

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER		5. Lease Serial No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address	3b. Phone No. (include area code)	9. API Well No. 30-025-53967
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 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)



Additional Operator Remarks

Location of Well

0. SHL: SESW / 340 FSL / 1635 FWL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.109551 / LONG: -103.35867 (TVD: 0 feet, MD: 0 feet)

PPP: NESW / 2639 FSL / 2242 FWL / TWSP: 25S / RANGE: 35E / SECTION: 27 / LAT: 32.10135 / LONG: -103.356692 (TVD: 12400 feet, MD: 15547 feet)

PPP: NENW / 100 FNL / 2245 FWL / TWSP: 25S / RANGE: 35E / SECTION: 27 / LAT: 32.108343 / LONG: -103.356698 (TVD: 12400 feet, MD: 13006 feet)

BHL: SESW / 50 FSL / 2245 FWL / TWSP: 26S / RANGE: 35E / SECTION: 3 / LAT: 32.065163 / LONG: -103.356659 (TVD: 12400 feet, MD: 28709 feet)

BLM Point of Contact

Name: JANET D ESTES

Title: ADJUDICATOR

Phone: (575) 234-6233

Email: JESTES@BLM.GOV

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
	Submittal Type:	☒ Initial Submittal
		☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number 30-025-53967	Pool Code 97088	Pool Name WC-025 G-08 S2535340; Bone Spring
Property Code 336534	Property Name HENNIN FEDERAL COM	Well Number 602H
OGRID No. 229137	Operator Name COG OPERATING LLC	Ground Level Elevation 3205.3'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	22	25-S	35-E		340 FSL	1635 FWL	32.109551°N	103.358670°W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	3	26-S	35-E		50 FSL	2245 FWL	32.065163°N	103.356659°W	LEA

Dedicated Acres 480	Infill or Defining Well Defining	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code COM
Order Numbers.			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	22	25-S	35-E		340 FSL	1635 FWL	32.109551°N	103.358670°W	LEA

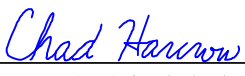
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	27	25-S	35-E		100 FNL	2245 FWL	32.108343°N	103.356698°W	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	3	26-S	34-E		100 FSL	2245 FWL	32.065300°N	103.356659°W	LEA

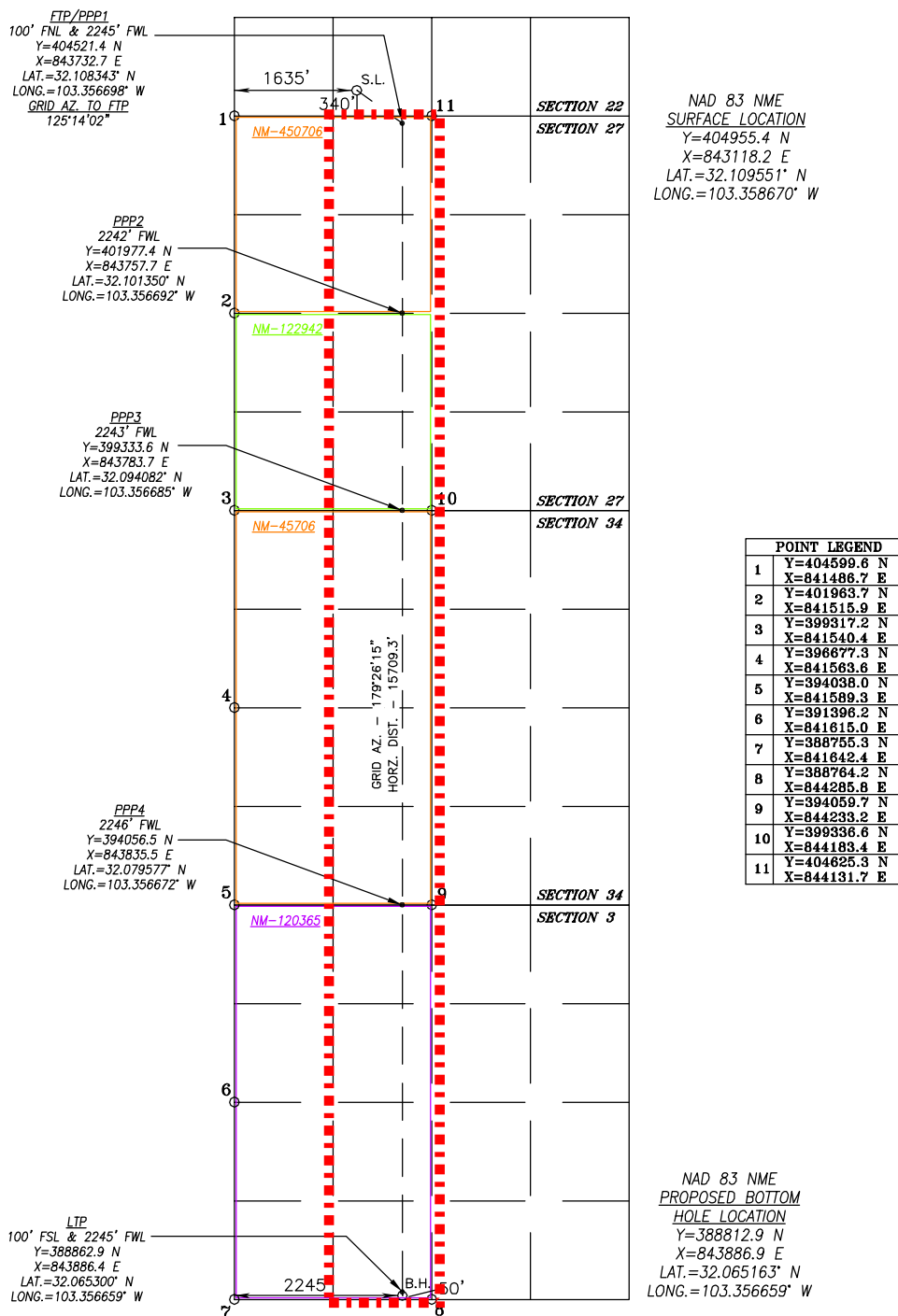
Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation: 3205.3'
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OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>		SURVEYOR CERTIFICATIONS <i>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.</i>	
 Signature	9/11/23 Date	 Signature and Seal of Professional Surveyor	11/7/24
Printed Name Stan Wagner		Certificate Number 17777	Date of Survey JUNE 19, 2023
Email Address		W.O.#24-1122	DRAWN BY: WN
		PAGE 1 OF 2	

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

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

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



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description **Effective May 25, 2021**

I. Operator: COG Operating LLC

OGRID: 229137

Date: 09/19/2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Hennin Federal Com 601H	30-025-	N-22-25S-35E	340 FSL & 1545 FWL	± 1540	± 1860	± 2770
Hennin Federal Com 602H	30-025-	N-22-25S-35E	340 FSL & 1635 FWL	± 1340	± 1615	± 2410
Hennin Federal Com 701H	30-025-	N-22-25S-35E	340 FSL & 1605 FWL	± 1540	± 1860	± 2770
Hennin Federal Com 801H	30-025-	N-22-25S-35E	340 FSL & 1575 FWL	± 1150	± 1370	± 5590

IV. Central Delivery Point Name: 27 C CTB NENW 27-25S-35E [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
Hennin Federal Com	Pending	± 8/1/2025	± 25 days from spud	TBD	TBD	TBD
601H, 602H, 701H, 801H						

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

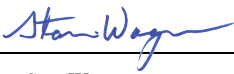
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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: 09/19/2023
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

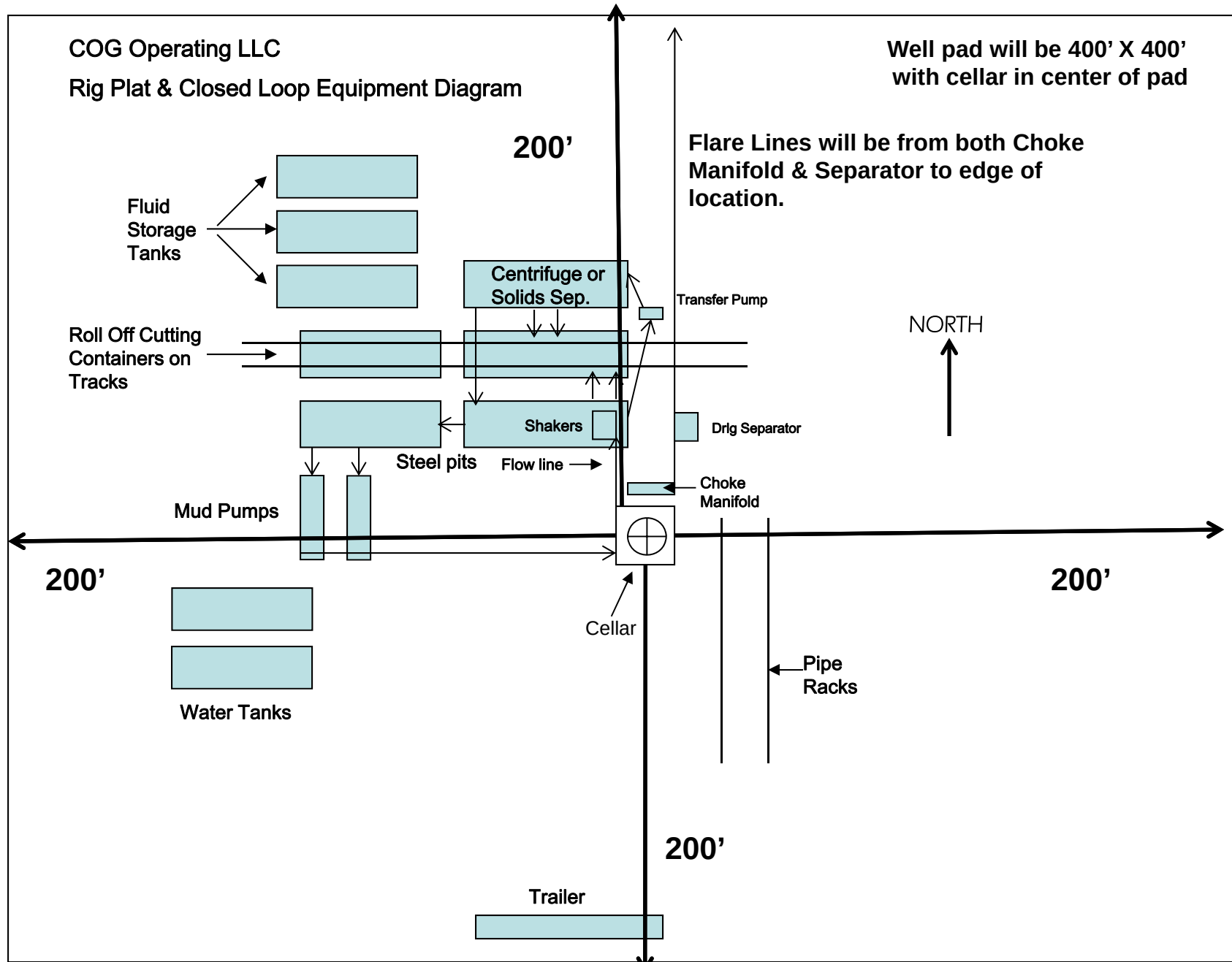


Exhibit 1

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

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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

HENNIN PROJECT

***HENNIN FED COM #602H**

OWB

PWP0

Anticollision Report

29 June, 2023

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

TD Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
ENERGY DOME FEDERAL PROJECT (BULLDOG 2535)						
MUSIC MASTER 27 FED #3H - OWB - ACTUAL WELLP	28,710.4	13,363.0				Out of Range @TD
MUSIC MASTER 27 FED #3H - OWB PILOT - ACTUAL	28,710.4	9,205.0				Out of Range @TD
HENNIN PROJECT						
JAVELINA FEDERAL #1 (P&A) - OWB - AWP	28,710.4	12,351.9				Out of Range @TD
*HENNIN FED COM #601H - OWB - PWP0	28,710.4	28,746.7	1,865.1	1,614.8	7.454	SF
*HENNIN FED COM #701H - OWB - PWP0	28,710.4	28,963.8	658.5	403.5	2.582	
*HENNIN FED COM #702H - OWB - PWP0	28,710.4	23,481.2				Out of Range @TD
*HENNIN FED COM #703H - OWB - PWP0	28,710.4	28,471.7	1,858.4	1,610.2	7.486	ES, SF
*HENNIN FED COM #801H - OWB - PWP0	28,710.4	29,458.3	1,616.8	1,364.8	6.416	
*HENNIN FED COM #802H - OWB - PWP0	28,710.4	29,398.9				Out of Range @TD
HENNIN FED #12H - OWB - AWP	28,710.4	17,199.0	1,049.8	868.5	5.790	
HENNIN FED #24H - OWB - AWP	28,710.4	17,431.0	780.7	605.3	4.452	
JAZZBASS 34 FEDERAL 003H - OWB - AWP	28,710.4	11,638.0				Out of Range @TD

Offset Design: ENERGY DOME FEDERAL PROJECT (BULLDOG 2535) - MUSIC MASTER 27 FED #3H - OWB - ACTUAL WELLPATH													Offset Site Error: 0.0 usft
Survey Program: 84-r.5 GYRO-NS, 957-r.5 MWD													Offset Well Error: 3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.3	-0.1	3.0	3.0	115.03	-659.8	1,413.0	1,559.5	1,553.1	6.43	242.578	
100.0	100.0	97.8	95.4	3.2	3.0	115.04	-660.0	1,413.1	1,559.7	1,553.0	6.68	233.576	
200.0	200.0	192.9	190.5	3.5	3.1	115.06	-660.7	1,413.3	1,560.1	1,553.1	6.98	223.364	
300.0	300.0	289.7	287.3	3.7	3.2	115.08	-661.5	1,413.7	1,560.8	1,553.5	7.31	213.470	
400.0	400.0	388.2	385.8	3.9	3.4	115.08	-662.1	1,414.4	1,561.7	1,554.0	7.66	203.895	
500.0	500.0	486.5	484.1	4.1	3.5	115.09	-662.5	1,415.2	1,562.6	1,554.6	8.02	194.766	
600.0	600.0	581.9	579.5	4.2	3.7	115.08	-662.8	1,416.3	1,563.8	1,555.4	8.40	186.276	
700.0	700.0	682.4	680.0	4.4	4.0	115.06	-663.0	1,417.6	1,565.1	1,556.4	8.79	178.116	
800.0	800.0	782.3	779.9	4.6	4.2	115.05	-663.1	1,419.0	1,566.4	1,557.2	9.19	170.428	
900.0	900.0	880.0	877.6	4.8	4.4	115.03	-663.1	1,420.4	1,567.7	1,558.1	9.60	163.350	
1,000.0	1,000.0	976.8	974.3	4.9	4.6	115.00	-663.2	1,422.0	1,569.3	1,559.4	9.91	158.299	
1,100.0	1,100.0	1,074.6	1,072.1	5.1	4.8	114.98	-663.3	1,423.8	1,571.0	1,560.7	10.22	153.688	
1,200.0	1,200.0	1,169.9	1,167.4	5.2	4.9	114.96	-663.6	1,425.7	1,572.9	1,562.4	10.53	149.350	
1,300.0	1,300.0	1,271.9	1,269.4	5.4	5.1	53.36	-663.8	1,427.9	1,574.2	1,563.3	10.87	144.859	
1,400.0	1,399.9	1,372.3	1,369.7	5.6	5.3	53.45	-664.0	1,429.9	1,573.7	1,562.5	11.20	140.477	
1,500.0	1,499.7	1,469.0	1,466.5	5.8	5.5	53.62	-663.8	1,432.1	1,571.8	1,560.3	11.54	136.179	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ENERGY DOME FEDERAL PROJECT (BULLDOG 2535) - MUSIC MASTER 27 FED #3H - OWB - ACTUAL													Offset Site Error:	0.0 usft
WELLPATH													Offset Well Error:	3.0 usft
Survey Program: 84-r-5 GYRO-NS, 957-r-5 MWD														
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
1,600.0	1,599.3	1,568.8	1,566.2	6.1	5.7	53.89	-663.7	1,434.6	1,568.6	1,556.7	11.90	131.831		
1,700.0	1,698.6	1,666.7	1,664.1	6.3	5.9	54.25	-663.6	1,436.9	1,563.7	1,551.5	12.26	127.546		
1,800.0	1,797.5	1,763.3	1,760.7	6.6	6.1	54.69	-663.4	1,439.5	1,557.7	1,545.1	12.63	123.330		
1,900.0	1,896.1	1,862.3	1,859.6	6.8	6.3	55.20	-663.2	1,442.2	1,550.3	1,537.4	12.95	119.733		
2,000.0	1,994.6	1,952.3	1,949.6	7.1	6.5	55.62	-662.8	1,444.9	1,542.9	1,529.6	13.31	115.899		
2,100.0	2,093.1	2,044.0	2,041.2	7.4	6.7	56.03	-662.3	1,448.6	1,536.3	1,522.6	13.69	112.208		
2,200.0	2,191.6	2,139.7	2,136.8	7.7	7.0	56.46	-661.8	1,452.6	1,530.1	1,516.0	14.09	108.600		
2,300.0	2,290.0	2,247.5	2,244.5	8.0	7.3	56.96	-661.4	1,457.0	1,523.9	1,509.4	14.52	104.932		
2,400.0	2,388.5	2,362.5	2,359.5	8.4	7.5	57.59	-662.5	1,459.6	1,516.9	1,501.9	14.96	101.366		
2,500.0	2,487.0	2,457.9	2,454.9	8.7	7.7	58.13	-663.7	1,461.1	1,509.5	1,494.2	15.36	98.283		
2,600.0	2,585.5	2,595.2	2,592.1	9.1	7.9	58.93	-664.9	1,462.0	1,501.5	1,485.7	15.76	95.273		
2,700.0	2,684.0	2,710.6	2,707.5	9.5	7.9	59.65	-665.3	1,459.8	1,490.9	1,475.0	15.96	93.390		
2,800.0	2,782.4	2,803.0	2,799.9	9.8	7.9	60.22	-665.4	1,458.3	1,480.8	1,464.7	16.12	91.836		
2,900.0	2,880.9	2,901.1	2,898.0	10.2	7.8	60.81	-665.0	1,457.2	1,471.0	1,454.7	16.29	90.323		
3,000.0	2,979.4	2,995.4	2,992.2	10.6	7.8	61.37	-664.4	1,456.4	1,461.4	1,445.0	16.46	88.769		
3,100.0	3,077.9	3,089.7	3,086.6	11.0	7.9	61.92	-663.6	1,456.1	1,452.4	1,435.7	16.67	87.146		
3,200.0	3,176.4	3,200.9	3,197.8	11.4	7.9	62.56	-662.4	1,455.8	1,443.3	1,426.4	16.87	85.569		
3,300.0	3,274.8	3,297.2	3,294.0	11.8	7.9	63.15	-661.3	1,454.7	1,433.8	1,416.7	17.06	84.029		
3,400.0	3,373.3	3,389.2	3,386.1	12.2	8.0	63.70	-660.2	1,454.2	1,424.8	1,407.5	17.26	82.525		
3,500.0	3,471.8	3,491.7	3,488.5	12.6	8.0	64.32	-659.2	1,453.7	1,416.1	1,398.6	17.47	81.075		
3,600.0	3,570.3	3,589.6	3,586.5	13.0	8.1	64.97	-658.9	1,452.5	1,407.4	1,389.7	17.66	79.690		
3,700.0	3,668.8	3,684.6	3,681.4	13.5	8.1	65.61	-659.0	1,451.2	1,399.0	1,381.1	17.86	78.328		
3,800.0	3,767.2	3,784.7	3,781.5	13.9	8.1	66.31	-659.2	1,449.9	1,390.8	1,372.8	18.06	77.012		
3,900.0	3,865.7	3,879.0	3,875.8	14.3	8.1	66.99	-659.8	1,448.5	1,383.1	1,364.8	18.27	75.707		
4,000.0	3,964.2	3,968.7	3,965.5	14.7	8.1	67.65	-660.9	1,447.3	1,376.0	1,357.5	18.48	74.442		
4,100.0	4,062.7	4,045.6	4,042.4	15.2	8.1	68.22	-662.2	1,446.9	1,370.1	1,351.3	18.72	73.193		
4,200.0	4,161.2	4,159.9	4,156.7	15.6	8.2	69.06	-664.2	1,447.0	1,364.9	1,346.0	18.95	72.019		
4,300.0	4,259.7	4,277.5	4,274.2	16.0	8.3	69.92	-665.0	1,445.7	1,358.3	1,339.2	19.14	70.961		
4,400.0	4,358.1	4,383.6	4,380.4	16.4	8.3	70.71	-665.0	1,443.8	1,351.1	1,331.7	19.32	69.947		
4,500.0	4,456.6	4,497.0	4,493.7	16.9	8.4	71.56	-664.3	1,441.0	1,343.2	1,323.7	19.48	68.952		
4,600.0	4,555.1	4,590.4	4,587.0	17.3	8.4	72.27	-663.3	1,438.4	1,334.8	1,315.1	19.66	67.906		
4,700.0	4,653.6	4,676.7	4,673.4	17.7	8.5	72.86	-661.8	1,437.6	1,327.7	1,307.8	19.86	66.845		
4,800.0	4,752.1	4,765.1	4,761.7	18.2	8.6	73.40	-659.4	1,438.4	1,321.4	1,301.3	20.08	65.814		
4,900.0	4,850.5	4,854.5	4,851.0	18.6	8.7	73.96	-657.8	1,439.7	1,316.1	1,295.9	20.28	64.914		
5,000.0	4,949.0	4,955.8	4,952.4	19.0	8.8	74.62	-656.4	1,441.0	1,311.3	1,290.8	20.47	64.063		
5,100.0	5,047.5	5,058.3	5,054.9	19.5	8.9	75.29	-654.6	1,442.2	1,306.2	1,285.6	20.65	63.270		
5,200.0	5,146.0	5,155.9	5,152.4	19.9	9.0	75.92	-652.9	1,443.3	1,301.3	1,280.5	20.84	62.453		
5,300.0	5,244.5	5,271.6	5,268.1	20.4	9.2	76.70	-650.7	1,443.9	1,296.1	1,275.1	21.02	61.667		
5,400.0	5,343.0	5,382.7	5,379.2	20.8	9.3	77.51	-648.9	1,441.8	1,289.7	1,268.6	21.15	60.978		
5,500.0	5,441.8	5,475.9	5,472.3	21.2	9.4	78.11	-647.5	1,439.9	1,283.9	1,262.5	21.34	60.176		
5,600.0	5,540.8	5,579.3	5,575.7	21.6	9.5	78.71	-645.8	1,437.7	1,278.4	1,256.8	21.53	59.387		
5,700.0	5,640.1	5,673.3	5,669.6	22.0	9.6	79.18	-644.2	1,435.8	1,273.5	1,251.8	21.73	58.617		
5,800.0	5,739.5	5,768.1	5,764.4	22.4	9.7	79.60	-643.0	1,434.1	1,269.4	1,247.5	21.93	57.890		
5,900.0	5,839.1	5,866.2	5,862.6	22.8	9.8	79.98	-642.1	1,432.4	1,266.0	1,243.9	22.13	57.200		
6,000.0	5,938.9	5,965.0	5,961.2	23.2	9.9	80.28	-640.9	1,430.8	1,262.9	1,240.6	22.34	56.528		
6,100.0	6,038.8	6,062.3	6,058.6	23.5	10.0	80.50	-640.0	1,429.5	1,260.5	1,237.9	22.55	55.889		
6,200.0	6,138.7	6,155.7	6,152.0	23.8	10.1	80.65	-639.3	1,428.1	1,258.4	1,235.7	22.76	55.301		
6,300.0	6,238.7	6,246.4	6,242.6	24.1	10.1	80.77	-639.6	1,426.9	1,257.7	1,234.7	22.94	54.835		
6,400.0	6,338.7	6,349.6	6,345.8	24.2	10.2	142.44	-640.1	1,425.5	1,257.1	1,234.1	23.06	54.515		
6,500.0	6,438.7	6,447.4	6,443.6	24.2	10.3	142.50	-640.5	1,424.2	1,256.6	1,233.4	23.22	54.112		
6,600.0	6,538.7	6,545.3	6,541.5	24.2	10.3	142.56	-641.2	1,422.8	1,256.4	1,233.0	23.38	53.746		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design:	ENERGY DOME FEDERAL PROJECT (BULLDOG 2535) - MUSIC MASTER 27 FED #3H - OWB - ACTUAL											Offset Site Error:	0.0 usft
Survey Program:	84-r.5 GYRO-NS, 957-r.5 MWD											Offset Well Error:	3.0 usft
Reference	Vertical	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)	Reference Depth (usft)	Offset Depth (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
6,700.0	6,638.7	6,643.7	6,639.9	24.3	10.4	142.63	-642.0	1,421.5	1,256.2	1,232.6	23.52	53.403	
6,800.0	6,738.7	6,745.2	6,741.4	24.3	10.5	142.69	-642.7	1,420.4	1,256.1	1,232.4	23.67	53.067	
6,900.0	6,838.7	6,843.4	6,839.6	24.4	10.5	142.75	-643.3	1,419.3	1,255.9	1,232.0	23.82	52.727	
6,920.3	6,859.0	6,862.8	6,859.0	24.4	10.5	142.76	-643.4	1,419.1	1,255.9	1,232.0	23.85	52.660 CC, ES	
7,000.0	6,938.7	6,937.6	6,933.8	24.4	10.6	142.79	-643.9	1,418.7	1,256.0	1,232.1	23.95	52.438	
7,100.0	7,038.7	7,034.9	7,031.1	24.5	10.6	142.83	-644.9	1,418.3	1,256.5	1,232.5	24.07	52.208	
7,200.0	7,138.7	7,140.9	7,137.1	24.5	10.7	142.87	-645.7	1,417.9	1,257.0	1,232.8	24.19	51.968	
7,300.0	7,238.7	7,236.7	7,232.9	24.5	10.7	142.89	-646.2	1,417.7	1,257.2	1,232.9	24.31	51.710	
7,400.0	7,338.7	7,338.2	7,334.4	24.6	10.8	142.92	-647.0	1,417.4	1,257.6	1,233.2	24.43	51.478	
7,500.0	7,438.7	7,439.6	7,435.8	24.6	10.8	142.96	-647.7	1,416.9	1,257.9	1,233.4	24.56	51.224	
7,600.0	7,538.7	7,536.2	7,532.4	24.7	10.9	142.98	-648.3	1,416.7	1,258.3	1,233.6	24.68	50.990	
7,700.0	7,638.7	7,636.3	7,632.5	24.7	10.9	142.99	-648.8	1,416.8	1,258.8	1,234.0	24.78	50.790	
7,800.0	7,738.7	7,730.3	7,726.4	24.7	10.9	142.97	-649.1	1,417.5	1,259.5	1,234.6	24.89	50.601	
7,900.0	7,838.7	7,828.9	7,825.0	24.8	10.9	142.95	-649.5	1,418.6	1,260.5	1,235.5	25.00	50.423	
8,000.0	7,938.7	7,909.0	7,905.1	24.8	10.9	142.93	-650.3	1,419.6	1,262.1	1,237.0	25.11	50.262	
8,100.0	8,038.7	8,003.0	7,999.1	24.9	11.0	142.95	-652.6	1,420.9	1,264.9	1,239.7	25.22	50.165	
8,200.0	8,138.7	8,088.8	8,084.9	24.9	11.0	143.00	-655.9	1,422.0	1,268.7	1,243.4	25.33	50.096	
8,300.0	8,238.7	8,171.0	8,166.9	25.0	11.0	143.09	-660.4	1,422.8	1,273.6	1,248.2	25.44	50.059	
8,400.0	8,338.7	8,266.7	8,262.4	25.0	11.1	143.23	-666.7	1,423.8	1,279.6	1,254.0	25.56	50.057	
8,500.0	8,438.7	8,307.8	8,303.3	25.1	11.2	143.30	-670.2	1,424.2	1,287.4	1,261.6	25.81	49.886	
8,600.0	8,538.7	8,338.0	8,333.0	25.1	11.5	143.48	-675.8	1,423.4	1,300.7	1,274.6	26.10	49.829 SF	
8,700.0	8,638.7	8,364.6	8,358.6	25.1	11.6	143.70	-682.7	1,422.4	1,319.3	1,293.0	26.33	50.115	
8,800.0	8,738.7	8,400.6	8,392.8	25.2	11.6	144.05	-694.2	1,420.9	1,343.0	1,316.5	26.55	50.594	
8,900.0	8,838.7	8,446.5	8,435.8	25.2	11.7	144.50	-710.1	1,419.7	1,370.5	1,343.7	26.75	51.234	
9,000.0	8,938.7	8,479.0	8,465.8	25.3	11.8	144.83	-722.4	1,419.4	1,402.0	1,374.9	27.01	51.897	
9,100.0	9,038.7	8,505.2	8,489.7	25.3	11.8	145.08	-733.3	1,419.8	1,437.9	1,410.5	27.34	52.598	
9,200.0	9,138.7	8,526.0	8,508.2	25.4	11.9	145.29	-742.7	1,420.5	1,478.2	1,450.5	27.69	53.383	
9,300.0	9,238.7	8,573.0	8,549.2	25.4	11.9	145.73	-765.5	1,423.7	1,522.7	1,494.7	27.99	54.405	
9,400.0	9,338.7	8,593.3	8,566.5	25.5	12.0	145.92	-776.0	1,425.3	1,570.3	1,541.9	28.37	55.354	
9,500.0	9,438.7	8,621.0	8,589.7	25.5	12.0	146.19	-790.9	1,427.4	1,620.8	1,592.1	28.74	56.395	
9,600.0	9,538.7	8,668.0	8,628.0	25.6	12.1	146.71	-818.0	1,430.2	1,674.3	1,645.2	29.09	57.550	
9,700.0	9,638.7	8,687.2	8,643.1	25.6	12.2	146.94	-829.8	1,431.2	1,730.4	1,700.9	29.52	58.624	
9,800.0	9,738.7	8,715.0	8,664.5	25.6	12.3	147.28	-847.5	1,432.5	1,789.2	1,759.3	29.93	59.783	
9,900.0	9,838.7	8,739.5	8,682.9	25.7	12.3	147.59	-863.6	1,433.6	1,850.5	1,820.1	30.36	60.957	
10,000.0	9,938.7	8,762.0	8,699.4	25.7	12.4	147.87	-878.9	1,434.8	1,914.1	1,883.3	30.80	62.155	
10,100.0	10,038.7	8,789.7	8,719.2	25.8	12.5	148.22	-898.3	1,436.3	1,979.7	1,948.5	31.23	63.402	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ENERGY DOME FEDERAL PROJECT (BULLDOG 2535) - MUSIC MASTER 27 FED #3H - OWB PILOT - ACTUAL WELLPATH												Offset Site Error:	0.0 usft
Survey Program: 84-r.5 GYRO-NS, 957-r.5 MWD												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)					
0.0	0.0	2.3	-0.1	3.0	3.0	115.03	-659.8	1,413.0	1,559.5	1,553.1	6.43	242.578	
100.0	100.0	97.8	95.4	3.2	3.0	115.04	-660.0	1,413.1	1,559.7	1,553.0	6.68	233.576	
200.0	200.0	192.9	190.5	3.5	3.1	115.06	-660.7	1,413.3	1,560.1	1,553.1	6.98	223.364	
300.0	300.0	289.7	287.3	3.7	3.2	115.08	-661.5	1,413.7	1,560.8	1,553.5	7.31	213.470	
400.0	400.0	388.2	385.8	3.9	3.4	115.08	-662.1	1,414.4	1,561.7	1,554.0	7.66	203.895	
500.0	500.0	486.5	484.1	4.1	3.5	115.09	-662.5	1,415.2	1,562.6	1,554.6	8.02	194.766	
600.0	600.0	581.9	579.5	4.2	3.7	115.08	-662.8	1,416.3	1,563.8	1,555.4	8.40	186.276	
700.0	700.0	682.4	680.0	4.4	4.0	115.06	-663.0	1,417.6	1,565.1	1,556.4	8.79	178.116	
800.0	800.0	782.3	779.9	4.6	4.2	115.05	-663.1	1,419.0	1,566.4	1,557.2	9.19	170.428	
900.0	900.0	880.0	877.6	4.8	4.4	115.03	-663.1	1,420.4	1,567.7	1,558.1	9.60	163.350	
1,000.0	1,000.0	976.8	974.3	4.9	4.6	115.00	-663.2	1,422.0	1,569.3	1,559.4	9.91	158.299	
1,100.0	1,100.0	1,074.6	1,072.1	5.1	4.8	114.98	-663.3	1,423.8	1,571.0	1,560.7	10.22	153.688	
1,200.0	1,200.0	1,169.9	1,167.4	5.2	4.9	114.96	-663.6	1,425.7	1,572.9	1,562.4	10.53	149.350	
1,300.0	1,300.0	1,271.9	1,269.4	5.4	5.1	53.36	-663.8	1,427.9	1,574.2	1,563.3	10.87	144.859	
1,400.0	1,399.9	1,372.3	1,369.7	5.6	5.3	53.45	-664.0	1,429.9	1,573.7	1,562.5	11.20	140.477	
1,500.0	1,499.7	1,469.0	1,466.5	5.8	5.5	53.62	-663.8	1,432.1	1,571.8	1,560.3	11.54	136.179	
1,600.0	1,599.3	1,568.8	1,566.2	6.1	5.7	53.89	-663.7	1,434.6	1,568.6	1,556.7	11.90	131.831	
1,700.0	1,698.6	1,666.7	1,664.1	6.3	5.9	54.25	-663.6	1,436.9	1,563.7	1,551.5	12.26	127.546	
1,800.0	1,797.5	1,763.3	1,760.7	6.6	6.1	54.69	-663.4	1,439.5	1,557.7	1,545.1	12.63	123.330	
1,900.0	1,896.1	1,862.3	1,859.6	6.8	6.3	55.20	-663.2	1,442.2	1,550.3	1,537.4	12.95	119.733	
2,000.0	1,994.6	1,952.3	1,949.6	7.1	6.5	55.62	-662.8	1,444.9	1,542.9	1,529.6	13.31	115.899	
2,100.0	2,093.1	2,044.0	2,041.2	7.4	6.7	56.03	-662.3	1,448.6	1,536.3	1,522.6	13.69	112.208	
2,200.0	2,191.6	2,139.7	2,136.8	7.7	7.0	56.46	-661.8	1,452.6	1,530.1	1,516.0	14.09	108.600	
2,300.0	2,290.0	2,247.5	2,244.5	8.0	7.3	56.96	-661.4	1,457.0	1,523.9	1,509.4	14.52	104.932	
2,400.0	2,388.5	2,362.5	2,359.5	8.4	7.5	57.59	-662.5	1,459.6	1,516.9	1,501.9	14.96	101.366	
2,500.0	2,487.0	2,457.9	2,454.9	8.7	7.7	58.13	-663.7	1,461.1	1,509.5	1,494.2	15.36	98.283	
2,600.0	2,585.5	2,595.2	2,592.1	9.1	7.9	58.93	-664.9	1,462.0	1,501.5	1,485.7	15.76	95.273	
2,700.0	2,684.0	2,710.6	2,707.5	9.5	7.9	59.65	-665.3	1,459.8	1,490.9	1,475.0	15.96	93.390	
2,800.0	2,782.4	2,803.0	2,799.9	9.8	7.9	60.22	-665.4	1,458.3	1,480.8	1,464.7	16.12	91.836	
2,900.0	2,880.9	2,901.1	2,898.0	10.2	7.8	60.81	-665.0	1,457.2	1,471.0	1,454.7	16.29	90.323	
3,000.0	2,979.4	2,995.4	2,992.2	10.6	7.8	61.37	-664.4	1,456.4	1,461.4	1,445.0	16.46	88.769	
3,100.0	3,077.9	3,089.7	3,086.6	11.0	7.9	61.92	-663.6	1,456.1	1,452.4	1,435.7	16.67	87.146	
3,200.0	3,176.4	3,200.9	3,197.8	11.4	7.9	62.56	-662.4	1,455.8	1,443.3	1,426.4	16.87	85.569	
3,300.0	3,274.8	3,297.2	3,294.0	11.8	7.9	63.15	-661.3	1,454.7	1,433.8	1,416.7	17.06	84.029	
3,400.0	3,373.3	3,389.2	3,386.1	12.2	8.0	63.70	-660.2	1,454.2	1,424.8	1,407.5	17.26	82.525	
3,500.0	3,471.8	3,491.7	3,488.5	12.6	8.0	64.32	-659.2	1,453.7	1,416.1	1,398.6	17.47	81.075	
3,600.0	3,570.3	3,589.6	3,586.5	13.0	8.1	64.97	-658.9	1,452.5	1,407.4	1,389.7	17.66	79.690	
3,700.0	3,668.8	3,684.6	3,681.4	13.5	8.1	65.61	-659.0	1,451.2	1,399.0	1,381.1	17.86	78.328	
3,800.0	3,767.2	3,784.7	3,781.5	13.9	8.1	66.31	-659.2	1,449.9	1,390.8	1,372.8	18.06	77.012	
3,900.0	3,865.7	3,879.0	3,875.8	14.3	8.1	66.99	-659.8	1,448.5	1,383.1	1,364.8	18.27	75.707	
4,000.0	3,964.2	3,968.7	3,965.5	14.7	8.1	67.65	-660.9	1,447.3	1,376.0	1,357.5	18.48	74.442	
4,100.0	4,062.7	4,045.6	4,042.4	15.2	8.1	68.22	-662.2	1,446.9	1,370.1	1,351.3	18.72	73.193	
4,200.0	4,161.2	4,159.9	4,156.7	15.6	8.2	69.06	-664.2	1,447.0	1,364.9	1,346.0	18.95	72.019	
4,300.0	4,259.7	4,277.5	4,274.2	16.0	8.3	69.92	-665.0	1,445.7	1,358.3	1,339.2	19.14	70.961	
4,400.0	4,358.1	4,383.6	4,380.4	16.4	8.3	70.71	-665.0	1,443.8	1,351.1	1,331.7	19.32	69.947	
4,500.0	4,456.6	4,497.0	4,493.7	16.9	8.4	71.56	-664.3	1,441.0	1,343.2	1,323.7	19.48	68.952	
4,600.0	4,555.1	4,590.4	4,587.0	17.3	8.4	72.27	-663.3	1,438.4	1,334.8	1,315.1	19.66	67.906	
4,700.0	4,653.6	4,676.7	4,673.4	17.7	8.5	72.86	-661.8	1,437.6	1,327.7	1,307.8	19.86	66.845	
4,800.0	4,752.1	4,765.1	4,761.7	18.2	8.6	73.40	-659.4	1,438.4	1,321.4	1,301.3	20.08	65.814	
4,900.0	4,850.5	4,854.5	4,851.0	18.6	8.7	73.96	-657.8	1,439.7	1,316.1	1,295.9	20.28	64.914	
5,000.0	4,949.0	4,955.8	4,952.4	19.0	8.8	74.62	-656.4	1,441.0	1,311.3	1,290.8	20.47	64.063	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ENERGY DOME FEDERAL PROJECT (BULLDOG 2535) - MUSIC MASTER 27 FED #3H - OWB PILOT - ACTUAL WELLPATH													Offset Site Error:	0.0 usft
Survey Program: 84-r.5 GYRO-NS, 957-r.5 MWD									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)				
5,100.0	5,047.5	5,058.3	5,054.9	19.5	8.9	75.29	-654.6	1,442.2	1,306.2	1,285.6	20.65	63.270		
5,200.0	5,146.0	5,155.9	5,152.4	19.9	9.0	75.92	-652.9	1,443.3	1,301.3	1,280.5	20.84	62.453		
5,300.0	5,244.5	5,271.6	5,268.1	20.4	9.2	76.70	-650.7	1,443.9	1,296.1	1,275.1	21.02	61.667		
5,400.0	5,343.0	5,382.7	5,379.2	20.8	9.3	77.51	-648.9	1,441.8	1,289.7	1,268.6	21.15	60.978		
5,500.0	5,441.8	5,475.9	5,472.3	21.2	9.4	78.11	-647.5	1,439.9	1,283.9	1,262.5	21.34	60.176		
5,600.0	5,540.8	5,579.3	5,575.7	21.6	9.5	78.71	-645.8	1,437.7	1,278.4	1,256.8	21.53	59.387		
5,700.0	5,640.1	5,673.3	5,669.6	22.0	9.6	79.18	-644.2	1,435.8	1,273.5	1,251.8	21.73	58.617		
5,800.0	5,739.5	5,768.1	5,764.4	22.4	9.7	79.60	-643.0	1,434.1	1,269.4	1,247.5	21.93	57.890		
5,900.0	5,839.1	5,866.2	5,862.6	22.8	9.8	79.98	-642.1	1,432.4	1,266.0	1,243.9	22.13	57.200		
6,000.0	5,938.9	5,965.0	5,961.2	23.2	9.9	80.28	-640.9	1,430.8	1,262.9	1,240.6	22.34	56.528		
6,100.0	6,038.8	6,062.3	6,058.6	23.5	10.0	80.50	-640.0	1,429.5	1,260.5	1,237.9	22.55	55.889		
6,200.0	6,138.7	6,155.7	6,152.0	23.8	10.1	80.65	-639.3	1,428.1	1,258.4	1,235.7	22.76	55.301		
6,300.0	6,238.7	6,246.4	6,242.6	24.1	10.1	80.77	-639.6	1,426.9	1,257.7	1,234.7	22.94	54.835		
6,400.0	6,338.7	6,349.6	6,345.8	24.2	10.2	142.44	-640.1	1,425.5	1,257.1	1,234.1	23.06	54.515		
6,500.0	6,438.7	6,447.4	6,443.6	24.2	10.3	142.50	-640.5	1,424.2	1,256.6	1,233.4	23.22	54.112		
6,600.0	6,538.7	6,545.3	6,541.5	24.2	10.3	142.56	-641.2	1,422.8	1,256.4	1,233.0	23.38	53.746		
6,700.0	6,638.7	6,643.7	6,639.9	24.3	10.4	142.63	-642.0	1,421.5	1,256.2	1,232.6	23.52	53.403		
6,800.0	6,738.7	6,745.2	6,741.4	24.3	10.5	142.69	-642.7	1,420.4	1,256.1	1,232.4	23.67	53.067		
6,900.0	6,838.7	6,843.4	6,839.6	24.4	10.5	142.75	-643.3	1,419.3	1,255.9	1,232.0	23.82	52.727		
6,920.3	6,859.0	6,862.8	6,859.0	24.4	10.5	142.76	-643.4	1,419.1	1,255.9	1,232.0	23.85	52.660	CC, ES	
7,000.0	6,938.7	6,937.6	6,933.8	24.4	10.6	142.79	-643.9	1,418.7	1,256.0	1,232.1	23.95	52.438		
7,100.0	7,038.7	7,034.9	7,031.1	24.5	10.6	142.83	-644.9	1,418.3	1,256.5	1,232.5	24.07	52.208		
7,200.0	7,138.7	7,140.9	7,137.1	24.5	10.7	142.87	-645.7	1,417.9	1,257.0	1,232.8	24.19	51.968		
7,300.0	7,238.7	7,236.7	7,232.9	24.5	10.7	142.89	-646.2	1,417.7	1,257.2	1,232.9	24.31	51.710		
7,400.0	7,338.7	7,338.2	7,334.4	24.6	10.8	142.92	-647.0	1,417.4	1,257.6	1,233.2	24.43	51.478		
7,500.0	7,438.7	7,439.6	7,435.8	24.6	10.8	142.96	-647.7	1,416.9	1,257.9	1,233.4	24.56	51.224		
7,600.0	7,538.7	7,536.2	7,532.4	24.7	10.9	142.98	-648.3	1,416.7	1,258.3	1,233.6	24.68	50.990		
7,700.0	7,638.7	7,636.3	7,632.5	24.7	10.9	142.99	-648.8	1,416.8	1,258.8	1,234.0	24.78	50.790		
7,800.0	7,738.7	7,730.3	7,726.4	24.7	10.9	142.97	-649.1	1,417.5	1,259.5	1,234.6	24.89	50.601		
7,900.0	7,838.7	7,828.9	7,825.0	24.8	10.9	142.95	-649.5	1,418.6	1,260.5	1,235.5	25.00	50.423		
8,000.0	7,938.7	7,909.0	7,905.1	24.8	10.9	142.93	-650.3	1,419.6	1,262.1	1,237.0	25.11	50.262		
8,100.0	8,038.7	8,003.0	7,999.1	24.9	11.0	142.95	-652.6	1,420.9	1,264.9	1,239.7	25.22	50.165		
8,200.0	8,138.7	8,088.8	8,084.9	24.9	11.0	143.00	-655.9	1,422.0	1,268.7	1,243.4	25.33	50.096		
8,300.0	8,238.7	8,171.0	8,166.9	25.0	11.0	143.09	-660.4	1,422.8	1,273.6	1,248.2	25.44	50.059		
8,400.0	8,338.7	8,266.7	8,262.4	25.0	11.1	143.23	-666.7	1,423.8	1,279.6	1,254.0	25.56	50.057		
8,500.0	8,438.7	8,371.0	8,366.5	25.1	11.2	143.33	-673.0	1,425.6	1,285.4	1,259.7	25.68	50.054		
8,600.0	8,538.7	8,470.5	8,465.9	25.1	11.2	143.40	-678.4	1,427.7	1,291.0	1,265.2	25.81	50.016		
8,700.0	8,638.7	8,573.2	8,568.3	25.1	11.3	143.45	-683.7	1,430.1	1,296.6	1,270.6	25.95	49.958		
8,800.0	8,738.7	8,678.5	8,673.5	25.2	11.4	143.49	-688.6	1,432.6	1,301.7	1,275.6	26.10	49.868		
8,900.0	8,838.7	8,781.0	8,775.9	25.2	11.5	143.51	-693.0	1,435.3	1,306.7	1,280.5	26.26	49.754		
9,000.0	8,938.7	8,889.1	8,883.9	25.3	11.6	143.51	-696.8	1,438.0	1,311.1	1,284.6	26.43	49.599		
9,100.0	9,038.7	8,990.7	8,985.4	25.3	11.7	143.49	-699.8	1,441.1	1,315.3	1,288.7	26.61	49.426		
9,200.0	9,138.7	9,098.8	9,093.4	25.4	11.8	143.42	-702.2	1,444.8	1,319.0	1,292.2	26.80	49.227		
9,300.0	9,238.7	9,201.7	9,196.3	25.4	11.9	143.34	-703.8	1,448.3	1,322.3	1,295.3	26.97	49.026		
9,400.0	9,338.7	9,205.0	9,199.5	25.5	11.9	143.33	-703.8	1,448.4	1,329.0	1,301.8	27.18	48.900		
9,500.0	9,438.7	9,205.0	9,199.5	25.5	11.9	143.33	-703.8	1,448.4	1,343.2	1,315.7	27.48	48.887	SF	
9,600.0	9,538.7	9,205.0	9,199.5	25.6	11.9	143.33	-703.8	1,448.4	1,364.5	1,336.7	27.86	48.984		
9,700.0	9,638.7	9,205.0	9,199.5	25.6	11.9	143.33	-703.8	1,448.4	1,392.8	1,364.5	28.31	49.193		
9,800.0	9,738.7	9,205.0	9,199.5	25.6	11.9	143.33	-703.8	1,448.4	1,427.5	1,398.6	28.83	49.516		
9,900.0	9,838.7	9,205.0	9,199.5	25.7	11.9	143.33	-703.8	1,448.4	1,468.1	1,438.8	29.39	49.955		
10,000.0	9,938.7	9,205.0	9,199.5	25.7	11.9	143.33	-703.8	1,448.4	1,514.4	1,484.4	29.98	50.508		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ENERGY DOME FEDERAL PROJECT (BULLDOG 2535) - MUSIC MASTER 27 FED #3H - OWB PILOT -												Offset Site Error:	0.0 usft
ACTUAL WELLPATH												Offset Well Error:	3.0 usft
Survey Program: 84-r.5 GYRO-NS, 957-r.5 MWD												Rule Assigned:	
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)			
10,100.0	10,038.7	9,205.0	9,199.5	25.8	11.9	143.33	-703.8	1,448.4	1,565.6	1,535.0	30.60	51.171	
10,200.0	10,138.7	9,205.0	9,199.5	25.8	11.9	143.33	-703.8	1,448.4	1,621.4	1,590.2	31.22	51.939	
10,300.0	10,238.7	9,205.0	9,199.5	25.9	11.9	143.33	-703.8	1,448.4	1,681.3	1,649.5	31.84	52.801	
10,400.0	10,338.7	9,205.0	9,199.5	25.9	11.9	143.33	-703.8	1,448.4	1,744.9	1,712.4	32.46	53.750	
10,500.0	10,438.7	9,205.0	9,199.5	26.0	11.9	143.33	-703.8	1,448.4	1,811.8	1,778.7	33.08	54.774	
10,600.0	10,538.7	9,205.0	9,199.5	26.0	11.9	143.33	-703.8	1,448.4	1,881.6	1,847.9	33.68	55.863	
10,700.0	10,638.7	9,205.0	9,199.5	26.1	11.9	143.33	-703.8	1,448.4	1,954.0	1,919.7	34.28	57.007	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #601H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	3.0	3.0	-90.51	-0.8	-90.0	90.0	83.6	6.43	14.000	
100.0	100.0	100.0	100.0	3.2	3.2	-90.51	-0.8	-90.0	90.0	83.1	6.89	13.058	
200.0	200.0	200.0	200.0	3.5	3.5	-90.51	-0.8	-90.0	90.0	82.7	7.33	12.282	
300.0	300.0	300.0	300.0	3.7	3.7	-90.51	-0.8	-90.0	90.0	82.3	7.74	11.626	
400.0	400.0	400.0	400.0	3.9	3.9	-90.51	-0.8	-90.0	90.0	81.9	8.14	11.063	
500.0	500.0	500.0	500.0	4.1	4.1	-90.51	-0.8	-90.0	90.0	81.5	8.51	10.572	
600.0	600.0	600.0	600.0	4.2	4.2	-90.51	-0.8	-90.0	90.0	81.1	8.88	10.138	
700.0	700.0	700.0	700.0	4.4	4.4	-90.51	-0.8	-90.0	90.0	80.8	9.23	9.752	
800.0	800.0	800.0	800.0	4.6	4.6	-90.51	-0.8	-90.0	90.0	80.4	9.57	9.404	
900.0	900.0	900.0	900.0	4.8	4.8	-90.51	-0.8	-90.0	90.0	80.1	9.90	9.090	
1,000.0	1,000.0	1,000.0	1,000.0	4.9	4.9	-90.51	-0.8	-90.0	90.0	79.8	10.22	8.803	
1,100.0	1,100.0	1,100.0	1,100.0	5.1	5.1	-90.51	-0.8	-90.0	90.0	79.5	10.54	8.540	
1,200.0	1,200.0	1,200.0	1,200.0	5.2	5.2	-90.51	-0.8	-90.0	90.0	79.2	10.85	8.297 CC, ES	
1,300.0	1,300.0	1,297.7	1,297.7	5.4	5.4	-152.23	-0.4	-91.2	92.4	81.2	11.20	8.250	
1,400.0	1,399.9	1,395.2	1,395.1	5.6	5.6	-152.57	0.6	-94.8	99.5	88.0	11.55	8.616	
1,500.0	1,499.7	1,491.9	1,491.6	5.8	5.8	-153.03	2.4	-100.7	111.4	99.5	11.92	9.343	
1,600.0	1,599.3	1,587.7	1,587.0	6.1	6.0	-153.52	4.8	-108.8	127.9	115.6	12.32	10.387	
1,700.0	1,698.6	1,682.2	1,680.9	6.3	6.3	-153.97	7.9	-119.1	149.1	136.4	12.74	11.708	
1,800.0	1,797.5	1,775.1	1,772.9	6.6	6.5	-154.34	11.6	-131.4	174.8	161.7	13.18	13.266	
1,900.0	1,896.1	1,866.2	1,862.8	6.8	6.8	-154.69	15.8	-145.5	204.9	191.3	13.58	15.090	
2,000.0	1,994.6	1,955.8	1,950.9	7.1	7.0	-154.91	20.6	-161.4	237.6	223.5	14.04	16.920	
2,100.0	2,093.1	2,047.0	2,040.2	7.4	7.3	-154.93	25.9	-179.3	272.0	257.5	14.54	18.708	
2,200.0	2,191.6	2,140.8	2,131.9	7.7	7.6	-154.93	31.5	-198.0	306.8	291.7	15.09	20.333	
2,300.0	2,290.0	2,234.6	2,223.6	8.0	7.9	-154.93	37.1	-216.7	341.5	325.8	15.66	21.811	
2,400.0	2,388.5	2,328.4	2,315.4	8.4	8.2	-154.93	42.7	-235.4	376.2	360.0	16.25	23.154	
2,500.0	2,487.0	2,422.2	2,407.1	8.7	8.6	-154.93	48.3	-254.1	410.9	394.1	16.86	24.375	
2,600.0	2,585.5	2,515.9	2,498.8	9.1	8.9	-154.93	53.9	-272.7	445.7	428.2	17.49	25.485	
2,700.0	2,684.0	2,609.7	2,590.5	9.5	9.3	-154.93	59.4	-291.4	480.4	462.3	18.13	26.496	
2,800.0	2,782.4	2,703.5	2,682.3	9.8	9.6	-154.93	65.0	-310.1	515.1	496.3	18.79	27.418	
2,900.0	2,880.9	2,797.3	2,774.0	10.2	10.0	-154.93	70.6	-328.8	549.8	530.4	19.46	28.259	
3,000.0	2,979.4	2,891.0	2,865.7	10.6	10.4	-154.93	76.2	-347.5	584.5	564.4	20.14	29.028	
3,100.0	3,077.9	2,984.8	2,957.5	11.0	10.7	-154.93	81.8	-366.1	619.3	598.4	20.83	29.733	
3,200.0	3,176.4	3,078.6	3,049.2	11.4	11.1	-154.93	87.4	-384.8	654.0	632.5	21.53	30.379	
3,300.0	3,274.8	3,172.4	3,140.9	11.8	11.5	-154.93	93.0	-403.5	688.7	666.5	22.24	30.974	
3,400.0	3,373.3	3,266.2	3,232.7	12.2	11.9	-154.93	98.5	-422.2	723.4	700.5	22.95	31.522	
3,500.0	3,471.8	3,359.9	3,324.4	12.6	12.3	-154.93	104.1	-440.9	758.2	734.5	23.67	32.028	
3,600.0	3,570.3	3,453.7	3,416.1	13.0	12.7	-154.93	109.7	-459.5	792.9	768.5	24.40	32.495	
3,700.0	3,668.8	3,547.5	3,507.8	13.5	13.1	-154.93	115.3	-478.2	827.6	802.5	25.13	32.929	
3,800.0	3,767.2	3,641.3	3,599.6	13.9	13.5	-154.93	120.9	-496.9	862.3	836.5	25.87	33.331	
3,900.0	3,865.7	3,735.0	3,691.3	14.3	13.9	-154.93	126.5	-515.6	897.1	870.4	26.62	33.705	
4,000.0	3,964.2	3,828.8	3,783.0	14.7	14.3	-154.93	132.1	-534.3	931.8	904.4	27.36	34.053	
4,100.0	4,062.7	3,922.6	3,874.8	15.2	14.7	-154.93	137.6	-552.9	966.5	938.4	28.11	34.378	
4,200.0	4,161.2	4,016.4	3,966.5	15.6	15.1	-154.93	143.2	-571.6	1,001.2	972.4	28.87	34.681	
4,300.0	4,259.7	4,110.2	4,058.2	16.0	15.5	-154.93	148.8	-590.3	1,035.9	1,006.3	29.63	34.965	
4,400.0	4,358.1	4,203.9	4,149.9	16.4	15.9	-154.93	154.4	-609.0	1,070.7	1,040.3	30.39	35.232	
4,500.0	4,456.6	4,297.7	4,241.7	16.9	16.4	-154.93	160.0	-627.7	1,105.4	1,074.2	31.15	35.482	
4,600.0	4,555.1	4,391.5	4,333.4	17.3	16.8	-154.93	165.6	-646.3	1,140.1	1,108.2	31.92	35.717	
4,700.0	4,653.6	4,485.3	4,425.1	17.7	17.2	-154.93	171.2	-665.0	1,174.8	1,142.1	32.69	35.938	
4,800.0	4,752.1	4,579.0	4,516.9	18.2	17.6	-154.93	176.8	-683.7	1,209.6	1,176.1	33.46	36.146	
4,900.0	4,850.5	4,672.8	4,608.6	18.6	18.0	-154.93	182.3	-702.4	1,244.3	1,210.0	34.24	36.343	
5,000.0	4,949.0	4,766.6	4,700.3	19.0	18.5	-154.93	187.9	-721.1	1,279.0	1,244.0	35.01	36.529	

