

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM124664

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
GUNNER 8 FEDERAL COM 302H9. API Well No.
30-025-46759-00-X110. Field and Pool or Exploratory Area
WC-025 G06 S263407P11. County or Parish, State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
COG OPERATING LLCContact: STAN WAGNER
E-Mail: swagner@concho.com

3a. Address

ONE CONCHO CENTER 600 W ILLINOIS AVENUE
MIDLAND, TX 79701-42873b. Phone No. (include area code)
Ph: 432.253.9685

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 5 T26S R34E NWNW 430FNL 988FWL
32.078548 N Lat, 103.497276 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

COG Operating requests an amendment to our approved APD for this well to reflect a change in BHL as attached.

Change BHL to: 50' FSL & 825' FWL SWSW 8-26S-34E Lea Co, NM.

Entered - KMS NMOCD

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #538186 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 11/30/2020 (21PP0620SE)	
Name (Printed/Typed) STAN WAGNER	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 11/20/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>JENNIFER SANCHEZ</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>11/30/2020</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <u>Hobbs</u>

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (505) 398-6161 Fax: (505) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 746-1283 Fax: (505) 746-9720

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) 478-3480 Fax: (505) 478-3482

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-46759	Pool Code 97892	Pool Name WC-025 G-06 S263407P; Upper Bone Spring
Property Code 39912	Property Name GUNNER 8 FEDERAL COM	Well Number 302H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3338.5'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	5	26-S	34-E		430	NORTH	988	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	26-S	34-E		50	SOUTH	825	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

FTP 100' FNL & 825' FWL Y=393645.8 N X=800121.3 E LAT.=32.079457° N LONG.=103.497807° W GRID AZ. TO FTP 333°13'05" LEASE X-ING LAT.=32.076108° N LONG.=103.497804° W GRID AZ. - 179°30'53" HORIZ. DIST. - 104°12'3" SECTION 5 SECTION 8 LTP 100' FSL & 825' FWL Y=383283.9 N X=800209.0 E LAT.=32.050974° N LONG.=103.497782° W 825' B.H. 50'	NAD 83 NME SURFACE LOCATION Y=393317.2 N X=800287.1 E LAT.=32.078550° N LONG.=103.497279° W <table border="1"><thead><tr><th colspan="2">POINT LEGEND</th></tr></thead><tbody><tr><td>1</td><td>Y=393761.6 N X=801937.5 E</td></tr><tr><td>2</td><td>Y=388481.8 N X=801990.0 E</td></tr><tr><td>3</td><td>Y=383197.3 N X=802030.8 E</td></tr><tr><td>4</td><td>Y=383177.8 N X=799384.9 E</td></tr><tr><td>5</td><td>Y=385820.8 N X=799363.3 E</td></tr><tr><td>6</td><td>Y=388463.5 N X=799339.8 E</td></tr><tr><td>7</td><td>Y=391104.4 N X=799318.3 E</td></tr><tr><td>8</td><td>Y=393738.6 N X=799295.4 E</td></tr></tbody></table> NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=383233.9 N X=800209.4 E LAT.=32.050836° N LONG.=103.497782° W	POINT LEGEND		1	Y=393761.6 N X=801937.5 E	2	Y=388481.8 N X=801990.0 E	3	Y=383197.3 N X=802030.8 E	4	Y=383177.8 N X=799384.9 E	5	Y=385820.8 N X=799363.3 E	6	Y=388463.5 N X=799339.8 E	7	Y=391104.4 N X=799318.3 E	8	Y=393738.6 N X=799295.4 E	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 11/20/2020 Signature Date Stan Wagner Printed Name E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. FEBRUARY 13, 2019 Date of Survey Signature & Seal of Professional Surveyor <i>Chad L. Harcrow</i> 11/17/20 Certificate No. CHAD HARCROW 17777 W.O. # 20-1498 DRAWN BY: WN
POINT LEGEND																				
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Intent ☒ As Drilled ☐

API #
30-025-46759

Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	302H

Kick Off Point (KOP)

UL D	Section 5	Township 26S	Range 34E	Lot	Feet	From N/S	Feet	From E/W	County Lea
Latitude					Longitude			NAD 83	

First Take Point (FTP)

UL D	Section 5	Township 26S	Range 34E	Lot	Feet 100	From N/S North	Feet 825	From E/W West	County Lea
Latitude 32.079457					Longitude -103.497807			NAD NAD 83	

Last Take Point (LTP)

UL M	Section 8	Township 26S	Range 34E	Lot	Feet 100	From N/S South	Feet 825	From E/W West	County Lea
Latitude 32.050974					Longitude -103.497782			NAD NAD 83	

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

Is this well an infill well? ☐ No

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

API #
30-025-46759

Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	302H

KZ 06/29/2018

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Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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30-025-46759

Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	302H

KZ 06/29/2018

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

GUNNER FEDERAL PROJECT (BULLDOG 2634)

GUNNER 8 FEDERAL COM 302H

OWB

PWP1

Anticollision Report

19 November, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	11/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	9,869.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
9,869.0	20,594.0	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
GUNNER FEDERAL PROJECT (BULLDOG 2634)						
GUNNER 8 FED #8H - OWB - ACTUAL WELLPATH	17,465.4	11,825.0	634.6	536.4	6.458	CC
GUNNER 8 FED #8H - OWB - ACTUAL WELLPATH	18,917.3	10,372.0	634.8	535.1	6.365	ES
GUNNER 8 FED #8H - OWB - ACTUAL WELLPATH	19,000.0	10,320.0	637.0	536.7	6.355	SF
GUNNER 8 FED COM 604H - OWB - AWP	5,400.0	5,402.4	74.3	62.4	6.267	SF
GUNNER 8 FED COM 604H - OWB - AWP	5,408.0	5,410.3	74.2	62.4	6.268	CC, ES
GUNNER 8 FED COM 705H - OWB - AWP	7,522.5	7,503.1	410.1	396.6	30.199	CC
GUNNER 8 FED COM 705H - OWB - AWP	7,522.6	7,503.2	410.1	396.6	30.199	ES
GUNNER 8 FED COM 705H - OWB - AWP	10,275.0	10,191.9	469.7	450.7	24.706	SF
GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL WEL	9,826.0	19,727.0	301.7	224.0	3.886	CC, ES
GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL WEL	10,050.0	19,727.0	348.3	256.3	3.789	SF
GUNNER 8 FEDERAL COM 402H - OWB - PWP1	2,416.5	2,417.0	30.0	17.6	2.426	CC
GUNNER 8 FEDERAL COM 402H - OWB - PWP1	2,500.0	2,500.5	30.0	17.3	2.366	ES, SF
GUNNER 8 FEDERAL COM 704H - OWB - AWP	10,263.8	10,262.9	499.6	479.6	25.045	CC, ES
GUNNER 8 FEDERAL COM 704H - OWB - AWP	10,275.0	10,270.2	499.6	479.7	25.041	SF

Offset Design	GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED #8H - OWB - ACTUAL WELLPAT										Offset Site Error:	0.0 usft
Survey Program:	100-MWD										Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance				Minimum Separation	Separation Factor	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)		
11,500.0	10,334.3	17,225.0	9,706.0	14.9	130.9	34.01	-1,565.6	-584.7	964.6	872.3	92.31	10.450
11,600.0	10,334.9	17,225.0	9,706.0	15.5	130.9	34.01	-1,565.6	-584.7	909.1	812.5	96.64	9.407
11,700.0	10,335.5	17,225.0	9,706.0	16.2	130.9	34.01	-1,565.6	-584.7	861.7	760.7	100.98	8.534
11,800.0	10,336.1	17,225.0	9,706.0	16.9	130.9	34.01	-1,565.6	-584.7	823.8	718.8	105.02	7.844
11,900.0	10,336.7	17,225.0	9,706.0	17.6	130.9	34.01	-1,565.6	-584.7	796.7	688.3	108.41	7.349
12,000.0	10,337.3	17,225.0	9,706.0	18.4	130.9	34.01	-1,565.6	-584.7	781.5	670.8	110.75	7.057
12,100.0	10,337.9	17,189.1	9,706.7	19.1	130.3	34.05	-1,601.6	-584.6	778.2	666.8	111.42	6.985
12,200.0	10,338.5	17,091.4	9,708.5	19.9	128.8	34.15	-1,699.2	-584.7	777.7	666.6	111.03	7.004
12,300.0	10,339.1	16,987.8	9,710.4	20.7	127.1	34.24	-1,802.8	-584.5	777.0	666.4	110.56	7.028
12,400.0	10,339.7	16,885.1	9,712.1	21.5	125.5	34.30	-1,905.4	-583.8	776.1	666.1	110.07	7.051
12,500.0	10,340.3	16,760.1	9,716.7	22.2	123.5	34.46	-2,030.4	-582.8	773.7	664.4	109.34	7.076

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED #8H - OWB - ACTUAL WELLPAT													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,600.0	10,340.9	16,656.0	9,722.0	23.0	121.8	34.48		-2,134.3	-579.1	768.4	659.6	108.80	7.063	
12,700.0	10,341.5	16,561.0	9,727.0	23.9	120.3	34.56		-2,229.1	-576.5	763.5	655.0	108.50	7.037	
12,800.0	10,342.1	16,466.5	9,730.8	24.7	118.8	34.54		-2,323.5	-573.2	759.2	651.1	108.12	7.022	
12,900.0	10,342.7	16,361.8	9,734.0	25.5	117.2	34.43		-2,428.0	-568.8	755.2	647.8	107.47	7.027	
13,000.0	10,343.3	16,261.8	9,737.3	26.3	115.6	34.31		-2,527.8	-564.3	750.9	644.0	106.91	7.024	
13,100.0	10,343.9	16,166.4	9,741.0	27.1	114.1	34.30		-2,623.1	-561.3	746.9	640.4	106.56	7.009	
13,200.0	10,344.5	16,072.4	9,744.3	27.9	112.6	34.34		-2,717.1	-559.3	743.7	637.5	106.29	6.997	
13,300.0	10,345.1	15,969.3	9,747.8	28.7	111.0	34.38		-2,820.1	-557.0	740.6	634.8	105.86	6.996	
13,400.0	10,345.7	15,869.7	9,751.7	29.6	109.4	34.44		-2,919.5	-555.1	737.3	631.8	105.54	6.986	
13,500.0	10,346.3	15,773.6	9,754.7	30.4	107.9	34.46		-3,015.6	-552.8	734.3	629.1	105.22	6.979	
13,600.0	10,346.9	15,679.2	9,756.1	31.2	106.4	34.31		-3,109.9	-549.2	731.9	627.1	104.79	6.984	
13,700.0	10,347.5	15,584.8	9,758.9	32.1	104.9	34.48		-3,204.2	-549.5	730.5	625.8	104.67	6.979	
13,800.0	10,348.1	15,482.2	9,762.3	32.9	103.3	34.69		-3,306.9	-550.0	729.0	624.6	104.45	6.979	
13,900.0	10,348.7	15,387.7	9,765.1	33.7	101.9	34.85		-3,401.3	-550.1	727.7	623.4	104.32	6.975	
13,947.0	10,349.0	15,346.5	9,766.0	34.1	101.2	34.93		-3,442.5	-550.5	727.5	623.2	104.31	6.974	
14,000.0	10,349.3	15,294.8	9,767.1	34.6	100.5	35.04		-3,494.2	-551.4	727.6	623.4	104.25	6.980	
14,100.0	10,349.9	15,189.3	9,769.9	35.4	98.8	35.33		-3,599.5	-553.5	727.5	623.5	104.08	6.990	
14,200.0	10,350.5	15,089.1	9,772.5	36.2	97.3	35.50		-3,699.8	-553.9	726.7	622.8	103.88	6.996	
14,273.4	10,351.0	15,019.9	9,773.6	36.9	96.2	35.58		-3,768.9	-554.1	726.5	622.8	103.76	7.002	
14,300.0	10,351.1	14,994.1	9,774.0	37.1	95.8	35.62		-3,794.7	-554.3	726.5	622.8	103.71	7.006	
14,400.0	10,351.7	14,890.9	9,776.2	37.9	94.3	35.84		-3,897.9	-555.8	726.6	623.1	103.52	7.019	
14,500.0	10,352.3	14,778.3	9,781.1	38.8	92.5	36.28		-4,010.3	-558.6	725.5	622.2	103.36	7.020	
14,600.0	10,352.9	14,689.5	9,784.8	39.6	91.1	36.55		-4,099.1	-559.9	724.0	620.6	103.41	7.001	
14,700.0	10,353.5	14,561.6	9,790.3	40.4	89.1	36.91		-4,226.8	-561.0	722.2	619.3	102.91	7.018	
14,800.0	10,354.1	14,460.8	9,794.4	41.3	87.6	36.88		-4,327.4	-557.0	717.6	615.1	102.53	6.999	
14,900.0	10,354.7	14,375.1	9,797.6	42.1	86.3	36.93		-4,413.1	-555.2	714.2	611.7	102.50	6.968	
15,000.0	10,355.3	14,270.2	9,801.7	43.0	84.7	37.07		-4,517.8	-553.8	711.3	609.1	102.21	6.959	
15,100.0	10,355.9	14,176.7	9,805.3	43.8	83.3	37.22		-4,611.3	-553.1	708.7	606.5	102.12	6.939	
15,200.0	10,356.5	14,077.6	9,809.3	44.7	81.8	37.43		-4,710.3	-552.9	706.4	604.4	101.99	6.925	
15,300.0	10,357.1	13,984.7	9,812.0	45.5	80.4	37.56		-4,803.2	-552.6	704.8	602.9	101.91	6.917	
15,359.4	10,357.5	13,925.6	9,813.8	46.0	79.5	37.69		-4,862.3	-553.0	704.2	602.4	101.83	6.915	
15,360.5	10,357.5	13,924.5	9,813.9	46.0	79.5	37.69		-4,863.3	-553.0	704.2	602.3	101.83	6.915	
15,400.0	10,357.7	13,872.4	9,816.1	46.4	78.7	37.86		-4,915.4	-553.7	703.6	601.9	101.63	6.922	
15,500.0	10,358.3	13,750.6	9,824.1	47.2	76.9	38.17		-5,036.9	-551.9	698.3	597.2	101.16	6.903	
15,600.0	10,358.9	13,653.2	9,829.0	48.1	75.5	38.15		-5,134.0	-547.2	692.4	591.5	100.91	6.862	
15,700.0	10,359.5	13,562.3	9,831.2	48.9	74.1	37.89		-5,224.7	-541.2	687.4	586.8	100.62	6.832	
15,800.0	10,360.2	13,465.8	9,833.9	49.8	72.7	37.78		-5,321.1	-537.2	683.6	583.3	100.34	6.813	
15,900.0	10,360.8	13,361.1	9,838.0	50.6	71.2	37.79		-5,425.7	-533.7	679.6	579.6	100.00	6.796	
16,000.0	10,361.4	13,262.9	9,841.7	51.5	69.8	37.75		-5,523.7	-529.8	675.1	575.3	99.75	6.768	
16,100.0	10,362.0	13,170.6	9,844.9	52.3	68.5	37.74		-5,615.9	-526.8	671.4	571.7	99.64	6.738	
16,200.0	10,362.6	13,060.9	9,850.1	53.2	66.9	37.94		-5,725.5	-525.3	667.8	568.5	99.35	6.722	
16,300.0	10,363.2	12,958.2	9,857.3	54.0	65.5	38.31		-5,827.9	-524.8	663.0	563.7	99.32	6.676	
16,400.0	10,363.8	12,860.9	9,863.3	54.9	64.1	38.58		-5,925.0	-523.7	658.4	559.1	99.31	6.629	
16,500.0	10,364.4	12,750.7	9,871.4	55.7	62.6	38.89		-6,034.9	-521.4	652.3	553.2	99.07	6.584	
16,600.0	10,365.0	12,670.8	9,875.6	56.6	61.5	39.03		-6,114.7	-519.7	647.9	548.5	99.32	6.523	
16,700.0	10,365.6	12,568.8	9,879.3	57.4	60.1	39.10		-6,216.5	-517.2	644.5	545.4	99.13	6.502	
16,800.0	10,366.2	12,479.1	9,881.2	58.3	58.9	39.04		-6,306.3	-514.6	642.0	542.9	99.09	6.479	
16,900.0	10,366.8	12,384.1	9,882.4	59.1	57.7	38.98		-6,401.2	-512.4	640.5	541.6	98.96	6.472	
16,968.3	10,367.2	12,322.1	9,882.6	59.7	56.9	38.93		-6,463.1	-511.2	640.2	541.3	98.92	6.472	
17,000.0	10,367.4	12,292.5	9,882.4	60.0	56.5	38.88		-6,492.7	-510.6	640.3	541.4	98.88	6.475	
17,100.0	10,368.0	12,187.5	9,881.9	60.8	55.1	38.71		-6,597.8	-508.2	640.2	541.7	98.58	6.495	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED #8H - OWB - ACTUAL WELLPAT													Offset Site Error:	0.0 usft
Survey Program: 100-MWD													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,200.0	10,368.6	12,078.7	9,883.2	61.7	53.8	38.66	38.66	-6,706.5	-506.1	639.1	540.8	98.31	6.501	
17,300.0	10,369.2	11,975.8	9,885.9	62.5	52.5	38.69	38.69	-6,809.3	-504.0	636.8	538.6	98.19	6.485	
17,400.0	10,369.8	11,883.5	9,887.9	63.4	51.4	38.72	38.72	-6,901.6	-502.4	635.0	536.8	98.24	6.464	
17,465.4	10,370.2	11,825.0	9,888.2	64.0	50.7	38.68	38.68	-6,960.1	-501.3	634.6	536.4	98.26	6.458 CC	
17,500.0	10,370.4	11,794.8	9,888.1	64.3	50.3	38.64	38.64	-6,990.2	-500.8	634.7	536.5	98.28	6.458	
17,600.0	10,371.0	11,707.6	9,886.3	65.1	49.3	38.49	38.49	-7,077.5	-499.7	636.5	538.2	98.32	6.474	
17,700.0	10,371.6	11,612.9	9,883.8	66.0	48.2	38.40	38.40	-7,172.1	-500.1	639.9	541.6	98.31	6.509	
17,800.0	10,372.2	11,500.4	9,881.9	66.8	47.0	38.37	38.37	-7,284.6	-500.8	642.6	544.4	98.16	6.546	
17,900.0	10,372.8	11,398.4	9,882.3	67.7	45.9	38.43	38.43	-7,386.6	-501.1	643.4	545.2	98.20	6.552	
18,000.0	10,373.4	11,301.2	9,881.0	68.5	44.8	38.38	38.38	-7,483.8	-500.9	645.3	547.1	98.26	6.567	
18,100.0	10,374.0	11,184.8	9,880.4	69.4	43.7	38.28	38.28	-7,600.2	-499.5	646.0	547.9	98.12	6.584	
18,200.0	10,374.6	11,076.4	9,881.1	70.2	42.6	38.08	38.08	-7,708.5	-495.7	644.3	546.3	98.05	6.571	
18,300.0	10,375.2	10,978.7	9,881.6	71.1	41.7	37.85	37.85	-7,806.2	-491.6	642.3	544.2	98.14	6.545	
18,400.0	10,375.8	10,880.8	9,881.7	72.0	40.9	37.59	37.59	-7,904.0	-487.5	640.7	542.5	98.26	6.521	
18,500.0	10,376.4	10,783.0	9,881.9	72.8	40.1	37.39	37.39	-8,001.7	-484.2	639.5	541.0	98.45	6.496	
18,600.0	10,377.0	10,688.1	9,882.1	73.7	39.4	37.26	37.26	-8,096.6	-481.9	638.8	540.1	98.73	6.470	
18,700.0	10,377.6	10,581.2	9,882.8	74.5	38.6	37.16	37.16	-8,203.5	-479.4	637.9	538.9	98.94	6.447	
18,800.0	10,378.2	10,481.4	9,883.8	75.4	38.0	37.06	37.06	-8,303.2	-477.0	636.6	537.3	99.27	6.413	
18,900.0	10,378.8	10,384.8	9,884.8	76.2	37.4	36.93	36.93	-8,399.7	-474.0	634.9	535.3	99.65	6.372	
18,917.3	10,378.9	10,372.0	9,884.7	76.4	37.3	36.89	36.89	-8,412.5	-473.5	634.8	535.1	99.75	6.365 ES	
19,000.0	10,379.4	10,320.0	9,882.1	77.1	37.1	36.62	36.62	-8,464.4	-471.5	637.0	536.7	100.23	6.355 SF	
19,100.0	10,380.0	10,224.4	9,874.4	78.0	36.6	36.01	36.01	-8,559.6	-468.3	642.4	541.9	100.49	6.393	
19,200.0	10,380.6	10,156.6	9,867.1	78.8	36.3	35.45	35.45	-8,626.9	-465.6	650.1	549.2	100.86	6.445	
19,300.0	10,381.2	10,091.0	9,855.3	79.7	36.0	34.67	34.67	-8,691.4	-462.6	663.1	562.1	101.03	6.563	
19,400.0	10,381.8	10,038.4	9,842.1	80.5	35.8	33.85	33.85	-8,742.3	-460.1	682.3	581.3	101.01	6.755	
19,500.0	10,382.4	9,996.0	9,828.6	81.4	35.7	33.06	33.06	-8,782.4	-457.8	708.1	607.4	100.68	7.033	
19,600.0	10,383.0	9,942.6	9,808.2	82.2	35.5	32.03	32.03	-8,831.7	-455.9	740.4	640.2	100.25	7.386	
19,700.0	10,383.6	9,901.0	9,790.4	83.1	35.3	31.27	31.27	-8,869.3	-455.8	778.9	679.3	99.61	7.820	
19,800.0	10,384.2	9,852.2	9,767.5	84.0	35.2	30.43	30.43	-8,912.4	-457.1	822.7	723.7	98.99	8.311	
19,900.0	10,384.8	9,819.5	9,750.8	84.8	35.1	29.91	29.91	-8,940.3	-458.9	872.0	774.0	98.03	8.896	
20,000.0	10,385.4	9,793.9	9,736.2	85.7	35.1	29.49	29.49	-8,961.4	-460.7	926.9	830.1	96.84	9.572	
20,100.0	10,386.0	9,775.0	9,724.7	86.5	35.0	29.17	29.17	-8,976.2	-462.3	987.0	891.6	95.45	10.341	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11958-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	-67.69	176.2	-429.5	464.3				
100.0	100.0	91.3	91.3	3.0	3.0	-67.74	175.8	-429.6	464.2	458.2	6.00	77.363	
200.0	200.0	191.2	191.2	3.0	3.0	-67.86	174.9	-429.8	464.0	458.0	6.00	77.287	
300.0	300.0	292.0	292.0	3.0	3.0	-68.00	173.8	-430.1	463.9	457.9	6.01	77.175	
400.0	400.0	392.5	392.4	3.0	3.0	-68.12	172.8	-430.2	463.6	457.6	6.02	76.989	
500.0	500.0	491.4	491.4	3.1	3.1	-68.23	171.9	-430.3	463.4	457.3	6.04	76.755	
551.7	551.7	542.7	542.6	3.1	3.1	-68.28	171.4	-430.5	463.3	457.3	6.05	76.636	
600.0	600.0	591.1	591.1	3.1	3.1	-68.35	171.0	-430.7	463.4	457.3	6.06	76.522	
655.3	655.3	646.2	646.2	3.1	3.1	-68.39	170.6	-430.8	463.3	457.3	6.07	76.365	
700.0	700.0	690.8	690.8	3.1	3.1	-68.42	170.4	-430.9	463.4	457.3	6.08	76.245	
800.0	800.0	790.5	790.4	3.2	3.1	-68.47	170.1	-431.1	463.4	457.3	6.10	75.945	
900.0	900.0	891.8	891.7	3.2	3.2	-68.50	169.8	-431.1	463.3	457.2	6.13	75.544	
1,000.0	1,000.0	993.4	993.3	3.2	3.2	-68.50	169.6	-430.5	462.7	456.6	6.17	74.978	
1,100.0	1,100.0	1,094.3	1,094.2	3.3	3.2	-68.50	169.4	-429.9	462.1	455.9	6.22	74.315	
1,200.0	1,200.0	1,193.2	1,193.2	3.4	3.2	-68.49	169.2	-429.4	461.5	455.2	6.27	73.600	
1,300.0	1,300.0	1,293.6	1,293.6	3.4	3.3	-68.50	169.0	-428.8	460.9	454.6	6.33	72.808	
1,400.0	1,400.0	1,393.9	1,393.9	3.5	3.3	-68.48	168.8	-428.1	460.2	453.8	6.40	71.926	
1,500.0	1,500.0	1,495.0	1,495.0	3.5	3.4	-68.49	168.5	-427.4	459.5	453.0	6.47	70.994	
1,600.0	1,600.0	1,593.4	1,593.3	3.6	3.4	-68.46	168.4	-426.7	458.8	452.2	6.55	70.040	
1,700.0	1,700.0	1,694.1	1,694.0	3.7	3.4	-68.41	168.5	-425.9	458.0	451.4	6.63	69.061	
1,800.0	1,800.0	1,793.8	1,793.8	3.8	3.5	-68.30	169.1	-424.9	457.3	450.6	6.71	68.137	
1,900.0	1,900.0	1,892.6	1,892.5	3.9	3.5	-68.17	169.9	-424.1	456.8	450.0	6.79	67.291	
2,000.0	2,000.0	1,992.6	1,992.5	3.9	3.5	-68.00	171.0	-423.2	456.5	449.6	6.86	66.511	
2,100.0	2,100.0	2,105.9	2,105.8	4.0	3.5	-67.54	173.4	-419.5	454.2	447.2	6.96	65.271	
2,200.0	2,200.0	2,207.4	2,207.1	4.1	3.6	-66.98	176.1	-414.5	450.6	443.6	7.06	63.844	
2,300.0	2,300.0	2,320.5	2,319.9	4.2	3.6	-66.29	179.1	-407.9	446.4	439.3	7.17	62.281	
2,400.0	2,400.0	2,433.2	2,432.0	4.3	3.7	-65.37	181.7	-396.3	437.9	430.6	7.29	60.073	
2,500.0	2,500.0	2,537.1	2,535.2	4.4	3.8	-64.43	183.7	-384.0	427.9	420.5	7.42	57.704	
2,600.0	2,600.0	2,638.8	2,636.0	4.5	3.9	-39.69	185.7	-371.0	416.0	408.5	7.55	55.079	
2,700.0	2,699.8	2,739.9	2,736.2	4.6	3.9	-39.20	188.1	-357.3	400.9	393.2	7.70	52.080	
2,750.0	2,749.7	2,788.6	2,784.4	4.6	4.0	-39.04	189.4	-350.5	392.3	384.5	7.77	50.481	
2,800.0	2,799.5	2,839.8	2,835.0	4.7	4.0	-38.75	190.9	-343.2	383.2	375.4	7.85	48.847	
2,900.0	2,899.1	2,939.6	2,933.6	4.8	4.1	-38.04	194.1	-328.1	364.6	356.6	8.00	45.573	
3,000.0	2,998.7	3,034.5	3,027.4	4.9	4.2	-37.29	197.5	-314.2	346.5	338.4	8.16	42.478	
3,100.0	3,098.4	3,133.6	3,125.4	5.0	4.2	-36.42	201.1	-299.8	328.7	320.4	8.32	39.489	
3,200.0	3,198.0	3,236.7	3,227.0	5.1	4.3	-35.12	205.7	-283.2	310.0	301.5	8.50	36.451	
3,300.0	3,297.6	3,335.9	3,324.7	5.2	4.4	-33.58	210.1	-266.1	290.5	281.8	8.70	33.407	
3,400.0	3,397.2	3,430.0	3,417.4	5.3	4.5	-32.00	214.0	-250.2	271.4	262.5	8.89	30.534	
3,500.0	3,496.8	3,527.9	3,513.9	5.4	4.6	-30.24	218.2	-234.8	253.6	244.5	9.09	27.890	
3,600.0	3,596.4	3,625.0	3,609.7	5.5	4.7	-28.14	222.8	-219.3	236.0	226.7	9.30	25.363	
3,700.0	3,696.1	3,718.0	3,701.7	5.6	4.8	-26.37	226.5	-207.0	220.4	210.9	9.51	23.181	
3,800.0	3,795.7	3,815.8	3,798.8	5.7	4.8	-24.52	230.4	-195.5	206.3	196.6	9.72	21.233	
3,900.0	3,895.3	3,913.5	3,895.8	5.8	4.9	-22.49	234.4	-184.5	192.7	182.8	9.93	19.413	
4,000.0	3,994.9	4,009.9	3,991.6	5.9	5.0	-20.38	238.7	-174.8	180.6	170.4	10.14	17.814	
4,100.0	4,094.5	4,108.2	4,089.4	6.0	5.1	-17.95	243.8	-165.7	169.8	159.5	10.35	16.413	
4,200.0	4,194.2	4,207.3	4,187.7	6.1	5.2	-14.69	250.0	-155.5	159.6	149.0	10.57	15.102	
4,300.0	4,293.8	4,307.0	4,286.7	6.2	5.3	-10.86	256.0	-144.8	149.4	138.6	10.79	13.844	
4,400.0	4,393.4	4,407.3	4,386.2	6.3	5.4	-6.55	261.7	-134.0	139.7	128.7	11.02	12.685	
4,500.0	4,493.0	4,506.8	4,485.2	6.4	5.5	-2.20	265.5	-123.7	129.5	118.3	11.22	11.540	
4,600.0	4,592.6	4,605.2	4,583.0	6.5	5.6	2.38	269.3	-114.6	120.6	109.2	11.41	10.563	
4,700.0	4,692.3	4,705.2	4,682.5	6.6	5.7	7.75	273.3	-105.2	112.7	101.1	11.59	9.721	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 604H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11958-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,791.9	4,805.7	4,782.6	6.8	5.8	13.23	275.6	-96.8	104.3	92.5	11.74	8.881		
4,900.0	4,891.5	4,904.8	4,881.4	6.9	5.9	19.41	277.5	-88.6	96.7	84.8	11.86	8.153		
5,000.0	4,991.1	5,005.7	4,981.9	7.0	6.0	26.81	278.0	-80.1	89.0	77.1	11.94	7.459		
5,100.0	5,090.7	5,104.4	5,080.2	7.1	6.2	35.36	278.0	-71.7	82.6	70.6	11.96	6.904		
5,200.0	5,190.4	5,203.6	5,179.1	7.2	6.3	44.26	278.3	-64.4	78.1	66.2	11.94	6.546		
5,300.0	5,290.0	5,303.1	5,278.5	7.3	6.4	53.27	278.7	-58.1	75.4	63.5	11.90	6.335		
5,400.0	5,389.6	5,402.4	5,377.6	7.4	6.5	62.24	279.1	-52.5	74.3	62.4	11.85	6.267 SF		
5,408.0	5,397.5	5,410.3	5,385.5	7.5	6.5	62.96	279.2	-52.0	74.2	62.4	11.85	6.268 CC, ES		
5,500.0	5,489.2	5,501.8	5,476.9	7.6	6.6	71.08	279.8	-47.1	74.9	63.1	11.82	6.340		
5,600.0	5,588.8	5,601.3	5,576.2	7.7	6.7	79.51	280.3	-41.9	77.2	65.3	11.84	6.520		
5,700.0	5,688.5	5,701.1	5,675.9	7.8	6.8	87.14	281.0	-37.0	80.8	68.8	11.93	6.771		
5,800.0	5,788.1	5,800.4	5,775.1	7.9	6.9	94.23	281.3	-32.2	85.4	73.4	12.08	7.070		
5,900.0	5,887.7	5,900.2	5,874.8	8.0	7.0	100.13	282.2	-27.8	91.0	78.7	12.31	7.399		
6,000.0	5,987.3	6,000.1	5,974.6	8.2	7.2	105.18	283.2	-23.9	97.0	84.5	12.56	7.723		
6,100.0	6,086.9	6,099.3	6,073.8	8.3	7.3	109.61	284.1	-20.0	103.7	90.8	12.85	8.068		
6,200.0	6,186.6	6,198.9	6,173.2	8.4	7.4	113.42	285.3	-16.2	110.7	97.6	13.14	8.428		
6,300.0	6,286.2	6,298.3	6,272.6	8.5	7.5	117.07	285.7	-12.4	118.3	104.9	13.44	8.800		
6,400.0	6,385.8	6,397.2	6,371.3	8.6	7.6	120.32	286.1	-8.5	126.4	112.7	13.75	9.194		
6,500.0	6,485.4	6,496.4	6,470.5	8.7	7.7	123.35	285.9	-4.2	135.3	121.3	14.06	9.627		
6,600.0	6,585.0	6,595.6	6,569.6	8.9	7.9	125.99	285.8	0.3	144.7	130.4	14.36	10.081		
6,700.0	6,684.7	6,695.5	6,669.4	9.0	8.0	128.27	285.8	4.6	154.2	139.5	14.65	10.527		
6,800.0	6,784.3	6,795.9	6,769.7	9.1	8.1	130.01	286.8	8.5	163.2	148.3	14.91	10.948		
6,900.0	6,883.9	6,895.2	6,868.9	9.2	8.2	131.57	287.7	12.3	172.3	157.1	15.17	11.360		
7,000.0	6,983.5	6,995.1	6,968.7	9.4	8.3	132.93	288.8	16.2	181.5	166.1	15.42	11.773		
7,022.6	7,006.0	7,017.8	6,991.4	9.4	8.3	133.21	289.1	17.0	183.5	168.1	15.47	11.862		
7,100.0	7,083.2	7,095.1	7,068.7	9.5	8.4	134.10	290.1	19.7	190.1	174.4	15.66	12.139		
7,200.0	7,183.0	7,194.9	7,168.4	9.6	8.6	134.83	291.2	23.2	197.5	181.6	15.88	12.435		
7,300.0	7,282.8	7,295.2	7,268.6	9.7	8.7	135.11	292.7	26.5	203.4	187.4	16.08	12.653		
7,400.0	7,382.8	7,395.8	7,369.2	9.8	8.8	134.99	294.4	29.6	207.8	191.5	16.26	12.780		
7,500.0	7,482.8	7,496.1	7,469.4	10.0	8.9	134.49	296.2	32.7	210.9	194.5	16.42	12.841		
7,522.6	7,505.4	7,518.7	7,492.0	10.0	8.9	110.32	296.6	33.3	211.4	194.9	16.46	12.844		
7,600.0	7,582.8	7,596.0	7,569.3	10.1	9.0	109.81	297.8	35.4	213.0	196.4	16.57	12.856		
7,700.0	7,682.8	7,689.0	7,662.2	10.2	9.1	109.18	299.2	38.8	216.0	199.2	16.73	12.908		
7,800.0	7,782.8	7,787.8	7,760.7	10.3	9.2	108.30	300.5	45.3	221.8	204.9	16.89	13.136		
7,900.0	7,882.8	7,887.7	7,860.5	10.5	9.4	107.47	301.8	52.0	227.7	210.7	17.04	13.368		
8,000.0	7,982.8	7,989.3	7,961.9	10.6	9.5	106.76	302.8	58.1	233.2	216.0	17.19	13.570		
8,100.0	8,082.8	8,090.8	8,063.2	10.7	9.6	106.18	303.8	63.5	238.0	220.7	17.34	13.726		
8,200.0	8,182.8	8,192.8	8,165.2	10.8	9.7	105.78	304.2	67.9	242.0	224.5	17.50	13.828		
8,300.0	8,282.8	8,294.1	8,266.3	10.9	9.9	105.54	304.3	71.4	245.4	227.7	17.67	13.884		
8,400.0	8,382.8	8,393.7	8,365.9	11.1	10.0	105.40	304.1	74.5	248.4	230.6	17.85	13.913		
8,500.0	8,482.8	8,490.8	8,463.0	11.2	10.1	105.23	304.0	77.6	251.6	233.5	18.04	13.944		
8,600.0	8,582.8	8,582.3	8,554.3	11.3	10.2	105.03	303.2	83.8	258.2	239.9	18.26	14.137		
8,700.0	8,682.8	8,683.1	8,654.8	11.4	10.3	104.81	302.3	91.2	265.6	247.1	18.44	14.404		
8,800.0	8,782.8	8,784.2	8,755.6	11.6	10.5	104.68	301.1	98.0	272.4	253.8	18.61	14.636		
8,900.0	8,882.8	8,881.6	8,852.8	11.7	10.6	104.39	300.8	104.8	279.2	260.4	18.80	14.849		
9,000.0	8,982.8	8,981.8	8,952.6	11.8	10.7	103.51	303.2	113.1	286.7	267.8	18.95	15.134		
9,100.0	9,082.8	9,084.0	9,054.5	11.9	10.8	102.72	305.4	121.0	293.7	274.6	19.08	15.393		
9,200.0	9,182.8	9,185.1	9,155.3	12.1	10.9	102.09	307.3	127.8	299.9	280.7	19.23	15.598		
9,300.0	9,282.8	9,275.0	9,244.9	12.2	11.1	101.44	309.3	135.2	307.5	288.1	19.46	15.804		
9,400.0	9,382.8	9,375.2	9,344.6	12.3	11.2	100.69	311.4	145.4	317.1	297.5	19.61	16.174		
9,500.0	9,482.8	9,480.8	9,449.8	12.4	11.3	100.02	313.6	154.6	325.4	305.7	19.72	16.503		

