

COG Production, LLC - Bedlington Federal Com #301H

1. Geologic Formations

TVD of target	9,661' EOL	Pilot hole depth	NA
MD at TD:	19,723'	Deepest expected fresh water:	585'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1192	Water	
Top of Salt	1536	Salt	
Base of Salt	4693	Salt	
Lamar	4918	Salt Water	
Bell Canyon	4983	Salt Water	
Cherry Canyon	5811	Oil/Gas	
Brushy Canyon	7181	Oil/Gas	
U. Avalon Shale	8721	Oil/Gas	
M. Avalon Shale	9113	Oil/Gas	
L. Avalon Shale	9505	Not Penetrated	
Basal Avalon	X	Not Penetrated	
1st Bone Spring Sand	9908	Not Penetrated	
2nd Bone Spring Sand	X	Not Penetrated	
3rd Bone Spring Sand	X	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1220	13.375"	54.5	J55	STC	2.02	1.25	7.73
12.25"	0	4000	9.625"	40	J55	LTC	1.22	1.07	3.25
12.25"	4000	4950	9.625"	40	L80	LTC	1.19	1.55	5.73
8.75"	0	19,723	5.5"	17	P110	LTC	1.60	2.87	2.71
BLM Minimum Safety Factor							1.125	1	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 Production, LLC - Bedlington Federal Com #301H

	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 Production, LLC - Bedlington Federal Com #301H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	540	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter.	930	12.7	2.0	9.6	16	Lead: 35:65:6 C Blend
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl
5.5 Prod	660	11.9	2.5	19	72	Lead: 50:50:10 H Blend
	2690	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	4,450'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical

COG Production, LLC - Bedlington Federal Com #301H

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:
12-1/4"	13-5/8"	2M	Annular	x	2000 psi
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other*		

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

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

X	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?
N	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 Production, LLC - Bedlington Federal Com #301H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Saturated Brine	10 - 10.1	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 - 9.3	28-34	N/C

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

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

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

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

COG Production, LLC - Bedlington Federal Com #301H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4675 psi at 9661' TVD
Abnormal Temperature	NO 155 Deg. F.

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

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

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

N H₂S is present

Y H₂S Plan attached

8. Other Facets of Operation

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

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

Intent ☒ As Drilled ☐

API #

30-025-

Operator Name:

COG Operating LLC

Property Name:

Bedlington Federal Com

Well Number

301H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	35	23S	32E						Lea
Latitude					Longitude				NAD
									83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	35	23S	32E		100	South	330	West	Lea
Latitude					Longitude				NAD
32.25414239					-103.65289693				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	26	23S	32E		100	North	330	West	Lea
Latitude					Longitude				NAD
32.28262744					-103.65288894				NAD 83

Is this well the defining well for the Horizontal Spacing Unit?

☐ NO

Is this well an infill well?

☐ Yes

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:

Bedlington Federal Com

Well Number

702H

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 6/29/20

☒ Original Operator & OGRID No.: COG Operating LLC, (229137)
☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Bedlington Federal Com 301H	30-025-30-025-48409	N-35-23S-32E	425' FSL & 1535' FWL	±4000	None Planned	APD Submission Plan Subject to change
Bedlington Federal Com 302H	30-025-	N-35-23S-32E	425' FSL & 1565' FWL	±4000	None Planned	APD Submission Plan Subject to change
Bedlington Federal Com 303H	30-025-	N-35-23S-32E	425' FSL & 1595' FWL	±4000	None Planned	APD Submission Plan Subject to change

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to **DCP Midstream** and will be connected to **Eunice** low pressure gathering system located in **Lea** County, New Mexico. **COG Operating LLC** provides (periodically) to **DCP Midstream** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, **COG Operating LLC** and **DCP Midstream** have periodic conference calls to discuss changes to the drilling and completion schedules. Gas from these wells will be processed at **DCP Midstream-Eunice** Processing Plant located in Sec. **5**, Twn. **21S**, Rng **36E**, **Lea** County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines

- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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COG Production, LLC - Bedlington Federal Com #301H

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5. Mud Program

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N	Coring? If yes, explain.

Additional logs planned		Interval
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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 Production, LLC - Bedlington Federal Com #301H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4675 psi at 9661' TVD
Abnormal Temperature	NO 155 Deg. F.

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

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

8. Other Facets of Operation

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

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)

BEDLINGTON FED COM 301H

OWB

PWP1

Anticollision Report

08 June, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	6/8/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	19,722.6	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)						
AVION FED #301H - OWB - ACTUAL WELLPATH	19,239.9	15,122.0	661.4	524.7	4.840	CC, ES
AVION FED #301H - OWB - ACTUAL WELLPATH	19,300.0	15,071.2	661.8	525.0	4.838	SF
AVION FEDERAL #2 - OWB - ACTUAL WELLPATH						Out of range
BEDLINGTON FED COM 201H - OWB - PWP1	2,776.8	2,804.5	259.5	245.9	19.004	CC
BEDLINGTON FED COM 201H - OWB - PWP1	2,800.0	2,827.3	259.6	245.8	18.891	ES
BEDLINGTON FED COM 201H - OWB - PWP1	19,722.6	19,237.7	421.7	246.7	2.410	SF
BEDLINGTON FED COM 202H - OWB - PWP1	2,506.7	2,509.4	290.0	277.3	22.813	CC, ES
BEDLINGTON FED COM 202H - OWB - PWP1	9,250.0	9,352.5	693.5	651.7	16.568	SF
BEDLINGTON FED COM 302H - OWB - PWP1	2,500.0	2,500.0	30.0	17.3	2.365	CC
BEDLINGTON FED COM 302H - OWB - PWP1	2,700.0	2,701.8	30.4	17.0	2.265	ES, SF
BEDLINGTON FED COM 303H - OWB - PWP1	2,500.0	2,500.0	60.0	41.5	3.248	CC, ES
BEDLINGTON FED COM 303H - OWB - PWP1	2,600.0	2,600.0	61.7	42.6	3.225	SF
BEDLINGTON FED COM 501H - OWB - PWP1	9,149.0	9,139.7	121.2	79.1	2.878	CC
BEDLINGTON FED COM 501H - OWB - PWP1	9,150.0	9,140.7	121.2	79.1	2.878	ES, SF
BEDLINGTON FED COM 502H - OWB - PWP1	2,500.0	2,499.0	206.3	187.8	11.170	CC
BEDLINGTON FED COM 502H - OWB - PWP1	3,400.0	3,390.5	211.1	186.8	8.662	ES
BEDLINGTON FED COM 502H - OWB - PWP1	8,100.0	8,083.7	307.1	249.5	5.330	SF
BEDLINGTON FED COM 503H - OWB - PWP1	2,500.0	2,499.0	201.0	187.4	14.756	CC
BEDLINGTON FED COM 503H - OWB - PWP1	2,600.0	2,597.1	201.1	187.1	14.359	ES
BEDLINGTON FED COM 503H - OWB - PWP1	3,000.0	2,991.9	207.6	192.3	13.592	SF
BEDLINGTON FED COM 701H - OWB - PWP1	2,790.6	2,806.4	266.9	252.5	18.569	CC
BEDLINGTON FED COM 701H - OWB - PWP1	4,300.0	4,315.4	271.6	250.9	13.148	ES
BEDLINGTON FED COM 701H - OWB - PWP1	9,150.0	9,164.4	309.0	265.8	7.149	SF
BEDLINGTON FED COM 702H - OWB - PWP1	2,500.0	2,500.0	289.4	276.3	21.996	CC, ES
BEDLINGTON FED COM 702H - OWB - PWP1	9,200.0	9,220.4	637.7	595.9	15.279	SF
BEDLINGTON FED COM 703H - OWB - PWP1	2,500.0	2,500.0	311.8	298.7	23.812	CC, ES
BEDLINGTON FED COM 703H - OWB - PWP1	3,700.0	3,694.5	395.6	378.0	22.495	SF
BEDLINGTON FED COM 704H - OWB - PWP1	2,500.0	2,500.0	335.4	316.9	18.154	CC, ES
BEDLINGTON FED COM 704H - OWB - PWP1	2,700.0	2,682.1	346.4	326.7	17.586	SF

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 100-Standard Keeper 104, 8911-MWD+IFR1+MS												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	
14,000.0	9,645.8	19,671.0	9,591.6	51.6	79.8	-79.01	5,044.5	-1,891.0	963.7	864.1	99.60	9.676	
14,100.0	9,645.4	19,671.0	9,591.6	52.2	79.8	-79.01	5,044.5	-1,891.0	894.3	789.1	105.16	8.504	
14,200.0	9,645.1	19,671.0	9,591.6	52.8	79.8	-79.01	5,044.5	-1,891.0	831.1	719.8	111.29	7.468	
14,300.0	9,644.7	19,671.0	9,591.6	53.5	79.8	-79.01	5,044.5	-1,891.0	775.6	657.9	117.78	6.586	
14,400.0	9,644.3	19,671.0	9,591.6	54.1	79.8	-79.01	5,044.5	-1,891.0	729.8	605.5	124.24	5.874	
14,500.0	9,643.9	19,671.0	9,591.6	54.8	79.8	-79.01	5,044.5	-1,891.0	695.4	565.3	130.07	5.346	
14,600.0	9,643.5	19,671.0	9,591.6	55.4	79.8	-79.01	5,044.5	-1,891.0	674.1	539.6	134.52	5.011	
14,695.2	9,643.2	19,671.0	9,591.6	56.1	79.8	-79.01	5,044.5	-1,891.0	667.4	530.5	136.87	4.876	
14,700.0	9,643.2	19,671.0	9,591.6	56.1	79.8	-79.01	5,044.5	-1,891.0	667.4	530.5	136.93	4.874	
14,800.0	9,642.8	19,568.4	9,594.1	56.8	79.0	-79.28	5,147.0	-1,893.0	668.2	531.4	136.80	4.884	
14,900.0	9,642.4	19,462.0	9,593.6	57.5	78.2	-79.25	5,253.4	-1,893.3	667.9	531.2	136.64	4.888	
15,000.0	9,642.0	19,364.1	9,590.2	58.1	77.4	-78.98	5,351.2	-1,892.8	667.4	530.7	136.63	4.884	
15,100.0	9,641.6	19,263.4	9,589.5	58.8	76.7	-78.96	5,451.9	-1,893.2	667.2	530.7	136.56	4.886	
15,200.0	9,641.2	19,158.8	9,593.5	59.5	75.9	-79.33	5,556.5	-1,893.8	666.4	530.0	136.40	4.885	
15,300.0	9,640.9	19,059.7	9,598.4	60.2	75.1	-79.77	5,655.4	-1,894.3	665.3	529.0	136.32	4.880	
15,400.0	9,640.5	18,961.7	9,599.0	60.9	74.4	-79.84	5,753.4	-1,894.3	664.5	528.3	136.30	4.876	
15,500.0	9,640.1	18,862.9	9,597.1	61.6	73.6	-79.70	5,852.2	-1,894.1	664.0	527.7	136.29	4.872	
15,573.4	9,639.8	18,792.4	9,595.1	62.1	73.1	-79.55	5,922.6	-1,894.0	663.8	527.5	136.32	4.869	
15,600.0	9,639.7	18,767.4	9,594.4	62.3	72.9	-79.50	5,947.7	-1,894.1	663.8	527.5	136.34	4.869	
15,700.0	9,639.3	18,672.4	9,592.1	63.0	72.2	-79.34	6,042.7	-1,894.9	664.5	528.1	136.40	4.872	
15,800.0	9,639.0	18,573.5	9,590.6	63.8	71.4	-79.26	6,141.5	-1,896.5	665.7	529.3	136.39	4.881	
15,900.0	9,638.6	18,472.9	9,586.7	64.5	70.7	-78.97	6,242.1	-1,897.6	666.8	530.4	136.39	4.889	
16,000.0	9,638.2	18,371.6	9,580.9	65.2	69.9	-78.51	6,343.2	-1,898.1	667.8	531.4	136.39	4.896	
16,100.0	9,637.8	18,250.8	9,579.4	65.9	69.0	-78.41	6,463.9	-1,897.7	666.9	530.9	136.03	4.903	
16,196.5	9,637.4	18,169.0	9,581.0	66.6	68.4	-78.55	6,545.7	-1,897.6	665.9	529.6	136.27	4.886	
16,200.0	9,637.4	18,169.0	9,581.0	66.7	68.4	-78.55	6,545.7	-1,897.6	665.9	529.6	136.27	4.886	
16,300.0	9,637.1	18,085.8	9,581.3	67.4	67.7	-78.63	6,628.9	-1,899.5	667.4	531.0	136.44	4.892	
16,400.0	9,636.7	17,985.9	9,580.4	68.1	67.0	-78.64	6,728.7	-1,903.4	670.7	534.3	136.43	4.916	
16,500.0	9,636.3	17,887.5	9,580.3	68.9	66.2	-78.72	6,827.0	-1,907.1	673.8	537.4	136.43	4.939	
16,600.0	9,635.9	17,792.3	9,581.6	69.6	65.5	-78.92	6,922.1	-1,911.6	677.4	541.0	136.45	4.965	
16,700.0	9,635.5	17,692.5	9,583.1	70.4	64.7	-79.14	7,021.7	-1,916.6	681.4	545.0	136.41	4.995	
16,800.0	9,635.1	17,570.9	9,583.2	71.1	63.8	-79.23	7,143.3	-1,920.1	683.5	547.4	136.15	5.020	
16,900.0	9,634.8	17,472.3	9,580.9	71.9	63.0	-79.09	7,241.8	-1,921.2	684.4	548.2	136.19	5.025	
17,000.0	9,634.4	17,376.9	9,576.9	72.6	62.3	-78.79	7,337.2	-1,922.5	685.8	549.5	136.29	5.032	
17,100.0	9,634.0	17,276.0	9,573.6	73.4	61.6	-78.58	7,438.0	-1,924.5	687.8	551.5	136.31	5.046	
17,200.0	9,633.6	17,157.5	9,571.2	74.1	60.7	-78.42	7,556.5	-1,925.2	688.1	552.0	136.06	5.057	
17,300.0	9,633.2	17,044.6	9,570.4	74.9	59.8	-78.35	7,669.3	-1,923.3	685.9	550.1	135.84	5.049	
17,400.0	9,632.9	16,948.4	9,573.7	75.7	59.1	-78.61	7,765.5	-1,921.8	683.0	547.1	135.90	5.026	
17,500.0	9,632.5	16,849.4	9,579.0	76.4	58.3	-79.06	7,864.3	-1,921.3	680.8	544.9	135.89	5.010	
17,600.0	9,632.1	16,747.0	9,584.1	77.2	57.6	-79.50	7,966.6	-1,920.5	678.4	542.6	135.82	4.995	
17,700.0	9,631.7	16,650.2	9,588.0	78.0	56.8	-79.83	8,063.3	-1,919.5	676.1	540.2	135.87	4.976	
17,800.0	9,631.3	16,550.7	9,589.2	78.7	56.1	-79.93	8,162.8	-1,918.3	674.0	538.1	135.90	4.960	
17,900.0	9,630.9	16,453.0	9,588.5	79.5	55.4	-79.88	8,260.5	-1,917.0	672.2	536.2	135.98	4.943	
18,000.0	9,630.6	16,354.1	9,585.3	80.3	54.6	-79.61	8,359.3	-1,915.5	670.5	534.5	136.06	4.928	
18,100.0	9,630.2	16,262.0	9,579.6	81.0	53.9	-79.13	8,451.3	-1,914.1	669.6	533.3	136.29	4.913	
18,157.6	9,630.0	16,206.3	9,575.2	81.5	53.5	-78.76	8,506.7	-1,913.5	669.4	533.1	136.39	4.908	
18,200.0	9,629.8	16,167.0	9,572.1	81.8	53.2	-78.50	8,545.9	-1,913.2	669.5	533.0	136.48	4.905	
18,300.0	9,629.4	16,067.4	9,567.4	82.6	52.5	-78.13	8,645.3	-1,913.4	670.0	533.5	136.55	4.907	
18,400.0	9,629.0	15,955.4	9,574.2	83.4	51.6	-78.76	8,757.0	-1,914.9	669.4	533.1	136.32	4.910	
18,500.0	9,628.7	15,860.4	9,582.9	84.2	50.9	-79.54	8,851.7	-1,916.5	668.6	532.3	136.36	4.903	
18,600.0	9,628.3	15,762.3	9,590.6	85.0	50.2	-80.24	8,949.5	-1,918.4	668.5	532.2	136.35	4.903	

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

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Page 3

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - AVION FED #301H - OWB - ACTUAL WELLP													Offset Site Error:	3.0 usft
Survey Program: 100-Standard Keeper 104, 8911-MWD+IFR1+MS													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 (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,700.0	9,627.9	15,659.3	9,596.6	85.7	49.4	-80.78		9,052.3	-1,919.9	668.3	532.0	136.29	4.904	
18,800.0	9,627.5	15,556.8	9,599.5	86.5	48.7	-81.07		9,154.7	-1,920.3	667.6	531.3	136.25	4.900	
18,900.0	9,627.1	15,457.8	9,598.0	87.3	47.9	-80.95		9,253.6	-1,919.9	666.8	530.5	136.34	4.891	
19,000.0	9,626.8	15,352.6	9,592.6	88.1	47.1	-80.51		9,358.7	-1,919.0	666.1	529.7	136.36	4.885	
19,100.0	9,626.4	15,243.5	9,587.4	88.9	46.3	-80.06		9,467.6	-1,916.4	663.8	527.6	136.28	4.871	
19,200.0	9,626.0	15,154.9	9,584.7	89.7	45.6	-79.82		9,556.2	-1,914.4	661.6	525.1	136.53	4.846	
19,239.9	9,625.8	15,122.0	9,584.7	90.0	45.4	-79.83		9,589.1	-1,914.5	661.4	524.7	136.64	4.840 CC, ES	
19,300.0	9,625.6	15,071.2	9,585.8	90.5	45.0	-79.94		9,639.9	-1,915.4	661.8	525.0	136.78	4.838 SF	
19,400.0	9,625.2	14,972.8	9,591.0	91.3	44.2	-80.46		9,738.1	-1,919.0	663.9	527.1	136.78	4.854	
19,500.0	9,624.8	14,872.8	9,598.3	92.1	43.5	-81.15		9,837.8	-1,922.2	665.2	528.5	136.75	4.865	
19,600.0	9,624.5	14,781.5	9,602.1	92.9	42.8	-81.54		9,928.9	-1,925.6	667.6	530.7	136.84	4.879	
19,700.0	9,624.1	14,690.9	9,602.6	93.7	42.1	-81.66		10,019.4	-1,929.7	671.3	534.4	136.94	4.902	
19,722.6	9,624.0	14,670.5	9,602.3	93.9	41.9	-81.65		10,039.8	-1,930.7	672.4	535.4	136.97	4.909	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 201H - OWB - PWP											Offset Site Error:		3.0 usft
Survey Program:		0-Standard Keeper 104, 9001-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	2.0	2.0	3.0	3.0	89.47	2.4	260.0	260.0						
100.0	100.0	102.0	102.0	3.0	3.0	89.47	2.4	260.0	260.0	254.0	6.00	43.313			
200.0	200.0	202.0	202.0	3.0	3.0	89.47	2.4	260.0	260.0	254.0	6.04	43.038			
300.0	300.0	302.0	302.0	3.1	3.0	89.47	2.4	260.0	260.0	253.9	6.12	42.467			
400.0	400.0	402.0	402.0	3.2	3.0	89.47	2.4	260.0	260.0	253.8	6.24	41.646			
500.0	500.0	502.0	502.0	3.4	3.1	89.47	2.4	260.0	260.0	253.6	6.40	40.627			
600.0	600.0	602.0	602.0	3.6	3.1	89.47	2.4	260.0	260.0	253.4	6.59	39.467			
700.0	700.0	702.0	702.0	3.8	3.1	89.47	2.4	260.0	260.0	253.2	6.80	38.219			
800.0	800.0	802.0	802.0	4.0	3.2	89.47	2.4	260.0	260.0	253.0	7.04	36.925			
900.0	900.0	902.0	902.0	4.2	3.2	89.47	2.4	260.0	260.0	252.7	7.30	35.620			
1,000.0	1,000.0	1,002.0	1,002.0	4.5	3.2	89.47	2.4	260.0	260.0	252.4	7.57	34.328			
1,100.0	1,100.0	1,102.0	1,102.0	4.8	3.3	89.47	2.4	260.0	260.0	252.1	7.86	33.066			
1,200.0	1,200.0	1,202.0	1,202.0	5.1	3.4	89.47	2.4	260.0	260.0	251.8	8.16	31.847			
1,300.0	1,300.0	1,302.0	1,302.0	5.4	3.4	89.47	2.4	260.0	260.0	251.5	8.48	30.676			
1,400.0	1,400.0	1,402.0	1,402.0	5.7	3.5	89.47	2.4	260.0	260.0	251.2	8.80	29.558			
1,500.0	1,500.0	1,502.0	1,502.0	6.0	3.5	89.47	2.4	260.0	260.0	250.9	9.12	28.495			
1,600.0	1,600.0	1,602.0	1,602.0	6.3	3.6	89.47	2.4	260.0	260.0	250.6	9.46	27.485			
1,700.0	1,700.0	1,702.0	1,702.0	6.6	3.7	89.47	2.4	260.0	260.0	250.2	9.80	26.528			
1,800.0	1,800.0	1,802.0	1,802.0	6.9	3.8	89.47	2.4	260.0	260.0	249.9	10.15	25.622			
1,900.0	1,900.0	1,902.0	1,902.0	7.2	3.9	89.47	2.4	260.0	260.0	249.5	10.50	24.764			
2,000.0	2,000.0	2,002.0	2,002.0	7.6	3.9	89.47	2.4	260.0	260.0	249.2	10.86	23.952			
2,100.0	2,100.0	2,102.0	2,102.0	7.9	4.0	89.47	2.4	260.0	260.0	248.8	11.21	23.184			
2,200.0	2,200.0	2,202.0	2,202.0	8.2	4.1	89.47	2.4	260.0	260.0	248.4	11.58	22.457			
2,300.0	2,300.0	2,302.0	2,302.0	8.6	4.2	89.47	2.4	260.0	260.0	248.1	11.94	21.768			
2,400.0	2,400.0	2,402.0	2,402.0	8.9	4.3	89.47	2.4	260.0	260.0	247.7	12.31	21.115			
2,500.0	2,500.0	2,502.2	2,502.2	9.2	4.4	89.47	2.4	260.0	260.0	247.3	12.69	20.495			
2,600.0	2,600.0	2,611.5	2,611.4	9.6	4.5	-173.75	3.2	258.0	259.9	246.8	13.05	19.917			
2,700.0	2,699.8	2,720.7	2,720.5	9.9	4.5	-174.38	5.3	252.0	259.7	246.3	13.39	19.387			
2,776.8	2,776.4	2,804.5	2,803.9	10.1	4.6	-175.15	7.9	244.8	259.5	245.9	13.66	19.004	CC		
2,800.0	2,799.5	2,827.3	2,826.6	10.2	4.6	-175.39	8.8	242.6	259.6	245.8	13.74	18.891	ES		
2,900.0	2,898.9	2,927.1	2,925.9	10.5	4.7	-176.45	12.3	232.8	260.4	246.3	14.11	18.455			
3,000.0	2,998.4	3,027.0	3,025.2	10.9	4.7	-177.50	15.9	223.0	261.3	246.8	14.48	18.042			
3,100.0	3,097.8	3,126.9	3,124.6	11.2	4.8	-178.55	19.5	213.1	262.2	247.4	14.86	17.651			
3,200.0	3,197.3	3,226.8	3,223.9	11.5	4.9	-179.58	23.0	203.3	263.3	248.1	15.24	17.281			
3,300.0	3,296.7	3,326.7	3,323.2	11.9	4.9	179.39	26.6	193.5	264.4	248.8	15.62	16.931			
3,400.0	3,396.2	3,426.5	3,422.6	12.2	5.0	178.37	30.2	183.7	265.7	249.7	16.00	16.600			
3,500.0	3,495.6	3,526.4	3,521.9	12.6	5.1	177.36	33.7	173.9	267.0	250.6	16.39	16.286			
3,600.0	3,595.1	3,626.3	3,621.2	12.9	5.1	176.36	37.3	164.1	268.4	251.6	16.78	15.990			
3,700.0	3,694.5	3,726.2	3,720.6	13.3	5.2	175.37	40.9	154.3	269.8	252.7	17.18	15.709			
3,800.0	3,794.0	3,826.1	3,819.9	13.6	5.3	174.39	44.5	144.5	271.4	253.8	17.57	15.443			
3,900.0	3,893.4	3,926.0	3,919.2	13.9	5.4	173.42	48.0	134.7	273.0	255.1	17.97	15.191			
4,000.0	3,992.9	4,025.8	4,018.6	14.3	5.5	172.47	51.6	124.8	274.7	256.4	18.37	14.953			
4,100.0	4,092.3	4,125.7	4,117.9	14.6	5.6	171.53	55.2	115.0	276.5	257.7	18.78	14.727			
4,200.0	4,191.8	4,225.6	4,217.2	15.0	5.7	170.59	58.7	105.2	278.4	259.2	19.18	14.513			
4,300.0	4,291.2	4,325.5	4,316.6	15.3	5.8	169.68	62.3	95.4	280.3	260.7	19.59	14.310			
4,400.0	4,390.7	4,425.4	4,415.9	15.7	5.8	168.77	65.9	85.6	282.3	262.3	20.00	14.117			
4,500.0	4,490.1	4,525.2	4,515.2	16.0	5.9	167.88	69.5	75.8	284.4	264.0	20.41	13.934			
4,600.0	4,589.6	4,625.1	4,614.6	16.4	6.0	167.00	73.0	66.0	286.5	265.7	20.82	13.761			
4,700.0	4,689.0	4,725.0	4,713.9	16.7	6.1	166.13	76.6	56.2	288.7	267.5	21.24	13.596			
4,800.0	4,788.5	4,824.9	4,813.2	17.1	6.2	165.28	80.2	46.4	291.0	269.3	21.65	13.439			
4,900.0	4,887.9	4,924.8	4,912.6	17.5	6.3	164.44	83.7	36.5	293.3	271.3	22.07	13.290			