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Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #601H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Minimum		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor			
5,100.0	5,047.5	4,860.4	4,792.0	19.5	18.9	-154.93	193.5	-739.7	1,313.7	1,277.9	35.79	36.704		
5,200.0	5,146.0	4,954.2	4,883.8	19.9	19.3	-154.93	199.1	-758.4	1,348.5	1,311.9	36.57	36.871		
5,300.0	5,244.5	5,047.9	4,975.5	20.4	19.8	-154.93	204.7	-777.1	1,383.2	1,345.8	37.35	37.029		
5,400.0	5,343.0	5,141.8	5,067.3	20.8	20.2	-155.01	210.3	-795.8	1,417.7	1,379.6	38.12	37.193		
5,500.0	5,441.8	5,236.1	5,159.6	21.2	20.6	-155.12	215.9	-814.6	1,450.9	1,412.0	38.90	37.300		
5,600.0	5,540.8	5,331.0	5,252.3	21.6	21.0	-155.20	221.5	-833.5	1,482.5	1,442.9	39.67	37.371		
5,700.0	5,640.1	5,426.3	5,345.6	22.0	21.5	-155.25	227.2	-852.5	1,512.7	1,472.3	40.44	37.406		
5,800.0	5,739.5	5,522.0	5,439.2	22.4	21.9	-155.26	232.9	-871.5	1,541.4	1,500.2	41.20	37.411		
5,900.0	5,839.1	5,618.2	5,533.3	22.8	22.4	-155.24	238.7	-890.7	1,568.5	1,526.6	41.95	37.388		
6,000.0	5,938.9	5,714.8	5,627.8	23.2	22.8	-155.20	244.4	-909.9	1,594.2	1,551.5	42.69	37.340		
6,100.0	6,038.8	5,811.7	5,722.6	23.5	23.3	-155.12	250.2	-929.2	1,618.3	1,574.9	43.42	37.272		
6,200.0	6,138.7	5,909.0	5,817.7	23.8	23.7	-155.02	256.0	-948.6	1,640.9	1,596.8	44.12	37.191		
6,300.0	6,238.7	6,006.5	5,913.1	24.1	24.2	-154.88	261.8	-968.0	1,661.9	1,617.2	44.79	37.108		
6,400.0	6,338.7	6,104.3	6,008.8	24.2	24.6	-93.09	267.6	-987.5	1,681.7	1,636.4	45.30	37.128		
6,500.0	6,438.7	6,202.1	6,104.4	24.2	25.1	-92.85	273.4	-1,007.0	1,701.3	1,655.6	45.79	37.153		
6,600.0	6,538.7	6,299.9	6,200.1	24.2	25.5	-92.62	279.3	-1,026.5	1,721.0	1,674.7	46.30	37.174		
6,700.0	6,638.7	6,397.7	6,295.8	24.3	26.0	-92.39	285.1	-1,046.0	1,740.7	1,693.9	46.80	37.191		
6,800.0	6,738.7	6,495.5	6,391.5	24.3	26.4	-92.17	290.9	-1,065.5	1,760.4	1,713.1	47.32	37.204		
6,900.0	6,838.7	6,593.4	6,487.2	24.4	26.9	-91.96	296.8	-1,084.9	1,780.1	1,732.3	47.84	37.211		
7,000.0	6,938.7	6,727.2	6,618.4	24.4	27.5	-91.68	304.4	-1,110.4	1,799.0	1,750.4	48.63	36.997		
7,100.0	7,038.7	6,867.9	6,756.8	24.5	28.1	-91.44	311.4	-1,134.0	1,815.7	1,766.3	49.43	36.734		
7,200.0	7,138.7	7,009.7	6,897.0	24.5	28.7	-91.23	317.6	-1,154.5	1,830.1	1,779.9	50.20	36.458		
7,300.0	7,238.7	7,152.5	7,038.7	24.5	29.3	-91.05	322.7	-1,171.8	1,842.1	1,791.2	50.92	36.178		
7,400.0	7,338.7	7,296.2	7,181.6	24.6	29.9	-90.92	326.9	-1,185.8	1,851.8	1,800.2	51.59	35.893		
7,500.0	7,438.7	7,440.5	7,325.4	24.6	30.5	-90.81	330.1	-1,196.3	1,859.1	1,806.9	52.20	35.614		
7,600.0	7,538.7	7,585.2	7,470.0	24.7	30.9	-90.74	332.2	-1,203.4	1,864.0	1,811.2	52.74	35.342		
7,700.0	7,638.7	7,730.2	7,615.0	24.7	31.3	-90.71	333.3	-1,207.0	1,866.4	1,813.3	53.14	35.120		
7,800.0	7,738.7	7,853.9	7,738.7	24.7	31.5	-90.71	333.4	-1,207.5	1,866.8	1,813.5	53.29	35.032		
7,900.0	7,838.7	7,953.9	7,838.7	24.8	31.5	-90.71	333.4	-1,207.5	1,866.8	1,813.4	53.36	34.985		
8,000.0	7,938.7	8,053.9	7,938.7	24.8	31.5	-90.71	333.4	-1,207.5	1,866.8	1,813.3	53.43	34.936		
8,100.0	8,038.7	8,153.9	8,038.7	24.9	31.6	-90.71	333.4	-1,207.5	1,866.8	1,813.3	53.51	34.888		
8,200.0	8,138.7	8,253.9	8,138.7	24.9	31.6	-90.71	333.4	-1,207.5	1,866.8	1,813.2	53.58	34.840		
8,300.0	8,238.7	8,353.9	8,238.7	25.0	31.6	-90.71	333.4	-1,207.5	1,866.8	1,813.1	53.66	34.791		
8,400.0	8,338.7	8,453.9	8,338.7	25.0	31.6	-90.71	333.4	-1,207.5	1,866.8	1,813.0	53.73	34.743		
8,500.0	8,438.7	8,553.9	8,438.7	25.1	31.7	-90.71	333.4	-1,207.5	1,866.8	1,813.0	53.81	34.694		
8,600.0	8,538.7	8,653.9	8,538.7	25.1	31.7	-90.71	333.4	-1,207.5	1,866.8	1,812.9	53.88	34.645		
8,700.0	8,638.7	8,753.9	8,638.7	25.1	31.7	-90.71	333.4	-1,207.5	1,866.8	1,812.8	53.96	34.596		
8,800.0	8,738.7	8,853.9	8,738.7	25.2	31.8	-90.71	333.4	-1,207.5	1,866.8	1,812.7	54.04	34.547		
8,900.0	8,838.7	8,953.9	8,838.7	25.2	31.8	-90.71	333.4	-1,207.5	1,866.8	1,812.7	54.11	34.498		
9,000.0	8,938.7	9,053.9	8,938.7	25.3	31.8	-90.71	333.4	-1,207.5	1,866.8	1,812.6	54.19	34.448		
9,100.0	9,038.7	9,153.9	9,038.7	25.3	31.9	-90.71	333.4	-1,207.5	1,866.8	1,812.5	54.27	34.399		
9,200.0	9,138.7	9,253.9	9,138.7	25.4	31.9	-90.71	333.4	-1,207.5	1,866.8	1,812.4	54.35	34.350		
9,300.0	9,238.7	9,353.9	9,238.7	25.4	31.9	-90.71	333.4	-1,207.5	1,866.8	1,812.3	54.42	34.300		
9,400.0	9,338.7	9,453.9	9,338.7	25.5	32.0	-90.71	333.4	-1,207.5	1,866.8	1,812.3	54.50	34.250		
9,500.0	9,438.7	9,553.9	9,438.7	25.5	32.0	-90.71	333.4	-1,207.5	1,866.8	1,812.2	54.58	34.201		
9,600.0	9,538.7	9,653.9	9,538.7	25.6	32.0	-90.71	333.4	-1,207.5	1,866.8	1,812.1	54.66	34.151		
9,700.0	9,638.7	9,753.9	9,638.7	25.6	32.1	-90.71	333.4	-1,207.5	1,866.8	1,812.0	54.74	34.101		
9,800.0	9,738.7	9,853.9	9,738.7	25.6	32.1	-90.71	333.4	-1,207.5	1,866.8	1,812.0	54.82	34.051		
9,900.0	9,838.7	9,953.9	9,838.7	25.7	32.1	-90.71	333.4	-1,207.5	1,866.8	1,811.9	54.90	34.001		
10,000.0	9,938.7	10,053.9	9,938.7	25.7	32.2	-90.71	333.4	-1,207.5	1,866.8	1,811.8	54.98	33.951		
10,100.0	10,038.7	10,153.9	10,038.7	25.8	32.2	-90.71	333.4	-1,207.5	1,866.8	1,811.7	55.07	33.901		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #601H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
10,200.0	10,138.7	10,253.9	10,138.7	25.8	32.2	-90.71	333.4	-1,207.5	1,866.8	1,811.6	55.15	33.851	
10,300.0	10,238.7	10,353.9	10,238.7	25.9	32.3	-90.71	333.4	-1,207.5	1,866.8	1,811.5	55.23	33.800	
10,400.0	10,338.7	10,453.9	10,338.7	25.9	32.3	-90.71	333.4	-1,207.5	1,866.8	1,811.5	55.31	33.750	
10,500.0	10,438.7	10,553.9	10,438.7	26.0	32.3	-90.71	333.4	-1,207.5	1,866.8	1,811.4	55.39	33.699	
10,600.0	10,538.7	10,653.9	10,538.7	26.0	32.4	-90.71	333.4	-1,207.5	1,866.8	1,811.3	55.48	33.649	
10,700.0	10,638.7	10,753.9	10,638.7	26.1	32.4	-90.71	333.4	-1,207.5	1,866.8	1,811.2	55.56	33.598	
10,800.0	10,738.7	10,853.9	10,738.7	26.1	32.4	-90.71	333.4	-1,207.5	1,866.8	1,811.1	55.65	33.548	
10,900.0	10,838.7	10,953.9	10,838.7	26.2	32.5	-90.71	333.4	-1,207.5	1,866.8	1,811.0	55.73	33.497	
11,000.0	10,938.7	11,053.9	10,938.7	26.2	32.5	-90.71	333.4	-1,207.5	1,866.8	1,811.0	55.81	33.446	
11,100.0	11,038.7	11,153.9	11,038.7	26.3	32.5	-90.71	333.4	-1,207.5	1,866.8	1,810.9	55.90	33.396	
11,200.0	11,138.7	11,253.9	11,138.7	26.3	32.6	-90.71	333.4	-1,207.5	1,866.8	1,810.8	55.98	33.345	
11,300.0	11,238.7	11,353.9	11,238.7	26.4	32.6	-90.71	333.4	-1,207.5	1,866.8	1,810.7	56.07	33.294	
11,400.0	11,338.7	11,453.9	11,338.7	26.4	32.7	-90.71	333.4	-1,207.5	1,866.8	1,810.6	56.16	33.243	
11,500.0	11,438.7	11,553.9	11,438.7	26.5	32.7	-90.71	333.4	-1,207.5	1,866.8	1,810.5	56.24	33.192	
11,600.0	11,538.7	11,653.9	11,538.7	26.5	32.7	-90.71	333.4	-1,207.5	1,866.8	1,810.4	56.33	33.141	
11,700.0	11,638.7	11,753.9	11,638.7	26.6	32.8	-90.71	333.4	-1,207.5	1,866.8	1,810.4	56.41	33.090	
11,800.0	11,738.7	11,853.9	11,738.7	26.6	32.8	-90.71	333.4	-1,207.5	1,866.8	1,810.3	56.50	33.039	
11,900.0	11,838.7	11,953.8	11,838.6	26.7	32.8	89.85	333.3	-1,207.5	1,866.8	1,810.2	56.57	33.000	
12,000.0	11,938.0	12,053.0	11,937.1	26.5	32.7	89.85	322.7	-1,207.4	1,866.8	1,810.2	56.55	33.013	
12,100.0	12,033.9	12,152.3	12,032.4	26.3	32.6	89.86	295.3	-1,207.1	1,866.8	1,810.3	56.49	33.045	
12,200.0	12,123.5	12,251.6	12,121.5	26.1	32.5	89.87	251.9	-1,206.7	1,866.8	1,810.3	56.42	33.088	
12,300.0	12,204.2	12,350.9	12,201.9	26.0	32.3	89.89	193.8	-1,206.1	1,866.8	1,810.4	56.34	33.133	
12,400.0	12,273.3	12,450.3	12,271.1	25.8	32.2	89.91	122.5	-1,205.4	1,866.7	1,810.5	56.27	33.176	
12,500.0	12,328.9	12,549.9	12,327.0	25.7	32.2	89.93	40.3	-1,204.6	1,866.7	1,810.5	56.22	33.206	
12,600.0	12,369.3	12,649.6	12,367.9	25.6	32.1	89.95	-50.4	-1,203.7	1,866.7	1,810.5	56.19	33.219	
12,700.0	12,393.2	12,749.4	12,392.4	25.6	32.1	89.98	-147.0	-1,202.8	1,866.7	1,810.5	56.21	33.208	
12,800.0	12,400.0	12,849.3	12,400.0	25.7	32.2	90.00	-246.6	-1,201.8	1,866.7	1,810.4	56.28	33.171	
12,900.0	12,400.0	12,949.3	12,400.0	25.8	32.3	90.00	-346.6	-1,200.8	1,866.7	1,810.3	56.40	33.099	
13,000.0	12,400.0	13,049.3	12,400.0	25.9	32.4	90.00	-446.6	-1,199.9	1,866.7	1,810.1	56.56	33.003	
13,100.0	12,400.0	13,149.3	12,400.0	26.0	32.5	90.00	-546.5	-1,198.9	1,866.7	1,809.9	56.76	32.885	
13,200.0	12,400.0	13,249.3	12,400.0	26.2	32.6	90.00	-646.5	-1,197.9	1,866.7	1,809.7	57.01	32.745	
13,300.0	12,400.0	13,349.3	12,400.0	26.4	32.8	90.00	-746.5	-1,196.9	1,866.7	1,809.4	57.29	32.583	
13,400.0	12,400.0	13,449.3	12,400.0	26.6	33.0	90.00	-846.5	-1,195.9	1,866.6	1,809.0	57.61	32.402	
13,500.0	12,400.0	13,549.3	12,400.0	26.8	33.1	90.00	-946.5	-1,194.9	1,866.6	1,808.7	57.97	32.202	
13,600.0	12,400.0	13,649.3	12,400.0	27.0	33.4	90.00	-1,046.5	-1,194.0	1,866.6	1,808.3	58.36	31.984	
13,700.0	12,400.0	13,749.3	12,400.0	27.2	33.6	90.00	-1,146.5	-1,193.0	1,866.6	1,807.8	58.79	31.749	
13,800.0	12,400.0	13,849.3	12,400.0	27.5	33.8	90.00	-1,246.5	-1,192.0	1,866.6	1,807.3	59.26	31.499	
13,900.0	12,400.0	13,949.3	12,400.0	27.8	34.1	90.00	-1,346.5	-1,191.0	1,866.6	1,806.8	59.76	31.235	
14,000.0	12,400.0	14,049.3	12,400.0	28.1	34.3	90.00	-1,446.5	-1,190.0	1,866.6	1,806.3	60.30	30.957	
14,100.0	12,400.0	14,149.3	12,400.0	28.4	34.6	90.00	-1,546.5	-1,189.1	1,866.6	1,805.7	60.86	30.668	
14,200.0	12,400.0	14,249.3	12,400.0	28.7	34.9	90.00	-1,646.5	-1,188.1	1,866.6	1,805.1	61.46	30.369	
14,300.0	12,400.0	14,349.3	12,400.0	29.0	35.2	90.00	-1,746.5	-1,187.1	1,866.5	1,804.5	62.09	30.060	
14,400.0	12,400.0	14,449.3	12,400.0	29.4	35.5	90.00	-1,846.5	-1,186.1	1,866.5	1,803.8	62.75	29.743	
14,500.0	12,400.0	14,549.3	12,400.0	29.7	35.8	90.00	-1,946.5	-1,185.1	1,866.5	1,803.1	63.44	29.420	
14,600.0	12,400.0	14,649.3	12,400.0	30.1	36.2	90.00	-2,046.5	-1,184.1	1,866.5	1,802.4	64.16	29.090	
14,700.0	12,400.0	14,749.3	12,400.0	30.5	36.5	90.00	-2,146.5	-1,183.2	1,866.5	1,801.6	64.91	28.756	
14,800.0	12,400.0	14,849.3	12,400.0	30.9	36.9	90.00	-2,246.5	-1,182.2	1,866.5	1,800.8	65.68	28.418	
14,900.0	12,400.0	14,949.3	12,400.0	31.3	37.3	90.00	-2,346.5	-1,181.2	1,866.5	1,800.0	66.48	28.077	
15,000.0	12,400.0	15,049.3	12,400.0	31.8	37.6	90.00	-2,446.5	-1,180.2	1,866.5	1,799.2	67.30	27.734	
15,100.0	12,400.0	15,149.3	12,400.0	32.2	38.0	90.00	-2,546.5	-1,179.2	1,866.5	1,798.3	68.14	27.390	
15,200.0	12,400.0	15,249.3	12,400.0	32.6	38.4	90.00	-2,646.4	-1,178.3	1,866.4	1,797.4	69.01	27.045	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #601H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
15,300.0	12,400.0	15,349.3	12,400.0	33.1	38.9	90.00	-2,746.4	-1,177.3	1,866.4	1,796.5	69.90	26.701	
15,400.0	12,400.0	15,449.3	12,400.0	33.6	39.3	90.00	-2,846.4	-1,176.3	1,866.4	1,795.6	70.81	26.357	
15,500.0	12,400.0	15,549.3	12,400.0	34.1	39.7	90.00	-2,946.4	-1,175.3	1,866.4	1,794.7	71.74	26.015	
15,600.0	12,400.0	15,649.3	12,400.0	34.6	40.2	90.00	-3,046.4	-1,174.3	1,866.4	1,793.7	72.69	25.675	
15,700.0	12,400.0	15,749.3	12,400.0	35.1	40.6	90.00	-3,146.4	-1,173.3	1,866.4	1,792.7	73.66	25.337	
15,800.0	12,400.0	15,849.3	12,400.0	35.6	41.1	90.00	-3,246.4	-1,172.4	1,866.4	1,791.7	74.65	25.001	
15,900.0	12,400.0	15,949.3	12,400.0	36.1	41.5	90.00	-3,346.4	-1,171.4	1,866.4	1,790.7	75.66	24.669	
16,000.0	12,400.0	16,049.3	12,400.0	36.7	42.0	90.00	-3,446.4	-1,170.4	1,866.4	1,789.7	76.68	24.341	
16,100.0	12,400.0	16,149.3	12,400.0	37.2	42.5	90.00	-3,546.4	-1,169.4	1,866.4	1,788.6	77.71	24.016	
16,200.0	12,400.0	16,249.3	12,400.0	37.7	43.0	90.00	-3,646.4	-1,168.4	1,866.3	1,787.6	78.77	23.695	
16,300.0	12,400.0	16,349.3	12,400.0	38.3	43.5	90.00	-3,746.4	-1,167.5	1,866.3	1,786.5	79.83	23.378	
16,400.0	12,400.0	16,449.3	12,400.0	38.9	44.0	90.00	-3,846.4	-1,166.5	1,866.3	1,785.4	80.91	23.066	
16,500.0	12,400.0	16,549.3	12,400.0	39.4	44.5	90.00	-3,946.4	-1,165.5	1,866.3	1,784.3	82.01	22.758	
16,600.0	12,400.0	16,649.3	12,400.0	40.0	45.1	90.00	-4,046.4	-1,164.5	1,866.3	1,783.2	83.11	22.455	
16,700.0	12,400.0	16,749.3	12,400.0	40.6	45.6	90.00	-4,146.4	-1,163.5	1,866.3	1,782.1	84.23	22.156	
16,800.0	12,400.0	16,849.3	12,400.0	41.2	46.1	90.00	-4,246.4	-1,162.5	1,866.3	1,780.9	85.37	21.862	
16,900.0	12,400.0	16,949.3	12,400.0	41.8	46.7	90.00	-4,346.4	-1,161.6	1,866.3	1,779.8	86.51	21.573	
17,000.0	12,400.0	17,049.3	12,400.0	42.4	47.2	90.00	-4,446.4	-1,160.6	1,866.3	1,778.6	87.66	21.289	
17,100.0	12,400.0	17,149.3	12,400.0	43.0	47.8	90.00	-4,546.4	-1,159.6	1,866.2	1,777.4	88.83	21.010	
17,200.0	12,400.0	17,249.3	12,400.0	43.6	48.3	90.00	-4,646.4	-1,158.6	1,866.2	1,776.2	90.00	20.735	
17,300.0	12,400.0	17,349.3	12,400.0	44.2	48.9	90.00	-4,746.3	-1,157.6	1,866.2	1,775.0	91.19	20.466	
17,400.0	12,400.0	17,449.3	12,400.0	44.8	49.5	90.00	-4,846.3	-1,156.6	1,866.2	1,773.8	92.38	20.201	
17,500.0	12,400.0	17,549.3	12,400.0	45.5	50.0	90.00	-4,946.3	-1,155.7	1,866.2	1,772.6	93.59	19.941	
17,600.0	12,400.0	17,649.3	12,400.0	46.1	50.6	90.00	-5,046.3	-1,154.7	1,866.2	1,771.4	94.80	19.686	
17,700.0	12,400.0	17,749.3	12,400.0	46.7	51.2	90.00	-5,146.3	-1,153.7	1,866.2	1,770.2	96.02	19.436	
17,800.0	12,400.0	17,849.3	12,400.0	47.4	51.8	90.00	-5,246.3	-1,152.7	1,866.2	1,768.9	97.25	19.190	
17,900.0	12,400.0	17,949.3	12,400.0	48.0	52.4	90.00	-5,346.3	-1,151.7	1,866.2	1,767.7	98.48	18.949	
18,000.0	12,400.0	18,049.3	12,400.0	48.7	53.0	90.00	-5,446.3	-1,150.8	1,866.2	1,766.4	99.73	18.712	
18,100.0	12,400.0	18,149.3	12,400.0	49.3	53.6	90.00	-5,546.3	-1,149.8	1,866.1	1,765.2	100.98	18.481	
18,200.0	12,400.0	18,249.3	12,400.0	50.0	54.2	90.00	-5,646.3	-1,148.8	1,866.1	1,763.9	102.24	18.253	
18,300.0	12,400.0	18,349.3	12,400.0	50.6	54.8	90.00	-5,746.3	-1,147.8	1,866.1	1,762.6	103.50	18.030	
18,400.0	12,400.0	18,449.3	12,400.0	51.3	55.4	90.00	-5,846.3	-1,146.8	1,866.1	1,761.3	104.77	17.811	
18,500.0	12,400.0	18,549.3	12,400.0	51.9	56.0	90.00	-5,946.3	-1,145.8	1,866.1	1,760.0	106.05	17.597	
18,600.0	12,400.0	18,649.3	12,400.0	52.6	56.7	90.00	-6,046.3	-1,144.9	1,866.1	1,758.8	107.33	17.386	
18,700.0	12,400.0	18,749.3	12,400.0	53.3	57.3	90.00	-6,146.3	-1,143.9	1,866.1	1,757.5	108.62	17.180	
18,800.0	12,400.0	18,849.3	12,400.0	53.9	57.9	90.00	-6,246.3	-1,142.9	1,866.1	1,756.2	109.92	16.977	
18,900.0	12,400.0	18,949.3	12,400.0	54.6	58.5	90.00	-6,346.3	-1,141.9	1,866.1	1,754.8	111.22	16.779	
19,000.0	12,400.0	19,049.3	12,400.0	55.3	59.2	90.00	-6,446.3	-1,140.9	1,866.0	1,753.5	112.52	16.584	
19,100.0	12,400.0	19,149.3	12,400.0	56.0	59.8	90.00	-6,546.3	-1,140.0	1,866.0	1,752.2	113.83	16.393	
19,200.0	12,400.0	19,249.3	12,400.0	56.6	60.5	90.00	-6,646.3	-1,139.0	1,866.0	1,750.9	115.15	16.206	
19,300.0	12,400.0	19,349.3	12,400.0	57.3	61.1	90.00	-6,746.2	-1,138.0	1,866.0	1,749.5	116.47	16.022	
19,400.0	12,400.0	19,449.3	12,400.0	58.0	61.7	90.00	-6,846.2	-1,137.0	1,866.0	1,748.2	117.79	15.842	
19,500.0	12,400.0	19,549.3	12,400.0	58.7	62.4	90.00	-6,946.2	-1,136.0	1,866.0	1,746.9	119.12	15.665	
19,600.0	12,400.0	19,649.3	12,400.0	59.4	63.0	90.00	-7,046.2	-1,135.0	1,866.0	1,745.5	120.45	15.492	
19,700.0	12,400.0	19,749.3	12,400.0	60.1	63.7	90.00	-7,146.2	-1,134.1	1,866.0	1,744.2	121.79	15.322	
19,800.0	12,400.0	19,849.3	12,400.0	60.8	64.4	90.00	-7,246.2	-1,133.1	1,866.0	1,742.8	123.13	15.155	
19,900.0	12,400.0	19,949.3	12,400.0	61.4	65.0	90.00	-7,346.2	-1,132.1	1,865.9	1,741.5	124.47	14.991	
20,000.0	12,400.0	20,049.3	12,400.0	62.1	65.7	90.00	-7,446.2	-1,131.1	1,865.9	1,740.1	125.82	14.830	
20,100.0	12,400.0	20,149.3	12,400.0	62.8	66.3	90.00	-7,546.2	-1,130.1	1,865.9	1,738.8	127.17	14.672	
20,200.0	12,400.0	20,249.3	12,400.0	63.5	67.0	90.00	-7,646.2	-1,129.2	1,865.9	1,737.4	128.53	14.518	
20,300.0	12,400.0	20,349.3	12,400.0	64.2	67.7	90.00	-7,746.2	-1,128.2	1,865.9	1,736.0	129.89	14.366	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #601H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-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)				
20,400.0	12,400.0	20,449.3	12,400.0	64.9	68.3	90.00	-7,846.2	-1,127.2	1,865.9	1,734.6	131.25	14.217		
20,500.0	12,400.0	20,549.3	12,400.0	65.6	69.0	90.00	-7,946.2	-1,126.2	1,865.9	1,733.3	132.61	14.070		
20,600.0	12,400.0	20,649.3	12,400.0	66.3	69.7	90.00	-8,046.2	-1,125.2	1,865.9	1,731.9	133.98	13.926		
20,700.0	12,400.0	20,749.3	12,400.0	67.1	70.4	90.00	-8,146.2	-1,124.2	1,865.9	1,730.5	135.35	13.785		
20,800.0	12,400.0	20,849.3	12,400.0	67.8	71.0	90.00	-8,246.2	-1,123.3	1,865.9	1,729.1	136.73	13.647		
20,900.0	12,400.0	20,949.3	12,400.0	68.5	71.7	90.00	-8,346.2	-1,122.3	1,865.8	1,727.7	138.10	13.511		
21,000.0	12,400.0	21,049.3	12,400.0	69.2	72.4	90.00	-8,446.2	-1,121.3	1,865.8	1,726.4	139.48	13.377		
21,100.0	12,400.0	21,149.3	12,400.0	69.9	73.1	90.00	-8,546.2	-1,120.3	1,865.8	1,725.0	140.86	13.246		
21,200.0	12,400.0	21,249.3	12,400.0	70.6	73.8	90.00	-8,646.2	-1,119.3	1,865.8	1,723.6	142.25	13.117		
21,300.0	12,400.0	21,349.3	12,400.0	71.3	74.4	90.00	-8,746.2	-1,118.4	1,865.8	1,722.2	143.63	12.990		
21,400.0	12,400.0	21,449.3	12,400.0	72.0	75.1	90.00	-8,846.1	-1,117.4	1,865.8	1,720.8	145.02	12.865		
21,500.0	12,400.0	21,549.3	12,400.0	72.7	75.8	90.00	-8,946.1	-1,116.4	1,865.8	1,719.4	146.42	12.743		
21,600.0	12,400.0	21,649.3	12,400.0	73.5	76.5	90.00	-9,046.1	-1,115.4	1,865.8	1,718.0	147.81	12.623		
21,700.0	12,400.0	21,749.3	12,400.0	74.2	77.2	90.00	-9,146.1	-1,114.4	1,865.8	1,716.6	149.21	12.505		
21,800.0	12,400.0	21,849.3	12,400.0	74.9	77.9	90.00	-9,246.1	-1,113.4	1,865.7	1,715.1	150.60	12.388		
21,900.0	12,400.0	21,949.3	12,400.0	75.6	78.6	90.00	-9,346.1	-1,112.5	1,865.7	1,713.7	152.00	12.274		
22,000.0	12,400.0	22,049.3	12,400.0	76.3	79.3	90.00	-9,446.1	-1,111.5	1,865.7	1,712.3	153.41	12.162		
22,100.0	12,400.0	22,149.3	12,400.0	77.0	80.0	90.00	-9,546.1	-1,110.5	1,865.7	1,710.9	154.81	12.052		
22,200.0	12,400.0	22,249.3	12,400.0	77.8	80.7	90.00	-9,646.1	-1,109.5	1,865.7	1,709.5	156.22	11.943		
22,300.0	12,400.0	22,349.3	12,400.0	78.5	81.4	90.00	-9,746.1	-1,108.5	1,865.7	1,708.1	157.62	11.836		
22,400.0	12,400.0	22,449.3	12,400.0	79.2	82.1	90.00	-9,846.1	-1,107.5	1,865.7	1,706.6	159.03	11.731		
22,500.0	12,400.0	22,549.3	12,400.0	79.9	82.8	90.00	-9,946.1	-1,106.6	1,865.7	1,705.2	160.45	11.628		
22,600.0	12,400.0	22,649.3	12,400.0	80.7	83.5	90.00	-10,046.1	-1,105.6	1,865.7	1,703.8	161.86	11.526		
22,700.0	12,400.0	22,749.3	12,400.0	81.4	84.2	90.00	-10,146.1	-1,104.6	1,865.7	1,702.4	163.27	11.426		
22,800.0	12,400.0	22,849.3	12,400.0	82.1	84.9	90.00	-10,246.1	-1,103.6	1,865.6	1,700.9	164.69	11.328		
22,900.0	12,400.0	22,949.3	12,400.0	82.8	85.6	90.00	-10,346.1	-1,102.6	1,865.6	1,699.5	166.11	11.231		
23,000.0	12,400.0	23,049.3	12,400.0	83.6	86.3	90.00	-10,446.1	-1,101.7	1,865.6	1,698.1	167.53	11.136		
23,100.0	12,400.0	23,149.3	12,400.0	84.3	87.0	90.00	-10,546.1	-1,100.7	1,865.6	1,696.7	168.95	11.042		
23,200.0	12,400.0	23,249.3	12,400.0	85.0	87.7	90.00	-10,646.1	-1,099.7	1,865.6	1,695.2	170.37	10.950		
23,300.0	12,400.0	23,349.3	12,400.0	85.8	88.4	90.00	-10,746.1	-1,098.7	1,865.6	1,693.8	171.80	10.859		
23,400.0	12,400.0	23,449.3	12,400.0	86.5	89.1	90.00	-10,846.1	-1,097.7	1,865.6	1,692.4	173.22	10.770		
23,500.0	12,400.0	23,549.3	12,400.0	87.2	89.8	90.00	-10,946.0	-1,096.7	1,865.6	1,690.9	174.65	10.682		
23,600.0	12,400.0	23,649.3	12,400.0	87.9	90.5	90.00	-11,046.0	-1,095.8	1,865.6	1,689.5	176.08	10.595		
23,700.0	12,400.0	23,749.3	12,400.0	88.7	91.2	90.00	-11,146.0	-1,094.8	1,865.5	1,688.0	177.51	10.510		
23,800.0	12,400.0	23,849.3	12,400.0	89.4	92.0	90.00	-11,246.0	-1,093.8	1,865.5	1,686.6	178.94	10.426		
23,900.0	12,400.0	23,949.3	12,400.0	90.1	92.7	90.00	-11,346.0	-1,092.8	1,865.5	1,685.2	180.37	10.343		
24,000.0	12,400.0	24,049.3	12,400.0	90.9	93.4	90.00	-11,446.0	-1,091.8	1,865.5	1,683.7	181.80	10.261		
24,100.0	12,400.0	24,149.3	12,400.0	91.6	94.1	90.00	-11,546.0	-1,090.9	1,865.5	1,682.3	183.24	10.181		
24,200.0	12,400.0	24,249.3	12,400.0	92.3	94.8	90.00	-11,646.0	-1,089.9	1,865.5	1,680.8	184.67	10.102		
24,300.0	12,400.0	24,349.3	12,400.0	93.1	95.5	90.00	-11,746.0	-1,088.9	1,865.5	1,679.4	186.11	10.024		
24,400.0	12,400.0	24,449.3	12,400.0	93.8	96.3	90.00	-11,846.0	-1,087.9	1,865.5	1,677.9	187.55	9.947		
24,500.0	12,400.0	24,549.3	12,400.0	94.5	97.0	90.00	-11,946.0	-1,086.9	1,865.5	1,676.5	188.99	9.871		
24,600.0	12,400.0	24,649.3	12,400.0	95.3	97.7	90.00	-12,046.0	-1,085.9	1,865.4	1,675.0	190.43	9.796		
24,700.0	12,400.0	24,749.3	12,400.0	96.0	98.4	90.00	-12,146.0	-1,085.0	1,865.4	1,673.6	191.87	9.722		
24,800.0	12,400.0	24,849.3	12,400.0	96.8	99.1	90.00	-12,246.0	-1,084.0	1,865.4	1,672.1	193.31	9.650		
24,900.0	12,400.0	24,949.3	12,400.0	97.5	99.9	90.00	-12,346.0	-1,083.0	1,865.4	1,670.7	194.75	9.578		
25,000.0	12,400.0	25,049.3	12,400.0	98.2	100.6	90.00	-12,446.0	-1,082.0	1,865.4	1,669.2	196.20	9.508		
25,100.0	12,400.0	25,149.3	12,400.0	99.0	101.3	90.00	-12,546.0	-1,081.0	1,865.4	1,667.8	197.64	9.438		
25,200.0	12,400.0	25,249.3	12,400.0	99.7	102.0	90.00	-12,646.0	-1,080.1	1,865.4	1,666.3	199.09	9.370		
25,300.0	12,400.0	25,349.3	12,400.0	100.4	102.7	90.00	-12,746.0	-1,079.1	1,865.4	1,664.8	200.53	9.302		
25,400.0	12,400.0	25,449.3	12,400.0	101.2	103.5	90.00	-12,846.0	-1,078.1	1,865.4	1,663.4	201.98	9.235		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #601H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		Warning
25,500.0	12,400.0	25,549.3	12,400.0	101.9	104.2	90.00	-12,946.0	-1,077.1	1,865.4	1,661.9	203.43	9.169
25,600.0	12,400.0	25,649.3	12,400.0	102.7	104.9	90.00	-13,045.9	-1,076.1	1,865.3	1,660.5	204.88	9.105
25,700.0	12,400.0	25,749.3	12,400.0	103.4	105.7	90.00	-13,145.9	-1,075.1	1,865.3	1,659.0	206.33	9.041
25,800.0	12,400.0	25,849.3	12,400.0	104.1	106.4	90.00	-13,245.9	-1,074.2	1,865.3	1,657.5	207.78	8.977
25,900.0	12,400.0	25,949.3	12,400.0	104.9	107.1	90.00	-13,345.9	-1,073.2	1,865.3	1,656.1	209.23	8.915
26,000.0	12,400.0	26,049.3	12,400.0	105.6	107.8	90.00	-13,445.9	-1,072.2	1,865.3	1,654.6	210.68	8.854
26,100.0	12,400.0	26,149.3	12,400.0	106.4	108.6	90.00	-13,545.9	-1,071.2	1,865.3	1,653.2	212.14	8.793
26,200.0	12,400.0	26,249.3	12,400.0	107.1	109.3	90.00	-13,645.9	-1,070.2	1,865.3	1,651.7	213.59	8.733
26,300.0	12,400.0	26,349.3	12,400.0	107.9	110.0	90.00	-13,745.9	-1,069.3	1,865.3	1,650.2	215.05	8.674
26,400.0	12,400.0	26,449.3	12,400.0	108.6	110.7	90.00	-13,845.9	-1,068.3	1,865.3	1,648.8	216.50	8.615
26,500.0	12,400.0	26,549.3	12,400.0	109.3	111.5	90.00	-13,945.9	-1,067.3	1,865.2	1,647.3	217.96	8.558
26,600.0	12,400.0	26,649.3	12,400.0	110.1	112.2	90.00	-14,045.9	-1,066.3	1,865.2	1,645.8	219.41	8.501
26,700.0	12,400.0	26,749.3	12,400.0	110.8	112.9	90.00	-14,145.9	-1,065.3	1,865.2	1,644.4	220.87	8.445
26,800.0	12,400.0	26,849.3	12,400.0	111.6	113.7	90.00	-14,245.9	-1,064.3	1,865.2	1,642.9	222.33	8.389
26,900.0	12,400.0	26,949.3	12,400.0	112.3	114.4	90.00	-14,345.9	-1,063.4	1,865.2	1,641.4	223.79	8.335
27,000.0	12,400.0	27,049.3	12,400.0	113.1	115.1	90.00	-14,445.9	-1,062.4	1,865.2	1,639.9	225.25	8.281
27,100.0	12,400.0	27,149.3	12,400.0	113.8	115.9	90.00	-14,545.9	-1,061.4	1,865.2	1,638.5	226.71	8.227
27,200.0	12,400.0	27,249.3	12,400.0	114.6	116.6	90.00	-14,645.9	-1,060.4	1,865.2	1,637.0	228.17	8.175
27,300.0	12,400.0	27,349.3	12,400.0	115.3	117.3	90.00	-14,745.9	-1,059.4	1,865.2	1,635.5	229.63	8.122
27,400.0	12,400.0	27,449.3	12,400.0	116.0	118.1	90.00	-14,845.9	-1,058.4	1,865.1	1,634.1	231.09	8.071
27,500.0	12,400.0	27,549.3	12,400.0	116.8	118.8	90.00	-14,945.9	-1,057.5	1,865.1	1,632.6	232.55	8.020
27,600.0	12,400.0	27,649.3	12,400.0	117.5	119.5	90.00	-15,045.8	-1,056.5	1,865.1	1,631.1	234.02	7.970
27,700.0	12,400.0	27,749.3	12,400.0	118.3	120.3	90.00	-15,145.8	-1,055.5	1,865.1	1,629.6	235.48	7.920
27,800.0	12,400.0	27,849.3	12,400.0	119.0	121.0	90.00	-15,245.8	-1,054.5	1,865.1	1,628.2	236.94	7.871
27,900.0	12,400.0	27,949.3	12,400.0	119.8	121.7	90.00	-15,345.8	-1,053.5	1,865.1	1,626.7	238.41	7.823
28,000.0	12,400.0	28,049.3	12,400.0	120.5	122.5	90.00	-15,445.8	-1,052.6	1,865.1	1,625.2	239.87	7.775
28,100.0	12,400.0	28,149.3	12,400.0	121.3	123.2	90.00	-15,545.8	-1,051.6	1,865.1	1,623.7	241.34	7.728
28,200.0	12,400.0	28,249.3	12,400.0	122.0	123.9	90.00	-15,645.8	-1,050.6	1,865.1	1,622.3	242.81	7.681
28,300.0	12,400.0	28,349.3	12,400.0	122.8	124.7	90.00	-15,745.8	-1,049.6	1,865.1	1,620.8	244.27	7.635
28,400.0	12,400.0	28,449.3	12,400.0	123.5	125.4	90.00	-15,845.8	-1,048.6	1,865.0	1,619.3	245.74	7.590
28,500.0	12,400.0	28,549.3	12,400.0	124.3	126.2	90.00	-15,945.8	-1,047.6	1,865.0	1,617.8	247.21	7.544
28,600.0	12,400.0	28,649.3	12,400.0	125.0	126.9	90.00	-16,045.8	-1,046.7	1,865.0	1,616.3	248.67	7.500
28,693.6	12,400.0	28,742.9	12,400.0	125.7	127.6	90.00	-16,139.4	-1,045.7	1,865.0	1,615.0	250.05	7.459
28,700.0	12,400.0	28,746.7	12,400.0	125.8	127.6	90.00	-16,143.2	-1,045.7	1,865.0	1,614.9	250.13	7.456
28,710.4	12,400.0	28,746.7	12,400.0	125.8	127.6	90.00	-16,143.2	-1,045.7	1,865.1	1,614.8	250.21	7.454 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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
0.0	0.0	0.0	0.0	3.0	3.0	-90.57	-0.3	-30.0	30.0	23.6	6.43	4.667	
100.0	100.0	100.0	100.0	3.2	3.2	-90.57	-0.3	-30.0	30.0	23.1	6.89	4.353	
200.0	200.0	200.0	200.0	3.5	3.5	-90.57	-0.3	-30.0	30.0	22.7	7.33	4.094	
300.0	300.0	300.0	300.0	3.7	3.7	-90.57	-0.3	-30.0	30.0	22.3	7.74	3.875	
400.0	400.0	400.0	400.0	3.9	3.9	-90.57	-0.3	-30.0	30.0	21.9	8.14	3.688	
500.0	500.0	500.0	500.0	4.1	4.1	-90.57	-0.3	-30.0	30.0	21.5	8.51	3.524	
600.0	600.0	600.0	600.0	4.2	4.2	-90.57	-0.3	-30.0	30.0	21.1	8.88	3.379	
700.0	700.0	700.0	700.0	4.4	4.4	-90.57	-0.3	-30.0	30.0	20.8	9.23	3.251	
800.0	800.0	800.0	800.0	4.6	4.6	-90.57	-0.3	-30.0	30.0	20.4	9.57	3.135	
900.0	900.0	900.0	900.0	4.8	4.8	-90.57	-0.3	-30.0	30.0	20.1	9.90	3.030	
1,000.0	1,000.0	1,000.0	1,000.0	4.9	4.9	-90.57	-0.3	-30.0	30.0	19.8	10.22	2.934	
1,100.0	1,100.0	1,100.0	1,100.0	5.1	5.1	-90.57	-0.3	-30.0	30.0	19.5	10.54	2.847	
1,200.0	1,200.0	1,200.0	1,200.0	5.2	5.2	-90.57	-0.3	-30.0	30.0	19.2	10.85	2.766	CC, ES
1,300.0	1,300.0	1,300.1	1,300.1	5.4	5.4	-150.90	1.0	-29.8	31.0	19.8	11.17	2.772	
1,400.0	1,399.9	1,400.1	1,400.0	5.6	5.6	-147.52	4.9	-29.3	34.0	22.5	11.50	2.955	
1,500.0	1,499.7	1,500.0	1,499.7	5.8	5.8	-143.06	11.4	-28.4	39.2	27.4	11.81	3.315	
1,600.0	1,599.3	1,599.6	1,598.8	6.1	6.1	-138.51	20.4	-27.1	46.7	34.6	12.13	3.851	
1,700.0	1,698.6	1,698.8	1,697.4	6.3	6.3	-134.46	31.9	-25.5	56.7	44.3	12.45	4.555	
1,800.0	1,797.5	1,797.9	1,795.6	6.6	6.5	-131.53	45.4	-23.7	69.0	56.3	12.71	5.430	
1,900.0	1,896.1	1,896.9	1,893.6	6.8	6.8	-130.70	59.1	-21.8	83.1	70.1	12.98	6.397	
2,000.0	1,994.6	1,995.9	1,991.6	7.1	7.1	-130.45	72.7	-19.9	97.5	84.2	13.33	7.316	
2,100.0	2,093.1	2,094.9	2,089.6	7.4	7.4	-130.26	86.4	-18.0	111.9	98.2	13.68	8.184	
2,200.0	2,191.6	2,193.8	2,187.6	7.7	7.7	-130.12	100.0	-16.1	126.3	112.3	14.03	9.003	
2,300.0	2,290.0	2,292.8	2,285.6	8.0	8.0	-130.00	113.6	-14.2	140.8	126.4	14.40	9.777	
2,400.0	2,388.5	2,391.7	2,383.6	8.4	8.3	-129.91	127.3	-12.3	155.2	140.4	14.77	10.507	
2,500.0	2,487.0	2,490.7	2,481.6	8.7	8.7	-129.83	140.9	-10.4	169.6	154.5	15.15	11.197	
2,600.0	2,585.5	2,589.6	2,579.6	9.1	9.0	-129.76	154.6	-8.5	184.1	168.5	15.53	11.849	
2,700.0	2,684.0	2,688.6	2,677.5	9.5	9.3	-129.71	168.2	-6.6	198.5	182.6	15.92	12.465	
2,800.0	2,782.4	2,787.5	2,775.5	9.8	9.7	-129.66	181.8	-4.7	212.9	196.6	16.32	13.047	
2,900.0	2,880.9	2,886.5	2,873.5	10.2	10.1	-129.62	195.5	-2.8	227.4	210.6	16.72	13.599	
3,000.0	2,979.4	2,985.4	2,971.5	10.6	10.4	-129.58	209.1	-0.9	241.8	224.7	17.12	14.121	
3,100.0	3,077.9	3,084.4	3,069.5	11.0	10.8	-129.55	222.8	1.0	256.2	238.7	17.53	14.615	
3,200.0	3,176.4	3,183.3	3,167.5	11.4	11.2	-129.52	236.4	2.8	270.7	252.7	17.94	15.084	
3,300.0	3,274.8	3,282.3	3,265.5	11.8	11.6	-129.49	250.0	4.7	285.1	266.7	18.36	15.529	
3,400.0	3,373.3	3,381.2	3,363.5	12.2	11.9	-129.47	263.7	6.6	299.5	280.7	18.78	15.952	
3,500.0	3,471.8	3,480.2	3,461.5	12.6	12.3	-129.45	277.3	8.5	313.9	294.8	19.20	16.353	
3,600.0	3,570.3	3,579.1	3,559.5	13.0	12.7	-129.43	291.0	10.4	328.4	308.8	19.62	16.735	
3,700.0	3,668.8	3,678.1	3,657.4	13.5	13.1	-129.41	304.6	12.3	342.8	322.8	20.05	17.099	
3,800.0	3,767.2	3,777.1	3,755.4	13.9	13.5	-129.39	318.3	14.2	357.2	336.8	20.48	17.445	
3,900.0	3,865.7	3,876.0	3,853.4	14.3	13.9	-129.38	331.9	16.1	371.7	350.8	20.91	17.775	
4,000.0	3,964.2	3,975.0	3,951.4	14.7	14.3	-129.36	345.5	18.0	386.1	364.8	21.34	18.090	
4,100.0	4,062.7	4,073.9	4,049.4	15.2	14.7	-129.35	359.2	19.9	400.5	378.8	21.78	18.391	
4,200.0	4,161.2	4,172.9	4,147.4	15.6	15.1	-129.34	372.8	21.8	415.0	392.8	22.22	18.678	
4,300.0	4,259.7	4,271.9	4,245.5	16.0	15.5	-129.33	386.5	23.7	429.4	406.8	22.64	18.970	
4,400.0	4,358.1	4,372.7	4,345.4	16.4	15.9	-129.44	399.4	25.5	443.6	420.5	23.08	19.221	
4,500.0	4,456.6	4,473.6	4,445.7	16.9	16.3	-129.76	410.6	27.0	457.4	433.8	23.55	19.421	
4,600.0	4,555.1	4,574.5	4,546.1	17.3	16.7	-130.28	420.0	28.3	470.8	446.8	24.04	19.584	
4,700.0	4,653.6	4,675.3	4,646.6	17.7	17.0	-130.98	427.7	29.4	483.9	459.4	24.55	19.712	
4,800.0	4,752.1	4,776.0	4,747.1	18.2	17.4	-131.84	433.6	30.2	496.7	471.6	25.08	19.807	
4,900.0	4,850.5	4,876.4	4,847.5	18.6	17.7	-132.84	437.8	30.8	509.3	483.7	25.63	19.870	
5,000.0	4,949.0	4,976.7	4,947.7	19.0	18.0	-133.99	440.2	31.1	521.7	495.5	26.21	19.904	