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 604H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11958-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 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	9,582.8	9,584.0	9,552.6	12.6	11.4	99.49	315.3	161.9	332.0	312.2	19.85	16.723		
9,700.0	9,682.8	9,679.9	9,648.3	12.7	11.6	99.11	316.5	169.0	339.1	319.1	20.05	16.915		
9,800.0	9,782.8	9,788.2	9,756.4	12.8	11.7	98.74	317.6	175.9	345.3	325.1	20.17	17.119		
9,868.7	9,851.5	9,857.6	9,825.7	12.9	11.8	98.51	318.5	179.5	348.6	328.3	20.28	17.189		
9,875.0	9,857.8	9,863.8	9,831.8	12.9	11.8	-81.02	318.5	179.8	348.9	328.7	20.25	17.232		
9,900.0	9,882.8	9,886.3	9,854.3	12.9	11.8	-81.10	318.9	181.0	350.0	329.8	20.27	17.265		
9,925.0	9,907.7	9,907.1	9,875.1	12.9	11.8	-81.35	319.1	182.3	351.2	330.9	20.30	17.300		
9,950.0	9,932.4	9,928.6	9,896.5	12.9	11.9	-81.77	319.4	183.9	352.5	332.2	20.33	17.343		
9,975.0	9,956.9	9,952.7	9,920.5	12.9	11.9	-82.46	319.7	185.8	353.8	333.4	20.33	17.402		
10,000.0	9,981.1	9,976.0	9,943.7	12.9	11.9	-83.30	319.9	187.7	355.0	334.7	20.33	17.461		
10,025.0	10,005.0	10,001.0	9,968.7	12.9	12.0	-84.42	320.2	189.6	356.2	335.9	20.32	17.534		
10,050.0	10,028.5	10,026.4	9,993.9	13.0	12.0	-85.74	320.5	191.5	357.4	337.1	20.29	17.612		
10,075.0	10,051.4	10,051.8	10,019.3	13.0	12.0	-87.26	320.8	193.3	358.6	338.3	20.27	17.693		
10,100.0	10,073.8	10,075.8	10,043.3	13.0	12.1	-88.85	321.1	194.8	359.9	339.7	20.25	17.775		
10,125.0	10,095.7	10,098.4	10,065.8	13.0	12.1	-90.45	321.4	196.1	361.5	341.3	20.24	17.865		
10,150.0	10,116.8	10,121.5	10,088.9	13.0	12.1	-92.20	321.7	197.3	363.5	343.3	20.22	17.972		
10,175.0	10,137.2	10,141.7	10,109.1	13.0	12.1	-93.75	321.9	198.3	366.0	345.7	20.23	18.090		
10,200.0	10,156.8	10,160.6	10,127.9	13.1	12.2	-95.21	322.2	199.3	369.2	348.9	20.25	18.230		
10,225.0	10,175.6	10,177.8	10,145.2	13.1	12.2	-96.49	322.4	200.2	373.2	352.9	20.29	18.395		
10,250.0	10,193.5	10,191.8	10,159.1	13.1	12.2	-97.39	322.5	201.1	378.3	357.9	20.36	18.580		
10,275.0	10,210.5	10,206.1	10,173.3	13.1	12.2	-98.21	322.6	202.1	384.5	364.0	20.44	18.807		
10,300.0	10,226.5	10,220.6	10,187.9	13.2	12.2	-99.00	322.6	203.2	391.7	371.1	20.53	19.079		
10,325.0	10,241.4	10,235.0	10,202.1	13.2	12.3	-99.67	322.7	204.4	400.0	379.4	20.62	19.394		
10,350.0	10,255.3	10,248.6	10,215.7	13.2	12.3	-100.14	322.7	205.5	409.3	388.6	20.72	19.752		
10,375.0	10,268.1	10,261.7	10,228.8	13.2	12.3	-100.44	322.8	206.5	419.8	398.9	20.83	20.155		
10,400.0	10,279.7	10,273.7	10,240.7	13.3	12.3	-100.47	322.8	207.5	431.3	410.3	20.93	20.602		
10,425.0	10,290.2	10,284.1	10,251.1	13.3	12.3	-100.15	322.9	208.3	443.8	422.7	21.04	21.089		
10,450.0	10,299.5	10,293.2	10,260.2	13.3	12.3	-99.48	322.9	209.0	457.3	436.1	21.15	21.620		
10,475.0	10,307.5	10,301.0	10,267.9	13.3	12.3	-98.46	323.0	209.6	471.8	450.5	21.26	22.195		
10,500.0	10,314.3	10,307.7	10,274.7	13.3	12.3	-97.11	323.1	210.0	487.2	465.8	21.35	22.815		
10,525.0	10,319.8	10,313.1	10,280.0	13.4	12.4	-95.36	323.1	210.4	503.4	481.9	21.44	23.475		
10,550.0	10,324.0	10,317.2	10,284.1	13.4	12.4	-93.20	323.2	210.7	520.3	498.8	21.52	24.174		
10,575.0	10,327.0	10,319.9	10,286.8	13.4	12.4	-90.64	323.2	210.9	537.9	516.3	21.60	24.908		
10,600.0	10,328.6	10,321.3	10,288.2	13.4	12.4	-87.67	323.2	211.0	556.1	534.4	21.66	25.674		
10,615.8	10,329.0	10,321.4	10,288.4	13.4	12.4	-85.59	323.2	211.0	567.9	546.2	21.70	26.174		
10,700.0	10,329.5	10,321.0	10,287.9	13.4	12.4	-85.52	323.2	211.0	633.3	611.5	21.85	28.983		
10,800.0	10,330.1	10,320.4	10,287.3	13.5	12.4	-85.44	323.2	211.0	716.2	694.2	21.98	32.578		
10,900.0	10,330.7	10,319.9	10,286.8	13.5	12.4	-85.36	323.2	210.9	803.0	780.9	22.08	36.366		
11,000.0	10,331.3	10,319.3	10,286.3	13.6	12.4	-85.27	323.2	210.9	892.5	870.3	22.16	40.284		
11,100.0	10,331.9	10,318.8	10,285.7	13.7	12.4	-85.19	323.2	210.8	984.1	961.8	22.22	44.288		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 705H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 12070-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	-69.05	176.0	-459.6	492.2				
100.0	100.0	92.2	92.2	3.0	3.0	-69.08	175.7	-459.5	492.0	486.0	6.00	81.994	
200.0	200.0	192.3	192.3	3.0	3.0	-69.16	174.8	-459.4	491.6	485.6	6.00	81.877	
300.0	300.0	292.1	292.1	3.0	3.0	-69.27	173.9	-459.5	491.3	485.3	6.01	81.715	
400.0	400.0	391.7	391.6	3.0	3.0	-69.38	172.9	-459.5	491.0	484.9	6.02	81.502	
500.0	500.0	490.5	490.5	3.1	3.1	-69.48	172.1	-459.7	490.9	484.9	6.04	81.292	
500.6	500.6	491.1	491.1	3.1	3.1	-69.48	172.1	-459.7	490.9	484.9	6.04	81.290	
600.0	600.0	588.7	588.7	3.1	3.1	-69.59	171.3	-460.2	491.1	485.0	6.06	81.098	
700.0	700.0	688.1	688.1	3.1	3.1	-69.71	170.5	-461.1	491.6	485.5	6.08	80.917	
800.0	800.0	788.0	787.9	3.2	3.1	-69.82	169.7	-461.9	492.1	486.0	6.10	80.678	
900.0	900.0	888.4	888.3	3.2	3.2	-69.94	168.9	-462.7	492.5	486.4	6.13	80.377	
1,000.0	1,000.0	988.8	988.8	3.2	3.2	-70.08	168.0	-463.5	493.0	486.8	6.16	80.023	
1,100.0	1,100.0	1,088.2	1,088.1	3.3	3.3	-70.20	167.1	-464.2	493.3	487.1	6.20	79.617	
1,200.0	1,200.0	1,178.5	1,178.4	3.4	3.3	-70.29	166.7	-465.2	494.3	488.1	6.23	79.290	
1,300.0	1,300.0	1,270.7	1,270.6	3.4	3.3	-70.16	168.9	-468.0	498.0	491.7	6.28	79.307	
1,400.0	1,400.0	1,370.9	1,370.7	3.5	3.3	-69.97	171.8	-471.2	501.9	495.6	6.33	79.236	
1,500.0	1,500.0	1,471.1	1,470.8	3.5	3.3	-69.78	174.7	-474.3	505.8	499.4	6.40	79.078	
1,600.0	1,600.0	1,571.9	1,571.5	3.6	3.4	-69.61	177.4	-477.3	509.6	503.1	6.46	78.823	
1,700.0	1,700.0	1,670.9	1,670.3	3.7	3.4	-69.44	180.3	-480.7	513.8	507.3	6.54	78.586	
1,800.0	1,800.0	1,770.0	1,769.4	3.8	3.4	-69.26	183.2	-483.8	517.8	511.2	6.62	78.254	
1,900.0	1,900.0	1,868.0	1,867.3	3.9	3.5	-69.07	186.4	-487.1	522.1	515.4	6.70	77.918	
2,000.0	2,000.0	1,966.4	1,965.6	3.9	3.5	-68.86	189.7	-490.6	526.6	519.8	6.79	77.560	
2,100.0	2,100.0	2,068.4	2,067.5	4.0	3.6	-68.64	193.3	-494.2	531.1	524.3	6.89	77.124	
2,200.0	2,200.0	2,168.8	2,167.8	4.1	3.6	-68.42	196.8	-497.5	535.5	528.5	6.99	76.643	
2,300.0	2,300.0	2,269.6	2,268.4	4.2	3.7	-68.15	200.7	-500.5	539.7	532.6	7.09	76.107	
2,400.0	2,400.0	2,369.8	2,368.4	4.3	3.7	-67.82	205.2	-503.2	543.9	536.7	7.20	75.559	
2,500.0	2,500.0	2,469.7	2,468.2	4.4	3.8	-67.44	210.1	-505.6	548.0	540.7	7.31	74.985	
2,600.0	2,600.0	2,574.1	2,572.5	4.5	3.8	-43.09	215.3	-507.6	550.4	543.0	7.43	74.119	
2,700.0	2,699.8	2,676.7	2,674.9	4.6	3.8	-42.99	220.8	-508.6	549.5	542.0	7.54	72.836	
2,750.0	2,749.7	2,726.5	2,724.6	4.6	3.9	-43.05	223.5	-509.0	548.1	540.5	7.60	72.093	
2,800.0	2,799.5	2,776.2	2,774.3	4.7	3.9	-43.11	226.3	-509.3	546.3	538.7	7.66	71.316	
2,900.0	2,899.1	2,876.8	2,874.7	4.8	3.9	-43.14	232.6	-509.8	542.8	535.0	7.78	69.781	
3,000.0	2,998.7	2,969.6	2,967.4	4.9	4.0	-43.28	237.8	-511.3	540.1	532.2	7.90	68.374	
3,100.0	3,098.4	3,071.9	3,069.5	5.0	4.1	-43.44	243.6	-513.1	537.5	529.5	8.03	66.935	
3,200.0	3,198.0	3,180.4	3,177.7	5.1	4.1	-43.45	250.7	-513.5	534.1	525.9	8.16	65.417	
3,300.0	3,297.6	3,276.2	3,273.3	5.2	4.2	-43.38	257.4	-512.8	529.8	521.5	8.29	63.941	
3,400.0	3,397.2	3,375.0	3,371.9	5.3	4.2	-43.40	263.7	-513.2	526.3	517.9	8.42	62.531	
3,500.0	3,496.8	3,466.5	3,463.1	5.4	4.3	-43.40	270.3	-514.7	524.2	515.7	8.55	61.303	
3,600.0	3,596.4	3,569.5	3,565.7	5.5	4.4	-43.25	279.0	-515.9	522.2	513.5	8.70	60.021	
3,696.7	3,692.7	3,654.2	3,650.1	5.6	4.5	-43.14	286.1	-517.2	520.6	511.8	8.83	58.933	
3,700.0	3,696.1	3,657.1	3,653.0	5.6	4.5	-43.14	286.3	-517.3	520.6	511.8	8.84	58.902	
3,800.0	3,795.7	3,752.2	3,747.7	5.7	4.5	-43.32	292.6	-522.0	521.4	512.4	8.99	57.984	
3,900.0	3,895.3	3,851.6	3,846.9	5.8	4.6	-43.63	298.4	-527.5	522.4	513.2	9.15	57.096	
4,000.0	3,994.9	3,951.2	3,946.2	5.9	4.7	-44.35	300.6	-534.7	523.6	514.3	9.30	56.313	
4,100.0	4,094.5	4,051.7	4,046.4	6.0	4.8	-44.97	303.8	-541.4	524.8	515.4	9.45	55.523	
4,200.0	4,194.2	4,147.5	4,141.9	6.1	4.9	-45.35	308.6	-547.4	526.3	516.6	9.61	54.757	
4,300.0	4,293.8	4,247.6	4,241.6	6.2	5.0	-45.90	312.5	-554.4	528.1	518.3	9.77	54.056	
4,400.0	4,393.4	4,344.2	4,337.9	6.3	5.1	-46.66	314.3	-562.3	530.4	520.5	9.92	53.479	
4,500.0	4,493.0	4,441.0	4,434.4	6.4	5.2	-47.36	316.8	-570.7	533.5	523.5	10.07	52.982	
4,600.0	4,592.6	4,576.5	4,569.6	6.5	5.3	-48.42	318.3	-578.6	533.6	523.3	10.25	52.050	
4,700.0	4,692.3	4,694.5	4,687.6	6.6	5.4	-49.27	318.4	-579.3	528.4	518.0	10.40	50.828	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 705H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 12070-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,800.0	4,791.9	4,798.3	4,791.3	6.8	5.4	-49.85	319.5	-577.6	521.5	511.0	10.46	49.842	
4,900.0	4,891.5	4,907.2	4,900.1	6.9	5.4	-50.56	319.7	-574.7	513.4	502.8	10.52	48.806	
5,000.0	4,991.1	5,011.3	5,004.2	7.0	5.4	-51.64	316.1	-571.2	503.7	493.2	10.56	47.707	
5,100.0	5,090.7	5,094.9	5,087.6	7.1	5.4	-52.52	313.6	-569.3	495.4	484.8	10.59	46.773	
5,200.0	5,190.4	5,192.4	5,185.2	7.2	5.4	-53.47	312.1	-568.7	489.2	478.6	10.65	45.931	
5,300.0	5,290.0	5,292.4	5,285.2	7.3	5.4	-54.47	310.6	-568.1	483.2	472.5	10.71	45.097	
5,400.0	5,389.6	5,392.4	5,385.1	7.4	5.4	-55.48	309.0	-567.4	477.2	466.4	10.78	44.276	
5,500.0	5,489.2	5,490.9	5,483.6	7.6	5.4	-56.49	307.7	-566.7	471.4	460.6	10.84	43.481	
5,600.0	5,588.8	5,590.3	5,583.1	7.7	5.4	-57.49	306.7	-566.1	465.8	454.9	10.91	42.710	
5,700.0	5,688.5	5,688.5	5,681.2	7.8	5.4	-58.48	305.9	-565.6	460.6	449.6	10.97	41.968	
5,800.0	5,788.1	5,786.1	5,778.8	7.9	5.5	-59.45	305.4	-565.4	455.8	444.8	11.06	41.229	
5,900.0	5,887.7	5,884.8	5,877.5	8.0	5.5	-60.41	305.2	-565.5	451.5	440.4	11.18	40.400	
6,000.0	5,987.3	5,983.5	5,976.2	8.2	5.6	-61.39	305.1	-565.8	447.5	436.2	11.31	39.554	
6,100.0	6,086.9	6,083.3	6,076.0	8.3	5.7	-62.39	305.0	-566.1	443.7	432.3	11.46	38.727	
6,200.0	6,186.6	6,183.3	6,176.0	8.4	5.8	-63.42	304.9	-566.4	440.0	428.4	11.60	37.940	
6,300.0	6,286.2	6,283.0	6,275.7	8.5	5.9	-64.46	304.7	-566.6	436.4	424.7	11.74	37.181	
6,400.0	6,385.8	6,382.2	6,374.9	8.6	6.0	-65.52	304.5	-566.9	433.0	421.1	11.88	36.450	
6,500.0	6,485.4	6,482.0	6,474.7	8.7	6.0	-66.60	304.3	-567.2	429.7	417.7	12.02	35.740	
6,600.0	6,585.0	6,582.3	6,575.0	8.9	6.1	-67.70	304.1	-567.5	426.6	414.4	12.17	35.046	
6,700.0	6,684.7	6,681.5	6,674.2	9.0	6.2	-68.79	304.1	-567.7	423.6	411.3	12.33	34.360	
6,800.0	6,784.3	6,780.7	6,773.4	9.1	6.3	-69.89	304.1	-568.0	420.8	408.3	12.49	33.699	
6,900.0	6,883.9	6,880.4	6,873.1	9.2	6.4	-71.01	304.0	-568.3	418.2	405.5	12.65	33.061	
7,000.0	6,983.5	6,980.1	6,972.8	9.4	6.5	-72.15	304.0	-568.6	415.7	402.9	12.81	32.444	
7,022.6	7,006.0	7,002.7	6,995.4	9.4	6.6	-72.41	304.0	-568.6	415.2	402.3	12.85	32.307	
7,100.0	7,083.2	7,080.2	7,072.9	9.5	6.6	-73.20	304.0	-568.8	413.5	400.5	12.98	31.866	
7,200.0	7,183.0	7,179.3	7,172.0	9.6	6.7	-74.03	304.1	-569.1	411.9	398.8	13.14	31.353	
7,300.0	7,282.8	7,279.6	7,272.3	9.7	6.8	-74.63	304.3	-569.4	410.9	397.6	13.29	30.927	
7,400.0	7,382.8	7,379.9	7,372.6	9.8	6.9	-74.99	304.5	-569.6	410.3	396.9	13.43	30.565	
7,500.0	7,482.8	7,480.3	7,473.0	10.0	7.0	-75.11	304.9	-569.8	410.2	396.6	13.56	30.258	
7,522.5	7,505.3	7,503.1	7,495.8	10.0	7.0	-99.13	304.9	-569.9	410.1	396.6	13.58	30.199 CC	
7,522.6	7,505.4	7,503.2	7,495.9	10.0	7.0	-99.13	304.9	-569.9	410.1	396.6	13.58	30.199 ES	
7,600.0	7,582.8	7,580.1	7,572.7	10.1	7.1	-99.08	305.3	-570.0	410.3	396.6	13.68	29.999	
7,700.0	7,682.8	7,679.3	7,672.0	10.2	7.2	-99.03	305.6	-570.3	410.5	396.7	13.81	29.725	
7,800.0	7,782.8	7,780.4	7,773.1	10.3	7.3	-99.01	305.7	-570.5	410.7	396.7	13.96	29.421	
7,900.0	7,882.8	7,879.4	7,872.1	10.5	7.4	-99.00	305.7	-570.7	410.8	396.7	14.11	29.124	
8,000.0	7,982.8	7,978.9	7,971.6	10.6	7.5	-98.99	305.7	-571.0	411.2	396.9	14.27	28.825	
8,100.0	8,082.8	8,078.5	8,071.1	10.7	7.6	-99.00	305.6	-571.5	411.7	397.3	14.43	28.540	
8,200.0	8,182.8	8,178.6	8,171.3	10.8	7.7	-99.03	305.3	-572.0	412.2	397.6	14.59	28.261	
8,300.0	8,282.8	8,278.7	8,271.4	10.9	7.8	-99.08	304.9	-572.4	412.7	398.0	14.74	28.002	
8,400.0	8,382.8	8,379.2	8,371.9	11.1	7.9	-99.14	304.4	-572.8	413.1	398.2	14.89	27.753	
8,500.0	8,482.8	8,479.1	8,471.8	11.2	8.0	-99.20	303.9	-573.1	413.5	398.5	15.03	27.515	
8,600.0	8,582.8	8,579.0	8,571.7	11.3	8.0	-99.29	303.2	-573.3	413.8	398.6	15.16	27.298	
8,700.0	8,682.8	8,676.9	8,669.6	11.4	8.1	-99.34	302.7	-573.7	414.4	399.0	15.31	27.070	
8,800.0	8,782.8	8,777.2	8,769.9	11.6	8.2	-99.30	302.9	-574.6	415.2	399.7	15.47	26.835	
8,900.0	8,882.8	8,873.1	8,865.8	11.7	8.3	-99.04	304.5	-576.3	416.6	401.0	15.63	26.663	
9,000.0	8,982.8	8,973.6	8,966.2	11.8	8.4	-98.61	307.3	-578.5	418.4	402.6	15.77	26.523	
9,100.0	9,082.8	9,072.1	9,064.6	11.9	8.5	-98.22	310.0	-580.8	420.3	404.3	15.93	26.388	
9,200.0	9,182.8	9,172.3	9,164.8	12.1	8.6	-97.86	312.3	-583.1	422.3	406.2	16.08	26.257	
9,300.0	9,282.8	9,271.0	9,263.4	12.2	8.7	-97.53	314.4	-585.6	424.5	408.2	16.24	26.132	
9,400.0	9,382.8	9,370.8	9,363.2	12.3	8.8	-97.23	316.3	-588.2	426.8	410.4	16.41	26.016	
9,500.0	9,482.8	9,469.8	9,462.1	12.4	8.9	-96.98	317.8	-590.8	429.3	412.7	16.57	25.901	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 705H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 12070-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	9,582.8	9,568.6	9,560.9	12.6	9.0	-96.77	319.1	-593.7	432.0	415.3	16.75	25.799	
9,700.0	9,682.8	9,665.6	9,657.8	12.7	9.2	-96.61	320.0	-596.9	435.1	418.2	16.92	25.709	
9,800.0	9,782.8	9,762.3	9,754.5	12.8	9.3	-96.48	320.5	-600.8	439.1	422.0	17.11	25.663	
9,868.7	9,851.5	9,829.8	9,821.9	12.9	9.3	-96.43	320.6	-603.8	442.1	424.9	17.23	25.652	
9,875.0	9,857.8	9,836.0	9,828.1	12.9	9.4	84.01	320.6	-604.1	442.4	425.1	17.27	25.619	
9,900.0	9,882.8	9,860.6	9,852.6	12.9	9.4	84.03	320.6	-605.2	443.4	426.1	17.30	25.626	
9,925.0	9,907.7	9,885.1	9,877.1	12.9	9.4	84.22	320.6	-606.4	444.4	427.0	17.35	25.616	
9,950.0	9,932.4	9,909.6	9,901.5	12.9	9.4	84.59	320.6	-607.5	445.2	427.8	17.40	25.590	
9,975.0	9,956.9	9,934.0	9,925.9	12.9	9.5	85.12	320.6	-608.7	446.0	428.6	17.46	25.551	
10,000.0	9,981.1	9,958.4	9,950.3	12.9	9.5	85.81	320.6	-609.9	446.8	429.2	17.52	25.498	
10,025.0	10,005.0	9,983.2	9,975.0	12.9	9.5	86.66	320.5	-611.1	447.5	429.9	17.59	25.437	
10,050.0	10,028.5	10,007.9	9,999.7	13.0	9.6	87.65	320.3	-612.1	448.2	430.5	17.67	25.363	
10,075.0	10,051.4	10,030.7	10,022.6	13.0	9.6	88.68	320.0	-613.1	449.0	431.3	17.77	25.270	
10,100.0	10,073.8	10,053.9	10,045.7	13.0	9.6	89.83	319.7	-614.1	450.0	432.2	17.87	25.178	
10,125.0	10,095.7	10,075.8	10,067.6	13.0	9.6	91.00	319.4	-615.0	451.3	433.3	18.00	25.077	
10,150.0	10,116.8	10,097.2	10,088.9	13.0	9.6	92.21	319.1	-615.9	453.0	434.8	18.13	24.981	
10,175.0	10,137.2	10,117.5	10,109.2	13.0	9.7	93.40	318.8	-616.7	455.1	436.8	18.28	24.889	
10,200.0	10,156.8	10,137.3	10,129.0	13.1	9.7	94.58	318.4	-617.6	457.7	439.3	18.45	24.812	
10,225.0	10,175.6	10,156.5	10,148.2	13.1	9.7	95.73	318.1	-618.4	461.0	442.4	18.62	24.753	
10,250.0	10,193.5	10,174.9	10,166.6	13.1	9.7	96.81	317.8	-619.2	465.0	446.2	18.81	24.716	
10,275.0	10,210.5	10,191.9	10,183.6	13.1	9.8	97.75	317.5	-619.9	469.7	450.7	19.01	24.706 SF	
10,300.0	10,226.5	10,208.5	10,200.1	13.2	9.8	98.59	317.1	-620.6	475.3	456.1	19.22	24.733	
10,325.0	10,241.4	10,224.3	10,216.0	13.2	9.8	99.31	316.8	-621.3	481.8	462.4	19.43	24.802	
10,350.0	10,255.3	10,239.0	10,230.6	13.2	9.8	99.84	316.4	-621.9	489.2	469.6	19.64	24.913	
10,375.0	10,268.1	10,252.6	10,244.2	13.2	9.8	100.17	316.1	-622.5	497.6	477.7	19.85	25.072	
10,400.0	10,279.7	10,265.1	10,256.6	13.3	9.8	100.29	315.7	-623.0	506.9	486.9	20.05	25.282	
10,425.0	10,290.2	10,276.4	10,268.0	13.3	9.8	100.16	315.4	-623.5	517.3	497.0	20.25	25.544	
10,450.0	10,299.5	10,286.2	10,277.8	13.3	9.8	99.74	315.1	-623.9	528.6	508.1	20.44	25.859	
10,475.0	10,307.5	10,294.9	10,286.4	13.3	9.9	99.05	314.8	-624.3	540.8	520.2	20.62	26.226	
10,500.0	10,314.3	10,302.3	10,293.8	13.3	9.9	98.07	314.6	-624.6	554.0	533.2	20.79	26.647	
10,525.0	10,319.8	10,308.5	10,300.0	13.4	9.9	96.78	314.4	-624.9	568.0	547.1	20.95	27.119	
10,550.0	10,324.0	10,313.4	10,304.9	13.4	9.9	95.17	314.2	-625.2	582.8	561.8	21.09	27.640	
10,575.0	10,327.0	10,317.1	10,308.6	13.4	9.9	93.24	314.1	-625.3	598.4	577.2	21.22	28.207	
10,600.0	10,328.6	10,319.6	10,311.1	13.4	9.9	90.98	314.0	-625.4	614.6	593.3	21.33	28.817	
10,615.8	10,329.0	10,320.5	10,312.0	13.4	9.9	89.39	313.9	-625.5	625.2	603.8	21.39	29.224	
10,700.0	10,329.5	10,323.9	10,315.4	13.4	9.9	89.81	313.8	-625.6	684.9	663.2	21.67	31.599	
10,800.0	10,330.1	10,328.0	10,319.4	13.5	9.9	90.31	313.7	-625.8	761.8	739.9	21.90	34.788	
10,900.0	10,330.7	10,332.1	10,323.5	13.5	9.9	90.82	313.5	-626.0	843.5	821.5	22.04	38.267	
11,000.0	10,331.3	10,336.2	10,327.7	13.6	9.9	91.33	313.4	-626.2	928.8	906.7	22.14	41.953	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9207-MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.0	8,882.8	19,727.0	9,827.3	11.7	166.7	158.41	89.5	-53.9	973.9	879.9	93.96	10.365		
9,000.0	8,982.8	19,727.0	9,827.3	11.8	166.7	158.41	89.5	-53.9	879.4	785.6	93.74	9.381		
9,100.0	9,082.8	19,727.0	9,827.3	11.9	166.7	158.41	89.5	-53.9	786.2	692.8	93.36	8.421		
9,200.0	9,182.8	19,727.0	9,827.3	12.1	166.7	158.41	89.5	-53.9	694.9	602.2	92.72	7.495		
9,300.0	9,282.8	19,727.0	9,827.3	12.2	166.7	158.41	89.5	-53.9	606.4	514.7	91.71	6.612		
9,400.0	9,382.8	19,727.0	9,827.3	12.3	166.7	158.41	89.5	-53.9	522.0	431.9	90.11	5.793		
9,500.0	9,482.8	19,727.0	9,827.3	12.4	166.7	158.41	89.5	-53.9	444.2	356.5	87.63	5.069		
9,600.0	9,582.8	19,727.0	9,827.3	12.6	166.7	158.41	89.5	-53.9	376.9	292.9	84.02	4.486		
9,700.0	9,682.8	19,727.0	9,827.3	12.7	166.7	158.41	89.5	-53.9	326.9	247.2	79.78	4.098		
9,800.0	9,782.8	19,727.0	9,827.3	12.8	166.7	158.41	89.5	-53.9	302.8	225.3	77.47	3.909		
9,826.0	9,808.8	19,727.0	9,827.3	12.8	166.7	158.41	89.5	-53.9	301.7	224.0	77.63	3.886 CC, ES		
9,868.7	9,851.5	19,727.0	9,827.3	12.9	166.7	158.41	89.5	-53.9	304.7	226.0	78.68	3.873		
9,875.0	9,857.8	19,727.0	9,827.3	12.9	166.7	-21.09	89.5	-53.9	305.6	226.9	78.72	3.882		
9,900.0	9,882.8	19,727.0	9,827.3	12.9	166.7	-20.91	89.5	-53.9	309.7	229.9	79.83	3.879		
9,925.0	9,907.7	19,727.0	9,827.3	12.9	166.7	-20.70	89.5	-53.9	314.5	233.2	81.35	3.866		
9,950.0	9,932.4	19,727.0	9,827.3	12.9	166.7	-20.46	89.5	-53.9	320.1	236.9	83.19	3.848		
9,975.0	9,956.9	19,727.0	9,827.3	12.9	166.7	-20.19	89.5	-53.9	326.3	241.0	85.24	3.828		
10,000.0	9,981.1	19,727.0	9,827.3	12.9	166.7	-19.90	89.5	-53.9	333.1	245.6	87.44	3.809		
10,025.0	10,005.0	19,727.0	9,827.3	12.9	166.7	-19.59	89.5	-53.9	340.4	250.7	89.68	3.796		
10,050.0	10,028.5	19,727.0	9,827.3	13.0	166.7	-19.26	89.5	-53.9	348.3	256.3	91.91	3.789 SF		
10,075.0	10,051.4	19,727.0	9,827.3	13.0	166.7	-18.92	89.5	-53.9	356.5	262.5	94.07	3.790		
10,100.0	10,073.8	19,727.0	9,827.3	13.0	166.7	-18.56	89.5	-53.9	365.2	269.1	96.12	3.799		
10,125.0	10,095.7	19,727.0	9,827.3	13.0	166.7	-18.20	89.5	-53.9	374.2	276.2	98.03	3.817		
10,150.0	10,116.8	19,727.0	9,827.3	13.0	166.7	-17.83	89.5	-53.9	383.5	283.7	99.78	3.843		
10,175.0	10,137.2	19,727.0	9,827.3	13.0	166.7	-17.45	89.5	-53.9	393.0	291.7	101.34	3.878		
10,200.0	10,156.8	19,727.0	9,827.3	13.1	166.7	-17.08	89.5	-53.9	402.7	300.0	102.72	3.921		
10,225.0	10,175.6	19,727.0	9,827.3	13.1	166.7	-16.70	89.5	-53.9	412.6	308.7	103.91	3.971		
10,250.0	10,193.5	19,727.0	9,827.3	13.1	166.7	-16.33	89.5	-53.9	422.7	317.8	104.90	4.029		
10,275.0	10,210.5	19,727.0	9,827.3	13.1	166.7	-15.96	89.5	-53.9	432.8	327.1	105.70	4.094		
10,300.0	10,226.5	19,727.0	9,827.3	13.2	166.7	-15.60	89.5	-53.9	442.9	336.6	106.31	4.166		
10,325.0	10,241.4	19,727.0	9,827.3	13.2	166.7	-15.24	89.5	-53.9	453.1	346.4	106.74	4.245		
10,350.0	10,255.3	19,727.0	9,827.3	13.2	166.7	-14.89	89.5	-53.9	463.3	356.3	106.98	4.331		
10,375.0	10,268.1	19,727.0	9,827.3	13.2	166.7	-14.55	89.5	-53.9	473.5	366.4	107.06	4.423		
10,400.0	10,279.7	19,727.0	9,827.3	13.3	166.7	-14.22	89.5	-53.9	483.6	376.6	106.96	4.521		
10,425.0	10,290.2	19,707.5	9,827.7	13.3	166.4	-13.64	70.0	-54.0	493.2	386.6	106.58	4.628		
10,450.0	10,299.5	19,684.1	9,828.2	13.3	166.0	-13.11	46.6	-54.2	501.7	395.5	106.19	4.724		
10,475.0	10,307.5	19,660.2	9,828.7	13.3	165.6	-12.67	22.7	-54.5	509.0	403.1	105.84	4.809		
10,500.0	10,314.3	19,636.0	9,829.2	13.3	165.2	-12.32	-1.4	-54.7	515.0	409.5	105.51	4.881		
10,525.0	10,319.8	19,613.0	9,829.7	13.4	164.8	-12.04	-24.5	-54.9	519.8	414.6	105.23	4.940		
10,550.0	10,324.0	19,588.7	9,830.2	13.4	164.4	-11.82	-48.8	-55.1	523.4	418.5	104.96	4.987		
10,575.0	10,327.0	19,565.6	9,830.5	13.4	164.0	-11.68	-71.9	-55.2	525.8	421.1	104.73	5.021		
10,600.0	10,328.6	19,542.4	9,830.8	13.4	163.6	-11.59	-95.1	-55.3	527.1	422.5	104.53	5.042		
10,615.8	10,329.0	19,527.7	9,831.0	13.4	163.4	-11.57	-109.8	-55.3	527.2	422.8	104.41	5.049		
10,657.4	10,329.2	19,489.0	9,831.3	13.4	162.8	-11.55	-148.4	-55.2	527.1	423.0	104.13	5.062		
10,700.0	10,329.5	19,449.4	9,831.4	13.4	162.1	-11.54	-188.0	-54.9	527.2	423.4	103.85	5.077		
10,800.0	10,330.1	19,338.5	9,832.2	13.5	160.3	-11.58	-299.0	-53.7	527.2	424.0	103.15	5.111		
10,900.0	10,330.7	19,243.9	9,833.9	13.5	158.7	-11.59	-393.5	-53.1	526.0	423.5	102.57	5.129		
10,930.1	10,330.8	19,216.3	9,834.1	13.5	158.3	-11.59	-421.1	-52.8	526.0	423.6	102.41	5.136		
11,000.0	10,331.3	19,152.8	9,834.0	13.6	157.2	-11.51	-484.7	-53.0	526.4	424.4	101.97	5.162		
11,100.0	10,331.9	19,053.6	9,832.8	13.7	155.6	-11.25	-583.8	-54.2	527.7	426.5	101.22	5.214		
11,200.0	10,332.5	18,957.9	9,831.1	13.8	154.0	-10.89	-679.5	-56.4	529.5	429.0	100.44	5.271		

