

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		9. API Well No. 30-025-53968
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

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

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 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)



Approval Date: 11/01/2024

Additional Operator Remarks

Location of Well

0. SHL: SESW / 340 FSL / 1605 FWL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.109551 / LONG: -103.358766 (TVD: 0 feet, MD: 0 feet)

PPP: NESW / 2639 FSL / 1617 FWL / TWSP: 25S / RANGE: 35E / SECTION: 27 / LAT: 32.101355 / LONG: -103.35871 (TVD: 12600 feet, MD: 15804 feet)

PPP: NENW / 100 FNL / 1620 FWL / TWSP: 25S / RANGE: 35E / SECTION: 27 / LAT: 32.108341 / LONG: -103.358716 (TVD: 12600 feet, MD: 13263 feet)

BHL: SESW / 50 FSL / 1620 FWL / TWSP: 26S / RANGE: 35E / SECTION: 3 / LAT: 32.065173 / LONG: -103.358677 (TVD: 12600 feet, MD: 28963 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 30-025-53968	Pool Code 98117	Pool Name WC-025 G-09 S263504N; Wolfcamp
Property Code 336534	Property Name HENNIN FEDERAL COM	Well Number 701H
OGRID No. 229137	Operator Name COG OPERATING LLC	Ground Level Elevation 3205.8'
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	1605 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	1620 FWL	32.065163°N	103.356659°W	LEA

Dedicated Acres 960	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	1605 FWL	32.109551°N	103.358670°W	LEA

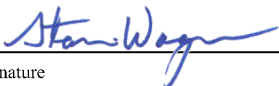
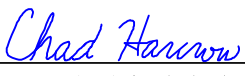
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	27	25-S	35-E		100 FNL	1620 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	1620 FWL	32.065300°N	103.356659°W	LEA

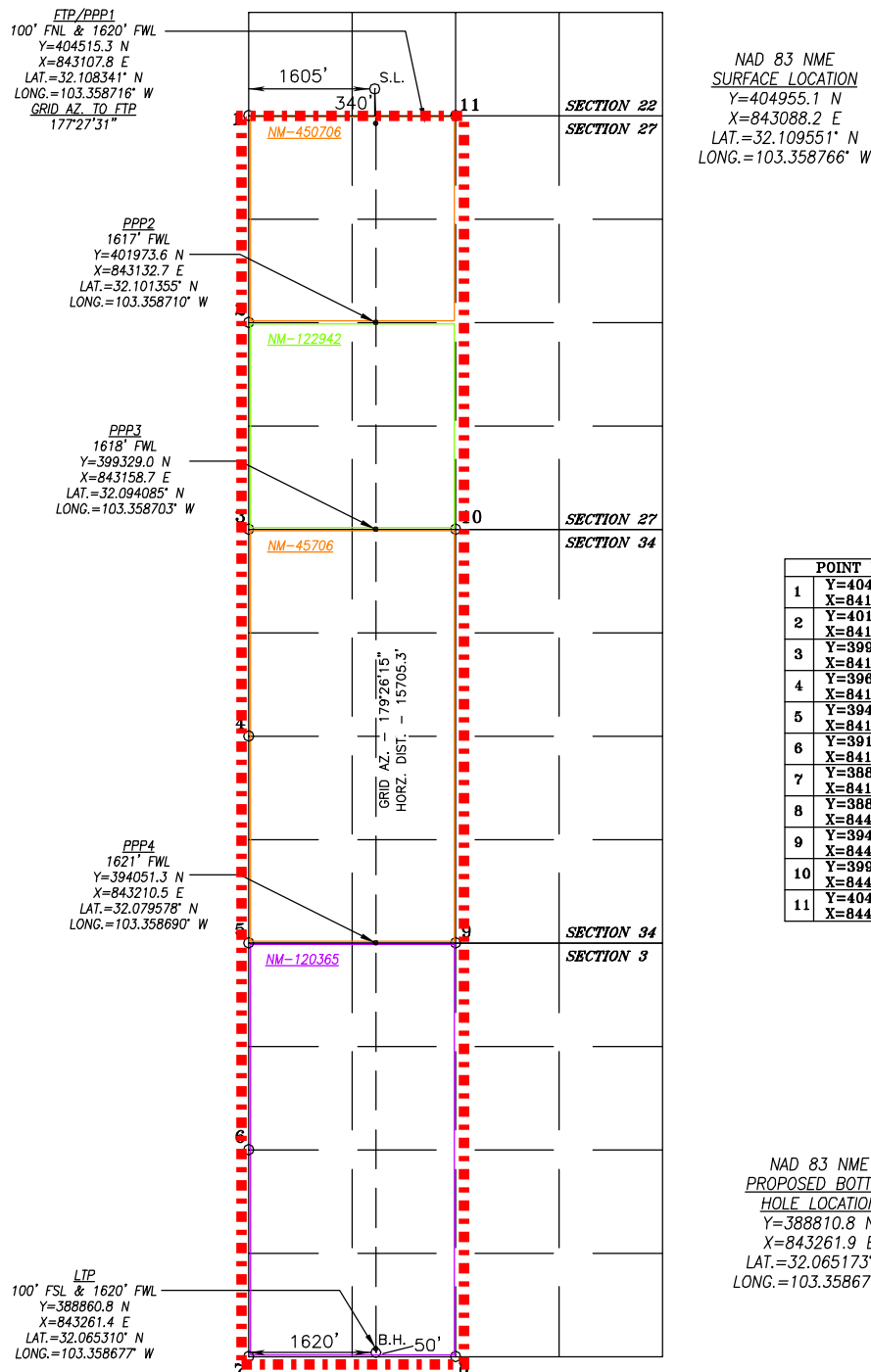
Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 3205.8'
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OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and 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		 Signature and Seal of Professional Surveyor	
Date 9/11/23		11/7/24	
Printed Name Stan Wagner		Certificate Number 17777	Date of Survey JUNE 19, 2023
Email Address		W.O.#24-1123	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
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: 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

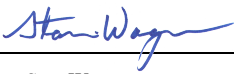
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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

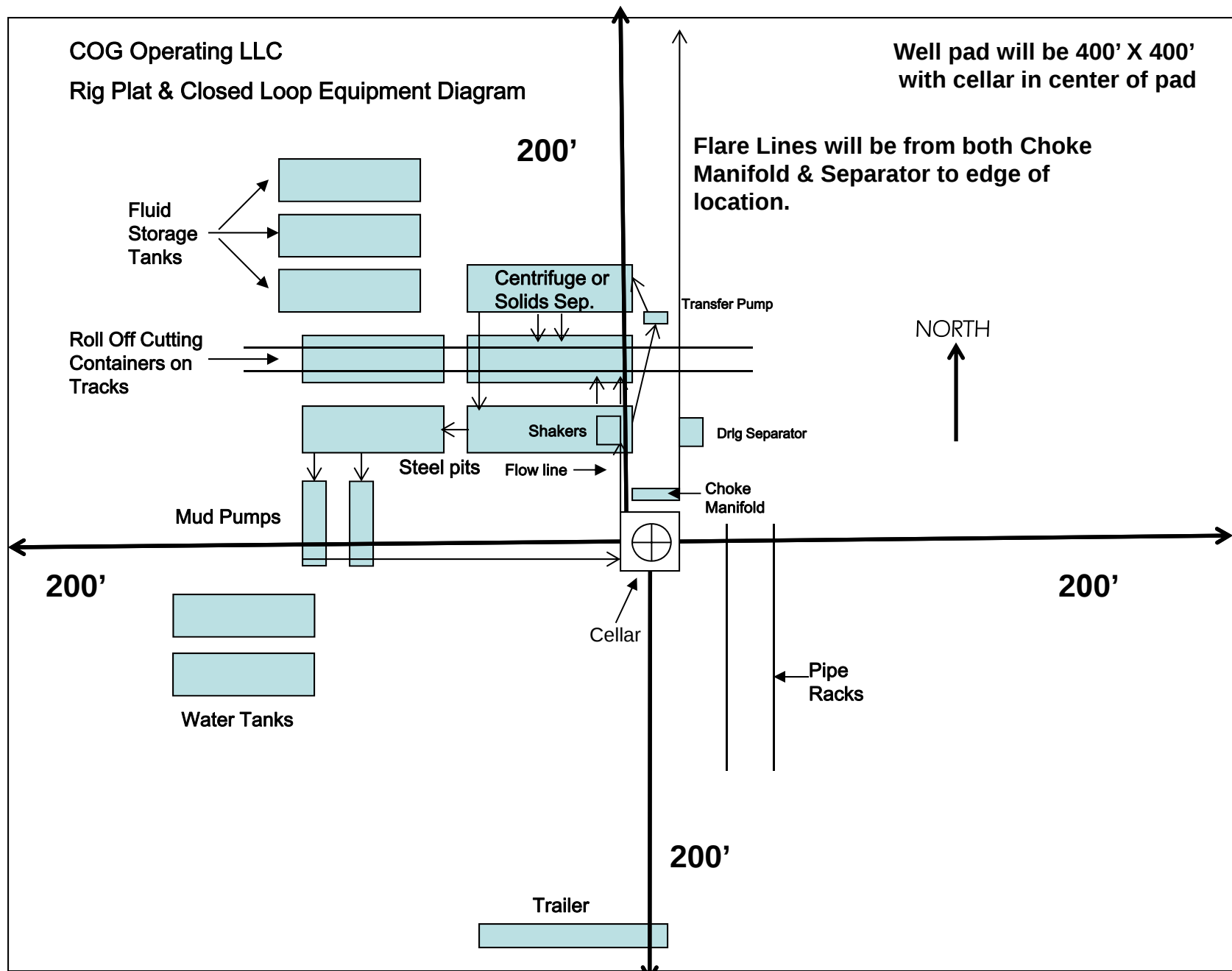


Exhibit 1

"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 #701H**

OWB

PWP0

Anticollision Report

29 June, 2023

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	Central Planning Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

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

Survey Tool Program		Date	6/29/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	28,963.6	PWP0 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction rev.5	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Separation Between Ellipses (usft)	Warning	
Offset Well - Wellbore - Design						
HENNIN PROJECT						
JAVELINA FEDERAL #1 (P&A) - OWB - AWP					Out of range	
*HENNIN FED COM #601H - OWB - PWP0	1,200.0	1,200.0	60.0	49.2	5.531 CC, ES	
*HENNIN FED COM #601H - OWB - PWP0	28,963.8	28,746.7	1,253.7	1,000.4	4.949 SF	
*HENNIN FED COM #602H - OWB - PWP0	1,200.0	1,200.0	30.0	19.2	2.766 CC, ES	
*HENNIN FED COM #602H - OWB - PWP0	28,963.8	28,705.5	658.5	403.4	2.581 SF	
*HENNIN FED COM #702H - OWB - PWP0	23,674.8	23,481.2	1,455.6	1,286.5	8.610 CC, ES	
*HENNIN FED COM #702H - OWB - PWP0	23,700.0	23,481.2	1,455.8	1,286.7	8.606 SF	
*HENNIN FED COM #703H - OWB - PWP0					Out of range	
*HENNIN FED COM #801H - OWB - PWP0	1,200.0	1,200.0	30.0	19.2	2.766 CC, ES, SF	
*HENNIN FED COM #802H - OWB - PWP0					Out of range	
HENNIN FED #12H - OWB - AWP	24,177.4	12,546.5	1,603.8	1,478.3	12.777 CC	
HENNIN FED #12H - OWB - AWP	28,006.4	16,386.0	1,643.9	1,472.7	9.602 ES	
HENNIN FED #12H - OWB - AWP	28,900.0	17,199.0	1,663.1	1,480.5	9.108 SF	
HENNIN FED #24H - OWB - AWP	26,432.6	15,043.8	1,312.8	1,162.0	8.701 CC	
HENNIN FED #24H - OWB - AWP	28,817.3	17,431.0	1,332.9	1,151.3	7.341 ES	
HENNIN FED #24H - OWB - AWP	28,900.0	17,431.0	1,335.5	1,153.5	7.339 SF	
JAZZBASS 34 FEDERAL 003H - OWB - AWP	18,779.0	16,226.0	1,394.7	1,307.6	16.005 CC	
JAZZBASS 34 FEDERAL 003H - OWB - AWP	18,800.0	16,226.0	1,394.9	1,307.4	15.955 ES	
JAZZBASS 34 FEDERAL 003H - OWB - AWP	22,700.0	12,485.0	1,579.3	1,467.0	14.070 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 #701H - Slot HENNIN FED COM #701H
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 #701H	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						
HENNIN PROJECT						
JAVELINA FEDERAL #1 (P&A) - OWB - AWP	28,963.8	12,545.1				Out of Range @TD
*HENNIN FED COM #601H - OWB - PWP0	28,963.8	28,746.7	1,253.7	1,000.4	4.949	SF
*HENNIN FED COM #602H - OWB - PWP0	28,963.8	28,705.5	658.5	403.4	2.581	SF
*HENNIN FED COM #702H - OWB - PWP0	28,963.8	23,481.2				Out of Range @TD
*HENNIN FED COM #703H - OWB - PWP0	28,963.8	28,471.7				Out of Range @TD
*HENNIN FED COM #801H - OWB - PWP0	28,963.8	29,458.3	969.0	723.8	3.952	
*HENNIN FED COM #802H - OWB - PWP0	28,963.8	29,398.9				Out of Range @TD
HENNIN FED #12H - OWB - AWP	28,963.8	17,199.0	1,667.5	1,484.6	9.117	
HENNIN FED #24H - OWB - AWP	28,963.8	17,431.0	1,340.9	1,159.0	7.373	
JAZBASS 34 FEDERAL 003H - OWB - AWP	28,963.8	11,730.0				Out of Range @TD

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		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	
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	
1,300.0	1,300.0	1,298.5	1,298.5	5.4	5.4	-99.20	-0.1	-61.2	61.4	50.3	11.17	5.498		
1,400.0	1,399.9	1,396.8	1,396.7	5.6	5.6	-101.44	1.0	-64.9	65.8	54.3	11.49	5.724		
1,500.0	1,499.7	1,494.8	1,494.5	5.8	5.8	-104.55	2.8	-70.9	73.2	61.4	11.82	6.197		
1,600.0	1,599.3	1,592.3	1,591.6	6.1	6.0	-107.94	5.3	-79.3	84.0	71.8	12.15	6.909		
1,700.0	1,698.6	1,689.1	1,687.8	6.3	6.3	-111.16	8.5	-90.0	98.0	85.5	12.50	7.845		
1,800.0	1,797.6	1,785.2	1,782.9	6.5	6.5	-113.89	12.3	-102.9	115.3	102.5	12.79	9.013		
1,900.0	1,896.6	1,880.7	1,877.1	6.8	6.8	-115.41	16.8	-118.0	134.8	121.6	13.15	10.246		

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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		Offset		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)				
2,000.0	1,995.7	1,975.4	1,970.1	7.1	7.1	-116.03	22.0	-135.1	156.4	142.8	13.53	11.555		
2,100.0	2,094.7	2,071.9	2,064.4	7.4	7.4	-116.17	27.7	-154.3	179.4	165.4	13.94	12.868		
2,200.0	2,193.7	2,169.2	2,159.6	7.7	7.7	-116.27	33.5	-173.7	202.4	188.1	14.37	14.090		
2,300.0	2,292.8	2,266.5	2,254.8	8.0	8.0	-116.34	39.3	-193.0	225.5	210.7	14.81	15.227		
2,400.0	2,391.8	2,363.8	2,350.0	8.3	8.4	-116.41	45.1	-212.4	248.5	233.3	15.26	16.284		
2,500.0	2,490.8	2,461.1	2,445.2	8.7	8.7	-116.46	50.9	-231.8	271.6	255.9	15.73	17.266		
2,600.0	2,589.8	2,558.4	2,540.3	9.0	9.1	-116.50	56.7	-251.2	294.7	278.5	16.21	18.180		
2,700.0	2,688.9	2,655.7	2,635.5	9.4	9.4	-116.54	62.5	-270.6	317.7	301.1	16.70	19.030		
2,800.0	2,787.9	2,753.0	2,730.7	9.7	9.8	-116.57	68.3	-290.0	340.8	323.6	17.19	19.821		
2,900.0	2,886.9	2,850.3	2,825.9	10.1	10.2	-116.60	74.1	-309.3	363.9	346.2	17.70	20.558		
3,000.0	2,985.9	2,947.6	2,921.0	10.5	10.6	-116.63	79.9	-328.7	387.0	368.7	18.21	21.245		
3,100.0	3,085.0	3,044.9	3,016.2	10.9	11.0	-116.65	85.7	-348.1	410.0	391.3	18.73	21.886		
3,200.0	3,184.0	3,142.2	3,111.4	11.2	11.4	-116.67	91.5	-367.5	433.1	413.8	19.26	22.485		
3,300.0	3,283.0	3,239.5	3,206.6	11.6	11.8	-116.69	97.3	-386.9	456.2	436.4	19.79	23.045		
3,400.0	3,382.0	3,336.8	3,301.7	12.0	12.2	-116.70	103.1	-406.3	479.2	458.9	20.33	23.570		
3,500.0	3,481.1	3,434.1	3,396.9	12.4	12.6	-116.72	108.8	-425.6	502.3	481.4	20.87	24.062		
3,600.0	3,580.1	3,531.4	3,492.1	12.8	13.0	-116.73	114.6	-445.0	525.4	503.9	21.42	24.524		
3,700.0	3,679.1	3,628.7	3,587.3	13.2	13.4	-116.74	120.4	-464.4	548.4	526.4	21.97	24.958		
3,800.0	3,778.2	3,726.0	3,682.5	13.6	13.8	-116.76	126.2	-483.8	571.5	549.0	22.53	25.366		
3,900.0	3,877.2	3,823.3	3,777.6	14.0	14.3	-116.77	132.0	-503.2	594.6	571.5	23.09	25.750		
4,000.0	3,976.2	3,920.6	3,872.8	14.4	14.7	-116.78	137.8	-522.5	617.6	594.0	23.65	26.113		
4,100.0	4,075.2	4,017.9	3,968.0	14.8	15.1	-116.78	143.6	-541.9	640.7	616.5	24.22	26.455		
4,200.0	4,174.3	4,115.2	4,063.2	15.2	15.6	-116.79	149.4	-561.3	663.8	639.0	24.79	26.779		
4,300.0	4,273.3	4,212.5	4,158.3	15.6	16.0	-116.86	155.2	-580.7	686.8	661.5	25.33	27.113		
4,400.0	4,372.5	4,310.0	4,253.7	16.0	16.4	-116.97	161.0	-600.1	709.2	683.3	25.90	27.378		
4,500.0	4,471.9	4,407.6	4,349.1	16.4	16.9	-116.95	166.8	-619.5	730.9	704.4	26.48	27.600		
4,600.0	4,571.5	4,505.3	4,444.7	16.8	17.3	-116.81	172.7	-639.0	751.8	724.7	27.06	27.782		
4,700.0	4,671.3	4,603.0	4,540.3	17.1	17.7	-116.57	178.5	-658.5	771.9	744.3	27.64	27.928		
4,800.0	4,771.1	4,700.9	4,636.0	17.5	18.2	-116.22	184.3	-678.0	791.4	763.2	28.22	28.042		
4,900.0	4,871.0	4,798.7	4,731.8	17.8	18.6	-115.79	190.1	-697.5	810.2	781.4	28.80	28.126		
5,000.0	4,971.0	4,896.6	4,827.5	18.1	19.1	-115.26	196.0	-717.0	828.3	798.9	29.39	28.186		
5,100.0	5,071.0	4,994.4	4,923.2	18.2	19.5	-106.71	201.8	-736.4	845.9	815.9	29.92	28.268		
5,200.0	5,171.0	5,092.2	5,018.8	18.2	20.0	-105.95	207.6	-755.9	863.4	832.9	30.48	28.323		
5,300.0	5,271.0	5,190.1	5,114.5	18.3	20.4	-105.23	213.5	-775.4	881.1	850.0	31.06	28.371		
5,400.0	5,371.0	5,287.9	5,210.2	18.3	20.8	-104.53	219.3	-794.9	898.9	867.3	31.64	28.412		
5,500.0	5,471.0	5,385.7	5,305.9	18.4	21.3	-103.87	225.1	-814.4	916.9	884.7	32.23	28.448		
5,600.0	5,571.0	5,483.5	5,401.5	18.4	21.7	-103.22	230.9	-833.9	935.0	902.1	32.83	28.480		
5,700.0	5,671.0	5,581.3	5,497.2	18.5	22.2	-102.60	236.8	-853.4	953.1	919.7	33.43	28.508		
5,800.0	5,771.0	5,679.1	5,592.9	18.6	22.6	-102.01	242.6	-872.8	971.4	937.4	34.05	28.532		
5,900.0	5,871.0	5,777.0	5,688.6	18.6	23.1	-101.43	248.4	-892.3	989.8	955.1	34.67	28.553		
6,000.0	5,971.0	5,874.8	5,784.3	18.7	23.5	-100.88	254.2	-911.8	1,008.3	973.0	35.29	28.572		
6,100.0	6,071.0	5,972.6	5,879.9	18.7	24.0	-100.34	260.1	-931.3	1,026.8	990.9	35.92	28.589		
6,200.0	6,171.0	6,070.4	5,975.6	18.8	24.5	-99.83	265.9	-950.8	1,045.5	1,008.9	36.55	28.604		
6,300.0	6,271.0	6,168.2	6,071.3	18.9	24.9	-99.33	271.7	-970.3	1,064.2	1,027.0	37.19	28.618		
6,400.0	6,371.0	6,266.0	6,167.0	18.9	25.4	-98.85	277.6	-989.7	1,083.0	1,045.2	37.83	28.630		
6,500.0	6,471.0	6,363.8	6,262.6	19.0	25.8	-98.39	283.4	-1,009.2	1,101.9	1,063.4	38.47	28.641		
6,600.0	6,571.0	6,461.7	6,358.3	19.0	26.3	-97.94	289.2	-1,028.7	1,120.9	1,081.7	39.12	28.652		
6,700.0	6,671.0	6,559.5	6,454.0	19.1	26.7	-97.51	295.0	-1,048.2	1,139.9	1,100.1	39.77	28.660		
6,800.0	6,771.0	6,668.9	6,561.1	19.2	27.2	-97.05	301.5	-1,069.7	1,158.7	1,118.2	40.49	28.615		
6,900.0	6,871.0	6,789.8	6,679.8	19.2	27.8	-96.60	307.9	-1,091.3	1,175.9	1,134.6	41.26	28.501		
7,000.0	6,971.0	6,911.6	6,800.0	19.3	28.3	-96.21	313.7	-1,110.7	1,191.2	1,149.2	41.99	28.367		

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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)				
7,100.0	7,071.0	7,034.2	6,921.3	19.4	28.9	-95.88	318.8	-1,127.7	1,204.6	1,161.9	42.69	28.216		
7,200.0	7,171.0	7,157.6	7,043.7	19.4	29.4	-95.60	323.2	-1,142.3	1,216.0	1,172.7	43.35	28.050		
7,300.0	7,271.0	7,281.5	7,167.0	19.5	29.9	-95.38	326.8	-1,154.5	1,225.5	1,181.5	43.97	27.871		
7,400.0	7,371.0	7,406.0	7,291.1	19.5	30.3	-95.20	329.7	-1,164.1	1,233.0	1,188.5	44.54	27.683		
7,500.0	7,471.0	7,530.8	7,415.7	19.6	30.8	-95.07	331.8	-1,171.2	1,238.5	1,193.4	45.05	27.493		
7,600.0	7,571.0	7,655.9	7,540.7	19.7	31.2	-94.99	333.1	-1,175.6	1,241.9	1,196.5	45.48	27.307		
7,700.0	7,671.0	7,781.2	7,665.9	19.7	31.4	-94.96	333.7	-1,177.5	1,243.4	1,197.6	45.73	27.188		
7,800.0	7,771.0	7,886.3	7,771.0	19.8	31.5	-94.96	333.7	-1,177.5	1,243.4	1,197.6	45.84	27.128		
7,900.0	7,871.0	7,986.3	7,871.0	19.9	31.5	-94.96	333.7	-1,177.5	1,243.4	1,197.5	45.93	27.074		
8,000.0	7,971.0	8,086.3	7,971.0	19.9	31.5	-94.96	333.7	-1,177.5	1,243.4	1,197.4	46.02	27.019		
8,100.0	8,071.0	8,186.3	8,071.0	20.0	31.6	-94.96	333.7	-1,177.5	1,243.4	1,197.3	46.11	26.965		
8,200.0	8,171.0	8,286.3	8,171.0	20.0	31.6	-94.96	333.7	-1,177.5	1,243.4	1,197.2	46.20	26.911		
8,300.0	8,271.0	8,386.3	8,271.0	20.1	31.6	-94.96	333.7	-1,177.5	1,243.4	1,197.1	46.30	26.857		
8,400.0	8,371.0	8,486.3	8,371.0	20.2	31.7	-94.96	333.7	-1,177.5	1,243.4	1,197.0	46.39	26.803		
8,500.0	8,471.0	8,586.3	8,471.0	20.2	31.7	-94.96	333.7	-1,177.5	1,243.4	1,196.9	46.49	26.748		
8,600.0	8,571.0	8,686.3	8,571.0	20.3	31.7	-94.96	333.7	-1,177.5	1,243.4	1,196.8	46.58	26.694		
8,700.0	8,671.0	8,786.3	8,671.0	20.4	31.8	-94.96	333.7	-1,177.5	1,243.4	1,196.7	46.67	26.640		
8,800.0	8,771.0	8,886.3	8,771.0	20.4	31.8	-94.96	333.7	-1,177.5	1,243.4	1,196.6	46.77	26.586		
8,900.0	8,871.0	8,986.3	8,871.0	20.5	31.8	-94.96	333.7	-1,177.5	1,243.4	1,196.5	46.87	26.532		
9,000.0	8,971.0	9,086.3	8,971.0	20.6	31.8	-94.96	333.7	-1,177.5	1,243.4	1,196.4	46.96	26.477		
9,100.0	9,071.0	9,186.3	9,071.0	20.6	31.9	-94.96	333.7	-1,177.5	1,243.4	1,196.3	47.06	26.423		
9,200.0	9,171.0	9,286.3	9,171.0	20.7	31.9	-94.96	333.7	-1,177.5	1,243.4	1,196.2	47.15	26.369		
9,300.0	9,271.0	9,386.3	9,271.0	20.7	31.9	-94.96	333.7	-1,177.5	1,243.4	1,196.1	47.25	26.315		
9,400.0	9,371.0	9,486.3	9,371.0	20.8	32.0	-94.96	333.7	-1,177.5	1,243.4	1,196.1	47.35	26.261		
9,500.0	9,471.0	9,586.3	9,471.0	20.9	32.0	-94.96	333.7	-1,177.5	1,243.4	1,196.0	47.45	26.207		
9,600.0	9,571.0	9,686.3	9,571.0	20.9	32.0	-94.96	333.7	-1,177.5	1,243.4	1,195.9	47.54	26.153		
9,700.0	9,671.0	9,786.3	9,671.0	21.0	32.1	-94.96	333.7	-1,177.5	1,243.4	1,195.8	47.64	26.099		
9,800.0	9,771.0	9,886.3	9,771.0	21.1	32.1	-94.96	333.7	-1,177.5	1,243.4	1,195.7	47.74	26.045		
9,900.0	9,871.0	9,986.3	9,871.0	21.1	32.1	-94.96	333.7	-1,177.5	1,243.4	1,195.6	47.84	25.991		
10,000.0	9,971.0	10,086.3	9,971.0	21.2	32.2	-94.96	333.7	-1,177.5	1,243.4	1,195.5	47.94	25.937		
10,100.0	10,071.0	10,186.3	10,071.0	21.3	32.2	-94.96	333.7	-1,177.5	1,243.4	1,195.4	48.04	25.883		
10,200.0	10,171.0	10,286.3	10,171.0	21.3	32.2	-94.96	333.7	-1,177.5	1,243.4	1,195.3	48.14	25.830		
10,300.0	10,271.0	10,386.3	10,271.0	21.4	32.3	-94.96	333.7	-1,177.5	1,243.4	1,195.2	48.24	25.776		
10,400.0	10,371.0	10,486.3	10,371.0	21.5	32.3	-94.96	333.7	-1,177.5	1,243.4	1,195.1	48.34	25.722		
10,500.0	10,471.0	10,586.3	10,471.0	21.5	32.3	-94.96	333.7	-1,177.5	1,243.4	1,195.0	48.44	25.669		
10,600.0	10,571.0	10,686.3	10,571.0	21.6	32.4	-94.96	333.7	-1,177.5	1,243.4	1,194.9	48.54	25.615		
10,700.0	10,671.0	10,786.3	10,671.0	21.7	32.4	-94.96	333.7	-1,177.5	1,243.4	1,194.8	48.64	25.561		
10,800.0	10,771.0	10,886.3	10,771.0	21.7	32.5	-94.96	333.7	-1,177.5	1,243.4	1,194.7	48.75	25.508		
10,900.0	10,871.0	10,986.3	10,871.0	21.8	32.5	-94.96	333.7	-1,177.5	1,243.4	1,194.6	48.85	25.455		
11,000.0	10,971.0	11,086.3	10,971.0	21.9	32.5	-94.96	333.7	-1,177.5	1,243.4	1,194.4	48.95	25.401		
11,100.0	11,071.0	11,186.3	11,071.0	21.9	32.6	-94.96	333.7	-1,177.5	1,243.4	1,194.3	49.05	25.348		
11,200.0	11,171.0	11,286.3	11,171.0	22.0	32.6	-94.96	333.7	-1,177.5	1,243.4	1,194.2	49.16	25.295		
11,300.0	11,271.0	11,386.3	11,271.0	22.1	32.6	-94.96	333.7	-1,177.5	1,243.4	1,194.1	49.26	25.241		
11,400.0	11,371.0	11,486.3	11,371.0	22.1	32.7	-94.96	333.7	-1,177.5	1,243.4	1,194.0	49.36	25.188		
11,500.0	11,471.0	11,586.3	11,471.0	22.2	32.7	-94.96	333.7	-1,177.5	1,243.4	1,193.9	49.47	25.135		
11,600.0	11,571.0	11,686.3	11,571.0	22.3	32.7	-94.96	333.7	-1,177.5	1,243.4	1,193.8	49.57	25.082		
11,700.0	11,671.0	11,786.3	11,671.0	22.3	32.8	-94.96	333.7	-1,177.5	1,243.4	1,193.7	49.68	25.029		
11,800.0	11,771.0	11,886.3	11,771.0	22.4	32.8	-94.96	333.7	-1,177.5	1,243.4	1,193.6	49.78	24.976		
11,810.0	11,781.0	11,896.3	11,781.0	22.4	32.8	-94.96	333.7	-1,177.5	1,243.4	1,193.6	49.79	24.971		
11,900.0	11,871.0	11,979.9	11,864.7	22.5	32.8	-95.02	332.5	-1,177.5	1,243.5	1,193.6	49.88	24.929		
12,000.0	11,971.0	12,063.9	11,947.7	22.5	32.7	-95.55	320.9	-1,177.4	1,244.7	1,194.7	49.94	24.923		