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9001-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 (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,987.4	5,024.6	5,011.9	17.8	6.4	163.61		87.3	26.7	295.7	273.2	22.49	13.149	
5,100.0	5,086.9	5,124.5	5,111.2	18.2	6.5	162.80		90.9	16.9	298.2	275.3	22.91	13.014	
5,200.0	5,186.3	5,224.4	5,210.6	18.5	6.6	162.00		94.5	7.1	300.7	277.4	23.34	12.886	
5,300.0	5,285.8	5,324.3	5,309.9	18.9	6.7	161.22		98.0	-2.7	303.3	279.5	23.76	12.764	
5,400.0	5,385.2	5,424.2	5,409.2	19.2	6.8	160.44		101.6	-12.5	305.9	281.7	24.19	12.647	
5,500.0	5,484.7	5,524.0	5,508.6	19.6	7.0	159.69		105.2	-22.3	308.6	284.0	24.62	12.536	
5,600.0	5,584.1	5,623.9	5,607.9	19.9	7.1	158.94		108.7	-32.1	311.3	286.3	25.05	12.430	
5,700.0	5,683.6	5,723.8	5,707.2	20.3	7.2	158.21		112.3	-41.9	314.1	288.7	25.48	12.329	
5,800.0	5,783.0	5,823.7	5,806.6	20.7	7.3	157.49		115.9	-51.7	317.0	291.1	25.91	12.233	
5,900.0	5,882.5	5,923.6	5,905.9	21.0	7.4	156.78		119.4	-61.6	319.9	293.5	26.35	12.141	
6,000.0	5,981.9	6,023.5	6,005.2	21.4	7.5	156.08		123.0	-71.4	322.8	296.0	26.78	12.052	
6,100.0	6,081.4	6,123.3	6,104.6	21.7	7.6	155.40		126.6	-81.2	325.8	298.6	27.22	11.968	
6,200.0	6,180.8	6,223.2	6,203.9	22.1	7.7	154.73		130.2	-91.0	328.8	301.2	27.66	11.887	
6,300.0	6,280.3	6,323.1	6,303.2	22.5	7.8	154.08		133.7	-100.8	331.9	303.8	28.10	11.810	
6,400.0	6,379.7	6,423.0	6,402.6	22.8	7.9	153.43		137.3	-110.6	335.0	306.5	28.54	11.736	
6,500.0	6,479.2	6,522.9	6,501.9	23.2	8.1	152.80		140.9	-120.4	338.2	309.2	28.99	11.665	
6,600.0	6,578.6	6,622.7	6,601.2	23.5	8.2	152.18		144.4	-130.2	341.4	311.9	29.44	11.597	
6,700.0	6,678.1	6,722.6	6,700.6	23.9	8.3	151.57		148.0	-140.0	344.6	314.7	29.88	11.532	
6,800.0	6,777.5	6,822.5	6,799.9	24.3	8.4	150.97		151.6	-149.9	347.9	317.5	30.33	11.469	
6,900.0	6,877.0	6,922.4	6,899.2	24.6	8.5	150.38		155.2	-159.7	351.2	320.4	30.78	11.409	
7,000.0	6,976.4	7,022.3	6,998.6	25.0	8.6	149.81		158.7	-169.5	354.5	323.3	31.23	11.351	
7,100.0	7,075.9	7,122.1	7,097.9	25.3	8.7	149.24		162.3	-179.3	357.9	326.2	31.69	11.295	
7,200.0	7,175.3	7,222.0	7,197.3	25.7	8.9	148.69		165.9	-189.1	361.3	329.2	32.14	11.242	
7,300.0	7,274.8	7,321.9	7,296.6	26.1	9.0	148.14		169.4	-198.9	364.8	332.2	32.60	11.190	
7,400.0	7,374.3	7,421.8	7,395.9	26.4	9.1	147.61		173.0	-208.7	368.3	335.2	33.06	11.141	
7,500.0	7,473.7	7,521.7	7,495.3	26.8	9.2	147.09		176.6	-218.5	371.8	338.3	33.52	11.093	
7,600.0	7,573.2	7,621.5	7,594.6	27.1	9.3	146.57		180.2	-228.3	375.3	341.4	33.98	11.047	
7,700.0	7,672.6	7,721.4	7,693.9	27.5	9.5	146.07		183.7	-238.2	378.9	344.5	34.44	11.002	
7,800.0	7,772.1	7,821.3	7,793.3	27.9	9.6	145.57		187.3	-248.0	382.5	347.6	34.90	10.959	
7,900.0	7,871.5	7,921.2	7,892.6	28.2	9.7	145.09		190.9	-257.8	386.2	350.8	35.37	10.918	
8,000.0	7,971.0	8,021.1	7,991.9	28.6	9.8	144.61		194.4	-267.6	389.8	354.0	35.84	10.878	
8,100.0	8,070.4	8,121.0	8,091.3	29.0	9.9	144.14		198.0	-277.4	393.5	357.2	36.30	10.839	
8,200.0	8,169.9	8,220.8	8,190.6	29.3	10.1	143.69		201.6	-287.2	397.2	360.4	36.77	10.802	
8,300.0	8,269.3	8,320.7	8,289.9	29.7	10.2	143.24		205.1	-297.0	401.0	363.7	37.24	10.766	
8,400.0	8,368.8	8,420.6	8,389.3	30.0	10.3	142.79		208.7	-306.8	404.7	367.0	37.72	10.731	
8,500.0	8,468.2	8,520.5	8,488.6	30.4	10.4	142.36		212.3	-316.6	408.5	370.3	38.19	10.697	
8,600.0	8,567.7	8,620.4	8,587.9	30.8	10.5	141.93		215.9	-326.4	412.3	373.7	38.66	10.664	
8,700.0	8,667.1	8,720.2	8,687.3	31.1	10.7	141.52		219.4	-336.3	416.1	377.0	39.14	10.632	
8,800.0	8,766.6	8,820.1	8,786.6	31.5	10.8	141.11		223.0	-346.1	420.0	380.4	39.62	10.602	
8,900.0	8,866.0	8,920.0	8,885.9	31.9	10.9	140.70		226.6	-355.9	423.9	383.8	40.10	10.572	
9,000.0	8,965.5	9,019.1	8,984.5	32.2	11.1	140.31		230.1	-365.6	427.8	387.2	40.56	10.546	
9,100.0	9,064.9	9,100.0	9,064.3	32.6	11.1	139.31		238.3	-375.6	434.6	393.7	40.93	10.619	
9,144.0	9,108.7	9,126.8	9,090.3	32.8	11.1	138.70		243.3	-379.8	439.5	398.4	41.09	10.696	
9,150.0	9,114.7	9,131.1	9,094.4	32.8	11.1	133.24		244.2	-380.5	440.2	399.1	41.11	10.709	
9,200.0	9,164.2	9,167.0	9,128.6	33.0	11.1	102.34		253.0	-386.9	446.3	405.1	41.29	10.811	
9,250.0	9,213.2	9,200.0	9,159.5	33.1	11.1	88.25		262.8	-393.4	452.2	410.8	41.46	10.909	
9,300.0	9,261.3	9,237.9	9,193.9	33.3	11.2	80.63		276.1	-401.6	457.7	416.1	41.63	10.996	
9,350.0	9,308.1	9,273.0	9,225.0	33.5	11.2	75.93		290.3	-409.9	462.8	421.0	41.79	11.076	
9,400.0	9,353.2	9,308.0	9,254.8	33.6	11.2	72.74		306.2	-418.8	467.4	425.4	41.93	11.146	
9,450.0	9,396.3	9,350.0	9,289.1	33.8	11.3	70.43		327.6	-430.2	471.5	429.4	42.10	11.200	
9,500.0	9,437.1	9,377.5	9,310.6	33.9	11.3	68.82		342.9	-438.1	474.9	432.7	42.21	11.250	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9001-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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,550.0	9,475.3	9,412.2	9,336.5	34.1	11.3	67.64	67.64	363.5	-448.5	477.7	435.4	42.34	11.282	
9,600.0	9,510.5	9,450.0	9,363.0	34.2	11.4	66.84	66.84	387.6	-460.3	479.9	437.4	42.48	11.297	
9,650.0	9,542.5	9,481.6	9,383.8	34.3	11.4	66.32	66.32	409.0	-470.6	481.4	438.8	42.60	11.301	
9,700.0	9,571.1	9,516.3	9,405.1	34.4	11.5	66.09	66.09	433.8	-482.3	482.3	439.6	42.74	11.286	
9,750.0	9,596.1	9,550.0	9,424.2	34.5	11.5	66.09	66.09	459.0	-493.9	482.6	439.7	42.88	11.255	
9,800.0	9,617.2	9,585.9	9,442.7	34.5	11.6	66.33	66.33	487.1	-506.7	482.3	439.2	43.05	11.204	
9,850.0	9,634.3	9,620.9	9,458.9	34.6	11.6	66.78	66.78	515.4	-519.3	481.3	438.1	43.22	11.136	
9,900.0	9,647.3	9,650.0	9,470.9	34.7	11.7	67.30	67.30	539.7	-530.0	479.9	436.5	43.40	11.059	
9,950.0	9,656.0	9,691.5	9,485.6	34.8	11.7	68.27	68.27	575.3	-545.4	477.9	434.3	43.64	10.952	
10,000.0	9,660.5	9,727.2	9,496.0	34.9	11.8	69.31	69.31	606.7	-558.8	475.5	431.6	43.87	10.838	
10,028.4	9,661.0	9,750.0	9,501.5	35.0	11.8	70.05	70.05	627.1	-567.4	474.0	430.0	44.02	10.767	
10,100.0	9,660.8	9,800.0	9,510.5	35.1	11.9	71.12	71.12	672.5	-586.2	470.7	426.3	44.39	10.603	
10,200.0	9,660.4	9,875.6	9,516.0	35.2	11.9	71.77	71.77	742.3	-614.5	467.9	423.0	44.90	10.422	
10,300.0	9,660.0	9,961.3	9,515.7	35.4	12.0	71.70	71.70	822.4	-645.2	466.1	420.7	45.43	10.259	
10,400.0	9,659.6	10,047.9	9,515.4	35.6	12.2	71.62	71.62	904.2	-673.7	463.8	417.8	46.01	10.081	
10,500.0	9,659.2	10,134.6	9,515.0	35.9	12.4	71.52	71.52	986.8	-699.8	461.1	414.5	46.63	9.890	
10,600.0	9,658.8	10,221.4	9,514.7	36.1	12.7	71.39	71.39	1,070.3	-723.3	458.0	410.7	47.27	9.688	
10,700.0	9,658.4	10,308.2	9,514.4	36.4	13.1	71.25	71.25	1,154.5	-744.4	454.4	406.4	47.95	9.477	
10,800.0	9,658.0	10,400.0	9,514.0	36.6	13.6	71.07	71.07	1,244.2	-763.8	450.4	401.7	48.67	9.255	
10,900.0	9,657.7	10,482.1	9,513.7	36.9	14.1	70.89	70.89	1,325.0	-778.8	445.9	396.6	49.35	9.036	
11,000.0	9,657.3	10,569.3	9,513.4	37.2	14.6	70.67	70.67	1,411.1	-792.2	441.1	391.0	50.08	8.808	
11,100.0	9,656.9	10,656.5	9,513.1	37.5	15.2	70.44	70.44	1,497.7	-802.9	435.8	385.0	50.81	8.578	
11,200.0	9,656.5	10,743.9	9,512.7	37.8	15.7	70.17	70.17	1,584.7	-811.0	430.1	378.6	51.54	8.346	
11,226.0	9,656.4	10,766.6	9,512.7	37.9	15.9	70.10	70.10	1,607.3	-812.7	428.6	376.9	51.73	8.286	
11,300.0	9,656.1	10,831.5	9,512.4	38.1	16.3	69.94	69.94	1,672.1	-816.5	425.0	372.7	52.27	8.129	
11,400.0	9,655.7	10,919.2	9,512.1	38.4	16.9	69.84	69.84	1,759.8	-819.3	422.5	369.5	53.04	7.967	
11,500.0	9,655.4	11,015.2	9,511.7	38.8	17.6	69.83	69.83	1,855.7	-820.0	422.4	368.4	53.92	7.833	
11,501.6	9,655.3	11,016.7	9,511.7	38.8	17.6	69.83	69.83	1,857.3	-820.0	422.4	368.4	53.94	7.831	
11,600.0	9,655.0	11,115.2	9,511.3	39.2	18.3	69.83	69.83	1,955.7	-820.6	422.4	367.5	54.90	7.694	
11,700.0	9,654.6	11,215.2	9,511.0	39.5	19.0	69.83	69.83	2,055.7	-821.2	422.4	366.5	55.90	7.555	
11,800.0	9,654.2	11,315.2	9,510.6	39.9	19.7	69.83	69.83	2,155.7	-821.8	422.3	365.4	56.94	7.417	
11,900.0	9,653.8	11,415.2	9,510.2	40.3	20.4	69.83	69.83	2,255.7	-822.4	422.3	364.3	58.01	7.280	
12,000.0	9,653.4	11,515.2	9,509.9	40.8	21.1	69.83	69.83	2,355.7	-823.1	422.3	363.2	59.11	7.145	
12,100.0	9,653.1	11,615.2	9,509.5	41.2	21.9	69.84	69.84	2,455.7	-823.7	422.3	362.1	60.24	7.011	
12,200.0	9,652.7	11,715.2	9,509.1	41.6	22.6	69.84	69.84	2,555.7	-824.3	422.3	360.9	61.38	6.880	
12,300.0	9,652.3	11,815.2	9,508.7	42.1	23.4	69.84	69.84	2,655.7	-824.9	422.3	359.8	62.56	6.751	
12,400.0	9,651.9	11,915.2	9,508.4	42.6	24.2	69.84	69.84	2,755.7	-825.5	422.3	358.5	63.75	6.624	
12,500.0	9,651.5	12,015.2	9,508.0	43.1	25.0	69.84	69.84	2,855.7	-826.1	422.3	357.3	64.97	6.500	
12,600.0	9,651.2	12,115.2	9,507.6	43.6	25.7	69.84	69.84	2,955.7	-826.7	422.3	356.1	66.20	6.379	
12,700.0	9,650.8	12,215.2	9,507.2	44.1	26.5	69.84	69.84	3,055.7	-827.4	422.3	354.8	67.46	6.260	
12,800.0	9,650.4	12,315.2	9,506.9	44.6	27.3	69.84	69.84	3,155.7	-828.0	422.3	353.5	68.73	6.144	
12,900.0	9,650.0	12,415.2	9,506.5	45.1	28.1	69.84	69.84	3,255.7	-828.6	422.3	352.2	70.02	6.031	
13,000.0	9,649.6	12,515.2	9,506.1	45.7	28.9	69.84	69.84	3,355.7	-829.2	422.3	350.9	71.32	5.920	
13,100.0	9,649.3	12,615.2	9,505.7	46.2	29.7	69.84	69.84	3,455.7	-829.8	422.2	349.6	72.64	5.813	
13,200.0	9,648.9	12,715.2	9,505.4	46.8	30.5	69.84	69.84	3,555.7	-830.4	422.2	348.3	73.98	5.708	
13,300.0	9,648.5	12,815.2	9,505.0	47.3	31.3	69.84	69.84	3,655.7	-831.0	422.2	346.9	75.32	5.606	
13,400.0	9,648.1	12,915.2	9,504.6	47.9	32.1	69.84	69.84	3,755.7	-831.7	422.2	345.5	76.68	5.506	
13,500.0	9,647.7	13,015.2	9,504.3	48.5	32.9	69.85	69.85	3,855.7	-832.3	422.2	344.2	78.06	5.409	
13,600.0	9,647.3	13,115.2	9,503.9	49.1	33.8	69.85	69.85	3,955.7	-832.9	422.2	342.8	79.44	5.315	
13,700.0	9,647.0	13,215.2	9,503.5	49.7	34.6	69.85	69.85	4,055.7	-833.5	422.2	341.4	80.84	5.223	
13,800.0	9,646.6	13,315.2	9,503.1	50.3	35.4	69.85	69.85	4,155.7	-834.1	422.2	339.9	82.25	5.133	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9001-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	
13,900.0	9,646.2	13,415.2	9,502.8	50.9	36.2	69.85	4,255.6	-834.7	422.2	338.5	83.66	5.046	
14,000.0	9,645.8	13,515.2	9,502.4	51.6	37.0	69.85	4,355.6	-835.3	422.2	337.1	85.09	4.962	
14,100.0	9,645.4	13,615.2	9,502.0	52.2	37.9	69.85	4,455.6	-835.9	422.2	335.6	86.53	4.879	
14,200.0	9,645.1	13,715.2	9,501.6	52.8	38.7	69.85	4,555.6	-836.6	422.2	334.2	87.97	4.799	
14,300.0	9,644.7	13,815.2	9,501.3	53.5	39.5	69.85	4,655.6	-837.2	422.1	332.7	89.42	4.721	
14,400.0	9,644.3	13,915.2	9,500.9	54.1	40.4	69.85	4,755.6	-837.8	422.1	331.3	90.89	4.645	
14,500.0	9,643.9	14,015.2	9,500.5	54.8	41.2	69.85	4,855.6	-838.4	422.1	329.8	92.36	4.571	
14,600.0	9,643.5	14,115.2	9,500.1	55.4	42.0	69.85	4,955.6	-839.0	422.1	328.3	93.83	4.499	
14,700.0	9,643.2	14,215.2	9,499.8	56.1	42.9	69.85	5,055.6	-839.6	422.1	326.8	95.32	4.429	
14,800.0	9,642.8	14,315.2	9,499.4	56.8	43.7	69.85	5,155.6	-840.2	422.1	325.3	96.81	4.360	
14,900.0	9,642.4	14,415.2	9,499.0	57.5	44.5	69.86	5,255.6	-840.9	422.1	323.8	98.30	4.294	
15,000.0	9,642.0	14,515.2	9,498.6	58.1	45.4	69.86	5,355.6	-841.5	422.1	322.3	99.81	4.229	
15,100.0	9,641.6	14,615.2	9,498.3	58.8	46.2	69.86	5,455.6	-842.1	422.1	320.8	101.32	4.166	
15,200.0	9,641.2	14,715.2	9,497.9	59.5	47.0	69.86	5,555.6	-842.7	422.1	319.2	102.84	4.104	
15,300.0	9,640.9	14,815.2	9,497.5	60.2	47.9	69.86	5,655.6	-843.3	422.1	317.7	104.36	4.044	
15,400.0	9,640.5	14,915.2	9,497.2	60.9	48.7	69.86	5,755.6	-843.9	422.1	316.2	105.88	3.986	
15,500.0	9,640.1	15,015.2	9,496.8	61.6	49.6	69.86	5,855.6	-844.5	422.0	314.6	107.41	3.929	
15,600.0	9,639.7	15,115.2	9,496.4	62.3	50.4	69.86	5,955.6	-845.2	422.0	313.1	108.95	3.874	
15,700.0	9,639.3	15,215.2	9,496.0	63.0	51.2	69.86	6,055.6	-845.8	422.0	311.5	110.49	3.820	
15,800.0	9,639.0	15,315.2	9,495.7	63.8	52.1	69.86	6,155.6	-846.4	422.0	310.0	112.04	3.767	
15,900.0	9,638.6	15,415.2	9,495.3	64.5	52.9	69.86	6,255.6	-847.0	422.0	308.4	113.59	3.715	
16,000.0	9,638.2	15,515.2	9,494.9	65.2	53.8	69.86	6,355.6	-847.6	422.0	306.9	115.14	3.665	
16,100.0	9,637.8	15,615.2	9,494.5	65.9	54.6	69.86	6,455.6	-848.2	422.0	305.3	116.70	3.616	
16,200.0	9,637.4	15,715.2	9,494.2	66.7	55.5	69.86	6,555.6	-848.8	422.0	303.7	118.27	3.568	
16,300.0	9,637.1	15,815.2	9,493.8	67.4	56.3	69.87	6,655.6	-849.4	422.0	302.2	119.83	3.521	
16,400.0	9,636.7	15,915.2	9,493.4	68.1	57.2	69.87	6,755.6	-850.1	422.0	300.6	121.40	3.476	
16,500.0	9,636.3	16,015.2	9,493.0	68.9	58.0	69.87	6,855.6	-850.7	422.0	299.0	122.98	3.431	
16,600.0	9,635.9	16,115.2	9,492.7	69.6	58.9	69.87	6,955.6	-851.3	422.0	297.4	124.55	3.388	
16,700.0	9,635.5	16,215.2	9,492.3	70.4	59.7	69.87	7,055.6	-851.9	422.0	295.8	126.13	3.345	
16,800.0	9,635.1	16,315.2	9,491.9	71.1	60.6	69.87	7,155.6	-852.5	421.9	294.2	127.72	3.304	
16,900.0	9,634.8	16,415.2	9,491.6	71.9	61.4	69.87	7,255.6	-853.1	421.9	292.6	129.30	3.263	
17,000.0	9,634.4	16,515.2	9,491.2	72.6	62.3	69.87	7,355.6	-853.7	421.9	291.0	130.89	3.223	
17,100.0	9,634.0	16,615.2	9,490.8	73.4	63.1	69.87	7,455.6	-854.4	421.9	289.4	132.49	3.185	
17,200.0	9,633.6	16,715.2	9,490.4	74.1	64.0	69.87	7,555.6	-855.0	421.9	287.8	134.08	3.147	
17,300.0	9,633.2	16,815.2	9,490.1	74.9	64.8	69.87	7,655.6	-855.6	421.9	286.2	135.68	3.110	
17,400.0	9,632.9	16,915.2	9,489.7	75.7	65.7	69.87	7,755.6	-856.2	421.9	284.6	137.28	3.073	
17,500.0	9,632.5	17,015.2	9,489.3	76.4	66.5	69.87	7,855.6	-856.8	421.9	283.0	138.88	3.038	
17,600.0	9,632.1	17,115.2	9,488.9	77.2	67.4	69.87	7,955.6	-857.4	421.9	281.4	140.49	3.003	
17,700.0	9,631.7	17,215.2	9,488.6	78.0	68.2	69.88	8,055.6	-858.0	421.9	279.8	142.09	2.969	
17,800.0	9,631.3	17,315.2	9,488.2	78.7	69.1	69.88	8,155.5	-858.6	421.9	278.2	143.70	2.936	
17,900.0	9,630.9	17,415.2	9,487.8	79.5	69.9	69.88	8,255.5	-859.3	421.9	276.5	145.32	2.903	
18,000.0	9,630.6	17,515.2	9,487.4	80.3	70.8	69.88	8,355.5	-859.9	421.8	274.9	146.93	2.871	
18,100.0	9,630.2	17,615.2	9,487.1	81.0	71.6	69.88	8,455.5	-860.5	421.8	273.3	148.55	2.840	
18,200.0	9,629.8	17,715.2	9,486.7	81.8	72.5	69.88	8,555.5	-861.1	421.8	271.7	150.16	2.809	
18,300.0	9,629.4	17,815.2	9,486.3	82.6	73.3	69.88	8,655.5	-861.7	421.8	270.0	151.78	2.779	
18,400.0	9,629.0	17,915.2	9,485.9	83.4	74.2	69.88	8,755.5	-862.3	421.8	268.4	153.41	2.750	
18,500.0	9,628.7	18,015.2	9,485.6	84.2	75.0	69.88	8,855.5	-862.9	421.8	266.8	155.03	2.721	
18,600.0	9,628.3	18,115.2	9,485.2	85.0	75.9	69.88	8,955.5	-863.6	421.8	265.1	156.66	2.693	
18,700.0	9,627.9	18,215.2	9,484.8	85.7	76.7	69.88	9,055.5	-864.2	421.8	263.5	158.28	2.665	
18,800.0	9,627.5	18,315.2	9,484.5	86.5	77.6	69.88	9,155.5	-864.8	421.8	261.9	159.91	2.638	
18,900.0	9,627.1	18,415.2	9,484.1	87.3	78.5	69.88	9,255.5	-865.4	421.8	260.2	161.54	2.611	

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

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Page 8

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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

BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 201H - OWB - PWP													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9001-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		
19,000.0	9,626.8	18,515.2	9,483.7	88.1	79.3	69.88	9,355.5	-866.0	421.8	258.6	163.18	2.585		
19,100.0	9,626.4	18,615.2	9,483.3	88.9	80.2	69.89	9,455.5	-866.6	421.8	256.9	164.81	2.559		
19,200.0	9,626.0	18,715.2	9,483.0	89.7	81.0	69.89	9,555.5	-867.2	421.8	255.3	166.44	2.534		
19,300.0	9,625.6	18,815.2	9,482.6	90.5	81.9	69.89	9,655.5	-867.9	421.7	253.7	168.08	2.509		
19,400.0	9,625.2	18,915.2	9,482.2	91.3	82.7	69.89	9,755.5	-868.5	421.7	252.0	169.72	2.485		
19,500.0	9,624.8	19,015.2	9,481.8	92.1	83.6	69.89	9,855.5	-869.1	421.7	250.4	171.36	2.461		
19,600.0	9,624.5	19,115.2	9,481.5	92.9	84.4	69.89	9,955.5	-869.7	421.7	248.7	173.00	2.438		
19,700.0	9,624.1	19,215.2	9,481.1	93.7	85.3	69.89	10,055.5	-870.3	421.7	247.1	174.64	2.415		
19,722.6	9,624.0	19,237.7	9,481.0	93.9	85.5	69.89	10,078.1	-870.4	421.7	246.7	175.01	2.410 SF		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 8915-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	2.0	2.0	3.0	3.0	89.46	2.7	290.0	290.0				
100.0	100.0	102.0	102.0	3.0	3.0	89.46	2.7	290.0	290.0	284.0	6.00	48.306	
200.0	200.0	202.0	202.0	3.0	3.0	89.46	2.7	290.0	290.0	283.9	6.04	47.998	
300.0	300.0	302.0	302.0	3.1	3.0	89.46	2.7	290.0	290.0	283.9	6.12	47.363	
400.0	400.0	402.0	402.0	3.2	3.0	89.46	2.7	290.0	290.0	283.7	6.24	46.446	
500.0	500.0	502.0	502.0	3.4	3.1	89.46	2.7	290.0	290.0	283.6	6.40	45.310	
600.0	600.0	602.0	602.0	3.6	3.1	89.46	2.7	290.0	290.0	283.4	6.59	44.017	
700.0	700.0	702.0	702.0	3.8	3.1	89.46	2.7	290.0	290.0	283.2	6.80	42.625	
800.0	800.0	802.0	802.0	4.0	3.2	89.46	2.7	290.0	290.0	282.9	7.04	41.182	
900.0	900.0	902.0	902.0	4.2	3.2	89.46	2.7	290.0	290.0	282.7	7.30	39.726	
1,000.0	1,000.0	1,002.0	1,002.0	4.5	3.2	89.46	2.7	290.0	290.0	282.4	7.57	38.285	
1,100.0	1,100.0	1,102.0	1,102.0	4.8	3.3	89.46	2.7	290.0	290.0	282.1	7.86	36.878	
1,200.0	1,200.0	1,202.0	1,202.0	5.1	3.4	89.46	2.7	290.0	290.0	281.8	8.16	35.518	
1,300.0	1,300.0	1,302.0	1,302.0	5.4	3.4	89.46	2.7	290.0	290.0	281.5	8.48	34.212	
1,400.0	1,400.0	1,402.0	1,402.0	5.7	3.5	89.46	2.7	290.0	290.0	281.2	8.80	32.965	
1,500.0	1,500.0	1,502.0	1,502.0	6.0	3.5	89.46	2.7	290.0	290.0	280.9	9.12	31.779	
1,600.0	1,600.0	1,602.0	1,602.0	6.3	3.6	89.46	2.7	290.0	290.0	280.5	9.46	30.653	
1,700.0	1,700.0	1,702.0	1,702.0	6.6	3.7	89.46	2.7	290.0	290.0	280.2	9.80	29.586	
1,800.0	1,800.0	1,802.0	1,802.0	6.9	3.8	89.46	2.7	290.0	290.0	279.8	10.15	28.575	
1,900.0	1,900.0	1,902.0	1,902.0	7.2	3.9	89.46	2.7	290.0	290.0	279.5	10.50	27.619	
2,000.0	2,000.0	2,002.0	2,002.0	7.6	3.9	89.46	2.7	290.0	290.0	279.1	10.86	26.713	
2,100.0	2,100.0	2,102.0	2,102.0	7.9	4.0	89.46	2.7	290.0	290.0	278.8	11.21	25.857	
2,200.0	2,200.0	2,202.0	2,202.0	8.2	4.1	89.46	2.7	290.0	290.0	278.4	11.58	25.046	
2,300.0	2,300.0	2,302.0	2,302.0	8.6	4.2	89.46	2.7	290.0	290.0	278.0	11.94	24.277	
2,400.0	2,400.0	2,402.0	2,402.0	8.9	4.3	89.46	2.7	290.0	290.0	277.7	12.31	23.549	
2,500.0	2,500.0	2,502.2	2,502.2	9.2	4.4	89.46	2.7	290.0	290.0	277.3	12.69	22.858	
2,506.7	2,506.7	2,509.4	2,509.4	9.3	4.4	-173.54	2.7	290.0	290.0	277.3	12.71	22.813 CC, ES	
2,600.0	2,600.0	2,609.9	2,609.9	9.6	4.4	-173.29	1.2	288.5	290.3	277.3	13.05	22.246	
2,700.0	2,699.8	2,714.7	2,714.5	9.9	4.4	-172.61	-2.8	284.5	291.7	278.3	13.41	21.753	
2,800.0	2,799.5	2,814.6	2,814.2	10.2	4.4	-171.96	-7.3	280.1	296.0	282.2	13.78	21.486	
2,900.0	2,898.9	2,914.3	2,913.8	10.5	4.4	-171.38	-11.7	275.7	302.1	287.9	14.15	21.349	
3,000.0	2,998.4	3,014.1	3,013.3	10.9	4.4	-170.83	-16.1	271.4	308.2	293.7	14.53	21.213	
3,100.0	3,097.8	3,113.9	3,112.9	11.2	4.4	-170.29	-20.5	267.0	314.3	299.4	14.91	21.079	
3,200.0	3,197.3	3,213.7	3,212.5	11.5	4.4	-169.78	-24.9	262.6	320.5	305.2	15.30	20.946	
3,300.0	3,296.7	3,313.4	3,312.1	11.9	4.4	-169.29	-29.3	258.3	326.7	311.0	15.69	20.816	
3,400.0	3,396.2	3,413.2	3,411.6	12.2	4.4	-168.82	-33.7	253.9	332.9	316.8	16.09	20.688	
3,500.0	3,495.6	3,513.0	3,511.2	12.6	4.4	-168.36	-38.2	249.5	339.1	322.6	16.49	20.563	
3,600.0	3,595.1	3,612.7	3,610.8	12.9	4.4	-167.92	-42.6	245.1	345.3	328.4	16.89	20.442	
3,700.0	3,694.5	3,712.5	3,710.4	13.3	4.5	-167.49	-47.0	240.8	351.6	334.3	17.30	20.323	
3,800.0	3,794.0	3,812.3	3,810.0	13.6	4.5	-167.08	-51.4	236.4	357.9	340.2	17.71	20.208	
3,900.0	3,893.4	3,912.0	3,909.5	13.9	4.5	-166.69	-55.8	232.0	364.2	346.1	18.12	20.096	
4,000.0	3,992.9	4,011.8	4,009.1	14.3	4.6	-166.31	-60.2	227.7	370.5	352.0	18.54	19.987	
4,100.0	4,092.3	4,111.6	4,108.7	14.6	4.6	-165.94	-64.7	223.3	376.9	357.9	18.96	19.881	
4,200.0	4,191.8	4,211.3	4,208.3	15.0	4.6	-165.58	-69.1	218.9	383.2	363.8	19.37	19.779	
4,300.0	4,291.2	4,311.1	4,307.8	15.3	4.7	-165.23	-73.5	214.6	389.6	369.8	19.80	19.680	
4,400.0	4,390.7	4,410.9	4,407.4	15.7	4.7	-164.90	-77.9	210.2	396.0	375.7	20.22	19.584	
4,500.0	4,490.1	4,510.7	4,507.0	16.0	4.8	-164.58	-82.3	205.8	402.4	381.7	20.64	19.491	
4,600.0	4,589.6	4,610.4	4,606.6	16.4	4.8	-164.26	-86.7	201.4	408.8	387.7	21.07	19.400	
4,700.0	4,689.0	4,710.2	4,706.1	16.7	4.9	-163.96	-91.2	197.1	415.2	393.7	21.50	19.313	
4,800.0	4,788.5	4,810.0	4,805.7	17.1	5.0	-163.66	-95.6	192.7	421.6	399.7	21.93	19.228	
4,900.0	4,887.9	4,909.7	4,905.3	17.5	5.0	-163.38	-100.0	188.3	428.0	405.7	22.36	19.146	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 202H - OWB - PWP											Offset Site Error:		3.0 usft
Survey Program:		0-Standard Keeper 104, 8915-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			
5,000.0	4,987.4	5,009.5	5,004.9	17.8	5.1	-163.10	-104.4	184.0	434.5	411.7	22.79	19.067			
5,100.0	5,086.9	5,109.3	5,104.4	18.2	5.2	-162.83	-108.8	179.6	441.0	417.7	23.22	18.990			
5,200.0	5,186.3	5,209.0	5,204.0	18.5	5.2	-162.57	-113.2	175.2	447.4	423.8	23.65	18.915			
5,300.0	5,285.8	5,308.8	5,303.6	18.9	5.3	-162.32	-117.6	170.9	453.9	429.8	24.09	18.843			
5,400.0	5,385.2	5,408.6	5,403.2	19.2	5.4	-162.07	-122.1	166.5	460.4	435.9	24.52	18.773			
5,500.0	5,484.7	5,508.4	5,502.8	19.6	5.4	-161.83	-126.5	162.1	466.9	441.9	24.96	18.705			
5,600.0	5,584.1	5,608.1	5,602.3	19.9	5.5	-161.60	-130.9	157.7	473.4	448.0	25.40	18.639			
5,700.0	5,683.6	5,707.9	5,701.9	20.3	5.6	-161.37	-135.3	153.4	479.9	454.1	25.84	18.574			
5,800.0	5,783.0	5,807.7	5,801.5	20.7	5.7	-161.15	-139.7	149.0	486.4	460.1	26.28	18.512			
5,900.0	5,882.5	5,907.4	5,901.1	21.0	5.8	-160.93	-144.1	144.6	492.9	466.2	26.72	18.452			
6,000.0	5,981.9	6,007.2	6,000.6	21.4	5.9	-160.72	-148.6	140.3	499.5	472.3	27.16	18.393			
6,100.0	6,081.4	6,107.0	6,100.2	21.7	5.9	-160.52	-153.0	135.9	506.0	478.4	27.60	18.335			
6,200.0	6,180.8	6,206.7	6,199.8	22.1	6.0	-160.32	-157.4	131.5	512.6	484.5	28.04	18.280			
6,300.0	6,280.3	6,306.5	6,299.4	22.5	6.1	-160.13	-161.8	127.2	519.1	490.6	28.48	18.226			
6,400.0	6,379.7	6,406.3	6,398.9	22.8	6.2	-159.94	-166.2	122.8	525.7	496.7	28.93	18.173			
6,500.0	6,479.2	6,506.1	6,498.5	23.2	6.3	-159.75	-170.6	118.4	532.2	502.9	29.37	18.122			
6,600.0	6,578.6	6,605.8	6,598.1	23.5	6.4	-159.57	-175.1	114.0	538.8	509.0	29.81	18.072			
6,700.0	6,678.1	6,705.6	6,697.7	23.9	6.5	-159.40	-179.5	109.7	545.4	515.1	30.26	18.023			
6,800.0	6,777.5	6,805.4	6,797.2	24.3	6.6	-159.23	-183.9	105.3	551.9	521.2	30.70	17.976			
6,900.0	6,877.0	6,905.1	6,896.8	24.6	6.7	-159.06	-188.3	100.9	558.5	527.4	31.15	17.930			
7,000.0	6,976.4	7,004.9	6,996.4	25.0	6.8	-158.89	-192.7	96.6	565.1	533.5	31.60	17.885			
7,100.0	7,075.9	7,104.7	7,096.0	25.3	6.9	-158.73	-197.1	92.2	571.7	539.7	32.05	17.841			
7,200.0	7,175.3	7,204.4	7,195.6	25.7	7.0	-158.58	-201.6	87.8	578.3	545.8	32.49	17.798			
7,300.0	7,274.8	7,304.2	7,295.1	26.1	7.1	-158.43	-206.0	83.5	584.9	552.0	32.94	17.756			
7,400.0	7,374.3	7,404.0	7,394.7	26.4	7.2	-158.28	-210.4	79.1	591.5	558.1	33.39	17.715			
7,500.0	7,473.7	7,503.8	7,494.3	26.8	7.3	-158.13	-214.8	74.7	598.1	564.3	33.84	17.675			
7,600.0	7,573.2	7,603.5	7,593.9	27.1	7.4	-157.99	-219.2	70.3	604.7	570.4	34.29	17.636			
7,700.0	7,672.6	7,703.3	7,693.4	27.5	7.5	-157.85	-223.6	66.0	611.3	576.6	34.74	17.598			
7,800.0	7,772.1	7,803.1	7,793.0	27.9	7.6	-157.71	-228.0	61.6	618.0	582.8	35.19	17.561			
7,900.0	7,871.5	7,902.8	7,892.6	28.2	7.7	-157.58	-232.5	57.2	624.6	588.9	35.64	17.524			
8,000.0	7,971.0	8,002.6	7,992.2	28.6	7.8	-157.45	-236.9	52.9	631.2	595.1	36.09	17.488			
8,100.0	8,070.4	8,102.4	8,091.7	29.0	7.9	-157.32	-241.3	48.5	637.8	601.3	36.55	17.453			
8,200.0	8,169.9	8,202.1	8,191.3	29.3	8.0	-157.19	-245.7	44.1	644.5	607.5	37.00	17.419			
8,300.0	8,269.3	8,301.9	8,290.9	29.7	8.1	-157.07	-250.1	39.8	651.1	613.7	37.45	17.386			
8,400.0	8,368.8	8,401.7	8,390.5	30.0	8.2	-156.95	-254.5	35.4	657.7	619.8	37.90	17.353			
8,500.0	8,468.2	8,501.5	8,490.0	30.4	8.3	-156.83	-259.0	31.0	664.4	626.0	38.36	17.320			
8,600.0	8,567.7	8,601.2	8,589.6	30.8	8.5	-156.72	-263.4	26.7	671.0	632.2	38.81	17.289			
8,700.0	8,667.1	8,701.0	8,689.2	31.1	8.6	-156.60	-267.8	22.3	677.7	638.4	39.27	17.258			
8,800.0	8,766.6	8,800.8	8,788.8	31.5	8.7	-156.49	-272.2	17.9	684.3	644.6	39.72	17.228			
8,900.0	8,866.0	8,900.5	8,888.4	31.9	8.8	-156.38	-276.6	13.5	691.0	650.8	40.18	17.198			
9,000.0	8,965.5	9,034.7	9,022.1	32.2	8.8	-156.90	-274.2	7.6	696.1	655.4	40.62	17.137			
9,100.0	9,064.9	9,177.7	9,160.2	32.6	8.9	-160.04	-238.7	1.3	694.8	653.7	41.11	16.901			
9,144.0	9,108.7	9,233.4	9,210.8	32.8	8.9	-162.00	-215.7	-1.1	693.0	651.6	41.33	16.766			
9,150.0	9,114.7	9,240.6	9,217.2	32.8	8.9	-167.54	-212.4	-1.4	692.7	651.3	41.36	16.748			
9,192.1	9,156.4	9,289.6	9,259.4	32.9	8.9	164.25	-187.7	-3.4	691.9	650.3	41.57	16.642			
9,200.0	9,164.2	9,298.5	9,266.8	33.0	8.9	160.71	-182.8	-3.8	691.9	650.3	41.61	16.627			
9,250.0	9,213.2	9,352.5	9,310.3	33.1	9.0	145.40	-150.8	-5.9	693.5	651.7	41.86	16.568 SF			
9,300.0	9,261.3	9,403.3	9,348.2	33.3	9.0	136.37	-117.1	-7.8	697.7	655.6	42.10	16.572			
9,350.0	9,308.1	9,451.1	9,381.1	33.5	9.1	129.91	-82.4	-9.5	704.5	662.1	42.34	16.637			
9,400.0	9,353.2	9,496.5	9,409.5	33.6	9.2	124.67	-47.0	-10.9	713.7	671.1	42.57	16.764			
9,450.0	9,396.3	9,539.8	9,433.9	33.8	9.2	120.08	-11.4	-12.2	725.3	682.5	42.80	16.946			

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 202H - OWB - PWP													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 8915-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		
9,500.0	9,437.1	9,581.2	9,454.7	33.9	9.3	115.85	24.5	-13.4	739.1	696.0	43.02	17.180		
9,550.0	9,475.3	9,621.1	9,472.2	34.1	9.4	111.83	60.3	-14.4	754.8	711.6	43.23	17.461		
9,600.0	9,510.5	9,659.6	9,486.7	34.2	9.5	107.95	95.9	-15.2	772.2	728.8	43.43	17.782		
9,650.0	9,542.5	9,700.0	9,499.3	34.3	9.6	104.08	134.3	-16.0	791.2	747.5	43.63	18.133		
9,700.0	9,571.1	9,733.5	9,507.7	34.4	9.7	100.50	166.7	-16.6	811.2	767.4	43.80	18.520		
9,750.0	9,596.1	9,769.2	9,514.5	34.5	9.8	96.93	201.8	-17.1	832.2	788.3	43.98	18.923		
9,800.0	9,617.2	9,800.0	9,518.6	34.5	9.9	93.58	232.3	-17.5	853.9	809.8	44.13	19.350		
9,850.0	9,634.3	9,838.9	9,521.5	34.6	10.0	90.19	271.0	-17.9	876.0	831.7	44.31	19.769		
9,900.0	9,647.3	9,875.7	9,521.9	34.7	10.1	87.02	307.8	-18.1	898.3	853.8	44.48	20.194		
9,950.0	9,656.0	9,920.3	9,521.8	34.8	10.3	84.14	352.4	-18.4	920.1	875.4	44.70	20.585		
10,000.0	9,660.5	9,965.6	9,521.6	34.9	10.5	81.73	397.7	-18.7	941.2	896.3	44.93	20.947		
10,028.4	9,661.0	9,991.5	9,521.5	35.0	10.6	80.57	423.6	-18.9	952.8	907.7	45.07	21.141		
10,100.0	9,660.8	10,057.3	9,521.3	35.1	10.9	80.94	489.4	-19.3	980.7	935.3	45.45	21.579		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9078-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 (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	89.39		0.3	30.0	30.0				
100.0	100.0	100.0	100.0	3.0	3.0	89.39		0.3	30.0	30.0	24.0	6.00	4.998	
200.0	200.0	200.0	200.0	3.0	3.0	89.39		0.3	30.0	30.0	24.0	6.04	4.966	
300.0	300.0	300.0	300.0	3.1	3.0	89.39		0.3	30.0	30.0	23.9	6.12	4.900	
400.0	400.0	400.0	400.0	3.2	3.0	89.39		0.3	30.0	30.0	23.8	6.24	4.805	
500.0	500.0	500.0	500.0	3.4	3.1	89.39		0.3	30.0	30.0	23.6	6.40	4.688	
600.0	600.0	600.0	600.0	3.6	3.1	89.39		0.3	30.0	30.0	23.4	6.59	4.554	
700.0	700.0	700.0	700.0	3.8	3.1	89.39		0.3	30.0	30.0	23.2	6.80	4.410	
800.0	800.0	800.0	800.0	4.0	3.2	89.39		0.3	30.0	30.0	23.0	7.04	4.261	
900.0	900.0	900.0	900.0	4.2	3.2	89.39		0.3	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	89.39		0.3	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	89.39		0.3	30.0	30.0	22.1	7.86	3.816	
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	89.39		0.3	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	89.39		0.3	30.0	30.0	21.5	8.48	3.540	
1,400.0	1,400.0	1,400.0	1,400.0	5.7	3.5	89.39		0.3	30.0	30.0	21.2	8.80	3.411	
1,500.0	1,500.0	1,500.0	1,500.0	6.0	3.5	89.39		0.3	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	89.39		0.3	30.0	30.0	20.5	9.46	3.172	
1,700.0	1,700.0	1,700.0	1,700.0	6.6	3.7	89.39		0.3	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	89.39		0.3	30.0	30.0	19.9	10.15	2.957	
1,900.0	1,900.0	1,900.0	1,900.0	7.2	3.9	89.39		0.3	30.0	30.0	19.5	10.50	2.858	
2,000.0	2,000.0	2,000.0	2,000.0	7.6	3.9	89.39		0.3	30.0	30.0	19.1	10.85	2.764	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	4.0	89.39		0.3	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	89.39		0.3	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	89.39		0.3	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	89.39		0.3	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	89.39		0.3	30.0	30.0	17.3	12.69	2.365 CC	
2,600.0	2,600.0	2,601.0	2,601.0	9.6	4.4	-172.86		-0.3	28.3	30.1	17.0	13.05	2.305	
2,700.0	2,699.8	2,701.8	2,701.7	9.9	4.5	-170.65		-2.1	23.3	30.4	17.0	13.40	2.265 ES, SF	
2,800.0	2,799.5	2,801.8	2,801.4	10.2	4.5	-168.76		-4.3	17.2	32.9	19.1	13.78	2.387	
2,900.0	2,898.9	2,901.7	2,901.1	10.5	4.5	-167.74		-6.6	11.0	37.2	23.0	14.17	2.624	
3,000.0	2,998.4	3,001.6	3,000.8	10.9	4.5	-166.93		-8.8	4.8	41.5	26.9	14.56	2.847	
3,100.0	3,097.8	3,101.5	3,100.5	11.2	4.5	-166.28		-11.1	-1.3	45.8	30.8	14.96	3.059	
3,200.0	3,197.3	3,201.4	3,200.2	11.5	4.6	-165.74		-13.3	-7.5	50.0	34.7	15.36	3.258	
3,300.0	3,296.7	3,301.3	3,299.9	11.9	4.6	-165.28		-15.6	-13.7	54.3	38.6	15.77	3.447	
3,400.0	3,396.2	3,401.2	3,399.6	12.2	4.6	-164.89		-17.8	-19.9	58.6	42.5	16.18	3.625	
3,500.0	3,495.6	3,501.2	3,499.3	12.6	4.7	-164.55		-20.1	-26.0	63.0	46.4	16.59	3.794	
3,600.0	3,595.1	3,601.1	3,598.9	12.9	4.7	-164.26		-22.3	-32.2	67.3	50.3	17.01	3.954	
3,700.0	3,694.5	3,701.0	3,698.6	13.3	4.7	-164.00		-24.6	-38.4	71.6	54.1	17.43	4.106	
3,800.0	3,794.0	3,800.9	3,798.3	13.6	4.8	-163.77		-26.8	-44.6	75.9	58.0	17.86	4.250	
3,900.0	3,893.4	3,900.8	3,898.0	13.9	4.8	-163.57		-29.1	-50.7	80.2	61.9	18.28	4.386	
4,000.0	3,992.9	4,000.7	3,997.7	14.3	4.9	-163.38		-31.3	-56.9	84.5	65.8	18.71	4.516	
4,100.0	4,092.3	4,100.6	4,097.4	14.6	5.0	-163.22		-33.6	-63.1	88.8	69.7	19.14	4.639	
4,200.0	4,191.8	4,200.5	4,197.1	15.0	5.0	-163.07		-35.8	-69.2	93.1	73.5	19.58	4.757	
4,300.0	4,291.2	4,300.4	4,296.8	15.3	5.1	-162.93		-38.0	-75.4	97.4	77.4	20.02	4.868	
4,400.0	4,390.7	4,400.3	4,396.5	15.7	5.1	-162.81		-40.3	-81.6	101.8	81.3	20.45	4.975	
4,500.0	4,490.1	4,500.2	4,496.2	16.0	5.2	-162.69		-42.5	-87.8	106.1	85.2	20.90	5.076	
4,600.0	4,589.6	4,600.1	4,595.9	16.4	5.3	-162.58		-44.8	-93.9	110.4	89.0	21.34	5.173	
4,700.0	4,689.0	4,700.0	4,695.5	16.7	5.3	-162.49		-47.0	-100.1	114.7	92.9	21.78	5.266	
4,800.0	4,788.5	4,799.9	4,795.2	17.1	5.4	-162.40		-49.3	-106.3	119.0	96.8	22.23	5.354	
4,900.0	4,887.9	4,899.8	4,894.9	17.5	5.5	-162.31		-51.5	-112.5	123.3	100.7	22.68	5.439	
5,000.0	4,987.4	4,999.8	4,994.6	17.8	5.6	-162.23		-53.8	-118.6	127.6	104.5	23.13	5.520	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9078-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		
5,100.0	5,086.9	5,099.7	5,094.3	18.2	5.7	-162.16	-56.0	-124.8	132.0	108.4	23.58	5.598		
5,200.0	5,186.3	5,199.6	5,194.0	18.5	5.7	-162.09	-58.3	-131.0	136.3	112.3	24.03	5.672		
5,300.0	5,285.8	5,299.5	5,293.7	18.9	5.8	-162.02	-60.5	-137.1	140.6	116.1	24.48	5.743		
5,400.0	5,385.2	5,399.4	5,393.4	19.2	5.9	-161.96	-62.8	-143.3	144.9	120.0	24.94	5.812		
5,500.0	5,484.7	5,499.3	5,493.1	19.6	6.0	-161.91	-65.0	-149.5	149.2	123.8	25.39	5.878		
5,600.0	5,584.1	5,599.2	5,592.8	19.9	6.1	-161.85	-67.3	-155.7	153.6	127.7	25.85	5.941		
5,700.0	5,683.6	5,699.1	5,692.4	20.3	6.2	-161.80	-69.5	-161.8	157.9	131.6	26.31	6.001		
5,800.0	5,783.0	5,799.0	5,792.1	20.7	6.3	-161.75	-71.8	-168.0	162.2	135.4	26.76	6.060		
5,900.0	5,882.5	5,898.9	5,891.8	21.0	6.4	-161.71	-74.0	-174.2	166.5	139.3	27.22	6.116		
6,000.0	5,981.9	5,998.8	5,991.5	21.4	6.5	-161.66	-76.2	-180.4	170.8	143.1	27.68	6.170		
6,100.0	6,081.4	6,098.7	6,091.2	21.7	6.6	-161.62	-78.5	-186.5	175.1	147.0	28.15	6.223		
6,200.0	6,180.8	6,198.6	6,190.9	22.1	6.7	-161.58	-80.7	-192.7	179.5	150.9	28.61	6.273		
6,300.0	6,280.3	6,298.5	6,290.6	22.5	6.7	-161.54	-83.0	-198.9	183.8	154.7	29.07	6.322		
6,400.0	6,379.7	6,398.4	6,390.3	22.8	6.8	-161.51	-85.2	-205.0	188.1	158.6	29.53	6.369		
6,500.0	6,479.2	6,498.4	6,490.0	23.2	6.9	-161.47	-87.5	-211.2	192.4	162.4	30.00	6.414		
6,600.0	6,578.6	6,598.3	6,589.7	23.5	7.0	-161.44	-89.7	-217.4	196.7	166.3	30.46	6.458		
6,700.0	6,678.1	6,698.2	6,689.4	23.9	7.1	-161.41	-92.0	-223.6	201.1	170.1	30.93	6.500		
6,800.0	6,777.5	6,798.1	6,789.0	24.3	7.3	-161.38	-94.2	-229.7	205.4	174.0	31.40	6.541		
6,900.0	6,877.0	6,898.0	6,888.7	24.6	7.4	-161.35	-96.5	-235.9	209.7	177.8	31.86	6.581		
7,000.0	6,976.4	6,997.9	6,988.4	25.0	7.5	-161.32	-98.7	-242.1	214.0	181.7	32.33	6.619		
7,100.0	7,075.9	7,097.8	7,088.1	25.3	7.6	-161.30	-101.0	-248.3	218.3	185.5	32.80	6.656		
7,200.0	7,175.3	7,197.7	7,187.8	25.7	7.7	-161.27	-103.2	-254.4	222.6	189.4	33.27	6.692		
7,300.0	7,274.8	7,297.6	7,287.5	26.1	7.8	-161.24	-105.5	-260.6	227.0	193.2	33.74	6.727		
7,400.0	7,374.3	7,397.5	7,387.2	26.4	7.9	-161.22	-107.7	-266.8	231.3	197.1	34.21	6.761		
7,500.0	7,473.7	7,497.4	7,486.9	26.8	8.0	-161.20	-109.9	-273.0	235.6	200.9	34.68	6.794		
7,600.0	7,573.2	7,597.3	7,586.6	27.1	8.1	-161.18	-112.2	-279.1	239.9	204.8	35.15	6.825		
7,700.0	7,672.6	7,697.2	7,686.3	27.5	8.2	-161.16	-114.4	-285.3	244.2	208.6	35.62	6.856		
7,800.0	7,772.1	7,797.1	7,785.9	27.9	8.3	-161.13	-116.7	-291.5	248.6	212.5	36.09	6.886		
7,900.0	7,871.5	7,897.0	7,885.6	28.2	8.4	-161.11	-118.9	-297.6	252.9	216.3	36.57	6.915		
8,000.0	7,971.0	7,997.0	7,985.3	28.6	8.5	-161.10	-121.2	-303.8	257.2	220.2	37.04	6.944		
8,100.0	8,070.4	8,096.9	8,085.0	29.0	8.7	-161.08	-123.4	-310.0	261.5	224.0	37.51	6.971		
8,200.0	8,169.9	8,196.8	8,184.7	29.3	8.8	-161.06	-125.7	-316.2	265.8	227.8	37.99	6.998		
8,300.0	8,269.3	8,296.7	8,284.4	29.7	8.9	-161.04	-127.9	-322.3	270.2	231.7	38.46	7.024		
8,400.0	8,368.8	8,396.6	8,384.1	30.0	9.0	-161.03	-130.2	-328.5	274.5	235.5	38.94	7.049		
8,500.0	8,468.2	8,496.5	8,483.8	30.4	9.1	-161.01	-132.4	-334.7	278.8	239.4	39.41	7.074		
8,600.0	8,567.7	8,596.4	8,583.5	30.8	9.2	-160.99	-134.7	-340.9	283.1	243.2	39.89	7.098		
8,700.0	8,667.1	8,696.3	8,683.2	31.1	9.3	-160.98	-136.9	-347.0	287.4	247.1	40.36	7.121		
8,800.0	8,766.6	8,796.2	8,782.9	31.5	9.4	-160.96	-139.2	-353.2	291.7	250.9	40.84	7.144		
8,900.0	8,866.0	8,896.1	8,882.5	31.9	9.6	-160.95	-141.4	-359.4	296.1	254.8	41.31	7.166		
9,000.0	8,965.5	8,996.0	8,982.2	32.2	9.7	-160.93	-143.6	-365.5	300.4	258.6	41.79	7.188		
9,100.0	9,064.9	9,095.9	9,081.9	32.6	9.8	-160.92	-145.9	-371.7	304.7	262.5	42.22	7.218		
9,144.0	9,108.7	9,139.9	9,125.8	32.8	9.8	-160.92	-146.9	-374.4	306.6	264.2	42.38	7.234		
9,150.0	9,114.7	9,145.9	9,131.8	32.8	9.8	-166.21	-147.0	-374.8	306.9	264.5	42.40	7.237		
9,200.0	9,164.2	9,200.6	9,186.3	33.0	9.8	164.20	-146.8	-378.2	310.4	267.8	42.60	7.286		
9,250.0	9,213.2	9,257.1	9,242.4	33.1	9.8	150.85	-141.2	-381.7	315.4	272.6	42.79	7.370		
9,300.0	9,261.3	9,313.4	9,297.5	33.3	9.8	143.53	-130.2	-385.2	321.9	278.9	42.99	7.487		
9,350.0	9,308.1	9,369.4	9,351.0	33.5	9.8	138.56	-114.0	-388.6	329.8	286.6	43.18	7.638		
9,400.0	9,353.2	9,425.0	9,402.2	33.6	9.9	134.64	-92.8	-392.0	339.1	295.8	43.37	7.820		
9,450.0	9,396.3	9,479.9	9,450.6	33.8	9.9	131.19	-67.0	-395.1	349.9	306.3	43.56	8.032		
9,500.0	9,437.1	9,534.2	9,495.8	33.9	9.9	127.99	-37.1	-398.1	362.0	318.3	43.75	8.274		
9,550.0	9,475.3	9,587.7	9,537.4	34.1	10.0	124.89	-3.5	-400.9	375.4	331.5	43.94	8.544		

