

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.	
2. Name of Operator		9. API Well No. 30 015 48799	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State			
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		16. No of acres in lease	
17. Spacing Unit dedicated to this well			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file			
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work will start*	
23. Estimated duration			
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Office	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 07/20/2021

Additional Operator Remarks

Location of Well

0. SHL: SWSW / 785 FSL / 830 FWL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.095699 / LONG: -103.995203 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 330 FSL / 1254 FWL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.09445 / LONG: -103.99382 (TVD: 10767 feet, MD: 10800 feet)

BHL: NWNW / 200 FNL / 1254 FWL / TWSP: 25S / RANGE: 29E / SECTION: 21 / LAT: 32.122176 / LONG: -103.993972 (TVD: 10981 feet, MD: 20618 feet)

BLM Point of Contact

Name: Gavin Mickwee

Title: Land Law Examiner

Phone: (575) 234-5972

Email: gmickwee@blm.gov

CONFIDENTIAL

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (505) 393-6161 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) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015- 48799	Pool Code 98220	Pool Name Purple Sage; Wolfcamp (Gas)
Property Code 313927	Property Name ADMIRAL FEDERAL COM	Well Number 805H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 2991.8'

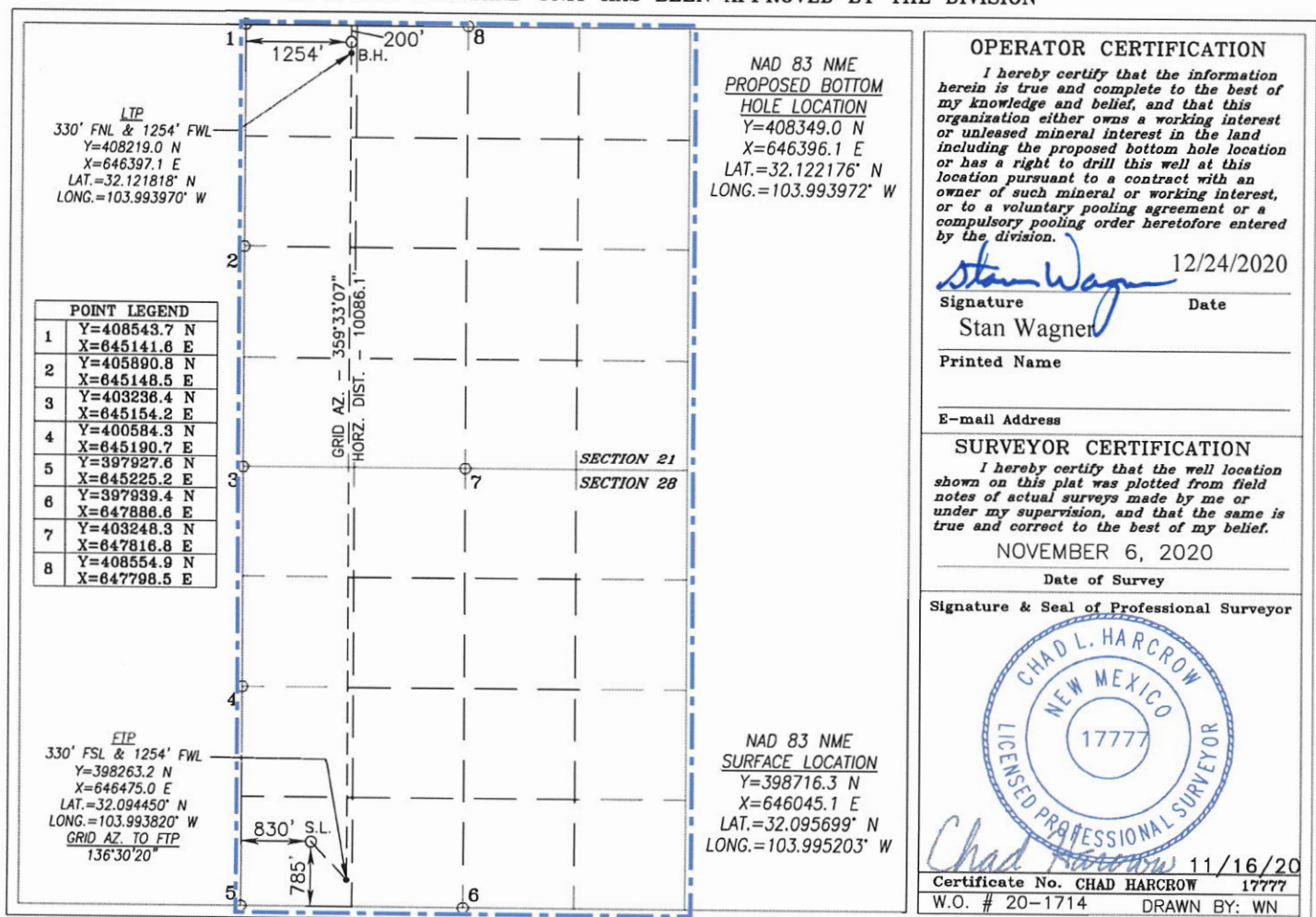
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	28	25-S	29-E		785	SOUTH	830	WEST	EDDY

