,187.2	11,775.4	28.7	33.3	-110.70	1,178.0	-973.2	436.1	381.0	55.15	7.908	
13,100.0	11,621.0	13,287.2	11,775.4	29.0	33.5	-110.72	1,278.0	-974.4	436.1	380.4	55.77	7.820	
13,200.0	11,620.9	13,387.2	11,775.4	29.2	33.8	-110.75	1,378.0	-975.7	436.1	379.7	56.43	7.729	
13,300.0	11,620.7	13,487.2	11,775.4	29.5	34.0	-110.77	1,478.0	-976.9	436.2	379.0	57.12	7.635	
13,400.0	11,620.5	13,587.2	11,775.4	29.8	34.3	-110.79	1,578.0	-978.1	436.2	378.3	57.85	7.540	
13,500.0	11,620.3	13,687.2	11,775.4	30.1	34.6	-110.82	1,678.0	-979.4	436.2	377.6	58.61	7.443	
13,600.0	11,620.2	13,787.2	11,775.4	30.4	34.9	-110.84	1,777.9	-980.6	436.2	376.8	59.39	7.344	
13,700.0	11,620.0	13,887.2	11,775.4	30.7	35.3	-110.87	1,877.9	-981.8	436.2	376.0	60.21	7.245	
13,800.0	11,619.8	13,987.2	11,775.4	31.1	35.6	-110.89	1,977.9	-983.1	436.2	375.2	61.05	7.145	
13,900.0	11,619.6	14,087.2	11,775.4	31.4	36.0	-110.91	2,077.9	-984.3	436.2	374.3	61.92	7.045	
14,000.0	11,619.5	14,187.2	11,775.4	31.8	36.3	-110.94	2,177.9	-985.5	436.3	373.4	62.82	6.945	
14,100.0	11,619.3	14,287.2	11,775.4	32.2	36.7	-110.96	2,277.9	-986.8	436.3	372.5	63.74	6.845	
14,200.0	11,619.1	14,387.2	11,775.4	32.6	37.1	-110.99	2,377.9	-988.0	436.3	371.6	64.68	6.745	
14,300.0	11,618.9	14,487.2	11,775.4	33.0	37.5	-111.01	2,477.9	-989.2	436.3	370.7	65.65	6.646	
14,400.0	11,618.8	14,587.2	11,775.4	33.5	37.9	-111.03	2,577.9	-990.5	436.3	369.7	66.63	6.548	
14,500.0	11,618.6	14,687.2	11,775.4	33.9	38.3	-111.06	2,677.9	-991.7	436.3	368.7	67.64	6.451	
14,600.0	11,618.4	14,787.2	11,775.4	34.4	38.7	-111.08	2,777.9	-992.9	436.3	367.7	68.67	6.355	
14,700.0	11,618.2	14,887.2	11,775.4	34.8	39.2	-111.10	2,877.9	-994.2	436.4	366.6	69.71	6.259	
14,800.0	11,618.1	14,987.2	11,775.4	35.3	39.6	-111.13	2,977.9	-995.4	436.4	365.6	70.77	6.166	
14,900.0	11,617.9	15,087.2	11,775.4	35.8	40.1	-111.15	3,077.8	-996.6	436.4	364.5	71.85	6.073	
15,000.0	11,617.7	15,187.2	11,775.4	36.3	40.5	-111.18	3,177.8	-997.8	436.4	363.4	72.95	5.982	
15,100.0	11,617.6	15,287.2	11,775.4	36.8	41.0	-111.20	3,277.8	-999.1	436.4	362.4	74.06	5.893	
15,200.0	11,617.4	15,387.2	11,775.4	37.3	41.5	-111.22	3,377.8	-1,000.3	436.4	361.2	75.19	5.804	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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							Rule Assigned:				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	Warning	
15,300.0	11,617.2	15,487.2	11,775.4	37.9	42.0	-111.25	3,477.8	-1,001.5	436.4	360.1	76.33	5.718		
15,400.0	11,617.0	15,587.2	11,775.4	38.4	42.5	-111.27	3,577.8	-1,002.8	436.5	359.0	77.48	5.633		
15,500.0	11,616.9	15,687.2	11,775.4	39.0	43.0	-111.29	3,677.8	-1,004.0	436.5	357.8	78.65	5.549		
15,600.0	11,616.7	15,787.2	11,775.4	39.5	43.5	-111.32	3,777.8	-1,005.2	436.5	356.7	79.83	5.468		
15,700.0	11,616.5	15,887.2	11,775.4	40.1	44.1	-111.34	3,877.8	-1,006.5	436.5	355.5	81.02	5.387		
15,800.0	11,616.3	15,987.2	11,775.4	40.7	44.6	-111.37	3,977.8	-1,007.7	436.5	354.3	82.23	5.309		
15,900.0	11,616.2	16,087.2	11,775.4	41.2	45.1	-111.39	4,077.8	-1,008.9	436.5	353.1	83.44	5.232		
16,000.0	11,616.0	16,187.2	11,775.4	41.8	45.7	-111.41	4,177.8	-1,010.2	436.6	351.9	84.67	5.156		
16,100.0	11,615.8	16,287.2	11,775.4	42.4	46.2	-111.44	4,277.8	-1,011.4	436.6	350.7	85.90	5.082		
16,200.0	11,615.6	16,387.2	11,775.4	43.0	46.8	-111.46	4,377.7	-1,012.6	436.6	349.4	87.14	5.010		
16,300.0	11,615.5	16,487.2	11,775.4	43.6	47.3	-111.48	4,477.7	-1,013.9	436.6	348.2	88.40	4.939		
16,400.0	11,615.3	16,587.2	11,775.4	44.2	47.9	-111.51	4,577.7	-1,015.1	436.6	347.0	89.66	4.870		
16,500.0	11,615.1	16,687.2	11,775.4	44.8	48.5	-111.53	4,677.7	-1,016.3	436.6	345.7	90.93	4.802		
16,600.0	11,614.9	16,787.2	11,775.4	45.5	49.1	-111.56	4,777.7	-1,017.6	436.6	344.4	92.21	4.735		
16,700.0	11,614.8	16,887.2	11,775.4	46.1	49.7	-111.58	4,877.7	-1,018.8	436.7	343.2	93.50	4.670		
16,800.0	11,614.6	16,987.2	11,775.4	46.7	50.2	-111.60	4,977.7	-1,020.0	436.7	341.9	94.79	4.607		
16,900.0	11,614.4	17,087.2	11,775.4	47.4	50.8	-111.63	5,077.7	-1,021.3	436.7	340.6	96.09	4.545		
17,000.0	11,614.2	17,187.2	11,775.4	48.0	51.4	-111.65	5,177.7	-1,022.5	436.7	339.3	97.40	4.484		
17,100.0	11,614.1	17,287.2	11,775.4	48.6	52.0	-111.67	5,277.7	-1,023.7	436.7	338.0	98.71	4.424		
17,200.0	11,613.9	17,387.2	11,775.4	49.3	52.7	-111.70	5,377.7	-1,025.0	436.7	336.7	100.03	4.366		
17,300.0	11,613.7	17,487.2	11,775.4	49.9	53.3	-111.72	5,477.7	-1,026.2	436.8	335.4	101.36	4.309		
17,400.0	11,613.6	17,587.2	11,775.4	50.6	53.9	-111.75	5,577.7	-1,027.4	436.8	334.1	102.69	4.253		
17,500.0	11,613.4	17,687.2	11,775.4	51.3	54.5	-111.77	5,677.6	-1,028.7	436.8	332.8	104.03	4.199		
17,600.0	11,613.2	17,787.2	11,775.4	51.9	55.1	-111.79	5,777.6	-1,029.9	436.8	331.4	105.37	4.145		
17,700.0	11,613.0	17,887.2	11,775.4	52.6	55.8	-111.82	5,877.6	-1,031.1	436.8	330.1	106.72	4.093		
17,800.0	11,612.9	17,987.2	11,775.4	53.3	56.4	-111.84	5,977.6	-1,032.4	436.8	328.8	108.08	4.042		
17,900.0	11,612.7	18,087.2	11,775.4	53.9	57.0	-111.86	6,077.6	-1,033.6	436.9	327.4	109.43	3.992		
18,000.0	11,612.5	18,187.2	11,775.4	54.6	57.7	-111.89	6,177.6	-1,034.8	436.9	326.1	110.80	3.943		
18,100.0	11,612.3	18,287.2	11,775.4	55.3	58.3	-111.91	6,277.6	-1,036.1	436.9	324.7	112.17	3.895		
18,200.0	11,612.2	18,387.2	11,775.4	56.0	59.0	-111.94	6,377.6	-1,037.3	436.9	323.4	113.54	3.848		
18,300.0	11,612.0	18,487.2	11,775.4	56.6	59.6	-111.96	6,477.6	-1,038.5	436.9	322.0	114.91	3.802		
18,400.0	11,611.8	18,587.2	11,775.4	57.3	60.3	-111.98	6,577.6	-1,039.8	437.0	320.7	116.29	3.757		
18,500.0	11,611.6	18,687.2	11,775.4	58.0	60.9	-112.01	6,677.6	-1,041.0	437.0	319.3	117.68	3.713		
18,600.0	11,611.5	18,787.2	11,775.4	58.7	61.6	-112.03	6,777.6	-1,042.2	437.0	317.9	119.07	3.670		
18,700.0	11,611.3	18,887.2	11,775.4	59.4	62.2	-112.05	6,877.5	-1,043.5	437.0	316.5	120.46	3.628		
18,800.0	11,611.1	18,987.2	11,775.4	60.1	62.9	-112.08	6,977.5	-1,044.7	437.0	315.2	121.85	3.586		
18,900.0	11,610.9	19,087.2	11,775.4	60.8	63.5	-112.10	7,077.5	-1,045.9	437.0	313.8	123.25	3.546		
19,000.0	11,610.8	19,187.2	11,775.4	61.5	64.2	-112.13	7,177.5	-1,047.2	437.1	312.4	124.65	3.506		
19,100.0	11,610.6	19,287.2	11,775.4	62.2	64.9	-112.15	7,277.5	-1,048.4	437.1	311.0	126.06	3.467		
19,200.0	11,610.4	19,387.2	11,775.4	62.9	65.6	-112.17	7,377.5	-1,049.6	437.1	309.6	127.47	3.429		
19,300.0	11,610.2	19,487.2	11,775.4	63.6	66.2	-112.20	7,477.5	-1,050.9	437.1	308.2	128.88	3.392		
19,400.0	11,610.1	19,587.2	11,775.4	64.3	66.9	-112.22	7,577.5	-1,052.1	437.1	306.8	130.29	3.355		
19,500.0	11,609.9	19,687.2	11,775.4	65.0	67.6	-112.24	7,677.5	-1,053.3	437.1	305.4	131.71	3.319		
19,600.0	11,609.7	19,787.2	11,775.4	65.7	68.3	-112.27	7,777.5	-1,054.6	437.2	304.0	133.13	3.284		
19,700.0	11,609.6	19,887.2	11,775.4	66.4	68.9	-112.29	7,877.5	-1,055.8	437.2	302.6	134.55	3.249		
19,800.0	11,609.4	19,987.2	11,775.4	67.1	69.6	-112.32	7,977.5	-1,057.0	437.2	301.2	135.97	3.215		
19,900.0	11,609.2	20,087.2	11,775.4	67.8	70.3	-112.34	8,077.5	-1,058.3	437.2	299.8	137.40	3.182		
20,000.0	11,609.0	20,187.2	11,775.4	68.5	71.0	-112.36	8,177.4	-1,059.5	437.2	298.4	138.83	3.149		
20,100.0	11,608.9	20,287.2	11,775.4	69.2	71.7	-112.39	8,277.4	-1,060.7	437.3	297.0	140.26	3.117		
20,200.0	11,608.7	20,387.2	11,775.4	70.0	72.4	-112.41	8,377.4	-1,062.0	437.3	295.6	141.69	3.086		
20,300.0	11,608.5	20,487.2	11,775.4	70.7	73.1	-112.43	8,477.4	-1,063.2	437.3	294.2	143.13	3.055		
20,400.0	11,608.3	20,587.2	11,775.4	71.4	73.7	-112.46	8,577.4	-1,064.4	437.3	292.7	144.57	3.025		