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

ConocoPhillips

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Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.0	5,047.5	5,076.5	5,047.5	19.5	18.1	-135.27	440.9	31.2	534.1	507.3	26.80	19.928	
5,200.0	5,146.0	5,175.0	5,146.0	19.9	18.2	-136.54	440.9	31.2	546.7	519.3	27.42	19.937	
5,300.0	5,244.5	5,273.4	5,244.5	20.4	18.3	-137.75	440.9	31.2	559.5	531.5	28.06	19.937	
5,400.0	5,343.0	5,372.0	5,343.0	20.8	18.3	-138.94	440.9	31.2	572.4	543.7	28.69	19.954	
5,500.0	5,441.8	5,470.7	5,441.8	21.2	18.4	-140.02	440.9	31.2	584.3	555.0	29.32	19.926	
5,600.0	5,540.8	5,569.8	5,540.8	21.6	18.4	-140.94	440.9	31.2	595.0	565.1	29.94	19.874	
5,700.0	5,640.1	5,669.0	5,640.1	22.0	18.5	-141.72	440.9	31.2	604.5	574.0	30.53	19.799	
5,800.0	5,739.5	5,768.5	5,739.5	22.4	18.5	-142.37	440.9	31.2	612.7	581.6	31.10	19.704	
5,900.0	5,839.1	5,868.1	5,839.1	22.8	18.6	-142.90	440.9	31.2	619.6	588.0	31.63	19.588	
6,000.0	5,938.9	5,967.9	5,938.9	23.2	18.7	-143.32	440.9	31.2	625.1	593.0	32.13	19.456	
6,100.0	6,038.8	6,067.7	6,038.8	23.5	18.7	-143.62	440.9	31.2	629.3	596.7	32.59	19.308	
6,200.0	6,138.7	6,167.7	6,138.7	23.8	18.8	-143.82	440.9	31.2	632.0	599.0	33.01	19.149	
6,300.0	6,238.7	6,267.7	6,238.7	24.1	18.8	-143.92	440.9	31.2	633.4	600.1	33.35	18.990	
6,400.0	6,338.7	6,367.7	6,338.7	24.2	18.9	-82.33	440.9	31.2	633.6	600.1	33.49	18.916	
6,500.0	6,438.7	6,467.7	6,438.7	24.2	19.0	-82.33	440.9	31.2	633.6	599.9	33.62	18.847	
6,600.0	6,538.7	6,567.7	6,538.7	24.2	19.0	-82.33	440.9	31.2	633.6	599.8	33.74	18.779	
6,700.0	6,638.7	6,667.7	6,638.7	24.3	19.1	-82.33	440.9	31.2	633.6	599.7	33.86	18.712	
6,800.0	6,738.7	6,767.7	6,738.7	24.3	19.2	-82.33	440.9	31.2	633.6	599.6	33.98	18.644	
6,900.0	6,838.7	6,867.7	6,838.7	24.4	19.2	-82.33	440.9	31.2	633.6	599.5	34.10	18.577	
7,000.0	6,938.7	6,967.7	6,938.7	24.4	19.3	-82.33	440.9	31.2	633.6	599.3	34.23	18.511	
7,100.0	7,038.7	7,067.7	7,038.7	24.5	19.3	-82.33	440.9	31.2	633.6	599.2	34.35	18.444	
7,200.0	7,138.7	7,167.7	7,138.7	24.5	19.4	-82.33	440.9	31.2	633.6	599.1	34.47	18.378	
7,300.0	7,238.7	7,267.7	7,238.7	24.5	19.5	-82.33	440.9	31.2	633.6	599.0	34.60	18.312	
7,400.0	7,338.7	7,367.7	7,338.7	24.6	19.5	-82.33	440.9	31.2	633.6	598.8	34.72	18.247	
7,500.0	7,438.7	7,467.7	7,438.7	24.6	19.6	-82.33	440.9	31.2	633.6	598.7	34.85	18.182	
7,600.0	7,538.7	7,567.7	7,538.7	24.7	19.6	-82.33	440.9	31.2	633.6	598.6	34.97	18.117	
7,700.0	7,638.7	7,667.7	7,638.7	24.7	19.7	-82.33	440.9	31.2	633.6	598.5	35.10	18.052	
7,800.0	7,738.7	7,767.7	7,738.7	24.7	19.8	-82.33	440.9	31.2	633.6	598.3	35.22	17.988	
7,900.0	7,838.7	7,867.7	7,838.7	24.8	19.8	-82.33	440.9	31.2	633.6	598.2	35.35	17.924	
8,000.0	7,938.7	7,967.7	7,938.7	24.8	19.9	-82.33	440.9	31.2	633.6	598.1	35.47	17.860	
8,100.0	8,038.7	8,067.7	8,038.7	24.9	20.0	-82.33	440.9	31.2	633.6	598.0	35.60	17.797	
8,200.0	8,138.7	8,167.7	8,138.7	24.9	20.0	-82.33	440.9	31.2	633.6	597.8	35.73	17.734	
8,300.0	8,238.7	8,267.7	8,238.7	25.0	20.1	-82.33	440.9	31.2	633.6	597.7	35.85	17.671	
8,400.0	8,338.7	8,367.7	8,338.7	25.0	20.1	-82.33	440.9	31.2	633.6	597.6	35.98	17.609	
8,500.0	8,438.7	8,467.7	8,438.7	25.1	20.2	-82.33	440.9	31.2	633.6	597.5	36.11	17.547	
8,600.0	8,538.7	8,567.7	8,538.7	25.1	20.3	-82.33	440.9	31.2	633.6	597.3	36.23	17.485	
8,700.0	8,638.7	8,667.7	8,638.7	25.1	20.3	-82.33	440.9	31.2	633.6	597.2	36.36	17.423	
8,800.0	8,738.7	8,767.7	8,738.7	25.2	20.4	-82.33	440.9	31.2	633.6	597.1	36.49	17.362	
8,900.0	8,838.7	8,867.7	8,838.7	25.2	20.5	-82.33	440.9	31.2	633.6	596.9	36.62	17.301	
9,000.0	8,938.7	8,967.7	8,938.7	25.3	20.5	-82.33	440.9	31.2	633.6	596.8	36.75	17.241	
9,100.0	9,038.7	9,067.7	9,038.7	25.3	20.6	-82.33	440.9	31.2	633.6	596.7	36.88	17.181	
9,200.0	9,138.7	9,167.7	9,138.7	25.4	20.7	-82.33	440.9	31.2	633.6	596.6	37.01	17.121	
9,300.0	9,238.7	9,267.7	9,238.7	25.4	20.7	-82.33	440.9	31.2	633.6	596.4	37.14	17.061	
9,400.0	9,338.7	9,367.7	9,338.7	25.5	20.8	-82.33	440.9	31.2	633.6	596.3	37.26	17.001	
9,500.0	9,438.7	9,467.7	9,438.7	25.5	20.9	-82.33	440.9	31.2	633.6	596.2	37.39	16.942	
9,600.0	9,538.7	9,567.7	9,538.7	25.6	20.9	-82.33	440.9	31.2	633.6	596.0	37.52	16.884	
9,700.0	9,638.7	9,667.7	9,638.7	25.6	21.0	-82.33	440.9	31.2	633.6	595.9	37.66	16.825	
9,800.0	9,738.7	9,767.7	9,738.7	25.6	21.1	-82.33	440.9	31.2	633.6	595.8	37.79	16.767	
9,900.0	9,838.7	9,867.7	9,838.7	25.7	21.1	-82.33	440.9	31.2	633.6	595.6	37.92	16.709	
10,000.0	9,938.7	9,967.7	9,938.7	25.7	21.2	-82.33	440.9	31.2	633.6	595.5	38.05	16.651	
10,100.0	10,038.7	10,067.7	10,038.7	25.8	21.2	-82.33	440.9	31.2	633.6	595.4	38.18	16.594	

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Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #701H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-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)				
10,200.0	10,138.7	10,167.7	10,138.7	25.8	21.3	-82.33	440.9	31.2	633.6	595.2	38.31	16.537		
10,300.0	10,238.7	10,267.7	10,238.7	25.9	21.4	-82.33	440.9	31.2	633.6	595.1	38.44	16.480		
10,400.0	10,338.7	10,367.7	10,338.7	25.9	21.4	-82.33	440.9	31.2	633.6	595.0	38.57	16.424		
10,500.0	10,438.7	10,467.7	10,438.7	26.0	21.5	-82.33	440.9	31.2	633.6	594.9	38.71	16.368		
10,600.0	10,538.7	10,567.7	10,538.7	26.0	21.6	-82.33	440.9	31.2	633.6	594.7	38.84	16.312		
10,700.0	10,638.7	10,667.7	10,638.7	26.1	21.6	-82.33	440.9	31.2	633.6	594.6	38.97	16.257		
10,800.0	10,738.7	10,767.7	10,738.7	26.1	21.7	-82.33	440.9	31.2	633.6	594.5	39.11	16.201		
10,900.0	10,838.7	10,867.7	10,838.7	26.2	21.8	-82.33	440.9	31.2	633.6	594.3	39.24	16.146		
11,000.0	10,938.7	10,967.7	10,938.7	26.2	21.8	-82.33	440.9	31.2	633.6	594.2	39.37	16.092		
11,100.0	11,038.7	11,067.7	11,038.7	26.3	21.9	-82.33	440.9	31.2	633.6	594.1	39.51	16.037		
11,200.0	11,138.7	11,167.7	11,138.7	26.3	22.0	-82.33	440.9	31.2	633.6	593.9	39.64	15.983		
11,300.0	11,238.7	11,267.7	11,238.7	26.4	22.0	-82.33	440.9	31.2	633.6	593.8	39.77	15.929		
11,400.0	11,338.7	11,367.7	11,338.7	26.4	22.1	-82.33	440.9	31.2	633.6	593.7	39.91	15.876		
11,500.0	11,438.7	11,467.7	11,438.7	26.5	22.2	-82.33	440.9	31.2	633.6	593.5	40.04	15.822		
11,600.0	11,538.7	11,567.7	11,538.7	26.5	22.2	-82.33	440.9	31.2	633.6	593.4	40.18	15.769		
11,700.0	11,638.7	11,667.7	11,638.7	26.6	22.3	-82.33	440.9	31.2	633.6	593.2	40.31	15.717		
11,800.0	11,738.7	11,767.7	11,738.7	26.6	22.4	-82.33	440.9	31.2	633.6	593.1	40.45	15.664		
11,806.7	11,745.4	11,774.4	11,745.4	26.6	22.4	98.23	440.9	31.2	633.6	593.1	40.45	15.661		
11,900.0	11,838.7	11,867.7	11,838.7	26.7	22.4	98.23	440.9	31.2	633.6	593.0	40.57	15.617		
12,000.0	11,938.0	11,967.0	11,938.0	26.5	22.5	99.02	440.9	31.2	635.2	594.7	40.50	15.683		
12,100.0	12,033.9	12,064.9	12,035.9	26.3	22.6	100.94	440.9	31.2	640.2	600.0	40.19	15.931		
12,200.0	12,123.5	12,191.8	12,161.5	26.1	22.3	103.82	424.9	31.4	647.6	607.6	39.98	16.198		
12,300.0	12,204.2	12,330.7	12,291.4	26.0	22.0	106.32	376.3	31.9	654.9	614.7	40.21	16.288		
12,400.0	12,273.3	12,481.2	12,414.2	25.8	21.6	108.20	290.3	32.7	660.8	619.8	41.03	16.105		
12,500.0	12,328.9	12,640.1	12,515.1	25.7	21.3	109.19	168.1	33.9	664.0	621.7	42.35	15.679		
12,600.0	12,369.3	12,801.9	12,579.4	25.6	21.1	109.13	20.2	35.3	663.8	620.1	43.78	15.163		
12,700.0	12,393.2	12,958.7	12,600.0	25.6	21.0	108.05	-134.7	36.8	660.3	615.4	44.83	14.730		
12,800.0	12,400.9	13,058.2	12,600.0	25.7	21.0	107.62	-234.2	37.8	657.9	612.9	44.99	14.623		
12,800.0	12,400.0	13,058.3	12,600.0	25.7	21.0	107.69	-234.3	37.8	658.2	613.2	45.01	14.623		
12,900.0	12,400.0	13,158.3	12,600.0	25.8	21.1	107.69	-334.3	38.7	658.2	612.8	45.39	14.500		
13,000.0	12,400.0	13,258.3	12,600.0	25.9	21.1	107.69	-434.3	39.7	658.2	612.4	45.82	14.365		
13,100.0	12,400.0	13,358.3	12,600.0	26.0	21.1	107.69	-534.3	40.7	658.2	611.9	46.29	14.219		
13,200.0	12,400.0	13,458.3	12,600.0	26.2	21.1	107.69	-634.3	41.7	658.2	611.4	46.81	14.062		
13,300.0	12,400.0	13,558.3	12,600.0	26.4	21.2	107.69	-734.3	42.6	658.2	610.8	47.37	13.895		
13,400.0	12,400.0	13,658.3	12,600.0	26.6	21.2	107.69	-834.3	43.6	658.2	610.2	47.97	13.721		
13,500.0	12,400.0	13,758.3	12,600.0	26.8	21.2	107.69	-934.3	44.6	658.2	609.6	48.61	13.540		
13,600.0	12,400.0	13,858.3	12,600.0	27.0	21.3	107.69	-1,034.3	45.5	658.2	608.9	49.29	13.353		
13,700.0	12,400.0	13,958.3	12,600.0	27.2	21.3	107.69	-1,134.3	46.5	658.2	608.2	50.01	13.161		
13,800.0	12,400.0	14,058.3	12,600.0	27.5	21.4	107.69	-1,234.3	47.5	658.2	607.4	50.76	12.966		
13,900.0	12,400.0	14,158.3	12,600.0	27.8	21.5	107.69	-1,334.3	48.4	658.2	606.6	51.55	12.769		
14,000.0	12,400.0	14,258.3	12,600.0	28.1	21.6	107.69	-1,434.3	49.4	658.2	605.8	52.37	12.569		
14,100.0	12,400.0	14,358.3	12,600.0	28.4	21.7	107.69	-1,534.2	50.4	658.2	605.0	53.21	12.369		
14,200.0	12,400.0	14,458.3	12,600.0	28.7	21.8	107.69	-1,634.2	51.3	658.2	604.1	54.09	12.168		
14,300.0	12,400.0	14,558.3	12,600.0	29.0	22.0	107.69	-1,734.2	52.3	658.2	603.2	55.00	11.968		
14,400.0	12,400.0	14,658.3	12,600.0	29.4	22.2	107.69	-1,834.2	53.3	658.2	602.3	55.93	11.768		
14,500.0	12,400.0	14,758.3	12,600.0	29.7	22.5	107.69	-1,934.2	54.3	658.2	601.3	56.89	11.570		
14,600.0	12,400.0	14,858.3	12,600.0	30.1	22.9	107.69	-2,034.2	55.2	658.2	600.3	57.87	11.374		
14,700.0	12,400.0	14,958.3	12,600.0	30.5	23.3	107.69	-2,134.2	56.2	658.2	599.3	58.87	11.180		
14,800.0	12,400.0	15,058.3	12,600.0	30.9	23.8	107.69	-2,234.2	57.2	658.2	598.3	59.90	10.989		
14,900.0	12,400.0	15,158.3	12,600.0	31.3	24.3	107.69	-2,334.2	58.1	658.2	597.3	60.94	10.800		
15,000.0	12,400.0	15,258.3	12,600.0	31.8	24.9	107.69	-2,434.2	59.1	658.2	596.2	62.01	10.615		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #701H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		Warning
15,100.0	12,400.0	15,358.3	12,600.0	32.2	25.4	107.69	-2,534.2	60.1	658.2	595.1	63.09	10.433
15,200.0	12,400.0	15,458.3	12,600.0	32.6	26.0	107.69	-2,634.2	61.0	658.2	594.0	64.19	10.254
15,300.0	12,400.0	15,558.3	12,600.0	33.1	26.6	107.69	-2,734.2	62.0	658.2	592.9	65.31	10.078
15,400.0	12,400.0	15,658.3	12,600.0	33.6	27.2	107.69	-2,834.2	63.0	658.2	591.8	66.44	9.906
15,500.0	12,400.0	15,758.3	12,600.0	34.1	27.8	107.69	-2,934.2	63.9	658.2	590.6	67.59	9.738
15,600.0	12,400.0	15,858.3	12,600.0	34.6	28.4	107.69	-3,034.2	64.9	658.2	589.5	68.75	9.574
15,700.0	12,400.0	15,958.3	12,600.0	35.1	29.0	107.69	-3,134.2	65.9	658.2	588.3	69.93	9.413
15,800.0	12,400.0	16,058.3	12,600.0	35.6	29.7	107.69	-3,234.2	66.9	658.2	587.1	71.12	9.255
15,900.0	12,400.0	16,158.3	12,600.0	36.1	30.3	107.69	-3,334.2	67.8	658.2	585.9	72.32	9.102
16,000.0	12,400.0	16,258.3	12,600.0	36.7	30.9	107.69	-3,434.2	68.8	658.2	584.7	73.53	8.952
16,100.0	12,400.0	16,358.3	12,600.0	37.2	31.6	107.69	-3,534.2	69.8	658.2	583.5	74.75	8.805
16,200.0	12,400.0	16,458.3	12,600.0	37.7	32.2	107.69	-3,634.2	70.7	658.2	582.2	75.99	8.662
16,300.0	12,400.0	16,558.3	12,600.0	38.3	32.9	107.69	-3,734.1	71.7	658.2	581.0	77.23	8.523
16,400.0	12,400.0	16,658.3	12,600.0	38.9	33.6	107.69	-3,834.1	72.7	658.2	579.8	78.48	8.387
16,500.0	12,400.0	16,758.3	12,600.0	39.4	34.2	107.69	-3,934.1	73.6	658.2	578.5	79.75	8.254
16,600.0	12,400.0	16,858.3	12,600.0	40.0	34.9	107.69	-4,034.1	74.6	658.2	577.2	81.02	8.125
16,700.0	12,400.0	16,958.3	12,600.0	40.6	35.6	107.69	-4,134.1	75.6	658.2	575.9	82.30	7.999
16,800.0	12,400.0	17,058.3	12,600.0	41.2	36.3	107.69	-4,234.1	76.6	658.2	574.7	83.58	7.875
16,900.0	12,400.0	17,158.3	12,600.0	41.8	36.9	107.69	-4,334.1	77.5	658.2	573.4	84.88	7.755
17,000.0	12,400.0	17,258.3	12,600.0	42.4	37.6	107.69	-4,434.1	78.5	658.3	572.1	86.18	7.638
17,100.0	12,400.0	17,358.3	12,600.0	43.0	38.3	107.69	-4,534.1	79.5	658.3	570.8	87.49	7.524
17,200.0	12,400.0	17,458.3	12,600.0	43.6	39.0	107.69	-4,634.1	80.4	658.3	569.5	88.80	7.413
17,300.0	12,400.0	17,558.3	12,600.0	44.2	39.7	107.69	-4,734.1	81.4	658.3	568.1	90.12	7.304
17,400.0	12,400.0	17,658.3	12,600.0	44.8	40.4	107.69	-4,834.1	82.4	658.3	566.8	91.45	7.198
17,500.0	12,400.0	17,758.3	12,600.0	45.5	41.1	107.69	-4,934.1	83.3	658.3	565.5	92.78	7.095
17,600.0	12,400.0	17,858.3	12,600.0	46.1	41.8	107.69	-5,034.1	84.3	658.3	564.1	94.12	6.994
17,700.0	12,400.0	17,958.3	12,600.0	46.7	42.5	107.69	-5,134.1	85.3	658.3	562.8	95.46	6.896
17,800.0	12,400.0	18,058.3	12,600.0	47.4	43.2	107.69	-5,234.1	86.2	658.3	561.5	96.81	6.800
17,900.0	12,400.0	18,158.3	12,600.0	48.0	43.9	107.69	-5,334.1	87.2	658.3	560.1	98.16	6.706
18,000.0	12,400.0	18,258.3	12,600.0	48.7	44.6	107.69	-5,434.1	88.2	658.3	558.8	99.52	6.615
18,100.0	12,400.0	18,358.3	12,600.0	49.3	45.3	107.69	-5,534.1	89.2	658.3	557.4	100.88	6.525
18,200.0	12,400.0	18,458.3	12,600.0	50.0	46.1	107.69	-5,634.1	90.1	658.3	556.0	102.25	6.438
18,300.0	12,400.0	18,558.3	12,600.0	50.6	46.8	107.69	-5,734.1	91.1	658.3	554.7	103.62	6.353
18,400.0	12,400.0	18,658.3	12,600.0	51.3	47.5	107.69	-5,834.0	92.1	658.3	553.3	104.99	6.270
18,500.0	12,400.0	18,758.3	12,600.0	51.9	48.2	107.69	-5,934.0	93.0	658.3	551.9	106.37	6.189
18,600.0	12,400.0	18,858.3	12,600.0	52.6	48.9	107.69	-6,034.0	94.0	658.3	550.5	107.75	6.109
18,700.0	12,400.0	18,958.3	12,600.0	53.3	49.7	107.69	-6,134.0	95.0	658.3	549.1	109.13	6.032
18,800.0	12,400.0	19,058.3	12,600.0	53.9	50.4	107.69	-6,234.0	95.9	658.3	547.8	110.52	5.956
18,900.0	12,400.0	19,158.3	12,600.0	54.6	51.1	107.69	-6,334.0	96.9	658.3	546.4	111.91	5.882
19,000.0	12,400.0	19,258.3	12,600.0	55.3	51.8	107.69	-6,434.0	97.9	658.3	545.0	113.31	5.810
19,100.0	12,400.0	19,358.3	12,600.0	56.0	52.5	107.69	-6,534.0	98.8	658.3	543.6	114.70	5.739
19,200.0	12,400.0	19,458.3	12,600.0	56.6	53.3	107.69	-6,634.0	99.8	658.3	542.2	116.10	5.670
19,300.0	12,400.0	19,558.3	12,600.0	57.3	54.0	107.69	-6,734.0	100.8	658.3	540.8	117.51	5.602
19,400.0	12,400.0	19,658.3	12,600.0	58.0	54.7	107.69	-6,834.0	101.8	658.3	539.4	118.91	5.536
19,500.0	12,400.0	19,758.3	12,600.0	58.7	55.5	107.69	-6,934.0	102.7	658.3	538.0	120.32	5.471
19,600.0	12,400.0	19,858.3	12,600.0	59.4	56.2	107.69	-7,034.0	103.7	658.3	536.6	121.73	5.408
19,700.0	12,400.0	19,958.3	12,600.0	60.1	56.9	107.69	-7,134.0	104.7	658.3	535.2	123.14	5.346
19,800.0	12,400.0	20,058.3	12,600.0	60.8	57.7	107.69	-7,234.0	105.6	658.3	533.7	124.56	5.285
19,900.0	12,400.0	20,158.3	12,600.0	61.4	58.4	107.69	-7,334.0	106.6	658.3	532.3	125.98	5.226
20,000.0	12,400.0	20,258.3	12,600.0	62.1	59.1	107.69	-7,434.0	107.6	658.3	530.9	127.40	5.167
20,100.0	12,400.0	20,358.3	12,600.0	62.8	59.9	107.69	-7,534.0	108.5	658.3	529.5	128.82	5.110