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

6/8/2020 11:09:18AM

Page 14

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 302H - OWB - PWP											Offset Site Error:		3.0 usft
Survey Program:		0-Standard Keeper 104, 9078-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			
9,600.0	9,510.5	9,640.5	9,575.2	34.2	10.1	121.86	33.3	-403.5	390.1	346.0	44.13	8.839			
9,650.0	9,542.5	9,692.6	9,608.9	34.3	10.1	118.86	72.8	-405.9	405.9	361.6	44.33	9.158			
9,700.0	9,571.1	9,743.9	9,638.6	34.4	10.2	115.89	114.6	-408.0	422.8	378.3	44.52	9.496			
9,750.0	9,596.1	9,794.6	9,664.1	34.5	10.3	112.95	158.3	-409.9	440.6	395.9	44.72	9.852			
9,800.0	9,617.2	9,844.7	9,685.4	34.5	10.4	110.06	203.6	-411.5	459.2	414.2	44.92	10.221			
9,850.0	9,634.3	9,894.3	9,702.6	34.6	10.5	107.22	250.1	-412.9	478.4	433.2	45.13	10.600			
9,900.0	9,647.3	9,943.5	9,715.6	34.7	10.6	104.45	297.5	-414.0	498.0	452.7	45.34	10.986			
9,950.0	9,656.0	9,992.4	9,724.4	34.8	10.8	101.77	345.6	-414.9	518.0	472.5	45.55	11.373			
10,000.0	9,660.5	10,041.2	9,729.1	34.9	10.9	99.19	394.1	-415.5	538.2	492.4	45.76	11.760			
10,028.4	9,661.0	10,068.8	9,730.0	35.0	11.0	97.78	421.8	-415.7	549.7	503.8	45.89	11.978			
10,100.0	9,660.8	10,135.2	9,729.4	35.1	11.3	97.29	488.1	-416.1	577.7	531.4	46.22	12.499			
10,200.0	9,660.4	10,228.2	9,728.5	35.2	11.6	96.71	581.1	-416.7	614.0	567.3	46.73	13.140			
10,300.0	9,660.0	10,322.4	9,727.5	35.4	12.0	96.24	675.4	-417.3	647.2	599.9	47.31	13.679			
10,400.0	9,659.6	10,417.8	9,726.6	35.6	12.5	95.85	770.7	-417.9	677.1	629.1	47.96	14.118			
10,500.0	9,659.2	10,514.1	9,725.6	35.9	13.0	95.53	867.1	-418.5	703.6	655.0	48.67	14.459			
10,600.0	9,658.8	10,611.4	9,724.7	36.1	13.6	95.27	964.3	-419.0	726.9	677.4	49.43	14.705			
10,700.0	9,658.4	10,709.3	9,723.7	36.4	14.2	95.06	1,062.3	-419.6	746.7	696.5	50.25	14.861			
10,800.0	9,658.0	10,808.0	9,722.7	36.6	14.8	94.88	1,160.9	-420.2	763.1	712.0	51.11	14.932			
10,900.0	9,657.7	10,907.1	9,721.7	36.9	15.4	94.74	1,260.0	-420.8	776.1	724.1	52.02	14.921			
11,000.0	9,657.3	11,006.6	9,720.7	37.2	16.1	94.63	1,359.5	-421.4	785.7	732.7	52.96	14.835			
11,100.0	9,656.9	11,106.4	9,719.7	37.5	16.7	94.55	1,459.3	-422.1	791.7	737.8	53.94	14.677			
11,200.0	9,656.5	11,206.4	9,718.7	37.8	17.4	94.49	1,559.3	-422.7	794.3	739.4	54.95	14.454			
11,226.0	9,656.4	11,232.3	9,718.5	37.9	17.6	94.48	1,585.2	-422.8	794.4	739.2	55.22	14.386			
11,300.0	9,656.1	11,306.4	9,717.7	38.1	18.2	94.45	1,659.3	-423.3	794.4	738.4	55.99	14.188			
11,400.0	9,655.7	11,406.4	9,716.7	38.4	18.9	94.41	1,759.2	-423.9	794.3	737.3	57.06	13.921			
11,500.0	9,655.4	11,506.4	9,715.8	38.8	19.6	94.36	1,859.2	-424.5	794.3	736.1	58.16	13.658			
11,600.0	9,655.0	11,606.4	9,714.8	39.2	20.4	94.32	1,959.2	-425.1	794.3	735.0	59.28	13.398			
11,700.0	9,654.6	11,706.4	9,713.8	39.5	21.1	94.27	2,059.2	-425.7	794.2	733.8	60.43	13.143			
11,800.0	9,654.2	11,806.4	9,712.8	39.9	21.9	94.23	2,159.2	-426.3	794.2	732.6	61.60	12.893			
11,900.0	9,653.8	11,906.4	9,711.8	40.3	22.7	94.19	2,259.2	-426.9	794.1	731.3	62.79	12.648			
12,000.0	9,653.4	12,006.4	9,710.8	40.8	23.4	94.14	2,359.2	-427.5	794.1	730.1	64.00	12.408			
12,100.0	9,653.1	12,106.4	9,709.8	41.2	24.2	94.10	2,459.2	-428.1	794.0	728.8	65.23	12.173			
12,200.0	9,652.7	12,206.4	9,708.8	41.6	25.0	94.05	2,559.2	-428.7	794.0	727.5	66.47	11.944			
12,300.0	9,652.3	12,306.4	9,707.8	42.1	25.8	94.01	2,659.2	-429.3	793.9	726.2	67.74	11.720			
12,400.0	9,651.9	12,406.4	9,706.8	42.6	26.6	93.96	2,759.2	-430.0	793.9	724.9	69.02	11.502			
12,500.0	9,651.5	12,506.4	9,705.8	43.1	27.4	93.92	2,859.1	-430.6	793.9	723.5	70.32	11.289			
12,600.0	9,651.2	12,606.4	9,704.8	43.6	28.2	93.88	2,959.1	-431.2	793.8	722.2	71.63	11.082			
12,700.0	9,650.8	12,706.4	9,703.8	44.1	29.0	93.83	3,059.1	-431.8	793.8	720.8	72.96	10.880			
12,800.0	9,650.4	12,806.4	9,702.8	44.6	29.9	93.79	3,159.1	-432.4	793.7	719.4	74.30	10.683			
12,900.0	9,650.0	12,906.4	9,701.8	45.1	30.7	93.74	3,259.1	-433.0	793.7	718.0	75.65	10.491			
13,000.0	9,649.6	13,006.4	9,700.8	45.7	31.5	93.70	3,359.1	-433.6	793.7	716.6	77.02	10.304			
13,100.0	9,649.3	13,106.4	9,699.9	46.2	32.3	93.66	3,459.1	-434.2	793.6	715.2	78.40	10.123			
13,200.0	9,648.9	13,206.4	9,698.9	46.8	33.1	93.61	3,559.1	-434.8	793.6	713.8	79.79	9.946			
13,300.0	9,648.5	13,306.4	9,697.9	47.3	34.0	93.57	3,659.1	-435.4	793.5	712.3	81.19	9.774			
13,400.0	9,648.1	13,406.3	9,696.9	47.9	34.8	93.52	3,759.1	-436.0	793.5	710.9	82.60	9.606			
13,500.0	9,647.7	13,506.3	9,695.9	48.5	35.6	93.48	3,859.1	-436.6	793.5	709.4	84.02	9.444			
13,600.0	9,647.3	13,606.3	9,694.9	49.1	36.4	93.44	3,959.1	-437.2	793.4	708.0	85.45	9.285			
13,700.0	9,647.0	13,706.3	9,693.9	49.7	37.3	93.39	4,059.0	-437.9	793.4	706.5	86.89	9.131			
13,800.0	9,646.6	13,806.3	9,692.9	50.3	38.1	93.35	4,159.0	-438.5	793.4	705.0	88.34	8.981			
13,900.0	9,646.2	13,906.3	9,691.9	50.9	38.9	93.30	4,259.0	-439.1	793.3	703.5	89.80	8.834			
14,000.0	9,645.8	14,006.3	9,690.9	51.6	39.8	93.26	4,359.0	-439.7	793.3	702.0	91.26	8.692			

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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

BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 302H - OWB - PWP													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9078-MVD+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	
14,100.0	9,645.4	14,106.3	9,689.9	52.2	40.6	93.21	4,459.0	-440.3	793.2	700.5	92.74	8.554		
14,200.0	9,645.1	14,206.3	9,688.9	52.8	41.5	93.17	4,559.0	-440.9	793.2	699.0	94.22	8.419		
14,300.0	9,644.7	14,306.3	9,687.9	53.5	42.3	93.13	4,659.0	-441.5	793.2	697.5	95.70	8.288		
14,400.0	9,644.3	14,406.3	9,686.9	54.1	43.1	93.08	4,759.0	-442.1	793.1	695.9	97.20	8.160		
14,500.0	9,643.9	14,506.3	9,685.9	54.8	44.0	93.04	4,859.0	-442.7	793.1	694.4	98.70	8.036		
14,600.0	9,643.5	14,606.3	9,684.9	55.4	44.8	92.99	4,959.0	-443.3	793.1	692.9	100.21	7.914		
14,700.0	9,643.2	14,706.3	9,684.0	56.1	45.7	92.95	5,059.0	-443.9	793.0	691.3	101.72	7.796		
14,800.0	9,642.8	14,806.3	9,683.0	56.8	46.5	92.91	5,159.0	-444.5	793.0	689.8	103.24	7.681		
14,900.0	9,642.4	14,906.3	9,682.0	57.5	47.4	92.86	5,258.9	-445.1	793.0	688.2	104.76	7.569		
15,000.0	9,642.0	15,006.3	9,681.0	58.1	48.2	92.82	5,358.9	-445.8	793.0	686.7	106.29	7.460		
15,100.0	9,641.6	15,106.3	9,680.0	58.8	49.1	92.77	5,458.9	-446.4	792.9	685.1	107.83	7.353		
15,200.0	9,641.2	15,206.3	9,679.0	59.5	49.9	92.73	5,558.9	-447.0	792.9	683.5	109.37	7.250		
15,300.0	9,640.9	15,306.3	9,678.0	60.2	50.7	92.68	5,658.9	-447.6	792.9	682.0	110.92	7.148		
15,400.0	9,640.5	15,406.3	9,677.0	60.9	51.6	92.64	5,758.9	-448.2	792.8	680.4	112.47	7.049		
15,500.0	9,640.1	15,506.3	9,676.0	61.6	52.4	92.60	5,858.9	-448.8	792.8	678.8	114.02	6.953		
15,600.0	9,639.7	15,606.3	9,675.0	62.3	53.3	92.55	5,958.9	-449.4	792.8	677.2	115.58	6.859		
15,700.0	9,639.3	15,706.3	9,674.0	63.0	54.1	92.51	6,058.9	-450.0	792.8	675.6	117.15	6.767		
15,800.0	9,639.0	15,806.3	9,673.0	63.8	55.0	92.46	6,158.9	-450.6	792.7	674.0	118.71	6.678		
15,900.0	9,638.6	15,906.3	9,672.0	64.5	55.8	92.42	6,258.9	-451.2	792.7	672.4	120.29	6.590		
16,000.0	9,638.2	16,006.3	9,671.0	65.2	56.7	92.37	6,358.8	-451.8	792.7	670.8	121.86	6.505		
16,100.0	9,637.8	16,106.3	9,670.0	65.9	57.6	92.33	6,458.8	-452.4	792.7	669.2	123.44	6.421		
16,200.0	9,637.4	16,206.3	9,669.0	66.7	58.4	92.29	6,558.8	-453.0	792.6	667.6	125.02	6.340		
16,300.0	9,637.1	16,306.3	9,668.1	67.4	59.3	92.24	6,658.8	-453.7	792.6	666.0	126.61	6.260		
16,400.0	9,636.7	16,406.3	9,667.1	68.1	60.1	92.20	6,758.8	-454.3	792.6	664.4	128.20	6.182		
16,500.0	9,636.3	16,506.3	9,666.1	68.9	61.0	92.15	6,858.8	-454.9	792.6	662.8	129.79	6.106		
16,600.0	9,635.9	16,606.3	9,665.1	69.6	61.8	92.11	6,958.8	-455.5	792.5	661.1	131.39	6.032		
16,700.0	9,635.5	16,706.3	9,664.1	70.4	62.7	92.06	7,058.8	-456.1	792.5	659.5	132.98	5.959		
16,800.0	9,635.1	16,806.3	9,663.1	71.1	63.5	92.02	7,158.8	-456.7	792.5	657.9	134.59	5.888		
16,900.0	9,634.8	16,906.3	9,662.1	71.9	64.4	91.98	7,258.8	-457.3	792.5	656.3	136.19	5.819		
17,000.0	9,634.4	17,006.3	9,661.1	72.6	65.2	91.93	7,358.8	-457.9	792.4	654.7	137.80	5.751		
17,100.0	9,634.0	17,106.3	9,660.1	73.4	66.1	91.89	7,458.8	-458.5	792.4	653.0	139.41	5.684		
17,200.0	9,633.6	17,206.3	9,659.1	74.1	66.9	91.84	7,558.7	-459.1	792.4	651.4	141.02	5.619		
17,300.0	9,633.2	17,306.3	9,658.1	74.9	67.8	91.80	7,658.7	-459.7	792.4	649.8	142.63	5.555		
17,400.0	9,632.9	17,406.3	9,657.1	75.7	68.7	91.75	7,758.7	-460.3	792.4	648.1	144.25	5.493		
17,500.0	9,632.5	17,506.3	9,656.1	76.4	69.5	91.71	7,858.7	-460.9	792.4	646.5	145.87	5.432		
17,600.0	9,632.1	17,606.3	9,655.1	77.2	70.4	91.67	7,958.7	-461.6	792.3	644.8	147.49	5.372		
17,700.0	9,631.7	17,706.3	9,654.1	78.0	71.2	91.62	8,058.7	-462.2	792.3	643.2	149.12	5.313		
17,800.0	9,631.3	17,806.3	9,653.1	78.7	72.1	91.58	8,158.7	-462.8	792.3	641.6	150.74	5.256		
17,900.0	9,630.9	17,906.3	9,652.2	79.5	72.9	91.53	8,258.7	-463.4	792.3	639.9	152.37	5.200		
18,000.0	9,630.6	18,006.3	9,651.2	80.3	73.8	91.49	8,358.7	-464.0	792.3	638.3	154.00	5.145		
18,100.0	9,630.2	18,106.3	9,650.2	81.0	74.7	91.44	8,458.7	-464.6	792.2	636.6	155.63	5.091		
18,200.0	9,629.8	18,206.3	9,649.2	81.8	75.5	91.40	8,558.7	-465.2	792.2	635.0	157.26	5.038		
18,300.0	9,629.4	18,306.3	9,648.2	82.6	76.4	91.36	8,658.6	-465.8	792.2	633.3	158.90	4.986		
18,400.0	9,629.0	18,406.3	9,647.2	83.4	77.2	91.31	8,758.6	-466.4	792.2	631.7	160.54	4.935		
18,500.0	9,628.7	18,506.3	9,646.2	84.2	78.1	91.27	8,858.6	-467.0	792.2	630.0	162.18	4.885		
18,600.0	9,628.3	18,606.3	9,645.2	85.0	78.9	91.22	8,958.6	-467.6	792.2	628.4	163.82	4.836		
18,700.0	9,627.9	18,706.2	9,644.2	85.7	79.8	91.18	9,058.6	-468.2	792.2	626.7	165.46	4.788		
18,800.0	9,627.5	18,806.2	9,643.2	86.5	80.7	91.13	9,158.6	-468.9	792.2	625.0	167.10	4.740		
18,900.0	9,627.1	18,906.2	9,642.2	87.3	81.5	91.09	9,258.6	-469.5	792.1	623.4	168.75	4.694		
19,000.0	9,626.8	19,006.2	9,641.2	88.1	82.4	91.05	9,358.6	-470.1	792.1	621.7	170.40	4.649		
19,100.0	9,626.4	19,106.2	9,640.2	88.9	83.2	91.00	9,458.6	-470.7	792.1	620.1	172.04	4.604		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 302H - OWB - PWP													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 9078-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	
19,200.0	9,626.0	19,206.2	9,639.2	89.7	84.1	90.96	9,558.6	-471.3	792.1	618.4	173.69	4.560		
19,300.0	9,625.6	19,306.2	9,638.2	90.5	85.0	90.91	9,658.6	-471.9	792.1	616.8	175.34	4.517		
19,400.0	9,625.2	19,406.2	9,637.2	91.3	85.8	90.87	9,758.6	-472.5	792.1	615.1	177.00	4.475		
19,500.0	9,624.8	19,506.2	9,636.2	92.1	86.7	90.82	9,858.5	-473.1	792.1	613.4	178.65	4.434		
19,600.0	9,624.5	19,606.2	9,635.3	92.9	87.5	90.78	9,958.5	-473.7	792.1	611.8	180.31	4.393		
19,700.0	9,624.1	19,706.2	9,634.3	93.7	88.4	90.74	10,058.5	-474.3	792.1	610.1	181.96	4.353		
19,722.6	9,624.0	19,728.8	9,634.0	93.9	88.6	90.73	10,081.1	-474.5	792.1	609.7	182.34	4.344		

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

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Page 17

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference				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	89.46	0.6	60.0	60.0				
100.0	100.0	100.0	100.0	3.0	3.0	89.46	0.6	60.0	60.0	54.0	6.01	9.991	
200.0	200.0	200.0	200.0	3.0	3.0	89.46	0.6	60.0	60.0	53.9	6.08	9.869	
300.0	300.0	300.0	300.0	3.1	3.1	89.46	0.6	60.0	60.0	53.8	6.24	9.622	
400.0	400.0	400.0	400.0	3.2	3.2	89.46	0.6	60.0	60.0	53.5	6.47	9.277	
500.0	500.0	500.0	500.0	3.4	3.4	89.46	0.6	60.0	60.0	53.2	6.77	8.865	
600.0	600.0	600.0	600.0	3.6	3.6	89.46	0.6	60.0	60.0	52.9	7.13	8.417	
700.0	700.0	700.0	700.0	3.8	3.8	89.46	0.6	60.0	60.0	52.5	7.54	7.958	
800.0	800.0	800.0	800.0	4.0	4.0	89.46	0.6	60.0	60.0	52.0	7.99	7.505	
900.0	900.0	900.0	900.0	4.2	4.2	89.46	0.6	60.0	60.0	51.5	8.49	7.071	
1,000.0	1,000.0	1,000.0	1,000.0	4.5	4.5	89.46	0.6	60.0	60.0	51.0	9.01	6.662	
1,100.0	1,100.0	1,100.0	1,100.0	4.8	4.8	89.46	0.6	60.0	60.0	50.4	9.55	6.281	
1,200.0	1,200.0	1,200.0	1,200.0	5.1	5.1	89.46	0.6	60.0	60.0	49.9	10.12	5.928	
1,300.0	1,300.0	1,300.0	1,300.0	5.4	5.4	89.46	0.6	60.0	60.0	49.3	10.71	5.604	
1,400.0	1,400.0	1,400.0	1,400.0	5.7	5.7	89.46	0.6	60.0	60.0	48.7	11.31	5.306	
1,500.0	1,500.0	1,500.0	1,500.0	6.0	6.0	89.46	0.6	60.0	60.0	48.1	11.92	5.033	
1,600.0	1,600.0	1,600.0	1,600.0	6.3	6.3	89.46	0.6	60.0	60.0	47.5	12.55	4.782	
1,700.0	1,700.0	1,700.0	1,700.0	6.6	6.6	89.46	0.6	60.0	60.0	46.8	13.18	4.552	
1,800.0	1,800.0	1,800.0	1,800.0	6.9	6.9	89.46	0.6	60.0	60.0	46.2	13.82	4.341	
1,900.0	1,900.0	1,900.0	1,900.0	7.2	7.2	89.46	0.6	60.0	60.0	45.5	14.47	4.146	
2,000.0	2,000.0	2,000.0	2,000.0	7.6	7.6	89.46	0.6	60.0	60.0	44.9	15.13	3.966	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	89.46	0.6	60.0	60.0	44.2	15.79	3.800	
2,200.0	2,200.0	2,200.0	2,200.0	8.2	8.2	89.46	0.6	60.0	60.0	43.5	16.45	3.647	
2,300.0	2,300.0	2,300.0	2,300.0	8.6	8.6	89.46	0.6	60.0	60.0	42.9	17.12	3.504	
2,400.0	2,400.0	2,400.0	2,400.0	8.9	8.9	89.46	0.6	60.0	60.0	42.2	17.80	3.372	
2,500.0	2,500.0	2,500.0	2,500.0	9.2	9.2	89.46	0.6	60.0	60.0	41.5	18.47	3.248 CC, ES	
2,600.0	2,600.0	2,600.0	2,600.0	9.6	9.6	-173.72	0.6	60.0	61.7	42.6	19.14	3.225 SF	
2,700.0	2,699.8	2,699.8	2,699.8	9.9	9.9	-174.20	0.6	60.0	66.9	47.1	19.81	3.380	
2,800.0	2,799.5	2,799.5	2,799.5	10.2	10.3	-174.85	0.6	60.0	75.6	55.1	20.47	3.694	
2,900.0	2,898.9	2,898.9	2,898.9	10.5	10.6	-175.48	0.6	60.0	86.0	64.9	21.14	4.070	
3,000.0	2,998.4	2,998.4	2,998.4	10.9	10.9	-175.97	0.6	60.0	96.5	74.6	21.81	4.423	
3,100.0	3,097.8	3,097.8	3,097.8	11.2	11.3	-176.36	0.6	60.0	106.9	84.4	22.48	4.754	
3,200.0	3,197.3	3,197.3	3,197.3	11.5	11.6	-176.69	0.6	60.0	117.3	94.2	23.16	5.066	
3,300.0	3,296.7	3,296.7	3,296.7	11.9	12.0	-176.96	0.6	60.0	127.8	103.9	23.84	5.360	
3,400.0	3,396.2	3,396.2	3,396.2	12.2	12.3	-177.19	0.6	60.0	138.2	113.7	24.52	5.637	
3,500.0	3,495.6	3,495.6	3,495.6	12.6	12.7	-177.38	0.6	60.0	148.6	123.4	25.20	5.898	
3,600.0	3,595.1	3,595.1	3,595.1	12.9	13.0	-177.56	0.6	60.0	159.1	133.2	25.89	6.146	
3,700.0	3,694.5	3,694.5	3,694.5	13.3	13.4	-177.71	0.6	60.0	169.5	143.0	26.57	6.380	
3,800.0	3,794.0	3,794.0	3,794.0	13.6	13.7	-177.84	0.6	60.0	180.0	152.7	27.26	6.602	
3,900.0	3,893.4	3,893.4	3,893.4	13.9	14.1	-177.96	0.6	60.0	190.4	162.5	27.95	6.812	
4,000.0	3,992.9	3,992.9	3,992.9	14.3	14.4	-178.06	0.6	60.0	200.9	172.2	28.64	7.013	
4,100.0	4,092.3	4,092.3	4,092.3	14.6	14.8	-178.16	0.6	60.0	211.3	182.0	29.34	7.203	
4,200.0	4,191.8	4,191.8	4,191.8	15.0	15.1	-178.25	0.6	60.0	221.8	191.7	30.03	7.384	
4,300.0	4,291.2	4,291.2	4,291.2	15.3	15.5	-178.33	0.6	60.0	232.2	201.5	30.73	7.557	
4,400.0	4,390.7	4,390.7	4,390.7	15.7	15.8	-178.40	0.6	60.0	242.7	211.2	31.42	7.722	
4,500.0	4,490.1	4,490.1	4,490.1	16.0	16.2	-178.46	0.6	60.0	253.1	221.0	32.12	7.879	
4,600.0	4,589.6	4,589.6	4,589.6	16.4	16.5	-178.53	0.6	60.0	263.6	230.7	32.82	8.030	
4,700.0	4,689.0	4,689.0	4,689.0	16.7	16.9	-178.58	0.6	60.0	274.0	240.5	33.52	8.174	
4,800.0	4,788.5	4,788.5	4,788.5	17.1	17.2	-178.63	0.6	60.0	284.5	250.2	34.22	8.312	
4,900.0	4,887.9	4,887.9	4,887.9	17.5	17.6	-178.68	0.6	60.0	294.9	260.0	34.92	8.444	
5,000.0	4,987.4	4,987.4	4,987.4	17.8	17.9	-178.73	0.6	60.0	305.4	269.7	35.63	8.571	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 303H - OWB - PWP										Offset Site Error:		3.0 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			
5,100.0	5,086.9	5,086.9	5,086.9	18.2	18.3	-178.77	0.6	60.0	315.8	279.5	36.33	8.693			
5,200.0	5,186.3	5,186.3	5,186.3	18.5	18.6	-178.81	0.6	60.0	326.3	289.2	37.03	8.809			
5,300.0	5,285.8	5,285.8	5,285.8	18.9	19.0	-178.85	0.6	60.0	336.7	299.0	37.74	8.922			
5,400.0	5,385.2	5,385.2	5,385.2	19.2	19.3	-178.88	0.6	60.0	347.2	308.7	38.44	9.030			
5,500.0	5,484.7	5,484.7	5,484.7	19.6	19.7	-178.91	0.6	60.0	357.6	318.5	39.15	9.134			
5,600.0	5,584.1	5,575.4	5,575.4	19.9	20.0	-178.87	0.2	60.9	369.1	329.3	39.79	9.276			
5,700.0	5,683.6	5,663.9	5,663.8	20.3	20.3	-178.66	-1.0	64.4	383.2	342.9	40.38	9.492			
5,800.0	5,783.0	5,751.8	5,751.5	20.7	20.6	-178.29	-3.2	70.4	400.2	359.2	40.93	9.776			
5,900.0	5,882.5	5,850.1	5,849.4	21.0	20.9	-177.82	-6.1	78.4	418.4	376.8	41.61	10.056			
6,000.0	5,981.9	5,948.3	5,947.2	21.4	21.2	-177.39	-9.1	86.5	436.7	394.5	42.29	10.328			
6,100.0	6,081.4	6,046.6	6,045.1	21.7	21.6	-177.00	-12.0	94.5	455.1	412.1	42.97	10.591			
6,200.0	6,180.8	6,144.8	6,143.0	22.1	21.9	-176.63	-14.9	102.6	473.4	429.7	43.65	10.845			
6,300.0	6,280.3	6,243.1	6,240.9	22.5	22.2	-176.30	-17.9	110.6	491.7	447.4	44.33	11.092			
6,400.0	6,379.7	6,341.4	6,338.8	22.8	22.5	-175.99	-20.8	118.7	510.1	465.1	45.02	11.332			
6,500.0	6,479.2	6,439.6	6,436.7	23.2	22.9	-175.70	-23.7	126.7	528.5	482.8	45.70	11.564			
6,600.0	6,578.6	6,537.9	6,534.6	23.5	23.2	-175.43	-26.6	134.8	546.9	500.5	46.39	11.790			
6,700.0	6,678.1	6,636.1	6,632.5	23.9	23.5	-175.17	-29.6	142.8	565.3	518.2	47.07	12.009			
6,800.0	6,777.5	6,734.4	6,730.3	24.3	23.9	-174.94	-32.5	150.9	583.7	535.9	47.76	12.221			
6,900.0	6,877.0	6,832.7	6,828.2	24.6	24.2	-174.71	-35.4	158.9	602.1	553.7	48.45	12.428			
7,000.0	6,976.4	6,930.9	6,926.1	25.0	24.6	-174.50	-38.4	167.0	620.6	571.4	49.14	12.628			
7,100.0	7,075.9	7,029.2	7,024.0	25.3	24.9	-174.31	-41.3	175.0	639.0	589.2	49.83	12.823			
7,200.0	7,175.3	7,127.5	7,121.9	25.7	25.2	-174.12	-44.2	183.1	657.5	606.9	50.52	13.013			
7,300.0	7,274.8	7,225.7	7,219.8	26.1	25.6	-173.94	-47.1	191.1	675.9	624.7	51.22	13.197			
7,400.0	7,374.3	7,324.0	7,317.7	26.4	25.9	-173.78	-50.1	199.2	694.4	642.5	51.91	13.377			
7,500.0	7,473.7	7,422.2	7,415.6	26.8	26.2	-173.62	-53.0	207.2	712.8	660.2	52.60	13.551			
7,600.0	7,573.2	7,520.5	7,513.5	27.1	26.6	-173.47	-55.9	215.2	731.3	678.0	53.30	13.721			
7,700.0	7,672.6	7,618.8	7,611.3	27.5	26.9	-173.33	-58.9	223.3	749.8	695.8	53.99	13.886			
7,800.0	7,772.1	7,717.0	7,709.2	27.9	27.3	-173.19	-61.8	231.3	768.2	713.6	54.69	14.047			
7,900.0	7,871.5	7,815.3	7,807.1	28.2	27.6	-173.06	-64.7	239.4	786.7	731.3	55.39	14.204			
8,000.0	7,971.0	7,913.6	7,905.0	28.6	27.9	-172.94	-67.7	247.4	805.2	749.1	56.09	14.357			
8,100.0	8,070.4	8,011.8	8,002.9	29.0	28.3	-172.82	-70.6	255.5	823.7	766.9	56.78	14.506			
8,200.0	8,169.9	8,110.1	8,100.8	29.3	28.6	-172.71	-73.5	263.5	842.2	784.7	57.48	14.651			
8,300.0	8,269.3	8,208.3	8,198.7	29.7	29.0	-172.60	-76.4	271.6	860.7	802.5	58.18	14.793			
8,400.0	8,368.8	8,306.6	8,296.6	30.0	29.3	-172.49	-79.4	279.6	879.2	820.3	58.88	14.931			
8,500.0	8,468.2	8,404.9	8,394.4	30.4	29.7	-172.40	-82.3	287.7	897.7	838.1	59.58	15.066			
8,600.0	8,567.7	8,503.1	8,492.3	30.8	30.0	-172.30	-85.2	295.7	916.2	855.9	60.29	15.198			
8,700.0	8,667.1	8,601.4	8,590.2	31.1	30.3	-172.21	-88.2	303.8	934.7	873.7	60.99	15.326			
8,800.0	8,766.6	8,699.7	8,688.1	31.5	30.7	-172.12	-91.1	311.8	953.2	891.5	61.69	15.452			
8,900.0	8,866.0	8,797.9	8,786.0	31.9	31.0	-172.04	-94.0	319.9	971.7	909.3	62.39	15.574			
9,000.0	8,965.5	8,896.2	8,883.9	32.2	31.4	-171.96	-96.9	327.9	990.2	927.1	63.10	15.694			