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9207-MWD												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
11,300.0	10,333.1	18,858.1	9,828.7	14.0	152.4	-10.44	-779.2	-59.3	531.7	432.1	99.63	5.337	
11,400.0	10,333.7	18,754.3	9,826.7	14.4	150.7	-10.07	-882.9	-61.4	533.7	434.8	98.89	5.397	
11,500.0	10,334.3	18,643.0	9,827.0	14.9	148.9	-9.84	-994.3	-62.7	533.7	435.4	98.21	5.434	
11,536.8	10,334.5	18,609.3	9,827.2	15.1	148.3	-9.79	-1,027.9	-62.9	533.5	435.5	98.05	5.442	
11,600.0	10,334.9	18,549.7	9,827.2	15.5	147.3	-9.71	-1,087.6	-63.0	533.8	436.1	97.76	5.461	
11,700.0	10,335.5	18,451.6	9,826.7	16.2	145.7	-9.54	-1,185.6	-63.7	534.6	437.4	97.26	5.497	
11,800.0	10,336.1	18,355.1	9,825.7	16.9	144.1	-9.31	-1,282.1	-64.8	536.0	439.2	96.77	5.539	
11,900.0	10,336.7	18,256.6	9,824.1	17.6	142.5	-9.13	-1,380.7	-65.4	537.9	441.6	96.32	5.585	
12,000.0	10,337.3	18,158.3	9,822.7	18.4	140.9	-9.03	-1,478.9	-65.2	539.8	443.9	95.93	5.627	
12,100.0	10,337.9	18,053.4	9,820.7	19.1	139.2	-8.97	-1,583.8	-64.5	542.3	446.8	95.54	5.676	
12,200.0	10,338.5	17,938.7	9,821.6	19.9	137.3	-8.94	-1,698.4	-63.9	542.1	447.0	95.08	5.701	
12,300.0	10,339.1	17,837.4	9,823.9	20.7	135.6	-8.97	-1,799.8	-63.1	540.5	445.7	94.80	5.701	
12,400.0	10,339.7	17,738.4	9,825.9	21.5	134.0	-8.94	-1,898.7	-62.7	539.0	444.4	94.52	5.702	
12,500.0	10,340.3	17,645.0	9,827.2	22.2	132.5	-8.91	-1,992.1	-62.4	538.1	443.8	94.31	5.706	
12,512.9	10,340.4	17,633.0	9,827.3	22.4	132.3	-8.90	-2,004.1	-62.4	538.1	443.8	94.29	5.707	
12,600.0	10,340.9	17,551.5	9,827.3	23.0	130.9	-8.86	-2,085.6	-62.1	538.6	444.5	94.10	5.723	
12,700.0	10,341.5	17,454.1	9,826.5	23.9	129.3	-8.79	-2,183.0	-61.7	539.9	446.0	93.85	5.753	
12,800.0	10,342.1	17,355.5	9,825.4	24.7	127.7	-8.73	-2,281.6	-61.3	541.6	447.9	93.61	5.785	
12,900.0	10,342.7	17,256.7	9,824.1	25.5	126.1	-8.68	-2,380.4	-60.6	543.4	450.0	93.39	5.818	
13,000.0	10,343.3	17,147.4	9,823.5	26.3	124.3	-8.75	-2,489.7	-58.9	544.6	451.5	93.15	5.847	
13,100.0	10,343.9	17,034.3	9,826.0	27.1	122.4	-9.07	-2,602.6	-55.2	543.4	450.4	92.97	5.844	
13,200.0	10,344.5	16,922.0	9,830.2	27.9	120.6	-9.45	-2,714.8	-51.2	540.8	448.0	92.79	5.828	
13,300.0	10,345.1	16,819.3	9,837.0	28.7	118.9	-9.81	-2,817.3	-48.0	535.2	442.5	92.73	5.772	
13,400.0	10,345.7	16,730.9	9,841.2	29.6	117.4	-10.03	-2,905.6	-45.8	531.4	438.6	92.84	5.724	
13,500.0	10,346.3	16,632.2	9,844.1	30.4	115.8	-10.12	-3,004.2	-44.5	529.2	436.5	92.74	5.707	
13,600.0	10,346.9	16,535.5	9,847.2	31.2	114.2	-10.17	-3,100.8	-43.8	526.7	434.0	92.65	5.685	
13,683.1	10,347.4	16,462.3	9,848.4	31.9	113.0	-10.18	-3,174.0	-43.2	525.8	433.2	92.64	5.676	
13,700.0	10,347.5	16,447.7	9,848.4	32.1	112.7	-10.19	-3,188.6	-43.0	525.9	433.2	92.64	5.677	
13,800.0	10,348.1	16,358.1	9,847.6	32.9	111.3	-10.25	-3,278.2	-41.5	527.5	434.9	92.60	5.696	
13,900.0	10,348.7	16,261.3	9,845.4	33.7	109.7	-10.24	-3,374.9	-40.3	530.4	437.9	92.49	5.734	
14,000.0	10,349.3	16,156.3	9,843.2	34.6	108.0	-10.19	-3,479.9	-39.4	533.1	440.8	92.30	5.776	
14,100.0	10,349.9	16,031.4	9,843.7	35.4	105.9	-10.17	-3,604.8	-38.5	533.3	441.4	91.91	5.803	
14,200.0	10,350.5	15,937.7	9,846.2	36.2	104.4	-10.11	-3,698.4	-38.7	531.2	439.3	91.86	5.783	
14,300.0	10,351.1	15,842.5	9,847.6	37.1	102.8	-10.06	-3,793.6	-38.5	530.2	438.4	91.79	5.777	
14,360.0	10,351.5	15,785.2	9,848.1	37.6	101.9	-10.07	-3,851.0	-38.0	530.1	438.3	91.77	5.776	
14,400.0	10,351.7	15,747.0	9,848.3	37.9	101.2	-10.10	-3,889.1	-37.5	530.2	438.4	91.76	5.778	
14,500.0	10,352.3	15,649.4	9,848.5	38.8	99.6	-10.18	-3,986.8	-35.8	530.7	439.0	91.73	5.786	
14,600.0	10,352.9	15,553.0	9,848.4	39.6	98.0	-10.27	-4,083.1	-34.1	531.6	439.9	91.71	5.796	
14,700.0	10,353.5	15,459.0	9,847.6	40.4	96.5	-10.32	-4,177.1	-32.6	533.2	441.5	91.70	5.815	
14,800.0	10,354.1	15,365.0	9,845.4	41.3	95.0	-10.40	-4,271.1	-30.6	536.3	444.6	91.68	5.849	
14,900.0	10,354.7	15,282.3	9,842.3	42.1	93.6	-10.54	-4,353.6	-27.8	541.1	449.5	91.65	5.904	
15,000.0	10,355.3	15,149.3	9,839.2	43.0	91.4	-10.78	-4,486.5	-23.8	544.3	452.7	91.52	5.947	
15,100.0	10,355.9	15,048.9	9,839.3	43.8	89.8	-10.90	-4,586.9	-21.7	545.0	453.5	91.51	5.955	
15,200.0	10,356.5	14,944.4	9,839.5	44.7	88.0	-11.06	-4,691.4	-19.2	545.7	454.2	91.47	5.965	
15,300.0	10,357.1	14,840.6	9,841.4	45.5	86.3	-11.23	-4,795.1	-17.0	544.7	453.3	91.45	5.957	
15,359.4	10,357.5	14,785.1	9,842.2	46.0	85.4	-11.34	-4,850.6	-15.5	544.5	453.0	91.50	5.950	
15,360.5	10,357.5	14,784.1	9,842.2	46.0	85.4	-11.35	-4,851.6	-15.5	544.5	453.0	91.50	5.950	
15,366.3	10,357.5	14,778.6	9,842.3	46.1	85.3	-11.36	-4,857.1	-15.3	544.5	452.9	91.51	5.950	
15,400.0	10,357.7	14,747.0	9,842.5	46.4	84.8	-11.42	-4,888.7	-14.5	544.5	453.0	91.53	5.949	
15,500.0	10,358.3	14,640.8	9,843.1	47.2	83.1	-11.59	-4,994.9	-11.9	544.9	453.4	91.49	5.956	
15,600.0	10,358.9	14,540.2	9,845.2	48.1	81.4	-11.71	-5,095.5	-10.1	543.6	452.2	91.49	5.942	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL												Offset Site Error: 0.0 usft		
Survey Program: 100- VES GyroFlex, 9207-MWD												Offset Well Error: 3.0 usft		
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,700.0	10,359.5	14,437.3	9,847.0	48.9	79.7	-11.85	-5,198.3	-8.2	542.7	451.3	91.48	5.933		
15,800.0	10,360.2	14,338.3	9,849.2	49.8	78.1	-11.98	-5,297.2	-6.4	541.3	449.8	91.51	5.915		
15,900.0	10,360.8	14,242.6	9,850.8	50.6	76.5	-12.10	-5,392.9	-4.7	540.5	448.9	91.57	5.903		
15,932.6	10,360.9	14,212.2	9,851.1	50.9	76.0	-12.15	-5,423.3	-4.0	540.4	448.8	91.60	5.900		
16,000.0	10,361.4	14,150.6	9,851.3	51.5	75.0	-12.20	-5,484.9	-2.9	540.8	449.1	91.64	5.901		
16,100.0	10,362.0	14,060.6	9,850.2	52.3	73.5	-12.22	-5,574.9	-1.6	542.7	451.1	91.68	5.920		
16,200.0	10,362.6	13,970.2	9,847.4	53.2	72.1	-12.26	-5,665.2	0.2	546.6	454.8	91.71	5.960		
16,300.0	10,363.2	13,868.5	9,843.3	54.0	70.4	-12.30	-5,766.8	2.5	551.3	459.7	91.69	6.013		
16,400.0	10,363.8	13,747.2	9,841.2	54.9	68.4	-12.35	-5,888.1	4.7	553.9	462.4	91.55	6.050		
16,500.0	10,364.4	13,645.1	9,841.5	55.7	66.7	-12.33	-5,990.1	5.4	554.2	462.7	91.53	6.055		
16,600.0	10,365.0	13,544.1	9,841.9	56.6	65.1	-12.25	-6,091.2	5.5	554.2	462.7	91.51	6.056		
16,678.7	10,365.4	13,465.9	9,842.3	57.2	63.8	-12.20	-6,169.4	5.7	554.1	462.6	91.51	6.056		
16,700.0	10,365.6	13,445.7	9,842.4	57.4	63.5	-12.19	-6,189.6	5.8	554.2	462.6	91.52	6.055		
16,800.0	10,366.2	13,349.0	9,842.2	58.3	61.9	-12.12	-6,286.3	6.1	554.8	463.3	91.54	6.061		
16,900.0	10,366.8	13,254.0	9,841.8	59.1	60.4	-12.11	-6,381.3	7.0	555.9	464.3	91.60	6.069		
17,000.0	10,367.4	13,164.3	9,840.5	60.0	58.9	-12.12	-6,471.0	8.3	558.0	466.4	91.65	6.089		
17,100.0	10,368.0	13,045.5	9,839.3	60.8	57.0	-12.12	-6,589.7	9.6	559.6	468.1	91.55	6.113		
17,200.0	10,368.6	12,940.7	9,840.1	61.7	55.3	-12.14	-6,694.5	10.7	559.5	467.9	91.56	6.110		
17,300.0	10,369.2	12,835.3	9,842.1	62.5	53.6	-12.10	-6,799.9	10.9	558.1	466.6	91.56	6.096		
17,400.0	10,369.8	12,733.3	9,844.5	63.4	51.9	-12.14	-6,901.8	11.7	556.4	464.8	91.61	6.073		
17,500.0	10,370.4	12,637.7	9,847.3	64.3	50.4	-12.29	-6,997.4	13.6	554.4	462.7	91.76	6.042		
17,600.0	10,371.0	12,543.8	9,848.4	65.1	48.8	-12.38	-7,091.2	15.2	554.0	462.1	91.93	6.027		
17,700.0	10,371.6	12,441.9	9,849.3	66.0	47.2	-12.46	-7,193.2	16.7	553.8	461.8	92.02	6.018		
17,800.0	10,372.2	12,333.0	9,851.1	66.8	45.4	-12.45	-7,302.1	17.3	552.7	460.7	92.02	6.006		
17,900.0	10,372.8	12,220.2	9,855.0	67.7	43.6	-12.27	-7,414.8	15.8	549.5	457.6	91.90	5.980		
18,000.0	10,373.4	12,106.7	9,862.0	68.5	41.8	-12.19	-7,528.0	14.6	543.7	451.9	91.75	5.925		
18,100.0	10,374.0	12,013.7	9,868.7	69.4	40.2	-12.43	-7,620.8	16.4	537.4	445.3	92.05	5.838		
18,200.0	10,374.6	11,928.0	9,873.8	70.2	38.9	-12.73	-7,706.3	18.9	532.7	440.3	92.45	5.762		
18,300.0	10,375.2	11,833.0	9,877.3	71.1	37.4	-12.90	-7,801.2	20.7	530.0	437.3	92.69	5.717		
18,400.0	10,375.8	11,739.2	9,879.1	72.0	35.9	-12.91	-7,894.9	21.3	528.6	435.7	92.93	5.688		
18,500.0	10,376.4	11,624.9	9,882.3	72.8	34.0	-12.88	-8,009.2	21.4	526.3	433.4	92.93	5.663		
18,600.0	10,377.0	11,522.2	9,887.1	73.7	32.4	-12.95	-8,111.8	21.9	522.2	429.1	93.11	5.609		
18,700.0	10,377.6	11,426.7	9,891.7	74.5	30.9	-13.25	-8,207.1	24.6	518.6	425.2	93.45	5.550		
18,800.0	10,378.2	11,327.9	9,895.7	75.4	29.3	-13.49	-8,305.9	26.9	515.6	421.8	93.74	5.500		
18,900.0	10,378.8	11,228.7	9,899.5	76.2	27.8	-13.61	-8,405.0	28.1	512.5	418.4	94.04	5.450		
19,000.0	10,379.4	11,133.8	9,902.2	77.1	26.3	-13.60	-8,499.8	28.2	510.1	415.7	94.39	5.404		
19,100.0	10,380.0	11,037.6	9,903.9	78.0	24.8	-13.46	-8,596.0	27.5	508.7	413.9	94.72	5.370		
19,200.0	10,380.6	10,930.9	9,905.4	78.8	23.2	-13.26	-8,702.7	26.4	507.5	412.6	94.91	5.347		
19,300.0	10,381.2	10,825.8	9,909.8	79.7	21.6	-13.29	-8,807.7	26.7	503.8	408.7	95.18	5.294		
19,400.0	10,381.8	10,732.5	9,913.3	80.5	20.3	-13.48	-8,900.9	28.5	501.0	405.4	95.64	5.238		
19,500.0	10,382.4	10,641.4	9,915.2	81.4	19.0	-13.55	-8,992.0	29.5	499.7	403.6	96.13	5.198		
19,517.3	10,382.5	10,625.9	9,915.3	81.5	18.7	-13.54	-9,007.5	29.6	499.7	403.4	96.22	5.193		
19,600.0	10,383.0	10,543.1	9,915.4	82.2	17.6	-13.48	-9,090.3	29.9	499.9	403.4	96.56	5.177		
19,700.0	10,383.6	10,426.9	9,917.2	83.1	16.0	-13.30	-9,206.5	29.0	498.6	401.9	96.78	5.152		
19,800.0	10,384.2	10,332.7	9,920.0	84.0	14.8	-12.96	-9,300.6	26.3	495.5	398.2	97.28	5.094		
19,844.5	10,384.5	10,298.5	9,920.4	84.3	14.4	-12.80	-9,334.8	25.0	494.9	397.3	97.59	5.072		
19,900.0	10,384.8	10,265.9	9,919.6	84.8	14.1	-12.62	-9,367.3	23.9	496.1	398.2	97.96	5.065		
20,000.0	10,385.4	10,208.1	9,914.1	85.7	13.5	-12.19	-9,424.8	21.9	505.0	406.8	98.15	5.145		
20,100.0	10,386.0	10,157.0	9,904.8	86.5	13.0	-11.67	-9,475.0	19.6	522.5	424.9	97.63	5.351		
20,200.0	10,386.6	10,093.0	9,888.3	87.4	12.5	-10.97	-9,536.7	17.1	547.6	450.5	97.07	5.641		
20,300.0	10,387.2	10,049.2	9,873.9	88.2	12.3	-10.52	-9,578.1	16.0	580.0	484.6	95.38	6.081		