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		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
27,400.0	12,600.0	27,190.9	12,400.0	112.6	116.2	80.82	-14,587.2	-1,031.0	1,253.9	1,023.6	230.26	5.446	
27,500.0	12,600.0	27,290.9	12,400.0	113.3	116.9	80.82	-14,687.2	-1,030.0	1,253.9	1,022.2	231.73	5.411	
27,600.0	12,600.0	27,390.9	12,400.0	114.1	117.6	80.82	-14,787.2	-1,029.0	1,253.9	1,020.7	233.20	5.377	
27,700.0	12,600.0	27,490.9	12,400.0	114.8	118.4	80.82	-14,887.2	-1,028.0	1,253.9	1,019.2	234.67	5.343	
27,800.0	12,600.0	27,590.9	12,400.0	115.6	119.1	80.82	-14,987.2	-1,027.1	1,253.9	1,017.7	236.14	5.310	
27,900.0	12,600.0	27,690.9	12,400.0	116.3	119.8	80.82	-15,087.2	-1,026.1	1,253.8	1,016.2	237.62	5.277	
28,000.0	12,600.0	27,790.9	12,400.0	117.1	120.6	80.82	-15,187.2	-1,025.1	1,253.8	1,014.7	239.09	5.244	
28,100.0	12,600.0	27,890.9	12,400.0	117.9	121.3	80.82	-15,287.2	-1,024.1	1,253.8	1,013.3	240.56	5.212	
28,200.0	12,600.0	27,990.9	12,400.0	118.6	122.0	80.82	-15,387.2	-1,023.1	1,253.8	1,011.8	242.03	5.180	
28,300.0	12,600.0	28,090.9	12,400.0	119.4	122.8	80.82	-15,487.1	-1,022.1	1,253.8	1,010.3	243.51	5.149	
28,400.0	12,600.0	28,190.9	12,400.0	120.1	123.5	80.82	-15,587.1	-1,021.2	1,253.8	1,008.8	244.98	5.118	
28,500.0	12,600.0	28,290.9	12,400.0	120.9	124.3	80.82	-15,687.1	-1,020.2	1,253.8	1,007.3	246.46	5.087	
28,600.0	12,600.0	28,390.9	12,400.0	121.6	125.0	80.82	-15,787.1	-1,019.2	1,253.8	1,005.8	247.93	5.057	
28,700.0	12,600.0	28,490.9	12,400.0	122.4	125.7	80.82	-15,887.1	-1,018.2	1,253.7	1,004.3	249.41	5.027	
28,800.0	12,600.0	28,590.9	12,400.0	123.2	126.5	80.82	-15,987.1	-1,017.2	1,253.7	1,002.8	250.89	4.997	
28,900.0	12,600.0	28,690.9	12,400.0	123.9	127.2	80.82	-16,087.1	-1,016.3	1,253.7	1,001.4	252.36	4.968	
28,955.5	12,600.0	28,746.5	12,400.0	124.3	127.6	80.82	-16,142.7	-1,015.7	1,253.7	1,000.5	253.18	4.952	
28,963.8	12,600.0	28,746.7	12,400.0	124.4	127.6	80.82	-16,142.9	-1,015.7	1,253.7	1,000.4	253.31	4.949 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 #701H - Slot HENNIN FED COM #701H
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 #701H	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 #602H - 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)		Between Ellipses (usft)			
0.0	0.0	0.0	0.0	3.0	3.0	89.43	0.3	30.0	30.0	23.6	6.43	4.667	
100.0	100.0	100.0	100.0	3.2	3.2	89.43	0.3	30.0	30.0	23.1	6.89	4.353	
200.0	200.0	200.0	200.0	3.5	3.5	89.43	0.3	30.0	30.0	22.7	7.33	4.094	
300.0	300.0	300.0	300.0	3.7	3.7	89.43	0.3	30.0	30.0	22.3	7.74	3.875	
400.0	400.0	400.0	400.0	3.9	3.9	89.43	0.3	30.0	30.0	21.9	8.14	3.688	
500.0	500.0	500.0	500.0	4.1	4.1	89.43	0.3	30.0	30.0	21.5	8.51	3.524	
600.0	600.0	600.0	600.0	4.2	4.2	89.43	0.3	30.0	30.0	21.1	8.88	3.379	
700.0	700.0	700.0	700.0	4.4	4.4	89.43	0.3	30.0	30.0	20.8	9.23	3.251	
800.0	800.0	800.0	800.0	4.6	4.6	89.43	0.3	30.0	30.0	20.4	9.57	3.135	
900.0	900.0	900.0	900.0	4.8	4.8	89.43	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	89.43	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	89.43	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	89.43	0.3	30.0	30.0	19.2	10.85	2.766	CC, ES
1,300.0	1,300.0	1,299.3	1,299.3	5.4	5.4	82.78	0.9	31.1	31.0	19.8	11.17	2.772	
1,400.0	1,399.9	1,398.5	1,398.4	5.6	5.6	86.09	2.8	34.5	33.9	22.5	11.48	2.955	
1,500.0	1,499.7	1,497.6	1,497.3	5.8	5.8	90.45	5.8	40.2	39.1	27.3	11.79	3.315	
1,600.0	1,599.3	1,596.4	1,595.7	6.1	6.1	94.87	10.1	48.1	46.6	34.5	12.10	3.850	
1,700.0	1,698.6	1,694.8	1,693.5	6.3	6.3	98.77	15.5	58.2	56.5	44.1	12.40	4.554	
1,800.0	1,797.6	1,793.0	1,790.6	6.5	6.6	101.62	22.1	70.4	68.7	56.0	12.65	5.428	
1,900.0	1,896.6	1,891.0	1,887.3	6.8	6.8	102.43	29.9	84.8	82.6	69.7	12.92	6.396	
2,000.0	1,995.7	1,990.0	1,984.7	7.1	7.1	102.68	38.1	99.9	97.1	83.8	13.26	7.322	
2,100.0	2,094.7	2,088.9	2,082.2	7.4	7.4	102.87	46.3	115.0	111.5	97.9	13.61	8.194	
2,200.0	2,193.7	2,187.9	2,179.6	7.7	7.7	103.02	54.4	130.1	125.9	112.0	13.97	9.016	
2,300.0	2,292.8	2,286.9	2,277.1	8.0	8.0	103.13	62.6	145.2	140.3	126.0	14.33	9.793	
2,400.0	2,391.8	2,385.8	2,374.5	8.3	8.3	103.23	70.8	160.3	154.8	140.1	14.71	10.525	
2,500.0	2,490.8	2,484.8	2,472.0	8.7	8.7	103.30	79.0	175.5	169.2	154.1	15.08	11.217	
2,600.0	2,589.8	2,583.7	2,569.4	9.0	9.0	103.37	87.1	190.6	183.6	168.2	15.47	11.871	
2,700.0	2,688.9	2,682.7	2,666.9	9.4	9.4	103.43	95.3	205.7	198.1	182.2	15.86	12.488	
2,800.0	2,787.9	2,781.6	2,764.3	9.7	9.8	103.48	103.5	220.8	212.5	196.2	16.26	13.072	
2,900.0	2,886.9	2,880.6	2,861.8	10.1	10.2	103.52	111.6	235.9	226.9	210.3	16.66	13.624	
3,000.0	2,985.9	2,979.5	2,959.2	10.5	10.5	103.55	119.8	251.0	241.4	224.3	17.06	14.147	
3,100.0	3,085.0	3,078.5	3,056.7	10.9	10.9	103.59	128.0	266.1	255.8	238.3	17.47	14.642	
3,200.0	3,184.0	3,177.4	3,154.1	11.2	11.3	103.62	136.2	281.3	270.2	252.3	17.88	15.112	
3,300.0	3,283.0	3,276.4	3,251.6	11.6	11.7	103.64	144.3	296.4	284.7	266.4	18.30	15.557	
3,400.0	3,382.0	3,375.3	3,349.0	12.0	12.1	103.67	152.5	311.5	299.1	280.4	18.72	15.980	
3,500.0	3,481.1	3,474.3	3,446.5	12.4	12.5	103.69	160.7	326.6	313.5	294.4	19.14	16.382	
3,600.0	3,580.1	3,573.2	3,543.9	12.8	12.9	103.71	168.9	341.7	328.0	308.4	19.56	16.764	
3,700.0	3,679.1	3,672.2	3,641.4	13.2	13.3	103.73	177.0	356.8	342.4	322.4	19.99	17.128	
3,800.0	3,778.2	3,771.2	3,738.8	13.6	13.8	103.74	185.2	372.0	356.8	336.4	20.42	17.474	
3,900.0	3,877.2	3,870.1	3,836.3	14.0	14.2	103.76	193.4	387.1	371.2	350.4	20.85	17.804	
4,000.0	3,976.2	3,969.1	3,933.7	14.4	14.6	103.77	201.5	402.2	385.7	364.4	21.29	18.119	
4,100.0	4,075.2	4,068.0	4,031.2	14.8	15.0	103.79	209.7	417.3	400.1	378.4	21.72	18.419	
4,200.0	4,174.3	4,167.0	4,128.6	15.2	15.4	103.80	217.9	432.4	414.5	392.4	22.16	18.707	
4,300.0	4,273.3	4,265.9	4,226.1	15.6	15.9	103.85	226.1	447.5	429.0	406.4	22.57	19.007	
4,400.0	4,372.5	4,364.9	4,323.6	16.0	16.3	103.81	234.2	462.7	443.0	420.0	23.02	19.246	
4,500.0	4,471.9	4,463.9	4,421.1	16.4	16.7	103.57	242.4	477.8	456.7	433.2	23.49	19.445	
4,600.0	4,571.5	4,562.9	4,518.6	16.8	17.1	103.13	250.6	492.9	470.0	446.1	23.97	19.607	
4,700.0	4,671.3	4,661.9	4,616.1	17.1	17.6	102.52	258.8	508.0	483.0	458.5	24.48	19.734	
4,800.0	4,771.1	4,760.8	4,713.4	17.5	18.0	101.75	266.9	523.1	495.7	470.7	25.00	19.827	
4,900.0	4,871.0	4,859.6	4,810.7	17.8	18.4	100.84	275.1	538.2	508.2	482.7	25.55	19.887	
5,000.0	4,971.0	4,958.3	4,907.9	18.1	18.9	99.78	283.2	553.3	520.6	494.4	26.14	19.918	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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 #602H - 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	Depth	Depth	Toolface	+N/-S	+E/-W	Centres	Ellipses			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
5,100.0	5,071.0	5,056.8	5,004.9	18.2	19.3	106.46	291.4	568.3	532.9	506.2	26.72	19.946	
5,200.0	5,171.0	5,155.3	5,101.9	18.2	19.7	105.19	299.5	583.4	545.4	518.1	27.35	19.944	
5,300.0	5,271.0	5,253.7	5,198.9	18.3	20.2	103.97	307.6	598.4	558.2	530.2	28.00	19.940	
5,400.0	5,371.0	5,352.7	5,296.4	18.3	20.6	102.79	315.8	613.5	571.3	542.6	28.64	19.945	
5,500.0	5,471.0	5,459.6	5,401.8	18.4	21.0	101.66	324.1	628.9	583.7	554.4	29.32	19.906	
5,600.0	5,571.0	5,567.1	5,508.2	18.4	21.5	100.69	331.5	642.6	594.9	565.0	29.99	19.836	
5,700.0	5,671.0	5,675.2	5,615.4	18.5	21.9	99.87	338.0	654.6	604.8	574.2	30.63	19.746	
5,800.0	5,771.0	5,783.7	5,723.3	18.6	22.4	99.19	343.6	664.8	613.3	582.1	31.23	19.638	
5,900.0	5,871.0	5,892.7	5,831.8	18.6	22.8	98.65	348.2	673.3	620.4	588.6	31.79	19.515	
6,000.0	5,971.0	6,001.9	5,940.8	18.7	23.2	98.23	351.8	680.0	626.0	593.7	32.30	19.378	
6,100.0	6,071.0	6,111.5	6,050.2	18.7	23.6	97.93	354.4	684.9	630.0	597.3	32.76	19.233	
6,200.0	6,171.0	6,221.2	6,159.9	18.8	23.9	97.74	356.0	687.9	632.6	599.4	33.15	19.083	
6,300.0	6,271.0	6,331.0	6,269.7	18.9	24.1	97.67	356.7	689.1	633.5	600.1	33.42	18.956	
6,400.0	6,371.0	6,432.3	6,371.0	18.9	24.2	97.67	356.7	689.1	633.6	600.0	33.53	18.894	
6,500.0	6,471.0	6,532.3	6,471.0	19.0	24.2	97.67	356.7	689.1	633.6	599.9	33.65	18.825	
6,600.0	6,571.0	6,632.3	6,571.0	19.0	24.3	97.67	356.7	689.1	633.6	599.8	33.78	18.758	
6,700.0	6,671.0	6,732.3	6,671.0	19.1	24.3	97.67	356.7	689.1	633.6	599.7	33.90	18.690	
6,800.0	6,771.0	6,832.3	6,771.0	19.2	24.3	97.67	356.7	689.1	633.6	599.5	34.02	18.623	
6,900.0	6,871.0	6,932.3	6,871.0	19.2	24.4	97.67	356.7	689.1	633.6	599.4	34.14	18.556	
7,000.0	6,971.0	7,032.3	6,971.0	19.3	24.4	97.67	356.7	689.1	633.6	599.3	34.27	18.489	
7,100.0	7,071.0	7,132.3	7,071.0	19.4	24.5	97.67	356.7	689.1	633.6	599.2	34.39	18.423	
7,200.0	7,171.0	7,232.3	7,171.0	19.4	24.5	97.67	356.7	689.1	633.6	599.0	34.51	18.357	
7,300.0	7,271.0	7,332.3	7,271.0	19.5	24.5	97.67	356.7	689.1	633.6	598.9	34.64	18.291	
7,400.0	7,371.0	7,432.3	7,371.0	19.5	24.6	97.67	356.7	689.1	633.6	598.8	34.76	18.226	
7,500.0	7,471.0	7,532.3	7,471.0	19.6	24.6	97.67	356.7	689.1	633.6	598.7	34.89	18.161	
7,600.0	7,571.0	7,632.3	7,571.0	19.7	24.7	97.67	356.7	689.1	633.6	598.5	35.01	18.096	
7,700.0	7,671.0	7,732.3	7,671.0	19.7	24.7	97.67	356.7	689.1	633.6	598.4	35.14	18.031	
7,800.0	7,771.0	7,832.3	7,771.0	19.8	24.8	97.67	356.7	689.1	633.6	598.3	35.26	17.967	
7,900.0	7,871.0	7,932.3	7,871.0	19.9	24.8	97.67	356.7	689.1	633.6	598.2	35.39	17.903	
8,000.0	7,971.0	8,032.3	7,971.0	19.9	24.8	97.67	356.7	689.1	633.6	598.0	35.51	17.840	
8,100.0	8,071.0	8,132.3	8,071.0	20.0	24.9	97.67	356.7	689.1	633.6	597.9	35.64	17.777	
8,200.0	8,171.0	8,232.3	8,171.0	20.0	24.9	97.67	356.7	689.1	633.6	597.8	35.77	17.714	
8,300.0	8,271.0	8,332.3	8,271.0	20.1	25.0	97.67	356.7	689.1	633.6	597.7	35.89	17.651	
8,400.0	8,371.0	8,432.3	8,371.0	20.2	25.0	97.67	356.7	689.1	633.6	597.5	36.02	17.589	
8,500.0	8,471.0	8,532.3	8,471.0	20.2	25.1	97.67	356.7	689.1	633.6	597.4	36.15	17.527	
8,600.0	8,571.0	8,632.3	8,571.0	20.3	25.1	97.67	356.7	689.1	633.6	597.3	36.28	17.465	
8,700.0	8,671.0	8,732.3	8,671.0	20.4	25.2	97.67	356.7	689.1	633.6	597.2	36.40	17.404	
8,800.0	8,771.0	8,832.3	8,771.0	20.4	25.2	97.67	356.7	689.1	633.6	597.0	36.53	17.343	
8,900.0	8,871.0	8,932.3	8,871.0	20.5	25.2	97.67	356.7	689.1	633.6	596.9	36.66	17.282	
9,000.0	8,971.0	9,032.3	8,971.0	20.6	25.3	97.67	356.7	689.1	633.6	596.8	36.79	17.221	
9,100.0	9,071.0	9,132.3	9,071.0	20.6	25.3	97.67	356.7	689.1	633.6	596.6	36.92	17.161	
9,200.0	9,171.0	9,232.3	9,171.0	20.7	25.4	97.67	356.7	689.1	633.6	596.5	37.05	17.101	
9,300.0	9,271.0	9,332.3	9,271.0	20.7	25.4	97.67	356.7	689.1	633.6	596.4	37.18	17.042	
9,400.0	9,371.0	9,432.3	9,371.0	20.8	25.5	97.67	356.7	689.1	633.6	596.3	37.31	16.982	
9,500.0	9,471.0	9,532.3	9,471.0	20.9	25.5	97.67	356.7	689.1	633.6	596.1	37.44	16.923	
9,600.0	9,571.0	9,632.3	9,571.0	20.9	25.6	97.67	356.7	689.1	633.6	596.0	37.57	16.865	
9,700.0	9,671.0	9,732.3	9,671.0	21.0	25.6	97.67	356.7	689.1	633.6	595.9	37.70	16.806	
9,800.0	9,771.0	9,832.3	9,771.0	21.1	25.7	97.67	356.7	689.1	633.6	595.7	37.83	16.748	
9,900.0	9,871.0	9,932.3	9,871.0	21.1	25.7	97.67	356.7	689.1	633.6	595.6	37.96	16.690	
10,000.0	9,971.0	10,032.3	9,971.0	21.2	25.8	97.67	356.7	689.1	633.6	595.5	38.09	16.633	
10,100.0	10,071.0	10,132.3	10,071.0	21.3	25.8	97.67	356.7	689.1	633.6	595.3	38.22	16.576	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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 #602H - 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	
10,200.0	10,171.0	10,232.3	10,171.0	21.3	25.9	97.67	356.7	689.1	633.6	595.2	38.35	16.519
10,300.0	10,271.0	10,332.3	10,271.0	21.4	25.9	97.67	356.7	689.1	633.6	595.1	38.49	16.462
10,400.0	10,371.0	10,432.3	10,371.0	21.5	25.9	97.67	356.7	689.1	633.6	594.9	38.62	16.406
10,500.0	10,471.0	10,532.3	10,471.0	21.5	26.0	97.67	356.7	689.1	633.6	594.8	38.75	16.350
10,600.0	10,571.0	10,632.3	10,571.0	21.6	26.0	97.67	356.7	689.1	633.6	594.7	38.88	16.294
10,700.0	10,671.0	10,732.3	10,671.0	21.7	26.1	97.67	356.7	689.1	633.6	594.5	39.02	16.239
10,800.0	10,771.0	10,832.3	10,771.0	21.7	26.1	97.67	356.7	689.1	633.6	594.4	39.15	16.184
10,900.0	10,871.0	10,932.3	10,871.0	21.8	26.2	97.67	356.7	689.1	633.6	594.3	39.28	16.129
11,000.0	10,971.0	11,032.3	10,971.0	21.9	26.2	97.67	356.7	689.1	633.6	594.1	39.41	16.074
11,100.0	11,071.0	11,132.3	11,071.0	21.9	26.3	97.67	356.7	689.1	633.6	594.0	39.55	16.020
11,200.0	11,171.0	11,232.3	11,171.0	22.0	26.3	97.67	356.7	689.1	633.6	593.9	39.68	15.966
11,300.0	11,271.0	11,332.3	11,271.0	22.1	26.4	97.67	356.7	689.1	633.6	593.7	39.82	15.912
11,400.0	11,371.0	11,432.3	11,371.0	22.1	26.4	97.67	356.7	689.1	633.6	593.6	39.95	15.859
11,500.0	11,471.0	11,532.3	11,471.0	22.2	26.5	97.67	356.7	689.1	633.6	593.5	40.09	15.805
11,600.0	11,571.0	11,632.3	11,571.0	22.3	26.5	97.67	356.7	689.1	633.6	593.3	40.22	15.752
11,700.0	11,671.0	11,732.3	11,671.0	22.3	26.6	97.67	356.7	689.1	633.6	593.2	40.35	15.700
11,800.0	11,771.0	11,832.3	11,771.0	22.4	26.6	97.67	356.7	689.1	633.6	593.1	40.49	15.648
11,810.0	11,781.0	11,842.3	11,781.0	22.4	26.6	97.67	356.7	689.1	633.6	593.1	40.50	15.643
11,900.0	11,871.0	11,926.3	11,864.9	22.5	26.6	97.78	355.4	689.1	633.8	593.2	40.60	15.609
12,000.0	11,971.0	12,010.8	11,948.5	22.5	26.5	98.83	343.7	689.2	636.0	595.4	40.59	15.669
12,100.0	12,071.0	12,090.6	12,025.2	22.5	26.4	-78.51	321.3	689.5	640.9	600.4	40.47	15.835
12,200.0	12,169.5	12,167.8	12,095.5	22.3	26.2	-76.25	289.9	689.8	646.6	606.1	40.46	15.981
12,300.0	12,263.7	12,243.2	12,159.7	22.1	26.1	-74.33	250.2	690.2	652.2	611.5	40.65	16.042
12,400.0	12,350.7	12,317.4	12,217.1	21.8	25.9	-72.80	203.4	690.6	657.0	616.0	41.03	16.012
12,500.0	12,427.9	12,390.7	12,267.4	21.6	25.8	-71.68	150.2	691.1	660.9	619.3	41.57	15.897
12,600.0	12,492.9	12,463.3	12,310.2	21.3	25.7	-70.97	91.6	691.7	663.4	621.2	42.22	15.712
12,700.0	12,543.7	12,535.7	12,345.2	21.2	25.7	-70.70	28.2	692.3	664.4	621.5	42.92	15.480
12,800.0	12,578.9	12,608.0	12,371.8	21.1	25.6	-70.87	-38.9	693.0	663.8	620.2	43.60	15.224
12,900.0	12,597.2	12,680.6	12,389.9	21.0	25.6	-71.47	-109.2	693.6	661.6	617.4	44.20	14.969
13,000.0	12,600.0	12,750.0	12,398.7	21.0	25.7	-72.20	-178.0	694.3	658.6	613.9	44.74	14.720
13,046.6	12,600.0	12,788.3	12,400.0	21.0	25.7	-72.31	-216.2	694.7	658.2	613.2	44.97	14.636
13,100.0	12,600.0	12,841.7	12,400.0	21.0	25.7	-72.31	-269.6	695.2	658.2	613.0	45.16	14.574
13,200.0	12,600.0	12,941.7	12,400.0	21.1	25.8	-72.31	-369.6	696.2	658.2	612.6	45.56	14.446
13,300.0	12,600.0	13,041.7	12,400.0	21.1	26.0	-72.31	-469.6	697.1	658.2	612.2	46.01	14.306
13,400.0	12,600.0	13,141.7	12,400.0	21.1	26.1	-72.31	-569.6	698.1	658.2	611.7	46.50	14.155
13,500.0	12,600.0	13,241.7	12,400.0	21.1	26.3	-72.31	-669.6	699.1	658.2	611.1	47.04	13.993
13,600.0	12,600.0	13,341.7	12,400.0	21.2	26.4	-72.31	-769.6	700.1	658.2	610.6	47.61	13.824
13,700.0	12,600.0	13,441.7	12,400.0	21.2	26.6	-72.31	-869.6	701.0	658.2	610.0	48.23	13.646
13,800.0	12,600.0	13,541.7	12,400.0	21.3	26.9	-72.31	-969.6	702.0	658.2	609.3	48.89	13.462
13,900.0	12,600.0	13,641.7	12,400.0	21.3	27.1	-72.31	-1,069.6	703.0	658.2	608.6	49.59	13.274
14,000.0	12,600.0	13,741.7	12,400.0	21.4	27.3	-72.31	-1,169.6	703.9	658.2	607.9	50.32	13.080
14,100.0	12,600.0	13,841.7	12,400.0	21.4	27.6	-72.31	-1,269.6	704.9	658.2	607.1	51.09	12.884
14,200.0	12,600.0	13,941.7	12,400.0	21.5	27.9	-72.31	-1,369.6	705.9	658.2	606.3	51.88	12.686
14,300.0	12,600.0	14,041.7	12,400.0	21.6	28.2	-72.31	-1,469.6	706.9	658.2	605.5	52.72	12.486
14,400.0	12,600.0	14,141.7	12,400.0	21.7	28.5	-72.31	-1,569.6	707.8	658.2	604.6	53.58	12.285
14,500.0	12,600.0	14,241.7	12,400.0	21.9	28.8	-72.31	-1,669.6	708.8	658.2	603.7	54.47	12.084
14,600.0	12,600.0	14,341.7	12,400.0	22.1	29.2	-72.31	-1,769.5	709.8	658.2	602.8	55.38	11.884
14,700.0	12,600.0	14,441.7	12,400.0	22.3	29.5	-72.31	-1,869.5	710.7	658.2	601.9	56.33	11.685
14,800.0	12,600.0	14,541.7	12,400.0	22.7	29.9	-72.31	-1,969.5	711.7	658.2	600.9	57.29	11.488
14,900.0	12,600.0	14,641.7	12,400.0	23.1	30.3	-72.31	-2,069.5	712.7	658.2	599.9	58.29	11.293
15,000.0	12,600.0	14,741.7	12,400.0	23.5	30.7	-72.31	-2,169.5	713.7	658.2	598.9	59.30	11.100