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

6/8/2020 11:09:18AM

Page 19

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10201-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
0.0	0.0	0.0	0.0	3.0	3.0	-158.54	-200.7	-78.9	215.7				
100.0	100.0	99.0	99.0	3.0	3.0	-158.54	-200.7	-78.9	215.7	209.7	6.00	35.925	
200.0	200.0	199.0	199.0	3.0	3.0	-158.54	-200.7	-78.9	215.7	209.6	6.04	35.679	
300.0	300.0	299.0	299.0	3.1	3.0	-158.54	-200.7	-78.9	215.7	209.5	6.13	35.168	
400.0	400.0	399.0	399.0	3.2	3.0	-158.54	-200.7	-78.9	215.7	209.4	6.26	34.433	
500.0	500.0	499.0	499.0	3.4	3.1	-158.54	-200.7	-78.9	215.7	209.2	6.43	33.522	
600.0	600.0	599.0	599.0	3.6	3.1	-158.54	-200.7	-78.9	215.7	209.0	6.64	32.486	
700.0	700.0	699.0	699.0	3.8	3.1	-158.54	-200.7	-78.9	215.7	208.8	6.87	31.374	
800.0	800.0	799.0	799.0	4.0	3.2	-158.54	-200.7	-78.9	215.7	208.5	7.14	30.222	
900.0	900.0	899.0	899.0	4.2	3.2	-158.54	-200.7	-78.9	215.7	208.2	7.42	29.064	
1,000.0	1,000.0	999.0	999.0	4.5	3.2	-158.54	-200.7	-78.9	215.7	207.9	7.72	27.919	
1,100.0	1,100.0	1,099.0	1,099.0	4.8	3.3	-158.54	-200.7	-78.9	215.7	207.6	8.05	26.805	
1,200.0	1,200.0	1,199.0	1,199.0	5.1	3.4	-158.54	-200.7	-78.9	215.7	207.3	8.38	25.732	
1,300.0	1,300.0	1,299.0	1,299.0	5.4	3.4	-158.54	-200.7	-78.9	215.7	206.9	8.73	24.704	
1,400.0	1,400.0	1,399.0	1,399.0	5.7	3.5	-158.54	-200.7	-78.9	215.7	206.6	9.09	23.726	
1,500.0	1,500.0	1,499.0	1,499.0	6.0	3.5	-158.54	-200.7	-78.9	215.7	206.2	9.46	22.799	
1,600.0	1,600.0	1,599.0	1,599.0	6.3	3.6	-158.54	-200.7	-78.9	215.7	205.8	9.84	21.922	
1,700.0	1,700.0	1,699.0	1,699.0	6.6	3.7	-158.54	-200.7	-78.9	215.7	205.4	10.22	21.094	
1,800.0	1,800.0	1,799.0	1,799.0	6.9	3.8	-158.54	-200.7	-78.9	215.7	205.1	10.62	20.313	
1,900.0	1,900.0	1,899.0	1,899.0	7.2	3.9	-158.54	-200.7	-78.9	215.7	204.7	11.02	19.576	
2,000.0	2,000.0	1,999.0	1,999.0	7.6	3.9	-158.54	-200.7	-78.9	215.7	204.2	11.42	18.881	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	4.0	-158.54	-200.7	-78.9	215.7	203.8	11.83	18.227	
2,200.0	2,200.0	2,199.0	2,199.0	8.2	4.1	-158.54	-200.7	-78.9	215.7	203.4	12.25	17.609	
2,300.0	2,300.0	2,299.0	2,299.0	8.6	4.2	-158.54	-200.7	-78.9	215.7	203.0	12.67	17.026	
2,400.0	2,400.0	2,399.0	2,399.0	8.9	4.3	-158.54	-200.7	-78.9	215.7	202.6	13.09	16.476	
2,500.0	2,500.0	2,499.0	2,499.0	9.2	4.4	-158.54	-200.7	-78.9	215.7	202.2	13.52	15.955	
2,600.0	2,600.0	2,596.3	2,596.3	9.6	4.5	-61.54	-200.7	-80.5	215.4	201.6	13.89	15.507	
2,700.0	2,699.8	2,693.7	2,693.5	9.9	4.5	-61.52	-200.7	-85.4	214.8	200.6	14.22	15.104	
2,800.0	2,799.5	2,792.1	2,791.6	10.2	4.5	-61.57	-200.7	-93.5	213.6	199.1	14.55	14.679	
2,900.0	2,898.9	2,892.1	2,891.2	10.5	4.6	-61.86	-200.7	-102.2	211.8	196.9	14.90	14.221	
3,000.0	2,998.4	2,992.1	2,990.8	10.9	4.6	-62.16	-200.7	-110.9	210.1	194.8	15.24	13.780	
3,100.0	3,097.8	3,092.0	3,090.4	11.2	4.6	-62.46	-200.7	-119.6	208.3	192.7	15.60	13.355	
3,200.0	3,197.3	3,192.0	3,190.0	11.5	4.7	-62.77	-200.7	-128.3	206.5	190.5	15.95	12.946	
3,300.0	3,296.7	3,292.0	3,289.6	11.9	4.7	-63.09	-200.7	-137.0	204.7	188.4	16.31	12.552	
3,400.0	3,396.2	3,392.0	3,389.2	12.2	4.8	-63.41	-200.7	-145.8	203.0	186.3	16.67	12.172	
3,500.0	3,495.6	3,492.0	3,488.8	12.6	4.9	-63.73	-200.7	-154.5	201.2	184.2	17.04	11.807	
3,600.0	3,595.1	3,591.9	3,588.4	12.9	4.9	-64.06	-200.7	-163.2	199.5	182.0	17.41	11.455	
3,700.0	3,694.5	3,691.9	3,688.0	13.3	5.0	-64.40	-200.7	-171.9	197.7	179.9	17.79	11.116	
3,800.0	3,794.0	3,791.9	3,787.6	13.6	5.0	-64.74	-200.7	-180.6	196.0	177.8	18.16	10.789	
3,900.0	3,893.4	3,891.9	3,887.2	13.9	5.1	-65.09	-200.7	-189.3	194.2	175.7	18.55	10.474	
4,000.0	3,992.9	3,991.9	3,986.8	14.3	5.2	-65.45	-200.7	-198.0	192.5	173.6	18.93	10.170	
4,100.0	4,092.3	4,091.8	4,086.4	14.6	5.3	-65.81	-200.7	-206.7	190.8	171.5	19.32	9.877	
4,200.0	4,191.8	4,191.8	4,186.0	15.0	5.3	-66.18	-200.7	-215.5	189.1	169.4	19.71	9.595	
4,300.0	4,291.2	4,291.8	4,285.6	15.3	5.4	-66.55	-200.7	-224.2	187.4	167.3	20.10	9.322	
4,400.0	4,390.7	4,391.8	4,385.2	15.7	5.5	-66.93	-200.7	-232.9	185.7	165.2	20.50	9.059	
4,500.0	4,490.1	4,491.7	4,484.8	16.0	5.6	-67.32	-200.7	-241.6	184.0	163.1	20.90	8.806	
4,600.0	4,589.6	4,591.7	4,584.4	16.4	5.7	-67.72	-200.7	-250.3	182.4	161.1	21.30	8.561	
4,700.0	4,689.0	4,691.7	4,684.0	16.7	5.7	-68.12	-200.7	-259.0	180.7	159.0	21.71	8.324	
4,800.0	4,788.5	4,791.7	4,783.6	17.1	5.8	-68.53	-200.7	-267.7	179.0	156.9	22.11	8.096	
4,900.0	4,887.9	4,891.7	4,883.2	17.5	5.9	-68.95	-200.7	-276.5	177.4	154.9	22.52	7.876	
5,000.0	4,987.4	4,991.6	4,982.8	17.8	6.0	-69.38	-200.7	-285.2	175.8	152.8	22.94	7.662	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10201-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	
5,100.0	5,086.9	5,091.6	5,082.4	18.2	6.1	-69.81	-200.7	-293.9	174.1	150.8	23.35	7.456	
5,200.0	5,186.3	5,191.6	5,182.0	18.5	6.2	-70.25	-200.7	-302.6	172.5	148.7	23.77	7.257	
5,300.0	5,285.8	5,291.6	5,281.6	18.9	6.3	-70.71	-200.7	-311.3	170.9	146.7	24.19	7.065	
5,400.0	5,385.2	5,391.5	5,381.2	19.2	6.4	-71.16	-200.7	-320.0	169.3	144.7	24.61	6.878	
5,500.0	5,484.7	5,491.5	5,480.8	19.6	6.5	-71.63	-200.7	-328.7	167.7	142.7	25.04	6.698	
5,600.0	5,584.1	5,591.5	5,580.4	19.9	6.6	-72.11	-200.7	-337.5	166.2	140.7	25.47	6.524	
5,700.0	5,683.6	5,691.5	5,680.0	20.3	6.7	-72.60	-200.7	-346.2	164.6	138.7	25.90	6.355	
5,800.0	5,783.0	5,791.5	5,779.6	20.7	6.8	-73.09	-200.7	-354.9	163.0	136.7	26.33	6.192	
5,900.0	5,882.5	5,891.4	5,879.2	21.0	6.9	-73.60	-200.7	-363.6	161.5	134.7	26.76	6.034	
6,000.0	5,981.9	5,991.4	5,978.8	21.4	7.0	-74.11	-200.7	-372.3	160.0	132.8	27.20	5.881	
6,100.0	6,081.4	6,091.4	6,078.4	21.7	7.1	-74.63	-200.7	-381.0	158.5	130.8	27.64	5.733	
6,200.0	6,180.8	6,191.4	6,178.0	22.1	7.2	-75.17	-200.7	-389.7	157.0	128.9	28.08	5.590	
6,300.0	6,280.3	6,291.3	6,277.6	22.5	7.3	-75.71	-200.7	-398.4	155.5	127.0	28.53	5.451	
6,400.0	6,379.7	6,391.3	6,377.1	22.8	7.4	-76.27	-200.7	-407.2	154.0	125.0	28.97	5.316	
6,500.0	6,479.2	6,491.3	6,476.7	23.2	7.5	-76.83	-200.7	-415.9	152.6	123.1	29.42	5.186	
6,600.0	6,578.6	6,591.3	6,576.3	23.5	7.6	-77.41	-200.7	-424.6	151.1	121.3	29.87	5.059	
6,700.0	6,678.1	6,691.3	6,675.9	23.9	7.7	-78.00	-200.7	-433.3	149.7	119.4	30.32	4.937	
6,800.0	6,777.5	6,791.2	6,775.5	24.3	7.8	-78.60	-200.7	-442.0	148.3	117.5	30.78	4.818	
6,900.0	6,877.0	6,891.2	6,875.1	24.6	8.0	-79.21	-200.7	-450.7	146.9	115.7	31.24	4.703	
7,000.0	6,976.4	6,991.2	6,974.7	25.0	8.1	-79.83	-200.7	-459.4	145.5	113.8	31.70	4.591	
7,100.0	7,075.9	7,091.2	7,074.3	25.3	8.2	-80.46	-200.7	-468.2	144.2	112.0	32.16	4.483	
7,200.0	7,175.3	7,191.1	7,173.9	25.7	8.3	-81.11	-200.7	-476.9	142.8	110.2	32.62	4.379	
7,300.0	7,274.8	7,291.1	7,273.5	26.1	8.4	-81.76	-200.7	-485.6	141.5	108.4	33.09	4.277	
7,400.0	7,374.3	7,391.1	7,373.1	26.4	8.5	-82.43	-200.7	-494.3	140.2	106.7	33.56	4.178	
7,500.0	7,473.7	7,491.1	7,472.7	26.8	8.6	-83.11	-200.7	-503.0	138.9	104.9	34.03	4.083	
7,600.0	7,573.2	7,591.1	7,572.3	27.1	8.7	-83.81	-200.7	-511.7	137.7	103.2	34.50	3.991	
7,700.0	7,672.6	7,691.0	7,671.9	27.5	8.9	-84.52	-200.7	-520.4	136.4	101.5	34.98	3.901	
7,800.0	7,772.1	7,791.0	7,771.5	27.9	9.0	-85.24	-200.7	-529.2	135.2	99.8	35.45	3.814	
7,900.0	7,871.5	7,891.0	7,871.1	28.2	9.1	-85.97	-200.7	-537.9	134.0	98.1	35.93	3.730	
8,000.0	7,971.0	7,991.0	7,970.7	28.6	9.2	-86.72	-200.7	-546.6	132.8	96.4	36.41	3.648	
8,100.0	8,070.4	8,090.9	8,070.3	29.0	9.3	-87.48	-200.7	-555.3	131.7	94.8	36.90	3.569	
8,200.0	8,169.9	8,190.9	8,169.9	29.3	9.4	-88.25	-200.7	-564.0	130.6	93.2	37.38	3.492	
8,300.0	8,269.3	8,290.9	8,269.5	29.7	9.5	-89.04	-200.7	-572.7	129.5	91.6	37.87	3.418	
8,400.0	8,368.8	8,390.9	8,369.1	30.0	9.7	-89.83	-200.7	-581.4	128.4	90.0	38.36	3.346	
8,500.0	8,468.2	8,490.9	8,468.7	30.4	9.8	-90.65	-200.7	-590.2	127.3	88.5	38.85	3.277	
8,600.0	8,567.7	8,590.8	8,568.3	30.8	9.9	-91.47	-200.7	-598.9	126.3	86.9	39.35	3.210	
8,700.0	8,667.1	8,690.8	8,667.9	31.1	10.0	-92.31	-200.7	-607.6	125.3	85.4	39.84	3.144	
8,800.0	8,766.6	8,790.8	8,767.5	31.5	10.1	-93.17	-200.7	-616.3	124.3	84.0	40.34	3.081	
8,900.0	8,866.0	8,890.8	8,867.1	31.9	10.3	-94.03	-200.7	-625.0	123.4	82.5	40.84	3.020	
9,000.0	8,965.5	8,990.7	8,966.7	32.2	10.4	-94.91	-200.7	-633.7	122.4	81.1	41.35	2.962	
9,100.0	9,064.9	9,090.7	9,066.3	32.6	10.5	-95.81	-200.7	-642.4	121.6	79.7	41.85	2.905	
9,144.0	9,108.7	9,134.7	9,110.1	32.8	10.6	-96.20	-200.7	-646.3	121.2	79.1	42.07	2.880	
9,149.0	9,113.7	9,139.7	9,115.1	32.8	10.6	-100.69	-200.7	-646.7	121.2	79.1	42.10	2.878 CC	
9,150.0	9,114.7	9,140.7	9,116.1	32.8	10.6	-101.54	-200.7	-646.8	121.2	79.1	42.10	2.878 ES, SF	
9,200.0	9,164.2	9,190.6	9,165.8	33.0	10.6	-131.69	-200.7	-651.1	123.4	81.0	42.37	2.912	
9,250.0	9,213.2	9,240.1	9,215.1	33.1	10.7	-145.47	-200.7	-655.5	129.9	87.3	42.64	3.047	
9,300.0	9,261.3	9,288.9	9,263.7	33.3	10.7	-152.96	-200.7	-659.7	140.7	97.8	42.92	3.279	
9,350.0	9,308.1	9,336.4	9,311.1	33.5	10.8	-157.76	-200.7	-663.8	155.8	112.6	43.19	3.607	
9,400.0	9,353.2	9,382.5	9,356.9	33.6	10.9	-161.13	-200.7	-667.9	174.9	131.5	43.45	4.026	
9,450.0	9,396.3	9,426.7	9,401.0	33.8	10.9	-163.62	-200.7	-671.7	198.1	154.4	43.70	4.533	
9,500.0	9,437.1	9,468.7	9,442.8	33.9	11.0	-165.52	-200.7	-675.4	225.0	181.1	43.92	5.124	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10201-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		
9,550.0	9,475.3	9,508.2	9,482.1	34.1	11.0	-166.97	-200.7	-678.8	255.6	211.4	44.12	5.792		
9,600.0	9,510.5	9,544.8	9,518.6	34.2	11.1	-168.07	-200.7	-682.0	289.4	245.1	44.30	6.533		
9,650.0	9,542.5	9,578.4	9,552.1	34.3	11.1	-168.91	-200.7	-684.9	326.4	281.9	44.46	7.341		
9,700.0	9,571.1	9,608.6	9,582.1	34.4	11.1	-169.50	-200.7	-687.6	366.2	321.6	44.60	8.211		
9,750.0	9,596.1	9,635.2	9,608.7	34.5	11.2	-169.88	-200.7	-689.9	408.4	363.7	44.71	9.135		
9,800.0	9,617.2	9,658.0	9,631.4	34.5	11.2	-170.02	-200.7	-691.9	452.9	408.1	44.81	10.107		
9,850.0	9,634.3	9,676.9	9,650.2	34.6	11.2	-169.87	-200.7	-693.5	499.1	454.3	44.88	11.121		
9,900.0	9,647.3	9,691.6	9,664.9	34.7	11.2	-169.27	-200.7	-694.8	546.9	501.9	44.94	12.169		
9,950.0	9,656.0	9,702.2	9,675.4	34.8	11.2	-167.63	-200.7	-695.7	595.7	550.7	44.98	13.244		
10,000.0	9,660.5	9,708.4	9,681.6	34.9	11.3	-162.02	-200.7	-696.3	645.3	600.3	45.01	14.338		
10,028.4	9,661.0	9,710.0	9,683.2	35.0	11.3	-146.62	-200.7	-696.4	673.6	628.6	45.01	14.965		
10,100.0	9,660.8	9,712.2	9,685.4	35.1	11.3	170.04	-200.7	-696.6	745.2	700.2	45.02	16.551		
10,200.0	9,660.4	9,715.1	9,688.3	35.2	11.3	129.11	-200.7	-696.8	845.1	800.1	45.03	18.768		
10,300.0	9,660.0	9,717.7	9,690.8	35.4	11.3	114.27	-200.7	-697.1	945.0	899.9	45.03	20.986		
10,400.0	9,659.6	11,471.0	10,638.6	35.6	15.2	-177.32	760.4	-1,137.9	981.1	940.2	40.84	24.024		
10,500.0	9,659.2	11,572.3	10,638.0	35.9	15.6	-177.69	859.4	-1,159.2	980.7	939.2	41.43	23.673		
10,600.0	9,658.8	11,673.4	10,637.5	36.1	16.0	-178.06	958.9	-1,176.9	980.3	938.2	42.07	23.303		
10,700.0	9,658.4	11,774.2	10,637.0	36.4	16.6	-178.43	1,058.7	-1,191.2	980.0	937.2	42.76	22.918		
10,800.0	9,658.0	11,874.8	10,636.5	36.6	17.1	-178.80	1,158.8	-1,201.8	979.7	936.2	43.50	22.521		
10,900.0	9,657.7	11,975.2	10,636.0	36.9	17.7	-179.18	1,258.9	-1,208.9	979.4	935.1	44.29	22.116		
11,000.0	9,657.3	12,075.3	10,635.5	37.2	18.4	-179.56	1,359.0	-1,212.5	979.2	934.1	45.11	21.705		
11,100.0	9,656.9	12,175.2	10,634.9	37.5	19.0	-179.89	1,458.9	-1,213.4	979.1	933.1	45.98	21.293		
11,200.0	9,656.5	12,275.2	10,634.4	37.8	19.6	179.96	1,558.8	-1,214.0	979.0	932.1	46.87	20.885		
11,226.0	9,656.4	12,301.2	10,634.3	37.9	19.8	179.96	1,584.8	-1,214.2	978.9	931.8	47.11	20.780		
11,300.0	9,656.1	12,375.2	10,633.9	38.1	20.3	179.96	1,658.8	-1,214.6	978.8	931.0	47.79	20.481		
11,400.0	9,655.7	12,475.2	10,633.4	38.4	21.0	179.96	1,758.8	-1,215.2	978.7	929.9	48.74	20.078		
11,500.0	9,655.4	12,575.2	10,632.9	38.8	21.7	179.96	1,858.8	-1,215.8	978.6	928.8	49.73	19.678		
11,600.0	9,655.0	12,675.2	10,632.4	39.2	22.4	179.96	1,958.8	-1,216.5	978.4	927.7	50.74	19.283		
11,700.0	9,654.6	12,775.2	10,631.9	39.5	23.1	179.96	2,058.8	-1,217.1	978.3	926.5	51.78	18.893		
11,800.0	9,654.2	12,875.2	10,631.4	39.9	23.8	179.96	2,158.8	-1,217.7	978.2	925.3	52.85	18.509		
11,900.0	9,653.8	12,975.2	10,630.9	40.3	24.6	179.96	2,258.8	-1,218.3	978.1	924.1	53.94	18.133		
12,000.0	9,653.4	13,075.2	10,630.4	40.8	25.3	179.96	2,358.8	-1,218.9	977.9	922.9	55.05	17.763		
12,100.0	9,653.1	13,175.2	10,629.8	41.2	26.1	179.96	2,458.8	-1,219.5	977.8	921.6	56.19	17.402		
12,200.0	9,652.7	13,275.2	10,629.3	41.6	26.8	179.97	2,558.8	-1,220.2	977.7	920.3	57.35	17.049		
12,300.0	9,652.3	13,375.2	10,628.8	42.1	27.6	179.97	2,658.8	-1,220.8	977.5	919.0	58.52	16.704		
12,400.0	9,651.9	13,475.2	10,628.3	42.6	28.4	179.97	2,758.8	-1,221.4	977.4	917.7	59.71	16.368		
12,500.0	9,651.5	13,575.2	10,627.8	43.1	29.1	179.97	2,858.8	-1,222.0	977.3	916.4	60.93	16.041		
12,600.0	9,651.2	13,675.2	10,627.3	43.6	29.9	179.97	2,958.8	-1,222.6	977.2	915.0	62.15	15.722		
12,700.0	9,650.8	13,775.2	10,626.8	44.1	30.7	179.97	3,058.8	-1,223.2	977.0	913.6	63.39	15.412		
12,800.0	9,650.4	13,875.2	10,626.3	44.6	31.5	179.97	3,158.8	-1,223.8	976.9	912.2	64.65	15.111		
12,900.0	9,650.0	13,975.2	10,625.8	45.1	32.3	179.97	3,258.8	-1,224.5	976.8	910.8	65.92	14.818		
13,000.0	9,649.6	14,075.2	10,625.3	45.7	33.1	179.97	3,358.8	-1,225.1	976.6	909.4	67.20	14.533		
13,100.0	9,649.3	14,175.2	10,624.7	46.2	33.9	179.97	3,458.8	-1,225.7	976.5	908.0	68.50	14.257		
13,200.0	9,648.9	14,275.2	10,624.2	46.8	34.7	179.97	3,558.8	-1,226.3	976.4	906.6	69.80	13.988		
13,300.0	9,648.5	14,375.2	10,623.7	47.3	35.5	179.97	3,658.8	-1,226.9	976.2	905.1	71.12	13.728		
13,400.0	9,648.1	14,475.2	10,623.2	47.9	36.3	179.97	3,758.8	-1,227.5	976.1	903.7	72.44	13.474		
13,500.0	9,647.7	14,575.2	10,622.7	48.5	37.1	179.97	3,858.8	-1,228.2	976.0	902.2	73.78	13.229		
13,600.0	9,647.3	14,675.2	10,622.2	49.1	37.9	179.97	3,958.7	-1,228.8	975.9	900.7	75.12	12.990		
13,700.0	9,647.0	14,775.2	10,621.7	49.7	38.7	179.97	4,058.7	-1,229.4	975.7	899.3	76.48	12.759		
13,800.0	9,646.6	14,875.2	10,621.2	50.3	39.5	179.97	4,158.7	-1,230.0	975.6	897.8	77.84	12.534		
13,900.0	9,646.2	14,975.2	10,620.7	50.9	40.4	179.97	4,258.7	-1,230.6	975.5	896.3	79.21	12.316		