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9207-MWD												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
20,400.0	10,387.8	10,006.4	9,856.4	89.1	12.0	-10.10	-9,617.2	15.4	620.5	527.2	93.34	6.648	
20,500.0	10,388.4	9,967.0	9,837.8	90.0	11.9	-9.67	-9,651.9	14.7	667.7	576.7	91.01	7.337	
20,594.0	10,389.0	9,922.8	9,814.5	90.8	11.7	-9.14	-9,689.4	13.5	717.2	627.9	89.26	8.035	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 402H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.5	0.5	3.0	3.0	-90.57	-90.57	-0.3	-30.0	30.0				
100.0	100.0	100.5	100.5	3.0	3.0	-90.57	-90.57	-0.3	-30.0	30.0	24.0	6.00	4.998	
200.0	200.0	200.5	200.5	3.0	3.0	-90.57	-90.57	-0.3	-30.0	30.0	24.0	6.04	4.967	
300.0	300.0	300.5	300.5	3.0	3.1	-90.57	-90.57	-0.3	-30.0	30.0	23.9	6.12	4.901	
400.0	400.0	400.5	400.5	3.0	3.2	-90.57	-90.57	-0.3	-30.0	30.0	23.8	6.24	4.807	
500.0	500.0	500.5	500.5	3.1	3.4	-90.57	-90.57	-0.3	-30.0	30.0	23.6	6.40	4.690	
600.0	600.0	600.5	600.5	3.1	3.6	-90.57	-90.57	-0.3	-30.0	30.0	23.4	6.58	4.556	
700.0	700.0	700.5	700.5	3.1	3.8	-90.57	-90.57	-0.3	-30.0	30.0	23.2	6.80	4.412	
800.0	800.0	800.5	800.5	3.2	4.0	-90.57	-90.57	-0.3	-30.0	30.0	23.0	7.04	4.263	
900.0	900.0	900.5	900.5	3.2	4.2	-90.57	-90.57	-0.3	-30.0	30.0	22.7	7.30	4.112	
1,000.0	1,000.0	1,000.5	1,000.5	3.2	4.5	-90.57	-90.57	-0.3	-30.0	30.0	22.4	7.57	3.963	
1,100.0	1,100.0	1,100.5	1,100.5	3.3	4.8	-90.57	-90.57	-0.3	-30.0	30.0	22.1	7.86	3.818	
1,200.0	1,200.0	1,200.5	1,200.5	3.4	5.1	-90.57	-90.57	-0.3	-30.0	30.0	21.8	8.16	3.677	
1,300.0	1,300.0	1,300.5	1,300.5	3.4	5.3	-90.57	-90.57	-0.3	-30.0	30.0	21.5	8.47	3.542	
1,400.0	1,400.0	1,400.5	1,400.5	3.5	5.6	-90.57	-90.57	-0.3	-30.0	30.0	21.2	8.79	3.413	
1,500.0	1,500.0	1,500.5	1,500.5	3.5	6.0	-90.57	-90.57	-0.3	-30.0	30.0	20.9	9.12	3.290	
1,600.0	1,600.0	1,600.5	1,600.5	3.6	6.3	-90.57	-90.57	-0.3	-30.0	30.0	20.5	9.45	3.173	
1,700.0	1,700.0	1,700.5	1,700.5	3.7	6.6	-90.57	-90.57	-0.3	-30.0	30.0	20.2	9.80	3.063	
1,800.0	1,800.0	1,800.5	1,800.5	3.8	6.9	-90.57	-90.57	-0.3	-30.0	30.0	19.9	10.14	2.958	
1,900.0	1,900.0	1,900.5	1,900.5	3.9	7.2	-90.57	-90.57	-0.3	-30.0	30.0	19.5	10.49	2.859	
2,000.0	2,000.0	2,000.5	2,000.5	3.9	7.6	-90.57	-90.57	-0.3	-30.0	30.0	19.2	10.85	2.765	
2,100.0	2,100.0	2,100.5	2,100.5	4.0	7.9	-90.57	-90.57	-0.3	-30.0	30.0	18.8	11.21	2.677	
2,200.0	2,200.0	2,200.5	2,200.5	4.1	8.2	-90.57	-90.57	-0.3	-30.0	30.0	18.4	11.57	2.593	
2,300.0	2,300.0	2,300.5	2,300.5	4.2	8.6	-90.57	-90.57	-0.3	-30.0	30.0	18.1	11.94	2.513	
2,400.0	2,400.0	2,400.5	2,400.5	4.3	8.9	-90.57	-90.57	-0.3	-30.0	30.0	17.7	12.31	2.438	
2,416.5	2,416.5	2,417.0	2,417.0	4.3	8.9	-90.57	-90.57	-0.3	-30.0	30.0	17.6	12.37	2.426 CC	
2,500.0	2,500.0	2,500.5	2,500.5	4.4	9.2	-90.57	-90.57	-0.3	-30.0	30.0	17.3	12.68	2.366 ES, SF	
2,600.0	2,600.0	2,599.5	2,599.5	4.5	9.6	-68.37	-68.37	0.3	-31.6	31.0	17.9	13.04	2.374	
2,700.0	2,699.8	2,698.4	2,698.2	4.6	9.9	-73.19	-73.19	2.0	-36.5	34.0	20.6	13.40	2.535	
2,750.0	2,749.7	2,747.9	2,747.6	4.6	10.1	-76.31	-76.31	3.3	-40.1	36.3	22.7	13.60	2.673	
2,800.0	2,799.5	2,797.8	2,797.4	4.7	10.2	-79.55	-79.55	4.6	-43.9	38.9	25.1	13.81	2.817	
2,900.0	2,899.1	2,897.6	2,896.8	4.8	10.6	-84.89	-84.89	7.3	-51.5	44.3	30.1	14.23	3.114	
3,000.0	2,998.7	2,997.4	2,996.2	4.9	10.9	-89.03	-89.03	10.1	-59.2	50.0	35.4	14.67	3.412	
3,100.0	3,098.4	3,097.2	3,095.7	5.0	11.2	-92.31	-92.31	12.8	-66.8	56.0	40.9	15.10	3.707	
3,200.0	3,198.0	3,196.9	3,195.1	5.1	11.6	-94.96	-94.96	15.5	-74.4	62.0	46.5	15.53	3.995	
3,300.0	3,297.6	3,296.7	3,294.6	5.2	11.9	-97.13	-97.13	18.2	-82.1	68.2	52.3	15.96	4.275	
3,400.0	3,397.2	3,396.5	3,394.0	5.3	12.3	-98.94	-98.94	20.9	-89.7	74.5	58.1	16.39	4.546	
3,500.0	3,496.8	3,496.3	3,493.5	5.4	12.6	-100.47	-100.47	23.6	-97.4	80.8	64.0	16.81	4.806	
3,600.0	3,596.4	3,596.0	3,592.9	5.5	12.9	-101.77	-101.77	26.4	-105.0	87.2	69.9	17.24	5.057	
3,700.0	3,696.1	3,695.8	3,692.4	5.6	13.3	-102.90	-102.90	29.1	-112.6	93.6	75.9	17.67	5.298	
3,800.0	3,795.7	3,795.6	3,791.8	5.7	13.6	-103.88	-103.88	31.8	-120.3	100.1	82.0	18.10	5.528	
3,900.0	3,895.3	3,895.4	3,891.3	5.8	14.0	-104.74	-104.74	34.5	-127.9	106.5	88.0	18.53	5.750	
4,000.0	3,994.9	3,995.2	3,990.7	5.9	14.3	-105.50	-105.50	37.2	-135.6	113.0	94.1	18.96	5.962	
4,100.0	4,094.5	4,094.9	4,090.2	6.0	14.7	-106.18	-106.18	39.9	-143.2	119.5	100.1	19.38	6.166	
4,200.0	4,194.2	4,194.7	4,189.6	6.1	15.0	-106.79	-106.79	42.6	-150.8	126.1	106.2	19.82	6.362	
4,300.0	4,293.8	4,294.5	4,289.1	6.2	15.4	-107.34	-107.34	45.4	-158.5	132.6	112.4	20.25	6.549	
4,400.0	4,393.4	4,394.3	4,388.5	6.3	15.7	-107.84	-107.84	48.1	-166.1	139.1	118.5	20.68	6.729	
4,500.0	4,493.0	4,494.1	4,488.0	6.4	16.1	-108.30	-108.30	50.8	-173.8	145.7	124.6	21.11	6.902	
4,600.0	4,592.6	4,593.8	4,587.4	6.5	16.4	-108.71	-108.71	53.5	-181.4	152.3	130.7	21.54	7.068	
4,700.0	4,692.3	4,693.6	4,686.9	6.6	16.8	-109.09	-109.09	56.2	-189.0	158.8	136.9	21.98	7.227	
4,800.0	4,791.9	4,793.4	4,786.3	6.8	17.1	-109.44	-109.44	58.9	-196.7	165.4	143.0	22.41	7.380	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 402H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,891.5	4,893.2	4,885.8	6.9	17.5	-109.76		61.6	-204.3	172.0	149.2	22.85	7.528	
5,000.0	4,991.1	4,992.9	4,985.2	7.0	17.8	-110.06		64.4	-212.0	178.6	155.3	23.29	7.669	
5,100.0	5,090.7	5,092.7	5,084.7	7.1	18.2	-110.34		67.1	-219.6	185.2	161.5	23.73	7.806	
5,200.0	5,190.4	5,192.5	5,184.1	7.2	18.5	-110.60		69.8	-227.2	191.8	167.6	24.17	7.937	
5,300.0	5,290.0	5,292.3	5,283.6	7.3	18.9	-110.84		72.5	-234.9	198.4	173.8	24.61	8.063	
5,400.0	5,389.6	5,392.1	5,383.0	7.4	19.3	-111.07		75.2	-242.5	205.0	180.0	25.05	8.185	
5,500.0	5,489.2	5,491.8	5,482.5	7.6	19.6	-111.28		77.9	-250.2	211.6	186.1	25.49	8.303	
5,600.0	5,588.8	5,591.6	5,581.9	7.7	20.0	-111.48		80.6	-257.8	218.2	192.3	25.93	8.416	
5,700.0	5,688.5	5,691.4	5,681.4	7.8	20.3	-111.67		83.4	-265.4	224.9	198.5	26.38	8.525	
5,800.0	5,788.1	5,791.2	5,780.8	7.9	20.7	-111.84		86.1	-273.1	231.5	204.7	26.82	8.630	
5,900.0	5,887.7	5,891.0	5,880.3	8.0	21.0	-112.01		88.8	-280.7	238.1	210.8	27.27	8.732	
6,000.0	5,987.3	5,990.7	5,979.7	8.2	21.4	-112.17		91.5	-288.4	244.7	217.0	27.71	8.830	
6,100.0	6,086.9	6,090.5	6,079.1	8.3	21.7	-112.32		94.2	-296.0	251.3	223.2	28.16	8.925	
6,200.0	6,186.6	6,190.3	6,178.6	8.4	22.1	-112.46		96.9	-303.6	258.0	229.4	28.61	9.017	
6,300.0	6,286.2	6,290.1	6,278.0	8.5	22.5	-112.59		99.6	-311.3	264.6	235.5	29.06	9.106	
6,400.0	6,385.8	6,389.8	6,377.5	8.6	22.8	-112.72		102.4	-318.9	271.2	241.7	29.51	9.192	
6,500.0	6,485.4	6,489.6	6,476.9	8.7	23.2	-112.84		105.1	-326.6	277.9	247.9	29.96	9.275	
6,600.0	6,585.0	6,589.4	6,576.4	8.9	23.5	-112.96		107.8	-334.2	284.5	254.1	30.41	9.355	
6,700.0	6,684.7	6,689.2	6,675.8	9.0	23.9	-113.07		110.5	-341.8	291.1	260.3	30.86	9.433	
6,800.0	6,784.3	6,789.0	6,775.3	9.1	24.2	-113.18		113.2	-349.5	297.8	266.4	31.32	9.508	
6,900.0	6,883.9	6,888.7	6,874.7	9.2	24.6	-113.28		115.9	-357.1	304.4	272.6	31.77	9.581	
7,000.0	6,983.5	6,988.5	6,974.2	9.4	25.0	-113.37		118.6	-364.8	311.0	278.8	32.22	9.652	
7,022.6	7,006.0	7,011.0	6,996.6	9.4	25.0	-113.40		119.3	-366.5	312.5	280.2	32.33	9.667	
7,100.0	7,083.2	7,088.3	7,073.6	9.5	25.3	-113.43		121.4	-372.4	317.5	284.8	32.67	9.716	
7,200.0	7,183.0	7,188.1	7,173.1	9.6	25.7	-113.21		124.1	-380.0	323.2	290.1	33.10	9.763	
7,300.0	7,282.8	7,287.9	7,272.6	9.7	26.0	-112.71		126.8	-387.7	328.3	294.8	33.51	9.797	
7,400.0	7,382.8	7,387.7	7,372.1	9.8	26.4	-111.95		129.5	-395.3	332.8	298.9	33.89	9.818	
7,500.0	7,482.8	7,487.5	7,471.5	10.0	26.7	-110.93		132.2	-403.0	336.7	302.4	34.26	9.828	
7,522.6	7,505.4	7,510.0	7,493.9	10.0	26.8	-134.68		132.8	-404.7	337.5	303.1	34.34	9.828	
7,600.0	7,582.8	7,587.1	7,570.8	10.1	27.1	-133.73		134.9	-410.6	340.3	305.6	34.63	9.826	
7,700.0	7,682.8	7,686.8	7,670.2	10.2	27.5	-132.53		137.6	-418.2	344.0	309.0	35.00	9.828	
7,800.0	7,782.8	7,786.5	7,769.5	10.3	27.8	-131.35		140.4	-425.9	347.9	312.5	35.38	9.834	
7,900.0	7,882.8	7,886.1	7,868.9	10.5	28.2	-130.19		143.1	-433.5	351.9	316.2	35.75	9.844	
8,000.0	7,982.8	7,985.8	7,968.2	10.6	28.5	-129.07		145.8	-441.1	356.1	320.0	36.12	9.857	
8,100.0	8,082.8	8,085.5	8,067.5	10.7	28.9	-127.97		148.5	-448.8	360.4	323.9	36.50	9.874	
8,200.0	8,182.8	8,185.2	8,166.9	10.8	29.3	-126.89		151.2	-456.4	364.8	328.0	36.88	9.893	
8,300.0	8,282.8	8,284.8	8,266.2	10.9	29.6	-125.84		153.9	-464.0	369.4	332.1	37.25	9.916	
8,400.0	8,382.8	8,384.5	8,365.5	11.1	30.0	-124.82		156.6	-471.6	374.1	336.4	37.63	9.940	
8,500.0	8,482.8	8,484.2	8,464.9	11.2	30.3	-123.83		159.3	-479.3	378.9	340.9	38.01	9.967	
8,600.0	8,582.8	8,583.8	8,564.2	11.3	30.7	-122.85		162.1	-486.9	383.8	345.4	38.39	9.997	
8,700.0	8,682.8	8,683.5	8,663.6	11.4	31.0	-121.91		164.8	-494.5	388.8	350.0	38.77	10.028	
8,800.0	8,782.8	8,783.2	8,762.9	11.6	31.4	-120.98		167.5	-502.2	393.9	354.8	39.16	10.060	
8,900.0	8,882.8	8,882.8	8,862.2	11.7	31.8	-120.08		170.2	-509.8	399.2	359.6	39.54	10.094	
9,000.0	8,982.8	8,982.5	8,961.6	11.8	32.1	-119.21		172.9	-517.4	404.5	364.5	39.93	10.130	
9,100.0	9,082.8	9,082.2	9,060.9	11.9	32.5	-118.36		175.6	-525.1	409.9	369.6	40.32	10.167	
9,200.0	9,182.8	9,181.8	9,160.3	12.1	32.8	-117.53		178.3	-532.7	415.4	374.7	40.71	10.205	
9,300.0	9,282.8	9,281.5	9,259.6	12.2	33.2	-116.72		181.0	-540.3	421.0	379.9	41.10	10.244	
9,400.0	9,382.8	9,381.2	9,358.9	12.3	33.6	-115.93		183.7	-548.0	426.6	385.1	41.49	10.283	
9,500.0	9,482.8	9,480.9	9,458.3	12.4	33.9	-115.16		186.5	-555.6	432.4	390.5	41.88	10.324	
9,600.0	9,582.8	9,580.5	9,557.6	12.6	34.3	-114.42		189.2	-563.2	438.2	395.9	42.28	10.365	
9,700.0	9,682.8	9,680.2	9,657.0	12.7	34.6	-113.69		191.9	-570.9	444.1	401.4	42.67	10.407	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 402H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.0	9,782.8	9,779.9	9,756.3	12.8	35.0	-112.98		194.6	-578.5	450.1	407.0	43.07	10.449	
9,868.7	9,851.5	9,848.3	9,824.6	12.9	35.3	-112.51		196.5	-583.7	454.2	410.8	43.34	10.479	
9,875.0	9,857.8	9,854.6	9,830.8	12.9	35.3	67.96		196.6	-584.2	454.6	411.2	43.36	10.482	
9,900.0	9,882.8	9,879.5	9,855.6	12.9	35.4	68.12		197.3	-586.1	455.7	412.3	43.44	10.489	
9,925.0	9,907.7	9,904.2	9,880.3	12.9	35.5	68.48		198.0	-588.0	456.4	412.9	43.52	10.487	
9,950.0	9,932.4	9,928.8	9,904.7	12.9	35.5	69.03		198.6	-589.9	456.6	413.0	43.59	10.476	
9,975.0	9,956.9	9,953.1	9,929.0	12.9	35.6	69.76		199.3	-591.8	456.4	412.8	43.65	10.456	
10,000.0	9,981.1	9,977.1	9,952.8	12.9	35.7	70.67		200.0	-593.6	455.9	412.2	43.72	10.428	
10,025.0	10,005.0	10,000.6	9,976.4	12.9	35.8	71.74		200.6	-595.4	455.1	411.3	43.78	10.394	
10,050.0	10,028.5	10,023.8	9,999.4	13.0	35.9	72.96		201.2	-597.2	454.0	410.2	43.85	10.354	
10,075.0	10,051.4	10,046.4	10,022.0	13.0	36.0	74.32		201.8	-598.9	452.8	408.9	43.92	10.310	
10,100.0	10,073.8	10,068.4	10,043.9	13.0	36.0	75.78		202.4	-600.6	451.5	407.5	43.99	10.263	
10,125.0	10,095.7	10,089.8	10,065.2	13.0	36.1	77.34		203.0	-602.2	450.2	406.1	44.07	10.214	
10,150.0	10,116.8	10,110.5	10,085.9	13.0	36.2	78.95		203.6	-603.8	449.0	404.8	44.17	10.166	
10,175.0	10,137.2	10,130.5	10,105.8	13.0	36.3	80.60		204.1	-605.3	448.0	403.7	44.27	10.119	
10,200.0	10,156.8	10,149.6	10,124.8	13.1	36.3	82.25		204.7	-606.8	447.4	403.0	44.40	10.075	
10,222.5	10,173.8	10,166.1	10,141.3	13.1	36.4	83.72		205.1	-608.1	447.2	402.6	44.54	10.041	
10,225.0	10,175.6	10,167.9	10,143.0	13.1	36.4	83.88		205.2	-608.2	447.2	402.6	44.55	10.037	
10,250.0	10,193.5	10,185.2	10,160.3	13.1	36.5	85.43		205.6	-609.5	447.5	402.8	44.72	10.007	
10,275.0	10,210.5	10,201.6	10,176.7	13.1	36.5	86.90		206.1	-610.8	448.5	403.6	44.92	9.985	
10,300.0	10,226.5	10,217.0	10,192.0	13.2	36.6	88.23		206.5	-612.0	450.3	405.1	45.14	9.975	
10,325.0	10,241.4	10,231.4	10,206.3	13.2	36.6	89.41		206.9	-613.1	452.9	407.5	45.38	9.979	
10,350.0	10,255.3	10,244.6	10,219.5	13.2	36.7	90.41		207.2	-614.1	456.4	410.7	45.65	9.998	
10,375.0	10,268.1	10,256.8	10,231.6	13.2	36.7	91.20		207.6	-615.0	460.9	415.0	45.93	10.034	
10,400.0	10,279.7	10,267.8	10,242.6	13.3	36.8	91.76		207.9	-615.8	466.4	420.2	46.23	10.090	
10,425.0	10,290.2	10,277.6	10,252.4	13.3	36.8	92.07		208.1	-616.6	473.1	426.5	46.54	10.166	
10,450.0	10,299.5	10,286.1	10,260.9	13.3	36.8	92.11		208.4	-617.3	480.8	433.9	46.84	10.263	
10,475.0	10,307.5	10,293.5	10,268.2	13.3	36.9	91.87		208.6	-617.8	489.5	442.4	47.15	10.382	
10,500.0	10,314.3	10,299.6	10,274.3	13.3	36.9	91.33		208.7	-618.3	499.3	451.9	47.45	10.523	
10,525.0	10,319.8	10,304.4	10,279.1	13.4	36.9	90.48		208.9	-618.6	510.1	462.4	47.74	10.686	
10,550.0	10,324.0	10,307.9	10,282.6	13.4	36.9	89.32		209.0	-618.9	521.9	473.9	48.01	10.871	
10,575.0	10,327.0	10,310.2	10,284.9	13.4	36.9	87.84		209.0	-619.1	534.5	486.3	48.27	11.075	
10,600.0	10,328.6	10,311.1	10,285.8	13.4	36.9	86.05		209.0	-619.2	548.0	499.5	48.50	11.298	
10,615.8	10,329.0	10,311.0	10,285.7	13.4	36.9	84.75		209.0	-619.2	556.9	508.3	48.64	11.449	
10,700.0	10,329.5	10,309.2	10,283.9	13.4	36.9	84.52		209.0	-619.0	608.8	559.5	49.28	12.355	
10,800.0	10,330.1	10,307.0	10,281.7	13.5	36.9	84.25		208.9	-618.8	679.0	629.1	49.84	13.623	
10,900.0	10,330.7	11,220.4	10,799.8	13.5	38.8	133.45		-389.8	-653.4	681.4	634.7	46.71	14.587	
11,000.0	10,331.3	11,320.4	10,800.4	13.6	38.9	133.45		-489.8	-652.6	681.4	634.3	47.10	14.468	
11,100.0	10,331.9	11,420.4	10,801.0	13.7	39.0	133.45		-589.8	-651.8	681.4	633.9	47.54	14.333	
11,200.0	10,332.5	11,520.4	10,801.6	13.8	39.1	133.45		-689.8	-651.0	681.4	633.4	48.04	14.185	
11,300.0	10,333.1	11,620.4	10,802.2	14.0	39.3	133.45		-789.8	-650.2	681.5	632.9	48.59	14.025	
11,400.0	10,333.7	11,720.4	10,802.8	14.4	39.5	133.45		-889.8	-649.4	681.5	632.3	49.19	13.855	
11,500.0	10,334.3	11,820.4	10,803.4	14.9	39.7	133.45		-989.8	-648.6	681.5	631.6	49.83	13.676	
11,600.0	10,334.9	11,920.4	10,804.1	15.5	39.9	133.45		-1,089.8	-647.8	681.5	631.0	50.52	13.490	
11,700.0	10,335.5	12,020.4	10,804.7	16.2	40.1	133.45		-1,189.8	-647.0	681.5	630.2	51.25	13.297	
11,800.0	10,336.1	12,120.4	10,805.3	16.9	40.3	133.45		-1,289.8	-646.2	681.5	629.5	52.02	13.100	
11,900.0	10,336.7	12,220.4	10,805.9	17.6	40.6	133.45		-1,389.8	-645.4	681.5	628.7	52.83	12.899	
12,000.0	10,337.3	12,320.4	10,806.5	18.4	40.8	133.45		-1,489.8	-644.6	681.5	627.8	53.68	12.696	
12,100.0	10,337.9	12,420.4	10,807.1	19.1	41.1	133.45		-1,589.8	-643.8	681.5	627.0	54.56	12.491	
12,200.0	10,338.5	12,520.4	10,807.7	19.9	41.4	133.45		-1,689.8	-643.0	681.6	626.1	55.48	12.285	
12,300.0	10,339.1	12,620.4	10,808.3	20.7	41.8	133.45		-1,789.8	-642.2	681.6	625.1	56.42	12.079	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 402H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.0	10,339.7	12,720.4	10,808.9	21.5	42.1	133.45		-1,889.8	-641.4	681.6	624.2	57.40	11.874	
12,500.0	10,340.3	12,820.4	10,809.5	22.2	42.4	133.45		-1,989.8	-640.6	681.6	623.2	58.40	11.671	
12,600.0	10,340.9	12,920.4	10,810.2	23.0	42.8	133.45		-2,089.8	-639.8	681.6	622.2	59.43	11.469	
12,700.0	10,341.5	13,020.4	10,810.8	23.9	43.2	133.45		-2,189.7	-639.0	681.6	621.1	60.49	11.269	
12,800.0	10,342.1	13,120.4	10,811.4	24.7	43.6	133.45		-2,289.7	-638.2	681.6	620.1	61.57	11.071	
12,900.0	10,342.7	13,220.4	10,812.0	25.5	44.0	133.45		-2,389.7	-637.4	681.6	619.0	62.67	10.877	
13,000.0	10,343.3	13,320.4	10,812.6	26.3	44.4	133.45		-2,489.7	-636.6	681.6	617.8	63.79	10.685	
13,100.0	10,343.9	13,420.4	10,813.2	27.1	44.8	133.45		-2,589.7	-635.8	681.7	616.7	64.94	10.497	
13,200.0	10,344.5	13,520.4	10,813.8	27.9	45.2	133.45		-2,689.7	-635.0	681.7	615.6	66.10	10.312	
13,300.0	10,345.1	13,620.4	10,814.4	28.7	45.7	133.45		-2,789.7	-634.2	681.7	614.4	67.29	10.131	
13,400.0	10,345.7	13,720.4	10,815.0	29.6	46.2	133.45		-2,889.7	-633.4	681.7	613.2	68.49	9.953	
13,500.0	10,346.3	13,820.4	10,815.6	30.4	46.6	133.45		-2,989.7	-632.6	681.7	612.0	69.71	9.779	
13,600.0	10,346.9	13,920.4	10,816.3	31.2	47.1	133.45		-3,089.7	-631.8	681.7	610.8	70.94	9.609	
13,700.0	10,347.5	14,020.4	10,816.9	32.1	47.6	133.45		-3,189.7	-631.0	681.7	609.5	72.19	9.443	
13,800.0	10,348.1	14,120.4	10,817.5	32.9	48.1	133.45		-3,289.7	-630.2	681.7	608.3	73.46	9.280	
13,900.0	10,348.7	14,220.4	10,818.1	33.7	48.6	133.45		-3,389.7	-629.3	681.7	607.0	74.74	9.122	
14,000.0	10,349.3	14,320.4	10,818.7	34.6	49.2	133.45		-3,489.7	-628.5	681.7	605.7	76.03	8.967	
14,100.0	10,349.9	14,420.4	10,819.3	35.4	49.7	133.45		-3,589.7	-627.7	681.8	604.4	77.34	8.815	
14,200.0	10,350.5	14,520.4	10,819.9	36.2	50.3	133.45		-3,689.7	-626.9	681.8	603.1	78.65	8.668	
14,300.0	10,351.1	14,620.4	10,820.5	37.1	50.8	133.45		-3,789.7	-626.1	681.8	601.8	79.98	8.524	
14,400.0	10,351.7	14,720.4	10,821.1	37.9	51.4	133.45		-3,889.7	-625.3	681.8	600.5	81.32	8.384	
14,500.0	10,352.3	14,820.4	10,821.7	38.8	51.9	133.45		-3,989.7	-624.5	681.8	599.1	82.68	8.247	
14,600.0	10,352.9	14,920.4	10,822.4	39.6	52.5	133.45		-4,089.7	-623.7	681.8	597.8	84.04	8.113	
14,700.0	10,353.5	15,020.4	10,823.0	40.4	53.1	133.45		-4,189.6	-622.9	681.8	596.4	85.41	7.983	
14,800.0	10,354.1	15,120.4	10,823.6	41.3	53.7	133.45		-4,289.6	-622.1	681.8	595.0	86.79	7.856	
14,900.0	10,354.7	15,220.4	10,824.2	42.1	54.3	133.45		-4,389.6	-621.3	681.8	593.7	88.18	7.733	
15,000.0	10,355.3	15,320.4	10,824.8	43.0	54.9	133.45		-4,489.6	-620.5	681.9	592.3	89.58	7.612	
15,100.0	10,355.9	15,420.4	10,825.4	43.8	55.5	133.45		-4,589.6	-619.7	681.9	590.9	90.98	7.494	
15,200.0	10,356.5	15,520.4	10,826.0	44.7	56.1	133.45		-4,689.6	-618.9	681.9	589.5	92.40	7.380	
15,300.0	10,357.1	15,620.4	10,826.6	45.5	56.8	133.45		-4,789.6	-618.1	681.9	588.1	93.82	7.268	
15,359.4	10,357.5	15,679.8	10,827.0	46.0	57.1	133.45		-4,849.0	-617.6	681.9	587.2	94.67	7.203	
15,360.5	10,357.5	15,680.8	10,827.0	46.0	57.2	133.45		-4,850.1	-617.6	681.9	587.2	94.68	7.202	
15,400.0	10,357.7	15,720.6	10,827.2	46.4	57.4	133.46		-4,889.8	-617.3	681.9	586.7	95.25	7.159	
15,500.0	10,358.3	15,820.6	10,827.8	47.2	58.0	133.46		-4,989.8	-616.4	681.9	585.2	96.68	7.053	
15,600.0	10,358.9	15,920.6	10,828.5	48.1	58.7	133.46		-5,089.8	-615.6	681.9	583.8	98.13	6.949	
15,700.0	10,359.5	16,020.6	10,829.1	48.9	59.3	133.46		-5,189.8	-614.7	681.9	582.3	99.57	6.848	
15,800.0	10,360.2	16,120.6	10,829.7	49.8	60.0	133.46		-5,289.8	-613.9	681.9	580.9	101.03	6.750	
15,900.0	10,360.8	16,220.6	10,830.3	50.6	60.7	133.46		-5,389.8	-613.0	681.9	579.4	102.49	6.654	
16,000.0	10,361.4	16,320.6	10,830.9	51.5	61.3	133.46		-5,489.8	-612.2	681.9	578.0	103.95	6.560	
16,100.0	10,362.0	16,420.6	10,831.5	52.3	62.0	133.46		-5,589.8	-611.3	681.9	576.5	105.43	6.468	
16,200.0	10,362.6	16,520.6	10,832.1	53.2	62.7	133.46		-5,689.8	-610.5	681.9	575.0	106.90	6.379	
16,300.0	10,363.2	16,620.6	10,832.7	54.0	63.4	133.46		-5,789.8	-609.6	682.0	573.6	108.38	6.292	
16,400.0	10,363.8	16,720.6	10,833.3	54.9	64.0	133.46		-5,889.8	-608.8	682.0	572.1	109.87	6.207	
16,500.0	10,364.4	16,820.6	10,834.0	55.7	64.7	133.46		-5,989.8	-608.0	682.0	570.6	111.36	6.124	
16,600.0	10,365.0	16,920.6	10,834.6	56.6	65.4	133.46		-6,089.8	-607.1	682.0	569.1	112.85	6.043	
16,700.0	10,365.6	17,020.6	10,835.2	57.4	66.1	133.46		-6,189.8	-606.3	682.0	567.6	114.35	5.964	
16,800.0	10,366.2	17,120.6	10,835.8	58.3	66.8	133.46		-6,289.8	-605.4	682.0	566.1	115.86	5.886	
16,900.0	10,366.8	17,220.6	10,836.4	59.1	67.5	133.46		-6,389.7	-604.6	682.0	564.6	117.36	5.811	
17,000.0	10,367.4	17,320.6	10,837.0	60.0	68.2	133.46		-6,489.7	-603.7	682.0	563.1	118.88	5.737	
17,100.0	10,368.0	17,420.6	10,837.6	60.8	68.9	133.47		-6,589.7	-602.9	682.0	561.6	120.39	5.665	
17,200.0	10,368.6	17,520.6	10,838.2	61.7	69.7	133.47		-6,689.7	-602.0	682.0	560.1	121.91	5.594	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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										GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 402H - OWB - PWP1			Offset Site Error:		0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:		3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
17,300.0	10,369.2	17,620.6	10,838.8	62.5	70.4	133.47	-6,789.7	-601.2	682.0	558.6	123.43	5.525			
17,400.0	10,369.8	17,720.6	10,839.5	63.4	71.1	133.47	-6,889.7	-600.3	682.0	557.1	124.96	5.458			
17,500.0	10,370.4	17,820.6	10,840.1	64.3	71.8	133.47	-6,989.7	-599.5	682.0	555.5	126.48	5.392			
17,600.0	10,371.0	17,920.6	10,840.7	65.1	72.5	133.47	-7,089.7	-598.6	682.0	554.0	128.01	5.328			
17,700.0	10,371.6	18,020.6	10,841.3	66.0	73.3	133.47	-7,189.7	-597.8	682.0	552.5	129.55	5.265			
17,800.0	10,372.2	18,120.6	10,841.9	66.8	74.0	133.47	-7,289.7	-596.9	682.0	551.0	131.09	5.203			
17,900.0	10,372.8	18,220.6	10,842.5	67.7	74.7	133.47	-7,389.7	-596.1	682.0	549.4	132.63	5.143			
18,000.0	10,373.4	18,320.6	10,843.1	68.5	75.5	133.47	-7,489.7	-595.2	682.1	547.9	134.17	5.084			
18,100.0	10,374.0	18,420.6	10,843.7	69.4	76.2	133.47	-7,589.7	-594.4	682.1	546.3	135.71	5.026			
18,200.0	10,374.6	18,520.6	10,844.3	70.2	77.0	133.47	-7,689.7	-593.5	682.1	544.8	137.26	4.969			
18,300.0	10,375.2	18,620.6	10,845.0	71.1	77.7	133.47	-7,789.7	-592.7	682.1	543.3	138.81	4.914			
18,400.0	10,375.8	18,720.6	10,845.6	72.0	78.5	133.47	-7,889.7	-591.8	682.1	541.7	140.36	4.859			
18,500.0	10,376.4	18,820.6	10,846.2	72.8	79.2	133.47	-7,989.7	-591.0	682.1	540.2	141.92	4.806			
18,600.0	10,377.0	18,920.6	10,846.8	73.7	80.0	133.47	-8,089.7	-590.1	682.1	538.6	143.47	4.754			
18,700.0	10,377.6	19,020.6	10,847.4	74.5	80.7	133.48	-8,189.6	-589.3	682.1	537.1	145.03	4.703			
18,800.0	10,378.2	19,120.6	10,848.0	75.4	81.5	133.48	-8,289.6	-588.4	682.1	535.5	146.59	4.653			
18,900.0	10,378.8	19,220.6	10,848.6	76.2	82.2	133.48	-8,389.6	-587.6	682.1	533.9	148.16	4.604			
19,000.0	10,379.4	19,320.6	10,849.2	77.1	83.0	133.48	-8,489.6	-586.7	682.1	532.4	149.72	4.556			
19,100.0	10,380.0	19,420.6	10,849.8	78.0	83.8	133.48	-8,589.6	-585.9	682.1	530.8	151.29	4.509			
19,200.0	10,380.6	19,520.6	10,850.5	78.8	84.5	133.48	-8,689.6	-585.1	682.1	529.3	152.86	4.462			
19,300.0	10,381.2	19,620.6	10,851.1	79.7	85.3	133.48	-8,789.6	-584.2	682.1	527.7	154.43	4.417			
19,400.0	10,381.8	19,720.6	10,851.7	80.5	86.1	133.48	-8,889.6	-583.4	682.1	526.1	156.00	4.373			
19,500.0	10,382.4	19,820.6	10,852.3	81.4	86.8	133.48	-8,989.6	-582.5	682.1	524.6	157.57	4.329			
19,600.0	10,383.0	19,920.6	10,852.9	82.2	87.6	133.48	-9,089.6	-581.7	682.1	523.0	159.15	4.286			
19,700.0	10,383.6	20,020.6	10,853.5	83.1	88.4	133.48	-9,189.6	-580.8	682.2	521.4	160.73	4.244			
19,800.0	10,384.2	20,120.6	10,854.1	84.0	89.2	133.48	-9,289.6	-580.0	682.2	519.9	162.30	4.203			
19,900.0	10,384.8	20,220.6	10,854.7	84.8	89.9	133.48	-9,389.6	-579.1	682.2	518.3	163.88	4.162			
20,000.0	10,385.4	20,320.6	10,855.4	85.7	90.7	133.48	-9,489.6	-578.3	682.2	516.7	165.46	4.123			
20,100.0	10,386.0	20,420.6	10,856.0	86.5	91.5	133.48	-9,589.6	-577.4	682.2	515.1	167.05	4.084			
20,200.0	10,386.6	20,520.6	10,856.6	87.4	92.3	133.48	-9,689.6	-576.6	682.2	513.5	168.63	4.045			
20,300.0	10,387.2	20,620.6	10,857.2	88.2	93.1	133.49	-9,789.6	-575.7	682.2	512.0	170.22	4.008			
20,400.0	10,387.8	20,720.6	10,857.8	89.1	93.8	133.49	-9,889.6	-574.9	682.2	510.4	171.80	3.971			
20,500.0	10,388.4	20,820.6	10,858.4	90.0	94.6	133.49	-9,989.5	-574.0	682.2	508.8	173.39	3.934			
20,594.0	10,389.0	20,914.6	10,859.0	90.8	95.4	133.49	-10,083.6	-573.2	682.2	507.4	174.84	3.902			

