

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. 9. API Well No. 30-025-50383	
2. Name of Operator [229137]		10. Field and Pool, or Exploratory [98248]	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	
16. No of acres in lease		17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file		21. Elevations (Show whether DF, KDB, RT, GL, etc.)	
22. Approximate date work will start*		23. Estimated duration	
24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
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.			

NGMP Rec 06/23/2022

SL

(Continued on page 2)

APPROVED WITH CONDITIONS

KZ
07/26/2022

*(Instructions on page 2)

Additional Operator Remarks

Location of Well

0. SHL: LOT 1 / 710 FNL / 730 FWL / TWSP: 24S / RANGE: 32E / SECTION: 30 / LAT: 32.193653 / LONG: -103.720612 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 1 / 100 FNL / 1254 FWL / TWSP: 24S / RANGE: 32E / SECTION: 30 / LAT: 32.195332 / LONG: -103.718918 (TVD: 11860 feet, MD: 11933 feet)

BHL: LOT 4 / 50 FSL / 1254 FWL / TWSP: 24S / RANGE: 32E / SECTION: 31 / LAT: 32.166715 / LONG: -103.718904 (TVD: 11994 feet, MD: 22245 feet)

BLM Point of Contact

Name: Gavin Mickwee

Title: Land Law Examiner

Phone: (575) 234-5972

Email: gmickwee@blm.gov

CONFIDENTIAL

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG
LEASE NO.:	NMNM120908
LOCATION:	Section 30, T.24S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Windward Fed 705H
SURFACE HOLE FOOTAGE:	710'N & 730'W
BOTTOM HOLE FOOTAGE:	50'S & 1254'W

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
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **805** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above.
- Wait on cement (WOC) time for a primary cement job is to include the tail cement slurry due to cave/karst.**
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

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

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

ZS 051722

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-0720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

WC-025 G-08

API Number 30-025- 50383	Pool Code 98252 98248	Pool Name Mesa Verde, Wolfcamp S243217P;UPR WC
Property Code 333084	Property Name WINDWARD FEDERAL	Well Number 705H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3541.3'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	24-S	32-E		710	NORTH	730	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	31	24-S	32-E		50	SOUTH	1254	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
691.72			

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

POINT LEGEND <table border="1"> <tr><td>1</td><td>Y=435430.2 N X=730140.9 E</td></tr> <tr><td>2</td><td>Y=432790.7 N X=730157.0 E</td></tr> <tr><td>3</td><td>Y=430150.9 N X=730172.3 E</td></tr> <tr><td>4</td><td>Y=427509.5 N X=730189.1 E</td></tr> <tr><td>5</td><td>Y=424873.0 N X=730205.6 E</td></tr> <tr><td>6</td><td>Y=424886.2 N X=733060.2 E</td></tr> <tr><td>7</td><td>Y=430176.4 N X=733021.2 E</td></tr> <tr><td>8</td><td>Y=435450.5 N X=732978.6 E</td></tr> </table> FTP 100' FNL & 1254' FWL Y=435339.1 N X=731395.5 E LAT.=32.195332' N LONG.=103.718918' W GRID AZ. TO FTP 40°17'27" LTP 100' FSL & 1254' FWL Y=424978.8 N X=731459.1 E LAT.=32.166853' N LONG.=103.718904' W B.H. 1254' 50' SECTION 30 SECTION 31	1	Y=435430.2 N X=730140.9 E	2	Y=432790.7 N X=730157.0 E	3	Y=430150.9 N X=730172.3 E	4	Y=427509.5 N X=730189.1 E	5	Y=424873.0 N X=730205.6 E	6	Y=424886.2 N X=733060.2 E	7	Y=430176.4 N X=733021.2 E	8	Y=435450.5 N X=732978.6 E	NAD 83 NME SURFACE LOCATION Y=434725.4 N X=730875.2 E LAT.=32.193653' N LONG.=103.720612' W NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=424928.8 N X=731459.4 E LAT.=32.166715' N LONG.=103.718904' W	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 1/11/2021 Signature Date Stan Wagner Printed Name E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. NOVEMBER 20, 2020 Date of Survey Signature & Seal of Professional Surveyor <i>Chad L. Harcrow</i> 12/3/20 Certificate No. CHAD HARCROW 17777 W.O. # 20-1592 DRAWN BY: DS
1	Y=435430.2 N X=730140.9 E																	
2	Y=432790.7 N X=730157.0 E																	
3	Y=430150.9 N X=730172.3 E																	
4	Y=427509.5 N X=730189.1 E																	
5	Y=424873.0 N X=730205.6 E																	
6	Y=424886.2 N X=733060.2 E																	
7	Y=430176.4 N X=733021.2 E																	
8	Y=435450.5 N X=732978.6 E																	

Intent ☒ As Drilled ☐

API # 30-025		
Operator Name: COG Operating LLC	Property Name: Winward Federal	Well Number 705H

Kick Off Point (KOP)

UL	Section 30	Township 24S	Range 32E	Lot 1	Feet	From N/S	Feet	From E/W	County Lea
Latitude					Longitude				NAD 83

First Take Point (FTP)

UL D	Section 30	Township 24S	Range 32E	Lot	Feet 100	From N/S North	Feet 1254	From E/W West	County Lea
Latitude 32.195332					Longitude -103.718918				NAD NAD 83

Last Take Point (LTP)

UL M	Section 31	Township 24S	Range 32E	Lot	Feet 100	From N/S South	Feet 1254	From E/W West	County Lea
Latitude 32.166853					Longitude -103.718904				NAD NAD 83

Is this well the defining well for the Horizontal Spacing Unit? ☐ YesIs this well an infill well? ☐ No

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

API # 30-025-		
Operator Name: COG Operating LLC	Property Name: Winward Federal	Well Number 705H

KZ 06/29/2018

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division

1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: COG Operating LLC

OGRID: 229137

Date: 06/22/2022

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Windward Federal 701H	30-025-	A-30-24S-32E	685 FNL & 1215 FEL	± 1801	± 5071	± 2019
Windward Federal 702H	30-025-	A-30-24S-32E	685 FNL & 1245 FEL	± 1801	± 5071	± 2019
Windward Federal 703H	30-025-	A-30-24S-32E	685 FNL & 1275 FEL	± 1801	± 5071	± 2019
Windward Federal 704H	30-025-	1-30-24S-32E	710 FNL & 760 FWL	± 1801	± 5071	± 2019
Windward Federal 705H	30-025-	1-30-24S-32E	710 FNL & 730 FWL	± 1801	± 5071	± 2019
Windward Federal 706H	30-025-	1-30-24S-32E	710 FNL & 700 FWL	± 1801	± 5071	± 2019

IV. Central Delivery Point Name: Windward Federal 30 C CTB NE/NW 30-24S-32E [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
Windward Federal	Pending	± 6/1/2024	± 25 days from spud	TBD	TBD	TBD
701H, 702H, 703H, 704H, 705H, 706H						

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

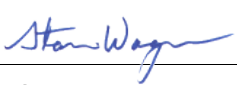
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 06/23/2022
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

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

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

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

C. Completion Operations

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

D. Venting and flaring during production operations

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

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

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

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

F. Measurement of vented and flared natural gas.

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

VIII. Best Management Practices

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

COG Operating, LLC - Winward Federal Com #705H

1. Geologic Formations

TVD of target	11,994' EOL	Pilot hole depth	NA
MD at TD:	22,246'	Deepest expected fresh water:	380'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	705	Water	
Top of Salt	1029	Salt	
Base of Salt	4304	Salt	
Lamar	4532	Salt Water	
Bell Canyon	4562	Salt Water	
Cherry Canyon	5481	Oil/Gas	
Brushy Canyon	6764	Oil/Gas	
Bone Spring Lime	8445	Oil/Gas	
1st Bone Spring Sand	9589	Oil/Gas	
2nd Bone Spring Sand	10204	Oil/Gas	
3rd Bone Spring Sand	11436	Oil/Gas	
Wolfcamp	11871	Target Oil/Gas	
Wolfcamp B	12362	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	979	10.75"	45.5	N80	BTC	5.64	1.58	23.35	24.63
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.50	1.16	2.88	2.90
8.750"	8500	11416	7.625"	29.7	HCP 110	TL-FJ	1.26	1.20	2.77	1.94
6.75"	0	11216	5.5"	23	P110	BTC	1.94	2.31	2.64	2.62
6.75"	11216	22,246	5.5"	23	P110	Talon HTQ	1.94	2.31	2.64	2.56
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. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

COG Operating, LLC - Winward Federal Com #705H

	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.	N
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?	

COG Operating, LLC - Winward Federal Com #705H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	400	13.5	1.75	9	12	Lead: Class C + 4% Gel
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter.	1400	11	2.8	19	48	Lead: NeoCem
	300	16.4	1.1	5	8	Tail: Class H
5.5 Prod	750	12.7	2	10.6	16	Lead: 35:65:6 H Blend
	1200	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

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	8,000'	35%

COG Operating, LLC - Winward Federal Com #705H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	3500 psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP and BOPE will be installed per Onshore Order #2 requirements prior to drilling below the surface casing and will be rated to the above pressure rating or greater, see attached diagrams. Required safety valves, with appropriate wrenches and subs for the drill string being utilized, will be in the open position and accessible on the rig floor.

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 valves (inside BOP and full-opening valve) with appropriate wrenches 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.

COG Operating, LLC - Winward Federal Com #705H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.4 - 8.6	28-29	N/C
Surf csg	Int shoe	Diesel Brine Emul	8.6 - 9.4	30-40	N/C
Int shoe	Lateral TD	OBM	10.5 - 12	30-40	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.
N	Are 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	

COG Operating, LLC - Winward Federal Com #705H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7485 psi at 11994' TVD
Abnormal Temperature	NO 175 Deg. F.

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

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

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S 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	H ₂ S is present
Y	H ₂ S 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
x	5M Annular Variance

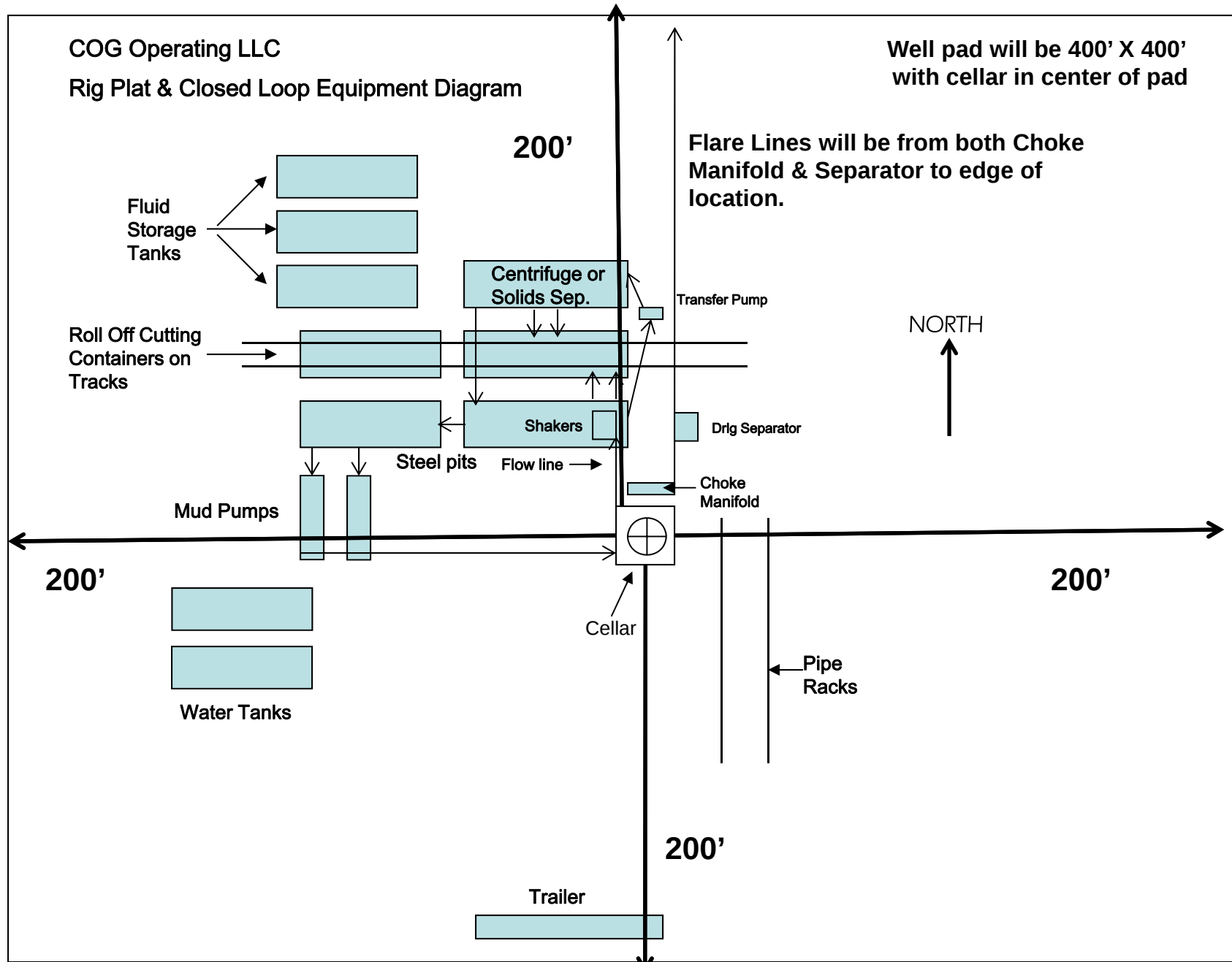


Exhibit 1

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

DELAWARE BASIN EAST
BULLDOG PROSPECT (NM-E)
WINDWARD FEDERAL PROJECT (BULLDOG 2432)
WINDWARD FED #705H

OWB
PWP1

Anticollision Report

11 December, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference	PWP1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 2,000.0 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	12/11/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	22,245.4	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

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						
WINDWARD FEDERAL PROJECT (BULLDOG 2432)						
KING TUT FEDERAL #1H - OWB - ACTUAL WELLPATH	4,774.6	4,770.4	564.2	502.6	9.156	CC, ES, SF
KING TUT FEDERAL #2H - OWB - ACTUAL WELLPATH	8,160.0	8,122.8	539.3	503.0	14.865	CC, ES
KING TUT FEDERAL #2H - OWB - ACTUAL WELLPATH	8,200.0	8,149.0	540.1	503.6	14.815	SF
WINDWARD FED #704H - OWB - PWP1	2,500.0	2,500.0	30.0	17.3	2.365	CC, ES
WINDWARD FED #704H - OWB - PWP1	2,600.0	2,599.0	30.6	17.5	2.342	SF
WINDWARD FED #706H - OWB - PWP1	2,416.5	2,416.9	30.0	12.1	1.675	Advise and Monitor, CC
WINDWARD FED #706H - OWB - PWP1	2,500.0	2,500.4	30.0	11.5	1.624	Advise and Monitor, ES, SF
WINDWARD FEDERAL #1H - OWB - ACTUAL WELLPATH	4,732.5	4,720.7	554.4	522.3	17.251	CC
WINDWARD FEDERAL #1H - OWB - ACTUAL WELLPATH	4,800.0	4,786.5	554.6	522.2	17.115	ES
WINDWARD FEDERAL #1H - OWB - ACTUAL WELLPATH	9,700.0	9,663.3	738.5	679.4	12.494	SF
WINDWARD FEDERAL #2H - LATERAL 01 - AWP-LATE	10,081.8	10,028.0	517.1	472.6	11.612	CC
WINDWARD FEDERAL #2H - LATERAL 01 - AWP-LATE	10,100.0	10,040.9	517.2	472.5	11.588	ES
WINDWARD FEDERAL #2H - LATERAL 01 - AWP-LATE	22,100.0	20,401.0	1,889.1	1,682.8	9.158	SF
WINDWARD FEDERAL #2H - OWB-PILOT HOLE - AWF	11,249.0	11,220.0	416.9	367.8	8.480	CC, ES
WINDWARD FEDERAL #2H - OWB-PILOT HOLE - AWF	11,300.0	11,220.0	420.1	370.2	8.418	SF
WINDWARD FEDERAL #5H - OWB - ACTUAL WELLPATH	5,091.4	5,077.2	445.5	416.8	15.502	CC
WINDWARD FEDERAL #5H - OWB - ACTUAL WELLPATH	5,100.0	5,084.6	445.5	416.7	15.478	ES
WINDWARD FEDERAL #5H - OWB - ACTUAL WELLPATH	8,300.0	8,269.7	567.0	520.2	12.103	SF
WINDWARD FEDERAL #6H - OWB - ACTUAL WELLPATH	6,049.9	6,044.9	356.7	328.9	12.869	CC
WINDWARD FEDERAL #6H - OWB - ACTUAL WELLPATH	6,100.0	6,093.7	356.8	328.9	12.778	ES
WINDWARD FEDERAL #6H - OWB - ACTUAL WELLPATH	7,300.0	7,286.3	392.8	360.3	12.073	SF
WINDWARD FEDERAL #7H - OWB - ACTUAL WELLPATH	9,204.2	9,263.9	601.6	559.8	14.421	CC, ES, SF

Offset Design												WINDWARD FEDERAL PROJECT (BULLDOG 2432) - KING TUT FEDERAL #1H - OWB - ACTUAL W		Offset Site Error:		0.0 usft	
Survey Program:												211-MWD, 4639-MWD, 7802-MWD		Offset Well Error:		2.0 usft	
Reference		Offset		Semi Major Axis				Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
0.0	0.0	0.0	0.0	3.0	2.0	-37.94	517.1	-403.2	655.7								
100.0	100.0	101.8	101.8	3.0	2.1	-37.90	517.2	-402.7	655.5	650.4	5.12	128.149					
200.0	200.0	204.6	204.6	3.0	2.5	-37.78	517.6	-401.2	654.9	649.4	5.46	119.914					
300.0	300.0	300.3	300.3	3.1	2.8	-37.66	517.9	-399.8	654.3	648.4	5.85	111.895					
400.0	400.0	400.8	400.7	3.2	4.1	-37.61	518.2	-399.2	654.2	646.9	7.22	90.567					

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - KING TUT FEDERAL #1H - OWB - ACTUAL W													Offset Site Error:	0.0 usft
Survey Program: 211-MWD, 4639-MWD, 7802-MWD													Offset Well Error:	2.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
500.0	500.0	502.7	502.7	3.4	5.8	-37.54		518.3	-398.3	653.7	644.6	9.13	71.605	
600.0	600.0	604.7	604.7	3.6	7.7	-37.46		518.4	-397.1	653.0	641.9	11.16	58.530	
700.0	700.0	706.7	706.6	3.8	9.6	-37.35		518.2	-395.6	652.0	638.8	13.25	49.220	
800.0	800.0	807.3	807.2	4.0	11.0	-37.24		518.0	-393.7	650.7	635.8	14.91	43.630	
900.0	900.0	906.1	906.0	4.2	11.8	-37.15		517.7	-392.3	649.6	633.6	15.94	40.746	
1,000.0	1,000.0	1,005.7	1,005.6	4.5	12.4	-37.10		517.3	-391.2	648.6	631.7	16.90	38.374	
1,100.0	1,100.0	1,108.0	1,107.9	4.8	12.8	-37.05		516.6	-390.0	647.4	629.8	17.60	36.788	
1,200.0	1,200.0	1,210.3	1,210.2	5.1	13.3	-36.99		515.7	-388.5	645.8	627.5	18.31	35.273	
1,300.0	1,300.0	1,310.1	1,310.0	5.4	16.1	-36.93		514.7	-386.9	644.1	622.6	21.40	30.092	
1,400.0	1,400.0	1,409.5	1,409.4	5.7	19.5	-36.87		513.8	-385.4	642.4	617.4	25.03	25.669	
1,500.0	1,500.0	1,508.9	1,508.7	6.0	23.1	-36.82		513.0	-384.0	640.8	612.1	28.69	22.333	
1,600.0	1,600.0	1,608.2	1,608.1	6.3	26.6	-36.76		512.2	-382.6	639.4	607.0	32.39	19.738	
1,700.0	1,700.0	1,707.6	1,707.4	6.6	30.3	-36.71		511.4	-381.3	638.0	601.9	36.11	17.666	
1,800.0	1,800.0	1,807.0	1,806.8	6.9	33.9	-36.65		510.8	-380.1	636.7	596.9	39.85	15.978	
1,900.0	1,900.0	1,906.3	1,906.1	7.2	37.6	-36.60		510.2	-378.9	635.6	592.0	43.60	14.576	
2,000.0	2,000.0	2,005.7	2,005.5	7.6	41.2	-36.55		509.7	-377.9	634.5	587.1	47.36	13.396	
2,100.0	2,100.0	2,105.1	2,104.9	7.9	44.9	-36.51		509.2	-376.9	633.5	582.4	51.13	12.390	
2,200.0	2,200.0	2,205.1	2,204.9	8.2	46.5	-36.46		508.8	-375.9	632.6	579.6	53.02	11.931	
2,300.0	2,300.0	2,305.2	2,305.0	8.6	47.7	-36.40		508.4	-374.9	631.6	577.1	54.55	11.580	
2,400.0	2,400.0	2,405.3	2,405.1	8.9	48.9	-36.35		508.0	-373.8	630.7	574.6	56.08	11.246	
2,500.0	2,500.0	2,505.3	2,505.1	9.2	50.0	-36.28		507.6	-372.6	629.7	572.2	57.53	10.947	
2,600.0	2,600.0	2,604.2	2,603.9	9.6	50.1	-76.80		507.0	-371.9	628.4	570.5	57.93	10.849	
2,700.0	2,699.8	2,702.8	2,702.6	9.9	50.2	-77.35		506.1	-372.0	626.6	568.3	58.23	10.759	
2,775.0	2,774.6	2,776.5	2,776.3	10.2	50.3	-78.02		505.2	-372.6	624.9	566.5	58.40	10.699	
2,800.0	2,799.5	2,802.0	2,801.7	10.3	50.3	-78.28		504.9	-372.8	624.2	565.8	58.45	10.681	
2,900.0	2,899.0	2,904.3	2,904.0	10.6	50.4	-79.25		503.7	-373.1	621.6	563.0	58.63	10.602	
3,000.0	2,998.5	3,006.8	3,006.5	10.9	50.5	-80.13		502.8	-372.2	618.7	559.9	58.83	10.517	
3,100.0	3,098.1	3,109.1	3,108.8	11.3	50.6	-80.92		502.3	-370.2	615.4	556.4	59.05	10.422	
3,200.0	3,197.6	3,209.7	3,209.4	11.6	50.8	-81.69		501.6	-367.8	611.9	552.6	59.33	10.313	
3,300.0	3,297.2	3,309.0	3,308.6	12.0	51.0	-82.46		500.9	-365.5	608.5	548.8	59.69	10.195	
3,400.0	3,396.7	3,408.2	3,407.8	12.3	51.2	-83.22		500.3	-363.2	605.3	545.2	60.03	10.082	
3,500.0	3,496.2	3,507.5	3,507.0	12.7	51.4	-83.99		499.8	-360.8	602.2	541.8	60.38	9.974	
3,600.0	3,595.8	3,608.4	3,608.0	13.0	51.6	-84.77		499.3	-358.4	599.2	538.5	60.68	9.875	
3,700.0	3,695.3	3,710.4	3,709.9	13.4	51.8	-85.60		498.3	-355.9	596.0	535.0	60.94	9.780	
3,800.0	3,794.9	3,809.9	3,809.3	13.7	51.9	-86.46		496.9	-353.6	592.7	531.6	61.10	9.699	
3,900.0	3,894.4	3,911.4	3,910.8	14.1	52.0	-87.39		495.1	-351.4	589.4	528.1	61.23	9.625	
4,000.0	3,993.9	4,009.9	4,009.3	14.4	52.1	-88.29		493.3	-349.2	586.1	524.8	61.36	9.553	
4,100.0	4,093.5	4,110.0	4,109.3	14.8	52.2	-89.22		491.5	-347.0	583.0	521.6	61.48	9.484	
4,200.0	4,193.0	4,210.6	4,209.9	15.1	52.3	-90.17		489.6	-344.7	580.0	518.4	61.58	9.418	
4,300.0	4,292.6	4,312.0	4,311.3	15.5	52.4	-91.14		487.3	-342.2	576.8	515.1	61.67	9.353	
4,400.0	4,392.1	4,411.7	4,410.9	15.8	52.6	-92.15		484.8	-340.0	573.7	512.0	61.73	9.294	
4,500.0	4,491.6	4,510.7	4,509.8	16.2	52.7	-93.15		482.2	-337.6	570.6	508.8	61.76	9.239	
4,600.0	4,591.2	4,613.1	4,612.2	16.5	52.7	-94.19		479.6	-334.9	567.6	505.9	61.74	9.194	
4,700.0	4,690.7	4,705.4	4,704.4	16.9	52.7	-95.12		477.4	-332.5	564.9	503.2	61.69	9.157	
4,774.6	4,764.9	4,770.4	4,769.4	17.1	52.8	-95.79		476.4	-331.7	564.2	502.6	61.62	9.156 CC, ES, SF	
4,800.0	4,790.3	4,792.2	4,791.2	17.2	52.8	-96.02		476.2	-331.7	564.3	502.7	61.59	9.161	
4,900.0	4,889.8	4,887.6	4,886.6	17.6	52.8	-97.04		475.6	-332.6	565.8	504.3	61.46	9.205	
5,000.0	4,989.3	4,988.2	4,987.2	17.9	52.8	-98.12		474.8	-333.4	567.3	505.9	61.33	9.250	
5,100.0	5,088.9	5,088.9	5,087.8	18.3	52.8	-99.17		474.1	-334.0	568.8	507.6	61.19	9.296	
5,200.0	5,188.4	5,187.7	5,186.7	18.7	52.8	-100.19		473.4	-334.4	570.5	509.4	61.05	9.344	
5,300.0	5,288.0	5,287.3	5,286.3	19.0	52.8	-101.22		472.7	-334.9	572.4	511.5	60.91	9.397	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - KING TUT FEDERAL #1H - OWB - ACTUAL W													Offset Site Error:	0.0 usft
Survey Program: 211-MWD, 4639-MWD, 7802-MWD													Offset Well Error:	2.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,400.0	5,387.5	5,384.6	5,383.6	19.4	52.8	-102.22	472.0	-335.6	574.7	513.9	60.76	9.457		
5,500.0	5,487.0	5,483.2	5,482.2	19.7	52.9	-103.25	471.4	-336.6	577.4	516.8	60.61	9.526		
5,600.0	5,586.6	5,583.2	5,582.1	20.1	52.9	-104.27	470.7	-337.7	580.3	519.8	60.46	9.598		
5,700.0	5,686.1	5,681.8	5,680.8	20.4	52.9	-105.27	470.1	-338.7	583.4	523.1	60.31	9.674		
5,800.0	5,785.7	5,780.9	5,779.8	20.8	52.9	-106.28	469.4	-339.9	586.8	526.7	60.15	9.756		
5,900.0	5,885.2	5,881.9	5,880.8	21.2	53.0	-107.27	468.8	-340.9	590.3	530.3	60.02	9.836		
6,000.0	5,984.7	5,981.2	5,980.1	21.5	53.0	-108.24	468.2	-341.8	593.8	533.9	59.88	9.917		
6,100.0	6,084.3	6,079.9	6,078.8	21.9	53.0	-109.15	467.9	-342.6	597.6	537.8	59.76	9.999		
6,200.0	6,183.8	6,178.7	6,177.6	22.2	53.1	-110.06	467.6	-343.5	601.6	541.9	59.66	10.084		
6,300.0	6,283.3	6,276.0	6,274.9	22.6	53.1	-110.97	467.2	-344.8	606.1	546.5	59.54	10.180		
6,400.0	6,382.9	6,376.4	6,375.3	22.9	53.2	-111.91	466.6	-346.3	610.8	551.3	59.42	10.278		
6,500.0	6,482.4	6,476.1	6,475.0	23.3	53.2	-112.84	465.8	-347.6	615.4	556.1	59.31	10.376		
6,600.0	6,582.0	6,575.1	6,574.0	23.7	53.3	-113.70	465.7	-348.8	620.4	561.1	59.24	10.472		
6,700.0	6,681.5	6,672.4	6,671.3	24.0	53.3	-114.53	465.5	-350.1	625.5	566.3	59.17	10.572		
6,800.0	6,781.0	6,770.5	6,769.3	24.4	53.4	-115.38	465.1	-351.9	631.2	572.1	59.09	10.682		
6,900.0	6,880.6	6,870.5	6,869.3	24.7	53.4	-116.23	464.9	-353.6	637.1	578.1	59.04	10.790		
7,000.0	6,980.1	6,968.9	6,967.8	25.1	53.5	-117.00	465.1	-355.3	643.1	584.0	59.03	10.894		
7,100.0	7,079.7	7,071.5	7,070.3	25.5	53.6	-117.82	465.0	-357.0	649.1	590.1	59.02	10.997		
7,200.0	7,179.2	7,167.6	7,166.4	25.8	53.6	-118.56	465.0	-358.4	655.1	596.1	59.02	11.100		
7,300.0	7,278.7	7,269.0	7,267.8	26.2	53.7	-119.34	464.9	-360.2	661.5	602.4	59.04	11.204		
7,400.0	7,378.3	7,366.3	7,365.1	26.5	53.7	-120.09	464.6	-361.9	667.9	608.8	59.06	11.310		
7,500.0	7,477.8	7,464.7	7,463.4	26.9	53.8	-120.83	464.4	-363.8	674.7	615.6	59.08	11.419		
7,600.0	7,577.4	7,564.3	7,563.0	27.3	53.9	-121.58	464.0	-365.9	681.6	622.5	59.13	11.528		
7,700.0	7,676.9	7,664.4	7,663.1	27.6	54.0	-122.34	463.4	-367.9	688.6	629.4	59.18	11.635		
7,800.0	7,776.4	7,771.6	7,770.2	28.0	54.0	-123.21	461.7	-369.9	695.6	636.3	59.23	11.744		
7,900.0	7,876.0	7,902.3	7,899.6	28.3	54.1	-125.39	445.3	-369.9	699.6	641.1	58.53	11.953		
8,000.0	7,975.5	7,996.1	7,989.2	28.7	54.1	-128.19	417.7	-368.2	701.8	644.4	57.33	12.241		
8,100.0	8,075.1	8,079.3	8,064.7	29.1	54.1	-131.48	382.9	-367.9	707.2	651.4	55.89	12.655		
8,200.0	8,174.6	8,165.0	8,137.6	29.4	54.2	-135.51	337.9	-367.7	717.2	663.0	54.24	13.222		
8,300.0	8,274.1	8,226.2	8,186.0	29.8	54.2	-138.74	300.5	-366.6	732.1	679.2	52.96	13.824		
8,400.0	8,373.7	8,265.4	8,215.0	30.2	54.2	-140.95	274.0	-366.7	755.8	703.9	51.88	14.567		
8,500.0	8,473.2	8,304.0	8,241.4	30.5	54.2	-143.22	246.0	-367.5	788.3	737.6	50.77	15.529		
8,600.0	8,572.8	8,344.8	8,267.2	30.9	54.2	-145.68	214.4	-368.4	828.8	779.1	49.73	16.666		
8,700.0	8,672.3	8,384.5	8,290.5	31.2	54.2	-148.11	182.3	-368.7	876.3	827.4	48.85	17.939		
8,800.0	8,771.8	8,420.4	8,310.1	31.6	54.3	-150.33	152.2	-368.5	930.0	881.9	48.09	19.339		
8,900.0	8,871.4	8,446.3	8,323.4	32.0	54.3	-151.93	130.0	-368.0	989.5	942.2	47.30	20.920		
9,000.0	8,970.9	8,461.0	8,330.4	32.3	54.3	-152.85	117.1	-367.6	1,054.2	1,007.8	46.39	22.726		
9,100.0	9,070.5	8,481.5	8,339.6	32.7	54.3	-154.13	98.7	-367.0	1,123.5	1,077.7	45.70	24.581		
9,200.0	9,170.0	8,493.0	8,344.3	33.0	54.3	-154.84	88.3	-366.6	1,196.6	1,151.7	44.93	26.632		
9,300.0	9,269.5	8,506.4	8,349.6	33.4	54.3	-155.67	76.0	-366.2	1,273.2	1,228.8	44.31	28.734		
9,400.0	9,369.1	8,524.0	8,356.1	33.8	54.3	-156.76	59.6	-365.5	1,352.6	1,308.7	43.88	30.827		
9,500.0	9,468.6	8,524.0	8,356.1	34.1	54.3	-156.76	59.6	-365.5	1,434.2	1,391.0	43.17	33.223		
9,600.0	9,568.2	8,536.2	8,360.3	34.5	54.3	-157.52	48.1	-365.0	1,517.9	1,475.1	42.81	35.457		
9,700.0	9,667.7	8,545.6	8,363.3	34.9	54.3	-158.09	39.3	-364.6	1,603.4	1,560.9	42.47	37.750		
9,800.0	9,767.2	8,556.0	8,366.5	35.2	54.3	-158.73	29.4	-364.1	1,690.3	1,648.0	42.23	40.026		
9,900.0	9,866.8	8,556.0	8,366.5	35.6	54.3	-158.73	29.4	-364.1	1,778.5	1,736.6	41.86	42.484		
10,000.0	9,966.3	8,556.0	8,366.5	35.9	54.3	-158.73	29.4	-364.1	1,867.8	1,826.3	41.57	44.937		
10,100.0	10,065.9	8,575.3	8,372.0	36.3	54.3	-159.91	10.9	-362.9	1,957.9	1,916.3	41.67	46.988		