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

Concho Resources LLC

Anticollision Report

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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												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10201-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	
14,000.0	9,645.8	15,075.2	10,620.2	51.6	41.2	179.97	4,358.7	-1,231.2	975.3	894.8	80.58	12.104	
14,100.0	9,645.4	15,175.2	10,619.6	52.2	42.0	179.97	4,458.7	-1,231.9	975.2	893.3	81.97	11.898	
14,200.0	9,645.1	15,275.2	10,619.1	52.8	42.8	179.97	4,558.7	-1,232.5	975.1	891.7	83.36	11.698	
14,300.0	9,644.7	15,375.2	10,618.6	53.5	43.7	179.97	4,658.7	-1,233.1	975.0	890.2	84.75	11.504	
14,400.0	9,644.3	15,475.2	10,618.1	54.1	44.5	179.98	4,758.7	-1,233.7	974.8	888.7	86.15	11.315	
14,500.0	9,643.9	15,575.2	10,617.6	54.8	45.3	179.98	4,858.7	-1,234.3	974.7	887.1	87.56	11.132	
14,600.0	9,643.5	15,675.2	10,617.1	55.4	46.1	179.98	4,958.7	-1,234.9	974.6	885.6	88.97	10.954	
14,700.0	9,643.2	15,775.2	10,616.6	56.1	47.0	179.98	5,058.7	-1,235.5	974.4	884.1	90.39	10.780	
14,800.0	9,642.8	15,875.2	10,616.1	56.8	47.8	179.98	5,158.7	-1,236.2	974.3	882.5	91.82	10.612	
14,900.0	9,642.4	15,975.2	10,615.6	57.5	48.6	179.98	5,258.7	-1,236.8	974.2	880.9	93.24	10.448	
15,000.0	9,642.0	16,075.2	10,615.1	58.1	49.5	179.98	5,358.7	-1,237.4	974.1	879.4	94.68	10.288	
15,100.0	9,641.6	16,175.2	10,614.5	58.8	50.3	179.98	5,458.7	-1,238.0	973.9	877.8	96.11	10.133	
15,200.0	9,641.2	16,275.2	10,614.0	59.5	51.2	179.98	5,558.7	-1,238.6	973.8	876.3	97.55	9.982	
15,300.0	9,640.9	16,375.2	10,613.5	60.2	52.0	179.98	5,658.7	-1,239.2	973.7	874.7	99.00	9.835	
15,400.0	9,640.5	16,475.2	10,613.0	60.9	52.8	179.98	5,758.7	-1,239.9	973.5	873.1	100.45	9.692	
15,500.0	9,640.1	16,575.2	10,612.5	61.6	53.7	179.98	5,858.7	-1,240.5	973.4	871.5	101.90	9.553	
15,600.0	9,639.7	16,675.2	10,612.0	62.3	54.5	179.98	5,958.7	-1,241.1	973.3	869.9	103.35	9.417	
15,700.0	9,639.3	16,775.2	10,611.5	63.0	55.3	179.98	6,058.7	-1,241.7	973.2	868.4	104.81	9.285	
15,800.0	9,639.0	16,875.2	10,611.0	63.8	56.2	179.98	6,158.7	-1,242.3	973.0	866.8	106.27	9.156	
15,900.0	9,638.6	16,975.2	10,610.5	64.5	57.0	179.98	6,258.7	-1,242.9	972.9	865.2	107.74	9.030	
16,000.0	9,638.2	17,075.2	10,610.0	65.2	57.9	179.98	6,358.7	-1,243.6	972.8	863.6	109.21	8.908	
16,100.0	9,637.8	17,175.2	10,609.4	65.9	58.7	179.98	6,458.7	-1,244.2	972.6	862.0	110.68	8.788	
16,200.0	9,637.4	17,275.2	10,608.9	66.7	59.6	179.98	6,558.7	-1,244.8	972.5	860.4	112.15	8.672	
16,300.0	9,637.1	17,375.2	10,608.4	67.4	60.4	179.98	6,658.7	-1,245.4	972.4	858.8	113.63	8.558	
16,400.0	9,636.7	17,475.2	10,607.9	68.1	61.3	179.98	6,758.7	-1,246.0	972.3	857.2	115.10	8.447	
16,500.0	9,636.3	17,575.2	10,607.4	68.9	62.1	179.99	6,858.7	-1,246.6	972.1	855.5	116.58	8.338	
16,600.0	9,635.9	17,675.2	10,606.9	69.6	62.9	179.99	6,958.6	-1,247.2	972.0	853.9	118.07	8.233	
16,700.0	9,635.5	17,775.2	10,606.4	70.4	63.8	179.99	7,058.6	-1,247.9	971.9	852.3	119.55	8.129	
16,800.0	9,635.1	17,875.2	10,605.9	71.1	64.6	179.99	7,158.6	-1,248.5	971.7	850.7	121.04	8.028	
16,900.0	9,634.8	17,975.2	10,605.4	71.9	65.5	179.99	7,258.6	-1,249.1	971.6	849.1	122.53	7.930	
17,000.0	9,634.4	18,075.2	10,604.9	72.6	66.3	179.99	7,358.6	-1,249.7	971.5	847.5	124.02	7.833	
17,100.0	9,634.0	18,175.2	10,604.3	73.4	67.2	179.99	7,458.6	-1,250.3	971.4	845.8	125.51	7.739	
17,200.0	9,633.6	18,275.2	10,603.8	74.1	68.0	179.99	7,558.6	-1,250.9	971.2	844.2	127.01	7.647	
17,300.0	9,633.2	18,375.2	10,603.3	74.9	68.9	179.99	7,658.6	-1,251.6	971.1	842.6	128.51	7.557	
17,400.0	9,632.9	18,475.2	10,602.8	75.7	69.7	179.99	7,758.6	-1,252.2	971.0	841.0	130.00	7.469	
17,500.0	9,632.5	18,575.2	10,602.3	76.4	70.6	179.99	7,858.6	-1,252.8	970.8	839.3	131.50	7.383	
17,600.0	9,632.1	18,675.2	10,601.8	77.2	71.4	179.99	7,958.6	-1,253.4	970.7	837.7	133.01	7.298	
17,700.0	9,631.7	18,775.2	10,601.3	78.0	72.3	179.99	8,058.6	-1,254.0	970.6	836.1	134.51	7.216	
17,800.0	9,631.3	18,875.2	10,600.8	78.7	73.1	179.99	8,158.6	-1,254.6	970.5	834.4	136.01	7.135	
17,900.0	9,630.9	18,975.2	10,600.3	79.5	74.0	179.99	8,258.6	-1,255.2	970.3	832.8	137.52	7.056	
18,000.0	9,630.6	19,075.2	10,599.8	80.3	74.8	179.99	8,358.6	-1,255.9	970.2	831.2	139.03	6.978	
18,100.0	9,630.2	19,175.2	10,599.2	81.0	75.7	179.99	8,458.6	-1,256.5	970.1	829.5	140.54	6.903	
18,200.0	9,629.8	19,275.2	10,598.7	81.8	76.5	179.99	8,558.6	-1,257.1	969.9	827.9	142.05	6.828	
18,300.0	9,629.4	19,375.2	10,598.2	82.6	77.4	179.99	8,658.6	-1,257.7	969.8	826.3	143.56	6.756	
18,400.0	9,629.0	19,475.2	10,597.7	83.4	78.2	179.99	8,758.6	-1,258.3	969.7	824.6	145.07	6.684	
18,500.0	9,628.7	19,575.2	10,597.2	84.2	79.1	179.99	8,858.6	-1,258.9	969.6	823.0	146.59	6.614	
18,600.0	9,628.3	19,675.2	10,596.7	85.0	80.0	179.99	8,958.6	-1,259.6	969.4	821.3	148.10	6.546	
18,700.0	9,627.9	19,775.2	10,596.2	85.7	80.8	180.00	9,058.6	-1,260.2	969.3	819.7	149.62	6.479	
18,800.0	9,627.5	19,875.2	10,595.7	86.5	81.7	180.00	9,158.6	-1,260.8	969.2	818.0	151.13	6.413	
18,900.0	9,627.1	19,975.2	10,595.2	87.3	82.5	180.00	9,258.6	-1,261.4	969.0	816.4	152.65	6.348	
19,000.0	9,626.8	20,075.2	10,594.7	88.1	83.4	180.00	9,358.6	-1,262.0	968.9	814.7	154.17	6.285	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 501H - OWB - PWP												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10201-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	
19,100.0	9,626.4	20,175.2	10,594.1	88.9	84.2	180.00	9,458.6	-1,262.6	968.8	813.1	155.69	6.222	
19,200.0	9,626.0	20,275.2	10,593.6	89.7	85.1	180.00	9,558.6	-1,263.3	968.7	811.4	157.21	6.161	
19,300.0	9,625.6	20,375.2	10,593.1	90.5	85.9	180.00	9,658.6	-1,263.9	968.5	809.8	158.74	6.102	
19,400.0	9,625.2	20,475.2	10,592.6	91.3	86.8	180.00	9,758.6	-1,264.5	968.4	808.1	160.26	6.043	
19,500.0	9,624.8	20,575.2	10,592.1	92.1	87.6	180.00	9,858.6	-1,265.1	968.3	806.5	161.78	5.985	
19,600.0	9,624.5	20,675.2	10,591.6	92.9	88.5	180.00	9,958.6	-1,265.7	968.1	804.8	163.31	5.928	
19,700.0	9,624.1	20,775.2	10,591.1	93.7	89.4	180.00	10,058.5	-1,266.3	968.0	803.5	164.55	5.883	
19,718.9	9,624.0	20,792.8	10,591.0	93.8	89.6	180.00	10,076.2	-1,266.4	968.0	803.2	164.76	5.875	
19,722.6	9,624.0	20,792.8	10,591.0	93.9	89.6	180.00	10,076.2	-1,266.4	968.0	803.2	164.77	5.875	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 502H - OWB - PWP										Offset Site Error:		3.0 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		
0.0	0.0	0.0	0.0	3.0	3.0	-166.29	-200.4	-48.9	206.3					
100.0	100.0	99.0	99.0	3.0	3.0	-166.29	-200.4	-48.9	206.3	200.3	6.01	34.353		
200.0	200.0	199.0	199.0	3.0	3.0	-166.29	-200.4	-48.9	206.3	200.2	6.08	33.938		
300.0	300.0	299.0	299.0	3.1	3.1	-166.29	-200.4	-48.9	206.3	200.1	6.23	33.090		
400.0	400.0	399.0	399.0	3.2	3.2	-166.29	-200.4	-48.9	206.3	199.8	6.47	31.904		
500.0	500.0	499.0	499.0	3.4	3.4	-166.29	-200.4	-48.9	206.3	199.5	6.77	30.488		
600.0	600.0	599.0	599.0	3.6	3.6	-166.29	-200.4	-48.9	206.3	199.2	7.13	28.948		
700.0	700.0	699.0	699.0	3.8	3.8	-166.29	-200.4	-48.9	206.3	198.8	7.54	27.370		
800.0	800.0	799.0	799.0	4.0	4.0	-166.29	-200.4	-48.9	206.3	198.3	7.99	25.813		
900.0	900.0	899.0	899.0	4.2	4.2	-166.29	-200.4	-48.9	206.3	197.8	8.48	24.320		
1,000.0	1,000.0	999.0	999.0	4.5	4.5	-166.29	-200.4	-48.9	206.3	197.3	9.00	22.913		
1,100.0	1,100.0	1,099.0	1,099.0	4.8	4.8	-166.29	-200.4	-48.9	206.3	196.8	9.55	21.602		
1,200.0	1,200.0	1,199.0	1,199.0	5.1	5.1	-166.29	-200.4	-48.9	206.3	196.2	10.12	20.389		
1,300.0	1,300.0	1,299.0	1,299.0	5.4	5.4	-166.29	-200.4	-48.9	206.3	195.6	10.70	19.274		
1,400.0	1,400.0	1,399.0	1,399.0	5.7	5.7	-166.29	-200.4	-48.9	206.3	195.0	11.31	18.249		
1,500.0	1,500.0	1,499.0	1,499.0	6.0	6.0	-166.29	-200.4	-48.9	206.3	194.4	11.92	17.310		
1,600.0	1,600.0	1,599.0	1,599.0	6.3	6.3	-166.29	-200.4	-48.9	206.3	193.8	12.54	16.448		
1,700.0	1,700.0	1,699.0	1,699.0	6.6	6.6	-166.29	-200.4	-48.9	206.3	193.1	13.18	15.656		
1,800.0	1,800.0	1,799.0	1,799.0	6.9	6.9	-166.29	-200.4	-48.9	206.3	192.5	13.82	14.929		
1,900.0	1,900.0	1,899.0	1,899.0	7.2	7.2	-166.29	-200.4	-48.9	206.3	191.8	14.47	14.259		
2,000.0	2,000.0	1,999.0	1,999.0	7.6	7.6	-166.29	-200.4	-48.9	206.3	191.2	15.12	13.641		
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-166.29	-200.4	-48.9	206.3	190.5	15.79	13.070		
2,200.0	2,200.0	2,199.0	2,199.0	8.2	8.2	-166.29	-200.4	-48.9	206.3	189.9	16.45	12.541		
2,300.0	2,300.0	2,299.0	2,299.0	8.6	8.6	-166.29	-200.4	-48.9	206.3	189.2	17.12	12.051		
2,400.0	2,400.0	2,399.0	2,399.0	8.9	8.9	-166.29	-200.4	-48.9	206.3	188.5	17.79	11.595		
2,500.0	2,500.0	2,499.0	2,499.0	9.2	9.2	-166.29	-200.4	-48.9	206.3	187.8	18.47	11.170 CC		
2,600.0	2,600.0	2,595.2	2,595.2	9.6	9.5	-69.36	-201.0	-50.4	206.6	187.5	19.11	10.810		
2,700.0	2,699.8	2,691.3	2,691.2	9.9	9.9	-69.54	-202.6	-54.9	207.5	187.8	19.74	10.516		
2,800.0	2,799.5	2,791.0	2,790.6	10.2	10.2	-70.17	-205.0	-61.4	208.4	188.0	20.38	10.221		
2,900.0	2,898.9	2,890.9	2,890.2	10.5	10.5	-71.26	-207.4	-68.0	208.6	187.6	21.04	9.916		
3,000.0	2,998.4	2,990.8	2,989.9	10.9	10.8	-72.36	-209.8	-74.5	209.0	187.3	21.70	9.631		
3,100.0	3,097.8	3,090.7	3,089.6	11.2	11.2	-73.44	-212.2	-81.0	209.4	187.0	22.36	9.364		
3,200.0	3,197.3	3,190.6	3,189.3	11.5	11.5	-74.52	-214.6	-87.6	209.9	186.9	23.03	9.115		
3,300.0	3,296.7	3,290.6	3,289.0	11.9	11.8	-75.60	-217.0	-94.1	210.5	186.8	23.70	8.881		
3,400.0	3,396.2	3,390.5	3,388.6	12.2	12.2	-76.67	-219.4	-100.7	211.1	186.8	24.38	8.662 ES		
3,500.0	3,495.6	3,490.4	3,488.3	12.6	12.5	-77.73	-221.7	-107.2	211.9	186.8	25.05	8.456		
3,600.0	3,595.1	3,590.3	3,588.0	12.9	12.8	-78.79	-224.1	-113.8	212.7	186.9	25.73	8.264		
3,700.0	3,694.5	3,690.2	3,687.7	13.3	13.2	-79.84	-226.5	-120.3	213.5	187.1	26.42	8.083		
3,800.0	3,794.0	3,790.2	3,787.3	13.6	13.5	-80.87	-228.9	-126.9	214.5	187.4	27.10	7.913		
3,900.0	3,893.4	3,890.1	3,887.0	13.9	13.9	-81.90	-231.3	-133.4	215.5	187.7	27.79	7.753		
4,000.0	3,992.9	3,990.0	3,986.7	14.3	14.2	-82.92	-233.7	-140.0	216.6	188.1	28.48	7.603		
4,100.0	4,092.3	4,089.9	4,086.4	14.6	14.5	-83.93	-236.1	-146.5	217.7	188.5	29.17	7.462		
4,200.0	4,191.8	4,189.8	4,186.0	15.0	14.9	-84.93	-238.5	-153.1	218.9	189.1	29.87	7.330		
4,300.0	4,291.2	4,289.8	4,285.7	15.3	15.2	-85.92	-240.9	-159.6	220.2	189.6	30.56	7.205		
4,400.0	4,390.7	4,389.7	4,385.4	15.7	15.6	-86.89	-243.3	-166.2	221.5	190.3	31.26	7.087		
4,500.0	4,490.1	4,489.6	4,485.1	16.0	15.9	-87.85	-245.6	-172.7	222.9	191.0	31.96	6.976		
4,600.0	4,589.6	4,589.5	4,584.8	16.4	16.3	-88.80	-248.0	-179.3	224.4	191.8	32.66	6.872		
4,700.0	4,689.0	4,689.4	4,684.4	16.7	16.6	-89.74	-250.4	-185.8	225.9	192.6	33.36	6.773		
4,800.0	4,788.5	4,789.4	4,784.1	17.1	17.0	-90.67	-252.8	-192.4	227.5	193.5	34.06	6.680		
4,900.0	4,887.9	4,889.3	4,883.8	17.5	17.3	-91.58	-255.2	-198.9	229.2	194.4	34.77	6.592		
5,000.0	4,987.4	4,989.2	4,983.5	17.8	17.7	-92.48	-257.6	-205.4	230.9	195.4	35.47	6.510		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 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		
5,100.0	5,086.9	5,089.1	5,083.1	18.2	18.0	-93.36	-260.0	-212.0	232.7	196.5	36.18	6.431		
5,200.0	5,186.3	5,189.0	5,182.8	18.5	18.4	-94.24	-262.4	-218.5	234.5	197.6	36.88	6.357		
5,300.0	5,285.8	5,289.0	5,282.5	18.9	18.7	-95.09	-264.8	-225.1	236.3	198.8	37.59	6.287		
5,400.0	5,385.2	5,388.9	5,382.2	19.2	19.1	-95.94	-267.2	-231.6	238.3	200.0	38.30	6.221		
5,500.0	5,484.7	5,488.8	5,481.8	19.6	19.4	-96.77	-269.6	-238.2	240.2	201.2	39.01	6.159		
5,600.0	5,584.1	5,588.7	5,581.5	19.9	19.8	-97.59	-271.9	-244.7	242.3	202.5	39.72	6.100		
5,700.0	5,683.6	5,688.6	5,681.2	20.3	20.1	-98.39	-274.3	-251.3	244.3	203.9	40.43	6.044		
5,800.0	5,783.0	5,788.6	5,780.9	20.7	20.5	-99.18	-276.7	-257.8	246.5	205.3	41.14	5.991		
5,900.0	5,882.5	5,888.5	5,880.6	21.0	20.8	-99.96	-279.1	-264.4	248.6	206.8	41.85	5.941		
6,000.0	5,981.9	5,988.4	5,980.2	21.4	21.2	-100.72	-281.5	-270.9	250.8	208.3	42.56	5.893		
6,100.0	6,081.4	6,088.3	6,079.9	21.7	21.5	-101.47	-283.9	-277.5	253.1	209.8	43.28	5.848		
6,200.0	6,180.8	6,188.2	6,179.6	22.1	21.9	-102.21	-286.3	-284.0	255.4	211.4	43.99	5.805		
6,300.0	6,280.3	6,288.2	6,279.3	22.5	22.3	-102.93	-288.7	-290.6	257.7	213.0	44.71	5.765		
6,400.0	6,379.7	6,388.1	6,378.9	22.8	22.6	-103.64	-291.1	-297.1	260.1	214.7	45.42	5.726		
6,500.0	6,479.2	6,488.0	6,478.6	23.2	23.0	-104.34	-293.5	-303.7	262.5	216.4	46.14	5.690		
6,600.0	6,578.6	6,587.9	6,578.3	23.5	23.3	-105.02	-295.9	-310.2	265.0	218.1	46.85	5.655		
6,700.0	6,678.1	6,687.8	6,678.0	23.9	23.7	-105.69	-298.2	-316.7	267.5	219.9	47.57	5.623		
6,800.0	6,777.5	6,787.8	6,777.6	24.3	24.0	-106.35	-300.6	-323.3	270.0	221.7	48.29	5.592		
6,900.0	6,877.0	6,887.7	6,877.3	24.6	24.4	-107.00	-303.0	-329.8	272.6	223.6	49.00	5.562		
7,000.0	6,976.4	6,987.6	6,977.0	25.0	24.7	-107.63	-305.4	-336.4	275.2	225.4	49.72	5.534		
7,100.0	7,075.9	7,087.5	7,076.7	25.3	25.1	-108.25	-307.8	-342.9	277.8	227.3	50.44	5.507		
7,200.0	7,175.3	7,187.4	7,176.4	25.7	25.5	-108.86	-310.2	-349.5	280.5	229.3	51.16	5.482		
7,300.0	7,274.8	7,287.4	7,276.0	26.1	25.8	-109.46	-312.6	-356.0	283.1	231.3	51.88	5.458		
7,400.0	7,374.3	7,387.3	7,375.7	26.4	26.2	-110.05	-315.0	-362.6	285.9	233.3	52.60	5.435		
7,500.0	7,473.7	7,487.2	7,475.4	26.8	26.5	-110.63	-317.4	-369.1	288.6	235.3	53.31	5.414		
7,600.0	7,573.2	7,587.1	7,575.1	27.1	26.9	-111.19	-319.8	-375.7	291.4	237.4	54.03	5.393		
7,700.0	7,672.6	7,687.0	7,674.7	27.5	27.2	-111.75	-322.1	-382.2	294.2	239.5	54.75	5.373		
7,800.0	7,772.1	7,787.0	7,774.4	27.9	27.6	-112.29	-324.5	-388.8	297.1	241.6	55.47	5.355		
7,900.0	7,871.5	7,886.2	7,873.4	28.2	28.0	-112.93	-326.7	-394.7	300.0	243.8	56.19	5.339		
8,000.0	7,971.0	7,985.0	7,972.2	28.6	28.3	-113.87	-328.3	-399.1	303.3	246.4	56.90	5.331		
8,100.0	8,070.4	8,083.7	8,070.8	29.0	28.7	-115.09	-329.3	-401.9	307.1	249.5	57.62	5.330 SF		
8,200.0	8,169.9	8,182.1	8,169.2	29.3	29.0	-116.58	-329.8	-403.0	311.4	253.1	58.32	5.339		
8,300.0	8,269.3	8,281.2	8,268.3	29.7	29.3	-118.25	-329.8	-403.1	316.2	257.2	59.02	5.358		
8,400.0	8,368.8	8,380.7	8,367.8	30.0	29.7	-119.89	-329.8	-403.1	321.3	261.6	59.72	5.380		
8,500.0	8,468.2	8,480.2	8,467.2	30.4	30.0	-121.47	-329.8	-403.1	326.7	266.2	60.42	5.406		
8,600.0	8,567.7	8,579.6	8,566.7	30.8	30.4	-123.00	-329.8	-403.1	332.3	271.1	61.12	5.436		
8,700.0	8,667.1	8,679.1	8,666.1	31.1	30.7	-124.49	-329.8	-403.1	338.1	276.3	61.82	5.468		
8,800.0	8,766.6	8,778.5	8,765.6	31.5	31.1	-125.91	-329.8	-403.1	344.1	281.6	62.53	5.504		
8,900.0	8,866.0	8,878.0	8,865.0	31.9	31.4	-127.29	-329.8	-403.1	350.4	287.2	63.23	5.542		
9,000.0	8,965.5	8,977.4	8,964.5	32.2	31.7	-128.63	-329.8	-403.1	356.8	292.9	63.93	5.582		
9,100.0	9,064.9	9,076.9	9,063.9	32.6	32.1	-129.91	-329.8	-403.1	363.5	298.8	64.63	5.624		
9,144.0	9,108.7	9,120.6	9,107.7	32.8	32.2	-130.46	-329.8	-403.1	366.5	301.5	64.94	5.643		
9,150.0	9,114.7	9,126.6	9,113.7	32.8	32.3	-135.83	-329.8	-403.1	366.9	301.9	64.98	5.646		
9,200.0	9,164.2	9,176.1	9,163.2	33.0	32.4	-166.02	-329.8	-403.1	372.8	307.4	65.34	5.706		
9,250.0	9,213.2	9,225.1	9,212.2	33.1	32.6	-179.50	-329.8	-403.1	382.6	316.9	65.69	5.825		
9,300.0	9,261.3	9,273.2	9,260.3	33.3	32.8	173.52	-329.8	-403.1	396.3	330.3	66.03	6.002		
9,350.0	9,308.1	9,320.0	9,307.1	33.5	32.9	169.30	-329.8	-403.1	413.8	347.4	66.36	6.235		
9,400.0	9,353.2	9,365.1	9,352.2	33.6	33.1	166.45	-329.8	-403.1	434.9	368.2	66.68	6.521		
9,450.0	9,396.3	9,408.2	9,395.3	33.8	33.2	164.32	-329.8	-403.1	459.5	392.5	66.99	6.860		
9,500.0	9,437.1	9,449.0	9,436.1	33.9	33.4	162.56	-329.8	-403.1	487.6	420.3	67.28	7.248		
9,550.0	9,475.3	9,487.2	9,474.3	34.1	33.5	160.94	-329.8	-403.1	518.9	451.4	67.54	7.683		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 502H - OWB - PWP												Offset Site Error:	3.0 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	
9,600.0	9,510.5	9,522.4	9,509.5	34.2	33.6	159.26	-329.8	-403.1	553.3	485.5	67.78	8.162	
9,650.0	9,542.5	9,554.5	9,541.5	34.3	33.7	157.36	-329.8	-403.1	590.4	522.4	68.00	8.683	
9,700.0	9,571.1	9,583.1	9,570.1	34.4	33.8	155.04	-329.8	-403.1	630.2	562.0	68.19	9.242	
9,750.0	9,596.1	9,608.0	9,595.1	34.5	33.9	152.02	-329.8	-403.1	672.2	603.9	68.35	9.835	
9,800.0	9,617.2	9,629.1	9,616.2	34.5	34.0	147.91	-329.8	-403.1	716.3	647.8	68.48	10.459	
9,850.0	9,634.3	9,646.2	9,633.3	34.6	34.1	142.05	-329.8	-403.1	761.9	693.4	68.58	11.110	
9,900.0	9,647.3	9,659.2	9,646.3	34.7	34.1	133.37	-329.8	-403.1	809.0	740.3	68.66	11.782	
9,950.0	9,656.0	9,667.9	9,655.0	34.8	34.1	120.30	-329.8	-403.1	857.0	788.2	68.71	12.472	
10,000.0	9,660.5	9,672.4	9,659.5	34.9	34.1	101.57	-329.8	-403.1	905.5	836.8	68.74	13.174	
10,028.4	9,661.0	9,673.0	9,660.0	35.0	34.1	89.00	-329.8	-403.1	933.2	864.5	68.74	13.576	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10152-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	0.0	0.0	3.0	3.0	-174.60	-200.1	-18.9	201.0					
100.0	100.0	99.0	99.0	3.0	3.0	-174.60	-200.1	-18.9	201.0	195.0	6.00	33.488		
200.0	200.0	199.0	199.0	3.0	3.0	-174.60	-200.1	-18.9	201.0	195.0	6.05	33.256		
300.0	300.0	299.0	299.0	3.1	3.0	-174.60	-200.1	-18.9	201.0	194.9	6.13	32.775		
400.0	400.0	399.0	399.0	3.2	3.0	-174.60	-200.1	-18.9	201.0	194.8	6.27	32.082		
500.0	500.0	499.0	499.0	3.4	3.1	-174.60	-200.1	-18.9	201.0	194.6	6.44	31.224		
600.0	600.0	599.0	599.0	3.6	3.1	-174.60	-200.1	-18.9	201.0	194.4	6.65	30.250		
700.0	700.0	699.0	699.0	3.8	3.1	-174.60	-200.1	-18.9	201.0	194.2	6.88	29.202		
800.0	800.0	799.0	799.0	4.0	3.2	-174.60	-200.1	-18.9	201.0	193.9	7.15	28.119		
900.0	900.0	899.0	899.0	4.2	3.2	-174.60	-200.1	-18.9	201.0	193.6	7.44	27.030		
1,000.0	1,000.0	999.0	999.0	4.5	3.2	-174.60	-200.1	-18.9	201.0	193.3	7.75	25.954		
1,100.0	1,100.0	1,099.0	1,099.0	4.8	3.3	-174.60	-200.1	-18.9	201.0	193.0	8.07	24.908		
1,200.0	1,200.0	1,199.0	1,199.0	5.1	3.4	-174.60	-200.1	-18.9	201.0	192.6	8.41	23.900		
1,300.0	1,300.0	1,299.0	1,299.0	5.4	3.4	-174.60	-200.1	-18.9	201.0	192.3	8.77	22.936		
1,400.0	1,400.0	1,399.0	1,399.0	5.7	3.5	-174.60	-200.1	-18.9	201.0	191.9	9.13	22.019		
1,500.0	1,500.0	1,499.0	1,499.0	6.0	3.5	-174.60	-200.1	-18.9	201.0	191.5	9.51	21.150		
1,600.0	1,600.0	1,599.0	1,599.0	6.3	3.6	-174.60	-200.1	-18.9	201.0	191.2	9.89	20.329		
1,700.0	1,700.0	1,699.0	1,699.0	6.6	3.7	-174.60	-200.1	-18.9	201.0	190.8	10.28	19.554		
1,800.0	1,800.0	1,799.0	1,799.0	6.9	3.8	-174.60	-200.1	-18.9	201.0	190.4	10.68	18.823		
1,900.0	1,900.0	1,899.0	1,899.0	7.2	3.9	-174.60	-200.1	-18.9	201.0	190.0	11.09	18.134		
2,000.0	2,000.0	1,999.0	1,999.0	7.6	3.9	-174.60	-200.1	-18.9	201.0	189.5	11.50	17.486		
2,100.0	2,100.0	2,099.0	2,099.0	7.9	4.0	-174.60	-200.1	-18.9	201.0	189.1	11.91	16.874		
2,200.0	2,200.0	2,199.0	2,199.0	8.2	4.1	-174.60	-200.1	-18.9	201.0	188.7	12.34	16.298		
2,300.0	2,300.0	2,299.0	2,299.0	8.6	4.2	-174.60	-200.1	-18.9	201.0	188.3	12.76	15.754		
2,400.0	2,400.0	2,399.0	2,399.0	8.9	4.3	-174.60	-200.1	-18.9	201.0	187.9	13.19	15.241		
2,500.0	2,500.0	2,499.0	2,499.0	9.2	4.4	-174.60	-200.1	-18.9	201.0	187.4	13.62	14.756 CC		
2,600.0	2,600.0	2,597.1	2,597.0	9.6	4.4	-78.53	-200.7	-17.4	201.1	187.1	14.01	14.359 ES		
2,700.0	2,699.8	2,695.3	2,695.2	9.9	4.5	-81.24	-202.4	-12.9	201.7	187.4	14.34	14.066		
2,800.0	2,799.5	2,794.3	2,794.0	10.2	4.5	-85.09	-204.4	-7.8	202.7	188.0	14.66	13.822		
2,900.0	2,898.9	2,893.1	2,892.7	10.5	4.5	-89.37	-206.4	-2.7	204.6	189.6	14.97	13.662		
3,000.0	2,998.4	2,991.9	2,991.3	10.9	4.5	-93.55	-208.3	2.3	207.6	192.3	15.27	13.592 SF		
3,100.0	3,097.8	3,090.7	3,090.0	11.2	4.5	-97.59	-210.3	7.4	211.7	196.1	15.56	13.602		
3,200.0	3,197.3	3,189.5	3,188.6	11.5	4.5	-101.46	-212.2	12.5	216.8	201.0	15.85	13.679		
3,300.0	3,296.7	3,288.3	3,287.3	11.9	4.6	-105.14	-214.2	17.6	222.9	206.8	16.14	13.814		
3,400.0	3,396.2	3,387.1	3,385.9	12.2	4.6	-108.62	-216.1	22.7	229.9	213.5	16.43	13.994		
3,500.0	3,495.6	3,485.9	3,484.5	12.6	4.6	-111.88	-218.1	27.8	237.7	221.0	16.73	14.211		
3,600.0	3,595.1	3,584.7	3,583.2	12.9	4.7	-114.93	-220.0	32.8	246.2	229.2	17.03	14.456		
3,700.0	3,694.5	3,683.5	3,681.8	13.3	4.7	-117.78	-222.0	37.9	255.4	238.0	17.35	14.721		
3,800.0	3,794.0	3,782.3	3,780.5	13.6	4.8	-120.42	-223.9	43.0	265.1	247.5	17.68	15.000		
3,900.0	3,893.4	3,881.0	3,879.1	13.9	4.8	-122.87	-225.9	48.1	275.4	257.4	18.02	15.288		
4,000.0	3,992.9	3,979.8	3,977.8	14.3	4.9	-125.15	-227.8	53.2	286.2	267.8	18.37	15.581		
4,100.0	4,092.3	4,078.6	4,076.4	14.6	4.9	-127.26	-229.8	58.3	297.4	278.6	18.73	15.876		
4,200.0	4,191.8	4,177.4	4,175.0	15.0	5.0	-129.21	-231.7	63.4	308.9	289.8	19.11	16.169		
4,300.0	4,291.2	4,276.2	4,273.7	15.3	5.0	-131.02	-233.7	68.4	320.8	301.3	19.49	16.460		
4,400.0	4,390.7	4,375.0	4,372.3	15.7	5.1	-132.71	-235.6	73.5	333.0	313.1	19.89	16.746		
4,500.0	4,490.1	4,473.8	4,471.0	16.0	5.2	-134.27	-237.6	78.6	345.4	325.2	20.29	17.027		
4,600.0	4,589.6	4,572.6	4,569.6	16.4	5.2	-135.73	-239.5	83.7	358.1	337.4	20.70	17.302		
4,700.0	4,689.0	4,671.4	4,668.2	16.7	5.3	-137.08	-241.5	88.8	371.0	349.9	21.12	17.570		
4,800.0	4,788.5	4,770.2	4,766.9	17.1	5.4	-138.35	-243.4	93.9	384.1	362.6	21.54	17.832		
4,900.0	4,887.9	4,869.0	4,865.5	17.5	5.4	-139.53	-245.4	98.9	397.4	375.4	21.97	18.087		
5,000.0	4,987.4	4,967.8	4,964.2	17.8	5.5	-140.63	-247.3	104.0	410.8	388.4	22.41	18.334		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10152-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 (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,086.9	5,066.6	5,062.8	18.2	5.6	-141.67	-249.3	109.1	424.4	401.5	22.85	18.575		
5,200.0	5,186.3	5,165.3	5,161.5	18.5	5.7	-142.64	-251.2	114.2	438.1	414.8	23.29	18.809		
5,300.0	5,285.8	5,264.1	5,260.1	18.9	5.8	-143.55	-253.2	119.3	451.9	428.1	23.74	19.036		
5,400.0	5,385.2	5,362.9	5,358.7	19.2	5.8	-144.41	-255.1	124.4	465.8	441.6	24.19	19.257		
5,500.0	5,484.7	5,461.7	5,457.4	19.6	5.9	-145.22	-257.1	129.4	479.8	455.1	24.64	19.471		
5,600.0	5,584.1	5,560.5	5,556.0	19.9	6.0	-145.98	-259.0	134.5	493.9	468.8	25.10	19.679		
5,700.0	5,683.6	5,659.3	5,654.7	20.3	6.1	-146.70	-261.0	139.6	508.1	482.5	25.55	19.881		
5,800.0	5,783.0	5,758.1	5,753.3	20.7	6.2	-147.39	-263.0	144.7	522.3	496.3	26.02	20.077		
5,900.0	5,882.5	5,856.9	5,851.9	21.0	6.3	-148.03	-264.9	149.8	536.6	510.2	26.48	20.268		
6,000.0	5,981.9	5,955.7	5,950.6	21.4	6.4	-148.64	-266.9	154.9	551.0	524.1	26.94	20.453		
6,100.0	6,081.4	6,054.5	6,049.2	21.7	6.5	-149.22	-268.8	159.9	565.5	538.1	27.41	20.632		
6,200.0	6,180.8	6,153.3	6,147.9	22.1	6.6	-149.78	-270.8	165.0	580.0	552.1	27.87	20.807		
6,300.0	6,280.3	6,252.1	6,246.5	22.5	6.7	-150.30	-272.7	170.1	594.5	566.2	28.34	20.976		
6,400.0	6,379.7	6,350.9	6,345.2	22.8	6.8	-150.80	-274.7	175.2	609.1	580.3	28.81	21.141		
6,500.0	6,479.2	6,449.6	6,443.8	23.2	6.9	-151.28	-276.6	180.3	623.7	594.5	29.28	21.302		
6,600.0	6,578.6	6,548.4	6,542.4	23.5	6.9	-151.73	-278.6	185.4	638.4	608.7	29.75	21.458		
6,700.0	6,678.1	6,647.2	6,641.1	23.9	7.0	-152.17	-280.5	190.5	653.1	622.9	30.23	21.609		
6,800.0	6,777.5	6,746.0	6,739.7	24.3	7.1	-152.58	-282.5	195.5	667.9	637.2	30.70	21.757		
6,900.0	6,877.0	6,844.8	6,838.4	24.6	7.3	-152.98	-284.4	200.6	682.7	651.5	31.17	21.901		
7,000.0	6,976.4	6,943.6	6,937.0	25.0	7.4	-153.36	-286.4	205.7	697.5	665.9	31.65	22.040		
7,100.0	7,075.9	7,042.4	7,035.7	25.3	7.5	-153.72	-288.3	210.8	712.3	680.2	32.12	22.177		
7,200.0	7,175.3	7,141.2	7,134.3	25.7	7.6	-154.07	-290.3	215.9	727.2	694.6	32.60	22.309		
7,300.0	7,274.8	7,240.0	7,232.9	26.1	7.7	-154.41	-292.2	221.0	742.1	709.0	33.07	22.438		
7,400.0	7,374.3	7,338.8	7,331.6	26.4	7.8	-154.73	-294.2	226.0	757.0	723.5	33.55	22.564		
7,500.0	7,473.7	7,437.6	7,430.2	26.8	7.9	-155.04	-296.1	231.1	772.0	738.0	34.03	22.687		
7,600.0	7,573.2	7,536.4	7,528.9	27.1	8.0	-155.34	-298.1	236.2	786.9	752.4	34.51	22.806		
7,700.0	7,672.6	7,635.2	7,627.5	27.5	8.1	-155.63	-300.0	241.3	801.9	767.0	34.98	22.923		
7,800.0	7,772.1	7,733.9	7,726.1	27.9	8.2	-155.90	-302.0	246.4	816.9	781.5	35.46	23.037		
7,900.0	7,871.5	7,832.7	7,824.8	28.2	8.3	-156.17	-303.9	251.5	832.0	796.0	35.94	23.148		
8,000.0	7,971.0	7,931.5	7,923.4	28.6	8.4	-156.43	-305.9	256.5	847.0	810.6	36.42	23.256		
8,100.0	8,070.4	8,030.3	8,022.1	29.0	8.5	-156.68	-307.8	261.6	862.1	825.2	36.90	23.362		
8,200.0	8,169.9	8,129.1	8,120.7	29.3	8.6	-156.91	-309.8	266.7	877.1	839.7	37.38	23.465		
8,300.0	8,269.3	8,227.9	8,219.4	29.7	8.7	-157.15	-311.7	271.8	892.2	854.4	37.86	23.566		
8,400.0	8,368.8	8,326.7	8,318.0	30.0	8.9	-157.37	-313.7	276.9	907.3	869.0	38.34	23.664		
8,500.0	8,468.2	8,425.5	8,416.6	30.4	9.0	-157.59	-315.6	282.0	922.4	883.6	38.82	23.760		
8,600.0	8,567.7	8,524.3	8,515.3	30.8	9.1	-157.80	-317.6	287.1	937.6	898.2	39.30	23.854		
8,700.0	8,667.1	8,623.1	8,613.9	31.1	9.2	-158.00	-319.6	292.1	952.7	912.9	39.79	23.946		
8,800.0	8,766.6	8,721.9	8,712.6	31.5	9.3	-158.20	-321.5	297.2	967.8	927.6	40.27	24.035		
8,900.0	8,866.0	8,820.7	8,811.2	31.9	9.4	-158.39	-323.5	302.3	983.0	942.2	40.75	24.123		
9,000.0	8,965.5	8,919.5	8,909.8	32.2	9.5	-158.57	-325.4	307.4	998.2	956.9	41.23	24.209		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11896-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	137.59	-198.3	181.1	268.5				
100.0	100.0	100.0	100.0	3.0	3.0	137.59	-198.3	181.1	268.5	262.5	6.00	44.732	
200.0	200.0	200.0	200.0	3.0	3.0	137.59	-198.3	181.1	268.5	262.5	6.04	44.433	
300.0	300.0	300.0	300.0	3.1	3.0	137.59	-198.3	181.1	268.5	262.4	6.13	43.815	
400.0	400.0	400.0	400.0	3.2	3.0	137.59	-198.3	181.1	268.5	262.3	6.26	42.924	
500.0	500.0	500.0	500.0	3.4	3.1	137.59	-198.3	181.1	268.5	262.1	6.42	41.819	
600.0	600.0	600.0	600.0	3.6	3.1	137.59	-198.3	181.1	268.5	261.9	6.62	40.563	
700.0	700.0	700.0	700.0	3.8	3.1	137.59	-198.3	181.1	268.5	261.7	6.85	39.213	
800.0	800.0	800.0	800.0	4.0	3.2	137.59	-198.3	181.1	268.5	261.4	7.10	37.814	
900.0	900.0	900.0	900.0	4.2	3.2	137.59	-198.3	181.1	268.5	261.2	7.38	36.404	
1,000.0	1,000.0	1,000.0	1,000.0	4.5	3.2	137.59	-198.3	181.1	268.5	260.9	7.67	35.011	
1,100.0	1,100.0	1,100.0	1,100.0	4.8	3.3	137.59	-198.3	181.1	268.5	260.6	7.98	33.653	
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	137.59	-198.3	181.1	268.5	260.2	8.30	32.342	
1,300.0	1,300.0	1,300.0	1,300.0	5.4	3.4	137.59	-198.3	181.1	268.5	259.9	8.64	31.086	
1,400.0	1,400.0	1,400.0	1,400.0	5.7	3.5	137.59	-198.3	181.1	268.5	259.6	8.98	29.889	
1,500.0	1,500.0	1,500.0	1,500.0	6.0	3.5	137.59	-198.3	181.1	268.5	259.2	9.34	28.752	
1,600.0	1,600.0	1,600.0	1,600.0	6.3	3.6	137.59	-198.3	181.1	268.5	258.8	9.70	27.675	
1,700.0	1,700.0	1,700.0	1,700.0	6.6	3.7	137.59	-198.3	181.1	268.5	258.5	10.07	26.657	
1,800.0	1,800.0	1,800.0	1,800.0	6.9	3.8	137.59	-198.3	181.1	268.5	258.1	10.45	25.694	
1,900.0	1,900.0	1,900.0	1,900.0	7.2	3.9	137.59	-198.3	181.1	268.5	257.7	10.83	24.786	
2,000.0	2,000.0	2,000.0	2,000.0	7.6	3.9	137.59	-198.3	181.1	268.5	257.3	11.22	23.928	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	4.0	137.59	-198.3	181.1	268.5	256.9	11.62	23.118	
2,200.0	2,200.0	2,200.0	2,200.0	8.2	4.1	137.59	-198.3	181.1	268.5	256.5	12.01	22.352	
2,300.0	2,300.0	2,300.0	2,300.0	8.6	4.2	137.59	-198.3	181.1	268.5	256.1	12.42	21.629	
2,400.0	2,400.0	2,400.0	2,400.0	8.9	4.3	137.59	-198.3	181.1	268.5	255.7	12.82	20.945	
2,500.0	2,500.0	2,500.0	2,500.0	9.2	4.4	137.59	-198.3	181.1	268.5	255.3	13.23	20.298	
2,600.0	2,600.0	2,606.7	2,606.7	9.6	4.5	-125.42	-198.3	179.1	268.3	254.7	13.63	19.683	
2,700.0	2,699.8	2,713.5	2,713.3	9.9	4.5	-125.47	-198.3	173.1	267.6	253.5	14.02	19.086	
2,790.6	2,790.1	2,806.4	2,805.9	10.2	4.5	-125.62	-198.3	165.3	266.9	252.5	14.37	18.569 CC	
2,800.0	2,799.5	2,815.8	2,815.2	10.2	4.5	-125.66	-198.3	164.5	266.9	252.5	14.41	18.522	
2,900.0	2,898.9	2,915.7	2,914.8	10.5	4.6	-126.10	-198.3	155.8	267.1	252.3	14.80	18.045	
3,000.0	2,998.4	3,015.7	3,014.4	10.9	4.6	-126.55	-198.3	147.0	267.3	252.1	15.20	17.588	
3,100.0	3,097.8	3,115.7	3,114.0	11.2	4.7	-127.00	-198.3	138.3	267.5	251.9	15.60	17.151	
3,200.0	3,197.3	3,215.7	3,213.6	11.5	4.7	-127.44	-198.3	129.6	267.8	251.8	16.00	16.733	
3,300.0	3,296.7	3,315.7	3,313.2	11.9	4.8	-127.89	-198.3	120.9	268.0	251.6	16.41	16.333	
3,400.0	3,396.2	3,415.6	3,412.8	12.2	4.8	-128.33	-198.3	112.2	268.3	251.5	16.82	15.950	
3,500.0	3,495.6	3,515.6	3,512.4	12.6	4.9	-128.78	-198.3	103.5	268.6	251.4	17.24	15.584	
3,600.0	3,595.1	3,615.6	3,612.0	12.9	4.9	-129.22	-198.3	94.8	268.9	251.3	17.65	15.233	
3,700.0	3,694.5	3,715.6	3,711.6	13.3	5.0	-129.66	-198.3	86.0	269.3	251.2	18.08	14.896	
3,800.0	3,794.0	3,815.6	3,811.2	13.6	5.1	-130.10	-198.3	77.3	269.6	251.1	18.50	14.574	
3,900.0	3,893.4	3,915.5	3,910.8	13.9	5.1	-130.54	-198.3	68.6	270.0	251.0	18.93	14.265	
4,000.0	3,992.9	4,015.5	4,010.4	14.3	5.2	-130.98	-198.3	59.9	270.3	251.0	19.35	13.968	
4,100.0	4,092.3	4,115.5	4,110.0	14.6	5.3	-131.41	-198.3	51.2	270.7	251.0	19.79	13.684	
4,200.0	4,191.8	4,215.5	4,209.6	15.0	5.4	-131.85	-198.3	42.5	271.1	250.9	20.22	13.410	
4,300.0	4,291.2	4,315.4	4,309.2	15.3	5.4	-132.28	-198.3	33.8	271.6	250.9	20.65	13.148 ES	
4,400.0	4,390.7	4,415.4	4,408.8	15.7	5.5	-132.72	-198.3	25.0	272.0	250.9	21.09	12.896	
4,500.0	4,490.1	4,515.4	4,508.4	16.0	5.6	-133.15	-198.3	16.3	272.5	250.9	21.53	12.654	
4,600.0	4,589.6	4,615.4	4,608.0	16.4	5.7	-133.58	-198.3	7.6	272.9	251.0	21.97	12.421	
4,700.0	4,689.0	4,715.4	4,707.6	16.7	5.8	-134.00	-198.3	-1.1	273.4	251.0	22.42	12.197	
4,800.0	4,788.5	4,815.3	4,807.2	17.1	5.9	-134.43	-198.3	-9.8	273.9	251.1	22.86	11.981	
4,900.0	4,887.9	4,915.3	4,906.8	17.5	5.9	-134.86	-198.3	-18.5	274.4	251.1	23.31	11.773	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11896-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		
5,000.0	4,987.4	5,015.3	5,006.3	17.8	6.0	-135.28	-198.3	-27.2	275.0	251.2	23.76	11.573		
5,100.0	5,086.9	5,115.3	5,105.9	18.2	6.1	-135.70	-198.3	-35.9	275.5	251.3	24.21	11.380		
5,200.0	5,186.3	5,215.2	5,205.5	18.5	6.2	-136.12	-198.3	-44.7	276.1	251.4	24.66	11.195		
5,300.0	5,285.8	5,315.2	5,305.1	18.9	6.3	-136.54	-198.3	-53.4	276.7	251.5	25.11	11.016		
5,400.0	5,385.2	5,415.2	5,404.7	19.2	6.4	-136.96	-198.3	-62.1	277.2	251.7	25.57	10.843		
5,500.0	5,484.7	5,515.2	5,504.3	19.6	6.5	-137.37	-198.3	-70.8	277.9	251.8	26.03	10.676		
5,600.0	5,584.1	5,615.2	5,603.9	19.9	6.6	-137.78	-198.3	-79.5	278.5	252.0	26.48	10.515		
5,700.0	5,683.6	5,715.1	5,703.5	20.3	6.7	-138.19	-198.3	-88.2	279.1	252.2	26.94	10.360		
5,800.0	5,783.0	5,815.1	5,803.1	20.7	6.8	-138.60	-198.3	-96.9	279.8	252.4	27.40	10.210		
5,900.0	5,882.5	5,915.1	5,902.7	21.0	6.9	-139.01	-198.3	-105.7	280.4	252.6	27.86	10.065		
6,000.0	5,981.9	6,015.1	6,002.3	21.4	7.0	-139.42	-198.3	-114.4	281.1	252.8	28.32	9.924		
6,100.0	6,081.4	6,115.0	6,101.9	21.7	7.1	-139.82	-198.3	-123.1	281.8	253.0	28.79	9.789		
6,200.0	6,180.8	6,215.0	6,201.5	22.1	7.2	-140.22	-198.3	-131.8	282.5	253.2	29.25	9.658		
6,300.0	6,280.3	6,315.0	6,301.1	22.5	7.3	-140.62	-198.3	-140.5	283.2	253.5	29.71	9.531		
6,400.0	6,379.7	6,415.0	6,400.7	22.8	7.4	-141.02	-198.3	-149.2	283.9	253.8	30.18	9.408		
6,500.0	6,479.2	6,515.0	6,500.3	23.2	7.5	-141.41	-198.3	-157.9	284.7	254.0	30.65	9.289		
6,600.0	6,578.6	6,614.9	6,599.9	23.5	7.6	-141.81	-198.3	-166.7	285.4	254.3	31.11	9.174		
6,700.0	6,678.1	6,714.9	6,699.5	23.9	7.8	-142.20	-198.3	-175.4	286.2	254.6	31.58	9.062		
6,800.0	6,777.5	6,814.9	6,799.1	24.3	7.9	-142.59	-198.3	-184.1	287.0	254.9	32.05	8.954		
6,900.0	6,877.0	6,914.9	6,898.7	24.6	8.0	-142.97	-198.3	-192.8	287.8	255.3	32.52	8.850		
7,000.0	6,976.4	7,014.8	6,998.3	25.0	8.1	-143.36	-198.3	-201.5	288.6	255.6	32.99	8.748		
7,100.0	7,075.9	7,114.8	7,097.9	25.3	8.2	-143.74	-198.3	-210.2	289.4	256.0	33.46	8.650		
7,200.0	7,175.3	7,214.8	7,197.5	25.7	8.3	-144.12	-198.3	-218.9	290.3	256.3	33.93	8.554		
7,300.0	7,274.8	7,314.8	7,297.1	26.1	8.4	-144.50	-198.3	-227.6	291.1	256.7	34.41	8.461		
7,400.0	7,374.3	7,414.8	7,396.7	26.4	8.5	-144.87	-198.3	-236.4	292.0	257.1	34.88	8.371		
7,500.0	7,473.7	7,514.7	7,496.3	26.8	8.7	-145.25	-198.3	-245.1	292.9	257.5	35.35	8.284		
7,600.0	7,573.2	7,614.7	7,595.9	27.1	8.8	-145.62	-198.3	-253.8	293.8	257.9	35.83	8.199		
7,700.0	7,672.6	7,714.7	7,695.5	27.5	8.9	-145.99	-198.3	-262.5	294.7	258.3	36.30	8.117		
7,800.0	7,772.1	7,814.7	7,795.1	27.9	9.0	-146.35	-198.3	-271.2	295.6	258.8	36.78	8.037		
7,900.0	7,871.5	7,914.6	7,894.7	28.2	9.1	-146.72	-198.3	-279.9	296.5	259.2	37.25	7.959		
8,000.0	7,971.0	8,014.6	7,994.3	28.6	9.2	-147.08	-198.3	-288.6	297.4	259.7	37.73	7.883		
8,100.0	8,070.4	8,114.6	8,093.9	29.0	9.3	-147.44	-198.3	-297.4	298.4	260.2	38.20	7.810		
8,200.0	8,169.9	8,214.6	8,193.5	29.3	9.5	-147.80	-198.3	-306.1	299.3	260.6	38.68	7.738		
8,300.0	8,269.3	8,314.6	8,293.1	29.7	9.6	-148.15	-198.3	-314.8	300.3	261.1	39.16	7.669		
8,400.0	8,368.8	8,414.5	8,392.7	30.0	9.7	-148.51	-198.3	-323.5	301.3	261.6	39.64	7.601		
8,500.0	8,468.2	8,514.5	8,492.3	30.4	9.8	-148.86	-198.3	-332.2	302.3	262.2	40.11	7.536		
8,600.0	8,567.7	8,614.5	8,591.9	30.8	9.9	-149.21	-198.3	-340.9	303.3	262.7	40.59	7.472		
8,700.0	8,667.1	8,714.5	8,691.5	31.1	10.1	-149.55	-198.3	-349.6	304.3	263.2	41.07	7.409		
8,800.0	8,766.6	8,814.4	8,791.1	31.5	10.2	-149.90	-198.3	-358.4	305.3	263.8	41.55	7.349		
8,900.0	8,866.0	8,914.4	8,890.7	31.9	10.3	-150.24	-198.3	-367.1	306.4	264.3	42.03	7.290		
9,000.0	8,965.5	9,014.4	8,990.3	32.2	10.4	-150.58	-198.3	-375.8	307.4	264.9	42.51	7.232		
9,100.0	9,064.9	9,114.4	9,089.8	32.6	10.5	-150.92	-198.3	-384.5	308.5	265.5	42.99	7.176		
9,144.0	9,108.7	9,158.4	9,133.7	32.8	10.6	-151.06	-198.3	-388.3	308.9	265.7	43.20	7.152		
9,150.0	9,114.7	9,164.4	9,139.6	32.8	10.6	-156.36	-198.3	-388.9	309.0	265.8	43.23	7.149 SF		
9,200.0	9,164.2	9,214.3	9,189.4	33.0	10.7	174.14	-198.3	-393.2	311.5	268.0	43.47	7.166		
9,250.0	9,213.2	9,263.8	9,238.7	33.1	10.7	161.56	-198.3	-397.5	317.2	273.4	43.72	7.254		
9,300.0	9,261.3	9,312.5	9,287.2	33.3	10.8	155.64	-198.3	-401.8	326.0	282.1	43.97	7.415		
9,350.0	9,308.1	9,360.1	9,334.6	33.5	10.8	152.61	-198.3	-405.9	338.2	294.0	44.22	7.649		
9,400.0	9,353.2	9,406.2	9,380.5	33.6	10.9	151.01	-198.3	-409.9	353.9	309.4	44.45	7.960		
9,450.0	9,396.3	9,450.4	9,424.5	33.8	10.9	150.14	-198.3	-413.8	373.0	328.3	44.67	8.349		
9,500.0	9,437.1	9,492.3	9,466.4	33.9	11.0	149.62	-198.3	-417.4	395.7	350.8	44.87	8.817		