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
20,500.0	11,608.2	20,687.2	11,775.4	72.1	74.4	-112.48	8,677.4	-1,065.7	437.3	291.3	146.01	2.995	
20,600.0	11,608.0	20,787.2	11,775.4	72.8	75.1	-112.50	8,777.4	-1,066.9	437.4	289.9	147.45	2.966	
20,700.0	11,607.8	20,887.2	11,775.4	73.5	75.8	-112.53	8,877.4	-1,068.1	437.4	288.5	148.89	2.937	
20,800.0	11,607.6	20,987.2	11,775.4	74.3	76.5	-112.55	8,977.4	-1,069.4	437.4	287.1	150.34	2.909	
20,900.0	11,607.5	21,087.2	11,775.4	75.0	77.2	-112.58	9,077.4	-1,070.6	437.4	285.6	151.79	2.882	
21,000.0	11,607.3	21,187.2	11,775.4	75.7	77.9	-112.60	9,177.4	-1,071.8	437.4	284.2	153.24	2.855	
21,100.0	11,607.1	21,287.2	11,775.4	76.4	78.6	-112.62	9,277.4	-1,073.0	437.5	282.8	154.69	2.828	
21,200.0	11,606.9	21,387.2	11,775.4	77.1	79.3	-112.65	9,377.4	-1,074.3	437.5	281.3	156.14	2.802	
21,300.0	11,606.8	21,487.2	11,775.4	77.9	80.0	-112.67	9,477.3	-1,075.5	437.5	279.9	157.60	2.776	
21,400.0	11,606.6	21,587.2	11,775.4	78.6	80.7	-112.69	9,577.3	-1,076.7	437.5	278.5	159.05	2.751	
21,500.0	11,606.4	21,687.2	11,775.4	79.3	81.4	-112.72	9,677.3	-1,078.0	437.5	277.0	160.51	2.726	
21,600.0	11,606.2	21,787.2	11,775.4	80.1	82.2	-112.74	9,777.3	-1,079.2	437.6	275.6	161.97	2.701	
21,700.0	11,606.1	21,887.2	11,775.4	80.8	82.9	-112.77	9,877.3	-1,080.4	437.6	274.1	163.43	2.677	
21,800.0	11,605.9	21,987.2	11,775.4	81.5	83.6	-112.79	9,977.3	-1,081.7	437.6	272.7	164.89	2.654	
21,900.0	11,605.7	22,087.2	11,775.4	82.2	84.3	-112.81	10,077.3	-1,082.9	437.6	271.3	166.35	2.631	
22,000.0	11,605.5	22,187.2	11,775.4	83.0	85.0	-112.84	10,177.3	-1,084.1	437.6	269.8	167.82	2.608	
22,100.0	11,605.4	22,287.2	11,775.4	83.7	85.7	-112.86	10,277.3	-1,085.4	437.7	268.4	169.29	2.585	
22,200.0	11,605.2	22,387.2	11,775.4	84.4	86.4	-112.88	10,377.3	-1,086.6	437.7	266.9	170.75	2.563	
22,300.0	11,605.0	22,487.2	11,775.4	85.2	87.1	-112.91	10,477.3	-1,087.8	437.7	265.5	172.22	2.541	
22,400.0	11,604.9	22,587.2	11,775.4	85.9	87.8	-112.93	10,577.3	-1,089.1	437.7	264.0	173.69	2.520	
22,500.0	11,604.7	22,687.2	11,775.4	86.6	88.6	-112.95	10,677.3	-1,090.3	437.7	262.6	175.16	2.499	
22,600.0	11,604.5	22,787.2	11,775.4	87.4	89.3	-112.98	10,777.2	-1,091.5	437.8	261.1	176.63	2.478	
22,700.0	11,604.3	22,887.2	11,775.4	88.1	90.0	-113.00	10,877.2	-1,092.8	437.8	259.7	178.11	2.458	
22,800.0	11,604.2	22,987.2	11,775.4	88.8	90.7	-113.03	10,977.2	-1,094.0	437.8	258.2	179.58	2.438	
22,900.0	11,604.0	23,087.2	11,775.4	89.6	91.4	-113.05	11,077.2	-1,095.2	437.8	256.8	181.06	2.418	
23,000.0	11,603.8	23,187.2	11,775.4	90.3	92.2	-113.07	11,177.2	-1,096.5	437.8	255.3	182.53	2.399	
23,100.0	11,603.6	23,287.2	11,775.4	91.0	92.9	-113.10	11,277.2	-1,097.7	437.9	253.8	184.01	2.380	
23,200.0	11,603.5	23,387.2	11,775.4	91.8	93.6	-113.12	11,377.2	-1,098.9	437.9	252.4	185.49	2.361	
23,300.0	11,603.3	23,487.2	11,775.4	92.5	94.3	-113.14	11,477.2	-1,100.2	437.9	250.9	186.97	2.342	
23,400.0	11,603.1	23,587.2	11,775.4	93.2	95.0	-113.17	11,577.2	-1,101.4	437.9	249.5	188.45	2.324	
23,500.0	11,602.9	23,687.2	11,775.4	94.0	95.8	-113.19	11,677.2	-1,102.6	437.9	248.0	189.93	2.306	
23,600.0	11,602.8	23,787.2	11,775.4	94.7	96.5	-113.21	11,777.2	-1,103.9	438.0	246.5	191.42	2.288	
23,700.0	11,602.6	23,887.2	11,775.4	95.5	97.2	-113.24	11,877.2	-1,105.1	438.0	245.1	192.90	2.271	
23,800.0	11,602.4	23,987.2	11,775.4	96.2	97.9	-113.26	11,977.2	-1,106.3	438.0	243.6	194.38	2.253	
23,900.0	11,602.2	24,087.2	11,775.4	96.9	98.7	-113.28	12,077.1	-1,107.6	438.0	242.2	195.87	2.236	
24,000.0	11,602.1	24,187.2	11,775.4	97.7	99.4	-113.31	12,177.1	-1,108.8	438.1	240.7	197.35	2.220	
24,100.0	11,601.9	24,287.2	11,775.4	98.4	100.1	-113.33	12,277.1	-1,110.0	438.1	239.2	198.84	2.203	
24,200.0	11,601.7	24,387.2	11,775.4	99.2	100.8	-113.36	12,377.1	-1,111.3	438.1	237.8	200.33	2.187	
24,300.0	11,601.5	24,487.2	11,775.4	99.9	101.6	-113.38	12,477.1	-1,112.5	438.1	236.3	201.82	2.171	
24,400.0	11,601.4	24,587.2	11,775.4	100.6	102.3	-113.40	12,577.1	-1,113.7	438.1	234.8	203.31	2.155	
24,500.0	11,601.2	24,687.2	11,775.4	101.4	103.0	-113.43	12,677.1	-1,115.0	438.2	233.4	204.80	2.140	
24,600.0	11,601.0	24,787.2	11,775.4	102.1	103.8	-113.45	12,777.1	-1,116.2	438.2	231.9	206.29	2.124	
24,614.3	11,601.0	24,801.5	11,775.4	102.2	103.9	-113.45	12,791.4	-1,116.4	438.2	231.7	206.50	2.122	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #703H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-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	0.1	3.0	3.0	89.31	0.4	29.8	29.9				
100.0	100.0	99.9	100.0	3.0	3.0	89.31	0.4	29.8	29.9	23.8	6.05	4.933	
200.0	200.0	199.9	200.0	3.2	3.2	89.31	0.4	29.8	29.9	23.6	6.30	4.741	
300.0	300.0	299.9	300.0	3.3	3.3	89.31	0.4	29.8	29.9	23.3	6.53	4.570	
400.0	400.0	399.9	400.0	3.4	3.4	89.31	0.4	29.8	29.9	23.1	6.76	4.416	
500.0	500.0	499.9	500.0	3.5	3.5	89.31	0.4	29.8	29.9	22.9	6.98	4.277	
600.0	600.0	599.9	600.0	3.6	3.6	89.31	0.4	29.8	29.9	22.7	7.19	4.150	
700.0	700.0	699.9	700.0	3.8	3.8	89.31	0.4	29.8	29.9	22.5	7.40	4.034	
800.0	800.0	799.9	800.0	3.9	3.9	89.31	0.4	29.8	29.9	22.2	7.60	3.927	
900.0	900.0	899.9	900.0	4.0	4.0	89.31	0.4	29.8	29.9	22.1	7.80	3.828	
1,000.0	1,000.0	999.9	1,000.0	4.1	4.1	89.31	0.4	29.8	29.9	21.9	7.99	3.736 CC, ES	
1,100.0	1,100.0	1,100.3	1,100.4	4.3	4.3	-143.56	-1.3	29.2	30.6	22.3	8.27	3.699	
1,200.0	1,199.8	1,200.7	1,200.6	4.6	4.6	-140.46	-6.1	27.2	32.9	24.2	8.71	3.775	
1,300.0	1,299.5	1,300.9	1,300.4	4.9	4.9	-136.16	-14.2	23.8	36.8	27.7	9.12	4.040	
1,400.0	1,398.7	1,401.0	1,399.8	5.2	5.3	-131.52	-25.5	19.1	42.6	33.1	9.50	4.487	
1,500.0	1,497.7	1,500.7	1,498.5	5.5	5.5	-127.71	-38.3	13.8	49.5	39.7	9.84	5.032	
1,600.0	1,596.8	1,600.4	1,597.3	5.7	5.8	-124.83	-51.1	8.4	56.6	46.4	10.19	5.552	
1,700.0	1,695.8	1,700.1	1,696.0	6.0	6.1	-122.60	-63.9	3.1	63.7	53.2	10.54	6.045	
1,800.0	1,794.8	1,799.8	1,794.8	6.4	6.4	-120.82	-76.8	-2.2	71.0	60.1	10.90	6.510	
1,900.0	1,893.8	1,899.6	1,893.5	6.7	6.7	-119.37	-89.6	-7.6	78.2	67.0	11.26	6.950	
2,000.0	1,992.9	1,999.3	1,992.2	7.0	7.1	-118.16	-102.4	-12.9	85.6	73.9	11.62	7.364	
2,100.0	2,091.9	2,099.0	2,091.0	7.4	7.4	-117.15	-115.2	-18.2	92.9	80.9	11.98	7.755	
2,200.0	2,190.9	2,198.7	2,189.7	7.7	7.7	-116.29	-128.0	-23.6	100.3	88.0	12.35	8.124	
2,300.0	2,289.9	2,298.4	2,288.5	8.1	8.1	-115.54	-140.8	-28.9	107.7	95.0	12.71	8.472	
2,400.0	2,389.0	2,398.1	2,387.2	8.4	8.5	-114.89	-153.6	-34.2	115.1	102.1	13.08	8.801	
2,500.0	2,488.0	2,497.9	2,486.0	8.8	8.8	-114.32	-166.4	-39.6	122.6	109.1	13.45	9.113	
2,600.0	2,587.0	2,597.6	2,584.7	9.2	9.2	-113.81	-179.3	-44.9	130.0	116.2	13.82	9.408	
2,700.0	2,686.1	2,697.3	2,683.5	9.6	9.6	-113.36	-192.1	-50.2	137.5	123.3	14.19	9.688	
2,800.0	2,785.1	2,797.0	2,782.2	10.0	10.0	-112.96	-204.9	-55.6	144.9	130.4	14.56	9.953	
2,900.0	2,884.1	2,896.7	2,881.0	10.4	10.4	-112.59	-217.7	-60.9	152.4	137.5	14.93	10.205	
3,000.0	2,983.1	2,996.4	2,979.7	10.8	10.8	-112.26	-230.5	-66.2	159.9	144.6	15.31	10.445	
3,100.0	3,082.2	3,096.2	3,078.4	11.2	11.2	-111.96	-243.3	-71.6	167.3	151.7	15.68	10.673	
3,200.0	3,181.2	3,195.9	3,177.2	11.6	11.6	-111.69	-256.1	-76.9	174.8	158.8	16.05	10.890	
3,300.0	3,280.2	3,295.6	3,275.9	12.0	12.0	-111.44	-268.9	-82.2	182.3	165.9	16.43	11.098	
3,400.0	3,379.2	3,395.3	3,374.7	12.4	12.4	-111.20	-281.7	-87.6	189.8	173.0	16.80	11.295	
3,500.0	3,478.3	3,495.0	3,473.4	12.8	12.8	-110.99	-294.6	-92.9	197.3	180.1	17.18	11.484	
3,600.0	3,577.3	3,594.7	3,572.2	13.2	13.2	-110.79	-307.4	-98.2	204.8	187.2	17.56	11.665	
3,700.0	3,676.3	3,694.5	3,670.9	13.6	13.6	-110.60	-320.2	-103.6	212.3	194.4	17.93	11.838	
3,800.0	3,775.3	3,794.2	3,769.7	14.0	14.0	-110.43	-333.0	-108.9	219.8	201.5	18.31	12.003	
3,900.0	3,874.4	3,894.4	3,869.0	14.4	14.4	-110.37	-345.5	-114.1	227.2	208.6	18.66	12.178	
4,000.0	3,973.4	3,994.9	3,968.8	14.8	14.8	-110.72	-356.5	-118.7	234.3	215.3	19.05	12.303	
4,100.0	4,072.4	4,095.3	4,068.7	15.3	15.2	-111.46	-365.8	-122.6	241.1	221.7	19.45	12.401	
4,200.0	4,171.5	4,195.7	4,168.7	15.7	15.6	-112.57	-373.6	-125.8	247.7	227.9	19.86	12.472	
4,300.0	4,270.5	4,295.9	4,268.7	16.1	15.9	-114.00	-379.7	-128.4	254.2	233.9	20.31	12.517	
4,400.0	4,369.5	4,395.9	4,368.5	16.5	16.3	-115.74	-384.2	-130.2	260.6	239.8	20.79	12.535	
4,500.0	4,468.5	4,495.6	4,468.2	16.9	16.6	-117.77	-387.1	-131.4	267.2	245.9	21.33	12.526	
4,600.0	4,567.6	4,594.9	4,567.5	17.3	16.8	-120.05	-388.4	-132.0	274.0	252.1	21.94	12.492	
4,700.0	4,666.6	4,694.0	4,666.6	17.8	16.8	-122.47	-388.4	-132.0	281.3	258.8	22.54	12.482	
4,800.0	4,765.6	4,793.0	4,765.6	18.2	16.9	-124.78	-388.4	-132.0	289.1	265.9	23.20	12.458	
4,900.0	4,864.6	4,892.0	4,864.6	18.6	16.9	-126.97	-388.4	-132.0	297.3	273.4	23.90	12.438	
5,000.0	4,963.7	4,991.1	4,963.7	19.0	16.9	-129.04	-388.4	-132.0	305.9	281.3	24.62	12.424	
5,100.0	5,062.7	5,090.1	5,062.7	19.4	17.0	-131.00	-388.4	-132.0	314.9	289.5	25.36	12.418	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-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	
5,200.0	5,161.7	5,189.1	5,161.7	19.9	17.0	-132.84	-388.4	-132.0	324.2	298.1	26.11	12.421	
5,300.0	5,260.8	5,288.2	5,260.8	20.3	17.0	-134.59	-388.4	-132.0	333.8	307.0	26.83	12.444	
5,400.0	5,359.9	5,387.3	5,359.9	20.7	17.1	-136.16	-388.4	-132.0	343.1	315.5	27.54	12.455	
5,500.0	5,459.2	5,486.6	5,459.2	21.1	17.1	-137.54	-388.4	-132.0	351.9	323.7	28.23	12.464	
5,600.0	5,558.6	5,586.0	5,558.6	21.5	17.1	-138.77	-388.4	-132.0	360.3	331.4	28.89	12.470	
5,700.0	5,658.0	5,685.4	5,658.0	21.9	17.2	-139.86	-388.4	-132.0	368.2	338.6	29.52	12.472	
5,800.0	5,757.6	5,785.0	5,757.6	22.3	17.2	-140.81	-388.4	-132.0	375.5	345.4	30.12	12.467	
5,900.0	5,857.2	5,884.6	5,857.2	22.7	17.2	-141.65	-388.4	-132.0	382.2	351.5	30.69	12.455	
6,000.0	5,956.9	5,984.3	5,956.9	23.1	17.3	-142.38	-388.4	-132.0	388.3	357.1	31.22	12.437	
6,100.0	6,056.7	6,084.1	6,056.7	23.4	17.3	-143.00	-388.4	-132.0	393.8	362.1	31.73	12.410	
6,200.0	6,156.5	6,183.9	6,156.5	23.8	17.3	-143.54	-388.4	-132.0	398.6	366.4	32.21	12.375	
6,300.0	6,256.3	6,283.7	6,256.3	24.1	17.4	-143.98	-388.4	-132.0	402.8	370.1	32.66	12.331	
6,400.0	6,356.3	6,383.7	6,356.3	24.5	17.4	-144.35	-388.4	-132.0	406.2	373.1	33.08	12.280	
6,500.0	6,456.2	6,483.6	6,456.2	24.8	17.5	-144.63	-388.4	-132.0	409.0	375.5	33.47	12.220	
6,600.0	6,556.2	6,583.6	6,556.2	25.1	17.5	-144.84	-388.4	-132.0	411.0	377.2	33.82	12.154	
6,700.0	6,656.2	6,683.5	6,656.2	25.3	17.5	-144.98	-388.4	-132.0	412.4	378.3	34.13	12.082	
6,800.0	6,756.2	6,783.5	6,756.2	25.5	17.6	-145.04	-388.4	-132.0	413.0	378.6	34.39	12.010	
6,900.0	6,856.2	6,883.5	6,856.2	25.6	17.6	88.96	-388.4	-132.0	413.1	378.6	34.47	11.983	
7,000.0	6,956.2	6,983.5	6,956.2	25.6	17.6	88.96	-388.4	-132.0	413.1	378.5	34.55	11.957	
7,100.0	7,056.2	7,083.5	7,056.2	25.6	17.7	88.96	-388.4	-132.0	413.1	378.4	34.62	11.932	
7,200.0	7,156.2	7,183.5	7,156.2	25.6	17.7	88.96	-388.4	-132.0	413.1	378.4	34.69	11.907	
7,300.0	7,256.2	7,283.5	7,256.2	25.7	17.8	88.96	-388.4	-132.0	413.1	378.3	34.77	11.881	
7,400.0	7,356.2	7,383.5	7,356.2	25.7	17.8	88.96	-388.4	-132.0	413.1	378.2	34.84	11.855	
7,500.0	7,456.2	7,483.5	7,456.2	25.7	17.8	88.96	-388.4	-132.0	413.1	378.1	34.92	11.830	
7,600.0	7,556.2	7,583.5	7,556.2	25.7	17.9	88.96	-388.4	-132.0	413.1	378.1	34.99	11.804	
7,700.0	7,656.2	7,683.5	7,656.2	25.8	17.9	88.96	-388.4	-132.0	413.1	378.0	35.07	11.778	
7,800.0	7,756.2	7,783.5	7,756.2	25.8	18.0	88.96	-388.4	-132.0	413.1	377.9	35.15	11.752	
7,900.0	7,856.2	7,883.5	7,856.2	25.8	18.0	88.96	-388.4	-132.0	413.1	377.8	35.23	11.726	
8,000.0	7,956.2	7,983.5	7,956.2	25.8	18.0	88.96	-388.4	-132.0	413.1	377.8	35.31	11.700	
8,100.0	8,056.2	8,083.5	8,056.2	25.8	18.1	88.96	-388.4	-132.0	413.1	377.7	35.39	11.673	
8,200.0	8,156.2	8,183.5	8,156.2	25.9	18.1	88.96	-388.4	-132.0	413.1	377.6	35.47	11.647	
8,300.0	8,256.2	8,283.5	8,256.2	25.9	18.2	88.96	-388.4	-132.0	413.1	377.5	35.55	11.621	
8,400.0	8,356.2	8,383.5	8,356.2	25.9	18.2	88.96	-388.4	-132.0	413.1	377.4	35.63	11.594	
8,500.0	8,456.2	8,483.5	8,456.2	25.9	18.2	88.96	-388.4	-132.0	413.1	377.4	35.71	11.568	
8,600.0	8,556.2	8,583.5	8,556.2	26.0	18.3	88.96	-388.4	-132.0	413.1	377.3	35.79	11.542	
8,700.0	8,656.2	8,683.5	8,656.2	26.0	18.3	88.96	-388.4	-132.0	413.1	377.2	35.87	11.515	
8,800.0	8,756.2	8,783.5	8,756.2	26.0	18.4	88.96	-388.4	-132.0	413.1	377.1	35.96	11.488	
8,900.0	8,856.2	8,883.5	8,856.2	26.0	18.4	88.96	-388.4	-132.0	413.1	377.0	36.04	11.462	
9,000.0	8,956.2	8,983.5	8,956.2	26.1	18.5	88.96	-388.4	-132.0	413.1	376.9	36.12	11.435	
9,100.0	9,056.2	9,083.5	9,056.2	26.1	18.5	88.96	-388.4	-132.0	413.1	376.9	36.21	11.408	
9,200.0	9,156.2	9,183.5	9,156.2	26.1	18.5	88.96	-388.4	-132.0	413.1	376.8	36.29	11.382	
9,300.0	9,256.2	9,283.5	9,256.2	26.1	18.6	88.96	-388.4	-132.0	413.1	376.7	36.38	11.355	
9,400.0	9,356.2	9,383.5	9,356.2	26.2	18.6	88.96	-388.4	-132.0	413.1	376.6	36.46	11.328	
9,500.0	9,456.2	9,483.5	9,456.2	26.2	18.7	88.96	-388.4	-132.0	413.1	376.5	36.55	11.301	
9,600.0	9,556.2	9,583.5	9,556.2	26.2	18.7	88.96	-388.4	-132.0	413.1	376.4	36.64	11.274	
9,700.0	9,656.2	9,683.5	9,656.2	26.2	18.8	88.96	-388.4	-132.0	413.1	376.3	36.73	11.247	
9,800.0	9,756.2	9,783.5	9,756.2	26.3	18.8	88.96	-388.4	-132.0	413.1	376.3	36.81	11.221	
9,900.0	9,856.2	9,883.5	9,856.2	26.3	18.9	88.96	-388.4	-132.0	413.1	376.2	36.90	11.194	
10,000.0	9,956.2	9,983.5	9,956.2	26.3	18.9	88.96	-388.4	-132.0	413.1	376.1	36.99	11.167	
10,100.0	10,056.2	10,083.5	10,056.2	26.3	18.9	88.96	-388.4	-132.0	413.1	376.0	37.08	11.140	
10,200.0	10,156.2	10,183.5	10,156.2	26.4	19.0	88.96	-388.4	-132.0	413.1	375.9	37.17	11.113	
10,300.0	10,256.2	10,283.5	10,256.2	26.4	19.0	88.96	-388.4	-132.0	413.1	375.8	37.26	11.086	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-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	
10,400.0	10,356.2	10,383.5	10,356.2	26.4	19.1	88.96	-388.4	-132.0	413.1	375.7	37.35	11.059	
10,500.0	10,456.2	10,483.5	10,456.2	26.5	19.1	88.96	-388.4	-132.0	413.1	375.6	37.44	11.032	
10,600.0	10,556.2	10,583.5	10,556.2	26.5	19.2	88.96	-388.4	-132.0	413.1	375.5	37.54	11.005	
10,700.0	10,656.2	10,683.5	10,656.2	26.5	19.2	88.96	-388.4	-132.0	413.1	375.4	37.63	10.978	
10,800.0	10,756.2	10,783.5	10,756.2	26.5	19.3	88.96	-388.4	-132.0	413.1	375.3	37.72	10.951	
10,900.0	10,856.2	10,883.5	10,856.2	26.6	19.3	88.96	-388.4	-132.0	413.1	375.3	37.81	10.924	
11,000.0	10,956.2	10,983.5	10,956.2	26.6	19.4	88.96	-388.4	-132.0	413.1	375.2	37.91	10.897	
11,100.0	11,056.2	11,083.5	11,056.2	26.6	19.4	89.70	-388.4	-132.0	413.1	375.1	38.00	10.872	
11,144.4	11,100.5	11,127.9	11,100.5	26.6	19.4	90.00	-388.4	-132.0	413.1	375.1	37.95	10.885	
11,200.0	11,155.5	11,182.9	11,155.5	26.7	19.5	91.03	-388.4	-132.0	413.1	375.4	37.72	10.953	
11,300.0	11,251.7	11,282.1	11,254.7	26.7	19.5	94.31	-386.1	-132.0	414.3	377.4	36.89	11.230	
11,400.0	11,341.8	11,387.0	11,357.7	26.8	19.7	97.81	-367.2	-132.3	417.2	381.0	36.15	11.542	
11,500.0	11,423.0	11,497.7	11,460.7	26.8	19.8	101.12	-327.2	-132.8	421.4	385.6	35.74	11.790	
11,600.0	11,492.8	11,614.6	11,559.1	26.9	19.9	104.13	-264.4	-133.7	426.4	390.6	35.87	11.888	
11,700.0	11,549.2	11,737.8	11,646.7	26.9	20.1	106.69	-178.2	-134.9	431.6	394.9	36.63	11.782	
11,800.0	11,590.5	11,866.8	11,716.4	27.0	20.2	108.66	-70.0	-136.3	436.0	398.1	37.96	11.486	
11,900.0	11,615.3	12,000.3	11,761.3	27.1	20.3	109.92	55.4	-138.1	439.0	399.4	39.61	11.085	
12,000.0	11,622.9	12,134.8	11,776.1	27.1	20.4	110.36	188.8	-139.9	440.1	398.9	41.18	10.687	
12,100.0	11,622.8	12,234.8	11,776.1	27.2	20.4	110.39	288.7	-141.3	440.1	398.6	41.45	10.616	
12,200.0	11,622.6	12,334.8	11,776.1	27.3	20.5	110.41	388.7	-142.6	440.0	398.2	41.79	10.530	
12,300.0	11,622.4	12,434.8	11,776.1	27.5	20.5	110.44	488.7	-144.0	440.0	397.8	42.18	10.433	
12,400.0	11,622.3	12,534.8	11,776.1	27.6	20.6	110.46	588.7	-145.4	440.0	397.4	42.62	10.324	
12,500.0	11,622.1	12,634.8	11,776.1	27.7	20.7	110.49	688.7	-146.7	440.0	396.9	43.11	10.205	
12,600.0	11,621.9	12,734.8	11,776.1	27.9	20.7	110.51	788.7	-148.1	440.0	396.3	43.66	10.078	
12,700.0	11,621.7	12,834.8	11,776.1	28.1	20.8	110.54	888.7	-149.5	439.9	395.7	44.25	9.943	
12,800.0	11,621.6	12,934.8	11,776.1	28.3	20.9	110.56	988.7	-150.8	439.9	395.0	44.88	9.802	
12,900.0	11,621.4	13,034.8	11,776.1	28.5	21.1	110.59	1,088.7	-152.2	439.9	394.4	45.56	9.656	
13,000.0	11,621.2	13,134.8	11,776.1	28.7	21.2	110.61	1,188.7	-153.6	439.9	393.6	46.28	9.505	
13,100.0	11,621.0	13,234.8	11,776.1	29.0	21.3	110.64	1,288.6	-154.9	439.9	392.8	47.04	9.352	
13,200.0	11,620.9	13,334.8	11,776.1	29.2	21.5	110.66	1,388.6	-156.3	439.9	392.0	47.83	9.196	
13,300.0	11,620.7	13,434.8	11,776.1	29.5	21.7	110.69	1,488.6	-157.7	439.8	391.2	48.66	9.039	
13,400.0	11,620.5	13,534.8	11,776.1	29.8	22.0	110.71	1,588.6	-159.0	439.8	390.3	49.53	8.881	
13,500.0	11,620.3	13,634.8	11,776.1	30.1	22.3	110.74	1,688.6	-160.4	439.8	389.4	50.42	8.722	
13,600.0	11,620.2	13,734.8	11,776.1	30.4	22.6	110.76	1,788.6	-161.8	439.8	388.4	51.35	8.565	
13,700.0	11,620.0	13,834.8	11,776.1	30.7	22.9	110.79	1,888.6	-163.1	439.8	387.5	52.30	8.408	
13,800.0	11,619.8	13,934.8	11,776.1	31.1	23.3	110.81	1,988.6	-164.5	439.8	386.5	53.28	8.253	
13,900.0	11,619.6	14,034.8	11,776.1	31.4	23.8	110.84	2,088.6	-165.9	439.7	385.5	54.29	8.100	
14,000.0	11,619.5	14,134.8	11,776.1	31.8	24.2	110.86	2,188.6	-167.2	439.7	384.4	55.32	7.949	
14,100.0	11,619.3	14,234.8	11,776.1	32.2	24.7	110.89	2,288.5	-168.6	439.7	383.3	56.37	7.800	
14,200.0	11,619.1	14,334.8	11,776.1	32.6	25.3	110.91	2,388.5	-170.0	439.7	382.3	57.44	7.654	
14,300.0	11,618.9	14,434.8	11,776.1	33.0	25.8	110.94	2,488.5	-171.3	439.7	381.1	58.54	7.511	
14,400.0	11,618.8	14,534.8	11,776.1	33.5	26.4	110.96	2,588.5	-172.7	439.7	380.0	59.65	7.371	
14,500.0	11,618.6	14,634.8	11,776.1	33.9	27.0	110.99	2,688.5	-174.1	439.6	378.9	60.78	7.233	
14,600.0	11,618.4	14,734.8	11,776.1	34.4	27.6	111.01	2,788.5	-175.5	439.6	377.7	61.93	7.099	
14,700.0	11,618.2	14,834.8	11,776.1	34.8	28.2	111.04	2,888.5	-176.8	439.6	376.5	63.09	6.968	
14,800.0	11,618.1	14,934.8	11,776.1	35.3	28.8	111.06	2,988.5	-178.2	439.6	375.3	64.27	6.840	
14,900.0	11,617.9	15,034.8	11,776.1	35.8	29.4	111.09	3,088.5	-179.6	439.6	374.1	65.46	6.715	
15,000.0	11,617.7	15,134.8	11,776.1	36.3	30.0	111.11	3,188.5	-180.9	439.6	372.9	66.67	6.593	
15,100.0	11,617.6	15,234.8	11,776.1	36.8	30.7	111.14	3,288.5	-182.3	439.6	371.7	67.89	6.474	
15,200.0	11,617.4	15,334.8	11,776.1	37.3	31.3	111.16	3,388.4	-183.7	439.5	370.4	69.12	6.359	
15,300.0	11,617.2	15,434.8	11,776.1	37.9	32.0	111.19	3,488.4	-185.0	439.5	369.2	70.37	6.246	
15,400.0	11,617.0	15,534.8	11,776.1	38.4	32.7	111.21	3,588.4	-186.4	439.5	367.9	71.62	6.137	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-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	11,616.9	15,634.8	11,776.1	39.0	33.3	111.24	3,688.4	-187.8	439.5	366.6	72.89	6.030	
15,600.0	11,616.7	15,734.8	11,776.1	39.5	34.0	111.26	3,788.4	-189.1	439.5	365.3	74.16	5.926	
15,700.0	11,616.5	15,834.8	11,776.1	40.1	34.7	111.29	3,888.4	-190.5	439.5	364.0	75.45	5.825	
15,800.0	11,616.3	15,934.8	11,776.1	40.7	35.4	111.31	3,988.4	-191.9	439.4	362.7	76.74	5.726	
15,900.0	11,616.2	16,034.8	11,776.1	41.2	36.1	111.34	4,088.4	-193.2	439.4	361.4	78.04	5.631	
16,000.0	11,616.0	16,134.8	11,776.1	41.8	36.7	111.36	4,188.4	-194.6	439.4	360.1	79.35	5.537	
16,100.0	11,615.8	16,234.8	11,776.1	42.4	37.4	111.39	4,288.4	-196.0	439.4	358.7	80.67	5.447	
16,200.0	11,615.6	16,334.8	11,776.1	43.0	38.1	111.42	4,388.3	-197.3	439.4	357.4	82.00	5.359	
16,300.0	11,615.5	16,434.8	11,776.1	43.6	38.8	111.44	4,488.3	-198.7	439.4	356.0	83.33	5.273	
16,400.0	11,615.3	16,534.8	11,776.1	44.2	39.5	111.47	4,588.3	-200.1	439.4	354.7	84.67	5.189	
16,500.0	11,615.1	16,634.8	11,776.1	44.8	40.2	111.49	4,688.3	-201.4	439.3	353.3	86.02	5.108	
16,600.0	11,614.9	16,734.8	11,776.1	45.5	41.0	111.52	4,788.3	-202.8	439.3	352.0	87.37	5.029	
16,700.0	11,614.8	16,834.8	11,776.1	46.1	41.7	111.54	4,888.3	-204.2	439.3	350.6	88.73	4.951	
16,800.0	11,614.6	16,934.8	11,776.1	46.7	42.4	111.57	4,988.3	-205.6	439.3	349.2	90.09	4.876	
16,900.0	11,614.4	17,034.8	11,776.1	47.4	43.1	111.59	5,088.3	-206.9	439.3	347.8	91.46	4.803	
17,000.0	11,614.2	17,134.8	11,776.1	48.0	43.8	111.62	5,188.3	-208.3	439.3	346.4	92.83	4.732	
17,100.0	11,614.1	17,234.8	11,776.1	48.6	44.5	111.64	5,288.3	-209.7	439.3	345.1	94.21	4.663	
17,200.0	11,613.9	17,334.8	11,776.1	49.3	45.2	111.67	5,388.3	-211.0	439.2	343.7	95.59	4.595	
17,300.0	11,613.7	17,434.8	11,776.1	49.9	46.0	111.69	5,488.2	-212.4	439.2	342.3	96.98	4.529	
17,400.0	11,613.6	17,534.8	11,776.1	50.6	46.7	111.72	5,588.2	-213.8	439.2	340.8	98.37	4.465	
17,500.0	11,613.4	17,634.8	11,776.1	51.3	47.4	111.74	5,688.2	-215.1	439.2	339.4	99.77	4.402	
17,600.0	11,613.2	17,734.8	11,776.1	51.9	48.1	111.77	5,788.2	-216.5	439.2	338.0	101.17	4.341	
17,700.0	11,613.0	17,834.8	11,776.1	52.6	48.9	111.79	5,888.2	-217.9	439.2	336.6	102.57	4.282	
17,800.0	11,612.9	17,934.8	11,776.1	53.3	49.6	111.82	5,988.2	-219.2	439.2	335.2	103.98	4.223	
17,900.0	11,612.7	18,034.8	11,776.1	53.9	50.3	111.84	6,088.2	-220.6	439.2	333.8	105.39	4.167	
18,000.0	11,612.5	18,134.8	11,776.1	54.6	51.0	111.87	6,188.2	-222.0	439.1	332.3	106.81	4.112	
18,100.0	11,612.3	18,234.8	11,776.1	55.3	51.8	111.89	6,288.2	-223.3	439.1	330.9	108.23	4.058	
18,200.0	11,612.2	18,334.8	11,776.1	56.0	52.5	111.92	6,388.2	-224.7	439.1	329.5	109.65	4.005	
18,300.0	11,612.0	18,434.8	11,776.1	56.6	53.2	111.94	6,488.1	-226.1	439.1	328.0	111.07	3.953	
18,400.0	11,611.8	18,534.8	11,776.1	57.3	54.0	111.97	6,588.1	-227.4	439.1	326.6	112.50	3.903	
18,500.0	11,611.6	18,634.8	11,776.1	58.0	54.7	111.99	6,688.1	-228.8	439.1	325.2	113.93	3.854	
18,600.0	11,611.5	18,734.8	11,776.1	58.7	55.4	112.02	6,788.1	-230.2	439.1	323.7	115.36	3.806	
18,700.0	11,611.3	18,834.8	11,776.1	59.4	56.2	112.04	6,888.1	-231.5	439.1	322.3	116.79	3.759	
18,800.0	11,611.1	18,934.8	11,776.1	60.1	56.9	112.07	6,988.1	-232.9	439.0	320.8	118.23	3.713	
18,900.0	11,610.9	19,034.8	11,776.1	60.8	57.7	112.10	7,088.1	-234.3	439.0	319.4	119.67	3.669	
19,000.0	11,610.8	19,134.8	11,776.1	61.5	58.4	112.12	7,188.1	-235.7	439.0	317.9	121.11	3.625	
19,100.0	11,610.6	19,234.7	11,776.1	62.2	59.1	112.15	7,288.1	-237.0	439.0	316.4	122.56	3.582	
19,200.0	11,610.4	19,334.7	11,776.1	62.9	59.9	112.17	7,388.1	-238.4	439.0	315.0	124.01	3.540	
19,300.0	11,610.2	19,434.7	11,776.1	63.6	60.6	112.20	7,488.1	-239.8	439.0	313.5	125.45	3.499	
19,400.0	11,610.1	19,534.7	11,776.1	64.3	61.4	112.22	7,588.0	-241.1	439.0	312.1	126.91	3.459	
19,500.0	11,609.9	19,634.7	11,776.1	65.0	62.1	112.25	7,688.0	-242.5	439.0	310.6	128.36	3.420	
19,600.0	11,609.7	19,734.7	11,776.1	65.7	62.8	112.27	7,788.0	-243.9	438.9	309.1	129.81	3.381	
19,700.0	11,609.6	19,834.7	11,776.1	66.4	63.6	112.30	7,888.0	-245.2	438.9	307.7	131.27	3.344	
19,800.0	11,609.4	19,934.7	11,776.1	67.1	64.3	112.32	7,988.0	-246.6	438.9	306.2	132.73	3.307	
19,900.0	11,609.2	20,034.7	11,776.1	67.8	65.1	112.35	8,088.0	-248.0	438.9	304.7	134.19	3.271	
20,000.0	11,609.0	20,134.7	11,776.1	68.5	65.8	112.37	8,188.0	-249.3	438.9	303.3	135.65	3.236	
20,100.0	11,608.9	20,234.7	11,776.1	69.2	66.6	112.40	8,288.0	-250.7	438.9	301.8	137.11	3.201	
20,200.0	11,608.7	20,334.7	11,776.1	70.0	67.3	112.42	8,388.0	-252.1	438.9	300.3	138.58	3.167	
20,300.0	11,608.5	20,434.7	11,776.1	70.7	68.1	112.45	8,488.0	-253.4	438.9	298.8	140.04	3.134	
20,400.0	11,608.3	20,534.7	11,776.1	71.4	68.8	112.47	8,587.9	-254.8	438.9	297.3	141.51	3.101	
20,500.0	11,608.2	20,634.7	11,776.1	72.1	69.5	112.50	8,687.9	-256.2	438.8	295.9	142.98	3.069	
20,600.0	11,608.0	20,734.7	11,776.1	72.8	70.3	112.52	8,787.9	-257.5	438.8	294.4	144.45	3.038	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-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)		