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - KING TUT FEDERAL #2H - OWB - ACTUAL W													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 7835-MWD													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance										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)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	2.1	2.1	3.0	3.0	60.12	526.5	916.5	1,057.0					
100.0	100.0	104.7	104.7	3.0	3.0	60.13	526.4	916.4	1,056.8	1,050.8	6.00	176.034		
200.0	200.0	205.5	205.5	3.0	3.0	60.14	526.1	916.2	1,056.5	1,050.5	6.05	174.723		
300.0	300.0	305.5	305.5	3.1	3.0	60.13	526.0	915.9	1,056.2	1,050.1	6.14	172.087		
400.0	400.0	407.8	407.8	3.2	3.0	60.13	525.9	915.5	1,055.8	1,049.5	6.27	168.271		
500.0	500.0	513.8	513.8	3.4	3.1	60.12	525.6	914.6	1,054.9	1,048.5	6.45	163.434		
600.0	600.0	617.4	617.4	3.6	3.1	60.10	525.1	913.3	1,053.6	1,046.9	6.67	157.901		
700.0	700.0	717.2	717.2	3.8	3.2	60.09	524.6	911.9	1,052.1	1,045.2	6.92	152.003		
800.0	800.0	814.5	814.4	4.0	3.2	60.08	524.1	910.7	1,050.8	1,043.6	7.20	145.978		
900.0	900.0	908.6	908.6	4.2	3.3	60.08	523.7	909.9	1,049.9	1,042.4	7.50	140.039		
1,000.0	1,000.0	1,007.3	1,007.3	4.5	3.3	60.08	523.5	909.4	1,049.4	1,041.5	7.82	134.208		
1,100.0	1,100.0	1,105.8	1,105.8	4.8	3.4	60.08	523.1	909.1	1,048.9	1,040.8	8.15	128.631		
1,154.2	1,154.2	1,156.2	1,156.2	4.9	3.4	60.09	523.0	909.1	1,048.8	1,040.5	8.31	126.152		
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	60.09	523.1	909.1	1,048.9	1,040.4	8.45	124.110		
1,300.0	1,300.0	1,303.0	1,302.9	5.4	3.4	60.10	523.0	909.3	1,049.0	1,040.2	8.74	120.005		
1,319.9	1,319.9	1,321.9	1,321.9	5.4	3.4	60.10	522.9	909.4	1,049.0	1,040.2	8.80	119.185		
1,400.0	1,400.0	1,400.0	1,400.0	5.7	3.4	60.11	522.7	909.6	1,049.1	1,040.1	9.05	115.972		
1,500.0	1,500.0	1,495.1	1,495.1	6.0	3.4	60.09	523.3	909.8	1,049.6	1,040.3	9.34	112.367		
1,600.0	1,600.0	1,613.1	1,613.1	6.3	3.4	60.01	524.5	908.9	1,049.4	1,039.7	9.68	108.361		
1,700.0	1,700.0	1,713.2	1,713.1	6.6	3.5	59.99	524.2	907.7	1,048.2	1,038.2	10.06	104.186		
1,778.5	1,778.5	1,780.6	1,780.5	6.8	3.5	60.02	523.6	907.6	1,047.8	1,037.5	10.34	101.320		
1,800.0	1,800.0	1,800.0	1,799.9	6.9	3.5	60.03	523.5	907.7	1,047.8	1,037.4	10.42	100.569		
1,900.0	1,900.0	1,891.9	1,891.8	7.2	3.5	60.06	523.3	908.5	1,048.5	1,037.7	10.74	97.660		
2,000.0	2,000.0	1,995.6	1,995.6	7.6	3.5	60.05	523.9	909.1	1,049.3	1,038.3	11.05	94.937		
2,100.0	2,100.0	2,109.3	2,109.2	7.9	3.5	59.98	524.9	908.5	1,049.2	1,037.8	11.41	91.918		
2,200.0	2,200.0	2,206.6	2,206.5	8.2	3.6	59.96	525.0	907.8	1,048.7	1,036.9	11.81	88.787		
2,300.0	2,300.0	2,300.0	2,299.9	8.6	3.7	59.96	524.7	907.5	1,048.3	1,036.1	12.22	85.790		
2,329.5	2,329.5	2,331.5	2,331.5	8.7	3.7	59.96	524.7	907.5	1,048.2	1,035.9	12.33	85.034		
2,400.0	2,400.0	2,394.4	2,394.3	8.9	3.7	59.97	524.7	907.7	1,048.5	1,035.9	12.58	83.329		
2,500.0	2,500.0	2,492.9	2,492.8	9.2	3.7	59.96	525.3	908.4	1,049.3	1,036.4	12.91	81.296		
2,600.0	2,600.0	2,598.3	2,598.2	9.6	3.7	19.60	526.3	908.5	1,048.3	1,035.1	13.25	79.123		
2,700.0	2,699.8	2,705.7	2,705.6	9.9	3.7	19.67	527.2	908.0	1,043.4	1,029.8	13.62	76.582		
2,775.0	2,774.6	2,784.5	2,784.4	10.2	3.8	19.82	527.3	907.4	1,037.1	1,023.2	13.93	74.459		
2,800.0	2,799.5	2,809.8	2,809.7	10.3	3.8	19.86	527.2	907.2	1,034.7	1,020.6	14.03	73.744		
2,900.0	2,899.0	2,905.1	2,904.9	10.6	3.9	20.06	526.6	906.9	1,025.1	1,010.6	14.44	71.004		
3,000.0	2,998.5	3,000.0	2,999.9	10.9	3.9	20.27	526.1	907.1	1,015.9	1,001.1	14.82	68.549		
3,100.0	3,098.1	3,097.6	3,097.5	11.3	3.9	20.49	525.6	907.5	1,007.1	991.9	15.18	66.327		
3,200.0	3,197.6	3,193.0	3,192.9	11.6	3.9	20.70	525.4	908.2	998.6	983.0	15.53	64.280		
3,300.0	3,297.2	3,287.3	3,287.2	12.0	3.9	20.88	525.8	908.9	990.6	974.7	15.88	62.376		
3,400.0	3,396.7	3,400.4	3,400.3	12.3	4.0	21.05	527.1	909.1	982.2	966.0	16.25	60.450		
3,500.0	3,496.2	3,503.0	3,502.8	12.7	4.0	21.22	527.6	908.4	973.0	956.3	16.66	58.419		
3,600.0	3,595.8	3,605.4	3,605.3	13.0	4.1	21.42	527.3	907.8	963.4	946.3	17.08	56.400		
3,700.0	3,695.3	3,700.0	3,699.9	13.4	4.2	21.65	526.6	907.6	953.9	936.4	17.50	54.515		
3,800.0	3,794.9	3,788.6	3,788.4	13.7	4.2	21.87	526.4	908.0	945.3	927.4	17.87	52.888		
3,900.0	3,894.4	3,889.1	3,888.9	14.1	4.2	22.07	527.1	908.7	937.4	919.1	18.23	51.411		
4,000.0	3,993.9	3,998.1	3,997.9	14.4	4.2	22.26	528.0	908.6	928.8	910.2	18.62	49.885		
4,100.0	4,093.5	4,098.3	4,098.2	14.8	4.3	22.47	528.1	908.3	919.7	900.6	19.04	48.296		
4,200.0	4,193.0	4,195.7	4,195.5	15.1	4.4	22.71	527.9	908.2	910.6	891.2	19.46	46.791		
4,300.0	4,292.6	4,292.3	4,292.1	15.5	4.4	22.98	527.3	908.6	901.9	882.0	19.86	45.421		
4,400.0	4,392.1	4,387.7	4,387.6	15.8	4.5	23.29	526.5	909.6	893.6	873.3	20.24	44.148		
4,500.0	4,491.6	4,489.4	4,489.2	16.2	4.5	23.62	525.6	910.7	885.4	864.8	20.62	42.936		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - KING TUT FEDERAL #2H - OWB - ACTUAL W												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 7835-MWD												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,600.0	4,591.2	4,590.7	4,590.5	16.5	4.5	23.93	525.0	911.5	877.0	856.0	21.01	41.753	
4,700.0	4,690.7	4,690.3	4,690.2	16.9	4.6	24.23	524.5	912.0	868.6	847.2	21.39	40.604	
4,800.0	4,790.3	4,788.1	4,788.0	17.2	4.6	24.54	524.0	912.7	860.2	838.4	21.78	39.498	
4,900.0	4,889.8	4,886.4	4,886.2	17.6	4.7	24.88	523.2	913.7	852.1	829.9	22.17	38.438	
5,000.0	4,989.3	4,986.8	4,986.6	17.9	4.8	25.26	522.1	914.9	844.0	821.5	22.56	37.413	
5,100.0	5,088.9	5,087.3	5,087.1	18.3	4.8	25.64	521.0	915.9	835.9	812.9	22.95	36.414	
5,200.0	5,188.4	5,188.2	5,188.0	18.7	4.9	26.01	520.2	916.7	827.6	804.3	23.35	35.443	
5,300.0	5,288.0	5,286.1	5,285.9	19.0	5.0	26.34	519.7	917.3	819.4	795.6	23.75	34.506	
5,400.0	5,387.5	5,387.5	5,387.3	19.4	5.1	26.70	519.3	918.0	811.2	787.1	24.14	33.601	
5,500.0	5,487.0	5,488.8	5,488.6	19.7	5.1	27.05	518.7	918.4	802.8	778.3	24.55	32.706	
5,600.0	5,586.6	5,588.5	5,588.3	20.1	5.2	27.40	518.3	918.6	794.3	769.4	24.95	31.833	
5,700.0	5,686.1	5,688.2	5,687.9	20.4	5.3	27.76	517.9	918.8	785.8	760.5	25.36	30.988	
5,800.0	5,785.7	5,788.6	5,788.4	20.8	5.4	28.13	517.4	918.9	777.3	751.6	25.77	30.162	
5,900.0	5,885.2	5,890.3	5,890.0	21.2	5.5	28.50	517.0	918.9	768.7	742.5	26.19	29.350	
6,000.0	5,984.7	5,990.1	5,989.9	21.5	5.7	28.88	516.4	918.7	759.8	733.2	26.61	28.553	
6,100.0	6,084.3	6,091.3	6,091.1	21.9	5.8	29.28	515.8	918.3	750.9	723.9	27.04	27.775	
6,200.0	6,183.8	6,191.9	6,191.7	22.2	5.9	29.67	515.2	917.8	741.9	714.4	27.47	27.011	
6,300.0	6,283.3	6,293.8	6,293.6	22.6	5.9	30.07	514.6	916.9	732.6	704.7	27.90	26.257	
6,400.0	6,382.9	6,397.0	6,396.8	22.9	6.0	30.48	513.9	915.7	722.9	694.6	28.34	25.511	
6,500.0	6,482.4	6,496.1	6,495.8	23.3	6.1	30.88	513.3	914.2	713.1	684.3	28.78	24.777	
6,600.0	6,582.0	6,597.3	6,597.0	23.7	6.2	31.29	512.6	912.6	703.1	673.9	29.22	24.062	
6,700.0	6,681.5	6,699.4	6,699.1	24.0	6.3	31.73	511.8	910.7	692.9	663.2	29.67	23.357	
6,800.0	6,781.0	6,799.7	6,799.3	24.4	6.4	32.20	510.6	908.6	682.4	652.3	30.11	22.665	
6,900.0	6,880.6	6,898.3	6,898.0	24.7	6.5	32.68	509.4	906.5	672.0	641.4	30.56	21.992	
7,000.0	6,980.1	6,995.0	6,994.6	25.1	6.6	33.16	508.3	904.8	661.9	630.9	31.00	21.348	
7,100.0	7,079.7	7,094.1	7,093.7	25.5	6.7	33.68	507.1	903.2	652.0	620.6	31.45	20.730	
7,200.0	7,179.2	7,196.0	7,195.5	25.8	6.8	34.24	505.8	901.4	642.0	610.1	31.90	20.127	
7,300.0	7,278.7	7,298.2	7,297.7	26.2	6.9	34.83	504.1	899.3	631.7	599.3	32.35	19.528	
7,400.0	7,378.3	7,396.5	7,395.9	26.5	7.0	35.42	502.5	897.1	621.2	588.4	32.80	18.942	
7,500.0	7,477.8	7,494.6	7,494.1	26.9	7.2	36.03	500.9	895.0	611.0	577.8	33.24	18.380	
7,600.0	7,577.4	7,590.7	7,590.2	27.3	7.3	36.66	499.3	893.3	601.2	567.5	33.69	17.845	
7,700.0	7,676.9	7,689.9	7,689.3	27.6	7.4	37.33	497.7	891.9	591.8	557.6	34.13	17.338	
7,800.0	7,776.4	7,795.0	7,794.4	28.0	7.6	38.08	495.9	890.2	582.2	547.6	34.58	16.836	
7,900.0	7,876.0	7,936.8	7,934.2	28.3	8.1	40.83	475.8	885.8	569.3	534.3	35.01	16.261	
8,000.0	7,975.5	8,028.7	8,020.7	28.7	8.3	44.46	445.4	880.3	551.8	516.3	35.43	15.572	
8,100.0	8,075.1	8,086.0	8,072.1	29.1	8.5	47.48	420.2	879.8	541.2	505.2	35.99	15.035	
8,160.0	8,134.7	8,122.8	8,103.4	29.3	8.7	49.77	400.9	881.1	539.3	503.0	36.28	14.865 CC, ES	
8,200.0	8,174.6	8,149.0	8,124.8	29.4	8.8	51.53	385.8	882.5	540.1	503.6	36.46	14.815 SF	
8,300.0	8,274.1	8,198.8	8,163.7	29.8	8.9	55.07	354.9	886.3	549.6	512.7	36.88	14.903	
8,400.0	8,373.7	8,250.0	8,201.7	30.2	9.0	58.83	321.1	891.4	570.1	532.9	37.23	15.314	
8,500.0	8,473.2	8,296.7	8,234.2	30.5	9.2	62.35	288.0	896.5	601.1	563.6	37.47	16.043	
8,600.0	8,572.8	8,337.0	8,260.4	30.9	9.3	65.43	257.7	901.2	642.2	604.7	37.56	17.099	
8,700.0	8,672.3	8,368.0	8,279.0	31.2	9.4	67.81	233.2	904.9	692.5	655.0	37.47	18.481	
8,800.0	8,771.8	8,420.0	8,309.0	31.6	9.7	71.73	191.0	909.9	749.2	711.7	37.48	19.988	
8,900.0	8,871.4	8,446.3	8,323.4	32.0	9.8	73.65	169.3	912.5	812.2	775.0	37.26	21.798	
9,000.0	8,970.9	8,463.0	8,332.2	32.3	9.9	74.86	155.1	914.1	880.9	843.9	36.96	23.833	
9,100.0	9,070.5	8,494.0	8,347.5	32.7	10.1	77.06	128.3	917.1	953.9	917.0	36.84	25.890	
9,200.0	9,170.0	8,513.8	8,356.8	33.0	10.3	78.44	110.9	918.9	1,030.5	993.9	36.66	28.112	
9,300.0	9,269.5	8,525.0	8,361.8	33.4	10.4	79.21	100.9	919.9	1,110.3	1,073.8	36.44	30.465	
9,400.0	9,369.1	8,545.0	8,370.4	33.8	10.5	80.57	82.9	921.6	1,192.5	1,156.1	36.38	32.783	
9,500.0	9,468.6	8,557.0	8,375.2	34.1	10.6	81.37	72.0	922.5	1,277.0	1,240.7	36.29	35.192	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - KING TUT FEDERAL #2H - OWB - ACTUAL W												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 7835-MWD												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									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)	Minimum Separation (usft)	Separation Factor	
9,600.0	9,568.2	8,557.0	8,375.2	34.5	10.6	81.37	72.0	922.5	1,363.4	1,327.2	36.14	37.722	
9,700.0	9,667.7	8,572.8	8,381.3	34.9	10.8	82.42	57.4	923.9	1,451.2	1,415.0	36.19	40.093	
9,800.0	9,767.2	8,588.0	8,386.5	35.2	10.9	83.39	43.3	925.3	1,540.5	1,504.2	36.28	42.460	
9,900.0	9,866.8	8,588.0	8,386.5	35.6	10.9	83.39	43.3	925.3	1,630.8	1,594.5	36.28	44.955	
10,000.0	9,966.3	8,588.0	8,386.5	35.9	10.9	83.39	43.3	925.3	1,722.1	1,685.8	36.31	47.428	
10,100.0	10,065.9	8,588.0	8,386.5	36.3	10.9	83.39	43.3	925.3	1,814.4	1,778.0	36.38	49.874	
10,200.0	10,165.4	8,601.1	8,390.7	36.7	11.0	84.21	31.0	926.6	1,907.2	1,870.7	36.58	52.143	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design		WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #704H - OWB - PWP1											Offset Site Error:	0.0 usft
Survey Program:		0-Standard Keeper 104, 11595-MWD+IFR1+FDIR											Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								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)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	89.62	0.2	30.0	30.0					
100.0	100.0	100.0	100.0	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.00	4.998		
200.0	200.0	200.0	200.0	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.04	4.966		
300.0	300.0	300.0	300.0	3.1	3.0	89.62	0.2	30.0	30.0	23.9	6.12	4.900		
400.0	400.0	400.0	400.0	3.2	3.0	89.62	0.2	30.0	30.0	23.8	6.24	4.805		
500.0	500.0	500.0	500.0	3.4	3.1	89.62	0.2	30.0	30.0	23.6	6.40	4.688		
524.1	524.1	524.1	524.1	3.4	3.1	89.62	0.2	30.0	30.0	23.6	6.44	4.656		
600.0	600.0	600.0	600.0	3.6	3.1	89.62	0.2	30.0	30.0	23.4	6.59	4.554		
633.3	633.3	633.3	633.3	3.6	3.1	89.62	0.2	30.0	30.0	23.3	6.66	4.507		
700.0	700.0	700.0	700.0	3.8	3.1	89.62	0.2	30.0	30.0	23.2	6.80	4.410		
800.0	800.0	800.0	800.0	4.0	3.2	89.62	0.2	30.0	30.0	23.0	7.04	4.260		
900.0	900.0	900.0	900.0	4.2	3.2	89.62	0.2	30.0	30.0	22.7	7.30	4.110		
1,000.0	1,000.0	1,000.0	1,000.0	4.5	3.2	89.62	0.2	30.0	30.0	22.4	7.57	3.961		
1,100.0	1,100.0	1,100.0	1,100.0	4.8	3.3	89.62	0.2	30.0	30.0	22.1	7.86	3.815		
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	89.62	0.2	30.0	30.0	21.8	8.16	3.675		
1,300.0	1,300.0	1,300.0	1,300.0	5.4	3.4	89.62	0.2	30.0	30.0	21.5	8.48	3.539		
1,400.0	1,400.0	1,400.0	1,400.0	5.7	3.5	89.62	0.2	30.0	30.0	21.2	8.80	3.410		
1,500.0	1,500.0	1,500.0	1,500.0	6.0	3.5	89.62	0.2	30.0	30.0	20.9	9.12	3.288		
1,600.0	1,600.0	1,600.0	1,600.0	6.3	3.6	89.62	0.2	30.0	30.0	20.5	9.46	3.171		
1,700.0	1,700.0	1,700.0	1,700.0	6.6	3.7	89.62	0.2	30.0	30.0	20.2	9.80	3.061		
1,800.0	1,800.0	1,800.0	1,800.0	6.9	3.8	89.62	0.2	30.0	30.0	19.9	10.15	2.956		
1,900.0	1,900.0	1,900.0	1,900.0	7.2	3.9	89.62	0.2	30.0	30.0	19.5	10.50	2.857		
2,000.0	2,000.0	2,000.0	2,000.0	7.6	3.9	89.62	0.2	30.0	30.0	19.1	10.86	2.764		
2,100.0	2,100.0	2,100.0	2,100.0	7.9	4.0	89.62	0.2	30.0	30.0	18.8	11.21	2.675		
2,200.0	2,200.0	2,200.0	2,200.0	8.2	4.1	89.62	0.2	30.0	30.0	18.4	11.58	2.591		
2,300.0	2,300.0	2,300.0	2,300.0	8.6	4.2	89.62	0.2	30.0	30.0	18.1	11.94	2.512		
2,400.0	2,400.0	2,400.0	2,400.0	8.9	4.3	89.62	0.2	30.0	30.0	17.7	12.31	2.436		
2,500.0	2,500.0	2,500.0	2,500.0	9.2	4.4	89.62	0.2	30.0	30.0	17.3	12.69	2.365 CC, ES		
2,600.0	2,600.0	2,599.0	2,599.0	9.6	4.5	51.04	0.6	31.7	30.6	17.5	13.05	2.342 SF		
2,700.0	2,699.8	2,697.9	2,697.7	9.9	4.5	55.98	1.7	36.7	32.4	19.0	13.41	2.418		
2,775.0	2,774.6	2,772.0	2,771.6	10.2	4.5	61.11	2.9	42.6	34.9	21.2	13.69	2.551		
2,800.0	2,799.5	2,796.6	2,796.1	10.3	4.6	62.83	3.5	45.0	36.1	22.3	13.79	2.615		
2,900.0	2,899.0	2,896.4	2,895.3	10.6	4.6	68.37	5.7	55.2	41.4	27.2	14.19	2.915		
3,000.0	2,998.5	2,996.2	2,994.5	10.9	4.7	72.62	7.9	65.5	47.0	32.4	14.59	3.219		
3,100.0	3,098.1	3,095.9	3,093.8	11.3	4.7	75.95	10.2	75.7	52.8	37.8	14.99	3.520		
3,200.0	3,197.6	3,195.7	3,193.0	11.6	4.8	78.61	12.4	86.0	58.7	43.3	15.39	3.816		
3,300.0	3,297.2	3,295.5	3,292.2	12.0	4.8	80.78	14.6	96.2	64.8	49.0	15.78	4.104		
3,400.0	3,396.7	3,395.3	3,391.5	12.3	4.9	82.58	16.9	106.4	70.9	54.7	16.18	4.384		
3,500.0	3,496.2	3,495.1	3,490.7	12.7	5.0	84.09	19.1	116.7	77.1	60.5	16.57	4.653		
3,600.0	3,595.8	3,594.9	3,589.9	13.0	5.0	85.38	21.3	126.9	83.3	66.4	16.96	4.913		
3,700.0	3,695.3	3,694.7	3,689.2	13.4	5.1	86.48	23.5	137.2	89.6	72.2	17.36	5.162		
3,800.0	3,794.9	3,794.5	3,788.4	13.7	5.2	87.44	25.8	147.4	95.9	78.2	17.75	5.402		
3,900.0	3,894.4	3,894.3	3,887.7	14.1	5.3	88.28	28.0	157.6	102.2	84.1	18.15	5.633		
4,000.0	3,993.9	3,994.1	3,986.9	14.4	5.4	89.03	30.2	167.9	108.6	90.0	18.55	5.854		
4,100.0	4,093.5	4,093.8	4,086.1	14.8	5.4	89.69	32.5	178.1	114.9	96.0	18.95	6.066		
4,200.0	4,193.0	4,193.6	4,185.4	15.1	5.5	90.28	34.7	188.4	121.3	102.0	19.35	6.269		
4,300.0	4,292.6	4,293.4	4,284.6	15.5	5.6	90.81	36.9	198.6	127.7	107.9	19.75	6.465		
4,400.0	4,392.1	4,393.2	4,383.8	15.8	5.7	91.30	39.2	208.9	134.1	113.9	20.16	6.652		
4,500.0	4,491.6	4,493.0	4,483.1	16.2	5.8	91.74	41.4	219.1	140.5	119.9	20.56	6.832		
4,600.0	4,591.2	4,592.8	4,582.3	16.5	5.9	92.14	43.6	229.3	146.9	125.9	20.97	7.004		
4,700.0	4,690.7	4,692.6	4,681.6	16.9	6.0	92.50	45.9	239.6	153.3	131.9	21.38	7.170		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #704H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 11595-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,790.3	4,792.4	4,780.8	17.2	6.1	92.84	48.1	249.8	159.7	137.9	21.80	7.329	
4,900.0	4,889.8	4,892.2	4,880.0	17.6	6.2	93.15	50.3	260.1	166.2	144.0	22.21	7.481	
5,000.0	4,989.3	4,991.9	4,979.3	17.9	6.3	93.44	52.6	270.3	172.6	150.0	22.63	7.628	
5,100.0	5,088.9	5,091.7	5,078.5	18.3	6.4	93.71	54.8	280.5	179.0	156.0	23.05	7.768	
5,200.0	5,188.4	5,191.5	5,177.7	18.7	6.5	93.95	57.0	290.8	185.5	162.0	23.47	7.903	
5,300.0	5,288.0	5,291.3	5,277.0	19.0	6.6	94.19	59.2	301.0	191.9	168.0	23.89	8.033	
5,400.0	5,387.5	5,391.1	5,376.2	19.4	6.7	94.40	61.5	311.3	198.4	174.0	24.31	8.158	
5,500.0	5,487.0	5,490.9	5,475.5	19.7	6.8	94.61	63.7	321.5	204.8	180.1	24.74	8.278	
5,600.0	5,586.6	5,590.7	5,574.7	20.1	6.9	94.80	65.9	331.8	211.3	186.1	25.17	8.394	
5,700.0	5,686.1	5,690.5	5,673.9	20.4	7.0	94.98	68.2	342.0	217.7	192.1	25.60	8.505	
5,800.0	5,785.7	5,790.3	5,773.2	20.8	7.1	95.15	70.4	352.2	224.2	198.1	26.03	8.612	
5,900.0	5,885.2	5,890.0	5,872.4	21.2	7.2	95.30	72.6	362.5	230.6	204.2	26.46	8.715	
6,000.0	5,984.7	5,989.8	5,971.6	21.5	7.3	95.46	74.9	372.7	237.1	210.2	26.90	8.814	
6,100.0	6,084.3	6,089.6	6,070.9	21.9	7.4	95.60	77.1	383.0	243.5	216.2	27.33	8.910	
6,200.0	6,183.8	6,189.4	6,170.1	22.2	7.5	95.73	79.3	393.2	250.0	222.2	27.77	9.002	
6,300.0	6,283.3	6,289.2	6,269.4	22.6	7.6	95.86	81.6	403.5	256.5	228.3	28.21	9.090	
6,400.0	6,382.9	6,389.0	6,368.6	22.9	7.7	95.99	83.8	413.7	262.9	234.3	28.65	9.176	
6,500.0	6,482.4	6,488.8	6,467.8	23.3	7.8	96.10	86.0	423.9	269.4	240.3	29.10	9.258	
6,600.0	6,582.0	6,588.6	6,567.1	23.7	8.0	96.21	88.3	434.2	275.9	246.3	29.54	9.338	
6,700.0	6,681.5	6,688.4	6,666.3	24.0	8.1	96.32	90.5	444.4	282.3	252.3	29.99	9.415	
6,800.0	6,781.0	6,788.2	6,765.5	24.4	8.2	96.42	92.7	454.7	288.8	258.4	30.44	9.489	
6,900.0	6,880.6	6,887.9	6,864.8	24.7	8.3	96.52	95.0	464.9	295.3	264.4	30.89	9.560	
7,000.0	6,980.1	6,987.7	6,964.0	25.1	8.4	96.61	97.2	475.1	301.7	270.4	31.34	9.629	
7,100.0	7,079.7	7,087.5	7,063.3	25.5	8.5	96.70	99.4	485.4	308.2	276.4	31.79	9.696	
7,200.0	7,179.2	7,187.3	7,162.5	25.8	8.6	96.78	101.6	495.6	314.7	282.4	32.24	9.760	
7,300.0	7,278.7	7,287.1	7,261.7	26.2	8.8	96.87	103.9	505.9	321.2	288.5	32.70	9.823	
7,400.0	7,378.3	7,386.9	7,361.0	26.5	8.9	96.94	106.1	516.1	327.6	294.5	33.15	9.883	
7,500.0	7,477.8	7,486.7	7,460.2	26.9	9.0	97.02	108.3	526.4	334.1	300.5	33.61	9.941	
7,600.0	7,577.4	7,586.5	7,559.4	27.3	9.1	97.09	110.6	536.6	340.6	306.5	34.07	9.997	
7,700.0	7,676.9	7,686.3	7,658.7	27.6	9.2	97.16	112.8	546.8	347.1	312.5	34.53	10.052	
7,800.0	7,776.4	7,786.0	7,757.9	28.0	9.4	97.23	115.0	557.1	353.5	318.5	34.99	10.104	
7,900.0	7,876.0	7,885.8	7,857.1	28.3	9.5	97.29	117.3	567.3	360.0	324.6	35.45	10.155	
8,000.0	7,975.5	7,985.6	7,956.4	28.7	9.6	97.36	119.5	577.6	366.5	330.6	35.91	10.204	
8,100.0	8,075.1	8,085.4	8,055.6	29.1	9.7	97.42	121.7	587.8	373.0	336.6	36.38	10.252	
8,200.0	8,174.6	8,185.2	8,154.9	29.4	9.8	97.48	124.0	598.1	379.4	342.6	36.84	10.298	
8,300.0	8,274.1	8,285.0	8,254.1	29.8	10.0	97.53	126.2	608.3	385.9	348.6	37.31	10.343	
8,400.0	8,373.7	8,384.8	8,353.3	30.2	10.1	97.59	128.4	618.5	392.4	354.6	37.78	10.386	
8,500.0	8,473.2	8,484.6	8,452.6	30.5	10.2	97.64	130.7	628.8	398.9	360.6	38.25	10.428	
8,600.0	8,572.8	8,584.4	8,551.8	30.9	10.3	97.69	132.9	639.0	405.3	366.6	38.72	10.469	
8,700.0	8,672.3	8,684.1	8,651.0	31.2	10.4	97.74	135.1	649.3	411.8	372.6	39.19	10.509	
8,800.0	8,771.8	8,783.9	8,750.3	31.6	10.6	97.79	137.3	659.5	418.3	378.6	39.66	10.547	
8,900.0	8,871.4	8,883.7	8,849.5	32.0	10.7	97.83	139.6	669.7	424.8	384.6	40.13	10.584	
9,000.0	8,970.9	8,983.5	8,948.8	32.3	10.8	97.88	141.8	680.0	431.3	390.6	40.61	10.620	
9,100.0	9,070.5	9,083.3	9,048.0	32.7	10.9	97.92	144.0	690.2	437.7	396.7	41.08	10.655	
9,200.0	9,170.0	9,183.1	9,147.2	33.0	11.1	97.97	146.3	700.5	444.2	402.7	41.56	10.688	
9,300.0	9,269.5	9,282.9	9,246.5	33.4	11.2	98.01	148.5	710.7	450.7	408.7	42.04	10.721	
9,400.0	9,369.1	9,382.7	9,345.7	33.8	11.3	98.05	150.7	721.0	457.2	414.7	42.52	10.753	
9,500.0	9,468.6	9,482.5	9,444.9	34.1	11.4	98.09	153.0	731.2	463.7	420.7	43.00	10.784	
9,600.0	9,568.2	9,582.3	9,544.2	34.5	11.6	98.12	155.2	741.4	470.1	426.7	43.48	10.814	
9,700.0	9,667.7	9,682.0	9,643.4	34.9	11.7	98.16	157.4	751.7	476.6	432.7	43.96	10.843	
9,800.0	9,767.2	9,781.8	9,742.7	35.2	11.8	98.20	159.7	761.9	483.1	438.7	44.44	10.871	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #704H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 11595-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.0	9,866.8	9,881.6	9,841.9	35.6	11.9	98.23	161.9	772.2	489.6	444.7	44.92	10.899	
10,000.0	9,966.3	9,981.4	9,941.1	35.9	12.1	98.27	164.1	782.4	496.1	450.7	45.41	10.925	
10,100.0	10,065.9	10,081.2	10,040.4	36.3	12.2	98.30	166.4	792.6	502.5	456.7	45.89	10.951	
10,200.0	10,165.4	10,181.0	10,139.6	36.7	12.3	98.33	168.6	802.9	509.0	462.6	46.38	10.976	
10,300.0	10,264.9	10,280.8	10,238.8	37.0	12.4	98.36	170.8	813.1	515.5	468.6	46.86	11.000	
10,400.0	10,364.5	10,380.6	10,338.1	37.4	12.6	98.39	173.0	823.4	522.0	474.6	47.35	11.024	
10,500.0	10,464.0	10,480.4	10,437.3	37.8	12.7	98.42	175.3	833.6	528.5	480.6	47.84	11.047	
10,600.0	10,563.6	10,580.1	10,536.6	38.1	12.8	98.45	177.5	843.9	535.0	486.6	48.33	11.069	
10,700.0	10,663.1	10,679.9	10,635.8	38.5	13.0	98.48	179.7	854.1	541.4	492.6	48.82	11.091	
10,739.6	10,702.5	10,719.5	10,675.1	38.6	13.0	98.49	180.6	858.2	544.0	495.0	49.01	11.100	
10,800.0	10,762.7	10,779.7	10,735.0	38.8	13.1	98.51	182.0	864.3	547.9	498.6	49.31	11.111	
10,900.0	10,862.4	10,879.5	10,834.3	39.2	13.2	98.41	184.2	874.6	554.1	504.3	49.80	11.127	
11,000.0	10,962.2	10,979.3	10,933.5	39.6	13.3	98.12	186.4	884.8	560.0	509.7	50.28	11.138	
11,100.0	11,062.1	11,079.0	11,032.6	39.9	13.5	97.67	188.7	895.1	565.8	515.0	50.77	11.145	
11,200.0	11,162.1	11,178.6	11,131.7	40.3	13.6	97.05	190.9	905.3	571.3	520.1	51.25	11.149	
11,289.6	11,251.7	11,267.8	11,220.4	40.6	13.7	136.72	192.9	914.4	576.2	524.6	51.68	11.150	
11,300.0	11,262.1	11,278.1	11,230.7	40.6	13.7	136.63	193.1	915.5	576.8	525.1	51.73	11.151	
11,400.0	11,362.1	11,377.6	11,329.6	41.0	13.9	135.75	195.3	925.7	582.3	530.1	52.21	11.154	
11,500.0	11,462.1	11,477.0	11,428.5	41.3	14.0	134.89	197.6	935.9	588.0	535.3	52.69	11.159	
11,564.4	11,526.5	11,541.1	11,492.2	41.6	14.1	134.34	199.0	942.5	591.7	538.7	53.00	11.163	
11,575.0	11,537.1	11,551.6	11,502.6	41.6	14.1	-45.36	199.2	943.6	592.2	539.2	53.05	11.163	
11,600.0	11,562.0	11,576.4	11,527.3	41.7	14.1	-45.60	199.8	946.1	592.8	539.7	53.17	11.151	
11,625.0	11,586.9	11,597.7	11,548.4	41.7	14.2	-45.95	200.3	948.3	592.6	539.3	53.26	11.126	
11,650.0	11,611.6	11,608.8	11,559.5	41.8	14.2	-46.22	200.3	949.5	591.8	538.5	53.29	11.105	
11,675.0	11,636.1	11,625.0	11,575.6	41.9	14.2	-46.67	200.1	951.6	590.8	537.5	53.35	11.075	
11,700.0	11,660.3	11,625.0	11,575.6	42.0	14.2	-46.78	200.1	951.6	589.5	536.1	53.36	11.048	
11,725.0	11,684.1	11,641.9	11,592.3	42.0	14.2	-47.39	199.3	954.0	587.8	534.4	53.42	11.004	
11,750.0	11,707.4	11,650.0	11,600.3	42.1	14.2	-47.80	198.7	955.3	585.9	532.5	53.46	10.959	
11,775.0	11,730.3	11,663.6	11,613.6	42.2	14.2	-48.45	197.5	957.6	583.7	530.2	53.52	10.907	
11,800.0	11,752.6	11,675.0	11,624.7	42.2	14.2	-49.09	196.3	959.7	581.4	527.8	53.58	10.851	
11,825.0	11,774.3	11,685.0	11,634.4	42.3	14.2	-49.73	195.0	961.6	578.8	525.1	53.64	10.791	
11,850.0	11,795.3	11,700.0	11,649.0	42.3	14.2	-50.65	192.7	964.8	576.0	522.3	53.70	10.727	
11,875.0	11,815.6	11,700.0	11,649.0	42.4	14.2	-50.93	192.7	964.8	573.1	519.4	53.76	10.661	
11,900.0	11,835.1	11,716.1	11,664.4	42.4	14.2	-52.02	189.8	968.3	570.0	516.2	53.83	10.589	
11,925.0	11,853.8	11,725.0	11,672.9	42.4	14.2	-52.79	188.1	970.4	566.8	512.9	53.90	10.517	
11,950.0	11,871.5	11,736.3	11,683.5	42.5	14.2	-53.74	185.6	973.2	563.6	509.6	53.97	10.443	
11,975.0	11,888.3	11,750.0	11,696.4	42.5	14.2	-54.89	182.3	976.7	560.4	506.3	54.04	10.369	
12,000.0	11,904.1	11,750.0	11,696.4	42.5	14.2	-55.21	182.3	976.7	557.1	503.0	54.12	10.294	
12,025.0	11,918.9	11,765.4	11,710.6	42.6	14.2	-56.55	178.3	980.9	553.8	499.6	54.20	10.217	
12,050.0	11,932.6	11,775.0	11,719.4	42.6	14.2	-57.54	175.5	983.7	550.7	496.4	54.29	10.143	
12,075.0	11,945.2	11,784.0	11,727.5	42.6	14.2	-58.50	172.8	986.3	547.6	493.2	54.38	10.070	
12,100.0	11,956.6	11,793.0	11,735.6	42.6	14.2	-59.48	170.0	989.0	544.7	490.2	54.47	9.999	
12,125.0	11,966.9	11,800.0	11,741.9	42.7	14.2	-60.32	167.7	991.2	542.0	487.4	54.57	9.931	
12,150.0	11,975.9	11,810.4	11,751.1	42.7	14.2	-61.42	164.1	994.4	539.5	484.8	54.68	9.867	
12,175.0	11,983.7	11,818.7	11,758.4	42.7	14.2	-62.35	161.1	997.2	537.3	482.5	54.79	9.806	
12,200.0	11,990.3	11,825.0	11,763.9	42.7	14.2	-63.09	158.8	999.2	535.5	480.5	54.91	9.751	
12,225.0	11,995.6	11,834.7	11,772.2	42.7	14.2	-64.12	155.1	1,002.5	533.9	478.9	55.03	9.702	
12,250.0	11,999.6	11,842.4	11,778.7	42.8	14.2	-64.94	152.1	1,005.1	532.8	477.7	55.16	9.659	
12,275.0	12,002.3	11,850.0	11,785.1	42.8	14.2	-65.72	149.0	1,007.8	532.1	476.8	55.29	9.624	
12,298.1	12,003.7	11,856.1	11,790.3	42.8	14.2	-66.33	146.4	1,010.0	531.9	476.5	55.41	9.599	
12,300.0	12,003.7	11,856.7	11,790.7	42.8	14.2	-66.38	146.2	1,010.2	531.9	476.5	55.42	9.598	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #704H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 11595-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						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)	Minimum Separation (usft)	Separation Factor	
12,314.9	12,004.0	11,860.7	11,794.0	42.8	14.2	-66.76	144.4	1,011.7	532.0	476.5	55.50	9.586	
12,400.0	12,003.9	11,885.3	11,814.0	42.8	14.2	-69.12	133.4	1,020.9	539.1	483.2	55.96	9.633	
12,500.0	12,003.8	11,920.0	11,840.9	42.9	14.3	-72.32	116.2	1,034.7	561.5	505.0	56.46	9.945	
12,600.0	12,003.7	11,962.9	11,871.8	42.9	14.3	-75.99	92.7	1,052.9	596.6	539.7	56.86	10.491	
12,700.0	12,003.6	12,016.1	11,906.2	43.0	14.4	-80.00	60.2	1,077.1	641.0	583.9	57.17	11.213	
12,800.0	12,003.5	12,082.1	11,942.4	43.1	14.4	-84.01	15.4	1,109.1	691.5	634.1	57.43	12.042	
12,900.0	12,003.4	12,162.3	11,975.7	43.2	14.6	-87.43	-44.7	1,150.3	745.0	687.3	57.70	12.913	
13,000.0	12,003.3	12,256.0	11,998.6	43.3	14.8	-89.57	-120.6	1,200.0	798.9	740.9	58.02	13.769	
13,100.0	12,003.2	12,388.9	12,004.0	43.4	15.2	-90.03	-233.6	1,269.2	851.0	792.5	58.50	14.546	
13,200.0	12,003.1	12,577.1	12,003.8	43.6	15.8	-90.02	-403.4	1,350.0	892.2	833.0	59.23	15.064	
13,300.0	12,003.0	12,885.1	12,003.4	43.7	17.1	-90.02	-699.2	1,433.8	917.5	857.2	60.23	15.233	
13,400.0	12,002.9	13,132.6	12,003.2	43.9	18.2	-90.02	-945.5	1,453.6	924.1	863.1	60.98	15.154	
13,500.0	12,002.8	13,232.6	12,003.1	44.1	18.7	-90.02	-1,045.5	1,454.3	924.1	862.4	61.69	14.979	
13,600.0	12,002.7	13,332.6	12,003.0	44.3	19.2	-90.02	-1,145.5	1,454.9	924.1	861.6	62.44	14.799	
13,700.0	12,002.6	13,432.6	12,002.9	44.5	19.7	-90.02	-1,245.5	1,455.5	924.1	860.8	63.24	14.613	
13,800.0	12,002.5	13,532.6	12,002.8	44.8	20.2	-90.02	-1,345.5	1,456.1	924.1	860.0	64.07	14.423	
13,900.0	12,002.4	13,632.6	12,002.7	45.0	20.8	-90.02	-1,445.5	1,456.7	924.1	859.1	64.93	14.231	
14,000.0	12,002.3	13,732.6	12,002.6	45.3	21.4	-90.02	-1,545.5	1,457.3	924.1	858.2	65.83	14.037	
14,100.0	12,002.2	13,832.6	12,002.5	45.6	22.0	-90.02	-1,645.5	1,457.9	924.1	857.3	66.76	13.842	
14,200.0	12,002.1	13,932.6	12,002.4	45.9	22.6	-90.02	-1,745.5	1,458.5	924.1	856.3	67.72	13.645	
14,300.0	12,002.0	14,032.6	12,002.2	46.2	23.3	-90.02	-1,845.5	1,459.1	924.1	855.4	68.71	13.450	
14,400.0	12,001.9	14,132.6	12,002.1	46.5	23.9	-90.02	-1,945.5	1,459.8	924.1	854.3	69.72	13.254	
14,500.0	12,001.8	14,232.6	12,002.0	46.8	24.6	-90.02	-2,045.5	1,460.4	924.1	853.3	70.76	13.060	
14,600.0	12,001.7	14,332.6	12,001.9	47.2	25.3	-90.02	-2,145.5	1,461.0	924.1	852.2	71.82	12.866	
14,700.0	12,001.6	14,432.6	12,001.8	47.6	26.0	-90.02	-2,245.5	1,461.6	924.1	851.2	72.90	12.675	
14,800.0	12,001.5	14,532.6	12,001.7	47.9	26.7	-90.02	-2,345.5	1,462.2	924.1	850.0	74.01	12.486	
14,900.0	12,001.4	14,632.6	12,001.6	48.3	27.4	-90.02	-2,445.5	1,462.8	924.1	848.9	75.14	12.298	
15,000.0	12,001.3	14,732.6	12,001.5	48.7	28.1	-90.02	-2,545.5	1,463.4	924.1	847.8	76.28	12.114	
15,100.0	12,001.2	14,832.6	12,001.4	49.2	28.8	-90.02	-2,645.5	1,464.0	924.1	846.6	77.45	11.932	
15,200.0	12,001.1	14,932.6	12,001.3	49.6	29.6	-90.02	-2,745.5	1,464.6	924.1	845.4	78.63	11.752	
15,300.0	12,001.0	15,032.6	12,001.2	50.0	30.3	-90.02	-2,845.5	1,465.3	924.1	844.2	79.83	11.575	
15,400.0	12,000.9	15,132.6	12,001.1	50.5	31.0	-90.01	-2,945.5	1,465.9	924.0	843.0	81.04	11.402	
15,500.0	12,000.8	15,232.6	12,001.0	50.9	31.8	-90.01	-3,045.5	1,466.5	924.0	841.8	82.28	11.231	
15,600.0	12,000.7	15,332.6	12,000.9	51.4	32.6	-90.01	-3,145.5	1,467.1	924.0	840.5	83.52	11.064	
15,700.0	12,000.6	15,432.6	12,000.8	51.9	33.3	-90.01	-3,245.5	1,467.7	924.0	839.3	84.78	10.899	
15,800.0	12,000.5	15,532.6	12,000.7	52.4	34.1	-90.01	-3,345.5	1,468.3	924.0	838.0	86.06	10.738	
15,900.0	12,000.4	15,632.6	12,000.6	52.9	34.9	-90.01	-3,445.5	1,468.9	924.0	836.7	87.35	10.579	
16,000.0	12,000.3	15,732.6	12,000.5	53.4	35.7	-90.01	-3,545.5	1,469.5	924.0	835.4	88.65	10.424	
16,100.0	12,000.2	15,832.6	12,000.4	53.9	36.4	-90.01	-3,645.5	1,470.2	924.0	834.1	89.96	10.272	
16,200.0	12,000.1	15,932.6	12,000.3	54.4	37.2	-90.01	-3,745.5	1,470.8	924.0	832.8	91.28	10.123	
16,300.0	12,000.0	16,032.6	12,000.2	55.0	38.0	-90.01	-3,845.5	1,471.4	924.0	831.4	92.62	9.977	
16,400.0	11,999.9	16,132.6	12,000.1	55.5	38.8	-90.01	-3,945.5	1,472.0	924.0	830.1	93.97	9.834	
16,500.0	11,999.8	16,232.6	12,000.0	56.1	39.6	-90.01	-4,045.5	1,472.6	924.0	828.7	95.32	9.694	
16,600.0	11,999.7	16,332.6	11,999.9	56.6	40.4	-90.01	-4,145.5	1,473.2	924.0	827.3	96.69	9.557	
16,700.0	11,999.6	16,432.6	11,999.8	57.2	41.2	-90.01	-4,245.5	1,473.8	924.0	826.0	98.07	9.422	
16,800.0	11,999.5	16,532.6	11,999.7	57.8	42.0	-90.01	-4,345.5	1,474.4	924.0	824.6	99.46	9.291	
16,900.0	11,999.4	16,632.6	11,999.6	58.3	42.8	-90.01	-4,445.5	1,475.0	924.0	823.2	100.85	9.162	
17,000.0	11,999.3	16,732.6	11,999.4	58.9	43.6	-90.01	-4,545.5	1,475.7	924.0	821.8	102.26	9.037	
17,100.0	11,999.2	16,832.6	11,999.3	59.5	44.5	-90.01	-4,645.5	1,476.3	924.0	820.4	103.67	8.913	
17,200.0	11,999.1	16,932.6	11,999.2	60.1	45.3	-90.01	-4,745.5	1,476.9	924.0	818.9	105.09	8.793	
17,300.0	11,999.0	17,032.6	11,999.1	60.7	46.1	-90.01	-4,845.5	1,477.5	924.0	817.5	106.52	8.675	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #704H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 11595-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,400.0	11,998.9	17,132.6	11,999.0	61.3	46.9	-90.01	-4,945.5	1,478.1	924.0	816.1	107.95	8.559	
17,500.0	11,998.8	17,232.6	11,998.9	62.0	47.7	-90.01	-5,045.5	1,478.7	924.0	814.6	109.40	8.446	
17,600.0	11,998.7	17,332.6	11,998.8	62.6	48.5	-90.01	-5,145.5	1,479.3	924.0	813.2	110.85	8.336	
17,700.0	11,998.6	17,432.6	11,998.7	63.2	49.4	-90.01	-5,245.5	1,479.9	924.0	811.7	112.31	8.228	
17,800.0	11,998.5	17,532.6	11,998.6	63.9	50.2	-90.01	-5,345.5	1,480.6	924.0	810.2	113.77	8.122	
17,900.0	11,998.4	17,632.6	11,998.5	64.5	51.0	-90.01	-5,445.5	1,481.2	924.0	808.8	115.24	8.018	
18,000.0	11,998.3	17,732.6	11,998.4	65.1	51.8	-90.01	-5,545.4	1,481.8	924.0	807.3	116.72	7.917	
18,100.0	11,998.2	17,832.6	11,998.3	65.8	52.7	-90.01	-5,645.4	1,482.4	924.0	805.8	118.20	7.817	
18,200.0	11,998.1	17,932.6	11,998.2	66.4	53.5	-90.01	-5,745.4	1,483.0	924.0	804.3	119.69	7.720	
18,300.0	11,998.0	18,032.6	11,998.1	67.1	54.3	-90.01	-5,845.4	1,483.6	924.0	802.8	121.18	7.625	
18,400.0	11,997.9	18,132.6	11,998.0	67.8	55.1	-90.01	-5,945.4	1,484.2	924.0	801.3	122.68	7.532	
18,500.0	11,997.8	18,232.6	11,997.9	68.4	56.0	-90.01	-6,045.4	1,484.8	924.0	799.8	124.19	7.440	
18,600.0	11,997.7	18,332.6	11,997.8	69.1	56.8	-90.01	-6,145.4	1,485.4	924.0	798.3	125.70	7.351	
18,700.0	11,997.6	18,432.6	11,997.7	69.8	57.6	-90.01	-6,245.4	1,486.1	924.0	796.8	127.21	7.263	
18,800.0	11,997.5	18,532.6	11,997.6	70.5	58.5	-90.01	-6,345.4	1,486.7	924.0	795.3	128.73	7.178	
18,900.0	11,997.4	18,632.6	11,997.5	71.2	59.3	-90.01	-6,445.4	1,487.3	924.0	793.7	130.26	7.094	
19,000.0	11,997.3	18,732.6	11,997.4	71.9	60.1	-90.01	-6,545.4	1,487.9	924.0	792.2	131.79	7.011	
19,100.0	11,997.2	18,832.6	11,997.3	72.5	61.0	-90.01	-6,645.4	1,488.5	924.0	790.7	133.32	6.931	
19,200.0	11,997.1	18,932.6	11,997.2	73.2	61.8	-90.01	-6,745.4	1,489.1	924.0	789.1	134.86	6.852	
19,300.0	11,997.0	19,032.6	11,997.1	73.9	62.7	-90.01	-6,845.4	1,489.7	924.0	787.6	136.40	6.774	
19,400.0	11,996.9	19,132.6	11,997.0	74.7	63.5	-90.01	-6,945.4	1,490.3	924.0	786.1	137.94	6.698	
19,500.0	11,996.8	19,232.6	11,996.9	75.4	64.3	-90.01	-7,045.4	1,491.0	924.0	784.5	139.49	6.624	
19,600.0	11,996.7	19,332.6	11,996.7	76.1	65.2	-90.01	-7,145.4	1,491.6	924.0	783.0	141.04	6.551	
19,700.0	11,996.6	19,432.6	11,996.6	76.8	66.0	-90.01	-7,245.4	1,492.2	924.0	781.4	142.60	6.480	
19,800.0	11,996.5	19,532.6	11,996.5	77.5	66.9	-90.01	-7,345.4	1,492.8	924.0	779.8	144.16	6.409	
19,900.0	11,996.4	19,632.6	11,996.4	78.2	67.7	-90.01	-7,445.4	1,493.4	924.0	778.3	145.72	6.341	
20,000.0	11,996.3	19,732.6	11,996.3	78.9	68.5	-90.00	-7,545.4	1,494.0	924.0	776.7	147.29	6.273	
20,100.0	11,996.2	19,832.6	11,996.2	79.7	69.4	-90.00	-7,645.4	1,494.6	924.0	775.1	148.86	6.207	
20,200.0	11,996.1	19,932.6	11,996.1	80.4	70.2	-90.00	-7,745.4	1,495.2	924.0	773.6	150.43	6.142	
20,300.0	11,996.0	20,032.6	11,996.0	81.1	71.1	-90.00	-7,845.4	1,495.8	924.0	772.0	152.01	6.078	
20,400.0	11,995.9	20,132.6	11,995.9	81.9	71.9	-90.00	-7,945.4	1,496.5	924.0	770.4	153.59	6.016	
20,500.0	11,995.8	20,232.6	11,995.8	82.6	72.8	-90.00	-8,045.4	1,497.1	924.0	768.8	155.17	5.955	
20,600.0	11,995.7	20,332.6	11,995.7	83.3	73.6	-90.00	-8,145.4	1,497.7	924.0	767.2	156.76	5.894	
20,700.0	11,995.6	20,432.6	11,995.6	84.1	74.4	-90.00	-8,245.4	1,498.3	924.0	765.6	158.34	5.835	
20,800.0	11,995.5	20,532.6	11,995.5	84.8	75.3	-90.00	-8,345.4	1,498.9	924.0	764.0	159.93	5.777	
20,900.0	11,995.3	20,632.6	11,995.4	85.6	76.1	-90.00	-8,445.4	1,499.5	924.0	762.5	161.53	5.720	
21,000.0	11,995.2	20,732.6	11,995.3	86.3	77.0	-90.00	-8,545.4	1,500.1	924.0	760.9	163.12	5.664	
21,100.0	11,995.1	20,832.6	11,995.2	87.1	77.8	-90.00	-8,645.4	1,500.7	924.0	759.3	164.72	5.609	
21,200.0	11,995.0	20,932.6	11,995.1	87.8	78.7	-90.00	-8,745.4	1,501.4	924.0	757.7	166.32	5.555	
21,300.0	11,994.9	21,032.6	11,995.0	88.6	79.5	-90.00	-8,845.4	1,502.0	924.0	756.1	167.92	5.502	
21,400.0	11,994.8	21,132.6	11,994.9	89.3	80.4	-90.00	-8,945.4	1,502.6	924.0	754.4	169.52	5.450	
21,500.0	11,994.7	21,232.6	11,994.8	90.1	81.2	-90.00	-9,045.4	1,503.2	924.0	752.8	171.13	5.399	
21,600.0	11,994.6	21,332.6	11,994.7	90.8	82.1	-90.00	-9,145.4	1,503.8	924.0	751.2	172.74	5.349	
21,700.0	11,994.5	21,432.6	11,994.6	91.6	82.9	-90.00	-9,245.4	1,504.4	924.0	749.6	174.35	5.299	
21,800.0	11,994.4	21,532.6	11,994.5	92.4	83.8	-90.00	-9,345.4	1,505.0	924.0	748.0	175.96	5.251	
21,900.0	11,994.3	21,632.6	11,994.4	93.1	84.6	-90.00	-9,445.4	1,505.6	924.0	746.4	177.58	5.203	
22,000.0	11,994.2	21,732.6	11,994.3	93.9	85.5	-90.00	-9,545.4	1,506.2	924.0	744.8	179.20	5.156	
22,100.0	11,994.1	21,832.6	11,994.2	94.7	86.3	-90.00	-9,645.4	1,506.9	924.0	743.2	180.81	5.110	
22,200.0	11,994.0	21,932.6	11,994.0	95.4	87.2	-90.00	-9,745.4	1,507.5	924.0	741.5	182.43	5.065	
22,245.4	11,994.0	21,978.0	11,994.0	95.8	87.5	-90.00	-9,790.7	1,507.7	924.0	740.8	183.17	5.044	