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 701H - OWB - PWP												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11896-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	
9,550.0	9,475.3	9,531.8	9,505.7	34.1	11.0	149.17	-198.3	-420.9	421.9	376.8	45.05	9.364	
9,600.0	9,510.5	9,568.5	9,542.2	34.2	11.1	148.61	-198.3	-424.1	451.5	406.3	45.21	9.988	
9,650.0	9,542.5	9,602.0	9,575.6	34.3	11.1	147.77	-198.3	-427.0	484.4	439.1	45.34	10.685	
9,700.0	9,571.1	9,632.2	9,605.7	34.4	11.2	146.48	-198.3	-429.6	520.4	474.9	45.44	11.451	
9,750.0	9,596.1	9,658.8	9,632.2	34.5	11.2	144.53	-198.3	-431.9	559.1	513.5	45.52	12.281	
9,800.0	9,617.2	9,681.7	9,655.0	34.5	11.2	141.65	-198.3	-433.9	600.2	554.7	45.58	13.168	
9,850.0	9,634.3	9,700.5	9,673.7	34.6	11.2	137.45	-198.3	-435.6	643.5	597.9	45.62	14.106	
9,900.0	9,647.3	9,715.3	9,688.4	34.7	11.3	131.31	-198.3	-436.9	688.6	642.9	45.64	15.086	
9,950.0	9,656.0	9,725.8	9,698.9	34.8	11.3	122.39	-198.3	-437.8	735.0	689.3	45.65	16.101	
10,000.0	9,660.5	9,732.0	9,705.2	34.9	11.3	109.78	-198.3	-438.3	782.4	736.7	45.64	17.143	
10,028.4	9,661.0	9,733.7	9,706.8	35.0	11.3	100.87	-198.3	-438.5	809.5	763.9	45.63	17.743	
10,100.0	9,660.8	9,735.9	9,709.0	35.1	11.3	100.50	-198.3	-438.7	878.3	832.7	45.59	19.263	
10,200.0	9,660.4	9,738.7	9,711.8	35.2	11.3	99.92	-198.3	-438.9	974.2	928.7	45.55	21.388	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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

BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 702H - OWB - PWP											Offset Site Error:		3.0 usft
Survey Program: 0-Standard Keeper 104, 11855-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
0.0	0.0	0.0	0.0	3.0	3.0	133.17	-198.0	211.1	289.4				
100.0	100.0	100.0	100.0	3.0	3.0	133.17	-198.0	211.1	289.4	283.4	6.00	48.211	
200.0	200.0	200.0	200.0	3.0	3.0	133.17	-198.0	211.1	289.4	283.4	6.04	47.891	
300.0	300.0	300.0	300.0	3.1	3.0	133.17	-198.0	211.1	289.4	283.3	6.13	47.229	
400.0	400.0	400.0	400.0	3.2	3.0	133.17	-198.0	211.1	289.4	283.2	6.25	46.275	
500.0	500.0	500.0	500.0	3.4	3.1	133.17	-198.0	211.1	289.4	283.0	6.42	45.092	
600.0	600.0	600.0	600.0	3.6	3.1	133.17	-198.0	211.1	289.4	282.8	6.62	43.748	
700.0	700.0	700.0	700.0	3.8	3.1	133.17	-198.0	211.1	289.4	282.6	6.84	42.301	
800.0	800.0	800.0	800.0	4.0	3.2	133.17	-198.0	211.1	289.4	282.3	7.09	40.803	
900.0	900.0	900.0	900.0	4.2	3.2	133.17	-198.0	211.1	289.4	282.1	7.37	39.293	
1,000.0	1,000.0	1,000.0	1,000.0	4.5	3.2	133.17	-198.0	211.1	289.4	281.8	7.66	37.799	
1,100.0	1,100.0	1,100.0	1,100.0	4.8	3.3	133.17	-198.0	211.1	289.4	281.5	7.96	36.343	
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	133.17	-198.0	211.1	289.4	281.1	8.28	34.938	
1,300.0	1,300.0	1,300.0	1,300.0	5.4	3.4	133.17	-198.0	211.1	289.4	280.8	8.62	33.591	
1,400.0	1,400.0	1,400.0	1,400.0	5.7	3.5	133.17	-198.0	211.1	289.4	280.5	8.96	32.307	
1,500.0	1,500.0	1,500.0	1,500.0	6.0	3.5	133.17	-198.0	211.1	289.4	280.1	9.31	31.086	
1,600.0	1,600.0	1,600.0	1,600.0	6.3	3.6	133.17	-198.0	211.1	289.4	279.7	9.67	29.930	
1,700.0	1,700.0	1,700.0	1,700.0	6.6	3.7	133.17	-198.0	211.1	289.4	279.4	10.04	28.836	
1,800.0	1,800.0	1,800.0	1,800.0	6.9	3.8	133.17	-198.0	211.1	289.4	279.0	10.41	27.802	
1,900.0	1,900.0	1,900.0	1,900.0	7.2	3.9	133.17	-198.0	211.1	289.4	278.6	10.79	26.826	
2,000.0	2,000.0	2,000.0	2,000.0	7.6	3.9	133.17	-198.0	211.1	289.4	278.2	11.17	25.903	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	4.0	133.17	-198.0	211.1	289.4	277.9	11.56	25.032	
2,200.0	2,200.0	2,200.0	2,200.0	8.2	4.1	133.17	-198.0	211.1	289.4	277.5	11.96	24.208	
2,300.0	2,300.0	2,300.0	2,300.0	8.6	4.2	133.17	-198.0	211.1	289.4	277.1	12.35	23.430	
2,400.0	2,400.0	2,400.0	2,400.0	8.9	4.3	133.17	-198.0	211.1	289.4	276.7	12.75	22.694	
2,500.0	2,500.0	2,500.0	2,500.0	9.2	4.4	133.17	-198.0	211.1	289.4	276.3	13.16	21.996	CC, ES
2,600.0	2,600.0	2,600.0	2,600.0	9.6	4.5	-130.07	-198.0	211.1	290.5	277.0	13.55	21.441	
2,700.0	2,699.8	2,699.8	2,699.8	9.9	4.6	-130.80	-198.0	211.1	293.9	280.0	13.93	21.105	
2,800.0	2,799.5	2,799.5	2,799.5	10.2	4.7	-131.98	-198.0	211.1	299.7	285.4	14.30	20.963	
2,900.0	2,898.9	2,898.9	2,898.9	10.5	4.8	-133.42	-198.0	211.1	306.8	292.2	14.66	20.925	
3,000.0	2,998.4	2,998.4	2,998.4	10.9	4.9	-134.80	-198.0	211.1	314.1	299.1	15.03	20.899	
3,100.0	3,097.8	3,097.8	3,097.8	11.2	5.0	-136.12	-198.0	211.1	321.6	306.2	15.40	20.883	
3,200.0	3,197.3	3,197.3	3,197.3	11.5	5.1	-137.38	-198.0	211.1	329.2	313.5	15.77	20.876	
3,300.0	3,296.7	3,296.7	3,296.7	11.9	5.2	-138.58	-198.0	211.1	337.0	320.9	16.14	20.876	
3,400.0	3,396.2	3,396.2	3,396.2	12.2	5.3	-139.73	-198.0	211.1	344.9	328.4	16.52	20.883	
3,500.0	3,495.6	3,495.6	3,495.6	12.6	5.4	-140.82	-198.0	211.1	353.0	336.1	16.89	20.895	
3,600.0	3,595.1	3,595.1	3,595.1	12.9	5.5	-141.87	-198.0	211.1	361.2	343.9	17.27	20.912	
3,700.0	3,694.5	3,694.5	3,694.5	13.3	5.7	-142.86	-198.0	211.1	369.5	351.8	17.65	20.933	
3,800.0	3,794.0	3,794.0	3,794.0	13.6	5.8	-143.82	-198.0	211.1	377.9	359.8	18.03	20.958	
3,900.0	3,893.4	3,893.4	3,893.4	13.9	5.9	-144.73	-198.0	211.1	386.4	368.0	18.41	20.985	
4,000.0	3,992.9	3,992.9	3,992.9	14.3	6.0	-145.61	-198.0	211.1	395.0	376.2	18.80	21.014	
4,100.0	4,092.3	4,092.3	4,092.3	14.6	6.1	-146.44	-198.0	211.1	403.7	384.5	19.18	21.046	
4,200.0	4,191.8	4,191.8	4,191.8	15.0	6.2	-147.25	-198.0	211.1	412.4	392.9	19.57	21.079	
4,300.0	4,291.2	4,291.2	4,291.2	15.3	6.3	-148.01	-198.0	211.1	421.3	401.3	19.95	21.113	
4,400.0	4,390.7	4,390.7	4,390.7	15.7	6.4	-148.75	-198.0	211.1	430.2	409.8	20.34	21.149	
4,500.0	4,490.1	4,490.1	4,490.1	16.0	6.6	-149.46	-198.0	211.1	439.2	418.4	20.73	21.185	
4,600.0	4,589.6	4,589.6	4,589.6	16.4	6.7	-150.13	-198.0	211.1	448.2	427.1	21.12	21.221	
4,700.0	4,689.0	4,689.0	4,689.0	16.7	6.8	-150.79	-198.0	211.1	457.3	435.8	21.51	21.258	
4,800.0	4,788.5	4,788.5	4,788.5	17.1	6.9	-151.41	-198.0	211.1	466.5	444.6	21.91	21.295	
4,900.0	4,887.9	4,887.9	4,887.9	17.5	7.0	-152.01	-198.0	211.1	475.7	453.4	22.30	21.332	
5,000.0	4,987.4	4,987.4	4,987.4	17.8	7.2	-152.59	-198.0	211.1	485.0	462.3	22.69	21.369	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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

BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 702H - OWB - PWP												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11855-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	
5,100.0	5,086.9	5,086.9	5,086.9	18.2	7.3	-153.15	-198.0	211.1	494.3	471.2	23.09	21.406	
5,200.0	5,186.3	5,186.3	5,186.3	18.5	7.4	-153.69	-198.0	211.1	503.6	480.1	23.49	21.442	
5,300.0	5,285.8	5,285.8	5,285.8	18.9	7.5	-154.20	-198.0	211.1	513.0	489.1	23.89	21.478	
5,400.0	5,385.2	5,385.2	5,385.2	19.2	7.6	-154.70	-198.0	211.1	522.5	498.2	24.28	21.514	
5,500.0	5,484.7	5,484.7	5,484.7	19.6	7.8	-155.18	-198.0	211.1	531.9	507.3	24.68	21.550	
5,600.0	5,584.1	5,599.1	5,599.1	19.9	7.8	-155.61	-198.6	209.5	540.3	515.2	25.13	21.503	
5,700.0	5,683.6	5,716.8	5,716.6	20.3	7.8	-155.73	-200.8	203.3	545.4	519.8	25.59	21.313	
5,800.0	5,783.0	5,821.9	5,821.3	20.7	7.9	-155.64	-203.7	194.9	548.1	522.1	26.04	21.047	
5,900.0	5,882.5	5,921.8	5,920.8	21.0	7.9	-155.55	-206.7	186.7	550.7	524.2	26.49	20.789	
6,000.0	5,981.9	6,021.8	6,020.4	21.4	7.9	-155.45	-209.6	178.5	553.2	526.3	26.94	20.539	
6,100.0	6,081.4	6,121.7	6,120.0	21.7	7.9	-155.36	-212.5	170.3	555.8	528.4	27.38	20.296	
6,200.0	6,180.8	6,221.7	6,219.6	22.1	7.9	-155.27	-215.4	162.0	558.3	530.5	27.83	20.060	
6,300.0	6,280.3	6,321.7	6,319.2	22.5	7.9	-155.18	-218.3	153.8	560.9	532.6	28.28	19.831	
6,400.0	6,379.7	6,421.6	6,418.8	22.8	8.0	-155.08	-221.2	145.6	563.5	534.7	28.74	19.608	
6,500.0	6,479.2	6,521.6	6,518.3	23.2	8.0	-154.99	-224.1	137.4	566.0	536.8	29.19	19.391	
6,600.0	6,578.6	6,621.6	6,617.9	23.5	8.0	-154.91	-227.0	129.2	568.6	539.0	29.64	19.180	
6,700.0	6,678.1	6,721.5	6,717.5	23.9	8.1	-154.82	-229.9	121.0	571.2	541.1	30.10	18.975	
6,800.0	6,777.5	6,821.5	6,817.1	24.3	8.1	-154.73	-232.8	112.8	573.7	543.2	30.56	18.776	
6,900.0	6,877.0	6,921.5	6,916.7	24.6	8.1	-154.64	-235.7	104.6	576.3	545.3	31.01	18.582	
7,000.0	6,976.4	7,021.4	7,016.3	25.0	8.2	-154.56	-238.6	96.3	578.9	547.4	31.47	18.393	
7,100.0	7,075.9	7,121.4	7,115.8	25.3	8.2	-154.47	-241.6	88.1	581.4	549.5	31.93	18.209	
7,200.0	7,175.3	7,221.3	7,215.4	25.7	8.2	-154.39	-244.5	79.9	584.0	551.6	32.39	18.030	
7,300.0	7,274.8	7,321.3	7,315.0	26.1	8.3	-154.30	-247.4	71.7	586.6	553.7	32.85	17.855	
7,400.0	7,374.3	7,421.3	7,414.6	26.4	8.3	-154.22	-250.3	63.5	589.2	555.9	33.31	17.685	
7,500.0	7,473.7	7,521.2	7,514.2	26.8	8.4	-154.14	-253.2	55.3	591.7	558.0	33.78	17.520	
7,600.0	7,573.2	7,621.2	7,613.8	27.1	8.4	-154.06	-256.1	47.1	594.3	560.1	34.24	17.358	
7,700.0	7,672.6	7,721.2	7,713.3	27.5	8.5	-153.98	-259.0	38.9	596.9	562.2	34.70	17.200	
7,800.0	7,772.1	7,821.1	7,812.9	27.9	8.5	-153.90	-261.9	30.6	599.5	564.3	35.17	17.047	
7,900.0	7,871.5	7,921.1	7,912.5	28.2	8.6	-153.82	-264.8	22.4	602.1	566.4	35.63	16.897	
8,000.0	7,971.0	8,021.0	8,012.1	28.6	8.7	-153.74	-267.7	14.2	604.7	568.6	36.10	16.750	
8,100.0	8,070.4	8,121.0	8,111.7	29.0	8.7	-153.66	-270.6	6.0	607.2	570.7	36.56	16.607	
8,200.0	8,169.9	8,221.0	8,211.3	29.3	8.8	-153.58	-273.5	-2.2	609.8	572.8	37.03	16.468	
8,300.0	8,269.3	8,320.9	8,310.8	29.7	8.8	-153.50	-276.5	-10.4	612.4	574.9	37.50	16.332	
8,400.0	8,368.8	8,420.9	8,410.4	30.0	8.9	-153.43	-279.4	-18.6	615.0	577.0	37.97	16.199	
8,500.0	8,468.2	8,520.9	8,510.0	30.4	9.0	-153.35	-282.3	-26.9	617.6	579.2	38.43	16.069	
8,600.0	8,567.7	8,620.8	8,609.6	30.8	9.1	-153.28	-285.2	-35.1	620.2	581.3	38.90	15.941	
8,700.0	8,667.1	8,720.8	8,709.2	31.1	9.1	-153.20	-288.1	-43.3	622.8	583.4	39.37	15.817	
8,800.0	8,766.6	8,820.8	8,808.7	31.5	9.2	-153.13	-291.0	-51.5	625.4	585.5	39.84	15.696	
8,900.0	8,866.0	8,920.7	8,908.3	31.9	9.3	-153.06	-293.9	-59.7	628.0	587.6	40.31	15.577	
9,000.0	8,965.5	9,020.7	9,007.9	32.2	9.4	-152.98	-296.8	-67.9	630.6	589.8	40.78	15.461	
9,100.0	9,064.9	9,120.6	9,107.5	32.6	9.4	-152.91	-299.7	-76.1	633.1	591.9	41.26	15.347	
9,144.0	9,108.7	9,164.6	9,151.3	32.8	9.5	-152.88	-301.0	-79.7	634.3	592.8	41.46	15.298	
9,150.0	9,114.7	9,170.6	9,157.3	32.8	9.5	-158.17	-301.2	-80.2	634.5	593.0	41.49	15.292	
9,200.0	9,164.2	9,220.4	9,206.9	33.0	9.5	172.31	-302.6	-84.3	637.7	595.9	41.73	15.279 SF	
9,250.0	9,213.2	9,269.7	9,256.0	33.1	9.5	159.43	-304.1	-88.4	643.9	601.9	41.99	15.336	
9,300.0	9,261.3	9,318.1	9,304.3	33.3	9.6	152.98	-305.5	-92.4	653.2	611.0	42.24	15.464	
9,350.0	9,308.1	9,365.3	9,351.2	33.5	9.6	149.22	-306.8	-96.2	665.7	623.2	42.50	15.663	
9,400.0	9,353.2	9,410.8	9,396.5	33.6	9.7	146.76	-308.2	-100.0	681.3	638.6	42.76	15.935	
9,450.0	9,396.3	9,454.3	9,439.9	33.8	9.7	144.95	-309.4	-103.5	700.1	657.1	43.01	16.280	
9,500.0	9,437.1	9,495.5	9,480.9	33.9	9.7	143.43	-310.6	-106.9	722.1	678.9	43.25	16.698	
9,550.0	9,475.3	9,534.1	9,519.4	34.1	9.8	141.97	-311.7	-110.1	747.3	703.8	43.47	17.190	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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 BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 702H - OWB - PWP													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11855-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	
9,600.0	9,510.5	9,569.7	9,554.9	34.2	9.8	140.40	-312.8	-113.0	775.5	731.8	43.68	17.755		
9,650.0	9,542.5	9,602.2	9,587.2	34.3	9.8	138.56	-313.7	-115.7	806.7	762.8	43.87	18.390		
9,700.0	9,571.1	9,631.3	9,616.2	34.4	9.9	136.29	-314.6	-118.1	840.7	796.6	44.03	19.093		
9,750.0	9,596.1	9,656.7	9,641.5	34.5	9.9	133.41	-315.3	-120.2	877.2	833.0	44.17	19.859		
9,800.0	9,617.2	9,678.2	9,662.9	34.5	9.9	129.70	-315.9	-121.9	916.1	871.8	44.29	20.684		
9,850.0	9,634.3	9,695.7	9,680.4	34.6	9.9	124.90	-316.5	-123.4	956.9	912.6	44.38	21.561		
9,900.0	9,647.3	9,709.1	9,693.8	34.7	9.9	118.74	-316.8	-124.5	999.5	955.0	44.45	22.484		

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

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Page 35

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 703H - OWB - PWP											Offset Site Error:		3.0 usft
Survey Program:		0-Standard Keeper 104, 11837-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	129.36	-197.7	241.1	311.8						
100.0	100.0	100.0	100.0	3.0	3.0	129.36	-197.7	241.1	311.8	305.8	6.00	51.939			
200.0	200.0	200.0	200.0	3.0	3.0	129.36	-197.7	241.1	311.8	305.8	6.04	51.596			
300.0	300.0	300.0	300.0	3.1	3.0	129.36	-197.7	241.1	311.8	305.7	6.13	50.887			
400.0	400.0	400.0	400.0	3.2	3.0	129.36	-197.7	241.1	311.8	305.5	6.25	49.865			
500.0	500.0	500.0	500.0	3.4	3.1	129.36	-197.7	241.1	311.8	305.4	6.42	48.599			
600.0	600.0	600.0	600.0	3.6	3.1	129.36	-197.7	241.1	311.8	305.2	6.61	47.158			
700.0	700.0	700.0	700.0	3.8	3.1	129.36	-197.7	241.1	311.8	305.0	6.84	45.608			
800.0	800.0	800.0	800.0	4.0	3.2	129.36	-197.7	241.1	311.8	304.7	7.09	44.003			
900.0	900.0	900.0	900.0	4.2	3.2	129.36	-197.7	241.1	311.8	304.4	7.36	42.384			
1,000.0	1,000.0	1,000.0	1,000.0	4.5	3.2	129.36	-197.7	241.1	311.8	304.2	7.65	40.784			
1,100.0	1,100.0	1,100.0	1,100.0	4.8	3.3	129.36	-197.7	241.1	311.8	303.8	7.95	39.223			
1,200.0	1,200.0	1,200.0	1,200.0	5.1	3.4	129.36	-197.7	241.1	311.8	303.5	8.27	37.715			
1,300.0	1,300.0	1,300.0	1,300.0	5.4	3.4	129.36	-197.7	241.1	311.8	303.2	8.60	36.270			
1,400.0	1,400.0	1,400.0	1,400.0	5.7	3.5	129.36	-197.7	241.1	311.8	302.9	8.94	34.892			
1,500.0	1,500.0	1,500.0	1,500.0	6.0	3.5	129.36	-197.7	241.1	311.8	302.5	9.28	33.582			
1,600.0	1,600.0	1,600.0	1,600.0	6.3	3.6	129.36	-197.7	241.1	311.8	302.2	9.64	32.341			
1,700.0	1,700.0	1,700.0	1,700.0	6.6	3.7	129.36	-197.7	241.1	311.8	301.8	10.00	31.166			
1,800.0	1,800.0	1,800.0	1,800.0	6.9	3.8	129.36	-197.7	241.1	311.8	301.4	10.37	30.056			
1,900.0	1,900.0	1,900.0	1,900.0	7.2	3.9	129.36	-197.7	241.1	311.8	301.0	10.75	29.006			
2,000.0	2,000.0	2,000.0	2,000.0	7.6	3.9	129.36	-197.7	241.1	311.8	300.7	11.13	28.014			
2,100.0	2,100.0	2,100.0	2,100.0	7.9	4.0	129.36	-197.7	241.1	311.8	300.3	11.51	27.077			
2,200.0	2,200.0	2,200.0	2,200.0	8.2	4.1	129.36	-197.7	241.1	311.8	299.9	11.90	26.192			
2,300.0	2,300.0	2,300.0	2,300.0	8.6	4.2	129.36	-197.7	241.1	311.8	299.5	12.30	25.354			
2,400.0	2,400.0	2,400.0	2,400.0	8.9	4.3	129.36	-197.7	241.1	311.8	299.1	12.69	24.562			
2,500.0	2,500.0	2,500.0	2,500.0	9.2	4.4	129.36	-197.7	241.1	311.8	298.7	13.09	23.812 CC, ES			
2,600.0	2,600.0	2,600.0	2,600.0	9.6	4.5	-133.86	-197.7	241.1	313.0	299.5	13.48	23.213			
2,700.0	2,699.8	2,699.8	2,699.8	9.9	4.6	-134.49	-197.7	241.1	316.7	302.8	13.86	22.849			
2,800.0	2,799.5	2,799.5	2,799.5	10.2	4.7	-135.50	-197.7	241.1	322.8	308.6	14.23	22.691			
2,900.0	2,898.9	2,898.9	2,898.9	10.5	4.8	-136.77	-197.7	241.1	330.4	315.8	14.59	22.640			
3,000.0	2,998.4	2,998.4	2,998.4	10.9	4.9	-137.98	-197.7	241.1	338.1	323.1	14.96	22.599			
3,100.0	3,097.8	3,097.8	3,097.8	11.2	5.0	-139.14	-197.7	241.1	346.0	330.6	15.33	22.567			
3,200.0	3,197.3	3,197.3	3,197.3	11.5	5.1	-140.24	-197.7	241.1	353.9	338.2	15.70	22.541			
3,300.0	3,296.7	3,296.7	3,296.7	11.9	5.2	-141.30	-197.7	241.1	362.1	346.0	16.08	22.522			
3,400.0	3,396.2	3,396.2	3,396.2	12.2	5.3	-142.31	-197.7	241.1	370.3	353.8	16.45	22.509			
3,500.0	3,495.6	3,495.6	3,495.6	12.6	5.4	-143.27	-197.7	241.1	378.6	361.8	16.83	22.500			
3,600.0	3,595.1	3,595.1	3,595.1	12.9	5.5	-144.20	-197.7	241.1	387.1	369.9	17.21	22.496			
3,700.0	3,694.5	3,694.5	3,694.5	13.3	5.7	-145.08	-197.7	241.1	395.6	378.0	17.59	22.495 SF			
3,800.0	3,794.0	3,794.0	3,794.0	13.6	5.8	-145.93	-197.7	241.1	404.2	386.3	17.97	22.497			
3,900.0	3,893.4	3,893.4	3,893.4	13.9	5.9	-146.74	-197.7	241.1	413.0	394.6	18.35	22.502			
4,000.0	3,992.9	3,992.9	3,992.9	14.3	6.0	-147.52	-197.7	241.1	421.8	403.0	18.74	22.509			
4,100.0	4,092.3	4,092.3	4,092.3	14.6	6.1	-148.26	-197.7	241.1	430.6	411.5	19.12	22.519			
4,200.0	4,191.8	4,191.8	4,191.8	15.0	6.2	-148.98	-197.7	241.1	439.6	420.0	19.51	22.530			
4,300.0	4,291.2	4,291.2	4,291.2	15.3	6.3	-149.66	-197.7	241.1	448.6	428.7	19.90	22.542			
4,400.0	4,390.7	4,390.7	4,390.7	15.7	6.4	-150.32	-197.7	241.1	457.6	437.3	20.29	22.555			
4,500.0	4,490.1	4,490.1	4,490.1	16.0	6.6	-150.96	-197.7	241.1	466.7	446.1	20.68	22.570			
4,600.0	4,589.6	4,589.6	4,589.6	16.4	6.7	-151.57	-197.7	241.1	475.9	454.9	21.07	22.585			
4,700.0	4,689.0	4,689.0	4,689.0	16.7	6.8	-152.16	-197.7	241.1	485.2	463.7	21.47	22.601			
4,800.0	4,788.5	4,788.5	4,788.5	17.1	6.9	-152.72	-197.7	241.1	494.4	472.6	21.86	22.618			
4,900.0	4,887.9	4,887.9	4,887.9	17.5	7.0	-153.27	-197.7	241.1	503.8	481.5	22.26	22.635			
5,000.0	4,987.4	4,987.4	4,987.4	17.8	7.2	-153.79	-197.7	241.1	513.1	490.5	22.65	22.652			

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11837-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
5,100.0	5,086.9	5,086.9	5,086.9	18.2	7.3	-154.30		-197.7	241.1	522.5	499.5	23.05	22.670	
5,200.0	5,186.3	5,186.3	5,186.3	18.5	7.4	-154.78		-197.7	241.1	532.0	508.5	23.45	22.687	
5,300.0	5,285.8	5,285.8	5,285.8	18.9	7.5	-155.25		-197.7	241.1	541.5	517.6	23.85	22.705	
5,400.0	5,385.2	5,385.2	5,385.2	19.2	7.6	-155.71		-197.7	241.1	551.0	526.7	24.25	22.723	
5,500.0	5,484.7	5,484.7	5,484.7	19.6	7.8	-156.15		-197.7	241.1	560.5	535.9	24.65	22.741	
5,600.0	5,584.1	5,584.1	5,584.1	19.9	7.9	-156.57		-197.7	241.1	570.1	545.1	25.05	22.758	
5,700.0	5,683.6	5,683.6	5,683.6	20.3	8.0	-156.98		-197.7	241.1	579.7	554.3	25.45	22.776	
5,800.0	5,783.0	5,783.0	5,783.0	20.7	8.1	-157.38		-197.7	241.1	589.4	563.5	25.86	22.793	
5,900.0	5,882.5	5,882.5	5,882.5	21.0	8.2	-157.76		-197.7	241.1	599.0	572.8	26.26	22.810	
6,000.0	5,981.9	5,981.9	5,981.9	21.4	8.4	-158.14		-197.7	241.1	608.7	582.1	26.67	22.827	
6,100.0	6,081.4	6,081.4	6,081.4	21.7	8.5	-158.50		-197.7	241.1	618.5	591.4	27.07	22.844	
6,200.0	6,180.8	6,180.8	6,180.8	22.1	8.6	-158.85		-197.7	241.1	628.2	600.7	27.48	22.861	
6,300.0	6,280.3	6,280.3	6,280.3	22.5	8.7	-159.18		-197.7	241.1	638.0	610.1	27.89	22.877	
6,400.0	6,379.7	6,379.7	6,379.7	22.8	8.9	-159.51		-197.7	241.1	647.8	619.5	28.30	22.893	
6,500.0	6,479.2	6,479.2	6,479.2	23.2	9.0	-159.83		-197.7	241.1	657.6	628.9	28.70	22.909	
6,600.0	6,578.6	6,578.6	6,578.6	23.5	9.1	-160.14		-197.7	241.1	667.4	638.3	29.11	22.924	
6,700.0	6,678.1	6,678.1	6,678.1	23.9	9.2	-160.44		-197.7	241.1	677.2	647.7	29.52	22.940	
6,800.0	6,777.5	6,777.5	6,777.5	24.3	9.3	-160.73		-197.7	241.1	687.1	657.2	29.93	22.955	
6,900.0	6,877.0	6,877.0	6,877.0	24.6	9.5	-161.02		-197.7	241.1	697.0	666.6	30.34	22.969	
7,000.0	6,976.4	6,976.4	6,976.4	25.0	9.6	-161.29		-197.7	241.1	706.9	676.1	30.76	22.984	
7,100.0	7,075.9	7,075.9	7,075.9	25.3	9.7	-161.56		-197.7	241.1	716.8	685.6	31.17	22.998	
7,200.0	7,175.3	7,175.3	7,175.3	25.7	9.8	-161.82		-197.7	241.1	726.7	695.1	31.58	23.012	
7,300.0	7,274.8	7,274.8	7,274.8	26.1	10.0	-162.07		-197.7	241.1	736.7	704.7	31.99	23.025	
7,400.0	7,374.3	7,374.3	7,374.3	26.4	10.1	-162.32		-197.7	241.1	746.6	714.2	32.41	23.039	
7,500.0	7,473.7	7,473.7	7,473.7	26.8	10.2	-162.56		-197.7	241.1	756.6	723.8	32.82	23.052	
7,600.0	7,573.2	7,573.2	7,573.2	27.1	10.3	-162.79		-197.7	241.1	766.6	733.3	33.24	23.064	
7,700.0	7,672.6	7,672.6	7,672.6	27.5	10.5	-163.02		-197.7	241.1	776.6	742.9	33.65	23.077	
7,800.0	7,772.1	7,772.1	7,772.1	27.9	10.6	-163.24		-197.7	241.1	786.6	752.5	34.07	23.089	
7,900.0	7,871.5	7,871.5	7,871.5	28.2	10.7	-163.46		-197.7	241.1	796.6	762.1	34.48	23.101	
8,000.0	7,971.0	7,971.0	7,971.0	28.6	10.8	-163.67		-197.7	241.1	806.6	771.7	34.90	23.113	
8,100.0	8,070.4	8,070.4	8,070.4	29.0	11.0	-163.88		-197.7	241.1	816.7	781.4	35.32	23.124	
8,200.0	8,169.9	8,169.9	8,169.9	29.3	11.1	-164.08		-197.7	241.1	826.7	791.0	35.73	23.136	
8,300.0	8,269.3	8,269.3	8,269.3	29.7	11.2	-164.28		-197.7	241.1	836.8	800.6	36.15	23.147	
8,400.0	8,368.8	8,368.8	8,368.8	30.0	11.4	-164.47		-197.7	241.1	846.9	810.3	36.57	23.157	
8,500.0	8,468.2	8,468.2	8,468.2	30.4	11.5	-164.65		-197.7	241.1	856.9	820.0	36.99	23.168	
8,600.0	8,567.7	8,567.7	8,567.7	30.8	11.6	-164.84		-197.7	241.1	867.0	829.6	37.41	23.178	
8,700.0	8,667.1	8,667.1	8,667.1	31.1	11.7	-165.02		-197.7	241.1	877.1	839.3	37.83	23.188	
8,800.0	8,766.6	8,766.6	8,766.6	31.5	11.9	-165.19		-197.7	241.1	887.2	849.0	38.25	23.198	
8,900.0	8,866.0	8,866.0	8,866.0	31.9	12.0	-165.36		-197.7	241.1	897.3	858.7	38.67	23.208	
9,000.0	8,965.5	8,965.5	8,965.5	32.2	12.1	-165.53		-197.7	241.1	907.5	868.4	39.09	23.217	
9,100.0	9,064.9	9,064.9	9,064.9	32.6	12.2	-165.69		-197.7	241.1	917.6	878.1	39.51	23.227	
9,144.0	9,108.7	9,108.7	9,108.7	32.8	12.3	-165.76		-197.7	241.1	922.1	882.4	39.69	23.231	
9,150.0	9,114.7	9,114.7	9,114.7	32.8	12.3	-171.10		-197.7	241.1	922.7	883.0	39.72	23.232	
9,200.0	9,164.2	9,164.2	9,164.2	33.0	12.4	158.90		-197.7	241.1	929.1	889.2	39.93	23.268	
9,250.0	9,213.2	9,213.2	9,213.2	33.1	12.4	145.52		-197.7	241.1	937.8	897.7	40.15	23.356	
9,300.0	9,261.3	9,261.3	9,261.3	33.3	12.5	138.56		-197.7	241.1	948.7	908.4	40.38	23.495	
9,350.0	9,308.1	9,308.1	9,308.1	33.5	12.6	134.28		-197.7	241.1	961.9	921.3	40.61	23.686	
9,400.0	9,353.2	9,353.2	9,353.2	33.6	12.6	131.30		-197.7	241.1	977.2	936.4	40.84	23.927	
9,450.0	9,396.3	9,396.3	9,396.3	33.8	12.7	128.99		-197.7	241.1	994.9	953.8	41.08	24.219	