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
D	21	25-S	29-E		200	NORTH	1254	WEST	EDDY
Dedicated Acres 1280	Joint or Infill	Consolidation Code	Order No.						

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



Intent ☒ As Drilled ☐

API #

30-015

Operator Name:

COG Operating LLC

Property Name:

Admiral Federal Com

Well Number

805H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	28	25S	29E						Eddy
Latitude					Longitude				NAD
									83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	28	25S	29E		330	South	1254	West	Eddy
Latitude					Longitude				NAD
32.094450					-103.993820				NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	21	25S	29E		330	North	1254	West	Eddy
Latitude					Longitude				NAD
32.121818					-103.993970				NAD 83

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

☐ No

Is this well an infill well?

☐ Yes

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

API #

30-015-

Operator Name:

COG Operating LLC

Property Name:

Admiral Federal Com

Well Number

704H

KZ 06/29/2018

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description Effective May 25, 2021

I. Operator: COG Operating LLC

OGRID: 239137

Date: 11/30/2020

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Admiral Federal Com 701H	30-015-	O-28-25S-29E	311 FSL & 1570 FEL	± 1342	± 4687	± 4046
Admiral Federal Com 704H	30-015-	N-28-25S-29E	220 FSL & 1530 FWL	± 1342	± 4687	± 4046
Admiral Federal Com 705H	30-015-	N-28-25S-29E	220 FSL & 1500 FWL	± 1342	± 4687	± 4046
Admiral Federal Com 706H	30-015-	N-28-25S-29E	220 FSL & 1470 FWL	± 1342	± 4687	± 4046
Admiral Federal Com 804H	30-015-	M-28-25S-29E	785 FSL & 860 FWL	± 780	± 8000	± 4251
Admiral Federal Com 805H	30-015-	M-28-25S-29E	785 FSL & 830 FWL	± 1283	± 8000	± 5558
Admiral Federal Com 806H	30-015-	M-28-25S-29E	785 FSL & 800 FWL	± 780	± 8000	± 4251

IV. Central Delivery Point Name: Admiral Fed Com CTB A 778 FSL & 1868 FWL 28-25S-29E [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Admiral Federal Com	Pending	± 10/1/2022	± 25 days from spud	TBD	TBD	TBD
701H, 704H, 705H, 706H, 804H, 805H, 806H						

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

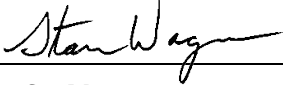
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 07/26/2021
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

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

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

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

C. Completion Operations

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

D. Venting and flaring during production operations

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

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

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

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

F. Measurement of vented and flared natural gas.

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

VIII. Best Management Practices

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

COG Operating, LLC - Admiral Federal Com #805H

1. Geologic Formations

TVD of target	10,981' EOL	Pilot hole depth	NA
MD at TD:	20,619'	Deepest expected fresh water:	200'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	559	Water	
Top of Salt	731	Salt	
Base of Salt	2731	Salt	
Lamar	2912	Salt Water	
Bell Canyon	2956	Salt Water	
Brushy Canyon	5082	Oil/Gas	
Bone Spring Lime	6676	Oil/Gas	
1st Bone Spring Sand	7590	Oil/Gas	
2nd Bone Spring Sand	8256	Oil/Gas	
3rd Bone Spring Sand	8684	Oil/Gas	
Wolfcamp	9876	Oil/Gas	
Wolfcamp B	10348	Oil/Gas	
Wolfcamp C	10476	Oil/Gas	
Wolfcamp D	10891	Target Oil/Gas	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	681	10.75"	45.5	N80	BTC	8.11	1.58	33.56	35.40
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.50	1.27	2.88	2.90
8.750"	8500	10366	7.625"	29.7	HCP 110	TL-FJ	1.39	1.32	3.05	2.14
6.75"	0	10166	5.5"	23	P110	BTC	2.12	2.52	2.89	2.87
6.75"	10166	20,619	5.5"	23	P110	Talon HTQ	2.12	2.52	2.89	2.80
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.