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #706H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.4	3.0	3.0	-90.38	-0.2	-30.0	30.0				
100.0	100.0	100.4	100.4	3.0	3.0	-90.38	-0.2	-30.0	30.0	24.0	6.01	4.995	
200.0	200.0	200.4	200.4	3.0	3.0	-90.38	-0.2	-30.0	30.0	23.9	6.08	4.934	
300.0	300.0	300.4	300.4	3.1	3.1	-90.38	-0.2	-30.0	30.0	23.8	6.24	4.811	
400.0	400.0	400.4	400.4	3.2	3.2	-90.38	-0.2	-30.0	30.0	23.5	6.47	4.638	
500.0	500.0	500.4	500.4	3.4	3.4	-90.38	-0.2	-30.0	30.0	23.2	6.77	4.432	
600.0	600.0	600.4	600.4	3.6	3.6	-90.38	-0.2	-30.0	30.0	22.9	7.13	4.208	
700.0	700.0	700.4	700.4	3.8	3.8	-90.38	-0.2	-30.0	30.0	22.5	7.54	3.978	
800.0	800.0	800.4	800.4	4.0	4.0	-90.38	-0.2	-30.0	30.0	22.0	8.00	3.752	
900.0	900.0	900.4	900.4	4.2	4.2	-90.38	-0.2	-30.0	30.0	21.5	8.49	3.535	
1,000.0	1,000.0	1,000.4	1,000.4	4.5	4.5	-90.38	-0.2	-30.0	30.0	21.0	9.01	3.330	
1,100.0	1,100.0	1,100.4	1,100.4	4.8	4.8	-90.38	-0.2	-30.0	30.0	20.4	9.56	3.140	
1,200.0	1,200.0	1,200.4	1,200.4	5.1	5.1	-90.38	-0.2	-30.0	30.0	19.9	10.12	2.964	
1,300.0	1,300.0	1,300.4	1,300.4	5.4	5.4	-90.38	-0.2	-30.0	30.0	19.3	10.71	2.801	
1,400.0	1,400.0	1,400.4	1,400.4	5.7	5.7	-90.38	-0.2	-30.0	30.0	18.7	11.31	2.653	
1,500.0	1,500.0	1,500.4	1,500.4	6.0	6.0	-90.38	-0.2	-30.0	30.0	18.1	11.92	2.516	
1,600.0	1,600.0	1,600.4	1,600.4	6.3	6.3	-90.38	-0.2	-30.0	30.0	17.5	12.55	2.391	
1,700.0	1,700.0	1,700.4	1,700.4	6.6	6.6	-90.38	-0.2	-30.0	30.0	16.8	13.18	2.276	
1,800.0	1,800.0	1,800.4	1,800.4	6.9	6.9	-90.38	-0.2	-30.0	30.0	16.2	13.83	2.170	
1,900.0	1,900.0	1,900.4	1,900.4	7.2	7.2	-90.38	-0.2	-30.0	30.0	15.5	14.47	2.073	
2,000.0	2,000.0	2,000.4	2,000.4	7.6	7.6	-90.38	-0.2	-30.0	30.0	14.9	15.13	1.983 Advise and Monitor	
2,100.0	2,100.0	2,100.4	2,100.4	7.9	7.9	-90.38	-0.2	-30.0	30.0	14.2	15.79	1.900 Advise and Monitor	
2,200.0	2,200.0	2,200.4	2,200.4	8.2	8.2	-90.38	-0.2	-30.0	30.0	13.5	16.46	1.823 Advise and Monitor	
2,300.0	2,300.0	2,300.4	2,300.4	8.6	8.6	-90.38	-0.2	-30.0	30.0	12.9	17.13	1.752 Advise and Monitor	
2,400.0	2,400.0	2,400.4	2,400.4	8.9	8.9	-90.38	-0.2	-30.0	30.0	12.2	17.80	1.686 Advise and Monitor	
2,416.5	2,416.5	2,416.9	2,416.9	9.0	9.0	-90.38	-0.2	-30.0	30.0	12.1	17.91	1.675 Advise and Monitor, CC	
2,500.0	2,500.0	2,500.4	2,500.4	9.2	9.2	-90.38	-0.2	-30.0	30.0	11.5	18.48	1.624 Advise and Monitor, ES, SF	
2,600.0	2,600.0	2,600.0	2,600.0	9.6	9.6	-130.33	1.3	-30.8	32.0	12.8	19.15	1.670 Advise and Monitor	
2,700.0	2,699.8	2,699.1	2,698.9	9.9	9.9	-129.39	5.8	-33.4	37.9	18.1	19.81	1.913 Advise and Monitor	
2,775.0	2,774.6	2,773.8	2,773.4	10.2	10.2	-129.63	10.4	-35.9	44.5	24.1	20.31	2.188	
2,800.0	2,799.5	2,798.7	2,798.3	10.3	10.3	-130.04	11.9	-36.7	46.9	26.4	20.48	2.287	
2,900.0	2,899.0	2,898.2	2,897.6	10.6	10.6	-131.31	18.0	-40.1	56.4	35.3	21.16	2.668	
3,000.0	2,998.5	2,997.7	2,996.8	10.9	10.9	-132.21	24.1	-43.5	66.1	44.2	21.84	3.025	
3,100.0	3,098.1	3,097.3	3,096.1	11.3	11.3	-132.88	30.1	-46.8	75.7	53.2	22.52	3.361	
3,200.0	3,197.6	3,196.8	3,195.4	11.6	11.6	-133.40	36.2	-50.2	85.3	62.1	23.20	3.678	
3,300.0	3,297.2	3,296.3	3,294.7	12.0	12.0	-133.81	42.3	-53.6	95.0	71.1	23.88	3.976	
3,400.0	3,396.7	3,395.9	3,394.0	12.3	12.3	-134.15	48.3	-57.0	104.6	80.0	24.57	4.257	
3,500.0	3,496.2	3,495.4	3,493.3	12.7	12.7	-134.43	54.4	-60.3	114.3	89.0	25.26	4.523	
3,600.0	3,595.8	3,594.9	3,592.6	13.0	13.0	-134.67	60.5	-63.7	123.9	98.0	25.95	4.775	
3,700.0	3,695.3	3,694.5	3,691.9	13.4	13.3	-134.87	66.5	-67.1	133.6	106.9	26.64	5.013	
3,800.0	3,794.9	3,794.0	3,791.2	13.7	13.7	-135.05	72.6	-70.5	143.2	115.9	27.33	5.239	
3,900.0	3,894.4	3,893.5	3,890.5	14.1	14.0	-135.20	78.7	-73.8	152.9	124.8	28.03	5.454	
4,000.0	3,993.9	3,993.1	3,989.7	14.4	14.4	-135.34	84.7	-77.2	162.5	133.8	28.72	5.658	
4,100.0	4,093.5	4,092.6	4,089.0	14.8	14.7	-135.46	90.8	-80.6	172.2	142.7	29.42	5.852	
4,200.0	4,193.0	4,192.1	4,188.3	15.1	15.1	-135.56	96.9	-83.9	181.8	151.7	30.12	6.037	
4,300.0	4,292.6	4,291.7	4,287.6	15.5	15.4	-135.66	103.0	-87.3	191.5	160.7	30.82	6.213	
4,400.0	4,392.1	4,391.2	4,386.9	15.8	15.8	-135.75	109.0	-90.7	201.1	169.6	31.52	6.382	
4,500.0	4,491.6	4,490.7	4,486.2	16.2	16.1	-135.83	115.1	-94.1	210.8	178.6	32.22	6.543	
4,600.0	4,591.2	4,590.3	4,585.5	16.5	16.5	-135.90	121.2	-97.4	220.4	187.5	32.92	6.697	
4,700.0	4,690.7	4,689.8	4,684.8	16.9	16.8	-135.96	127.2	-100.8	230.1	196.5	33.62	6.844	
4,800.0	4,790.3	4,789.3	4,784.1	17.2	17.2	-136.02	133.3	-104.2	239.8	205.4	34.32	6.986	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design		WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #706H - OWB - PWP1											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								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)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,889.8	4,888.8	4,883.4	17.6	17.6	-136.08	139.4	-107.5	249.4	214.4	35.03	7.121		
5,000.0	4,989.3	4,988.4	4,982.6	17.9	17.9	-136.13	145.4	-110.9	259.1	223.4	35.73	7.251		
5,100.0	5,088.9	5,087.9	5,081.9	18.3	18.3	-136.18	151.5	-114.3	268.7	232.3	36.44	7.376		
5,200.0	5,188.4	5,187.4	5,181.2	18.7	18.6	-136.23	157.6	-117.7	278.4	241.3	37.14	7.496		
5,300.0	5,288.0	5,287.0	5,280.5	19.0	19.0	-136.27	163.6	-121.0	288.1	250.2	37.85	7.611		
5,400.0	5,387.5	5,386.5	5,379.8	19.4	19.3	-136.31	169.7	-124.4	297.7	259.2	38.55	7.722		
5,500.0	5,487.0	5,486.0	5,479.1	19.7	19.7	-136.34	175.8	-127.8	307.4	268.1	39.26	7.829		
5,600.0	5,586.6	5,585.6	5,578.4	20.1	20.0	-136.38	181.9	-131.1	317.0	277.1	39.97	7.932		
5,700.0	5,686.1	5,685.1	5,677.7	20.4	20.4	-136.41	187.9	-134.5	326.7	286.0	40.68	8.032		
5,800.0	5,785.7	5,784.6	5,777.0	20.8	20.7	-136.44	194.0	-137.9	336.4	295.0	41.38	8.128		
5,900.0	5,885.2	5,884.2	5,876.3	21.2	21.1	-136.47	200.1	-141.3	346.0	303.9	42.09	8.220		
6,000.0	5,984.7	5,983.7	5,975.5	21.5	21.4	-136.50	206.1	-144.6	355.7	312.9	42.80	8.310		
6,100.0	6,084.3	6,083.2	6,074.8	21.9	21.8	-136.52	212.2	-148.0	365.3	321.8	43.51	8.397		
6,200.0	6,183.8	6,185.2	6,176.6	22.2	22.2	-136.66	217.7	-151.1	374.7	330.5	44.24	8.470		
6,300.0	6,283.3	6,287.3	6,278.6	22.6	22.5	-137.04	221.7	-153.3	383.4	338.4	44.96	8.527		
6,400.0	6,382.9	6,389.5	6,380.8	22.9	22.9	-137.66	224.0	-154.6	391.4	345.7	45.69	8.568		
6,500.0	6,482.4	6,491.6	6,482.8	23.3	23.3	-138.49	224.8	-155.0	398.9	352.5	46.41	8.595		
6,600.0	6,582.0	6,591.1	6,582.4	23.7	23.6	-139.38	224.8	-155.0	406.1	359.0	47.12	8.619		
6,700.0	6,681.5	6,690.7	6,681.9	24.0	24.0	-140.25	224.8	-155.0	413.5	365.6	47.83	8.644		
6,800.0	6,781.0	6,790.2	6,781.4	24.4	24.3	-141.08	224.8	-155.0	420.9	372.4	48.54	8.671		
6,900.0	6,880.6	6,889.7	6,881.0	24.7	24.7	-141.88	224.8	-155.0	428.4	379.2	49.25	8.698		
7,000.0	6,980.1	6,989.3	6,980.5	25.1	25.0	-142.66	224.8	-155.0	436.0	386.0	49.97	8.726		
7,100.0	7,079.7	7,088.8	7,080.1	25.5	25.4	-143.41	224.8	-155.0	443.7	393.0	50.68	8.755		
7,200.0	7,179.2	7,188.4	7,179.6	25.8	25.7	-144.13	224.8	-155.0	451.4	400.0	51.39	8.784		
7,300.0	7,278.7	7,287.9	7,279.1	26.2	26.1	-144.83	224.8	-155.0	459.2	407.1	52.10	8.814		
7,400.0	7,378.3	7,387.4	7,378.7	26.5	26.4	-145.51	224.8	-155.0	467.1	414.3	52.81	8.844		
7,500.0	7,477.8	7,487.0	7,478.2	26.9	26.8	-146.16	224.8	-155.0	475.1	421.5	53.53	8.875		
7,600.0	7,577.4	7,586.5	7,577.8	27.3	27.1	-146.79	224.8	-155.0	483.1	428.8	54.24	8.906		
7,700.0	7,676.9	7,686.0	7,677.3	27.6	27.5	-147.41	224.8	-155.0	491.1	436.2	54.95	8.937		
7,800.0	7,776.4	7,785.6	7,776.8	28.0	27.8	-148.00	224.8	-155.0	499.2	443.6	55.67	8.968		
7,900.0	7,876.0	7,885.1	7,876.4	28.3	28.2	-148.57	224.8	-155.0	507.4	451.0	56.38	8.999		
8,000.0	7,975.5	7,984.7	7,975.9	28.7	28.5	-149.13	224.8	-155.0	515.6	458.5	57.10	9.030		
8,100.0	8,075.1	8,084.2	8,075.5	29.1	28.9	-149.66	224.8	-155.0	523.9	466.1	57.81	9.062		
8,200.0	8,174.6	8,183.7	8,175.0	29.4	29.3	-150.18	224.8	-155.0	532.2	473.6	58.53	9.093		
8,300.0	8,274.1	8,283.3	8,274.5	29.8	29.6	-150.69	224.8	-155.0	540.5	481.3	59.24	9.124		
8,400.0	8,373.7	8,382.8	8,374.1	30.2	30.0	-151.18	224.8	-155.0	548.9	488.9	59.95	9.155		
8,500.0	8,473.2	8,482.4	8,473.6	30.5	30.3	-151.65	224.8	-155.0	557.3	496.7	60.67	9.186		
8,600.0	8,572.8	8,581.9	8,573.2	30.9	30.7	-152.11	224.8	-155.0	565.8	504.4	61.39	9.217		
8,700.0	8,672.3	8,681.4	8,672.7	31.2	31.0	-152.56	224.8	-155.0	574.3	512.2	62.10	9.248		
8,800.0	8,771.8	8,781.0	8,772.2	31.6	31.4	-152.99	224.8	-155.0	582.8	520.0	62.82	9.278		
8,900.0	8,871.4	8,880.5	8,871.8	32.0	31.7	-153.41	224.8	-155.0	591.4	527.8	63.53	9.308		
9,000.0	8,970.9	8,980.1	8,971.3	32.3	32.1	-153.82	224.8	-155.0	600.0	535.7	64.25	9.338		
9,100.0	9,070.5	9,079.6	9,070.9	32.7	32.4	-154.22	224.8	-155.0	608.6	543.6	64.96	9.368		
9,200.0	9,170.0	9,179.1	9,170.4	33.0	32.8	-154.61	224.8	-155.0	617.2	551.6	65.68	9.398		
9,300.0	9,269.5	9,278.7	9,269.9	33.4	33.1	-154.98	224.8	-155.0	625.9	559.5	66.40	9.427		
9,400.0	9,369.1	9,378.2	9,369.5	33.8	33.5	-155.35	224.8	-155.0	634.6	567.5	67.11	9.456		
9,500.0	9,468.6	9,477.8	9,469.0	34.1	33.9	-155.70	224.8	-155.0	643.4	575.5	67.83	9.485		
9,600.0	9,568.2	9,577.3	9,568.6	34.5	34.2	-156.05	224.8	-155.0	652.1	583.6	68.55	9.514		
9,700.0	9,667.7	9,676.8	9,668.1	34.9	34.6	-156.39	224.8	-155.0	660.9	591.6	69.26	9.542		
9,800.0	9,767.2	9,776.4	9,767.6	35.2	34.9	-156.72	224.8	-155.0	669.7	599.7	69.98	9.570		
9,900.0	9,866.8	9,875.9	9,867.2	35.6	35.3	-157.04	224.8	-155.0	678.5	607.8	70.70	9.598		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #706H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,000.0	9,966.3	9,975.5	9,966.7	35.9	35.6	-157.35	224.8	-155.0	687.4	615.9	71.41	9.625		
10,100.0	10,065.9	10,075.0	10,066.3	36.3	36.0	-157.65	224.8	-155.0	696.2	624.1	72.13	9.652		
10,200.0	10,165.4	10,174.5	10,165.8	36.7	36.3	-157.95	224.8	-155.0	705.1	632.2	72.85	9.679		
10,300.0	10,264.9	10,274.1	10,265.3	37.0	36.7	-158.24	224.8	-155.0	714.0	640.4	73.57	9.706		
10,400.0	10,364.5	10,373.6	10,364.9	37.4	37.0	-158.52	224.8	-155.0	722.9	648.6	74.28	9.732		
10,500.0	10,464.0	10,473.2	10,464.4	37.8	37.4	-158.79	224.8	-155.0	731.8	656.8	75.00	9.758		
10,600.0	10,563.6	10,572.7	10,564.0	38.1	37.8	-159.06	224.8	-155.0	740.8	665.1	75.72	9.784		
10,700.0	10,663.1	10,672.2	10,663.5	38.5	38.1	-159.32	224.8	-155.0	749.8	673.3	76.44	9.809		
10,739.6	10,702.5	10,711.7	10,702.9	38.6	38.3	-159.42	224.8	-155.0	753.3	676.6	76.72	9.819		
10,800.0	10,762.7	10,771.8	10,763.1	38.8	38.5	-159.59	224.8	-155.0	758.4	681.3	77.15	9.830		
10,900.0	10,862.4	10,871.5	10,862.8	39.2	38.8	-159.81	224.8	-155.0	765.6	687.8	77.87	9.832		
11,000.0	10,962.2	10,971.3	10,962.6	39.6	39.2	-159.98	224.8	-155.0	771.2	692.6	78.59	9.813		
11,100.0	11,062.1	11,071.2	11,062.5	39.9	39.5	-160.10	224.8	-155.0	775.1	695.8	79.30	9.775		
11,200.0	11,162.1	11,171.2	11,162.5	40.3	39.9	-160.17	224.8	-155.0	777.4	697.4	80.01	9.716		
11,289.6	11,251.7	11,260.8	11,252.1	40.6	40.2	-119.83	224.8	-155.0	778.1	697.4	80.65	9.648		
11,300.0	11,262.1	11,271.2	11,262.5	40.6	40.2	-119.83	224.8	-155.0	778.1	697.4	80.72	9.639		
11,400.0	11,362.1	11,371.2	11,362.5	41.0	40.6	-119.83	224.8	-155.0	778.1	696.6	81.43	9.555		
11,500.0	11,462.1	11,471.2	11,462.5	41.3	41.0	-119.83	224.8	-155.0	778.1	695.9	82.14	9.473		
11,564.4	11,526.5	11,535.2	11,526.5	41.6	41.2	-119.83	224.8	-155.0	778.1	695.5	82.59	9.421		
11,575.0	11,537.1	11,540.2	11,531.4	41.6	41.2	60.53	224.8	-155.0	778.1	695.4	82.63	9.417		
11,575.0	11,537.1	11,540.2	11,531.4	41.6	41.2	60.53	224.8	-155.0	778.1	695.4	82.63	9.417		
11,600.0	11,562.0	11,550.0	11,541.3	41.7	41.2	60.56	224.6	-155.1	777.9	695.2	82.69	9.408		
11,625.0	11,586.9	11,562.5	11,553.8	41.7	41.3	60.66	224.1	-155.3	777.5	694.8	82.75	9.396		
11,650.0	11,611.6	11,575.0	11,566.2	41.8	41.3	60.80	223.2	-155.6	776.9	694.1	82.79	9.384		
11,675.0	11,636.1	11,584.8	11,576.0	41.9	41.4	60.97	222.4	-155.9	776.2	693.4	82.79	9.375		
11,700.0	11,660.3	11,600.0	11,591.1	42.0	41.4	61.24	220.7	-156.5	775.2	692.4	82.84	9.359		
11,725.0	11,684.1	11,607.1	11,598.1	42.0	41.4	61.45	219.7	-156.8	774.1	691.3	82.77	9.352		
11,750.0	11,707.4	11,618.2	11,609.0	42.1	41.5	61.76	218.0	-157.4	772.8	690.1	82.74	9.340		
11,775.0	11,730.3	11,625.0	11,615.7	42.2	41.5	62.03	216.9	-157.8	771.4	688.7	82.63	9.335		
11,800.0	11,752.6	11,640.2	11,630.6	42.2	41.5	62.51	214.0	-158.8	769.7	687.1	82.64	9.315		
11,825.0	11,774.3	11,650.0	11,640.2	42.3	41.6	62.91	211.9	-159.6	768.0	685.4	82.55	9.303		
11,850.0	11,795.3	11,662.1	11,651.9	42.3	41.6	63.41	209.0	-160.6	766.1	683.6	82.50	9.286		
11,875.0	11,815.6	11,675.0	11,664.3	42.4	41.6	63.97	205.7	-161.8	764.1	681.7	82.46	9.267		
11,900.0	11,835.1	11,683.8	11,672.7	42.4	41.7	64.45	203.2	-162.6	762.1	679.7	82.34	9.255		
11,925.0	11,853.8	11,700.0	11,688.0	42.4	41.7	65.20	198.3	-164.4	760.0	677.6	82.37	9.226		
11,950.0	11,871.5	11,700.0	11,688.0	42.5	41.7	65.44	198.3	-164.4	757.8	675.7	82.08	9.233		
11,975.0	11,888.3	11,715.9	11,702.9	42.5	41.7	66.25	192.9	-166.2	755.5	673.4	82.12	9.201		
12,000.0	11,904.1	11,725.0	11,711.3	42.5	41.8	66.84	189.7	-167.4	753.3	671.3	82.02	9.184		
12,025.0	11,918.9	11,736.9	11,722.2	42.6	41.8	67.57	185.2	-169.0	751.1	669.1	82.00	9.159		
12,050.0	11,932.6	11,750.0	11,734.1	42.6	41.8	68.37	180.0	-170.8	748.9	666.9	82.03	9.130		
12,075.0	11,945.2	11,757.6	11,740.9	42.6	41.9	68.95	176.9	-171.9	746.8	664.9	81.94	9.114		
12,100.0	11,956.6	11,767.8	11,750.0	42.6	41.9	69.66	172.5	-173.5	744.8	662.9	81.94	9.090		
12,125.0	11,966.9	11,775.0	11,756.3	42.7	41.9	70.22	169.2	-174.6	742.9	661.0	81.89	9.072		
12,150.0	11,975.9	11,787.8	11,767.4	42.7	41.9	71.07	163.3	-176.7	741.1	659.1	81.99	9.040		
12,175.0	11,983.7	11,800.0	11,777.9	42.7	42.0	71.91	157.3	-178.8	739.5	657.4	82.09	9.009		
12,200.0	11,990.3	11,807.3	11,784.1	42.7	42.0	72.47	153.7	-180.1	738.1	656.0	82.12	8.989		
12,225.0	11,995.6	11,816.8	11,792.1	42.7	42.0	73.15	148.7	-181.9	737.0	654.7	82.21	8.964		
12,250.0	11,999.6	11,825.0	11,798.8	42.8	42.0	73.73	144.4	-183.4	736.0	653.7	82.31	8.943		
12,275.0	12,002.3	11,835.4	11,807.3	42.8	42.1	74.43	138.7	-185.4	735.4	652.9	82.47	8.917		
12,300.0	12,003.7	11,844.4	11,814.5	42.8	42.1	75.03	133.7	-187.2	735.1	652.4	82.62	8.897		
12,313.7	12,004.0	11,850.0	11,818.9	42.8	42.1	75.39	130.5	-188.3	735.0	652.3	82.73	8.885		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #706H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)			+N/-S (usft)	+E/-W (usft)				
12,314.9	12,004.0	11,850.0	11,818.9	42.8	42.1	75.39		130.5	-188.3	735.0	652.3	82.73	8.885
12,400.0	12,003.9	11,882.2	11,843.7	42.8	42.2	77.40		111.1	-195.2	739.0	655.6	83.31	8.870
12,500.0	12,003.8	11,925.0	11,874.4	42.9	42.2	79.89		82.9	-205.1	752.7	668.7	83.95	8.965
12,600.0	12,003.7	11,983.8	11,911.9	42.9	42.4	82.92		40.3	-220.1	774.6	690.0	84.56	9.160
12,700.0	12,003.6	12,050.0	11,947.2	43.0	42.5	85.72		-12.5	-238.8	802.5	717.5	84.98	9.444
12,800.0	12,003.5	12,129.9	11,978.9	43.1	42.6	88.16		-81.5	-263.2	834.3	749.0	85.26	9.785
12,900.0	12,003.4	12,218.7	11,999.3	43.2	42.7	89.67		-162.8	-291.9	867.7	782.3	85.44	10.156
13,000.0	12,003.3	12,357.5	12,003.9	43.3	42.8	90.00		-294.1	-336.3	900.9	815.3	85.63	10.521
13,100.0	12,003.2	12,577.5	12,003.7	43.4	42.9	90.00		-509.0	-382.1	920.9	834.9	85.98	10.711
13,200.0	12,003.1	12,826.0	12,003.4	43.6	43.2	90.00		-756.9	-395.6	924.0	837.5	86.42	10.691
13,300.0	12,003.0	12,926.0	12,003.3	43.7	43.3	89.99		-856.9	-395.0	924.0	837.3	86.71	10.656
13,400.0	12,002.9	13,026.0	12,003.2	43.9	43.5	89.99		-956.8	-394.4	924.0	836.9	87.03	10.617
13,500.0	12,002.8	13,126.0	12,003.1	44.1	43.6	89.99		-1,056.8	-393.8	924.0	836.6	87.38	10.574
13,600.0	12,002.7	13,226.0	12,003.0	44.3	43.8	89.99		-1,156.8	-393.1	924.0	836.2	87.77	10.527
13,700.0	12,002.6	13,326.0	12,002.9	44.5	44.0	89.99		-1,256.8	-392.5	924.0	835.8	88.18	10.478
13,800.0	12,002.5	13,426.0	12,002.8	44.8	44.2	89.99		-1,356.8	-391.9	924.0	835.3	88.63	10.425
13,900.0	12,002.4	13,526.0	12,002.7	45.0	44.4	89.99		-1,456.8	-391.3	924.0	834.9	89.11	10.368
14,000.0	12,002.3	13,626.0	12,002.6	45.3	44.6	89.99		-1,556.8	-390.7	924.0	834.3	89.62	10.309
14,100.0	12,002.2	13,726.0	12,002.5	45.6	44.9	89.99		-1,656.8	-390.1	924.0	833.8	90.17	10.248
14,200.0	12,002.1	13,826.0	12,002.4	45.9	45.2	89.99		-1,756.8	-389.5	924.0	833.2	90.74	10.183
14,300.0	12,002.0	13,926.0	12,002.3	46.2	45.4	89.99		-1,856.8	-388.9	924.0	832.6	91.33	10.116
14,400.0	12,001.9	14,026.0	12,002.1	46.5	45.7	89.99		-1,956.8	-388.2	924.0	832.0	91.96	10.047
14,500.0	12,001.8	14,126.0	12,002.0	46.8	46.0	89.99		-2,056.8	-387.6	924.0	831.4	92.62	9.976
14,600.0	12,001.7	14,226.0	12,001.9	47.2	46.4	89.99		-2,156.8	-387.0	924.0	830.7	93.30	9.903
14,700.0	12,001.6	14,326.0	12,001.8	47.6	46.7	89.99		-2,256.8	-386.4	924.0	830.0	94.01	9.828
14,800.0	12,001.5	14,426.0	12,001.7	47.9	47.1	89.99		-2,356.8	-385.8	924.0	829.2	94.75	9.752
14,900.0	12,001.4	14,526.0	12,001.6	48.3	47.4	89.99		-2,456.8	-385.2	924.0	828.5	95.51	9.675
15,000.0	12,001.3	14,626.0	12,001.5	48.7	47.8	89.99		-2,556.8	-384.6	924.0	827.7	96.29	9.596
15,100.0	12,001.2	14,726.0	12,001.4	49.2	48.2	89.99		-2,656.8	-384.0	924.0	826.9	97.10	9.516
15,200.0	12,001.1	14,826.0	12,001.3	49.6	48.6	89.99		-2,756.8	-383.3	924.0	826.0	97.94	9.435
15,300.0	12,001.0	14,926.0	12,001.2	50.0	49.0	89.99		-2,856.8	-382.7	924.0	825.2	98.79	9.353
15,400.0	12,000.9	15,026.0	12,001.1	50.5	49.4	89.99		-2,956.8	-382.1	924.0	824.3	99.67	9.270
15,500.0	12,000.8	15,126.0	12,001.0	50.9	49.9	89.99		-3,056.8	-381.5	924.0	823.4	100.57	9.187
15,600.0	12,000.7	15,226.0	12,000.9	51.4	50.3	89.99		-3,156.8	-380.9	924.0	822.5	101.49	9.104
15,700.0	12,000.6	15,326.0	12,000.8	51.9	50.8	89.99		-3,256.8	-380.3	924.0	821.5	102.44	9.020
15,800.0	12,000.5	15,426.0	12,000.7	52.4	51.2	89.99		-3,356.8	-379.7	924.0	820.6	103.40	8.936
15,900.0	12,000.4	15,526.0	12,000.6	52.9	51.7	89.99		-3,456.8	-379.1	924.0	819.6	104.38	8.852
16,000.0	12,000.3	15,626.0	12,000.5	53.4	52.2	89.99		-3,556.8	-378.4	924.0	818.6	105.38	8.768
16,100.0	12,000.2	15,726.0	12,000.4	53.9	52.7	89.99		-3,656.8	-377.8	924.0	817.6	106.40	8.684
16,200.0	12,000.1	15,826.0	12,000.3	54.4	53.2	89.99		-3,756.8	-377.2	924.0	816.5	107.44	8.600
16,300.0	12,000.0	15,926.0	12,000.2	55.0	53.7	89.99		-3,856.8	-376.6	924.0	815.5	108.50	8.516
16,400.0	11,999.9	16,026.0	12,000.1	55.5	54.3	89.99		-3,956.8	-376.0	924.0	814.4	109.57	8.433
16,500.0	11,999.8	16,126.0	12,000.0	56.1	54.8	89.99		-4,056.8	-375.4	924.0	813.3	110.66	8.350
16,600.0	11,999.7	16,226.0	11,999.9	56.6	55.3	89.99		-4,156.8	-374.8	924.0	812.2	111.77	8.267
16,700.0	11,999.6	16,326.0	11,999.8	57.2	55.9	89.99		-4,256.8	-374.2	924.0	811.1	112.89	8.185
16,800.0	11,999.5	16,426.0	11,999.7	57.8	56.5	89.99		-4,356.8	-373.5	924.0	810.0	114.02	8.104
16,900.0	11,999.4	16,526.0	11,999.6	58.3	57.0	89.99		-4,456.8	-372.9	924.0	808.8	115.17	8.023
17,000.0	11,999.3	16,626.0	11,999.4	58.9	57.6	89.99		-4,556.8	-372.3	924.0	807.6	116.34	7.942
17,100.0	11,999.2	16,726.0	11,999.3	59.5	58.2	89.99		-4,656.8	-371.7	924.0	806.5	117.51	7.863
17,200.0	11,999.1	16,826.0	11,999.2	60.1	58.8	89.99		-4,756.8	-371.1	924.0	805.3	118.71	7.784
17,300.0	11,999.0	16,926.0	11,999.1	60.7	59.4	89.99		-4,856.8	-370.5	924.0	804.1	119.91	7.706