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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 #602H - 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)			
15,100.0	12,600.0	14,841.7	12,400.0	24.0	31.1	-72.31	-2,269.5	714.6	658.2	597.9	60.33	10.910	
15,200.0	12,600.0	14,941.7	12,400.0	24.6	31.5	-72.31	-2,369.5	715.6	658.2	596.8	61.39	10.722	
15,300.0	12,600.0	15,041.7	12,400.0	25.1	31.9	-72.31	-2,469.5	716.6	658.2	595.8	62.46	10.538	
15,400.0	12,600.0	15,141.7	12,400.0	25.7	32.4	-72.31	-2,569.5	717.5	658.2	594.7	63.55	10.357	
15,500.0	12,600.0	15,241.7	12,400.0	26.2	32.8	-72.31	-2,669.5	718.5	658.2	593.6	64.66	10.180	
15,600.0	12,600.0	15,341.7	12,400.0	26.8	33.3	-72.31	-2,769.5	719.5	658.2	592.4	65.78	10.006	
15,700.0	12,600.0	15,441.7	12,400.0	27.4	33.8	-72.31	-2,869.5	720.5	658.2	591.3	66.92	9.836	
15,800.0	12,600.0	15,541.7	12,400.0	28.0	34.3	-72.31	-2,969.5	721.4	658.2	590.1	68.08	9.669	
15,900.0	12,600.0	15,641.7	12,400.0	28.7	34.8	-72.31	-3,069.5	722.4	658.2	589.0	69.24	9.506	
16,000.0	12,600.0	15,741.7	12,400.0	29.3	35.3	-72.31	-3,169.5	723.4	658.2	587.8	70.42	9.347	
16,100.0	12,600.0	15,841.7	12,400.0	29.9	35.8	-72.31	-3,269.5	724.3	658.2	586.6	71.62	9.191	
16,200.0	12,600.0	15,941.7	12,400.0	30.6	36.3	-72.31	-3,369.5	725.3	658.2	585.4	72.82	9.039	
16,300.0	12,600.0	16,041.7	12,400.0	31.2	36.9	-72.31	-3,469.5	726.3	658.2	584.2	74.04	8.890	
16,400.0	12,600.0	16,141.7	12,400.0	31.9	37.4	-72.31	-3,569.5	727.3	658.2	583.0	75.27	8.745	
16,500.0	12,600.0	16,241.7	12,400.0	32.5	38.0	-72.31	-3,669.5	728.2	658.2	581.7	76.51	8.604	
16,600.0	12,600.0	16,341.7	12,400.0	33.2	38.5	-72.31	-3,769.5	729.2	658.2	580.5	77.75	8.466	
16,700.0	12,600.0	16,441.7	12,400.0	33.8	39.1	-72.31	-3,869.4	730.2	658.2	579.2	79.01	8.331	
16,800.0	12,600.0	16,541.7	12,400.0	34.5	39.7	-72.31	-3,969.4	731.1	658.2	578.0	80.28	8.200	
16,900.0	12,600.0	16,641.7	12,400.0	35.2	40.3	-72.31	-4,069.4	732.1	658.2	576.7	81.55	8.072	
17,000.0	12,600.0	16,741.7	12,400.0	35.9	40.8	-72.31	-4,169.4	733.1	658.2	575.4	82.83	7.947	
17,100.0	12,600.0	16,841.7	12,400.0	36.5	41.4	-72.31	-4,269.4	734.1	658.2	574.1	84.12	7.825	
17,200.0	12,600.0	16,941.7	12,400.0	37.2	42.0	-72.31	-4,369.4	735.0	658.2	572.8	85.42	7.706	
17,300.0	12,600.0	17,041.7	12,400.0	37.9	42.6	-72.31	-4,469.4	736.0	658.3	571.5	86.72	7.590	
17,400.0	12,600.0	17,141.7	12,400.0	38.6	43.2	-72.31	-4,569.4	737.0	658.3	570.2	88.03	7.477	
17,500.0	12,600.0	17,241.7	12,400.0	39.3	43.9	-72.31	-4,669.4	737.9	658.3	568.9	89.35	7.367	
17,600.0	12,600.0	17,341.7	12,400.0	40.0	44.5	-72.31	-4,769.4	738.9	658.3	567.6	90.67	7.260	
17,700.0	12,600.0	17,441.7	12,400.0	40.7	45.1	-72.31	-4,869.4	739.9	658.3	566.3	92.00	7.155	
17,800.0	12,600.0	17,541.7	12,400.0	41.4	45.7	-72.31	-4,969.4	740.9	658.3	564.9	93.34	7.053	
17,900.0	12,600.0	17,641.7	12,400.0	42.1	46.4	-72.31	-5,069.4	741.8	658.3	563.6	94.68	6.953	
18,000.0	12,600.0	17,741.7	12,400.0	42.8	47.0	-72.31	-5,169.4	742.8	658.3	562.2	96.02	6.855	
18,100.0	12,600.0	17,841.7	12,400.0	43.5	47.6	-72.31	-5,269.4	743.8	658.3	560.9	97.37	6.760	
18,200.0	12,600.0	17,941.7	12,400.0	44.2	48.3	-72.31	-5,369.4	744.7	658.3	559.5	98.73	6.668	
18,300.0	12,600.0	18,041.7	12,400.0	44.9	48.9	-72.31	-5,469.4	745.7	658.3	558.2	100.09	6.577	
18,400.0	12,600.0	18,141.7	12,400.0	45.6	49.6	-72.31	-5,569.4	746.7	658.3	556.8	101.45	6.489	
18,500.0	12,600.0	18,241.7	12,400.0	46.4	50.2	-72.31	-5,669.4	747.7	658.3	555.5	102.82	6.402	
18,600.0	12,600.0	18,341.7	12,400.0	47.1	50.9	-72.31	-5,769.4	748.6	658.3	554.1	104.19	6.318	
18,700.0	12,600.0	18,441.7	12,400.0	47.8	51.5	-72.31	-5,869.4	749.6	658.3	552.7	105.56	6.236	
18,800.0	12,600.0	18,541.7	12,400.0	48.5	52.2	-72.31	-5,969.3	750.6	658.3	551.3	106.94	6.155	
18,900.0	12,600.0	18,641.7	12,400.0	49.2	52.9	-72.31	-6,069.3	751.5	658.3	550.0	108.33	6.077	
19,000.0	12,600.0	18,741.7	12,400.0	50.0	53.5	-72.31	-6,169.3	752.5	658.3	548.6	109.71	6.000	
19,100.0	12,600.0	18,841.7	12,400.0	50.7	54.2	-72.31	-6,269.3	753.5	658.3	547.2	111.10	5.925	
19,200.0	12,600.0	18,941.7	12,400.0	51.4	54.9	-72.31	-6,369.3	754.5	658.3	545.8	112.49	5.852	
19,300.0	12,600.0	19,041.7	12,400.0	52.1	55.6	-72.31	-6,469.3	755.4	658.3	544.4	113.89	5.780	
19,400.0	12,600.0	19,141.7	12,400.0	52.8	56.2	-72.31	-6,569.3	756.4	658.3	543.0	115.29	5.710	
19,500.0	12,600.0	19,241.7	12,400.0	53.6	56.9	-72.31	-6,669.3	757.4	658.3	541.6	116.69	5.641	
19,600.0	12,600.0	19,341.7	12,400.0	54.3	57.6	-72.31	-6,769.3	758.3	658.3	540.2	118.09	5.574	
19,700.0	12,600.0	19,441.7	12,400.0	55.0	58.3	-72.31	-6,869.3	759.3	658.3	538.8	119.50	5.509	
19,800.0	12,600.0	19,541.7	12,400.0	55.8	59.0	-72.31	-6,969.3	760.3	658.3	537.4	120.91	5.445	
19,900.0	12,600.0	19,641.7	12,400.0	56.5	59.7	-72.31	-7,069.3	761.3	658.3	536.0	122.32	5.382	
20,000.0	12,600.0	19,741.7	12,400.0	57.2	60.4	-72.31	-7,169.3	762.2	658.3	534.6	123.74	5.320	
20,100.0	12,600.0	19,841.7	12,400.0	58.0	61.0	-72.31	-7,269.3	763.2	658.3	533.2	125.15	5.260	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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 #602H - 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 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
20,200.0	12,600.0	19,941.7	12,400.0	58.7	61.7	-72.31	-7,369.3	764.2	658.3	531.7	126.57	5.201
20,300.0	12,600.0	20,041.7	12,400.0	59.4	62.4	-72.31	-7,469.3	765.1	658.3	530.3	127.99	5.143
20,400.0	12,600.0	20,141.7	12,400.0	60.2	63.1	-72.31	-7,569.3	766.1	658.3	528.9	129.41	5.087
20,500.0	12,600.0	20,241.7	12,400.0	60.9	63.8	-72.31	-7,669.3	767.1	658.3	527.5	130.84	5.031
20,600.0	12,600.0	20,341.7	12,400.0	61.6	64.5	-72.31	-7,769.3	768.1	658.3	526.0	132.26	4.977
20,700.0	12,600.0	20,441.7	12,400.0	62.4	65.2	-72.31	-7,869.3	769.0	658.3	524.6	133.69	4.924
20,800.0	12,600.0	20,541.7	12,400.0	63.1	65.9	-72.31	-7,969.3	770.0	658.3	523.2	135.12	4.872
20,900.0	12,600.0	20,641.7	12,400.0	63.8	66.6	-72.31	-8,069.2	771.0	658.3	521.8	136.56	4.821
21,000.0	12,600.0	20,741.7	12,400.0	64.6	67.3	-72.31	-8,169.2	771.9	658.3	520.3	137.99	4.771
21,100.0	12,600.0	20,841.7	12,400.0	65.3	68.1	-72.31	-8,269.2	772.9	658.3	518.9	139.42	4.722
21,200.0	12,600.0	20,941.7	12,400.0	66.1	68.8	-72.31	-8,369.2	773.9	658.3	517.5	140.86	4.674
21,300.0	12,600.0	21,041.7	12,400.0	66.8	69.5	-72.31	-8,469.2	774.9	658.3	516.0	142.30	4.626
21,400.0	12,600.0	21,141.7	12,400.0	67.5	70.2	-72.31	-8,569.2	775.8	658.3	514.6	143.74	4.580
21,500.0	12,600.0	21,241.7	12,400.0	68.3	70.9	-72.31	-8,669.2	776.8	658.3	513.1	145.18	4.535
21,600.0	12,600.0	21,341.7	12,400.0	69.0	71.6	-72.31	-8,769.2	777.8	658.3	511.7	146.62	4.490
21,700.0	12,600.0	21,441.7	12,400.0	69.8	72.3	-72.31	-8,869.2	778.7	658.3	510.3	148.07	4.446
21,800.0	12,600.0	21,541.7	12,400.0	70.5	73.0	-72.31	-8,969.2	779.7	658.3	508.8	149.51	4.403
21,900.0	12,600.0	21,641.7	12,400.0	71.3	73.8	-72.31	-9,069.2	780.7	658.3	507.4	150.96	4.361
22,000.0	12,600.0	21,741.7	12,400.0	72.0	74.5	-72.31	-9,169.2	781.6	658.3	505.9	152.41	4.320
22,100.0	12,600.0	21,841.7	12,400.0	72.7	75.2	-72.31	-9,269.2	782.6	658.3	504.5	153.86	4.279
22,200.0	12,600.0	21,941.7	12,400.0	73.5	75.9	-72.31	-9,369.2	783.6	658.3	503.0	155.31	4.239
22,300.0	12,600.0	22,041.7	12,400.0	74.2	76.6	-72.31	-9,469.2	784.6	658.3	501.6	156.76	4.200
22,400.0	12,600.0	22,141.7	12,400.0	75.0	77.3	-72.31	-9,569.2	785.5	658.3	500.1	158.21	4.161
22,500.0	12,600.0	22,241.7	12,400.0	75.7	78.1	-72.31	-9,669.2	786.5	658.3	498.7	159.67	4.123
22,600.0	12,600.0	22,341.7	12,400.0	76.5	78.8	-72.31	-9,769.2	787.5	658.3	497.2	161.12	4.086
22,700.0	12,600.0	22,441.7	12,400.0	77.2	79.5	-72.31	-9,869.2	788.4	658.3	495.8	162.58	4.049
22,800.0	12,600.0	22,541.7	12,400.0	78.0	80.2	-72.31	-9,969.2	789.4	658.4	494.3	164.04	4.013
22,900.0	12,600.0	22,641.7	12,400.0	78.7	81.0	-72.31	-10,069.2	790.4	658.4	492.9	165.49	3.978
23,000.0	12,600.0	22,741.7	12,400.0	79.5	81.7	-72.31	-10,169.1	791.4	658.4	491.4	166.95	3.943
23,100.0	12,600.0	22,841.7	12,400.0	80.2	82.4	-72.31	-10,269.1	792.3	658.4	489.9	168.41	3.909
23,200.0	12,600.0	22,941.7	12,400.0	81.0	83.1	-72.31	-10,369.1	793.3	658.4	488.5	169.87	3.876
23,300.0	12,600.0	23,041.7	12,400.0	81.7	83.9	-72.31	-10,469.1	794.3	658.4	487.0	171.34	3.843
23,400.0	12,600.0	23,141.7	12,400.0	82.5	84.6	-72.31	-10,569.1	795.2	658.4	485.6	172.80	3.810
23,500.0	12,600.0	23,241.7	12,400.0	83.2	85.3	-72.32	-10,669.1	796.2	658.4	484.1	174.26	3.778
23,600.0	12,600.0	23,341.7	12,400.0	83.9	86.1	-72.32	-10,769.1	797.2	658.4	482.6	175.73	3.747
23,700.0	12,600.0	23,441.7	12,400.0	84.7	86.8	-72.32	-10,869.1	798.2	658.4	481.2	177.19	3.716
23,800.0	12,600.0	23,541.7	12,400.0	85.4	87.5	-72.32	-10,969.1	799.1	658.4	479.7	178.66	3.685
23,900.0	12,600.0	23,641.7	12,400.0	86.2	88.3	-72.32	-11,069.1	800.1	658.4	478.2	180.12	3.655
24,000.0	12,600.0	23,741.7	12,400.0	86.9	89.0	-72.32	-11,169.1	801.1	658.4	476.8	181.59	3.626
24,100.0	12,600.0	23,841.7	12,400.0	87.7	89.7	-72.32	-11,269.1	802.0	658.4	475.3	183.06	3.597
24,200.0	12,600.0	23,941.7	12,400.0	88.4	90.4	-72.32	-11,369.1	803.0	658.4	473.8	184.53	3.568
24,300.0	12,600.0	24,041.7	12,400.0	89.2	91.2	-72.32	-11,469.1	804.0	658.4	472.4	186.00	3.540
24,400.0	12,600.0	24,141.7	12,400.0	90.0	91.9	-72.32	-11,569.1	805.0	658.4	470.9	187.47	3.512
24,500.0	12,600.0	24,241.7	12,400.0	90.7	92.6	-72.32	-11,669.1	805.9	658.4	469.4	188.94	3.485
24,600.0	12,600.0	24,341.7	12,400.0	91.5	93.4	-72.32	-11,769.1	806.9	658.4	468.0	190.41	3.458
24,700.0	12,600.0	24,441.7	12,400.0	92.2	94.1	-72.32	-11,869.1	807.9	658.4	466.5	191.88	3.431
24,800.0	12,600.0	24,541.7	12,400.0	93.0	94.9	-72.32	-11,969.1	808.8	658.4	465.0	193.35	3.405
24,900.0	12,600.0	24,641.7	12,400.0	93.7	95.6	-72.32	-12,069.1	809.8	658.4	463.6	194.83	3.379
25,000.0	12,600.0	24,741.7	12,400.0	94.5	96.3	-72.32	-12,169.1	810.8	658.4	462.1	196.30	3.354
25,100.0	12,600.0	24,841.7	12,400.0	95.2	97.1	-72.32	-12,269.1	811.8	658.4	460.6	197.77	3.329
25,200.0	12,600.0	24,941.7	12,400.0	96.0	97.8	-72.32	-12,369.0	812.7	658.4	459.1	199.25	3.304