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #701H - OWB - PWP0												Offset Site Error: 0.0 usft	
Survey Program: 0-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)			
20,200.0	12,400.0	20,458.3	12,600.0	63.5	60.6	107.69	-7,634.0	109.5	658.3	528.1	130.24	5.054	
20,300.0	12,400.0	20,558.3	12,600.0	64.2	61.3	107.69	-7,734.0	110.5	658.3	526.6	131.67	5.000	
20,400.0	12,400.0	20,658.3	12,600.0	64.9	62.1	107.69	-7,834.0	111.5	658.3	525.2	133.10	4.946	
20,500.0	12,400.0	20,758.3	12,600.0	65.6	62.8	107.69	-7,933.9	112.4	658.3	523.8	134.53	4.894	
20,600.0	12,400.0	20,858.3	12,600.0	66.3	63.5	107.69	-8,033.9	113.4	658.3	522.4	135.96	4.842	
20,700.0	12,400.0	20,958.3	12,600.0	67.1	64.3	107.69	-8,133.9	114.4	658.3	520.9	137.39	4.792	
20,800.0	12,400.0	21,058.3	12,600.0	67.8	65.0	107.69	-8,233.9	115.3	658.3	519.5	138.83	4.742	
20,900.0	12,400.0	21,158.3	12,600.0	68.5	65.8	107.69	-8,333.9	116.3	658.3	518.1	140.26	4.694	
21,000.0	12,400.0	21,258.3	12,600.0	69.2	66.5	107.69	-8,433.9	117.3	658.3	516.6	141.70	4.646	
21,100.0	12,400.0	21,358.3	12,600.0	69.9	67.2	107.69	-8,533.9	118.2	658.3	515.2	143.14	4.599	
21,200.0	12,400.0	21,458.3	12,600.0	70.6	68.0	107.69	-8,633.9	119.2	658.3	513.7	144.58	4.553	
21,300.0	12,400.0	21,558.3	12,600.0	71.3	68.7	107.69	-8,733.9	120.2	658.3	512.3	146.02	4.508	
21,400.0	12,400.0	21,658.3	12,600.0	72.0	69.5	107.69	-8,833.9	121.1	658.3	510.9	147.47	4.464	
21,500.0	12,400.0	21,758.3	12,600.0	72.7	70.2	107.69	-8,933.9	122.1	658.3	509.4	148.91	4.421	
21,600.0	12,400.0	21,858.3	12,600.0	73.5	70.9	107.69	-9,033.9	123.1	658.3	508.0	150.36	4.378	
21,700.0	12,400.0	21,958.3	12,600.0	74.2	71.7	107.69	-9,133.9	124.1	658.3	506.5	151.81	4.337	
21,800.0	12,400.0	22,058.3	12,600.0	74.9	72.4	107.69	-9,233.9	125.0	658.3	505.1	153.25	4.296	
21,900.0	12,400.0	22,158.3	12,600.0	75.6	73.2	107.69	-9,333.9	126.0	658.3	503.6	154.70	4.255	
22,000.0	12,400.0	22,258.3	12,600.0	76.3	73.9	107.69	-9,433.9	127.0	658.3	502.2	156.16	4.216	
22,100.0	12,400.0	22,358.3	12,600.0	77.0	74.7	107.69	-9,533.9	127.9	658.3	500.7	157.61	4.177	
22,200.0	12,400.0	22,458.3	12,600.0	77.8	75.4	107.69	-9,633.9	128.9	658.3	499.3	159.06	4.139	
22,300.0	12,400.0	22,558.3	12,600.0	78.5	76.2	107.69	-9,733.9	129.9	658.3	497.8	160.52	4.101	
22,400.0	12,400.0	22,658.3	12,600.0	79.2	76.9	107.69	-9,833.9	130.8	658.3	496.4	161.97	4.065	
22,500.0	12,400.0	22,758.3	12,600.0	79.9	77.7	107.69	-9,933.9	131.8	658.4	494.9	163.43	4.028	
22,600.0	12,400.0	22,858.3	12,600.0	80.7	78.4	107.69	-10,033.9	132.8	658.4	493.5	164.89	3.993	
22,700.0	12,400.0	22,958.3	12,600.0	81.4	79.1	107.69	-10,133.8	133.7	658.4	492.0	166.34	3.958	
22,800.0	12,400.0	23,058.3	12,600.0	82.1	79.9	107.69	-10,233.8	134.7	658.4	490.6	167.80	3.923	
22,900.0	12,400.0	23,158.3	12,600.0	82.8	80.6	107.69	-10,333.8	135.7	658.4	489.1	169.26	3.890	
23,000.0	12,400.0	23,258.3	12,600.0	83.6	81.4	107.69	-10,433.8	136.7	658.4	487.6	170.73	3.856	
23,100.0	12,400.0	23,358.3	12,600.0	84.3	82.1	107.69	-10,533.8	137.6	658.4	486.2	172.19	3.823	
23,200.0	12,400.0	23,458.3	12,600.0	85.0	82.9	107.69	-10,633.8	138.6	658.4	484.7	173.65	3.791	
23,300.0	12,400.0	23,558.3	12,600.0	85.8	83.6	107.68	-10,733.8	139.6	658.4	483.2	175.12	3.760	
23,400.0	12,400.0	23,658.3	12,600.0	86.5	84.4	107.68	-10,833.8	140.5	658.4	481.8	176.58	3.728	
23,500.0	12,400.0	23,758.3	12,600.0	87.2	85.1	107.68	-10,933.8	141.5	658.4	480.3	178.05	3.698	
23,600.0	12,400.0	23,858.3	12,600.0	87.9	85.9	107.68	-11,033.8	142.5	658.4	478.9	179.51	3.668	
23,700.0	12,400.0	23,958.3	12,600.0	88.7	86.6	107.68	-11,133.8	143.4	658.4	477.4	180.98	3.638	
23,800.0	12,400.0	24,058.3	12,600.0	89.4	87.4	107.68	-11,233.8	144.4	658.4	475.9	182.45	3.609	
23,900.0	12,400.0	24,158.3	12,600.0	90.1	88.1	107.68	-11,333.8	145.4	658.4	474.5	183.91	3.580	
24,000.0	12,400.0	24,258.3	12,600.0	90.9	88.9	107.68	-11,433.8	146.4	658.4	473.0	185.38	3.551	
24,100.0	12,400.0	24,358.3	12,600.0	91.6	89.6	107.68	-11,533.8	147.3	658.4	471.5	186.85	3.524	
24,200.0	12,400.0	24,458.3	12,600.0	92.3	90.4	107.68	-11,633.8	148.3	658.4	470.1	188.32	3.496	
24,300.0	12,400.0	24,558.3	12,600.0	93.1	91.1	107.68	-11,733.8	149.3	658.4	468.6	189.79	3.469	
24,400.0	12,400.0	24,658.3	12,600.0	93.8	91.9	107.68	-11,833.8	150.2	658.4	467.1	191.27	3.442	
24,500.0	12,400.0	24,758.3	12,600.0	94.5	92.6	107.68	-11,933.8	151.2	658.4	465.6	192.74	3.416	
24,600.0	12,400.0	24,858.3	12,600.0	95.3	93.4	107.68	-12,033.8	152.2	658.4	464.2	194.21	3.390	
24,700.0	12,400.0	24,958.3	12,600.0	96.0	94.1	107.68	-12,133.8	153.1	658.4	462.7	195.68	3.365	
24,800.0	12,400.0	25,058.3	12,600.0	96.8	94.9	107.68	-12,233.7	154.1	658.4	461.2	197.16	3.339	
24,900.0	12,400.0	25,158.3	12,600.0	97.5	95.7	107.68	-12,333.7	155.1	658.4	459.8	198.63	3.315	
25,000.0	12,400.0	25,258.3	12,600.0	98.2	96.4	107.68	-12,433.7	156.0	658.4	458.3	200.11	3.290	
25,100.0	12,400.0	25,358.3	12,600.0	99.0	97.2	107.68	-12,533.7	157.0	658.4	456.8	201.58	3.266	
25,200.0	12,400.0	25,458.3	12,600.0	99.7	97.9	107.68	-12,633.7	158.0	658.4	455.3	203.06	3.242	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
25,300.0	12,400.0	25,558.3	12,600.0	100.4	98.7	107.68	-12,733.7	159.0	658.4	453.9	204.54	3.219	
25,400.0	12,400.0	25,658.3	12,600.0	101.2	99.4	107.68	-12,833.7	159.9	658.4	452.4	206.01	3.196	
25,500.0	12,400.0	25,758.3	12,600.0	101.9	100.2	107.68	-12,933.7	160.9	658.4	450.9	207.49	3.173	
25,600.0	12,400.0	25,858.3	12,600.0	102.7	100.9	107.68	-13,033.7	161.9	658.4	449.4	208.97	3.151	
25,700.0	12,400.0	25,958.3	12,600.0	103.4	101.7	107.68	-13,133.7	162.8	658.4	448.0	210.45	3.129	
25,800.0	12,400.0	26,058.3	12,600.0	104.1	102.4	107.68	-13,233.7	163.8	658.4	446.5	211.93	3.107	
25,900.0	12,400.0	26,158.3	12,600.0	104.9	103.2	107.68	-13,333.7	164.8	658.4	445.0	213.41	3.085	
26,000.0	12,400.0	26,258.3	12,600.0	105.6	103.9	107.68	-13,433.7	165.7	658.4	443.5	214.89	3.064	
26,100.0	12,400.0	26,358.3	12,600.0	106.4	104.7	107.68	-13,533.7	166.7	658.4	442.0	216.37	3.043	
26,200.0	12,400.0	26,458.3	12,600.0	107.1	105.5	107.68	-13,633.7	167.7	658.4	440.6	217.85	3.022	
26,300.0	12,400.0	26,558.3	12,600.0	107.9	106.2	107.68	-13,733.7	168.6	658.4	439.1	219.33	3.002	
26,400.0	12,400.0	26,658.3	12,600.0	108.6	107.0	107.68	-13,833.7	169.6	658.4	437.6	220.81	2.982	
26,500.0	12,400.0	26,758.3	12,600.0	109.3	107.7	107.68	-13,933.7	170.6	658.4	436.1	222.29	2.962	
26,600.0	12,400.0	26,858.3	12,600.0	110.1	108.5	107.68	-14,033.7	171.6	658.4	434.6	223.78	2.942	
26,700.0	12,400.0	26,958.3	12,600.0	110.8	109.2	107.68	-14,133.7	172.5	658.4	433.2	225.26	2.923	
26,800.0	12,400.0	27,058.3	12,600.0	111.6	110.0	107.68	-14,233.7	173.5	658.4	431.7	226.74	2.904	
26,900.0	12,400.0	27,158.3	12,600.0	112.3	110.7	107.68	-14,333.6	174.5	658.4	430.2	228.23	2.885	
27,000.0	12,400.0	27,258.3	12,600.0	113.1	111.5	107.68	-14,433.6	175.4	658.4	428.7	229.71	2.866	
27,100.0	12,400.0	27,358.3	12,600.0	113.8	112.2	107.68	-14,533.6	176.4	658.4	427.2	231.20	2.848	
27,200.0	12,400.0	27,458.3	12,600.0	114.6	113.0	107.68	-14,633.6	177.4	658.4	425.8	232.68	2.830	
27,300.0	12,400.0	27,558.3	12,600.0	115.3	113.8	107.68	-14,733.6	178.3	658.4	424.3	234.17	2.812	
27,400.0	12,400.0	27,658.3	12,600.0	116.0	114.5	107.68	-14,833.6	179.3	658.4	422.8	235.65	2.794	
27,500.0	12,400.0	27,758.3	12,600.0	116.8	115.3	107.68	-14,933.6	180.3	658.4	421.3	237.14	2.777	
27,600.0	12,400.0	27,858.3	12,600.0	117.5	116.0	107.68	-15,033.6	181.3	658.4	419.8	238.62	2.759	
27,700.0	12,400.0	27,958.3	12,600.0	118.3	116.8	107.68	-15,133.6	182.2	658.4	418.3	240.11	2.742	
27,800.0	12,400.0	28,058.3	12,600.0	119.0	117.5	107.68	-15,233.6	183.2	658.4	416.9	241.60	2.725	
27,900.0	12,400.0	28,158.3	12,600.0	119.8	118.3	107.68	-15,333.6	184.2	658.4	415.4	243.08	2.709	
28,000.0	12,400.0	28,258.3	12,600.0	120.5	119.1	107.68	-15,433.6	185.1	658.5	413.9	244.57	2.692	
28,100.0	12,400.0	28,358.3	12,600.0	121.3	119.8	107.68	-15,533.6	186.1	658.5	412.4	246.06	2.676	
28,200.0	12,400.0	28,458.3	12,600.0	122.0	120.6	107.68	-15,633.6	187.1	658.5	410.9	247.54	2.660	
28,300.0	12,400.0	28,558.3	12,600.0	122.8	121.3	107.68	-15,733.6	188.0	658.5	409.4	249.03	2.644	
28,400.0	12,400.0	28,658.3	12,600.0	123.5	122.1	107.68	-15,833.6	189.0	658.5	407.9	250.52	2.628	
28,500.0	12,400.0	28,758.3	12,600.0	124.3	122.8	107.68	-15,933.6	190.0	658.5	406.4	252.01	2.613	
28,600.0	12,400.0	28,858.3	12,600.0	125.0	123.6	107.68	-16,033.6	190.9	658.5	405.0	253.50	2.597	
28,700.0	12,400.0	28,958.3	12,600.0	125.8	124.3	107.68	-16,133.6	191.9	658.5	403.5	254.99	2.582	
28,700.5	12,400.0	28,958.8	12,600.0	125.8	124.4	107.68	-16,134.0	191.9	658.5	403.5	254.99	2.582 SF	
28,710.4	12,400.0	28,963.8	12,600.0	125.8	124.4	107.68	-16,139.1	192.0	658.5	403.5	255.00	2.582	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)					
1,900.0	1,896.1	2,165.2	2,159.2	6.8	7.5	29.25	36.4	2,023.2	1,984.6	1,970.3	14.34	138.354	
2,000.0	1,994.6	2,261.0	2,254.1	7.1	7.8	29.38	40.4	2,010.5	1,956.4	1,941.5	14.87	131.554	
2,100.0	2,093.1	2,356.9	2,349.1	7.4	8.1	29.50	44.5	1,997.8	1,928.2	1,912.8	15.42	125.039	
2,200.0	2,191.6	2,452.7	2,444.0	7.7	8.4	29.64	48.5	1,985.1	1,900.0	1,884.0	15.99	118.824	
2,300.0	2,290.0	2,548.5	2,538.9	8.0	8.8	29.78	52.6	1,972.4	1,871.8	1,855.2	16.58	112.916	
2,400.0	2,388.5	2,644.4	2,633.8	8.4	9.1	29.92	56.7	1,959.7	1,843.6	1,826.5	17.18	107.314	
2,500.0	2,487.0	2,740.2	2,728.7	8.7	9.4	30.06	60.7	1,947.0	1,815.5	1,797.7	17.80	102.011	
2,600.0	2,585.5	2,836.1	2,823.6	9.1	9.8	30.21	64.8	1,934.3	1,787.3	1,768.9	18.43	96.998	
2,700.0	2,684.0	2,931.9	2,918.5	9.5	10.1	30.37	68.8	1,921.6	1,759.2	1,740.1	19.07	92.262	
2,800.0	2,782.4	3,027.8	3,013.5	9.8	10.5	30.53	72.9	1,908.9	1,731.0	1,711.3	19.72	87.791	
2,900.0	2,880.9	3,123.6	3,108.4	10.2	10.9	30.69	76.9	1,896.2	1,702.9	1,682.5	20.38	83.569	
3,000.0	2,979.4	3,219.5	3,203.3	10.6	11.2	30.86	81.0	1,883.4	1,674.8	1,653.8	21.05	79.582	
3,100.0	3,077.9	3,315.3	3,298.2	11.0	11.6	31.04	85.0	1,870.7	1,646.7	1,625.0	21.72	75.816	
3,200.0	3,176.4	3,411.2	3,393.1	11.4	12.0	31.22	89.1	1,858.0	1,618.6	1,596.2	22.40	72.257	
3,300.0	3,274.8	3,507.0	3,488.0	11.8	12.3	31.41	93.2	1,845.3	1,590.6	1,567.5	23.09	68.892	
3,400.0	3,373.3	3,602.9	3,582.9	12.2	12.7	31.61	97.2	1,832.6	1,562.5	1,538.7	23.78	65.708	
3,500.0	3,471.8	3,698.7	3,677.8	12.6	13.1	31.81	101.3	1,819.9	1,534.5	1,510.0	24.48	62.693	
3,600.0	3,570.3	3,794.6	3,772.8	13.0	13.5	32.02	105.3	1,807.2	1,506.5	1,481.3	25.18	59.837	
3,700.0	3,668.8	3,890.4	3,867.7	13.5	13.9	32.24	109.4	1,794.5	1,478.5	1,452.6	25.88	57.128	
3,800.0	3,767.2	3,986.2	3,962.6	13.9	14.2	32.47	113.4	1,781.8	1,450.5	1,423.9	26.59	54.557	
3,900.0	3,865.7	4,082.1	4,057.5	14.3	14.6	32.71	117.5	1,769.1	1,422.6	1,395.3	27.30	52.115	
4,000.0	3,964.2	4,177.9	4,152.4	14.7	15.0	32.95	121.5	1,756.4	1,394.7	1,366.7	28.01	49.793	
4,100.0	4,062.7	4,273.8	4,247.3	15.2	15.4	33.21	125.6	1,743.7	1,366.8	1,338.0	28.72	47.585	
4,200.0	4,161.2	4,369.6	4,342.2	15.6	15.8	33.47	129.7	1,731.0	1,338.9	1,309.5	29.44	45.482	
4,300.0	4,259.7	4,465.5	4,437.2	16.0	16.2	33.75	133.7	1,718.2	1,311.1	1,280.9	30.15	43.478	
4,400.0	4,358.1	4,561.3	4,532.1	16.4	16.6	34.04	137.8	1,705.5	1,283.2	1,252.4	30.87	41.568	
4,500.0	4,456.6	4,657.2	4,627.0	16.9	17.0	34.34	141.8	1,692.8	1,255.5	1,223.9	31.59	39.744	
4,600.0	4,555.1	4,753.0	4,721.9	17.3	17.4	34.66	145.9	1,680.1	1,227.7	1,195.4	32.31	38.003	
4,700.0	4,653.6	4,848.9	4,816.8	17.7	17.8	34.99	149.9	1,667.4	1,200.0	1,167.0	33.02	36.338	
4,800.0	4,752.1	4,944.7	4,911.7	18.2	18.2	35.33	154.0	1,654.7	1,172.3	1,138.6	33.74	34.746	
4,900.0	4,850.5	5,040.6	5,006.6	18.6	18.6	35.70	158.0	1,642.0	1,144.7	1,110.2	34.45	33.223	
5,000.0	4,949.0	5,136.4	5,101.6	19.0	19.0	36.08	162.1	1,629.3	1,117.1	1,081.9	35.17	31.765	
5,100.0	5,047.5	5,232.3	5,196.5	19.5	19.4	36.48	166.2	1,616.6	1,089.6	1,053.7	35.88	30.367	
5,200.0	5,146.0	5,328.1	5,291.4	19.9	19.8	36.90	170.2	1,603.9	1,062.1	1,025.5	36.59	29.027	
5,300.0	5,244.5	5,423.9	5,386.3	20.4	20.2	37.34	174.3	1,591.2	1,034.6	997.3	37.29	27.743	
5,400.0	5,343.0	5,519.9	5,481.3	20.8	20.6	37.70	178.3	1,578.5	1,007.5	969.5	37.98	26.529	
5,500.0	5,441.8	5,616.2	5,576.7	21.2	21.0	37.96	182.4	1,565.7	981.5	942.8	38.67	25.379	
5,600.0	5,540.8	5,712.9	5,672.4	21.6	21.4	38.19	186.5	1,552.9	957.0	917.6	39.37	24.308	
5,700.0	5,640.1	5,800.0	5,758.7	22.0	21.7	38.34	190.2	1,541.4	933.9	893.9	40.04	23.322	
5,800.0	5,739.5	5,888.9	5,846.9	22.4	22.1	38.48	193.6	1,530.7	913.3	872.6	40.72	22.429	
5,900.0	5,839.1	5,974.0	5,931.4	22.8	22.4	38.58	196.5	1,521.6	895.6	854.2	41.38	21.643	
6,000.0	5,938.9	6,059.6	6,016.7	23.2	22.8	38.65	199.0	1,513.8	880.6	838.6	42.01	20.961	
6,100.0	6,038.8	6,145.8	6,102.6	23.5	23.1	38.70	201.1	1,507.1	868.5	825.9	42.62	20.378	
6,200.0	6,138.7	6,232.4	6,189.0	23.8	23.4	38.71	202.9	1,501.6	859.2	816.1	43.19	19.893	
6,300.0	6,238.7	6,319.4	6,275.8	24.1	23.7	38.69	204.2	1,497.3	852.8	809.1	43.71	19.509	
6,400.0	6,338.7	6,406.5	6,362.9	24.2	24.0	100.26	205.2	1,494.3	849.1	805.0	44.08	19.264	
6,500.0	6,438.7	6,500.0	6,456.4	24.2	24.2	100.24	205.8	1,492.5	847.0	802.6	44.40	19.077	
6,582.3	6,521.0	6,565.4	6,521.8	24.2	24.3	100.24	205.9	1,492.0	846.4	801.9	44.53	19.006	
6,600.0	6,538.7	6,582.3	6,538.7	24.2	24.3	100.24	205.9	1,492.0	846.4	801.8	44.55	18.999	
6,700.0	6,638.7	6,682.3	6,638.7	24.3	24.4	100.24	205.9	1,492.0	846.4	801.8	44.63	18.965	
6,800.0	6,738.7	6,782.3	6,738.7	24.3	24.4	100.24	205.9	1,492.0	846.4	801.7	44.71	18.929	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Minimum		Separation		Warning	
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre	Between	Between	Separation	Factor		
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
6,900.0	6,838.7	6,882.3	6,838.7	24.4	24.4	100.24	205.9	1,492.0	846.4	801.6	44.80	18.894	
7,000.0	6,938.7	6,982.3	6,938.7	24.4	24.5	100.24	205.9	1,492.0	846.4	801.5	44.88	18.858	
7,100.0	7,038.7	7,082.3	7,038.7	24.5	24.5	100.24	205.9	1,492.0	846.4	801.4	44.97	18.822	
7,200.0	7,138.7	7,182.3	7,138.7	24.5	24.6	100.24	205.9	1,492.0	846.4	801.3	45.05	18.786	
7,300.0	7,238.7	7,282.3	7,238.7	24.5	24.6	100.24	205.9	1,492.0	846.4	801.3	45.14	18.751	
7,400.0	7,338.7	7,382.3	7,338.7	24.6	24.6	100.24	205.9	1,492.0	846.4	801.2	45.23	18.715	
7,500.0	7,438.7	7,482.3	7,438.7	24.6	24.7	100.24	205.9	1,492.0	846.4	801.1	45.31	18.679	
7,600.0	7,538.7	7,582.3	7,538.7	24.7	24.7	100.24	205.9	1,492.0	846.4	801.0	45.40	18.643	
7,700.0	7,638.7	7,682.3	7,638.7	24.7	24.7	100.24	205.9	1,492.0	846.4	800.9	45.49	18.607	
7,800.0	7,738.7	7,782.3	7,738.7	24.7	24.8	100.24	205.9	1,492.0	846.4	800.8	45.58	18.571	
7,900.0	7,838.7	7,882.3	7,838.7	24.8	24.8	100.24	205.9	1,492.0	846.4	800.7	45.67	18.535	
8,000.0	7,938.7	7,982.3	7,938.7	24.8	24.9	100.24	205.9	1,492.0	846.4	800.6	45.75	18.499	
8,100.0	8,038.7	8,082.3	8,038.7	24.9	24.9	100.24	205.9	1,492.0	846.4	800.6	45.84	18.463	
8,200.0	8,138.7	8,182.3	8,138.7	24.9	25.0	100.24	205.9	1,492.0	846.4	800.5	45.93	18.427	
8,300.0	8,238.7	8,282.3	8,238.7	25.0	25.0	100.24	205.9	1,492.0	846.4	800.4	46.02	18.391	
8,400.0	8,338.7	8,382.3	8,338.7	25.0	25.0	100.24	205.9	1,492.0	846.4	800.3	46.11	18.355	
8,500.0	8,438.7	8,482.3	8,438.7	25.1	25.1	100.24	205.9	1,492.0	846.4	800.2	46.20	18.319	
8,600.0	8,538.7	8,582.3	8,538.7	25.1	25.1	100.24	205.9	1,492.0	846.4	800.1	46.30	18.282	
8,700.0	8,638.7	8,682.3	8,638.7	25.1	25.2	100.24	205.9	1,492.0	846.4	800.0	46.39	18.246	
8,800.0	8,738.7	8,782.3	8,738.7	25.2	25.2	100.24	205.9	1,492.0	846.4	799.9	46.48	18.210	
8,900.0	8,838.7	8,882.3	8,838.7	25.2	25.2	100.24	205.9	1,492.0	846.4	799.8	46.57	18.174	
9,000.0	8,938.7	8,982.3	8,938.7	25.3	25.3	100.24	205.9	1,492.0	846.4	799.7	46.66	18.138	
9,100.0	9,038.7	9,082.3	9,038.7	25.3	25.3	100.24	205.9	1,492.0	846.4	799.6	46.76	18.102	
9,200.0	9,138.7	9,182.3	9,138.7	25.4	25.4	100.24	205.9	1,492.0	846.4	799.5	46.85	18.066	
9,300.0	9,238.7	9,282.3	9,238.7	25.4	25.4	100.24	205.9	1,492.0	846.4	799.5	46.95	18.030	
9,400.0	9,338.7	9,382.3	9,338.7	25.5	25.5	100.24	205.9	1,492.0	846.4	799.4	47.04	17.993	
9,500.0	9,438.7	9,482.3	9,438.7	25.5	25.5	100.24	205.9	1,492.0	846.4	799.3	47.13	17.957	
9,600.0	9,538.7	9,582.3	9,538.7	25.6	25.5	100.24	205.9	1,492.0	846.4	799.2	47.23	17.921	
9,700.0	9,638.7	9,682.3	9,638.7	25.6	25.6	100.24	205.9	1,492.0	846.4	799.1	47.32	17.885	
9,800.0	9,738.7	9,782.3	9,738.7	25.6	25.6	100.24	205.9	1,492.0	846.4	799.0	47.42	17.849	
9,900.0	9,838.7	9,882.3	9,838.7	25.7	25.7	100.24	205.9	1,492.0	846.4	798.9	47.52	17.813	
10,000.0	9,938.7	9,982.3	9,938.7	25.7	25.7	100.24	205.9	1,492.0	846.4	798.8	47.61	17.777	
10,100.0	10,038.7	10,082.3	10,038.7	25.8	25.8	100.24	205.9	1,492.0	846.4	798.7	47.71	17.741	
10,200.0	10,138.7	10,182.3	10,138.7	25.8	25.8	100.24	205.9	1,492.0	846.4	798.6	47.81	17.705	
10,300.0	10,238.7	10,282.3	10,238.7	25.9	25.9	100.24	205.9	1,492.0	846.4	798.5	47.90	17.669	
10,400.0	10,338.7	10,382.3	10,338.7	25.9	25.9	100.24	205.9	1,492.0	846.4	798.4	48.00	17.633	
10,500.0	10,438.7	10,482.3	10,438.7	26.0	26.0	100.24	205.9	1,492.0	846.4	798.3	48.10	17.597	
10,600.0	10,538.7	10,582.3	10,538.7	26.0	26.0	100.24	205.9	1,492.0	846.4	798.2	48.20	17.561	
10,700.0	10,638.7	10,682.3	10,638.7	26.1	26.0	100.24	205.9	1,492.0	846.4	798.1	48.30	17.525	
10,800.0	10,738.7	10,782.3	10,738.7	26.1	26.1	100.24	205.9	1,492.0	846.4	798.0	48.40	17.489	
10,900.0	10,838.7	10,882.3	10,838.7	26.2	26.1	100.24	205.9	1,492.0	846.4	797.9	48.50	17.453	
11,000.0	10,938.7	10,982.3	10,938.7	26.2	26.2	100.24	205.9	1,492.0	846.4	797.8	48.60	17.417	
11,100.0	11,038.7	11,082.3	11,038.7	26.3	26.2	100.24	205.9	1,492.0	846.4	797.7	48.70	17.381	
11,200.0	11,138.7	11,182.3	11,138.7	26.3	26.3	100.24	205.9	1,492.0	846.4	797.6	48.80	17.345	
11,300.0	11,238.7	11,282.3	11,238.7	26.4	26.3	100.24	205.9	1,492.0	846.4	797.5	48.90	17.310	
11,400.0	11,338.7	11,382.3	11,338.7	26.4	26.4	100.24	205.9	1,492.0	846.4	797.4	49.00	17.274	
11,500.0	11,438.7	11,482.3	11,438.7	26.5	26.4	100.24	205.9	1,492.0	846.4	797.3	49.10	17.238	
11,600.0	11,538.7	11,582.3	11,538.7	26.5	26.5	100.24	205.9	1,492.0	846.4	797.2	49.20	17.203	
11,700.0	11,638.7	11,682.3	11,638.7	26.6	26.5	100.24	205.9	1,492.0	846.4	797.1	49.30	17.167	
11,800.0	11,738.7	11,782.3	11,738.7	26.6	26.6	100.24	205.9	1,492.0	846.4	797.0	49.41	17.131	
11,900.0	11,838.7	11,882.3	11,838.7	26.7	26.6	-79.21	205.9	1,492.0	846.4	796.9	49.50	17.098	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #702H - OWB - PWP0													Offset Site Error:	0.0 usft	
Survey Program: 0-r.5 MWD+IFR1+MS				Offset		Semi Major Axis		Offset Wellbore Centre		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		
12,000.0	11,938.0	11,981.6	11,938.0	26.5	26.7	-80.11	205.9	1,492.0	844.4	794.8	49.65	17.007			
12,100.0	12,033.9	12,077.5	12,033.9	26.3	26.7	-82.34	205.9	1,492.0	840.0	790.1	49.88	16.841			
12,200.0	12,123.5	12,167.0	12,123.4	26.1	26.7	-85.53	205.9	1,492.0	834.9	784.8	50.10	16.663			
12,300.0	12,204.2	12,244.3	12,200.4	26.0	26.7	-88.62	199.5	1,492.1	831.7	781.6	50.19	16.572			
12,344.0	12,236.1	12,280.8	12,236.1	25.9	26.6	-89.98	192.2	1,492.2	831.4	781.2	50.19	16.566	CC		
12,400.0	12,273.3	12,330.0	12,283.2	25.8	26.5	-91.71	178.1	1,492.3	831.9	781.8	50.15	16.588			
12,500.0	12,328.9	12,427.2	12,370.8	25.7	26.4	-94.79	136.3	1,492.7	835.3	785.2	50.01	16.700			
12,600.0	12,369.3	12,540.2	12,459.4	25.6	26.3	-97.84	66.7	1,493.3	841.1	791.2	49.88	16.862			
12,700.0	12,393.2	12,673.4	12,539.6	25.6	26.1	-100.71	-39.2	1,494.3	848.1	798.2	49.90	16.994			
12,800.0	12,400.0	12,829.1	12,592.1	25.7	26.1	-103.01	-185.0	1,495.7	853.9	803.8	50.13	17.035			
12,900.0	12,400.0	12,965.0	12,600.0	25.8	26.2	-103.53	-320.4	1,497.0	855.0	804.6	50.34	16.984			
13,000.0	12,400.0	13,065.0	12,600.0	25.9	26.3	-103.53	-420.4	1,497.9	855.0	804.4	50.53	16.920			
13,100.0	12,400.0	13,165.0	12,600.0	26.0	26.4	-103.53	-520.4	1,498.9	854.9	804.2	50.77	16.841			
13,200.0	12,400.0	13,265.0	12,600.0	26.2	26.5	-103.53	-620.4	1,499.8	854.9	803.9	51.05	16.748			
13,300.0	12,400.0	13,365.0	12,600.0	26.4	26.7	-103.53	-720.4	1,500.8	854.9	803.5	51.37	16.642			
13,400.0	12,400.0	13,465.0	12,600.0	26.6	26.9	-103.53	-820.4	1,501.7	854.9	803.1	51.73	16.524			
13,500.0	12,400.0	13,565.0	12,600.0	26.8	27.1	-103.53	-920.4	1,502.7	854.8	802.7	52.14	16.395			
13,600.0	12,400.0	13,665.0	12,600.0	27.0	27.3	-103.53	-1,020.4	1,503.6	854.8	802.2	52.59	16.255			
13,700.0	12,400.0	13,765.0	12,600.0	27.2	27.5	-103.53	-1,120.3	1,504.5	854.8	801.7	53.07	16.106			
13,800.0	12,400.0	13,865.0	12,600.0	27.5	27.8	-103.53	-1,220.3	1,505.5	854.7	801.2	53.60	15.948			
13,900.0	12,400.0	13,965.0	12,600.0	27.8	28.0	-103.53	-1,320.3	1,506.4	854.7	800.6	54.16	15.782			
14,000.0	12,400.0	14,065.0	12,600.0	28.1	28.3	-103.53	-1,420.3	1,507.4	854.7	799.9	54.76	15.609			
14,100.0	12,400.0	14,165.0	12,600.0	28.4	28.6	-103.53	-1,520.3	1,508.3	854.7	799.3	55.39	15.430			
14,200.0	12,400.0	14,265.0	12,600.0	28.7	28.9	-103.53	-1,620.3	1,509.3	854.6	798.6	56.06	15.246			
14,300.0	12,400.0	14,365.0	12,600.0	29.0	29.3	-103.53	-1,720.3	1,510.2	854.6	797.9	56.76	15.058			
14,400.0	12,400.0	14,465.0	12,600.0	29.4	29.6	-103.54	-1,820.3	1,511.2	854.6	797.1	57.49	14.866			
14,500.0	12,400.0	14,565.0	12,600.0	29.7	30.0	-103.54	-1,920.3	1,512.1	854.6	796.3	58.25	14.671			
14,600.0	12,400.0	14,665.0	12,600.0	30.1	30.3	-103.54	-2,020.3	1,513.0	854.5	795.5	59.04	14.475			
14,700.0	12,400.0	14,765.0	12,600.0	30.5	30.7	-103.54	-2,120.3	1,514.0	854.5	794.7	59.85	14.277			
14,800.0	12,400.0	14,865.0	12,600.0	30.9	31.1	-103.54	-2,220.3	1,514.9	854.5	793.8	60.70	14.078			
14,900.0	12,400.0	14,965.0	12,600.0	31.3	31.6	-103.54	-2,320.3	1,515.9	854.5	792.9	61.57	13.878			
15,000.0	12,400.0	15,065.0	12,600.0	31.8	32.0	-103.54	-2,420.3	1,516.8	854.4	792.0	62.46	13.679			
15,100.0	12,400.0	15,165.0	12,600.0	32.2	32.4	-103.54	-2,520.3	1,517.8	854.4	791.0	63.38	13.481			
15,200.0	12,400.0	15,265.0	12,600.0	32.6	32.9	-103.54	-2,620.3	1,518.7	854.4	790.0	64.32	13.283			
15,300.0	12,400.0	15,365.0	12,600.0	33.1	33.3	-103.54	-2,720.3	1,519.6	854.3	789.1	65.28	13.087			
15,400.0	12,400.0	15,465.0	12,600.0	33.6	33.8	-103.54	-2,820.3	1,520.6	854.3	788.1	66.26	12.893			
15,500.0	12,400.0	15,565.0	12,600.0	34.1	34.3	-103.54	-2,920.3	1,521.5	854.3	787.0	67.27	12.700			
15,600.0	12,400.0	15,665.0	12,600.0	34.6	34.8	-103.54	-3,020.3	1,522.5	854.3	786.0	68.29	12.510			
15,700.0	12,400.0	15,765.0	12,600.0	35.1	35.3	-103.54	-3,120.3	1,523.4	854.2	784.9	69.32	12.322			
15,800.0	12,400.0	15,865.0	12,600.0	35.6	35.8	-103.54	-3,220.3	1,524.4	854.2	783.8	70.38	12.137			
15,900.0	12,400.0	15,965.0	12,600.0	36.1	36.3	-103.54	-3,320.3	1,525.3	854.2	782.7	71.45	11.955			
16,000.0	12,400.0	16,065.0	12,600.0	36.7	36.9	-103.54	-3,420.2	1,526.2	854.2	781.6	72.54	11.775			
16,100.0	12,400.0	16,165.0	12,600.0	37.2	37.4	-103.54	-3,520.2	1,527.2	854.1	780.5	73.64	11.598			
16,200.0	12,400.0	16,265.0	12,600.0	37.7	37.9	-103.54	-3,620.2	1,528.1	854.1	779.3	74.76	11.425			
16,300.0	12,400.0	16,365.0	12,600.0	38.3	38.5	-103.54	-3,720.2	1,529.1	854.1	778.2	75.89	11.254			
16,400.0	12,400.0	16,465.0	12,600.0	38.9	39.1	-103.54	-3,820.2	1,530.0	854.0	777.0	77.03	11.087			
16,500.0	12,400.0	16,565.0	12,600.0	39.4	39.6	-103.54	-3,920.2	1,531.0	854.0	775.8	78.19	10.922			
16,600.0	12,400.0	16,665.0	12,600.0	40.0	40.2	-103.54	-4,020.2	1,531.9	854.0	774.6	79.36	10.761			
16,700.0	12,400.0	16,765.0	12,600.0	40.6	40.8	-103.55	-4,120.2	1,532.9	854.0	773.4	80.54	10.603			
16,800.0	12,400.0	16,865.0	12,600.0	41.2	41.4	-103.55	-4,220.2	1,533.8	853.9	772.2	81.73	10.449			
16,900.0	12,400.0	16,965.0	12,600.0	41.8	41.9	-103.55	-4,320.2	1,534.7	853.9	771.0	82.93	10.297			

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #702H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Minimum		Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	
17,000.0	12,400.0	17,065.0	12,600.0	42.4	42.5	-103.55	-4,420.2	1,535.7	853.9	769.7	84.14	10.149
17,100.0	12,400.0	17,165.0	12,600.0	43.0	43.1	-103.55	-4,520.2	1,536.6	853.9	768.5	85.36	10.003
17,200.0	12,400.0	17,265.0	12,600.0	43.6	43.7	-103.55	-4,620.2	1,537.6	853.8	767.2	86.59	9.861
17,300.0	12,400.0	17,365.0	12,600.0	44.2	44.4	-103.55	-4,720.2	1,538.5	853.8	766.0	87.82	9.722
17,400.0	12,400.0	17,465.0	12,600.0	44.8	45.0	-103.55	-4,820.2	1,539.5	853.8	764.7	89.07	9.585
17,500.0	12,400.0	17,565.0	12,600.0	45.5	45.6	-103.55	-4,920.2	1,540.4	853.7	763.4	90.33	9.452
17,600.0	12,400.0	17,665.0	12,600.0	46.1	46.2	-103.55	-5,020.2	1,541.3	853.7	762.1	91.59	9.321
17,700.0	12,400.0	17,765.0	12,600.0	46.7	46.8	-103.55	-5,120.2	1,542.3	853.7	760.8	92.86	9.194
17,800.0	12,400.0	17,865.0	12,600.0	47.4	47.5	-103.55	-5,220.2	1,543.2	853.7	759.5	94.13	9.069
17,900.0	12,400.0	17,965.0	12,600.0	48.0	48.1	-103.55	-5,320.2	1,544.2	853.6	758.2	95.42	8.946
18,000.0	12,400.0	18,065.0	12,600.0	48.7	48.8	-103.55	-5,420.2	1,545.1	853.6	756.9	96.71	8.827
18,100.0	12,400.0	18,165.0	12,600.0	49.3	49.4	-103.55	-5,520.2	1,546.1	853.6	755.6	98.00	8.710
18,200.0	12,400.0	18,265.0	12,600.0	50.0	50.1	-103.55	-5,620.1	1,547.0	853.6	754.3	99.30	8.595
18,300.0	12,400.0	18,365.0	12,600.0	50.6	50.7	-103.55	-5,720.1	1,547.9	853.5	752.9	100.61	8.483
18,400.0	12,400.0	18,465.0	12,600.0	51.3	51.4	-103.55	-5,820.1	1,548.9	853.5	751.6	101.93	8.374
18,500.0	12,400.0	18,565.0	12,600.0	51.9	52.0	-103.55	-5,920.1	1,549.8	853.5	750.2	103.24	8.267
18,600.0	12,400.0	18,665.0	12,600.0	52.6	52.7	-103.55	-6,020.1	1,550.8	853.5	748.9	104.57	8.162
18,700.0	12,400.0	18,765.0	12,600.0	53.3	53.3	-103.55	-6,120.1	1,551.7	853.4	747.5	105.90	8.059
18,800.0	12,400.0	18,865.0	12,600.0	53.9	54.0	-103.55	-6,220.1	1,552.7	853.4	746.2	107.23	7.959
18,900.0	12,400.0	18,965.0	12,600.0	54.6	54.7	-103.55	-6,320.1	1,553.6	853.4	744.8	108.57	7.860
19,000.0	12,400.0	19,065.0	12,600.0	55.3	55.3	-103.56	-6,420.1	1,554.6	853.3	743.4	109.91	7.764
19,100.0	12,400.0	19,165.0	12,600.0	56.0	56.0	-103.56	-6,520.1	1,555.5	853.3	742.1	111.26	7.670
19,200.0	12,400.0	19,265.0	12,600.0	56.6	56.7	-103.56	-6,620.1	1,556.4	853.3	740.7	112.61	7.577
19,300.0	12,400.0	19,365.0	12,600.0	57.3	57.4	-103.56	-6,720.1	1,557.4	853.3	739.3	113.96	7.487
19,400.0	12,400.0	19,465.0	12,600.0	58.0	58.0	-103.56	-6,820.1	1,558.3	853.2	737.9	115.32	7.399
19,500.0	12,400.0	19,565.0	12,600.0	58.7	58.7	-103.56	-6,920.1	1,559.3	853.2	736.5	116.69	7.312
19,600.0	12,400.0	19,665.0	12,600.0	59.4	59.4	-103.56	-7,020.1	1,560.2	853.2	735.1	118.05	7.227
19,700.0	12,400.0	19,765.0	12,600.0	60.1	60.1	-103.56	-7,120.1	1,561.2	853.2	733.7	119.42	7.144
19,800.0	12,400.0	19,865.0	12,600.0	60.8	60.8	-103.56	-7,220.1	1,562.1	853.1	732.3	120.79	7.063
19,900.0	12,400.0	19,965.0	12,600.0	61.4	61.5	-103.56	-7,320.1	1,563.0	853.1	730.9	122.17	6.983
20,000.0	12,400.0	20,065.0	12,600.0	62.1	62.2	-103.56	-7,420.1	1,564.0	853.1	729.5	123.55	6.905
20,100.0	12,400.0	20,165.0	12,600.0	62.8	62.8	-103.56	-7,520.1	1,564.9	853.0	728.1	124.93	6.828
20,200.0	12,400.0	20,265.0	12,600.0	63.5	63.5	-103.56	-7,620.1	1,565.9	853.0	726.7	126.32	6.753
20,300.0	12,400.0	20,365.0	12,600.0	64.2	64.2	-103.56	-7,720.1	1,566.8	853.0	725.3	127.70	6.679
20,400.0	12,400.0	20,465.0	12,600.0	64.9	64.9	-103.56	-7,820.0	1,567.8	853.0	723.9	129.09	6.607
20,500.0	12,400.0	20,565.0	12,600.0	65.6	65.6	-103.56	-7,920.0	1,568.7	852.9	722.4	130.49	6.537
20,600.0	12,400.0	20,665.0	12,600.0	66.3	66.3	-103.56	-8,020.0	1,569.6	852.9	721.0	131.88	6.467
20,700.0	12,400.0	20,765.0	12,600.0	67.1	67.0	-103.56	-8,120.0	1,570.6	852.9	719.6	133.28	6.399
20,800.0	12,400.0	20,865.0	12,600.0	67.8	67.7	-103.56	-8,220.0	1,571.5	852.9	718.2	134.68	6.332
20,900.0	12,400.0	20,965.0	12,600.0	68.5	68.4	-103.56	-8,320.0	1,572.5	852.8	716.7	136.08	6.267
21,000.0	12,400.0	21,065.0	12,600.0	69.2	69.1	-103.56	-8,420.0	1,573.4	852.8	715.3	137.49	6.203
21,100.0	12,400.0	21,165.0	12,600.0	69.9	69.9	-103.56	-8,520.0	1,574.4	852.8	713.9	138.90	6.140
21,200.0	12,400.0	21,265.0	12,600.0	70.6	70.6	-103.57	-8,620.0	1,575.3	852.7	712.4	140.31	6.078
21,300.0	12,400.0	21,365.0	12,600.0	71.3	71.3	-103.57	-8,720.0	1,576.3	852.7	711.0	141.72	6.017
21,400.0	12,400.0	21,465.0	12,600.0	72.0	72.0	-103.57	-8,820.0	1,577.2	852.7	709.6	143.13	5.957
21,500.0	12,400.0	21,565.0	12,600.0	72.7	72.7	-103.57	-8,920.0	1,578.1	852.7	708.1	144.55	5.899
21,600.0	12,400.0	21,665.0	12,600.0	73.5	73.4	-103.57	-9,020.0	1,579.1	852.6	706.7	145.96	5.841
21,700.0	12,400.0	21,765.0	12,600.0	74.2	74.1	-103.57	-9,120.0	1,580.0	852.6	705.2	147.38	5.785
21,800.0	12,400.0	21,865.0	12,600.0	74.9	74.8	-103.57	-9,220.0	1,581.0	852.6	703.8	148.80	5.730
21,900.0	12,400.0	21,965.0	12,600.0	75.6	75.6	-103.57	-9,320.0	1,581.9	852.6	702.3	150.23	5.675
22,000.0	12,400.0	22,065.0	12,600.0	76.3	76.3	-103.57	-9,420.0	1,582.9	852.5	700.9	151.65	5.622

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #702H - OWB - PWP0											Offset Site Error: 0.0 usft				
Survey Program: 0-r.5 MWD+IFR1+MS				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
22,100.0	12,400.0	22,165.0	12,600.0	77.0	77.0	-103.57	-9,520.0	1,583.8	852.5	699.4	153.08	5.569			
22,200.0	12,400.0	22,265.0	12,600.0	77.8	77.7	-103.57	-9,620.0	1,584.7	852.5	698.0	154.50	5.518			
22,300.0	12,400.0	22,365.0	12,600.0	78.5	78.4	-103.57	-9,720.0	1,585.7	852.5	696.5	155.93	5.467			
22,400.0	12,400.0	22,465.0	12,600.0	79.2	79.1	-103.57	-9,820.0	1,586.6	852.4	695.1	157.36	5.417			
22,500.0	12,400.0	22,565.0	12,600.0	79.9	79.9	-103.57	-9,920.0	1,587.6	852.4	693.6	158.79	5.368			
22,600.0	12,400.0	22,665.0	12,600.0	80.7	80.6	-103.57	-10,020.0	1,588.5	852.4	692.1	160.23	5.320			
22,700.0	12,400.0	22,765.0	12,600.0	81.4	81.3	-103.57	-10,119.9	1,589.5	852.3	690.7	161.66	5.272			
22,800.0	12,400.0	22,865.0	12,600.0	82.1	82.0	-103.57	-10,219.9	1,590.4	852.3	689.2	163.10	5.226			
22,900.0	12,400.0	22,965.0	12,600.0	82.8	82.8	-103.57	-10,319.9	1,591.4	852.3	687.8	164.53	5.180			
23,000.0	12,400.0	23,065.0	12,600.0	83.6	83.5	-103.57	-10,419.9	1,592.3	852.3	686.3	165.97	5.135			
23,100.0	12,400.0	23,165.0	12,600.0	84.3	84.2	-103.57	-10,519.9	1,593.2	852.2	684.8	167.41	5.091			
23,200.0	12,400.0	23,265.0	12,600.0	85.0	84.9	-103.57	-10,619.9	1,594.2	852.2	683.4	168.85	5.047			
23,300.0	12,400.0	23,365.0	12,600.0	85.8	85.7	-103.57	-10,719.9	1,595.1	852.2	681.9	170.30	5.004			
23,400.0	12,400.0	23,465.0	12,600.0	86.5	86.4	-103.57	-10,819.9	1,596.1	852.2	680.4	171.74	4.962			
23,414.0	12,400.0	23,479.0	12,600.0	86.6	86.5	-103.57	-10,833.9	1,596.2	852.1	680.2	171.94	4.956 ES, SF			
23,500.0	12,400.0	23,481.2	12,600.0	87.2	86.5	-103.57	-10,836.2	1,596.2	856.2	684.9	171.30	4.998			
23,600.0	12,400.0	23,481.2	12,600.0	87.9	86.5	-103.57	-10,836.2	1,596.2	871.7	703.0	168.72	5.167			
23,700.0	12,400.0	23,481.2	12,600.0	88.7	86.5	-103.57	-10,836.2	1,596.2	898.1	733.6	164.49	5.460			
23,800.0	12,400.0	23,481.2	12,600.0	89.4	86.5	-103.57	-10,836.2	1,596.2	934.5	775.4	159.07	5.875			
23,900.0	12,400.0	23,481.2	12,600.0	90.1	86.5	-103.57	-10,836.2	1,596.2	979.8	826.8	152.93	6.407			
24,000.0	12,400.0	23,481.2	12,600.0	90.9	86.5	-103.57	-10,836.2	1,596.2	1,032.8	886.3	146.48	7.051			
24,100.0	12,400.0	23,481.2	12,600.0	91.6	86.5	-103.57	-10,836.2	1,596.2	1,092.4	952.4	140.04	7.800			
24,200.0	12,400.0	23,481.2	12,600.0	92.3	86.5	-103.57	-10,836.2	1,596.2	1,157.6	1,023.7	133.85	8.648			
24,300.0	12,400.0	23,481.2	12,600.0	93.1	86.5	-103.57	-10,836.2	1,596.2	1,227.5	1,099.5	128.03	9.588			
24,400.0	12,400.0	23,481.2	12,600.0	93.8	86.5	-103.57	-10,836.2	1,596.2	1,301.3	1,178.7	122.65	10.610			
24,500.0	12,400.0	23,481.2	12,600.0	94.5	86.5	-103.57	-10,836.2	1,596.2	1,378.5	1,260.7	117.74	11.708			
24,600.0	12,400.0	23,481.2	12,600.0	95.3	86.5	-103.57	-10,836.2	1,596.2	1,458.4	1,345.1	113.29	12.873			
24,700.0	12,400.0	23,481.2	12,600.0	96.0	86.5	-103.57	-10,836.2	1,596.2	1,540.6	1,431.4	109.27	14.099			
24,800.0	12,400.0	23,481.2	12,600.0	96.8	86.5	-103.57	-10,836.2	1,596.2	1,624.9	1,519.2	105.67	15.377			
24,900.0	12,400.0	23,481.2	12,600.0	97.5	86.5	-103.57	-10,836.2	1,596.2	1,710.8	1,608.4	102.44	16.700			
25,000.0	12,400.0	23,481.2	12,600.0	98.2	86.5	-103.57	-10,836.2	1,596.2	1,798.2	1,698.7	99.56	18.063			
25,100.0	12,400.0	23,481.2	12,600.0	99.0	86.5	-103.57	-10,836.2	1,596.2	1,886.9	1,789.9	96.97	19.458			
25,200.0	12,400.0	23,481.2	12,600.0	99.7	86.5	-103.57	-10,836.2	1,596.2	1,976.6	1,882.0	94.66	20.881			