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FED #706H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
17,400.0	11,998.9	17,026.0	11,999.0	61.3	60.0	89.99	-4,956.8	-369.9	924.0	802.9	121.13	7.628		
17,500.0	11,998.8	17,126.0	11,998.9	62.0	60.6	89.99	-5,056.8	-369.3	924.0	801.6	122.36	7.552		
17,600.0	11,998.7	17,226.0	11,998.8	62.6	61.2	89.99	-5,156.8	-368.6	924.0	800.4	123.60	7.476		
17,700.0	11,998.6	17,326.0	11,998.7	63.2	61.8	89.99	-5,256.8	-368.0	924.0	799.1	124.85	7.401		
17,800.0	11,998.5	17,426.0	11,998.6	63.9	62.4	89.98	-5,356.8	-367.4	924.0	797.9	126.11	7.327		
17,900.0	11,998.4	17,526.0	11,998.5	64.5	63.1	89.98	-5,456.8	-366.8	924.0	796.6	127.39	7.253		
18,000.0	11,998.3	17,626.0	11,998.4	65.1	63.7	89.98	-5,556.8	-366.2	924.0	795.3	128.67	7.181		
18,100.0	11,998.2	17,726.0	11,998.3	65.8	64.3	89.98	-5,656.8	-365.6	924.0	794.0	129.97	7.109		
18,200.0	11,998.1	17,826.0	11,998.2	66.4	65.0	89.98	-5,756.8	-365.0	924.0	792.7	131.27	7.039		
18,300.0	11,998.0	17,926.0	11,998.1	67.1	65.6	89.98	-5,856.8	-364.4	924.0	791.4	132.59	6.969		
18,400.0	11,997.9	18,026.0	11,998.0	67.8	66.3	89.98	-5,956.8	-363.7	924.0	790.1	133.91	6.900		
18,500.0	11,997.8	18,126.0	11,997.9	68.4	67.0	89.98	-6,056.7	-363.1	924.0	788.7	135.24	6.832		
18,600.0	11,997.7	18,226.0	11,997.8	69.1	67.6	89.98	-6,156.7	-362.5	924.0	787.4	136.58	6.765		
18,700.0	11,997.6	18,326.0	11,997.7	69.8	68.3	89.98	-6,256.7	-361.9	924.0	786.1	137.93	6.699		
18,800.0	11,997.5	18,426.0	11,997.6	70.5	69.0	89.98	-6,356.7	-361.3	924.0	784.7	139.29	6.633		
18,900.0	11,997.4	18,526.0	11,997.5	71.2	69.6	89.98	-6,456.7	-360.7	924.0	783.3	140.66	6.569		
19,000.0	11,997.3	18,626.0	11,997.4	71.9	70.3	89.98	-6,556.7	-360.1	924.0	782.0	142.03	6.505		
19,100.0	11,997.2	18,726.0	11,997.3	72.5	71.0	89.98	-6,656.7	-359.5	924.0	780.6	143.41	6.443		
19,200.0	11,997.1	18,826.0	11,997.2	73.2	71.7	89.98	-6,756.7	-358.8	924.0	779.2	144.80	6.381		
19,300.0	11,997.0	18,926.0	11,997.1	73.9	72.4	89.98	-6,856.7	-358.2	924.0	777.8	146.20	6.320		
19,400.0	11,996.9	19,026.0	11,997.0	74.7	73.1	89.98	-6,956.7	-357.6	924.0	776.4	147.60	6.260		
19,500.0	11,996.8	19,126.0	11,996.9	75.4	73.8	89.98	-7,056.7	-357.0	924.0	775.0	149.01	6.201		
19,600.0	11,996.7	19,226.0	11,996.7	76.1	74.5	89.98	-7,156.7	-356.4	924.0	773.6	150.43	6.142		
19,700.0	11,996.6	19,326.0	11,996.6	76.8	75.2	89.98	-7,256.7	-355.8	924.0	772.1	151.85	6.085		
19,800.0	11,996.5	19,426.0	11,996.5	77.5	75.9	89.98	-7,356.7	-355.2	924.0	770.7	153.28	6.028		
19,900.0	11,996.4	19,526.0	11,996.4	78.2	76.6	89.98	-7,456.7	-354.6	924.0	769.3	154.71	5.972		
20,000.0	11,996.3	19,626.0	11,996.3	78.9	77.3	89.98	-7,556.7	-353.9	924.0	767.8	156.16	5.917		
20,100.0	11,996.2	19,726.0	11,996.2	79.7	78.1	89.98	-7,656.7	-353.3	924.0	766.4	157.60	5.863		
20,200.0	11,996.1	19,826.0	11,996.1	80.4	78.8	89.98	-7,756.7	-352.7	924.0	764.9	159.05	5.809		
20,300.0	11,996.0	19,926.0	11,996.0	81.1	79.5	89.98	-7,856.7	-352.1	924.0	763.5	160.51	5.757		
20,400.0	11,995.9	20,026.0	11,995.9	81.9	80.2	89.98	-7,956.7	-351.5	924.0	762.0	161.97	5.705		
20,500.0	11,995.8	20,126.0	11,995.8	82.6	81.0	89.98	-8,056.7	-350.9	924.0	760.6	163.44	5.653		
20,600.0	11,995.7	20,226.0	11,995.7	83.3	81.7	89.98	-8,156.7	-350.3	924.0	759.1	164.91	5.603		
20,700.0	11,995.6	20,326.0	11,995.6	84.1	82.4	89.98	-8,256.7	-349.7	924.0	757.6	166.39	5.553		
20,800.0	11,995.5	20,426.0	11,995.5	84.8	83.2	89.98	-8,356.7	-349.0	924.0	756.1	167.87	5.504		
20,900.0	11,995.3	20,526.0	11,995.4	85.6	83.9	89.98	-8,456.7	-348.4	924.0	754.6	169.36	5.456		
21,000.0	11,995.2	20,626.0	11,995.3	86.3	84.7	89.98	-8,556.7	-347.8	924.0	753.2	170.85	5.408		
21,100.0	11,995.1	20,726.0	11,995.2	87.1	85.4	89.98	-8,656.7	-347.2	924.0	751.7	172.35	5.361		
21,200.0	11,995.0	20,826.0	11,995.1	87.8	86.2	89.98	-8,756.7	-346.6	924.0	750.2	173.85	5.315		
21,300.0	11,994.9	20,926.0	11,995.0	88.6	86.9	89.98	-8,856.7	-346.0	924.0	748.7	175.35	5.270		
21,400.0	11,994.8	21,026.0	11,994.9	89.3	87.7	89.98	-8,956.7	-345.4	924.0	747.1	176.86	5.225		
21,500.0	11,994.7	21,126.0	11,994.8	90.1	88.4	89.98	-9,056.7	-344.8	924.0	745.6	178.37	5.180		
21,600.0	11,994.6	21,226.0	11,994.7	90.8	89.2	89.98	-9,156.7	-344.1	924.0	744.1	179.88	5.137		
21,700.0	11,994.5	21,326.0	11,994.6	91.6	89.9	89.98	-9,256.7	-343.5	924.0	742.6	181.40	5.094		
21,800.0	11,994.4	21,426.0	11,994.5	92.4	90.7	89.98	-9,356.7	-342.9	924.0	741.1	182.93	5.051		
21,900.0	11,994.3	21,526.0	11,994.4	93.1	91.4	89.98	-9,456.7	-342.3	924.0	739.6	184.45	5.009		
22,000.0	11,994.2	21,626.0	11,994.3	93.9	92.2	89.98	-9,556.7	-341.7	924.0	738.0	185.98	4.968		
22,100.0	11,994.1	21,726.0	11,994.1	94.7	93.0	89.98	-9,656.7	-341.1	924.0	736.5	187.52	4.928		
22,200.0	11,994.0	21,826.0	11,994.0	95.4	93.7	89.98	-9,756.7	-340.5	924.0	735.0	189.05	4.888		
22,204.6	11,994.0	21,830.6	11,994.0	95.5	93.8	89.98	-9,761.3	-340.4	924.0	734.9	189.12	4.886		
22,245.4	11,994.0	21,870.5	11,994.0	95.8	94.1	89.98	-9,801.2	-340.2	924.0	734.3	189.74	4.870		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #1H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 239-MWD, 761-MWD, 4644-MWD, 9817-MWD												Offset Well Error:	2.0 usft
Reference		Offset		Semi Major Axis			Distance						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)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	3.0	2.0	-30.35	517.8	-303.2	600.0				
100.0	100.0	95.9	95.9	3.0	2.1	-30.33	518.1	-303.1	600.2	595.2	5.01	119.783	
200.0	200.0	193.7	193.7	3.0	2.6	-30.27	518.8	-302.8	600.7	595.7	5.07	118.449	
300.0	300.0	296.7	296.7	3.1	2.9	-30.18	519.9	-302.3	601.4	596.2	5.22	115.186	
400.0	400.0	396.1	396.1	3.2	3.1	-30.09	520.5	-301.6	601.6	596.1	5.49	109.655	
500.0	500.0	496.3	496.3	3.4	3.5	-30.00	521.3	-301.0	601.9	596.0	5.95	101.163	
600.0	600.0	596.5	596.5	3.6	4.3	-29.92	521.9	-300.3	602.2	595.6	6.58	91.504	
700.0	700.0	696.7	696.6	3.8	5.1	-29.83	522.6	-299.6	602.4	595.2	7.26	83.009	
800.0	800.0	798.4	798.3	4.0	5.4	-29.73	523.2	-298.8	602.5	594.8	7.67	78.514	
828.9	828.9	827.0	826.9	4.1	5.4	-29.72	523.3	-298.6	602.5	594.7	7.75	77.731	
900.0	900.0	893.1	893.0	4.2	5.4	-29.68	523.7	-298.5	602.8	594.9	7.96	75.769	
1,000.0	1,000.0	994.5	994.5	4.5	5.5	-29.65	524.5	-298.6	603.6	595.3	8.30	72.740	
1,100.0	1,100.0	1,097.2	1,097.2	4.8	5.5	-29.72	524.4	-299.4	603.9	595.2	8.73	69.161	
1,200.0	1,200.0	1,204.8	1,204.7	5.1	5.7	-29.87	523.3	-300.5	603.5	594.3	9.17	65.792	
1,300.0	1,300.0	1,305.8	1,305.7	5.4	5.8	-29.90	522.0	-300.2	602.2	592.6	9.63	62.547	
1,400.0	1,400.0	1,401.0	1,400.9	5.7	5.9	-29.83	521.6	-299.0	601.2	591.0	10.16	59.169	
1,426.1	1,426.1	1,424.1	1,424.1	5.7	6.0	-29.80	521.7	-298.7	601.1	590.8	10.31	58.297	
1,500.0	1,500.0	1,491.0	1,490.9	6.0	6.2	-29.69	522.6	-297.9	601.6	590.9	10.72	56.130	
1,600.0	1,600.0	1,587.5	1,587.4	6.3	6.4	-29.60	524.3	-297.9	603.1	591.9	11.24	53.644	
1,700.0	1,700.0	1,687.0	1,686.9	6.6	6.6	-29.65	525.7	-299.3	605.0	593.2	11.81	51.221	
1,800.0	1,800.0	1,793.8	1,793.6	6.9	6.8	-29.82	526.0	-301.6	606.4	593.9	12.43	48.779	
1,900.0	1,900.0	1,901.4	1,901.2	7.2	7.0	-30.02	525.1	-303.4	606.4	593.4	13.04	46.497	
2,000.0	2,000.0	2,006.2	2,006.0	7.6	7.2	-30.11	523.7	-303.7	605.4	591.8	13.64	44.386	
2,100.0	2,100.0	2,107.3	2,107.1	7.9	7.5	-30.04	522.8	-302.3	604.0	589.7	14.28	42.293	
2,200.0	2,200.0	2,202.8	2,202.5	8.2	7.7	-29.85	522.7	-300.0	602.7	587.8	14.93	40.365	
2,258.3	2,258.3	2,256.6	2,256.3	8.4	7.8	-29.74	523.1	-298.9	602.5	587.2	15.29	39.393	
2,300.0	2,300.0	2,294.4	2,294.2	8.6	7.9	-29.66	523.7	-298.2	602.6	587.1	15.54	38.780	
2,400.0	2,400.0	2,388.5	2,388.2	8.9	8.2	-29.50	525.5	-297.3	603.8	587.7	16.13	37.426	
2,500.0	2,500.0	2,486.8	2,486.5	9.2	8.4	-29.45	527.3	-297.7	605.6	588.9	16.75	36.147	
2,600.0	2,600.0	2,590.5	2,590.2	9.6	8.7	-69.98	528.6	-298.8	606.7	589.2	17.49	34.690	
2,700.0	2,699.8	2,694.8	2,694.5	9.9	9.1	-70.59	528.9	-300.3	605.8	587.6	18.27	33.162	
2,775.0	2,774.6	2,774.8	2,774.5	10.2	9.3	-71.35	528.3	-301.5	603.9	585.1	18.80	32.117	
2,800.0	2,799.5	2,801.5	2,801.2	10.3	9.4	-71.62	527.9	-301.8	603.0	584.0	18.98	31.777	
2,900.0	2,899.0	2,908.2	2,907.8	10.6	9.7	-72.72	525.8	-302.6	598.8	579.2	19.64	30.484	
3,000.0	2,998.5	3,011.3	3,010.9	10.9	10.0	-73.65	523.8	-301.6	593.8	573.5	20.31	29.233	
3,100.0	3,098.1	3,109.3	3,108.9	11.3	10.3	-74.44	522.4	-299.6	588.8	567.8	20.99	28.055	
3,200.0	3,197.6	3,204.4	3,204.0	11.6	10.6	-75.18	521.7	-297.5	584.4	562.8	21.67	26.970	
3,300.0	3,297.2	3,299.3	3,298.9	12.0	10.9	-75.87	521.9	-295.5	581.0	558.6	22.39	25.955	
3,400.0	3,396.7	3,396.0	3,395.5	12.3	11.2	-76.55	522.8	-293.6	578.3	555.2	23.07	25.068	
3,500.0	3,496.2	3,503.3	3,502.8	12.7	11.6	-77.28	524.2	-291.3	576.0	552.2	23.81	24.193	
3,600.0	3,595.8	3,600.5	3,599.9	13.0	12.0	-77.92	524.3	-288.0	571.9	547.3	24.54	23.304	
3,700.0	3,695.3	3,685.5	3,684.9	13.4	12.5	-78.60	525.2	-287.0	570.1	544.9	25.23	22.600	
3,716.0	3,711.2	3,699.1	3,698.5	13.4	12.6	-78.71	525.5	-287.1	570.1	544.7	25.34	22.500	
3,800.0	3,794.9	3,777.9	3,777.3	13.7	12.9	-79.44	527.1	-288.3	570.7	544.8	25.89	22.047	
3,900.0	3,894.4	3,881.5	3,880.9	14.1	13.3	-80.50	528.7	-290.5	571.6	544.9	26.62	21.470	
4,000.0	3,993.9	3,991.3	3,990.6	14.4	13.6	-81.68	528.7	-292.4	571.3	543.9	27.37	20.876	
4,100.0	4,093.5	4,101.2	4,100.5	14.8	14.0	-82.94	526.8	-293.5	569.3	541.2	28.11	20.251	
4,200.0	4,193.0	4,208.9	4,208.1	15.1	14.3	-84.11	524.0	-292.8	565.9	537.0	28.81	19.641	
4,300.0	4,292.6	4,306.8	4,306.0	15.5	14.6	-85.10	521.7	-291.0	562.0	532.6	29.49	19.059	
4,400.0	4,392.1	4,403.6	4,402.7	15.8	14.9	-86.03	520.0	-289.2	558.7	528.6	30.18	18.514	
4,500.0	4,491.6	4,496.1	4,495.2	16.2	15.2	-86.82	519.9	-287.3	556.5	525.7	30.86	18.034	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #1H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 239-MWD, 761-MWD, 4644-MWD, 9817-MWD													Offset Well Error:	2.0 usft
Reference		Offset		Semi Major Axis			Distance							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)	Minimum Separation (usft)	Separation Factor		
4,600.0	4,591.2	4,593.7	4,592.9	16.5	15.4	-87.60	520.6	-285.5	555.2	523.8	31.48	17.640		
4,700.0	4,690.7	4,689.9	4,689.1	16.9	15.5	-88.40	521.4	-284.2	554.5	522.5	32.01	17.323		
4,732.5	4,723.1	4,720.7	4,719.9	17.0	15.6	-88.66	521.8	-283.9	554.4	522.3	32.14	17.251 CC		
4,800.0	4,790.3	4,786.5	4,785.7	17.2	15.6	-89.21	522.7	-283.5	554.6	522.2	32.40	17.115 ES		
4,900.0	4,889.8	4,882.2	4,881.3	17.6	15.6	-90.01	524.2	-283.0	555.2	522.4	32.79	16.931		
5,000.0	4,989.3	4,980.5	4,979.6	17.9	15.7	-90.83	526.3	-283.2	556.8	523.6	33.19	16.775		
5,100.0	5,088.9	5,082.1	5,081.2	18.3	15.7	-91.65	528.5	-283.0	558.1	524.5	33.60	16.611		
5,200.0	5,188.4	5,184.0	5,183.0	18.7	15.8	-92.45	530.5	-282.5	559.3	525.3	34.02	16.441		
5,300.0	5,288.0	5,285.3	5,284.4	19.0	15.8	-93.26	532.2	-281.7	560.2	525.8	34.45	16.262		
5,400.0	5,387.5	5,385.9	5,384.9	19.4	15.9	-94.08	533.6	-280.9	561.0	526.2	34.89	16.080		
5,500.0	5,487.0	5,481.4	5,480.4	19.7	16.0	-94.87	534.9	-280.4	562.2	526.9	35.33	15.912		
5,600.0	5,586.6	5,581.7	5,580.7	20.1	16.1	-95.71	536.5	-280.4	563.9	528.1	35.78	15.760		
5,700.0	5,686.1	5,681.9	5,680.8	20.4	16.2	-96.54	538.0	-280.1	565.6	529.3	36.24	15.606		
5,800.0	5,785.7	5,780.9	5,779.9	20.8	16.3	-97.31	539.8	-279.6	567.4	530.7	36.71	15.457		
5,900.0	5,885.2	5,881.5	5,880.4	21.2	16.4	-98.10	541.6	-279.2	569.3	532.1	37.18	15.310		
6,000.0	5,984.7	5,982.2	5,981.1	21.5	16.5	-98.91	543.0	-278.7	571.0	533.4	37.67	15.160		
6,100.0	6,084.3	6,081.4	6,080.3	21.9	16.6	-99.75	544.1	-278.4	572.9	534.8	38.16	15.016		
6,200.0	6,183.8	6,180.7	6,179.7	22.2	16.8	-100.63	544.8	-278.4	574.9	536.3	38.65	14.876		
6,300.0	6,283.3	6,279.6	6,278.5	22.6	16.9	-101.55	545.0	-278.9	577.3	538.2	39.15	14.748		
6,400.0	6,382.9	6,382.4	6,381.3	22.9	17.0	-102.50	545.1	-279.1	579.5	539.9	39.66	14.614		
6,500.0	6,482.4	6,481.9	6,480.8	23.3	17.2	-103.45	544.8	-279.0	581.5	541.3	40.16	14.479		
6,600.0	6,582.0	6,580.1	6,579.1	23.7	17.3	-104.38	544.5	-279.3	583.9	543.2	40.68	14.355		
6,700.0	6,681.5	6,678.0	6,676.9	24.0	17.5	-105.37	543.7	-279.9	586.6	545.4	41.20	14.239		
6,800.0	6,781.0	6,778.8	6,777.7	24.4	17.6	-106.36	543.1	-280.7	589.7	548.0	41.73	14.131		
6,900.0	6,880.6	6,876.4	6,875.3	24.7	17.8	-107.26	542.9	-281.0	592.8	550.5	42.26	14.025		
7,000.0	6,980.1	6,978.5	6,977.4	25.1	18.0	-108.21	542.6	-281.7	596.2	553.4	42.81	13.926		
7,100.0	7,079.7	7,077.9	7,076.8	25.5	18.1	-109.16	541.8	-282.1	599.3	556.0	43.35	13.824		
7,200.0	7,179.2	7,177.8	7,176.7	25.8	18.3	-110.10	541.1	-282.5	602.7	558.8	43.90	13.728		
7,300.0	7,278.7	7,281.1	7,280.0	26.2	18.5	-111.07	540.1	-282.6	605.9	561.4	44.46	13.628		
7,400.0	7,378.3	7,376.0	7,374.9	26.5	18.7	-111.99	538.8	-283.0	609.3	564.3	45.00	13.540		
7,500.0	7,477.8	7,477.1	7,476.0	26.9	18.9	-113.04	536.7	-283.8	613.1	567.5	45.57	13.456		
7,600.0	7,577.4	7,577.4	7,576.2	27.3	19.1	-114.11	534.2	-284.4	616.9	570.7	46.13	13.372		
7,700.0	7,676.9	7,677.0	7,675.7	27.6	19.3	-115.16	531.5	-285.0	620.7	574.0	46.70	13.292		
7,800.0	7,776.4	7,776.6	7,775.3	28.0	19.5	-116.23	528.6	-285.7	624.8	577.5	47.27	13.216		
7,900.0	7,876.0	7,876.3	7,875.0	28.3	19.7	-117.25	526.0	-286.1	628.9	581.1	47.85	13.143		
8,000.0	7,975.5	7,974.2	7,972.9	28.7	19.9	-118.22	523.6	-286.6	633.4	584.9	48.43	13.078		
8,100.0	8,075.1	8,073.5	8,072.1	29.1	20.1	-119.20	521.2	-287.3	638.2	589.2	49.01	13.021		
8,200.0	8,174.6	8,174.3	8,172.9	29.4	20.4	-120.19	518.6	-287.8	643.0	593.4	49.61	12.961		
8,300.0	8,274.1	8,274.1	8,272.7	29.8	20.6	-121.26	514.8	-288.4	647.8	597.6	50.20	12.905		
8,400.0	8,373.7	8,373.3	8,371.8	30.2	20.8	-122.31	510.9	-288.9	652.8	602.0	50.79	12.852		
8,500.0	8,473.2	8,474.7	8,473.1	30.5	21.1	-123.33	507.5	-289.2	657.9	606.5	51.40	12.800		
8,600.0	8,572.8	8,576.4	8,574.8	30.9	21.3	-124.26	504.8	-289.0	662.8	610.8	52.01	12.745		
8,700.0	8,672.3	8,672.3	8,670.6	31.2	21.5	-125.17	501.8	-288.9	667.9	615.3	52.60	12.697		
8,800.0	8,771.8	8,778.6	8,776.8	31.6	21.8	-126.18	498.2	-288.8	673.1	619.9	53.23	12.646		
8,900.0	8,871.4	8,863.7	8,861.9	32.0	22.0	-127.02	494.9	-288.9	678.7	624.9	53.80	12.615		
9,000.0	8,970.9	8,971.1	8,969.2	32.3	22.3	-128.04	491.0	-290.1	685.5	631.0	54.49	12.580		
9,100.0	9,070.5	9,070.6	9,068.6	32.7	22.6	-128.96	487.3	-290.1	691.4	636.3	55.12	12.544		
9,200.0	9,170.0	9,163.0	9,161.0	33.0	22.8	-129.83	483.7	-290.6	698.0	642.3	55.71	12.529		
9,300.0	9,269.5	9,257.6	9,255.5	33.4	23.1	-130.56	481.6	-291.9	705.6	649.2	56.32	12.527		
9,400.0	9,369.1	9,359.9	9,357.8	33.8	23.5	-131.30	479.9	-293.3	713.3	656.2	57.07	12.500		
9,500.0	9,468.6	9,447.0	9,444.8	34.1	23.8	-132.01	477.2	-295.2	721.9	664.2	57.72	12.507		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #1H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 239-MWD, 761-MWD, 4644-MWD, 9817-MWD													Offset Well Error:	2.0 usft
Reference	Offset	Semi Major Axis		Distance										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)	Minimum Separation (usft)	Separation Factor		
9,600.0	9,568.2	9,550.3	9,548.0	34.5	24.1	-132.79	474.5	-298.1	731.3	672.9	58.38	12.526		
9,700.0	9,667.7	9,663.3	9,661.0	34.9	24.4	-133.65	471.4	-298.8	738.5	679.4	59.11	12.494 SF		
9,800.0	9,767.2	9,746.2	9,743.9	35.2	24.7	-134.18	470.2	-300.4	747.2	687.5	59.68	12.520		
9,900.0	9,866.8	9,846.0	9,843.6	35.6	24.8	-134.98	466.4	-302.7	756.5	696.3	60.21	12.563		
10,000.0	9,966.3	9,951.6	9,947.8	35.9	24.9	-136.69	450.4	-304.5	766.6	706.0	60.62	12.648		
10,100.0	10,065.9	10,029.8	10,023.6	36.3	24.9	-138.49	431.0	-304.4	777.1	716.2	60.91	12.758		
10,200.0	10,165.4	10,099.0	10,088.7	36.7	24.9	-140.49	407.6	-305.1	791.5	730.3	61.12	12.949		
10,300.0	10,264.9	10,161.0	10,145.1	37.0	25.0	-142.55	381.9	-306.5	810.7	749.5	61.21	13.244		
10,400.0	10,364.5	10,224.0	10,199.6	37.4	25.0	-144.92	350.5	-308.4	835.3	774.1	61.23	13.644		
10,500.0	10,464.0	10,256.0	10,225.7	37.8	25.1	-146.27	332.0	-309.3	866.2	805.4	60.82	14.242		
10,600.0	10,563.6	10,287.0	10,249.3	38.1	25.1	-147.68	312.0	-310.4	904.2	844.0	60.27	15.004		
10,700.0	10,663.1	10,318.0	10,270.9	38.5	25.2	-149.19	289.8	-311.8	949.5	889.8	59.63	15.923		
10,739.6	10,702.5	10,318.0	10,270.9	38.6	25.2	-149.19	289.8	-311.8	969.3	910.1	59.19	16.376		
10,800.0	10,762.7	10,350.0	10,290.9	38.8	25.2	-151.00	264.9	-313.2	1,001.0	942.1	58.97	16.976		
10,900.0	10,862.4	10,369.3	10,302.0	39.2	25.3	-152.32	249.1	-313.8	1,056.9	998.8	58.12	18.184		
11,000.0	10,962.2	10,393.1	10,314.6	39.6	25.4	-153.90	228.9	-314.0	1,116.6	1,059.2	57.36	19.467		
11,100.0	11,062.1	10,413.0	10,324.3	39.9	25.4	-155.28	211.5	-313.9	1,179.7	1,123.2	56.58	20.851		
11,200.0	11,162.1	10,429.6	10,331.7	40.3	25.5	-156.50	196.7	-313.6	1,245.9	1,190.1	55.80	22.327		
11,289.6	11,251.7	10,438.0	10,335.3	40.6	25.5	-116.89	189.1	-313.5	1,307.5	1,252.4	55.09	23.732		
11,300.0	11,262.1	10,447.4	10,339.2	40.6	25.5	-117.37	180.5	-313.3	1,314.7	1,259.6	55.11	23.857		
11,400.0	11,362.1	10,469.0	10,347.7	41.0	25.6	-118.45	160.7	-312.8	1,386.3	1,331.8	54.54	25.419		
11,500.0	11,462.1	10,479.7	10,351.7	41.3	25.6	-118.98	150.8	-312.5	1,460.9	1,406.9	53.95	27.079		
11,564.4	11,526.5	10,488.1	10,354.7	41.6	25.7	-119.40	142.9	-312.3	1,510.3	1,456.6	53.64	28.158		
11,575.0	11,537.1	10,489.5	10,355.2	41.6	25.7	59.55	141.6	-312.3	1,518.4	1,464.8	53.59	28.336		
11,600.0	11,562.0	10,501.0	10,359.3	41.7	25.7	56.03	130.8	-312.0	1,537.6	1,484.0	53.55	28.715		
11,625.0	11,586.9	10,501.0	10,359.3	41.7	25.7	53.26	130.8	-312.0	1,556.3	1,502.9	53.39	29.149		
11,650.0	11,611.6	10,501.0	10,359.3	41.8	25.7	50.69	130.8	-312.0	1,574.7	1,521.5	53.24	29.578		
11,675.0	11,636.1	10,501.0	10,359.3	41.9	25.7	48.32	130.8	-312.0	1,592.7	1,539.6	53.09	30.002		
11,700.0	11,660.3	10,510.9	10,362.6	42.0	25.8	45.85	121.6	-311.9	1,610.2	1,557.2	53.03	30.367		
11,725.0	11,684.1	10,516.2	10,364.4	42.0	25.8	43.74	116.5	-311.8	1,627.3	1,574.3	52.92	30.748		
11,750.0	11,707.4	10,531.0	10,369.1	42.1	25.8	41.60	102.5	-311.6	1,643.8	1,590.9	52.90	31.073		
11,775.0	11,730.3	10,531.0	10,369.1	42.2	25.8	40.00	102.5	-311.6	1,659.7	1,606.9	52.75	31.462		
11,800.0	11,752.6	10,531.0	10,369.1	42.2	25.8	38.53	102.5	-311.6	1,674.9	1,622.3	52.60	31.842		
11,825.0	11,774.3	10,531.0	10,369.1	42.3	25.8	37.19	102.5	-311.6	1,689.7	1,637.2	52.46	32.210		
11,850.0	11,795.3	10,544.9	10,373.2	42.3	25.9	35.76	89.2	-311.4	1,703.6	1,651.1	52.43	32.493		
11,875.0	11,815.6	10,550.9	10,375.0	42.4	25.9	34.59	83.4	-311.3	1,716.8	1,664.5	52.34	32.805		
11,900.0	11,835.1	10,563.0	10,378.3	42.4	26.0	33.47	71.8	-311.2	1,729.4	1,677.1	52.29	33.074		
11,925.0	11,853.8	10,563.0	10,378.3	42.4	26.0	32.60	71.8	-311.2	1,741.2	1,689.0	52.15	33.385		
11,950.0	11,871.5	10,563.0	10,378.3	42.5	26.0	31.81	71.8	-311.2	1,752.3	1,700.2	52.02	33.681		
11,975.0	11,888.3	10,575.7	10,381.5	42.5	26.0	31.00	59.6	-311.2	1,762.4	1,710.5	51.99	33.898		
12,000.0	11,904.1	10,581.9	10,383.0	42.5	26.1	30.33	53.5	-311.2	1,771.9	1,720.0	51.92	34.130		
12,025.0	11,918.9	10,594.0	10,385.8	42.6	26.1	29.70	41.8	-311.2	1,780.5	1,728.6	51.88	34.317		
12,050.0	11,932.6	10,594.0	10,385.8	42.6	26.1	29.23	41.8	-311.2	1,788.2	1,736.4	51.77	34.539		
12,075.0	11,945.2	10,594.0	10,385.8	42.6	26.1	28.80	41.8	-311.2	1,795.2	1,743.5	51.67	34.742		
12,100.0	11,956.6	10,608.6	10,388.9	42.6	26.2	28.39	27.5	-311.3	1,801.1	1,749.4	51.67	34.859		
12,125.0	11,966.9	10,626.0	10,392.2	42.7	26.3	28.04	10.4	-311.5	1,806.3	1,754.7	51.69	34.948		
12,150.0	11,975.9	10,626.0	10,392.2	42.7	26.3	27.81	10.4	-311.5	1,810.5	1,758.9	51.60	35.085		
12,175.0	11,983.7	10,626.0	10,392.2	42.7	26.3	27.62	10.4	-311.5	1,813.8	1,762.3	51.53	35.199		
12,200.0	11,990.3	10,626.0	10,392.2	42.7	26.3	27.48	10.4	-311.5	1,816.3	1,764.9	51.47	35.290		
12,225.0	11,995.6	10,643.0	10,394.9	42.7	26.4	27.39	-6.3	-311.7	1,817.7	1,766.2	51.51	35.291		
12,250.0	11,999.6	10,657.0	10,396.9	42.8	26.5	27.36	-20.2	-312.0	1,818.4	1,766.9	51.53	35.286		

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #1H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 239-MWD, 761-MWD, 4644-MWD, 9817-MWD													Offset Well Error:	2.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,275.0	12,002.3	10,657.0	10,396.9	42.8	26.5	27.38	-20.2	-312.0	1,818.0	1,766.5	51.50	35.303		
12,300.0	12,003.7	10,657.0	10,396.9	42.8	26.5	27.45	-20.2	-312.0	1,816.9	1,765.4	51.48	35.295		
12,314.9	12,004.0	10,657.0	10,396.9	42.8	26.5	27.51	-20.2	-312.0	1,815.8	1,764.3	51.47	35.278		
12,400.0	12,003.9	10,688.0	10,400.2	42.8	26.6	27.59	-51.0	-312.9	1,809.6	1,758.0	51.61	35.064		
12,500.0	12,003.8	10,720.0	10,402.1	42.9	26.8	27.65	-82.9	-313.9	1,806.1	1,754.3	51.83	34.847		
12,548.1	12,003.7	10,742.7	10,402.7	42.9	26.9	27.68	-105.7	-314.6	1,805.7	1,753.7	51.98	34.740		
12,600.0	12,003.7	10,774.9	10,403.1	42.9	27.2	27.72	-137.8	-315.5	1,806.0	1,753.8	52.15	34.627		
12,700.0	12,003.6	10,876.7	10,403.3	43.0	27.9	27.80	-239.6	-317.6	1,806.9	1,754.3	52.60	34.353		
12,800.0	12,003.5	11,078.8	10,406.2	43.1	29.6	27.80	-441.6	-314.5	1,805.4	1,752.0	53.38	33.822		
12,900.0	12,003.4	11,187.0	10,410.5	43.2	30.6	27.75	-549.6	-309.8	1,800.0	1,746.0	53.99	33.339		
13,000.0	12,003.3	11,260.3	10,412.2	43.3	31.3	27.68	-622.8	-305.8	1,795.6	1,741.0	54.52	32.934		
13,100.0	12,003.2	11,382.6	10,415.5	43.4	32.6	27.58	-744.9	-299.8	1,791.1	1,735.9	55.28	32.402		
13,200.0	12,003.1	11,484.0	10,419.7	43.6	33.7	27.54	-846.1	-295.8	1,785.8	1,729.8	56.01	31.885		
13,300.0	12,003.0	11,565.6	10,422.2	43.7	34.6	27.49	-927.6	-292.2	1,781.2	1,724.5	56.69	31.417		
13,400.0	12,002.9	11,658.4	10,424.0	43.9	35.7	27.42	-1,020.3	-288.0	1,777.6	1,720.1	57.46	30.935		
13,500.0	12,002.8	11,780.6	10,428.0	44.1	37.1	27.36	-1,142.3	-282.9	1,772.9	1,714.5	58.41	30.351		
13,600.0	12,002.7	11,872.2	10,430.7	44.3	38.3	27.28	-1,233.8	-278.3	1,768.1	1,708.8	59.26	29.834		
13,700.0	12,002.6	11,963.8	10,432.7	44.5	39.4	27.18	-1,325.2	-273.3	1,763.9	1,703.8	60.14	29.331		
13,800.0	12,002.5	12,058.7	10,435.0	44.8	40.7	27.12	-1,420.0	-269.4	1,760.0	1,699.0	61.08	28.815		
13,900.0	12,002.4	12,156.0	10,437.2	45.0	42.0	27.06	-1,517.1	-265.6	1,756.4	1,694.4	62.07	28.297		
14,000.0	12,002.3	12,239.4	10,439.7	45.3	43.1	27.07	-1,600.6	-264.1	1,753.2	1,690.1	63.08	27.792		
14,100.0	12,002.2	12,340.5	10,441.4	45.6	44.5	27.07	-1,701.6	-262.3	1,751.0	1,686.8	64.20	27.274		
14,200.0	12,002.1	12,452.6	10,445.0	45.9	46.0	27.09	-1,813.6	-260.6	1,747.7	1,682.2	65.41	26.720		
14,300.0	12,002.0	12,542.2	10,447.4	46.2	47.3	27.09	-1,903.1	-258.7	1,744.5	1,678.0	66.51	26.228		
14,400.0	12,001.9	12,643.0	10,449.6	46.5	48.7	27.08	-2,003.9	-256.6	1,741.8	1,674.1	67.69	25.732		
14,500.0	12,001.8	12,759.0	10,454.1	46.8	50.4	27.14	-2,119.8	-255.4	1,738.0	1,669.0	69.01	25.186		
14,600.0	12,001.7	12,815.8	10,456.0	47.2	51.2	27.17	-2,176.6	-255.1	1,735.2	1,665.1	70.12	24.747		
14,625.6	12,001.6	12,827.8	10,456.2	47.3	51.3	27.17	-2,188.6	-255.1	1,734.9	1,664.6	70.39	24.648		
14,700.0	12,001.6	12,890.5	10,456.3	47.6	52.3	27.21	-2,251.2	-255.8	1,735.3	1,663.9	71.36	24.315		
14,800.0	12,001.5	13,006.7	10,459.2	47.9	53.9	27.36	-2,367.4	-258.9	1,734.4	1,661.5	72.89	23.794		
14,900.0	12,001.4	13,096.4	10,461.0	48.3	55.3	27.48	-2,457.0	-261.4	1,734.0	1,659.8	74.22	23.363		
15,000.0	12,001.3	13,203.0	10,462.6	48.7	56.8	27.59	-2,563.6	-263.6	1,733.8	1,658.2	75.63	22.926		
15,096.7	12,001.2	13,290.7	10,464.5	49.1	58.1	27.71	-2,651.2	-266.0	1,733.4	1,656.5	76.95	22.527		
15,100.0	12,001.2	13,293.4	10,464.5	49.2	58.2	27.71	-2,654.0	-266.0	1,733.4	1,656.4	76.99	22.514		
15,200.0	12,001.1	13,374.9	10,465.2	49.6	59.4	27.79	-2,735.5	-267.8	1,734.0	1,655.7	78.32	22.139		
15,300.0	12,001.0	13,465.4	10,465.8	50.0	60.7	27.93	-2,825.9	-271.7	1,735.5	1,655.8	79.75	21.763		
15,400.0	12,000.9	13,594.7	10,469.2	50.5	62.7	28.26	-2,954.9	-280.4	1,736.7	1,655.2	81.51	21.306		
15,500.0	12,000.8	13,708.5	10,475.1	50.9	64.3	28.64	-3,068.1	-289.6	1,736.2	1,652.9	83.25	20.854		
15,591.5	12,000.7	13,787.5	10,479.1	51.4	65.5	28.91	-3,146.8	-296.0	1,735.8	1,651.1	84.68	20.498		
15,600.0	12,000.7	13,794.0	10,479.4	51.4	65.6	28.93	-3,153.2	-296.5	1,735.8	1,651.0	84.81	20.467		
15,700.0	12,000.6	13,878.5	10,482.7	51.9	66.9	29.18	-3,237.4	-302.9	1,736.3	1,650.0	86.36	20.106		
15,800.0	12,000.5	13,956.4	10,484.3	52.4	68.1	29.37	-3,315.1	-308.0	1,737.9	1,650.1	87.86	19.781		
15,900.0	12,000.4	14,039.0	10,484.1	52.9	69.3	29.50	-3,397.6	-312.1	1,740.8	1,651.4	89.37	19.478		
16,000.0	12,000.3	14,194.3	10,482.9	53.4	71.7	29.62	-3,552.8	-316.0	1,743.1	1,651.8	91.30	19.093		
16,100.0	12,000.2	14,346.8	10,486.7	53.9	74.1	29.77	-3,705.2	-318.2	1,742.0	1,648.8	93.19	18.694		
16,200.0	12,000.1	14,475.7	10,493.0	54.4	76.1	29.92	-3,834.1	-318.9	1,738.3	1,643.3	94.96	18.306		
16,300.0	12,000.0	14,576.7	10,498.9	55.0	77.7	30.03	-3,934.9	-318.6	1,733.2	1,636.6	96.60	17.942		
16,400.0	11,999.9	14,641.0	10,501.8	55.5	78.7	30.09	-3,999.1	-318.6	1,729.6	1,631.5	98.06	17.638		
16,500.0	11,999.8	14,725.0	10,504.4	56.1	80.0	30.17	-4,083.0	-319.3	1,727.5	1,627.9	99.63	17.339		
16,600.0	11,999.7	14,811.7	10,506.4	56.6	81.3	30.24	-4,169.7	-320.2	1,726.3	1,625.1	101.21	17.057		
16,675.2	11,999.6	14,872.0	10,507.4	57.0	82.3	30.29	-4,230.0	-320.8	1,725.8	1,623.4	102.37	16.859		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #1H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 239-MWD, 761-MWD, 4644-MWD, 9817-MWD												Offset Well Error:	2.0 usft
Reference	Offset	Semi Major Axis		Distance									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)	Minimum Separation (usft)	Separation Factor	
16,700.0	11,999.6	14,872.0	10,507.4	57.2	82.3	30.29	-4,230.0	-320.8	1,725.9	1,623.3	102.63	16.817	
16,800.0	11,999.5	14,872.0	10,507.4	57.8	82.3	30.29	-4,230.0	-320.8	1,730.3	1,626.7	103.59	16.704	
16,900.0	11,999.4	14,872.0	10,507.4	58.3	82.3	30.29	-4,230.0	-320.8	1,740.4	1,636.0	104.37	16.675	
17,000.0	11,999.3	14,872.0	10,507.4	58.9	82.3	30.29	-4,230.0	-320.8	1,756.1	1,651.1	104.96	16.730	
17,100.0	11,999.2	14,872.0	10,507.4	59.5	82.3	30.29	-4,230.0	-320.8	1,777.3	1,671.9	105.37	16.867	
17,200.0	11,999.1	14,872.0	10,507.4	60.1	82.3	30.29	-4,230.0	-320.8	1,803.8	1,698.2	105.61	17.081	
17,300.0	11,999.0	14,872.0	10,507.4	60.7	82.3	30.29	-4,230.0	-320.8	1,835.4	1,729.8	105.67	17.370	
17,400.0	11,998.9	14,872.0	10,507.4	61.3	82.3	30.29	-4,230.0	-320.8	1,871.9	1,766.3	105.57	17.731	
17,500.0	11,998.8	14,872.0	10,507.4	62.0	82.3	30.29	-4,230.0	-320.8	1,912.8	1,807.5	105.34	18.158	
17,600.0	11,998.7	14,872.0	10,507.4	62.6	82.3	30.29	-4,230.0	-320.8	1,958.0	1,853.0	104.99	18.649	

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - LATERAL 01 - AV													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9743-MWD													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance		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)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	7.8	7.8	3.0	3.0	62.58	527.3	1,016.5	1,145.1					
100.0	100.0	119.1	119.1	3.0	3.0	62.61	526.4	1,016.2	1,144.5	1,138.5	6.00	190.637		
200.0	200.0	221.7	221.7	3.0	3.0	62.65	525.2	1,015.4	1,143.3	1,137.2	6.05	189.060		
300.0	300.0	319.2	319.2	3.1	3.0	62.68	524.2	1,014.6	1,142.1	1,136.0	6.14	186.066		
400.0	400.0	419.2	419.2	3.2	3.0	62.71	523.1	1,014.0	1,141.0	1,134.7	6.27	181.877		
500.0	500.0	518.0	517.9	3.4	3.1	62.74	522.1	1,013.3	1,140.0	1,133.5	6.45	176.773		
600.0	600.0	616.7	616.7	3.6	3.1	62.77	521.2	1,012.8	1,139.1	1,132.4	6.66	171.042		
700.0	700.0	721.4	721.3	3.8	3.2	62.79	520.3	1,012.1	1,138.1	1,131.2	6.91	164.796		
800.0	800.0	827.2	827.1	4.0	3.2	62.81	519.2	1,010.7	1,136.4	1,129.3	7.18	158.235		
900.0	900.0	922.0	921.9	4.2	3.3	62.87	517.5	1,009.9	1,134.9	1,127.4	7.47	151.921		
1,000.0	1,000.0	1,013.9	1,013.8	4.5	3.3	62.96	515.5	1,009.9	1,133.9	1,126.1	7.76	146.072		
1,100.0	1,100.0	1,109.1	1,108.9	4.8	3.4	63.05	513.7	1,010.4	1,133.5	1,125.4	8.06	140.648		
1,117.5	1,117.5	1,124.6	1,124.4	4.8	3.4	63.07	513.4	1,010.5	1,133.5	1,125.4	8.11	139.766		
1,200.0	1,200.0	1,200.0	1,199.9	5.1	3.4	63.15	512.1	1,011.6	1,133.8	1,125.5	8.35	135.743		
1,300.0	1,300.0	1,307.0	1,306.8	5.4	3.5	63.29	509.8	1,013.2	1,134.2	1,125.6	8.66	131.035		
1,400.0	1,400.0	1,400.0	1,399.8	5.7	3.5	63.39	508.2	1,014.5	1,134.7	1,125.7	8.96	126.590		
1,500.0	1,500.0	1,493.9	1,493.7	6.0	3.6	63.48	507.2	1,016.1	1,135.7	1,126.5	9.27	122.537		
1,600.0	1,600.0	1,591.3	1,591.1	6.3	3.6	63.57	506.1	1,018.1	1,137.0	1,127.4	9.58	118.692		
1,700.0	1,700.0	1,691.6	1,691.3	6.6	3.6	63.64	505.4	1,020.0	1,138.4	1,128.5	9.89	115.055		
1,800.0	1,800.0	1,793.7	1,793.4	6.9	3.7	63.70	505.0	1,021.6	1,139.7	1,129.5	10.22	111.525		
1,900.0	1,900.0	1,895.4	1,895.1	7.2	3.7	63.72	505.2	1,022.8	1,140.8	1,130.3	10.54	108.190		
2,000.0	2,000.0	1,989.4	1,989.1	7.6	3.7	63.71	505.9	1,023.8	1,142.1	1,131.2	10.88	104.984		
2,100.0	2,100.0	2,088.7	2,088.4	7.9	3.7	63.68	507.1	1,025.0	1,143.7	1,132.5	11.22	101.901		
2,200.0	2,200.0	2,184.5	2,184.2	8.2	3.7	63.63	508.6	1,026.1	1,145.5	1,133.9	11.58	98.950		
2,300.0	2,300.0	2,273.9	2,273.5	8.6	3.7	63.58	510.4	1,027.6	1,147.9	1,136.0	11.93	96.192		
2,400.0	2,400.0	2,371.5	2,371.1	8.9	3.7	63.54	512.7	1,029.9	1,151.0	1,138.7	12.30	93.571		
2,500.0	2,500.0	2,473.3	2,472.8	9.2	3.7	63.51	514.6	1,032.4	1,154.1	1,141.4	12.68	91.020		
2,600.0	2,600.0	2,575.4	2,574.9	9.6	3.8	23.16	516.0	1,035.0	1,155.3	1,142.3	13.06	88.439		
2,700.0	2,699.8	2,680.3	2,679.7	9.9	3.8	23.28	517.3	1,037.4	1,153.1	1,139.6	13.46	85.695		
2,775.0	2,774.6	2,753.0	2,752.5	10.2	3.9	23.43	518.2	1,038.8	1,149.2	1,135.4	13.75	83.571		
2,800.0	2,799.5	2,776.6	2,776.0	10.3	3.9	23.47	518.5	1,039.4	1,147.6	1,133.8	13.85	82.864		
2,900.0	2,899.0	2,888.3	2,887.7	10.6	3.9	23.68	519.6	1,041.7	1,141.1	1,126.9	14.26	80.018		
3,000.0	2,998.5	3,006.4	3,005.7	10.9	4.0	23.86	520.9	1,042.1	1,133.1	1,118.5	14.67	77.261		
3,100.0	3,098.1	3,107.6	3,106.9	11.3	3.9	23.98	522.4	1,041.3	1,124.3	1,109.3	15.04	74.732		
3,200.0	3,197.6	3,208.6	3,207.9	11.6	3.9	24.08	524.2	1,040.1	1,115.3	1,099.9	15.42	72.314		
3,300.0	3,297.2	3,302.6	3,301.9	12.0	4.0	24.17	525.8	1,039.3	1,106.5	1,090.7	15.80	70.013		
3,400.0	3,396.7	3,404.9	3,404.2	12.3	4.0	24.27	527.8	1,038.4	1,097.8	1,081.6	16.19	67.800		
3,500.0	3,496.2	3,501.6	3,500.9	12.7	4.0	24.35	529.8	1,037.5	1,089.1	1,072.5	16.58	65.693		
3,600.0	3,595.8	3,600.0	3,599.3	13.0	4.0	24.44	531.9	1,036.8	1,080.6	1,063.7	16.97	63.676		
3,700.0	3,695.3	3,699.9	3,699.1	13.4	4.0	24.53	534.1	1,036.1	1,072.2	1,054.8	17.37	61.743		
3,800.0	3,794.9	3,797.0	3,796.2	13.7	4.1	24.60	536.6	1,035.4	1,063.9	1,046.1	17.76	59.898		
3,900.0	3,894.4	3,895.6	3,894.8	14.1	4.1	24.67	539.2	1,034.8	1,055.7	1,037.6	18.16	58.131		
4,000.0	3,993.9	3,994.6	3,993.7	14.4	4.2	24.80	541.0	1,034.6	1,047.7	1,029.1	18.57	56.416		
4,100.0	4,093.5	4,093.6	4,092.7	14.8	4.3	24.98	541.9	1,035.0	1,039.7	1,020.7	18.99	54.745		
4,200.0	4,193.0	4,190.3	4,189.4	15.1	4.3	25.17	542.7	1,035.6	1,031.9	1,012.4	19.42	53.137		
4,300.0	4,292.6	4,292.8	4,291.9	15.5	4.4	25.41	543.0	1,036.4	1,024.1	1,004.2	19.85	51.588		
4,400.0	4,392.1	4,391.7	4,390.8	15.8	4.5	25.70	542.4	1,037.6	1,016.2	995.9	20.27	50.121		
4,500.0	4,491.6	4,495.5	4,494.6	16.2	4.6	26.03	541.4	1,038.7	1,008.2	987.5	20.69	48.721		
4,600.0	4,591.2	4,595.4	4,594.5	16.5	4.6	26.32	540.7	1,039.4	999.9	978.8	21.11	47.367		
4,700.0	4,690.7	4,696.8	4,695.9	16.9	4.7	26.60	540.2	1,039.9	991.6	970.1	21.53	46.056		
4,800.0	4,790.3	4,799.4	4,798.5	17.2	4.8	26.90	539.6	1,040.2	983.1	961.1	21.94	44.810		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - LATERAL 01 - AV												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9743-MWD												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,889.8	4,901.0	4,900.1	17.6	4.8	27.22	538.6	1,040.3	974.3	951.9	22.33	43.632	
5,000.0	4,989.3	5,002.9	5,002.0	17.9	4.9	27.53	537.8	1,040.2	965.3	942.6	22.71	42.511	
5,100.0	5,088.9	5,105.6	5,104.6	18.3	4.9	27.83	537.1	1,039.6	956.0	932.9	23.07	41.431	
5,200.0	5,188.4	5,202.5	5,201.6	18.7	4.9	28.11	536.5	1,039.0	946.8	923.3	23.45	40.382	
5,300.0	5,288.0	5,306.0	5,305.0	19.0	4.9	28.40	536.1	1,038.1	937.4	913.6	23.82	39.359	
5,400.0	5,387.5	5,403.8	5,402.8	19.4	4.9	28.68	535.7	1,037.3	928.0	903.8	24.19	38.355	
5,500.0	5,487.0	5,507.9	5,507.0	19.7	5.0	29.00	535.0	1,036.2	918.4	893.8	24.58	37.369	
5,600.0	5,586.6	5,605.8	5,604.8	20.1	5.0	29.33	533.9	1,035.2	908.7	883.7	24.97	36.397	
5,700.0	5,686.1	5,709.5	5,708.6	20.4	5.1	29.68	532.8	1,033.9	898.8	873.5	25.36	35.446	
5,800.0	5,785.7	5,804.9	5,803.9	20.8	5.1	29.98	532.2	1,032.6	889.0	863.3	25.75	34.518	
5,900.0	5,885.2	5,905.1	5,904.1	21.2	5.1	30.30	531.6	1,031.5	879.4	853.2	26.15	33.623	
6,000.0	5,984.7	6,008.6	6,007.6	21.5	5.2	30.65	530.9	1,030.0	869.5	843.0	26.56	32.741	
6,100.0	6,084.3	6,111.1	6,110.0	21.9	5.2	30.98	530.2	1,028.0	859.3	832.3	26.97	31.865	
6,200.0	6,183.8	6,209.5	6,208.4	22.2	5.3	31.30	529.6	1,025.9	848.9	821.5	27.38	31.006	
6,300.0	6,283.3	6,301.9	6,300.8	22.6	5.4	31.58	529.6	1,024.3	839.0	811.2	27.80	30.186	
6,400.0	6,382.9	6,400.2	6,399.1	22.9	5.4	31.92	529.3	1,023.2	829.7	801.5	28.21	29.407	
6,500.0	6,482.4	6,502.7	6,501.6	23.3	5.5	32.33	528.4	1,022.0	820.2	791.6	28.63	28.645	
6,600.0	6,582.0	6,600.0	6,598.9	23.7	5.6	32.70	527.7	1,020.9	810.8	781.7	29.06	27.900	
6,700.0	6,681.5	6,702.4	6,701.3	24.0	5.6	33.06	527.6	1,019.4	801.3	771.8	29.49	27.174	
6,800.0	6,781.0	6,803.5	6,802.4	24.4	5.7	33.38	527.9	1,017.5	791.5	761.6	29.92	26.457	
6,900.0	6,880.6	6,900.0	6,898.9	24.7	5.8	33.71	528.1	1,015.8	782.0	751.6	30.35	25.764	
7,000.0	6,980.1	7,001.0	6,999.8	25.1	5.8	34.05	528.4	1,014.2	772.5	741.7	30.79	25.094	
7,100.0	7,079.7	7,098.3	7,097.2	25.5	5.9	34.39	528.7	1,012.6	763.1	731.9	31.22	24.439	
7,200.0	7,179.2	7,197.1	7,195.9	25.8	6.0	34.74	529.1	1,011.1	753.8	722.2	31.66	23.808	
7,300.0	7,278.7	7,293.5	7,292.4	26.2	6.0	35.08	529.7	1,009.8	744.9	712.8	32.10	23.203	
7,400.0	7,378.3	7,382.6	7,381.4	26.5	6.1	35.39	530.5	1,009.4	736.8	704.3	32.53	22.650	
7,500.0	7,477.8	7,479.7	7,478.5	26.9	6.1	35.73	531.8	1,009.9	729.8	696.8	32.94	22.158	
7,600.0	7,577.4	7,578.6	7,577.4	27.3	6.2	36.09	533.0	1,010.5	722.9	689.6	33.33	21.686	
7,700.0	7,676.9	7,675.3	7,674.1	27.6	6.2	36.47	533.9	1,011.4	716.3	682.5	33.74	21.232	
7,800.0	7,776.4	7,772.4	7,771.1	28.0	6.2	36.91	534.3	1,012.8	710.1	676.0	34.14	20.802	
7,900.0	7,876.0	7,871.8	7,870.6	28.3	6.3	37.42	534.2	1,014.7	704.3	669.7	34.54	20.390	
8,000.0	7,975.5	7,976.5	7,975.2	28.7	6.3	37.99	533.7	1,016.3	698.1	663.2	34.93	19.984	
8,100.0	8,075.1	8,079.8	8,078.6	29.1	6.4	38.58	532.8	1,017.3	691.3	656.0	35.34	19.562	
8,200.0	8,174.6	8,181.9	8,180.6	29.4	6.5	39.15	532.3	1,017.7	684.1	648.4	35.75	19.137	
8,300.0	8,274.1	8,285.3	8,284.0	29.8	6.5	39.75	531.4	1,017.7	676.6	640.4	36.17	18.708	
8,400.0	8,373.7	8,380.7	8,379.4	30.2	6.6	40.35	530.2	1,017.7	669.0	632.4	36.59	18.283	
8,500.0	8,473.2	8,485.8	8,484.5	30.5	6.7	41.06	528.6	1,017.9	661.6	624.6	37.01	17.880	
8,600.0	8,572.8	8,592.5	8,591.2	30.9	6.8	41.81	526.6	1,016.8	653.2	615.8	37.43	17.452	
8,700.0	8,672.3	8,691.5	8,690.2	31.2	6.9	42.53	524.6	1,015.3	644.3	606.5	37.86	17.020	
8,800.0	8,771.8	8,799.9	8,798.5	31.6	7.0	43.33	522.6	1,013.0	635.0	596.7	38.30	16.580	
8,900.0	8,871.4	8,900.5	8,899.0	32.0	7.0	44.06	520.9	1,009.9	624.8	586.1	38.73	16.131	
9,000.0	8,970.9	9,000.0	8,998.5	32.3	7.1	44.78	519.5	1,006.6	614.5	575.3	39.17	15.688	
9,100.0	9,070.5	9,097.5	9,095.9	32.7	7.2	45.44	518.8	1,003.4	604.4	564.8	39.60	15.260	
9,200.0	9,170.0	9,195.4	9,193.8	33.0	7.3	46.10	518.4	1,000.6	594.7	554.7	40.04	14.852	
9,300.0	9,269.5	9,304.3	9,302.7	33.4	7.4	46.88	517.8	996.7	584.5	544.0	40.51	14.428	
9,400.0	9,369.1	9,412.0	9,410.2	33.8	7.5	47.63	517.7	991.0	572.7	531.7	40.99	13.971	
9,500.0	9,468.6	9,513.7	9,511.7	34.1	7.6	48.22	518.9	984.5	560.0	518.6	41.46	13.509	
9,600.0	9,568.2	9,609.3	9,607.1	34.5	7.7	48.79	520.2	978.6	547.5	505.6	41.88	13.072	
9,700.0	9,667.7	9,702.9	9,700.5	34.9	7.7	49.41	521.0	973.6	535.9	493.6	42.30	12.669	
9,800.0	9,767.2	9,795.0	9,792.5	35.2	7.8	50.08	521.6	969.3	525.1	482.3	42.72	12.291	
9,900.0	9,866.8	9,870.0	9,867.5	35.6	8.9	50.91	519.6	969.7	519.1	475.4	43.69	11.881	