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

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Page 37

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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												Offset Site Error:	3.0 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
0.0	0.0	0.0	0.0	3.0	3.0	126.07	-197.4	271.1	335.4				
100.0	100.0	100.0	100.0	3.0	3.0	126.07	-197.4	271.1	335.4	329.4	6.01	55.841	
200.0	200.0	200.0	200.0	3.0	3.0	126.07	-197.4	271.1	335.4	329.3	6.08	55.162	
300.0	300.0	300.0	300.0	3.1	3.1	126.07	-197.4	271.1	335.4	329.1	6.24	53.781	
400.0	400.0	400.0	400.0	3.2	3.2	126.07	-197.4	271.1	335.4	328.9	6.47	51.850	
500.0	500.0	500.0	500.0	3.4	3.4	126.07	-197.4	271.1	335.4	328.6	6.77	49.548	
600.0	600.0	600.0	600.0	3.6	3.6	126.07	-197.4	271.1	335.4	328.2	7.13	47.044	
700.0	700.0	700.0	700.0	3.8	3.8	126.07	-197.4	271.1	335.4	327.8	7.54	44.477	
800.0	800.0	800.0	800.0	4.0	4.0	126.07	-197.4	271.1	335.4	327.4	7.99	41.948	
900.0	900.0	900.0	900.0	4.2	4.2	126.07	-197.4	271.1	335.4	326.9	8.49	39.522	
1,000.0	1,000.0	1,000.0	1,000.0	4.5	4.5	126.07	-197.4	271.1	335.4	326.4	9.01	37.234	
1,100.0	1,100.0	1,100.0	1,100.0	4.8	4.8	126.07	-197.4	271.1	335.4	325.8	9.55	35.104	
1,200.0	1,200.0	1,200.0	1,200.0	5.1	5.1	126.07	-197.4	271.1	335.4	325.3	10.12	33.134	
1,300.0	1,300.0	1,300.0	1,300.0	5.4	5.4	126.07	-197.4	271.1	335.4	324.7	10.71	31.321	
1,400.0	1,400.0	1,400.0	1,400.0	5.7	5.7	126.07	-197.4	271.1	335.4	324.1	11.31	29.657	
1,500.0	1,500.0	1,500.0	1,500.0	6.0	6.0	126.07	-197.4	271.1	335.4	323.5	11.92	28.130	
1,600.0	1,600.0	1,600.0	1,600.0	6.3	6.3	126.07	-197.4	271.1	335.4	322.8	12.55	26.729	
1,700.0	1,700.0	1,700.0	1,700.0	6.6	6.6	126.07	-197.4	271.1	335.4	322.2	13.18	25.444	
1,800.0	1,800.0	1,800.0	1,800.0	6.9	6.9	126.07	-197.4	271.1	335.4	321.6	13.82	24.261	
1,900.0	1,900.0	1,900.0	1,900.0	7.2	7.2	126.07	-197.4	271.1	335.4	320.9	14.47	23.173	
2,000.0	2,000.0	2,000.0	2,000.0	7.6	7.6	126.07	-197.4	271.1	335.4	320.2	15.13	22.169	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	126.07	-197.4	271.1	335.4	319.6	15.79	21.242	
2,200.0	2,200.0	2,200.0	2,200.0	8.2	8.2	126.07	-197.4	271.1	335.4	318.9	16.45	20.383	
2,300.0	2,300.0	2,300.0	2,300.0	8.6	8.6	126.07	-197.4	271.1	335.4	318.3	17.12	19.586	
2,400.0	2,400.0	2,400.0	2,400.0	8.9	8.9	126.07	-197.4	271.1	335.4	317.6	17.80	18.845	
2,500.0	2,500.0	2,500.0	2,500.0	9.2	9.2	126.07	-197.4	271.1	335.4	316.9	18.47	18.154 CC, ES	
2,600.0	2,600.0	2,589.9	2,589.9	9.6	9.5	-137.15	-197.9	272.4	338.1	319.0	19.09	17.711	
2,700.0	2,699.8	2,682.1	2,682.0	9.9	9.8	-137.81	-199.2	276.5	346.4	326.7	19.70	17.586 SF	
2,800.0	2,799.5	2,781.1	2,780.9	10.2	10.1	-138.85	-200.8	281.6	358.0	337.7	20.34	17.604	
2,900.0	2,898.9	2,879.9	2,879.5	10.5	10.5	-140.14	-202.4	286.7	371.2	350.2	20.98	17.690	
3,000.0	2,998.4	2,978.7	2,978.2	10.9	10.8	-141.35	-204.0	291.8	384.5	362.9	21.63	17.775	
3,100.0	3,097.8	3,077.5	3,076.8	11.2	11.1	-142.47	-205.6	296.9	398.0	375.7	22.29	17.859	
3,200.0	3,197.3	3,176.3	3,175.5	11.5	11.4	-143.52	-207.2	302.0	411.7	388.7	22.94	17.942	
3,300.0	3,296.7	3,275.1	3,274.1	11.9	11.8	-144.50	-208.8	307.1	425.4	401.8	23.60	18.023	
3,400.0	3,396.2	3,373.9	3,372.8	12.2	12.1	-145.42	-210.4	312.2	439.3	415.0	24.27	18.101	
3,500.0	3,495.6	3,472.7	3,471.4	12.6	12.4	-146.29	-212.0	317.3	453.3	428.3	24.94	18.177	
3,600.0	3,595.1	3,571.5	3,570.0	12.9	12.8	-147.10	-213.6	322.4	467.3	441.7	25.61	18.252	
3,700.0	3,694.5	3,670.3	3,668.7	13.3	13.1	-147.87	-215.2	327.5	481.5	455.2	26.28	18.323	
3,800.0	3,794.0	3,769.0	3,767.3	13.6	13.4	-148.59	-216.8	332.5	495.8	468.8	26.95	18.393	
3,900.0	3,893.4	3,867.8	3,866.0	13.9	13.8	-149.27	-218.4	337.6	510.1	482.4	27.63	18.460	
4,000.0	3,992.9	3,966.6	3,964.6	14.3	14.1	-149.91	-220.0	342.7	524.5	496.1	28.31	18.525	
4,100.0	4,092.3	4,065.4	4,063.3	14.6	14.5	-150.52	-221.6	347.8	538.9	509.9	28.99	18.588	
4,200.0	4,191.8	4,164.2	4,161.9	15.0	14.8	-151.10	-223.3	352.9	553.4	523.7	29.67	18.649	
4,300.0	4,291.2	4,263.0	4,260.6	15.3	15.1	-151.65	-224.9	358.0	567.9	537.6	30.36	18.708	
4,400.0	4,390.7	4,361.8	4,359.2	15.7	15.5	-152.17	-226.5	363.1	582.6	551.5	31.04	18.765	
4,500.0	4,490.1	4,460.6	4,457.9	16.0	15.8	-152.67	-228.1	368.2	597.2	565.5	31.73	18.820	
4,600.0	4,589.6	4,559.4	4,556.5	16.4	16.2	-153.14	-229.7	373.3	611.9	579.5	32.42	18.873	
4,700.0	4,689.0	4,658.2	4,655.2	16.7	16.5	-153.59	-231.3	378.4	626.6	593.5	33.11	18.924	
4,800.0	4,788.5	4,757.0	4,753.8	17.1	16.8	-154.02	-232.9	383.5	641.4	607.6	33.80	18.973	
4,900.0	4,887.9	4,855.8	4,852.5	17.5	17.2	-154.43	-234.5	388.6	656.2	621.7	34.50	19.021	
5,000.0	4,987.4	4,954.6	4,951.1	17.8	17.5	-154.82	-236.1	393.7	671.0	635.8	35.19	19.068	

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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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		BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 704H - OWB - PWP										Offset Site Error:		3.0 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			
5,100.0	5,086.9	5,053.3	5,049.8	18.2	17.9	-155.20	-237.7	398.8	685.9	650.0	35.89	19.112			
5,200.0	5,186.3	5,152.1	5,148.4	18.5	18.2	-155.55	-239.3	403.9	700.7	664.2	36.58	19.156			
5,300.0	5,285.8	5,250.9	5,247.1	18.9	18.6	-155.90	-240.9	409.0	715.7	678.4	37.28	19.198			
5,400.0	5,385.2	5,349.7	5,345.7	19.2	18.9	-156.23	-242.5	414.1	730.6	692.6	37.98	19.238			
5,500.0	5,484.7	5,448.5	5,444.4	19.6	19.3	-156.55	-244.1	419.2	745.6	706.9	38.67	19.278			
5,600.0	5,584.1	5,547.3	5,543.0	19.9	19.6	-156.85	-245.7	424.3	760.5	721.2	39.37	19.316			
5,700.0	5,683.6	5,646.1	5,641.6	20.3	20.0	-157.14	-247.4	429.4	775.5	735.5	40.07	19.352			
5,800.0	5,783.0	5,744.9	5,740.3	20.7	20.3	-157.42	-249.0	434.5	790.6	749.8	40.78	19.388			
5,900.0	5,882.5	5,843.7	5,838.9	21.0	20.7	-157.70	-250.6	439.5	805.6	764.1	41.48	19.423			
6,000.0	5,981.9	5,942.5	5,937.6	21.4	21.0	-157.96	-252.2	444.6	820.6	778.5	42.18	19.456			
6,100.0	6,081.4	6,041.3	6,036.2	21.7	21.4	-158.21	-253.8	449.7	835.7	792.8	42.88	19.489			
6,200.0	6,180.8	6,140.1	6,134.9	22.1	21.7	-158.45	-255.4	454.8	850.8	807.2	43.58	19.521			
6,300.0	6,280.3	6,238.9	6,233.5	22.5	22.1	-158.69	-257.0	459.9	865.9	821.6	44.29	19.551			
6,400.0	6,379.7	6,337.6	6,332.2	22.8	22.4	-158.91	-258.6	465.0	881.0	836.0	44.99	19.581			
6,500.0	6,479.2	6,436.4	6,430.8	23.2	22.8	-159.13	-260.2	470.1	896.1	850.4	45.70	19.610			
6,600.0	6,578.6	6,535.2	6,529.5	23.5	23.1	-159.34	-261.8	475.2	911.3	864.9	46.40	19.638			
6,700.0	6,678.1	6,634.0	6,628.1	23.9	23.5	-159.55	-263.4	480.3	926.4	879.3	47.11	19.665			
6,800.0	6,777.5	6,732.8	6,726.8	24.3	23.8	-159.75	-265.0	485.4	941.6	893.8	47.82	19.692			
6,900.0	6,877.0	6,831.6	6,825.4	24.6	24.2	-159.94	-266.6	490.5	956.8	908.2	48.52	19.718			
7,000.0	6,976.4	6,930.4	6,924.1	25.0	24.5	-160.12	-268.2	495.6	972.0	922.7	49.23	19.743			
7,100.0	7,075.9	7,029.2	7,022.7	25.3	24.9	-160.30	-269.8	500.7	987.1	937.2	49.94	19.767			

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

6/8/2020 11:09:18AM

Page 39

COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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' @ 3649.0usft (McVay 8)

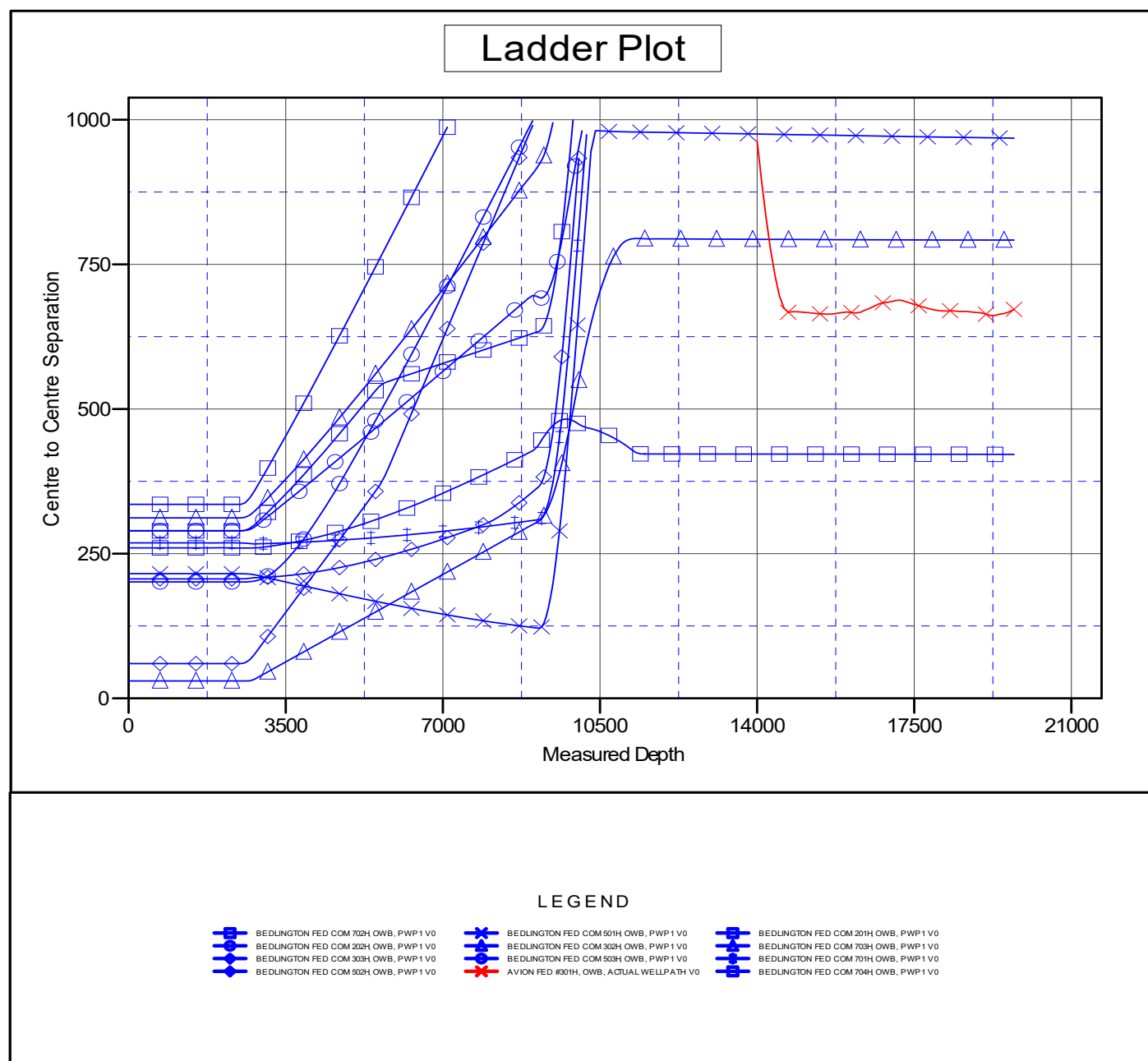
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: BEDLINGTON FED COM 301H

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

Grid Convergence at Surface is: 0.37°



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

6/8/2020 11:09:18AM

Page 40

COMPASS 5000.15 Build 91E

Concho Resources LLC

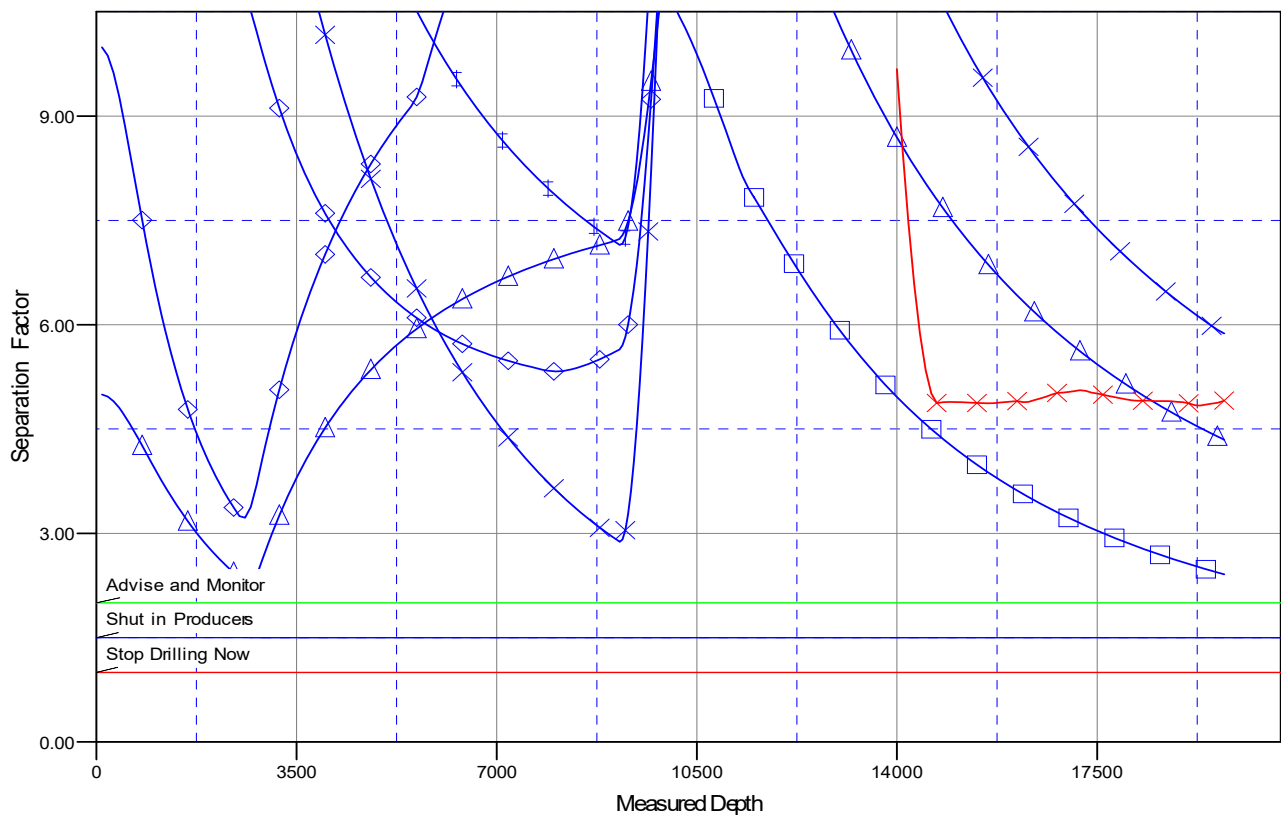
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Reference Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	BEDLINGTON FED COM 301H	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' @ 3649.0usft (McVay 8)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: BEDLINGTON FED COM 301H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.37°

Separation Factor Plot



LEGEND

BEDLINGTON FED COM 702H OWB, PWP1 V0	BEDLINGTON FED COM 501H OWB, PWP1 V0	BEDLINGTON FED COM 201H OWB, PWP1 V0
BEDLINGTON FED COM 202H OWB, PWP1 V0	BEDLINGTON FED COM 302H OWB, PWP1 V0	BEDLINGTON FED COM 703H OWB, PWP1 V0
BEDLINGTON FED COM 303H OWB, PWP1 V0	BEDLINGTON FED COM 503H OWB, PWP1 V0	BEDLINGTON FED COM 701H OWB, PWP1 V0
BEDLINGTON FED COM 502H OWB, PWP1 V0	AVION FED #301H, OWB, ACTUAL WELLPATH V0	BEDLINGTON FED COM 704H OWB, PWP1 V0

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)

BEDLINGTON FED COM 301H

OWB

Plan: PWP1

Standard Survey Report

08 June, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	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	BEDLINGTON FED COM 301H			
Well Position	+N/-S	0.0 usft	Northing:	457,133.99 usft
	+E/-W	0.0 usft	Easting:	711,702.34 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft
			Latitude:	32° 15' 17.720 N
			Longitude:	103° 38' 54.659 W
			Ground Level:	3,623.0 usft

Wellbore	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/8/2020	6.70	59.95	47,609.00779936

Design	PWP1
---------------	------

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	352.84

Survey Tool Program		Date	6/8/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	19,722.6	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 BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	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	263.00	2,600.0	-0.2	-1.7	0.0	2.00	2.00	0.00
2,700.0	4.00	263.00	2,699.8	-0.9	-6.9	0.0	2.00	2.00	0.00
2,800.0	6.00	263.00	2,799.5	-1.9	-15.6	0.0	2.00	2.00	0.00
Start 6344.0 hold at 2800.0 MD									
2,900.0	6.00	263.00	2,898.9	-3.2	-26.0	0.1	0.00	0.00	0.00
3,000.0	6.00	263.00	2,998.4	-4.5	-36.3	0.1	0.00	0.00	0.00
3,100.0	6.00	263.00	3,097.8	-5.7	-46.7	0.1	0.00	0.00	0.00
3,200.0	6.00	263.00	3,197.3	-7.0	-57.1	0.2	0.00	0.00	0.00
3,300.0	6.00	263.00	3,296.7	-8.3	-67.5	0.2	0.00	0.00	0.00
3,400.0	6.00	263.00	3,396.2	-9.6	-77.8	0.2	0.00	0.00	0.00
3,500.0	6.00	263.00	3,495.6	-10.8	-88.2	0.3	0.00	0.00	0.00
3,600.0	6.00	263.00	3,595.1	-12.1	-98.6	0.3	0.00	0.00	0.00
3,700.0	6.00	263.00	3,694.5	-13.4	-109.0	0.3	0.00	0.00	0.00
3,800.0	6.00	263.00	3,794.0	-14.7	-119.3	0.3	0.00	0.00	0.00
3,900.0	6.00	263.00	3,893.4	-15.9	-129.7	0.4	0.00	0.00	0.00
4,000.0	6.00	263.00	3,992.9	-17.2	-140.1	0.4	0.00	0.00	0.00
4,100.0	6.00	263.00	4,092.3	-18.5	-150.5	0.4	0.00	0.00	0.00
4,200.0	6.00	263.00	4,191.8	-19.7	-160.8	0.5	0.00	0.00	0.00
4,300.0	6.00	263.00	4,291.2	-21.0	-171.2	0.5	0.00	0.00	0.00
4,400.0	6.00	263.00	4,390.7	-22.3	-181.6	0.5	0.00	0.00	0.00
4,500.0	6.00	263.00	4,490.1	-23.6	-192.0	0.6	0.00	0.00	0.00
4,600.0	6.00	263.00	4,589.6	-24.8	-202.3	0.6	0.00	0.00	0.00
4,700.0	6.00	263.00	4,689.0	-26.1	-212.7	0.6	0.00	0.00	0.00
4,800.0	6.00	263.00	4,788.5	-27.4	-223.1	0.6	0.00	0.00	0.00
4,900.0	6.00	263.00	4,887.9	-28.7	-233.5	0.7	0.00	0.00	0.00
5,000.0	6.00	263.00	4,987.4	-29.9	-243.8	0.7	0.00	0.00	0.00
5,100.0	6.00	263.00	5,086.9	-31.2	-254.2	0.7	0.00	0.00	0.00
5,200.0	6.00	263.00	5,186.3	-32.5	-264.6	0.8	0.00	0.00	0.00
5,300.0	6.00	263.00	5,285.8	-33.8	-274.9	0.8	0.00	0.00	0.00
5,400.0	6.00	263.00	5,385.2	-35.0	-285.3	0.8	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	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)
5,500.0	6.00	263.00	5,484.7	-36.3	-295.7	0.9	0.00	0.00	0.00
5,600.0	6.00	263.00	5,584.1	-37.6	-306.1	0.9	0.00	0.00	0.00
5,700.0	6.00	263.00	5,683.6	-38.9	-316.4	0.9	0.00	0.00	0.00
5,800.0	6.00	263.00	5,783.0	-40.1	-326.8	0.9	0.00	0.00	0.00
5,900.0	6.00	263.00	5,882.5	-41.4	-337.2	1.0	0.00	0.00	0.00
6,000.0	6.00	263.00	5,981.9	-42.7	-347.6	1.0	0.00	0.00	0.00
6,100.0	6.00	263.00	6,081.4	-44.0	-357.9	1.0	0.00	0.00	0.00
6,200.0	6.00	263.00	6,180.8	-45.2	-368.3	1.1	0.00	0.00	0.00
6,300.0	6.00	263.00	6,280.3	-46.5	-378.7	1.1	0.00	0.00	0.00
6,400.0	6.00	263.00	6,379.7	-47.8	-389.1	1.1	0.00	0.00	0.00
6,500.0	6.00	263.00	6,479.2	-49.0	-399.4	1.2	0.00	0.00	0.00
6,600.0	6.00	263.00	6,578.6	-50.3	-409.8	1.2	0.00	0.00	0.00
6,700.0	6.00	263.00	6,678.1	-51.6	-420.2	1.2	0.00	0.00	0.00
6,800.0	6.00	263.00	6,777.5	-52.9	-430.6	1.2	0.00	0.00	0.00
6,900.0	6.00	263.00	6,877.0	-54.1	-440.9	1.3	0.00	0.00	0.00
7,000.0	6.00	263.00	6,976.4	-55.4	-451.3	1.3	0.00	0.00	0.00
7,100.0	6.00	263.00	7,075.9	-56.7	-461.7	1.3	0.00	0.00	0.00
7,200.0	6.00	263.00	7,175.3	-58.0	-472.1	1.4	0.00	0.00	0.00
7,300.0	6.00	263.00	7,274.8	-59.2	-482.4	1.4	0.00	0.00	0.00
7,400.0	6.00	263.00	7,374.3	-60.5	-492.8	1.4	0.00	0.00	0.00
7,500.0	6.00	263.00	7,473.7	-61.8	-503.2	1.4	0.00	0.00	0.00
7,600.0	6.00	263.00	7,573.2	-63.1	-513.6	1.5	0.00	0.00	0.00
7,700.0	6.00	263.00	7,672.6	-64.3	-523.9	1.5	0.00	0.00	0.00
7,800.0	6.00	263.00	7,772.1	-65.6	-534.3	1.5	0.00	0.00	0.00
7,900.0	6.00	263.00	7,871.5	-66.9	-544.7	1.6	0.00	0.00	0.00
8,000.0	6.00	263.00	7,971.0	-68.2	-555.1	1.6	0.00	0.00	0.00
8,100.0	6.00	263.00	8,070.4	-69.4	-565.4	1.6	0.00	0.00	0.00
8,200.0	6.00	263.00	8,169.9	-70.7	-575.8	1.7	0.00	0.00	0.00
8,300.0	6.00	263.00	8,269.3	-72.0	-586.2	1.7	0.00	0.00	0.00
8,400.0	6.00	263.00	8,368.8	-73.2	-596.6	1.7	0.00	0.00	0.00
8,500.0	6.00	263.00	8,468.2	-74.5	-606.9	1.7	0.00	0.00	0.00
8,600.0	6.00	263.00	8,567.7	-75.8	-617.3	1.8	0.00	0.00	0.00
8,700.0	6.00	263.00	8,667.1	-77.1	-627.7	1.8	0.00	0.00	0.00
8,800.0	6.00	263.00	8,766.6	-78.3	-638.1	1.8	0.00	0.00	0.00
8,900.0	6.00	263.00	8,866.0	-79.6	-648.4	1.9	0.00	0.00	0.00
9,000.0	6.00	263.00	8,965.5	-80.9	-658.8	1.9	0.00	0.00	0.00
9,100.0	6.00	263.00	9,064.9	-82.2	-669.2	1.9	0.00	0.00	0.00
9,144.0	6.00	263.00	9,108.7	-82.7	-673.8	1.9	0.00	0.00	0.00
Start DLS 10.00 TFO 72.77									
9,200.0	9.34	298.07	9,164.2	-80.9	-680.7	4.6	10.00	5.96	62.62
9,300.0	18.28	317.99	9,261.3	-65.4	-698.4	22.2	10.00	8.94	19.92
9,400.0	27.93	324.77	9,353.2	-34.6	-722.4	55.8	10.00	9.66	6.78
9,500.0	37.76	328.23	9,437.1	10.7	-752.1	104.4	10.00	9.83	3.47

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	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)
9,600.0	47.65	330.43	9,510.5	69.0	-786.6	166.6	10.00	9.89	2.20
9,700.0	57.57	332.02	9,571.1	138.6	-824.7	240.4	10.00	9.92	1.59
9,800.0	67.50	333.30	9,617.2	217.3	-865.4	323.5	10.00	9.94	1.27
9,900.0	77.45	334.40	9,647.3	302.8	-907.3	413.6	10.00	9.94	1.10
10,000.0	87.40	335.42	9,660.5	392.5	-949.3	507.8	10.00	9.95	1.02
10,028.4	90.22	335.70	9,661.0	418.3	-961.0	534.9	10.00	9.95	1.00
Start DLS 2.00 TFO 89.96									
10,100.0	90.22	337.13	9,660.8	484.0	-989.7	603.6	2.00	0.00	2.00
10,200.0	90.22	339.13	9,660.4	576.8	-1,026.9	700.3	2.00	0.00	2.00
10,300.0	90.22	341.13	9,660.0	670.8	-1,060.9	797.9	2.00	0.00	2.00
10,400.0	90.22	343.13	9,659.6	766.0	-1,091.6	896.1	2.00	0.00	2.00
10,500.0	90.22	345.13	9,659.2	862.1	-1,118.9	995.0	2.00	0.00	2.00
10,600.0	90.22	347.13	9,658.8	959.2	-1,142.9	1,094.3	2.00	0.00	2.00
10,700.0	90.22	349.13	9,658.4	1,057.1	-1,163.5	1,193.9	2.00	0.00	2.00
10,800.0	90.22	351.13	9,658.0	1,155.6	-1,180.6	1,293.8	2.00	0.00	2.00
10,900.0	90.22	353.13	9,657.7	1,254.7	-1,194.3	1,393.8	2.00	0.00	2.00
11,000.0	90.22	355.13	9,657.3	1,354.1	-1,204.5	1,493.8	2.00	0.00	2.00
11,100.0	90.22	357.13	9,656.9	1,453.9	-1,211.3	1,593.6	2.00	0.00	2.00
11,200.0	90.22	359.13	9,656.5	1,553.8	-1,214.5	1,693.2	2.00	0.00	2.00
11,226.0	90.22	359.65	9,656.4	1,579.8	-1,214.8	1,718.9	2.00	0.00	2.00
Start 8496.6 hold at 11226.0 MD									
11,300.0	90.22	359.65	9,656.1	1,653.8	-1,215.2	1,792.5	0.00	0.00	0.00
11,400.0	90.22	359.65	9,655.7	1,753.8	-1,215.9	1,891.8	0.00	0.00	0.00
11,500.0	90.22	359.65	9,655.4	1,853.8	-1,216.5	1,991.1	0.00	0.00	0.00
11,600.0	90.22	359.65	9,655.0	1,953.8	-1,217.1	2,090.3	0.00	0.00	0.00
11,700.0	90.22	359.65	9,654.6	2,053.8	-1,217.7	2,189.6	0.00	0.00	0.00
11,800.0	90.22	359.65	9,654.2	2,153.8	-1,218.3	2,288.9	0.00	0.00	0.00
11,900.0	90.22	359.65	9,653.8	2,253.8	-1,218.9	2,388.2	0.00	0.00	0.00
12,000.0	90.22	359.65	9,653.4	2,353.8	-1,219.5	2,487.5	0.00	0.00	0.00
12,100.0	90.22	359.65	9,653.1	2,453.8	-1,220.1	2,586.8	0.00	0.00	0.00
12,200.0	90.22	359.65	9,652.7	2,553.8	-1,220.7	2,686.1	0.00	0.00	0.00
12,300.0	90.22	359.65	9,652.3	2,653.8	-1,221.3	2,785.4	0.00	0.00	0.00
12,400.0	90.22	359.65	9,651.9	2,753.8	-1,221.9	2,884.7	0.00	0.00	0.00
12,500.0	90.22	359.65	9,651.5	2,853.8	-1,222.5	2,984.0	0.00	0.00	0.00
12,600.0	90.22	359.65	9,651.2	2,953.8	-1,223.1	3,083.3	0.00	0.00	0.00
12,700.0	90.22	359.65	9,650.8	3,053.8	-1,223.8	3,182.6	0.00	0.00	0.00
12,800.0	90.22	359.65	9,650.4	3,153.8	-1,224.4	3,281.9	0.00	0.00	0.00
12,900.0	90.22	359.65	9,650.0	3,253.8	-1,225.0	3,381.1	0.00	0.00	0.00
13,000.0	90.22	359.65	9,649.6	3,353.8	-1,225.6	3,480.4	0.00	0.00	0.00
13,100.0	90.22	359.65	9,649.3	3,453.8	-1,226.2	3,579.7	0.00	0.00	0.00
13,200.0	90.22	359.65	9,648.9	3,553.8	-1,226.8	3,679.0	0.00	0.00	0.00
13,300.0	90.22	359.65	9,648.5	3,653.8	-1,227.4	3,778.3	0.00	0.00	0.00
13,400.0	90.22	359.65	9,648.1	3,753.8	-1,228.0	3,877.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	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)
13,500.0	90.22	359.65	9,647.7	3,853.8	-1,228.6	3,976.9	0.00	0.00	0.00
13,600.0	90.22	359.65	9,647.3	3,953.8	-1,229.2	4,076.2	0.00	0.00	0.00
13,700.0	90.22	359.65	9,647.0	4,053.8	-1,229.8	4,175.5	0.00	0.00	0.00
13,800.0	90.22	359.65	9,646.6	4,153.8	-1,230.4	4,274.8	0.00	0.00	0.00
13,900.0	90.22	359.65	9,646.2	4,253.8	-1,231.0	4,374.1	0.00	0.00	0.00
14,000.0	90.22	359.65	9,645.8	4,353.8	-1,231.7	4,473.4	0.00	0.00	0.00
14,100.0	90.22	359.65	9,645.4	4,453.8	-1,232.3	4,572.7	0.00	0.00	0.00
14,200.0	90.22	359.65	9,645.1	4,553.8	-1,232.9	4,672.0	0.00	0.00	0.00
14,300.0	90.22	359.65	9,644.7	4,653.7	-1,233.5	4,771.2	0.00	0.00	0.00
14,400.0	90.22	359.65	9,644.3	4,753.7	-1,234.1	4,870.5	0.00	0.00	0.00
14,500.0	90.22	359.65	9,643.9	4,853.7	-1,234.7	4,969.8	0.00	0.00	0.00
14,600.0	90.22	359.65	9,643.5	4,953.7	-1,235.3	5,069.1	0.00	0.00	0.00
14,700.0	90.22	359.65	9,643.2	5,053.7	-1,235.9	5,168.4	0.00	0.00	0.00
14,800.0	90.22	359.65	9,642.8	5,153.7	-1,236.5	5,267.7	0.00	0.00	0.00
14,900.0	90.22	359.65	9,642.4	5,253.7	-1,237.1	5,367.0	0.00	0.00	0.00
15,000.0	90.22	359.65	9,642.0	5,353.7	-1,237.7	5,466.3	0.00	0.00	0.00
15,100.0	90.22	359.65	9,641.6	5,453.7	-1,238.3	5,565.6	0.00	0.00	0.00
15,200.0	90.22	359.65	9,641.2	5,553.7	-1,239.0	5,664.9	0.00	0.00	0.00
15,300.0	90.22	359.65	9,640.9	5,653.7	-1,239.6	5,764.2	0.00	0.00	0.00
15,400.0	90.22	359.65	9,640.5	5,753.7	-1,240.2	5,863.5	0.00	0.00	0.00
15,500.0	90.22	359.65	9,640.1	5,853.7	-1,240.8	5,962.8	0.00	0.00	0.00
15,600.0	90.22	359.65	9,639.7	5,953.7	-1,241.4	6,062.0	0.00	0.00	0.00
15,700.0	90.22	359.65	9,639.3	6,053.7	-1,242.0	6,161.3	0.00	0.00	0.00
15,800.0	90.22	359.65	9,639.0	6,153.7	-1,242.6	6,260.6	0.00	0.00	0.00
15,900.0	90.22	359.65	9,638.6	6,253.7	-1,243.2	6,359.9	0.00	0.00	0.00
16,000.0	90.22	359.65	9,638.2	6,353.7	-1,243.8	6,459.2	0.00	0.00	0.00
16,100.0	90.22	359.65	9,637.8	6,453.7	-1,244.4	6,558.5	0.00	0.00	0.00
16,200.0	90.22	359.65	9,637.4	6,553.7	-1,245.0	6,657.8	0.00	0.00	0.00
16,300.0	90.22	359.65	9,637.1	6,653.7	-1,245.6	6,757.1	0.00	0.00	0.00
16,400.0	90.22	359.65	9,636.7	6,753.7	-1,246.2	6,856.4	0.00	0.00	0.00
16,500.0	90.22	359.65	9,636.3	6,853.7	-1,246.9	6,955.7	0.00	0.00	0.00
16,600.0	90.22	359.65	9,635.9	6,953.7	-1,247.5	7,055.0	0.00	0.00	0.00
16,700.0	90.22	359.65	9,635.5	7,053.7	-1,248.1	7,154.3	0.00	0.00	0.00
16,800.0	90.22	359.65	9,635.1	7,153.7	-1,248.7	7,253.6	0.00	0.00	0.00
16,900.0	90.22	359.65	9,634.8	7,253.7	-1,249.3	7,352.9	0.00	0.00	0.00
17,000.0	90.22	359.65	9,634.4	7,353.7	-1,249.9	7,452.1	0.00	0.00	0.00
17,100.0	90.22	359.65	9,634.0	7,453.7	-1,250.5	7,551.4	0.00	0.00	0.00
17,200.0	90.22	359.65	9,633.6	7,553.7	-1,251.1	7,650.7	0.00	0.00	0.00
17,300.0	90.22	359.65	9,633.2	7,653.7	-1,251.7	7,750.0	0.00	0.00	0.00
17,400.0	90.22	359.65	9,632.9	7,753.7	-1,252.3	7,849.3	0.00	0.00	0.00
17,500.0	90.22	359.65	9,632.5	7,853.7	-1,252.9	7,948.6	0.00	0.00	0.00
17,600.0	90.22	359.65	9,632.1	7,953.7	-1,253.5	8,047.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	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)
17,700.0	90.22	359.65	9,631.7	8,053.7	-1,254.1	8,147.2	0.00	0.00	0.00
17,800.0	90.22	359.65	9,631.3	8,153.7	-1,254.8	8,246.5	0.00	0.00	0.00
17,900.0	90.22	359.65	9,630.9	8,253.7	-1,255.4	8,345.8	0.00	0.00	0.00
18,000.0	90.22	359.65	9,630.6	8,353.7	-1,256.0	8,445.1	0.00	0.00	0.00
18,100.0	90.22	359.65	9,630.2	8,453.7	-1,256.6	8,544.4	0.00	0.00	0.00
18,200.0	90.22	359.65	9,629.8	8,553.6	-1,257.2	8,643.7	0.00	0.00	0.00
18,300.0	90.22	359.65	9,629.4	8,653.6	-1,257.8	8,742.9	0.00	0.00	0.00
18,400.0	90.22	359.65	9,629.0	8,753.6	-1,258.4	8,842.2	0.00	0.00	0.00
18,500.0	90.22	359.65	9,628.7	8,853.6	-1,259.0	8,941.5	0.00	0.00	0.00
18,600.0	90.22	359.65	9,628.3	8,953.6	-1,259.6	9,040.8	0.00	0.00	0.00
18,700.0	90.22	359.65	9,627.9	9,053.6	-1,260.2	9,140.1	0.00	0.00	0.00
18,800.0	90.22	359.65	9,627.5	9,153.6	-1,260.8	9,239.4	0.00	0.00	0.00
18,900.0	90.22	359.65	9,627.1	9,253.6	-1,261.4	9,338.7	0.00	0.00	0.00
19,000.0	90.22	359.65	9,626.8	9,353.6	-1,262.0	9,438.0	0.00	0.00	0.00
19,100.0	90.22	359.65	9,626.4	9,453.6	-1,262.7	9,537.3	0.00	0.00	0.00
19,200.0	90.22	359.65	9,626.0	9,553.6	-1,263.3	9,636.6	0.00	0.00	0.00
19,300.0	90.22	359.65	9,625.6	9,653.6	-1,263.9	9,735.9	0.00	0.00	0.00
19,400.0	90.22	359.65	9,625.2	9,753.6	-1,264.5	9,835.2	0.00	0.00	0.00
19,500.0	90.22	359.65	9,624.8	9,853.6	-1,265.1	9,934.5	0.00	0.00	0.00
19,600.0	90.22	359.65	9,624.5	9,953.6	-1,265.7	10,033.8	0.00	0.00	0.00
19,700.0	90.22	359.65	9,624.1	10,053.6	-1,266.3	10,133.0	0.00	0.00	0.00
19,722.6	90.22	359.65	9,624.0	10,076.2	-1,266.4	10,155.5	0.00	0.00	0.00
TD at 19722.6									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target - Shape PBHL (BEDLINGTON - plan hits target center - Rectangle (sides W100.0 H10,413.0 D20.0)	0.22	179.65	9,624.0	10,076.2	-1,266.4	467,210.17	710,435.90	32° 16' 57.509 N	103° 39' 8.662 W
LTP (BEDLINGTON F - plan misses target center by 0.2usft at 19672.6usft MD (9624.2 TVD, 10026.2 N, -1266.1 E) - Point	0.00	0.00	9,624.0	10,026.2	-1,266.1	467,160.17	710,436.22	32° 16' 57.014 N	103° 39' 8.662 W
FTP (BEDLINGTON F - plan misses target center by 600.4usft at 9600.0usft MD (9510.5 TVD, 69.0 N, -786.6 E) - Circle (radius 50.0)	0.00	0.00	9,661.0	-336.2	-1,203.2	456,797.74	710,499.18	32° 15' 14.468 N	103° 39' 8.694 W