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11940-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	77.18	218.4	960.1	984.6				
100.0	100.0	95.6	95.6	3.0	3.0	77.18	218.5	960.1	984.7	978.7	6.00	164.105	
200.0	200.0	200.4	200.4	3.0	3.0	77.17	218.7	960.1	984.7	978.7	6.00	164.021	
300.0	300.0	300.3	300.3	3.0	3.0	77.16	218.8	959.9	984.5	978.5	6.01	163.819	
394.5	394.5	391.3	391.3	3.0	3.0	77.15	218.9	959.6	984.3	978.3	6.02	163.491	
400.0	400.0	396.6	396.6	3.0	3.0	77.15	218.9	959.6	984.3	978.3	6.02	163.475	
500.0	500.0	500.1	500.1	3.1	3.0	77.16	218.8	959.6	984.2	978.2	6.04	163.068	
600.0	600.0	597.3	597.3	3.1	3.0	77.19	218.2	959.6	984.1	978.1	6.05	162.599	
601.4	601.4	598.7	598.7	3.1	3.0	77.19	218.2	959.6	984.1	978.1	6.05	162.592	
700.0	700.0	698.3	698.2	3.1	3.0	77.22	217.6	959.5	983.9	977.8	6.07	161.955	
721.1	721.1	717.9	717.9	3.1	3.0	77.23	217.4	959.5	983.9	977.8	6.08	161.830	
800.0	800.0	796.4	796.4	3.2	3.1	77.28	216.7	959.8	983.9	977.8	6.10	161.365	
900.0	900.0	891.4	891.3	3.2	3.1	77.35	215.6	960.2	984.1	978.0	6.12	160.725	
1,000.0	1,000.0	984.7	984.7	3.2	3.1	77.43	214.4	961.4	985.1	978.9	6.15	160.207	
1,100.0	1,100.0	1,088.5	1,088.5	3.3	3.1	77.52	213.1	962.7	986.0	979.8	6.18	159.535	
1,200.0	1,200.0	1,185.0	1,184.9	3.4	3.1	77.61	211.8	964.1	987.1	980.9	6.22	158.827	
1,300.0	1,300.0	1,320.5	1,320.5	3.4	3.2	77.68	210.5	963.6	986.6	980.3	6.26	157.603	
1,400.0	1,400.0	1,419.9	1,419.8	3.5	3.2	77.69	209.8	961.3	984.2	977.9	6.31	156.089	
1,500.0	1,500.0	1,520.7	1,520.6	3.5	3.2	77.71	208.9	959.1	981.9	975.5	6.36	154.438	
1,600.0	1,600.0	1,619.5	1,619.3	3.6	3.3	77.73	208.1	956.9	979.5	973.1	6.42	152.671	
1,700.0	1,700.0	1,717.4	1,717.2	3.7	3.3	77.75	207.3	954.9	977.4	970.9	6.48	150.827	
1,800.0	1,800.0	1,824.5	1,824.2	3.8	3.4	77.79	206.1	952.6	975.0	968.5	6.55	148.802	
1,900.0	1,900.0	1,921.6	1,921.3	3.9	3.4	77.82	205.0	950.1	972.2	965.6	6.63	146.687	
2,000.0	2,000.0	2,023.6	2,023.3	3.9	3.5	77.87	203.7	947.6	969.6	962.9	6.71	144.502	
2,100.0	2,100.0	2,126.2	2,125.9	4.0	3.5	77.91	202.4	944.9	966.8	960.0	6.80	142.210	
2,200.0	2,200.0	2,218.1	2,217.7	4.1	3.6	77.94	201.4	942.6	964.1	957.2	6.89	140.001	
2,300.0	2,300.0	2,309.9	2,309.5	4.2	3.6	77.97	200.6	941.2	962.4	955.4	6.98	137.922	
2,400.0	2,400.0	2,399.0	2,398.6	4.3	3.7	77.99	200.2	940.7	961.7	954.7	7.07	136.107	
2,409.8	2,409.8	2,407.0	2,406.6	4.3	3.7	77.99	200.1	940.7	961.7	954.7	7.07	135.995	
2,500.0	2,500.0	2,488.6	2,488.2	4.4	3.7	78.00	200.1	941.2	962.3	955.2	7.11	135.368	
2,600.0	2,600.0	2,603.8	2,603.4	4.5	3.7	102.14	200.0	942.0	963.4	956.3	7.15	134.667	
2,700.0	2,699.8	2,750.5	2,749.9	4.6	3.8	102.53	200.3	935.6	959.7	952.5	7.28	131.901	
2,750.0	2,749.7	2,801.9	2,801.2	4.6	3.9	102.75	200.7	932.6	957.8	950.5	7.33	130.749	
2,800.0	2,799.5	2,844.9	2,844.2	4.7	3.9	102.92	201.0	930.1	956.1	948.7	7.37	129.720	
2,900.0	2,899.1	2,937.3	2,936.5	4.8	3.9	103.28	202.0	925.7	953.5	946.0	7.47	127.721	
3,000.0	2,998.7	3,029.6	3,028.7	4.9	4.0	103.66	202.9	921.8	951.5	944.0	7.56	125.793	
3,100.0	3,098.4	3,154.2	3,153.1	5.0	4.1	104.16	204.3	916.9	950.2	942.5	7.69	123.576	
3,200.0	3,198.0	3,265.8	3,264.5	5.1	4.2	104.60	205.1	909.3	945.8	938.0	7.81	121.050	
3,300.0	3,297.6	3,360.4	3,358.8	5.2	4.2	104.99	205.5	902.2	940.7	932.8	7.93	118.651	
3,400.0	3,397.2	3,446.3	3,444.5	5.3	4.3	105.34	206.3	896.8	936.9	928.9	8.04	116.539	
3,500.0	3,496.8	3,534.1	3,532.2	5.4	4.4	105.70	207.1	892.4	934.4	926.3	8.15	114.586	
3,600.0	3,596.4	3,663.5	3,661.4	5.5	4.5	106.28	207.5	885.4	931.6	923.3	8.31	112.075	
3,700.0	3,696.1	3,799.5	3,796.8	5.6	4.6	106.92	206.7	872.0	924.0	915.5	8.49	108.893	
3,800.0	3,795.7	3,896.7	3,893.3	5.7	4.7	107.38	206.2	861.0	915.3	906.7	8.62	106.150	
3,900.0	3,895.3	3,988.9	3,985.0	5.8	4.8	107.82	205.7	851.0	907.1	898.3	8.76	103.573	
4,000.0	3,994.9	4,060.2	4,056.0	5.9	4.8	108.17	205.4	844.7	900.9	892.1	8.87	101.537	
4,100.0	4,094.5	4,139.4	4,135.0	6.0	4.9	108.58	205.0	840.2	897.9	888.9	9.00	99.742	
4,200.0	4,194.2	4,228.0	4,223.6	6.1	5.0	109.07	204.3	836.5	896.5	887.4	9.14	98.037	
4,300.0	4,293.8	4,339.3	4,334.8	6.2	5.1	109.74	202.6	831.7	895.0	885.6	9.31	96.104	
4,400.0	4,393.4	4,427.9	4,423.3	6.3	5.2	110.28	201.2	827.9	893.5	884.0	9.46	94.458	
4,500.0	4,493.0	4,528.2	4,523.5	6.4	5.3	110.92	199.1	824.0	892.5	882.9	9.62	92.790	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 704H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11940-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,522.6	4,515.5	4,544.9	4,540.2	6.4	5.3	111.03	198.7	823.4	892.5	882.8	9.65	92.495	
4,600.0	4,592.6	4,609.5	4,604.7	6.5	5.4	111.48	196.9	822.0	893.1	883.3	9.75	91.581	
4,700.0	4,692.3	4,729.2	4,724.4	6.6	5.5	112.36	192.8	818.9	893.6	883.7	9.91	90.130	
4,782.3	4,774.2	4,806.3	4,801.3	6.7	5.6	112.90	190.4	816.0	893.2	883.2	10.04	88.952	
4,800.0	4,791.9	4,820.1	4,815.1	6.8	5.6	113.00	190.0	815.5	893.3	883.2	10.07	88.742	
4,900.0	4,891.5	4,906.2	4,901.2	6.9	5.7	113.66	186.5	814.0	894.8	884.6	10.20	87.751	
5,000.0	4,991.1	5,025.3	5,019.9	7.0	5.8	114.69	179.8	810.6	895.5	885.1	10.36	86.470	
5,100.0	5,090.7	5,147.9	5,142.3	7.1	5.9	115.76	173.0	805.4	895.3	884.7	10.53	84.980	
5,200.0	5,190.4	5,247.5	5,241.6	7.2	6.0	116.50	169.4	799.1	892.8	882.1	10.71	83.364	
5,300.0	5,290.0	5,356.5	5,350.3	7.3	6.1	117.26	166.3	792.0	890.4	879.5	10.90	81.659	
5,400.0	5,389.6	5,455.3	5,448.8	7.4	6.2	117.89	164.6	784.8	887.2	876.1	11.09	80.008	
5,500.0	5,489.2	5,552.9	5,546.2	7.6	6.3	118.50	163.2	778.0	884.5	873.2	11.28	78.443	
5,600.0	5,588.8	5,678.0	5,670.8	7.7	6.5	119.18	163.0	767.7	880.5	869.0	11.51	76.489	
5,700.0	5,688.5	5,775.0	5,767.4	7.8	6.6	119.65	164.2	758.3	875.0	863.3	11.70	74.775	
5,800.0	5,788.1	5,868.5	5,860.5	7.9	6.7	120.12	165.0	749.9	870.3	858.4	11.89	73.206	
5,900.0	5,887.7	5,967.5	5,959.2	8.0	6.8	120.61	165.8	741.5	866.2	854.1	12.09	71.655	
6,000.0	5,987.3	6,084.4	6,075.5	8.2	6.9	121.12	168.3	729.9	860.4	848.1	12.32	69.820	
6,100.0	6,086.9	6,183.9	6,174.4	8.3	7.0	121.52	171.1	719.6	854.3	841.8	12.53	68.205	
6,200.0	6,186.6	6,275.8	6,265.8	8.4	7.1	121.90	173.5	710.4	848.6	835.9	12.71	66.743	
6,300.0	6,286.2	6,373.9	6,363.4	8.5	7.2	122.34	175.5	701.2	843.6	830.7	12.92	65.298	
6,400.0	6,385.8	6,466.4	6,455.6	8.6	7.3	122.75	177.5	693.0	839.3	826.1	13.11	63.993	
6,500.0	6,485.4	6,566.0	6,554.8	8.7	7.4	123.21	179.4	684.6	835.3	821.9	13.33	62.674	
6,600.0	6,585.0	6,665.5	6,653.9	8.9	7.5	123.68	181.2	676.2	831.5	818.0	13.54	61.404	
6,700.0	6,684.7	6,785.2	6,773.0	9.0	7.6	124.26	183.4	664.9	826.8	813.0	13.80	59.890	
6,800.0	6,784.3	6,886.2	6,873.4	9.1	7.7	124.73	185.9	653.8	820.4	806.3	14.03	58.490	
6,900.0	6,883.9	6,984.4	6,971.0	9.2	7.8	125.22	188.1	643.0	814.1	799.9	14.24	57.161	
7,000.0	6,983.5	7,083.0	7,069.0	9.4	7.9	125.73	190.0	632.3	808.1	793.7	14.46	55.880	
7,022.6	7,006.0	7,105.0	7,090.8	9.4	8.0	125.85	190.4	629.9	806.8	792.3	14.51	55.599	
7,100.0	7,083.2	7,178.9	7,164.3	9.5	8.0	126.19	191.6	622.1	802.2	787.5	14.67	54.665	
7,200.0	7,183.0	7,273.1	7,258.0	9.6	8.2	126.54	192.9	612.6	795.9	781.0	14.88	53.488	
7,300.0	7,282.8	7,370.5	7,355.0	9.7	8.3	126.83	193.9	603.2	789.1	774.0	15.09	52.307	
7,400.0	7,382.8	7,467.3	7,451.4	9.8	8.4	127.02	194.9	594.2	781.6	766.3	15.28	51.140	
7,500.0	7,482.8	7,562.6	7,546.2	10.0	8.5	127.12	195.6	585.5	773.3	757.8	15.47	49.971	
7,522.6	7,505.4	7,583.0	7,566.6	10.0	8.5	103.10	195.7	583.8	771.4	755.9	15.51	49.725	
7,600.0	7,582.8	7,660.9	7,644.2	10.1	8.6	103.19	196.1	577.3	765.0	749.4	15.66	48.867	
7,700.0	7,682.8	7,777.0	7,759.7	10.2	8.7	103.24	198.1	565.8	754.9	739.0	15.88	47.534	
7,800.0	7,782.8	7,874.6	7,856.8	10.3	8.8	103.28	200.0	555.7	744.4	728.4	16.06	46.361	
7,900.0	7,882.8	7,970.8	7,952.5	10.5	9.0	103.33	201.6	546.0	734.2	718.0	16.23	45.240	
8,000.0	7,982.8	8,065.5	8,046.7	10.6	9.1	103.39	202.9	537.0	724.6	708.2	16.40	44.191	
8,100.0	8,082.8	8,160.1	8,141.0	10.7	9.2	103.47	203.9	528.5	715.7	699.1	16.57	43.200	
8,200.0	8,182.8	8,255.5	8,236.0	10.8	9.3	103.57	204.6	520.6	707.4	690.7	16.74	42.258	
8,300.0	8,282.8	8,390.6	8,370.4	10.9	9.4	103.63	207.0	507.3	697.6	680.6	17.06	40.896	
8,400.0	8,382.8	8,489.7	8,468.6	11.1	9.6	103.56	210.9	495.0	684.6	667.4	17.24	39.712	
8,500.0	8,482.8	8,584.6	8,562.8	11.2	9.7	103.50	214.4	483.4	671.9	654.4	17.40	38.607	
8,600.0	8,582.8	8,676.8	8,654.3	11.3	9.8	103.44	217.6	472.9	660.0	642.5	17.55	37.607	
8,700.0	8,682.8	8,770.2	8,747.2	11.4	9.9	103.38	220.6	463.2	649.2	631.5	17.71	36.662	
8,800.0	8,782.8	8,864.7	8,841.2	11.6	10.0	103.34	223.2	454.1	639.2	621.3	17.87	35.767	
8,900.0	8,882.8	8,960.4	8,936.5	11.7	10.1	103.31	225.6	445.6	629.9	611.9	18.04	34.918	
9,000.0	8,982.8	9,059.5	9,035.2	11.8	10.2	103.29	227.8	437.1	621.0	602.8	18.22	34.077	
9,100.0	9,082.8	9,179.8	9,154.6	11.9	10.4	103.15	232.5	424.0	609.4	590.9	18.51	32.919	
9,200.0	9,182.8	9,275.6	9,249.7	12.1	10.5	103.00	236.5	413.2	597.4	578.8	18.67	31.996	