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

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Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - LATERAL 01 - AV												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9743-MWD												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,966.3	9,950.0	9,947.2	35.9	9.1	52.07	514.9	973.7	517.8	473.6	44.21	11.713	
10,081.8	10,047.8	10,028.0	10,025.0	36.2	9.1	53.22	510.3	977.3	517.1	472.6	44.53	11.612	CC
10,100.0	10,065.9	10,040.9	10,037.9	36.3	9.1	53.42	509.4	978.0	517.2	472.5	44.63	11.588	ES
10,200.0	10,165.4	10,101.8	10,098.1	36.7	9.2	54.62	502.8	983.7	521.9	476.7	45.29	11.525	
10,300.0	10,264.9	10,154.0	10,148.9	37.0	9.2	55.93	493.9	991.8	534.7	488.7	46.02	11.620	
10,400.0	10,364.5	10,217.0	10,208.3	37.4	9.3	57.94	478.2	1,005.4	555.5	508.8	46.65	11.907	
10,500.0	10,464.0	10,279.0	10,264.3	37.8	9.4	60.36	456.8	1,021.1	583.6	536.4	47.20	12.364	
10,600.0	10,563.6	10,342.0	10,318.6	38.1	9.6	63.20	429.4	1,037.4	617.7	570.0	47.68	12.956	
10,700.0	10,663.1	10,390.9	10,358.4	38.5	9.8	65.62	404.1	1,050.2	658.4	610.3	48.10	13.688	
10,739.6	10,702.5	10,412.3	10,375.1	38.6	9.9	66.73	391.8	1,055.8	676.3	628.0	48.24	14.018	
10,800.0	10,762.7	10,444.7	10,399.6	38.8	10.1	68.75	372.3	1,063.9	705.3	656.9	48.44	14.563	
10,900.0	10,862.4	10,500.0	10,439.6	39.2	10.3	72.26	336.4	1,076.9	758.1	709.4	48.72	15.562	
11,000.0	10,962.2	10,531.0	10,460.8	39.6	10.5	74.56	314.9	1,084.0	816.6	767.7	48.87	16.708	
11,100.0	11,062.1	10,562.0	10,480.6	39.9	10.6	76.93	292.3	1,091.5	880.7	831.7	49.00	17.975	
11,200.0	11,162.1	10,581.5	10,492.4	40.3	10.8	78.80	277.5	1,096.3	949.6	900.6	49.03	19.369	
11,289.6	11,251.7	10,594.0	10,499.7	40.6	10.8	120.69	267.9	1,099.5	1,014.9	965.8	49.02	20.705	
11,300.0	11,262.1	10,594.0	10,499.7	40.6	10.8	120.69	267.9	1,099.5	1,022.7	973.6	49.00	20.869	
11,400.0	11,362.1	10,626.0	10,517.2	41.0	11.1	122.16	242.3	1,107.5	1,098.7	1,049.6	49.13	22.362	
11,500.0	11,462.1	10,642.9	10,525.8	41.3	11.2	122.94	228.4	1,111.8	1,177.6	1,128.5	49.17	23.949	
11,564.4	11,526.5	10,657.0	10,532.6	41.6	11.3	123.58	216.6	1,115.3	1,229.7	1,180.5	49.23	24.977	
11,575.0	11,537.1	10,657.0	10,532.6	41.6	11.3	-54.62	216.6	1,115.3	1,238.3	1,189.0	49.23	25.154	
11,600.0	11,562.0	10,657.0	10,532.6	41.7	11.3	-51.38	216.6	1,115.3	1,258.4	1,209.2	49.21	25.570	
11,625.0	11,586.9	10,667.3	10,537.4	41.7	11.4	-48.10	207.9	1,117.8	1,278.0	1,228.8	49.26	25.944	
11,650.0	11,611.6	10,673.1	10,540.1	41.8	11.4	-45.29	202.8	1,119.2	1,297.3	1,248.0	49.28	26.324	
11,675.0	11,636.1	10,679.3	10,542.9	41.9	11.5	-42.76	197.6	1,120.7	1,316.1	1,266.8	49.30	26.694	
11,700.0	11,660.3	10,689.0	10,547.1	42.0	11.5	-40.43	189.2	1,123.0	1,334.5	1,285.1	49.35	27.042	
11,725.0	11,684.1	10,689.0	10,547.1	42.0	11.5	-38.51	189.2	1,123.0	1,352.2	1,302.9	49.33	27.411	
11,750.0	11,707.4	10,700.8	10,552.2	42.1	11.6	-36.62	178.8	1,125.8	1,369.4	1,320.0	49.38	27.729	
11,775.0	11,730.3	10,709.0	10,555.6	42.2	11.7	-34.98	171.6	1,127.7	1,385.9	1,336.5	49.41	28.047	
11,800.0	11,752.6	10,720.0	10,560.0	42.2	11.8	-33.50	161.9	1,130.1	1,401.8	1,352.3	49.46	28.342	
11,825.0	11,774.3	10,720.0	10,560.0	42.3	11.8	-32.26	161.9	1,130.1	1,417.0	1,367.6	49.44	28.659	
11,850.0	11,795.3	10,731.0	10,564.3	42.3	11.9	-31.08	152.0	1,132.6	1,431.5	1,382.0	49.49	28.924	
11,875.0	11,815.6	10,737.7	10,566.9	42.4	12.0	-30.05	146.0	1,134.0	1,445.2	1,395.7	49.51	29.189	
11,900.0	11,835.1	10,752.0	10,572.0	42.4	12.1	-29.11	133.0	1,137.0	1,458.3	1,408.7	49.58	29.415	
11,925.0	11,853.8	10,752.0	10,572.0	42.4	12.1	-28.31	133.0	1,137.0	1,470.5	1,420.9	49.56	29.669	
11,950.0	11,871.5	10,752.0	10,572.0	42.5	12.1	-27.58	133.0	1,137.0	1,482.0	1,432.4	49.55	29.908	
11,975.0	11,888.3	10,764.4	10,576.2	42.5	12.2	-26.93	121.6	1,139.7	1,492.6	1,443.0	49.61	30.087	
12,000.0	11,904.1	10,771.0	10,578.3	42.5	12.3	-26.37	115.5	1,141.0	1,502.4	1,452.8	49.64	30.268	
12,025.0	11,918.9	10,783.0	10,581.9	42.6	12.4	-25.88	104.3	1,143.5	1,511.5	1,461.8	49.69	30.415	
12,050.0	11,932.6	10,783.0	10,581.9	42.6	12.4	-25.43	104.3	1,143.5	1,519.6	1,469.9	49.69	30.580	
12,075.0	11,945.2	10,783.0	10,581.9	42.6	12.4	-25.04	104.3	1,143.5	1,527.0	1,477.3	49.70	30.727	
12,100.0	11,956.6	10,796.8	10,585.7	42.6	12.6	-24.75	91.4	1,146.3	1,533.4	1,483.6	49.77	30.808	
12,125.0	11,966.9	10,803.1	10,587.3	42.7	12.6	-24.49	85.4	1,147.5	1,539.0	1,489.1	49.81	30.895	
12,150.0	11,975.9	10,815.0	10,590.1	42.7	12.7	-24.31	74.1	1,149.8	1,543.7	1,493.8	49.88	30.947	
12,175.0	11,983.7	10,815.0	10,590.1	42.7	12.7	-24.12	74.1	1,149.8	1,547.5	1,497.6	49.90	31.011	
12,200.0	11,990.3	10,815.0	10,590.1	42.7	12.7	-23.97	74.1	1,149.8	1,550.5	1,500.6	49.93	31.054	
12,225.0	11,995.6	10,833.0	10,593.9	42.7	12.9	-23.98	56.8	1,153.2	1,552.4	1,502.4	50.03	31.029	
12,250.0	11,999.6	10,846.0	10,596.3	42.8	13.1	-24.01	44.2	1,155.5	1,553.5	1,503.4	50.12	30.997	
12,275.0	12,002.3	10,846.0	10,596.3	42.8	13.1	-24.01	44.2	1,155.5	1,553.6	1,503.5	50.16	30.974	
12,300.0	12,003.7	10,863.1	10,599.1	42.8	13.3	-24.17	27.6	1,158.5	1,552.8	1,502.5	50.26	30.895	
12,314.9	12,004.0	10,878.0	10,601.4	42.8	13.4	-24.33	13.1	1,160.9	1,551.8	1,501.5	50.33	30.830	

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

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Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.0	12,003.9	10,909.0	10,605.5	42.8	13.8	-24.56	-17.2	1,166.1	1,546.7	1,496.1	50.63	30.547	
12,500.0	12,003.8	10,941.0	10,608.7	42.9	14.2	-24.78	-48.6	1,171.4	1,544.3	1,493.2	51.05	30.252	
12,514.7	12,003.8	10,952.2	10,609.6	42.9	14.3	-24.86	-59.6	1,173.3	1,544.2	1,493.1	51.13	30.202	
12,600.0	12,003.7	10,979.0	10,611.2	42.9	14.6	-25.04	-85.9	1,178.0	1,545.7	1,494.2	51.55	29.984	
12,700.0	12,003.6	11,028.6	10,612.4	43.0	15.3	-25.33	-134.7	1,186.4	1,550.9	1,498.8	52.13	29.750	
12,800.0	12,003.5	11,142.4	10,610.0	43.1	16.8	-25.79	-247.5	1,201.9	1,558.4	1,505.6	52.81	29.512	
12,900.0	12,003.4	11,278.6	10,609.0	43.2	18.8	-26.20	-382.9	1,215.5	1,563.0	1,509.4	53.56	29.184	
13,000.0	12,003.3	11,387.4	10,608.2	43.3	20.4	-26.45	-491.4	1,224.2	1,566.9	1,512.6	54.33	28.842	
13,100.0	12,003.2	11,483.0	10,607.0	43.4	21.8	-26.60	-586.9	1,229.9	1,570.3	1,515.2	55.12	28.487	
13,200.0	12,003.1	11,590.6	10,605.4	43.6	23.4	-26.76	-694.2	1,236.5	1,574.0	1,518.0	55.99	28.112	
13,300.0	12,003.0	11,700.5	10,603.8	43.7	25.0	-26.87	-804.0	1,241.3	1,576.9	1,520.0	56.90	27.714	
13,400.0	12,002.9	11,778.7	10,602.4	43.9	26.2	-26.95	-882.1	1,244.8	1,580.2	1,522.4	57.81	27.332	
13,500.0	12,002.8	11,849.6	10,599.8	44.1	27.3	-27.00	-952.9	1,248.0	1,585.1	1,526.3	58.76	26.975	
13,600.0	12,002.7	11,950.0	10,594.2	44.3	28.8	-27.01	-1,053.1	1,251.9	1,591.5	1,531.7	59.79	26.618	
13,700.0	12,002.6	12,114.0	10,590.3	44.5	31.4	-27.11	-1,216.9	1,258.0	1,594.7	1,533.7	61.02	26.133	
13,800.0	12,002.5	12,214.4	10,589.7	44.8	32.9	-27.22	-1,317.2	1,262.0	1,596.7	1,534.5	62.16	25.687	
13,900.0	12,002.4	12,313.8	10,589.5	45.0	34.5	-27.31	-1,416.6	1,265.7	1,598.2	1,534.9	63.31	25.244	
14,000.0	12,002.3	12,407.6	10,588.9	45.3	36.0	-27.41	-1,510.2	1,269.6	1,600.4	1,535.9	64.49	24.817	
14,100.0	12,002.2	12,503.7	10,588.3	45.6	37.5	-27.52	-1,606.2	1,273.7	1,602.5	1,536.8	65.71	24.389	
14,200.0	12,002.1	12,601.4	10,586.5	45.9	39.1	-27.57	-1,703.9	1,276.8	1,605.2	1,538.3	66.94	23.981	
14,300.0	12,002.0	12,710.6	10,584.8	46.2	40.8	-27.61	-1,813.1	1,279.8	1,607.5	1,539.3	68.22	23.565	
14,400.0	12,001.9	12,796.8	10,583.4	46.5	42.2	-27.64	-1,899.2	1,281.9	1,609.7	1,540.2	69.47	23.173	
14,500.0	12,001.8	12,875.6	10,580.8	46.8	43.4	-27.64	-1,978.0	1,283.6	1,613.2	1,542.5	70.71	22.815	
14,600.0	12,001.7	12,987.5	10,576.4	47.2	45.2	-27.63	-2,089.7	1,286.3	1,617.6	1,545.5	72.05	22.451	
14,700.0	12,001.6	13,088.4	10,574.2	47.6	46.8	-27.69	-2,190.5	1,289.8	1,620.7	1,547.3	73.42	22.075	
14,800.0	12,001.5	13,181.1	10,572.1	47.9	48.3	-27.76	-2,283.1	1,293.8	1,624.3	1,549.5	74.80	21.716	
14,900.0	12,001.4	13,317.0	10,571.0	48.3	50.6	-27.94	-2,418.8	1,300.9	1,627.1	1,550.8	76.36	21.309	
15,000.0	12,001.3	13,411.8	10,572.0	48.7	52.1	-28.12	-2,513.5	1,306.7	1,628.8	1,550.9	77.86	20.919	
15,100.0	12,001.2	13,487.0	10,571.7	49.2	53.3	-28.24	-2,588.5	1,311.0	1,631.4	1,552.1	79.30	20.574	
15,200.0	12,001.1	13,582.0	10,570.1	49.6	54.9	-28.36	-2,683.3	1,316.2	1,635.1	1,554.3	80.80	20.237	
15,300.0	12,001.0	13,669.4	10,568.1	50.0	56.3	-28.45	-2,770.6	1,321.1	1,639.4	1,557.1	82.28	19.924	
15,400.0	12,000.9	13,792.0	10,565.2	50.5	58.3	-28.56	-2,893.1	1,326.7	1,643.3	1,559.4	83.87	19.594	
15,500.0	12,000.8	13,903.3	10,563.8	50.9	60.1	-28.65	-3,004.2	1,330.9	1,645.8	1,560.4	85.43	19.264	
15,600.0	12,000.7	13,991.2	10,562.1	51.4	61.6	-28.69	-3,092.1	1,333.7	1,648.7	1,561.7	86.93	18.965	
15,700.0	12,000.6	14,083.5	10,559.2	51.9	63.1	-28.69	-3,184.3	1,335.9	1,652.2	1,563.7	88.42	18.685	
15,800.0	12,000.5	14,186.7	10,555.7	52.4	64.7	-28.68	-3,287.4	1,338.2	1,655.8	1,565.8	89.95	18.408	
15,900.0	12,000.4	14,297.8	10,552.6	52.9	66.6	-28.69	-3,398.5	1,340.8	1,659.0	1,567.5	91.52	18.128	
16,000.0	12,000.3	14,430.6	10,550.7	53.4	68.7	-28.72	-3,531.2	1,343.6	1,660.9	1,567.8	93.15	17.831	
16,100.0	12,000.2	14,528.0	10,550.8	53.9	70.3	-28.76	-3,628.6	1,345.4	1,661.4	1,566.7	94.73	17.538	
16,200.0	12,000.1	14,622.0	10,550.0	54.4	71.8	-28.78	-3,722.6	1,347.1	1,662.5	1,566.2	96.31	17.263	
16,300.0	12,000.0	14,740.9	10,549.8	55.0	73.8	-28.83	-3,841.4	1,349.4	1,663.3	1,565.3	97.97	16.977	
16,400.0	11,999.9	14,817.1	10,549.3	55.5	75.0	-28.85	-3,917.6	1,350.7	1,664.3	1,564.7	99.54	16.719	
16,500.0	11,999.8	14,941.8	10,547.9	56.1	77.1	-28.85	-4,042.3	1,352.1	1,665.5	1,564.3	101.18	16.460	
16,600.0	11,999.7	15,117.0	10,551.3	56.6	79.9	-28.86	-4,217.4	1,351.5	1,663.1	1,560.2	102.85	16.170	
16,700.0	11,999.6	15,223.1	10,556.4	57.2	81.6	-28.92	-4,323.4	1,351.4	1,658.5	1,554.0	104.51	15.869	
16,800.0	11,999.5	15,286.0	10,560.1	57.8	82.7	-29.01	-4,386.2	1,352.5	1,654.1	1,547.9	106.21	15.575	
16,896.1	11,999.4	15,340.7	10,562.2	58.3	83.6	-29.08	-4,440.9	1,354.0	1,652.3	1,544.5	107.82	15.325	
16,900.0	11,999.4	15,342.3	10,562.2	58.3	83.6	-29.08	-4,442.5	1,354.0	1,652.3	1,544.4	107.88	15.316	
17,000.0	11,999.3	15,380.0	10,561.8	58.9	84.2	-29.10	-4,480.1	1,355.1	1,654.3	1,544.8	109.42	15.119	
17,100.0	11,999.2	15,458.6	10,559.2	59.5	85.5	-29.12	-4,558.6	1,357.9	1,658.6	1,547.6	111.05	14.936	
17,200.0	11,999.1	15,542.3	10,555.7	60.1	86.9	-29.18	-4,642.1	1,362.1	1,664.4	1,551.7	112.69	14.769	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - LATERAL 01 - AV													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9743-MWD													Offset Well Error:	3.0 usft
Reference	Offset		Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
17,300.0	11,999.0	15,631.9	10,551.7	60.7	88.4	-29.26	-4,731.5	1,367.7	1,670.9	1,556.5	114.38	14.608		
17,400.0	11,998.9	15,752.9	10,546.6	61.3	90.4	-29.39	-4,852.2	1,375.3	1,677.3	1,561.1	116.25	14.429		
17,500.0	11,998.8	15,882.2	10,543.8	62.0	92.5	-29.52	-4,981.2	1,382.2	1,681.3	1,563.1	118.16	14.229		
17,600.0	11,998.7	15,955.8	10,541.4	62.6	93.7	-29.57	-5,054.7	1,385.4	1,685.9	1,566.1	119.79	14.074		
17,700.0	11,998.6	16,052.1	10,537.2	63.2	95.3	-29.60	-5,150.9	1,389.5	1,691.3	1,569.8	121.50	13.921		
17,800.0	11,998.5	16,145.2	10,532.9	63.9	96.8	-29.63	-5,243.7	1,393.5	1,697.1	1,574.0	123.19	13.777		
17,900.0	11,998.4	16,263.1	10,528.2	64.5	98.8	-29.67	-5,361.5	1,398.2	1,702.1	1,577.1	124.99	13.618		
18,000.0	11,998.3	16,350.4	10,524.3	65.1	100.2	-29.69	-5,448.6	1,401.7	1,707.5	1,580.8	126.66	13.481		
18,100.0	11,998.2	16,452.5	10,520.4	65.8	101.9	-29.77	-5,550.4	1,407.0	1,713.0	1,584.5	128.45	13.335		
18,200.0	11,998.1	16,544.7	10,517.0	66.4	103.4	-29.84	-5,642.5	1,412.1	1,718.6	1,588.4	130.21	13.199		
18,300.0	11,998.0	16,632.4	10,513.4	67.1	104.9	-29.93	-5,729.9	1,417.6	1,724.9	1,593.0	131.96	13.072		
18,400.0	11,997.9	16,762.4	10,508.6	67.8	107.1	-30.09	-5,859.5	1,426.9	1,731.5	1,597.5	134.01	12.921		
18,500.0	11,997.8	16,878.2	10,507.0	68.4	109.0	-30.27	-5,975.0	1,434.4	1,735.4	1,599.4	136.00	12.761		
18,600.0	11,997.7	16,986.6	10,505.5	69.1	110.8	-30.40	-6,083.3	1,440.7	1,739.2	1,601.3	137.92	12.610		
18,700.0	11,997.6	17,090.6	10,504.5	69.8	112.5	-30.55	-6,187.1	1,446.9	1,742.7	1,602.8	139.84	12.462		
18,800.0	11,997.5	17,201.0	10,504.2	70.5	114.3	-30.70	-6,297.2	1,453.3	1,745.5	1,603.7	141.81	12.309		
18,900.0	11,997.4	17,293.4	10,503.5	71.2	115.9	-30.82	-6,389.5	1,458.2	1,748.4	1,604.7	143.68	12.169		
19,000.0	11,997.3	17,385.4	10,502.2	71.9	117.4	-30.91	-6,481.4	1,462.7	1,751.7	1,606.2	145.52	12.038		
19,100.0	11,997.2	17,469.6	10,500.5	72.5	118.8	-30.99	-6,565.4	1,467.0	1,755.7	1,608.4	147.31	11.918		
19,200.0	11,997.1	17,552.0	10,497.4	73.2	120.2	-31.03	-6,647.7	1,470.9	1,760.9	1,611.8	149.06	11.813		
19,300.0	11,997.0	17,639.4	10,493.3	73.9	121.6	-31.06	-6,734.9	1,475.0	1,767.0	1,616.1	150.81	11.717		
19,400.0	11,996.9	17,750.8	10,489.2	74.7	123.4	-31.16	-6,846.1	1,481.7	1,772.8	1,620.0	152.77	11.605		
19,500.0	11,996.8	17,853.0	10,486.0	75.4	125.1	-31.28	-6,948.0	1,488.2	1,778.3	1,623.6	154.70	11.495		
19,600.0	11,996.7	17,956.6	10,483.7	76.1	126.9	-31.40	-7,051.4	1,494.9	1,783.2	1,626.6	156.67	11.382		
19,700.0	11,996.6	18,025.0	10,481.4	76.8	128.0	-31.49	-7,119.6	1,499.7	1,789.3	1,630.9	158.39	11.297		
19,800.0	11,996.5	18,120.4	10,477.7	77.5	129.6	-31.62	-7,214.6	1,507.4	1,796.5	1,636.1	160.34	11.204		
19,900.0	11,996.4	18,225.7	10,474.5	78.2	131.4	-31.81	-7,319.3	1,517.1	1,803.5	1,641.0	162.43	11.103		
20,000.0	11,996.3	18,320.7	10,472.0	78.9	132.9	-32.02	-7,413.8	1,526.7	1,810.6	1,646.1	164.48	11.008		
20,100.0	11,996.2	18,477.3	10,471.1	79.7	135.6	-32.41	-7,569.6	1,542.7	1,816.1	1,649.0	167.15	10.865		
20,200.0	11,996.1	18,632.9	10,474.9	80.4	138.2	-32.83	-7,724.5	1,556.8	1,818.5	1,648.7	169.75	10.713		
20,300.0	11,996.0	18,734.6	10,478.4	81.1	139.9	-33.07	-7,825.9	1,564.3	1,819.2	1,647.3	171.93	10.581		
20,400.0	11,995.9	18,832.1	10,480.4	81.9	141.5	-33.25	-7,923.2	1,570.3	1,820.4	1,646.4	174.02	10.461		
20,500.0	11,995.8	18,919.3	10,481.6	82.6	142.9	-33.37	-8,010.2	1,574.6	1,821.6	1,645.6	176.00	10.350		
20,600.0	11,995.7	18,992.0	10,481.4	83.3	144.2	-33.45	-8,082.9	1,578.4	1,824.2	1,646.3	177.88	10.255		
20,700.0	11,995.6	19,064.0	10,480.2	84.1	145.3	-33.52	-8,154.8	1,582.2	1,828.2	1,648.5	179.70	10.174		
20,800.0	11,995.5	19,146.5	10,477.4	84.8	146.7	-33.57	-8,237.1	1,586.4	1,833.4	1,651.9	181.52	10.100		
20,900.0	11,995.3	19,252.0	10,473.5	85.6	148.5	-33.62	-8,342.4	1,591.3	1,838.7	1,655.2	183.47	10.022		
21,000.0	11,995.2	19,345.0	10,469.6	86.3	150.0	-33.65	-8,435.2	1,595.8	1,844.4	1,659.0	185.34	9.951		
21,100.0	11,995.1	19,417.9	10,465.4	87.1	151.2	-33.66	-8,507.9	1,599.4	1,851.4	1,664.4	187.02	9.899		
21,200.0	11,995.0	19,543.5	10,458.4	87.8	153.3	-33.67	-8,633.1	1,605.2	1,858.2	1,669.2	189.07	9.829		
21,300.0	11,994.9	19,664.9	10,454.6	88.6	155.3	-33.75	-8,754.4	1,611.3	1,863.1	1,671.9	191.17	9.746		
21,400.0	11,994.8	19,766.7	10,450.5	89.3	157.0	-33.77	-8,856.0	1,615.3	1,868.2	1,675.1	193.07	9.676		
21,500.0	11,994.7	19,868.1	10,447.6	90.1	158.7	-33.81	-8,957.2	1,619.3	1,872.3	1,677.3	195.00	9.602		
21,600.0	11,994.6	19,979.8	10,443.4	90.8	160.5	-33.83	-9,068.8	1,623.5	1,877.2	1,680.2	196.95	9.531		
21,700.0	11,994.5	20,103.4	10,441.1	91.6	162.5	-33.89	-9,192.3	1,628.2	1,880.3	1,681.3	199.02	9.448		
21,800.0	11,994.4	20,220.1	10,440.3	92.4	164.5	-33.98	-9,308.9	1,633.1	1,882.9	1,681.8	201.10	9.363		
21,900.0	11,994.3	20,362.8	10,442.2	93.1	166.8	-34.11	-9,451.5	1,637.8	1,883.1	1,679.8	203.26	9.264		
21,946.7	11,994.3	20,401.0	10,442.9	93.5	167.5	-34.15	-9,489.7	1,638.9	1,882.9	1,678.7	204.19	9.221		
22,000.0	11,994.2	20,401.0	10,442.9	93.9	167.5	-34.15	-9,489.7	1,638.9	1,883.6	1,678.6	205.05	9.186		
22,100.0	11,994.1	20,401.0	10,442.9	94.7	167.5	-34.15	-9,489.7	1,638.9	1,889.1	1,682.8	206.29	9.158 SF		
22,200.0	11,994.0	20,401.0	10,442.9	95.4	167.5	-34.15	-9,489.7	1,638.9	1,899.9	1,692.8	207.03	9.177		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - LATERAL 01 - AV													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9743-MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								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)	Minimum Separation (usft)	Separation Factor		
22,245.4	11,994.0	20,401.0	10,442.9	95.8	167.5	-34.15	-9,489.7	1,638.9	1,906.4	1,699.2	207.20	9.201		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design		WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - OWB-PILOT HO											Offset Site Error:		0.0 usft
Survey Program:		100- VES GyroFlex											Offset Well Error:		3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	7.8	7.8	3.0	3.0	62.58	527.3	1,016.5	1,145.1						
100.0	100.0	119.1	119.1	3.0	3.0	62.61	526.4	1,016.2	1,144.5	1,138.5	6.00	190.635			
200.0	200.0	221.7	221.7	3.0	3.0	62.65	525.2	1,015.4	1,143.3	1,137.2	6.05	189.061			
300.0	300.0	319.2	319.2	3.1	3.0	62.68	524.2	1,014.6	1,142.1	1,136.0	6.14	186.069			
400.0	400.0	419.2	419.2	3.2	3.1	62.71	523.1	1,014.0	1,141.0	1,134.7	6.27	181.883			
500.0	500.0	518.0	517.9	3.4	3.1	62.74	522.1	1,013.3	1,140.0	1,133.5	6.45	176.782			
600.0	600.0	616.7	616.7	3.6	3.1	62.77	521.2	1,012.8	1,139.1	1,132.4	6.66	171.054			
700.0	700.0	721.4	721.3	3.8	3.2	62.79	520.3	1,012.1	1,138.1	1,131.2	6.91	164.811			
800.0	800.0	827.2	827.1	4.0	3.2	62.81	519.2	1,010.7	1,136.4	1,129.3	7.18	158.251			
900.0	900.0	922.0	921.9	4.2	3.3	62.87	517.5	1,009.9	1,134.9	1,127.4	7.47	151.942			
1,000.0	1,000.0	1,013.9	1,013.8	4.5	3.3	62.96	515.5	1,009.9	1,133.9	1,126.1	7.76	146.097			
1,100.0	1,100.0	1,109.1	1,108.9	4.8	3.4	63.05	513.7	1,010.4	1,133.5	1,125.4	8.06	140.675			
1,117.5	1,117.5	1,124.6	1,124.4	4.8	3.4	63.07	513.4	1,010.5	1,133.5	1,125.4	8.11	139.793			
1,200.0	1,200.0	1,200.0	1,199.9	5.1	3.4	63.15	512.1	1,011.6	1,133.8	1,125.5	8.35	135.769			
1,300.0	1,300.0	1,307.0	1,306.8	5.4	3.5	63.29	509.8	1,013.2	1,134.2	1,125.6	8.65	131.064			
1,400.0	1,400.0	1,400.0	1,399.8	5.7	3.5	63.39	508.2	1,014.5	1,134.7	1,125.7	8.96	126.618			
1,500.0	1,500.0	1,493.9	1,493.7	6.0	3.6	63.48	507.2	1,016.1	1,135.7	1,126.5	9.27	122.562			
1,600.0	1,600.0	1,591.3	1,591.1	6.3	3.6	63.57	506.1	1,018.1	1,137.0	1,127.4	9.58	118.715			
1,700.0	1,700.0	1,691.6	1,691.3	6.6	3.6	63.64	505.4	1,020.0	1,138.4	1,128.5	9.89	115.078			
1,800.0	1,800.0	1,793.7	1,793.4	6.9	3.7	63.70	505.0	1,021.6	1,139.7	1,129.5	10.22	111.543			
1,900.0	1,900.0	1,895.4	1,895.1	7.2	3.7	63.72	505.2	1,022.8	1,140.8	1,130.3	10.54	108.204			
2,000.0	2,000.0	1,989.4	1,989.1	7.6	3.7	63.71	505.9	1,023.8	1,142.1	1,131.2	10.88	104.992			
2,100.0	2,100.0	2,088.7	2,088.4	7.9	3.7	63.68	507.1	1,025.0	1,143.7	1,132.5	11.22	101.906			
2,200.0	2,200.0	2,184.5	2,184.2	8.2	3.7	63.63	508.6	1,026.1	1,145.5	1,133.9	11.58	98.951			
2,300.0	2,300.0	2,273.9	2,273.5	8.6	3.7	63.58	510.4	1,027.6	1,147.9	1,136.0	11.93	96.191			
2,400.0	2,400.0	2,371.5	2,371.1	8.9	3.7	63.54	512.7	1,029.9	1,151.0	1,138.7	12.30	93.568			
2,500.0	2,500.0	2,473.3	2,472.8	9.2	3.7	63.51	514.6	1,032.4	1,154.1	1,141.4	12.68	91.015			
2,600.0	2,600.0	2,575.4	2,574.9	9.6	3.8	23.16	516.0	1,035.0	1,155.3	1,142.3	13.06	88.432			
2,700.0	2,699.8	2,680.3	2,679.7	9.9	3.8	23.28	517.3	1,037.4	1,153.1	1,139.6	13.46	85.685			
2,775.0	2,774.6	2,753.0	2,752.5	10.2	3.9	23.43	518.2	1,038.8	1,149.2	1,135.4	13.75	83.560			
2,800.0	2,799.5	2,776.6	2,776.0	10.3	3.9	23.47	518.5	1,039.4	1,147.6	1,133.8	13.85	82.854			
2,900.0	2,899.0	2,888.3	2,887.7	10.6	3.9	23.68	519.6	1,041.7	1,141.1	1,126.9	14.26	80.005			
3,000.0	2,998.5	3,006.4	3,005.7	10.9	4.0	23.86	520.9	1,042.1	1,133.1	1,118.5	14.67	77.251			
3,100.0	3,098.1	3,107.6	3,106.9	11.3	3.9	23.98	522.4	1,041.3	1,124.3	1,109.3	15.05	74.724			
3,200.0	3,197.6	3,208.6	3,207.9	11.6	3.9	24.08	524.2	1,040.1	1,115.3	1,099.9	15.42	72.308			
3,300.0	3,297.2	3,302.6	3,301.9	12.0	4.0	24.17	525.8	1,039.3	1,106.5	1,090.7	15.81	70.007			
3,400.0	3,396.7	3,404.9	3,404.2	12.3	4.0	24.27	527.8	1,038.4	1,097.8	1,081.6	16.19	67.796			
3,500.0	3,496.2	3,501.6	3,500.9	12.7	4.0	24.35	529.8	1,037.5	1,089.1	1,072.5	16.58	65.689			
3,600.0	3,595.8	3,600.0	3,599.3	13.0	4.0	24.44	531.9	1,036.8	1,080.6	1,063.7	16.97	63.673			
3,700.0	3,695.3	3,699.9	3,699.1	13.4	4.0	24.53	534.1	1,036.1	1,072.2	1,054.8	17.37	61.741			
3,800.0	3,794.9	3,797.0	3,796.2	13.7	4.1	24.60	536.6	1,035.4	1,063.9	1,046.1	17.76	59.897			
3,900.0	3,894.4	3,895.6	3,894.8	14.1	4.1	24.67	539.2	1,034.8	1,055.7	1,037.6	18.16	58.129			
4,000.0	3,993.9	3,994.6	3,993.7	14.4	4.2	24.80	541.0	1,034.6	1,047.7	1,029.1	18.57	56.415			
4,100.0	4,093.5	4,093.6	4,092.7	14.8	4.3	24.98	541.9	1,035.0	1,039.7	1,020.7	18.99	54.745			
4,200.0	4,193.0	4,190.3	4,189.4	15.1	4.3	25.17	542.7	1,035.6	1,031.9	1,012.4	19.42	53.137			
4,300.0	4,292.6	4,292.8	4,291.9	15.5	4.4	25.41	543.0	1,036.4	1,024.1	1,004.2	19.85	51.588			
4,400.0	4,392.1	4,391.7	4,390.8	15.8	4.5	25.70	542.4	1,037.6	1,016.2	995.9	20.27	50.121			
4,500.0	4,491.6	4,495.5	4,494.6	16.2	4.6	26.03	541.4	1,038.7	1,008.2	987.5	20.69	48.720			
4,600.0	4,591.2	4,595.4	4,594.5	16.5	4.6	26.32	540.7	1,039.4	999.9	978.8	21.11	47.366			
4,700.0	4,690.7	4,696.8	4,695.9	16.9	4.7	26.60	540.2	1,039.9	991.6	970.1	21.53	46.054			
4,800.0	4,790.3	4,799.4	4,798.5	17.2	4.8	26.90	539.6	1,040.2	983.1	961.1	21.94	44.808			