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #703H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre	Between	Between	Minimum	Separation			
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
4,900.0	4,850.5	4,786.0	4,759.2	18.6	17.2	30.30	217.0	2,509.6	1,998.2	1,965.6	32.58	61.323		
5,000.0	4,949.0	4,902.4	4,875.5	19.0	17.6	30.51	219.8	2,514.5	1,987.3	1,954.0	33.23	59.802		
5,100.0	5,047.5	5,018.5	4,991.5	19.5	18.0	30.75	222.1	2,518.3	1,975.5	1,941.7	33.85	58.359		
5,200.0	5,146.0	5,134.3	5,107.2	19.9	18.3	31.00	223.7	2,521.2	1,963.0	1,928.5	34.44	56.989		
5,300.0	5,244.5	5,249.7	5,222.6	20.4	18.6	31.27	224.8	2,523.0	1,949.6	1,914.6	35.00	55.696		
5,400.0	5,343.0	5,364.8	5,337.7	20.8	18.8	31.52	225.3	2,523.8	1,935.6	1,900.1	35.46	54.582		
5,500.0	5,441.8	5,468.8	5,441.8	21.2	18.9	31.70	225.3	2,523.9	1,922.3	1,886.5	35.86	53.611		
5,600.0	5,540.8	5,567.9	5,540.8	21.6	19.0	31.86	225.3	2,523.9	1,910.5	1,874.3	36.23	52.731		
5,700.0	5,640.1	5,667.1	5,640.1	22.0	19.0	32.00	225.3	2,523.9	1,900.2	1,863.6	36.60	51.914		
5,800.0	5,739.5	5,766.6	5,739.5	22.4	19.1	32.12	225.3	2,523.9	1,891.4	1,854.4	36.97	51.160		
5,900.0	5,839.1	5,866.2	5,839.1	22.8	19.1	32.22	225.3	2,523.9	1,884.1	1,846.7	37.33	50.469		
6,000.0	5,938.9	5,966.0	5,938.9	23.2	19.2	32.30	225.3	2,523.9	1,878.2	1,840.5	37.68	49.842		
6,100.0	6,038.8	6,065.8	6,038.8	23.5	19.2	32.36	225.3	2,523.9	1,873.8	1,835.8	38.02	49.282		
6,200.0	6,138.7	6,165.8	6,138.7	23.8	19.3	32.40	225.3	2,523.9	1,870.9	1,832.6	38.34	48.793		
6,300.0	6,238.7	6,265.7	6,238.7	24.1	19.3	32.42	225.3	2,523.9	1,869.5	1,830.9	38.63	48.394		
6,392.5	6,331.2	6,358.2	6,331.2	24.2	19.4	32.43	225.3	2,523.9	1,869.2	1,830.5	38.74	48.254		
6,400.0	6,338.7	6,365.7	6,338.7	24.2	19.4	94.02	225.3	2,523.9	1,869.4	1,830.6	38.75	48.246		
6,500.0	6,438.7	6,465.7	6,438.7	24.2	19.4	94.02	225.3	2,523.9	1,869.4	1,830.5	38.85	48.123		
6,600.0	6,538.7	6,565.7	6,538.7	24.2	19.5	94.02	225.3	2,523.9	1,869.4	1,830.4	38.95	47.999		
6,700.0	6,638.7	6,665.7	6,638.7	24.3	19.5	94.02	225.3	2,523.9	1,869.4	1,830.3	39.05	47.875		
6,800.0	6,738.7	6,765.7	6,738.7	24.3	19.6	94.02	225.3	2,523.9	1,869.4	1,830.2	39.15	47.752		
6,900.0	6,838.7	6,865.7	6,838.7	24.4	19.7	94.02	225.3	2,523.9	1,869.4	1,830.1	39.25	47.629		
7,000.0	6,938.7	6,965.7	6,938.7	24.4	19.7	94.02	225.3	2,523.9	1,869.4	1,830.0	39.35	47.506		
7,100.0	7,038.7	7,065.7	7,038.7	24.5	19.8	94.02	225.3	2,523.9	1,869.4	1,829.9	39.45	47.383		
7,200.0	7,138.7	7,165.7	7,138.7	24.5	19.8	94.02	225.3	2,523.9	1,869.4	1,829.8	39.56	47.260		
7,300.0	7,238.7	7,265.7	7,238.7	24.5	19.9	94.02	225.3	2,523.9	1,869.4	1,829.7	39.66	47.137		
7,400.0	7,338.7	7,365.7	7,338.7	24.6	19.9	94.02	225.3	2,523.9	1,869.4	1,829.6	39.76	47.015		
7,500.0	7,438.7	7,465.7	7,438.7	24.6	20.0	94.02	225.3	2,523.9	1,869.4	1,829.5	39.86	46.893		
7,600.0	7,538.7	7,565.7	7,538.7	24.7	20.0	94.02	225.3	2,523.9	1,869.4	1,829.4	39.97	46.770		
7,700.0	7,638.7	7,665.7	7,638.7	24.7	20.1	94.02	225.3	2,523.9	1,869.4	1,829.3	40.07	46.649		
7,800.0	7,738.7	7,765.7	7,738.7	24.7	20.1	94.02	225.3	2,523.9	1,869.4	1,829.2	40.18	46.527		
7,900.0	7,838.7	7,865.7	7,838.7	24.8	20.2	94.02	225.3	2,523.9	1,869.4	1,829.1	40.28	46.405		
8,000.0	7,938.7	7,965.7	7,938.7	24.8	20.3	94.02	225.3	2,523.9	1,869.4	1,829.0	40.39	46.284		
8,100.0	8,038.7	8,065.7	8,038.7	24.9	20.3	94.02	225.3	2,523.9	1,869.4	1,828.9	40.50	46.163		
8,200.0	8,138.7	8,165.7	8,138.7	24.9	20.4	94.02	225.3	2,523.9	1,869.4	1,828.8	40.60	46.042		
8,300.0	8,238.7	8,265.7	8,238.7	25.0	20.4	94.02	225.3	2,523.9	1,869.4	1,828.7	40.71	45.922		
8,400.0	8,338.7	8,365.7	8,338.7	25.0	20.5	94.02	225.3	2,523.9	1,869.4	1,828.6	40.81	45.801		
8,500.0	8,438.7	8,465.7	8,438.7	25.1	20.5	94.02	225.3	2,523.9	1,869.4	1,828.4	40.92	45.681		
8,600.0	8,538.7	8,565.7	8,538.7	25.1	20.6	94.02	225.3	2,523.9	1,869.4	1,828.3	41.03	45.561		
8,700.0	8,638.7	8,665.7	8,638.7	25.1	20.6	94.02	225.3	2,523.9	1,869.4	1,828.2	41.14	45.441		
8,800.0	8,738.7	8,765.7	8,738.7	25.2	20.7	94.02	225.3	2,523.9	1,869.4	1,828.1	41.25	45.322		
8,900.0	8,838.7	8,865.7	8,838.7	25.2	20.8	94.02	225.3	2,523.9	1,869.4	1,828.0	41.36	45.203		
9,000.0	8,938.7	8,965.7	8,938.7	25.3	20.8	94.02	225.3	2,523.9	1,869.4	1,827.9	41.46	45.084		
9,100.0	9,038.7	9,065.7	9,038.7	25.3	20.9	94.02	225.3	2,523.9	1,869.4	1,827.8	41.57	44.965		
9,200.0	9,138.7	9,165.7	9,138.7	25.4	20.9	94.02	225.3	2,523.9	1,869.4	1,827.7	41.68	44.846		
9,300.0	9,238.7	9,265.7	9,238.7	25.4	21.0	94.02	225.3	2,523.9	1,869.4	1,827.6	41.79	44.728		
9,400.0	9,338.7	9,365.7	9,338.7	25.5	21.0	94.02	225.3	2,523.9	1,869.4	1,827.5	41.90	44.610		
9,500.0	9,438.7	9,465.7	9,438.7	25.5	21.1	94.02	225.3	2,523.9	1,869.4	1,827.4	42.02	44.493		
9,600.0	9,538.7	9,565.7	9,538.7	25.6	21.2	94.02	225.3	2,523.9	1,869.4	1,827.2	42.13	44.375		
9,700.0	9,638.7	9,665.7	9,638.7	25.6	21.2	94.02	225.3	2,523.9	1,869.4	1,827.1	42.24	44.258		
9,800.0	9,738.7	9,765.7	9,738.7	25.6	21.3	94.02	225.3	2,523.9	1,869.4	1,827.0	42.35	44.141		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
9,900.0	9,838.7	9,865.7	9,838.7	25.7	21.3	94.02	225.3	2,523.9	1,869.4	1,826.9	42.46	44.025	
10,000.0	9,938.7	9,965.7	9,938.7	25.7	21.4	94.02	225.3	2,523.9	1,869.4	1,826.8	42.57	43.909	
10,100.0	10,038.7	10,065.7	10,038.7	25.8	21.5	94.02	225.3	2,523.9	1,869.4	1,826.7	42.69	43.793	
10,200.0	10,138.7	10,165.7	10,138.7	25.8	21.5	94.02	225.3	2,523.9	1,869.4	1,826.6	42.80	43.677	
10,300.0	10,238.7	10,265.7	10,238.7	25.9	21.6	94.02	225.3	2,523.9	1,869.4	1,826.5	42.91	43.562	
10,400.0	10,338.7	10,365.7	10,338.7	25.9	21.6	94.02	225.3	2,523.9	1,869.4	1,826.3	43.03	43.447	
10,500.0	10,438.7	10,465.7	10,438.7	26.0	21.7	94.02	225.3	2,523.9	1,869.4	1,826.2	43.14	43.332	
10,600.0	10,538.7	10,565.7	10,538.7	26.0	21.7	94.02	225.3	2,523.9	1,869.4	1,826.1	43.26	43.217	
10,700.0	10,638.7	10,665.7	10,638.7	26.1	21.8	94.02	225.3	2,523.9	1,869.4	1,826.0	43.37	43.103	
10,800.0	10,738.7	10,765.7	10,738.7	26.1	21.9	94.02	225.3	2,523.9	1,869.4	1,825.9	43.48	42.989	
10,900.0	10,838.7	10,865.7	10,838.7	26.2	21.9	94.02	225.3	2,523.9	1,869.4	1,825.8	43.60	42.876	
11,000.0	10,938.7	10,965.7	10,938.7	26.2	22.0	94.02	225.3	2,523.9	1,869.4	1,825.7	43.72	42.763	
11,100.0	11,038.7	11,065.7	11,038.7	26.3	22.0	94.02	225.3	2,523.9	1,869.4	1,825.5	43.83	42.650	
11,200.0	11,138.7	11,165.7	11,138.7	26.3	22.1	94.02	225.3	2,523.9	1,869.4	1,825.4	43.95	42.537	
11,300.0	11,238.7	11,265.7	11,238.7	26.4	22.2	94.02	225.3	2,523.9	1,869.4	1,825.3	44.06	42.425	
11,400.0	11,338.7	11,365.7	11,338.7	26.4	22.2	94.02	225.3	2,523.9	1,869.4	1,825.2	44.18	42.313	
11,500.0	11,438.7	11,465.7	11,438.7	26.5	22.3	94.02	225.3	2,523.9	1,869.4	1,825.1	44.30	42.201	
11,600.0	11,538.7	11,565.7	11,538.7	26.5	22.3	94.02	225.3	2,523.9	1,869.4	1,825.0	44.41	42.090	
11,700.0	11,638.7	11,665.7	11,638.7	26.6	22.4	94.02	225.3	2,523.9	1,869.4	1,824.8	44.53	41.979	
11,800.0	11,738.7	11,765.7	11,738.7	26.6	22.5	94.02	225.3	2,523.9	1,869.4	1,824.7	44.65	41.867	
11,845.0	11,783.6	11,809.3	11,782.3	26.6	22.5	-85.43	225.3	2,523.9	1,869.4	1,824.7	44.70	41.820	
11,900.0	11,838.7	11,850.0	11,822.9	26.7	22.5	-85.36	223.4	2,523.9	1,869.6	1,824.8	44.74	41.786	
12,000.0	11,938.0	11,931.7	11,903.6	26.5	22.4	-85.21	211.1	2,524.0	1,870.0	1,825.2	44.76	41.777	
12,100.0	12,033.9	12,010.2	11,978.8	26.3	22.2	-85.18	188.6	2,524.2	1,870.0	1,825.2	44.82	41.726	
12,200.0	12,123.5	12,088.8	12,050.2	26.1	22.1	-85.27	156.0	2,524.5	1,869.8	1,824.9	44.90	41.641	
12,300.0	12,204.2	12,167.8	12,116.8	26.0	22.0	-85.48	113.6	2,524.9	1,869.2	1,824.2	45.01	41.530	
12,400.0	12,273.3	12,250.0	12,179.3	25.8	21.8	-85.82	60.3	2,525.4	1,868.4	1,823.3	45.11	41.415	
12,500.0	12,328.9	12,328.2	12,231.0	25.7	21.7	-86.24	1.8	2,526.0	1,867.4	1,822.2	45.26	41.262	
12,600.0	12,369.3	12,410.2	12,276.3	25.6	21.7	-86.77	-66.5	2,526.6	1,866.4	1,821.0	45.38	41.125	
12,700.0	12,393.2	12,494.1	12,311.9	25.6	21.6	-87.38	-142.3	2,527.3	1,865.3	1,819.8	45.50	40.997	
12,800.0	12,400.0	12,580.1	12,336.6	25.7	21.6	-88.05	-224.7	2,528.1	1,864.4	1,818.8	45.60	40.888	
12,900.0	12,400.0	12,670.2	12,349.0	25.8	21.7	-88.43	-313.8	2,528.9	1,863.9	1,818.2	45.74	40.754	
13,000.0	12,400.0	12,767.2	12,350.0	25.9	21.8	-88.46	-410.8	2,529.8	1,863.9	1,817.9	45.95	40.565	
13,100.0	12,400.0	12,867.2	12,350.0	26.0	21.9	-88.46	-510.8	2,530.8	1,863.8	1,817.6	46.20	40.341	
13,200.0	12,400.0	12,967.2	12,350.0	26.2	22.0	-88.46	-610.8	2,531.7	1,863.8	1,817.3	46.50	40.077	
13,300.0	12,400.0	13,067.2	12,350.0	26.4	22.2	-88.46	-710.8	2,532.7	1,863.8	1,816.9	46.86	39.777	
13,400.0	12,400.0	13,167.2	12,350.0	26.6	22.4	-88.46	-810.8	2,533.6	1,863.7	1,816.5	47.25	39.443	
13,500.0	12,400.0	13,267.2	12,350.0	26.8	22.6	-88.46	-910.7	2,534.5	1,863.7	1,816.0	47.69	39.078	
13,600.0	12,400.0	13,367.2	12,350.0	27.0	22.8	-88.46	-1,010.7	2,535.5	1,863.7	1,815.5	48.18	38.684	
13,700.0	12,400.0	13,467.2	12,350.0	27.2	23.1	-88.46	-1,110.7	2,536.4	1,863.6	1,814.9	48.70	38.265	
13,800.0	12,400.0	13,567.2	12,350.0	27.5	23.4	-88.46	-1,210.7	2,537.3	1,863.6	1,814.3	49.27	37.823	
13,900.0	12,400.0	13,667.2	12,350.0	27.8	23.7	-88.46	-1,310.7	2,538.3	1,863.5	1,813.7	49.88	37.362	
14,000.0	12,400.0	13,767.2	12,350.0	28.1	24.0	-88.46	-1,410.7	2,539.2	1,863.5	1,813.0	50.52	36.885	
14,100.0	12,400.0	13,867.2	12,350.0	28.4	24.3	-88.46	-1,510.7	2,540.2	1,863.5	1,812.3	51.20	36.393	
14,200.0	12,400.0	13,967.2	12,350.0	28.7	24.7	-88.46	-1,610.7	2,541.1	1,863.4	1,811.5	51.92	35.890	
14,300.0	12,400.0	14,067.2	12,350.0	29.0	25.0	-88.46	-1,710.7	2,542.0	1,863.4	1,810.7	52.67	35.378	
14,400.0	12,400.0	14,167.2	12,350.0	29.4	25.4	-88.46	-1,810.7	2,543.0	1,863.4	1,809.9	53.45	34.859	
14,500.0	12,400.0	14,267.2	12,350.0	29.7	25.8	-88.46	-1,910.7	2,543.9	1,863.3	1,809.1	54.27	34.336	
14,600.0	12,400.0	14,367.2	12,350.0	30.1	26.2	-88.46	-2,010.7	2,544.8	1,863.3	1,808.2	55.11	33.810	
14,700.0	12,400.0	14,467.2	12,350.0	30.5	26.7	-88.46	-2,110.7	2,545.8	1,863.3	1,807.3	55.98	33.283	
14,800.0	12,400.0	14,567.2	12,350.0	30.9	27.1	-88.46	-2,210.7	2,546.7	1,863.2	1,806.4	56.88	32.757	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
14,900.0	12,400.0	14,667.2	12,350.0	31.3	27.6	-88.46	-2,310.7	2,547.6	1,863.2	1,805.4	57.80	32.233	
15,000.0	12,400.0	14,767.2	12,350.0	31.8	28.1	-88.46	-2,410.7	2,548.6	1,863.2	1,804.4	58.75	31.713	
15,100.0	12,400.0	14,867.2	12,350.0	32.2	28.5	-88.46	-2,510.7	2,549.5	1,863.1	1,803.4	59.72	31.197	
15,200.0	12,400.0	14,967.2	12,350.0	32.6	29.0	-88.46	-2,610.7	2,550.5	1,863.1	1,802.4	60.72	30.686	
15,300.0	12,400.0	15,067.2	12,350.0	33.1	29.6	-88.46	-2,710.7	2,551.4	1,863.1	1,801.3	61.73	30.181	
15,400.0	12,400.0	15,167.2	12,350.0	33.6	30.1	-88.46	-2,810.7	2,552.3	1,863.0	1,800.3	62.76	29.683	
15,500.0	12,400.0	15,267.2	12,350.0	34.1	30.6	-88.46	-2,910.7	2,553.3	1,863.0	1,799.2	63.82	29.193	
15,600.0	12,400.0	15,367.2	12,350.0	34.6	31.2	-88.46	-3,010.7	2,554.2	1,863.0	1,798.1	64.89	28.711	
15,700.0	12,400.0	15,467.2	12,350.0	35.1	31.7	-88.46	-3,110.6	2,555.1	1,862.9	1,797.0	65.98	28.237	
15,800.0	12,400.0	15,567.2	12,350.0	35.6	32.3	-88.46	-3,210.6	2,556.1	1,862.9	1,795.8	67.08	27.771	
15,900.0	12,400.0	15,667.2	12,350.0	36.1	32.8	-88.46	-3,310.6	2,557.0	1,862.9	1,794.7	68.20	27.315	
16,000.0	12,400.0	15,767.2	12,350.0	36.7	33.4	-88.46	-3,410.6	2,558.0	1,862.8	1,793.5	69.33	26.867	
16,100.0	12,400.0	15,867.2	12,350.0	37.2	34.0	-88.46	-3,510.6	2,558.9	1,862.8	1,792.3	70.48	26.429	
16,200.0	12,400.0	15,967.2	12,350.0	37.7	34.6	-88.46	-3,610.6	2,559.8	1,862.8	1,791.1	71.65	26.000	
16,300.0	12,400.0	16,067.2	12,350.0	38.3	35.2	-88.46	-3,710.6	2,560.8	1,862.7	1,789.9	72.82	25.580	
16,400.0	12,400.0	16,167.2	12,350.0	38.9	35.8	-88.46	-3,810.6	2,561.7	1,862.7	1,788.7	74.01	25.169	
16,500.0	12,400.0	16,267.2	12,350.0	39.4	36.4	-88.46	-3,910.6	2,562.6	1,862.7	1,787.4	75.21	24.767	
16,600.0	12,400.0	16,367.2	12,350.0	40.0	37.0	-88.46	-4,010.6	2,563.6	1,862.6	1,786.2	76.42	24.375	
16,700.0	12,400.0	16,467.2	12,350.0	40.6	37.7	-88.46	-4,110.6	2,564.5	1,862.6	1,784.9	77.63	23.992	
16,800.0	12,400.0	16,567.2	12,350.0	41.2	38.3	-88.46	-4,210.6	2,565.4	1,862.5	1,783.7	78.86	23.617	
16,900.0	12,400.0	16,667.2	12,350.0	41.8	38.9	-88.46	-4,310.6	2,566.4	1,862.5	1,782.4	80.10	23.251	
17,000.0	12,400.0	16,767.2	12,350.0	42.4	39.6	-88.46	-4,410.6	2,567.3	1,862.5	1,781.1	81.35	22.894	
17,100.0	12,400.0	16,867.2	12,350.0	43.0	40.2	-88.46	-4,510.6	2,568.3	1,862.4	1,779.8	82.61	22.545	
17,200.0	12,400.0	16,967.2	12,350.0	43.6	40.9	-88.46	-4,610.6	2,569.2	1,862.4	1,778.5	83.88	22.205	
17,300.0	12,400.0	17,067.2	12,350.0	44.2	41.5	-88.46	-4,710.6	2,570.1	1,862.4	1,777.2	85.15	21.872	
17,400.0	12,400.0	17,167.2	12,350.0	44.8	42.2	-88.46	-4,810.6	2,571.1	1,862.3	1,775.9	86.43	21.548	
17,500.0	12,400.0	17,267.2	12,350.0	45.5	42.8	-88.46	-4,910.6	2,572.0	1,862.3	1,774.6	87.72	21.231	
17,600.0	12,400.0	17,367.2	12,350.0	46.1	43.5	-88.46	-5,010.6	2,572.9	1,862.3	1,773.3	89.01	20.921	
17,700.0	12,400.0	17,467.2	12,350.0	46.7	44.1	-88.46	-5,110.6	2,573.9	1,862.2	1,771.9	90.31	20.620	
17,800.0	12,400.0	17,567.2	12,350.0	47.4	44.8	-88.46	-5,210.6	2,574.8	1,862.2	1,770.6	91.62	20.325	
17,900.0	12,400.0	17,667.2	12,350.0	48.0	45.5	-88.46	-5,310.6	2,575.7	1,862.2	1,769.2	92.94	20.037	
18,000.0	12,400.0	17,767.2	12,350.0	48.7	46.2	-88.46	-5,410.5	2,576.7	1,862.1	1,767.9	94.26	19.756	
18,100.0	12,400.0	17,867.2	12,350.0	49.3	46.8	-88.46	-5,510.5	2,577.6	1,862.1	1,766.5	95.58	19.482	
18,200.0	12,400.0	17,967.2	12,350.0	50.0	47.5	-88.46	-5,610.5	2,578.6	1,862.1	1,765.2	96.91	19.214	
18,300.0	12,400.0	18,067.2	12,350.0	50.6	48.2	-88.46	-5,710.5	2,579.5	1,862.0	1,763.8	98.25	18.952	
18,400.0	12,400.0	18,167.2	12,350.0	51.3	48.9	-88.46	-5,810.5	2,580.4	1,862.0	1,762.4	99.59	18.697	
18,500.0	12,400.0	18,267.2	12,350.0	51.9	49.6	-88.46	-5,910.5	2,581.4	1,862.0	1,761.0	100.93	18.447	
18,600.0	12,400.0	18,367.2	12,350.0	52.6	50.3	-88.46	-6,010.5	2,582.3	1,861.9	1,759.6	102.28	18.204	
18,700.0	12,400.0	18,467.2	12,350.0	53.3	51.0	-88.46	-6,110.5	2,583.2	1,861.9	1,758.3	103.64	17.965	
18,800.0	12,400.0	18,567.2	12,350.0	53.9	51.7	-88.46	-6,210.5	2,584.2	1,861.9	1,756.9	105.00	17.733	
18,900.0	12,400.0	18,667.2	12,350.0	54.6	52.4	-88.46	-6,310.5	2,585.1	1,861.8	1,755.5	106.36	17.505	
19,000.0	12,400.0	18,767.2	12,350.0	55.3	53.0	-88.46	-6,410.5	2,586.1	1,861.8	1,754.1	107.72	17.283	
19,100.0	12,400.0	18,867.2	12,350.0	56.0	53.7	-88.46	-6,510.5	2,587.0	1,861.8	1,752.7	109.09	17.065	
19,200.0	12,400.0	18,967.2	12,350.0	56.6	54.5	-88.46	-6,610.5	2,587.9	1,861.7	1,751.3	110.47	16.853	
19,300.0	12,400.0	19,067.2	12,350.0	57.3	55.2	-88.46	-6,710.5	2,588.9	1,861.7	1,749.8	111.85	16.645	
19,400.0	12,400.0	19,167.2	12,350.0	58.0	55.9	-88.46	-6,810.5	2,589.8	1,861.7	1,748.4	113.23	16.442	
19,500.0	12,400.0	19,267.2	12,350.0	58.7	56.6	-88.46	-6,910.5	2,590.7	1,861.6	1,747.0	114.61	16.243	
19,600.0	12,400.0	19,367.2	12,350.0	59.4	57.3	-88.46	-7,010.5	2,591.7	1,861.6	1,745.6	116.00	16.049	
19,700.0	12,400.0	19,467.2	12,350.0	60.1	58.0	-88.46	-7,110.5	2,592.6	1,861.5	1,744.2	117.39	15.858	
19,800.0	12,400.0	19,567.2	12,350.0	60.8	58.7	-88.46	-7,210.5	2,593.5	1,861.5	1,742.7	118.78	15.672	
19,900.0	12,400.0	19,667.2	12,350.0	61.4	59.4	-88.46	-7,310.5	2,594.5	1,861.5	1,741.3	120.17	15.490	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #703H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-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)				
20,000.0	12,400.0	19,767.2	12,350.0	62.1	60.1	-88.46	-7,410.5	2,595.4	1,861.4	1,739.9	121.57	15.312		
20,100.0	12,400.0	19,867.2	12,350.0	62.8	60.8	-88.46	-7,510.5	2,596.4	1,861.4	1,738.4	122.97	15.137		
20,200.0	12,400.0	19,967.2	12,350.0	63.5	61.6	-88.46	-7,610.5	2,597.3	1,861.4	1,737.0	124.37	14.966		
20,300.0	12,400.0	20,067.2	12,350.0	64.2	62.3	-88.46	-7,710.4	2,598.2	1,861.3	1,735.6	125.78	14.798		
20,400.0	12,400.0	20,167.2	12,350.0	64.9	63.0	-88.46	-7,810.4	2,599.2	1,861.3	1,734.1	127.19	14.634		
20,500.0	12,400.0	20,267.2	12,350.0	65.6	63.7	-88.46	-7,910.4	2,600.1	1,861.3	1,732.7	128.60	14.474		
20,600.0	12,400.0	20,367.2	12,350.0	66.3	64.4	-88.46	-8,010.4	2,601.0	1,861.2	1,731.2	130.01	14.316		
20,700.0	12,400.0	20,467.2	12,350.0	67.1	65.1	-88.46	-8,110.4	2,602.0	1,861.2	1,729.8	131.42	14.162		
20,800.0	12,400.0	20,567.2	12,350.0	67.8	65.9	-88.46	-8,210.4	2,602.9	1,861.2	1,728.3	132.84	14.011		
20,900.0	12,400.0	20,667.2	12,350.0	68.5	66.6	-88.46	-8,310.4	2,603.9	1,861.1	1,726.9	134.26	13.862		
21,000.0	12,400.0	20,767.2	12,350.0	69.2	67.3	-88.46	-8,410.4	2,604.8	1,861.1	1,725.4	135.68	13.717		
21,100.0	12,400.0	20,867.2	12,350.0	69.9	68.0	-88.46	-8,510.4	2,605.7	1,861.1	1,724.0	137.10	13.574		
21,200.0	12,400.0	20,967.2	12,350.0	70.6	68.8	-88.46	-8,610.4	2,606.7	1,861.0	1,722.5	138.52	13.435		
21,300.0	12,400.0	21,067.2	12,350.0	71.3	69.5	-88.46	-8,710.4	2,607.6	1,861.0	1,721.0	139.95	13.298		
21,400.0	12,400.0	21,167.2	12,350.0	72.0	70.2	-88.46	-8,810.4	2,608.5	1,861.0	1,719.6	141.38	13.163		
21,500.0	12,400.0	21,267.2	12,350.0	72.7	71.0	-88.46	-8,910.4	2,609.5	1,860.9	1,718.1	142.81	13.031		
21,600.0	12,400.0	21,367.2	12,350.0	73.5	71.7	-88.46	-9,010.4	2,610.4	1,860.9	1,716.7	144.24	12.902		
21,700.0	12,400.0	21,467.2	12,350.0	74.2	72.4	-88.46	-9,110.4	2,611.3	1,860.9	1,715.2	145.67	12.775		
21,800.0	12,400.0	21,567.2	12,350.0	74.9	73.1	-88.46	-9,210.4	2,612.3	1,860.8	1,713.7	147.10	12.650		
21,900.0	12,400.0	21,667.2	12,350.0	75.6	73.9	-88.46	-9,310.4	2,613.2	1,860.8	1,712.3	148.54	12.527		
22,000.0	12,400.0	21,767.2	12,350.0	76.3	74.6	-88.46	-9,410.4	2,614.2	1,860.8	1,710.8	149.97	12.407		
22,100.0	12,400.0	21,867.2	12,350.0	77.0	75.3	-88.46	-9,510.4	2,615.1	1,860.7	1,709.3	151.41	12.289		
22,200.0	12,400.0	21,967.2	12,350.0	77.8	76.1	-88.46	-9,610.4	2,616.0	1,860.7	1,707.8	152.85	12.173		
22,300.0	12,400.0	22,067.2	12,350.0	78.5	76.8	-88.46	-9,710.4	2,617.0	1,860.7	1,706.4	154.29	12.059		
22,400.0	12,400.0	22,167.2	12,350.0	79.2	77.5	-88.46	-9,810.4	2,617.9	1,860.6	1,704.9	155.73	11.948		
22,500.0	12,400.0	22,267.2	12,350.0	79.9	78.3	-88.46	-9,910.4	2,618.8	1,860.6	1,703.4	157.17	11.838		
22,600.0	12,400.0	22,367.2	12,350.0	80.7	79.0	-88.46	-10,010.3	2,619.8	1,860.5	1,701.9	158.62	11.730		
22,700.0	12,400.0	22,467.2	12,350.0	81.4	79.7	-88.46	-10,110.3	2,620.7	1,860.5	1,700.4	160.06	11.624		
22,800.0	12,400.0	22,567.2	12,350.0	82.1	80.5	-88.46	-10,210.3	2,621.7	1,860.5	1,699.0	161.51	11.519		
22,900.0	12,400.0	22,667.2	12,350.0	82.8	81.2	-88.46	-10,310.3	2,622.6	1,860.4	1,697.5	162.96	11.417		
23,000.0	12,400.0	22,767.2	12,350.0	83.6	82.0	-88.46	-10,410.3	2,623.5	1,860.4	1,696.0	164.41	11.316		
23,100.0	12,400.0	22,867.2	12,350.0	84.3	82.7	-88.46	-10,510.3	2,624.5	1,860.4	1,694.5	165.86	11.217		
23,200.0	12,400.0	22,967.2	12,350.0	85.0	83.4	-88.46	-10,610.3	2,625.4	1,860.3	1,693.0	167.31	11.119		
23,300.0	12,400.0	23,067.2	12,350.0	85.8	84.2	-88.46	-10,710.3	2,626.3	1,860.3	1,691.5	168.76	11.024		
23,400.0	12,400.0	23,167.2	12,350.0	86.5	84.9	-88.46	-10,810.3	2,627.3	1,860.3	1,690.1	170.21	10.929		
23,500.0	12,400.0	23,267.2	12,350.0	87.2	85.6	-88.46	-10,910.3	2,628.2	1,860.2	1,688.6	171.66	10.837		
23,600.0	12,400.0	23,367.2	12,350.0	87.9	86.4	-88.46	-11,010.3	2,629.1	1,860.2	1,687.1	173.12	10.745		
23,700.0	12,400.0	23,467.2	12,350.0	88.7	87.1	-88.46	-11,110.3	2,630.1	1,860.2	1,685.6	174.57	10.656		
23,800.0	12,400.0	23,567.2	12,350.0	89.4	87.9	-88.46	-11,210.3	2,631.0	1,860.1	1,684.1	176.03	10.567		
23,900.0	12,400.0	23,667.2	12,350.0	90.1	88.6	-88.46	-11,310.3	2,632.0	1,860.1	1,682.6	177.49	10.480		
24,000.0	12,400.0	23,767.2	12,350.0	90.9	89.4	-88.46	-11,410.3	2,632.9	1,860.1	1,681.1	178.94	10.395		
24,100.0	12,400.0	23,867.2	12,350.0	91.6	90.1	-88.46	-11,510.3	2,633.8	1,860.0	1,679.6	180.40	10.310		
24,200.0	12,400.0	23,967.2	12,350.0	92.3	90.8	-88.46	-11,610.3	2,634.8	1,860.0	1,678.1	181.86	10.228		
24,300.0	12,400.0	24,067.2	12,350.0	93.1	91.6	-88.46	-11,710.3	2,635.7	1,860.0	1,676.6	183.32	10.146		
24,400.0	12,400.0	24,167.2	12,350.0	93.8	92.3	-88.46	-11,810.3	2,636.6	1,859.9	1,675.1	184.78	10.066		
24,500.0	12,400.0	24,267.2	12,350.0	94.5	93.1	-88.46	-11,910.3	2,637.6	1,859.9	1,673.6	186.24	9.986		
24,600.0	12,400.0	24,367.2	12,350.0	95.3	93.8	-88.46	-12,010.3	2,638.5	1,859.9	1,672.2	187.71	9.908		
24,700.0	12,400.0	24,467.2	12,350.0	96.0	94.6	-88.46	-12,110.3	2,639.5	1,859.8	1,670.7	189.17	9.832		
24,800.0	12,400.0	24,567.2	12,350.0	96.8	95.3	-88.46	-12,210.2	2,640.4	1,859.8	1,669.2	190.63	9.756		
24,900.0	12,400.0	24,667.2	12,350.0	97.5	96.0	-88.46	-12,310.2	2,641.3	1,859.8	1,667.7	192.10	9.681		
25,000.0	12,400.0	24,767.2	12,350.0	98.2	96.8	-88.46	-12,410.2	2,642.3	1,859.7	1,666.2	193.56	9.608		

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #703H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Offset (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Warning
								+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)
												Separation Factor
25,100.0	12,400.0	24,867.2	12,350.0	99.0	97.5	-88.46	-12,510.2	2,643.2	1,859.7	1,664.7	195.03	9.535
25,200.0	12,400.0	24,967.2	12,350.0	99.7	98.3	-88.46	-12,610.2	2,644.1	1,859.7	1,663.2	196.49	9.464
25,300.0	12,400.0	25,067.2	12,350.0	100.4	99.0	-88.46	-12,710.2	2,645.1	1,859.6	1,661.7	197.96	9.394
25,400.0	12,400.0	25,167.2	12,350.0	101.2	99.8	-88.46	-12,810.2	2,646.0	1,859.6	1,660.2	199.43	9.325
25,500.0	12,400.0	25,267.2	12,350.0	101.9	100.5	-88.46	-12,910.2	2,646.9	1,859.5	1,658.7	200.90	9.256
25,600.0	12,400.0	25,367.2	12,350.0	102.7	101.3	-88.46	-13,010.2	2,647.9	1,859.5	1,657.1	202.36	9.189
25,700.0	12,400.0	25,467.2	12,350.0	103.4	102.0	-88.46	-13,110.2	2,648.8	1,859.5	1,655.6	203.83	9.123
25,800.0	12,400.0	25,567.2	12,350.0	104.1	102.8	-88.46	-13,210.2	2,649.8	1,859.4	1,654.1	205.30	9.057
25,900.0	12,400.0	25,667.2	12,350.0	104.9	103.5	-88.46	-13,310.2	2,650.7	1,859.4	1,652.6	206.77	8.992
26,000.0	12,400.0	25,767.2	12,350.0	105.6	104.3	-88.46	-13,410.2	2,651.6	1,859.4	1,651.1	208.24	8.929
26,100.0	12,400.0	25,867.2	12,350.0	106.4	105.0	-88.46	-13,510.2	2,652.6	1,859.3	1,649.6	209.72	8.866
26,200.0	12,400.0	25,967.2	12,350.0	107.1	105.7	-88.46	-13,610.2	2,653.5	1,859.3	1,648.1	211.19	8.804
26,300.0	12,400.0	26,067.2	12,350.0	107.9	106.5	-88.46	-13,710.2	2,654.4	1,859.3	1,646.6	212.66	8.743
26,400.0	12,400.0	26,167.2	12,350.0	108.6	107.2	-88.46	-13,810.2	2,655.4	1,859.2	1,645.1	214.13	8.683
26,500.0	12,400.0	26,267.2	12,350.0	109.3	108.0	-88.46	-13,910.2	2,656.3	1,859.2	1,643.6	215.61	8.623
26,600.0	12,400.0	26,367.2	12,350.0	110.1	108.7	-88.46	-14,010.2	2,657.3	1,859.2	1,642.1	217.08	8.564
26,700.0	12,400.0	26,467.2	12,350.0	110.8	109.5	-88.46	-14,110.2	2,658.2	1,859.1	1,640.6	218.55	8.507
26,800.0	12,400.0	26,567.2	12,350.0	111.6	110.2	-88.46	-14,210.2	2,659.1	1,859.1	1,639.1	220.03	8.449
26,900.0	12,400.0	26,667.2	12,350.0	112.3	111.0	-88.46	-14,310.2	2,660.1	1,859.1	1,637.6	221.50	8.393
27,000.0	12,400.0	26,767.2	12,350.0	113.1	111.7	-88.46	-14,410.2	2,661.0	1,859.0	1,636.1	222.98	8.337
27,100.0	12,400.0	26,867.2	12,350.0	113.8	112.5	-88.46	-14,510.1	2,661.9	1,859.0	1,634.5	224.45	8.282
27,200.0	12,400.0	26,967.2	12,350.0	114.6	113.2	-88.46	-14,610.1	2,662.9	1,859.0	1,633.0	225.93	8.228
27,300.0	12,400.0	27,067.2	12,350.0	115.3	114.0	-88.46	-14,710.1	2,663.8	1,858.9	1,631.5	227.41	8.174
27,400.0	12,400.0	27,167.2	12,350.0	116.0	114.7	-88.46	-14,810.1	2,664.7	1,858.9	1,630.0	228.88	8.122
27,500.0	12,400.0	27,267.2	12,350.0	116.8	115.5	-88.46	-14,910.1	2,665.7	1,858.9	1,628.5	230.36	8.069
27,600.0	12,400.0	27,367.2	12,350.0	117.5	116.2	-88.46	-15,010.1	2,666.6	1,858.8	1,627.0	231.84	8.018
27,700.0	12,400.0	27,467.2	12,350.0	118.3	117.0	-88.46	-15,110.1	2,667.6	1,858.8	1,625.5	233.32	7.967
27,800.0	12,400.0	27,567.2	12,350.0	119.0	117.7	-88.46	-15,210.1	2,668.5	1,858.8	1,624.0	234.80	7.916
27,900.0	12,400.0	27,667.2	12,350.0	119.8	118.5	-88.46	-15,310.1	2,669.4	1,858.7	1,622.4	236.27	7.867
28,000.0	12,400.0	27,767.2	12,350.0	120.5	119.2	-88.46	-15,410.1	2,670.4	1,858.7	1,620.9	237.75	7.818
28,100.0	12,400.0	27,867.2	12,350.0	121.3	120.0	-88.46	-15,510.1	2,671.3	1,858.6	1,619.4	239.23	7.769
28,200.0	12,400.0	27,967.2	12,350.0	122.0	120.8	-88.46	-15,610.1	2,672.2	1,858.6	1,617.9	240.71	7.721
28,300.0	12,400.0	28,067.2	12,350.0	122.8	121.5	-88.46	-15,710.1	2,673.2	1,858.6	1,616.4	242.19	7.674
28,400.0	12,400.0	28,167.2	12,350.0	123.5	122.3	-88.46	-15,810.1	2,674.1	1,858.5	1,614.9	243.67	7.627
28,500.0	12,400.0	28,267.2	12,350.0	124.3	123.0	-88.46	-15,910.1	2,675.1	1,858.5	1,613.4	245.16	7.581
28,600.0	12,400.0	28,367.2	12,350.0	125.0	123.8	-88.46	-16,010.1	2,676.0	1,858.5	1,611.8	246.64	7.535
28,700.0	12,400.0	28,467.2	12,350.0	125.8	124.5	-88.46	-16,110.1	2,676.9	1,858.4	1,610.3	248.12	7.490
28,705.2	12,400.0	28,471.7	12,350.0	125.8	124.5	-88.46	-16,114.6	2,677.0	1,858.4	1,610.2	248.19	7.488 CC
28,710.4	12,400.0	28,471.7	12,350.0	125.8	124.5	-88.46	-16,114.6	2,677.0	1,858.4	1,610.2	248.25	7.486 ES, SF