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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 #602H - 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)	Semi Reference (usft)	Major 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)			
25,300.0	12,600.0	25,041.7	12,400.0	96.7	98.5	-72.32	-12,469.0	813.7	658.4	457.7	200.72	3.280	
25,400.0	12,600.0	25,141.7	12,400.0	97.5	99.3	-72.32	-12,569.0	814.7	658.4	456.2	202.20	3.256	
25,500.0	12,600.0	25,241.7	12,400.0	98.2	100.0	-72.32	-12,669.0	815.6	658.4	454.7	203.68	3.233	
25,600.0	12,600.0	25,341.7	12,400.0	99.0	100.8	-72.32	-12,769.0	816.6	658.4	453.2	205.15	3.209	
25,700.0	12,600.0	25,441.7	12,400.0	99.7	101.5	-72.32	-12,869.0	817.6	658.4	451.8	206.63	3.186	
25,800.0	12,600.0	25,541.7	12,400.0	100.5	102.2	-72.32	-12,969.0	818.6	658.4	450.3	208.11	3.164	
25,900.0	12,600.0	25,641.7	12,400.0	101.2	103.0	-72.32	-13,069.0	819.5	658.4	448.8	209.59	3.141	
26,000.0	12,600.0	25,741.7	12,400.0	102.0	103.7	-72.32	-13,169.0	820.5	658.4	447.3	211.07	3.119	
26,100.0	12,600.0	25,841.7	12,400.0	102.7	104.5	-72.32	-13,269.0	821.5	658.4	445.9	212.55	3.098	
26,200.0	12,600.0	25,941.7	12,400.0	103.5	105.2	-72.32	-13,369.0	822.4	658.4	444.4	214.03	3.076	
26,300.0	12,600.0	26,041.7	12,400.0	104.3	105.9	-72.32	-13,469.0	823.4	658.4	442.9	215.51	3.055	
26,400.0	12,600.0	26,141.7	12,400.0	105.0	106.7	-72.32	-13,569.0	824.4	658.4	441.4	216.99	3.034	
26,500.0	12,600.0	26,241.7	12,400.0	105.8	107.4	-72.32	-13,669.0	825.4	658.4	440.0	218.47	3.014	
26,600.0	12,600.0	26,341.7	12,400.0	106.5	108.2	-72.32	-13,769.0	826.3	658.4	438.5	219.95	2.994	
26,700.0	12,600.0	26,441.7	12,400.0	107.3	108.9	-72.32	-13,869.0	827.3	658.4	437.0	221.43	2.973	
26,800.0	12,600.0	26,541.7	12,400.0	108.0	109.7	-72.32	-13,969.0	828.3	658.4	435.5	222.91	2.954	
26,900.0	12,600.0	26,641.7	12,400.0	108.8	110.4	-72.32	-14,069.0	829.2	658.4	434.0	224.40	2.934	
27,000.0	12,600.0	26,741.7	12,400.0	109.5	111.1	-72.32	-14,169.0	830.2	658.4	432.5	225.88	2.915	
27,100.0	12,600.0	26,841.7	12,400.0	110.3	111.9	-72.32	-14,269.0	831.2	658.4	431.1	227.36	2.896	
27,200.0	12,600.0	26,941.7	12,400.0	111.1	112.6	-72.32	-14,369.0	832.2	658.4	429.6	228.85	2.877	
27,300.0	12,600.0	27,041.7	12,400.0	111.8	113.4	-72.32	-14,468.9	833.1	658.4	428.1	230.33	2.859	
27,400.0	12,600.0	27,141.7	12,400.0	112.6	114.1	-72.32	-14,568.9	834.1	658.4	426.6	231.81	2.840	
27,500.0	12,600.0	27,241.7	12,400.0	113.3	114.9	-72.32	-14,668.9	835.1	658.4	425.1	233.30	2.822	
27,600.0	12,600.0	27,341.7	12,400.0	114.1	115.6	-72.32	-14,768.9	836.0	658.4	423.7	234.78	2.804	
27,700.0	12,600.0	27,441.7	12,400.0	114.8	116.4	-72.32	-14,868.9	837.0	658.4	422.2	236.27	2.787	
27,800.0	12,600.0	27,541.7	12,400.0	115.6	117.1	-72.32	-14,968.9	838.0	658.4	420.7	237.76	2.769	
27,900.0	12,600.0	27,641.7	12,400.0	116.3	117.8	-72.32	-15,068.9	839.0	658.4	419.2	239.24	2.752	
28,000.0	12,600.0	27,741.7	12,400.0	117.1	118.6	-72.32	-15,168.9	839.9	658.4	417.7	240.73	2.735	
28,100.0	12,600.0	27,841.7	12,400.0	117.9	119.3	-72.32	-15,268.9	840.9	658.4	416.2	242.22	2.718	
28,200.0	12,600.0	27,941.7	12,400.0	118.6	120.1	-72.32	-15,368.9	841.9	658.4	414.7	243.70	2.702	
28,300.0	12,600.0	28,041.7	12,400.0	119.4	120.8	-72.32	-15,468.9	842.8	658.5	413.3	245.19	2.685	
28,400.0	12,600.0	28,141.7	12,400.0	120.1	121.6	-72.32	-15,568.9	843.8	658.5	411.8	246.68	2.669	
28,500.0	12,600.0	28,241.7	12,400.0	120.9	122.3	-72.32	-15,668.9	844.8	658.5	410.3	248.17	2.653	
28,600.0	12,600.0	28,341.7	12,400.0	121.6	123.1	-72.32	-15,768.9	845.8	658.5	408.8	249.65	2.637	
28,700.0	12,600.0	28,441.7	12,400.0	122.4	123.8	-72.32	-15,868.9	846.7	658.5	407.3	251.14	2.622	
28,800.0	12,600.0	28,541.7	12,400.0	123.2	124.6	-72.32	-15,968.9	847.7	658.5	405.8	252.63	2.606	
28,900.0	12,600.0	28,641.7	12,400.0	123.9	125.3	-72.32	-16,068.9	848.7	658.5	404.3	254.12	2.591	
28,963.8	12,600.0	28,705.5	12,400.0	124.4	125.8	-72.32	-16,132.7	849.3	658.5	403.4	255.07	2.581 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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		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)			
2,400.0	2,391.8	2,669.2	2,658.4	8.3	9.2	85.29	58.0	1,986.4	1,987.8	1,971.4	16.34	121.672	
2,500.0	2,490.8	2,767.6	2,755.8	8.7	9.5	85.59	62.2	1,973.4	1,973.1	1,956.3	16.84	117.181	
2,600.0	2,589.8	2,866.0	2,853.2	9.0	9.9	85.89	66.3	1,960.3	1,958.5	1,941.2	17.35	112.901	
2,700.0	2,688.9	2,964.4	2,950.7	9.4	10.3	86.19	70.5	1,947.3	1,944.0	1,926.1	17.86	108.822	
2,800.0	2,787.9	3,062.8	3,048.1	9.7	10.6	86.50	74.7	1,934.2	1,929.5	1,911.1	18.39	104.935	
2,900.0	2,886.9	3,161.2	3,145.5	10.1	11.0	86.82	78.8	1,921.2	1,915.0	1,896.1	18.92	101.232	
3,000.0	2,985.9	3,259.6	3,243.0	10.5	11.4	87.14	83.0	1,908.1	1,900.6	1,881.2	19.45	97.702	
3,100.0	3,085.0	3,358.0	3,340.4	10.9	11.8	87.46	87.1	1,895.1	1,886.3	1,866.3	20.00	94.338	
3,200.0	3,184.0	3,456.3	3,437.8	11.2	12.1	87.79	91.3	1,882.0	1,872.1	1,851.5	20.54	91.131	
3,300.0	3,283.0	3,554.7	3,535.3	11.6	12.5	88.12	95.5	1,869.0	1,857.9	1,836.8	21.09	88.071	
3,400.0	3,382.0	3,653.1	3,632.7	12.0	12.9	88.46	99.6	1,856.0	1,843.7	1,822.1	21.65	85.152	
3,500.0	3,481.1	3,751.5	3,730.2	12.4	13.3	88.81	103.8	1,842.9	1,829.7	1,807.4	22.21	82.364	
3,600.0	3,580.1	3,849.9	3,827.6	12.8	13.7	89.16	108.0	1,829.9	1,815.7	1,792.9	22.78	79.702	
3,700.0	3,679.1	3,948.3	3,925.0	13.2	14.1	89.51	112.1	1,816.8	1,801.7	1,778.4	23.35	77.158	
3,800.0	3,778.2	4,046.7	4,022.5	13.6	14.5	89.87	116.3	1,803.8	1,787.9	1,763.9	23.93	74.725	
3,900.0	3,877.2	4,145.1	4,119.9	14.0	14.9	90.24	120.5	1,790.7	1,774.1	1,749.6	24.50	72.398	
4,000.0	3,976.2	4,243.5	4,217.3	14.4	15.3	90.61	124.6	1,777.7	1,760.3	1,735.3	25.09	70.170	
4,100.0	4,075.2	4,341.9	4,314.8	14.8	15.7	90.99	128.8	1,764.6	1,746.7	1,721.0	25.67	68.037	
4,200.0	4,174.3	4,440.3	4,412.2	15.2	16.1	91.37	132.9	1,751.6	1,733.1	1,706.9	26.26	65.993	
4,300.0	4,273.3	4,538.7	4,509.6	15.6	16.5	91.71	137.1	1,738.5	1,719.6	1,692.8	26.83	64.100	
4,400.0	4,372.5	4,637.2	4,607.2	16.0	16.9	91.92	141.3	1,725.5	1,706.2	1,678.7	27.42	62.221	
4,500.0	4,471.9	4,735.9	4,705.0	16.4	17.3	92.08	145.5	1,712.4	1,692.7	1,664.7	28.01	60.423	
4,600.0	4,571.5	4,834.8	4,802.9	16.8	17.7	92.18	149.6	1,699.3	1,679.2	1,650.6	28.60	58.703	
4,700.0	4,671.3	4,933.7	4,900.8	17.1	18.1	92.23	153.8	1,686.2	1,665.7	1,636.5	29.19	57.056	
4,800.0	4,771.1	5,032.7	4,998.9	17.5	18.5	92.22	158.0	1,673.0	1,652.1	1,622.3	29.78	55.478	
4,900.0	4,871.0	5,131.8	5,097.0	17.8	18.9	92.15	162.2	1,659.9	1,638.4	1,608.1	30.36	53.964	
5,000.0	4,971.0	5,230.8	5,195.0	18.1	19.4	92.01	166.4	1,646.8	1,624.7	1,593.8	30.94	52.513	
5,100.0	5,071.0	5,329.8	5,293.1	18.2	19.8	99.77	170.6	1,633.6	1,610.9	1,579.4	31.49	51.159	
5,200.0	5,171.0	5,428.9	5,391.2	18.2	20.2	99.70	174.8	1,620.5	1,597.1	1,565.1	32.06	49.814	
5,300.0	5,271.0	5,527.9	5,489.2	18.3	20.6	99.63	179.0	1,607.4	1,583.4	1,550.7	32.64	48.514	
5,400.0	5,371.0	5,626.9	5,587.3	18.3	21.0	99.56	183.2	1,594.3	1,569.6	1,536.4	33.21	47.259	
5,500.0	5,471.0	5,726.0	5,685.4	18.4	21.4	99.48	187.4	1,581.1	1,555.8	1,522.0	33.78	46.051	
5,600.0	5,571.0	5,813.6	5,772.2	18.4	21.8	99.42	191.0	1,569.7	1,542.2	1,507.9	34.29	44.980	
5,700.0	5,671.0	5,900.0	5,857.9	18.5	22.1	99.36	194.3	1,559.4	1,529.9	1,495.1	34.79	43.974	
5,800.0	5,771.0	5,970.7	5,928.2	18.6	22.4	99.32	196.7	1,552.0	1,518.8	1,483.6	35.20	43.152	
5,900.0	5,871.0	6,049.6	6,006.7	18.6	22.7	99.27	199.0	1,544.6	1,509.2	1,473.5	35.63	42.357	
6,000.0	5,971.0	6,128.7	6,085.5	18.7	23.0	99.24	201.0	1,538.3	1,500.8	1,464.8	36.05	41.637	
6,100.0	6,071.0	6,200.0	6,156.6	18.7	23.3	99.21	202.6	1,533.5	1,493.9	1,457.5	36.40	41.039	
6,200.0	6,171.0	6,287.4	6,243.9	18.8	23.6	99.18	204.1	1,528.7	1,488.3	1,451.5	36.82	40.421	
6,300.0	6,271.0	6,366.9	6,323.3	18.9	23.8	99.16	205.1	1,525.5	1,484.1	1,446.9	37.17	39.930	
6,400.0	6,371.0	6,446.5	6,402.9	18.9	24.1	99.15	205.8	1,523.3	1,481.3	1,443.8	37.48	39.519	
6,500.0	6,471.0	6,526.1	6,482.5	19.0	24.3	99.14	206.2	1,522.2	1,479.8	1,442.1	37.73	39.222	
6,576.4	6,547.4	6,591.1	6,547.4	19.0	24.3	99.14	206.2	1,522.0	1,479.6	1,441.8	37.83	39.114	
6,600.0	6,571.0	6,614.6	6,571.0	19.0	24.3	99.14	206.2	1,522.0	1,479.6	1,441.7	37.85	39.091	
6,700.0	6,671.0	6,714.6	6,671.0	19.1	24.4	99.14	206.2	1,522.0	1,479.6	1,441.6	37.96	38.981	
6,800.0	6,771.0	6,814.6	6,771.0	19.2	24.4	99.14	206.2	1,522.0	1,479.6	1,441.5	38.06	38.872	
6,900.0	6,871.0	6,914.6	6,871.0	19.2	24.4	99.14	206.2	1,522.0	1,479.6	1,441.4	38.17	38.763	
7,000.0	6,971.0	7,014.6	6,971.0	19.3	24.5	99.14	206.2	1,522.0	1,479.6	1,441.3	38.28	38.654	
7,100.0	7,071.0	7,114.6	7,071.0	19.4	24.5	99.14	206.2	1,522.0	1,479.6	1,441.2	38.39	38.546	
7,200.0	7,171.0	7,214.6	7,171.0	19.4	24.6	99.14	206.2	1,522.0	1,479.6	1,441.1	38.49	38.438	
7,300.0	7,271.0	7,314.6	7,271.0	19.5	24.6	99.14	206.2	1,522.0	1,479.6	1,441.0	38.60	38.330	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
7,400.0	7,371.0	7,414.6	7,371.0	19.5	24.6	99.14	206.2	1,522.0	1,479.6	1,440.9	38.71	38.222		
7,500.0	7,471.0	7,514.6	7,471.0	19.6	24.7	99.14	206.2	1,522.0	1,479.6	1,440.8	38.82	38.114		
7,600.0	7,571.0	7,614.6	7,571.0	19.7	24.7	99.14	206.2	1,522.0	1,479.6	1,440.7	38.93	38.007		
7,700.0	7,671.0	7,714.6	7,671.0	19.7	24.8	99.14	206.2	1,522.0	1,479.6	1,440.6	39.04	37.900		
7,800.0	7,771.0	7,814.6	7,771.0	19.8	24.8	99.14	206.2	1,522.0	1,479.6	1,440.4	39.15	37.793		
7,900.0	7,871.0	7,914.6	7,871.0	19.9	24.8	99.14	206.2	1,522.0	1,479.6	1,440.3	39.26	37.687		
8,000.0	7,971.0	8,014.6	7,971.0	19.9	24.9	99.14	206.2	1,522.0	1,479.6	1,440.2	39.37	37.581		
8,100.0	8,071.0	8,114.6	8,071.0	20.0	24.9	99.14	206.2	1,522.0	1,479.6	1,440.1	39.48	37.475		
8,200.0	8,171.0	8,214.6	8,171.0	20.0	25.0	99.14	206.2	1,522.0	1,479.6	1,440.0	39.59	37.369		
8,300.0	8,271.0	8,314.6	8,271.0	20.1	25.0	99.14	206.2	1,522.0	1,479.6	1,439.9	39.71	37.264		
8,400.0	8,371.0	8,414.6	8,371.0	20.2	25.0	99.14	206.2	1,522.0	1,479.6	1,439.8	39.82	37.158		
8,500.0	8,471.0	8,514.6	8,471.0	20.2	25.1	99.14	206.2	1,522.0	1,479.6	1,439.7	39.93	37.054		
8,600.0	8,571.0	8,614.6	8,571.0	20.3	25.1	99.14	206.2	1,522.0	1,479.6	1,439.5	40.04	36.949		
8,700.0	8,671.0	8,714.6	8,671.0	20.4	25.2	99.14	206.2	1,522.0	1,479.6	1,439.4	40.16	36.845		
8,800.0	8,771.0	8,814.6	8,771.0	20.4	25.2	99.14	206.2	1,522.0	1,479.6	1,439.3	40.27	36.741		
8,900.0	8,871.0	8,914.6	8,871.0	20.5	25.3	99.14	206.2	1,522.0	1,479.6	1,439.2	40.39	36.637		
9,000.0	8,971.0	9,014.6	8,971.0	20.6	25.3	99.14	206.2	1,522.0	1,479.6	1,439.1	40.50	36.533		
9,100.0	9,071.0	9,114.6	9,071.0	20.6	25.3	99.14	206.2	1,522.0	1,479.6	1,439.0	40.61	36.430		
9,200.0	9,171.0	9,214.6	9,171.0	20.7	25.4	99.14	206.2	1,522.0	1,479.6	1,438.9	40.73	36.327		
9,300.0	9,271.0	9,314.6	9,271.0	20.7	25.4	99.14	206.2	1,522.0	1,479.6	1,438.7	40.84	36.225		
9,400.0	9,371.0	9,414.6	9,371.0	20.8	25.5	99.14	206.2	1,522.0	1,479.6	1,438.6	40.96	36.123		
9,500.0	9,471.0	9,514.6	9,471.0	20.9	25.5	99.14	206.2	1,522.0	1,479.6	1,438.5	41.08	36.021		
9,600.0	9,571.0	9,614.6	9,571.0	20.9	25.6	99.14	206.2	1,522.0	1,479.6	1,438.4	41.19	35.919		
9,700.0	9,671.0	9,714.6	9,671.0	21.0	25.6	99.14	206.2	1,522.0	1,479.6	1,438.3	41.31	35.818		
9,800.0	9,771.0	9,814.6	9,771.0	21.1	25.7	99.14	206.2	1,522.0	1,479.6	1,438.2	41.43	35.717		
9,900.0	9,871.0	9,914.6	9,871.0	21.1	25.7	99.14	206.2	1,522.0	1,479.6	1,438.0	41.54	35.616		
10,000.0	9,971.0	10,014.6	9,971.0	21.2	25.7	99.14	206.2	1,522.0	1,479.6	1,437.9	41.66	35.516		
10,100.0	10,071.0	10,114.6	10,071.0	21.3	25.8	99.14	206.2	1,522.0	1,479.6	1,437.8	41.78	35.416		
10,200.0	10,171.0	10,214.6	10,171.0	21.3	25.8	99.14	206.2	1,522.0	1,479.6	1,437.7	41.90	35.316		
10,300.0	10,271.0	10,314.6	10,271.0	21.4	25.9	99.14	206.2	1,522.0	1,479.6	1,437.6	42.01	35.217		
10,400.0	10,371.0	10,414.6	10,371.0	21.5	25.9	99.14	206.2	1,522.0	1,479.6	1,437.5	42.13	35.117		
10,500.0	10,471.0	10,514.6	10,471.0	21.5	26.0	99.14	206.2	1,522.0	1,479.6	1,437.3	42.25	35.019		
10,600.0	10,571.0	10,614.6	10,571.0	21.6	26.0	99.14	206.2	1,522.0	1,479.6	1,437.2	42.37	34.920		
10,700.0	10,671.0	10,714.6	10,671.0	21.7	26.1	99.14	206.2	1,522.0	1,479.6	1,437.1	42.49	34.822		
10,800.0	10,771.0	10,814.6	10,771.0	21.7	26.1	99.14	206.2	1,522.0	1,479.6	1,437.0	42.61	34.724		
10,900.0	10,871.0	10,914.6	10,871.0	21.8	26.1	99.14	206.2	1,522.0	1,479.6	1,436.9	42.73	34.627		
11,000.0	10,971.0	11,014.6	10,971.0	21.9	26.2	99.14	206.2	1,522.0	1,479.6	1,436.7	42.85	34.530		
11,100.0	11,071.0	11,114.6	11,071.0	21.9	26.2	99.14	206.2	1,522.0	1,479.6	1,436.6	42.97	34.433		
11,200.0	11,171.0	11,214.6	11,171.0	22.0	26.3	99.14	206.2	1,522.0	1,479.6	1,436.5	43.09	34.336		
11,300.0	11,271.0	11,314.6	11,271.0	22.1	26.3	99.14	206.2	1,522.0	1,479.6	1,436.4	43.21	34.240		
11,400.0	11,371.0	11,414.6	11,371.0	22.1	26.4	99.14	206.2	1,522.0	1,479.6	1,436.3	43.33	34.144		
11,500.0	11,471.0	11,514.6	11,471.0	22.2	26.4	99.14	206.2	1,522.0	1,479.6	1,436.1	43.46	34.049		
11,600.0	11,571.0	11,614.6	11,571.0	22.3	26.5	99.14	206.2	1,522.0	1,479.6	1,436.0	43.58	33.953		
11,700.0	11,671.0	11,714.6	11,671.0	22.3	26.5	99.14	206.2	1,522.0	1,479.6	1,435.9	43.70	33.859		
11,800.0	11,771.0	11,814.6	11,771.0	22.4	26.6	99.14	206.2	1,522.0	1,479.6	1,435.8	43.82	33.764		
11,900.0	11,871.0	11,914.6	11,871.0	22.5	26.6	99.14	206.2	1,522.0	1,479.6	1,435.6	43.94	33.670		
12,000.0	11,971.0	12,014.6	11,971.0	22.5	26.7	99.14	206.2	1,522.0	1,479.6	1,435.5	44.07	33.576		
12,100.0	12,071.0	12,114.6	12,071.0	22.5	26.7	-80.40	206.2	1,522.0	1,479.3	1,435.2	44.15	33.507		
12,200.0	12,169.5	12,200.0	12,166.3	22.3	26.7	-81.10	205.0	1,522.0	1,476.9	1,432.8	44.06	33.517		
12,300.0	12,263.7	12,264.6	12,220.3	22.1	26.6	-81.90	196.1	1,522.1	1,473.9	1,430.0	43.87	33.599		
12,400.0	12,350.7	12,333.0	12,286.0	21.8	26.5	-82.84	177.3	1,522.3	1,470.7	1,427.0	43.65	33.693		