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - OWB-PILOT HO												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,889.8	4,901.0	4,900.1	17.6	4.8	27.22	538.6	1,040.3	974.3	951.9	22.33	43.631	
5,000.0	4,989.3	5,002.9	5,002.0	17.9	4.9	27.53	537.8	1,040.2	965.3	942.6	22.71	42.511	
5,100.0	5,088.9	5,105.6	5,104.6	18.3	4.9	27.83	537.1	1,039.6	956.0	932.9	23.07	41.432	
5,200.0	5,188.4	5,202.5	5,201.6	18.7	4.9	28.11	536.5	1,039.0	946.8	923.3	23.45	40.381	
5,300.0	5,288.0	5,306.0	5,305.0	19.0	4.9	28.40	536.1	1,038.1	937.4	913.6	23.82	39.361	
5,400.0	5,387.5	5,403.8	5,402.8	19.4	4.9	28.68	535.7	1,037.3	928.0	903.8	24.19	38.356	
5,500.0	5,487.0	5,507.9	5,507.0	19.7	5.0	29.00	535.0	1,036.2	918.4	893.8	24.57	37.372	
5,600.0	5,586.6	5,605.8	5,604.8	20.1	5.0	29.33	533.9	1,035.2	908.7	883.7	24.96	36.400	
5,700.0	5,686.1	5,709.5	5,708.6	20.4	5.1	29.68	532.8	1,033.9	898.8	873.5	25.35	35.450	
5,800.0	5,785.7	5,804.9	5,803.9	20.8	5.1	29.98	532.2	1,032.6	889.0	863.3	25.75	34.521	
5,900.0	5,885.2	5,905.1	5,904.1	21.2	5.1	30.30	531.6	1,031.5	879.4	853.2	26.15	33.626	
6,000.0	5,984.7	6,008.6	6,007.6	21.5	5.2	30.65	530.9	1,030.0	869.5	843.0	26.55	32.746	
6,100.0	6,084.3	6,111.1	6,110.0	21.9	5.2	30.98	530.2	1,028.0	859.3	832.3	26.96	31.872	
6,200.0	6,183.8	6,209.5	6,208.4	22.2	5.3	31.30	529.6	1,025.9	848.9	821.5	27.37	31.012	
6,300.0	6,283.3	6,301.9	6,300.8	22.6	5.4	31.58	529.6	1,024.3	839.0	811.2	27.79	30.188	
6,400.0	6,382.9	6,400.2	6,399.1	22.9	5.4	31.92	529.3	1,023.2	829.7	801.5	28.21	29.409	
6,500.0	6,482.4	6,502.7	6,501.6	23.3	5.5	32.33	528.4	1,022.0	820.2	791.6	28.63	28.648	
6,600.0	6,582.0	6,600.0	6,598.9	23.7	5.6	32.70	527.7	1,020.9	810.8	781.7	29.06	27.902	
6,700.0	6,681.5	6,702.4	6,701.3	24.0	5.6	33.06	527.6	1,019.4	801.3	771.8	29.48	27.177	
6,800.0	6,781.0	6,803.5	6,802.4	24.4	5.7	33.38	527.9	1,017.5	791.5	761.6	29.91	26.461	
6,900.0	6,880.6	6,900.0	6,898.9	24.7	5.8	33.71	528.1	1,015.8	782.0	751.6	30.35	25.767	
7,000.0	6,980.1	7,001.0	6,999.8	25.1	5.8	34.05	528.4	1,014.2	772.5	741.8	30.78	25.097	
7,100.0	7,079.7	7,098.3	7,097.2	25.5	5.9	34.39	528.7	1,012.6	763.1	731.9	31.22	24.441	
7,200.0	7,179.2	7,197.1	7,195.9	25.8	6.0	34.74	529.1	1,011.1	753.8	722.2	31.66	23.810	
7,300.0	7,278.7	7,293.5	7,292.4	26.2	6.0	35.08	529.7	1,009.8	744.9	712.8	32.10	23.204	
7,400.0	7,378.3	7,382.6	7,381.4	26.5	6.1	35.39	530.5	1,009.4	736.8	704.3	32.53	22.651	
7,500.0	7,477.8	7,479.7	7,478.5	26.9	6.1	35.73	531.8	1,009.9	729.8	696.8	32.93	22.160	
7,600.0	7,577.4	7,578.6	7,577.4	27.3	6.2	36.09	533.0	1,010.5	722.9	689.6	33.33	21.688	
7,700.0	7,676.9	7,675.3	7,674.1	27.6	6.2	36.47	533.9	1,011.4	716.3	682.5	33.73	21.235	
7,800.0	7,776.4	7,772.4	7,771.1	28.0	6.2	36.91	534.3	1,012.8	710.1	676.0	34.13	20.807	
7,900.0	7,876.0	7,871.8	7,870.6	28.3	6.3	37.42	534.2	1,014.7	704.3	669.7	34.53	20.395	
8,000.0	7,975.5	7,976.5	7,975.2	28.7	6.3	37.99	533.7	1,016.3	698.1	663.2	34.93	19.986	
8,100.0	8,075.1	8,079.8	8,078.6	29.1	6.4	38.58	532.8	1,017.3	691.3	656.0	35.34	19.563	
8,200.0	8,174.6	8,181.9	8,180.6	29.4	6.5	39.15	532.3	1,017.7	684.1	648.4	35.75	19.137	
8,300.0	8,274.1	8,285.3	8,284.0	29.8	6.5	39.75	531.4	1,017.7	676.6	640.4	36.17	18.708	
8,400.0	8,373.7	8,380.7	8,379.4	30.2	6.6	40.35	530.2	1,017.7	669.0	632.4	36.59	18.284	
8,500.0	8,473.2	8,485.8	8,484.5	30.5	6.7	41.06	528.6	1,017.9	661.6	624.6	37.00	17.880	
8,600.0	8,572.8	8,592.5	8,591.2	30.9	6.8	41.81	526.6	1,016.8	653.2	615.8	37.42	17.456	
8,700.0	8,672.3	8,691.5	8,690.2	31.2	6.9	42.53	524.6	1,015.3	644.3	606.5	37.85	17.023	
8,800.0	8,771.8	8,799.9	8,798.5	31.6	7.0	43.33	522.6	1,013.0	635.0	596.7	38.27	16.591	
8,900.0	8,871.4	8,900.5	8,899.0	32.0	7.1	44.06	520.9	1,009.9	624.8	586.1	38.70	16.143	
9,000.0	8,970.9	9,000.0	8,998.5	32.3	7.1	44.78	519.5	1,006.6	614.5	575.4	39.14	15.700	
9,100.0	9,070.5	9,097.5	9,095.9	32.7	7.2	45.44	518.8	1,003.4	604.4	564.8	39.58	15.270	
9,200.0	9,170.0	9,195.4	9,193.8	33.0	7.3	46.10	518.4	1,000.6	594.7	554.7	40.02	14.860	
9,300.0	9,269.5	9,304.3	9,302.7	33.4	7.4	46.88	517.8	996.7	584.5	544.1	40.46	14.448	
9,400.0	9,369.1	9,412.0	9,410.2	33.8	7.5	47.63	517.7	991.0	572.7	531.8	40.90	14.005	
9,500.0	9,468.6	9,513.7	9,511.7	34.1	7.6	48.22	518.9	984.5	560.0	518.7	41.34	13.547	
9,600.0	9,568.2	9,609.3	9,607.1	34.5	7.7	48.79	520.2	978.6	547.5	505.7	41.79	13.101	
9,700.0	9,667.7	9,702.9	9,700.5	34.9	7.7	49.41	521.0	973.6	535.9	493.6	42.24	12.686	
9,800.0	9,767.2	9,803.9	9,801.4	35.2	7.8	50.13	521.8	968.5	524.6	481.9	42.69	12.289	
9,900.0	9,866.8	9,900.0	9,897.4	35.6	7.9	50.87	522.3	963.8	513.6	470.5	43.14	11.905	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design		WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - OWB-PILOT HO										Offset Site Error:		0.0 usft	
Survey Program:		100- VES GyroFlex										Offset Well Error:		3.0 usft	
Reference		Offset		Semi Major Axis		Distance								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)	Minimum Separation (usft)	Separation Factor			
10,000.0	9,966.3	10,000.2	9,997.5	35.9	8.0	51.72	522.4	959.1	502.9	459.3	43.59	11.536			
10,100.0	10,065.9	10,092.7	10,089.9	36.3	8.1	52.61	521.8	955.3	492.9	448.8	44.05	11.188			
10,200.0	10,165.4	10,193.3	10,190.4	36.7	8.2	53.63	521.1	951.6	483.6	439.1	44.50	10.866			
10,300.0	10,264.9	10,287.5	10,284.5	37.0	8.3	54.59	520.7	948.5	474.7	429.7	44.96	10.557			
10,400.0	10,364.5	10,386.3	10,383.3	37.4	8.4	55.63	520.2	946.0	466.6	421.2	45.42	10.274			
10,500.0	10,464.0	10,491.9	10,488.8	37.8	8.6	56.81	519.5	942.5	458.1	412.3	45.86	9.989			
10,600.0	10,563.6	10,589.9	10,586.8	38.1	8.7	57.86	519.5	938.7	449.1	402.8	46.31	9.696			
10,700.0	10,663.1	10,693.2	10,690.0	38.5	8.8	58.91	520.5	934.7	440.0	393.2	46.77	9.408			
10,739.6	10,702.5	10,730.8	10,727.6	38.6	8.8	59.31	520.8	933.0	436.3	389.3	46.95	9.293			
10,800.0	10,762.7	10,787.1	10,783.8	38.8	8.9	59.88	521.0	930.9	431.3	384.0	47.23	9.132			
10,900.0	10,862.4	10,881.2	10,877.9	39.2	9.0	60.79	520.5	928.3	424.8	377.1	47.68	8.909			
11,000.0	10,962.2	10,975.5	10,972.2	39.6	9.1	61.65	519.1	926.7	420.6	372.4	48.13	8.738			
11,100.0	11,062.1	11,072.7	11,069.3	39.9	9.2	62.41	517.1	925.9	418.3	369.7	48.56	8.614			
11,200.0	11,162.1	11,172.2	11,168.8	40.3	9.3	63.06	514.5	925.3	417.2	368.2	48.96	8.520			
11,249.0	11,211.0	11,220.0	11,216.6	40.4	9.3	63.31	513.1	925.0	416.9	367.8	49.17	8.480 CC, ES			
11,289.6	11,251.7	11,220.0	11,216.6	40.6	9.3	103.69	513.1	925.0	419.0	369.3	49.72	8.427			
11,300.0	11,262.1	11,220.0	11,216.6	40.6	9.3	103.69	513.1	925.0	420.1	370.2	49.91	8.418 SF			
11,400.0	11,362.1	11,220.0	11,216.6	41.0	9.3	103.69	513.1	925.0	443.8	391.7	52.13	8.513			
11,500.0	11,462.1	11,220.0	11,216.6	41.3	9.3	103.69	513.1	925.0	487.3	433.5	53.84	9.051			
11,564.4	11,526.5	11,220.0	11,216.6	41.6	9.3	103.69	513.1	925.0	523.6	469.1	54.48	9.612			
11,575.0	11,537.1	11,220.0	11,216.6	41.6	9.3	-75.01	513.1	925.0	530.0	475.5	54.55	9.716			
11,600.0	11,562.0	11,220.0	11,216.6	41.7	9.3	-72.72	513.1	925.0	545.6	490.9	54.70	9.974			
11,625.0	11,586.9	11,220.0	11,216.6	41.7	9.3	-70.37	513.1	925.0	561.5	506.7	54.82	10.243			
11,650.0	11,611.6	11,220.0	11,216.6	41.8	9.3	-67.97	513.1	925.0	577.8	522.9	54.92	10.521			
11,675.0	11,636.1	11,220.0	11,216.6	41.9	9.3	-65.55	513.1	925.0	594.3	539.3	54.99	10.806			
11,700.0	11,660.3	11,220.0	11,216.6	42.0	9.3	-63.12	513.1	925.0	611.0	555.9	55.05	11.098			
11,725.0	11,684.1	11,220.0	11,216.6	42.0	9.3	-60.72	513.1	925.0	627.8	572.7	55.10	11.394			
11,750.0	11,707.4	11,220.0	11,216.6	42.1	9.3	-58.35	513.1	925.0	644.7	589.5	55.14	11.692			
11,775.0	11,730.3	11,220.0	11,216.6	42.2	9.3	-56.04	513.1	925.0	661.6	606.4	55.17	11.992			
11,800.0	11,752.6	11,220.0	11,216.6	42.2	9.3	-53.79	513.1	925.0	678.4	623.3	55.19	12.292			
11,825.0	11,774.3	11,220.0	11,216.6	42.3	9.3	-51.62	513.1	925.0	695.3	640.0	55.22	12.591			
11,850.0	11,795.3	11,220.0	11,216.6	42.3	9.3	-49.54	513.1	925.0	712.0	656.7	55.24	12.888			
11,875.0	11,815.6	11,220.0	11,216.6	42.4	9.3	-47.56	513.1	925.0	728.5	673.2	55.27	13.181			
11,900.0	11,835.1	11,220.0	11,216.6	42.4	9.3	-45.67	513.1	925.0	744.9	689.6	55.30	13.470			
11,925.0	11,853.8	11,220.0	11,216.6	42.4	9.3	-43.88	513.1	925.0	761.1	705.7	55.33	13.754			
11,950.0	11,871.5	11,220.0	11,216.6	42.5	9.3	-42.18	513.1	925.0	777.0	721.6	55.37	14.032			
11,975.0	11,888.3	11,220.0	11,216.6	42.5	9.3	-40.59	513.1	925.0	792.6	737.2	55.41	14.304			
12,000.0	11,904.1	11,220.0	11,216.6	42.5	9.3	-39.09	513.1	925.0	808.0	752.5	55.46	14.568			
12,025.0	11,918.9	11,220.0	11,216.6	42.6	9.3	-37.69	513.1	925.0	823.0	767.5	55.52	14.824			
12,050.0	11,932.6	11,220.0	11,216.6	42.6	9.3	-36.38	513.1	925.0	837.7	782.2	55.58	15.072			
12,075.0	11,945.2	11,220.0	11,216.6	42.6	9.3	-35.15	513.1	925.0	852.1	796.4	55.65	15.311			
12,100.0	11,956.6	11,220.0	11,216.6	42.6	9.3	-34.00	513.1	925.0	866.0	810.3	55.72	15.541			
12,125.0	11,966.9	11,220.0	11,216.6	42.7	9.3	-32.94	513.1	925.0	879.6	823.8	55.80	15.762			
12,150.0	11,975.9	11,220.0	11,216.6	42.7	9.3	-31.94	513.1	925.0	892.7	836.8	55.89	15.974			
12,175.0	11,983.7	11,220.0	11,216.6	42.7	9.3	-31.02	513.1	925.0	905.4	849.4	55.98	16.175			
12,200.0	11,990.3	11,220.0	11,216.6	42.7	9.3	-30.16	513.1	925.0	917.7	861.6	56.07	16.367			
12,225.0	11,995.6	11,220.0	11,216.6	42.7	9.3	-29.37	513.1	925.0	929.4	873.3	56.16	16.549			
12,250.0	11,999.6	11,220.0	11,216.6	42.8	9.3	-28.63	513.1	925.0	940.7	884.5	56.26	16.722			
12,275.0	12,002.3	11,220.0	11,216.6	42.8	9.3	-27.95	513.1	925.0	951.5	895.2	56.35	16.884			
12,300.0	12,003.7	11,220.0	11,216.6	42.8	9.3	-27.32	513.1	925.0	961.8	905.3	56.45	17.037			
12,314.9	12,004.0	11,220.0	11,216.6	42.8	9.3	-26.97	513.1	925.0	967.7	911.2	56.51	17.124			

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #2H - OWB-PILOT HO												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.0	12,003.9	11,220.0	11,216.6	42.8	9.3	-26.97	513.1	925.0	1,003.8	947.0	56.82	17.666	
12,500.0	12,003.8	11,220.0	11,216.6	42.9	9.3	-26.97	513.1	925.0	1,053.5	996.4	57.11	18.447	
12,600.0	12,003.7	11,220.0	11,216.6	42.9	9.3	-26.97	513.1	925.0	1,110.0	1,052.7	57.30	19.372	
12,700.0	12,003.6	11,220.0	11,216.6	43.0	9.3	-26.97	513.1	925.0	1,172.3	1,114.9	57.40	20.424	
12,800.0	12,003.5	11,220.0	11,216.6	43.1	9.3	-26.97	513.1	925.0	1,239.6	1,182.1	57.42	21.587	
12,900.0	12,003.4	11,220.0	11,216.6	43.2	9.3	-26.97	513.1	925.0	1,311.0	1,253.6	57.39	22.845	
13,000.0	12,003.3	11,220.0	11,216.6	43.3	9.3	-26.97	513.1	925.0	1,386.0	1,328.7	57.31	24.184	
13,100.0	12,003.2	11,220.0	11,216.6	43.4	9.3	-26.97	513.1	925.0	1,464.0	1,406.7	57.20	25.593	
13,200.0	12,003.1	11,220.0	11,216.6	43.6	9.3	-26.97	513.1	925.0	1,544.5	1,487.4	57.08	27.060	
13,300.0	12,003.0	11,220.0	11,216.6	43.7	9.3	-26.97	513.1	925.0	1,627.1	1,570.2	56.94	28.577	
13,400.0	12,002.9	11,220.0	11,216.6	43.9	9.3	-26.97	513.1	925.0	1,711.7	1,654.9	56.80	30.137	
13,500.0	12,002.8	11,220.0	11,216.6	44.1	9.3	-26.97	513.1	925.0	1,797.8	1,741.1	56.65	31.733	
13,600.0	12,002.7	11,220.0	11,216.6	44.3	9.3	-26.97	513.1	925.0	1,885.3	1,828.8	56.52	33.359	
13,700.0	12,002.6	11,220.0	11,216.6	44.5	9.3	-26.97	513.1	925.0	1,973.9	1,917.6	56.38	35.011	

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #5H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_GC+WIR+DPIPE, 8399-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	0.0	-22.16	498.5	-203.0	538.3				
100.0	100.0	99.2	99.2	3.0	0.1	-22.21	498.2	-203.5	538.1	535.1	3.08	174.715	
200.0	200.0	198.7	198.7	3.0	0.3	-22.33	497.6	-204.4	538.0	534.6	3.32	161.799	
300.0	300.0	298.4	298.4	3.1	0.5	-22.46	497.1	-205.5	537.9	534.2	3.61	148.913	
400.0	400.0	398.7	398.7	3.2	0.7	-22.59	496.5	-206.6	537.8	533.8	3.94	136.549	
500.0	500.0	499.7	499.7	3.4	0.9	-22.74	495.7	-207.8	537.5	533.2	4.30	125.004	
600.0	600.0	599.9	599.9	3.6	1.2	-22.92	494.8	-209.2	537.2	532.5	4.69	114.529	
700.0	700.0	699.8	699.7	3.8	1.4	-23.09	493.9	-210.5	536.9	531.8	5.11	105.154	
769.0	769.0	767.1	767.0	3.9	1.5	-23.21	493.3	-211.5	536.8	531.4	5.40	99.373	
800.0	800.0	797.3	797.2	4.0	1.6	-23.26	493.1	-212.0	536.8	531.2	5.54	96.941	
900.0	900.0	897.4	897.3	4.2	1.8	-23.45	492.6	-213.7	536.9	530.9	5.99	89.606	
1,000.0	1,000.0	997.3	997.2	4.5	2.0	-23.64	492.0	-215.4	537.1	530.6	6.46	83.112	
1,100.0	1,100.0	1,098.5	1,098.4	4.8	2.2	-23.81	491.4	-216.9	537.1	530.2	6.95	77.312	
1,200.0	1,200.0	1,198.8	1,198.7	5.1	2.5	-23.97	490.7	-218.2	537.0	529.6	7.44	72.167	
1,300.0	1,300.0	1,298.7	1,298.6	5.4	2.7	-24.13	490.0	-219.5	536.9	528.9	7.94	67.589	
1,360.4	1,360.4	1,358.6	1,358.4	5.5	2.8	-24.22	489.6	-220.2	536.9	528.6	8.25	65.077	
1,400.0	1,400.0	1,397.8	1,397.6	5.7	2.9	-24.27	489.4	-220.7	536.9	528.4	8.45	63.525	
1,500.0	1,500.0	1,497.1	1,496.9	6.0	3.1	-24.40	489.1	-221.8	537.0	528.0	8.97	59.894	
1,600.0	1,600.0	1,596.0	1,595.9	6.3	3.3	-24.50	488.9	-222.8	537.3	527.8	9.49	56.645	
1,700.0	1,700.0	1,693.6	1,693.5	6.6	3.5	-24.57	489.2	-223.7	537.9	527.9	10.01	53.755	
1,800.0	1,800.0	1,793.6	1,793.4	6.9	3.7	-24.59	489.9	-224.2	538.8	528.2	10.54	51.128	
1,900.0	1,900.0	1,892.8	1,892.7	7.2	3.9	-24.57	490.8	-224.4	539.7	528.6	11.07	48.746	
2,000.0	2,000.0	1,992.7	1,992.5	7.6	4.1	-24.55	491.8	-224.6	540.7	529.1	11.61	46.570	
2,100.0	2,100.0	2,093.0	2,092.8	7.9	4.3	-24.51	492.8	-224.7	541.7	529.5	12.15	44.572	
2,200.0	2,200.0	2,193.6	2,193.4	8.2	4.5	-24.45	493.9	-224.6	542.6	529.9	12.70	42.727	
2,300.0	2,300.0	2,296.0	2,295.8	8.6	4.8	-24.41	494.7	-224.5	543.2	530.0	13.25	40.994	
2,400.0	2,400.0	2,398.8	2,398.6	8.9	5.0	-24.41	494.8	-224.6	543.4	529.6	13.80	39.364	
2,500.0	2,500.0	2,503.5	2,503.3	9.2	5.2	-24.48	494.0	-224.9	542.8	528.4	14.36	37.805	
2,600.0	2,600.0	2,604.3	2,604.1	9.6	5.4	-65.15	492.6	-225.4	541.0	526.1	14.90	36.300	
2,700.0	2,699.8	2,707.0	2,706.8	9.9	5.6	-65.86	490.8	-225.9	537.5	522.0	15.45	34.779	
2,775.0	2,774.6	2,784.2	2,783.9	10.2	5.8	-66.63	489.2	-225.8	533.5	517.7	15.87	33.626	
2,800.0	2,799.5	2,810.0	2,809.8	10.3	5.8	-66.89	488.6	-225.7	532.0	516.0	16.00	33.243	
2,900.0	2,899.0	2,914.1	2,913.8	10.6	6.0	-67.87	486.1	-224.2	525.5	509.0	16.56	31.741	
3,000.0	2,998.5	3,013.7	3,013.4	10.9	6.2	-68.69	483.9	-221.4	518.6	501.5	17.10	30.322	
3,100.0	3,098.1	3,106.6	3,106.2	11.3	6.4	-69.31	483.1	-217.8	512.6	494.9	17.64	29.051	
3,200.0	3,197.6	3,203.0	3,202.5	11.6	6.6	-69.86	483.5	-213.8	507.6	489.4	18.19	27.902	
3,300.0	3,297.2	3,300.0	3,299.4	12.0	6.8	-70.41	484.7	-209.9	503.4	484.6	18.74	26.862	
3,400.0	3,396.7	3,397.6	3,397.0	12.3	7.0	-70.98	486.2	-206.4	499.7	480.4	19.29	25.907	
3,500.0	3,496.2	3,491.1	3,490.3	12.7	7.2	-71.59	488.0	-203.7	496.8	476.9	19.83	25.050	
3,600.0	3,595.8	3,591.8	3,591.0	13.0	7.4	-72.36	489.9	-202.0	494.5	474.2	20.39	24.255	
3,700.0	3,695.3	3,694.0	3,693.2	13.4	7.6	-73.24	491.1	-200.6	492.0	471.0	20.95	23.482	
3,800.0	3,794.9	3,793.7	3,792.9	13.7	7.8	-74.13	492.0	-199.3	489.3	467.8	21.51	22.748	
3,900.0	3,894.4	3,894.8	3,894.0	14.1	8.0	-75.04	492.7	-197.9	486.6	464.5	22.07	22.047	
4,000.0	3,993.9	3,997.8	3,997.0	14.4	8.2	-75.96	493.2	-196.0	483.5	460.8	22.63	21.362	
4,100.0	4,093.5	4,099.4	4,098.6	14.8	8.5	-76.86	493.3	-193.7	480.0	456.8	23.19	20.693	
4,200.0	4,193.0	4,200.7	4,199.8	15.1	8.7	-77.77	493.1	-191.2	476.2	452.4	23.76	20.045	
4,300.0	4,292.6	4,302.3	4,301.4	15.5	8.9	-78.75	492.3	-188.7	472.1	447.8	24.32	19.416	
4,400.0	4,392.1	4,401.5	4,400.5	15.8	9.1	-79.75	491.3	-186.5	468.1	443.2	24.88	18.816	
4,500.0	4,491.6	4,501.5	4,500.5	16.2	9.3	-80.77	490.2	-184.1	464.1	438.7	25.44	18.247	
4,600.0	4,591.2	4,600.9	4,599.9	16.5	9.5	-81.82	489.1	-181.8	460.3	434.3	26.00	17.707	
4,700.0	4,690.7	4,700.2	4,699.2	16.9	9.7	-82.87	488.1	-179.5	456.7	430.2	26.56	17.197	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #5H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_GC+WIR+DPIPE, 8399-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,790.3	4,800.1	4,799.0	17.2	9.9	-83.94		487.1	-177.2	453.3	426.2	27.12	16.713	
4,900.0	4,889.8	4,899.3	4,898.1	17.6	10.1	-85.03		486.0	-175.0	450.0	422.3	27.68	16.256	
5,000.0	4,989.3	4,999.2	4,998.0	17.9	10.3	-86.13		485.0	-172.7	446.9	418.7	28.25	15.822	
5,091.4	5,080.3	5,077.2	5,076.1	18.3	10.5	-87.00		485.0	-171.6	445.5	416.8	28.74	15.502 CC	
5,100.0	5,088.9	5,084.6	5,083.4	18.3	10.5	-87.08		485.1	-171.6	445.5	416.7	28.78	15.478 ES	
5,200.0	5,188.4	5,176.2	5,175.0	18.7	10.7	-88.10		486.8	-172.3	446.9	417.6	29.32	15.241	
5,300.0	5,288.0	5,273.2	5,272.0	19.0	10.9	-89.18		489.4	-173.8	449.6	419.8	29.87	15.051	
5,400.0	5,387.5	5,372.9	5,371.6	19.4	11.1	-90.27		492.1	-175.6	452.7	422.3	30.44	14.875	
5,500.0	5,487.0	5,472.4	5,471.0	19.7	11.3	-91.35		494.8	-177.3	455.9	424.9	31.00	14.709	
5,600.0	5,586.6	5,571.3	5,569.9	20.1	11.5	-92.41		497.5	-179.1	459.4	427.8	31.56	14.557	
5,700.0	5,686.1	5,671.4	5,670.0	20.4	11.7	-93.47		500.3	-181.0	463.0	430.9	32.12	14.416	
5,800.0	5,785.7	5,771.4	5,770.0	20.8	12.0	-94.50		503.0	-182.6	466.7	434.0	32.68	14.279	
5,900.0	5,885.2	5,872.1	5,870.6	21.2	12.2	-95.52		505.8	-184.2	470.4	437.1	33.25	14.146	
6,000.0	5,984.7	5,972.5	5,970.9	21.5	12.4	-96.51		508.4	-185.6	474.0	440.2	33.82	14.015	
6,100.0	6,084.3	6,079.8	6,078.2	21.9	12.6	-97.63		510.2	-186.7	477.0	442.6	34.41	13.865	
6,200.0	6,183.8	6,182.0	6,180.4	22.2	12.8	-98.82		510.3	-187.2	478.9	443.9	34.98	13.690	
6,300.0	6,283.3	6,281.3	6,279.7	22.6	13.0	-99.98		510.2	-187.6	480.7	445.2	35.54	13.526	
6,400.0	6,382.9	6,380.7	6,379.1	22.9	13.2	-101.13		510.1	-188.1	482.9	446.8	36.11	13.373	
6,500.0	6,482.4	6,480.5	6,478.9	23.3	13.4	-102.30		509.8	-188.6	485.2	448.5	36.67	13.230	
6,600.0	6,582.0	6,580.3	6,578.7	23.7	13.7	-103.46		509.4	-189.2	487.6	450.4	37.24	13.094	
6,700.0	6,681.5	6,679.4	6,677.8	24.0	13.9	-104.62		509.0	-189.7	490.2	452.4	37.80	12.969	
6,800.0	6,781.0	6,780.4	6,778.8	24.4	14.1	-105.80		508.4	-190.3	493.0	454.6	38.37	12.848	
6,900.0	6,880.6	6,880.3	6,878.7	24.7	14.3	-107.01		507.2	-190.8	495.7	456.8	38.94	12.731	
7,000.0	6,980.1	6,979.1	6,977.4	25.1	14.5	-108.32		505.0	-191.7	498.6	459.1	39.50	12.624	
7,100.0	7,079.7	7,077.1	7,075.4	25.5	14.7	-109.83		502.1	-193.5	502.1	462.0	40.06	12.534	
7,200.0	7,179.2	7,175.8	7,174.0	25.8	14.9	-111.33		497.2	-195.5	506.0	465.4	40.62	12.458	
7,300.0	7,278.7	7,274.2	7,272.3	26.2	15.1	-112.79		493.5	-197.5	510.4	469.2	41.18	12.394	
7,400.0	7,378.3	7,373.0	7,371.0	26.5	15.3	-114.23		489.6	-199.6	515.2	473.5	41.74	12.342	
7,500.0	7,477.8	7,473.9	7,471.7	26.9	15.5	-115.68		485.7	-201.7	520.2	477.9	42.32	12.294	
7,600.0	7,577.4	7,574.1	7,571.8	27.3	15.7	-117.17		481.0	-203.6	525.2	482.3	42.88	12.247	
7,700.0	7,676.9	7,672.8	7,670.5	27.6	16.0	-118.62		476.3	-205.4	530.4	487.0	43.45	12.209	
7,800.0	7,776.4	7,771.9	7,769.4	28.0	16.2	-120.03		471.7	-207.1	536.1	492.0	44.01	12.180	
7,900.0	7,876.0	7,871.7	7,869.1	28.3	16.4	-121.38		467.4	-208.8	541.9	497.3	44.58	12.156	
8,000.0	7,975.5	7,971.1	7,968.4	28.7	16.6	-122.68		463.3	-210.3	547.9	502.8	45.15	12.136	
8,100.0	8,075.1	8,070.8	8,068.0	29.1	16.8	-123.96		459.1	-211.8	554.1	508.4	45.71	12.122	
8,200.0	8,174.6	8,170.7	8,167.7	29.4	17.0	-125.27		454.4	-213.1	560.5	514.2	46.28	12.110	
8,300.0	8,274.1	8,269.7	8,266.7	29.8	17.2	-126.55		449.6	-214.4	567.0	520.2	46.85	12.103 SF	
8,400.0	8,373.7	8,369.6	8,366.4	30.2	17.4	-127.82		444.6	-215.6	573.8	526.4	47.39	12.109	
8,500.0	8,473.2	8,470.6	8,467.3	30.5	17.4	-129.08		439.6	-216.6	580.6	532.8	47.79	12.148	
8,600.0	8,572.8	8,572.6	8,569.2	30.9	17.5	-130.24		435.2	-217.1	587.2	539.0	48.18	12.188	
8,700.0	8,672.3	8,667.8	8,664.3	31.2	17.5	-131.32		431.0	-217.5	593.9	545.4	48.56	12.232	
8,800.0	8,771.8	8,753.7	8,750.0	31.6	17.8	-132.53		424.5	-218.9	602.3	553.4	48.95	12.305	
8,900.0	8,871.4	8,823.0	8,818.0	32.0	18.6	-134.13		412.2	-221.7	614.2	564.9	49.33	12.451	
9,000.0	8,970.9	8,889.8	8,881.9	32.3	20.2	-136.26		393.3	-226.5	631.6	581.6	49.99	12.635	
9,100.0	9,070.5	8,953.1	8,940.2	32.7	21.5	-138.66		369.8	-233.4	655.4	604.7	50.73	12.919	
9,200.0	9,170.0	9,012.0	8,992.3	33.0	22.5	-141.17		343.3	-240.5	684.9	633.4	51.49	13.302	
9,300.0	9,269.5	9,063.2	9,035.5	33.4	23.2	-143.54		316.6	-247.4	720.8	668.8	52.01	13.860	
9,400.0	9,369.1	9,106.0	9,069.7	33.8	23.8	-145.63		291.8	-254.0	763.7	711.3	52.37	14.583	
9,500.0	9,468.6	9,138.0	9,093.8	34.1	23.9	-147.22		271.6	-259.7	813.6	761.4	52.15	15.601	
9,600.0	9,568.2	9,158.6	9,108.5	34.5	23.9	-148.26		257.8	-263.9	870.0	818.4	51.61	16.858	
9,700.0	9,667.7	9,184.6	9,126.2	34.9	23.9	-149.58		239.6	-269.7	932.1	880.9	51.16	18.219	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #5H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_GC+WIR+DPIPE, 8399-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,800.0	9,767.2	9,203.0	9,138.3	35.2	23.9	-150.50	226.4	-274.0	998.8	948.2	50.58	19.745		
9,900.0	9,866.8	9,234.0	9,157.5	35.6	24.0	-152.05	203.3	-281.4	1,069.3	1,019.0	50.31	21.255		
10,000.0	9,966.3	9,265.0	9,175.4	35.9	24.0	-153.64	178.8	-288.2	1,143.0	1,092.9	50.09	22.820		
10,100.0	10,065.9	9,297.0	9,192.4	36.3	24.0	-155.33	152.4	-293.9	1,219.3	1,169.4	49.94	24.416		
10,200.0	10,165.4	9,297.0	9,192.4	36.7	24.0	-155.33	152.4	-293.9	1,298.2	1,248.9	49.27	26.347		
10,300.0	10,264.9	9,328.0	9,207.3	37.0	24.1	-156.97	125.7	-298.8	1,379.3	1,330.1	49.21	28.026		
10,400.0	10,364.5	9,328.0	9,207.3	37.4	24.1	-156.97	125.7	-298.8	1,462.4	1,413.7	48.71	30.023		
10,500.0	10,464.0	9,328.0	9,207.3	37.8	24.1	-156.97	125.7	-298.8	1,547.5	1,499.2	48.29	32.047		
10,600.0	10,563.6	9,345.1	9,214.7	38.1	24.1	-157.87	110.5	-301.6	1,633.8	1,585.6	48.19	33.901		
10,700.0	10,663.1	9,360.0	9,220.5	38.5	24.1	-158.65	97.0	-304.1	1,721.7	1,673.6	48.12	35.783		
10,739.6	10,702.5	9,360.0	9,220.5	38.6	24.1	-158.65	97.0	-304.1	1,756.8	1,708.8	48.02	36.587		
10,800.0	10,762.7	9,360.0	9,220.5	38.8	24.1	-159.08	97.0	-304.1	1,810.5	1,762.6	47.88	37.811		
10,900.0	10,862.4	9,360.0	9,220.5	39.2	24.1	-159.77	97.0	-304.1	1,899.7	1,852.0	47.69	39.833		
11,000.0	10,962.2	9,360.0	9,220.5	39.6	24.1	-160.45	97.0	-304.1	1,989.2	1,941.7	47.54	41.845		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #6H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 8667-MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-19.13	498.7	-173.0	527.9				
100.0	100.0	94.1	94.1	3.0	3.0	-19.13	499.1	-173.1	528.3	522.2	6.00	87.995	
200.0	200.0	194.2	194.2	3.0	3.0	-19.14	499.8	-173.5	529.0	523.0	6.04	87.521	
300.0	300.0	293.8	293.8	3.1	3.0	-19.15	500.5	-173.8	529.8	523.7	6.13	86.395	
400.0	400.0	394.7	394.7	3.2	3.0	-19.17	501.2	-174.3	530.7	524.4	6.26	84.706	
500.0	500.0	501.5	501.5	3.4	3.0	-19.27	501.0	-175.2	530.8	524.3	6.43	82.601	
600.0	600.0	602.1	602.0	3.6	3.1	-19.44	499.8	-176.4	530.1	523.5	6.61	80.215	
700.0	700.0	701.8	701.7	3.8	3.1	-19.46	499.2	-176.4	529.4	522.6	6.82	77.683	
800.0	800.0	802.2	802.2	4.0	3.1	-19.35	498.9	-175.2	528.8	521.8	7.05	75.020	
900.0	900.0	903.4	903.3	4.2	3.1	-19.20	498.6	-173.6	527.9	520.6	7.30	72.287	
1,000.0	1,000.0	1,004.6	1,004.5	4.5	3.1	-19.03	498.0	-171.8	526.9	519.3	7.58	69.545	
1,100.0	1,100.0	1,104.5	1,104.4	4.8	3.1	-18.85	497.5	-169.8	525.8	517.9	7.86	66.859	
1,200.0	1,200.0	1,205.4	1,205.2	5.1	3.1	-18.64	496.9	-167.6	524.5	516.3	8.17	64.232	
1,300.0	1,300.0	1,304.7	1,304.5	5.4	3.1	-18.42	496.3	-165.3	523.1	514.6	8.48	61.701	
1,400.0	1,400.0	1,404.0	1,403.8	5.7	3.2	-18.17	496.0	-162.8	522.0	513.2	8.80	59.317	
1,500.0	1,500.0	1,503.5	1,503.3	6.0	3.2	-17.93	495.7	-160.4	521.0	511.9	9.13	57.059	
1,568.9	1,568.9	1,567.4	1,567.2	6.2	3.2	-17.80	495.6	-159.1	520.6	511.2	9.36	55.604	
1,600.0	1,600.0	1,594.4	1,594.2	6.3	3.2	-17.76	495.9	-158.8	520.7	511.2	9.47	55.011	
1,700.0	1,700.0	1,692.1	1,691.8	6.6	3.3	-17.66	497.2	-158.3	521.8	512.0	9.80	53.243	
1,800.0	1,800.0	1,792.3	1,792.1	6.9	3.3	-17.53	498.8	-157.5	523.1	512.9	10.15	51.556	
1,900.0	1,900.0	1,892.4	1,892.1	7.2	3.4	-17.39	500.3	-156.7	524.3	513.8	10.50	49.945	
2,000.0	2,000.0	1,992.1	1,991.8	7.6	3.4	-17.24	501.8	-155.7	525.5	514.6	10.85	48.411	
2,100.0	2,100.0	2,091.6	2,091.3	7.9	3.5	-17.09	503.5	-154.8	526.8	515.6	11.22	46.963	
2,200.0	2,200.0	2,192.8	2,192.5	8.2	3.5	-16.92	505.1	-153.7	528.0	516.4	11.59	45.571	
2,300.0	2,300.0	2,301.6	2,301.3	8.6	3.6	-16.79	505.9	-152.7	528.4	516.5	11.96	44.193	
2,400.0	2,400.0	2,408.0	2,407.6	8.9	3.6	-16.88	504.3	-153.0	527.1	514.7	12.32	42.780	
2,500.0	2,500.0	2,507.3	2,506.9	9.2	3.6	-17.02	502.3	-153.7	525.3	512.7	12.69	41.403	
2,600.0	2,600.0	2,608.7	2,608.3	9.6	3.6	-57.74	500.1	-154.5	522.6	509.5	13.06	40.015	
2,700.0	2,699.8	2,713.0	2,712.6	9.9	3.6	-58.54	497.5	-155.6	517.7	504.3	13.43	38.537	
2,775.0	2,774.6	2,791.4	2,790.9	10.2	3.7	-59.44	494.5	-156.3	512.0	498.3	13.72	37.324	
2,800.0	2,799.5	2,816.2	2,815.7	10.3	3.7	-59.73	493.5	-156.5	510.0	496.1	13.81	36.915	
2,900.0	2,899.0	2,916.4	2,915.8	10.6	3.7	-60.91	489.4	-157.2	501.6	487.4	14.20	35.326	
3,000.0	2,998.5	3,015.9	3,015.2	10.9	3.7	-62.11	485.3	-157.9	493.4	478.8	14.59	33.818	
3,100.0	3,098.1	3,114.7	3,113.9	11.3	3.8	-63.31	481.3	-158.1	485.2	470.2	14.99	32.380	
3,200.0	3,197.6	3,211.9	3,211.0	11.6	3.8	-64.48	477.7	-158.2	477.6	462.3	15.39	31.043	
3,300.0	3,297.2	3,311.0	3,310.1	12.0	3.9	-65.68	474.4	-158.0	470.5	454.7	15.79	29.791	
3,400.0	3,396.7	3,409.5	3,408.6	12.3	3.9	-66.89	471.1	-157.8	463.6	447.4	16.20	28.609	
3,500.0	3,496.2	3,508.2	3,507.2	12.7	4.0	-68.14	468.1	-157.7	457.1	440.5	16.62	27.506	
3,600.0	3,595.8	3,607.9	3,606.8	13.0	4.1	-69.43	465.0	-157.5	450.7	433.7	17.03	26.460	
3,700.0	3,695.3	3,708.1	3,707.0	13.4	4.1	-70.78	461.7	-157.4	444.5	427.1	17.45	25.469	
3,800.0	3,794.9	3,809.2	3,808.1	13.7	4.2	-72.15	458.2	-156.9	438.2	420.3	17.88	24.512	
3,900.0	3,894.4	3,909.7	3,908.4	14.1	4.3	-73.54	454.5	-156.1	431.8	413.5	18.30	23.594	
4,000.0	3,993.9	4,010.2	4,008.9	14.4	4.4	-74.94	450.7	-155.0	425.5	406.7	18.73	22.713	
4,100.0	4,093.5	4,109.3	4,107.9	14.8	4.4	-76.32	447.1	-153.6	419.2	400.1	19.17	21.875	
4,200.0	4,193.0	4,210.9	4,209.4	15.1	4.5	-77.78	443.0	-152.0	412.9	393.3	19.60	21.071	
4,300.0	4,292.6	4,309.5	4,307.9	15.5	4.6	-79.24	438.9	-150.3	406.6	386.6	20.03	20.298	
4,400.0	4,392.1	4,406.3	4,404.6	15.8	4.7	-80.62	435.7	-148.3	401.1	380.6	20.47	19.590	
4,500.0	4,491.6	4,505.0	4,503.3	16.2	4.8	-81.99	433.0	-146.2	396.1	375.2	20.91	18.942	
4,600.0	4,591.2	4,602.7	4,601.0	16.5	4.9	-83.34	430.7	-144.2	391.8	370.4	21.36	18.346	
4,700.0	4,690.7	4,701.6	4,699.8	16.9	5.0	-84.72	428.7	-142.1	387.8	366.0	21.80	17.790	
4,800.0	4,790.3	4,802.6	4,800.7	17.2	5.1	-86.11	426.6	-139.7	383.9	361.7	22.24	17.260	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #6H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 8667-MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,889.8	4,902.2	4,900.3	17.6	5.2	-87.53	424.5	-137.3	380.2	357.5	22.69	16.757	
5,000.0	4,989.3	5,002.2	5,000.3	17.9	5.3	-88.96	422.4	-134.9	376.6	353.5	23.13	16.281	
5,100.0	5,088.9	5,100.8	5,098.8	18.3	5.4	-90.40	420.4	-132.5	373.4	349.8	23.58	15.836	
5,200.0	5,188.4	5,200.6	5,198.5	18.7	5.5	-91.87	418.5	-130.1	370.5	346.5	24.03	15.420	
5,300.0	5,288.0	5,301.3	5,299.2	19.0	5.6	-93.45	416.0	-127.8	367.6	343.1	24.47	15.021	
5,400.0	5,387.5	5,400.2	5,398.0	19.4	5.7	-95.10	413.1	-125.6	364.8	339.9	24.91	14.643	
5,500.0	5,487.0	5,499.1	5,496.9	19.7	5.8	-96.78	410.2	-123.7	362.5	337.2	25.35	14.300	
5,600.0	5,586.6	5,599.0	5,596.7	20.1	5.9	-98.51	407.3	-121.8	360.6	334.9	25.79	13.984	
5,700.0	5,686.1	5,697.4	5,695.1	20.4	6.0	-100.23	404.5	-120.0	359.1	332.9	26.22	13.695	
5,800.0	5,785.7	5,796.8	5,794.4	20.8	6.1	-101.98	401.6	-118.2	358.0	331.4	26.65	13.432	
5,900.0	5,885.2	5,897.0	5,894.5	21.2	6.2	-103.77	398.6	-116.4	357.1	330.0	27.08	13.186	
6,000.0	5,984.7	5,995.4	5,992.9	21.5	6.3	-105.55	395.7	-114.7	356.7	329.2	27.50	12.969	
6,049.9	6,034.4	6,044.9	6,042.4	21.7	6.4	-106.45	394.1	-113.9	356.7	328.9	27.71	12.869	CC
6,100.0	6,084.3	6,093.7	6,091.1	21.9	6.4	-107.35	392.6	-113.2	356.8	328.9	27.92	12.778	ES
6,200.0	6,183.8	6,192.3	6,189.7	22.2	6.5	-109.21	389.3	-112.2	357.6	329.3	28.33	12.624	
6,300.0	6,283.3	6,291.0	6,288.3	22.6	6.6	-111.11	385.9	-111.5	359.0	330.3	28.72	12.499	
6,400.0	6,382.9	6,390.4	6,387.6	22.9	6.7	-113.04	382.2	-110.8	360.8	331.7	29.11	12.393	
6,500.0	6,482.4	6,489.0	6,486.1	23.3	6.8	-114.98	378.2	-110.3	363.0	333.5	29.49	12.308	
6,600.0	6,582.0	6,588.0	6,585.1	23.7	6.9	-116.93	374.1	-109.8	365.8	335.9	29.87	12.245	
6,700.0	6,681.5	6,686.6	6,683.6	24.0	7.0	-118.84	370.0	-109.5	369.0	338.8	30.24	12.202	
6,800.0	6,781.0	6,784.9	6,781.8	24.4	7.1	-120.61	366.6	-109.3	373.0	342.4	30.61	12.184	
6,900.0	6,880.6	6,884.0	6,880.8	24.7	7.2	-122.34	363.4	-109.2	377.4	346.4	30.98	12.180	
7,000.0	6,980.1	6,990.9	6,987.7	25.1	7.4	-124.14	359.8	-108.3	381.5	350.1	31.37	12.158	
7,100.0	7,079.7	7,089.6	7,086.3	25.5	7.5	-125.74	356.7	-106.2	384.5	352.8	31.77	12.105	
7,200.0	7,179.2	7,187.3	7,184.0	25.8	7.6	-127.33	353.4	-104.6	388.4	356.3	32.15	12.080	
7,300.0	7,278.7	7,286.3	7,282.9	26.2	7.7	-128.90	350.1	-103.2	392.8	360.3	32.54	12.073	SF
7,400.0	7,378.3	7,385.1	7,381.6	26.5	7.8	-130.44	346.8	-101.9	397.5	364.6	32.92	12.075	
7,500.0	7,477.8	7,485.1	7,481.6	26.9	7.9	-131.96	343.3	-100.5	402.5	369.2	33.30	12.086	
7,600.0	7,577.4	7,585.1	7,581.5	27.3	8.1	-133.40	340.3	-99.0	407.7	374.0	33.69	12.100	
7,700.0	7,676.9	7,685.4	7,681.7	27.6	8.2	-134.80	337.3	-97.2	412.8	378.7	34.09	12.111	
7,800.0	7,776.4	7,785.4	7,781.7	28.0	8.3	-136.17	334.3	-95.3	418.0	383.5	34.48	12.123	
7,900.0	7,876.0	7,885.4	7,881.6	28.3	8.4	-137.48	331.4	-93.3	423.3	388.4	34.88	12.136	
8,000.0	7,975.5	7,985.4	7,981.6	28.7	8.5	-138.74	328.7	-91.1	428.7	393.4	35.28	12.151	
8,100.0	8,075.1	8,084.9	8,081.0	29.1	8.6	-139.97	326.0	-88.8	434.1	398.4	35.68	12.167	
8,200.0	8,174.6	8,185.5	8,181.5	29.4	8.8	-141.18	323.3	-86.4	439.7	403.6	36.08	12.185	
8,300.0	8,274.1	8,284.7	8,280.7	29.8	8.9	-142.39	320.2	-83.9	445.3	408.8	36.48	12.206	
8,400.0	8,373.7	8,382.9	8,378.7	30.2	9.0	-143.57	317.1	-81.5	451.3	414.4	36.88	12.238	
8,500.0	8,473.2	8,480.7	8,476.5	30.5	9.1	-144.71	313.9	-79.6	458.0	420.7	37.27	12.287	
8,600.0	8,572.8	8,577.5	8,573.3	30.9	9.2	-145.80	310.8	-78.0	465.1	427.4	37.66	12.349	
8,700.0	8,672.3	8,672.9	8,668.5	31.2	9.3	-146.81	307.7	-77.1	473.1	435.1	38.02	12.443	
8,800.0	8,771.8	8,775.1	8,770.0	31.6	9.5	-148.80	296.8	-74.1	481.7	443.3	38.37	12.553	
8,900.0	8,871.4	8,875.1	8,865.4	32.0	9.8	-152.80	269.3	-63.7	489.9	451.2	38.71	12.657	
9,000.0	8,970.9	8,952.0	8,933.5	32.3	10.2	-157.25	236.1	-51.0	502.3	463.3	39.03	12.870	
9,100.0	9,070.5	9,018.2	8,987.6	32.7	10.6	-161.78	200.3	-37.6	522.4	483.0	39.46	13.238	
9,200.0	9,170.0	9,088.3	9,039.3	33.0	11.0	-167.06	156.3	-20.5	551.4	511.2	40.13	13.740	
9,300.0	9,269.5	9,169.0	9,092.0	33.4	11.3	-173.58	102.2	7.7	586.0	544.7	41.30	14.188	
9,400.0	9,369.1	9,202.0	9,110.8	33.8	11.4	-176.35	78.7	21.1	630.2	588.5	41.68	15.121	
9,500.0	9,468.6	9,218.0	9,119.3	34.1	11.5	-177.70	66.8	27.7	684.2	642.5	41.70	16.406	
9,600.0	9,568.2	9,249.0	9,134.6	34.5	11.6	179.69	43.1	40.6	746.0	704.1	41.82	17.839	
9,700.0	9,667.7	9,263.0	9,141.0	34.9	11.6	178.54	32.1	46.4	814.5	772.8	41.66	19.548	
9,800.0	9,767.2	9,285.4	9,150.5	35.2	11.7	176.71	14.1	55.6	888.1	846.4	41.62	21.335	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #6H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 8667-MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.0	9,866.8	9,312.0	9,161.0	35.6	11.7	174.58	-7.8	66.6	966.0	924.3	41.67	23.180	
10,000.0	9,966.3	9,312.0	9,161.0	35.9	11.7	174.58	-7.8	66.6	1,046.8	1,005.4	41.41	25.282	
10,100.0	10,065.9	9,312.0	9,161.0	36.3	11.7	174.58	-7.8	66.6	1,130.8	1,089.6	41.20	27.445	
10,200.0	10,165.4	9,335.1	9,169.1	36.7	11.8	172.79	-27.2	76.2	1,216.5	1,175.1	41.33	29.433	
10,300.0	10,264.9	9,357.0	9,175.8	37.0	11.8	171.12	-45.9	85.4	1,304.4	1,262.9	41.48	31.445	
10,400.0	10,364.5	9,357.0	9,175.8	37.4	11.8	171.12	-45.9	85.4	1,393.4	1,352.0	41.43	33.634	
10,500.0	10,464.0	9,357.0	9,175.8	37.8	11.8	171.12	-45.9	85.4	1,483.9	1,442.4	41.42	35.821	
10,600.0	10,563.6	9,357.0	9,175.8	38.1	11.8	171.12	-45.9	85.4	1,575.4	1,534.0	41.46	37.998	
10,700.0	10,663.1	9,357.0	9,175.8	38.5	11.8	171.12	-45.9	85.4	1,668.0	1,626.4	41.54	40.158	
10,739.6	10,702.5	9,357.0	9,175.8	38.6	11.8	171.12	-45.9	85.4	1,704.9	1,663.3	41.57	41.008	
10,800.0	10,762.7	9,357.0	9,175.8	38.8	11.8	171.36	-45.9	85.4	1,761.2	1,719.6	41.64	42.296	
10,900.0	10,862.4	9,375.8	9,180.7	39.2	11.8	170.43	-62.2	93.4	1,854.1	1,812.2	41.95	44.193	
11,000.0	10,962.2	9,379.6	9,181.6	39.6	11.8	170.60	-65.5	95.0	1,947.4	1,905.3	42.13	46.220	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #7H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 8608-MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	2.5	2.5	3.0	3.0	65.55	507.9	1,117.0	1,227.0					
100.0	100.0	132.5	132.5	3.0	3.0	65.56	506.9	1,115.4	1,225.5	1,219.5	6.00	204.156		
200.0	200.0	232.7	232.6	3.0	3.0	65.57	505.7	1,113.2	1,223.1	1,217.0	6.05	202.267		
300.0	300.0	334.2	334.2	3.1	3.0	65.57	504.6	1,110.8	1,220.4	1,214.3	6.14	198.856		
400.0	400.0	433.4	433.3	3.2	3.0	65.57	503.6	1,108.4	1,217.8	1,211.6	6.27	194.189		
500.0	500.0	532.8	532.6	3.4	3.1	65.56	502.6	1,106.1	1,215.3	1,208.8	6.44	188.565		
600.0	600.0	632.1	631.9	3.6	3.1	65.57	501.4	1,103.8	1,212.7	1,206.0	6.65	182.262		
700.0	700.0	734.5	734.3	3.8	3.1	65.58	500.0	1,101.4	1,210.0	1,203.1	6.89	175.529		
800.0	800.0	834.5	834.3	4.0	3.2	65.60	498.5	1,099.1	1,207.3	1,200.1	7.16	168.626		
900.0	900.0	932.6	932.3	4.2	3.2	65.62	497.2	1,096.9	1,204.7	1,197.3	7.45	161.758		
1,000.0	1,000.0	1,025.1	1,024.8	4.5	3.3	65.62	496.2	1,095.2	1,202.6	1,194.8	7.75	155.098		
1,100.0	1,100.0	1,125.0	1,124.7	4.8	3.3	65.63	495.3	1,093.4	1,200.6	1,192.5	8.08	148.602		
1,200.0	1,200.0	1,225.0	1,224.6	5.1	3.4	65.64	494.3	1,091.8	1,198.7	1,190.3	8.42	142.365		
1,300.0	1,300.0	1,300.0	1,299.6	5.4	3.4	65.66	493.6	1,090.9	1,197.4	1,188.6	8.76	136.733		
1,304.4	1,304.4	1,306.6	1,306.2	5.4	3.4	65.66	493.6	1,090.9	1,197.4	1,188.6	8.77	136.511		
1,400.0	1,400.0	1,387.7	1,387.3	5.7	3.4	65.67	493.6	1,091.7	1,198.2	1,189.1	9.05	132.439		
1,500.0	1,500.0	1,489.4	1,489.1	6.0	3.4	65.69	493.7	1,092.9	1,199.3	1,190.0	9.34	128.466		
1,600.0	1,600.0	1,588.6	1,588.2	6.3	3.4	65.69	494.1	1,093.9	1,200.4	1,190.8	9.63	124.616		
1,700.0	1,700.0	1,685.6	1,685.2	6.6	3.4	65.70	494.5	1,095.1	1,201.7	1,191.8	9.94	120.906		
1,800.0	1,800.0	1,782.5	1,782.1	6.9	3.3	65.69	495.2	1,096.4	1,203.2	1,193.0	10.25	117.337		
1,900.0	1,900.0	1,880.8	1,880.4	7.2	3.3	65.69	496.0	1,097.9	1,204.9	1,194.3	10.58	113.907		
2,000.0	2,000.0	1,976.5	1,976.1	7.6	3.4	65.67	497.1	1,099.4	1,206.8	1,195.9	10.91	110.621		
2,100.0	2,100.0	2,070.5	2,070.0	7.9	3.4	65.64	498.5	1,101.2	1,209.2	1,198.0	11.25	107.507		
2,200.0	2,200.0	2,168.8	2,168.3	8.2	3.4	65.62	500.1	1,103.4	1,211.9	1,200.3	11.59	104.531		
2,300.0	2,300.0	2,265.2	2,264.7	8.6	3.4	65.59	501.7	1,105.7	1,214.8	1,202.8	11.95	101.691		
2,400.0	2,400.0	2,375.5	2,374.9	8.9	3.4	65.57	503.3	1,108.1	1,217.3	1,205.0	12.31	98.888		
2,500.0	2,500.0	2,473.6	2,473.0	9.2	3.4	65.56	504.5	1,110.0	1,219.6	1,206.9	12.68	96.213		
2,600.0	2,600.0	2,574.9	2,574.3	9.6	3.5	25.20	506.0	1,112.1	1,220.5	1,207.4	13.05	93.546		
2,700.0	2,699.8	2,687.9	2,687.2	9.9	3.5	25.33	506.9	1,113.3	1,217.0	1,203.6	13.43	90.636		
2,775.0	2,774.6	2,760.4	2,759.8	10.2	3.5	25.48	507.5	1,114.1	1,212.4	1,198.7	13.71	88.428		
2,800.0	2,799.5	2,782.6	2,781.9	10.3	3.6	25.52	507.7	1,114.3	1,210.6	1,196.8	13.80	87.698		
2,900.0	2,899.0	2,875.4	2,874.7	10.6	3.6	25.69	508.7	1,115.9	1,203.9	1,189.7	14.18	84.882		
3,000.0	2,998.5	2,998.1	2,997.4	10.9	3.7	25.93	509.7	1,117.7	1,197.0	1,182.4	14.59	82.071		
3,100.0	3,098.1	3,109.7	3,109.0	11.3	3.7	26.13	509.8	1,116.9	1,187.8	1,172.8	14.96	79.399		
3,200.0	3,197.6	3,207.5	3,206.8	11.6	3.7	26.31	509.9	1,116.1	1,178.5	1,163.1	15.33	76.861		
3,300.0	3,297.2	3,306.2	3,305.5	12.0	3.8	26.50	510.2	1,115.4	1,169.3	1,153.6	15.71	74.428		
3,400.0	3,396.7	3,403.6	3,402.9	12.3	3.8	26.68	510.4	1,114.7	1,160.2	1,144.2	16.09	72.097		
3,500.0	3,496.2	3,502.6	3,501.9	12.7	3.9	26.86	510.8	1,114.1	1,151.2	1,134.7	16.48	69.861		
3,600.0	3,595.8	3,600.8	3,600.1	13.0	3.9	27.04	511.4	1,113.6	1,142.5	1,125.6	16.87	67.733		
3,700.0	3,695.3	3,697.4	3,696.6	13.4	4.0	27.21	512.1	1,113.3	1,133.9	1,116.7	17.26	65.706		
3,800.0	3,794.9	3,793.2	3,792.4	13.7	4.0	27.39	512.8	1,113.2	1,125.6	1,107.9	17.65	63.772		
3,900.0	3,894.4	3,888.3	3,887.6	14.1	4.1	27.57	513.7	1,113.3	1,117.6	1,099.5	18.04	61.935		
4,000.0	3,993.9	3,985.0	3,984.2	14.4	4.2	27.76	514.6	1,114.0	1,110.0	1,091.5	18.44	60.187		
4,100.0	4,093.5	4,081.0	4,080.2	14.8	4.2	27.96	515.4	1,115.0	1,102.8	1,083.9	18.84	58.522		
4,200.0	4,193.0	4,176.9	4,176.2	15.1	4.3	28.17	516.2	1,116.3	1,095.9	1,076.7	19.25	56.933		
4,300.0	4,292.6	4,276.4	4,275.7	15.5	4.3	28.42	516.6	1,117.9	1,089.1	1,069.4	19.66	55.397		
4,400.0	4,392.1	4,388.2	4,387.4	15.8	4.4	28.73	516.5	1,119.7	1,082.2	1,062.1	20.08	53.905		
4,500.0	4,491.6	4,500.6	4,499.8	16.2	4.4	29.06	515.6	1,119.6	1,073.4	1,052.9	20.47	52.435		
4,600.0	4,591.2	4,600.0	4,599.2	16.5	4.4	29.34	514.7	1,119.2	1,064.3	1,043.5	20.86	51.015		
4,700.0	4,690.7	4,700.6	4,699.8	16.9	4.5	29.64	513.9	1,118.9	1,055.4	1,034.2	21.26	49.648		
4,800.0	4,790.3	4,798.7	4,797.9	17.2	4.5	29.93	513.2	1,118.7	1,046.6	1,024.9	21.66	48.326		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #7H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 8608-MWD												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,889.8	4,897.3	4,896.5	17.6	4.5	30.22	512.5	1,118.4	1,037.7	1,015.7	22.06	47.049	
5,000.0	4,989.3	4,997.0	4,996.2	17.9	4.6	30.52	511.6	1,118.1	1,029.0	1,006.5	22.46	45.815	
5,100.0	5,088.9	5,096.3	5,095.5	18.3	4.6	30.83	511.0	1,117.8	1,020.2	997.3	22.86	44.623	
5,200.0	5,188.4	5,197.0	5,196.2	18.7	4.7	31.15	510.1	1,117.5	1,011.4	988.2	23.27	43.466	
5,300.0	5,288.0	5,298.6	5,297.8	19.0	4.7	31.49	509.0	1,117.1	1,002.5	978.8	23.68	42.341	
5,400.0	5,387.5	5,398.9	5,398.1	19.4	4.8	31.84	507.9	1,116.7	993.6	969.5	24.09	41.252	
5,500.0	5,487.0	5,500.2	5,499.4	19.7	4.8	32.19	506.6	1,115.9	984.4	959.9	24.50	40.181	
5,600.0	5,586.6	5,603.3	5,602.4	20.1	4.9	32.56	505.2	1,114.9	974.9	950.0	24.91	39.135	
5,700.0	5,686.1	5,701.6	5,700.7	20.4	5.0	32.91	504.0	1,113.8	965.4	940.1	25.33	38.116	
5,800.0	5,785.7	5,802.1	5,801.2	20.8	5.0	33.28	502.8	1,112.7	956.0	930.2	25.75	37.130	
5,900.0	5,885.2	5,899.7	5,898.8	21.2	5.1	33.64	501.7	1,111.6	946.6	920.4	26.17	36.174	
6,000.0	5,984.7	6,000.3	5,999.4	21.5	5.2	34.01	500.7	1,110.6	937.3	910.7	26.59	35.250	
6,100.0	6,084.3	6,100.0	6,099.1	21.9	5.2	34.38	499.7	1,109.4	928.0	901.0	27.02	34.350	
6,200.0	6,183.8	6,199.3	6,198.4	22.2	5.3	34.76	498.7	1,108.2	918.7	891.2	27.44	33.476	
6,300.0	6,283.3	6,302.1	6,301.2	22.6	5.4	35.15	497.7	1,106.8	909.2	881.4	27.87	32.623	
6,400.0	6,382.9	6,403.7	6,402.7	22.9	5.5	35.54	496.7	1,105.1	899.6	871.3	28.30	31.785	
6,500.0	6,482.4	6,502.4	6,501.4	23.3	5.6	35.92	495.9	1,103.4	889.9	861.1	28.74	30.966	
6,600.0	6,582.0	6,602.8	6,601.8	23.7	5.6	36.32	495.0	1,101.6	880.1	851.0	29.17	30.170	
6,700.0	6,681.5	6,702.2	6,701.2	24.0	5.7	36.71	494.3	1,099.6	870.3	840.7	29.61	29.393	
6,800.0	6,781.0	6,807.0	6,805.9	24.4	5.8	37.11	493.7	1,097.1	860.2	830.2	30.05	28.629	
6,900.0	6,880.6	6,907.7	6,906.7	24.7	5.9	37.45	493.8	1,094.2	849.8	819.3	30.49	27.873	
7,000.0	6,980.1	6,987.9	6,986.8	25.1	6.0	37.73	494.1	1,092.9	840.7	809.7	30.93	27.176	
7,100.0	7,079.7	7,085.9	7,084.8	25.5	6.0	38.09	494.6	1,092.3	832.6	801.2	31.37	26.542	
7,200.0	7,179.2	7,185.8	7,184.7	25.8	6.1	38.46	495.0	1,091.8	824.6	792.8	31.80	25.928	
7,300.0	7,278.7	7,289.0	7,287.9	26.2	6.2	38.86	495.4	1,091.0	816.5	784.2	32.24	25.325	
7,400.0	7,378.3	7,392.4	7,391.3	26.5	6.3	39.31	495.2	1,089.9	807.9	775.2	32.69	24.717	
7,500.0	7,477.8	7,492.5	7,491.4	26.9	6.4	39.77	494.5	1,088.5	799.0	765.8	33.13	24.113	
7,600.0	7,577.4	7,575.0	7,573.9	27.3	6.4	40.20	493.6	1,088.2	791.2	757.6	33.57	23.567	
7,700.0	7,676.9	7,672.9	7,671.7	27.6	6.5	40.77	492.0	1,089.3	784.7	750.7	33.97	23.099	
7,800.0	7,776.4	7,774.1	7,772.9	28.0	6.5	41.42	489.7	1,090.5	778.2	743.8	34.37	22.640	
7,900.0	7,876.0	7,872.0	7,870.7	28.3	6.6	42.08	487.2	1,091.7	771.9	737.2	34.78	22.196	
8,000.0	7,975.5	7,972.0	7,970.7	28.7	6.7	42.79	484.3	1,093.0	765.8	730.6	35.18	21.769	
8,100.0	8,075.1	8,076.3	8,075.0	29.1	6.7	43.52	481.5	1,094.1	759.6	724.0	35.58	21.348	
8,200.0	8,174.6	8,177.7	8,176.3	29.4	6.8	44.02	481.6	1,094.2	752.7	716.7	35.99	20.918	
8,300.0	8,274.1	8,280.3	8,278.9	29.8	6.8	44.55	481.6	1,094.1	745.7	709.3	36.41	20.478	
8,400.0	8,373.7	8,383.1	8,381.8	30.2	6.9	45.15	480.8	1,093.5	738.3	701.4	36.85	20.037	
8,500.0	8,473.2	8,487.7	8,486.4	30.5	7.0	45.81	479.3	1,092.5	730.4	693.2	37.28	19.595	
8,600.0	8,572.8	8,598.8	8,597.4	30.9	7.1	46.57	477.2	1,089.9	721.3	683.7	37.69	19.140	
8,700.0	8,672.3	8,723.0	8,721.4	31.2	7.3	47.64	472.5	1,085.0	710.9	672.8	38.09	18.664	
8,800.0	8,771.8	8,918.4	8,910.2	31.6	8.7	52.20	431.6	1,061.2	692.6	653.6	38.97	17.772	
8,900.0	8,871.4	9,108.5	9,068.5	32.0	10.2	61.78	341.9	1,009.9	661.3	621.5	39.83	16.605	
9,000.0	8,970.9	9,183.6	9,118.1	32.3	10.4	67.27	292.1	983.6	630.5	590.0	40.48	15.577	
9,100.0	9,070.5	9,229.3	9,143.5	32.7	10.6	71.05	257.8	967.2	609.4	568.3	41.11	14.824	
9,200.0	9,170.0	9,262.6	9,159.6	33.0	10.6	73.95	231.3	955.3	601.6	559.9	41.69	14.430	
9,204.2	9,174.2	9,263.9	9,160.2	33.1	10.6	74.07	230.2	954.8	601.6	559.8	41.71	14.421 CC, ES, SF	
9,300.0	9,269.5	9,283.0	9,168.6	33.4	10.7	75.77	214.5	948.0	608.4	566.3	42.17	14.428	
9,400.0	9,369.1	9,304.5	9,177.3	33.8	10.7	77.69	196.4	940.4	630.1	587.6	42.56	14.806	
9,500.0	9,468.6	9,314.0	9,180.9	34.1	10.8	78.55	188.2	937.2	665.7	623.0	42.66	15.604	
9,600.0	9,568.2	9,330.9	9,186.8	34.5	10.8	80.08	173.4	931.5	713.0	670.4	42.62	16.730	
9,700.0	9,667.7	9,345.0	9,191.3	34.9	10.9	81.36	160.9	926.8	770.1	727.7	42.41	18.159	
9,800.0	9,767.2	9,345.0	9,191.3	35.2	10.9	81.36	160.9	926.8	835.1	793.1	42.04	19.865	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design WINDWARD FEDERAL PROJECT (BULLDOG 2432) - WINDWARD FEDERAL #7H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 8608-MWD												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.0	9,866.8	9,345.0	9,191.3	35.6	10.9	81.36	160.9	926.8	906.5	864.8	41.67	21.756	
10,000.0	9,966.3	9,361.1	9,195.8	35.9	10.9	82.81	146.4	921.3	982.4	941.0	41.47	23.692	
10,100.0	10,065.9	9,377.0	9,199.4	36.3	11.0	84.24	132.0	915.8	1,062.7	1,021.4	41.31	25.722	
10,200.0	10,165.4	9,377.0	9,199.4	36.7	11.0	84.24	132.0	915.8	1,145.7	1,104.6	41.10	27.876	
10,300.0	10,264.9	9,377.0	9,199.4	37.0	11.0	84.24	132.0	915.8	1,231.2	1,190.2	40.95	30.066	
10,400.0	10,364.5	9,377.0	9,199.4	37.4	11.0	84.24	132.0	915.8	1,318.7	1,277.9	40.86	32.274	
10,500.0	10,464.0	9,377.0	9,199.4	37.8	11.0	84.24	132.0	915.8	1,407.9	1,367.1	40.83	34.485	
10,600.0	10,563.6	9,377.0	9,199.4	38.1	11.0	84.24	132.0	915.8	1,498.5	1,457.7	40.84	36.690	
10,700.0	10,663.1	9,377.0	9,199.4	38.5	11.0	84.24	132.0	915.8	1,590.2	1,549.3	40.90	38.879	
10,739.6	10,702.5	9,377.0	9,199.4	38.6	11.0	84.24	132.0	915.8	1,626.8	1,585.9	40.94	39.741	
10,800.0	10,762.7	9,377.0	9,199.4	38.8	11.0	85.75	132.0	915.8	1,682.9	1,641.9	41.00	41.048	
10,900.0	10,862.4	9,377.0	9,199.4	39.2	11.0	88.38	132.0	915.8	1,776.4	1,735.3	41.13	43.193	
11,000.0	10,962.2	9,377.0	9,199.4	39.6	11.0	91.18	132.0	915.8	1,870.6	1,829.3	41.28	45.310	
11,100.0	11,062.1	9,389.3	9,201.7	39.9	11.0	95.17	120.7	911.6	1,965.1	1,923.5	41.53	47.315	