20,700.0	11,607.8	20,834.7	11,776.1	73.5	71.0	112.55	8,887.9	-258.9	438.8	292.9	145.92	3.007	
20,800.0	11,607.6	20,934.7	11,776.1	74.3	71.8	112.57	8,987.9	-260.3	438.8	291.4	147.40	2.977	
20,900.0	11,607.5	21,034.7	11,776.1	75.0	72.5	112.60	9,087.9	-261.6	438.8	289.9	148.87	2.948	
21,000.0	11,607.3	21,134.7	11,776.1	75.7	73.3	112.62	9,187.9	-263.0	438.8	288.4	150.35	2.919	
21,100.0	11,607.1	21,234.7	11,776.1	76.4	74.0	112.65	9,287.9	-264.4	438.8	287.0	151.82	2.890	
21,200.0	11,606.9	21,334.7	11,776.1	77.1	74.8	112.68	9,387.9	-265.8	438.8	285.5	153.30	2.862	
21,300.0	11,606.8	21,434.7	11,776.1	77.9	75.5	112.70	9,487.9	-267.1	438.8	284.0	154.78	2.835	
21,400.0	11,606.6	21,534.7	11,776.1	78.6	76.3	112.73	9,587.9	-268.5	438.8	282.5	156.26	2.808	
21,500.0	11,606.4	21,634.7	11,776.1	79.3	77.0	112.75	9,687.8	-269.9	438.7	281.0	157.74	2.781	
21,600.0	11,606.2	21,734.7	11,776.1	80.1	77.8	112.78	9,787.8	-271.2	438.7	279.5	159.22	2.755	
21,700.0	11,606.1	21,834.7	11,776.1	80.8	78.5	112.80	9,887.8	-272.6	438.7	278.0	160.71	2.730	
21,800.0	11,605.9	21,934.7	11,776.1	81.5	79.3	112.83	9,987.8	-274.0	438.7	276.5	162.19	2.705	
21,900.0	11,605.7	22,034.7	11,776.1	82.2	80.0	112.85	10,087.8	-275.3	438.7	275.0	163.68	2.680	
22,000.0	11,605.5	22,134.7	11,776.1	83.0	80.8	112.88	10,187.8	-276.7	438.7	273.5	165.16	2.656	
22,100.0	11,605.4	22,234.7	11,776.1	83.7	81.5	112.90	10,287.8	-278.1	438.7	272.0	166.65	2.632	
22,200.0	11,605.2	22,334.7	11,776.1	84.4	82.3	112.93	10,387.8	-279.4	438.7	270.5	168.14	2.609	
22,300.0	11,605.0	22,434.7	11,776.1	85.2	83.0	112.95	10,487.8	-280.8	438.7	269.0	169.63	2.586	
22,400.0	11,604.9	22,534.7	11,776.1	85.9	83.8	112.98	10,587.8	-282.2	438.7	267.5	171.12	2.563	
22,500.0	11,604.7	22,634.7	11,776.1	86.6	84.5	113.00	10,687.7	-283.5	438.6	266.0	172.61	2.541	
22,600.0	11,604.5	22,734.7	11,776.1	87.4	85.3	113.03	10,787.7	-284.9	438.6	264.5	174.10	2.519	
22,700.0	11,604.3	22,834.7	11,776.1	88.1	86.0	113.05	10,887.7	-286.3	438.6	263.0	175.59	2.498	
22,800.0	11,604.2	22,934.7	11,776.1	88.8	86.8	113.08	10,987.7	-287.6	438.6	261.5	177.08	2.477	
22,900.0	11,604.0	23,034.7	11,776.1	89.6	87.6	113.10	11,087.7	-289.0	438.6	260.0	178.58	2.456	
23,000.0	11,603.8	23,134.7	11,776.1	90.3	88.3	113.13	11,187.7	-290.4	438.6	258.5	180.07	2.436	
23,100.0	11,603.6	23,234.7	11,776.1	91.0	89.1	113.15	11,287.7	-291.7	438.6	257.0	181.57	2.416	
23,200.0	11,603.5	23,334.7	11,776.1	91.8	89.8	113.18	11,387.7	-293.1	438.6	255.5	183.06	2.396	
23,300.0	11,603.3	23,434.7	11,776.1	92.5	90.6	113.21	11,487.7	-294.5	438.6	254.0	184.56	2.376	
23,400.0	11,603.1	23,534.7	11,776.1	93.2	91.3	113.23	11,587.7	-295.9	438.6	252.5	186.06	2.357	
23,500.0	11,602.9	23,634.7	11,776.1	94.0	92.1	113.26	11,687.7	-297.2	438.6	251.0	187.56	2.338	
23,600.0	11,602.8	23,734.7	11,776.1	94.7	92.8	113.28	11,787.6	-298.6	438.5	249.5	189.05	2.320	
23,700.0	11,602.6	23,834.7	11,776.1	95.5	93.6	113.31	11,887.6	-300.0	438.5	248.0	190.55	2.301	
23,800.0	11,602.4	23,934.7	11,776.1	96.2	94.3	113.33	11,987.6	-301.3	438.5	246.5	192.05	2.283	
23,900.0	11,602.2	24,034.7	11,776.1	96.9	95.1	113.36	12,087.6	-302.7	438.5	245.0	193.55	2.266	
24,000.0	11,602.1	24,134.7	11,776.1	97.7	95.8	113.38	12,187.6	-304.1	438.5	243.5	195.05	2.248	
24,100.0	11,601.9	24,234.7	11,776.1	98.4	96.6	113.41	12,287.6	-305.4	438.5	242.0	196.56	2.231	
24,200.0	11,601.7	24,334.7	11,776.1	99.2	97.4	113.43	12,387.6	-306.8	438.5	240.4	198.06	2.214	
24,300.0	11,601.5	24,434.7	11,776.1	99.9	98.1	113.46	12,487.6	-308.2	438.5	238.9	199.56	2.197	
24,400.0	11,601.4	24,534.7	11,776.1	100.6	98.9	113.48	12,587.6	-309.5	438.5	237.4	201.06	2.181	
24,500.0	11,601.2	24,634.7	11,776.1	101.4	99.6	113.51	12,687.6	-310.9	438.5	235.9	202.57	2.165	
24,600.0	11,601.0	24,734.7	11,776.1	102.1	100.4	113.53	12,787.5	-312.3	438.5	234.4	204.07	2.149	
24,612.1	11,601.0	24,746.9	11,776.1	102.2	100.5	113.54	12,799.7	-312.4	438.5	234.2	204.25	2.147 SF	
24,614.3	11,601.0	24,746.9	11,776.1	102.2	100.5	113.54	12,799.7	-312.4	438.5	234.2	204.23	2.147	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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
0.0	0.0	0.3	0.0	3.0	3.0	89.21	0.8	59.9	59.9				
100.0	100.0	100.3	100.0	3.0	3.0	89.21	0.8	59.9	59.9	53.9	6.05	9.904	
200.0	200.0	200.3	200.0	3.2	3.2	89.21	0.8	59.9	59.9	53.6	6.30	9.518	
300.0	300.0	300.3	300.0	3.3	3.3	89.21	0.8	59.9	59.9	53.4	6.53	9.175	
400.0	400.0	400.3	400.0	3.4	3.4	89.21	0.8	59.9	59.9	53.2	6.76	8.866	
500.0	500.0	500.3	500.0	3.5	3.5	89.21	0.8	59.9	59.9	53.0	6.98	8.586	
600.0	600.0	600.3	600.0	3.6	3.6	89.21	0.8	59.9	59.9	52.7	7.19	8.332	
700.0	700.0	700.3	700.0	3.8	3.8	89.21	0.8	59.9	59.9	52.5	7.40	8.098	
800.0	800.0	800.3	800.0	3.9	3.9	89.21	0.8	59.9	59.9	52.3	7.60	7.884	
900.0	900.0	900.3	900.0	4.0	4.0	89.21	0.8	59.9	59.9	52.1	7.80	7.685	
916.6	916.6	916.9	916.6	4.0	4.0	89.21	0.8	59.9	59.9	52.1	7.85	7.638 CC	
1,000.0	1,000.0	1,000.0	999.7	4.1	4.2	89.21	0.8	59.9	59.9	51.8	8.09	7.409 ES	
1,100.0	1,100.0	1,099.3	1,098.9	4.3	4.5	-144.29	-0.7	60.8	62.2	53.7	8.46	7.348	
1,200.0	1,199.8	1,197.9	1,197.5	4.6	4.8	-142.98	-5.1	63.2	68.9	60.0	8.92	7.730	
1,300.0	1,299.5	1,296.0	1,295.1	4.9	5.1	-141.28	-12.5	67.3	80.2	70.8	9.38	8.553	
1,400.0	1,398.7	1,393.1	1,391.5	5.2	5.4	-139.54	-22.7	73.0	96.0	86.2	9.85	9.751	
1,500.0	1,497.7	1,491.2	1,488.8	5.5	5.6	-138.22	-34.7	79.6	114.2	104.0	10.26	11.136	
1,600.0	1,596.8	1,589.5	1,586.1	5.7	5.9	-137.25	-46.6	86.2	132.5	121.8	10.68	12.399	
1,700.0	1,695.8	1,687.8	1,683.4	6.0	6.2	-136.52	-58.6	92.9	150.7	139.6	11.13	13.545	
1,800.0	1,794.8	1,786.1	1,780.8	6.4	6.4	-135.94	-70.6	99.5	169.0	157.5	11.59	14.584	
1,900.0	1,893.8	1,884.4	1,878.1	6.7	6.8	-135.48	-82.5	106.1	187.4	175.3	12.07	15.527	
2,000.0	1,992.9	1,982.7	1,975.5	7.0	7.1	-135.10	-94.5	112.8	205.7	193.1	12.55	16.383	
2,100.0	2,091.9	2,081.0	2,072.8	7.4	7.4	-134.78	-106.5	119.4	224.0	211.0	13.05	17.161	
2,200.0	2,190.9	2,179.3	2,170.2	7.7	7.7	-134.51	-118.4	126.0	242.3	228.8	13.56	17.868	
2,300.0	2,289.9	2,277.6	2,267.5	8.1	8.1	-134.28	-130.4	132.7	260.7	246.6	14.08	18.514	
2,400.0	2,389.0	2,375.9	2,364.8	8.4	8.5	-134.08	-142.3	139.3	279.0	264.4	14.61	19.103	
2,500.0	2,488.0	2,474.2	2,462.2	8.8	8.8	-133.90	-154.3	145.9	297.4	282.2	15.14	19.643	
2,600.0	2,587.0	2,572.5	2,559.5	9.2	9.2	-133.75	-166.3	152.6	315.7	300.0	15.68	20.138	
2,700.0	2,686.1	2,670.8	2,656.9	9.6	9.6	-133.61	-178.2	159.2	334.1	317.8	16.22	20.593	
2,800.0	2,785.1	2,769.1	2,754.2	10.0	9.9	-133.48	-190.2	165.8	352.4	335.6	16.77	21.012	
2,900.0	2,884.1	2,867.4	2,851.6	10.4	10.3	-133.37	-202.2	172.5	370.8	353.4	17.33	21.399	
3,000.0	2,983.1	2,965.7	2,948.9	10.8	10.7	-133.27	-214.1	179.1	389.1	371.2	17.88	21.757	
3,100.0	3,082.2	3,064.0	3,046.2	11.2	11.1	-133.18	-226.1	185.7	407.5	389.0	18.45	22.088	
3,200.0	3,181.2	3,162.3	3,143.6	11.6	11.5	-133.09	-238.1	192.4	425.8	406.8	19.01	22.396	
3,300.0	3,280.2	3,260.6	3,240.9	12.0	11.9	-133.02	-250.0	199.0	444.2	424.6	19.58	22.682	
3,400.0	3,379.2	3,358.9	3,338.3	12.4	12.3	-132.95	-262.0	205.6	462.5	442.4	20.15	22.949	
3,500.0	3,478.3	3,457.2	3,435.6	12.8	12.7	-132.88	-274.0	212.3	480.9	460.2	20.73	23.198	
3,600.0	3,577.3	3,555.5	3,533.0	13.2	13.1	-132.82	-285.9	218.9	499.3	477.9	21.31	23.431	
3,700.0	3,676.3	3,653.8	3,630.3	13.6	13.5	-132.76	-297.9	225.5	517.6	495.7	21.89	23.650	
3,800.0	3,775.3	3,752.1	3,727.6	14.0	13.9	-132.71	-309.9	232.2	536.0	513.5	22.47	23.854	
3,900.0	3,874.4	3,850.4	3,825.0	14.4	14.3	-132.66	-321.8	238.8	554.3	531.3	23.05	24.047	
4,000.0	3,973.4	3,948.7	3,922.3	14.8	14.7	-132.61	-333.8	245.4	572.7	549.1	23.64	24.228	
4,100.0	4,072.4	4,048.5	4,021.1	15.3	15.1	-132.57	-345.9	252.1	591.0	566.8	24.22	24.407	
4,200.0	4,171.5	4,154.0	4,125.8	15.7	15.5	-132.63	-357.6	258.6	608.6	583.7	24.83	24.513	
4,300.0	4,270.5	4,259.9	4,231.1	16.1	15.9	-132.82	-367.6	264.1	624.9	599.5	25.44	24.568	
4,400.0	4,369.5	4,366.2	4,336.9	16.5	16.3	-133.14	-375.9	268.7	640.2	614.1	26.04	24.587	
4,500.0	4,468.5	4,472.6	4,443.1	16.9	16.7	-133.58	-382.5	272.4	654.3	627.6	26.62	24.577	
4,600.0	4,567.6	4,579.3	4,549.6	17.3	17.1	-134.14	-387.4	275.1	667.2	640.0	27.19	24.542	
4,700.0	4,666.6	4,686.1	4,656.4	17.8	17.4	-134.81	-390.6	276.9	679.1	651.4	27.73	24.489	
4,800.0	4,765.6	4,792.9	4,763.1	18.2	17.7	-135.58	-392.0	277.7	690.0	661.7	28.24	24.429	
4,900.0	4,864.6	4,894.4	4,864.6	18.6	17.7	-136.39	-392.1	277.7	700.1	671.5	28.61	24.474	
5,000.0	4,963.7	4,993.4	4,963.7	19.0	17.7	-137.16	-392.1	277.7	710.3	681.3	28.97	24.517	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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
5,100.0	5,062.7	5,092.5	5,062.7	19.4	17.8	-137.91	-392.1	277.7	720.6	691.2	29.34	24.556	
5,200.0	5,161.7	5,191.5	5,161.7	19.9	17.8	-138.63	-392.1	277.7	731.0	701.3	29.72	24.594	
5,300.0	5,260.8	5,290.5	5,260.8	20.3	17.8	-139.35	-392.1	277.7	741.4	711.3	30.08	24.646	
5,400.0	5,359.9	5,389.7	5,359.9	20.7	17.9	-140.03	-392.1	277.7	751.3	720.9	30.47	24.660	
5,500.0	5,459.2	5,489.0	5,459.2	21.1	17.9	-140.64	-392.1	277.7	760.7	729.8	30.85	24.655	
5,600.0	5,558.6	5,588.3	5,558.6	21.5	17.9	-141.20	-392.1	277.7	769.4	738.2	31.23	24.634	
5,700.0	5,658.0	5,687.8	5,658.0	21.9	18.0	-141.70	-392.1	277.7	777.5	745.9	31.61	24.595	
5,800.0	5,757.6	5,787.3	5,757.6	22.3	18.0	-142.15	-392.1	277.7	785.0	753.0	31.99	24.541	
5,900.0	5,857.2	5,887.0	5,857.2	22.7	18.0	-142.55	-392.1	277.7	791.8	759.5	32.36	24.472	
6,000.0	5,956.9	5,986.7	5,956.9	23.1	18.0	-142.91	-392.1	277.7	798.0	765.3	32.72	24.389	
6,100.0	6,056.7	6,086.4	6,056.7	23.4	18.1	-143.22	-392.1	277.7	803.5	770.4	33.08	24.292	
6,200.0	6,156.5	6,186.2	6,156.5	23.8	18.1	-143.49	-392.1	277.7	808.3	774.9	33.42	24.184	
6,300.0	6,256.3	6,286.1	6,256.3	24.1	18.2	-143.72	-392.1	277.7	812.5	778.7	33.76	24.064	
6,400.0	6,356.3	6,386.0	6,356.3	24.5	18.2	-143.91	-392.1	277.7	815.9	781.8	34.09	23.935	
6,500.0	6,456.2	6,486.0	6,456.2	24.8	18.2	-144.05	-392.1	277.7	818.7	784.3	34.40	23.797	
6,600.0	6,556.2	6,585.9	6,556.2	25.1	18.3	-144.16	-392.1	277.7	820.7	786.0	34.70	23.653	
6,700.0	6,656.2	6,685.9	6,656.2	25.3	18.3	-144.23	-392.1	277.7	822.0	787.1	34.97	23.506	
6,800.0	6,756.2	6,785.9	6,756.2	25.5	18.3	-144.27	-392.1	277.7	822.7	787.5	35.21	23.364	
6,900.0	6,856.2	6,885.9	6,856.2	25.6	18.4	89.73	-392.1	277.7	822.7	787.4	35.29	23.314	
7,000.0	6,956.2	6,985.9	6,956.2	25.6	18.4	89.73	-392.1	277.7	822.7	787.4	35.36	23.268	
7,100.0	7,056.2	7,085.9	7,056.2	25.6	18.4	89.73	-392.1	277.7	822.7	787.3	35.43	23.222	
7,200.0	7,156.2	7,185.9	7,156.2	25.6	18.5	89.73	-392.1	277.7	822.7	787.2	35.50	23.176	
7,300.0	7,256.2	7,285.9	7,256.2	25.7	18.5	89.73	-392.1	277.7	822.7	787.1	35.57	23.129	
7,400.0	7,356.2	7,385.9	7,356.2	25.7	18.5	89.73	-392.1	277.7	822.7	787.1	35.64	23.083	
7,500.0	7,456.2	7,485.9	7,456.2	25.7	18.6	89.73	-392.1	277.7	822.7	787.0	35.71	23.036	
7,600.0	7,556.2	7,585.9	7,556.2	25.7	18.6	89.73	-392.1	277.7	822.7	786.9	35.79	22.989	
7,700.0	7,656.2	7,685.9	7,656.2	25.8	18.7	89.73	-392.1	277.7	822.7	786.9	35.86	22.942	
7,800.0	7,756.2	7,785.9	7,756.2	25.8	18.7	89.73	-392.1	277.7	822.7	786.8	35.94	22.894	
7,900.0	7,856.2	7,885.9	7,856.2	25.8	18.7	89.73	-392.1	277.7	822.7	786.7	36.01	22.847	
8,000.0	7,956.2	7,985.9	7,956.2	25.8	18.8	89.73	-392.1	277.7	822.7	786.6	36.09	22.799	
8,100.0	8,056.2	8,085.9	8,056.2	25.8	18.8	89.73	-392.1	277.7	822.7	786.6	36.16	22.751	
8,200.0	8,156.2	8,185.9	8,156.2	25.9	18.9	89.73	-392.1	277.7	822.7	786.5	36.24	22.703	
8,300.0	8,256.2	8,285.9	8,256.2	25.9	18.9	89.73	-392.1	277.7	822.7	786.4	36.31	22.655	
8,400.0	8,356.2	8,385.9	8,356.2	25.9	18.9	89.73	-392.1	277.7	822.7	786.3	36.39	22.607	
8,500.0	8,456.2	8,485.9	8,456.2	25.9	19.0	89.73	-392.1	277.7	822.7	786.2	36.47	22.558	
8,600.0	8,556.2	8,585.9	8,556.2	26.0	19.0	89.73	-392.1	277.7	822.7	786.2	36.55	22.510	
8,700.0	8,656.2	8,685.9	8,656.2	26.0	19.1	89.73	-392.1	277.7	822.7	786.1	36.63	22.461	
8,800.0	8,756.2	8,785.9	8,756.2	26.0	19.1	89.73	-392.1	277.7	822.7	786.0	36.71	22.412	
8,900.0	8,856.2	8,885.9	8,856.2	26.0	19.1	89.73	-392.1	277.7	822.7	785.9	36.79	22.363	
9,000.0	8,956.2	8,985.9	8,956.2	26.1	19.2	89.73	-392.1	277.7	822.7	785.8	36.87	22.314	
9,100.0	9,056.2	9,085.9	9,056.2	26.1	19.2	89.73	-392.1	277.7	822.7	785.8	36.95	22.265	
9,200.0	9,156.2	9,185.9	9,156.2	26.1	19.3	89.73	-392.1	277.7	822.7	785.7	37.03	22.216	
9,300.0	9,256.2	9,285.9	9,256.2	26.1	19.3	89.73	-392.1	277.7	822.7	785.6	37.11	22.167	
9,400.0	9,356.2	9,385.9	9,356.2	26.2	19.3	89.73	-392.1	277.7	822.7	785.5	37.20	22.117	
9,500.0	9,456.2	9,485.9	9,456.2	26.2	19.4	89.73	-392.1	277.7	822.7	785.4	37.28	22.068	
9,600.0	9,556.2	9,585.9	9,556.2	26.2	19.4	89.73	-392.1	277.7	822.7	785.3	37.36	22.018	
9,700.0	9,656.2	9,685.9	9,656.2	26.2	19.5	89.73	-392.1	277.7	822.7	785.3	37.45	21.969	
9,800.0	9,756.2	9,785.9	9,756.2	26.3	19.5	89.73	-392.1	277.7	822.7	785.2	37.53	21.919	
9,900.0	9,856.2	9,885.9	9,856.2	26.3	19.6	89.73	-392.1	277.7	822.7	785.1	37.62	21.869	
10,000.0	9,956.2	9,985.9	9,956.2	26.3	19.6	89.73	-392.1	277.7	822.7	785.0	37.71	21.819	
10,100.0	10,056.2	10,085.9	10,056.2	26.3	19.7	89.73	-392.1	277.7	822.7	784.9	37.79	21.769	
10,200.0	10,156.2	10,185.9	10,156.2	26.4	19.7	89.73	-392.1	277.7	822.7	784.8	37.88	21.720	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	10,256.2	10,285.9	10,256.2	26.4	19.7	89.73	-392.1	277.7	822.7	784.7	37.97	21.670	
10,400.0	10,356.2	10,385.9	10,356.2	26.4	19.8	89.73	-392.1	277.7	822.7	784.7	38.05	21.620	
10,500.0	10,456.2	10,485.9	10,456.2	26.5	19.8	89.73	-392.1	277.7	822.7	784.6	38.14	21.569	
10,600.0	10,556.2	10,585.9	10,556.2	26.5	19.9	89.73	-392.1	277.7	822.7	784.5	38.23	21.519	
10,700.0	10,656.2	10,685.9	10,656.2	26.5	19.9	89.73	-392.1	277.7	822.7	784.4	38.32	21.469	
10,800.0	10,756.2	10,785.9	10,756.2	26.5	20.0	89.73	-392.1	277.7	822.7	784.3	38.41	21.419	
10,900.0	10,856.2	10,885.9	10,856.2	26.6	20.0	89.73	-392.1	277.7	822.7	784.2	38.50	21.369	
11,000.0	10,956.2	10,985.9	10,956.2	26.6	20.1	89.73	-392.1	277.7	822.7	784.1	38.59	21.319	
11,100.0	11,056.2	11,086.3	11,056.5	26.6	20.1	90.42	-391.4	277.7	822.7	784.1	38.66	21.283	
11,200.0	11,155.5	11,187.1	11,156.3	26.7	20.2	90.15	-377.7	277.5	822.7	784.0	38.69	21.262	
11,300.0	11,251.7	11,287.3	11,251.5	26.7	20.3	89.88	-347.0	277.1	822.6	783.9	38.70	21.254	
11,400.0	11,341.8	11,386.8	11,339.3	26.8	20.4	89.62	-300.6	276.4	822.6	783.9	38.70	21.255	
11,500.0	11,423.0	11,485.6	11,417.4	26.8	20.6	89.36	-240.1	275.6	822.5	783.8	38.69	21.260	
11,600.0	11,492.8	11,583.8	11,483.5	26.9	20.7	89.13	-167.7	274.5	822.5	783.8	38.69	21.259	
11,700.0	11,549.2	11,681.5	11,536.0	26.9	20.8	88.92	-85.5	273.3	822.4	783.7	38.71	21.244	
11,800.0	11,590.5	11,778.7	11,573.7	27.0	20.8	88.74	4.0	272.1	822.3	783.5	38.77	21.208	
11,900.0	11,615.3	11,875.5	11,595.7	27.1	20.9	88.60	98.1	270.7	822.2	783.3	38.89	21.144	
12,000.0	11,622.9	11,972.5	11,601.7	27.1	21.0	88.52	194.8	269.4	822.1	783.1	39.06	21.048	
12,100.0	11,622.8	12,072.5	11,601.7	27.2	21.0	88.53	294.8	267.9	822.0	782.6	39.34	20.895	
12,200.0	11,622.6	12,172.5	11,601.7	27.3	21.1	88.54	394.8	266.5	821.8	782.2	39.68	20.714	
12,300.0	11,622.4	12,272.5	11,601.7	27.5	21.1	88.55	494.8	265.1	821.7	781.6	40.07	20.506	
12,400.0	11,622.3	12,372.5	11,601.7	27.6	21.2	88.56	594.8	263.6	821.5	781.0	40.52	20.274	
12,500.0	11,622.1	12,472.5	11,601.7	27.7	21.3	88.58	694.8	262.2	821.4	780.4	41.03	20.021	
12,600.0	11,621.9	12,572.5	11,601.7	27.9	21.4	88.59	794.8	260.8	821.3	779.7	41.58	19.751	
12,700.0	11,621.7	12,672.5	11,601.7	28.1	21.5	88.60	894.8	259.4	821.1	778.9	42.19	19.464	
12,800.0	11,621.6	12,772.5	11,601.7	28.3	21.6	88.61	994.7	257.9	821.0	778.1	42.84	19.165	
12,900.0	11,621.4	12,872.5	11,601.7	28.5	21.8	88.62	1,094.7	256.5	820.8	777.3	43.53	18.856	
13,000.0	11,621.2	12,972.5	11,601.7	28.7	21.9	88.64	1,194.7	255.1	820.7	776.4	44.27	18.539	
13,100.0	11,621.0	13,072.5	11,601.7	29.0	22.1	88.65	1,294.7	253.7	820.5	775.5	45.04	18.216	
13,200.0	11,620.9	13,172.5	11,601.7	29.2	22.3	88.66	1,394.7	252.2	820.4	774.5	45.86	17.889	
13,300.0	11,620.7	13,272.5	11,601.7	29.5	22.5	88.67	1,494.7	250.8	820.2	773.5	46.71	17.560	
13,400.0	11,620.5	13,372.5	11,601.7	29.8	22.8	88.68	1,594.7	249.4	820.1	772.5	47.59	17.231	
13,500.0	11,620.3	13,472.5	11,601.7	30.1	23.1	88.70	1,694.7	248.0	819.9	771.4	48.51	16.903	
13,600.0	11,620.2	13,572.5	11,601.7	30.4	23.4	88.71	1,794.7	246.5	819.8	770.3	49.45	16.577	
13,700.0	11,620.0	13,672.5	11,601.7	30.7	23.8	88.72	1,894.6	245.1	819.7	769.2	50.43	16.254	
13,800.0	11,619.8	13,772.5	11,601.7	31.1	24.1	88.73	1,994.6	243.7	819.5	768.1	51.43	15.935	
13,900.0	11,619.6	13,872.5	11,601.7	31.4	24.6	88.74	2,094.6	242.3	819.4	766.9	52.45	15.621	
14,000.0	11,619.5	13,972.5	11,601.7	31.8	25.0	88.75	2,194.6	240.8	819.2	765.7	53.50	15.312	
14,100.0	11,619.3	14,072.5	11,601.7	32.2	25.5	88.77	2,294.6	239.4	819.1	764.5	54.57	15.009	
14,200.0	11,619.1	14,172.5	11,601.7	32.6	26.0	88.78	2,394.6	238.0	818.9	763.3	55.66	14.712	
14,300.0	11,618.9	14,272.5	11,601.7	33.0	26.5	88.79	2,494.6	236.6	818.8	762.0	56.78	14.421	
14,400.0	11,618.8	14,372.5	11,601.7	33.5	27.0	88.80	2,594.6	235.1	818.6	760.7	57.91	14.137	
14,500.0	11,618.6	14,472.5	11,601.7	33.9	27.6	88.81	2,694.6	233.7	818.5	759.4	59.05	13.860	
14,600.0	11,618.4	14,572.5	11,601.7	34.4	28.1	88.83	2,794.6	232.3	818.3	758.1	60.22	13.590	
14,700.0	11,618.2	14,672.5	11,601.7	34.8	28.7	88.84	2,894.5	230.9	818.2	756.8	61.40	13.326	
14,800.0	11,618.1	14,772.5	11,601.7	35.3	29.3	88.85	2,994.5	229.4	818.1	755.5	62.59	13.070	
14,900.0	11,617.9	14,872.5	11,601.7	35.8	29.9	88.86	3,094.5	228.0	817.9	754.1	63.80	12.820	
15,000.0	11,617.7	14,972.5	11,601.7	36.3	30.6	88.87	3,194.5	226.6	817.8	752.7	65.02	12.577	
15,100.0	11,617.6	15,072.5	11,601.7	36.8	31.2	88.89	3,294.5	225.2	817.6	751.4	66.26	12.340	
15,200.0	11,617.4	15,172.5	11,601.7	37.3	31.8	88.90	3,394.5	223.7	817.5	750.0	67.50	12.110	
15,300.0	11,617.2	15,272.5	11,601.7	37.9	32.5	88.91	3,494.5	222.3	817.3	748.6	68.76	11.887	
15,400.0	11,617.0	15,372.5	11,601.7	38.4	33.1	88.92	3,594.5	220.9	817.2	747.2	70.03	11.670	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
15,500.0	11,616.9	15,472.5	11,601.7	39.0	33.8	88.93	3,694.5	219.4	817.0	745.7	71.30	11.459	
15,600.0	11,616.7	15,572.5	11,601.7	39.5	34.4	88.95	3,794.4	218.0	816.9	744.3	72.59	11.253	
15,700.0	11,616.5	15,672.5	11,601.7	40.1	35.1	88.96	3,894.4	216.6	816.8	742.9	73.89	11.054	
15,800.0	11,616.3	15,772.5	11,601.7	40.7	35.8	88.97	3,994.4	215.2	816.6	741.4	75.19	10.860	
15,900.0	11,616.2	15,872.5	11,601.7	41.2	36.5	88.98	4,094.4	213.7	816.5	740.0	76.50	10.672	
16,000.0	11,616.0	15,972.4	11,601.7	41.8	37.1	89.00	4,194.4	212.3	816.3	738.5	77.82	10.489	
16,100.0	11,615.8	16,072.4	11,601.7	42.4	37.8	89.01	4,294.4	210.9	816.2	737.0	79.15	10.312	
16,200.0	11,615.6	16,172.4	11,601.7	43.0	38.5	89.02	4,394.4	209.5	816.0	735.5	80.49	10.139	
16,300.0	11,615.5	16,272.4	11,601.7	43.6	39.2	89.03	4,494.4	208.0	815.9	734.1	81.83	9.971	
16,400.0	11,615.3	16,372.4	11,601.7	44.2	39.9	89.04	4,594.4	206.6	815.7	732.6	83.18	9.808	
16,500.0	11,615.1	16,472.4	11,601.7	44.8	40.6	89.06	4,694.4	205.2	815.6	731.1	84.53	9.649	
16,600.0	11,614.9	16,572.4	11,601.7	45.5	41.3	89.07	4,794.3	203.8	815.5	729.6	85.89	9.494	
16,700.0	11,614.8	16,672.4	11,601.7	46.1	42.0	89.08	4,894.3	202.3	815.3	728.1	87.25	9.344	
16,800.0	11,614.6	16,772.4	11,601.7	46.7	42.7	89.09	4,994.3	200.9	815.2	726.5	88.62	9.198	
16,900.0	11,614.4	16,872.4	11,601.7	47.4	43.4	89.10	5,094.3	199.5	815.0	725.0	90.00	9.056	
17,000.0	11,614.2	16,972.4	11,601.7	48.0	44.1	89.12	5,194.3	198.1	814.9	723.5	91.38	8.918	
17,100.0	11,614.1	17,072.4	11,601.7	48.6	44.8	89.13	5,294.3	196.6	814.7	722.0	92.76	8.783	
17,200.0	11,613.9	17,172.4	11,601.7	49.3	45.5	89.14	5,394.3	195.2	814.6	720.4	94.15	8.652	
17,300.0	11,613.7	17,272.4	11,601.7	49.9	46.3	89.15	5,494.3	193.8	814.4	718.9	95.54	8.524	
17,400.0	11,613.6	17,372.4	11,601.7	50.6	47.0	89.16	5,594.3	192.4	814.3	717.4	96.94	8.400	
17,500.0	11,613.4	17,472.4	11,601.7	51.3	47.7	89.18	5,694.3	190.9	814.2	715.8	98.34	8.279	
17,600.0	11,613.2	17,572.4	11,601.7	51.9	48.4	89.19	5,794.2	189.5	814.0	714.3	99.75	8.161	
17,700.0	11,613.0	17,672.4	11,601.7	52.6	49.1	89.20	5,894.2	188.1	813.9	712.7	101.16	8.046	
17,800.0	11,612.9	17,772.4	11,601.7	53.3	49.9	89.21	5,994.2	186.7	813.7	711.2	102.57	7.934	
17,900.0	11,612.7	17,872.4	11,601.7	53.9	50.6	89.23	6,094.2	185.2	813.6	709.6	103.98	7.824	
18,000.0	11,612.5	17,972.4	11,601.7	54.6	51.3	89.24	6,194.2	183.8	813.4	708.0	105.40	7.718	
18,100.0	11,612.3	18,072.4	11,601.7	55.3	52.0	89.25	6,294.2	182.4	813.3	706.5	106.82	7.614	
18,200.0	11,612.2	18,172.4	11,601.7	56.0	52.8	89.26	6,394.2	181.0	813.1	704.9	108.24	7.512	
18,300.0	11,612.0	18,272.4	11,601.7	56.6	53.5	89.27	6,494.2	179.5	813.0	703.3	109.67	7.413	
18,400.0	11,611.8	18,372.4	11,601.7	57.3	54.2	89.29	6,594.2	178.1	812.9	701.8	111.10	7.316	
18,500.0	11,611.6	18,472.4	11,601.7	58.0	55.0	89.30	6,694.1	176.7	812.7	700.2	112.53	7.222	
18,600.0	11,611.5	18,572.4	11,601.7	58.7	55.7	89.31	6,794.1	175.2	812.6	698.6	113.97	7.130	
18,700.0	11,611.3	18,672.4	11,601.7	59.4	56.4	89.32	6,894.1	173.8	812.4	697.0	115.40	7.040	
18,800.0	11,611.1	18,772.4	11,601.7	60.1	57.2	89.33	6,994.1	172.4	812.3	695.4	116.84	6.952	
18,900.0	11,610.9	18,872.4	11,601.7	60.8	57.9	89.35	7,094.1	171.0	812.1	693.9	118.28	6.866	
19,000.0	11,610.8	18,972.4	11,601.7	61.5	58.6	89.36	7,194.1	169.5	812.0	692.3	119.73	6.782	
19,100.0	11,610.6	19,072.4	11,601.7	62.2	59.4	89.37	7,294.1	168.1	811.9	690.7	121.17	6.700	
19,200.0	11,610.4	19,172.4	11,601.7	62.9	60.1	89.38	7,394.1	166.7	811.7	689.1	122.62	6.620	
19,300.0	11,610.2	19,272.4	11,601.7	63.6	60.8	89.40	7,494.1	165.3	811.6	687.5	124.07	6.541	
19,400.0	11,610.1	19,372.4	11,601.7	64.3	61.6	89.41	7,594.1	163.8	811.4	685.9	125.52	6.465	
19,500.0	11,609.9	19,472.4	11,601.7	65.0	62.3	89.42	7,694.0	162.4	811.3	684.3	126.97	6.389	
19,600.0	11,609.7	19,572.4	11,601.7	65.7	63.1	89.43	7,794.0	161.0	811.1	682.7	128.43	6.316	
19,700.0	11,609.6	19,672.4	11,601.7	66.4	63.8	89.44	7,894.0	159.6	811.0	681.1	129.88	6.244	
19,800.0	11,609.4	19,772.4	11,601.7	67.1	64.5	89.46	7,994.0	158.1	810.8	679.5	131.34	6.174	
19,900.0	11,609.2	19,872.4	11,601.7	67.8	65.3	89.47	8,094.0	156.7	810.7	677.9	132.80	6.105	
20,000.0	11,609.0	19,972.4	11,601.7	68.5	66.0	89.48	8,194.0	155.3	810.6	676.3	134.26	6.037	
20,100.0	11,608.9	20,072.4	11,601.7	69.2	66.8	89.49	8,294.0	153.9	810.4	674.7	135.72	5.971	
20,200.0	11,608.7	20,172.4	11,601.7	70.0	67.5	89.51	8,394.0	152.4	810.3	673.1	137.19	5.906	
20,300.0	11,608.5	20,272.4	11,601.7	70.7	68.3	89.52	8,494.0	151.0	810.1	671.5	138.65	5.843	
20,400.0	11,608.3	20,372.4	11,601.7	71.4	69.0	89.53	8,593.9	149.6	810.0	669.9	140.12	5.781	
20,500.0	11,608.2	20,472.4	11,601.7	72.1	69.7	89.54	8,693.9	148.2	809.8	668.3	141.59	5.720	
20,600.0	11,608.0	20,572.4	11,601.7	72.8	70.5	89.55	8,793.9	146.7	809.7	666.6	143.06	5.660	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
20,700.0	11,607.8	20,672.4	11,601.7	73.5	71.2	89.57	8,893.9	145.3	809.6	665.0	144.53	5.601	
20,800.0	11,607.6	20,772.4	11,601.7	74.3	72.0	89.58	8,993.9	143.9	809.4	663.4	146.00	5.544	
20,900.0	11,607.5	20,872.4	11,601.7	75.0	72.7	89.59	9,093.9	142.5	809.3	661.8	147.47	5.488	
21,000.0	11,607.3	20,972.4	11,601.7	75.7	73.5	89.60	9,193.9	141.0	809.1	660.2	148.95	5.432	
21,100.0	11,607.1	21,072.4	11,601.7	76.4	74.2	89.62	9,293.9	139.6	809.0	658.6	150.42	5.378	
21,200.0	11,606.9	21,172.4	11,601.7	77.1	75.0	89.63	9,393.9	138.2	808.8	657.0	151.90	5.325	
21,300.0	11,606.8	21,272.4	11,601.7	77.9	75.7	89.64	9,493.9	136.8	808.7	655.3	153.37	5.273	