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 GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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 GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 704H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11940-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		
9,300.0	9,282.8	9,372.7	9,346.2	12.2	10.6	102.90	240.0	402.5	585.9	567.1	18.84	31.095		
9,400.0	9,382.8	9,469.4	9,442.3	12.3	10.7	102.96	241.8	391.8	574.7	555.7	19.02	30.219		
9,500.0	9,482.8	9,561.7	9,534.2	12.4	10.8	103.03	243.4	382.4	564.4	545.2	19.17	29.445		
9,600.0	9,582.8	9,653.0	9,625.1	12.6	10.9	103.08	244.7	374.3	555.4	536.1	19.32	28.753		
9,700.0	9,682.8	9,746.6	9,718.4	12.7	11.0	103.08	246.3	367.4	547.8	528.3	19.48	28.119		
9,800.0	9,782.8	9,842.3	9,813.9	12.8	11.2	103.12	247.4	361.0	541.1	521.5	19.66	27.525		
9,868.7	9,851.5	9,911.4	9,882.8	12.9	11.2	103.15	248.1	356.7	536.8	517.0	19.79	27.121		
9,875.0	9,857.8	9,917.8	9,889.2	12.9	11.3	-76.43	248.2	356.3	536.4	516.5	19.87	26.994		
9,900.0	9,882.8	9,943.1	9,914.5	12.9	11.3	-76.74	248.4	354.7	534.5	514.6	19.90	26.859		
9,925.0	9,907.7	9,968.8	9,940.0	12.9	11.3	-77.22	248.6	353.0	532.3	512.4	19.93	26.712		
9,950.0	9,932.4	9,993.6	9,964.8	12.9	11.3	-77.87	248.8	351.3	529.8	509.9	19.95	26.560		
9,975.0	9,956.9	10,017.9	9,989.0	12.9	11.4	-78.68	249.0	349.7	527.1	507.2	19.96	26.406		
10,000.0	9,981.1	10,041.5	10,012.6	12.9	11.4	-79.65	249.3	348.1	524.2	504.3	19.97	26.252		
10,025.0	10,005.0	10,064.4	10,035.5	12.9	11.4	-80.75	249.5	346.6	521.2	501.2	19.97	26.101		
10,050.0	10,028.5	10,087.0	10,058.1	13.0	11.5	-81.98	249.8	345.2	518.1	498.2	19.97	25.952		
10,075.0	10,051.4	10,110.1	10,081.1	13.0	11.5	-83.37	250.0	343.8	515.0	495.1	19.96	25.800		
10,100.0	10,073.8	10,133.5	10,104.4	13.0	11.5	-84.89	250.3	342.3	512.0	492.0	19.96	25.647		
10,125.0	10,095.7	10,155.7	10,126.6	13.0	11.5	-86.48	250.5	340.8	509.0	489.1	19.96	25.507		
10,150.0	10,116.8	10,177.1	10,148.0	13.0	11.6	-88.11	250.6	339.4	506.3	486.3	19.95	25.378		
10,175.0	10,137.2	10,197.9	10,168.7	13.0	11.6	-89.76	250.6	338.0	503.9	483.9	19.94	25.264		
10,200.0	10,156.8	10,217.1	10,187.9	13.1	11.6	-91.36	250.7	336.6	501.9	482.0	19.94	25.175		
10,225.0	10,175.6	10,235.7	10,206.4	13.1	11.6	-92.94	250.7	335.4	500.5	480.5	19.93	25.106		
10,250.0	10,193.5	10,253.6	10,224.3	13.1	11.7	-94.47	250.7	334.2	499.7	479.7	19.94	25.059		
10,263.8	10,203.0	10,262.9	10,233.6	13.1	11.7	-95.26	250.7	333.5	499.6	479.6	19.95	25.045 CC, ES		
10,275.0	10,210.5	10,270.2	10,240.9	13.1	11.7	-95.88	250.7	333.0	499.6	479.7	19.95	25.041 SF		
10,300.0	10,226.5	10,286.0	10,256.5	13.2	11.7	-97.17	250.7	332.0	500.5	480.5	19.98	25.052		
10,325.0	10,241.4	10,300.7	10,271.2	13.2	11.7	-98.31	250.7	331.0	502.2	482.2	20.01	25.092		
10,350.0	10,255.3	10,313.9	10,284.4	13.2	11.7	-99.24	250.7	330.1	505.0	484.9	20.06	25.167		
10,375.0	10,268.1	10,326.3	10,296.8	13.2	11.8	-99.98	250.6	329.3	508.8	488.7	20.13	25.276		
10,400.0	10,279.7	10,338.2	10,308.7	13.3	11.8	-100.59	250.5	328.6	513.8	493.6	20.22	25.417		
10,425.0	10,290.2	10,349.1	10,319.6	13.3	11.8	-100.96	250.5	327.9	519.9	499.6	20.31	25.596		
10,450.0	10,299.5	10,358.3	10,328.8	13.3	11.8	-101.03	250.4	327.3	527.2	506.8	20.42	25.819		
10,475.0	10,307.5	10,366.3	10,336.8	13.3	11.8	-100.84	250.3	326.8	535.6	515.1	20.53	26.086		
10,500.0	10,314.3	10,373.1	10,343.5	13.3	11.8	-100.35	250.3	326.4	545.2	524.6	20.65	26.398		
10,525.0	10,319.8	10,378.4	10,348.8	13.4	11.8	-99.55	250.2	326.1	555.9	535.1	20.78	26.757		
10,550.0	10,324.0	10,382.4	10,352.8	13.4	11.8	-98.42	250.2	325.8	567.6	546.7	20.90	27.164		
10,575.0	10,327.0	10,385.1	10,355.5	13.4	11.8	-96.98	250.2	325.6	580.3	559.3	21.01	27.616		
10,600.0	10,328.6	10,386.7	10,357.1	13.4	11.8	-95.23	250.2	325.5	593.9	572.8	21.13	28.113		
10,615.8	10,329.0	10,387.1	10,357.4	13.4	11.8	-93.95	250.2	325.5	603.0	581.8	21.20	28.450		
10,700.0	10,329.5	10,387.8	10,358.2	13.4	11.8	-94.04	250.2	325.5	655.5	634.0	21.52	30.458		
10,800.0	10,330.1	10,388.7	10,359.1	13.5	11.8	-94.14	250.2	325.4	725.7	703.9	21.83	33.238		
10,900.0	10,330.7	10,389.5	10,359.9	13.5	11.8	-94.23	250.2	325.4	802.3	780.2	22.07	36.347		
11,000.0	10,331.3	10,390.3	10,360.7	13.6	11.8	-94.33	250.2	325.3	883.5	861.2	22.25	39.700		
11,100.0	10,331.9	10,391.0	10,361.4	13.7	11.8	-94.41	250.2	325.3	968.2	945.9	22.40	43.229		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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=30' @ 3368.5usft (TBD)

Offset Depths are relative to Offset Datum

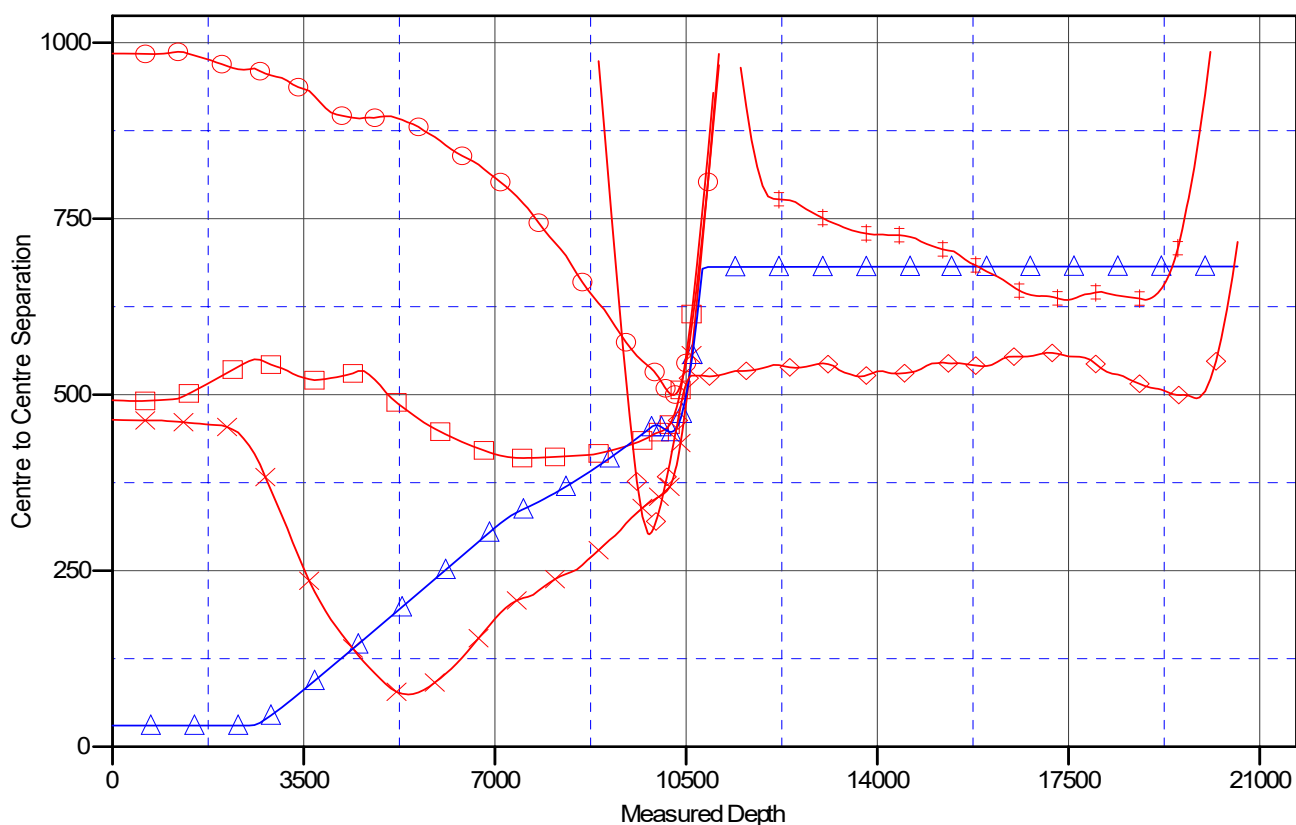
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: GUNNER 8 FEDERAL COM 302H