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=26' @ 3567.0usft (MCVAY 8)

Offset Depths are relative to Offset Datum

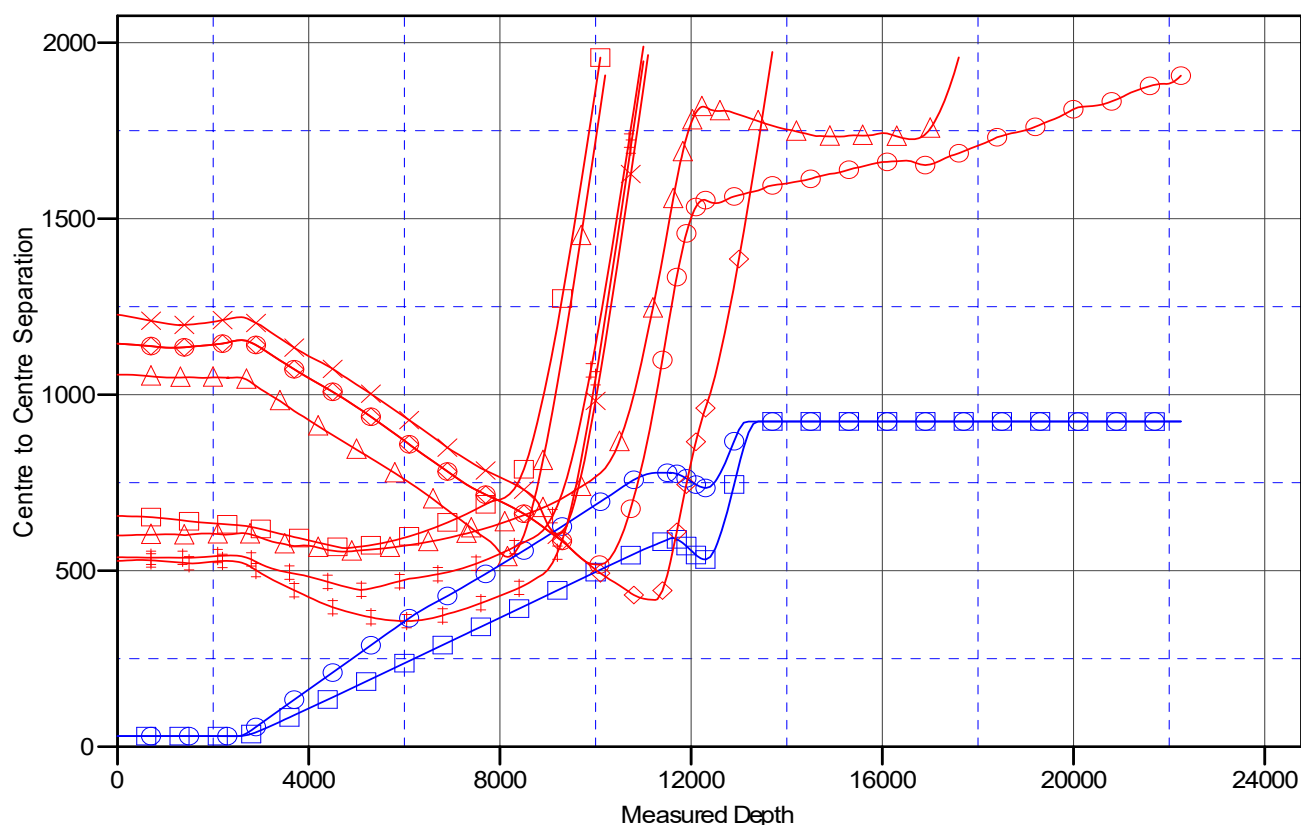
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: WINDWARD FED #705H

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

Grid Convergence at Surface is: 0.33°

Ladder Plot



LEGEND

- ▲ KING TUT FEDERAL #2H, OWB, ACTUAL WELLPATH V0
- ▲ WINDWARD FEDERAL #5H, OWB, ACTUAL WELLPATH V0
- ▲ WINDWARD FEDERAL #1H, OWB, ACTUAL WELLPATH V0
- ▲ WINDWARD FEDERAL #6H, OWB, ACTUAL WELLPATH V0
- WINDWARD FED #705H, OWB, PWP1 V0
- WINDWARD FED #704H, OWB, PWP1 V0
- ▲ KING TUT FEDERAL #1H, OWB, ACTUAL WELLPATH V0
- WINDWARD FEDERAL #2H, LATERAL 01, AWP-LATERAL V0
- ✕ WINDWARD FEDERAL #2H, OWB-PILOT HOLE, AWP-PH V0
- ✕ WINDWARD FEDERAL #7H, OWB, ACTUAL WELLPATH V0

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Reference Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	WINDWARD FED #705H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=26' @ 3567.0usft (MCVAY 8)

Offset Depths are relative to Offset Datum

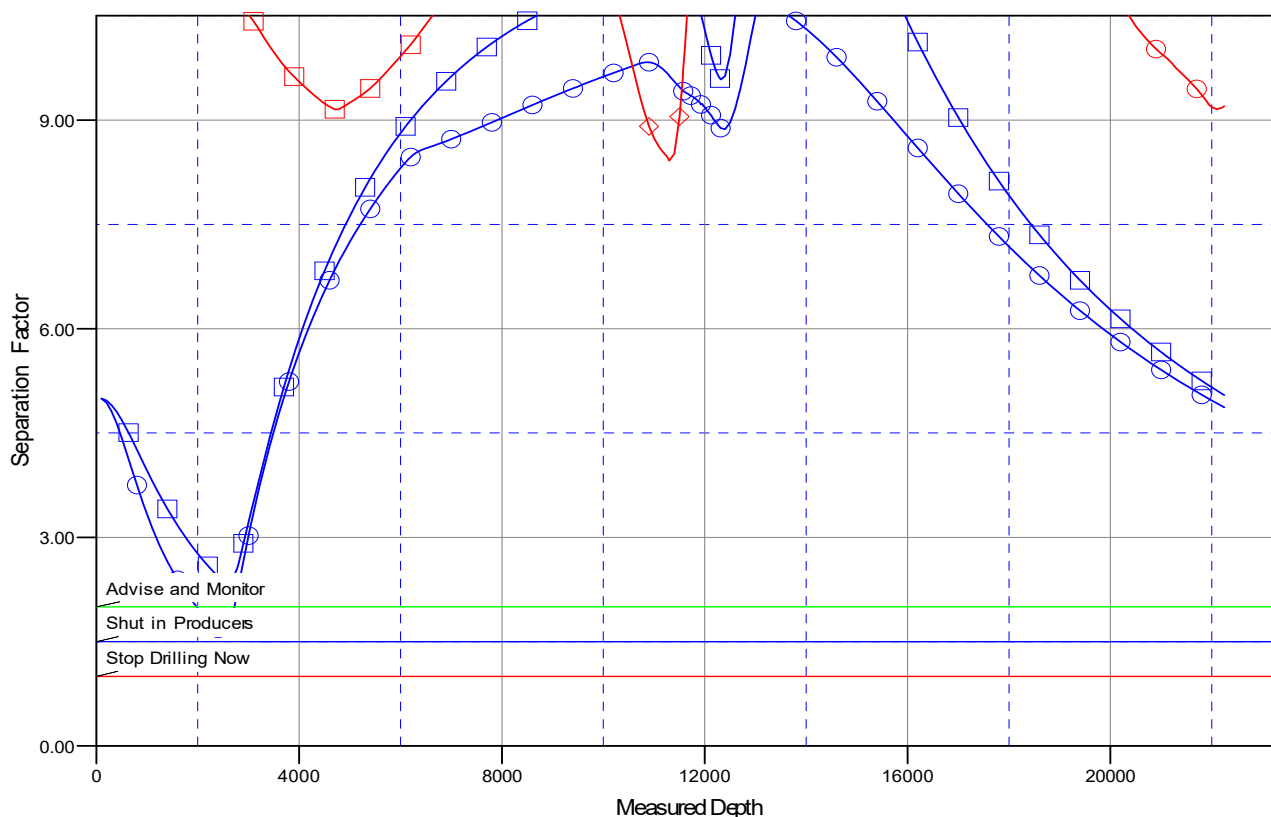
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: WINDWARD FED #705H

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

Grid Convergence at Surface is: 0.33°

Separation Factor Plot



LEGEND

KING TUT FEDERAL #2H, OWB, ACTUAL WELLPATH V0	WINDWARD FED #705H, OWB, PWP 1 V0	WINDWARD FEDERAL #2H, OWB-PILOT HOLE, AWP-PH V0
WINDWARD FEDERAL #5H, OWB, ACTUAL WELLPATH V0	WINDWARD FED #704H, OWB, PWP 1 V0	WINDWARD FEDERAL #7H, OWB, ACTUAL WELLPATH V0
WINDWARD FEDERAL #1H, OWB, ACTUAL WELLPATH V0	KING TUT FEDERAL #1H, OWB, ACTUAL WELLPATH V0	
WINDWARD FEDERAL #6H, OWB, ACTUAL WELLPATH V0	WINDWARD FEDERAL #2H, LATERAL 01, AWP-LATERAL V0	

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

12/11/2020 8:19:39AM

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COMPASS 5000.15 Build 91E

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

WINDWARD FEDERAL PROJECT (BULLDOG 2432)

WINDWARD FED #705H

OWB

Plan: PWP1

Standard Survey Report

11 December, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	BULLDOG PROSPECT (NM-E)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	WINDWARD FED #705H			
Well Position	+N/-S	0.0 usft	Northing:	434,666.80 usft
	+E/-W	0.0 usft	Easting:	689,690.60 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft
			Latitude:	32° 11' 36.706 N
			Longitude:	103° 43' 12.473 W
			Ground Level:	3,541.3 usft

Wellbore	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/27/2020	6.69	59.87	47,525.52821285

Design	PWP1
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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	176.59