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		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)					
17,600.0	12,600.0	17,406.8	12,600.0	40.0	44.6	-90.00	-4,761.7	1,568.9	1,457.2	1,373.5	83.72	17.405	
17,700.0	12,600.0	17,506.8	12,600.0	40.7	45.2	-90.00	-4,861.7	1,569.9	1,457.1	1,372.1	85.02	17.139	
17,800.0	12,600.0	17,606.8	12,600.0	41.4	45.9	-90.00	-4,961.7	1,570.8	1,457.1	1,370.8	86.33	16.879	
17,900.0	12,600.0	17,706.8	12,600.0	42.1	46.5	-90.00	-5,061.7	1,571.7	1,457.1	1,369.5	87.64	16.626	
18,000.0	12,600.0	17,806.8	12,600.0	42.8	47.1	-90.00	-5,161.7	1,572.7	1,457.1	1,368.1	88.96	16.379	
18,100.0	12,600.0	17,906.8	12,600.0	43.5	47.7	-90.00	-5,261.7	1,573.6	1,457.0	1,366.8	90.29	16.138	
18,200.0	12,600.0	18,006.8	12,600.0	44.2	48.4	-90.00	-5,361.7	1,574.6	1,457.0	1,365.4	91.62	15.903	
18,300.0	12,600.0	18,106.8	12,600.0	44.9	49.0	-90.00	-5,461.7	1,575.5	1,457.0	1,364.0	92.96	15.674	
18,400.0	12,600.0	18,206.8	12,600.0	45.6	49.7	-90.00	-5,561.7	1,576.5	1,457.0	1,362.7	94.30	15.451	
18,500.0	12,600.0	18,306.8	12,600.0	46.4	50.3	-90.00	-5,661.7	1,577.4	1,456.9	1,361.3	95.64	15.233	
18,600.0	12,600.0	18,406.8	12,600.0	47.1	51.0	-90.00	-5,761.7	1,578.3	1,456.9	1,359.9	97.00	15.020	
18,700.0	12,600.0	18,506.8	12,600.0	47.8	51.6	-90.00	-5,861.7	1,579.3	1,456.9	1,358.5	98.35	14.813	
18,800.0	12,600.0	18,606.8	12,600.0	48.5	52.3	-90.00	-5,961.7	1,580.2	1,456.9	1,357.1	99.71	14.611	
18,900.0	12,600.0	18,706.8	12,600.0	49.2	52.9	-90.00	-6,061.7	1,581.2	1,456.8	1,355.8	101.08	14.413	
19,000.0	12,600.0	18,806.8	12,600.0	50.0	53.6	-90.00	-6,161.7	1,582.1	1,456.8	1,354.4	102.45	14.220	
19,100.0	12,600.0	18,906.8	12,600.0	50.7	54.3	-90.00	-6,261.7	1,583.1	1,456.8	1,353.0	103.82	14.032	
19,200.0	12,600.0	19,006.8	12,600.0	51.4	54.9	-90.00	-6,361.7	1,584.0	1,456.8	1,351.6	105.19	13.848	
19,300.0	12,600.0	19,106.8	12,600.0	52.1	55.6	-90.00	-6,461.7	1,584.9	1,456.7	1,350.2	106.57	13.669	
19,400.0	12,600.0	19,206.8	12,600.0	52.8	56.3	-90.00	-6,561.7	1,585.9	1,456.7	1,348.7	107.96	13.493	
19,500.0	12,600.0	19,306.8	12,600.0	53.6	57.0	-90.00	-6,661.7	1,586.8	1,456.7	1,347.3	109.34	13.322	
19,600.0	12,600.0	19,406.8	12,600.0	54.3	57.6	-90.00	-6,761.7	1,587.8	1,456.7	1,345.9	110.73	13.155	
19,700.0	12,600.0	19,506.8	12,600.0	55.0	58.3	-90.00	-6,861.7	1,588.7	1,456.6	1,344.5	112.13	12.991	
19,800.0	12,600.0	19,606.8	12,600.0	55.8	59.0	-90.00	-6,961.6	1,589.7	1,456.6	1,343.1	113.52	12.831	
19,900.0	12,600.0	19,706.8	12,600.0	56.5	59.7	-90.00	-7,061.6	1,590.6	1,456.6	1,341.7	114.92	12.675	
20,000.0	12,600.0	19,806.8	12,600.0	57.2	60.4	-90.00	-7,161.6	1,591.6	1,456.5	1,340.2	116.32	12.522	
20,100.0	12,600.0	19,906.8	12,600.0	58.0	61.1	-90.00	-7,261.6	1,592.5	1,456.5	1,338.8	117.72	12.372	
20,200.0	12,600.0	20,006.8	12,600.0	58.7	61.8	-90.00	-7,361.6	1,593.4	1,456.5	1,337.4	119.13	12.226	
20,300.0	12,600.0	20,106.8	12,600.0	59.4	62.4	-90.00	-7,461.6	1,594.4	1,456.5	1,335.9	120.54	12.083	
20,400.0	12,600.0	20,206.8	12,600.0	60.2	63.1	-90.00	-7,561.6	1,595.3	1,456.4	1,334.5	121.95	11.943	
20,500.0	12,600.0	20,306.8	12,600.0	60.9	63.8	-90.00	-7,661.6	1,596.3	1,456.4	1,333.1	123.36	11.806	
20,600.0	12,600.0	20,406.8	12,600.0	61.6	64.5	-90.00	-7,761.6	1,597.2	1,456.4	1,331.6	124.78	11.672	
20,700.0	12,600.0	20,506.8	12,600.0	62.4	65.2	-90.00	-7,861.6	1,598.2	1,456.4	1,330.2	126.20	11.540	
20,800.0	12,600.0	20,606.8	12,600.0	63.1	65.9	-90.00	-7,961.6	1,599.1	1,456.3	1,328.7	127.62	11.412	
20,900.0	12,600.0	20,706.8	12,600.0	63.8	66.6	-90.00	-8,061.6	1,600.0	1,456.3	1,327.3	129.04	11.286	
21,000.0	12,600.0	20,806.8	12,600.0	64.6	67.3	-90.00	-8,161.6	1,601.0	1,456.3	1,325.8	130.46	11.163	
21,100.0	12,600.0	20,906.8	12,600.0	65.3	68.0	-90.00	-8,261.6	1,601.9	1,456.3	1,324.4	131.89	11.042	
21,200.0	12,600.0	21,006.8	12,600.0	66.1	68.7	-90.00	-8,361.6	1,602.9	1,456.2	1,322.9	133.31	10.923	
21,300.0	12,600.0	21,106.8	12,600.0	66.8	69.4	-90.00	-8,461.6	1,603.8	1,456.2	1,321.5	134.74	10.807	
21,400.0	12,600.0	21,206.8	12,600.0	67.5	70.2	-90.00	-8,561.6	1,604.8	1,456.2	1,320.0	136.17	10.694	
21,500.0	12,600.0	21,306.8	12,600.0	68.3	70.9	-90.00	-8,661.6	1,605.7	1,456.2	1,318.6	137.61	10.582	
21,600.0	12,600.0	21,406.8	12,600.0	69.0	71.6	-90.00	-8,761.6	1,606.6	1,456.1	1,317.1	139.04	10.473	
21,700.0	12,600.0	21,506.8	12,600.0	69.8	72.3	-90.00	-8,861.6	1,607.6	1,456.1	1,315.6	140.47	10.366	
21,800.0	12,600.0	21,606.8	12,600.0	70.5	73.0	-90.00	-8,961.6	1,608.5	1,456.1	1,314.2	141.91	10.261	
21,900.0	12,600.0	21,706.8	12,600.0	71.3	73.7	-90.00	-9,061.6	1,609.5	1,456.1	1,312.7	143.35	10.157	
22,000.0	12,600.0	21,806.8	12,600.0	72.0	74.4	-90.00	-9,161.6	1,610.4	1,456.0	1,311.2	144.79	10.056	
22,100.0	12,600.0	21,906.8	12,600.0	72.7	75.1	-90.00	-9,261.5	1,611.4	1,456.0	1,309.8	146.23	9.957	
22,200.0	12,600.0	22,006.8	12,600.0	73.5	75.9	-90.00	-9,361.5	1,612.3	1,456.0	1,308.3	147.67	9.860	
22,300.0	12,600.0	22,106.8	12,600.0	74.2	76.6	-90.00	-9,461.5	1,613.3	1,456.0	1,306.8	149.12	9.764	
22,400.0	12,600.0	22,206.8	12,600.0	75.0	77.3	-90.00	-9,561.5	1,614.2	1,455.9	1,305.4	150.56	9.670	
22,500.0	12,600.0	22,306.8	12,600.0	75.7	78.0	-90.00	-9,661.5	1,615.1	1,455.9	1,303.9	152.01	9.578	
22,600.0	12,600.0	22,406.8	12,600.0	76.5	78.7	-90.00	-9,761.5	1,616.1	1,455.9	1,302.4	153.45	9.487	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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				Rule Assigned:								Offset Well Error: 3.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
22,700.0	12,600.0	22,506.8	12,600.0	77.2	79.4	-90.00	-9,861.5	1,617.0	1,455.8	1,300.9	154.90	9.399	
22,800.0	12,600.0	22,606.8	12,600.0	78.0	80.2	-90.00	-9,961.5	1,618.0	1,455.8	1,299.5	156.35	9.311	
22,900.0	12,600.0	22,706.8	12,600.0	78.7	80.9	-90.00	-10,061.5	1,618.9	1,455.8	1,298.0	157.80	9.226	
23,000.0	12,600.0	22,806.8	12,600.0	79.5	81.6	-90.00	-10,161.5	1,619.9	1,455.8	1,296.5	159.25	9.141	
23,100.0	12,600.0	22,906.8	12,600.0	80.2	82.3	-90.00	-10,261.5	1,620.8	1,455.7	1,295.0	160.71	9.058	
23,200.0	12,600.0	23,006.8	12,600.0	81.0	83.1	-90.00	-10,361.5	1,621.7	1,455.7	1,293.6	162.16	8.977	
23,300.0	12,600.0	23,106.8	12,600.0	81.7	83.8	-90.00	-10,461.5	1,622.7	1,455.7	1,292.1	163.61	8.897	
23,400.0	12,600.0	23,206.8	12,600.0	82.5	84.5	-90.00	-10,561.5	1,623.6	1,455.7	1,290.6	165.07	8.819	
23,500.0	12,600.0	23,306.8	12,600.0	83.2	85.2	-90.00	-10,661.5	1,624.6	1,455.6	1,289.1	166.52	8.741	
23,600.0	12,600.0	23,406.8	12,600.0	83.9	86.0	-90.00	-10,761.5	1,625.5	1,455.6	1,287.6	167.98	8.665	
23,674.8	12,600.0	23,481.2	12,600.0	84.5	86.5	-90.00	-10,835.9	1,626.2	1,455.6	1,286.5	169.07	8.610 CC, ES	
23,700.0	12,600.0	23,481.2	12,600.0	84.7	86.5	-90.00	-10,835.9	1,626.2	1,455.8	1,286.7	169.16	8.606 SF	
23,800.0	12,600.0	23,481.2	12,600.0	85.4	86.5	-90.00	-10,835.9	1,626.2	1,461.0	1,291.9	169.11	8.639	
23,900.0	12,600.0	23,481.2	12,600.0	86.2	86.5	-90.00	-10,835.9	1,626.2	1,472.9	1,304.5	168.40	8.746	
24,000.0	12,600.0	23,481.2	12,600.0	86.9	86.5	-90.00	-10,835.9	1,626.2	1,491.5	1,324.4	167.07	8.927	
24,100.0	12,600.0	23,481.2	12,600.0	87.7	86.5	-90.00	-10,835.9	1,626.2	1,516.4	1,351.2	165.19	9.180	
24,200.0	12,600.0	23,481.2	12,600.0	88.4	86.5	-90.00	-10,835.9	1,626.2	1,547.5	1,384.6	162.83	9.503	
24,300.0	12,600.0	23,481.2	12,600.0	89.2	86.5	-90.00	-10,835.9	1,626.2	1,584.2	1,424.1	160.10	9.895	
24,400.0	12,600.0	23,481.2	12,600.0	90.0	86.5	-90.00	-10,835.9	1,626.2	1,626.3	1,469.2	157.08	10.353	
24,500.0	12,600.0	23,481.2	12,600.0	90.7	86.5	-90.00	-10,835.9	1,626.2	1,673.2	1,519.4	153.86	10.875	
24,600.0	12,600.0	23,481.2	12,600.0	91.5	86.5	-90.00	-10,835.9	1,626.2	1,724.8	1,574.2	150.51	11.459	
24,700.0	12,600.0	23,481.2	12,600.0	92.2	86.5	-90.00	-10,835.9	1,626.2	1,780.4	1,633.3	147.11	12.102	
24,800.0	12,600.0	23,481.2	12,600.0	93.0	86.5	-90.00	-10,835.9	1,626.2	1,839.8	1,696.1	143.72	12.802	
24,900.0	12,600.0	23,481.2	12,600.0	93.7	86.5	-90.00	-10,835.9	1,626.2	1,902.6	1,762.2	140.36	13.555	
25,000.0	12,600.0	23,481.2	12,600.0	94.5	86.5	-90.00	-10,835.9	1,626.2	1,968.5	1,831.4	137.09	14.359	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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)					
0.0	0.0	0.0	0.0	3.0	3.0	-90.38	-0.2	-30.0	30.0	23.6	6.43	4.667	
100.0	100.0	100.0	100.0	3.2	3.2	-90.38	-0.2	-30.0	30.0	23.1	6.89	4.353	
200.0	200.0	200.0	200.0	3.5	3.5	-90.38	-0.2	-30.0	30.0	22.7	7.33	4.094	
300.0	300.0	300.0	300.0	3.7	3.7	-90.38	-0.2	-30.0	30.0	22.3	7.74	3.875	
400.0	400.0	400.0	400.0	3.9	3.9	-90.38	-0.2	-30.0	30.0	21.9	8.14	3.688	
500.0	500.0	500.0	500.0	4.1	4.1	-90.38	-0.2	-30.0	30.0	21.5	8.51	3.524	
600.0	600.0	600.0	600.0	4.2	4.2	-90.38	-0.2	-30.0	30.0	21.1	8.88	3.379	
700.0	700.0	700.0	700.0	4.4	4.4	-90.38	-0.2	-30.0	30.0	20.8	9.23	3.251	
800.0	800.0	800.0	800.0	4.6	4.6	-90.38	-0.2	-30.0	30.0	20.4	9.57	3.135	
900.0	900.0	900.0	900.0	4.8	4.8	-90.38	-0.2	-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	-90.38	-0.2	-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	-90.38	-0.2	-30.0	30.0	19.5	10.54	2.846	
1,200.0	1,200.0	1,200.0	1,200.0	5.2	5.2	-90.38	-0.2	-30.0	30.0	19.2	10.85	2.766	CC, ES, SF
1,300.0	1,300.0	1,299.3	1,299.3	5.4	5.4	-99.49	0.4	-31.1	31.3	20.2	11.17	2.805	
1,400.0	1,399.9	1,398.5	1,398.4	5.6	5.6	-102.56	2.2	-34.6	35.4	23.9	11.49	3.084	
1,500.0	1,499.7	1,497.3	1,497.0	5.8	5.8	-106.32	5.2	-40.2	42.4	30.6	11.81	3.592	
1,600.0	1,599.3	1,595.8	1,595.1	6.1	6.1	-109.86	9.4	-48.1	52.4	40.2	12.13	4.318	
1,700.0	1,698.6	1,693.8	1,692.5	6.3	6.3	-112.77	14.8	-58.1	65.4	52.9	12.46	5.244	
1,800.0	1,797.6	1,791.2	1,788.9	6.5	6.6	-114.79	21.2	-70.3	81.1	68.3	12.74	6.365	
1,900.0	1,896.6	1,888.5	1,884.8	6.8	6.8	-115.24	28.8	-84.6	98.6	85.6	13.03	7.568	
2,000.0	1,995.7	1,986.8	1,981.6	7.1	7.1	-115.29	36.8	-99.7	116.7	103.3	13.39	8.714	
2,100.0	2,094.7	2,085.2	2,078.5	7.4	7.3	-115.33	44.9	-114.7	134.8	121.0	13.78	9.784	
2,200.0	2,193.7	2,183.5	2,175.3	7.7	7.7	-115.35	52.9	-129.8	152.9	138.7	14.17	10.787	
2,300.0	2,292.8	2,281.9	2,272.2	8.0	8.0	-115.37	60.9	-144.9	170.9	156.4	14.57	11.728	
2,400.0	2,391.8	2,380.2	2,369.0	8.3	8.3	-115.39	68.9	-160.0	189.0	174.0	14.99	12.611	
2,500.0	2,490.8	2,478.6	2,465.9	8.7	8.7	-115.41	76.9	-175.1	207.1	191.7	15.41	13.438	
2,600.0	2,589.8	2,576.9	2,562.8	9.0	9.0	-115.42	84.9	-190.1	225.2	209.3	15.84	14.214	
2,700.0	2,688.9	2,675.3	2,659.6	9.4	9.4	-115.43	93.0	-205.2	243.2	226.9	16.28	14.942	
2,800.0	2,787.9	2,773.6	2,756.5	9.7	9.7	-115.44	101.0	-220.3	261.3	244.6	16.72	15.626	
2,900.0	2,886.9	2,872.0	2,853.3	10.1	10.1	-115.44	109.0	-235.4	279.4	262.2	17.17	16.269	
3,000.0	2,985.9	2,970.3	2,950.2	10.5	10.5	-115.45	117.0	-250.5	297.5	279.8	17.63	16.873	
3,100.0	3,085.0	3,068.7	3,047.1	10.9	10.9	-115.46	125.0	-265.5	315.5	297.4	18.09	17.442	
3,200.0	3,184.0	3,167.0	3,143.9	11.2	11.3	-115.46	133.1	-280.6	333.6	315.0	18.56	17.977	
3,300.0	3,283.0	3,265.4	3,240.8	11.6	11.7	-115.47	141.1	-295.7	351.7	332.6	19.03	18.483	
3,400.0	3,382.0	3,363.8	3,337.6	12.0	12.1	-115.47	149.1	-310.8	369.8	350.2	19.50	18.959	
3,500.0	3,481.1	3,462.1	3,434.5	12.4	12.5	-115.47	157.1	-325.9	387.8	367.8	19.98	19.409	
3,600.0	3,580.1	3,560.5	3,531.3	12.8	12.9	-115.48	165.1	-340.9	405.9	385.4	20.46	19.835	
3,700.0	3,679.1	3,658.8	3,628.2	13.2	13.3	-115.48	173.1	-356.0	424.0	403.0	20.95	20.238	
3,800.0	3,778.2	3,757.2	3,725.1	13.6	13.7	-115.48	181.2	-371.1	442.1	420.6	21.44	20.620	
3,900.0	3,877.2	3,855.5	3,821.9	14.0	14.1	-115.49	189.2	-386.2	460.1	438.2	21.93	20.981	
4,000.0	3,976.2	3,953.9	3,918.8	14.4	14.5	-115.49	197.2	-401.3	478.2	455.8	22.42	21.325	
4,100.0	4,075.2	4,052.2	4,015.6	14.8	14.9	-115.49	205.2	-416.3	496.3	473.4	22.92	21.651	
4,200.0	4,174.3	4,150.6	4,112.5	15.2	15.4	-115.49	213.2	-431.4	514.4	490.9	23.42	21.961	
4,300.0	4,273.3	4,248.9	4,209.4	15.6	15.8	-115.54	221.3	-446.5	532.4	508.5	23.89	22.283	
4,400.0	4,372.5	4,347.4	4,306.3	16.0	16.2	-115.56	229.3	-461.6	549.8	525.4	24.40	22.537	
4,500.0	4,471.9	4,445.9	4,403.4	16.4	16.6	-115.43	237.3	-476.7	566.6	541.7	24.91	22.749	
4,600.0	4,571.5	4,544.6	4,500.5	16.8	17.1	-115.14	245.4	-491.8	582.6	557.2	25.42	22.920	
4,700.0	4,671.3	4,643.2	4,597.7	17.1	17.5	-114.72	253.4	-506.9	597.9	572.0	25.93	23.055	
4,800.0	4,771.1	4,741.9	4,694.8	17.5	17.9	-114.17	261.4	-522.1	612.6	586.1	26.45	23.155	
4,900.0	4,871.0	4,840.5	4,791.9	17.8	18.3	-113.51	269.5	-537.2	626.6	599.6	26.98	23.225	
5,000.0	4,971.0	4,939.1	4,889.0	18.1	18.8	-112.73	277.5	-552.3	640.1	612.6	27.51	23.267	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		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
5,100.0	5,071.0	5,037.6	4,986.0	18.2	19.2	-103.91	285.5	-567.4	653.2	625.2	28.01	23.322	
5,200.0	5,171.0	5,136.1	5,083.0	18.2	19.6	-102.92	293.6	-582.5	666.3	637.8	28.54	23.348	
5,300.0	5,271.0	5,234.6	5,180.0	18.3	20.1	-101.97	301.6	-597.6	679.6	650.5	29.08	23.368	
5,400.0	5,371.0	5,333.0	5,277.0	18.3	20.5	-101.05	309.6	-612.7	693.1	663.4	29.64	23.382	
5,500.0	5,471.0	5,431.5	5,374.0	18.4	20.9	-100.17	317.7	-627.8	706.7	676.5	30.21	23.392	
5,600.0	5,571.0	5,530.0	5,471.0	18.4	21.4	-99.32	325.7	-642.9	720.5	689.7	30.79	23.398	
5,700.0	5,671.0	5,628.5	5,567.9	18.5	21.8	-98.50	333.7	-658.0	734.5	703.1	31.39	23.401	
5,800.0	5,771.0	5,727.0	5,664.9	18.6	22.2	-97.72	341.7	-673.1	748.6	716.6	31.99	23.402	
5,900.0	5,871.0	5,825.4	5,761.9	18.6	22.7	-96.96	349.8	-688.2	762.8	730.2	32.59	23.406	
6,000.0	5,971.0	5,932.8	5,867.7	18.7	23.1	-96.19	358.3	-704.2	776.8	743.6	33.23	23.375	
6,100.0	6,071.0	6,044.4	5,978.0	18.7	23.6	-95.50	366.2	-719.0	789.3	755.5	33.89	23.292	
6,200.0	6,171.0	6,156.6	6,089.3	18.8	24.1	-94.91	373.1	-732.0	800.3	765.8	34.52	23.185	
6,300.0	6,271.0	6,269.3	6,201.3	18.9	24.5	-94.43	379.0	-743.1	809.8	774.6	35.12	23.059	
6,400.0	6,371.0	6,382.5	6,314.0	18.9	25.0	-94.03	383.9	-752.3	817.6	781.9	35.68	22.915	
6,500.0	6,471.0	6,496.1	6,427.3	19.0	25.4	-93.73	387.7	-759.6	823.7	787.5	36.20	22.756	
6,600.0	6,571.0	6,609.9	6,540.9	19.0	25.8	-93.51	390.5	-764.8	828.2	791.5	36.66	22.588	
6,700.0	6,671.0	6,723.9	6,654.9	19.1	26.1	-93.38	392.3	-768.1	831.0	793.9	37.07	22.419	
6,800.0	6,771.0	6,838.1	6,769.1	19.2	26.4	-93.33	393.0	-769.4	832.0	794.7	37.34	22.281	
6,900.0	6,871.0	6,940.0	6,871.0	19.2	26.4	-93.33	393.0	-769.4	832.1	794.6	37.45	22.219	
7,000.0	6,971.0	7,040.0	6,971.0	19.3	26.5	-93.33	393.0	-769.4	832.1	794.5	37.56	22.153	
7,100.0	7,071.0	7,140.0	7,071.0	19.4	26.5	-93.33	393.0	-769.4	832.1	794.4	37.67	22.087	
7,200.0	7,171.0	7,240.0	7,171.0	19.4	26.5	-93.33	393.0	-769.4	832.1	794.3	37.78	22.022	
7,300.0	7,271.0	7,340.0	7,271.0	19.5	26.6	-93.33	393.0	-769.4	832.1	794.2	37.90	21.956	
7,400.0	7,371.0	7,440.0	7,371.0	19.5	26.6	-93.33	393.0	-769.4	832.1	794.1	38.01	21.891	
7,500.0	7,471.0	7,540.0	7,471.0	19.6	26.7	-93.33	393.0	-769.4	832.1	793.9	38.12	21.826	
7,600.0	7,571.0	7,640.0	7,571.0	19.7	26.7	-93.33	393.0	-769.4	832.1	793.8	38.24	21.761	
7,700.0	7,671.0	7,740.0	7,671.0	19.7	26.7	-93.33	393.0	-769.4	832.1	793.7	38.35	21.697	
7,800.0	7,771.0	7,840.0	7,771.0	19.8	26.8	-93.33	393.0	-769.4	832.1	793.6	38.46	21.632	
7,900.0	7,871.0	7,940.0	7,871.0	19.9	26.8	-93.33	393.0	-769.4	832.1	793.5	38.58	21.568	
8,000.0	7,971.0	8,040.0	7,971.0	19.9	26.9	-93.33	393.0	-769.4	832.1	793.4	38.69	21.504	
8,100.0	8,071.0	8,140.0	8,071.0	20.0	26.9	-93.33	393.0	-769.4	832.1	793.3	38.81	21.440	
8,200.0	8,171.0	8,240.0	8,171.0	20.0	26.9	-93.33	393.0	-769.4	832.1	793.1	38.92	21.377	
8,300.0	8,271.0	8,340.0	8,271.0	20.1	27.0	-93.33	393.0	-769.4	832.1	793.0	39.04	21.313	
8,400.0	8,371.0	8,440.0	8,371.0	20.2	27.0	-93.33	393.0	-769.4	832.1	792.9	39.16	21.250	
8,500.0	8,471.0	8,540.0	8,471.0	20.2	27.1	-93.33	393.0	-769.4	832.1	792.8	39.27	21.187	
8,600.0	8,571.0	8,640.0	8,571.0	20.3	27.1	-93.33	393.0	-769.4	832.1	792.7	39.39	21.124	
8,700.0	8,671.0	8,740.0	8,671.0	20.4	27.1	-93.33	393.0	-769.4	832.1	792.6	39.51	21.062	
8,800.0	8,771.0	8,840.0	8,771.0	20.4	27.2	-93.33	393.0	-769.4	832.1	792.4	39.62	20.999	
8,900.0	8,871.0	8,940.0	8,871.0	20.5	27.2	-93.33	393.0	-769.4	832.1	792.3	39.74	20.937	
9,000.0	8,971.0	9,040.0	8,971.0	20.6	27.3	-93.33	393.0	-769.4	832.1	792.2	39.86	20.875	
9,100.0	9,071.0	9,140.0	9,071.0	20.6	27.3	-93.33	393.0	-769.4	832.1	792.1	39.98	20.813	
9,200.0	9,171.0	9,240.0	9,171.0	20.7	27.3	-93.33	393.0	-769.4	832.1	792.0	40.10	20.752	
9,300.0	9,271.0	9,340.0	9,271.0	20.7	27.4	-93.33	393.0	-769.4	832.1	791.8	40.22	20.690	
9,400.0	9,371.0	9,440.0	9,371.0	20.8	27.4	-93.33	393.0	-769.4	832.1	791.7	40.33	20.629	
9,500.0	9,471.0	9,540.0	9,471.0	20.9	27.5	-93.33	393.0	-769.4	832.1	791.6	40.45	20.568	
9,600.0	9,571.0	9,640.0	9,571.0	20.9	27.5	-93.33	393.0	-769.4	832.1	791.5	40.57	20.507	
9,700.0	9,671.0	9,740.0	9,671.0	21.0	27.6	-93.33	393.0	-769.4	832.1	791.4	40.69	20.447	
9,800.0	9,771.0	9,840.0	9,771.0	21.1	27.6	-93.33	393.0	-769.4	832.1	791.2	40.81	20.387	
9,900.0	9,871.0	9,940.0	9,871.0	21.1	27.6	-93.33	393.0	-769.4	832.1	791.1	40.93	20.327	
10,000.0	9,971.0	10,040.0	9,971.0	21.2	27.7	-93.33	393.0	-769.4	832.1	791.0	41.06	20.267	
10,100.0	10,071.0	10,140.0	10,071.0	21.3	27.7	-93.33	393.0	-769.4	832.1	790.9	41.18	20.207	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		Offset Wellbore Centre		Rule Assigned:		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
10,200.0	10,171.0	10,240.0	10,171.0	21.3	27.8	-93.33	393.0	-769.4	832.1	790.8	41.30	20.148
10,300.0	10,271.0	10,340.0	10,271.0	21.4	27.8	-93.33	393.0	-769.4	832.1	790.6	41.42	20.088
10,400.0	10,371.0	10,440.0	10,371.0	21.5	27.9	-93.33	393.0	-769.4	832.1	790.5	41.54	20.029
10,500.0	10,471.0	10,540.0	10,471.0	21.5	27.9	-93.33	393.0	-769.4	832.1	790.4	41.66	19.971
10,600.0	10,571.0	10,640.0	10,571.0	21.6	27.9	-93.33	393.0	-769.4	832.1	790.3	41.79	19.912
10,700.0	10,671.0	10,740.0	10,671.0	21.7	28.0	-93.33	393.0	-769.4	832.1	790.2	41.91	19.854
10,800.0	10,771.0	10,840.0	10,771.0	21.7	28.0	-93.33	393.0	-769.4	832.1	790.0	42.03	19.795
10,900.0	10,871.0	10,940.0	10,871.0	21.8	28.1	-93.33	393.0	-769.4	832.1	789.9	42.16	19.738
11,000.0	10,971.0	11,040.0	10,971.0	21.9	28.1	-93.33	393.0	-769.4	832.1	789.8	42.28	19.680
11,100.0	11,071.0	11,140.0	11,071.0	21.9	28.2	-93.33	393.0	-769.4	832.1	789.7	42.40	19.622
11,200.0	11,171.0	11,240.0	11,171.0	22.0	28.2	-93.33	393.0	-769.4	832.1	789.5	42.53	19.565
11,300.0	11,271.0	11,340.0	11,271.0	22.1	28.3	-93.33	393.0	-769.4	832.1	789.4	42.65	19.508
11,400.0	11,371.0	11,440.0	11,371.0	22.1	28.3	-93.33	393.0	-769.4	832.1	789.3	42.78	19.451
11,500.0	11,471.0	11,540.0	11,471.0	22.2	28.4	-93.33	393.0	-769.4	832.1	789.2	42.90	19.395
11,600.0	11,571.0	11,640.0	11,571.0	22.3	28.4	-93.33	393.0	-769.4	832.1	789.0	43.03	19.338
11,700.0	11,671.0	11,740.0	11,671.0	22.3	28.4	-93.33	393.0	-769.4	832.1	788.9	43.15	19.282
11,800.0	11,771.0	11,840.0	11,771.0	22.4	28.5	-93.33	393.0	-769.4	832.1	788.8	43.28	19.226
11,900.0	11,871.0	11,940.0	11,871.0	22.5	28.5	-93.33	393.0	-769.4	832.1	788.7	43.40	19.170
12,000.0	11,971.0	12,040.0	11,971.0	22.5	28.6	-93.33	393.0	-769.4	832.1	788.5	43.53	19.115
12,100.0	12,071.0	12,140.0	12,071.0	22.5	28.6	87.35	393.0	-769.4	832.0	788.3	43.64	19.066
12,200.0	12,169.5	12,238.5	12,169.5	22.3	28.7	88.52	393.0	-769.4	831.4	787.6	43.82	18.971
12,271.9	12,237.9	12,306.9	12,237.9	22.1	28.7	90.00	393.0	-769.4	831.1	787.0	44.05	18.866
12,300.0	12,263.7	12,332.7	12,263.7	22.1	28.7	90.69	393.0	-769.4	831.2	787.0	44.17	18.819
12,400.0	12,350.7	12,419.7	12,350.7	21.8	28.8	93.41	393.0	-769.4	833.3	788.6	44.64	18.664
12,500.0	12,427.9	12,496.9	12,427.9	21.6	28.8	96.05	393.0	-769.4	840.2	795.0	45.22	18.581
12,600.0	12,492.9	12,561.9	12,492.9	21.3	28.8	97.94	393.0	-769.4	854.6	808.8	45.82	18.652
12,700.0	12,543.7	12,629.3	12,560.2	21.2	28.8	99.41	392.0	-769.4	878.5	832.2	46.28	18.984
12,800.0	12,578.9	12,745.5	12,674.8	21.1	28.6	102.81	373.6	-769.2	910.5	864.3	46.21	19.704
12,900.0	12,597.2	12,957.7	12,865.2	21.0	28.2	109.99	282.5	-768.4	947.0	901.1	45.85	20.652
13,000.0	12,600.0	13,499.9	13,100.0	21.0	27.8	121.03	-183.8	-763.8	969.9	923.7	46.16	21.013
13,100.0	12,600.0	13,599.9	13,100.0	21.0	27.8	121.03	-283.8	-762.8	969.9	923.7	46.12	21.030
13,200.0	12,600.0	13,699.9	13,100.0	21.1	28.0	121.03	-383.8	-761.9	969.9	923.7	46.13	21.024
13,300.0	12,600.0	13,799.9	13,100.0	21.1	28.1	121.03	-483.8	-760.9	969.9	923.7	46.19	20.995
13,400.0	12,600.0	13,899.9	13,100.0	21.1	28.2	121.03	-583.8	-759.9	969.8	923.5	46.31	20.944
13,500.0	12,600.0	13,999.9	13,100.0	21.1	28.4	121.03	-683.8	-758.9	969.8	923.4	46.47	20.870
13,600.0	12,600.0	14,099.9	13,100.0	21.2	28.5	121.03	-783.8	-757.9	969.8	923.2	46.68	20.774
13,700.0	12,600.0	14,199.9	13,100.0	21.2	28.7	121.03	-883.8	-757.0	969.8	922.9	46.95	20.658
13,800.0	12,600.0	14,299.9	13,100.0	21.3	28.9	121.03	-983.8	-756.0	969.8	922.6	47.26	20.523
13,900.0	12,600.0	14,399.9	13,100.0	21.3	29.1	121.03	-1,083.8	-755.0	969.8	922.2	47.61	20.369
14,000.0	12,600.0	14,499.9	13,100.0	21.4	29.4	121.04	-1,183.8	-754.0	969.8	921.8	48.02	20.198
14,100.0	12,600.0	14,599.9	13,100.0	21.4	29.6	121.04	-1,283.8	-753.1	969.8	921.3	48.46	20.011
14,200.0	12,600.0	14,699.9	13,100.0	21.5	29.9	121.04	-1,383.8	-752.1	969.8	920.8	48.95	19.811
14,300.0	12,600.0	14,799.9	13,100.0	21.6	30.2	121.04	-1,483.8	-751.1	969.8	920.3	49.49	19.597
14,400.0	12,600.0	14,899.9	13,100.0	21.7	30.5	121.04	-1,583.8	-750.1	969.8	919.7	50.06	19.372
14,500.0	12,600.0	14,999.9	13,100.0	21.9	30.8	121.04	-1,683.7	-749.2	969.8	919.1	50.67	19.138
14,600.0	12,600.0	15,099.9	13,100.0	22.1	31.1	121.04	-1,783.7	-748.2	969.8	918.5	51.33	18.894
14,700.0	12,600.0	15,199.9	13,100.0	22.3	31.4	121.04	-1,883.7	-747.2	969.8	917.8	52.01	18.644
14,800.0	12,600.0	15,299.9	13,100.0	22.7	31.8	121.04	-1,983.7	-746.2	969.8	917.0	52.74	18.389
14,900.0	12,600.0	15,399.9	13,100.0	23.1	32.1	121.04	-2,083.7	-745.3	969.8	916.3	53.49	18.128
15,000.0	12,600.0	15,499.9	13,100.0	23.5	32.5	121.04	-2,183.7	-744.3	969.8	915.5	54.28	17.865
15,100.0	12,600.0	15,599.9	13,100.0	24.0	32.9	121.04	-2,283.7	-743.3	969.8	914.6	55.10	17.599

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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)		
15,200.0	12,600.0	15,699.9	13,100.0	24.6	33.3	121.04	-2,383.7	-742.3	969.7	913.8	55.95	17.331
15,300.0	12,600.0	15,799.9	13,100.0	25.1	33.7	121.04	-2,483.7	-741.4	969.7	912.9	56.83	17.064
15,400.0	12,600.0	15,899.9	13,100.0	25.7	34.1	121.04	-2,583.7	-740.4	969.7	912.0	57.74	16.796
15,500.0	12,600.0	15,999.9	13,100.0	26.2	34.6	121.04	-2,683.7	-739.4	969.7	911.1	58.67	16.530
15,600.0	12,600.0	16,099.9	13,100.0	26.8	35.0	121.04	-2,783.7	-738.4	969.7	910.1	59.62	16.265
15,700.0	12,600.0	16,199.9	13,100.0	27.4	35.5	121.04	-2,883.7	-737.5	969.7	909.1	60.60	16.002
15,800.0	12,600.0	16,299.9	13,100.0	28.0	35.9	121.04	-2,983.7	-736.5	969.7	908.1	61.60	15.742
15,900.0	12,600.0	16,399.9	13,100.0	28.7	36.4	121.04	-3,083.7	-735.5	969.7	907.1	62.62	15.486
16,000.0	12,600.0	16,499.9	13,100.0	29.3	36.9	121.04	-3,183.7	-734.5	969.7	906.0	63.66	15.232
16,100.0	12,600.0	16,599.9	13,100.0	29.9	37.4	121.04	-3,283.7	-733.5	969.7	905.0	64.72	14.983
16,200.0	12,600.0	16,699.9	13,100.0	30.6	37.9	121.04	-3,383.7	-732.6	969.7	903.9	65.80	14.737
16,300.0	12,600.0	16,799.9	13,100.0	31.2	38.4	121.04	-3,483.7	-731.6	969.7	902.8	66.89	14.496
16,400.0	12,600.0	16,899.9	13,100.0	31.9	38.9	121.04	-3,583.7	-730.6	969.7	901.7	68.01	14.259
16,500.0	12,600.0	16,999.9	13,100.0	32.5	39.5	121.04	-3,683.7	-729.6	969.7	900.5	69.13	14.026
16,600.0	12,600.0	17,099.9	13,100.0	33.2	40.0	121.04	-3,783.6	-728.7	969.7	899.4	70.28	13.798
16,700.0	12,600.0	17,199.9	13,100.0	33.8	40.5	121.04	-3,883.6	-727.7	969.7	898.2	71.43	13.574
16,800.0	12,600.0	17,299.9	13,100.0	34.5	41.1	121.04	-3,983.6	-726.7	969.7	897.1	72.60	13.355
16,900.0	12,600.0	17,399.9	13,100.0	35.2	41.6	121.04	-4,083.6	-725.7	969.7	895.9	73.79	13.141
17,000.0	12,600.0	17,499.9	13,100.0	35.9	42.2	121.04	-4,183.6	-724.8	969.6	894.7	74.98	12.932
17,100.0	12,600.0	17,599.9	13,100.0	36.5	42.8	121.04	-4,283.6	-723.8	969.6	893.5	76.19	12.727
17,200.0	12,600.0	17,699.9	13,100.0	37.2	43.4	121.04	-4,383.6	-722.8	969.6	892.2	77.41	12.527
17,300.0	12,600.0	17,799.9	13,100.0	37.9	43.9	121.04	-4,483.6	-721.8	969.6	891.0	78.63	12.331
17,400.0	12,600.0	17,899.9	13,100.0	38.6	44.5	121.04	-4,583.6	-720.9	969.6	889.7	79.87	12.140
17,500.0	12,600.0	17,999.9	13,100.0	39.3	45.1	121.04	-4,683.6	-719.9	969.6	888.5	81.12	11.953
17,600.0	12,600.0	18,099.9	13,100.0	40.0	45.7	121.04	-4,783.6	-718.9	969.6	887.2	82.38	11.770
17,700.0	12,600.0	18,199.9	13,100.0	40.7	46.3	121.04	-4,883.6	-717.9	969.6	886.0	83.64	11.592
17,800.0	12,600.0	18,299.9	13,100.0	41.4	46.9	121.04	-4,983.6	-717.0	969.6	884.7	84.92	11.418
17,900.0	12,600.0	18,399.9	13,100.0	42.1	47.6	121.04	-5,083.6	-716.0	969.6	883.4	86.20	11.248
18,000.0	12,600.0	18,499.9	13,100.0	42.8	48.2	121.04	-5,183.6	-715.0	969.6	882.1	87.49	11.082
18,100.0	12,600.0	18,599.9	13,100.0	43.5	48.8	121.04	-5,283.6	-714.0	969.6	880.8	88.79	10.920
18,200.0	12,600.0	18,699.9	13,100.0	44.2	49.4	121.04	-5,383.6	-713.1	969.6	879.5	90.09	10.762
18,300.0	12,600.0	18,799.9	13,100.0	44.9	50.1	121.04	-5,483.6	-712.1	969.6	878.2	91.40	10.608
18,400.0	12,600.0	18,899.9	13,100.0	45.6	50.7	121.04	-5,583.6	-711.1	969.6	876.8	92.72	10.457
18,500.0	12,600.0	18,999.9	13,100.0	46.4	51.3	121.04	-5,683.6	-710.1	969.6	875.5	94.04	10.310
18,600.0	12,600.0	19,099.9	13,100.0	47.1	52.0	121.04	-5,783.6	-709.1	969.6	874.2	95.37	10.166
18,700.0	12,600.0	19,199.9	13,100.0	47.8	52.6	121.04	-5,883.5	-708.2	969.5	872.8	96.71	10.026
18,800.0	12,600.0	19,299.9	13,100.0	48.5	53.3	121.04	-5,983.5	-707.2	969.5	871.5	98.05	9.889
18,900.0	12,600.0	19,399.9	13,100.0	49.2	53.9	121.04	-6,083.5	-706.2	969.5	870.1	99.39	9.755
19,000.0	12,600.0	19,499.9	13,100.0	50.0	54.6	121.05	-6,183.5	-705.2	969.5	868.8	100.74	9.624
19,100.0	12,600.0	19,599.9	13,100.0	50.7	55.2	121.05	-6,283.5	-704.3	969.5	867.4	102.10	9.496
19,200.0	12,600.0	19,699.9	13,100.0	51.4	55.9	121.05	-6,383.5	-703.3	969.5	866.1	103.46	9.371
19,300.0	12,600.0	19,799.9	13,100.0	52.1	56.6	121.05	-6,483.5	-702.3	969.5	864.7	104.82	9.249
19,400.0	12,600.0	19,899.9	13,100.0	52.8	57.2	121.05	-6,583.5	-701.3	969.5	863.3	106.19	9.130
19,500.0	12,600.0	19,999.9	13,100.0	53.6	57.9	121.05	-6,683.5	-700.4	969.5	861.9	107.56	9.013
19,600.0	12,600.0	20,099.9	13,100.0	54.3	58.6	121.05	-6,783.5	-699.4	969.5	860.6	108.94	8.899
19,700.0	12,600.0	20,199.9	13,100.0	55.0	59.2	121.05	-6,883.5	-698.4	969.5	859.2	110.32	8.788
19,800.0	12,600.0	20,299.9	13,100.0	55.8	59.9	121.05	-6,983.5	-697.4	969.5	857.8	111.70	8.679
19,900.0	12,600.0	20,399.9	13,100.0	56.5	60.6	121.05	-7,083.5	-696.5	969.5	856.4	113.09	8.573
20,000.0	12,600.0	20,499.9	13,100.0	57.2	61.3	121.05	-7,183.5	-695.5	969.5	855.0	114.48	8.468
20,100.0	12,600.0	20,599.9	13,100.0	58.0	62.0	121.05	-7,283.5	-694.5	969.5	853.6	115.87	8.367
20,200.0	12,600.0	20,699.9	13,100.0	58.7	62.6	121.05	-7,383.5	-693.5	969.5	852.2	117.27	8.267