Concho Resources LLC

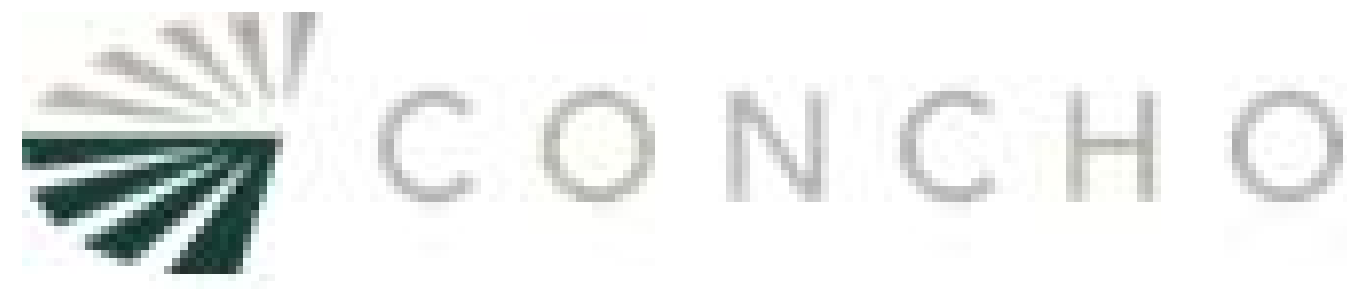
Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well BEDLINGTON FED COM 301H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=26' @ 3649.0usft (McVay 8)
Site:	BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)	MD Reference:	KB=26' @ 3649.0usft (McVay 8)
Well:	BEDLINGTON FED COM 301H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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
2800	2799	-2	-16	Start 6344.0 hold at 2800.0 MD
9144	9109	-83	-674	Start DLS 10.00 TFO 72.77
10,028	9661	418	-961	Start DLS 2.00 TFO 89.96
11,226	9656	1580	-1215	Start 8496.6 hold at 11226.0 MD
19,723	9624	10,076	-1266	TD at 19722.6

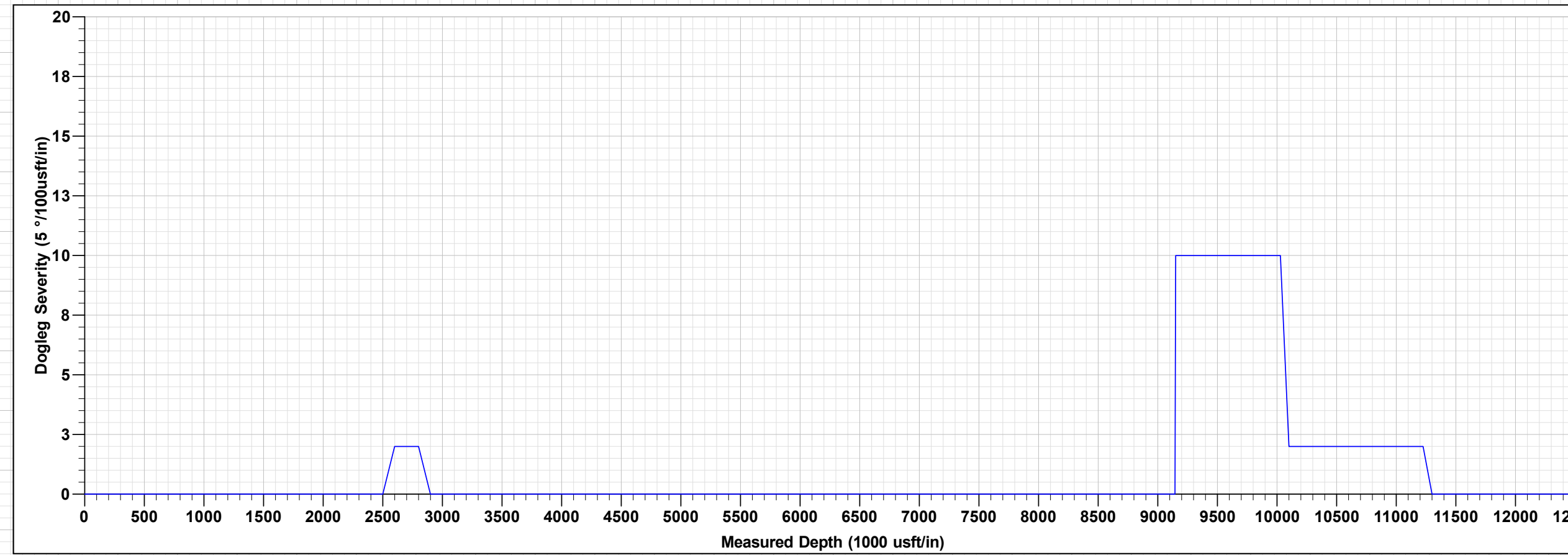
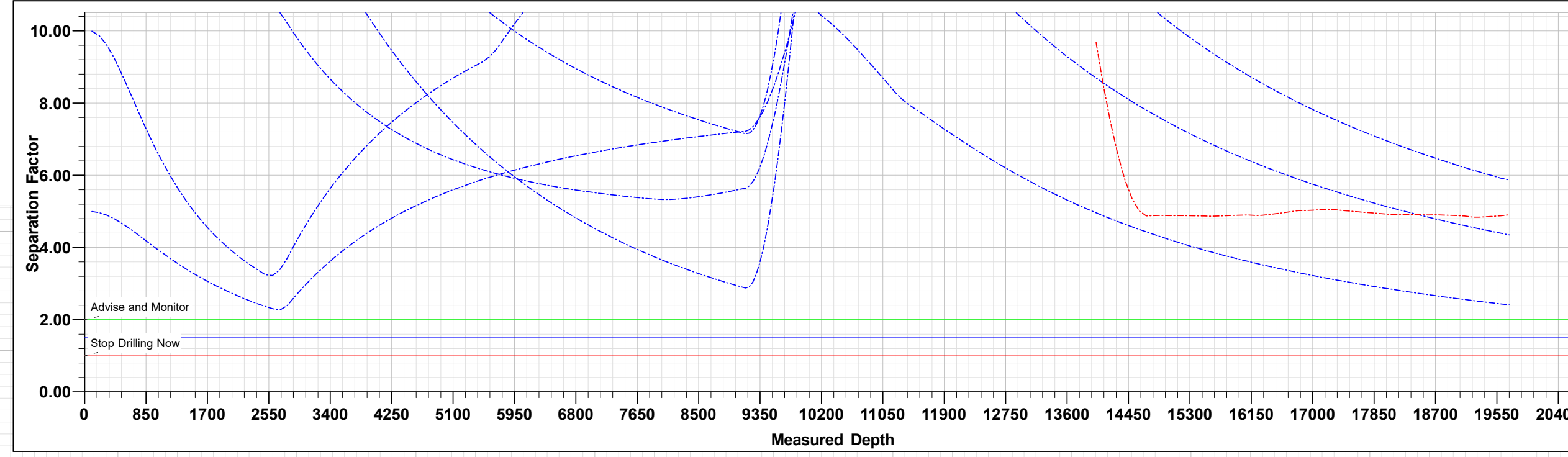
Checked By: _____ Approved By: _____ Date: _____



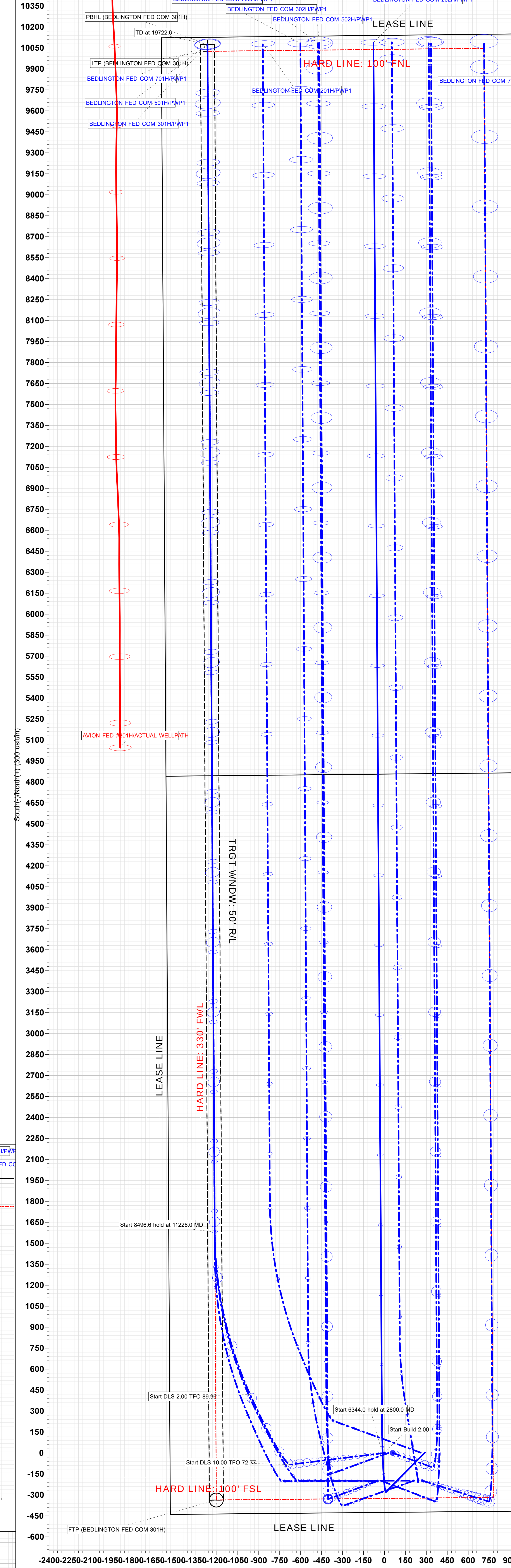
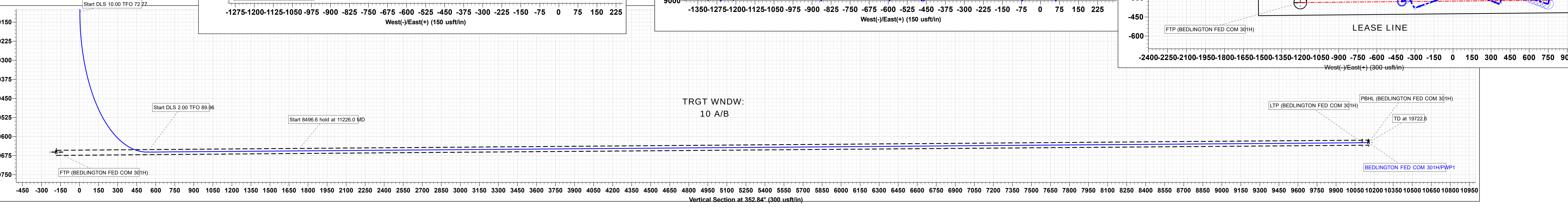
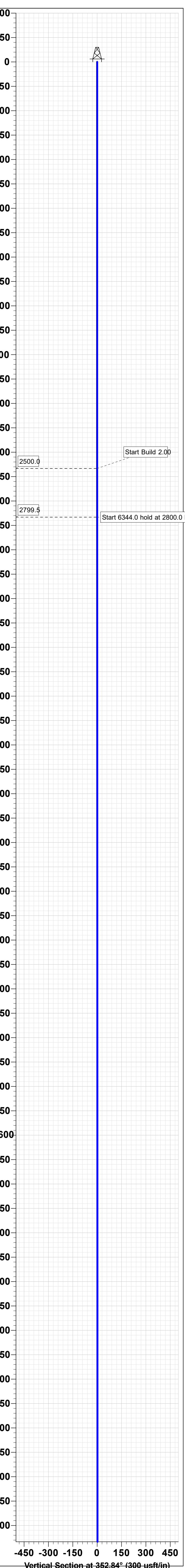
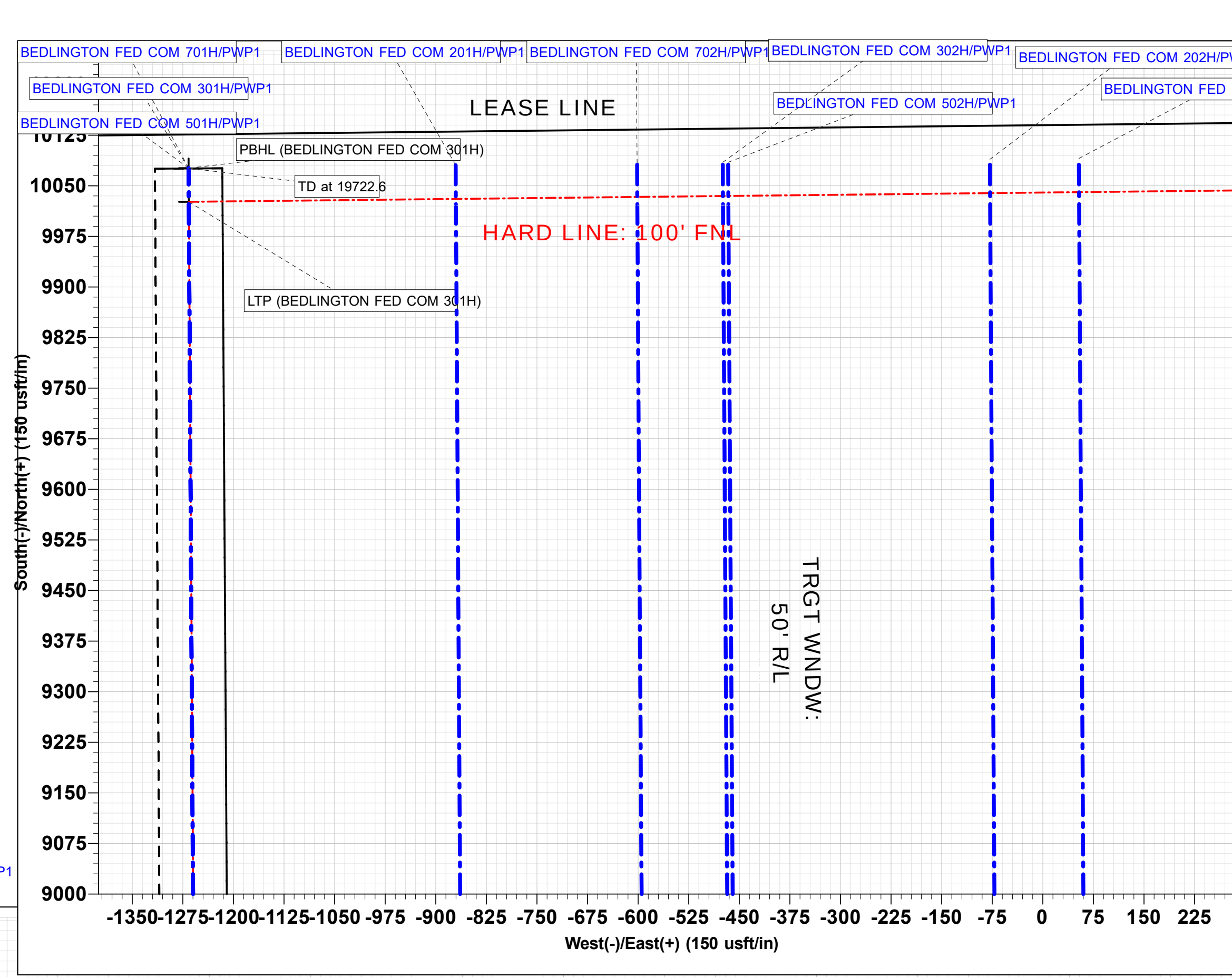
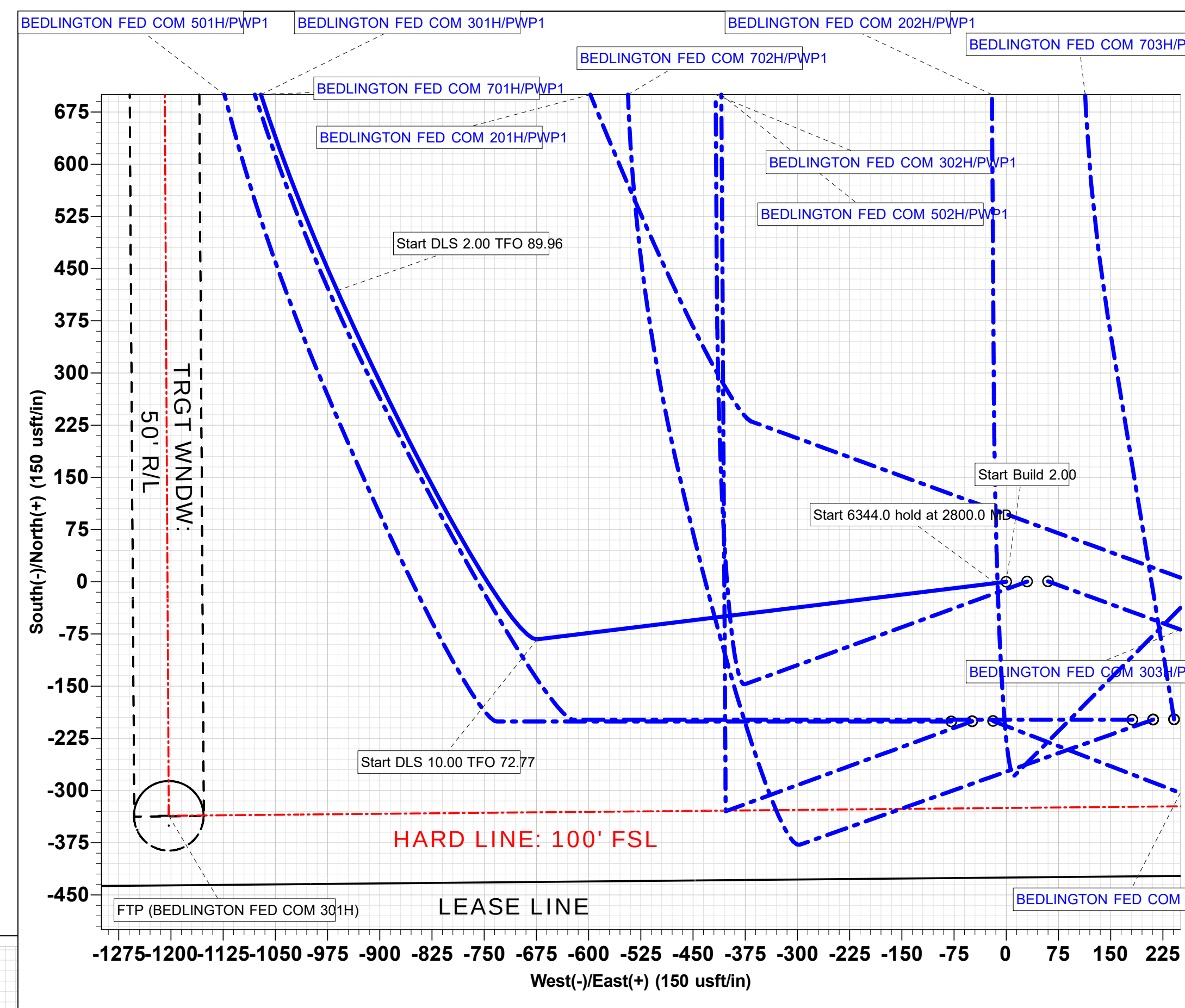
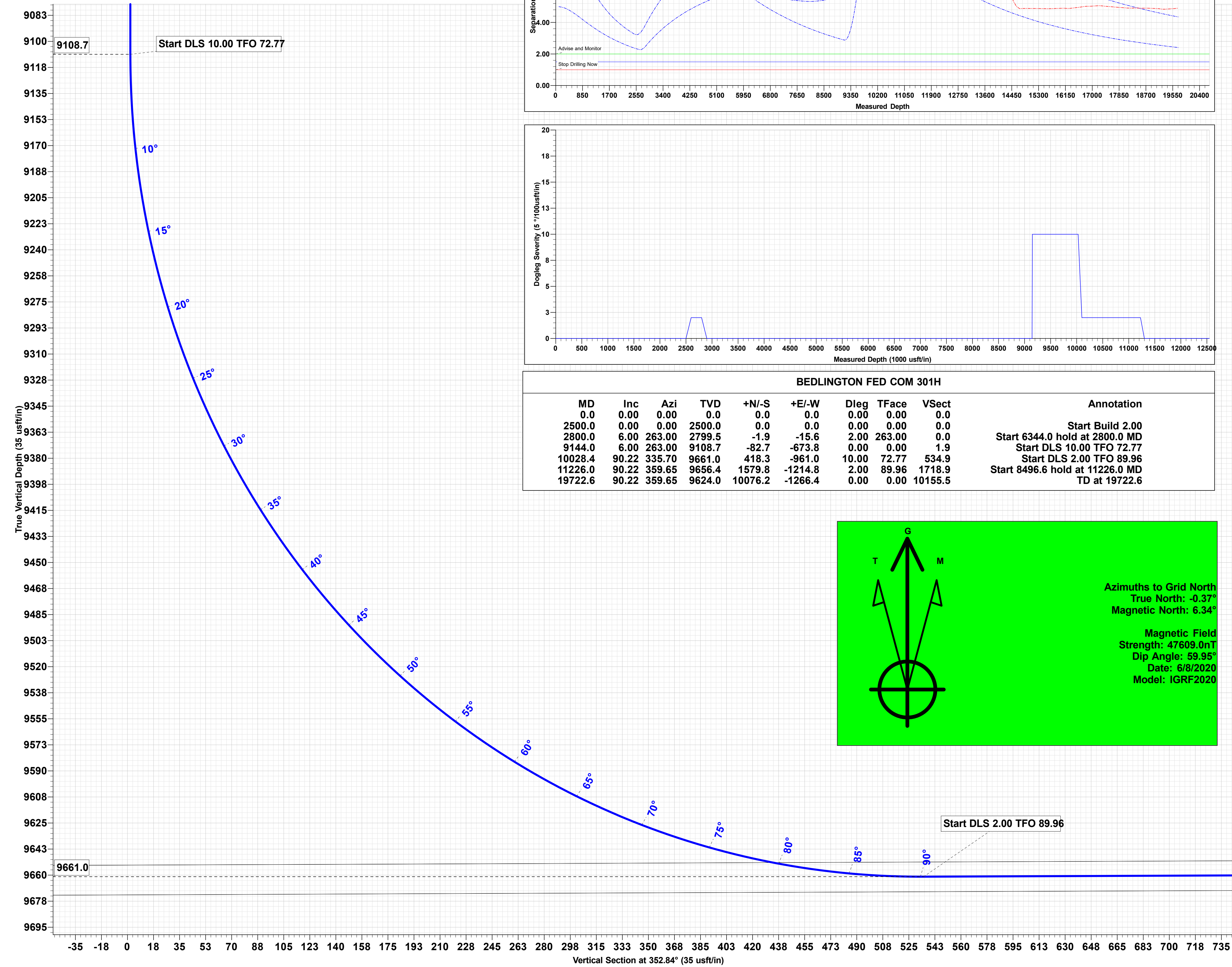
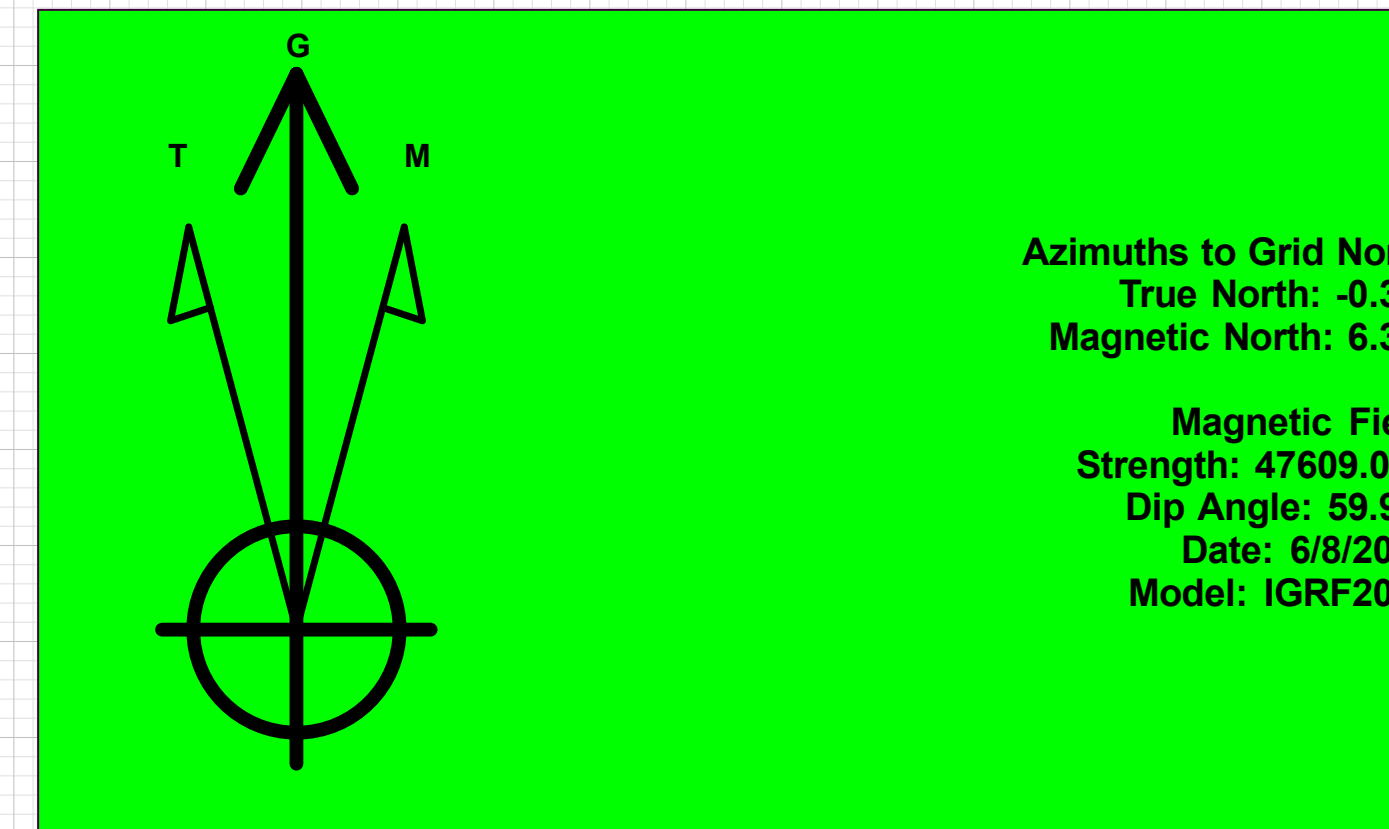
Project: BULLDOG PROSPECT (NM-E)
Site: BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)
Well: BEDLINGTON FED COM 301H
Wellbore: OWB
Design: PWP1
GL: 3623.0
KB=26' @ 3649.0usft (McVay 8)

WELL DETAILS: BEDLINGTON FED COM 301H						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	457133.99	711702.34	32° 15' 17.720 N	103° 38' 54.659 W	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP (BEDLINGTON FED COM 301H)	9624.0	10026.2	-1266.1	467160.17	710436.22	32° 16' 57.014 N	103° 39' 8.662 W
PBHL (BEDLINGTON FED COM 301H)	9624.0	10076.2	-1266.4	467210.17	710435.90	32° 16' 57.509 N	103° 39' 8.662 W
FTP (BEDLINGTON FED COM 301H)	9661.0	-336.2	-1203.2	456797.74	710499.18	32° 15' 14.468 N	103° 39' 8.694 W



BEDLINGTON FED COM 301H										
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		
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00	
2800.0	6.00	263.00	2799.5	-1.9	-15.6	2.00	263.00	0.0	Start 6344.0 hold at 2800.0 MD	
9144.0	6.00	263.00	9108.7	-82.7	-673.8	0.00	0.00	1.9	Start DLS 10.00 TFO 72.77	
10028.4	90.22	335.70	9661.0	418.3	-961.0	10.00	72.77	534.9	Start DLS 2.00 TFO 89.96	
11226.0	90.22	359.65	9656.4	1579.8	-1214.8	2.00	89.96	1718.9	Start 8496.6 hold at 11226.0 MD	
19722.6	90.22	359.65	9624.0	10076.2	-1266.4	0.00	0.00	10155.5	TD at 19722.6	



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

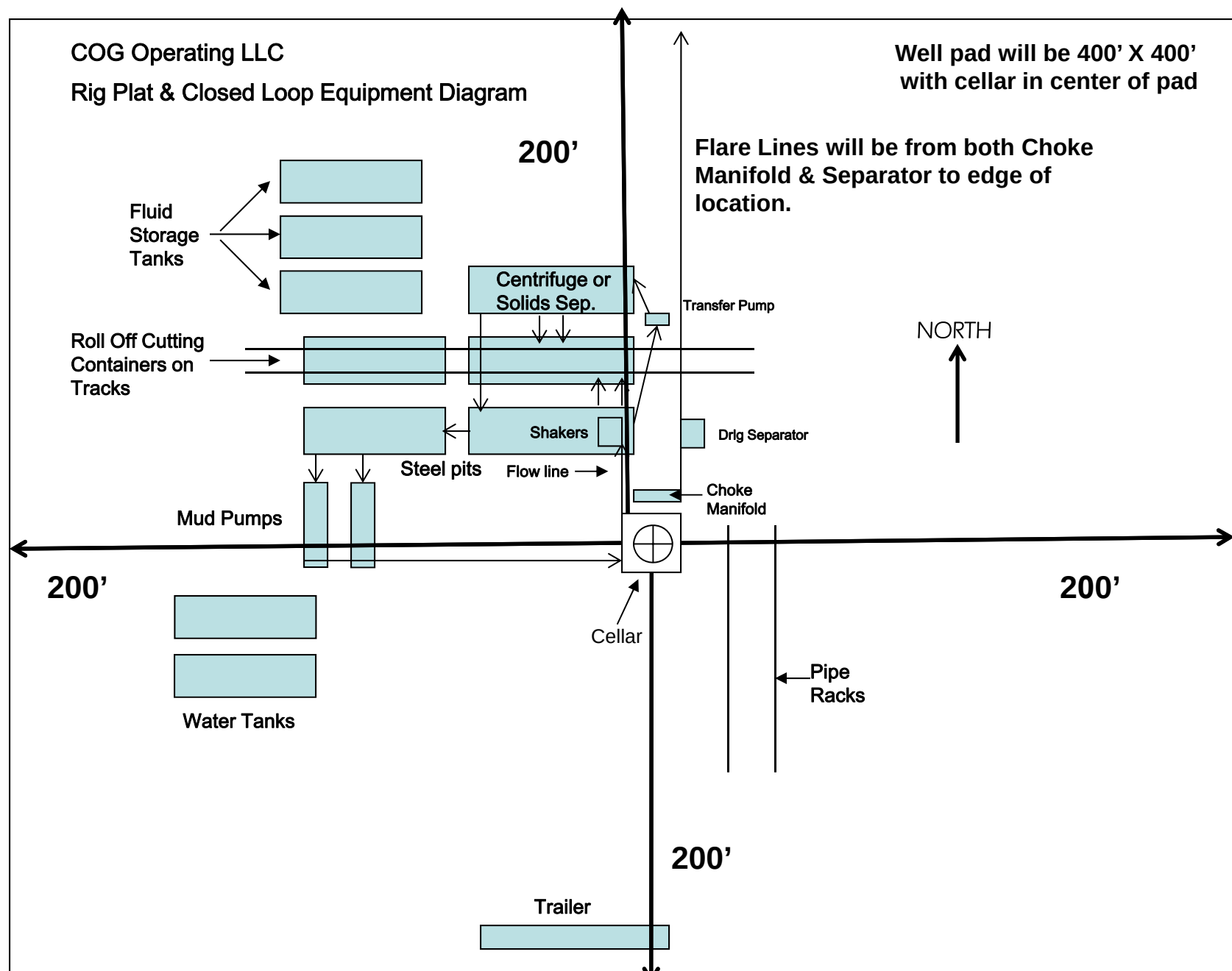


Exhibit 1

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

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 13329

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
COG OPERATING LLC 600 W Illinois Ave Midland, TX79701			229137	13329	FORM 3160-3
OCD Reviewer	Condition				
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104				
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				