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

COG Operating, LLC - Admiral Federal Com #805H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

COG Operating, LLC - Admiral Federal Com #805H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	220	13.5	1.75	9	12	Lead: Class C + 4% Gel
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter.	1400	11	2.8	19	48	Lead: NeoCem
	300	16.4	1.1	5	8	Tail: Class H
5.5 Prod	750	12.7	2	10.6	16	Lead: 35:65:6 H Blend
	1200	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	8,000'	35%

COG Operating, LLC - Admiral Federal Com #805H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	2500 psi
			Blind Ram		3M
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8 1/2"	13-5/8"	5M	5M Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram	x	
			Double Ram	x	
			Other*		

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

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

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

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

COG Operating, LLC - Admiral Federal Com #805H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.4 - 8.6	28-29	N/C
Surf csg	Int shoe	Diesel Brine Emul	8.6 - 9.4	30-40	N/C
Int shoe	Lateral TD	OBM	10.5 - 12	30-40	20

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	Are Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

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

COG Operating, LLC - Admiral Federal Com #805H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	6855 psi at 10981' TVD
Abnormal Temperature	NO 165 Deg. F.

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

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

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

8. Other Facets of Operation

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

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan
x	5M Annular Variance

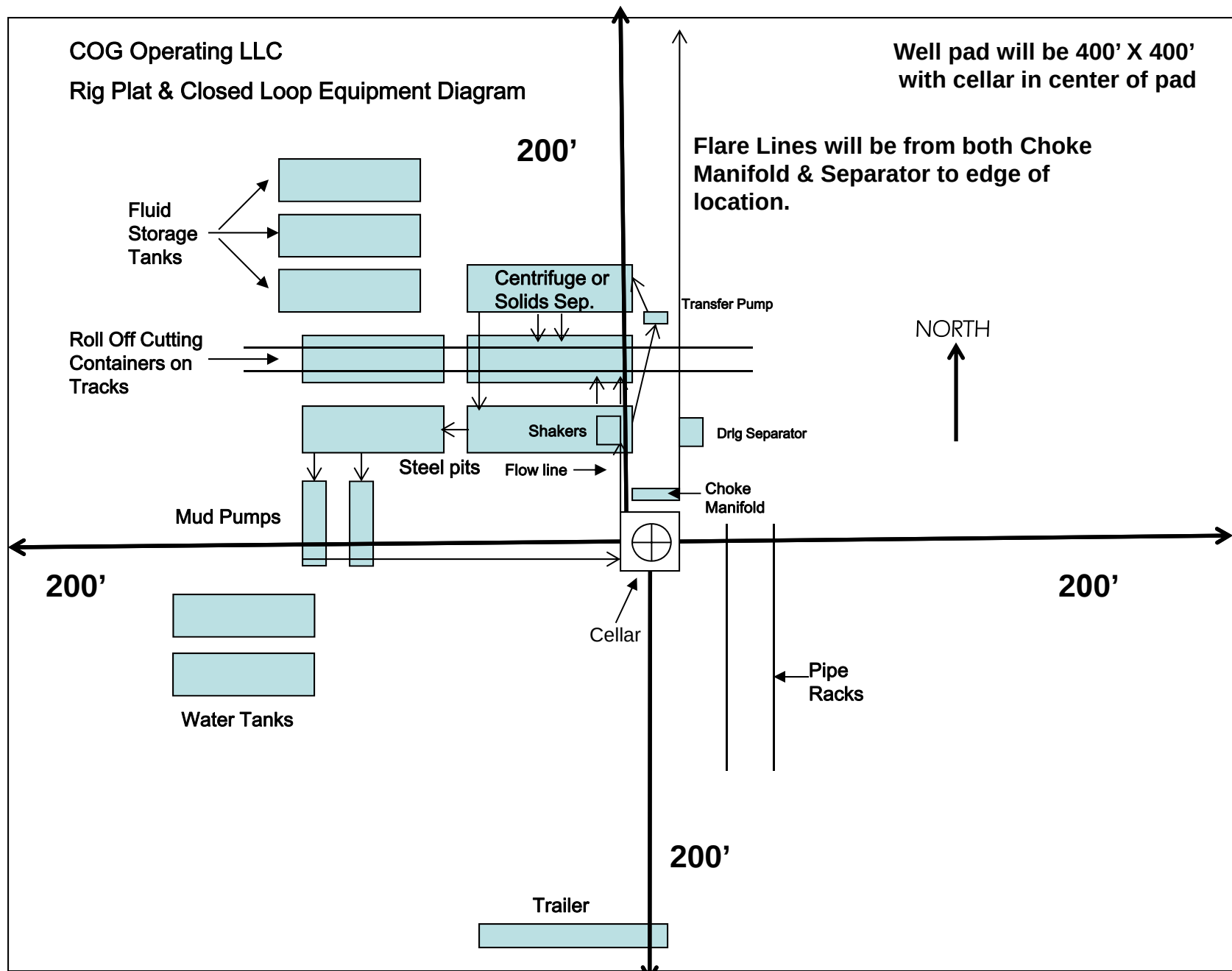


Exhibit 1

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

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

ADMIRAL FEDERAL PROJECT (ATLAS 2529)