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #801H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	3.0	3.0	-90.48	-0.5	-60.0	60.0	53.6	6.43	9.333	
100.0	100.0	100.0	100.0	3.2	3.2	-90.48	-0.5	-60.0	60.0	53.1	6.89	8.706	
200.0	200.0	200.0	200.0	3.5	3.5	-90.48	-0.5	-60.0	60.0	52.7	7.33	8.188	
300.0	300.0	300.0	300.0	3.7	3.7	-90.48	-0.5	-60.0	60.0	52.3	7.74	7.751	
400.0	400.0	400.0	400.0	3.9	3.9	-90.48	-0.5	-60.0	60.0	51.9	8.14	7.375	
500.0	500.0	500.0	500.0	4.1	4.1	-90.48	-0.5	-60.0	60.0	51.5	8.51	7.048	
600.0	600.0	600.0	600.0	4.2	4.2	-90.48	-0.5	-60.0	60.0	51.1	8.88	6.759	
700.0	700.0	700.0	700.0	4.4	4.4	-90.48	-0.5	-60.0	60.0	50.8	9.23	6.501	
800.0	800.0	800.0	800.0	4.6	4.6	-90.48	-0.5	-60.0	60.0	50.4	9.57	6.269	
900.0	900.0	900.0	900.0	4.8	4.8	-90.48	-0.5	-60.0	60.0	50.1	9.90	6.060	
1,000.0	1,000.0	1,000.0	1,000.0	4.9	4.9	-90.48	-0.5	-60.0	60.0	49.8	10.22	5.868	
1,100.0	1,100.0	1,100.0	1,100.0	5.1	5.1	-90.48	-0.5	-60.0	60.0	49.5	10.54	5.693	
1,200.0	1,200.0	1,200.0	1,200.0	5.2	5.2	-90.48	-0.5	-60.0	60.0	49.2	10.85	5.531	CC, ES, SF
1,300.0	1,300.0	1,298.6	1,298.6	5.4	5.4	-152.06	0.1	-61.1	62.3	51.1	11.20	5.564	
1,400.0	1,399.9	1,396.9	1,396.8	5.6	5.6	-152.01	1.9	-64.5	69.2	57.6	11.55	5.990	
1,500.0	1,499.7	1,494.5	1,494.2	5.8	5.8	-151.93	4.8	-70.0	80.6	68.7	11.91	6.763	
1,600.0	1,599.3	1,591.3	1,590.6	6.1	6.0	-151.84	8.9	-77.7	96.5	84.2	12.30	7.843	
1,700.0	1,698.6	1,686.8	1,685.5	6.3	6.3	-151.73	14.0	-87.4	116.8	104.1	12.71	9.191	
1,800.0	1,797.5	1,780.9	1,778.7	6.6	6.5	-151.62	20.2	-98.9	141.6	128.4	13.15	10.769	
1,900.0	1,896.1	1,873.6	1,870.1	6.8	6.8	-151.54	27.3	-112.3	170.5	157.0	13.49	12.639	
2,000.0	1,994.6	1,968.9	1,964.0	7.1	7.0	-151.52	35.1	-126.9	200.7	186.8	13.94	14.393	
2,100.0	2,093.1	2,064.3	2,057.9	7.4	7.3	-151.51	42.9	-141.5	231.0	216.5	14.45	15.984	
2,200.0	2,191.6	2,159.6	2,151.7	7.7	7.6	-151.50	50.6	-156.1	261.2	246.2	14.98	17.440	
2,300.0	2,290.0	2,254.9	2,245.6	8.0	7.9	-151.49	58.4	-170.8	291.4	275.9	15.53	18.771	
2,400.0	2,388.5	2,350.2	2,339.5	8.4	8.2	-151.49	66.2	-185.4	321.7	305.6	16.10	19.987	
2,500.0	2,487.0	2,445.5	2,433.3	8.7	8.5	-151.48	73.9	-200.0	351.9	335.3	16.68	21.098	
2,600.0	2,585.5	2,540.8	2,527.2	9.1	8.9	-151.48	81.7	-214.6	382.2	364.9	17.28	22.115	
2,700.0	2,684.0	2,636.2	2,621.1	9.5	9.2	-151.48	89.5	-229.2	412.4	394.5	17.90	23.045	
2,800.0	2,782.4	2,731.5	2,715.0	9.8	9.6	-151.47	97.2	-243.8	442.7	424.2	18.52	23.898	
2,900.0	2,880.9	2,826.8	2,808.8	10.2	9.9	-151.47	105.0	-258.4	472.9	453.8	19.16	24.681	
3,000.0	2,979.4	2,922.1	2,902.7	10.6	10.3	-151.47	112.8	-273.1	503.2	483.4	19.81	25.400	
3,100.0	3,077.9	3,017.4	2,996.6	11.0	10.7	-151.47	120.6	-287.7	533.4	513.0	20.47	26.063	
3,200.0	3,176.4	3,112.7	3,090.4	11.4	11.1	-151.46	128.3	-302.3	563.7	542.5	21.13	26.673	
3,300.0	3,274.8	3,208.1	3,184.3	11.8	11.4	-151.46	136.1	-316.9	593.9	572.1	21.80	27.238	
3,400.0	3,373.3	3,303.4	3,278.2	12.2	11.8	-151.46	143.9	-331.5	624.2	601.7	22.48	27.760	
3,500.0	3,471.8	3,398.7	3,372.0	12.6	12.2	-151.46	151.6	-346.1	654.4	631.2	23.17	28.244	
3,600.0	3,570.3	3,494.0	3,465.9	13.0	12.6	-151.46	159.4	-360.7	684.7	660.8	23.86	28.693	
3,700.0	3,668.8	3,589.3	3,559.8	13.5	13.0	-151.46	167.2	-375.4	714.9	690.3	24.56	29.111	
3,800.0	3,767.2	3,684.6	3,653.6	13.9	13.4	-151.46	174.9	-390.0	745.1	719.9	25.26	29.501	
3,900.0	3,865.7	3,779.9	3,747.5	14.3	13.8	-151.46	182.7	-404.6	775.4	749.4	25.96	29.864	
4,000.0	3,964.2	3,875.3	3,841.4	14.7	14.2	-151.45	190.5	-419.2	805.6	779.0	26.67	30.204	
4,100.0	4,062.7	3,970.6	3,935.2	15.2	14.6	-151.45	198.3	-433.8	835.9	808.5	27.39	30.522	
4,200.0	4,161.2	4,065.9	4,029.1	15.6	15.0	-151.45	206.0	-448.4	866.1	838.0	28.10	30.820	
4,300.0	4,259.7	4,161.2	4,123.0	16.0	15.4	-151.45	213.8	-463.0	896.4	867.6	28.82	31.100	
4,400.0	4,358.1	4,256.5	4,216.8	16.4	15.8	-151.45	221.6	-477.7	926.6	897.1	29.54	31.364	
4,500.0	4,456.6	4,351.8	4,310.7	16.9	16.2	-151.45	229.3	-492.3	956.9	926.6	30.27	31.612	
4,600.0	4,555.1	4,447.2	4,404.6	17.3	16.6	-151.45	237.1	-506.9	987.1	956.1	31.00	31.845	
4,700.0	4,653.6	4,542.5	4,498.4	17.7	17.1	-151.45	244.9	-521.5	1,017.4	985.6	31.73	32.066	
4,800.0	4,752.1	4,637.8	4,592.3	18.2	17.5	-151.45	252.7	-536.1	1,047.6	1,015.2	32.46	32.274	
4,900.0	4,850.5	4,733.1	4,686.2	18.6	17.9	-151.45	260.4	-550.7	1,077.9	1,044.7	33.19	32.472	
5,000.0	4,949.0	4,828.4	4,780.0	19.0	18.3	-151.45	268.2	-565.3	1,108.1	1,074.2	33.93	32.658	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #801H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)					
5,100.0	5,047.5	4,923.7	4,873.9	19.5	18.7	-151.45	276.0	-580.0	1,138.4	1,103.7	34.67	32.836	
5,200.0	5,146.0	5,019.1	4,967.8	19.9	19.1	-151.45	283.7	-594.6	1,168.6	1,133.2	35.41	33.004	
5,300.0	5,244.5	5,114.4	5,061.7	20.4	19.5	-151.45	291.5	-609.2	1,198.9	1,162.7	36.15	33.164	
5,400.0	5,343.0	5,209.8	5,155.6	20.8	20.0	-151.52	299.3	-623.8	1,228.9	1,192.0	36.87	33.330	
5,500.0	5,441.8	5,305.5	5,249.9	21.2	20.4	-151.62	307.1	-638.5	1,257.6	1,220.0	37.61	33.440	
5,600.0	5,540.8	5,401.7	5,344.6	21.6	20.8	-151.68	314.9	-653.2	1,284.9	1,246.5	38.34	33.512	
5,700.0	5,640.1	5,498.3	5,439.8	22.0	21.2	-151.69	322.8	-668.1	1,310.6	1,271.6	39.07	33.549	
5,800.0	5,739.5	5,595.3	5,535.2	22.4	21.7	-151.67	330.7	-682.9	1,334.9	1,295.1	39.78	33.555	
5,900.0	5,839.1	5,692.5	5,631.0	22.8	22.1	-151.60	338.6	-697.8	1,357.7	1,317.3	40.49	33.532	
6,000.0	5,938.9	5,790.1	5,727.1	23.2	22.5	-151.50	346.6	-712.8	1,379.1	1,337.9	41.19	33.484	
6,100.0	6,038.8	5,897.4	5,832.8	23.5	23.0	-151.34	355.3	-729.1	1,398.8	1,356.9	41.91	33.373	
6,200.0	6,138.7	6,023.2	5,957.1	23.8	23.5	-151.14	364.4	-746.4	1,415.6	1,372.8	42.76	33.108	
6,300.0	6,238.7	6,150.2	6,082.9	24.1	24.1	-150.92	372.4	-761.3	1,428.9	1,385.3	43.54	32.820	
6,400.0	6,338.7	6,278.1	6,210.0	24.2	24.6	-89.09	379.1	-773.9	1,439.0	1,394.8	44.13	32.609	
6,500.0	6,438.7	6,406.5	6,337.9	24.2	25.1	-88.89	384.5	-784.0	1,446.9	1,402.2	44.67	32.391	
6,600.0	6,538.7	6,535.4	6,466.6	24.2	25.5	-88.73	388.5	-791.6	1,452.9	1,407.7	45.17	32.164	
6,700.0	6,638.7	6,664.7	6,595.7	24.3	26.0	-88.63	391.2	-796.7	1,456.8	1,411.2	45.62	31.932	
6,800.0	6,738.7	6,794.1	6,725.1	24.3	26.3	-88.58	392.5	-799.2	1,458.8	1,412.8	46.00	31.711	
6,900.0	6,838.7	6,907.7	6,838.7	24.4	26.4	-88.58	392.7	-799.4	1,459.0	1,412.9	46.13	31.629	
7,000.0	6,938.7	7,007.7	6,938.7	24.4	26.5	-88.58	392.7	-799.4	1,459.0	1,412.8	46.21	31.572	
7,100.0	7,038.7	7,107.7	7,038.7	24.5	26.5	-88.58	392.7	-799.4	1,459.0	1,412.7	46.30	31.514	
7,200.0	7,138.7	7,207.7	7,138.7	24.5	26.5	-88.58	392.7	-799.4	1,459.0	1,412.6	46.38	31.457	
7,300.0	7,238.7	7,307.7	7,238.7	24.5	26.6	-88.58	392.7	-799.4	1,459.0	1,412.5	46.47	31.399	
7,400.0	7,338.7	7,407.7	7,338.7	24.6	26.6	-88.58	392.7	-799.4	1,459.0	1,412.5	46.55	31.342	
7,500.0	7,438.7	7,507.7	7,438.7	24.6	26.6	-88.58	392.7	-799.4	1,459.0	1,412.4	46.64	31.284	
7,600.0	7,538.7	7,607.7	7,538.7	24.7	26.7	-88.58	392.7	-799.4	1,459.0	1,412.3	46.72	31.226	
7,700.0	7,638.7	7,707.7	7,638.7	24.7	26.7	-88.58	392.7	-799.4	1,459.0	1,412.2	46.81	31.169	
7,800.0	7,738.7	7,807.7	7,738.7	24.7	26.8	-88.58	392.7	-799.4	1,459.0	1,412.1	46.90	31.111	
7,900.0	7,838.7	7,907.7	7,838.7	24.8	26.8	-88.58	392.7	-799.4	1,459.0	1,412.0	46.98	31.053	
8,000.0	7,938.7	8,007.7	7,938.7	24.8	26.8	-88.58	392.7	-799.4	1,459.0	1,411.9	47.07	30.995	
8,100.0	8,038.7	8,107.7	8,038.7	24.9	26.9	-88.58	392.7	-799.4	1,459.0	1,411.8	47.16	30.937	
8,200.0	8,138.7	8,207.7	8,138.7	24.9	26.9	-88.58	392.7	-799.4	1,459.0	1,411.8	47.25	30.879	
8,300.0	8,238.7	8,307.7	8,238.7	25.0	27.0	-88.58	392.7	-799.4	1,459.0	1,411.7	47.34	30.821	
8,400.0	8,338.7	8,407.7	8,338.7	25.0	27.0	-88.58	392.7	-799.4	1,459.0	1,411.6	47.43	30.763	
8,500.0	8,438.7	8,507.7	8,438.7	25.1	27.0	-88.58	392.7	-799.4	1,459.0	1,411.5	47.52	30.705	
8,600.0	8,538.7	8,607.7	8,538.7	25.1	27.1	-88.58	392.7	-799.4	1,459.0	1,411.4	47.61	30.647	
8,700.0	8,638.7	8,707.7	8,638.7	25.1	27.1	-88.58	392.7	-799.4	1,459.0	1,411.3	47.70	30.589	
8,800.0	8,738.7	8,807.7	8,738.7	25.2	27.2	-88.58	392.7	-799.4	1,459.0	1,411.2	47.79	30.530	
8,900.0	8,838.7	8,907.7	8,838.7	25.2	27.2	-88.58	392.7	-799.4	1,459.0	1,411.1	47.88	30.472	
9,000.0	8,938.7	9,007.7	8,938.7	25.3	27.2	-88.58	392.7	-799.4	1,459.0	1,411.0	47.97	30.414	
9,100.0	9,038.7	9,107.7	9,038.7	25.3	27.3	-88.58	392.7	-799.4	1,459.0	1,410.9	48.06	30.356	
9,200.0	9,138.7	9,207.7	9,138.7	25.4	27.3	-88.58	392.7	-799.4	1,459.0	1,410.8	48.16	30.298	
9,300.0	9,238.7	9,307.7	9,238.7	25.4	27.4	-88.58	392.7	-799.4	1,459.0	1,410.8	48.25	30.239	
9,400.0	9,338.7	9,407.7	9,338.7	25.5	27.4	-88.58	392.7	-799.4	1,459.0	1,410.7	48.34	30.181	
9,500.0	9,438.7	9,507.7	9,438.7	25.5	27.5	-88.58	392.7	-799.4	1,459.0	1,410.6	48.43	30.123	
9,600.0	9,538.7	9,607.7	9,538.7	25.6	27.5	-88.58	392.7	-799.4	1,459.0	1,410.5	48.53	30.065	
9,700.0	9,638.7	9,707.7	9,638.7	25.6	27.5	-88.58	392.7	-799.4	1,459.0	1,410.4	48.62	30.007	
9,800.0	9,738.7	9,807.7	9,738.7	25.6	27.6	-88.58	392.7	-799.4	1,459.0	1,410.3	48.72	29.948	
9,900.0	9,838.7	9,907.7	9,838.7	25.7	27.6	-88.58	392.7	-799.4	1,459.0	1,410.2	48.81	29.890	
10,000.0	9,938.7	10,007.7	9,938.7	25.7	27.7	-88.58	392.7	-799.4	1,459.0	1,410.1	48.91	29.832	
10,100.0	10,038.7	10,107.7	10,038.7	25.8	27.7	-88.58	392.7	-799.4	1,459.0	1,410.0	49.00	29.774	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #801H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
10,200.0	10,138.7	10,207.7	10,138.7	25.8	27.8	-88.58	392.7	-799.4	1,459.0	1,409.9	49.10	29.716	
10,300.0	10,238.7	10,307.7	10,238.7	25.9	27.8	-88.58	392.7	-799.4	1,459.0	1,409.8	49.19	29.658	
10,400.0	10,338.7	10,407.7	10,338.7	25.9	27.8	-88.58	392.7	-799.4	1,459.0	1,409.7	49.29	29.600	
10,500.0	10,438.7	10,507.7	10,438.7	26.0	27.9	-88.58	392.7	-799.4	1,459.0	1,409.6	49.39	29.541	
10,600.0	10,538.7	10,607.7	10,538.7	26.0	27.9	-88.58	392.7	-799.4	1,459.0	1,409.5	49.49	29.483	
10,700.0	10,638.7	10,707.7	10,638.7	26.1	28.0	-88.58	392.7	-799.4	1,459.0	1,409.4	49.58	29.425	
10,800.0	10,738.7	10,807.7	10,738.7	26.1	28.0	-88.58	392.7	-799.4	1,459.0	1,409.3	49.68	29.367	
10,900.0	10,838.7	10,907.7	10,838.7	26.2	28.1	-88.58	392.7	-799.4	1,459.0	1,409.2	49.78	29.309	
11,000.0	10,938.7	11,007.7	10,938.7	26.2	28.1	-88.58	392.7	-799.4	1,459.0	1,409.1	49.88	29.252	
11,100.0	11,038.7	11,107.7	11,038.7	26.3	28.2	-88.58	392.7	-799.4	1,459.0	1,409.0	49.98	29.194	
11,200.0	11,138.7	11,207.7	11,138.7	26.3	28.2	-88.58	392.7	-799.4	1,459.0	1,408.9	50.08	29.136	
11,300.0	11,238.7	11,307.7	11,238.7	26.4	28.2	-88.58	392.7	-799.4	1,459.0	1,408.8	50.18	29.078	
11,400.0	11,338.7	11,407.7	11,338.7	26.4	28.3	-88.58	392.7	-799.4	1,459.0	1,408.7	50.28	29.020	
11,500.0	11,438.7	11,507.7	11,438.7	26.5	28.3	-88.58	392.7	-799.4	1,459.0	1,408.6	50.38	28.963	
11,600.0	11,538.7	11,607.7	11,538.7	26.5	28.4	-88.58	392.7	-799.4	1,459.0	1,408.5	50.48	28.905	
11,700.0	11,638.7	11,707.7	11,638.7	26.6	28.4	-88.58	392.7	-799.4	1,459.0	1,408.4	50.58	28.847	
11,800.0	11,738.7	11,807.7	11,738.7	26.6	28.5	-88.58	392.7	-799.4	1,459.0	1,408.3	50.68	28.790	
11,806.7	11,745.4	11,814.4	11,745.4	26.6	28.5	91.98	392.7	-799.4	1,459.0	1,408.3	50.68	28.786	
11,900.0	11,838.7	11,907.7	11,838.7	26.7	28.5	91.99	392.7	-799.4	1,459.0	1,408.2	50.77	28.737	
12,000.0	11,938.0	12,007.0	11,938.0	26.5	28.6	92.36	392.7	-799.4	1,459.4	1,408.6	50.82	28.717	
12,100.0	12,033.9	12,102.9	12,033.9	26.3	28.6	93.26	392.7	-799.4	1,460.8	1,410.0	50.87	28.716	
12,200.0	12,123.5	12,192.6	12,123.5	26.1	28.7	94.47	392.7	-799.4	1,464.2	1,413.3	50.93	28.751	
12,300.0	12,204.2	12,273.2	12,204.2	26.0	28.7	95.66	392.7	-799.4	1,470.7	1,419.8	50.97	28.853	
12,400.0	12,273.3	12,342.4	12,273.3	25.8	28.7	96.48	392.7	-799.4	1,481.9	1,430.9	51.00	29.059	
12,500.0	12,328.9	12,398.0	12,328.9	25.7	28.7	96.55	392.7	-799.4	1,498.9	1,447.9	50.97	29.406	
12,600.0	12,369.3	12,438.3	12,369.3	25.6	28.8	95.54	392.7	-799.4	1,522.6	1,471.7	50.88	29.925	
12,700.0	12,393.2	12,462.2	12,393.2	25.6	28.8	93.23	392.7	-799.4	1,553.3	1,502.6	50.71	30.632	
12,800.0	12,400.0	12,469.0	12,400.0	25.7	28.8	90.00	392.7	-799.4	1,590.4	1,540.0	50.45	31.525	
12,900.0	12,400.0	13,658.2	13,100.0	25.8	27.9	115.64	-342.5	-792.3	1,617.4	1,565.1	52.28	30.940	
13,000.0	12,400.0	13,758.2	13,100.0	25.9	28.0	115.64	-442.5	-791.3	1,617.4	1,564.9	52.50	30.810	
13,100.0	12,400.0	13,858.2	13,100.0	26.0	28.2	115.64	-542.4	-790.3	1,617.4	1,564.7	52.76	30.656	
13,200.0	12,400.0	13,958.2	13,100.0	26.2	28.3	115.64	-642.4	-789.3	1,617.4	1,564.3	53.07	30.479	
13,300.0	12,400.0	14,058.2	13,100.0	26.4	28.5	115.64	-742.4	-788.4	1,617.4	1,564.0	53.41	30.281	
13,400.0	12,400.0	14,158.2	13,100.0	26.6	28.6	115.65	-842.4	-787.4	1,617.4	1,563.6	53.80	30.062	
13,500.0	12,400.0	14,258.2	13,100.0	26.8	28.8	115.65	-942.4	-786.4	1,617.4	1,563.2	54.23	29.825	
13,600.0	12,400.0	14,358.2	13,100.0	27.0	29.0	115.65	-1,042.4	-785.4	1,617.4	1,562.7	54.70	29.570	
13,700.0	12,400.0	14,458.2	13,100.0	27.2	29.3	115.65	-1,142.4	-784.5	1,617.4	1,562.2	55.20	29.299	
13,800.0	12,400.0	14,558.2	13,100.0	27.5	29.5	115.65	-1,242.4	-783.5	1,617.4	1,561.6	55.75	29.013	
13,900.0	12,400.0	14,658.2	13,100.0	27.8	29.8	115.65	-1,342.4	-782.5	1,617.4	1,561.1	56.32	28.715	
14,000.0	12,400.0	14,758.2	13,100.0	28.1	30.0	115.65	-1,442.4	-781.5	1,617.4	1,560.4	56.94	28.406	
14,100.0	12,400.0	14,858.2	13,100.0	28.4	30.3	115.65	-1,542.4	-780.5	1,617.4	1,559.8	57.58	28.087	
14,200.0	12,400.0	14,958.2	13,100.0	28.7	30.6	115.65	-1,642.4	-779.6	1,617.4	1,559.1	58.26	27.759	
14,300.0	12,400.0	15,058.2	13,100.0	29.0	31.0	115.65	-1,742.4	-778.6	1,617.4	1,558.4	58.97	27.425	
14,400.0	12,400.0	15,158.2	13,100.0	29.4	31.3	115.65	-1,842.4	-777.6	1,617.4	1,557.6	59.72	27.084	
14,500.0	12,400.0	15,258.2	13,100.0	29.7	31.6	115.65	-1,942.4	-776.6	1,617.4	1,556.9	60.49	26.739	
14,600.0	12,400.0	15,358.2	13,100.0	30.1	32.0	115.65	-2,042.4	-775.7	1,617.3	1,556.1	61.28	26.391	
14,700.0	12,400.0	15,458.2	13,100.0	30.5	32.3	115.65	-2,142.4	-774.7	1,617.3	1,555.2	62.11	26.040	
14,800.0	12,400.0	15,558.2	13,100.0	30.9	32.7	115.65	-2,242.4	-773.7	1,617.3	1,554.4	62.96	25.688	
14,900.0	12,400.0	15,658.2	13,100.0	31.3	33.1	115.65	-2,342.4	-772.7	1,617.3	1,553.5	63.84	25.335	
15,000.0	12,400.0	15,758.2	13,100.0	31.8	33.5	115.65	-2,442.4	-771.8	1,617.3	1,552.6	64.74	24.983	
15,100.0	12,400.0	15,858.2	13,100.0	32.2	34.0	115.65	-2,542.4	-770.8	1,617.3	1,551.7	65.66	24.632	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #801H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-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)			
15,200.0	12,400.0	15,958.2	13,100.0	32.6	34.4	115.65	-2,642.3	-769.8	1,617.3	1,550.7	66.60	24.282	
15,300.0	12,400.0	16,058.2	13,100.0	33.1	34.8	115.65	-2,742.3	-768.8	1,617.3	1,549.7	67.57	23.935	
15,400.0	12,400.0	16,158.2	13,100.0	33.6	35.3	115.65	-2,842.3	-767.9	1,617.3	1,548.8	68.56	23.591	
15,500.0	12,400.0	16,258.2	13,100.0	34.1	35.7	115.65	-2,942.3	-766.9	1,617.3	1,547.7	69.56	23.250	
15,600.0	12,400.0	16,358.2	13,100.0	34.6	36.2	115.65	-3,042.3	-765.9	1,617.3	1,546.7	70.58	22.913	
15,700.0	12,400.0	16,458.2	13,100.0	35.1	36.7	115.65	-3,142.3	-764.9	1,617.3	1,545.7	71.62	22.580	
15,800.0	12,400.0	16,558.2	13,100.0	35.6	37.2	115.65	-3,242.3	-764.0	1,617.3	1,544.6	72.68	22.252	
15,900.0	12,400.0	16,658.2	13,100.0	36.1	37.7	115.65	-3,342.3	-763.0	1,617.3	1,543.5	73.76	21.928	
16,000.0	12,400.0	16,758.2	13,100.0	36.7	38.2	115.65	-3,442.3	-762.0	1,617.3	1,542.4	74.84	21.609	
16,100.0	12,400.0	16,858.2	13,100.0	37.2	38.7	115.65	-3,542.3	-761.0	1,617.3	1,541.3	75.95	21.294	
16,200.0	12,400.0	16,958.2	13,100.0	37.7	39.2	115.65	-3,642.3	-760.1	1,617.3	1,540.2	77.07	20.985	
16,300.0	12,400.0	17,058.2	13,100.0	38.3	39.8	115.65	-3,742.3	-759.1	1,617.3	1,539.1	78.20	20.682	
16,400.0	12,400.0	17,158.2	13,100.0	38.9	40.3	115.65	-3,842.3	-758.1	1,617.3	1,537.9	79.34	20.383	
16,500.0	12,400.0	17,258.2	13,100.0	39.4	40.9	115.65	-3,942.3	-757.1	1,617.3	1,536.8	80.50	20.091	
16,600.0	12,400.0	17,358.2	13,100.0	40.0	41.4	115.65	-4,042.3	-756.1	1,617.3	1,535.6	81.67	19.803	
16,700.0	12,400.0	17,458.2	13,100.0	40.6	42.0	115.65	-4,142.3	-755.2	1,617.3	1,534.4	82.85	19.521	
16,800.0	12,400.0	17,558.2	13,100.0	41.2	42.5	115.65	-4,242.3	-754.2	1,617.3	1,533.2	84.04	19.244	
16,900.0	12,400.0	17,658.2	13,100.0	41.8	43.1	115.65	-4,342.3	-753.2	1,617.3	1,532.0	85.24	18.973	
17,000.0	12,400.0	17,758.2	13,100.0	42.4	43.7	115.65	-4,442.3	-752.2	1,617.2	1,530.8	86.45	18.707	
17,100.0	12,400.0	17,858.2	13,100.0	43.0	44.3	115.65	-4,542.3	-751.3	1,617.2	1,529.6	87.67	18.447	
17,200.0	12,400.0	17,958.2	13,100.0	43.6	44.9	115.65	-4,642.3	-750.3	1,617.2	1,528.3	88.90	18.192	
17,300.0	12,400.0	18,058.2	13,100.0	44.2	45.5	115.65	-4,742.2	-749.3	1,617.2	1,527.1	90.14	17.942	
17,400.0	12,400.0	18,158.2	13,100.0	44.8	46.1	115.65	-4,842.2	-748.3	1,617.2	1,525.8	91.39	17.697	
17,500.0	12,400.0	18,258.2	13,100.0	45.5	46.7	115.65	-4,942.2	-747.4	1,617.2	1,524.6	92.64	17.457	
17,600.0	12,400.0	18,358.2	13,100.0	46.1	47.3	115.65	-5,042.2	-746.4	1,617.2	1,523.3	93.90	17.222	
17,700.0	12,400.0	18,458.2	13,100.0	46.7	47.9	115.65	-5,142.2	-745.4	1,617.2	1,522.0	95.17	16.992	
17,800.0	12,400.0	18,558.2	13,100.0	47.4	48.5	115.65	-5,242.2	-744.4	1,617.2	1,520.8	96.45	16.767	
17,900.0	12,400.0	18,658.2	13,100.0	48.0	49.2	115.65	-5,342.2	-743.5	1,617.2	1,519.5	97.73	16.547	
18,000.0	12,400.0	18,758.2	13,100.0	48.7	49.8	115.65	-5,442.2	-742.5	1,617.2	1,518.2	99.02	16.331	
18,100.0	12,400.0	18,858.2	13,100.0	49.3	50.4	115.65	-5,542.2	-741.5	1,617.2	1,516.9	100.32	16.120	
18,200.0	12,400.0	18,958.2	13,100.0	50.0	51.1	115.65	-5,642.2	-740.5	1,617.2	1,515.6	101.62	15.913	
18,300.0	12,400.0	19,058.2	13,100.0	50.6	51.7	115.65	-5,742.2	-739.6	1,617.2	1,514.3	102.93	15.711	
18,400.0	12,400.0	19,158.2	13,100.0	51.3	52.4	115.65	-5,842.2	-738.6	1,617.2	1,512.9	104.25	15.513	
18,500.0	12,400.0	19,258.2	13,100.0	51.9	53.0	115.65	-5,942.2	-737.6	1,617.2	1,511.6	105.57	15.319	
18,600.0	12,400.0	19,358.2	13,100.0	52.6	53.6	115.65	-6,042.2	-736.6	1,617.2	1,510.3	106.89	15.129	
18,700.0	12,400.0	19,458.2	13,100.0	53.3	54.3	115.65	-6,142.2	-735.7	1,617.2	1,509.0	108.22	14.943	
18,800.0	12,400.0	19,558.2	13,100.0	53.9	55.0	115.65	-6,242.2	-734.7	1,617.2	1,507.6	109.56	14.761	
18,900.0	12,400.0	19,658.2	13,100.0	54.6	55.6	115.65	-6,342.2	-733.7	1,617.2	1,506.3	110.90	14.582	
19,000.0	12,400.0	19,758.2	13,100.0	55.3	56.3	115.65	-6,442.2	-732.7	1,617.2	1,504.9	112.24	14.408	
19,100.0	12,400.0	19,858.2	13,100.0	56.0	56.9	115.65	-6,542.2	-731.7	1,617.2	1,503.6	113.59	14.237	
19,200.0	12,400.0	19,958.2	13,100.0	56.6	57.6	115.65	-6,642.2	-730.8	1,617.2	1,502.2	114.94	14.069	
19,300.0	12,400.0	20,058.2	13,100.0	57.3	58.3	115.65	-6,742.2	-729.8	1,617.1	1,500.8	116.30	13.905	
19,400.0	12,400.0	20,158.2	13,100.0	58.0	59.0	115.65	-6,842.1	-728.8	1,617.1	1,499.5	117.66	13.744	
19,500.0	12,400.0	20,258.2	13,100.0	58.7	59.6	115.65	-6,942.1	-727.8	1,617.1	1,498.1	119.03	13.586	
19,600.0	12,400.0	20,358.2	13,100.0	59.4	60.3	115.65	-7,042.1	-726.9	1,617.1	1,496.7	120.39	13.432	
19,700.0	12,400.0	20,458.2	13,100.0	60.1	61.0	115.65	-7,142.1	-725.9	1,617.1	1,495.4	121.77	13.281	
19,800.0	12,400.0	20,558.2	13,100.0	60.8	61.7	115.65	-7,242.1	-724.9	1,617.1	1,494.0	123.14	13.132	
19,900.0	12,400.0	20,658.2	13,100.0	61.4	62.3	115.65	-7,342.1	-723.9	1,617.1	1,492.6	124.52	12.987	
20,000.0	12,400.0	20,758.2	13,100.0	62.1	63.0	115.65	-7,442.1	-723.0	1,617.1	1,491.2	125.90	12.844	
20,100.0	12,400.0	20,858.2	13,100.0	62.8	63.7	115.65	-7,542.1	-722.0	1,617.1	1,489.8	127.28	12.705	
20,200.0	12,400.0	20,958.2	13,100.0	63.5	64.4	115.65	-7,642.1	-721.0	1,617.1	1,488.4	128.67	12.568	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #801H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program: 0-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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
20,300.0	12,400.0	21,058.2	13,100.0	64.2	65.1	115.65	-7,742.1	-720.0	1,617.1	1,487.0	130.06	12.433
20,400.0	12,400.0	21,158.2	13,100.0	64.9	65.8	115.65	-7,842.1	-719.1	1,617.1	1,485.6	131.46	12.302
20,500.0	12,400.0	21,258.2	13,100.0	65.6	66.5	115.65	-7,942.1	-718.1	1,617.1	1,484.2	132.85	12.172
20,600.0	12,400.0	21,358.2	13,100.0	66.3	67.2	115.65	-8,042.1	-717.1	1,617.1	1,482.8	134.25	12.045
20,700.0	12,400.0	21,458.2	13,100.0	67.1	67.9	115.65	-8,142.1	-716.1	1,617.1	1,481.4	135.65	11.921
20,800.0	12,400.0	21,558.2	13,100.0	67.8	68.6	115.65	-8,242.1	-715.2	1,617.1	1,480.0	137.05	11.799
20,900.0	12,400.0	21,658.2	13,100.0	68.5	69.3	115.65	-8,342.1	-714.2	1,617.1	1,478.6	138.46	11.679
21,000.0	12,400.0	21,758.2	13,100.0	69.2	70.0	115.65	-8,442.1	-713.2	1,617.1	1,477.2	139.87	11.561
21,100.0	12,400.0	21,858.2	13,100.0	69.9	70.7	115.65	-8,542.1	-712.2	1,617.1	1,475.8	141.28	11.446
21,200.0	12,400.0	21,958.2	13,100.0	70.6	71.4	115.65	-8,642.1	-711.3	1,617.1	1,474.4	142.69	11.333
21,300.0	12,400.0	22,058.2	13,100.0	71.3	72.1	115.65	-8,742.1	-710.3	1,617.1	1,473.0	144.11	11.221
21,400.0	12,400.0	22,158.2	13,100.0	72.0	72.8	115.65	-8,842.1	-709.3	1,617.1	1,471.5	145.52	11.112
21,500.0	12,400.0	22,258.2	13,100.0	72.7	73.5	115.65	-8,942.0	-708.3	1,617.1	1,470.1	146.94	11.005
21,600.0	12,400.0	22,358.2	13,100.0	73.5	74.2	115.65	-9,042.0	-707.3	1,617.1	1,468.7	148.36	10.899
21,700.0	12,400.0	22,458.2	13,100.0	74.2	74.9	115.65	-9,142.0	-706.4	1,617.0	1,467.3	149.78	10.796
21,800.0	12,400.0	22,558.2	13,100.0	74.9	75.6	115.65	-9,242.0	-705.4	1,617.0	1,465.8	151.21	10.694
21,900.0	12,400.0	22,658.2	13,100.0	75.6	76.3	115.65	-9,342.0	-704.4	1,617.0	1,464.4	152.63	10.594
22,000.0	12,400.0	22,758.2	13,100.0	76.3	77.1	115.65	-9,442.0	-703.4	1,617.0	1,463.0	154.06	10.496
22,100.0	12,400.0	22,858.2	13,100.0	77.0	77.8	115.65	-9,542.0	-702.5	1,617.0	1,461.5	155.49	10.400
22,200.0	12,400.0	22,958.2	13,100.0	77.8	78.5	115.65	-9,642.0	-701.5	1,617.0	1,460.1	156.92	10.305
22,300.0	12,400.0	23,058.2	13,100.0	78.5	79.2	115.65	-9,742.0	-700.5	1,617.0	1,458.7	158.35	10.211
22,400.0	12,400.0	23,158.2	13,100.0	79.2	79.9	115.65	-9,842.0	-699.5	1,617.0	1,457.2	159.79	10.120
22,500.0	12,400.0	23,258.2	13,100.0	79.9	80.6	115.65	-9,942.0	-698.6	1,617.0	1,455.8	161.22	10.030
22,600.0	12,400.0	23,358.2	13,100.0	80.7	81.4	115.65	-10,042.0	-697.6	1,617.0	1,454.3	162.66	9.941
22,700.0	12,400.0	23,458.2	13,100.0	81.4	82.1	115.65	-10,142.0	-696.6	1,617.0	1,452.9	164.10	9.854
22,800.0	12,400.0	23,558.2	13,100.0	82.1	82.8	115.65	-10,242.0	-695.6	1,617.0	1,451.5	165.54	9.768
22,900.0	12,400.0	23,658.2	13,100.0	82.8	83.5	115.65	-10,342.0	-694.7	1,617.0	1,450.0	166.98	9.684
23,000.0	12,400.0	23,758.2	13,100.0	83.6	84.2	115.65	-10,442.0	-693.7	1,617.0	1,448.6	168.42	9.601
23,100.0	12,400.0	23,858.2	13,100.0	84.3	85.0	115.65	-10,542.0	-692.7	1,617.0	1,447.1	169.87	9.519
23,200.0	12,400.0	23,958.2	13,100.0	85.0	85.7	115.65	-10,642.0	-691.7	1,617.0	1,445.7	171.31	9.439
23,300.0	12,400.0	24,058.2	13,100.0	85.8	86.4	115.65	-10,742.0	-690.8	1,617.0	1,444.2	172.76	9.360
23,400.0	12,400.0	24,158.2	13,100.0	86.5	87.1	115.65	-10,842.0	-689.8	1,617.0	1,442.8	174.21	9.282
23,500.0	12,400.0	24,258.2	13,100.0	87.2	87.9	115.65	-10,942.0	-688.8	1,617.0	1,441.3	175.65	9.205
23,600.0	12,400.0	24,358.2	13,100.0	87.9	88.6	115.65	-11,041.9	-687.8	1,617.0	1,439.9	177.10	9.130
23,700.0	12,400.0	24,458.2	13,100.0	88.7	89.3	115.65	-11,141.9	-686.9	1,617.0	1,438.4	178.56	9.056
23,800.0	12,400.0	24,558.2	13,100.0	89.4	90.0	115.65	-11,241.9	-685.9	1,617.0	1,437.0	180.01	8.983
23,900.0	12,400.0	24,658.2	13,100.0	90.1	90.8	115.65	-11,341.9	-684.9	1,617.0	1,435.5	181.46	8.911
24,000.0	12,400.0	24,758.2	13,100.0	90.9	91.5	115.65	-11,441.9	-683.9	1,617.0	1,434.0	182.91	8.840
24,100.0	12,400.0	24,858.2	13,100.0	91.6	92.2	115.65	-11,541.9	-682.9	1,616.9	1,432.6	184.37	8.770
24,200.0	12,400.0	24,958.2	13,100.0	92.3	92.9	115.65	-11,641.9	-682.0	1,616.9	1,431.1	185.82	8.701
24,300.0	12,400.0	25,058.2	13,100.0	93.1	93.7	115.65	-11,741.9	-681.0	1,616.9	1,429.7	187.28	8.634
24,400.0	12,400.0	25,158.2	13,100.0	93.8	94.4	115.65	-11,841.9	-680.0	1,616.9	1,428.2	188.74	8.567
24,500.0	12,400.0	25,258.2	13,100.0	94.5	95.1	115.65	-11,941.9	-679.0	1,616.9	1,426.7	190.20	8.501
24,600.0	12,400.0	25,358.2	13,100.0	95.3	95.9	115.65	-12,041.9	-678.1	1,616.9	1,425.3	191.66	8.437
24,700.0	12,400.0	25,458.2	13,100.0	96.0	96.6	115.65	-12,141.9	-677.1	1,616.9	1,423.8	193.12	8.373
24,800.0	12,400.0	25,558.2	13,100.0	96.8	97.3	115.65	-12,241.9	-676.1	1,616.9	1,422.3	194.58	8.310
24,900.0	12,400.0	25,658.2	13,100.0	97.5	98.1	115.65	-12,341.9	-675.1	1,616.9	1,420.9	196.04	8.248
25,000.0	12,400.0	25,758.2	13,100.0	98.2	98.8	115.65	-12,441.9	-674.2	1,616.9	1,419.4	197.51	8.187
25,100.0	12,400.0	25,858.2	13,100.0	99.0	99.5	115.65	-12,541.9	-673.2	1,616.9	1,417.9	198.97	8.126
25,200.0	12,400.0	25,958.2	13,100.0	99.7	100.3	115.65	-12,641.9	-672.2	1,616.9	1,416.5	200.43	8.067
25,300.0	12,400.0	26,058.2	13,100.0	100.4	101.0	115.65	-12,741.9	-671.2	1,616.9	1,415.0	201.90	8.008

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - *HENNIN FED COM #801H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program: 0-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		Warning
25,400.0	12,400.0	26,158.2	13,100.0	101.2	101.7	115.65	-12,841.9	-670.3	1,616.9	1,413.5	203.36	7.951
25,500.0	12,400.0	26,258.2	13,100.0	101.9	102.5	115.65	-12,941.9	-669.3	1,616.9	1,412.1	204.83	7.894
25,600.0	12,400.0	26,358.2	13,100.0	102.7	103.2	115.65	-13,041.9	-668.3	1,616.9	1,410.6	206.30	7.838
25,700.0	12,400.0	26,458.2	13,100.0	103.4	104.0	115.65	-13,141.8	-667.3	1,616.9	1,409.1	207.77	7.782
25,800.0	12,400.0	26,558.2	13,100.0	104.1	104.7	115.65	-13,241.8	-666.4	1,616.9	1,407.6	209.24	7.728
25,900.0	12,400.0	26,658.2	13,100.0	104.9	105.4	115.65	-13,341.8	-665.4	1,616.9	1,406.2	210.71	7.674
26,000.0	12,400.0	26,758.2	13,100.0	105.6	106.2	115.65	-13,441.8	-664.4	1,616.9	1,404.7	212.18	7.620
26,100.0	12,400.0	26,858.2	13,100.0	106.4	106.9	115.65	-13,541.8	-663.4	1,616.9	1,403.2	213.65	7.568
26,200.0	12,400.0	26,958.2	13,100.0	107.1	107.6	115.65	-13,641.8	-662.5	1,616.9	1,401.7	215.12	7.516
26,300.0	12,400.0	27,058.2	13,100.0	107.9	108.4	115.65	-13,741.8	-661.5	1,616.9	1,400.3	216.59	7.465
26,400.0	12,400.0	27,158.2	13,100.0	108.6	109.1	115.65	-13,841.8	-660.5	1,616.9	1,398.8	218.06	7.415
26,500.0	12,400.0	27,258.2	13,100.0	109.3	109.9	115.65	-13,941.8	-659.5	1,616.8	1,397.3	219.54	7.365
26,600.0	12,400.0	27,358.2	13,100.0	110.1	110.6	115.65	-14,041.8	-658.5	1,616.8	1,395.8	221.01	7.316
26,700.0	12,400.0	27,458.2	13,100.0	110.8	111.3	115.65	-14,141.8	-657.6	1,616.8	1,394.4	222.48	7.267
26,800.0	12,400.0	27,558.2	13,100.0	111.6	112.1	115.65	-14,241.8	-656.6	1,616.8	1,392.9	223.96	7.219
26,900.0	12,400.0	27,658.2	13,100.0	112.3	112.8	115.65	-14,341.8	-655.6	1,616.8	1,391.4	225.43	7.172
27,000.0	12,400.0	27,758.2	13,100.0	113.1	113.6	115.65	-14,441.8	-654.6	1,616.8	1,389.9	226.91	7.125
27,100.0	12,400.0	27,858.2	13,100.0	113.8	114.3	115.65	-14,541.8	-653.7	1,616.8	1,388.4	228.39	7.079
27,200.0	12,400.0	27,958.2	13,100.0	114.6	115.0	115.65	-14,641.8	-652.7	1,616.8	1,387.0	229.86	7.034
27,300.0	12,400.0	28,058.2	13,100.0	115.3	115.8	115.65	-14,741.8	-651.7	1,616.8	1,385.5	231.34	6.989
27,400.0	12,400.0	28,158.2	13,100.0	116.0	116.5	115.66	-14,841.8	-650.7	1,616.8	1,384.0	232.82	6.944
27,500.0	12,400.0	28,258.2	13,100.0	116.8	117.3	115.66	-14,941.8	-649.8	1,616.8	1,382.5	234.30	6.901
27,600.0	12,400.0	28,358.2	13,100.0	117.5	118.0	115.66	-15,041.8	-648.8	1,616.8	1,381.0	235.78	6.857
27,700.0	12,400.0	28,458.2	13,100.0	118.3	118.8	115.66	-15,141.8	-647.8	1,616.8	1,379.5	237.26	6.815
27,800.0	12,400.0	28,558.2	13,100.0	119.0	119.5	115.66	-15,241.7	-646.8	1,616.8	1,378.1	238.74	6.772
27,900.0	12,400.0	28,658.2	13,100.0	119.8	120.2	115.66	-15,341.7	-645.9	1,616.8	1,376.6	240.22	6.731
28,000.0	12,400.0	28,758.2	13,100.0	120.5	121.0	115.66	-15,441.7	-644.9	1,616.8	1,375.1	241.70	6.689
28,100.0	12,400.0	28,858.2	13,100.0	121.3	121.7	115.66	-15,541.7	-643.9	1,616.8	1,373.6	243.18	6.649
28,200.0	12,400.0	28,958.2	13,100.0	122.0	122.5	115.66	-15,641.7	-642.9	1,616.8	1,372.1	244.66	6.608
28,300.0	12,400.0	29,058.2	13,100.0	122.8	123.2	115.66	-15,741.7	-642.0	1,616.8	1,370.6	246.14	6.568
28,400.0	12,400.0	29,158.2	13,100.0	123.5	124.0	115.66	-15,841.7	-641.0	1,616.8	1,369.1	247.62	6.529
28,500.0	12,400.0	29,258.2	13,100.0	124.3	124.7	115.66	-15,941.7	-640.0	1,616.8	1,367.7	249.11	6.490
28,600.0	12,400.0	29,358.2	13,100.0	125.0	125.5	115.66	-16,041.7	-639.0	1,616.8	1,366.2	250.59	6.452
28,700.0	12,400.0	29,458.2	13,100.0	125.8	126.1	115.66	-16,141.7	-638.1	1,616.8	1,364.8	251.97	6.417
28,700.5	12,400.0	29,458.3	13,100.0	125.8	126.1	115.66	-16,141.8	-638.0	1,616.8	1,364.8	251.97	6.416
28,710.4	12,400.0	29,458.3	13,100.0	125.8	126.1	115.66	-16,141.8	-638.0	1,616.8	1,364.8	251.98	6.416