21,400.0	11,606.6	21,372.4	11,601.7	78.6	76.5	89.65	9,593.8	135.3	808.6	653.7	154.85	5.222	
21,500.0	11,606.4	21,472.4	11,601.7	79.3	77.2	89.66	9,693.8	133.9	808.4	652.1	156.33	5.171	
21,600.0	11,606.2	21,572.4	11,601.7	80.1	78.0	89.68	9,793.8	132.5	808.3	650.5	157.81	5.122	
21,700.0	11,606.1	21,672.4	11,601.7	80.8	78.7	89.69	9,893.8	131.0	808.1	648.8	159.29	5.073	
21,800.0	11,605.9	21,772.4	11,601.7	81.5	79.5	89.70	9,993.8	129.6	808.0	647.2	160.77	5.026	
21,900.0	11,605.7	21,872.4	11,601.7	82.2	80.2	89.71	10,093.8	128.2	807.9	645.6	162.26	4.979	
22,000.0	11,605.5	21,972.4	11,601.7	83.0	81.0	89.73	10,193.8	126.8	807.7	644.0	163.74	4.933	
22,100.0	11,605.4	22,072.4	11,601.7	83.7	81.7	89.74	10,293.8	125.3	807.6	642.3	165.22	4.888	
22,200.0	11,605.2	22,172.4	11,601.7	84.4	82.5	89.75	10,393.8	123.9	807.4	640.7	166.71	4.843	
22,300.0	11,605.0	22,272.4	11,601.7	85.2	83.2	89.76	10,493.8	122.5	807.3	639.1	168.19	4.800	
22,400.0	11,604.9	22,372.4	11,601.7	85.9	84.0	89.78	10,593.7	121.1	807.1	637.5	169.68	4.757	
22,500.0	11,604.7	22,472.4	11,601.7	86.6	84.7	89.79	10,693.7	119.6	807.0	635.8	171.17	4.715	
22,600.0	11,604.5	22,572.4	11,601.7	87.4	85.5	89.80	10,793.7	118.2	806.9	634.2	172.66	4.673	
22,700.0	11,604.3	22,672.4	11,601.7	88.1	86.2	89.81	10,893.7	116.8	806.7	632.6	174.14	4.632	
22,800.0	11,604.2	22,772.4	11,601.7	88.8	87.0	89.83	10,993.7	115.4	806.6	630.9	175.63	4.592	
22,900.0	11,604.0	22,872.4	11,601.7	89.6	87.7	89.84	11,093.7	113.9	806.4	629.3	177.12	4.553	
23,000.0	11,603.8	22,972.4	11,601.7	90.3	88.5	89.85	11,193.7	112.5	806.3	627.7	178.61	4.514	
23,100.0	11,603.6	23,072.4	11,601.7	91.0	89.2	89.86	11,293.7	111.1	806.1	626.0	180.11	4.476	
23,200.0	11,603.5	23,172.4	11,601.7	91.8	90.0	89.87	11,393.7	109.7	806.0	624.4	181.60	4.438	
23,300.0	11,603.3	23,272.4	11,601.7	92.5	90.7	89.89	11,493.6	108.2	805.9	622.8	183.09	4.401	
23,400.0	11,603.1	23,372.4	11,601.7	93.2	91.5	89.90	11,593.6	106.8	805.7	621.1	184.58	4.365	
23,500.0	11,602.9	23,472.4	11,601.7	94.0	92.2	89.91	11,693.6	105.4	805.6	619.5	186.08	4.329	
23,600.0	11,602.8	23,572.4	11,601.7	94.7	93.0	89.92	11,793.6	104.0	805.4	617.9	187.57	4.294	
23,700.0	11,602.6	23,672.4	11,601.7	95.5	93.7	89.94	11,893.6	102.5	805.3	616.2	189.07	4.259	
23,800.0	11,602.4	23,772.4	11,601.7	96.2	94.5	89.95	11,993.6	101.1	805.2	614.6	190.56	4.225	
23,900.0	11,602.2	23,872.4	11,601.7	96.9	95.3	89.96	12,093.6	99.7	805.0	613.0	192.06	4.192	
24,000.0	11,602.1	23,972.4	11,601.7	97.7	96.0	89.97	12,193.6	98.3	804.9	611.3	193.55	4.158	
24,100.0	11,601.9	24,072.4	11,601.7	98.4	96.8	89.99	12,293.6	96.8	804.7	609.7	195.05	4.126	
24,200.0	11,601.7	24,172.4	11,601.7	99.2	97.5	90.00	12,393.6	95.4	804.6	608.0	196.55	4.094	
24,300.0	11,601.5	24,272.4	11,601.7	99.9	98.3	90.01	12,493.5	94.0	804.4	606.4	198.04	4.062	
24,400.0	11,601.4	24,372.4	11,601.7	100.6	99.0	90.02	12,593.5	92.6	804.3	604.8	199.54	4.031	
24,500.0	11,601.2	24,472.4	11,601.7	101.4	99.8	90.04	12,693.5	91.1	804.2	603.1	201.04	4.000	
24,600.0	11,601.0	24,572.4	11,601.7	102.1	100.5	90.05	12,793.5	89.7	804.0	601.5	202.54	3.970	
24,609.6	11,601.0	24,580.8	11,601.7	102.2	100.6	90.05	12,801.9	89.6	804.0	601.3	202.67	3.967	
24,614.3	11,601.0	24,580.8	11,601.7	102.2	100.6	90.05	12,801.9	89.6	804.0	601.3	202.69	3.967 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	0.8	0.0	3.0	3.0	89.17	1.3	89.7	89.7				
100.0	100.0	100.8	100.0	3.0	3.0	89.17	1.3	89.7	89.7	83.6	6.05	14.821	
200.0	200.0	200.8	200.0	3.2	3.2	89.17	1.3	89.7	89.7	83.4	6.30	14.244	
300.0	300.0	300.8	300.0	3.3	3.3	89.17	1.3	89.7	89.7	83.2	6.53	13.730	
400.0	400.0	400.8	400.0	3.4	3.4	89.17	1.3	89.7	89.7	82.9	6.76	13.268	
500.0	500.0	500.8	500.0	3.5	3.5	89.17	1.3	89.7	89.7	82.7	6.98	12.849	
600.0	600.0	600.8	600.0	3.6	3.6	89.17	1.3	89.7	89.7	82.5	7.19	12.468	
700.0	700.0	700.8	700.0	3.8	3.8	89.17	1.3	89.7	89.7	82.3	7.40	12.119	
800.0	800.0	800.8	800.0	3.9	3.9	89.17	1.3	89.7	89.7	82.1	7.60	11.798	
900.0	900.0	900.8	900.0	4.0	4.0	89.17	1.3	89.7	89.7	81.9	7.80	11.499	
916.4	916.4	917.2	916.4	4.0	4.0	89.17	1.3	89.7	89.7	81.9	7.85	11.431 CC	
1,000.0	1,000.0	1,000.0	999.2	4.1	4.2	89.17	1.3	89.7	89.7	81.6	8.09	11.088 ES	
1,100.0	1,100.0	1,098.2	1,097.3	4.3	4.4	-144.82	0.4	91.1	92.6	84.0	8.51	10.872	
1,200.0	1,199.8	1,195.1	1,194.1	4.6	4.7	-144.82	-2.3	95.3	101.1	92.1	9.02	11.205	
1,300.0	1,299.5	1,291.1	1,289.8	4.9	5.0	-144.80	-6.7	102.1	115.2	105.7	9.54	12.083	
1,400.0	1,398.7	1,385.7	1,383.7	5.2	5.3	-144.75	-12.8	111.4	134.9	124.8	10.06	13.406	
1,500.0	1,497.7	1,482.5	1,479.6	5.5	5.6	-144.82	-20.1	122.7	157.6	147.1	10.51	14.993	
1,600.0	1,596.8	1,579.9	1,576.0	5.7	5.8	-144.88	-27.5	134.1	180.4	169.4	10.99	16.420	
1,700.0	1,695.8	1,677.3	1,672.5	6.0	6.1	-144.92	-34.9	145.4	203.2	191.7	11.49	17.688	
1,800.0	1,794.8	1,774.6	1,768.9	6.4	6.4	-144.95	-42.3	156.8	226.0	214.0	12.01	18.815	
1,900.0	1,893.8	1,872.0	1,865.3	6.7	6.7	-144.98	-49.7	168.2	248.8	236.2	12.55	19.815	
2,000.0	1,992.9	1,969.4	1,961.7	7.0	7.0	-145.00	-57.0	179.5	271.6	258.4	13.12	20.705	
2,100.0	2,091.9	2,066.7	2,058.1	7.4	7.3	-145.02	-64.4	190.9	294.4	280.7	13.69	21.497	
2,200.0	2,190.9	2,164.1	2,154.6	7.7	7.7	-145.03	-71.8	202.3	317.1	302.9	14.28	22.204	
2,300.0	2,289.9	2,261.5	2,251.0	8.1	8.0	-145.05	-79.2	213.6	339.9	325.0	14.89	22.836	
2,400.0	2,389.0	2,358.8	2,347.4	8.4	8.4	-145.06	-86.6	225.0	362.7	347.2	15.50	23.403	
2,500.0	2,488.0	2,456.2	2,443.8	8.8	8.7	-145.07	-93.9	236.4	385.5	369.4	16.12	23.913	
2,600.0	2,587.0	2,553.6	2,540.3	9.2	9.1	-145.08	-101.3	247.7	408.3	391.5	16.75	24.373	
2,700.0	2,686.1	2,650.9	2,636.7	9.6	9.5	-145.09	-108.7	259.1	431.1	413.7	17.39	24.789	
2,800.0	2,785.1	2,748.3	2,733.1	10.0	9.8	-145.09	-116.1	270.4	453.9	435.8	18.04	25.166	
2,900.0	2,884.1	2,845.7	2,829.5	10.4	10.2	-145.10	-123.5	281.8	476.7	458.0	18.69	25.508	
3,000.0	2,983.1	2,943.1	2,925.9	10.8	10.6	-145.11	-130.8	293.2	499.4	480.1	19.34	25.821	
3,100.0	3,082.2	3,040.4	3,022.4	11.2	11.0	-145.11	-138.2	304.5	522.2	502.2	20.00	26.107	
3,200.0	3,181.2	3,137.8	3,118.8	11.6	11.4	-145.12	-145.6	315.9	545.0	524.3	20.67	26.368	
3,300.0	3,280.2	3,235.2	3,215.2	12.0	11.8	-145.12	-153.0	327.3	567.8	546.5	21.34	26.609	
3,400.0	3,379.2	3,332.5	3,311.6	12.4	12.1	-145.13	-160.4	338.6	590.6	568.6	22.01	26.830	
3,500.0	3,478.3	3,429.9	3,408.0	12.8	12.5	-145.13	-167.7	350.0	613.4	590.7	22.69	27.035	
3,600.0	3,577.3	3,527.3	3,504.5	13.2	12.9	-145.14	-175.1	361.4	636.2	612.8	23.37	27.223	
3,700.0	3,676.3	3,624.6	3,600.9	13.6	13.3	-145.14	-182.5	372.7	659.0	634.9	24.05	27.399	
3,800.0	3,775.3	3,722.0	3,697.3	14.0	13.7	-145.14	-189.9	384.1	681.7	657.0	24.74	27.561	
3,900.0	3,874.4	3,819.4	3,793.7	14.4	14.1	-145.15	-197.3	395.5	704.5	679.1	25.42	27.712	
4,000.0	3,973.4	3,916.7	3,890.2	14.8	14.5	-145.15	-204.7	406.8	727.3	701.2	26.11	27.853	
4,100.0	4,072.4	4,014.1	3,986.6	15.3	14.9	-145.15	-212.0	418.2	750.1	723.3	26.80	27.985	
4,200.0	4,171.5	4,111.5	4,083.0	15.7	15.3	-145.15	-219.4	429.6	772.9	745.4	27.50	28.108	
4,300.0	4,270.5	4,208.9	4,179.4	16.1	15.7	-145.16	-226.8	440.9	795.7	767.5	28.19	28.223	
4,400.0	4,369.5	4,306.2	4,275.8	16.5	16.1	-145.16	-234.2	452.3	818.5	789.6	28.89	28.332	
4,500.0	4,468.5	4,403.6	4,372.3	16.9	16.5	-145.16	-241.6	463.7	841.3	811.7	29.59	28.433	
4,600.0	4,567.6	4,501.0	4,468.7	17.3	17.0	-145.16	-248.9	475.0	864.0	833.8	30.29	28.529	
4,700.0	4,666.6	4,598.3	4,565.1	17.8	17.4	-145.16	-256.3	486.4	886.8	855.8	30.99	28.619	
4,800.0	4,765.6	4,695.7	4,661.5	18.2	17.8	-145.17	-263.7	497.7	909.6	877.9	31.69	28.704	
4,900.0	4,864.6	4,793.1	4,757.9	18.6	18.2	-145.17	-271.1	509.1	932.4	900.0	32.39	28.785	
5,000.0	4,963.7	4,890.4	4,854.4	19.0	18.6	-145.17	-278.5	520.5	955.2	922.1	33.10	28.861	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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
5,100.0	5,062.7	4,987.8	4,950.8	19.4	19.0	-145.17	-285.8	531.8	978.0	944.2	33.80	28.933	
5,200.0	5,161.7	5,085.2	5,047.2	19.9	19.4	-145.17	-293.2	543.2	1,000.8	966.3	34.51	29.001	
5,300.0	5,260.8	5,182.6	5,143.7	20.3	19.8	-145.21	-300.6	554.6	1,023.4	988.2	35.19	29.081	
5,400.0	5,359.9	5,280.1	5,240.3	20.7	20.2	-145.24	-308.0	566.0	1,045.4	1,009.5	35.90	29.124	
5,500.0	5,459.2	5,377.8	5,337.0	21.1	20.6	-145.25	-315.4	577.4	1,066.7	1,030.2	36.60	29.150	
5,600.0	5,558.6	5,475.7	5,433.9	21.5	21.1	-145.23	-322.8	588.8	1,087.4	1,050.1	37.29	29.160	
5,700.0	5,658.0	5,576.4	5,533.7	21.9	21.5	-145.18	-330.4	600.5	1,107.2	1,069.3	37.98	29.153	
5,800.0	5,757.6	5,683.2	5,639.6	22.3	21.9	-145.12	-338.1	612.3	1,125.8	1,087.1	38.71	29.081	
5,900.0	5,857.2	5,790.5	5,746.0	22.7	22.4	-145.06	-345.2	623.3	1,143.0	1,103.5	39.44	28.981	
6,000.0	5,956.9	5,898.2	5,853.0	23.1	22.8	-145.01	-351.8	633.5	1,158.6	1,118.5	40.15	28.858	
6,100.0	6,056.7	6,006.3	5,960.5	23.4	23.2	-144.95	-357.9	642.9	1,172.8	1,132.0	40.84	28.714	
6,200.0	6,156.5	6,114.7	6,068.5	23.8	23.7	-144.89	-363.5	651.4	1,185.5	1,144.0	41.52	28.552	
6,300.0	6,256.3	6,223.4	6,176.8	24.1	24.1	-144.83	-368.5	659.2	1,196.7	1,154.6	42.18	28.373	
6,400.0	6,356.3	6,332.4	6,285.5	24.5	24.5	-144.76	-373.0	666.1	1,206.5	1,163.6	42.81	28.179	
6,500.0	6,456.2	6,441.7	6,394.5	24.8	24.9	-144.70	-376.9	672.1	1,214.7	1,171.3	43.43	27.972	
6,600.0	6,556.2	6,551.1	6,503.8	25.1	25.3	-144.63	-380.3	677.3	1,221.4	1,177.4	44.01	27.755	
6,700.0	6,656.2	6,660.7	6,613.3	25.3	25.6	-144.56	-383.1	681.5	1,226.7	1,182.1	44.55	27.532	
6,800.0	6,756.2	6,770.5	6,722.9	25.5	26.0	-144.49	-385.3	685.0	1,230.4	1,185.3	45.05	27.313	
6,900.0	6,856.2	6,880.3	6,832.7	25.6	26.3	89.58	-386.9	687.5	1,232.8	1,187.4	45.36	27.175	
7,000.0	6,956.2	6,990.1	6,942.5	25.6	26.6	89.63	-388.0	689.2	1,234.3	1,188.6	45.64	27.041	
7,100.0	7,056.2	7,100.0	7,052.4	25.6	26.8	89.65	-388.5	689.9	1,235.0	1,189.1	45.88	26.915	
7,200.0	7,156.2	7,203.7	7,156.2	25.6	26.9	89.66	-388.6	690.0	1,235.0	1,189.1	45.94	26.883	
7,300.0	7,256.2	7,303.7	7,256.2	25.7	26.9	89.66	-388.6	690.0	1,235.0	1,189.0	45.99	26.857	
7,400.0	7,356.2	7,403.7	7,356.2	25.7	26.9	89.66	-388.6	690.0	1,235.0	1,189.0	46.03	26.831	
7,500.0	7,456.2	7,503.7	7,456.2	25.7	26.9	89.66	-388.6	690.0	1,235.0	1,188.9	46.07	26.805	
7,600.0	7,556.2	7,603.7	7,556.2	25.7	27.0	89.66	-388.6	690.0	1,235.0	1,188.9	46.12	26.778	
7,700.0	7,656.2	7,703.7	7,656.2	25.8	27.0	89.66	-388.6	690.0	1,235.0	1,188.8	46.17	26.751	
7,800.0	7,756.2	7,803.7	7,756.2	25.8	27.0	89.66	-388.6	690.0	1,235.0	1,188.8	46.21	26.724	
7,900.0	7,856.2	7,903.7	7,856.2	25.8	27.0	89.66	-388.6	690.0	1,235.0	1,188.8	46.26	26.697	
8,000.0	7,956.2	8,003.7	7,956.2	25.8	27.1	89.66	-388.6	690.0	1,235.0	1,188.7	46.31	26.669	
8,100.0	8,056.2	8,103.7	8,056.2	25.8	27.1	89.66	-388.6	690.0	1,235.0	1,188.7	46.36	26.641	
8,200.0	8,156.2	8,203.7	8,156.2	25.9	27.1	89.66	-388.6	690.0	1,235.0	1,188.6	46.41	26.613	
8,300.0	8,256.2	8,303.7	8,256.2	25.9	27.1	89.66	-388.6	690.0	1,235.0	1,188.6	46.46	26.585	
8,400.0	8,356.2	8,403.7	8,356.2	25.9	27.1	89.66	-388.6	690.0	1,235.0	1,188.5	46.51	26.556	
8,500.0	8,456.2	8,503.7	8,456.2	25.9	27.2	89.66	-388.6	690.0	1,235.0	1,188.5	46.56	26.528	
8,600.0	8,556.2	8,603.7	8,556.2	26.0	27.2	89.66	-388.6	690.0	1,235.0	1,188.4	46.61	26.498	
8,700.0	8,656.2	8,703.7	8,656.2	26.0	27.2	89.66	-388.6	690.0	1,235.0	1,188.4	46.66	26.469	
8,800.0	8,756.2	8,803.7	8,756.2	26.0	27.2	89.66	-388.6	690.0	1,235.0	1,188.3	46.71	26.440	
8,900.0	8,856.2	8,903.7	8,856.2	26.0	27.3	89.66	-388.6	690.0	1,235.0	1,188.3	46.76	26.410	
9,000.0	8,956.2	9,003.7	8,956.2	26.1	27.3	89.66	-388.6	690.0	1,235.0	1,188.2	46.82	26.380	
9,100.0	9,056.2	9,103.7	9,056.2	26.1	27.3	89.66	-388.6	690.0	1,235.0	1,188.1	46.87	26.350	
9,200.0	9,156.2	9,203.7	9,156.2	26.1	27.3	89.66	-388.6	690.0	1,235.0	1,188.1	46.92	26.320	
9,300.0	9,256.2	9,303.7	9,256.2	26.1	27.3	89.66	-388.6	690.0	1,235.0	1,188.0	46.98	26.289	
9,400.0	9,356.2	9,403.7	9,356.2	26.2	27.4	89.66	-388.6	690.0	1,235.0	1,188.0	47.03	26.258	
9,500.0	9,456.2	9,503.7	9,456.2	26.2	27.4	89.66	-388.6	690.0	1,235.0	1,187.9	47.09	26.227	
9,600.0	9,556.2	9,603.7	9,556.2	26.2	27.4	89.66	-388.6	690.0	1,235.0	1,187.9	47.14	26.196	
9,700.0	9,656.2	9,703.7	9,656.2	26.2	27.4	89.66	-388.6	690.0	1,235.0	1,187.8	47.20	26.165	
9,800.0	9,756.2	9,803.7	9,756.2	26.3	27.5	89.66	-388.6	690.0	1,235.0	1,187.8	47.26	26.133	
9,900.0	9,856.2	9,903.7	9,856.2	26.3	27.5	89.66	-388.6	690.0	1,235.0	1,187.7	47.32	26.101	
10,000.0	9,956.2	10,003.7	9,956.2	26.3	27.5	89.66	-388.6	690.0	1,235.0	1,187.6	47.37	26.069	
10,100.0	10,056.2	10,103.7	10,056.2	26.3	27.6	89.66	-388.6	690.0	1,235.0	1,187.6	47.43	26.037	
10,200.0	10,156.2	10,203.7	10,156.2	26.4	27.6	89.66	-388.6	690.0	1,235.0	1,187.5	47.49	26.005	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 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)			
10,300.0	10,256.2	10,303.7	10,256.2	26.4	27.6	89.66	-388.6	690.0	1,235.0	1,187.5	47.55	25.972	
10,400.0	10,356.2	10,403.7	10,356.2	26.4	27.6	89.66	-388.6	690.0	1,235.0	1,187.4	47.61	25.940	
10,500.0	10,456.2	10,503.7	10,456.2	26.5	27.7	89.66	-388.6	690.0	1,235.0	1,187.3	47.67	25.907	
10,600.0	10,556.2	10,603.7	10,556.2	26.5	27.7	89.66	-388.6	690.0	1,235.0	1,187.3	47.73	25.874	
10,700.0	10,656.2	10,703.7	10,656.2	26.5	27.7	89.66	-388.6	690.0	1,235.0	1,187.2	47.79	25.840	
10,800.0	10,756.2	10,803.7	10,756.2	26.5	27.7	89.66	-388.6	690.0	1,235.0	1,187.2	47.86	25.807	
10,900.0	10,856.2	10,903.7	10,856.2	26.6	27.8	89.66	-388.6	690.0	1,235.0	1,187.1	47.92	25.773	
11,000.0	10,956.2	11,003.7	10,956.2	26.6	27.8	89.66	-388.6	690.0	1,235.0	1,187.0	47.98	25.740	
11,008.9	10,965.1	11,012.7	10,965.1	26.6	27.8	90.39	-388.6	690.0	1,235.0	1,187.0	47.99	25.737	
11,100.0	11,056.2	11,103.7	11,056.2	26.6	27.8	90.39	-388.6	690.0	1,235.0	1,187.0	48.04	25.708	
11,200.0	11,155.5	11,203.1	11,155.5	26.7	27.9	90.83	-388.6	690.0	1,235.1	1,187.0	48.08	25.690	
11,300.0	11,251.7	11,303.4	11,255.8	26.7	27.9	91.93	-386.3	690.0	1,235.7	1,187.7	48.08	25.701	
11,400.0	11,341.8	11,411.0	11,361.4	26.8	27.9	93.12	-366.8	689.7	1,236.9	1,188.8	48.06	25.736	
11,500.0	11,423.0	11,524.8	11,467.1	26.8	28.0	94.25	-325.2	689.1	1,238.4	1,190.4	48.03	25.786	
11,600.0	11,492.8	11,645.0	11,567.5	26.9	28.0	95.28	-259.5	688.1	1,240.1	1,192.1	48.01	25.832	
11,700.0	11,549.2	11,771.6	11,656.0	26.9	28.1	96.14	-169.3	686.7	1,241.8	1,193.7	48.02	25.857	
11,800.0	11,590.5	11,903.6	11,724.8	27.0	28.1	96.77	-57.0	685.0	1,243.0	1,194.9	48.09	25.845	
11,900.0	11,615.3	12,039.4	11,767.0	27.1	28.2	97.12	71.7	683.1	1,243.6	1,195.3	48.22	25.787	
12,000.0	11,622.9	12,170.1	11,778.2	27.1	28.3	97.17	201.7	681.1	1,243.4	1,195.0	48.40	25.690	
12,100.0	11,622.8	12,270.1	11,778.2	27.2	28.4	97.18	301.7	679.6	1,243.2	1,194.6	48.62	25.572	
12,200.0	11,622.6	12,370.1	11,778.2	27.3	28.5	97.19	401.6	678.1	1,243.0	1,194.1	48.88	25.429	
12,300.0	11,622.4	12,470.1	11,778.2	27.5	28.7	97.20	501.6	676.6	1,242.8	1,193.6	49.19	25.265	
12,400.0	11,622.3	12,570.1	11,778.2	27.6	28.8	97.21	601.6	675.1	1,242.6	1,193.1	49.55	25.079	
12,500.0	11,622.1	12,670.1	11,778.2	27.7	28.9	97.22	701.6	673.6	1,242.4	1,192.5	49.95	24.874	
12,600.0	11,621.9	12,770.1	11,778.2	27.9	29.1	97.23	801.6	672.1	1,242.2	1,191.8	50.39	24.652	
12,700.0	11,621.7	12,870.1	11,778.2	28.1	29.3	97.24	901.6	670.6	1,242.0	1,191.2	50.88	24.413	
12,800.0	11,621.6	12,970.1	11,778.2	28.3	29.5	97.24	1,001.6	669.1	1,241.8	1,190.4	51.40	24.159	
12,900.0	11,621.4	13,070.1	11,778.2	28.5	29.7	97.25	1,101.6	667.6	1,241.7	1,189.7	51.97	23.892	
13,000.0	11,621.2	13,170.1	11,778.2	28.7	29.9	97.26	1,201.5	666.1	1,241.5	1,188.9	52.57	23.613	
13,100.0	11,621.0	13,270.1	11,778.2	29.0	30.2	97.27	1,301.5	664.6	1,241.3	1,188.0	53.22	23.325	
13,200.0	11,620.9	13,370.1	11,778.2	29.2	30.4	97.28	1,401.5	663.1	1,241.1	1,187.2	53.89	23.028	
13,300.0	11,620.7	13,470.1	11,778.2	29.5	30.7	97.29	1,501.5	661.6	1,240.9	1,186.3	54.60	22.725	
13,400.0	11,620.5	13,570.1	11,778.2	29.8	31.0	97.30	1,601.5	660.1	1,240.7	1,185.3	55.35	22.415	
13,500.0	11,620.3	13,670.1	11,778.2	30.1	31.3	97.31	1,701.5	658.6	1,240.5	1,184.3	56.13	22.102	
13,600.0	11,620.2	13,770.1	11,778.2	30.4	31.6	97.32	1,801.5	657.1	1,240.3	1,183.3	56.93	21.785	
13,700.0	11,620.0	13,870.1	11,778.2	30.7	31.9	97.33	1,901.5	655.6	1,240.1	1,182.3	57.77	21.466	
13,800.0	11,619.8	13,970.1	11,778.2	31.1	32.2	97.34	2,001.5	654.1	1,239.9	1,181.3	58.63	21.147	
13,900.0	11,619.6	14,070.1	11,778.2	31.4	32.6	97.35	2,101.4	652.6	1,239.7	1,180.2	59.52	20.827	
14,000.0	11,619.5	14,170.1	11,778.2	31.8	32.9	97.36	2,201.4	651.0	1,239.5	1,179.1	60.44	20.508	
14,100.0	11,619.3	14,270.1	11,778.2	32.2	33.3	97.37	2,301.4	649.5	1,239.3	1,177.9	61.38	20.190	
14,200.0	11,619.1	14,370.1	11,778.2	32.6	33.7	97.37	2,401.4	648.0	1,239.1	1,176.8	62.35	19.875	
14,300.0	11,618.9	14,470.1	11,778.2	33.0	34.1	97.38	2,501.4	646.5	1,238.9	1,175.6	63.33	19.562	
14,400.0	11,618.8	14,570.1	11,778.2	33.5	34.6	97.39	2,601.4	645.0	1,238.7	1,174.4	64.34	19.253	
14,500.0	11,618.6	14,670.1	11,778.2	33.9	35.0	97.40	2,701.4	643.5	1,238.5	1,173.1	65.37	18.947	
14,600.0	11,618.4	14,770.1	11,778.2	34.4	35.4	97.41	2,801.4	642.0	1,238.3	1,171.9	66.41	18.646	
14,700.0	11,618.2	14,870.1	11,778.2	34.8	35.9	97.42	2,901.3	640.5	1,238.1	1,170.6	67.48	18.348	
14,800.0	11,618.1	14,970.1	11,778.2	35.3	36.3	97.43	3,001.3	639.0	1,237.9	1,169.4	68.56	18.056	
14,900.0	11,617.9	15,070.1	11,778.2	35.8	36.8	97.44	3,101.3	637.5	1,237.7	1,168.1	69.66	17.768	
15,000.0	11,617.7	15,170.1	11,778.2	36.3	37.3	97.45	3,201.3	636.0	1,237.5	1,166.8	70.78	17.485	
15,100.0	11,617.6	15,270.1	11,778.2	36.8	37.8	97.46	3,301.3	634.5	1,237.3	1,165.4	71.91	17.207	
15,200.0	11,617.4	15,370.1	11,778.2	37.3	38.3	97.47	3,401.3	633.0	1,237.1	1,164.1	73.05	16.935	
15,300.0	11,617.2	15,470.1	11,778.2	37.9	38.8	97.48	3,501.3	631.5	1,237.0	1,162.7	74.21	16.668	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 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	11,617.0	15,570.1	11,778.2	38.4	39.4	97.49	3,601.3	630.0	1,236.8	1,161.4	75.39	16.406	
15,500.0	11,616.9	15,670.1	11,778.2	39.0	39.9	97.50	3,701.3	628.5	1,236.6	1,160.0	76.57	16.149	
15,600.0	11,616.7	15,770.1	11,778.2	39.5	40.5	97.51	3,801.2	627.0	1,236.4	1,158.6	77.77	15.898	
15,700.0	11,616.5	15,870.1	11,778.2	40.1	41.0	97.51	3,901.2	625.5	1,236.2	1,157.2	78.98	15.653	
15,800.0	11,616.3	15,970.1	11,778.2	40.7	41.6	97.52	4,001.2	624.0	1,236.0	1,155.8	80.19	15.412	
15,900.0	11,616.2	16,070.1	11,778.2	41.2	42.1	97.53	4,101.2	622.5	1,235.8	1,154.4	81.42	15.177	
16,000.0	11,616.0	16,170.1	11,778.2	41.8	42.7	97.54	4,201.2	621.0	1,235.6	1,152.9	82.66	14.947	
16,100.0	11,615.8	16,270.1	11,778.2	42.4	43.3	97.55	4,301.2	619.5	1,235.4	1,151.5	83.91	14.722	
16,200.0	11,615.6	16,370.1	11,778.2	43.0	43.9	97.56	4,401.2	618.0	1,235.2	1,150.0	85.17	14.502	
16,300.0	11,615.5	16,470.1	11,778.2	43.6	44.5	97.57	4,501.2	616.5	1,235.0	1,148.6	86.44	14.287	
16,400.0	11,615.3	16,570.1	11,778.2	44.2	45.1	97.58	4,601.1	614.9	1,234.8	1,147.1	87.71	14.077	
16,500.0	11,615.1	16,670.1	11,778.2	44.8	45.7	97.59	4,701.1	613.4	1,234.6	1,145.6	89.00	13.872	
16,600.0	11,614.9	16,770.1	11,778.2	45.5	46.3	97.60	4,801.1	611.9	1,234.4	1,144.1	90.29	13.672	
16,700.0	11,614.8	16,870.1	11,778.2	46.1	46.9	97.61	4,901.1	610.4	1,234.2	1,142.6	91.59	13.476	
16,800.0	11,614.6	16,970.1	11,778.2	46.7	47.5	97.62	5,001.1	608.9	1,234.0	1,141.1	92.89	13.284	
16,900.0	11,614.4	17,070.1	11,778.2	47.4	48.1	97.63	5,101.1	607.4	1,233.8	1,139.6	94.21	13.097	
17,000.0	11,614.2	17,170.1	11,778.2	48.0	48.8	97.64	5,201.1	605.9	1,233.6	1,138.1	95.52	12.914	
17,100.0	11,614.1	17,270.1	11,778.2	48.6	49.4	97.65	5,301.1	604.4	1,233.4	1,136.6	96.85	12.736	
17,200.0	11,613.9	17,370.1	11,778.2	49.3	50.0	97.66	5,401.1	602.9	1,233.2	1,135.1	98.18	12.561	
17,300.0	11,613.7	17,470.1	11,778.2	49.9	50.7	97.66	5,501.0	601.4	1,233.1	1,133.5	99.52	12.390	
17,400.0	11,613.6	17,570.1	11,778.2	50.6	51.3	97.67	5,601.0	599.9	1,232.9	1,132.0	100.86	12.224	
17,500.0	11,613.4	17,670.1	11,778.2	51.3	52.0	97.68	5,701.0	598.4	1,232.7	1,130.5	102.21	12.061	
17,600.0	11,613.2	17,770.1	11,778.2	51.9	52.6	97.69	5,801.0	596.9	1,232.5	1,128.9	103.56	11.901	
17,700.0	11,613.0	17,870.1	11,778.2	52.6	53.3	97.70	5,901.0	595.4	1,232.3	1,127.4	104.91	11.745	
17,800.0	11,612.9	17,970.1	11,778.2	53.3	54.0	97.71	6,001.0	593.9	1,232.1	1,125.8	106.28	11.593	
17,900.0	11,612.7	18,070.1	11,778.2	53.9	54.6	97.72	6,101.0	592.4	1,231.9	1,124.2	107.64	11.444	
18,000.0	11,612.5	18,170.1	11,778.2	54.6	55.3	97.73	6,201.0	590.9	1,231.7	1,122.7	109.01	11.299	
18,100.0	11,612.3	18,270.1	11,778.2	55.3	56.0	97.74	6,300.9	589.4	1,231.5	1,121.1	110.39	11.156	
18,200.0	11,612.2	18,370.1	11,778.2	56.0	56.6	97.75	6,400.9	587.9	1,231.3	1,119.5	111.77	11.017	
18,300.0	11,612.0	18,470.1	11,778.2	56.6	57.3	97.76	6,500.9	586.4	1,231.1	1,118.0	113.15	10.880	
18,400.0	11,611.8	18,570.1	11,778.2	57.3	58.0	97.77	6,600.9	584.9	1,230.9	1,116.4	114.54	10.747	
18,500.0	11,611.6	18,670.1	11,778.2	58.0	58.7	97.78	6,700.9	583.4	1,230.7	1,114.8	115.93	10.616	
18,600.0	11,611.5	18,770.1	11,778.2	58.7	59.3	97.79	6,800.9	581.9	1,230.5	1,113.2	117.32	10.489	
18,700.0	11,611.3	18,870.1	11,778.2	59.4	60.0	97.80	6,900.9	580.4	1,230.3	1,111.6	118.72	10.364	
18,800.0	11,611.1	18,970.1	11,778.2	60.1	60.7	97.81	7,000.9	578.8	1,230.1	1,110.0	120.12	10.241	
18,900.0	11,610.9	19,070.1	11,778.2	60.8	61.4	97.82	7,100.9	577.3	1,229.9	1,108.4	121.52	10.121	
19,000.0	11,610.8	19,170.1	11,778.2	61.5	62.1	97.82	7,200.8	575.8	1,229.7	1,106.8	122.92	10.004	
19,100.0	11,610.6	19,270.1	11,778.2	62.2	62.8	97.83	7,300.8	574.3	1,229.6	1,105.2	124.33	9.889	
19,200.0	11,610.4	19,370.1	11,778.2	62.9	63.5	97.84	7,400.8	572.8	1,229.4	1,103.6	125.75	9.777	
19,300.0	11,610.2	19,470.1	11,778.2	63.6	64.2	97.85	7,500.8	571.3	1,229.2	1,102.0	127.16	9.666	
19,400.0	11,610.1	19,570.1	11,778.2	64.3	64.9	97.86	7,600.8	569.8	1,229.0	1,100.4	128.58	9.558	
19,500.0	11,609.9	19,670.1	11,778.2	65.0	65.6	97.87	7,700.8	568.3	1,228.8	1,098.8	130.00	9.452	
19,600.0	11,609.7	19,770.1	11,778.2	65.7	66.3	97.88	7,800.8	566.8	1,228.6	1,097.2	131.42	9.349	
19,700.0	11,609.6	19,870.1	11,778.2	66.4	67.0	97.89	7,900.8	565.3	1,228.4	1,095.5	132.84	9.247	
19,800.0	11,609.4	19,970.1	11,778.2	67.1	67.7	97.90	8,000.7	563.8	1,228.2	1,093.9	134.27	9.147	
19,900.0	11,609.2	20,070.1	11,778.2	67.8	68.4	97.91	8,100.7	562.3	1,228.0	1,092.3	135.70	9.049	
20,000.0	11,609.0	20,170.1	11,778.2	68.5	69.1	97.92	8,200.7	560.8	1,227.8	1,090.7	137.13	8.954	
20,100.0	11,608.9	20,270.1	11,778.2	69.2	69.8	97.93	8,300.7	559.3	1,227.6	1,089.0	138.56	8.860	
20,200.0	11,608.7	20,370.1	11,778.2	70.0	70.5	97.94	8,400.7	557.8	1,227.4	1,087.4	140.00	8.767	
20,300.0	11,608.5	20,470.1	11,778.2	70.7	71.2	97.95	8,500.7	556.3	1,227.2	1,085.8	141.44	8.677	
20,400.0	11,608.3	20,570.1	11,778.2	71.4	71.9	97.96	8,600.7	554.8	1,227.0	1,084.2	142.88	8.588	
20,500.0	11,608.2	20,670.1	11,778.2	72.1	72.6	97.97	8,700.7	553.3	1,226.8	1,082.5	144.32	8.501	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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						Rule Assigned:				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)				
20,600.0	11,608.0	20,770.1	11,778.2	72.8	73.3	97.98	8,800.7	551.8	1,226.6	1,080.9	145.76	8.416		
20,700.0	11,607.8	20,870.1	11,778.2	73.5	74.0	97.99	8,900.6	550.3	1,226.4	1,079.2	147.20	8.332		
20,800.0	11,607.6	20,970.1	11,778.2	74.3	74.8	97.99	9,000.6	548.8	1,226.3	1,077.6	148.65	8.249		
20,900.0	11,607.5	21,070.1	11,778.2	75.0	75.5	98.00	9,100.6	547.3	1,226.1	1,076.0	150.10	8.168		
21,000.0	11,607.3	21,170.1	11,778.2	75.7	76.2	98.01	9,200.6	545.8	1,225.9	1,074.3	151.55	8.089		
21,100.0	11,607.1	21,270.1	11,778.2	76.4	76.9	98.02	9,300.6	544.3	1,225.7	1,072.7	153.00	8.011		