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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)			
20,300.0	12,600.0	20,799.9	13,100.0	59.4	63.3	121.05	-7,483.5	-692.6	969.5	850.8	118.67	8.169	
20,400.0	12,600.0	20,899.9	13,100.0	60.2	64.0	121.05	-7,583.5	-691.6	969.5	849.4	120.07	8.074	
20,500.0	12,600.0	20,999.9	13,100.0	60.9	64.7	121.05	-7,683.5	-690.6	969.4	848.0	121.48	7.980	
20,600.0	12,600.0	21,099.9	13,100.0	61.6	65.4	121.05	-7,783.5	-689.6	969.4	846.6	122.89	7.889	
20,700.0	12,600.0	21,199.9	13,100.0	62.4	66.1	121.05	-7,883.5	-688.7	969.4	845.1	124.30	7.799	
20,800.0	12,600.0	21,299.9	13,100.0	63.1	66.8	121.05	-7,983.4	-687.7	969.4	843.7	125.71	7.711	
20,900.0	12,600.0	21,399.9	13,100.0	63.8	67.5	121.05	-8,083.4	-686.7	969.4	842.3	127.13	7.626	
21,000.0	12,600.0	21,499.9	13,100.0	64.6	68.2	121.05	-8,183.4	-685.7	969.4	840.9	128.55	7.541	
21,100.0	12,600.0	21,599.9	13,100.0	65.3	68.9	121.05	-8,283.4	-684.7	969.4	839.4	129.97	7.459	
21,200.0	12,600.0	21,699.9	13,100.0	66.1	69.6	121.05	-8,383.4	-683.8	969.4	838.0	131.39	7.378	
21,300.0	12,600.0	21,799.9	13,100.0	66.8	70.3	121.05	-8,483.4	-682.8	969.4	836.6	132.82	7.299	
21,400.0	12,600.0	21,899.9	13,100.0	67.5	71.0	121.05	-8,583.4	-681.8	969.4	835.2	134.24	7.221	
21,500.0	12,600.0	21,999.9	13,100.0	68.3	71.7	121.05	-8,683.4	-680.8	969.4	833.7	135.67	7.145	
21,600.0	12,600.0	22,099.9	13,100.0	69.0	72.4	121.05	-8,783.4	-679.9	969.4	832.3	137.10	7.070	
21,700.0	12,600.0	22,199.9	13,100.0	69.8	73.1	121.05	-8,883.4	-678.9	969.4	830.8	138.54	6.997	
21,800.0	12,600.0	22,299.9	13,100.0	70.5	73.8	121.05	-8,983.4	-677.9	969.4	829.4	139.97	6.926	
21,900.0	12,600.0	22,399.9	13,100.0	71.3	74.5	121.05	-9,083.4	-676.9	969.4	828.0	141.41	6.855	
22,000.0	12,600.0	22,499.9	13,100.0	72.0	75.2	121.05	-9,183.4	-676.0	969.4	826.5	142.85	6.786	
22,100.0	12,600.0	22,599.9	13,100.0	72.7	75.9	121.05	-9,283.4	-675.0	969.4	825.1	144.29	6.718	
22,200.0	12,600.0	22,699.9	13,100.0	73.5	76.6	121.05	-9,383.4	-674.0	969.4	823.6	145.73	6.652	
22,300.0	12,600.0	22,799.9	13,100.0	74.2	77.4	121.05	-9,483.4	-673.0	969.3	822.2	147.17	6.587	
22,400.0	12,600.0	22,899.9	13,100.0	75.0	78.1	121.05	-9,583.4	-672.1	969.3	820.7	148.62	6.522	
22,500.0	12,600.0	22,999.9	13,100.0	75.7	78.8	121.05	-9,683.4	-671.1	969.3	819.3	150.06	6.460	
22,600.0	12,600.0	23,099.9	13,100.0	76.5	79.5	121.05	-9,783.4	-670.1	969.3	817.8	151.51	6.398	
22,700.0	12,600.0	23,199.9	13,100.0	77.2	80.2	121.05	-9,883.4	-669.1	969.3	816.4	152.96	6.337	
22,800.0	12,600.0	23,299.9	13,100.0	78.0	80.9	121.05	-9,983.4	-668.2	969.3	814.9	154.41	6.278	
22,900.0	12,600.0	23,399.9	13,100.0	78.7	81.7	121.05	-10,083.3	-667.2	969.3	813.5	155.86	6.219	
23,000.0	12,600.0	23,499.9	13,100.0	79.5	82.4	121.05	-10,183.3	-666.2	969.3	812.0	157.31	6.162	
23,100.0	12,600.0	23,599.9	13,100.0	80.2	83.1	121.05	-10,283.3	-665.2	969.3	810.5	158.77	6.105	
23,200.0	12,600.0	23,699.9	13,100.0	81.0	83.8	121.05	-10,383.3	-664.3	969.3	809.1	160.22	6.050	
23,300.0	12,600.0	23,799.9	13,100.0	81.7	84.5	121.05	-10,483.3	-663.3	969.3	807.6	161.68	5.995	
23,400.0	12,600.0	23,899.9	13,100.0	82.5	85.3	121.05	-10,583.3	-662.3	969.3	806.1	163.14	5.942	
23,500.0	12,600.0	23,999.9	13,100.0	83.2	86.0	121.05	-10,683.3	-661.3	969.3	804.7	164.59	5.889	
23,600.0	12,600.0	24,099.9	13,100.0	83.9	86.7	121.05	-10,783.3	-660.3	969.3	803.2	166.05	5.837	
23,700.0	12,600.0	24,199.9	13,100.0	84.7	87.4	121.05	-10,883.3	-659.4	969.3	801.8	167.52	5.786	
23,800.0	12,600.0	24,299.9	13,100.0	85.4	88.2	121.05	-10,983.3	-658.4	969.3	800.3	168.98	5.736	
23,900.0	12,600.0	24,399.9	13,100.0	86.2	88.9	121.05	-11,083.3	-657.4	969.3	798.8	170.44	5.687	
24,000.0	12,600.0	24,499.9	13,100.0	86.9	89.6	121.06	-11,183.3	-656.4	969.3	797.3	171.90	5.638	
24,100.0	12,600.0	24,599.9	13,100.0	87.7	90.3	121.06	-11,283.3	-655.5	969.2	795.9	173.37	5.591	
24,200.0	12,600.0	24,699.9	13,100.0	88.4	91.1	121.06	-11,383.3	-654.5	969.2	794.4	174.83	5.544	
24,300.0	12,600.0	24,799.9	13,100.0	89.2	91.8	121.06	-11,483.3	-653.5	969.2	792.9	176.30	5.498	
24,400.0	12,600.0	24,899.9	13,100.0	90.0	92.5	121.06	-11,583.3	-652.5	969.2	791.5	177.77	5.452	
24,500.0	12,600.0	24,999.9	13,100.0	90.7	93.3	121.06	-11,683.3	-651.6	969.2	790.0	179.24	5.407	
24,600.0	12,600.0	25,099.9	13,100.0	91.5	94.0	121.06	-11,783.3	-650.6	969.2	788.5	180.71	5.363	
24,700.0	12,600.0	25,199.9	13,100.0	92.2	94.7	121.06	-11,883.3	-649.6	969.2	787.0	182.18	5.320	
24,800.0	12,600.0	25,299.9	13,100.0	93.0	95.4	121.06	-11,983.3	-648.6	969.2	785.6	183.65	5.278	
24,900.0	12,600.0	25,399.9	13,100.0	93.7	96.2	121.06	-12,083.3	-647.7	969.2	784.1	185.12	5.236	
25,000.0	12,600.0	25,499.9	13,100.0	94.5	96.9	121.06	-12,183.2	-646.7	969.2	782.6	186.59	5.194	
25,100.0	12,600.0	25,599.9	13,100.0	95.2	97.6	121.06	-12,283.2	-645.7	969.2	781.1	188.07	5.153	
25,200.0	12,600.0	25,699.9	13,100.0	96.0	98.4	121.06	-12,383.2	-644.7	969.2	779.6	189.54	5.113	
25,300.0	12,600.0	25,799.9	13,100.0	96.7	99.1	121.06	-12,483.2	-643.8	969.2	778.2	191.01	5.074	

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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)		
25,400.0	12,600.0	25,899.9	13,100.0	97.5	99.8	121.06	-12,583.2	-642.8	969.2	776.7	192.49	5.035
25,500.0	12,600.0	25,999.9	13,100.0	98.2	100.6	121.06	-12,683.2	-641.8	969.2	775.2	193.97	4.997
25,600.0	12,600.0	26,099.9	13,100.0	99.0	101.3	121.06	-12,783.2	-640.8	969.2	773.7	195.44	4.959
25,700.0	12,600.0	26,199.9	13,100.0	99.7	102.1	121.06	-12,883.2	-639.9	969.2	772.2	196.92	4.922
25,800.0	12,600.0	26,299.9	13,100.0	100.5	102.8	121.06	-12,983.2	-638.9	969.1	770.8	198.40	4.885
25,900.0	12,600.0	26,399.9	13,100.0	101.2	103.5	121.06	-13,083.2	-637.9	969.1	769.3	199.88	4.849
26,000.0	12,600.0	26,499.9	13,100.0	102.0	104.3	121.06	-13,183.2	-636.9	969.1	767.8	201.36	4.813
26,100.0	12,600.0	26,599.9	13,100.0	102.7	105.0	121.06	-13,283.2	-635.9	969.1	766.3	202.84	4.778
26,200.0	12,600.0	26,699.9	13,100.0	103.5	105.7	121.06	-13,383.2	-635.0	969.1	764.8	204.32	4.743
26,300.0	12,600.0	26,799.9	13,100.0	104.3	106.5	121.06	-13,483.2	-634.0	969.1	763.3	205.80	4.709
26,400.0	12,600.0	26,899.9	13,100.0	105.0	107.2	121.06	-13,583.2	-633.0	969.1	761.8	207.28	4.675
26,500.0	12,600.0	26,999.9	13,100.0	105.8	108.0	121.06	-13,683.2	-632.0	969.1	760.4	208.76	4.642
26,600.0	12,600.0	27,099.9	13,100.0	106.5	108.7	121.06	-13,783.2	-631.1	969.1	758.9	210.24	4.609
26,700.0	12,600.0	27,199.9	13,100.0	107.3	109.4	121.06	-13,883.2	-630.1	969.1	757.4	211.73	4.577
26,800.0	12,600.0	27,299.9	13,100.0	108.0	110.2	121.06	-13,983.2	-629.1	969.1	755.9	213.21	4.545
26,900.0	12,600.0	27,399.9	13,100.0	108.8	110.9	121.06	-14,083.2	-628.1	969.1	754.4	214.69	4.514
27,000.0	12,600.0	27,499.9	13,100.0	109.5	111.6	121.06	-14,183.2	-627.2	969.1	752.9	216.18	4.483
27,100.0	12,600.0	27,599.9	13,100.0	110.3	112.4	121.06	-14,283.1	-626.2	969.1	751.4	217.66	4.452
27,200.0	12,600.0	27,699.9	13,100.0	111.1	113.1	121.06	-14,383.1	-625.2	969.1	749.9	219.15	4.422
27,300.0	12,600.0	27,799.9	13,100.0	111.8	113.9	121.06	-14,483.1	-624.2	969.1	748.4	220.63	4.392
27,400.0	12,600.0	27,899.9	13,100.0	112.6	114.6	121.06	-14,583.1	-623.3	969.1	746.9	222.12	4.363
27,500.0	12,600.0	27,999.9	13,100.0	113.3	115.4	121.06	-14,683.1	-622.3	969.1	745.4	223.61	4.334
27,600.0	12,600.0	28,099.9	13,100.0	114.1	116.1	121.06	-14,783.1	-621.3	969.0	744.0	225.10	4.305
27,700.0	12,600.0	28,199.9	13,100.0	114.8	116.8	121.06	-14,883.1	-620.3	969.0	742.5	226.58	4.277
27,800.0	12,600.0	28,299.9	13,100.0	115.6	117.6	121.06	-14,983.1	-619.4	969.0	741.0	228.07	4.249
27,900.0	12,600.0	28,399.9	13,100.0	116.3	118.3	121.06	-15,083.1	-618.4	969.0	739.5	229.56	4.221
28,000.0	12,600.0	28,499.9	13,100.0	117.1	119.1	121.06	-15,183.1	-617.4	969.0	738.0	231.05	4.194
28,100.0	12,600.0	28,599.9	13,100.0	117.9	119.8	121.06	-15,283.1	-616.4	969.0	736.5	232.54	4.167
28,200.0	12,600.0	28,699.9	13,100.0	118.6	120.6	121.06	-15,383.1	-615.5	969.0	735.0	234.03	4.141
28,300.0	12,600.0	28,799.9	13,100.0	119.4	121.3	121.06	-15,483.1	-614.5	969.0	733.5	235.52	4.114
28,400.0	12,600.0	28,899.9	13,100.0	120.1	122.0	121.06	-15,583.1	-613.5	969.0	732.0	237.01	4.088
28,500.0	12,600.0	28,999.9	13,100.0	120.9	122.8	121.06	-15,683.1	-612.5	969.0	730.5	238.50	4.063
28,600.0	12,600.0	29,099.9	13,100.0	121.6	123.5	121.06	-15,783.1	-611.5	969.0	729.0	239.99	4.038
28,700.0	12,600.0	29,199.9	13,100.0	122.4	124.3	121.06	-15,883.1	-610.6	969.0	727.5	241.48	4.013
28,800.0	12,600.0	29,299.9	13,100.0	123.2	125.0	121.06	-15,983.1	-609.6	969.0	726.0	242.97	3.988
28,900.0	12,600.0	29,399.9	13,100.0	123.9	125.8	121.06	-16,083.1	-608.6	969.0	724.5	244.47	3.964
28,956.3	12,600.0	29,456.1	13,100.0	124.3	126.1	121.07	-16,139.3	-608.1	969.0	723.8	245.19	3.952
28,963.8	12,600.0	29,458.3	13,100.0	124.4	126.1	121.07	-16,141.5	-608.0	969.0	723.8	245.19	3.952

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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	Offset	Reference	Offset	Highside	Offset Wellbore Centre	Distance	Between	Between	Minimum	Separation
Measured	Vertical	Measured	Vertical	Reference	Offset	Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor
Depth	Depth	Depth	Depth	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Warning
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	
22,800.0	12,600.0	12,069.0	12,073.4	78.0	10.5	-71.63	-10,962.0	1,758.0	1,948.7	1,853.6	95.09	20.493
22,900.0	12,600.0	12,100.0	12,099.8	78.7	10.6	-72.49	-10,978.2	1,757.1	1,899.0	1,801.1	97.88	19.401
23,000.0	12,600.0	12,100.0	12,099.8	79.5	10.6	-72.49	-10,978.2	1,757.1	1,852.7	1,751.5	101.20	18.308
23,100.0	12,600.0	12,132.0	12,126.2	80.2	10.6	-73.35	-10,996.2	1,756.5	1,810.2	1,706.2	103.95	17.413
23,200.0	12,600.0	12,147.2	12,138.4	81.0	10.6	-73.76	-11,005.3	1,756.3	1,771.7	1,664.7	106.95	16.566
23,300.0	12,600.0	12,164.0	12,151.6	81.7	10.6	-74.19	-11,015.7	1,756.2	1,737.4	1,627.5	109.82	15.819
23,400.0	12,600.0	12,195.0	12,175.0	82.5	10.7	-74.98	-11,036.0	1,756.2	1,707.4	1,595.1	112.35	15.198
23,500.0	12,600.0	12,236.4	12,204.7	83.2	10.7	-75.98	-11,064.8	1,756.3	1,681.5	1,567.0	114.56	14.678
23,600.0	12,600.0	12,276.9	12,232.5	83.9	10.7	-76.93	-11,094.3	1,756.4	1,659.4	1,542.8	116.66	14.225
23,700.0	12,600.0	12,336.3	12,269.5	84.7	10.8	-78.20	-11,140.7	1,756.0	1,640.8	1,522.4	118.34	13.865
23,800.0	12,600.0	12,372.0	12,288.4	85.4	10.9	-78.85	-11,171.0	1,755.3	1,625.6	1,505.4	120.20	13.524
23,900.0	12,600.0	12,414.0	12,306.6	86.2	10.9	-79.49	-11,208.8	1,755.2	1,614.8	1,493.0	121.82	13.255
24,000.0	12,600.0	12,445.0	12,317.6	86.9	10.9	-79.87	-11,237.8	1,755.5	1,607.9	1,484.5	123.39	13.031
24,100.0	12,600.0	12,500.8	12,333.9	87.7	11.0	-80.45	-11,291.1	1,757.0	1,604.5	1,479.9	124.63	12.874
24,177.4	12,600.0	12,546.5	12,343.6	88.3	11.0	-80.80	-11,335.7	1,758.7	1,603.8	1,478.3	125.52	12.777 CC
24,200.0	12,600.0	12,560.0	12,345.6	88.4	11.1	-80.87	-11,349.1	1,759.2	1,603.9	1,478.1	125.78	12.752
24,300.0	12,600.0	12,634.0	12,349.9	89.2	11.1	-81.03	-11,422.9	1,760.8	1,604.5	1,477.6	126.89	12.645
24,400.0	12,600.0	12,725.0	12,352.0	90.0	11.4	-81.12	-11,513.8	1,764.6	1,607.3	1,479.3	128.00	12.557
24,500.0	12,600.0	12,761.3	12,353.4	90.7	11.4	-81.18	-11,549.9	1,767.5	1,612.7	1,483.6	129.05	12.497
24,600.0	12,600.0	12,838.6	12,356.6	91.5	11.7	-81.33	-11,626.8	1,774.7	1,620.3	1,490.3	130.07	12.458
24,700.0	12,600.0	12,937.1	12,361.1	92.2	12.0	-81.54	-11,724.8	1,784.5	1,628.6	1,497.4	131.13	12.419
24,800.0	12,600.0	13,027.6	12,365.1	93.0	12.4	-81.72	-11,814.7	1,793.7	1,637.0	1,504.8	132.18	12.385
24,900.0	12,600.0	13,100.0	12,368.8	93.7	12.7	-81.88	-11,886.5	1,801.9	1,646.6	1,513.4	133.14	12.367
25,000.0	12,600.0	13,184.1	12,373.6	94.5	13.1	-82.10	-11,969.8	1,812.6	1,657.5	1,523.3	134.14	12.356
25,100.0	12,600.0	13,318.9	12,379.6	95.2	13.8	-82.38	-12,103.5	1,829.2	1,668.3	1,532.8	135.41	12.320
25,200.0	12,600.0	13,501.4	12,382.4	96.0	14.8	-82.53	-12,285.3	1,843.7	1,674.9	1,538.1	136.80	12.243
25,300.0	12,600.0	13,696.2	12,383.6	96.7	16.0	-82.58	-12,480.0	1,848.8	1,676.3	1,538.4	137.93	12.153
25,400.0	12,600.0	13,788.8	12,383.5	97.5	16.6	-82.57	-12,572.6	1,848.7	1,675.4	1,536.2	139.12	12.042
25,500.0	12,600.0	13,885.2	12,382.6	98.2	17.2	-82.54	-12,669.0	1,848.8	1,674.6	1,534.3	140.31	11.935
25,600.0	12,600.0	14,019.3	12,380.8	99.0	18.0	-82.47	-12,803.1	1,848.5	1,673.8	1,532.4	141.43	11.835
25,700.0	12,600.0	14,111.2	12,379.7	99.7	18.6	-82.42	-12,894.9	1,846.7	1,671.1	1,528.4	142.66	11.714
25,800.0	12,600.0	14,213.8	12,380.9	100.5	19.3	-82.45	-12,997.5	1,845.7	1,669.0	1,525.2	143.84	11.603
25,900.0	12,600.0	14,297.9	12,381.9	101.2	19.8	-82.48	-13,081.6	1,845.1	1,667.1	1,522.0	145.08	11.491
25,982.6	12,600.0	14,358.0	12,383.1	101.9	20.2	-82.52	-13,141.7	1,845.3	1,666.5	1,520.4	146.11	11.406
26,000.0	12,600.0	14,369.9	12,383.4	102.0	20.3	-82.53	-13,153.6	1,845.5	1,666.5	1,520.2	146.33	11.389
26,100.0	12,600.0	14,463.9	12,385.3	102.7	20.9	-82.60	-13,247.6	1,847.7	1,667.6	1,520.0	147.54	11.303
26,200.0	12,600.0	14,577.3	12,386.8	103.5	21.7	-82.65	-13,360.9	1,849.0	1,667.5	1,518.8	148.74	11.211
26,300.0	12,600.0	14,697.8	12,393.7	104.3	22.5	-82.89	-13,481.2	1,850.3	1,667.0	1,517.1	149.91	11.120
26,400.0	12,600.0	14,805.8	12,401.8	105.0	23.3	-83.16	-13,588.9	1,850.7	1,665.4	1,514.3	151.10	11.022
26,500.0	12,600.0	14,912.2	12,410.5	105.8	24.0	-83.46	-13,695.0	1,850.6	1,663.5	1,511.2	152.29	10.923
26,600.0	12,600.0	15,014.1	12,419.6	106.5	24.7	-83.76	-13,796.4	1,850.3	1,661.2	1,507.7	153.49	10.823
26,700.0	12,600.0	15,105.4	12,427.8	107.3	25.3	-84.04	-13,887.3	1,850.2	1,659.1	1,504.4	154.72	10.723
26,800.0	12,600.0	15,191.1	12,435.0	108.0	25.9	-84.29	-13,972.8	1,850.6	1,657.9	1,501.9	155.96	10.630
26,896.9	12,600.0	15,274.6	12,441.6	108.8	26.5	-84.52	-14,056.0	1,851.8	1,657.5	1,500.3	157.16	10.547
26,900.0	12,600.0	15,277.4	12,441.8	108.8	26.6	-84.52	-14,058.8	1,851.8	1,657.5	1,500.3	157.20	10.544
27,000.0	12,600.0	15,372.5	12,449.8	109.5	27.2	-84.80	-14,153.5	1,853.7	1,657.8	1,499.3	158.42	10.464
27,100.0	12,600.0	15,478.3	12,457.4	110.3	28.0	-85.07	-14,259.0	1,855.5	1,657.8	1,498.2	159.66	10.383
27,200.0	12,600.0	15,571.7	12,463.4	111.1	28.7	-85.27	-14,352.3	1,857.1	1,658.0	1,497.1	160.90	10.304
27,300.0	12,600.0	15,663.0	12,469.0	111.8	29.3	-85.47	-14,443.4	1,859.0	1,658.7	1,496.5	162.14	10.230
27,400.0	12,600.0	15,776.6	12,476.5	112.6	30.1	-85.73	-14,556.7	1,861.8	1,659.6	1,496.2	163.41	10.156
27,500.0	12,600.0	15,946.2	12,485.1	113.3	31.4	-86.02	-14,726.0	1,860.2	1,657.2	1,492.6	164.61	10.067

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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		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)	Factor	
27,600.0	12,600.0	16,030.5	12,487.0	114.1	32.0	-86.08	-14,810.2	1,857.9	1,653.4	1,487.5	165.92	9.965
27,700.0	12,600.0	16,102.0	12,489.3	114.8	32.5	-86.16	-14,881.7	1,857.4	1,651.4	1,484.2	167.24	9.875
27,800.0	12,600.0	16,267.4	12,495.0	115.6	33.7	-86.35	-15,047.0	1,855.2	1,649.5	1,481.1	168.40	9.795
27,900.0	12,600.0	16,327.7	12,497.2	116.3	34.2	-86.42	-15,107.2	1,852.9	1,644.8	1,474.9	169.81	9.686
28,000.0	12,600.0	16,386.0	12,498.0	117.1	34.7	-86.44	-15,165.5	1,853.4	1,644.0	1,472.8	171.14	9.606
28,006.4	12,600.0	16,386.0	12,498.0	117.1	34.7	-86.44	-15,165.5	1,853.4	1,643.9	1,472.7	171.22	9.602 ES
28,100.0	12,600.0	16,425.7	12,498.6	117.9	35.0	-86.47	-15,205.1	1,855.0	1,646.0	1,473.7	172.29	9.554
28,200.0	12,600.0	16,480.0	12,501.4	118.6	35.4	-86.57	-15,259.3	1,857.7	1,650.2	1,476.9	173.32	9.521
28,300.0	12,600.0	16,548.7	12,507.1	119.4	35.9	-86.77	-15,327.5	1,862.9	1,656.6	1,482.2	174.36	9.501
28,400.0	12,600.0	16,659.1	12,516.7	120.1	36.8	-87.12	-15,436.9	1,873.7	1,665.0	1,489.3	175.72	9.476
28,500.0	12,600.0	16,894.5	12,522.5	120.9	38.5	-87.33	-15,672.0	1,881.6	1,665.9	1,488.3	177.66	9.377
28,600.0	12,600.0	16,990.7	12,522.8	121.6	39.2	-87.34	-15,768.3	1,882.2	1,665.6	1,486.6	178.97	9.306
28,700.0	12,600.0	17,129.8	12,522.3	122.4	40.3	-87.32	-15,907.3	1,881.1	1,663.9	1,483.6	180.30	9.228
28,800.0	12,600.0	17,199.0	12,521.0	123.2	40.8	-87.27	-15,976.5	1,879.6	1,661.1	1,479.5	181.63	9.146
28,817.6	12,600.0	17,199.0	12,521.0	123.3	40.8	-87.27	-15,976.5	1,879.6	1,661.0	1,479.2	181.84	9.135
28,900.0	12,600.0	17,199.0	12,521.0	123.9	40.8	-87.27	-15,976.5	1,879.6	1,663.1	1,480.5	182.59	9.108 SF
28,963.8	12,600.0	17,199.0	12,521.0	124.4	40.8	-87.27	-15,976.5	1,879.6	1,667.5	1,484.6	182.89	9.117