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

Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

GUNNER 8 FED COM 705H, OWB, AWPV0
GUNNER 8 FED COM 604H, OWB, AWPV0

GUNNER 8 FEDERAL COM 704H, OWB, AWP V0
GUNNER 8 FEDERAL COM 402H, OWB, PWP1 V0

GUNNER 8 FEDERAL COM #8H, OWB, ACTUAL WELLPATH V0
GUNNER 8 FED #8H, OWB, ACTUAL WELLPATH V0

Concho Resources LLC

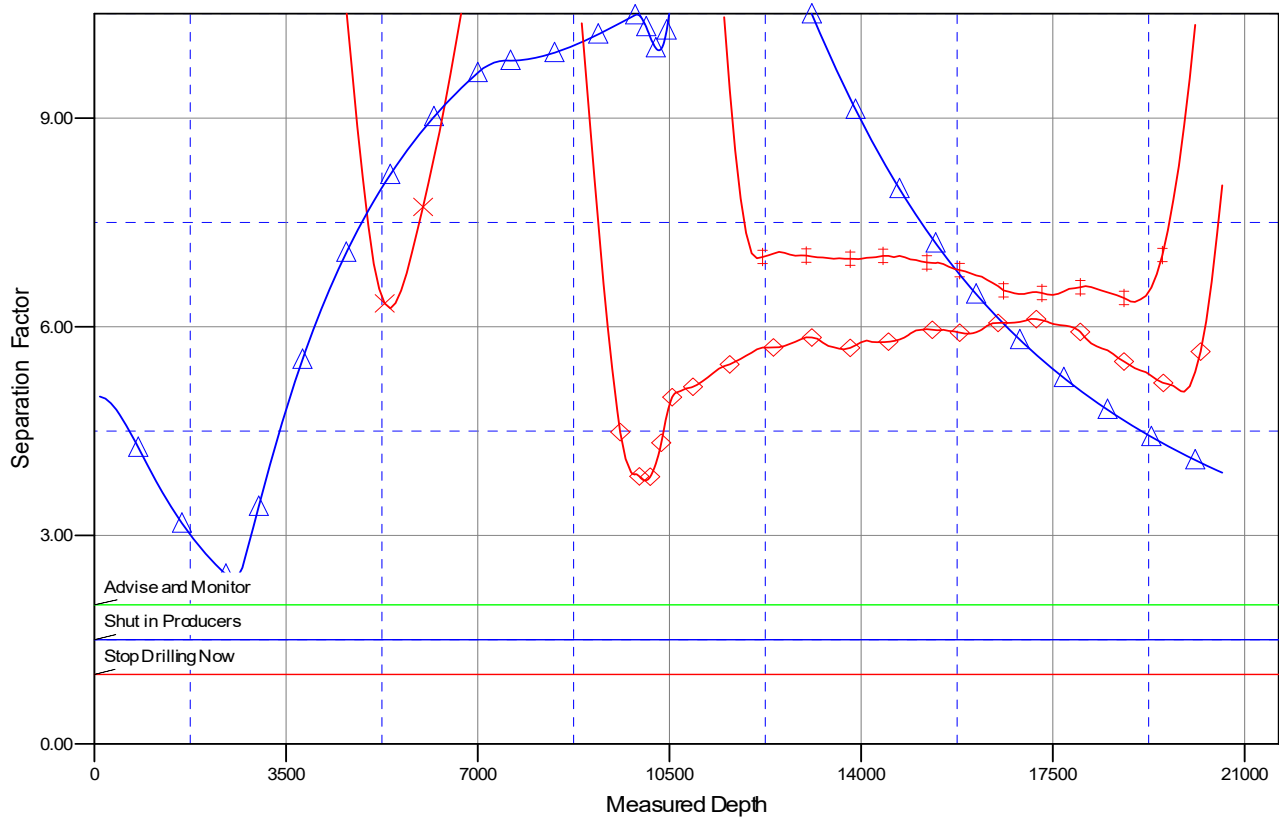
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 302H	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=30' @ 3368.5usft (TBD)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: GUNNER 8 FEDERAL COM 302H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.44°

Separation Factor Plot



LEGEND

GUNNER 8 FED COM 705H, OWB, AWPV0
 GUNNER 8 FED COM 604H, OWB, AWPV0

GUNNER 8 FEDERAL COM 704H, OWB, AWP V0
 GUNNER 8 FEDERAL COM 402H, OWB, PWP1 V0

GUNNER 8 FEDERAL COM #8H, OWB, ACTUAL WELLPATH V0
 GUNNER 8 FED #8H, OWB, ACTUAL WELLPATH V0

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

GUNNER FEDERAL PROJECT (BULLDOG 2634)

GUNNER 8 FEDERAL COM 302H

OWB

Plan: PWP1

Standard Survey Report

19 November, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	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		

Site	GUNNER FEDERAL PROJECT (BULLDOG 2634)		
Site Position:		Northing:	419,780.49 usft
From:	Map	Easting:	741,734.30 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 9' 6.058 N
		Longitude:	103° 33' 8.114 W
		Grid Convergence:	0.42 °

Well	GUNNER 8 FEDERAL COM 302H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	3.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 4' 42.331 N
		Longitude:	103° 29' 48.525 W
		Ground Level:	3,338.5 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/19/2020	6.57	59.80	47,475.10612941

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	180.44

Survey Tool Program	Date	11/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	9,869.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
9,869.0	20,594.0	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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	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)
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
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	335.98	2,600.0	1.6	-0.7	-1.6	2.00	2.00	0.00
2,700.0	4.00	335.98	2,699.8	6.4	-2.8	-6.4	2.00	2.00	0.00
2,750.0	5.00	335.98	2,749.7	10.0	-4.4	-9.9	2.00	2.00	0.00
Start 4272.6 hold at 2750.0 MD									
2,800.0	5.00	335.98	2,799.5	13.9	-6.2	-13.9	0.00	0.00	0.00
2,900.0	5.00	335.98	2,899.1	21.9	-9.8	-21.8	0.00	0.00	0.00
3,000.0	5.00	335.98	2,998.7	29.9	-13.3	-29.8	0.00	0.00	0.00
3,100.0	5.00	335.98	3,098.4	37.8	-16.9	-37.7	0.00	0.00	0.00
3,200.0	5.00	335.98	3,198.0	45.8	-20.4	-45.6	0.00	0.00	0.00
3,300.0	5.00	335.98	3,297.6	53.7	-24.0	-53.6	0.00	0.00	0.00
3,400.0	5.00	335.98	3,397.2	61.7	-27.5	-61.5	0.00	0.00	0.00
3,500.0	5.00	335.98	3,496.8	69.7	-31.0	-69.4	0.00	0.00	0.00
3,600.0	5.00	335.98	3,596.4	77.6	-34.6	-77.4	0.00	0.00	0.00
3,700.0	5.00	335.98	3,696.1	85.6	-38.1	-85.3	0.00	0.00	0.00
3,800.0	5.00	335.98	3,795.7	93.5	-41.7	-93.2	0.00	0.00	0.00
3,900.0	5.00	335.98	3,895.3	101.5	-45.2	-101.2	0.00	0.00	0.00
4,000.0	5.00	335.98	3,994.9	109.5	-48.8	-109.1	0.00	0.00	0.00
4,100.0	5.00	335.98	4,094.5	117.4	-52.3	-117.0	0.00	0.00	0.00
4,200.0	5.00	335.98	4,194.2	125.4	-55.9	-125.0	0.00	0.00	0.00
4,300.0	5.00	335.98	4,293.8	133.3	-59.4	-132.9	0.00	0.00	0.00
4,400.0	5.00	335.98	4,393.4	141.3	-63.0	-140.8	0.00	0.00	0.00
4,500.0	5.00	335.98	4,493.0	149.3	-66.5	-148.7	0.00	0.00	0.00
4,600.0	5.00	335.98	4,592.6	157.2	-70.1	-156.7	0.00	0.00	0.00
4,700.0	5.00	335.98	4,692.3	165.2	-73.6	-164.6	0.00	0.00	0.00
4,800.0	5.00	335.98	4,791.9	173.2	-77.2	-172.5	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	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)
4,900.0	5.00	335.98	4,891.5	181.1	-80.7	-180.5	0.00	0.00	0.00
5,000.0	5.00	335.98	4,991.1	189.1	-84.3	-188.4	0.00	0.00	0.00
5,100.0	5.00	335.98	5,090.7	197.0	-87.8	-196.3	0.00	0.00	0.00
5,200.0	5.00	335.98	5,190.4	205.0	-91.4	-204.3	0.00	0.00	0.00
5,300.0	5.00	335.98	5,290.0	213.0	-94.9	-212.2	0.00	0.00	0.00
5,400.0	5.00	335.98	5,389.6	220.9	-98.5	-220.1	0.00	0.00	0.00
5,500.0	5.00	335.98	5,489.2	228.9	-102.0	-228.1	0.00	0.00	0.00
5,600.0	5.00	335.98	5,588.8	236.8	-105.6	-236.0	0.00	0.00	0.00
5,700.0	5.00	335.98	5,688.5	244.8	-109.1	-243.9	0.00	0.00	0.00
5,800.0	5.00	335.98	5,788.1	252.8	-112.6	-251.9	0.00	0.00	0.00
5,900.0	5.00	335.98	5,887.7	260.7	-116.2	-259.8	0.00	0.00	0.00
6,000.0	5.00	335.98	5,987.3	268.7	-119.7	-267.7	0.00	0.00	0.00
6,100.0	5.00	335.98	6,086.9	276.6	-123.3	-275.7	0.00	0.00	0.00
6,200.0	5.00	335.98	6,186.6	284.6	-126.8	-283.6	0.00	0.00	0.00
6,300.0	5.00	335.98	6,286.2	292.6	-130.4	-291.5	0.00	0.00	0.00
6,400.0	5.00	335.98	6,385.8	300.5	-133.9	-299.5	0.00	0.00	0.00
6,500.0	5.00	335.98	6,485.4	308.5	-137.5	-307.4	0.00	0.00	0.00
6,600.0	5.00	335.98	6,585.0	316.4	-141.0	-315.3	0.00	0.00	0.00
6,700.0	5.00	335.98	6,684.7	324.4	-144.6	-323.3	0.00	0.00	0.00
6,800.0	5.00	335.98	6,784.3	332.4	-148.1	-331.2	0.00	0.00	0.00
6,900.0	5.00	335.98	6,883.9	340.3	-151.7	-339.1	0.00	0.00	0.00
7,000.0	5.00	335.98	6,983.5	348.3	-155.2	-347.1	0.00	0.00	0.00
7,022.6	5.00	335.98	7,006.0	350.1	-156.0	-348.9	0.00	0.00	0.00
Start Drop -1.00									
7,100.0	4.23	335.98	7,083.2	355.8	-158.6	-354.5	1.00	-1.00	0.00
7,200.0	3.23	335.98	7,183.0	361.7	-161.2	-360.4	1.00	-1.00	0.00
7,300.0	2.23	335.98	7,282.8	366.1	-163.1	-364.8	1.00	-1.00	0.00
7,400.0	1.23	335.98	7,382.8	368.8	-164.4	-367.5	1.00	-1.00	0.00
7,500.0	0.23	335.98	7,482.8	370.0	-164.9	-368.7	1.00	-1.00	0.00
7,522.6	0.00	0.00	7,505.4	370.0	-164.9	-368.7	1.00	-1.00	0.00
Start 2346.1 hold at 7522.6 MD									
7,600.0	0.00	0.00	7,582.8	370.0	-164.9	-368.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,682.8	370.0	-164.9	-368.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,782.8	370.0	-164.9	-368.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,882.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,982.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,082.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,182.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,282.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,382.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,482.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,582.8	370.0	-164.9	-368.7	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	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)
8,700.0	0.00	0.00	8,682.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,782.8	370.0	-164.9	-368.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,882.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,982.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,082.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,182.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,282.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,382.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,482.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,582.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,682.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,782.8	370.0	-164.9	-368.7	0.00	0.00	0.00
9,868.7	0.00	0.00	9,851.5	370.0	-164.9	-368.7	0.00	0.00	0.00
Start DLS 12.00 TFO 179.54									
9,900.0	3.75	179.54	9,882.8	369.0	-164.9	-367.7	12.00	12.00	0.00
10,000.0	15.75	179.54	9,981.1	352.1	-164.8	-350.8	12.00	12.00	0.00
10,100.0	27.75	179.54	10,073.8	315.1	-164.5	-313.8	12.00	12.00	0.00
10,200.0	39.75	179.54	10,156.8	259.6	-164.0	-258.3	12.00	12.00	0.00
10,300.0	51.75	179.54	10,226.5	188.1	-163.4	-186.8	12.00	12.00	0.00
10,400.0	63.75	179.54	10,279.7	103.7	-162.7	-102.4	12.00	12.00	0.00
10,500.0	75.75	179.54	10,314.3	10.0	-162.0	-8.8	12.00	12.00	0.00
10,600.0	87.75	179.54	10,328.6	-88.7	-161.2	90.0	12.00	12.00	0.00
10,615.8	89.66	179.54	10,329.0	-104.6	-161.1	105.8	12.00	12.00	0.00
Start 4743.6 hold at 10615.8 MD									
10,700.0	89.66	179.54	10,329.5	-188.7	-160.4	190.0	0.00	0.00	0.00
10,800.0	89.66	179.54	10,330.1	-288.7	-159.6	290.0	0.00	0.00	0.00
10,900.0	89.66	179.54	10,330.7	-388.7	-158.8	389.9	0.00	0.00	0.00
11,000.0	89.66	179.54	10,331.3	-488.7	-157.9	489.9	0.00	0.00	0.00
11,100.0	89.66	179.54	10,331.9	-588.7	-157.1	589.9	0.00	0.00	0.00
11,200.0	89.66	179.54	10,332.5	-688.7	-156.3	689.9	0.00	0.00	0.00
11,300.0	89.66	179.54	10,333.1	-788.7	-155.5	789.9	0.00	0.00	0.00
11,400.0	89.66	179.54	10,333.7	-888.7	-154.7	889.9	0.00	0.00	0.00
11,500.0	89.66	179.54	10,334.3	-988.7	-153.9	989.9	0.00	0.00	0.00
11,600.0	89.66	179.54	10,334.9	-1,088.7	-153.1	1,089.8	0.00	0.00	0.00
11,700.0	89.66	179.54	10,335.5	-1,188.7	-152.3	1,189.8	0.00	0.00	0.00
11,800.0	89.66	179.54	10,336.1	-1,288.7	-151.5	1,289.8	0.00	0.00	0.00
11,900.0	89.66	179.54	10,336.7	-1,388.7	-150.6	1,389.8	0.00	0.00	0.00
12,000.0	89.66	179.54	10,337.3	-1,488.7	-149.8	1,489.8	0.00	0.00	0.00
12,100.0	89.66	179.54	10,337.9	-1,588.7	-149.0	1,589.8	0.00	0.00	0.00
12,200.0	89.66	179.54	10,338.5	-1,688.7	-148.2	1,689.8	0.00	0.00	0.00
12,300.0	89.66	179.54	10,339.1	-1,788.7	-147.4	1,789.7	0.00	0.00	0.00
12,400.0	89.66	179.54	10,339.7	-1,888.6	-146.6	1,889.7	0.00	0.00	0.00
12,500.0	89.66	179.54	10,340.3	-1,988.6	-145.8	1,989.7	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	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)
12,600.0	89.66	179.54	10,340.9	-2,088.6	-145.0	2,089.7	0.00	0.00	0.00
12,700.0	89.66	179.54	10,341.5	-2,188.6	-144.2	2,189.7	0.00	0.00	0.00
12,800.0	89.66	179.54	10,342.1	-2,288.6	-143.4	2,289.7	0.00	0.00	0.00
12,900.0	89.66	179.54	10,342.7	-2,388.6	-142.5	2,389.7	0.00	0.00	0.00
13,000.0	89.66	179.54	10,343.3	-2,488.6	-141.7	2,489.6	0.00	0.00	0.00
13,100.0	89.66	179.54	10,343.9	-2,588.6	-140.9	2,589.6	0.00	0.00	0.00
13,200.0	89.66	179.54	10,344.5	-2,688.6	-140.1	2,689.6	0.00	0.00	0.00
13,300.0	89.66	179.54	10,345.1	-2,788.6	-139.3	2,789.6	0.00	0.00	0.00
13,400.0	89.66	179.54	10,345.7	-2,888.6	-138.5	2,889.6	0.00	0.00	0.00
13,500.0	89.66	179.54	10,346.3	-2,988.6	-137.7	2,989.6	0.00	0.00	0.00
13,600.0	89.66	179.54	10,346.9	-3,088.6	-136.9	3,089.6	0.00	0.00	0.00
13,700.0	89.66	179.54	10,347.5	-3,188.6	-136.1	3,189.5	0.00	0.00	0.00
13,800.0	89.66	179.54	10,348.1	-3,288.6	-135.3	3,289.5	0.00	0.00	0.00
13,900.0	89.66	179.54	10,348.7	-3,388.6	-134.4	3,389.5	0.00	0.00	0.00
14,000.0	89.66	179.54	10,349.3	-3,488.6	-133.6	3,489.5	0.00	0.00	0.00
14,100.0	89.66	179.54	10,349.9	-3,588.6	-132.8	3,589.5	0.00	0.00	0.00
14,200.0	89.66	179.54	10,350.5	-3,688.6	-132.0	3,689.5	0.00	0.00	0.00
14,300.0	89.66	179.54	10,351.1	-3,788.6	-131.2	3,789.5	0.00	0.00	0.00
14,400.0	89.66	179.54	10,351.7	-3,888.5	-130.4	3,889.4	0.00	0.00	0.00
14,500.0	89.66	179.54	10,352.3	-3,988.5	-129.6	3,989.4	0.00	0.00	0.00
14,600.0	89.66	179.54	10,352.9	-4,088.5	-128.8	4,089.4	0.00	0.00	0.00
14,700.0	89.66	179.54	10,353.5	-4,188.5	-128.0	4,189.4	0.00	0.00	0.00
14,800.0	89.66	179.54	10,354.1	-4,288.5	-127.2	4,289.4	0.00	0.00	0.00
14,900.0	89.66	179.54	10,354.7	-4,388.5	-126.3	4,389.4	0.00	0.00	0.00
15,000.0	89.66	179.54	10,355.3	-4,488.5	-125.5	4,489.4	0.00	0.00	0.00
15,100.0	89.66	179.54	10,355.9	-4,588.5	-124.7	4,589.3	0.00	0.00	0.00
15,200.0	89.66	179.54	10,356.5	-4,688.5	-123.9	4,689.3	0.00	0.00	0.00
15,300.0	89.66	179.54	10,357.1	-4,788.5	-123.1	4,789.3	0.00	0.00	0.00
15,359.4	89.66	179.54	10,357.5	-4,847.9	-122.6	4,848.7	0.00	0.00	0.00
Start DLS 2.00 TFO -90.04									
15,360.5	89.66	179.51	10,357.5	-4,849.0	-122.6	4,849.8	2.00	0.00	-2.00
Start 5233.6 hold at 15360.5 MD									
15,400.0	89.66	179.51	10,357.7	-4,888.5	-122.3	4,889.3	0.00	0.00	0.00
15,500.0	89.66	179.51	10,358.3	-4,988.5	-121.4	4,989.3	0.00	0.00	0.00
15,600.0	89.66	179.51	10,358.9	-5,088.5	-120.6	5,089.3	0.00	0.00	0.00
15,700.0	89.66	179.51	10,359.5	-5,188.5	-119.7	5,189.3	0.00	0.00	0.00
15,800.0	89.66	179.51	10,360.2	-5,288.5	-118.9	5,289.2	0.00	0.00	0.00
15,900.0	89.66	179.51	10,360.8	-5,388.5	-118.0	5,389.2	0.00	0.00	0.00
16,000.0	89.66	179.51	10,361.4	-5,488.5	-117.2	5,489.2	0.00	0.00	0.00
16,100.0	89.66	179.51	10,362.0	-5,588.5	-116.3	5,589.2	0.00	0.00	0.00
16,200.0	89.66	179.51	10,362.6	-5,688.5	-115.5	5,689.2	0.00	0.00	0.00
16,300.0	89.66	179.51	10,363.2	-5,788.4	-114.6	5,789.2	0.00	0.00	0.00
16,400.0	89.66	179.51	10,363.8	-5,888.4	-113.8	5,889.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	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)
16,500.0	89.66	179.51	10,364.4	-5,988.4	-113.0	5,989.1	0.00	0.00	0.00
16,600.0	89.66	179.51	10,365.0	-6,088.4	-112.1	6,089.1	0.00	0.00	0.00
16,700.0	89.66	179.51	10,365.6	-6,188.4	-111.3	6,189.1	0.00	0.00	0.00
16,800.0	89.66	179.51	10,366.2	-6,288.4	-110.4	6,289.1	0.00	0.00	0.00
16,900.0	89.66	179.51	10,366.8	-6,388.4	-109.6	6,389.1	0.00	0.00	0.00
17,000.0	89.66	179.51	10,367.4	-6,488.4	-108.7	6,489.1	0.00	0.00	0.00
17,100.0	89.66	179.51	10,368.0	-6,588.4	-107.9	6,589.0	0.00	0.00	0.00
17,200.0	89.66	179.51	10,368.6	-6,688.4	-107.0	6,689.0	0.00	0.00	0.00
17,300.0	89.66	179.51	10,369.2	-6,788.4	-106.2	6,789.0	0.00	0.00	0.00
17,400.0	89.66	179.51	10,369.8	-6,888.4	-105.3	6,889.0	0.00	0.00	0.00
17,500.0	89.66	179.51	10,370.4	-6,988.4	-104.5	6,989.0	0.00	0.00	0.00
17,600.0	89.66	179.51	10,371.0	-7,088.4	-103.6	7,089.0	0.00	0.00	0.00
17,700.0	89.66	179.51	10,371.6	-7,188.4	-102.8	7,189.0	0.00	0.00	0.00
17,800.0	89.66	179.51	10,372.2	-7,288.4	-101.9	7,288.9	0.00	0.00	0.00
17,900.0	89.66	179.51	10,372.8	-7,388.4	-101.1	7,388.9	0.00	0.00	0.00
18,000.0	89.66	179.51	10,373.4	-7,488.4	-100.2	7,488.9	0.00	0.00	0.00
18,100.0	89.66	179.51	10,374.0	-7,588.3	-99.4	7,588.9	0.00	0.00	0.00
18,200.0	89.66	179.51	10,374.6	-7,688.3	-98.5	7,688.9	0.00	0.00	0.00
18,300.0	89.66	179.51	10,375.2	-7,788.3	-97.7	7,788.9	0.00	0.00	0.00
18,400.0	89.66	179.51	10,375.8	-7,888.3	-96.9	7,888.8	0.00	0.00	0.00
18,500.0	89.66	179.51	10,376.4	-7,988.3	-96.0	7,988.8	0.00	0.00	0.00
18,600.0	89.66	179.51	10,377.0	-8,088.3	-95.2	8,088.8	0.00	0.00	0.00
18,700.0	89.66	179.51	10,377.6	-8,188.3	-94.3	8,188.8	0.00	0.00	0.00
18,800.0	89.66	179.51	10,378.2	-8,288.3	-93.5	8,288.8	0.00	0.00	0.00
18,900.0	89.66	179.51	10,378.8	-8,388.3	-92.6	8,388.8	0.00	0.00	0.00
19,000.0	89.66	179.51	10,379.4	-8,488.3	-91.8	8,488.8	0.00	0.00	0.00
19,100.0	89.66	179.51	10,380.0	-8,588.3	-90.9	8,588.7	0.00	0.00	0.00
19,200.0	89.66	179.51	10,380.6	-8,688.3	-90.1	8,688.7	0.00	0.00	0.00
19,300.0	89.66	179.51	10,381.2	-8,788.3	-89.2	8,788.7	0.00	0.00	0.00
19,400.0	89.66	179.51	10,381.8	-8,888.3	-88.4	8,888.7	0.00	0.00	0.00
19,500.0	89.66	179.51	10,382.4	-8,988.3	-87.5	8,988.7	0.00	0.00	0.00
19,600.0	89.66	179.51	10,383.0	-9,088.3	-86.7	9,088.7	0.00	0.00	0.00
19,700.0	89.66	179.51	10,383.6	-9,188.3	-85.8	9,188.7	0.00	0.00	0.00
19,800.0	89.66	179.51	10,384.2	-9,288.3	-85.0	9,288.6	0.00	0.00	0.00
19,900.0	89.66	179.51	10,384.8	-9,388.3	-84.1	9,388.6	0.00	0.00	0.00
20,000.0	89.66	179.51	10,385.4	-9,488.2	-83.3	9,488.6	0.00	0.00	0.00
20,100.0	89.66	179.51	10,386.0	-9,588.2	-82.4	9,588.6	0.00	0.00	0.00
20,200.0	89.66	179.51	10,386.6	-9,688.2	-81.6	9,688.6	0.00	0.00	0.00
20,300.0	89.66	179.51	10,387.2	-9,788.2	-80.8	9,788.6	0.00	0.00	0.00
20,400.0	89.66	179.51	10,387.8	-9,888.2	-79.9	9,888.5	0.00	0.00	0.00
20,500.0	89.66	179.51	10,388.4	-9,988.2	-79.1	9,988.5	0.00	0.00	0.00
20,594.0	89.66	179.51	10,389.0	-10,082.2	-78.3	10,082.5	0.00	0.00	0.00
TD at 20594.0									