21,200.0	11,606.9	21,370.1	11,778.2	77.1	77.6	98.03	9,400.6	542.7	1,225.5	1,071.0	154.45	7.934		
21,300.0	11,606.8	21,470.1	11,778.2	77.9	78.4	98.04	9,500.6	541.2	1,225.3	1,069.4	155.90	7.859		
21,400.0	11,606.6	21,570.1	11,778.2	78.6	79.1	98.05	9,600.6	539.7	1,225.1	1,067.7	157.36	7.785		
21,500.0	11,606.4	21,670.1	11,778.2	79.3	79.8	98.06	9,700.6	538.2	1,224.9	1,066.1	158.82	7.713		
21,600.0	11,606.2	21,770.1	11,778.2	80.1	80.5	98.07	9,800.5	536.7	1,224.7	1,064.4	160.28	7.641		
21,700.0	11,606.1	21,870.1	11,778.2	80.8	81.2	98.08	9,900.5	535.2	1,224.5	1,062.8	161.73	7.571		
21,800.0	11,605.9	21,970.1	11,778.2	81.5	82.0	98.09	10,000.5	533.7	1,224.3	1,061.1	163.20	7.502		
21,900.0	11,605.7	22,070.1	11,778.2	82.2	82.7	98.10	10,100.5	532.2	1,224.1	1,059.5	164.66	7.434		
22,000.0	11,605.5	22,170.1	11,778.2	83.0	83.4	98.11	10,200.5	530.7	1,223.9	1,057.8	166.12	7.368		
22,100.0	11,605.4	22,270.1	11,778.2	83.7	84.1	98.12	10,300.5	529.2	1,223.7	1,056.2	167.58	7.302		
22,200.0	11,605.2	22,370.1	11,778.2	84.4	84.9	98.13	10,400.5	527.7	1,223.5	1,054.5	169.05	7.238		
22,300.0	11,605.0	22,470.1	11,778.2	85.2	85.6	98.14	10,500.5	526.2	1,223.4	1,052.8	170.52	7.174		
22,400.0	11,604.9	22,570.1	11,778.2	85.9	86.3	98.15	10,600.4	524.7	1,223.2	1,051.2	171.98	7.112		
22,500.0	11,604.7	22,670.1	11,778.2	86.6	87.1	98.16	10,700.4	523.2	1,223.0	1,049.5	173.45	7.051		
22,600.0	11,604.5	22,770.1	11,778.2	87.4	87.8	98.17	10,800.4	521.7	1,222.8	1,047.9	174.92	6.990		
22,700.0	11,604.3	22,870.1	11,778.2	88.1	88.5	98.18	10,900.4	520.2	1,222.6	1,046.2	176.39	6.931		
22,800.0	11,604.2	22,970.1	11,778.2	88.8	89.3	98.19	11,000.4	518.7	1,222.4	1,044.5	177.87	6.873		
22,900.0	11,604.0	23,070.1	11,778.2	89.6	90.0	98.20	11,100.4	517.2	1,222.2	1,042.9	179.34	6.815		
23,000.0	11,603.8	23,170.1	11,778.2	90.3	90.7	98.20	11,200.4	515.7	1,222.0	1,041.2	180.81	6.758		
23,100.0	11,603.6	23,270.1	11,778.2	91.0	91.4	98.21	11,300.4	514.2	1,221.8	1,039.5	182.29	6.703		
23,200.0	11,603.5	23,370.1	11,778.2	91.8	92.2	98.22	11,400.4	512.7	1,221.6	1,037.9	183.76	6.648		
23,300.0	11,603.3	23,470.1	11,778.2	92.5	92.9	98.23	11,500.3	511.2	1,221.4	1,036.2	185.24	6.594		
23,400.0	11,603.1	23,570.1	11,778.2	93.2	93.7	98.24	11,600.3	509.7	1,221.2	1,034.5	186.72	6.541		
23,500.0	11,602.9	23,670.1	11,778.2	94.0	94.4	98.25	11,700.3	508.2	1,221.0	1,032.8	188.19	6.488		
23,600.0	11,602.8	23,770.1	11,778.2	94.7	95.1	98.26	11,800.3	506.6	1,220.8	1,031.2	189.67	6.437		
23,700.0	11,602.6	23,870.1	11,778.2	95.5	95.9	98.27	11,900.3	505.1	1,220.7	1,029.5	191.15	6.386		
23,800.0	11,602.4	23,970.1	11,778.2	96.2	96.6	98.28	12,000.3	503.6	1,220.5	1,027.8	192.63	6.336		
23,900.0	11,602.2	24,070.1	11,778.2	96.9	97.3	98.29	12,100.3	502.1	1,220.3	1,026.2	194.12	6.286		
24,000.0	11,602.1	24,170.1	11,778.2	97.7	98.1	98.30	12,200.3	500.6	1,220.1	1,024.5	195.60	6.238		
24,100.0	11,601.9	24,270.1	11,778.2	98.4	98.8	98.31	12,300.2	499.1	1,219.9	1,022.8	197.08	6.190		
24,200.0	11,601.7	24,370.1	11,778.2	99.2	99.5	98.32	12,400.2	497.6	1,219.7	1,021.1	198.56	6.143		
24,300.0	11,601.5	24,470.1	11,778.2	99.9	100.3	98.33	12,500.2	496.1	1,219.5	1,019.5	200.05	6.096		
24,400.0	11,601.4	24,570.1	11,778.2	100.6	101.0	98.34	12,600.2	494.6	1,219.3	1,017.8	201.53	6.050		
24,500.0	11,601.2	24,670.1	11,778.2	101.4	101.8	98.35	12,700.2	493.1	1,219.1	1,016.1	203.02	6.005		
24,600.0	11,601.0	24,770.1	11,778.2	102.1	102.5	98.36	12,800.2	491.6	1,218.9	1,014.4	204.50	5.960		
24,606.9	11,601.0	24,774.6	11,778.2	102.2	102.5	98.36	12,804.7	491.5	1,218.9	1,014.3	204.59	5.958		
24,614.3	11,601.0	24,774.6	11,778.2	102.2	102.5	98.36	12,804.7	491.5	1,218.9	1,014.3	204.63	5.957 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	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	0.5	0.0	3.0	3.0	89.15	1.8	120.0	120.1				
100.0	100.0	100.5	100.0	3.0	3.0	89.15	1.8	120.0	120.1	114.0	6.05	19.837	
200.0	200.0	200.5	200.0	3.2	3.2	89.15	1.8	120.0	120.1	113.8	6.30	19.065	
300.0	300.0	300.5	300.0	3.3	3.3	89.15	1.8	120.0	120.1	113.5	6.53	18.377	
400.0	400.0	400.5	400.0	3.4	3.4	89.15	1.8	120.0	120.1	113.3	6.76	17.758	
500.0	500.0	500.5	500.0	3.5	3.5	89.15	1.8	120.0	120.1	113.1	6.98	17.198	
600.0	600.0	600.5	600.0	3.6	3.6	89.15	1.8	120.0	120.1	112.9	7.19	16.688	
700.0	700.0	700.5	700.0	3.8	3.8	89.15	1.8	120.0	120.1	112.7	7.40	16.221	
800.0	800.0	800.5	800.0	3.9	3.9	89.15	1.8	120.0	120.1	112.5	7.60	15.791	
900.0	900.0	900.5	900.0	4.0	4.0	89.15	1.8	120.0	120.1	112.3	7.80	15.393	
916.5	916.5	917.0	916.5	4.0	4.0	89.15	1.8	120.0	120.1	112.2	7.83	15.332 CC	
1,000.0	1,000.0	1,000.0	999.5	4.1	4.1	89.15	1.8	120.0	120.1	112.1	7.99	15.025 ES	
1,100.0	1,100.0	1,096.7	1,096.1	4.3	4.3	-144.98	1.2	121.6	123.1	114.7	8.35	14.732	
1,200.0	1,199.8	1,192.3	1,191.7	4.6	4.5	-145.35	-0.5	126.1	132.0	123.1	8.88	14.859	
1,300.0	1,299.5	1,286.9	1,286.0	4.9	4.8	-145.84	-3.4	133.4	146.9	137.5	9.43	15.581	
1,400.0	1,398.7	1,380.1	1,378.4	5.2	5.1	-146.35	-7.2	143.5	167.6	157.6	9.98	16.791	
1,500.0	1,497.7	1,471.6	1,469.0	5.5	5.4	-146.84	-12.1	156.2	192.6	182.1	10.48	18.374	
1,600.0	1,596.8	1,565.2	1,561.2	5.7	5.7	-146.93	-18.0	171.5	220.0	209.0	10.95	20.088	
1,700.0	1,695.8	1,661.3	1,655.7	6.0	6.0	-146.98	-24.1	187.4	247.6	236.2	11.47	21.591	
1,800.0	1,794.8	1,757.4	1,750.3	6.4	6.3	-147.02	-30.2	203.4	275.3	263.3	12.02	22.896	
1,900.0	1,893.8	1,853.5	1,844.8	6.7	6.6	-147.05	-36.4	219.4	302.9	290.3	12.60	24.040	
2,000.0	1,992.9	1,949.6	1,939.4	7.0	6.9	-147.07	-42.5	235.3	330.6	317.4	13.20	25.044	
2,100.0	2,091.9	2,045.7	2,034.0	7.4	7.3	-147.10	-48.6	251.3	358.3	344.5	13.82	25.928	
2,200.0	2,190.9	2,141.8	2,128.5	7.7	7.6	-147.11	-54.7	267.3	385.9	371.5	14.45	26.706	
2,300.0	2,289.9	2,237.9	2,223.1	8.1	8.0	-147.13	-60.9	283.2	413.6	398.5	15.10	27.395	
2,400.0	2,389.0	2,334.0	2,317.7	8.4	8.4	-147.14	-67.0	299.2	441.3	425.5	15.76	28.005	
2,500.0	2,488.0	2,430.1	2,412.2	8.8	8.7	-147.16	-73.1	315.2	468.9	452.5	16.43	28.548	
2,600.0	2,587.0	2,526.2	2,506.8	9.2	9.1	-147.17	-79.2	331.1	496.6	479.5	17.10	29.033	
2,700.0	2,686.1	2,622.3	2,601.4	9.6	9.5	-147.18	-85.4	347.1	524.3	506.5	17.79	29.467	
2,800.0	2,785.1	2,718.4	2,695.9	10.0	9.9	-147.19	-91.5	363.1	551.9	533.4	18.49	29.857	
2,900.0	2,884.1	2,814.5	2,790.5	10.4	10.3	-147.19	-97.6	379.0	579.6	560.4	19.19	30.208	
3,000.0	2,983.1	2,910.6	2,885.0	10.8	10.7	-147.20	-103.8	395.0	607.2	587.3	19.89	30.525	
3,100.0	3,082.2	3,006.7	2,979.6	11.2	11.1	-147.21	-109.9	410.9	634.9	614.3	20.61	30.813	
3,200.0	3,181.2	3,102.8	3,074.2	11.6	11.5	-147.21	-116.0	426.9	662.6	641.2	21.32	31.074	
3,300.0	3,280.2	3,198.9	3,168.7	12.0	11.9	-147.22	-122.1	442.9	690.2	668.2	22.04	31.313	
3,400.0	3,379.2	3,295.0	3,263.3	12.4	12.3	-147.22	-128.3	458.8	717.9	695.1	22.77	31.531	
3,500.0	3,478.3	3,391.1	3,357.9	12.8	12.7	-147.23	-134.4	474.8	745.6	722.1	23.50	31.730	
3,600.0	3,577.3	3,487.2	3,452.4	13.2	13.1	-147.23	-140.5	490.8	773.2	749.0	24.23	31.914	
3,700.0	3,676.3	3,583.3	3,547.0	13.6	13.6	-147.24	-146.7	506.7	800.9	775.9	24.96	32.082	
3,800.0	3,775.3	3,679.4	3,641.6	14.0	14.0	-147.24	-152.8	522.7	828.5	802.8	25.70	32.238	
3,900.0	3,874.4	3,775.5	3,736.1	14.4	14.4	-147.24	-158.9	538.7	856.2	829.8	26.44	32.382	
4,000.0	3,973.4	3,871.6	3,830.7	14.8	14.8	-147.25	-165.0	554.6	883.9	856.7	27.18	32.516	
4,100.0	4,072.4	3,967.7	3,925.3	15.3	15.2	-147.25	-171.2	570.6	911.5	883.6	27.93	32.640	
4,200.0	4,171.5	4,063.8	4,019.8	15.7	15.7	-147.25	-177.3	586.6	939.2	910.5	28.67	32.755	
4,300.0	4,270.5	4,159.9	4,114.4	16.1	16.1	-147.26	-183.4	602.5	966.9	937.4	29.42	32.862	
4,400.0	4,369.5	4,256.0	4,208.9	16.5	16.5	-147.26	-189.6	618.5	994.5	964.4	30.17	32.962	
4,500.0	4,468.5	4,352.1	4,303.5	16.9	16.9	-147.26	-195.7	634.4	1,022.2	991.3	30.92	33.056	
4,600.0	4,567.6	4,448.2	4,398.1	17.3	17.3	-147.26	-201.8	650.4	1,049.9	1,018.2	31.68	33.144	
4,700.0	4,666.6	4,544.3	4,492.6	17.8	17.8	-147.27	-207.9	666.4	1,077.5	1,045.1	32.43	33.226	
4,800.0	4,765.6	4,640.3	4,587.2	18.2	18.2	-147.27	-214.1	682.3	1,105.2	1,072.0	33.19	33.303	
4,900.0	4,864.6	4,736.4	4,681.8	18.6	18.6	-147.27	-220.2	698.3	1,132.8	1,098.9	33.94	33.376	
5,000.0	4,963.7	4,832.5	4,776.3	19.0	19.1	-147.27	-226.3	714.3	1,160.5	1,125.8	34.70	33.444	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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									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	5,062.7	4,928.6	4,870.9	19.4	19.5	-147.27	-232.4	730.2	1,188.2	1,152.7	35.46	33.509	
5,200.0	5,161.7	5,024.7	4,965.5	19.9	19.9	-147.28	-238.6	746.2	1,215.8	1,179.6	36.22	33.570	
5,300.0	5,260.8	5,120.9	5,060.1	20.3	20.4	-147.32	-244.7	762.2	1,243.4	1,206.4	36.96	33.644	
5,400.0	5,359.9	5,217.2	5,154.8	20.7	20.8	-147.37	-250.9	778.2	1,270.2	1,232.5	37.71	33.681	
5,500.0	5,459.2	5,313.7	5,249.8	21.1	21.2	-147.40	-257.0	794.2	1,296.4	1,257.9	38.47	33.702	
5,600.0	5,558.6	5,410.4	5,345.0	21.5	21.6	-147.41	-263.2	810.3	1,321.9	1,282.6	39.21	33.708	
5,700.0	5,658.0	5,507.3	5,440.3	21.9	22.1	-147.40	-269.3	826.4	1,346.6	1,306.7	39.96	33.700	
5,800.0	5,757.6	5,604.3	5,535.8	22.3	22.5	-147.37	-275.5	842.5	1,370.7	1,330.0	40.70	33.680	
5,900.0	5,857.2	5,701.5	5,631.4	22.7	23.0	-147.32	-281.7	858.6	1,394.0	1,352.6	41.43	33.647	
6,000.0	5,956.9	5,798.9	5,727.2	23.1	23.4	-147.25	-287.9	874.8	1,416.6	1,374.4	42.15	33.605	
6,100.0	6,056.7	5,896.4	5,823.2	23.4	23.8	-147.16	-294.2	891.0	1,438.5	1,395.6	42.87	33.553	
6,200.0	6,156.5	5,994.0	5,919.3	23.8	24.3	-147.06	-300.4	907.2	1,459.7	1,416.1	43.58	33.494	
6,300.0	6,256.3	6,091.8	6,015.5	24.1	24.7	-146.94	-306.6	923.5	1,480.2	1,435.9	44.28	33.427	
6,400.0	6,356.3	6,198.3	6,120.3	24.5	25.2	-146.80	-313.3	940.9	1,499.8	1,454.8	45.02	33.316	
6,500.0	6,456.2	6,310.0	6,230.5	24.8	25.7	-146.64	-320.0	958.4	1,517.9	1,472.2	45.79	33.153	
6,600.0	6,556.2	6,422.3	6,341.3	25.1	26.2	-146.47	-326.3	974.8	1,534.5	1,487.9	46.53	32.978	
6,700.0	6,656.2	6,534.9	6,452.8	25.3	26.7	-146.30	-332.3	990.4	1,549.4	1,502.1	47.24	32.795	
6,800.0	6,756.2	6,648.1	6,564.8	25.5	27.2	-146.13	-337.9	1,004.9	1,562.7	1,514.8	47.92	32.613	
6,900.0	6,856.2	6,761.6	6,677.4	25.6	27.6	88.06	-343.1	1,018.5	1,574.6	1,526.1	48.42	32.518	
7,000.0	6,956.2	6,875.3	6,790.3	25.6	28.1	88.25	-347.9	1,031.1	1,585.5	1,536.6	48.91	32.419	
7,100.0	7,056.2	6,989.4	6,903.7	25.6	28.6	88.43	-352.4	1,042.6	1,595.5	1,546.1	49.38	32.310	
7,200.0	7,156.2	7,103.6	7,017.4	25.6	29.0	88.58	-356.4	1,053.1	1,604.6	1,554.7	49.84	32.192	
7,300.0	7,256.2	7,218.1	7,131.4	25.7	29.5	88.72	-360.0	1,062.5	1,612.8	1,562.5	50.29	32.067	
7,400.0	7,356.2	7,332.8	7,245.8	25.7	29.9	88.84	-363.2	1,071.0	1,620.0	1,569.3	50.73	31.934	
7,500.0	7,456.2	7,447.6	7,360.3	25.7	30.3	88.95	-366.1	1,078.3	1,626.4	1,575.2	51.15	31.795	
7,600.0	7,556.2	7,562.6	7,475.1	25.7	30.7	89.03	-368.5	1,084.6	1,631.8	1,580.3	51.56	31.650	
7,700.0	7,656.2	7,677.7	7,590.1	25.8	31.1	89.11	-370.5	1,089.8	1,636.3	1,584.4	51.95	31.500	
7,800.0	7,756.2	7,792.9	7,705.2	25.8	31.5	89.16	-372.1	1,093.9	1,639.9	1,587.6	52.31	31.348	
7,900.0	7,856.2	7,908.2	7,820.5	25.8	31.8	89.21	-373.2	1,097.0	1,642.5	1,589.9	52.65	31.195	
8,000.0	7,956.2	8,023.6	7,935.8	25.8	32.2	89.23	-374.0	1,099.0	1,644.2	1,591.3	52.96	31.048	
8,100.0	8,056.2	8,138.9	8,051.2	25.8	32.4	89.25	-374.3	1,099.9	1,645.0	1,591.8	53.18	30.932	
8,200.0	8,156.2	8,243.9	8,156.2	25.9	32.4	89.25	-374.4	1,099.9	1,645.1	1,591.8	53.25	30.894	
8,300.0	8,256.2	8,343.9	8,256.2	25.9	32.4	89.25	-374.4	1,099.9	1,645.1	1,591.8	53.29	30.869	
8,400.0	8,356.2	8,443.9	8,356.2	25.9	32.5	89.25	-374.4	1,099.9	1,645.1	1,591.7	53.34	30.843	
8,500.0	8,456.2	8,543.9	8,456.2	25.9	32.5	89.25	-374.4	1,099.9	1,645.1	1,591.7	53.38	30.817	
8,600.0	8,556.2	8,643.9	8,556.2	26.0	32.5	89.25	-374.4	1,099.9	1,645.1	1,591.6	53.43	30.791	
8,700.0	8,656.2	8,743.9	8,656.2	26.0	32.5	89.25	-374.4	1,099.9	1,645.1	1,591.6	53.47	30.765	
8,800.0	8,756.2	8,843.9	8,756.2	26.0	32.5	89.25	-374.4	1,099.9	1,645.1	1,591.5	53.52	30.739	
8,900.0	8,856.2	8,943.9	8,856.2	26.0	32.6	89.25	-374.4	1,099.9	1,645.1	1,591.5	53.56	30.712	
9,000.0	8,956.2	9,043.9	8,956.2	26.1	32.6	89.25	-374.4	1,099.9	1,645.1	1,591.4	53.61	30.685	
9,100.0	9,056.2	9,143.9	9,056.2	26.1	32.6	89.25	-374.4	1,099.9	1,645.1	1,591.4	53.66	30.658	
9,200.0	9,156.2	9,243.9	9,156.2	26.1	32.6	89.25	-374.4	1,099.9	1,645.1	1,591.4	53.71	30.631	
9,300.0	9,256.2	9,343.9	9,256.2	26.1	32.6	89.25	-374.4	1,099.9	1,645.1	1,591.3	53.75	30.604	
9,400.0	9,356.2	9,443.9	9,356.2	26.2	32.7	89.25	-374.4	1,099.9	1,645.1	1,591.3	53.80	30.576	
9,500.0	9,456.2	9,543.9	9,456.2	26.2	32.7	89.25	-374.4	1,099.9	1,645.1	1,591.2	53.85	30.548	
9,600.0	9,556.2	9,643.9	9,556.2	26.2	32.7	89.25	-374.4	1,099.9	1,645.1	1,591.2	53.90	30.520	
9,700.0	9,656.2	9,743.9	9,656.2	26.2	32.7	89.25	-374.4	1,099.9	1,645.1	1,591.1	53.95	30.492	
9,800.0	9,756.2	9,843.9	9,756.2	26.3	32.7	89.25	-374.4	1,099.9	1,645.1	1,591.1	54.00	30.463	
9,900.0	9,856.2	9,943.9	9,856.2	26.3	32.8	89.25	-374.4	1,099.9	1,645.1	1,591.0	54.05	30.434	
10,000.0	9,956.2	10,043.9	9,956.2	26.3	32.8	89.25	-374.4	1,099.9	1,645.1	1,591.0	54.10	30.405	
10,100.0	10,056.2	10,143.9	10,056.2	26.3	32.8	89.25	-374.4	1,099.9	1,645.1	1,590.9	54.16	30.376	
10,200.0	10,156.2	10,243.9	10,156.2	26.4	32.8	89.25	-374.4	1,099.9	1,645.1	1,590.9	54.21	30.347	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
10,300.0	10,256.2	10,343.9	10,256.2	26.4	32.8	89.25	-374.4	1,099.9	1,645.1	1,590.8	54.26	30.317	
10,400.0	10,356.2	10,443.9	10,356.2	26.4	32.9	89.25	-374.4	1,099.9	1,645.1	1,590.7	54.31	30.288	
10,500.0	10,456.2	10,543.9	10,456.2	26.5	32.9	89.25	-374.4	1,099.9	1,645.1	1,590.7	54.37	30.258	
10,600.0	10,556.2	10,643.9	10,556.2	26.5	32.9	89.25	-374.4	1,099.9	1,645.1	1,590.6	54.42	30.228	
10,700.0	10,656.2	10,743.9	10,656.2	26.5	32.9	89.25	-374.4	1,099.9	1,645.1	1,590.6	54.48	30.198	
10,800.0	10,756.2	10,843.9	10,756.2	26.5	33.0	89.25	-374.4	1,099.9	1,645.1	1,590.5	54.53	30.167	
10,900.0	10,856.2	10,943.9	10,856.2	26.6	33.0	89.25	-374.4	1,099.9	1,645.1	1,590.5	54.59	30.136	
11,000.0	10,956.2	11,043.9	10,956.2	26.6	33.0	89.25	-374.4	1,099.9	1,645.1	1,590.4	54.64	30.106	
11,100.0	11,056.2	11,144.3	11,056.5	26.6	33.0	89.96	-373.8	1,099.9	1,645.1	1,590.4	54.69	30.082	
11,200.0	11,155.5	11,245.2	11,156.4	26.7	33.0	89.85	-360.4	1,099.7	1,645.0	1,590.3	54.70	30.074	
11,300.0	11,251.7	11,345.5	11,251.8	26.7	33.0	89.73	-329.9	1,099.1	1,644.9	1,590.2	54.70	30.071	
11,400.0	11,341.8	11,445.2	11,339.9	26.8	33.1	89.63	-283.6	1,098.3	1,644.6	1,589.9	54.69	30.071	
11,500.0	11,423.0	11,544.2	11,418.3	26.8	33.1	89.53	-223.2	1,097.2	1,644.3	1,589.7	54.68	30.071	
11,600.0	11,492.8	11,642.6	11,484.7	26.9	33.1	89.45	-150.7	1,095.9	1,644.0	1,589.3	54.69	30.063	
11,700.0	11,549.2	11,740.6	11,537.5	26.9	33.2	89.39	-68.4	1,094.4	1,643.6	1,588.9	54.71	30.043	
11,800.0	11,590.5	11,838.1	11,575.3	27.0	33.2	89.35	21.3	1,092.8	1,643.2	1,588.4	54.76	30.005	
11,900.0	11,615.3	11,935.1	11,597.4	27.1	33.3	89.32	115.7	1,091.1	1,642.7	1,587.8	54.85	29.947	
12,000.0	11,622.9	12,032.4	11,603.5	27.1	33.4	89.32	212.6	1,089.4	1,642.2	1,587.2	54.99	29.865	
12,100.0	11,622.8	12,132.4	11,603.5	27.2	33.5	89.33	312.6	1,087.6	1,641.7	1,586.5	55.18	29.751	
12,200.0	11,622.6	12,232.4	11,603.5	27.3	33.6	89.33	412.6	1,085.8	1,641.2	1,585.7	55.42	29.615	
12,300.0	11,622.4	12,332.4	11,603.5	27.5	33.7	89.34	512.6	1,084.0	1,640.6	1,584.9	55.70	29.457	
12,400.0	11,622.3	12,432.4	11,603.5	27.6	33.8	89.34	612.6	1,082.2	1,640.1	1,584.1	56.01	29.280	
12,500.0	11,622.1	12,532.4	11,603.5	27.7	34.0	89.35	712.5	1,080.4	1,639.6	1,583.2	56.37	29.084	
12,600.0	11,621.9	12,632.4	11,603.5	27.9	34.2	89.36	812.5	1,078.6	1,639.1	1,582.3	56.77	28.871	
12,700.0	11,621.7	12,732.4	11,603.5	28.1	34.4	89.36	912.5	1,076.8	1,638.6	1,581.4	57.21	28.641	
12,800.0	11,621.6	12,832.4	11,603.5	28.3	34.6	89.37	1,012.5	1,075.0	1,638.1	1,580.4	57.69	28.395	
12,900.0	11,621.4	12,932.4	11,603.5	28.5	34.8	89.37	1,112.5	1,073.2	1,637.5	1,579.3	58.20	28.137	
13,000.0	11,621.2	13,032.4	11,603.5	28.7	35.0	89.38	1,212.4	1,071.4	1,637.0	1,578.3	58.75	27.866	
13,100.0	11,621.0	13,132.4	11,603.5	29.0	35.2	89.39	1,312.4	1,069.6	1,636.5	1,577.2	59.33	27.583	
13,200.0	11,620.9	13,232.4	11,603.5	29.2	35.5	89.39	1,412.4	1,067.8	1,636.0	1,576.1	59.95	27.291	
13,300.0	11,620.7	13,332.4	11,603.5	29.5	35.8	89.40	1,512.4	1,066.0	1,635.5	1,574.9	60.59	26.991	
13,400.0	11,620.5	13,432.4	11,603.5	29.8	36.0	89.40	1,612.4	1,064.2	1,635.0	1,573.7	61.27	26.683	
13,500.0	11,620.3	13,532.4	11,603.5	30.1	36.3	89.41	1,712.4	1,062.4	1,634.5	1,572.5	61.99	26.369	
13,600.0	11,620.2	13,632.4	11,603.5	30.4	36.6	89.41	1,812.3	1,060.6	1,633.9	1,571.2	62.72	26.049	
13,700.0	11,620.0	13,732.4	11,603.5	30.7	36.9	89.42	1,912.3	1,058.8	1,633.4	1,569.9	63.49	25.726	
13,800.0	11,619.8	13,832.4	11,603.5	31.1	37.3	89.43	2,012.3	1,057.0	1,632.9	1,568.6	64.29	25.400	
13,900.0	11,619.6	13,932.4	11,603.5	31.4	37.6	89.43	2,112.3	1,055.2	1,632.4	1,567.3	65.11	25.072	
14,000.0	11,619.5	14,032.4	11,603.5	31.8	38.0	89.44	2,212.3	1,053.4	1,631.9	1,565.9	65.95	24.742	
14,100.0	11,619.3	14,132.4	11,603.5	32.2	38.3	89.44	2,312.3	1,051.6	1,631.4	1,564.5	66.83	24.412	
14,200.0	11,619.1	14,232.4	11,603.5	32.6	38.7	89.45	2,412.2	1,049.8	1,630.8	1,563.1	67.72	24.083	
14,300.0	11,618.9	14,332.4	11,603.5	33.0	39.1	89.46	2,512.2	1,048.0	1,630.3	1,561.7	68.64	23.754	
14,400.0	11,618.8	14,432.4	11,603.5	33.5	39.5	89.46	2,612.2	1,046.2	1,629.8	1,560.2	69.57	23.426	
14,500.0	11,618.6	14,532.4	11,603.5	33.9	39.9	89.47	2,712.2	1,044.4	1,629.3	1,558.8	70.53	23.101	
14,600.0	11,618.4	14,632.4	11,603.5	34.4	40.3	89.47	2,812.2	1,042.6	1,628.8	1,557.3	71.51	22.778	
14,700.0	11,618.2	14,732.4	11,603.5	34.8	40.7	89.48	2,912.1	1,040.8	1,628.3	1,555.8	72.50	22.457	
14,800.0	11,618.1	14,832.4	11,603.5	35.3	41.1	89.49	3,012.1	1,039.0	1,627.8	1,554.2	73.52	22.141	
14,900.0	11,617.9	14,932.4	11,603.5	35.8	41.6	89.49	3,112.1	1,037.3	1,627.2	1,552.7	74.55	21.827	
15,000.0	11,617.7	15,032.4	11,603.5	36.3	42.0	89.50	3,212.1	1,035.5	1,626.7	1,551.1	75.60	21.518	
15,100.0	11,617.6	15,132.4	11,603.5	36.8	42.5	89.50	3,312.1	1,033.7	1,626.2	1,549.5	76.66	21.212	
15,200.0	11,617.4	15,232.4	11,603.5	37.3	43.0	89.51	3,412.1	1,031.9	1,625.7	1,548.0	77.74	20.911	
15,300.0	11,617.2	15,332.4	11,603.5	37.9	43.4	89.52	3,512.0	1,030.1	1,625.2	1,546.3	78.84	20.614	
15,400.0	11,617.0	15,432.4	11,603.5	38.4	43.9	89.52	3,612.0	1,028.3	1,624.7	1,544.7	79.95	20.321	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	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
15,500.0	11,616.9	15,532.4	11,603.5	39.0	44.4	89.53	3,712.0	1,026.5	1,624.2	1,543.1	81.07	20.034	
15,600.0	11,616.7	15,632.4	11,603.5	39.5	44.9	89.53	3,812.0	1,024.7	1,623.6	1,541.4	82.21	19.751	
15,700.0	11,616.5	15,732.4	11,603.5	40.1	45.4	89.54	3,912.0	1,022.9	1,623.1	1,539.8	83.35	19.473	
15,800.0	11,616.3	15,832.4	11,603.5	40.7	46.0	89.55	4,012.0	1,021.1	1,622.6	1,538.1	84.51	19.199	
15,900.0	11,616.2	15,932.3	11,603.5	41.2	46.5	89.55	4,111.9	1,019.3	1,622.1	1,536.4	85.68	18.931	
16,000.0	11,616.0	16,032.3	11,603.5	41.8	47.0	89.56	4,211.9	1,017.5	1,621.6	1,534.7	86.87	18.667	
16,100.0	11,615.8	16,132.3	11,603.5	42.4	47.5	89.56	4,311.9	1,015.7	1,621.1	1,533.0	88.06	18.409	
16,200.0	11,615.6	16,232.3	11,603.5	43.0	48.1	89.57	4,411.9	1,013.9	1,620.5	1,531.3	89.26	18.155	
16,300.0	11,615.5	16,332.3	11,603.5	43.6	48.6	89.58	4,511.9	1,012.1	1,620.0	1,529.6	90.47	17.906	
16,400.0	11,615.3	16,432.3	11,603.5	44.2	49.2	89.58	4,611.8	1,010.3	1,619.5	1,527.8	91.70	17.662	
16,500.0	11,615.1	16,532.3	11,603.5	44.8	49.7	89.59	4,711.8	1,008.5	1,619.0	1,526.1	92.93	17.422	
16,600.0	11,614.9	16,632.3	11,603.5	45.5	50.3	89.59	4,811.8	1,006.7	1,618.5	1,524.3	94.17	17.188	
16,700.0	11,614.8	16,732.3	11,603.5	46.1	50.9	89.60	4,911.8	1,004.9	1,618.0	1,522.6	95.41	16.957	
16,800.0	11,614.6	16,832.3	11,603.5	46.7	51.5	89.61	5,011.8	1,003.1	1,617.5	1,520.8	96.67	16.732	
16,900.0	11,614.4	16,932.3	11,603.5	47.4	52.0	89.61	5,111.8	1,001.3	1,616.9	1,519.0	97.93	16.511	
17,000.0	11,614.2	17,032.3	11,603.5	48.0	52.6	89.62	5,211.7	999.5	1,616.4	1,517.2	99.20	16.294	
17,100.0	11,614.1	17,132.3	11,603.5	48.6	53.2	89.62	5,311.7	997.7	1,615.9	1,515.4	100.48	16.082	
17,200.0	11,613.9	17,232.3	11,603.5	49.3	53.8	89.63	5,411.7	995.9	1,615.4	1,513.6	101.77	15.874	
17,300.0	11,613.7	17,332.3	11,603.5	49.9	54.4	89.64	5,511.7	994.1	1,614.9	1,511.8	103.06	15.670	
17,400.0	11,613.6	17,432.3	11,603.5	50.6	55.0	89.64	5,611.7	992.3	1,614.4	1,510.0	104.36	15.470	
17,500.0	11,613.4	17,532.3	11,603.5	51.3	55.6	89.65	5,711.7	990.5	1,613.9	1,508.2	105.66	15.274	
17,600.0	11,613.2	17,632.3	11,603.5	51.9	56.2	89.65	5,811.6	988.7	1,613.3	1,506.4	106.97	15.082	
17,700.0	11,613.0	17,732.3	11,603.5	52.6	56.9	89.66	5,911.6	986.9	1,612.8	1,504.5	108.28	14.894	
17,800.0	11,612.9	17,832.3	11,603.5	53.3	57.5	89.67	6,011.6	985.1	1,612.3	1,502.7	109.61	14.710	
17,900.0	11,612.7	17,932.3	11,603.5	53.9	58.1	89.67	6,111.6	983.3	1,611.8	1,500.9	110.93	14.530	
18,000.0	11,612.5	18,032.3	11,603.5	54.6	58.7	89.68	6,211.6	981.5	1,611.3	1,499.0	112.26	14.353	
18,100.0	11,612.3	18,132.3	11,603.5	55.3	59.4	89.68	6,311.5	979.7	1,610.8	1,497.2	113.60	14.179	
18,200.0	11,612.2	18,232.3	11,603.5	56.0	60.0	89.69	6,411.5	977.9	1,610.3	1,495.3	114.94	14.010	
18,300.0	11,612.0	18,332.3	11,603.5	56.6	60.6	89.70	6,511.5	976.1	1,609.7	1,493.5	116.29	13.843	
18,400.0	11,611.8	18,432.3	11,603.5	57.3	61.3	89.70	6,611.5	974.3	1,609.2	1,491.6	117.64	13.680	
18,500.0	11,611.6	18,532.3	11,603.5	58.0	61.9	89.71	6,711.5	972.5	1,608.7	1,489.7	118.99	13.520	
18,600.0	11,611.5	18,632.3	11,603.5	58.7	62.6	89.72	6,811.5	970.7	1,608.2	1,487.9	120.35	13.363	
18,700.0	11,611.3	18,732.3	11,603.5	59.4	63.2	89.72	6,911.4	968.9	1,607.7	1,486.0	121.71	13.209	
18,800.0	11,611.1	18,832.3	11,603.5	60.1	63.9	89.73	7,011.4	967.1	1,607.2	1,484.1	123.08	13.058	
18,900.0	11,610.9	18,932.3	11,603.5	60.8	64.5	89.73	7,111.4	965.3	1,606.7	1,482.2	124.45	12.910	
19,000.0	11,610.8	19,032.3	11,603.5	61.5	65.2	89.74	7,211.4	963.5	1,606.1	1,480.3	125.82	12.765	
19,100.0	11,610.6	19,132.3	11,603.5	62.2	65.8	89.75	7,311.4	961.8	1,605.6	1,478.4	127.20	12.623	
19,200.0	11,610.4	19,232.3	11,603.5	62.9	66.5	89.75	7,411.4	960.0	1,605.1	1,476.5	128.58	12.484	
19,300.0	11,610.2	19,332.3	11,603.5	63.6	67.2	89.76	7,511.3	958.2	1,604.6	1,474.6	129.96	12.347	
19,400.0	11,610.1	19,432.3	11,603.5	64.3	67.8	89.76	7,611.3	956.4	1,604.1	1,472.7	131.35	12.212	
19,500.0	11,609.9	19,532.3	11,603.5	65.0	68.5	89.77	7,711.3	954.6	1,603.6	1,470.8	132.74	12.081	
19,600.0	11,609.7	19,632.3	11,603.5	65.7	69.2	89.78	7,811.3	952.8	1,603.1	1,468.9	134.13	11.951	
19,700.0	11,609.6	19,732.3	11,603.5	66.4	69.8	89.78	7,911.3	951.0	1,602.5	1,467.0	135.53	11.824	
19,800.0	11,609.4	19,832.3	11,603.5	67.1	70.5	89.79	8,011.2	949.2	1,602.0	1,465.1	136.93	11.700	
19,900.0	11,609.2	19,932.3	11,603.5	67.8	71.2	89.79	8,111.2	947.4	1,601.5	1,463.2	138.33	11.578	
20,000.0	11,609.0	20,032.3	11,603.5	68.5	71.9	89.80	8,211.2	945.6	1,601.0	1,461.3	139.73	11.458	
20,100.0	11,608.9	20,132.3	11,603.5	69.2	72.6	89.81	8,311.2	943.8	1,600.5	1,459.4	141.14	11.340	
20,200.0	11,608.7	20,232.3	11,603.5	70.0	73.2	89.81	8,411.2	942.0	1,600.0	1,457.4	142.55	11.224	
20,300.0	11,608.5	20,332.3	11,603.5	70.7	73.9	89.82	8,511.2	940.2	1,599.5	1,455.5	143.96	11.110	
20,400.0	11,608.3	20,432.3	11,603.5	71.4	74.6	89.83	8,611.1	938.4	1,598.9	1,453.6	145.37	10.999	
20,500.0	11,608.2	20,532.3	11,603.5	72.1	75.3	89.83	8,711.1	936.6	1,598.4	1,451.6	146.79	10.889	
20,600.0	11,608.0	20,632.3	11,603.5	72.8	76.0	89.84	8,811.1	934.8	1,597.9	1,449.7	148.21	10.782	