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - HENNIN FED #12H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 96-Standard Keeper 104, 11735-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)			
21,900.0	12,400.0	11,975.0	11,987.1	75.6	10.4	-66.78	-10,925.9	1,731.2	1,918.5	1,855.2	63.32	30.300	
22,000.0	12,400.0	11,975.0	11,987.1	76.3	10.4	-66.78	-10,925.9	1,731.2	1,835.6	1,769.3	66.24	27.712	
22,100.0	12,400.0	11,975.0	11,987.1	77.0	10.4	-66.78	-10,925.9	1,731.2	1,754.4	1,684.9	69.44	25.265	
22,200.0	12,400.0	11,992.7	12,004.0	77.8	10.4	-67.62	-10,931.0	1,730.6	1,674.8	1,602.4	72.42	23.126	
22,300.0	12,400.0	12,007.0	12,017.4	78.5	10.4	-68.30	-10,935.8	1,730.1	1,597.6	1,521.8	75.75	21.090	
22,400.0	12,400.0	12,007.0	12,017.4	79.2	10.4	-68.30	-10,935.8	1,730.1	1,522.8	1,442.9	79.85	19.069	
22,500.0	12,400.0	12,007.0	12,017.4	79.9	10.4	-68.30	-10,935.8	1,730.1	1,451.0	1,366.7	84.31	17.211	
22,600.0	12,400.0	12,038.0	12,046.0	80.7	10.5	-69.76	-10,947.9	1,729.0	1,382.3	1,294.5	87.87	15.732	
22,700.0	12,400.0	12,038.0	12,046.0	81.4	10.5	-69.76	-10,947.9	1,729.0	1,317.2	1,224.2	92.93	14.173	
22,800.0	12,400.0	12,051.1	12,057.7	82.1	10.5	-70.37	-10,953.7	1,728.6	1,256.4	1,158.7	97.70	12.859	
22,900.0	12,400.0	12,069.0	12,073.4	82.8	10.5	-71.19	-10,962.3	1,728.0	1,200.3	1,097.9	102.43	11.718	
23,000.0	12,400.0	12,089.7	12,091.1	83.6	10.5	-72.14	-10,972.9	1,727.4	1,149.4	1,042.3	107.11	10.731	
23,100.0	12,400.0	12,114.7	12,112.0	84.3	10.6	-73.26	-10,986.6	1,726.8	1,104.0	992.4	111.56	9.896	
23,200.0	12,400.0	12,141.5	12,133.9	85.0	10.6	-74.46	-11,002.1	1,726.4	1,064.7	949.0	115.77	9.197	
23,300.0	12,400.0	12,164.0	12,151.6	85.8	10.6	-75.44	-11,016.0	1,726.2	1,032.1	912.2	119.90	8.608	
23,400.0	12,400.0	12,210.5	12,186.3	86.5	10.7	-77.40	-11,046.9	1,726.3	1,006.2	883.7	122.53	8.212	
23,500.0	12,400.0	12,264.0	12,223.8	87.2	10.7	-79.56	-11,085.1	1,726.4	986.3	861.9	124.48	7.923	
23,600.0	12,400.0	12,335.7	12,269.1	87.9	10.8	-82.20	-11,140.5	1,726.0	971.8	846.4	125.42	7.748	
23,700.0	12,400.0	12,383.0	12,293.6	88.7	10.9	-83.63	-11,181.0	1,725.2	961.9	835.0	126.98	7.576	
23,800.0	12,400.0	12,445.0	12,317.6	89.4	10.9	-85.06	-11,238.1	1,725.5	957.5	829.6	127.93	7.485	
23,857.8	12,400.0	12,485.1	12,329.7	89.8	11.0	-85.79	-11,276.3	1,726.5	957.0	828.6	128.38	7.454 CC	
23,900.0	12,400.0	12,517.3	12,337.8	90.1	11.0	-86.28	-11,307.5	1,727.6	957.2	828.5	128.67	7.439 ES	
24,000.0	12,400.0	12,630.2	12,349.8	90.9	11.1	-87.00	-11,419.4	1,730.7	958.5	829.2	129.29	7.414	
24,005.3	12,400.0	12,636.3	12,349.9	90.9	11.1	-87.00	-11,425.5	1,730.8	958.5	829.1	129.33	7.411	
24,100.0	12,400.0	12,691.2	12,351.0	91.6	11.3	-87.07	-11,480.4	1,732.5	960.3	829.8	130.56	7.355	
24,200.0	12,400.0	12,759.4	12,353.3	92.3	11.4	-87.23	-11,548.3	1,737.3	966.2	834.6	131.61	7.341	
24,300.0	12,400.0	12,844.4	12,356.9	93.1	11.7	-87.46	-11,632.9	1,745.3	974.4	841.8	132.55	7.351	
24,400.0	12,400.0	12,943.1	12,361.4	93.8	12.0	-87.74	-11,731.0	1,755.1	983.2	849.7	133.49	7.365	
24,500.0	12,400.0	13,035.5	12,365.5	94.5	12.4	-88.00	-11,822.8	1,764.5	992.2	857.8	134.43	7.381	
24,600.0	12,400.0	13,118.5	12,369.9	95.3	12.8	-88.27	-11,905.1	1,774.2	1,002.7	867.4	135.30	7.411	
24,700.0	12,400.0	13,210.4	12,375.0	96.0	13.2	-88.58	-11,996.2	1,786.1	1,014.6	878.3	136.20	7.449	
24,800.0	12,400.0	13,340.7	12,380.1	96.8	13.9	-88.89	-12,125.4	1,801.5	1,025.4	888.1	137.35	7.466	
24,900.0	12,400.0	13,483.0	12,382.0	97.5	14.7	-89.00	-12,267.2	1,812.6	1,032.2	893.7	138.51	7.452	
25,000.0	12,400.0	13,633.6	12,383.7	98.2	15.6	-89.10	-12,417.7	1,818.8	1,035.7	896.3	139.47	7.426	
25,100.0	12,400.0	13,743.4	12,383.6	99.0	16.3	-89.09	-12,527.4	1,818.7	1,034.5	894.0	140.56	7.360	
25,200.0	12,400.0	13,842.6	12,383.1	99.7	16.9	-89.06	-12,626.7	1,818.8	1,033.7	891.9	141.74	7.293	
25,300.0	12,400.0	13,938.6	12,382.0	100.4	17.5	-89.00	-12,722.7	1,819.0	1,033.0	890.0	142.96	7.226	
25,400.0	12,400.0	14,064.4	12,379.9	101.2	18.3	-88.88	-12,848.5	1,817.5	1,030.7	886.7	143.99	7.158	
25,500.0	12,400.0	14,152.3	12,380.2	101.9	18.9	-88.90	-12,936.4	1,816.4	1,028.4	883.2	145.26	7.080	
25,600.0	12,400.0	14,253.0	12,381.3	102.7	19.5	-88.96	-13,037.0	1,815.3	1,026.4	880.0	146.42	7.010	
25,700.0	12,400.0	14,337.2	12,382.7	103.4	20.1	-89.03	-13,121.2	1,815.1	1,025.2	877.5	147.68	6.942	
25,715.8	12,400.0	14,349.4	12,383.0	103.5	20.1	-89.05	-13,133.4	1,815.2	1,025.2	877.3	147.88	6.932	
25,800.0	12,400.0	14,416.0	12,384.4	104.1	20.6	-89.13	-13,200.0	1,816.5	1,026.0	877.0	148.93	6.889	
25,900.0	12,400.0	14,533.7	12,385.7	104.9	21.4	-89.20	-13,317.6	1,818.5	1,026.6	876.6	150.02	6.843	
26,000.0	12,400.0	14,631.6	12,389.6	105.6	22.1	-89.42	-13,415.5	1,819.8	1,026.9	875.7	151.14	6.794	
26,100.0	12,400.0	14,740.7	12,396.7	106.4	22.8	-89.82	-13,524.3	1,820.5	1,026.5	874.4	152.13	6.748	
26,200.0	12,400.0	14,844.0	12,404.9	107.1	23.5	-90.27	-13,627.3	1,820.7	1,025.7	872.6	153.12	6.699	
26,300.0	12,400.0	14,946.8	12,413.5	107.9	24.2	-90.75	-13,729.7	1,820.5	1,024.7	870.5	154.12	6.648	
26,400.0	12,400.0	15,045.0	12,422.4	108.6	24.9	-91.25	-13,827.6	1,820.2	1,023.5	868.4	155.14	6.597	
26,500.0	12,400.0	15,138.2	12,430.7	109.3	25.6	-91.72	-13,920.3	1,820.3	1,022.9	866.7	156.21	6.548	
26,534.4	12,400.0	15,169.8	12,433.3	109.6	25.8	-91.87	-13,951.8	1,820.4	1,022.8	866.3	156.59	6.532	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - HENNIN FED #12H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 96-Standard Keeper 104, 11735-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		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)			
26,600.0	12,400.0	15,229.1	12,438.1	110.1	26.2	-92.13	-14,011.0	1,821.1	1,023.1	865.8	157.31	6.504	
26,700.0	12,400.0	15,321.4	12,445.4	110.8	26.9	-92.54	-14,102.9	1,822.6	1,024.1	865.7	158.39	6.466	
26,800.0	12,400.0	15,426.0	12,454.0	111.6	27.6	-93.02	-14,207.2	1,824.7	1,025.6	866.1	159.43	6.433	
26,900.0	12,400.0	15,525.8	12,460.5	112.3	28.3	-93.38	-14,306.7	1,826.3	1,026.5	866.0	160.53	6.394	
27,000.0	12,400.0	15,620.2	12,466.4	113.1	29.0	-93.70	-14,400.9	1,828.0	1,027.8	866.2	161.66	6.358	
27,100.0	12,400.0	15,714.9	12,472.4	113.8	29.7	-94.03	-14,495.4	1,830.4	1,029.7	866.9	162.79	6.326	
27,200.0	12,400.0	15,846.4	12,481.1	114.6	30.6	-94.51	-14,626.6	1,832.3	1,030.8	867.0	163.81	6.293	
27,300.0	12,400.0	15,974.2	12,485.8	115.3	31.6	-94.79	-14,754.3	1,829.4	1,027.7	862.9	164.82	6.235	
27,400.0	12,400.0	16,056.2	12,487.7	116.0	32.2	-94.91	-14,836.2	1,827.6	1,024.7	858.6	166.16	6.167	
27,500.0	12,400.0	16,147.4	12,491.1	116.8	32.8	-95.10	-14,927.4	1,827.4	1,023.9	856.5	167.41	6.116	
27,600.0	12,400.0	16,299.8	12,496.3	117.5	34.0	-95.42	-15,079.6	1,823.7	1,021.0	852.8	168.21	6.070	
27,700.0	12,400.0	16,346.7	12,497.6	118.3	34.4	-95.50	-15,126.4	1,822.7	1,017.9	848.0	169.85	5.993	
27,718.6	12,400.0	16,356.6	12,497.8	118.4	34.5	-95.51	-15,136.3	1,822.7	1,017.8	847.7	170.12	5.983	
27,800.0	12,400.0	16,405.8	12,498.2	119.0	34.8	-95.53	-15,185.6	1,824.1	1,019.2	848.1	171.15	5.955	
27,900.0	12,400.0	16,480.0	12,501.4	119.8	35.4	-95.69	-15,259.6	1,827.7	1,023.6	851.3	172.25	5.942	
28,000.0	12,400.0	16,544.0	12,506.7	120.5	35.9	-95.96	-15,323.2	1,832.5	1,030.9	857.8	173.10	5.955	
28,100.0	12,400.0	16,650.2	12,516.1	121.3	36.7	-96.43	-15,428.4	1,842.9	1,040.8	866.5	174.29	5.972	
28,200.0	12,400.0	16,848.7	12,522.5	122.0	38.2	-96.74	-15,626.6	1,851.6	1,044.4	868.5	175.95	5.936	
28,300.0	12,400.0	16,940.4	12,522.6	122.8	38.9	-96.74	-15,718.2	1,851.8	1,043.7	866.5	177.26	5.888	
28,400.0	12,400.0	17,056.6	12,523.0	123.5	39.7	-96.77	-15,834.4	1,852.1	1,043.1	864.6	178.53	5.843	
28,500.0	12,400.0	17,175.0	12,521.5	124.3	40.6	-96.71	-15,952.8	1,850.2	1,040.3	860.5	179.78	5.786	
28,559.3	12,400.0	17,199.0	12,521.0	124.7	40.8	-96.69	-15,976.8	1,849.6	1,038.9	858.2	180.69	5.750	
28,600.0	12,400.0	17,199.0	12,521.0	125.0	40.8	-96.69	-15,976.8	1,849.6	1,039.7	858.5	181.13	5.740 SF	
28,700.0	12,400.0	17,199.0	12,521.0	125.8	40.8	-96.69	-15,976.8	1,849.6	1,048.4	867.2	181.19	5.786	
28,710.4	12,400.0	17,199.0	12,521.0	125.8	40.8	-96.69	-15,976.8	1,849.6	1,049.8	868.5	181.32	5.790	

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - HENNIN FED #24H - OWB - AWP												Offset Site Error: 0.0 usft	
Survey Program: Reference		100-Standard Keeper 104, 11883-r.5 MWD+IFR1+MS						Rule Assigned:				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,700.0	12,400.0	12,197.0	12,211.6	74.2	11.9	-74.91	-10,950.7	1,467.6	1,967.6	1,918.4	49.20	39.991	
21,800.0	12,400.0	12,197.0	12,211.6	74.9	11.9	-74.91	-10,950.7	1,467.6	1,875.0	1,824.2	50.75	36.945	
21,900.0	12,400.0	12,197.0	12,211.6	75.6	11.9	-74.91	-10,950.7	1,467.6	1,783.1	1,730.6	52.51	33.960	
22,000.0	12,400.0	12,197.0	12,211.6	76.3	11.9	-74.91	-10,950.7	1,467.6	1,692.2	1,637.7	54.50	31.048	
22,100.0	12,400.0	12,211.5	12,226.0	77.0	11.9	-76.01	-10,952.3	1,467.3	1,602.1	1,545.5	56.62	28.297	
22,200.0	12,400.0	12,214.5	12,229.0	77.8	11.9	-76.24	-10,952.7	1,467.3	1,513.4	1,454.3	59.14	25.590	
22,300.0	12,400.0	12,229.0	12,243.3	78.5	11.9	-77.35	-10,954.9	1,467.1	1,426.4	1,364.5	61.85	23.063	
22,400.0	12,400.0	12,229.0	12,243.3	79.2	11.9	-77.35	-10,954.9	1,467.1	1,340.8	1,275.6	65.16	20.578	
22,500.0	12,400.0	12,229.0	12,243.3	79.9	11.9	-77.35	-10,954.9	1,467.1	1,257.4	1,188.4	68.95	18.236	
22,600.0	12,400.0	12,229.0	12,243.3	80.7	11.9	-77.35	-10,954.9	1,467.1	1,176.5	1,103.2	73.29	16.053	
22,700.0	12,400.0	12,229.0	12,243.3	81.4	11.9	-77.35	-10,954.9	1,467.1	1,098.8	1,020.6	78.23	14.046	
22,800.0	12,400.0	12,240.3	12,254.5	82.1	12.0	-78.22	-10,957.0	1,467.0	1,024.8	941.3	83.45	12.280	
22,900.0	12,400.0	12,246.7	12,260.7	82.8	12.0	-78.72	-10,958.3	1,467.0	955.4	866.0	89.41	10.686	
23,000.0	12,400.0	12,261.0	12,274.6	83.6	12.0	-79.82	-10,961.7	1,467.1	891.8	796.2	95.58	9.330	
23,100.0	12,400.0	12,261.0	12,274.6	84.3	12.0	-79.82	-10,961.7	1,467.1	834.9	732.2	102.71	8.129	
23,200.0	12,400.0	12,273.9	12,287.0	85.0	12.0	-80.81	-10,965.2	1,467.2	786.5	677.1	109.36	7.192	
23,300.0	12,400.0	12,291.0	12,303.2	85.8	12.0	-82.10	-10,970.8	1,467.4	747.9	632.5	115.39	6.481	
23,400.0	12,400.0	12,309.0	12,319.8	86.5	12.0	-83.45	-10,977.6	1,467.7	720.3	599.9	120.45	5.980	
23,500.0	12,400.0	12,347.5	12,354.4	87.2	12.0	-86.27	-10,994.5	1,468.5	704.4	581.2	123.13	5.721	
23,600.0	12,400.0	12,403.7	12,402.4	87.9	12.1	-90.20	-11,023.7	1,468.7	699.0	575.3	123.67	5.652	
23,604.4	12,400.0	12,406.4	12,404.6	88.0	12.1	-90.38	-11,025.2	1,468.7	699.0	575.3	123.67	5.652 CC, ES	
23,700.0	12,400.0	12,453.4	12,442.3	88.7	12.1	-93.46	-11,053.2	1,469.1	703.6	580.3	123.33	5.705	
23,800.0	12,400.0	12,541.9	12,501.9	89.4	12.2	-98.26	-11,118.2	1,472.8	717.0	595.1	121.91	5.881	
23,900.0	12,400.0	12,710.4	12,576.5	90.1	12.4	-104.10	-11,268.3	1,474.6	726.3	604.8	121.48	5.978	
24,000.0	12,400.0	12,802.3	12,598.2	90.9	12.5	-105.72	-11,357.5	1,477.3	734.5	612.5	121.98	6.021	
24,100.0	12,400.0	12,935.5	12,608.7	91.6	12.6	-106.38	-11,489.9	1,484.1	740.6	617.4	123.14	6.014	
24,200.0	12,400.0	13,039.1	12,607.9	92.3	12.7	-106.23	-11,593.4	1,489.3	744.2	619.9	124.27	5.988	
24,300.0	12,400.0	13,139.8	12,607.8	93.1	12.8	-106.13	-11,693.9	1,494.6	748.4	623.0	125.39	5.968	
24,400.0	12,400.0	13,292.0	12,610.4	93.8	13.5	-106.38	-11,846.0	1,493.6	746.7	620.2	126.51	5.902	
24,500.0	12,400.0	13,386.0	12,614.5	94.5	14.1	-106.78	-11,939.8	1,490.1	743.4	615.8	127.63	5.825	
24,519.0	12,400.0	13,386.0	12,614.5	94.7	14.1	-106.78	-11,939.8	1,490.1	743.2	615.3	127.87	5.812	
24,600.0	12,400.0	13,444.6	12,617.9	95.3	14.4	-107.02	-11,998.3	1,491.2	745.0	616.3	128.66	5.790	
24,700.0	12,400.0	13,538.1	12,623.5	96.0	14.8	-107.38	-12,091.6	1,493.9	748.6	618.9	129.66	5.773	
24,800.0	12,400.0	13,640.6	12,629.0	96.8	15.2	-107.73	-12,193.8	1,497.3	752.4	621.7	130.73	5.756	
24,900.0	12,400.0	13,756.2	12,634.1	97.5	15.8	-108.06	-12,309.3	1,500.0	755.1	623.3	131.87	5.726	
25,000.0	12,400.0	13,857.5	12,638.9	98.2	16.3	-108.41	-12,410.5	1,500.9	756.5	623.6	132.95	5.690	
25,100.0	12,400.0	13,960.4	12,642.5	99.0	16.9	-108.67	-12,513.3	1,502.0	757.7	623.6	134.07	5.652	
25,200.0	12,400.0	14,068.0	12,644.2	99.7	17.5	-108.79	-12,620.9	1,503.1	758.3	623.0	135.23	5.607	
25,300.0	12,400.0	14,176.6	12,645.8	100.4	18.1	-108.94	-12,729.5	1,502.6	757.4	621.0	136.38	5.554	
25,400.0	12,400.0	14,277.5	12,649.3	101.2	18.7	-109.25	-12,830.3	1,501.2	756.3	618.8	137.50	5.500	
25,500.0	12,400.0	14,374.2	12,652.0	101.9	19.3	-109.50	-12,927.0	1,499.8	755.0	616.4	138.63	5.446	
25,560.8	12,400.0	14,428.8	12,653.8	102.4	19.6	-109.65	-12,981.6	1,499.5	754.7	615.4	139.31	5.418	
25,600.0	12,400.0	14,464.8	12,655.1	102.7	19.8	-109.76	-13,017.5	1,499.5	754.8	615.1	139.75	5.401	
25,700.0	12,400.0	14,562.4	12,659.4	103.4	20.4	-110.08	-13,115.0	1,499.7	755.6	614.8	140.88	5.364	
25,800.0	12,400.0	14,704.8	12,664.5	104.1	21.4	-110.54	-13,257.2	1,497.3	754.7	612.6	142.04	5.313	
25,900.0	12,400.0	14,827.8	12,668.1	104.9	22.2	-111.10	-13,379.8	1,487.6	747.3	604.2	143.03	5.224	
26,000.0	12,400.0	14,906.8	12,671.3	105.6	22.8	-111.52	-13,458.5	1,481.5	740.6	596.3	144.34	5.131	
26,100.0	12,400.0	14,982.0	12,675.2	106.4	23.3	-111.91	-13,533.5	1,478.3	737.6	592.1	145.55	5.068	
26,131.5	12,400.0	15,001.0	12,676.3	106.6	23.4	-112.01	-13,552.5	1,478.0	737.4	591.6	145.88	5.055	
26,200.0	12,400.0	15,055.2	12,679.1	107.1	23.8	-112.22	-13,606.6	1,478.0	738.1	591.5	146.60	5.035	
26,300.0	12,400.0	15,140.0	12,682.7	107.9	24.4	-112.44	-13,691.3	1,480.1	741.2	593.5	147.65	5.020	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - HENNIN FED #24H - OWB - AWP											Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11883-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Minimum		Separation	Warning	
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre	Between	Between	Separation		
Depth	Depth	Depth	Depth	Depth	Depth	Toolface	+N/-S	+E/-W	Centres	Ellipses	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)		
26,400.0	12,400.0	15,227.8	12,686.5	108.6	25.0	-112.62	-13,779.0	1,484.0	746.0	597.3	148.69	5.017
26,500.0	12,400.0	15,328.4	12,689.9	109.3	25.7	-112.72	-13,879.3	1,490.0	751.9	602.0	149.93	5.015
26,600.0	12,400.0	15,462.7	12,691.4	110.1	26.6	-112.70	-14,013.5	1,495.4	755.2	603.6	151.56	4.983
26,700.0	12,400.0	15,545.0	12,692.8	110.8	27.2	-112.75	-14,095.7	1,497.7	757.5	604.8	152.64	4.963
26,800.0	12,400.0	15,629.5	12,695.3	111.6	27.8	-112.84	-14,180.2	1,501.6	762.0	608.3	153.68	4.958
26,900.0	12,400.0	15,753.1	12,696.7	112.3	28.6	-112.82	-14,303.6	1,506.6	765.1	609.8	155.23	4.929
27,000.0	12,400.0	15,827.0	12,698.7	113.1	29.2	-112.89	-14,377.4	1,509.9	769.3	613.2	156.16	4.926
27,100.0	12,400.0	15,935.1	12,703.3	113.8	29.9	-113.07	-14,485.2	1,515.4	774.8	617.3	157.53	4.919
27,200.0	12,400.0	16,041.0	12,707.0	114.6	30.7	-113.23	-14,590.9	1,519.6	779.0	620.1	158.86	4.904
27,300.0	12,400.0	16,142.0	12,709.8	115.3	31.4	-113.34	-14,691.9	1,523.4	782.5	622.4	160.13	4.887
27,400.0	12,400.0	16,312.2	12,712.9	116.0	32.7	-113.54	-14,861.9	1,525.5	784.8	623.0	161.76	4.852
27,500.0	12,400.0	16,407.1	12,710.4	116.8	33.3	-113.45	-14,956.8	1,523.4	780.7	617.7	163.06	4.788
27,600.0	12,400.0	16,519.5	12,705.8	117.5	34.1	-113.30	-15,069.1	1,519.1	774.7	610.4	164.31	4.715
27,700.0	12,400.0	16,605.8	12,704.0	118.3	34.8	-113.30	-15,155.2	1,515.6	769.2	603.6	165.64	4.644
27,800.0	12,400.0	16,701.5	12,705.0	119.0	35.4	-113.49	-15,250.9	1,512.6	765.8	598.9	166.93	4.587
27,900.0	12,400.0	16,804.0	12,704.8	119.8	36.2	-113.67	-15,353.2	1,507.1	759.9	591.7	168.23	4.517
27,969.1	12,400.0	16,843.7	12,705.1	120.3	36.6	-113.73	-15,392.9	1,506.3	758.3	589.2	169.07	4.485
28,000.0	12,400.0	16,864.0	12,705.6	120.5	36.7	-113.76	-15,413.2	1,506.4	758.4	589.0	169.39	4.477
28,100.0	12,400.0	16,928.8	12,707.3	121.3	37.2	-113.83	-15,478.0	1,508.9	761.9	591.7	170.23	4.476
28,200.0	12,400.0	17,057.5	12,708.6	122.0	38.2	-113.72	-15,606.4	1,516.6	767.4	595.4	171.97	4.462
28,300.0	12,400.0	17,179.9	12,705.2	122.8	39.1	-113.44	-15,728.7	1,519.5	767.4	593.9	173.49	4.423
28,400.0	12,400.0	17,276.1	12,704.5	123.5	39.8	-113.41	-15,824.8	1,519.6	766.4	591.6	174.79	4.385
28,431.7	12,400.0	17,303.6	12,705.0	123.7	40.0	-113.45	-15,852.4	1,519.6	766.3	591.1	175.17	4.375
28,500.0	12,400.0	17,378.5	12,707.1	124.3	40.5	-113.63	-15,927.2	1,519.4	766.4	590.3	176.10	4.352
28,559.0	12,400.0	17,431.0	12,708.2	124.7	40.9	-113.73	-15,979.7	1,519.0	765.9	589.1	176.83	4.331 SF
28,600.0	12,400.0	17,431.0	12,708.2	125.0	40.9	-113.73	-15,979.7	1,519.0	767.0	590.1	176.84	4.337
28,700.0	12,400.0	17,431.0	12,708.2	125.8	40.9	-113.73	-15,979.7	1,519.0	778.8	603.7	175.07	4.448
28,710.4	12,400.0	17,431.0	12,708.2	125.8	40.9	-113.73	-15,979.7	1,519.0	780.7	605.3	175.37	4.452

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - JAZZBASS 34 FEDERAL 003H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-r.5 MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,700.0	12,400.0	16,226.0	12,277.5	40.6	36.8	-80.47	-5,941.6	1,450.1	1,965.3	1,922.3	42.98	45.729	
16,800.0	12,400.0	16,226.0	12,277.5	41.2	36.8	-80.47	-5,941.6	1,450.1	1,873.1	1,829.4	43.66	42.900	
16,900.0	12,400.0	16,226.0	12,277.5	41.8	36.8	-80.47	-5,941.6	1,450.1	1,781.6	1,737.2	44.47	40.068	
17,000.0	12,400.0	16,226.0	12,277.5	42.4	36.8	-80.47	-5,941.6	1,450.1	1,691.2	1,645.8	45.41	37.240	
17,100.0	12,400.0	16,226.0	12,277.5	43.0	36.8	-80.47	-5,941.6	1,450.1	1,601.8	1,555.3	46.53	34.425	
17,200.0	12,400.0	16,226.0	12,277.5	43.6	36.8	-80.47	-5,941.6	1,450.1	1,513.9	1,466.0	47.85	31.635	
17,300.0	12,400.0	16,226.0	12,277.5	44.2	36.8	-80.47	-5,941.6	1,450.1	1,427.5	1,378.0	49.42	28.884	
17,400.0	12,400.0	16,226.0	12,277.5	44.8	36.8	-80.47	-5,941.6	1,450.1	1,342.9	1,291.7	51.27	26.193	
17,500.0	12,400.0	16,226.0	12,277.5	45.5	36.8	-80.47	-5,941.6	1,450.1	1,260.7	1,207.2	53.46	23.583	
17,600.0	12,400.0	16,226.0	12,277.5	46.1	36.8	-80.47	-5,941.6	1,450.1	1,181.2	1,125.2	56.03	21.082	
17,700.0	12,400.0	16,226.0	12,277.5	46.7	36.8	-80.47	-5,941.6	1,450.1	1,105.0	1,046.0	59.03	18.720	
17,800.0	12,400.0	16,226.0	12,277.5	47.4	36.8	-80.47	-5,941.6	1,450.1	1,032.9	970.4	62.50	16.526	
17,900.0	12,400.0	16,226.0	12,277.5	48.0	36.8	-80.47	-5,941.6	1,450.1	965.8	899.4	66.46	14.533	
18,000.0	12,400.0	16,226.0	12,277.5	48.7	36.8	-80.47	-5,941.6	1,450.1	904.8	833.9	70.86	12.769	
18,100.0	12,400.0	16,226.0	12,277.5	49.3	36.8	-80.47	-5,941.6	1,450.1	851.2	775.6	75.60	11.259	
18,200.0	12,400.0	16,226.0	12,277.5	50.0	36.8	-80.47	-5,941.6	1,450.1	806.5	726.0	80.47	10.022	
18,300.0	12,400.0	16,226.0	12,277.5	50.6	36.8	-80.47	-5,941.6	1,450.1	772.2	687.0	85.15	9.068	
18,400.0	12,400.0	16,226.0	12,277.5	51.3	36.8	-80.47	-5,941.6	1,450.1	749.7	660.5	89.24	8.401	
18,500.0	12,400.0	16,226.0	12,277.5	51.9	36.8	-80.47	-5,941.6	1,450.1	740.2	647.9	92.34	8.016	
18,520.7	12,400.0	16,226.0	12,277.5	52.1	36.8	-80.47	-5,941.6	1,450.1	739.9	647.1	92.83	7.971	CC, ES
18,600.0	12,400.0	16,171.2	12,278.9	52.6	36.4	-80.61	-5,996.3	1,452.6	742.1	648.7	93.42	7.944	
18,700.0	12,400.0	16,065.5	12,282.8	53.3	35.7	-80.94	-6,101.9	1,457.1	744.7	651.3	93.45	7.969	
18,800.0	12,400.0	15,966.0	12,286.3	53.9	35.0	-81.25	-6,201.2	1,461.2	747.3	653.7	93.63	7.982	
18,900.0	12,400.0	15,866.3	12,289.9	54.6	34.4	-81.56	-6,300.7	1,465.4	750.0	656.2	93.81	7.994	
19,000.0	12,400.0	15,772.9	12,292.6	55.3	33.7	-81.79	-6,394.0	1,469.6	753.0	658.9	94.15	7.998	
19,100.0	12,400.0	15,667.7	12,294.1	56.0	33.0	-81.95	-6,499.1	1,474.4	756.4	662.1	94.36	8.016	
19,200.0	12,400.0	15,568.7	12,295.2	56.6	32.4	-82.06	-6,598.0	1,478.4	759.3	664.6	94.71	8.016	
19,300.0	12,400.0	15,468.5	12,296.1	57.3	31.7	-82.17	-6,698.1	1,482.5	762.2	667.2	95.07	8.018	
19,400.0	12,400.0	15,374.0	12,296.3	58.0	31.1	-82.21	-6,792.5	1,486.4	765.4	669.9	95.56	8.010	
19,500.0	12,400.0	15,280.0	12,296.8	58.7	30.5	-82.29	-6,886.4	1,491.0	769.2	673.2	96.06	8.008	
19,600.0	12,400.0	15,186.0	12,298.8	59.4	29.9	-82.48	-6,980.2	1,496.4	773.7	677.2	96.51	8.017	
19,700.0	12,400.0	15,092.0	12,301.9	60.1	29.3	-82.75	-7,074.0	1,502.7	779.0	682.1	96.94	8.036	
19,800.0	12,400.0	14,998.0	12,305.0	60.8	28.7	-83.04	-7,167.6	1,510.1	785.4	688.0	97.37	8.066	
19,900.0	12,400.0	14,905.9	12,307.9	61.4	28.1	-83.31	-7,259.4	1,518.1	792.7	694.9	97.84	8.102	
20,000.0	12,400.0	14,809.0	12,309.4	62.1	27.5	-83.48	-7,355.8	1,526.9	800.6	702.3	98.33	8.142	
20,100.0	12,400.0	14,671.1	12,305.0	62.8	26.7	-83.23	-7,493.3	1,536.4	807.1	708.4	98.64	8.182	
20,200.0	12,400.0	14,570.2	12,297.7	63.5	26.1	-82.74	-7,593.9	1,539.1	809.6	710.2	99.47	8.140	
20,300.0	12,400.0	14,486.7	12,295.5	64.2	25.6	-82.61	-7,677.3	1,543.3	813.9	713.6	100.32	8.114	
20,400.0	12,400.0	14,398.2	12,297.1	64.9	25.1	-82.78	-7,765.5	1,549.8	820.0	719.1	100.96	8.122	
20,500.0	12,400.0	14,303.7	12,298.6	65.6	24.5	-82.94	-7,859.6	1,557.5	827.0	725.4	101.57	8.142	
20,600.0	12,400.0	14,207.6	12,299.3	66.3	24.0	-83.05	-7,955.4	1,565.9	834.6	732.4	102.21	8.166	
20,700.0	12,400.0	14,106.2	12,301.5	67.1	23.4	-83.27	-8,056.3	1,574.9	842.2	739.5	102.77	8.195	
20,800.0	12,400.0	14,007.4	12,304.6	67.8	22.9	-83.53	-8,154.7	1,583.7	849.8	746.4	103.34	8.223	
20,900.0	12,400.0	13,898.5	12,307.4	68.5	22.4	-83.78	-8,263.1	1,593.2	857.2	753.4	103.87	8.253	
21,000.0	12,400.0	13,795.2	12,310.5	69.2	21.9	-84.04	-8,366.1	1,600.9	863.4	758.9	104.46	8.265	
21,100.0	12,400.0	13,685.5	12,313.5	69.9	21.4	-84.28	-8,475.5	1,608.7	869.2	764.1	105.02	8.276	
21,200.0	12,400.0	13,575.8	12,317.2	70.6	20.9	-84.56	-8,585.0	1,615.0	873.6	768.1	105.55	8.277	
21,300.0	12,400.0	13,468.5	12,320.7	71.3	20.4	-84.81	-8,692.1	1,620.1	877.1	770.9	106.13	8.264	
21,400.0	12,400.0	13,367.4	12,323.1	72.0	20.1	-84.99	-8,793.1	1,624.5	880.2	773.4	106.84	8.239	
21,500.0	12,400.0	13,263.4	12,325.9	72.7	19.8	-85.19	-8,896.9	1,628.5	882.8	775.3	107.52	8.211	
21,600.0	12,400.0	13,165.8	12,328.0	73.5	19.6	-85.34	-8,994.4	1,632.2	885.5	777.2	108.29	8.177	

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 *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: HENNIN PROJECT - JAZZBASS 34 FEDERAL 003H - OWB - AWP											Offset Site Error:	0.0 usft
Survey Program: 100-r.5 MWD+IFR1+MS											Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)		
21,700.0	12,400.0	13,066.7	12,329.1	74.2	19.5	-85.42	-9,093.4	1,636.1	888.4	779.3	109.09	8.144
21,800.0	12,400.0	12,966.5	12,329.8	74.9	19.4	-85.48	-9,193.5	1,640.0	891.3	781.3	109.92	8.108
21,900.0	12,400.0	12,873.2	12,332.9	75.6	19.3	-85.69	-9,286.7	1,644.1	894.4	783.6	110.75	8.076
22,000.0	12,400.0	12,780.7	12,334.4	76.3	19.2	-85.81	-9,379.0	1,649.0	898.5	786.9	111.63	8.049
22,100.0	12,400.0	12,692.8	12,331.4	77.0	19.2	-85.64	-9,466.8	1,654.1	903.6	790.9	112.69	8.019
22,200.0	12,400.0	12,592.5	12,316.6	77.8	19.1	-84.73	-9,565.7	1,660.0	909.9	795.8	114.06	7.977
22,300.0	12,400.0	12,509.0	12,293.4	78.5	18.9	-83.30	-9,645.8	1,663.7	916.6	800.8	115.77	7.917
22,400.0	12,400.0	12,441.8	12,268.8	79.2	18.8	-81.80	-9,708.2	1,667.4	926.5	809.0	117.49	7.886 SF
22,500.0	12,400.0	12,374.1	12,238.8	79.9	18.7	-80.00	-9,768.7	1,671.9	940.5	821.3	119.23	7.888
22,600.0	12,400.0	12,305.8	12,203.0	80.7	18.5	-77.89	-9,826.6	1,676.3	958.6	837.7	120.98	7.924
22,700.0	12,400.0	12,245.2	12,166.9	81.4	18.4	-75.80	-9,875.2	1,679.7	980.9	858.5	122.43	8.012
22,800.0	12,400.0	12,192.7	12,133.0	82.1	18.2	-73.88	-9,915.2	1,682.7	1,008.4	885.0	123.41	8.171
22,900.0	12,400.0	12,146.9	12,101.4	82.8	18.1	-72.13	-9,948.3	1,685.4	1,041.2	917.3	123.87	8.406
23,000.0	12,400.0	12,107.0	12,072.4	83.6	18.0	-70.56	-9,975.4	1,687.7	1,079.5	955.7	123.78	8.721
23,100.0	12,400.0	12,076.0	12,048.9	84.3	17.9	-69.32	-9,995.6	1,689.6	1,123.2	1,000.2	123.02	9.130
23,200.0	12,400.0	12,044.0	12,024.1	85.0	17.9	-68.04	-10,015.6	1,692.0	1,172.1	1,050.0	122.06	9.602
23,300.0	12,400.0	12,013.0	11,999.5	85.8	17.8	-66.81	-10,034.3	1,695.0	1,225.9	1,105.0	120.90	10.140
23,400.0	12,400.0	12,013.0	11,999.5	86.5	17.8	-66.81	-10,034.3	1,695.0	1,284.4	1,166.4	118.09	10.877
23,500.0	12,400.0	11,971.4	11,965.6	87.2	17.7	-65.19	-10,057.9	1,700.0	1,346.3	1,229.0	117.33	11.475
23,600.0	12,400.0	11,950.0	11,947.9	87.9	17.6	-64.37	-10,069.5	1,702.9	1,411.9	1,296.4	115.55	12.219
23,700.0	12,400.0	11,929.2	11,930.3	88.7	17.6	-63.58	-10,080.3	1,705.8	1,480.6	1,366.8	113.79	13.011
23,800.0	12,400.0	11,918.0	11,920.8	89.4	17.5	-63.16	-10,085.9	1,707.4	1,552.1	1,440.5	111.63	13.904
23,900.0	12,400.0	11,887.0	11,894.0	90.1	17.5	-62.00	-10,100.8	1,712.3	1,626.2	1,515.6	110.53	14.712
24,000.0	12,400.0	11,887.0	11,894.0	90.9	17.5	-62.00	-10,100.8	1,712.3	1,702.3	1,594.3	108.02	15.760
24,100.0	12,400.0	11,871.6	11,880.5	91.6	17.4	-61.44	-10,107.8	1,715.0	1,780.6	1,674.2	106.37	16.740
24,200.0	12,400.0	11,856.0	11,866.7	92.3	17.4	-60.87	-10,114.4	1,717.9	1,860.7	1,755.9	104.84	17.748
24,300.0	12,400.0	11,856.0	11,866.7	93.1	17.4	-60.87	-10,114.4	1,717.9	1,942.4	1,839.7	102.71	18.911

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

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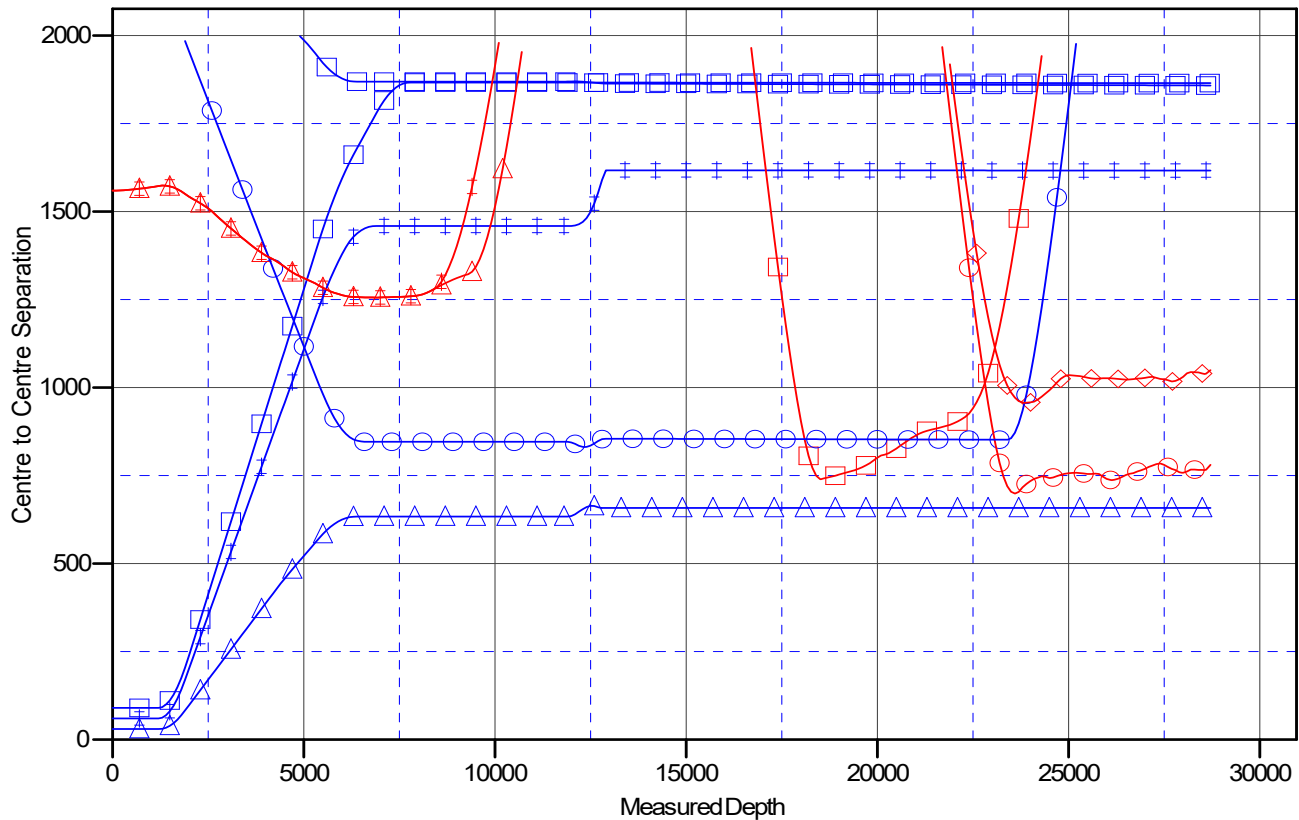
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Reference Site:	HENNIN PROJECT	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to WELL @ 3220.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: *HENNIN FED COM #602H - Slot HENNIN FED COM
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.52°

Ladder Plot



LEGEND

*HENNIN FED COM #601H, OWB, PWP0 V0	*HENNIN FED COM #601H, OWB, PWP0 V0	MUSIC MASTER 27 FED #3H, OWB PLOT, ACTUAL WELL PATH V0
*HENNIN FED COM #701H, OWB, PWP0 V0	JAZZBASS34 FEDERAL 003H, OWB, AWP V0	MUSIC MASTER 27 FED #3H, OWB ACTUAL WELL PATH V0
*HENNIN FED COM #703H, OWB, PWP0 V0	*HENNIN FED COM #702H, OWB, PWP0 V0	
HENNIN FED #24H, OWB, AWP V0	HENNIN FED #12H, OWB, AWP V0	

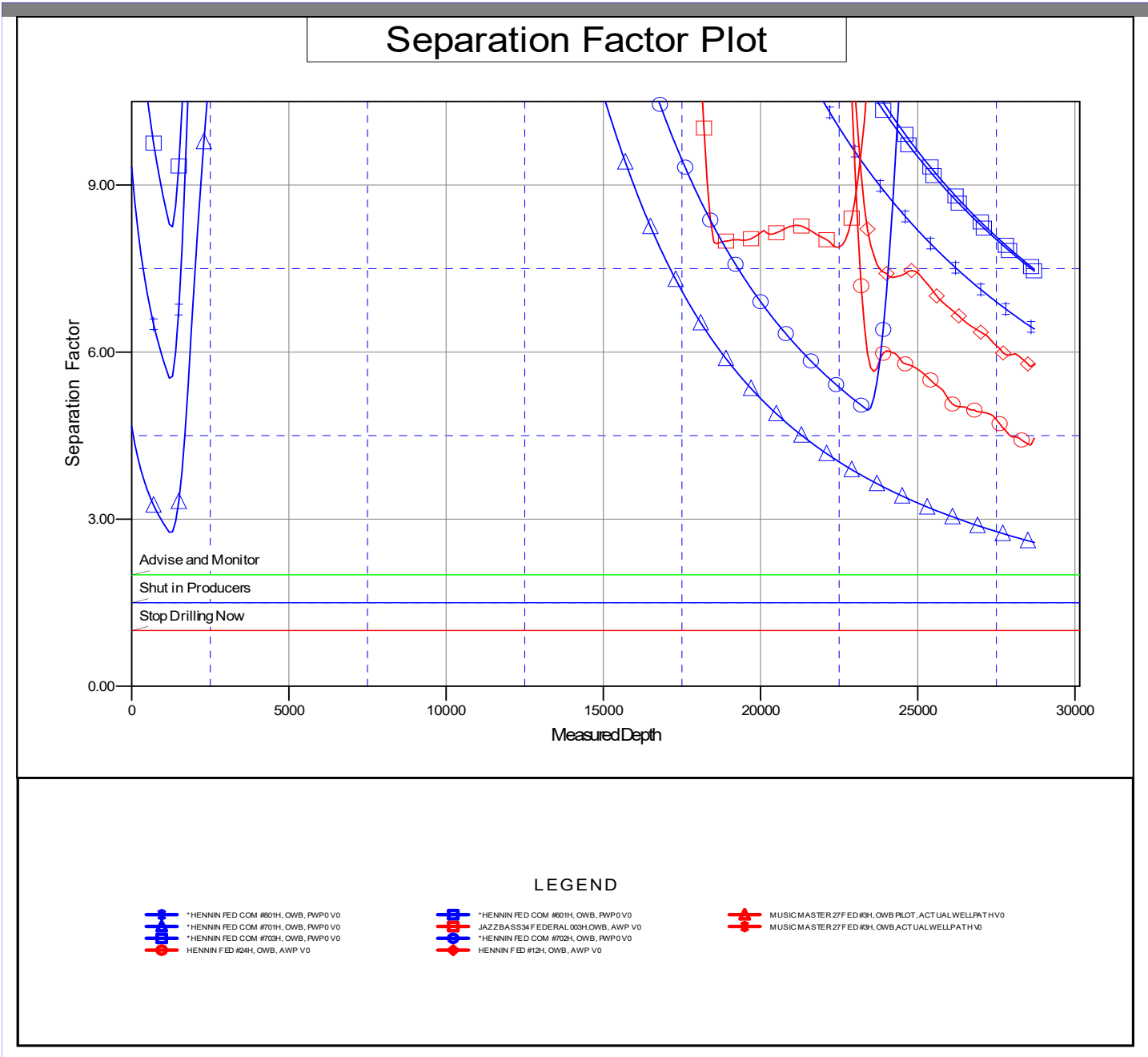
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ConocoPhillips
Anticollision Report