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 #701H - Slot HENNIN FED COM #701H
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 #701H	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
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
27,200.0	12,600.0	15,772.0	12,696.9	111.1	28.8	-94.16	-14,322.2	1,537.2	1,336.9	1,176.6	160.29	8.341
27,300.0	12,600.0	15,844.8	12,699.6	111.8	29.3	-94.26	-14,394.9	1,540.9	1,341.2	1,179.9	161.34	8.313
27,400.0	12,600.0	15,965.9	12,704.5	112.6	30.2	-94.46	-14,515.7	1,546.7	1,345.3	1,182.5	162.78	8.264
27,500.0	12,600.0	16,072.1	12,708.0	113.3	30.9	-94.59	-14,621.8	1,550.8	1,348.4	1,184.3	164.10	8.217
27,600.0	12,600.0	16,172.7	12,710.8	114.1	31.6	-94.71	-14,722.3	1,554.5	1,351.3	1,186.0	165.38	8.171
27,700.0	12,600.0	16,359.4	12,711.9	114.8	33.0	-94.76	-14,908.8	1,554.4	1,349.8	1,182.8	167.01	8.082
27,800.0	12,600.0	16,493.9	12,706.8	115.6	34.0	-94.56	-15,043.1	1,550.2	1,345.5	1,177.3	168.26	7.997
27,900.0	12,600.0	16,579.0	12,704.3	116.3	34.6	-94.47	-15,128.1	1,546.6	1,340.1	1,170.5	169.58	7.903
28,000.0	12,600.0	16,661.6	12,704.3	117.1	35.2	-94.48	-15,210.7	1,543.8	1,335.7	1,164.8	170.88	7.816
28,100.0	12,600.0	16,769.0	12,704.9	117.9	35.9	-94.53	-15,318.0	1,539.0	1,330.2	1,158.0	172.19	7.725
28,200.0	12,600.0	16,836.4	12,705.0	118.6	36.5	-94.54	-15,385.3	1,536.3	1,326.0	1,152.5	173.49	7.643
28,250.7	12,600.0	16,864.0	12,705.6	119.0	36.7	-94.57	-15,412.9	1,536.4	1,325.6	1,151.6	174.09	7.615
28,300.0	12,600.0	16,864.0	12,705.6	119.4	36.7	-94.57	-15,412.9	1,536.4	1,326.6	1,152.1	174.41	7.606
28,400.0	12,600.0	16,958.0	12,708.0	120.1	37.4	-94.66	-15,506.7	1,540.9	1,330.5	1,154.8	175.68	7.574
28,500.0	12,600.0	17,089.3	12,708.1	120.9	38.4	-94.64	-15,637.8	1,547.7	1,335.1	1,157.9	177.25	7.533
28,600.0	12,600.0	17,226.7	12,704.4	121.6	39.4	-94.49	-15,775.2	1,549.7	1,335.3	1,156.6	178.75	7.470
28,700.0	12,600.0	17,322.4	12,705.5	122.4	40.1	-94.53	-15,870.8	1,549.6	1,334.4	1,154.3	180.05	7.411
28,800.0	12,600.0	17,431.0	12,708.2	123.2	40.9	-94.66	-15,979.4	1,549.0	1,333.0	1,151.6	181.40	7.348
28,817.3	12,600.0	17,431.0	12,708.2	123.3	40.9	-94.66	-15,979.4	1,549.0	1,332.9	1,151.3	181.56	7.341 ES
28,900.0	12,600.0	17,431.0	12,708.2	123.9	40.9	-94.66	-15,979.4	1,549.0	1,335.5	1,153.5	181.97	7.339 SF
28,963.8	12,600.0	17,431.0	12,708.2	124.4	40.9	-94.66	-15,979.4	1,549.0	1,340.9	1,159.0	181.87	7.373

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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

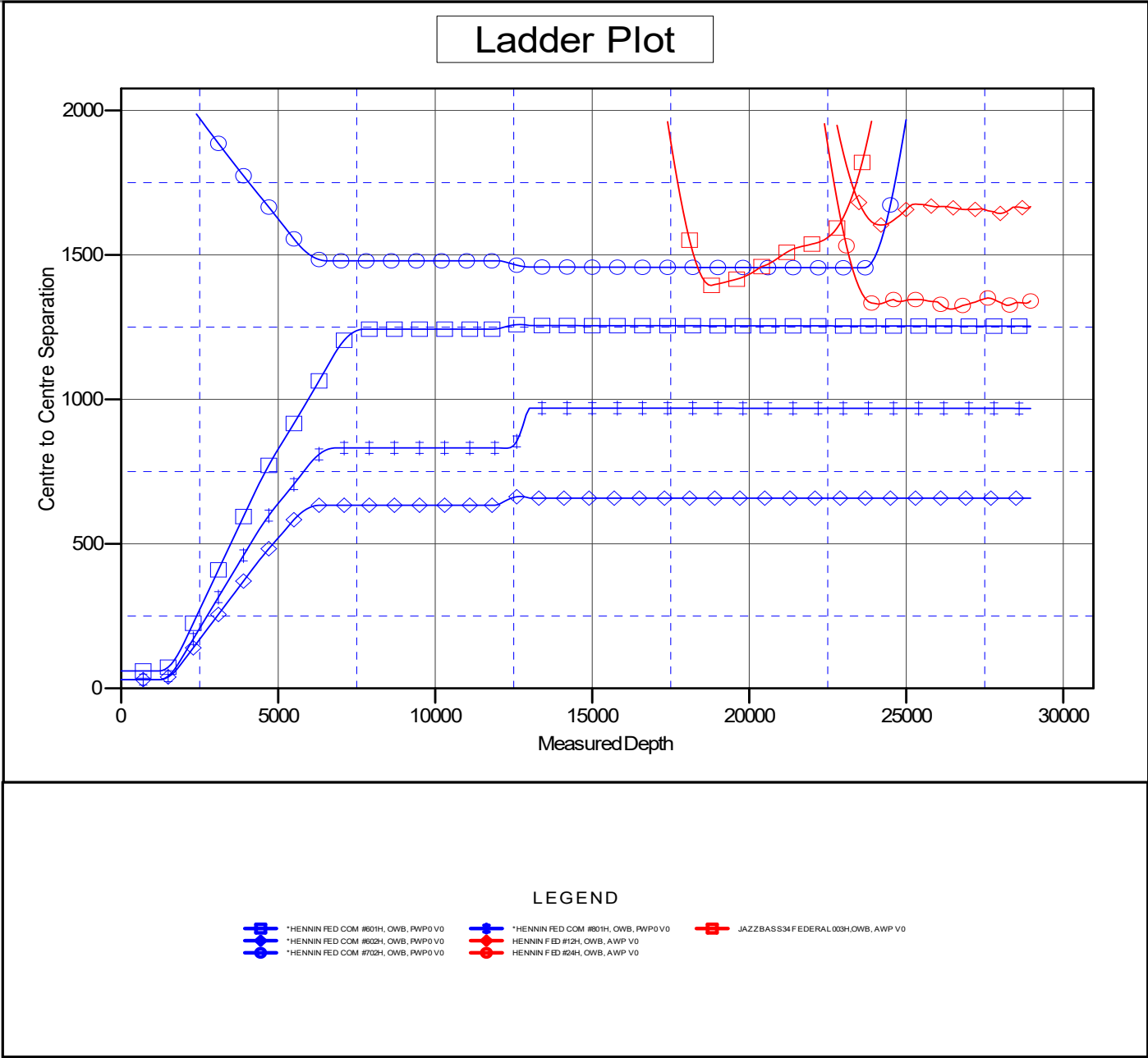
Offset Design: HENNIN PROJECT - JAZZBASS 34 FEDERAL 003H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
22,400.0	12,600.0	12,697.4	12,331.8	75.0	19.2	-80.03	-9,461.8	1,683.8	1,553.0	1,443.9	109.13	14.231	
22,500.0	12,600.0	12,621.6	12,322.3	75.7	19.1	-79.72	-9,536.9	1,688.5	1,560.3	1,450.2	110.14	14.166	
22,600.0	12,600.0	12,543.5	12,304.1	76.5	19.0	-79.08	-9,612.7	1,692.2	1,568.6	1,457.4	111.21	14.105	
22,700.0	12,600.0	12,485.0	12,285.1	77.2	18.9	-78.41	-9,668.0	1,694.9	1,579.3	1,467.0	112.25	14.070 SF	
22,800.0	12,600.0	12,433.5	12,265.4	78.0	18.8	-77.73	-9,715.4	1,697.9	1,593.0	1,479.8	113.21	14.072	
22,900.0	12,600.0	12,380.0	12,241.7	78.7	18.7	-76.91	-9,763.2	1,701.5	1,610.0	1,495.9	114.13	14.107	
23,000.0	12,600.0	12,327.0	12,214.7	79.5	18.6	-75.99	-9,808.7	1,705.0	1,630.0	1,515.0	115.00	14.175	
23,100.0	12,600.0	12,264.0	12,178.4	80.2	18.4	-74.76	-9,860.1	1,708.6	1,653.0	1,537.1	115.95	14.257	
23,200.0	12,600.0	12,233.0	12,159.3	81.0	18.3	-74.12	-9,884.4	1,710.4	1,679.3	1,562.9	116.39	14.429	
23,300.0	12,600.0	12,185.5	12,128.2	81.7	18.2	-73.09	-9,920.2	1,713.1	1,709.1	1,592.1	116.97	14.611	
23,400.0	12,600.0	12,149.3	12,103.1	82.5	18.1	-72.26	-9,946.3	1,715.2	1,742.5	1,625.2	117.27	14.859	
23,500.0	12,600.0	12,115.6	12,078.7	83.2	18.0	-71.47	-9,969.4	1,717.2	1,779.5	1,662.1	117.40	15.158	
23,600.0	12,600.0	12,087.2	12,057.5	83.9	18.0	-70.78	-9,988.1	1,718.9	1,820.2	1,702.8	117.32	15.514	
23,700.0	12,600.0	12,063.0	12,038.9	84.7	17.9	-70.19	-10,003.5	1,720.5	1,864.3	1,747.3	117.05	15.928	
23,800.0	12,600.0	12,044.0	12,024.1	85.4	17.9	-69.73	-10,015.3	1,722.0	1,912.0	1,795.4	116.55	16.405	
23,900.0	12,600.0	12,025.1	12,009.1	86.2	17.8	-69.27	-10,026.8	1,723.7	1,963.0	1,847.0	115.97	16.927	

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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 #701H - Slot HENNIN FED COM
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.52°

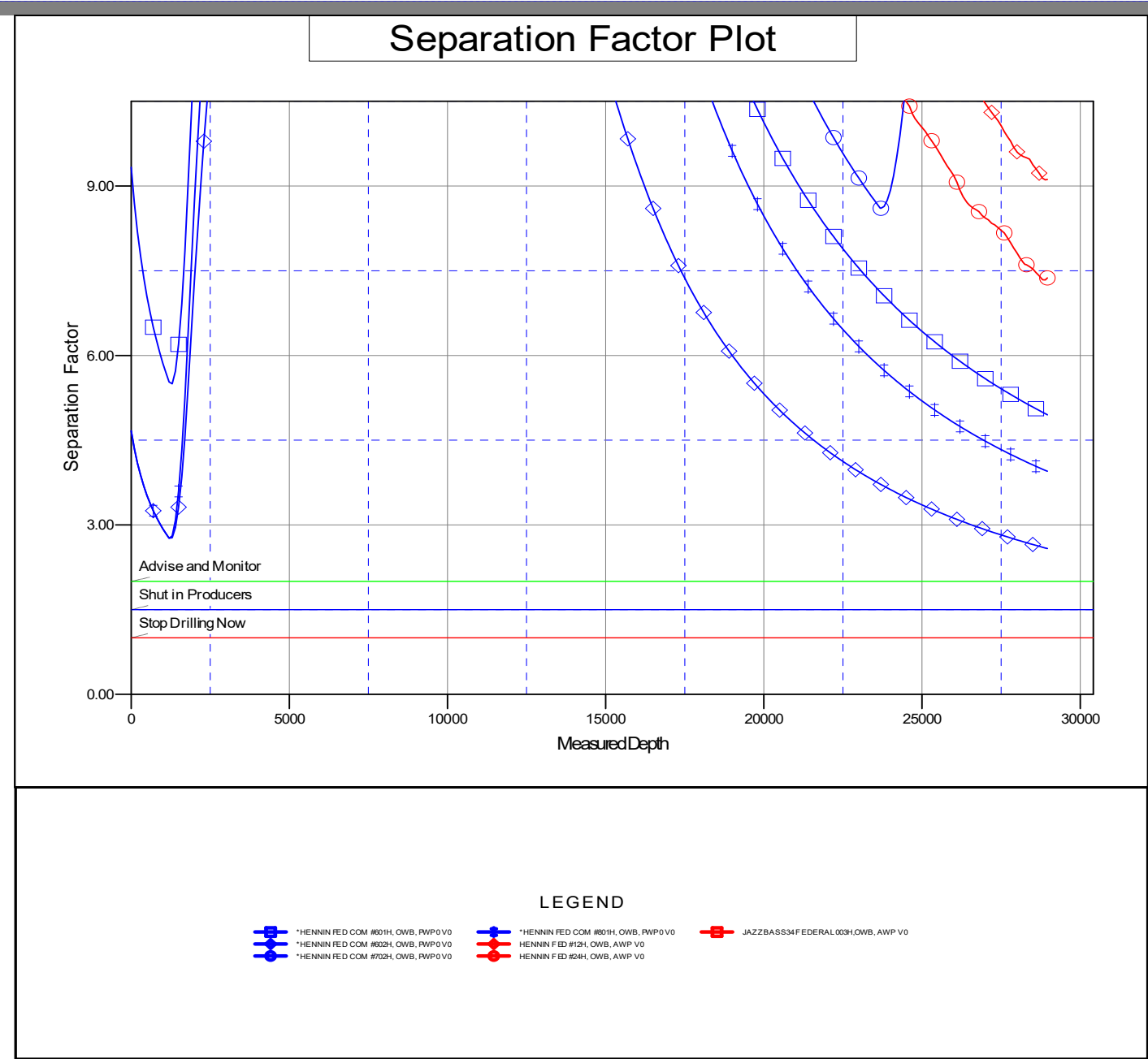


ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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 #701H - Slot HENNIN FED COM
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.52°



ConocoPhillips Company - Hennin Fed Com 701H

1. Geologic Formations

TVD of target	12,600' EOL	Pilot hole depth	NA
MD at TD:	28,963'	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	4876	Salt	
Lamar	5257	Salt Water	
Bell Canyon	5296	Salt Water	
Cherry Canyon	6198	Oil/Gas	
Brushy Canyon	7722	Oil/Gas	
Bone Spring Lime	9013	Oil/Gas	
1st Bone Spring Sand	10276	Oil/Gas	
2nd Bone Spring Sand	10829	Oil/Gas	
3rd Bone Spring Carb	11334	Oil/Gas	
3rd Bone Spring Sand	11930	Oil/Gas	
Wolfcamp A	12323	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	1350	10.75"	45.5	J55	BTC	3.38	1.11	11.64	12.96
9.875"	0	8500	7.625"	29.7	L80-ICY	BTC	1.45	1.06	2.88	2.90
8.750"	8500	11900	7.625"	29.7	P110-ICY	W513	1.29	1.60	3.02	1.81
6.75"	0	11400	5.5"	23	P110-CY	BTC	1.96	2.32	2.78	2.78
6.75"	11400	28,963	5.5"	23	P110-CY	W441	1.78	2.10	2.52	2.28
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 701H

	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 701H

3. Cementing Program

Casing	# Skcs	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	644	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	840	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	715	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	1478	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	11,400'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Hennin Fed Com 701H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	---

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 701H

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 701H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	8190 psi at 12600' 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 #701H - Slot HENNIN FED COM #701H**

OWB

Plan: PWP0

Standard Planning Report

29 June, 2023

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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 #701H - Slot HENNIN FED COM #701H					
Well Position	+N/-S	0.0 usft	Northing:	404,892.03 usft	Latitude:	32° 6' 33.879 N
	+E/-W	0.0 usft	Easting:	801,899.82 usft	Longitude:	103° 21' 29.906 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	47,394.59750115

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	179.21

Plan Survey Tool Program	Date	6/29/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	28,963.6 PWP0 (OWB)	r.5 MWD+IFR1+MS		
			OWSG MWD + IFR1 + Multi-Sl		

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Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #701H	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	
1,733.3	8.00	7.90	1,731.6	36.8	5.1	1.50	1.50	0.00	7.90	
4,266.4	8.00	7.90	4,240.0	386.0	53.6	0.00	0.00	0.00	0.00	
5,066.4	0.00	0.00	5,037.4	441.2	61.2	1.00	-1.00	0.00	180.00	
12,056.0	0.00	0.00	12,027.0	441.2	61.2	0.00	0.00	0.00	0.00	
12,956.0	90.00	179.44	12,600.0	-131.7	66.8	10.00	10.00	19.94	179.44	
28,963.8	90.00	179.44	12,600.0	-16,138.7	222.0	0.00	0.00	0.00	0.00	PBHL (HENNIN FED)

ConocoPhillips

Planning Report

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Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #701H	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	7.90	1,300.0	1.3	0.2	-1.3	1.50	1.50	0.00
1,400.0	3.00	7.90	1,399.9	5.2	0.7	-5.2	1.50	1.50	0.00
1,500.0	4.50	7.90	1,499.7	11.7	1.6	-11.6	1.50	1.50	0.00
1,600.0	6.00	7.90	1,599.3	20.7	2.9	-20.7	1.50	1.50	0.00
1,700.0	7.50	7.90	1,698.6	32.4	4.5	-32.3	1.50	1.50	0.00
1,733.3	8.00	7.90	1,731.6	36.8	5.1	-36.7	1.50	1.50	0.00
1,800.0	8.00	7.90	1,797.6	46.0	6.4	-45.9	0.00	0.00	0.00
1,900.0	8.00	7.90	1,896.6	59.8	8.3	-59.7	0.00	0.00	0.00
2,000.0	8.00	7.90	1,995.7	73.6	10.2	-73.4	0.00	0.00	0.00
2,100.0	8.00	7.90	2,094.7	87.4	12.1	-87.2	0.00	0.00	0.00
2,200.0	8.00	7.90	2,193.7	101.2	14.0	-100.9	0.00	0.00	0.00
2,300.0	8.00	7.90	2,292.8	114.9	15.9	-114.7	0.00	0.00	0.00
2,400.0	8.00	7.90	2,391.8	128.7	17.9	-128.5	0.00	0.00	0.00
2,500.0	8.00	7.90	2,490.8	142.5	19.8	-142.2	0.00	0.00	0.00
2,600.0	8.00	7.90	2,589.8	156.3	21.7	-156.0	0.00	0.00	0.00
2,700.0	8.00	7.90	2,688.9	170.1	23.6	-169.7	0.00	0.00	0.00
2,800.0	8.00	7.90	2,787.9	183.9	25.5	-183.5	0.00	0.00	0.00
2,900.0	8.00	7.90	2,886.9	197.6	27.4	-197.3	0.00	0.00	0.00
3,000.0	8.00	7.90	2,985.9	211.4	29.3	-211.0	0.00	0.00	0.00
3,100.0	8.00	7.90	3,085.0	225.2	31.3	-224.8	0.00	0.00	0.00
3,200.0	8.00	7.90	3,184.0	239.0	33.2	-238.5	0.00	0.00	0.00
3,300.0	8.00	7.90	3,283.0	252.8	35.1	-252.3	0.00	0.00	0.00
3,400.0	8.00	7.90	3,382.0	266.6	37.0	-266.0	0.00	0.00	0.00
3,500.0	8.00	7.90	3,481.1	280.4	38.9	-279.8	0.00	0.00	0.00
3,600.0	8.00	7.90	3,580.1	294.1	40.8	-293.6	0.00	0.00	0.00
3,700.0	8.00	7.90	3,679.1	307.9	42.7	-307.3	0.00	0.00	0.00
3,800.0	8.00	7.90	3,778.2	321.7	44.6	-321.1	0.00	0.00	0.00
3,900.0	8.00	7.90	3,877.2	335.5	46.6	-334.8	0.00	0.00	0.00
4,000.0	8.00	7.90	3,976.2	349.3	48.5	-348.6	0.00	0.00	0.00
4,100.0	8.00	7.90	4,075.2	363.1	50.4	-362.3	0.00	0.00	0.00
4,200.0	8.00	7.90	4,174.3	376.9	52.3	-376.1	0.00	0.00	0.00
4,266.4	8.00	7.90	4,240.0	386.0	53.6	-385.2	0.00	0.00	0.00
4,300.0	7.66	7.90	4,273.3	390.5	54.2	-389.8	1.00	-1.00	0.00
4,400.0	6.66	7.90	4,372.5	402.9	55.9	-402.1	1.00	-1.00	0.00
4,500.0	5.66	7.90	4,471.9	413.5	57.4	-412.7	1.00	-1.00	0.00
4,600.0	4.66	7.90	4,571.5	422.4	58.6	-421.6	1.00	-1.00	0.00
4,700.0	3.66	7.90	4,671.3	429.6	59.6	-428.8	1.00	-1.00	0.00
4,800.0	2.66	7.90	4,771.1	435.1	60.4	-434.2	1.00	-1.00	0.00
4,900.0	1.66	7.90	4,871.0	438.8	60.9	-438.0	1.00	-1.00	0.00
5,000.0	0.66	7.90	4,971.0	440.9	61.2	-440.0	1.00	-1.00	0.00