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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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	
20,700.0	11,607.8	20,732.3	11,603.5	73.5	76.7	89.84	8,911.1	933.0	1,597.4	1,447.8	149.63	10.676	
20,800.0	11,607.6	20,832.3	11,603.5	74.3	77.4	89.85	9,011.1	931.2	1,596.9	1,445.8	151.05	10.572	
20,900.0	11,607.5	20,932.3	11,603.5	75.0	78.1	89.86	9,111.1	929.4	1,596.4	1,443.9	152.48	10.470	
21,000.0	11,607.3	21,032.3	11,603.5	75.7	78.8	89.86	9,211.0	927.6	1,595.9	1,442.0	153.90	10.369	
21,100.0	11,607.1	21,132.3	11,603.5	76.4	79.4	89.87	9,311.0	925.8	1,595.4	1,440.0	155.33	10.271	
21,200.0	11,606.9	21,232.3	11,603.5	77.1	80.1	89.88	9,411.0	924.0	1,594.8	1,438.1	156.76	10.174	
21,300.0	11,606.8	21,332.3	11,603.5	77.9	80.8	89.88	9,511.0	922.2	1,594.3	1,436.1	158.20	10.078	
21,400.0	11,606.6	21,432.3	11,603.5	78.6	81.5	89.89	9,611.0	920.4	1,593.8	1,434.2	159.63	9.984	
21,500.0	11,606.4	21,532.3	11,603.5	79.3	82.2	89.89	9,710.9	918.6	1,593.3	1,432.2	161.07	9.892	
21,600.0	11,606.2	21,632.3	11,603.5	80.1	82.9	89.90	9,810.9	916.8	1,592.8	1,430.3	162.50	9.802	
21,700.0	11,606.1	21,732.3	11,603.5	80.8	83.6	89.91	9,910.9	915.0	1,592.3	1,428.3	163.94	9.712	
21,800.0	11,605.9	21,832.3	11,603.5	81.5	84.3	89.91	10,010.9	913.2	1,591.8	1,426.4	165.38	9.625	
21,900.0	11,605.7	21,932.3	11,603.5	82.2	85.1	89.92	10,110.9	911.4	1,591.2	1,424.4	166.83	9.538	
22,000.0	11,605.5	22,032.3	11,603.5	83.0	85.8	89.93	10,210.9	909.6	1,590.7	1,422.5	168.27	9.453	
22,100.0	11,605.4	22,132.3	11,603.5	83.7	86.5	89.93	10,310.8	907.8	1,590.2	1,420.5	169.71	9.370	
22,200.0	11,605.2	22,232.3	11,603.5	84.4	87.2	89.94	10,410.8	906.0	1,589.7	1,418.5	171.16	9.288	
22,300.0	11,605.0	22,332.3	11,603.5	85.2	87.9	89.94	10,510.8	904.2	1,589.2	1,416.6	172.61	9.207	
22,400.0	11,604.9	22,432.3	11,603.5	85.9	88.6	89.95	10,610.8	902.4	1,588.7	1,414.6	174.06	9.127	
22,500.0	11,604.7	22,532.3	11,603.5	86.6	89.3	89.96	10,710.8	900.6	1,588.2	1,412.6	175.51	9.049	
22,600.0	11,604.5	22,632.3	11,603.5	87.4	90.0	89.96	10,810.8	898.8	1,587.6	1,410.7	176.96	8.972	
22,700.0	11,604.3	22,732.2	11,603.5	88.1	90.7	89.97	10,910.7	897.0	1,587.1	1,408.7	178.42	8.896	
22,800.0	11,604.2	22,832.2	11,603.5	88.8	91.4	89.98	11,010.7	895.2	1,586.6	1,406.7	179.87	8.821	
22,900.0	11,604.0	22,932.2	11,603.5	89.6	92.2	89.98	11,110.7	893.4	1,586.1	1,404.8	181.33	8.747	
23,000.0	11,603.8	23,032.2	11,603.5	90.3	92.9	89.99	11,210.7	891.6	1,585.6	1,402.8	182.78	8.675	
23,100.0	11,603.6	23,132.2	11,603.5	91.0	93.6	89.99	11,310.7	889.8	1,585.1	1,400.8	184.24	8.603	
23,200.0	11,603.5	23,232.2	11,603.5	91.8	94.3	90.00	11,410.6	888.1	1,584.6	1,398.9	185.70	8.533	
23,300.0	11,603.3	23,332.2	11,603.5	92.5	95.0	90.01	11,510.6	886.3	1,584.1	1,396.9	187.16	8.464	
23,400.0	11,603.1	23,432.2	11,603.5	93.2	95.7	90.01	11,610.6	884.5	1,583.5	1,394.9	188.62	8.395	
23,500.0	11,602.9	23,532.2	11,603.5	94.0	96.5	90.02	11,710.6	882.7	1,583.0	1,392.9	190.09	8.328	
23,600.0	11,602.8	23,632.2	11,603.5	94.7	97.2	90.03	11,810.6	880.9	1,582.5	1,391.0	191.55	8.262	
23,700.0	11,602.6	23,732.2	11,603.5	95.5	97.9	90.03	11,910.6	879.1	1,582.0	1,389.0	193.01	8.196	
23,800.0	11,602.4	23,832.2	11,603.5	96.2	98.6	90.04	12,010.5	877.3	1,581.5	1,387.0	194.48	8.132	
23,900.0	11,602.2	23,932.2	11,603.5	96.9	99.4	90.04	12,110.5	875.5	1,581.0	1,385.0	195.95	8.068	
24,000.0	11,602.1	24,032.2	11,603.5	97.7	100.1	90.05	12,210.5	873.7	1,580.5	1,383.0	197.41	8.006	
24,100.0	11,601.9	24,132.2	11,603.5	98.4	100.8	90.06	12,310.5	871.9	1,579.9	1,381.1	198.88	7.944	
24,200.0	11,601.7	24,232.2	11,603.5	99.2	101.5	90.06	12,410.5	870.1	1,579.4	1,379.1	200.35	7.883	
24,300.0	11,601.5	24,332.2	11,603.5	99.9	102.2	90.07	12,510.5	868.3	1,578.9	1,377.1	201.82	7.823	
24,400.0	11,601.4	24,432.2	11,603.5	100.6	103.0	90.08	12,610.4	866.5	1,578.4	1,375.1	203.29	7.764	
24,500.0	11,601.2	24,532.2	11,603.5	101.4	103.7	90.08	12,710.4	864.7	1,577.9	1,373.1	204.76	7.706	
24,561.9	11,601.1	24,586.9	11,603.5	101.8	104.1	90.09	12,765.1	863.7	1,577.6	1,372.0	205.63	7.672	
24,600.0	11,601.0	24,586.9	11,603.5	102.1	104.1	90.09	12,765.1	863.7	1,578.0	1,372.1	205.90	7.664	
24,614.3	11,601.0	24,586.9	11,603.5	102.2	104.1	90.09	12,765.1	863.7	1,578.4	1,372.5	205.97	7.663 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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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