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ConocoPhillips Company - Hennin Fed Com 602H

1. Geologic Formations

TVD of target	12,400' EOL	Pilot hole depth	NA
MD at TD:	28,709'	Deepest expected fresh water:	230'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	819	Water	
Top of Salt	1187	Salt	
Base of Salt	4872	Salt	
Lamar	5253	Salt Water	
Bell Canyon	5292	Salt Water	
Cherry Canyon	6199	Oil/Gas	
Brushy Canyon	7710	Oil/Gas	
Bone Spring	8999	Oil/Gas	
1st Bone Spring Sand	10267	Oil/Gas	
2nd Bone Spring Sand	10826	Oil/Gas	
3rd Bone Spring Carb	11336	Oil/Gas	
3rd Bone Spring Sand	11927	Target	

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	869	10.75"	45.5	J55	BTC	5.26	1.18	18.08	20.13
9.875"	0	8000	7.625"	29.7	L80-ICY	BTC	1.54	1.07	3.06	3.09
8.750"	8000	11760	7.625"	29.7	P110-ICY	W513	1.31	1.62	3.06	1.84
6.75"	0	11260	5.5"	23	P110-CY	BTC	1.99	2.35	2.81	2.81
6.75"	11260	28,709	5.5"	23	P110-CY	W441	1.80	2.13	2.56	2.32
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 - Hennin Fed Com 602H

	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 - Hennin Fed Com 602H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	414	13.5	1.75	9.21	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.4	8	Tail: Class C + 2% CaCl ₂
Inter. Stage 1	830	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	706	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	1468	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	11,260'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Hennin Fed Com 602H

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 - Hennin Fed Com 602H

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
---	-----------------------------

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 - Hennin Fed Com 602H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	8060 psi at 12400' TVD
Abnormal Temperature	NO 180 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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

HENNIN PROJECT

***HENNIN FED COM #602H - Slot HENNIN FED COM #602H**

OWB

Plan: PWP0

Standard Planning Report

29 June, 2023

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Company:	DELAWARE BASIN EAST	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	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		

Site		HENNIN PROJECT			
Site Position:		Northing:	397,009.03 usft	Latitude:	32° 5' 15.761 N
From:	Map	Easting:	803,170.42 usft	Longitude:	103° 21' 15.967 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	*HENNIN FED COM #602H - Slot HENNIN FED COM #602H					
Well Position	+N/-S	0.0 usft	Northing:	404,892.33 usft	Latitude:	32° 6' 33.879 N
	+E/-W	0.0 usft	Easting:	801,929.82 usft	Longitude:	103° 21' 29.557 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,220.0 usft
Grid Convergence:		0.52 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2022	4/14/2023	6.18	59.66	47,394.57826849

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	177.09

Plan Survey Tool Program	Date	6/29/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	28,709.4 PWP0 (OWB)	r.5 MWD+IFR1+MS		
			OWSG MWD + IFR1 + Multi-Sl		

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Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,866.7	10.00	61.60	1,863.3	27.6	51.0	1.50	1.50	0.00	61.60	
5,346.2	10.00	61.60	5,290.0	315.0	582.5	0.00	0.00	0.00	0.00	
6,346.2	0.00	0.00	6,284.9	356.4	659.1	1.00	-1.00	0.00	180.00	
11,888.3	0.00	0.00	11,827.0	356.4	659.1	0.00	0.00	0.00	0.00	
12,788.3	90.00	179.44	12,400.0	-216.5	664.7	10.00	10.00	19.94	179.44	
28,709.5	90.00	179.44	12,400.0	-16,136.9	819.3	0.00	0.00	0.00	0.00	PBHL (HENNIN FED)

ConocoPhillips

Planning Report

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Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	1.50	61.60	1,300.0	0.6	1.2	-0.6	1.50	1.50	0.00	
1,400.0	3.00	61.60	1,399.9	2.5	4.6	-2.3	1.50	1.50	0.00	
1,500.0	4.50	61.60	1,499.7	5.6	10.4	-5.1	1.50	1.50	0.00	
1,600.0	6.00	61.60	1,599.3	10.0	18.4	-9.0	1.50	1.50	0.00	
1,700.0	7.50	61.60	1,698.6	15.5	28.7	-14.1	1.50	1.50	0.00	
1,800.0	9.00	61.60	1,797.5	22.4	41.4	-20.2	1.50	1.50	0.00	
1,866.7	10.00	61.60	1,863.3	27.6	51.0	-25.0	1.50	1.50	0.00	
1,900.0	10.00	61.60	1,896.1	30.4	56.1	-27.5	0.00	0.00	0.00	
2,000.0	10.00	61.60	1,994.6	38.6	71.4	-34.9	0.00	0.00	0.00	
2,100.0	10.00	61.60	2,093.1	46.9	86.7	-42.4	0.00	0.00	0.00	
2,200.0	10.00	61.60	2,191.6	55.1	102.0	-49.9	0.00	0.00	0.00	
2,300.0	10.00	61.60	2,290.0	63.4	117.2	-57.4	0.00	0.00	0.00	
2,400.0	10.00	61.60	2,388.5	71.6	132.5	-64.8	0.00	0.00	0.00	
2,500.0	10.00	61.60	2,487.0	79.9	147.8	-72.3	0.00	0.00	0.00	
2,600.0	10.00	61.60	2,585.5	88.2	163.1	-79.8	0.00	0.00	0.00	
2,700.0	10.00	61.60	2,684.0	96.4	178.3	-87.3	0.00	0.00	0.00	
2,800.0	10.00	61.60	2,782.4	104.7	193.6	-94.7	0.00	0.00	0.00	
2,900.0	10.00	61.60	2,880.9	112.9	208.9	-102.2	0.00	0.00	0.00	
3,000.0	10.00	61.60	2,979.4	121.2	224.2	-109.7	0.00	0.00	0.00	
3,100.0	10.00	61.60	3,077.9	129.5	239.4	-117.2	0.00	0.00	0.00	
3,200.0	10.00	61.60	3,176.4	137.7	254.7	-124.6	0.00	0.00	0.00	
3,300.0	10.00	61.60	3,274.8	146.0	270.0	-132.1	0.00	0.00	0.00	
3,400.0	10.00	61.60	3,373.3	154.2	285.3	-139.6	0.00	0.00	0.00	
3,500.0	10.00	61.60	3,471.8	162.5	300.5	-147.1	0.00	0.00	0.00	
3,600.0	10.00	61.60	3,570.3	170.8	315.8	-154.5	0.00	0.00	0.00	
3,700.0	10.00	61.60	3,668.8	179.0	331.1	-162.0	0.00	0.00	0.00	
3,800.0	10.00	61.60	3,767.2	187.3	346.4	-169.5	0.00	0.00	0.00	
3,900.0	10.00	61.60	3,865.7	195.5	361.6	-176.9	0.00	0.00	0.00	
4,000.0	10.00	61.60	3,964.2	203.8	376.9	-184.4	0.00	0.00	0.00	
4,100.0	10.00	61.60	4,062.7	212.1	392.2	-191.9	0.00	0.00	0.00	
4,200.0	10.00	61.60	4,161.2	220.3	407.5	-199.4	0.00	0.00	0.00	
4,300.0	10.00	61.60	4,259.7	228.6	422.7	-206.8	0.00	0.00	0.00	
4,400.0	10.00	61.60	4,358.1	236.8	438.0	-214.3	0.00	0.00	0.00	
4,500.0	10.00	61.60	4,456.6	245.1	453.3	-221.8	0.00	0.00	0.00	
4,600.0	10.00	61.60	4,555.1	253.4	468.6	-229.3	0.00	0.00	0.00	
4,700.0	10.00	61.60	4,653.6	261.6	483.8	-236.7	0.00	0.00	0.00	
4,800.0	10.00	61.60	4,752.1	269.9	499.1	-244.2	0.00	0.00	0.00	
4,900.0	10.00	61.60	4,850.5	278.1	514.4	-251.7	0.00	0.00	0.00	
5,000.0	10.00	61.60	4,949.0	286.4	529.7	-259.2	0.00	0.00	0.00	
5,100.0	10.00	61.60	5,047.5	294.6	544.9	-266.6	0.00	0.00	0.00	

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Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,200.0	10.00	61.60	5,146.0	302.9	560.2	-274.1	0.00	0.00	0.00	
5,300.0	10.00	61.60	5,244.5	311.2	575.5	-281.6	0.00	0.00	0.00	
5,346.2	10.00	61.60	5,290.0	315.0	582.5	-285.0	0.00	0.00	0.00	
5,400.0	9.46	61.60	5,343.0	319.3	590.5	-289.0	1.00	-1.00	0.00	
5,500.0	8.46	61.60	5,441.8	326.7	604.2	-295.7	1.00	-1.00	0.00	
5,600.0	7.46	61.60	5,540.8	333.3	616.4	-301.6	1.00	-1.00	0.00	
5,700.0	6.46	61.60	5,640.1	339.1	627.1	-306.8	1.00	-1.00	0.00	
5,800.0	5.46	61.60	5,739.5	344.0	636.2	-311.3	1.00	-1.00	0.00	
5,900.0	4.46	61.60	5,839.1	348.1	643.8	-315.0	1.00	-1.00	0.00	
6,000.0	3.46	61.60	5,938.9	351.4	649.9	-318.0	1.00	-1.00	0.00	
6,100.0	2.46	61.60	6,038.8	353.9	654.5	-320.2	1.00	-1.00	0.00	
6,200.0	1.46	61.60	6,138.7	355.5	657.5	-321.7	1.00	-1.00	0.00	
6,300.0	0.46	61.60	6,238.7	356.3	659.0	-322.4	1.00	-1.00	0.00	
6,346.2	0.00	0.00	6,284.9	356.4	659.1	-322.5	1.00	-1.00	0.00	
6,400.0	0.00	0.00	6,338.7	356.4	659.1	-322.5	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,438.7	356.4	659.1	-322.5	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,538.7	356.4	659.1	-322.5	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,638.7	356.4	659.1	-322.5	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,738.7	356.4	659.1	-322.5	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,838.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,938.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,038.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,138.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,238.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,338.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,438.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,538.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,638.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,738.7	356.4	659.1	-322.5	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,838.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,938.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,038.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,138.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,238.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,338.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,438.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,538.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,638.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,738.7	356.4	659.1	-322.5	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,838.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,938.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,038.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,138.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,238.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,338.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,438.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,538.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,638.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,738.7	356.4	659.1	-322.5	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,838.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,938.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,038.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,138.7	356.4	659.1	-322.5	0.00	0.00	0.00	

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Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	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)	
10,300.0	0.00	0.00	10,238.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,338.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,438.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,538.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,638.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,738.7	356.4	659.1	-322.5	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,838.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,938.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,100.0	0.00	0.00	11,038.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,138.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,238.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,338.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,438.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,538.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,638.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,738.7	356.4	659.1	-322.5	0.00	0.00	0.00	
11,888.3	0.00	0.00	11,827.0	356.4	659.1	-322.5	0.00	0.00	0.00	
11,900.0	1.17	179.44	11,838.7	356.3	659.1	-322.4	10.00	10.00	0.00	
11,950.0	6.17	179.44	11,888.6	353.1	659.1	-319.2	10.00	10.00	0.00	
12,000.0	11.17	179.44	11,938.0	345.5	659.2	-311.7	10.00	10.00	0.00	
12,050.0	16.17	179.44	11,986.6	333.7	659.3	-299.9	10.00	10.00	0.00	
12,100.0	21.17	179.44	12,033.9	317.7	659.5	-283.9	10.00	10.00	0.00	
12,150.0	26.17	179.44	12,079.7	297.7	659.7	-263.8	10.00	10.00	0.00	
12,200.0	31.17	179.44	12,123.5	273.7	659.9	-239.9	10.00	10.00	0.00	
12,250.0	36.17	179.44	12,165.1	246.0	660.2	-212.2	10.00	10.00	0.00	
12,300.0	41.17	179.44	12,204.2	214.7	660.5	-181.0	10.00	10.00	0.00	
12,350.0	46.17	179.44	12,240.3	180.2	660.8	-146.5	10.00	10.00	0.00	
12,400.0	51.17	179.44	12,273.3	142.7	661.2	-109.0	10.00	10.00	0.00	
12,450.0	56.17	179.44	12,302.9	102.4	661.6	-68.8	10.00	10.00	0.00	
12,500.0	61.17	179.44	12,328.9	59.7	662.0	-26.1	10.00	10.00	0.00	
12,550.0	66.17	179.44	12,351.1	14.9	662.4	18.7	10.00	10.00	0.00	
12,600.0	71.17	179.44	12,369.3	-31.6	662.9	65.2	10.00	10.00	0.00	
12,650.0	76.17	179.44	12,383.3	-79.6	663.4	113.1	10.00	10.00	0.00	
12,700.0	81.17	179.44	12,393.2	-128.6	663.8	162.1	10.00	10.00	0.00	
12,750.0	86.17	179.44	12,398.7	-178.3	664.3	211.7	10.00	10.00	0.00	
12,788.3	90.00	179.44	12,400.0	-216.5	664.7	250.0	10.00	10.00	0.00	
12,800.0	90.00	179.44	12,400.0	-228.2	664.8	261.6	0.00	0.00	0.00	
12,900.0	90.00	179.44	12,400.0	-328.2	665.8	361.6	0.00	0.00	0.00	
13,000.0	90.00	179.44	12,400.0	-428.2	666.7	461.5	0.00	0.00	0.00	
13,100.0	90.00	179.44	12,400.0	-528.2	667.7	561.4	0.00	0.00	0.00	
13,200.0	90.00	179.44	12,400.0	-628.2	668.7	661.3	0.00	0.00	0.00	
13,300.0	90.00	179.44	12,400.0	-728.2	669.7	761.2	0.00	0.00	0.00	
13,400.0	90.00	179.44	12,400.0	-828.2	670.6	861.1	0.00	0.00	0.00	
13,500.0	90.00	179.44	12,400.0	-928.2	671.6	961.1	0.00	0.00	0.00	
13,600.0	90.00	179.44	12,400.0	-1,028.2	672.6	1,061.0	0.00	0.00	0.00	
13,700.0	90.00	179.44	12,400.0	-1,128.2	673.5	1,160.9	0.00	0.00	0.00	
13,800.0	90.00	179.44	12,400.0	-1,228.2	674.5	1,260.8	0.00	0.00	0.00	
13,900.0	90.00	179.44	12,400.0	-1,328.2	675.5	1,360.7	0.00	0.00	0.00	
14,000.0	90.00	179.44	12,400.0	-1,428.2	676.5	1,460.6	0.00	0.00	0.00	
14,100.0	90.00	179.44	12,400.0	-1,528.2	677.4	1,560.6	0.00	0.00	0.00	
14,200.0	90.00	179.44	12,400.0	-1,628.2	678.4	1,660.5	0.00	0.00	0.00	
14,300.0	90.00	179.44	12,400.0	-1,728.2	679.4	1,760.4	0.00	0.00	0.00	
14,400.0	90.00	179.44	12,400.0	-1,828.2	680.3	1,860.3	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Company:	DELAWARE BASIN EAST	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	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)
14,500.0	90.00	179.44	12,400.0	-1,928.2	681.3	1,960.2	0.00	0.00	0.00
14,600.0	90.00	179.44	12,400.0	-2,028.1	682.3	2,060.1	0.00	0.00	0.00
14,700.0	90.00	179.44	12,400.0	-2,128.1	683.3	2,160.1	0.00	0.00	0.00
14,800.0	90.00	179.44	12,400.0	-2,228.1	684.2	2,260.0	0.00	0.00	0.00
14,900.0	90.00	179.44	12,400.0	-2,328.1	685.2	2,359.9	0.00	0.00	0.00
15,000.0	90.00	179.44	12,400.0	-2,428.1	686.2	2,459.8	0.00	0.00	0.00
15,100.0	90.00	179.44	12,400.0	-2,528.1	687.1	2,559.7	0.00	0.00	0.00
15,200.0	90.00	179.44	12,400.0	-2,628.1	688.1	2,659.6	0.00	0.00	0.00
15,300.0	90.00	179.44	12,400.0	-2,728.1	689.1	2,759.5	0.00	0.00	0.00
15,400.0	90.00	179.44	12,400.0	-2,828.1	690.1	2,859.5	0.00	0.00	0.00
15,500.0	90.00	179.44	12,400.0	-2,928.1	691.0	2,959.4	0.00	0.00	0.00
15,600.0	90.00	179.44	12,400.0	-3,028.1	692.0	3,059.3	0.00	0.00	0.00
15,700.0	90.00	179.44	12,400.0	-3,128.1	693.0	3,159.2	0.00	0.00	0.00
15,800.0	90.00	179.44	12,400.0	-3,228.1	693.9	3,259.1	0.00	0.00	0.00
15,900.0	90.00	179.44	12,400.0	-3,328.1	694.9	3,359.0	0.00	0.00	0.00
16,000.0	90.00	179.44	12,400.0	-3,428.1	695.9	3,459.0	0.00	0.00	0.00
16,100.0	90.00	179.44	12,400.0	-3,528.1	696.8	3,558.9	0.00	0.00	0.00
16,200.0	90.00	179.44	12,400.0	-3,628.1	697.8	3,658.8	0.00	0.00	0.00
16,300.0	90.00	179.44	12,400.0	-3,728.1	698.8	3,758.7	0.00	0.00	0.00
16,400.0	90.00	179.44	12,400.0	-3,828.1	699.8	3,858.6	0.00	0.00	0.00
16,500.0	90.00	179.44	12,400.0	-3,928.1	700.7	3,958.5	0.00	0.00	0.00
16,600.0	90.00	179.44	12,400.0	-4,028.1	701.7	4,058.5	0.00	0.00	0.00
16,700.0	90.00	179.44	12,400.0	-4,128.0	702.7	4,158.4	0.00	0.00	0.00
16,800.0	90.00	179.44	12,400.0	-4,228.0	703.6	4,258.3	0.00	0.00	0.00
16,900.0	90.00	179.44	12,400.0	-4,328.0	704.6	4,358.2	0.00	0.00	0.00
17,000.0	90.00	179.44	12,400.0	-4,428.0	705.6	4,458.1	0.00	0.00	0.00
17,100.0	90.00	179.44	12,400.0	-4,528.0	706.6	4,558.0	0.00	0.00	0.00
17,200.0	90.00	179.44	12,400.0	-4,628.0	707.5	4,657.9	0.00	0.00	0.00
17,300.0	90.00	179.44	12,400.0	-4,728.0	708.5	4,757.9	0.00	0.00	0.00
17,400.0	90.00	179.44	12,400.0	-4,828.0	709.5	4,857.8	0.00	0.00	0.00
17,500.0	90.00	179.44	12,400.0	-4,928.0	710.4	4,957.7	0.00	0.00	0.00
17,600.0	90.00	179.44	12,400.0	-5,028.0	711.4	5,057.6	0.00	0.00	0.00
17,700.0	90.00	179.44	12,400.0	-5,128.0	712.4	5,157.5	0.00	0.00	0.00
17,800.0	90.00	179.44	12,400.0	-5,228.0	713.4	5,257.4	0.00	0.00	0.00
17,900.0	90.00	179.44	12,400.0	-5,328.0	714.3	5,357.4	0.00	0.00	0.00
18,000.0	90.00	179.44	12,400.0	-5,428.0	715.3	5,457.3	0.00	0.00	0.00
18,100.0	90.00	179.44	12,400.0	-5,528.0	716.3	5,557.2	0.00	0.00	0.00
18,200.0	90.00	179.44	12,400.0	-5,628.0	717.2	5,657.1	0.00	0.00	0.00
18,300.0	90.00	179.44	12,400.0	-5,728.0	718.2	5,757.0	0.00	0.00	0.00
18,400.0	90.00	179.44	12,400.0	-5,828.0	719.2	5,856.9	0.00	0.00	0.00
18,500.0	90.00	179.44	12,400.0	-5,928.0	720.2	5,956.9	0.00	0.00	0.00
18,600.0	90.00	179.44	12,400.0	-6,028.0	721.1	6,056.8	0.00	0.00	0.00
18,700.0	90.00	179.44	12,400.0	-6,128.0	722.1	6,156.7	0.00	0.00	0.00
18,800.0	90.00	179.44	12,400.0	-6,227.9	723.1	6,256.6	0.00	0.00	0.00
18,900.0	90.00	179.44	12,400.0	-6,327.9	724.0	6,356.5	0.00	0.00	0.00
19,000.0	90.00	179.44	12,400.0	-6,427.9	725.0	6,456.4	0.00	0.00	0.00
19,100.0	90.00	179.44	12,400.0	-6,527.9	726.0	6,556.4	0.00	0.00	0.00
19,200.0	90.00	179.44	12,400.0	-6,627.9	727.0	6,656.3	0.00	0.00	0.00
19,300.0	90.00	179.44	12,400.0	-6,727.9	727.9	6,756.2	0.00	0.00	0.00
19,400.0	90.00	179.44	12,400.0	-6,827.9	728.9	6,856.1	0.00	0.00	0.00
19,500.0	90.00	179.44	12,400.0	-6,927.9	729.9	6,956.0	0.00	0.00	0.00
19,600.0	90.00	179.44	12,400.0	-7,027.9	730.8	7,055.9	0.00	0.00	0.00
19,700.0	90.00	179.44	12,400.0	-7,127.9	731.8	7,155.8	0.00	0.00	0.00

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Company:	DELAWARE BASIN EAST	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	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)	
19,800.0	90.00	179.44	12,400.0	-7,227.9	732.8	7,255.8	0.00	0.00	0.00	
19,900.0	90.00	179.44	12,400.0	-7,327.9	733.8	7,355.7	0.00	0.00	0.00	
20,000.0	90.00	179.44	12,400.0	-7,427.9	734.7	7,455.6	0.00	0.00	0.00	
20,100.0	90.00	179.44	12,400.0	-7,527.9	735.7	7,555.5	0.00	0.00	0.00	
20,200.0	90.00	179.44	12,400.0	-7,627.9	736.7	7,655.4	0.00	0.00	0.00	
20,300.0	90.00	179.44	12,400.0	-7,727.9	737.6	7,755.3	0.00	0.00	0.00	
20,400.0	90.00	179.44	12,400.0	-7,827.9	738.6	7,855.3	0.00	0.00	0.00	
20,500.0	90.00	179.44	12,400.0	-7,927.9	739.6	7,955.2	0.00	0.00	0.00	
20,600.0	90.00	179.44	12,400.0	-8,027.9	740.6	8,055.1	0.00	0.00	0.00	
20,700.0	90.00	179.44	12,400.0	-8,127.9	741.5	8,155.0	0.00	0.00	0.00	
20,800.0	90.00	179.44	12,400.0	-8,227.9	742.5	8,254.9	0.00	0.00	0.00	
20,900.0	90.00	179.44	12,400.0	-8,327.9	743.5	8,354.8	0.00	0.00	0.00	
21,000.0	90.00	179.44	12,400.0	-8,427.8	744.4	8,454.8	0.00	0.00	0.00	
21,100.0	90.00	179.44	12,400.0	-8,527.8	745.4	8,554.7	0.00	0.00	0.00	
21,200.0	90.00	179.44	12,400.0	-8,627.8	746.4	8,654.6	0.00	0.00	0.00	
21,300.0	90.00	179.44	12,400.0	-8,727.8	747.4	8,754.5	0.00	0.00	0.00	
21,400.0	90.00	179.44	12,400.0	-8,827.8	748.3	8,854.4	0.00	0.00	0.00	
21,500.0	90.00	179.44	12,400.0	-8,927.8	749.3	8,954.3	0.00	0.00	0.00	
21,600.0	90.00	179.44	12,400.0	-9,027.8	750.3	9,054.2	0.00	0.00	0.00	
21,700.0	90.00	179.44	12,400.0	-9,127.8	751.2	9,154.2	0.00	0.00	0.00	
21,800.0	90.00	179.44	12,400.0	-9,227.8	752.2	9,254.1	0.00	0.00	0.00	
21,900.0	90.00	179.44	12,400.0	-9,327.8	753.2	9,354.0	0.00	0.00	0.00	
22,000.0	90.00	179.44	12,400.0	-9,427.8	754.2	9,453.9	0.00	0.00	0.00	
22,100.0	90.00	179.44	12,400.0	-9,527.8	755.1	9,553.8	0.00	0.00	0.00	
22,200.0	90.00	179.44	12,400.0	-9,627.8	756.1	9,653.7	0.00	0.00	0.00	
22,300.0	90.00	179.44	12,400.0	-9,727.8	757.1	9,753.7	0.00	0.00	0.00	
22,400.0	90.00	179.44	12,400.0	-9,827.8	758.0	9,853.6	0.00	0.00	0.00	
22,500.0	90.00	179.44	12,400.0	-9,927.8	759.0	9,953.5	0.00	0.00	0.00	
22,600.0	90.00	179.44	12,400.0	-10,027.8	760.0	10,053.4	0.00	0.00	0.00	
22,700.0	90.00	179.44	12,400.0	-10,127.8	761.0	10,153.3	0.00	0.00	0.00	
22,800.0	90.00	179.44	12,400.0	-10,227.8	761.9	10,253.2	0.00	0.00	0.00	
22,900.0	90.00	179.44	12,400.0	-10,327.8	762.9	10,353.2	0.00	0.00	0.00	
23,000.0	90.00	179.44	12,400.0	-10,427.8	763.9	10,453.1	0.00	0.00	0.00	
23,100.0	90.00	179.44	12,400.0	-10,527.7	764.8	10,553.0	0.00	0.00	0.00	
23,200.0	90.00	179.44	12,400.0	-10,627.7	765.8	10,652.9	0.00	0.00	0.00	
23,300.0	90.00	179.44	12,400.0	-10,727.7	766.8	10,752.8	0.00	0.00	0.00	
23,400.0	90.00	179.44	12,400.0	-10,827.7	767.8	10,852.7	0.00	0.00	0.00	
23,500.0	90.00	179.44	12,400.0	-10,927.7	768.7	10,952.6	0.00	0.00	0.00	
23,600.0	90.00	179.44	12,400.0	-11,027.7	769.7	11,052.6	0.00	0.00	0.00	
23,700.0	90.00	179.44	12,400.0	-11,127.7	770.7	11,152.5	0.00	0.00	0.00	
23,800.0	90.00	179.44	12,400.0	-11,227.7	771.6	11,252.4	0.00	0.00	0.00	
23,900.0	90.00	179.44	12,400.0	-11,327.7	772.6	11,352.3	0.00	0.00	0.00	
24,000.0	90.00	179.44	12,400.0	-11,427.7	773.6	11,452.2	0.00	0.00	0.00	
24,100.0	90.00	179.44	12,400.0	-11,527.7	774.6	11,552.1	0.00	0.00	0.00	
24,200.0	90.00	179.44	12,400.0	-11,627.7	775.5	11,652.1	0.00	0.00	0.00	
24,300.0	90.00	179.44	12,400.0	-11,727.7	776.5	11,752.0	0.00	0.00	0.00	
24,400.0	90.00	179.44	12,400.0	-11,827.7	777.5	11,851.9	0.00	0.00	0.00	
24,500.0	90.00	179.44	12,400.0	-11,927.7	778.4	11,951.8	0.00	0.00	0.00	
24,600.0	90.00	179.44	12,400.0	-12,027.7	779.4	12,051.7	0.00	0.00	0.00	
24,700.0	90.00	179.44	12,400.0	-12,127.7	780.4	12,151.6	0.00	0.00	0.00	
24,800.0	90.00	179.44	12,400.0	-12,227.7	781.4	12,251.6	0.00	0.00	0.00	
24,900.0	90.00	179.44	12,400.0	-12,327.7	782.3	12,351.5	0.00	0.00	0.00	
25,000.0	90.00	179.44	12,400.0	-12,427.7	783.3	12,451.4	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Company:	DELAWARE BASIN EAST	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	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)	
25,100.0	90.00	179.44	12,400.0	-12,527.7	784.3	12,551.3	0.00	0.00	0.00	
25,200.0	90.00	179.44	12,400.0	-12,627.6	785.2	12,651.2	0.00	0.00	0.00	
25,300.0	90.00	179.44	12,400.0	-12,727.6	786.2	12,751.1	0.00	0.00	0.00	
25,400.0	90.00	179.44	12,400.0	-12,827.6	787.2	12,851.1	0.00	0.00	0.00	
25,500.0	90.00	179.44	12,400.0	-12,927.6	788.2	12,951.0	0.00	0.00	0.00	
25,600.0	90.00	179.44	12,400.0	-13,027.6	789.1	13,050.9	0.00	0.00	0.00	
25,700.0	90.00	179.44	12,400.0	-13,127.6	790.1	13,150.8	0.00	0.00	0.00	
25,800.0	90.00	179.44	12,400.0	-13,227.6	791.1	13,250.7	0.00	0.00	0.00	
25,900.0	90.00	179.44	12,400.0	-13,327.6	792.0	13,350.6	0.00	0.00	0.00	
26,000.0	90.00	179.44	12,400.0	-13,427.6	793.0	13,450.5	0.00	0.00	0.00	
26,100.0	90.00	179.44	12,400.0	-13,527.6	794.0	13,550.5	0.00	0.00	0.00	
26,200.0	90.00	179.44	12,400.0	-13,627.6	795.0	13,650.4	0.00	0.00	0.00	
26,300.0	90.00	179.44	12,400.0	-13,727.6	795.9	13,750.3	0.00	0.00	0.00	
26,400.0	90.00	179.44	12,400.0	-13,827.6	796.9	13,850.2	0.00	0.00	0.00	
26,500.0	90.00	179.44	12,400.0	-13,927.6	797.9	13,950.1	0.00	0.00	0.00	
26,600.0	90.00	179.44	12,400.0	-14,027.6	798.8	14,050.0	0.00	0.00	0.00	
26,700.0	90.00	179.44	12,400.0	-14,127.6	799.8	14,150.0	0.00	0.00	0.00	
26,800.0	90.00	179.44	12,400.0	-14,227.6	800.8	14,249.9	0.00	0.00	0.00	
26,900.0	90.00	179.44	12,400.0	-14,327.6	801.8	14,349.8	0.00	0.00	0.00	
27,000.0	90.00	179.44	12,400.0	-14,427.6	802.7	14,449.7	0.00	0.00	0.00	
27,100.0	90.00	179.44	12,400.0	-14,527.6	803.7	14,549.6	0.00	0.00	0.00	
27,200.0	90.00	179.44	12,400.0	-14,627.6	804.7	14,649.5	0.00	0.00	0.00	
27,300.0	90.00	179.44	12,400.0	-14,727.5	805.6	14,749.5	0.00	0.00	0.00	
27,400.0	90.00	179.44	12,400.0	-14,827.5	806.6	14,849.4	0.00	0.00	0.00	
27,500.0	90.00	179.44	12,400.0	-14,927.5	807.6	14,949.3	0.00	0.00	0.00	
27,600.0	90.00	179.44	12,400.0	-15,027.5	808.6	15,049.2	0.00	0.00	0.00	
27,700.0	90.00	179.44	12,400.0	-15,127.5	809.5	15,149.1	0.00	0.00	0.00	
27,800.0	90.00	179.44	12,400.0	-15,227.5	810.5	15,249.0	0.00	0.00	0.00	
27,900.0	90.00	179.44	12,400.0	-15,327.5	811.5	15,348.9	0.00	0.00	0.00	
28,000.0	90.00	179.44	12,400.0	-15,427.5	812.4	15,448.9	0.00	0.00	0.00	
28,100.0	90.00	179.44	12,400.0	-15,527.5	813.4	15,548.8	0.00	0.00	0.00	
28,200.0	90.00	179.44	12,400.0	-15,627.5	814.4	15,648.7	0.00	0.00	0.00	
28,300.0	90.00	179.44	12,400.0	-15,727.5	815.4	15,748.6	0.00	0.00	0.00	
28,400.0	90.00	179.44	12,400.0	-15,827.5	816.3	15,848.5	0.00	0.00	0.00	
28,500.0	90.00	179.44	12,400.0	-15,927.5	817.3	15,948.4	0.00	0.00	0.00	
28,600.0	90.00	179.44	12,400.0	-16,027.5	818.3	16,048.4	0.00	0.00	0.00	
28,709.5	90.00	179.44	12,400.0	-16,136.9	819.3	16,157.7	0.00	0.00	0.00	

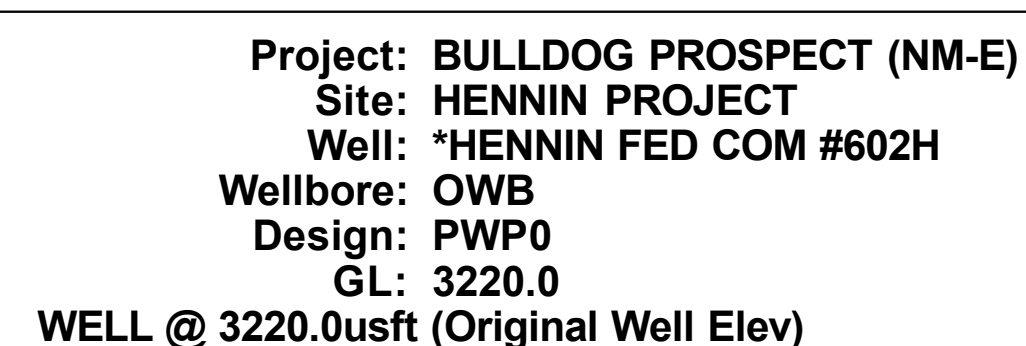
ConocoPhillips

Planning Report

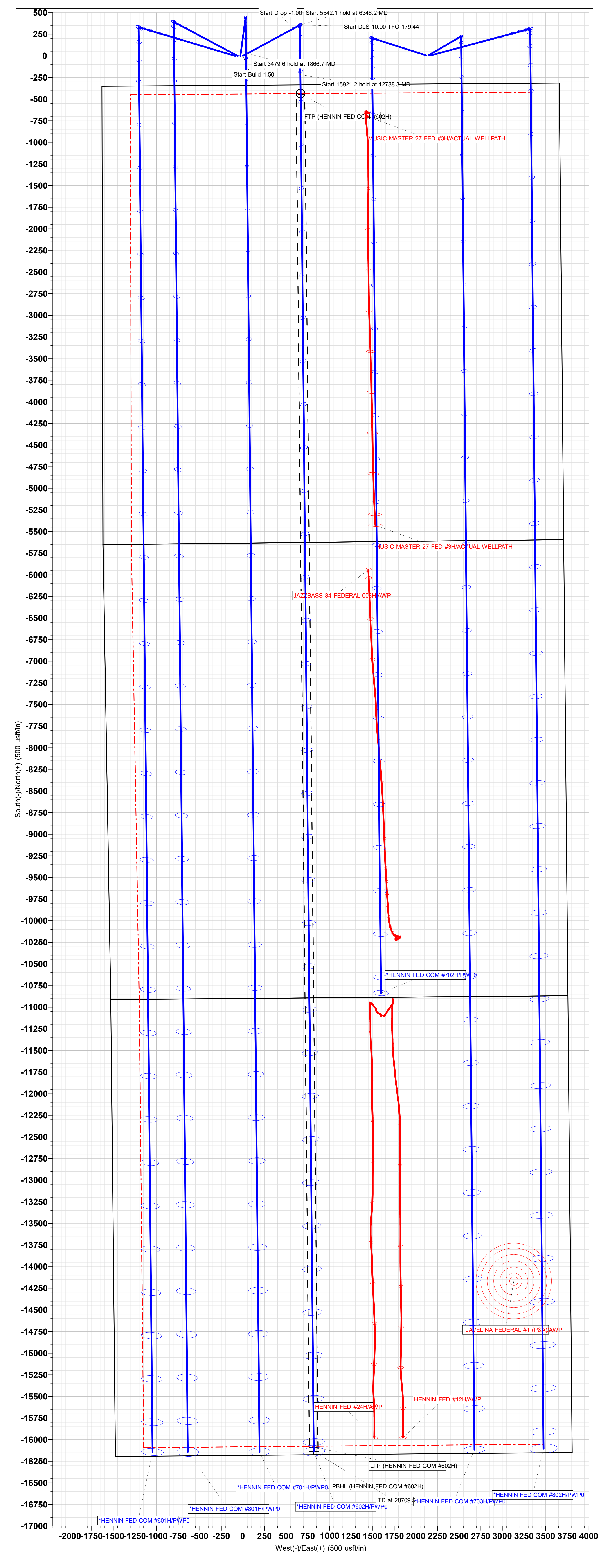
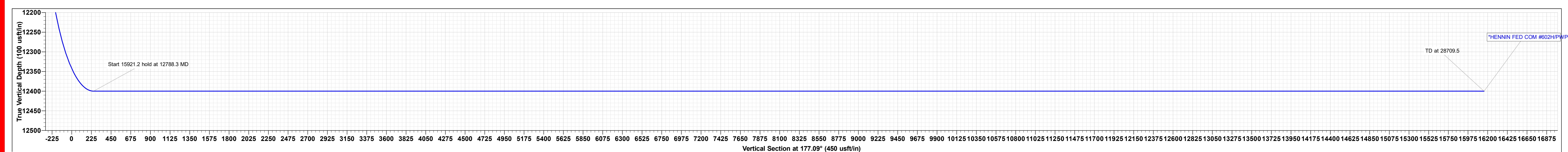
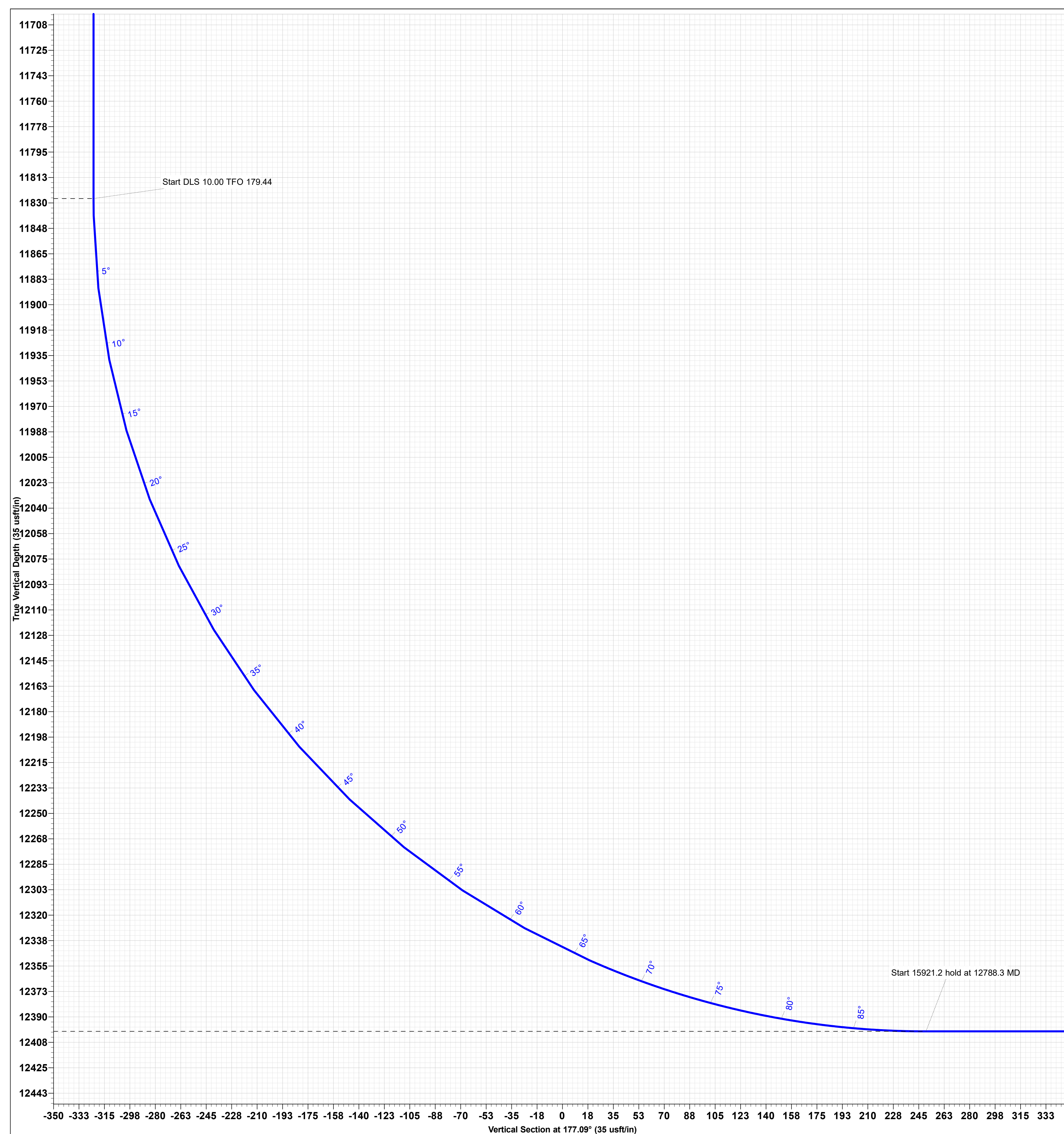
Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #602H - Slot HENNIN FED COM #602H
Company:	DELAWARE BASIN EAST	TVD Reference:	WELL @ 3220.0usft (Original Well Elev)
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	WELL @ 3220.0usft (Original Well Elev)
Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #602H	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)		
FTP (HENNIN FED COM	0.00	0.00	12,400.0	-435.1	665.0	404,457.21	802,594.80	32° 6' 29.514 N	103° 21' 21.873 W
- plan misses target center by 1.8usft at 13006.9usft MD (12400.0 TVD, -435.1 N, 666.8 E)									
- Circle (radius 50.0)									
LTP (HENNIN FED COM	90.00	179.45	12,400.0	-16,086.9	818.8	388,805.38	802,748.63	32° 3' 54.623 N	103° 21' 21.733 W
- plan hits target center									
- Circle (radius 50.0)									
PBHL (HENNIN FED CC	0.00	359.44	12,400.0	-16,136.9	819.3	388,755.39	802,749.15	32° 3' 54.128 N	103° 21' 21.732 W
- plan hits target center									
- Rectangle (sides W100.0 H15,696.1 D20.0)									

Casing Points					
	Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
	28,710.5	12,400.0	5-1/2" Production Casing	5-1/2	6-3/4



DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	North	Easting
FTP (HENNING FED COM #602H)	12400.0	-435.1	665.0	404457.21	802594.80
LTP (HENNING FED COM #602H)	12400.0	-16086.9	818.8	388805.39	802748.64
PBHL (HENNING FED COM #602H)	12400.0	-16136.9	819.3	388755.39	802749.15



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
WELL NAME & NO.:	HENNIN FED COM 602H
SURFACE HOLE FOOTAGE:	340'/S & 1635'/W
BOTTOM HOLE FOOTAGE:	50'/S & 23245'/W
LOCATION:	Section 22, T.25 S., R.35 E.
COUNTY:	Lea County, New Mexico

COA

H2S	☒ Yes	☐ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Wellhead Variance	☐ Diverter		
Other	☐ 4 String	☐ Capitan Reef	☐ WIPP
Other	☒ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency Cement Squeeze	☐ EchoMeter	☐ Primary Cement Squeeze
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	☒ Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

- The **10-3/4** inch surface casing shall be set at approximately **923 feet per BLM Geologist** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the

salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **14 3/4 inch** in diameter.

- 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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

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. **Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

Contingency:

Operator has proposed a contingency if losses are encountered, a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

3. **The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.** 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 **10-3/4 inch** surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi**. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) 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 OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Casing Clearance:

- **The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.**

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

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
 - i. Notify the BLM when moving in and removing the Spudder Rig.

- ii. 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.
 - iii. BOP/BOPE test to be conducted per **43 CFR 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

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 of both lead and tail cement, 2) until cement has been in place at least 8 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-Q 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 3172**.
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:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. 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.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. 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.
 - i. 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).
 - ii. 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.)
 - iii. 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 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. 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 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.

JS 10/29/2024

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 400717

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 400717
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
stanwagner	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/8/2024
stanwagner	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/8/2024
pkautz	File As Drilled C-102 and a directional Survey with C-104 completion packet.	11/26/2024
pkautz	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.	11/26/2024
pkautz	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.	11/26/2024