Concho Resources LLC

Survey Report

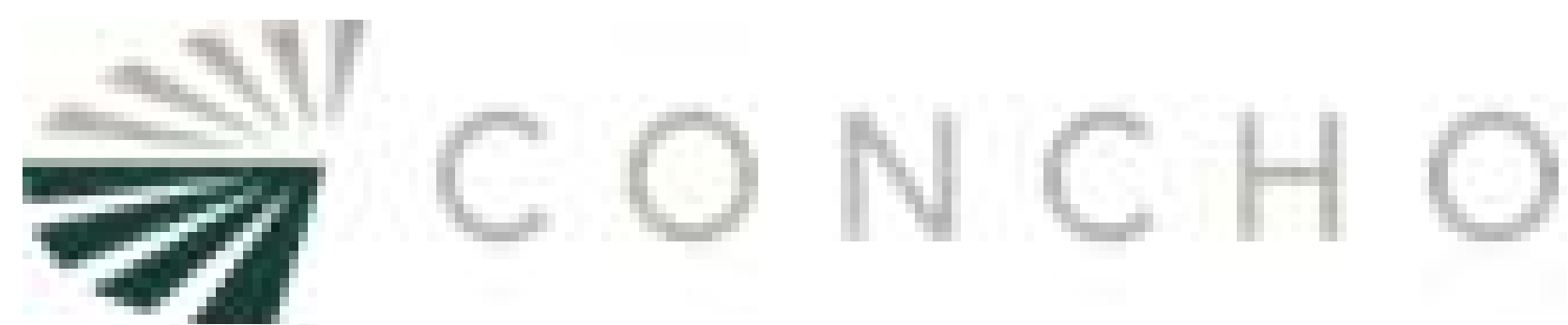
Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 302H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3368.5usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3368.5usft (TBD)
Well:	GUNNER 8 FEDERAL COM 302H	North Reference:	Grid
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)

Design Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
FTP (GUNNER 8 FEC	- Shape	0.00	0.00	10,329.0	328.6	-165.9	393,588.40	758,934.20	Latitude Longitude
- plan misses target center by 169.3usft at 10270.8usft MD (10207.7 TVD, 210.5 N, -163.6 E)									
- Circle (radius 50.0)									
POI 1 (GUNNER 8 FE	- Shape	-0.34	359.54	10,357.5	-4,847.9	-122.6	388,411.90	758,977.48	32° 3' 54.368 N 103° 29' 50.387 W
- plan hits target center									
- Rectangle (sides W100.0 H5,226.0 D20.0)									
LTP (GUNNER 8 FED	- Shape	0.00	0.00	10,389.0	-10,033.0	-78.6	383,226.80	759,021.50	32° 3' 3.055 N 103° 29' 50.342 W
- plan misses target center by 44.8usft at 20500.0usft MD (10388.4 TVD, -9988.2 N, -79.1 E)									
- Point									
PBHL (GUNNER 8 FE	- Shape	-0.34	359.51	10,389.0	-10,082.2	-78.3	383,177.56	759,021.83	32° 3' 2.568 N 103° 29' 50.342 W
- plan hits target center									
- Rectangle (sides W100.0 H5,237.0 D20.0)									

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2500	2500	0	0	Start Build 2.00	
2750	2750	10	-4	Start 4272.6 hold at 2750.0 MD	
7023	7006	350	-156	Start Drop -1.00	
7523	7505	370	-165	Start 2346.1 hold at 7522.6 MD	
9869	9851	370	-165	Start DLS 12.00 TFO 179.54	
10,616	10,329	-105	-161	Start 4743.6 hold at 10615.8 MD	
15,359	10,358	-4848	-123	Start DLS 2.00 TFO -90.04	
15,360	10,358	-4849	-123	Start 5233.6 hold at 15360.5 MD	
20,594	10,389	-10,082	-78	TD at 20594.0	

Checked By: _____	Approved By: _____	Date: _____
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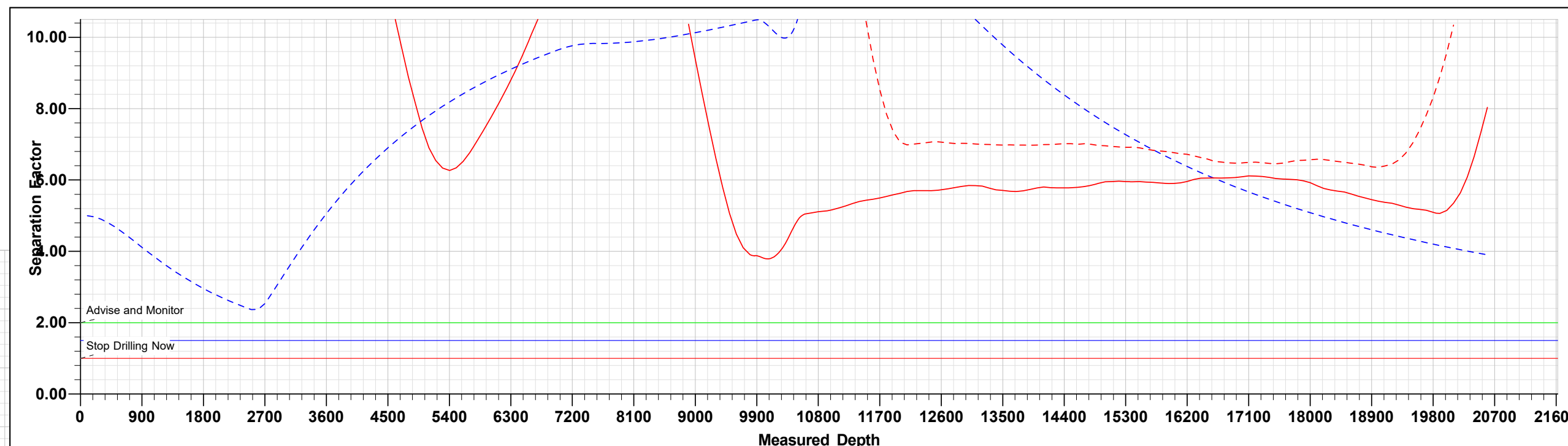
Project: BULLDOG PROSPECT (NM-E)
Site: GUNNER FEDERAL PROJECT (BULLDOG 2634)
Well: GUNNER 8 FEDERAL COM 302H
Wellbore: OWB
Design: PWP1
GL: 3338.5
KB=30' @ 3368.5usft (TBD)

WELL DETAILS: GUNNER 8 FEDERAL COM 302H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	393259.80	759100.10	32° 4' 42.331 N	103° 29' 48.525 W

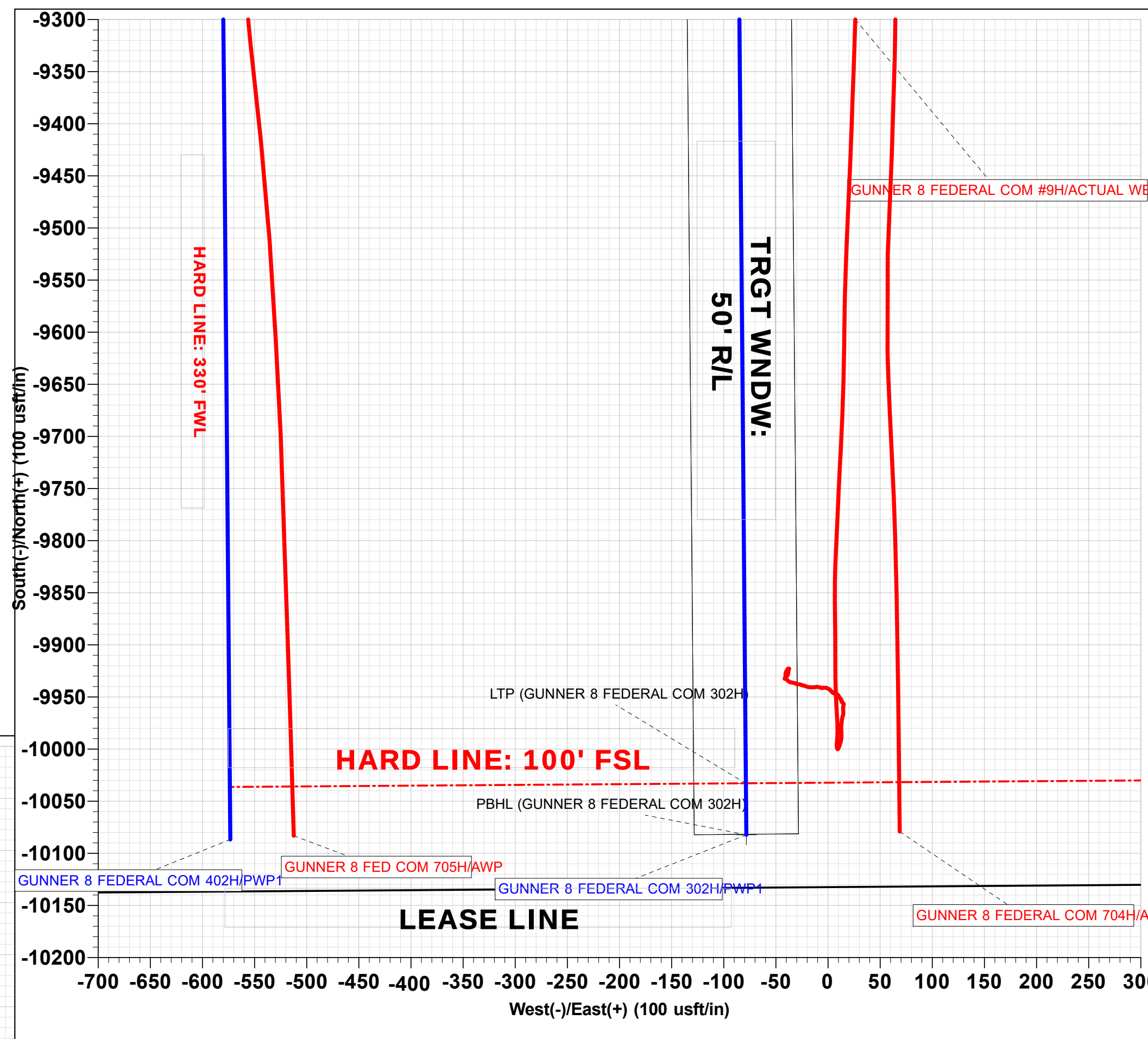
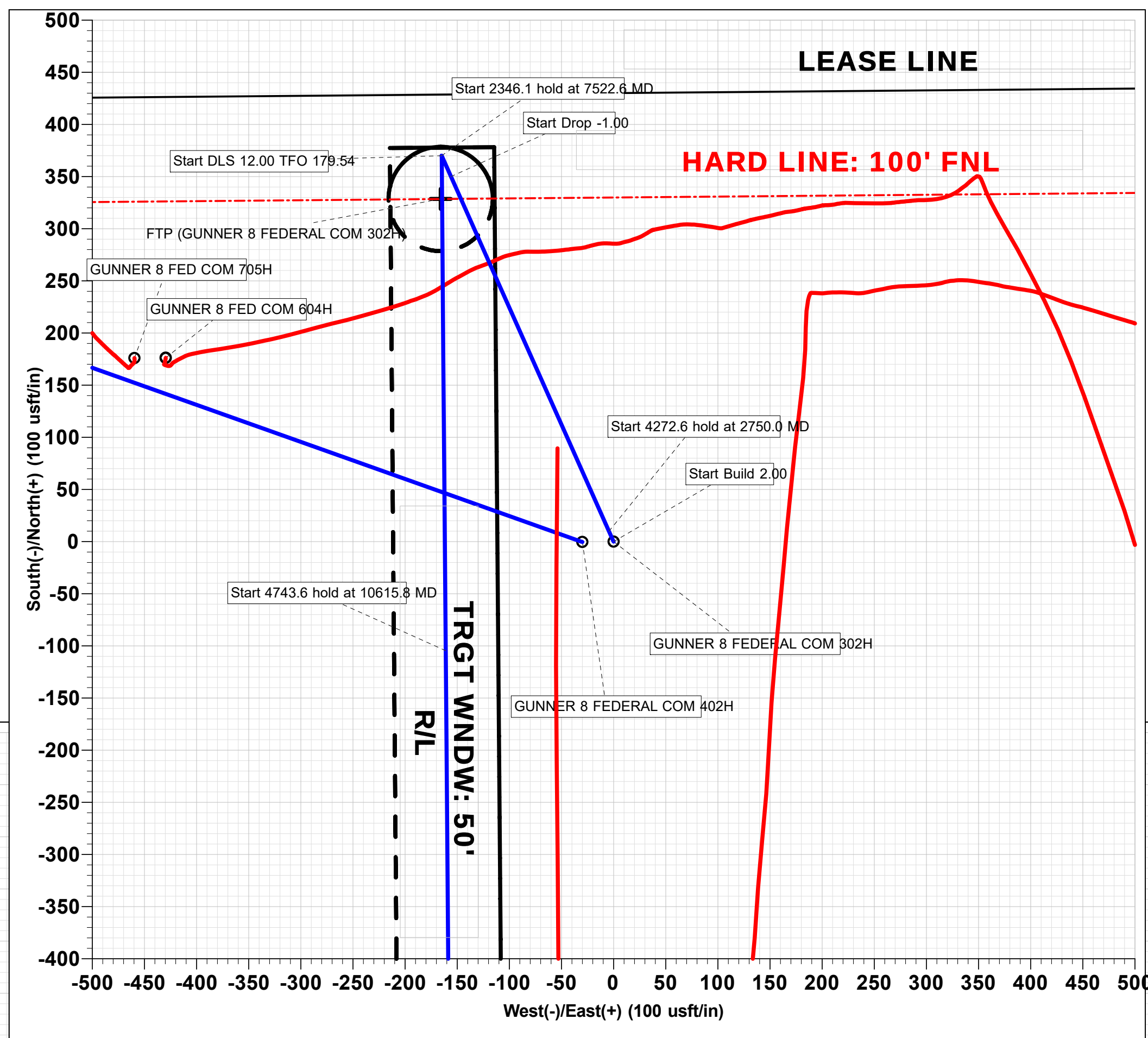
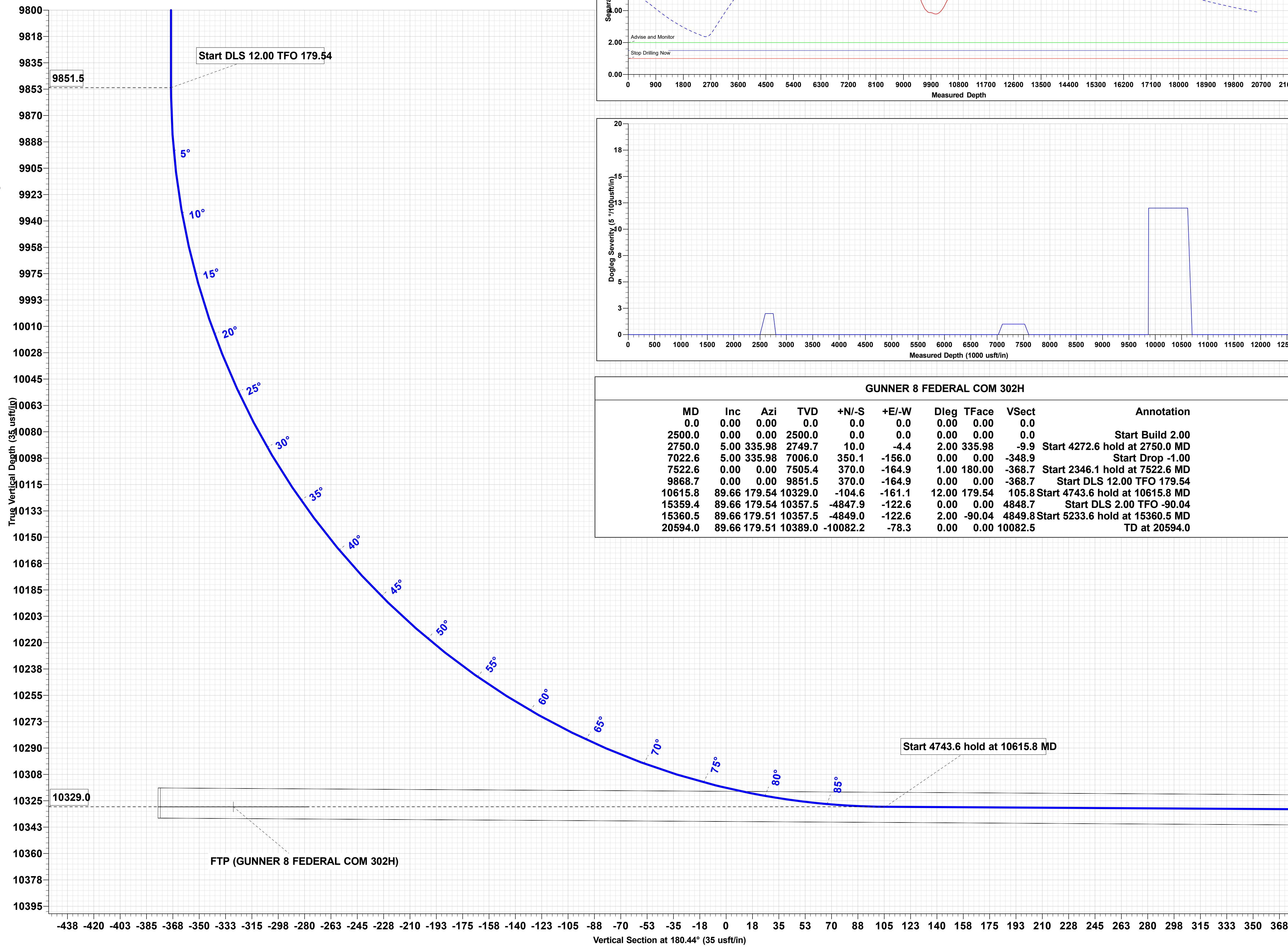
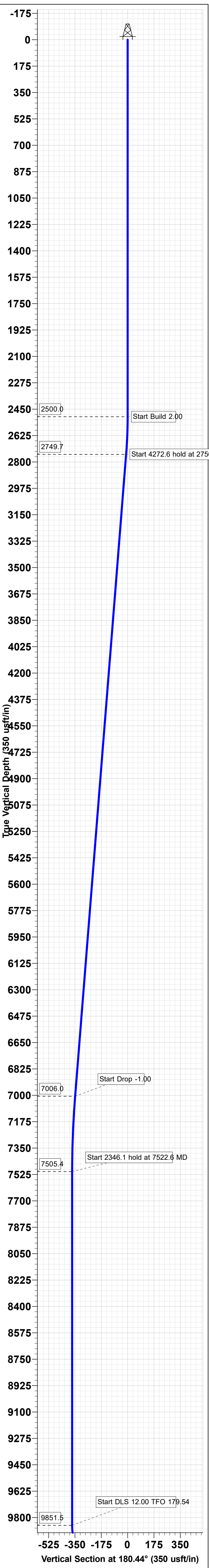
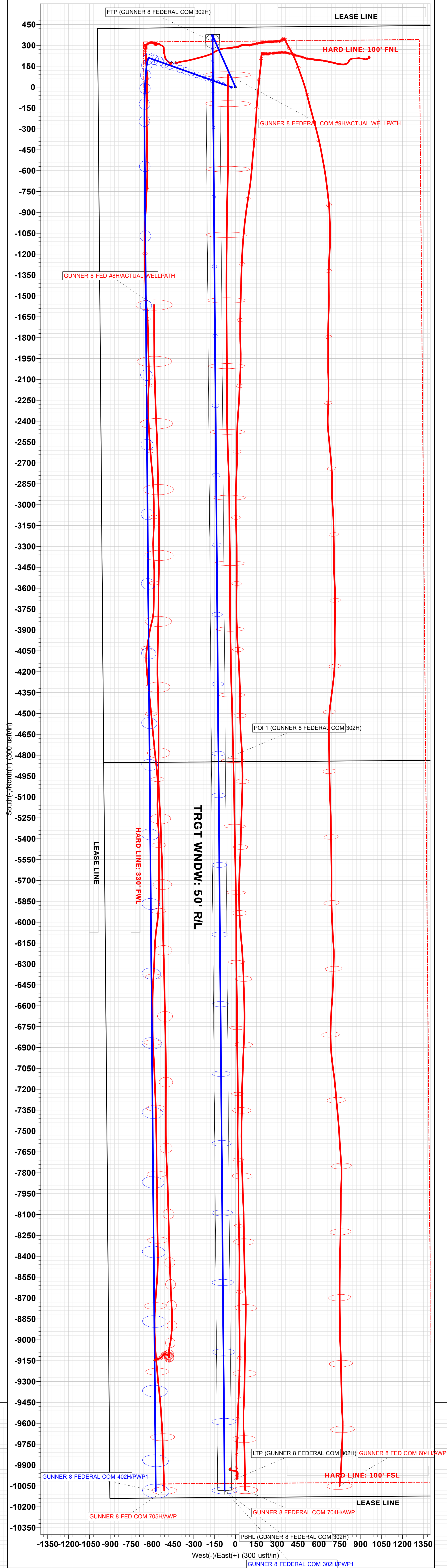
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (GUNNER 8 FEDERAL COM 302H)	10329.0	328.6	-165.9	393588.40	758934.20	32° 4' 45.596 N	103° 29' 50.423 W
POI 1 (GUNNER 8 FEDERAL COM 302H)	10357.5	-4847.9	-122.6	388411.90	758977.48	32° 3' 54.368 N	103° 29' 50.387 W
LTP (GUNNER 8 FEDERAL COM 302H)	10389.0	-10033.0	-78.6	383226.80	759021.50	32° 3' 3.055 N	103° 29' 50.342 W
PBHL (GUNNER 8 FEDERAL COM 302H)	10389.0	-10082.2	-78.3	383177.56	759021.84	32° 3' 2.568 N	103° 29' 50.342 W



GUNNER 8 FEDERAL COM 302H

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
2750.0	5.00	335.98	2749.7	10.0	-4.4	2.00	335.98	-9.9	Start 4272.6 hold at 2750.0 MD
7022.6	5.00	335.98	7006.0	350.1	-156.0	0.00	0.00	-348.9	Start Drop -1.00
7522.6	0.00	0.00	7505.4	370.0	-164.9	1.00	180.00	-368.7	Start 2346.1 hold at 7522.6 MD
9868.7	0.00	0.00	9851.5	370.0	-164.9	0.00	0.00	-368.7	Start DLS 12.00 TFO 179.54
10615.8	89.66	179.54	10329.0	-104.6	-161.1	12.00	179.54	105.8	Start 4743.6 hold at 10615.8 MD
15369.4	89.66	179.54	10357.5	-4847.9	-122.6	0.00	0.00	4848.7	Start DLS 2.00 TFO -90.04
15360.5	89.66	179.51	10357.5	-4849.0	-122.6	2.00	-90.04	4849.8	Start 5233.6 hold at 15360.5 MD
20594.0	89.66	179.51	10389.0	-10082.2	-78.3	0.00	0.00	10082.5	TD at 20594.0



TRGT WNDW: 10' A/B