Reference Depths are relative to KB 27 @ 3202.6usft

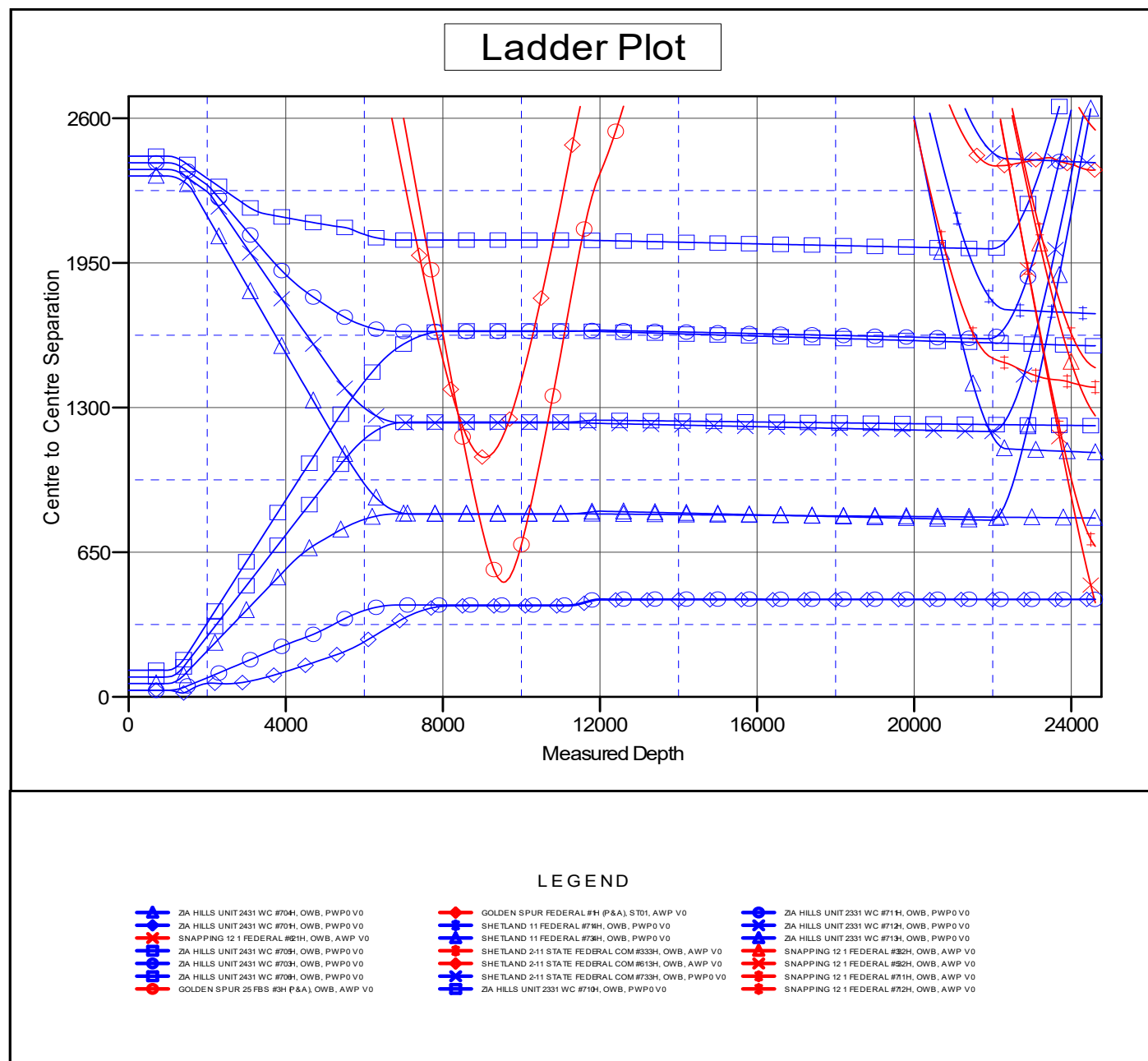
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2431 WC #702H

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

Grid Convergence at Surface is: 0.32°



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 #702H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.6usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.6usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #702H	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 @ 3202.6usft

Offset Depths are relative to Offset Datum

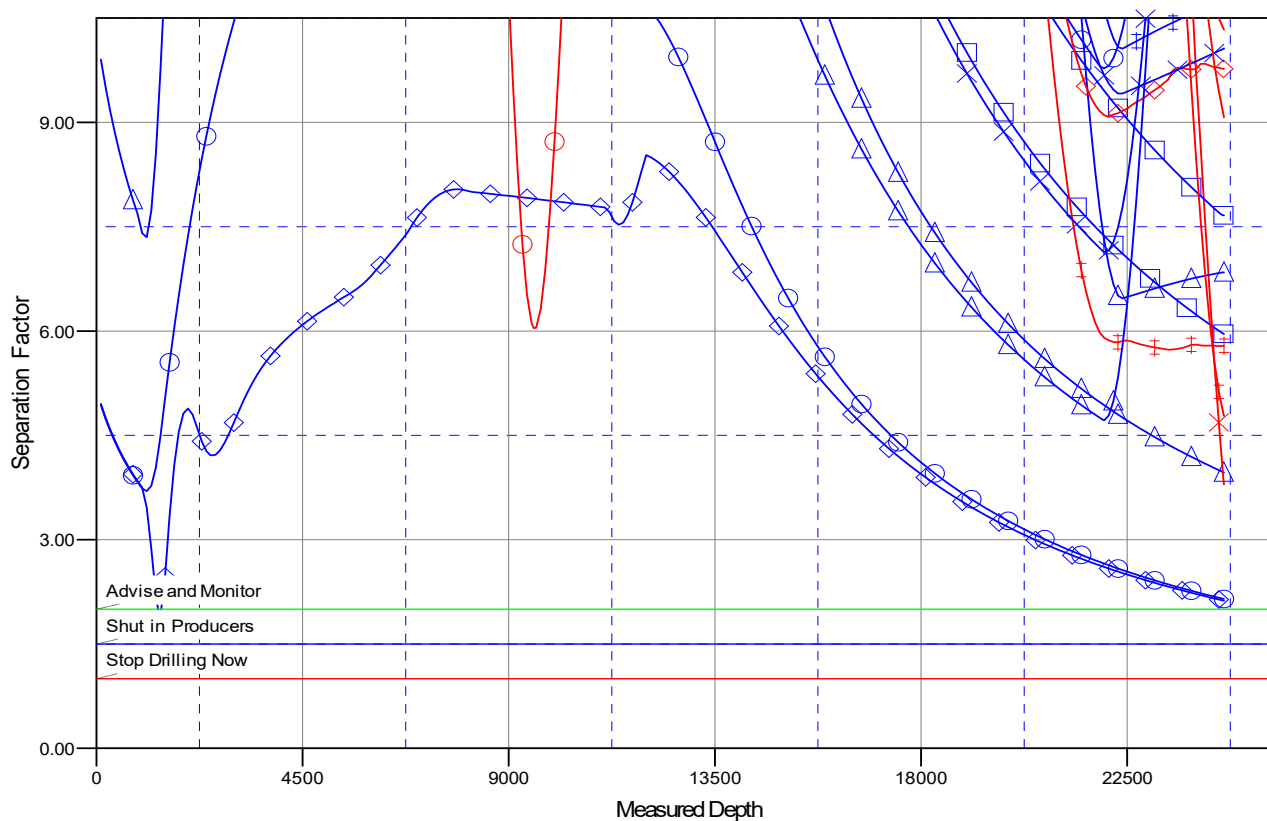
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2431 WC #702H

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
 SNAPPING 12 1 FEDERAL #21H, OWB, AWP V0
 ZIA HILLS UNIT 2431 WC #703H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #702H, OWB, PWP0 V0
 GOLDEN SPUR 25 FBS #3H (P&A), OWB, AWP V0

GOLDEN SPUR FEDERAL #1H (P&A), ST01, 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
 SHETLAND 2-11 STATE FEDERAL COM #613H, OWB, AWP V0
 SHETLAND 2-11 STATE FEDERAL COM #733H, OWB, PWP0 V0
 ZIA HILLS UNIT 2331 WC #71H, OWB, PWP0 V0

ZIA HILLS UNIT 2331 WC #71H, 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 #52H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #71H, 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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

ZIA HILLS UNIT 2431 PROJECT

ZIA HILLS UNIT 2431 WC #702H

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 #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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 #702H			
Well Position	+N/-S	463.7 usft	Northing:	372,242.79 usft
	+E/-W	1,335.5 usft	Easting:	685,320.61 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	
			Latitude:	32° 1' 19.200 N
			Longitude:	103° 44' 7.356 W
			Ground Level:	3,175.6 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2022	12/31/2023	6.34	59.52	47,263.53107210