ConocoPhillips

Planning Report

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Site:	HENNIN PROJECT	North Reference:	Grid
Well:	*HENNIN FED COM #701H	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)	
5,066.4	0.00	0.00	5,037.4	441.2	61.2	-440.4	1.00	-1.00	0.00	
5,100.0	0.00	0.00	5,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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	10,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,100.0	0.00	0.00	11,071.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,171.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,271.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,371.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,471.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,571.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,671.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,771.0	441.2	61.2	-440.4	0.00	0.00	0.00	
11,900.0	0.00	0.00	11,871.0	441.2	61.2	-440.4	0.00	0.00	0.00	
12,000.0	0.00	0.00	11,971.0	441.2	61.2	-440.4	0.00	0.00	0.00	
12,056.0	0.00	0.00	12,027.0	441.2	61.2	-440.4	0.00	0.00	0.00	
12,100.0	4.40	179.44	12,071.0	439.5	61.2	-438.7	10.00	10.00	0.00	
12,150.0	9.40	179.44	12,120.6	433.5	61.3	-432.7	10.00	10.00	0.00	
12,200.0	14.40	179.44	12,169.5	423.2	61.4	-422.3	10.00	10.00	0.00	
12,250.0	19.40	179.44	12,217.3	408.7	61.5	-407.8	10.00	10.00	0.00	
12,300.0	24.40	179.44	12,263.7	390.1	61.7	-389.2	10.00	10.00	0.00	
12,350.0	29.40	179.44	12,308.3	367.4	61.9	-366.6	10.00	10.00	0.00	
12,400.0	34.40	179.44	12,350.7	341.0	62.2	-340.1	10.00	10.00	0.00	
12,450.0	39.40	179.44	12,390.7	311.0	62.5	-310.1	10.00	10.00	0.00	
12,500.0	44.40	179.44	12,427.9	277.6	62.8	-276.7	10.00	10.00	0.00	
12,550.0	49.40	179.44	12,462.0	241.1	63.2	-240.2	10.00	10.00	0.00	
12,600.0	54.40	179.44	12,492.9	201.8	63.5	-200.9	10.00	10.00	0.00	
12,650.0	59.40	179.44	12,520.2	159.9	64.0	-159.0	10.00	10.00	0.00	
12,700.0	64.40	179.44	12,543.7	115.8	64.4	-114.9	10.00	10.00	0.00	
12,750.0	69.40	179.44	12,563.3	69.9	64.8	-69.0	10.00	10.00	0.00	
12,800.0	74.40	179.44	12,578.9	22.4	65.3	-21.5	10.00	10.00	0.00	
12,850.0	79.40	179.44	12,590.2	-26.3	65.8	27.2	10.00	10.00	0.00	
12,900.0	84.40	179.44	12,597.2	-75.8	66.2	76.7	10.00	10.00	0.00	
12,950.0	89.40	179.44	12,599.9	-125.7	66.7	126.6	10.00	10.00	0.00	
12,956.0	90.00	179.44	12,600.0	-131.7	66.8	132.6	10.00	10.00	0.00	
13,000.0	90.00	179.44	12,600.0	-175.7	67.2	176.6	0.00	0.00	0.00	
13,100.0	90.00	179.44	12,600.0	-275.7	68.2	276.6	0.00	0.00	0.00	
13,200.0	90.00	179.44	12,600.0	-375.7	69.1	376.6	0.00	0.00	0.00	
13,300.0	90.00	179.44	12,600.0	-475.7	70.1	476.6	0.00	0.00	0.00	
13,400.0	90.00	179.44	12,600.0	-575.7	71.1	576.6	0.00	0.00	0.00	
13,500.0	90.00	179.44	12,600.0	-675.7	72.1	676.6	0.00	0.00	0.00	
13,600.0	90.00	179.44	12,600.0	-775.7	73.0	776.6	0.00	0.00	0.00	
13,700.0	90.00	179.44	12,600.0	-875.7	74.0	876.6	0.00	0.00	0.00	
13,800.0	90.00	179.44	12,600.0	-975.7	75.0	976.6	0.00	0.00	0.00	
13,900.0	90.00	179.44	12,600.0	-1,075.7	75.9	1,076.6	0.00	0.00	0.00	
14,000.0	90.00	179.44	12,600.0	-1,175.7	76.9	1,176.6	0.00	0.00	0.00	
14,100.0	90.00	179.44	12,600.0	-1,275.7	77.9	1,276.6	0.00	0.00	0.00	
14,200.0	90.00	179.44	12,600.0	-1,375.7	78.8	1,376.6	0.00	0.00	0.00	
14,300.0	90.00	179.44	12,600.0	-1,475.7	79.8	1,476.6	0.00	0.00	0.00	
14,400.0	90.00	179.44	12,600.0	-1,575.6	80.8	1,576.6	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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	12,600.0	-1,675.6	81.7	1,676.6	0.00	0.00	0.00
14,600.0	90.00	179.44	12,600.0	-1,775.6	82.7	1,776.6	0.00	0.00	0.00
14,700.0	90.00	179.44	12,600.0	-1,875.6	83.7	1,876.6	0.00	0.00	0.00
14,800.0	90.00	179.44	12,600.0	-1,975.6	84.7	1,976.6	0.00	0.00	0.00
14,900.0	90.00	179.44	12,600.0	-2,075.6	85.6	2,076.6	0.00	0.00	0.00
15,000.0	90.00	179.44	12,600.0	-2,175.6	86.6	2,176.6	0.00	0.00	0.00
15,100.0	90.00	179.44	12,600.0	-2,275.6	87.6	2,276.6	0.00	0.00	0.00
15,200.0	90.00	179.44	12,600.0	-2,375.6	88.5	2,376.6	0.00	0.00	0.00
15,300.0	90.00	179.44	12,600.0	-2,475.6	89.5	2,476.6	0.00	0.00	0.00
15,400.0	90.00	179.44	12,600.0	-2,575.6	90.5	2,576.6	0.00	0.00	0.00
15,500.0	90.00	179.44	12,600.0	-2,675.6	91.4	2,676.6	0.00	0.00	0.00
15,600.0	90.00	179.44	12,600.0	-2,775.6	92.4	2,776.6	0.00	0.00	0.00
15,700.0	90.00	179.44	12,600.0	-2,875.6	93.4	2,876.6	0.00	0.00	0.00
15,800.0	90.00	179.44	12,600.0	-2,975.6	94.4	2,976.6	0.00	0.00	0.00
15,900.0	90.00	179.44	12,600.0	-3,075.6	95.3	3,076.6	0.00	0.00	0.00
16,000.0	90.00	179.44	12,600.0	-3,175.6	96.3	3,176.6	0.00	0.00	0.00
16,100.0	90.00	179.44	12,600.0	-3,275.6	97.3	3,276.6	0.00	0.00	0.00
16,200.0	90.00	179.44	12,600.0	-3,375.6	98.2	3,376.6	0.00	0.00	0.00
16,300.0	90.00	179.44	12,600.0	-3,475.6	99.2	3,476.6	0.00	0.00	0.00
16,400.0	90.00	179.44	12,600.0	-3,575.6	100.2	3,576.6	0.00	0.00	0.00
16,500.0	90.00	179.44	12,600.0	-3,675.5	101.1	3,676.6	0.00	0.00	0.00
16,600.0	90.00	179.44	12,600.0	-3,775.5	102.1	3,776.6	0.00	0.00	0.00
16,700.0	90.00	179.44	12,600.0	-3,875.5	103.1	3,876.6	0.00	0.00	0.00
16,800.0	90.00	179.44	12,600.0	-3,975.5	104.0	3,976.6	0.00	0.00	0.00
16,900.0	90.00	179.44	12,600.0	-4,075.5	105.0	4,076.6	0.00	0.00	0.00
17,000.0	90.00	179.44	12,600.0	-4,175.5	106.0	4,176.6	0.00	0.00	0.00
17,100.0	90.00	179.44	12,600.0	-4,275.5	107.0	4,276.6	0.00	0.00	0.00
17,200.0	90.00	179.44	12,600.0	-4,375.5	107.9	4,376.6	0.00	0.00	0.00
17,300.0	90.00	179.44	12,600.0	-4,475.5	108.9	4,476.6	0.00	0.00	0.00
17,400.0	90.00	179.44	12,600.0	-4,575.5	109.9	4,576.6	0.00	0.00	0.00
17,500.0	90.00	179.44	12,600.0	-4,675.5	110.8	4,676.6	0.00	0.00	0.00
17,600.0	90.00	179.44	12,600.0	-4,775.5	111.8	4,776.6	0.00	0.00	0.00
17,700.0	90.00	179.44	12,600.0	-4,875.5	112.8	4,876.6	0.00	0.00	0.00
17,800.0	90.00	179.44	12,600.0	-4,975.5	113.7	4,976.6	0.00	0.00	0.00
17,900.0	90.00	179.44	12,600.0	-5,075.5	114.7	5,076.6	0.00	0.00	0.00
18,000.0	90.00	179.44	12,600.0	-5,175.5	115.7	5,176.6	0.00	0.00	0.00
18,100.0	90.00	179.44	12,600.0	-5,275.5	116.6	5,276.6	0.00	0.00	0.00
18,200.0	90.00	179.44	12,600.0	-5,375.5	117.6	5,376.6	0.00	0.00	0.00
18,300.0	90.00	179.44	12,600.0	-5,475.5	118.6	5,476.6	0.00	0.00	0.00
18,400.0	90.00	179.44	12,600.0	-5,575.5	119.6	5,576.6	0.00	0.00	0.00
18,500.0	90.00	179.44	12,600.0	-5,675.5	120.5	5,676.6	0.00	0.00	0.00
18,600.0	90.00	179.44	12,600.0	-5,775.4	121.5	5,776.6	0.00	0.00	0.00
18,700.0	90.00	179.44	12,600.0	-5,875.4	122.5	5,876.6	0.00	0.00	0.00
18,800.0	90.00	179.44	12,600.0	-5,975.4	123.4	5,976.6	0.00	0.00	0.00
18,900.0	90.00	179.44	12,600.0	-6,075.4	124.4	6,076.6	0.00	0.00	0.00
19,000.0	90.00	179.44	12,600.0	-6,175.4	125.4	6,176.6	0.00	0.00	0.00
19,100.0	90.00	179.44	12,600.0	-6,275.4	126.3	6,276.6	0.00	0.00	0.00
19,200.0	90.00	179.44	12,600.0	-6,375.4	127.3	6,376.6	0.00	0.00	0.00
19,300.0	90.00	179.44	12,600.0	-6,475.4	128.3	6,476.6	0.00	0.00	0.00
19,400.0	90.00	179.44	12,600.0	-6,575.4	129.3	6,576.6	0.00	0.00	0.00
19,500.0	90.00	179.44	12,600.0	-6,675.4	130.2	6,676.6	0.00	0.00	0.00
19,600.0	90.00	179.44	12,600.0	-6,775.4	131.2	6,776.6	0.00	0.00	0.00
19,700.0	90.00	179.44	12,600.0	-6,875.4	132.2	6,876.6	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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	12,600.0	-6,975.4	133.1	6,976.6	0.00	0.00	0.00	
19,900.0	90.00	179.44	12,600.0	-7,075.4	134.1	7,076.6	0.00	0.00	0.00	
20,000.0	90.00	179.44	12,600.0	-7,175.4	135.1	7,176.6	0.00	0.00	0.00	
20,100.0	90.00	179.44	12,600.0	-7,275.4	136.0	7,276.6	0.00	0.00	0.00	
20,200.0	90.00	179.44	12,600.0	-7,375.4	137.0	7,376.6	0.00	0.00	0.00	
20,300.0	90.00	179.44	12,600.0	-7,475.4	138.0	7,476.6	0.00	0.00	0.00	
20,400.0	90.00	179.44	12,600.0	-7,575.4	138.9	7,576.6	0.00	0.00	0.00	
20,500.0	90.00	179.44	12,600.0	-7,675.4	139.9	7,676.6	0.00	0.00	0.00	
20,600.0	90.00	179.44	12,600.0	-7,775.4	140.9	7,776.6	0.00	0.00	0.00	
20,700.0	90.00	179.44	12,600.0	-7,875.3	141.9	7,876.6	0.00	0.00	0.00	
20,800.0	90.00	179.44	12,600.0	-7,975.3	142.8	7,976.6	0.00	0.00	0.00	
20,900.0	90.00	179.44	12,600.0	-8,075.3	143.8	8,076.6	0.00	0.00	0.00	
21,000.0	90.00	179.44	12,600.0	-8,175.3	144.8	8,176.6	0.00	0.00	0.00	
21,100.0	90.00	179.44	12,600.0	-8,275.3	145.7	8,276.6	0.00	0.00	0.00	
21,200.0	90.00	179.44	12,600.0	-8,375.3	146.7	8,376.6	0.00	0.00	0.00	
21,300.0	90.00	179.44	12,600.0	-8,475.3	147.7	8,476.6	0.00	0.00	0.00	
21,400.0	90.00	179.44	12,600.0	-8,575.3	148.6	8,576.5	0.00	0.00	0.00	
21,500.0	90.00	179.44	12,600.0	-8,675.3	149.6	8,676.5	0.00	0.00	0.00	
21,600.0	90.00	179.44	12,600.0	-8,775.3	150.6	8,776.5	0.00	0.00	0.00	
21,700.0	90.00	179.44	12,600.0	-8,875.3	151.5	8,876.5	0.00	0.00	0.00	
21,800.0	90.00	179.44	12,600.0	-8,975.3	152.5	8,976.5	0.00	0.00	0.00	
21,900.0	90.00	179.44	12,600.0	-9,075.3	153.5	9,076.5	0.00	0.00	0.00	
22,000.0	90.00	179.44	12,600.0	-9,175.3	154.5	9,176.5	0.00	0.00	0.00	
22,100.0	90.00	179.44	12,600.0	-9,275.3	155.4	9,276.5	0.00	0.00	0.00	
22,200.0	90.00	179.44	12,600.0	-9,375.3	156.4	9,376.5	0.00	0.00	0.00	
22,300.0	90.00	179.44	12,600.0	-9,475.3	157.4	9,476.5	0.00	0.00	0.00	
22,400.0	90.00	179.44	12,600.0	-9,575.3	158.3	9,576.5	0.00	0.00	0.00	
22,500.0	90.00	179.44	12,600.0	-9,675.3	159.3	9,676.5	0.00	0.00	0.00	
22,600.0	90.00	179.44	12,600.0	-9,775.3	160.3	9,776.5	0.00	0.00	0.00	
22,700.0	90.00	179.44	12,600.0	-9,875.3	161.2	9,876.5	0.00	0.00	0.00	
22,800.0	90.00	179.44	12,600.0	-9,975.3	162.2	9,976.5	0.00	0.00	0.00	
22,900.0	90.00	179.44	12,600.0	-10,075.2	163.2	10,076.5	0.00	0.00	0.00	
23,000.0	90.00	179.44	12,600.0	-10,175.2	164.2	10,176.5	0.00	0.00	0.00	
23,100.0	90.00	179.44	12,600.0	-10,275.2	165.1	10,276.5	0.00	0.00	0.00	
23,200.0	90.00	179.44	12,600.0	-10,375.2	166.1	10,376.5	0.00	0.00	0.00	
23,300.0	90.00	179.44	12,600.0	-10,475.2	167.1	10,476.5	0.00	0.00	0.00	
23,400.0	90.00	179.44	12,600.0	-10,575.2	168.0	10,576.5	0.00	0.00	0.00	
23,500.0	90.00	179.44	12,600.0	-10,675.2	169.0	10,676.5	0.00	0.00	0.00	
23,600.0	90.00	179.44	12,600.0	-10,775.2	170.0	10,776.5	0.00	0.00	0.00	
23,700.0	90.00	179.44	12,600.0	-10,875.2	170.9	10,876.5	0.00	0.00	0.00	
23,800.0	90.00	179.44	12,600.0	-10,975.2	171.9	10,976.5	0.00	0.00	0.00	
23,900.0	90.00	179.44	12,600.0	-11,075.2	172.9	11,076.5	0.00	0.00	0.00	
24,000.0	90.00	179.44	12,600.0	-11,175.2	173.8	11,176.5	0.00	0.00	0.00	
24,100.0	90.00	179.44	12,600.0	-11,275.2	174.8	11,276.5	0.00	0.00	0.00	
24,200.0	90.00	179.44	12,600.0	-11,375.2	175.8	11,376.5	0.00	0.00	0.00	
24,300.0	90.00	179.44	12,600.0	-11,475.2	176.8	11,476.5	0.00	0.00	0.00	
24,400.0	90.00	179.44	12,600.0	-11,575.2	177.7	11,576.5	0.00	0.00	0.00	
24,500.0	90.00	179.44	12,600.0	-11,675.2	178.7	11,676.5	0.00	0.00	0.00	
24,600.0	90.00	179.44	12,600.0	-11,775.2	179.7	11,776.5	0.00	0.00	0.00	
24,700.0	90.00	179.44	12,600.0	-11,875.2	180.6	11,876.5	0.00	0.00	0.00	
24,800.0	90.00	179.44	12,600.0	-11,975.2	181.6	11,976.5	0.00	0.00	0.00	
24,900.0	90.00	179.44	12,600.0	-12,075.2	182.6	12,076.5	0.00	0.00	0.00	
25,000.0	90.00	179.44	12,600.0	-12,175.1	183.5	12,176.5	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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	12,600.0	-12,275.1	184.5	12,276.5	0.00	0.00	0.00	
25,200.0	90.00	179.44	12,600.0	-12,375.1	185.5	12,376.5	0.00	0.00	0.00	
25,300.0	90.00	179.44	12,600.0	-12,475.1	186.4	12,476.5	0.00	0.00	0.00	
25,400.0	90.00	179.44	12,600.0	-12,575.1	187.4	12,576.5	0.00	0.00	0.00	
25,500.0	90.00	179.44	12,600.0	-12,675.1	188.4	12,676.5	0.00	0.00	0.00	
25,600.0	90.00	179.44	12,600.0	-12,775.1	189.4	12,776.5	0.00	0.00	0.00	
25,700.0	90.00	179.44	12,600.0	-12,875.1	190.3	12,876.5	0.00	0.00	0.00	
25,800.0	90.00	179.44	12,600.0	-12,975.1	191.3	12,976.5	0.00	0.00	0.00	
25,900.0	90.00	179.44	12,600.0	-13,075.1	192.3	13,076.5	0.00	0.00	0.00	
26,000.0	90.00	179.44	12,600.0	-13,175.1	193.2	13,176.5	0.00	0.00	0.00	
26,100.0	90.00	179.44	12,600.0	-13,275.1	194.2	13,276.5	0.00	0.00	0.00	
26,200.0	90.00	179.44	12,600.0	-13,375.1	195.2	13,376.5	0.00	0.00	0.00	
26,300.0	90.00	179.44	12,600.0	-13,475.1	196.1	13,476.5	0.00	0.00	0.00	
26,400.0	90.00	179.44	12,600.0	-13,575.1	197.1	13,576.5	0.00	0.00	0.00	
26,500.0	90.00	179.44	12,600.0	-13,675.1	198.1	13,676.5	0.00	0.00	0.00	
26,600.0	90.00	179.44	12,600.0	-13,775.1	199.1	13,776.5	0.00	0.00	0.00	
26,700.0	90.00	179.44	12,600.0	-13,875.1	200.0	13,876.5	0.00	0.00	0.00	
26,800.0	90.00	179.44	12,600.0	-13,975.1	201.0	13,976.5	0.00	0.00	0.00	
26,900.0	90.00	179.44	12,600.0	-14,075.1	202.0	14,076.5	0.00	0.00	0.00	
27,000.0	90.00	179.44	12,600.0	-14,175.1	202.9	14,176.5	0.00	0.00	0.00	
27,100.0	90.00	179.44	12,600.0	-14,275.0	203.9	14,276.5	0.00	0.00	0.00	
27,200.0	90.00	179.44	12,600.0	-14,375.0	204.9	14,376.5	0.00	0.00	0.00	
27,300.0	90.00	179.44	12,600.0	-14,475.0	205.8	14,476.5	0.00	0.00	0.00	
27,400.0	90.00	179.44	12,600.0	-14,575.0	206.8	14,576.5	0.00	0.00	0.00	
27,500.0	90.00	179.44	12,600.0	-14,675.0	207.8	14,676.5	0.00	0.00	0.00	
27,600.0	90.00	179.44	12,600.0	-14,775.0	208.7	14,776.5	0.00	0.00	0.00	
27,700.0	90.00	179.44	12,600.0	-14,875.0	209.7	14,876.5	0.00	0.00	0.00	
27,800.0	90.00	179.44	12,600.0	-14,975.0	210.7	14,976.5	0.00	0.00	0.00	
27,900.0	90.00	179.44	12,600.0	-15,075.0	211.7	15,076.5	0.00	0.00	0.00	
28,000.0	90.00	179.44	12,600.0	-15,175.0	212.6	15,176.5	0.00	0.00	0.00	
28,100.0	90.00	179.44	12,600.0	-15,275.0	213.6	15,276.5	0.00	0.00	0.00	
28,200.0	90.00	179.44	12,600.0	-15,375.0	214.6	15,376.5	0.00	0.00	0.00	
28,300.0	90.00	179.44	12,600.0	-15,475.0	215.5	15,476.5	0.00	0.00	0.00	
28,400.0	90.00	179.44	12,600.0	-15,575.0	216.5	15,576.5	0.00	0.00	0.00	
28,500.0	90.00	179.44	12,600.0	-15,675.0	217.5	15,676.5	0.00	0.00	0.00	
28,600.0	90.00	179.44	12,600.0	-15,775.0	218.4	15,776.5	0.00	0.00	0.00	
28,700.0	90.00	179.44	12,600.0	-15,875.0	219.4	15,876.5	0.00	0.00	0.00	
28,800.0	90.00	179.44	12,600.0	-15,975.0	220.4	15,976.5	0.00	0.00	0.00	
28,900.0	90.00	179.44	12,600.0	-16,075.0	221.3	16,076.5	0.00	0.00	0.00	
28,963.8	90.00	179.44	12,600.0	-16,138.7	222.0	16,140.3	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	Central Planning Prod	Local Co-ordinate Reference:	Well *HENNIN FED COM #701H - Slot HENNIN FED COM #701H
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 #701H	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	12,600.0	-439.1	68.0	404,452.92	801,967.81	32° 6' 29.527 N	103° 21' 29.162 W
- plan misses target center by 1.8usft at 13263.4usft MD (12600.0 TVD, -439.1 N, 69.8 E)									
- Circle (radius 50.0)									
PBHL (HENNIN FED CC	0.00	359.44	12,600.0	-16,138.7	222.0	388,753.28	802,121.79	32° 3' 54.163 N	103° 21' 29.022 W
- plan hits target center									
- Rectangle (sides W100.0 H15,696.1 D20.0)									
LTP (HENNIN FED COM	90.00	179.45	12,600.0	-16,088.8	221.8	388,803.28	802,121.62	32° 3' 54.658 N	103° 21' 29.019 W
- plan misses target center by 13.8usft at 28900.0usft MD (12600.0 TVD, -16075.0 N, 221.3 E)									
- Circle (radius 50.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
28,963.8	12,600.0	5-1/2" Production Casing	5-1/2	6-3/4	



Project: BULLDOG PROSPECT (NM-E)
Site: HENNIN PROJECT
Well: *HENNIN FED COM #701H
Wellbore: OWS
Design: PWP0
GL: 3220.0
WELL @ 3220.0usft (Original Well Elev)

WELL DETAILS: *HENNIN FED COM #701H

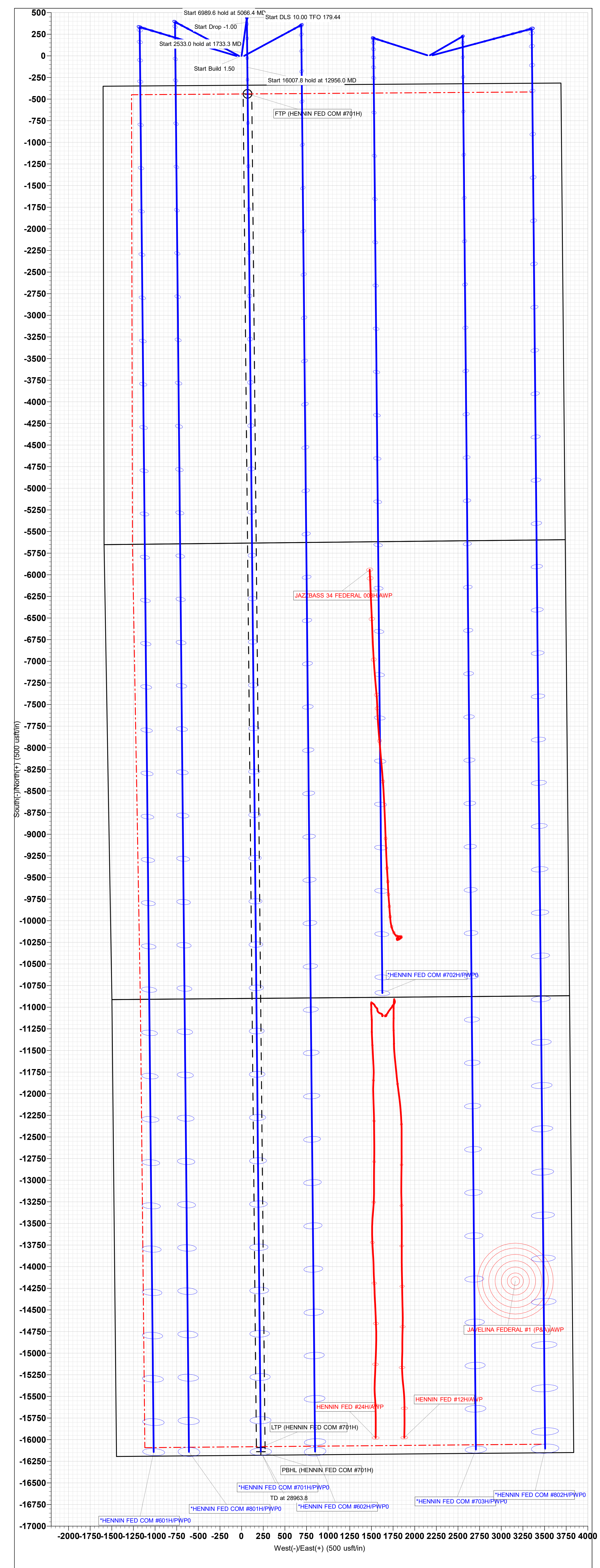
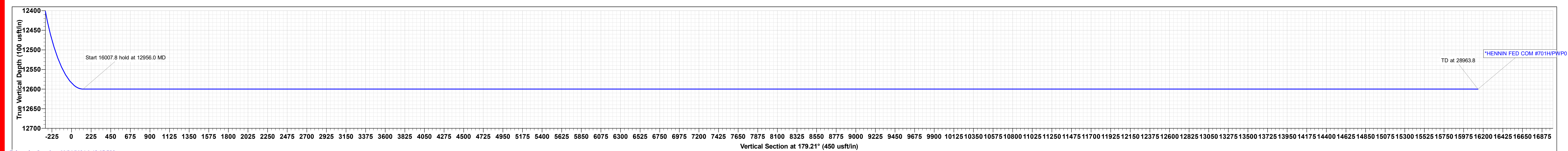
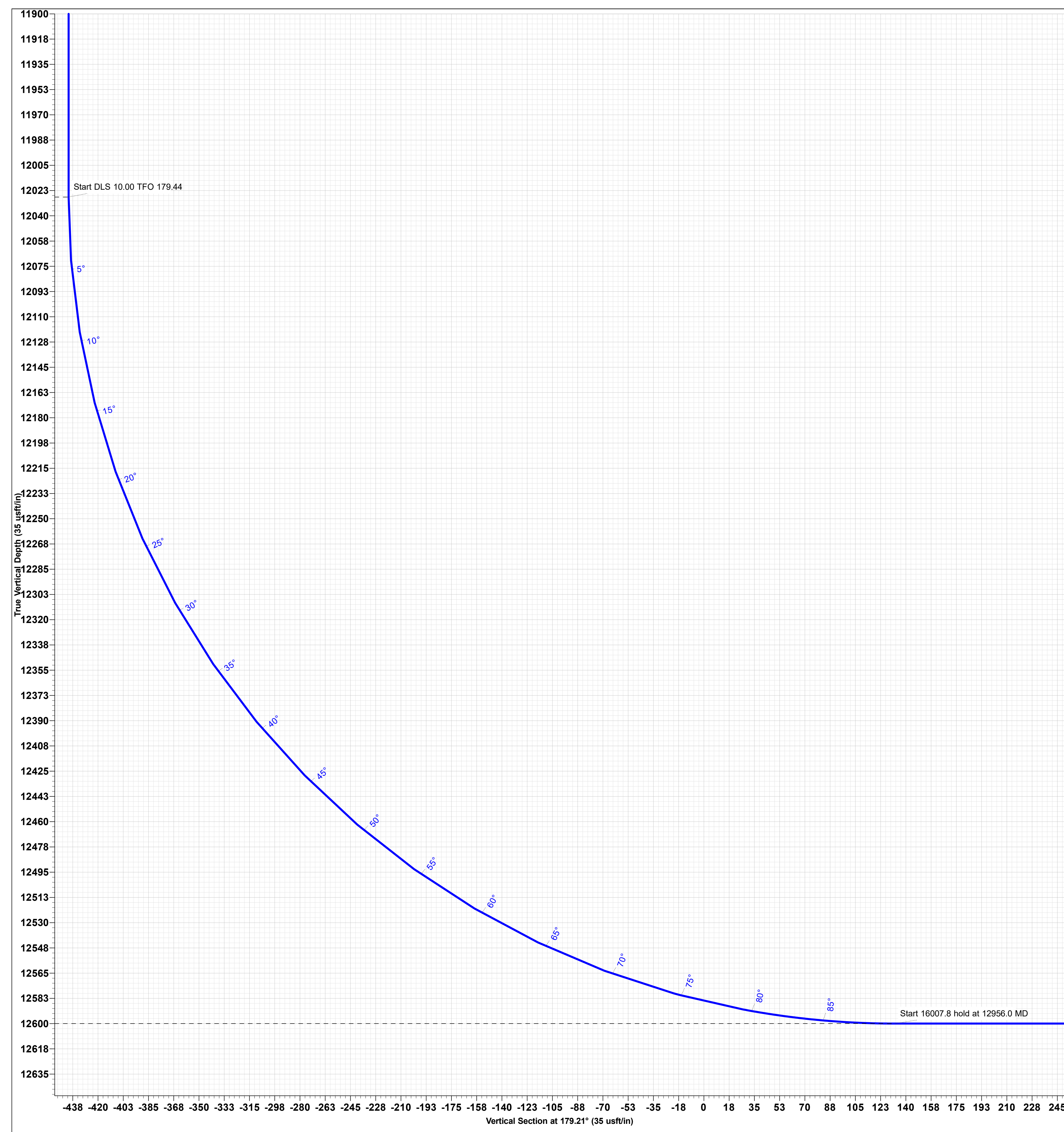
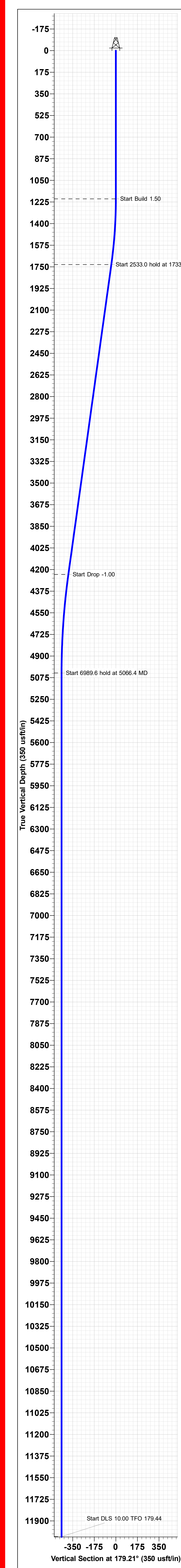
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	404892.04	801899.82	32° 6' 33.879 N	103° 21' 29.906 W HENNIN FED COM #701H

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (HENNIN FED COM #701H)	12600.0	-439.1	68.0	404452.92	801967.81
LTP (HENNIN FED COM #701H)	12600.0	-16088.8	221.8	388803.28	802121.62
PBHL (HENNIN FED COM #701H)	12600.0	-16138.8	222.0	388753.28	802121.79

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0
1733.3	8.00	7.90	1731.6	36.8	5.1	1.50	7.90	-36.7
4266.4	8.00	7.90	4240.0	386.0	53.6	0.00	0.00	-385.2
5066.4	0.00	0.00	5037.4	441.2	61.2	1.00	180.00	-440.4
12056.0	0.00	0.00	12027.0	441.2	61.2	0.00	0.00	-440.4
12956.0	90.00	179.44	12600.0	-131.7	66.8	10.00	179.44	132.6
28963.8	90.00	179.44	12600.0	-16138.8	222.0	0.00	0.00	16140.3



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
WELL NAME & NO.:	HENNIN FED COM 701H
SURFACE HOLE FOOTAGE:	340'/S & 1605'/W
BOTTOM HOLE FOOTAGE:	50'/S & 1620'/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:

1. The **10-3/4** inch surface casing shall be set at approximately **1350 feet** (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

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

CONDITIONS

Action 400726

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 400726
	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