Survey Tool Program		Date	12/11/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	22,245.4	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	40.36	2,600.0	1.3	1.1	-1.3	2.00	2.00	0.00
2,700.0	4.00	40.36	2,699.8	5.3	4.5	-5.0	2.00	2.00	0.00
2,775.0	5.50	40.36	2,774.6	10.0	8.5	-9.5	2.00	2.00	0.00
Start 7964.6 hold at 2775.0 MD									
2,800.0	5.50	40.36	2,799.5	11.9	10.1	-11.3	0.00	0.00	0.00
2,900.0	5.50	40.36	2,899.0	19.2	16.3	-18.2	0.00	0.00	0.00
3,000.0	5.50	40.36	2,998.5	26.5	22.5	-25.1	0.00	0.00	0.00
3,100.0	5.50	40.36	3,098.1	33.8	28.7	-32.0	0.00	0.00	0.00
3,200.0	5.50	40.36	3,197.6	41.1	34.9	-38.9	0.00	0.00	0.00
3,300.0	5.50	40.36	3,297.2	48.4	41.1	-45.9	0.00	0.00	0.00
3,400.0	5.50	40.36	3,396.7	55.7	47.3	-52.8	0.00	0.00	0.00
3,500.0	5.50	40.36	3,496.2	63.0	53.5	-59.7	0.00	0.00	0.00
3,600.0	5.50	40.36	3,595.8	70.3	59.8	-66.6	0.00	0.00	0.00
3,700.0	5.50	40.36	3,695.3	77.6	66.0	-73.5	0.00	0.00	0.00
3,800.0	5.50	40.36	3,794.9	84.9	72.2	-80.5	0.00	0.00	0.00
3,900.0	5.50	40.36	3,894.4	92.2	78.4	-87.4	0.00	0.00	0.00
4,000.0	5.50	40.36	3,993.9	99.5	84.6	-94.3	0.00	0.00	0.00
4,100.0	5.50	40.36	4,093.5	106.8	90.8	-101.2	0.00	0.00	0.00
4,200.0	5.50	40.36	4,193.0	114.1	97.0	-108.1	0.00	0.00	0.00
4,300.0	5.50	40.36	4,292.6	121.4	103.2	-115.1	0.00	0.00	0.00
4,400.0	5.50	40.36	4,392.1	128.7	109.4	-122.0	0.00	0.00	0.00
4,500.0	5.50	40.36	4,491.6	136.0	115.6	-128.9	0.00	0.00	0.00
4,600.0	5.50	40.36	4,591.2	143.3	121.8	-135.8	0.00	0.00	0.00
4,700.0	5.50	40.36	4,690.7	150.6	128.0	-142.8	0.00	0.00	0.00
4,800.0	5.50	40.36	4,790.3	157.9	134.2	-149.7	0.00	0.00	0.00
4,900.0	5.50	40.36	4,889.8	165.2	140.4	-156.6	0.00	0.00	0.00
5,000.0	5.50	40.36	4,989.3	172.5	146.7	-163.5	0.00	0.00	0.00
5,100.0	5.50	40.36	5,088.9	179.8	152.9	-170.4	0.00	0.00	0.00
5,200.0	5.50	40.36	5,188.4	187.1	159.1	-177.4	0.00	0.00	0.00
5,300.0	5.50	40.36	5,288.0	194.5	165.3	-184.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
5,400.0	5.50	40.36	5,387.5	201.8	171.5	-191.2	0.00	0.00	0.00
5,500.0	5.50	40.36	5,487.0	209.1	177.7	-198.1	0.00	0.00	0.00
5,600.0	5.50	40.36	5,586.6	216.4	183.9	-205.0	0.00	0.00	0.00
5,700.0	5.50	40.36	5,686.1	223.7	190.1	-212.0	0.00	0.00	0.00
5,800.0	5.50	40.36	5,785.7	231.0	196.3	-218.9	0.00	0.00	0.00
5,900.0	5.50	40.36	5,885.2	238.3	202.5	-225.8	0.00	0.00	0.00
6,000.0	5.50	40.36	5,984.7	245.6	208.7	-232.7	0.00	0.00	0.00
6,100.0	5.50	40.36	6,084.3	252.9	214.9	-239.6	0.00	0.00	0.00
6,200.0	5.50	40.36	6,183.8	260.2	221.1	-246.6	0.00	0.00	0.00
6,300.0	5.50	40.36	6,283.3	267.5	227.3	-253.5	0.00	0.00	0.00
6,400.0	5.50	40.36	6,382.9	274.8	233.6	-260.4	0.00	0.00	0.00
6,500.0	5.50	40.36	6,482.4	282.1	239.8	-267.3	0.00	0.00	0.00
6,600.0	5.50	40.36	6,582.0	289.4	246.0	-274.2	0.00	0.00	0.00
6,700.0	5.50	40.36	6,681.5	296.7	252.2	-281.2	0.00	0.00	0.00
6,800.0	5.50	40.36	6,781.0	304.0	258.4	-288.1	0.00	0.00	0.00
6,900.0	5.50	40.36	6,880.6	311.3	264.6	-295.0	0.00	0.00	0.00
7,000.0	5.50	40.36	6,980.1	318.6	270.8	-301.9	0.00	0.00	0.00
7,100.0	5.50	40.36	7,079.7	325.9	277.0	-308.9	0.00	0.00	0.00
7,200.0	5.50	40.36	7,179.2	333.2	283.2	-315.8	0.00	0.00	0.00
7,300.0	5.50	40.36	7,278.7	340.5	289.4	-322.7	0.00	0.00	0.00
7,400.0	5.50	40.36	7,378.3	347.8	295.6	-329.6	0.00	0.00	0.00
7,500.0	5.50	40.36	7,477.8	355.1	301.8	-336.5	0.00	0.00	0.00
7,600.0	5.50	40.36	7,577.4	362.4	308.0	-343.5	0.00	0.00	0.00
7,700.0	5.50	40.36	7,676.9	369.7	314.2	-350.4	0.00	0.00	0.00
7,800.0	5.50	40.36	7,776.4	377.0	320.5	-357.3	0.00	0.00	0.00
7,900.0	5.50	40.36	7,876.0	384.3	326.7	-364.2	0.00	0.00	0.00
8,000.0	5.50	40.36	7,975.5	391.6	332.9	-371.1	0.00	0.00	0.00
8,100.0	5.50	40.36	8,075.1	398.9	339.1	-378.1	0.00	0.00	0.00
8,200.0	5.50	40.36	8,174.6	406.2	345.3	-385.0	0.00	0.00	0.00
8,300.0	5.50	40.36	8,274.1	413.5	351.5	-391.9	0.00	0.00	0.00
8,400.0	5.50	40.36	8,373.7	420.8	357.7	-398.8	0.00	0.00	0.00
8,500.0	5.50	40.36	8,473.2	428.2	363.9	-405.7	0.00	0.00	0.00
8,600.0	5.50	40.36	8,572.8	435.5	370.1	-412.7	0.00	0.00	0.00
8,700.0	5.50	40.36	8,672.3	442.8	376.3	-419.6	0.00	0.00	0.00
8,800.0	5.50	40.36	8,771.8	450.1	382.5	-426.5	0.00	0.00	0.00
8,900.0	5.50	40.36	8,871.4	457.4	388.7	-433.4	0.00	0.00	0.00
9,000.0	5.50	40.36	8,970.9	464.7	394.9	-440.4	0.00	0.00	0.00
9,100.0	5.50	40.36	9,070.5	472.0	401.1	-447.3	0.00	0.00	0.00
9,200.0	5.50	40.36	9,170.0	479.3	407.4	-454.2	0.00	0.00	0.00
9,300.0	5.50	40.36	9,269.5	486.6	413.6	-461.1	0.00	0.00	0.00
9,400.0	5.50	40.36	9,369.1	493.9	419.8	-468.0	0.00	0.00	0.00
9,500.0	5.50	40.36	9,468.6	501.2	426.0	-475.0	0.00	0.00	0.00
9,600.0	5.50	40.36	9,568.2	508.5	432.2	-481.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)	
9,700.0	5.50	40.36	9,667.7	515.8	438.4	-488.8	0.00	0.00	0.00	
9,800.0	5.50	40.36	9,767.2	523.1	444.6	-495.7	0.00	0.00	0.00	
9,900.0	5.50	40.36	9,866.8	530.4	450.8	-502.6	0.00	0.00	0.00	
10,000.0	5.50	40.36	9,966.3	537.7	457.0	-509.6	0.00	0.00	0.00	
10,100.0	5.50	40.36	10,065.9	545.0	463.2	-516.5	0.00	0.00	0.00	
10,200.0	5.50	40.36	10,165.4	552.3	469.4	-523.4	0.00	0.00	0.00	
10,300.0	5.50	40.36	10,264.9	559.6	475.6	-530.3	0.00	0.00	0.00	
10,400.0	5.50	40.36	10,364.5	566.9	481.8	-537.2	0.00	0.00	0.00	
10,500.0	5.50	40.36	10,464.0	574.2	488.0	-544.2	0.00	0.00	0.00	
10,600.0	5.50	40.36	10,563.6	581.5	494.3	-551.1	0.00	0.00	0.00	
10,700.0	5.50	40.36	10,663.1	588.8	500.5	-558.0	0.00	0.00	0.00	
10,739.6	5.50	40.36	10,702.5	591.7	502.9	-560.7	0.00	0.00	0.00	
Start Drop -1.00										
10,800.0	4.90	40.36	10,762.7	595.9	506.5	-564.7	1.00	-1.00	0.00	
10,900.0	3.90	40.36	10,862.4	601.7	511.4	-570.2	1.00	-1.00	0.00	
11,000.0	2.90	40.36	10,962.2	606.2	515.3	-574.5	1.00	-1.00	0.00	
11,100.0	1.90	40.36	11,062.1	609.4	518.0	-577.5	1.00	-1.00	0.00	
11,200.0	0.90	40.36	11,162.1	611.3	519.5	-579.3	1.00	-1.00	0.00	
11,289.6	0.00	0.00	11,251.7	611.8	520.0	-579.8	1.00	-1.00	0.00	
Start 274.8 hold at 11289.6 MD										
11,300.0	0.00	0.00	11,262.1	611.8	520.0	-579.8	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,362.1	611.8	520.0	-579.8	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,462.1	611.8	520.0	-579.8	0.00	0.00	0.00	
11,564.4	0.00	0.00	11,526.5	611.8	520.0	-579.8	0.00	0.00	0.00	
Start DLS 12.00 TFO 179.65										
11,600.0	4.27	179.65	11,562.0	610.5	520.0	-578.5	12.00	12.00	0.00	
11,700.0	16.27	179.65	11,660.3	592.7	520.1	-560.7	12.00	12.00	0.00	
11,800.0	28.27	179.65	11,752.6	554.9	520.3	-522.9	12.00	12.00	0.00	
11,900.0	40.27	179.65	11,835.1	498.7	520.7	-466.8	12.00	12.00	0.00	
12,000.0	52.27	179.65	11,904.1	426.5	521.1	-394.8	12.00	12.00	0.00	
12,100.0	64.27	179.65	11,956.6	341.6	521.7	-310.0	12.00	12.00	0.00	
12,200.0	76.27	179.65	11,990.3	247.7	522.2	-216.2	12.00	12.00	0.00	
12,300.0	88.27	179.65	12,003.7	148.8	522.8	-117.4	12.00	12.00	0.00	
12,314.9	90.06	179.65	12,004.0	133.9	522.9	-102.5	12.00	12.00	0.00	
Start 9930.5 hold at 12314.9 MD										
12,400.0	90.06	179.65	12,003.9	48.8	523.5	-17.6	0.00	0.00	0.00	
12,500.0	90.06	179.65	12,003.8	-51.2	524.1	82.3	0.00	0.00	0.00	
12,600.0	90.06	179.65	12,003.7	-151.2	524.7	182.1	0.00	0.00	0.00	
12,700.0	90.06	179.65	12,003.6	-251.2	525.3	282.0	0.00	0.00	0.00	
12,800.0	90.06	179.65	12,003.5	-351.2	525.9	381.9	0.00	0.00	0.00	
12,900.0	90.06	179.65	12,003.4	-451.2	526.5	481.7	0.00	0.00	0.00	
13,000.0	90.06	179.65	12,003.3	-551.2	527.1	581.6	0.00	0.00	0.00	
13,100.0	90.06	179.65	12,003.2	-651.2	527.7	681.4	0.00	0.00	0.00	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
13,200.0	90.06	179.65	12,003.1	-751.2	528.4	781.3	0.00	0.00	0.00
13,300.0	90.06	179.65	12,003.0	-851.2	529.0	881.2	0.00	0.00	0.00
13,400.0	90.06	179.65	12,002.9	-951.2	529.6	981.0	0.00	0.00	0.00
13,500.0	90.06	179.65	12,002.8	-1,051.2	530.2	1,080.9	0.00	0.00	0.00
13,600.0	90.06	179.65	12,002.7	-1,151.2	530.8	1,180.7	0.00	0.00	0.00
13,700.0	90.06	179.65	12,002.6	-1,251.2	531.4	1,280.6	0.00	0.00	0.00
13,800.0	90.06	179.65	12,002.5	-1,351.2	532.0	1,380.4	0.00	0.00	0.00
13,900.0	90.06	179.65	12,002.4	-1,451.2	532.6	1,480.3	0.00	0.00	0.00
14,000.0	90.06	179.65	12,002.3	-1,551.2	533.3	1,580.2	0.00	0.00	0.00
14,100.0	90.06	179.65	12,002.2	-1,651.2	533.9	1,680.0	0.00	0.00	0.00
14,200.0	90.06	179.65	12,002.1	-1,751.2	534.5	1,779.9	0.00	0.00	0.00
14,300.0	90.06	179.65	12,002.0	-1,851.2	535.1	1,879.7	0.00	0.00	0.00
14,400.0	90.06	179.65	12,001.9	-1,951.2	535.7	1,979.6	0.00	0.00	0.00
14,500.0	90.06	179.65	12,001.8	-2,051.2	536.3	2,079.4	0.00	0.00	0.00
14,600.0	90.06	179.65	12,001.7	-2,151.2	536.9	2,179.3	0.00	0.00	0.00
14,700.0	90.06	179.65	12,001.6	-2,251.2	537.5	2,279.2	0.00	0.00	0.00
14,800.0	90.06	179.65	12,001.5	-2,351.2	538.2	2,379.0	0.00	0.00	0.00
14,900.0	90.06	179.65	12,001.4	-2,451.2	538.8	2,478.9	0.00	0.00	0.00
15,000.0	90.06	179.65	12,001.3	-2,551.2	539.4	2,578.7	0.00	0.00	0.00
15,100.0	90.06	179.65	12,001.2	-2,651.2	540.0	2,678.6	0.00	0.00	0.00
15,200.0	90.06	179.65	12,001.1	-2,751.2	540.6	2,778.4	0.00	0.00	0.00
15,300.0	90.06	179.65	12,001.0	-2,851.2	541.2	2,878.3	0.00	0.00	0.00
15,400.0	90.06	179.65	12,000.9	-2,951.2	541.8	2,978.2	0.00	0.00	0.00
15,500.0	90.06	179.65	12,000.8	-3,051.1	542.5	3,078.0	0.00	0.00	0.00
15,600.0	90.06	179.65	12,000.7	-3,151.1	543.1	3,177.9	0.00	0.00	0.00
15,700.0	90.06	179.65	12,000.6	-3,251.1	543.7	3,277.7	0.00	0.00	0.00
15,800.0	90.06	179.65	12,000.5	-3,351.1	544.3	3,377.6	0.00	0.00	0.00
15,900.0	90.06	179.65	12,000.4	-3,451.1	544.9	3,477.4	0.00	0.00	0.00
16,000.0	90.06	179.65	12,000.3	-3,551.1	545.5	3,577.3	0.00	0.00	0.00
16,100.0	90.06	179.65	12,000.2	-3,651.1	546.1	3,677.2	0.00	0.00	0.00
16,200.0	90.06	179.65	12,000.1	-3,751.1	546.7	3,777.0	0.00	0.00	0.00
16,300.0	90.06	179.65	12,000.0	-3,851.1	547.4	3,876.9	0.00	0.00	0.00
16,400.0	90.06	179.65	11,999.9	-3,951.1	548.0	3,976.7	0.00	0.00	0.00
16,500.0	90.06	179.65	11,999.8	-4,051.1	548.6	4,076.6	0.00	0.00	0.00
16,600.0	90.06	179.65	11,999.7	-4,151.1	549.2	4,176.4	0.00	0.00	0.00
16,700.0	90.06	179.65	11,999.6	-4,251.1	549.8	4,276.3	0.00	0.00	0.00
16,800.0	90.06	179.65	11,999.5	-4,351.1	550.4	4,376.2	0.00	0.00	0.00
16,900.0	90.06	179.65	11,999.4	-4,451.1	551.0	4,476.0	0.00	0.00	0.00
17,000.0	90.06	179.65	11,999.3	-4,551.1	551.6	4,575.9	0.00	0.00	0.00
17,100.0	90.06	179.65	11,999.2	-4,651.1	552.3	4,675.7	0.00	0.00	0.00
17,200.0	90.06	179.65	11,999.1	-4,751.1	552.9	4,775.6	0.00	0.00	0.00
17,300.0	90.06	179.65	11,999.0	-4,851.1	553.5	4,875.4	0.00	0.00	0.00
17,400.0	90.06	179.65	11,998.9	-4,951.1	554.1	4,975.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
17,500.0	90.06	179.65	11,998.8	-5,051.1	554.7	5,075.2	0.00	0.00	0.00
17,600.0	90.06	179.65	11,998.7	-5,151.1	555.3	5,175.0	0.00	0.00	0.00
17,700.0	90.06	179.65	11,998.6	-5,251.1	555.9	5,274.9	0.00	0.00	0.00
17,800.0	90.06	179.65	11,998.5	-5,351.1	556.6	5,374.7	0.00	0.00	0.00
17,900.0	90.06	179.65	11,998.4	-5,451.1	557.2	5,474.6	0.00	0.00	0.00
18,000.0	90.06	179.65	11,998.3	-5,551.1	557.8	5,574.5	0.00	0.00	0.00
18,100.0	90.06	179.65	11,998.2	-5,651.1	558.4	5,674.3	0.00	0.00	0.00
18,200.0	90.06	179.65	11,998.1	-5,751.1	559.0	5,774.2	0.00	0.00	0.00
18,300.0	90.06	179.65	11,998.0	-5,851.1	559.6	5,874.0	0.00	0.00	0.00
18,400.0	90.06	179.65	11,997.9	-5,951.1	560.2	5,973.9	0.00	0.00	0.00
18,500.0	90.06	179.65	11,997.8	-6,051.1	560.8	6,073.7	0.00	0.00	0.00
18,600.0	90.06	179.65	11,997.7	-6,151.1	561.5	6,173.6	0.00	0.00	0.00
18,700.0	90.06	179.65	11,997.6	-6,251.1	562.1	6,273.5	0.00	0.00	0.00
18,800.0	90.06	179.65	11,997.5	-6,351.1	562.7	6,373.3	0.00	0.00	0.00
18,900.0	90.06	179.65	11,997.4	-6,451.1	563.3	6,473.2	0.00	0.00	0.00
19,000.0	90.06	179.65	11,997.3	-6,551.1	563.9	6,573.0	0.00	0.00	0.00
19,100.0	90.06	179.65	11,997.2	-6,651.1	564.5	6,672.9	0.00	0.00	0.00
19,200.0	90.06	179.65	11,997.1	-6,751.1	565.1	6,772.7	0.00	0.00	0.00
19,300.0	90.06	179.65	11,997.0	-6,851.1	565.7	6,872.6	0.00	0.00	0.00
19,400.0	90.06	179.65	11,996.9	-6,951.1	566.4	6,972.5	0.00	0.00	0.00
19,500.0	90.06	179.65	11,996.8	-7,051.1	567.0	7,072.3	0.00	0.00	0.00
19,600.0	90.06	179.65	11,996.7	-7,151.1	567.6	7,172.2	0.00	0.00	0.00
19,700.0	90.06	179.65	11,996.6	-7,251.1	568.2	7,272.0	0.00	0.00	0.00
19,800.0	90.06	179.65	11,996.5	-7,351.1	568.8	7,371.9	0.00	0.00	0.00
19,900.0	90.06	179.65	11,996.4	-7,451.1	569.4	7,471.7	0.00	0.00	0.00
20,000.0	90.06	179.65	11,996.3	-7,551.1	570.0	7,571.6	0.00	0.00	0.00
20,100.0	90.06	179.65	11,996.2	-7,651.1	570.6	7,671.5	0.00	0.00	0.00
20,200.0	90.06	179.65	11,996.1	-7,751.1	571.3	7,771.3	0.00	0.00	0.00
20,300.0	90.06	179.65	11,996.0	-7,851.1	571.9	7,871.2	0.00	0.00	0.00
20,400.0	90.06	179.65	11,995.9	-7,951.1	572.5	7,971.0	0.00	0.00	0.00
20,500.0	90.06	179.65	11,995.8	-8,051.1	573.1	8,070.9	0.00	0.00	0.00
20,600.0	90.06	179.65	11,995.7	-8,151.1	573.7	8,170.7	0.00	0.00	0.00
20,700.0	90.06	179.65	11,995.6	-8,251.0	574.3	8,270.6	0.00	0.00	0.00
20,800.0	90.06	179.65	11,995.5	-8,351.0	574.9	8,370.5	0.00	0.00	0.00
20,900.0	90.06	179.65	11,995.3	-8,451.0	575.6	8,470.3	0.00	0.00	0.00
21,000.0	90.06	179.65	11,995.2	-8,551.0	576.2	8,570.2	0.00	0.00	0.00
21,100.0	90.06	179.65	11,995.1	-8,651.0	576.8	8,670.0	0.00	0.00	0.00
21,200.0	90.06	179.65	11,995.0	-8,751.0	577.4	8,769.9	0.00	0.00	0.00
21,300.0	90.06	179.65	11,994.9	-8,851.0	578.0	8,869.7	0.00	0.00	0.00
21,400.0	90.06	179.65	11,994.8	-8,951.0	578.6	8,969.6	0.00	0.00	0.00
21,500.0	90.06	179.65	11,994.7	-9,051.0	579.2	9,069.5	0.00	0.00	0.00
21,600.0	90.06	179.65	11,994.6	-9,151.0	579.8	9,169.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well WINDWARD FED #705H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Site:	WINDWARD FEDERAL PROJECT (BULLDOG 2432)	MD Reference:	KB=26' @ 3567.0usft (MCVAY 8)
Well:	WINDWARD FED #705H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
21,700.0	90.06	179.65	11,994.5	-9,251.0	580.5	9,269.2	0.00	0.00	0.00
21,800.0	90.06	179.65	11,994.4	-9,351.0	581.1	9,369.0	0.00	0.00	0.00
21,900.0	90.06	179.65	11,994.3	-9,451.0	581.7	9,468.9	0.00	0.00	0.00
22,000.0	90.06	179.65	11,994.2	-9,551.0	582.3	9,568.7	0.00	0.00	0.00
22,100.0	90.06	179.65	11,994.1	-9,651.0	582.9	9,668.6	0.00	0.00	0.00
22,200.0	90.06	179.65	11,994.0	-9,751.0	583.5	9,768.5	0.00	0.00	0.00
22,245.4	90.06	179.65	11,994.0	-9,796.4	583.8	9,813.8	0.00	0.00	0.00
TD at 22245.4									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (WINDWARD F - plan hits target center - Rectangle (sides W100.0 H10,460.0 D20.0)	0.06	359.65	11,994.0	-9,796.4	583.8	424,870.40	690,274.40	32° 9' 59.729 N	103° 43' 6.331 W
LTP (WINDWARD FE - plan misses target center by 0.1usft at 22195.4usft MD (11994.1 TVD, -9746.4 N, 583.5 E) - Point	0.00	0.00	11,994.0	-9,746.4	583.5	424,920.40	690,274.10	32° 10' 0.224 N	103° 43' 6.331 W
FTP (WINDWARD FE - plan misses target center by 199.2usft at 11933.7usft MD (11860.0 TVD, 476.0 N, 520.8 E) - Circle (radius 50.0)	0.00	0.00	12,004.0	613.7	520.3	435,280.50	690,210.90	32° 11' 42.749 N	103° 43' 6.377 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2500	2500	0	0	Start Build 2.00
2775	2775	10	9	Start 7964.6 hold at 2775.0 MD
10,740	10,703	592	503	Start Drop -1.00
11,290	11,252	612	520	Start 274.8 hold at 11289.6 MD
11,564	11,526	612	520	Start DLS 12.00 TFO 179.65
12,315	12,004	134	523	Start 9930.5 hold at 12314.9 MD
22,245	11,994	-9796	584	TD at 22245.4

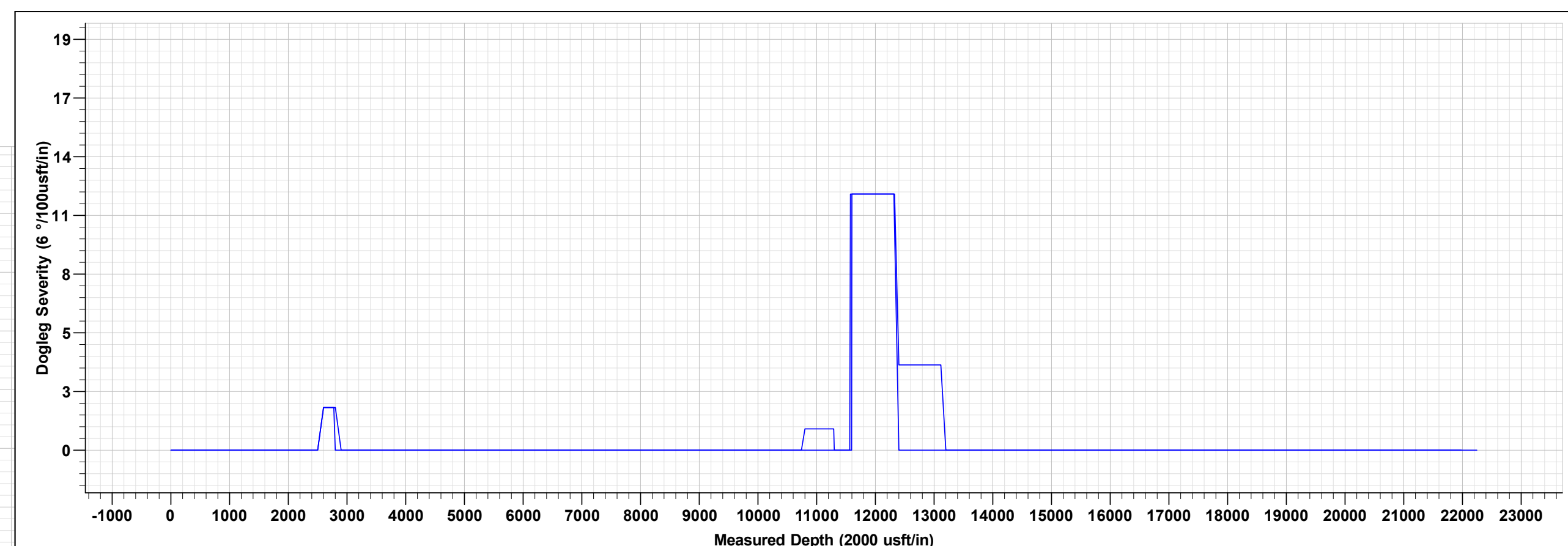
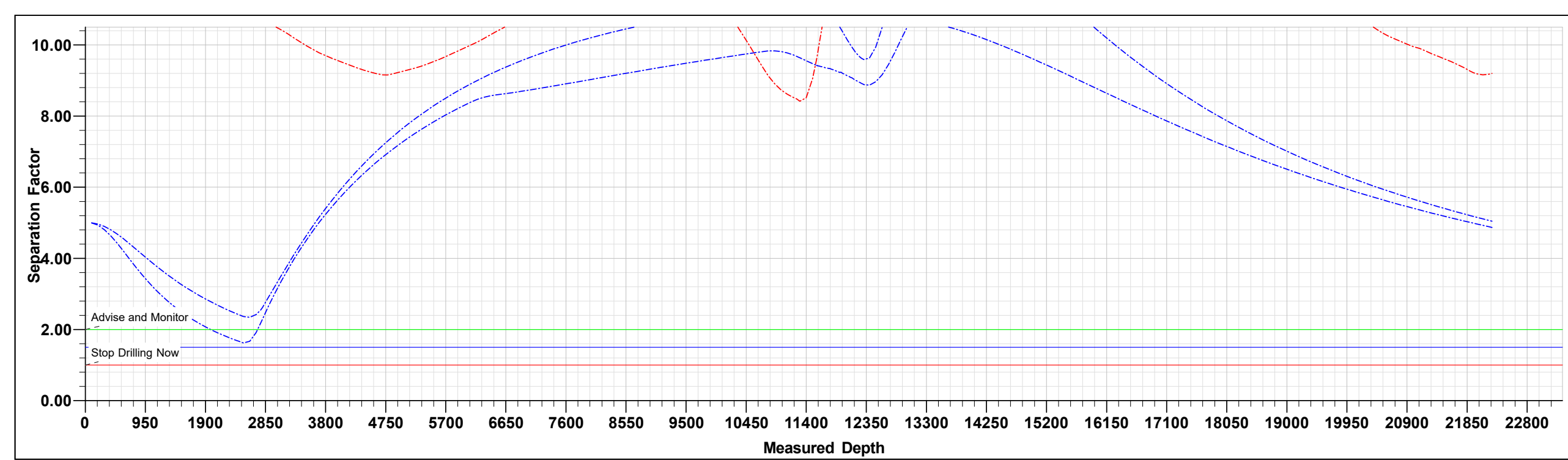
Checked By: _____ Approved By: _____ Date: _____



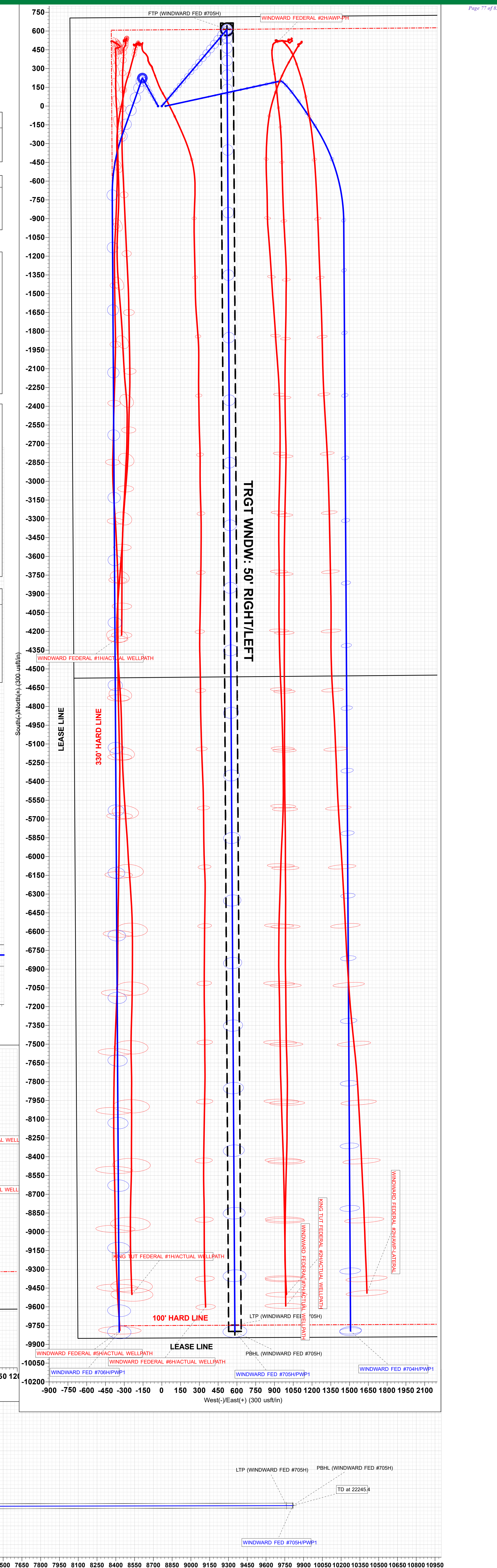
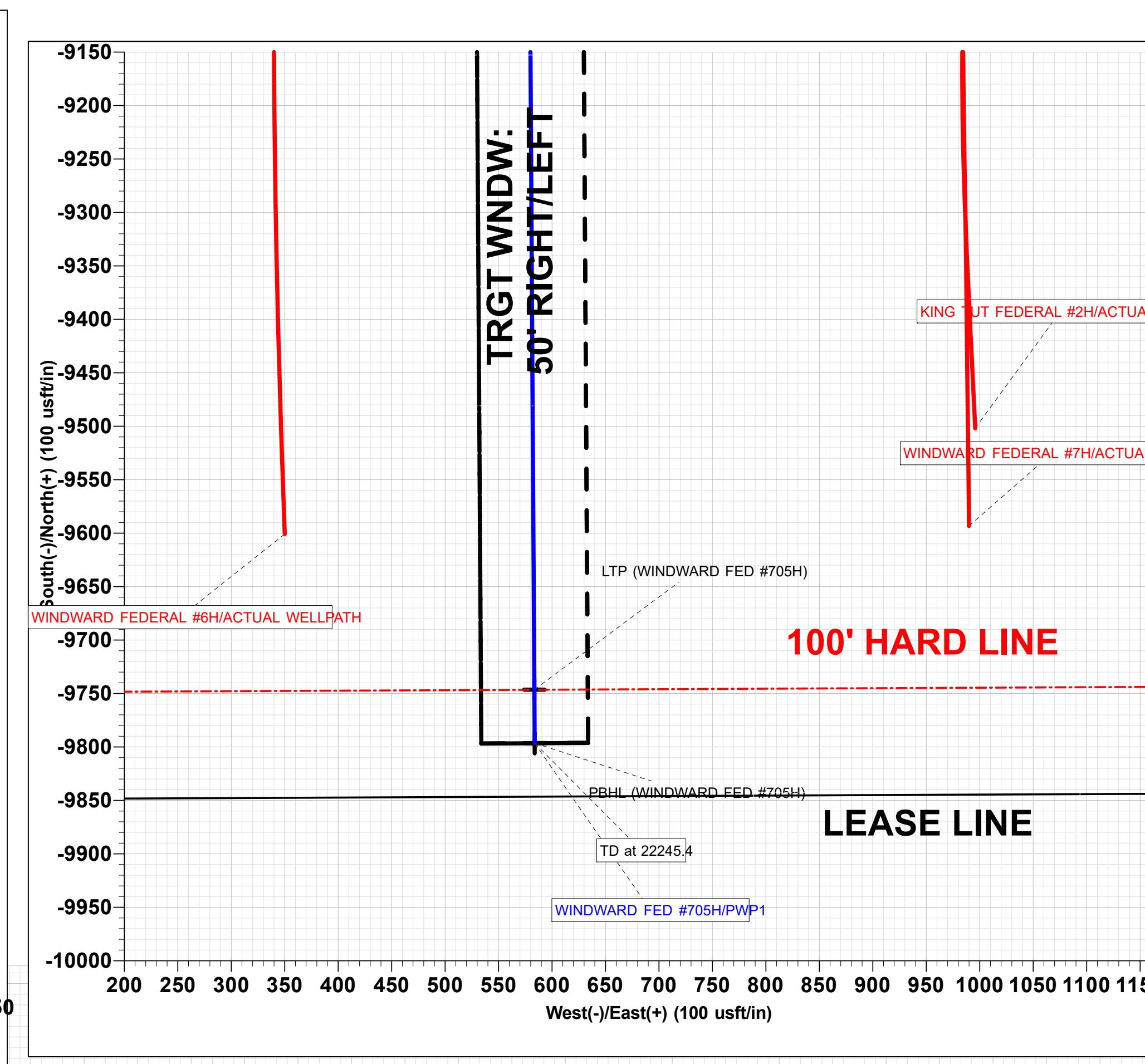
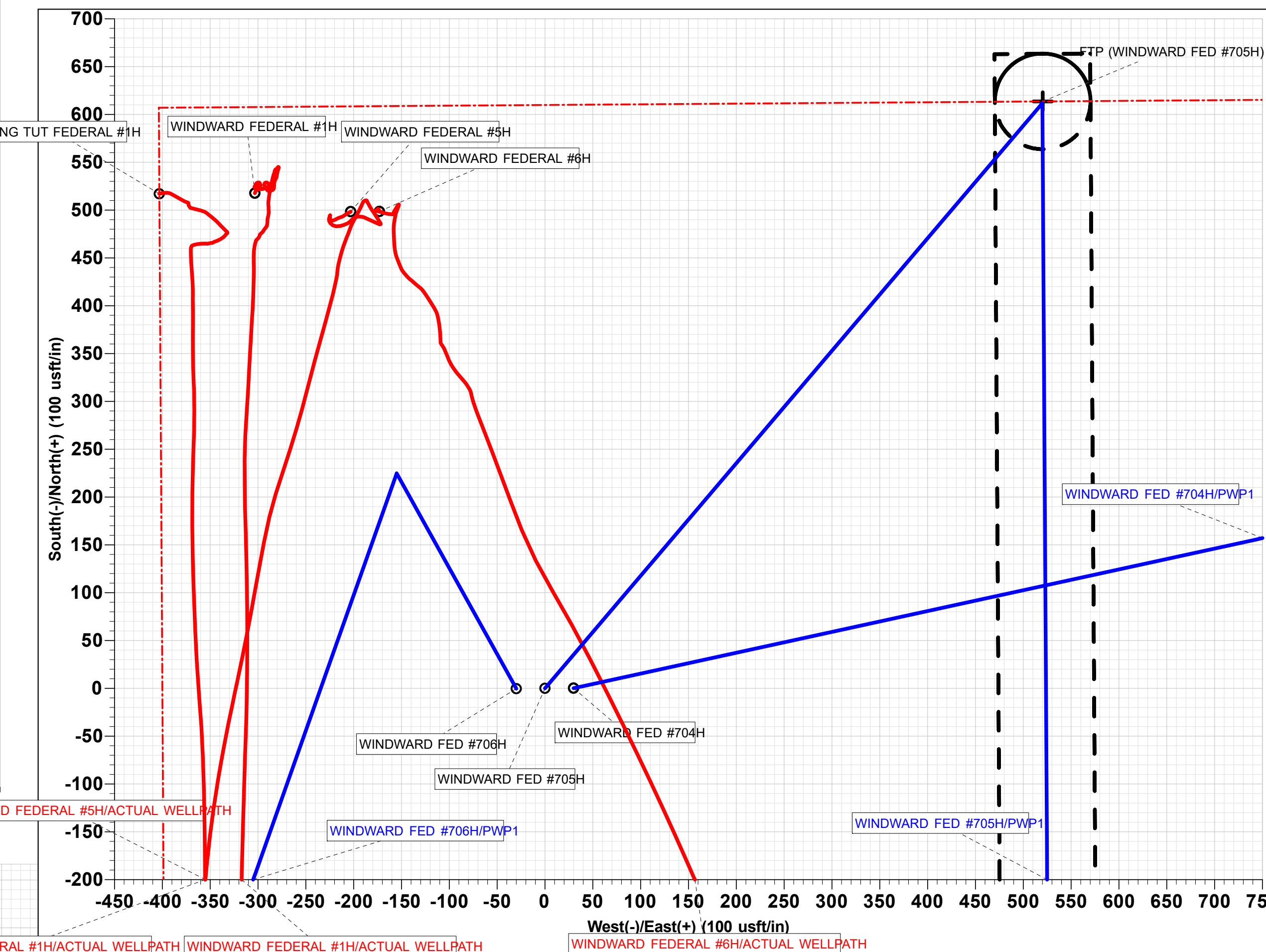
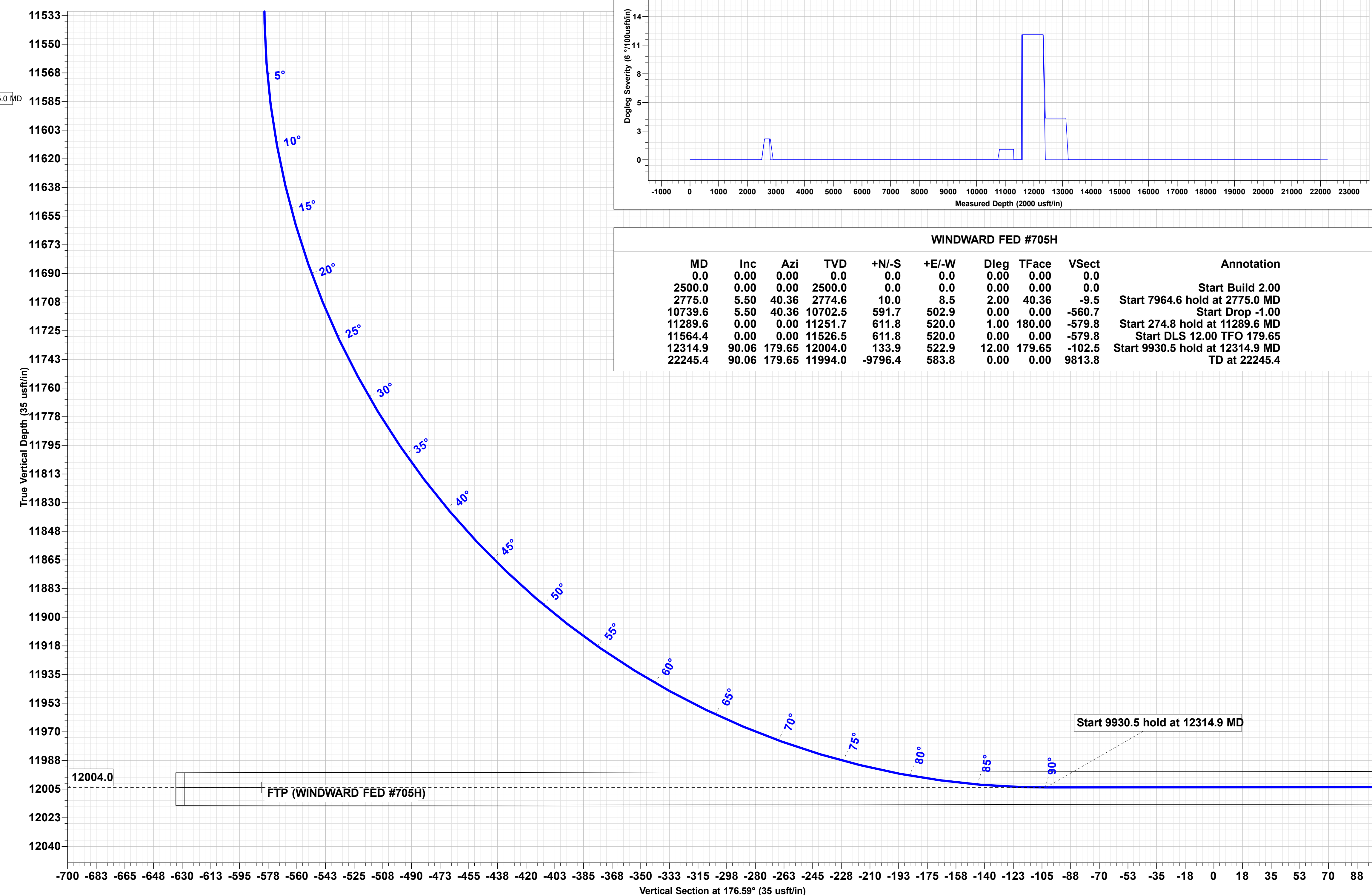
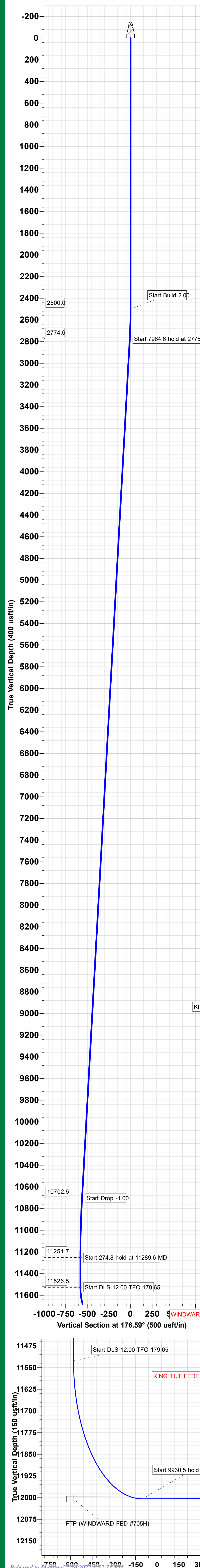
Project: BULLDOG PROSPECT (NM-E)
Site: WINDWARD FEDERAL PROJECT (BULLDOG 2432)
Well: WINDWARD FED #705H
Wellbore: OWB
Design: PWP1
GL: 3541.3
KB=26' @ 3567.0usft (MCVAY 8)

WELL DETAILS: WINDWARD FED #705H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	434666.80	689690.60	32° 11' 36.706 N	103° 43' 12.473 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
LTP (WINDWARD FED #705H)	11994.0	-9746.4	583.5	424920.40	690274.10	32° 10' 0.224 N
PBHL (WINDWARD FED #705H)	11994.0	-9796.4	583.8	424870.40	690274.40	32° 9' 59.729 N
FTP (WINDWARD FED #705H)	12004.0	613.7	520.3	435280.50	690210.30	32° 11' 42.749 N



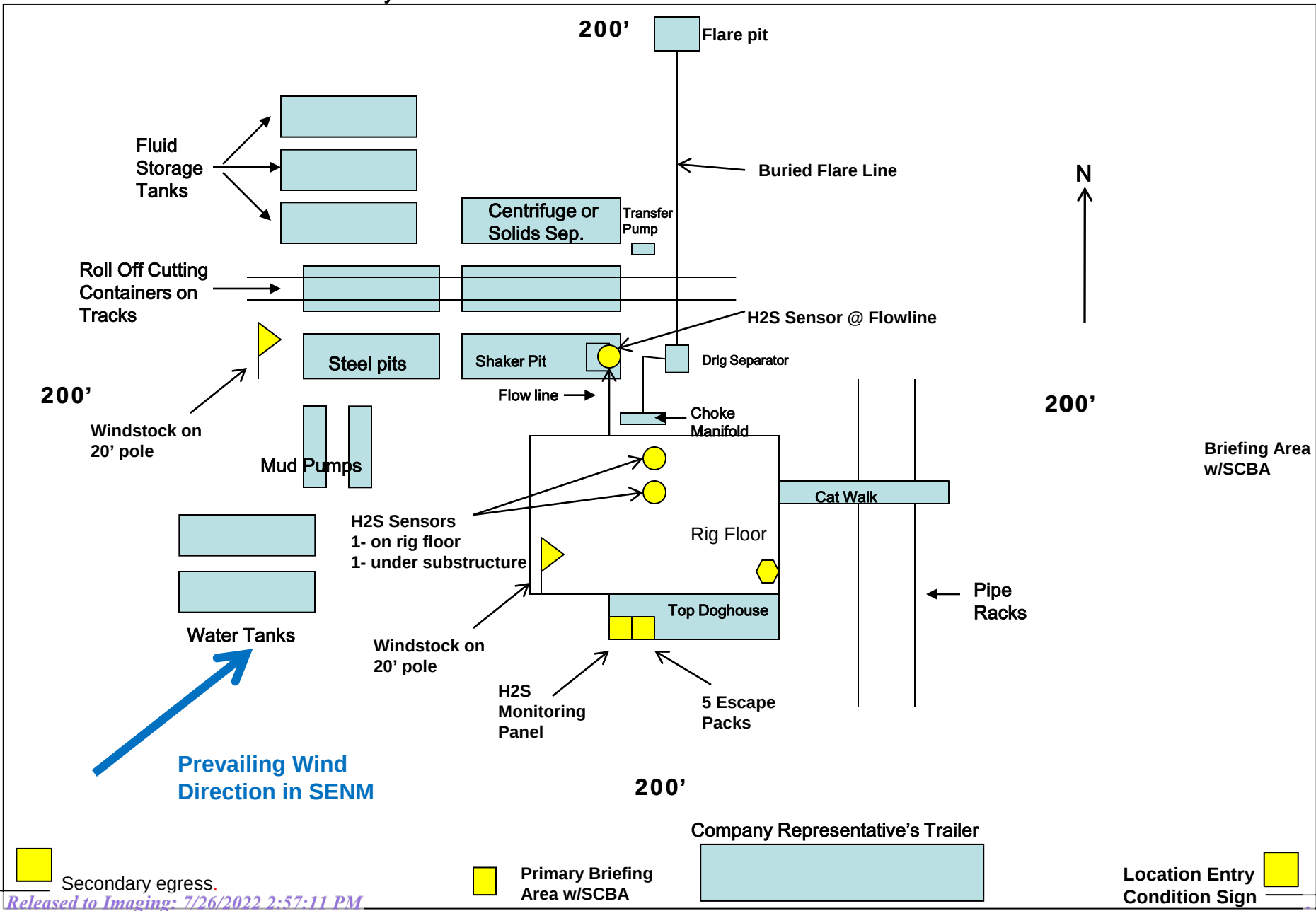
WINDWARD FED #705H										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start 7964.6 hold at 2775.0 MD	
2775.0	5.50	40.36	2774.6	10.0	8.5	2.00	40.36	-9.5	Start Drop -1.00	
10739.6	5.50	40.36	10702.5	591.7	502.9	0.00	0.00	-560.7	Start 274.8 hold at 11289.6 MD	
11289.6	0.00	0.00	11251.7	611.8	520.0	1.00	180.00	-579.8	Start DLS 12.00 TFO 179.65	
11564.4	0.00	0.00	11526.5	611.8	520.0	0.00	0.00	-579.8	Start 9930.5 hold at 12314.9 MD	
12314.9	90.06	179.65	12004.0	133.9	522.9	12.00	179.65	-102.5	TD at 22245.4	
22245.4	90.06	179.65	11994.0	-9796.4	583.8	0.00	0.00	9813.8		



TRGT WNDW: 10' ABOVE/BELOW

COG Operating LLC
H₂S Equipment Schematic
Terrain: Shinnery sand hills.

Well pad will be 400' x 400'
with cellar in center of pad



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	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

EMERGENCY RESPONSE NUMBERS

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

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 120026

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 120026
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/26/2022
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	7/26/2022
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	7/26/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	7/26/2022