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	356.80

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	11,094.3 PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5
3	11,094.3	24,614.3 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	234.00	1,398.7	-16.4	-22.6	2.00	2.00	0.00	234.00	
5,238.7	8.00	234.00	5,200.0	-330.4	-454.8	0.00	0.00	0.00	0.00	
6,838.7	0.00	0.00	6,794.8	-396.0	-545.0	0.50	-0.50	0.00	180.00	
11,093.8	0.00	0.00	11,050.0	-396.0	-545.0	0.00	0.00	0.00	0.00	
11,994.8	90.10	359.26	11,623.0	178.0	-552.4	10.00	10.00	-0.08	359.26	
24,614.3	90.10	359.26	11,601.0	12,796.4	-714.4	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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	234.00	1,100.0	-1.0	-1.4	-0.9	2.00	2.00	0.00
1,200.0	4.00	234.00	1,199.8	-4.1	-5.6	-3.8	2.00	2.00	0.00
1,300.0	6.00	234.00	1,299.5	-9.2	-12.7	-8.5	2.00	2.00	0.00
1,400.0	8.00	234.00	1,398.7	-16.4	-22.6	-15.1	2.00	2.00	0.00
1,500.0	8.00	234.00	1,497.7	-24.6	-33.8	-22.6	0.00	0.00	0.00
1,600.0	8.00	234.00	1,596.8	-32.7	-45.1	-30.2	0.00	0.00	0.00
1,700.0	8.00	234.00	1,695.8	-40.9	-56.3	-37.7	0.00	0.00	0.00
1,800.0	8.00	234.00	1,794.8	-49.1	-67.6	-45.3	0.00	0.00	0.00
1,900.0	8.00	234.00	1,893.8	-57.3	-78.9	-52.8	0.00	0.00	0.00
2,000.0	8.00	234.00	1,992.9	-65.5	-90.1	-60.3	0.00	0.00	0.00
2,100.0	8.00	234.00	2,091.9	-73.7	-101.4	-67.9	0.00	0.00	0.00
2,200.0	8.00	234.00	2,190.9	-81.8	-112.6	-75.4	0.00	0.00	0.00
2,300.0	8.00	234.00	2,289.9	-90.0	-123.9	-83.0	0.00	0.00	0.00
2,400.0	8.00	234.00	2,389.0	-98.2	-135.1	-90.5	0.00	0.00	0.00
2,500.0	8.00	234.00	2,488.0	-106.4	-146.4	-98.0	0.00	0.00	0.00
2,600.0	8.00	234.00	2,587.0	-114.6	-157.7	-105.6	0.00	0.00	0.00
2,700.0	8.00	234.00	2,686.1	-122.7	-168.9	-113.1	0.00	0.00	0.00
2,800.0	8.00	234.00	2,785.1	-130.9	-180.2	-120.7	0.00	0.00	0.00
2,900.0	8.00	234.00	2,884.1	-139.1	-191.4	-128.2	0.00	0.00	0.00
3,000.0	8.00	234.00	2,983.1	-147.3	-202.7	-135.7	0.00	0.00	0.00
3,100.0	8.00	234.00	3,082.2	-155.5	-214.0	-143.3	0.00	0.00	0.00
3,200.0	8.00	234.00	3,181.2	-163.6	-225.2	-150.8	0.00	0.00	0.00
3,300.0	8.00	234.00	3,280.2	-171.8	-236.5	-158.4	0.00	0.00	0.00
3,400.0	8.00	234.00	3,379.2	-180.0	-247.7	-165.9	0.00	0.00	0.00
3,500.0	8.00	234.00	3,478.3	-188.2	-259.0	-173.4	0.00	0.00	0.00
3,600.0	8.00	234.00	3,577.3	-196.4	-270.3	-181.0	0.00	0.00	0.00
3,700.0	8.00	234.00	3,676.3	-204.5	-281.5	-188.5	0.00	0.00	0.00
3,800.0	8.00	234.00	3,775.3	-212.7	-292.8	-196.1	0.00	0.00	0.00
3,900.0	8.00	234.00	3,874.4	-220.9	-304.0	-203.6	0.00	0.00	0.00
4,000.0	8.00	234.00	3,973.4	-229.1	-315.3	-211.1	0.00	0.00	0.00
4,100.0	8.00	234.00	4,072.4	-237.3	-326.6	-218.7	0.00	0.00	0.00
4,200.0	8.00	234.00	4,171.5	-245.4	-337.8	-226.2	0.00	0.00	0.00
4,300.0	8.00	234.00	4,270.5	-253.6	-349.1	-233.8	0.00	0.00	0.00
4,400.0	8.00	234.00	4,369.5	-261.8	-360.3	-241.3	0.00	0.00	0.00
4,500.0	8.00	234.00	4,468.5	-270.0	-371.6	-248.8	0.00	0.00	0.00
4,600.0	8.00	234.00	4,567.6	-278.2	-382.9	-256.4	0.00	0.00	0.00
4,700.0	8.00	234.00	4,666.6	-286.3	-394.1	-263.9	0.00	0.00	0.00
4,800.0	8.00	234.00	4,765.6	-294.5	-405.4	-271.5	0.00	0.00	0.00
4,900.0	8.00	234.00	4,864.6	-302.7	-416.6	-279.0	0.00	0.00	0.00
5,000.0	8.00	234.00	4,963.7	-310.9	-427.9	-286.5	0.00	0.00	0.00
5,100.0	8.00	234.00	5,062.7	-319.1	-439.2	-294.1	0.00	0.00	0.00
5,200.0	8.00	234.00	5,161.7	-327.2	-450.4	-301.6	0.00	0.00	0.00
5,238.7	8.00	234.00	5,200.0	-330.4	-454.8	-304.5	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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)
5,300.0	7.69	234.00	5,260.8	-335.3	-461.5	-309.1	0.50	-0.50	0.00
5,400.0	7.19	234.00	5,359.9	-342.9	-472.0	-316.1	0.50	-0.50	0.00
5,500.0	6.69	234.00	5,459.2	-350.0	-481.8	-322.6	0.50	-0.50	0.00
5,600.0	6.19	234.00	5,558.6	-356.6	-490.9	-328.7	0.50	-0.50	0.00
5,700.0	5.69	234.00	5,658.0	-362.7	-499.3	-334.3	0.50	-0.50	0.00
5,800.0	5.19	234.00	5,757.6	-368.3	-506.9	-339.5	0.50	-0.50	0.00
5,900.0	4.69	234.00	5,857.2	-373.4	-513.9	-344.1	0.50	-0.50	0.00
6,000.0	4.19	234.00	5,956.9	-377.9	-520.2	-348.3	0.50	-0.50	0.00
6,100.0	3.69	234.00	6,056.7	-382.0	-525.7	-352.1	0.50	-0.50	0.00
6,200.0	3.19	234.00	6,156.5	-385.5	-530.6	-355.3	0.50	-0.50	0.00
6,300.0	2.69	234.00	6,256.3	-388.5	-534.7	-358.1	0.50	-0.50	0.00
6,400.0	2.19	234.00	6,356.3	-391.0	-538.2	-360.4	0.50	-0.50	0.00
6,500.0	1.69	234.00	6,456.2	-393.0	-540.9	-362.2	0.50	-0.50	0.00
6,600.0	1.19	234.00	6,556.2	-394.5	-543.0	-363.6	0.50	-0.50	0.00
6,700.0	0.69	234.00	6,656.2	-395.5	-544.3	-364.5	0.50	-0.50	0.00
6,800.0	0.19	234.00	6,756.2	-395.9	-544.9	-364.9	0.50	-0.50	0.00
6,838.7	0.00	0.00	6,794.8	-396.0	-545.0	-365.0	0.50	-0.50	0.00
6,900.0	0.00	0.00	6,856.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,956.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,056.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,156.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,256.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,356.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,456.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,556.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,656.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,756.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,856.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,956.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,056.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,156.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,256.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,356.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,456.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,556.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,656.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,756.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,856.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,000.0	0.00	0.00	8,956.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,056.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,156.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,256.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,356.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,456.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,556.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,656.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,756.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,856.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,000.0	0.00	0.00	9,956.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,056.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,156.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,256.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,356.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,456.2	-396.0	-545.0	-365.0	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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	10,556.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,656.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,756.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,856.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
11,000.0	0.00	0.00	10,956.2	-396.0	-545.0	-365.0	0.00	0.00	0.00
11,093.8	0.00	0.00	11,050.0	-396.0	-545.0	-365.0	0.00	0.00	0.00
11,100.0	0.62	359.26	11,056.2	-395.9	-545.0	-364.9	10.00	10.00	0.00
11,150.0	5.62	359.26	11,106.1	-393.2	-545.0	-362.2	10.00	10.00	0.00
11,200.0	10.62	359.26	11,155.5	-386.1	-545.1	-355.2	10.00	10.00	0.00
11,250.0	15.62	359.26	11,204.2	-374.8	-545.3	-343.8	10.00	10.00	0.00
11,300.0	20.62	359.26	11,251.7	-359.3	-545.5	-328.3	10.00	10.00	0.00
11,350.0	25.62	359.26	11,297.7	-339.6	-545.7	-308.7	10.00	10.00	0.00
11,400.0	30.62	359.26	11,341.8	-316.1	-546.0	-285.2	10.00	10.00	0.00
11,450.0	35.62	359.26	11,383.7	-288.8	-546.4	-257.9	10.00	10.00	0.00
11,500.0	40.62	359.26	11,423.0	-257.9	-546.8	-227.1	10.00	10.00	0.00
11,550.0	45.62	359.26	11,459.5	-223.8	-547.2	-192.9	10.00	10.00	0.00
11,600.0	50.62	359.26	11,492.8	-186.6	-547.7	-155.8	10.00	10.00	0.00
11,650.0	55.62	359.26	11,522.8	-146.6	-548.2	-115.8	10.00	10.00	0.00
11,700.0	60.62	359.26	11,549.2	-104.2	-548.7	-73.4	10.00	10.00	0.00
11,750.0	65.62	359.26	11,571.8	-59.6	-549.3	-28.9	10.00	10.00	0.00
11,800.0	70.62	359.26	11,590.5	-13.2	-549.9	17.5	10.00	10.00	0.00
11,850.0	75.62	359.26	11,605.0	34.6	-550.5	65.3	10.00	10.00	0.00
11,900.0	80.62	359.26	11,615.3	83.5	-551.1	114.1	10.00	10.00	0.00
11,950.0	85.62	359.26	11,621.3	133.2	-551.8	163.7	10.00	10.00	0.00
11,994.8	90.10	359.26	11,623.0	178.0	-552.4	208.5	10.00	10.00	0.00
12,000.0	90.10	359.26	11,622.9	183.1	-552.4	213.6	0.00	0.00	0.00
12,100.0	90.10	359.26	11,622.8	283.1	-553.7	313.5	0.00	0.00	0.00
12,200.0	90.10	359.26	11,622.6	383.1	-555.0	413.4	0.00	0.00	0.00
12,300.0	90.10	359.26	11,622.4	483.1	-556.3	513.3	0.00	0.00	0.00
12,400.0	90.10	359.26	11,622.3	583.1	-557.6	613.2	0.00	0.00	0.00
12,500.0	90.10	359.26	11,622.1	683.1	-558.8	713.2	0.00	0.00	0.00
12,600.0	90.10	359.26	11,621.9	783.1	-560.1	813.1	0.00	0.00	0.00
12,700.0	90.10	359.26	11,621.7	883.0	-561.4	913.0	0.00	0.00	0.00
12,800.0	90.10	359.26	11,621.6	983.0	-562.7	1,012.9	0.00	0.00	0.00
12,900.0	90.10	359.26	11,621.4	1,083.0	-564.0	1,112.8	0.00	0.00	0.00
13,000.0	90.10	359.26	11,621.2	1,183.0	-565.3	1,212.7	0.00	0.00	0.00
13,100.0	90.10	359.26	11,621.0	1,283.0	-566.5	1,312.6	0.00	0.00	0.00
13,200.0	90.10	359.26	11,620.9	1,383.0	-567.8	1,412.5	0.00	0.00	0.00
13,300.0	90.10	359.26	11,620.7	1,483.0	-569.1	1,512.4	0.00	0.00	0.00
13,400.0	90.10	359.26	11,620.5	1,583.0	-570.4	1,612.3	0.00	0.00	0.00
13,500.0	90.10	359.26	11,620.3	1,683.0	-571.7	1,712.2	0.00	0.00	0.00
13,600.0	90.10	359.26	11,620.2	1,783.0	-573.0	1,812.1	0.00	0.00	0.00
13,700.0	90.10	359.26	11,620.0	1,883.0	-574.3	1,912.0	0.00	0.00	0.00
13,800.0	90.10	359.26	11,619.8	1,983.0	-575.5	2,012.0	0.00	0.00	0.00
13,900.0	90.10	359.26	11,619.6	2,082.9	-576.8	2,111.9	0.00	0.00	0.00
14,000.0	90.10	359.26	11,619.5	2,182.9	-578.1	2,211.8	0.00	0.00	0.00
14,100.0	90.10	359.26	11,619.3	2,282.9	-579.4	2,311.7	0.00	0.00	0.00
14,200.0	90.10	359.26	11,619.1	2,382.9	-580.7	2,411.6	0.00	0.00	0.00
14,300.0	90.10	359.26	11,618.9	2,482.9	-582.0	2,511.5	0.00	0.00	0.00
14,400.0	90.10	359.26	11,618.8	2,582.9	-583.2	2,611.4	0.00	0.00	0.00
14,500.0	90.10	359.26	11,618.6	2,682.9	-584.5	2,711.3	0.00	0.00	0.00
14,600.0	90.10	359.26	11,618.4	2,782.9	-585.8	2,811.2	0.00	0.00	0.00
14,700.0	90.10	359.26	11,618.2	2,882.9	-587.1	2,911.1	0.00	0.00	0.00
14,800.0	90.10	359.26	11,618.1	2,982.9	-588.4	3,011.0	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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	90.10	359.26	11,617.9	3,082.9	-589.7	3,110.9	0.00	0.00	0.00	
15,000.0	90.10	359.26	11,617.7	3,182.9	-590.9	3,210.8	0.00	0.00	0.00	
15,100.0	90.10	359.26	11,617.6	3,282.8	-592.2	3,310.8	0.00	0.00	0.00	
15,200.0	90.10	359.26	11,617.4	3,382.8	-593.5	3,410.7	0.00	0.00	0.00	
15,300.0	90.10	359.26	11,617.2	3,482.8	-594.8	3,510.6	0.00	0.00	0.00	
15,400.0	90.10	359.26	11,617.0	3,582.8	-596.1	3,610.5	0.00	0.00	0.00	
15,500.0	90.10	359.26	11,616.9	3,682.8	-597.4	3,710.4	0.00	0.00	0.00	
15,600.0	90.10	359.26	11,616.7	3,782.8	-598.7	3,810.3	0.00	0.00	0.00	
15,700.0	90.10	359.26	11,616.5	3,882.8	-599.9	3,910.2	0.00	0.00	0.00	
15,800.0	90.10	359.26	11,616.3	3,982.8	-601.2	4,010.1	0.00	0.00	0.00	
15,900.0	90.10	359.26	11,616.2	4,082.8	-602.5	4,110.0	0.00	0.00	0.00	
16,000.0	90.10	359.26	11,616.0	4,182.8	-603.8	4,209.9	0.00	0.00	0.00	
16,100.0	90.10	359.26	11,615.8	4,282.8	-605.1	4,309.8	0.00	0.00	0.00	
16,200.0	90.10	359.26	11,615.6	4,382.8	-606.4	4,409.7	0.00	0.00	0.00	
16,300.0	90.10	359.26	11,615.5	4,482.7	-607.6	4,509.6	0.00	0.00	0.00	
16,400.0	90.10	359.26	11,615.3	4,582.7	-608.9	4,609.6	0.00	0.00	0.00	
16,500.0	90.10	359.26	11,615.1	4,682.7	-610.2	4,709.5	0.00	0.00	0.00	
16,600.0	90.10	359.26	11,614.9	4,782.7	-611.5	4,809.4	0.00	0.00	0.00	
16,700.0	90.10	359.26	11,614.8	4,882.7	-612.8	4,909.3	0.00	0.00	0.00	
16,800.0	90.10	359.26	11,614.6	4,982.7	-614.1	5,009.2	0.00	0.00	0.00	
16,900.0	90.10	359.26	11,614.4	5,082.7	-615.3	5,109.1	0.00	0.00	0.00	
17,000.0	90.10	359.26	11,614.2	5,182.7	-616.6	5,209.0	0.00	0.00	0.00	
17,100.0	90.10	359.26	11,614.1	5,282.7	-617.9	5,308.9	0.00	0.00	0.00	
17,200.0	90.10	359.26	11,613.9	5,382.7	-619.2	5,408.8	0.00	0.00	0.00	
17,300.0	90.10	359.26	11,613.7	5,482.7	-620.5	5,508.7	0.00	0.00	0.00	
17,400.0	90.10	359.26	11,613.6	5,582.7	-621.8	5,608.6	0.00	0.00	0.00	
17,500.0	90.10	359.26	11,613.4	5,682.6	-623.1	5,708.5	0.00	0.00	0.00	
17,600.0	90.10	359.26	11,613.2	5,782.6	-624.3	5,808.4	0.00	0.00	0.00	
17,700.0	90.10	359.26	11,613.0	5,882.6	-625.6	5,908.4	0.00	0.00	0.00	
17,800.0	90.10	359.26	11,612.9	5,982.6	-626.9	6,008.3	0.00	0.00	0.00	
17,900.0	90.10	359.26	11,612.7	6,082.6	-628.2	6,108.2	0.00	0.00	0.00	
18,000.0	90.10	359.26	11,612.5	6,182.6	-629.5	6,208.1	0.00	0.00	0.00	
18,100.0	90.10	359.26	11,612.3	6,282.6	-630.8	6,308.0	0.00	0.00	0.00	
18,200.0	90.10	359.26	11,612.2	6,382.6	-632.0	6,407.9	0.00	0.00	0.00	
18,300.0	90.10	359.26	11,612.0	6,482.6	-633.3	6,507.8	0.00	0.00	0.00	
18,400.0	90.10	359.26	11,611.8	6,582.6	-634.6	6,607.7	0.00	0.00	0.00	
18,500.0	90.10	359.26	11,611.6	6,682.6	-635.9	6,707.6	0.00	0.00	0.00	
18,600.0	90.10	359.26	11,611.5	6,782.6	-637.2	6,807.5	0.00	0.00	0.00	
18,700.0	90.10	359.26	11,611.3	6,882.5	-638.5	6,907.4	0.00	0.00	0.00	
18,800.0	90.10	359.26	11,611.1	6,982.5	-639.7	7,007.3	0.00	0.00	0.00	
18,900.0	90.10	359.26	11,610.9	7,082.5	-641.0	7,107.2	0.00	0.00	0.00	
19,000.0	90.10	359.26	11,610.8	7,182.5	-642.3	7,207.2	0.00	0.00	0.00	
19,100.0	90.10	359.26	11,610.6	7,282.5	-643.6	7,307.1	0.00	0.00	0.00	
19,200.0	90.10	359.26	11,610.4	7,382.5	-644.9	7,407.0	0.00	0.00	0.00	
19,300.0	90.10	359.26	11,610.2	7,482.5	-646.2	7,506.9	0.00	0.00	0.00	
19,400.0	90.10	359.26	11,610.1	7,582.5	-647.5	7,606.8	0.00	0.00	0.00	
19,500.0	90.10	359.26	11,609.9	7,682.5	-648.7	7,706.7	0.00	0.00	0.00	
19,600.0	90.10	359.26	11,609.7	7,782.5	-650.0	7,806.6	0.00	0.00	0.00	
19,700.0	90.10	359.26	11,609.6	7,882.5	-651.3	7,906.5	0.00	0.00	0.00	
19,800.0	90.10	359.26	11,609.4	7,982.5	-652.6	8,006.4	0.00	0.00	0.00	
19,900.0	90.10	359.26	11,609.2	8,082.4	-653.9	8,106.3	0.00	0.00	0.00	
20,000.0	90.10	359.26	11,609.0	8,182.4	-655.2	8,206.2	0.00	0.00	0.00	
20,100.0	90.10	359.26	11,608.9	8,282.4	-656.4	8,306.1	0.00	0.00	0.00	
20,200.0	90.10	359.26	11,608.7	8,382.4	-657.7	8,406.0	0.00	0.00	0.00	

ConocoPhillips

Planning Report

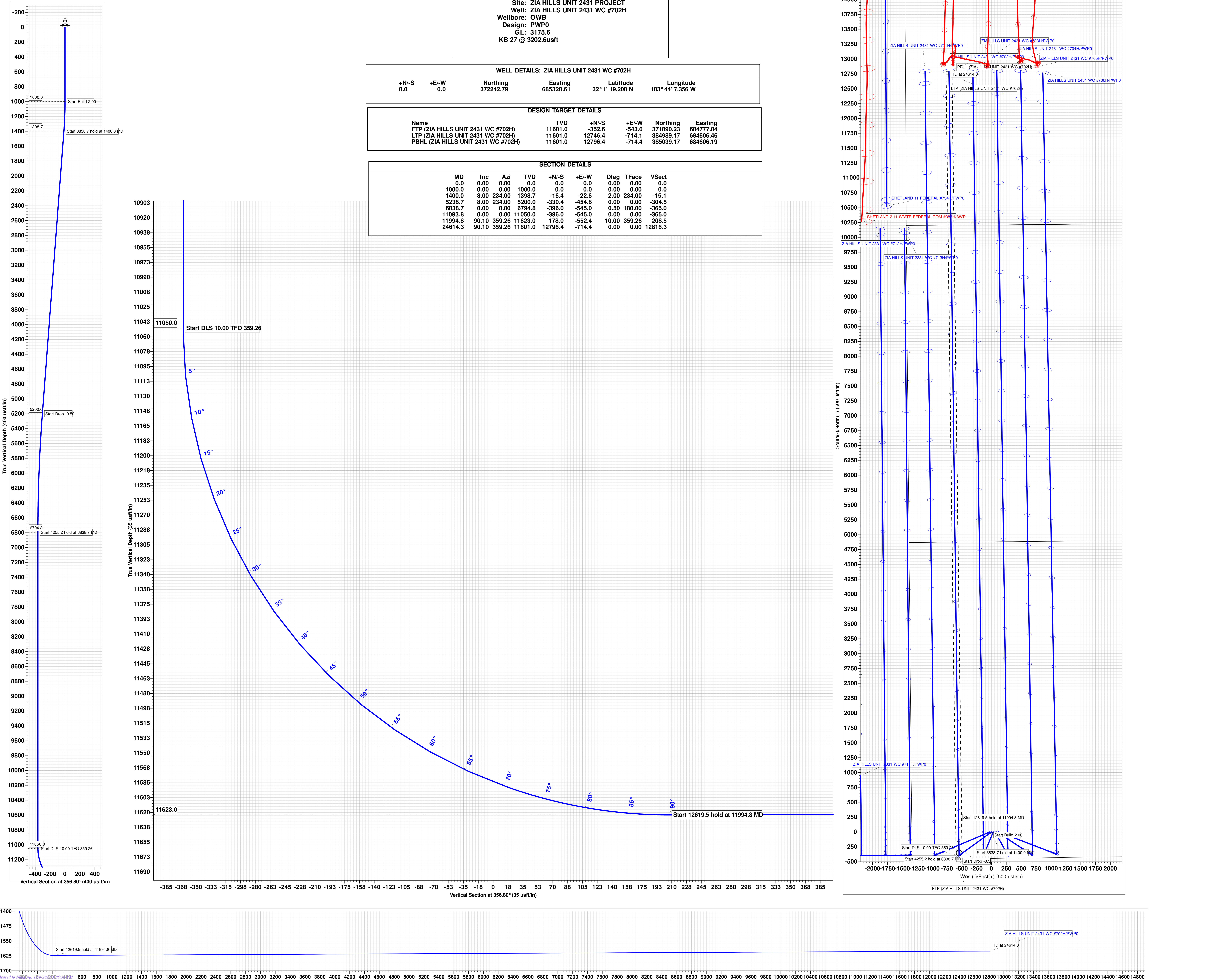
Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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	90.10	359.26	11,608.5	8,482.4	-659.0	8,506.0	0.00	0.00	0.00	
20,400.0	90.10	359.26	11,608.3	8,582.4	-660.3	8,605.9	0.00	0.00	0.00	
20,500.0	90.10	359.26	11,608.2	8,682.4	-661.6	8,705.8	0.00	0.00	0.00	
20,600.0	90.10	359.26	11,608.0	8,782.4	-662.9	8,805.7	0.00	0.00	0.00	
20,700.0	90.10	359.26	11,607.8	8,882.4	-664.2	8,905.6	0.00	0.00	0.00	
20,800.0	90.10	359.26	11,607.6	8,982.4	-665.4	9,005.5	0.00	0.00	0.00	
20,900.0	90.10	359.26	11,607.5	9,082.4	-666.7	9,105.4	0.00	0.00	0.00	
21,000.0	90.10	359.26	11,607.3	9,182.4	-668.0	9,205.3	0.00	0.00	0.00	
21,100.0	90.10	359.26	11,607.1	9,282.3	-669.3	9,305.2	0.00	0.00	0.00	
21,200.0	90.10	359.26	11,606.9	9,382.3	-670.6	9,405.1	0.00	0.00	0.00	
21,300.0	90.10	359.26	11,606.8	9,482.3	-671.9	9,505.0	0.00	0.00	0.00	
21,400.0	90.10	359.26	11,606.6	9,582.3	-673.1	9,604.9	0.00	0.00	0.00	
21,500.0	90.10	359.26	11,606.4	9,682.3	-674.4	9,704.8	0.00	0.00	0.00	
21,600.0	90.10	359.26	11,606.2	9,782.3	-675.7	9,804.8	0.00	0.00	0.00	
21,700.0	90.10	359.26	11,606.1	9,882.3	-677.0	9,904.7	0.00	0.00	0.00	
21,800.0	90.10	359.26	11,605.9	9,982.3	-678.3	10,004.6	0.00	0.00	0.00	
21,900.0	90.10	359.26	11,605.7	10,082.3	-679.6	10,104.5	0.00	0.00	0.00	
22,000.0	90.10	359.26	11,605.5	10,182.3	-680.8	10,204.4	0.00	0.00	0.00	
22,100.0	90.10	359.26	11,605.4	10,282.3	-682.1	10,304.3	0.00	0.00	0.00	
22,200.0	90.10	359.26	11,605.2	10,382.2	-683.4	10,404.2	0.00	0.00	0.00	
22,300.0	90.10	359.26	11,605.0	10,482.2	-684.7	10,504.1	0.00	0.00	0.00	
22,400.0	90.10	359.26	11,604.9	10,582.2	-686.0	10,604.0	0.00	0.00	0.00	
22,500.0	90.10	359.26	11,604.7	10,682.2	-687.3	10,703.9	0.00	0.00	0.00	
22,600.0	90.10	359.26	11,604.5	10,782.2	-688.6	10,803.8	0.00	0.00	0.00	
22,700.0	90.10	359.26	11,604.3	10,882.2	-689.8	10,903.7	0.00	0.00	0.00	
22,800.0	90.10	359.26	11,604.2	10,982.2	-691.1	11,003.6	0.00	0.00	0.00	
22,900.0	90.10	359.26	11,604.0	11,082.2	-692.4	11,103.6	0.00	0.00	0.00	
23,000.0	90.10	359.26	11,603.8	11,182.2	-693.7	11,203.5	0.00	0.00	0.00	
23,100.0	90.10	359.26	11,603.6	11,282.2	-695.0	11,303.4	0.00	0.00	0.00	
23,200.0	90.10	359.26	11,603.5	11,382.2	-696.3	11,403.3	0.00	0.00	0.00	
23,300.0	90.10	359.26	11,603.3	11,482.2	-697.5	11,503.2	0.00	0.00	0.00	
23,400.0	90.10	359.26	11,603.1	11,582.1	-698.8	11,603.1	0.00	0.00	0.00	
23,500.0	90.10	359.26	11,602.9	11,682.1	-700.1	11,703.0	0.00	0.00	0.00	
23,600.0	90.10	359.26	11,602.8	11,782.1	-701.4	11,802.9	0.00	0.00	0.00	
23,700.0	90.10	359.26	11,602.6	11,882.1	-702.7	11,902.8	0.00	0.00	0.00	
23,800.0	90.10	359.26	11,602.4	11,982.1	-704.0	12,002.7	0.00	0.00	0.00	
23,900.0	90.10	359.26	11,602.2	12,082.1	-705.2	12,102.6	0.00	0.00	0.00	
24,000.0	90.10	359.26	11,602.1	12,182.1	-706.5	12,202.5	0.00	0.00	0.00	
24,100.0	90.10	359.26	11,601.9	12,282.1	-707.8	12,302.4	0.00	0.00	0.00	
24,200.0	90.10	359.26	11,601.7	12,382.1	-709.1	12,402.4	0.00	0.00	0.00	
24,300.0	90.10	359.26	11,601.5	12,482.1	-710.4	12,502.3	0.00	0.00	0.00	
24,400.0	90.10	359.26	11,601.4	12,582.1	-711.7	12,602.2	0.00	0.00	0.00	
24,500.0	90.10	359.26	11,601.2	12,682.1	-713.0	12,702.1	0.00	0.00	0.00	
24,600.0	90.10	359.26	11,601.0	12,782.0	-714.2	12,802.0	0.00	0.00	0.00	
24,614.3	90.10	359.26	11,601.0	12,796.4	-714.4	12,816.3	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #702H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.6usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.6usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #702H	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)		
LTP (ZIA HILLS UNIT 24	0.00	0.00	11,601.0	12,746.4	-714.1	384,989.17	684,606.46	32° 3' 25.379 N	103° 44' 14.834 W
- plan misses target center by 0.4usft at 24564.3usft MD (11601.1 TVD, 12746.4 N, -713.8 E)									
- Point									
FTP (ZIA HILLS UNIT 24	0.00	0.00	11,601.0	-352.6	-543.6	371,890.23	684,777.04	32° 1' 15.741 N	103° 44' 13.692 W
- plan misses target center by 191.4usft at 11550.0usft MD (11459.5 TVD, -223.8 N, -547.2 E)									
- Circle (radius 50.0)									
PBHL (ZIA HILLS UNIT :	0.00	179.26	11,601.0	12,796.4	-714.4	385,039.17	684,606.19	32° 3' 25.874 N	103° 44' 14.834 W
- plan hits target center									
- Rectangle (sides W100.0 H13,150.0 D20.0)									



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 702H
SURFACE HOLE FOOTAGE:	445'/S & 1340'/W
BOTTOM HOLE FOOTAGE:	2590'/S & 732'/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 288305

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 288305
	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 with the correct acreage for the Zia Hills Wolfcamp Pool.	12/8/2023