ADMIRAL FEDERAL #805H

OWB

PWP1

Anticollision Report

10 December, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	12/10/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,515.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,515.0	20,618.9	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						
ADMIRAL FEDERAL PROJECT (ATLAS 2529)						
ADMIRAL FEDERAL #705H - OWB - PWP1	10,185.6	10,567.6	230.6	211.8	12.224	CC, ES
ADMIRAL FEDERAL #705H - OWB - PWP1	20,618.9	20,329.8	803.6	641.1	4.947	SF
ADMIRAL FEDERAL #706H - OWB - PWP1	8,046.3	8,052.0	437.0	399.8	11.741	CC
ADMIRAL FEDERAL #706H - OWB - PWP1	8,100.0	8,104.7	437.2	399.7	11.673	ES
ADMIRAL FEDERAL #706H - OWB - PWP1	20,618.9	20,198.4	1,208.9	1,033.8	6.904	SF
ADMIRAL FEDERAL #804H - OWB - PWP1	2,500.0	2,499.7	30.1	23.2	4.364	CC, ES, SF
ADMIRAL FEDERAL #806H - OWB - PWP1	2,416.6	2,416.9	30.0	17.6	2.424	CC
ADMIRAL FEDERAL #806H - OWB - PWP1	2,500.0	2,500.0	30.0	17.3	2.365	ES, SF
ADMIRAL FEDERAL COM 501H - OWB - AWP	2,108.1	2,100.0	563.0	555.6	76.564	CC, ES
ADMIRAL FEDERAL COM 501H - OWB - AWP	9,100.0	9,026.2	916.1	893.6	40.596	SF
ADMIRAL FEDERAL COM 502H - OWB - AWP	8,701.0	9,085.8	402.0	365.4	10.963	CC, ES, SF

Offset Design ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	129.69	-562.1	677.4	880.3				
100.0	100.0	92.4	92.4	3.0	3.0	129.69	-562.1	677.4	880.2	874.2	6.00	146.697	
200.0	200.0	192.4	192.4	3.0	3.0	129.69	-562.1	677.4	880.2	874.2	6.01	146.562	
300.0	300.0	292.4	292.4	3.0	3.0	129.69	-562.1	677.4	880.2	874.2	6.02	146.265	
400.0	400.0	392.4	392.4	3.0	3.0	129.69	-562.1	677.4	880.2	874.2	6.04	145.810	
500.0	500.0	492.4	492.4	3.1	3.1	129.69	-562.1	677.4	880.2	874.2	6.06	145.201	
600.0	600.0	592.4	592.4	3.1	3.1	129.69	-562.1	677.4	880.2	874.1	6.09	144.445	
700.0	700.0	692.4	692.4	3.1	3.1	129.69	-562.1	677.4	880.2	874.1	6.13	143.547	
800.0	800.0	792.4	792.4	3.2	3.2	129.69	-562.1	677.4	880.2	874.1	6.18	142.517	
900.0	900.0	892.4	892.4	3.2	3.2	129.69	-562.1	677.4	880.2	874.0	6.23	141.363	
1,000.0	1,000.0	992.4	992.4	3.2	3.2	129.69	-562.1	677.4	880.2	874.0	6.28	140.095	
1,100.0	1,100.0	1,092.4	1,092.4	3.3	3.3	129.69	-562.1	677.4	880.2	873.9	6.35	138.723	
1,200.0	1,200.0	1,192.4	1,192.4	3.4	3.3	129.69	-562.1	677.4	880.2	873.8	6.41	137.257	
1,300.0	1,300.0	1,292.4	1,292.4	3.4	3.4	129.69	-562.1	677.4	880.2	873.8	6.49	135.707	
1,400.0	1,400.0	1,392.4	1,392.4	3.5	3.5	129.69	-562.1	677.4	880.2	873.7	6.56	134.085	

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

Concho Resources LLC

Anticollision Report

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Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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		
1,500.0	1,500.0	1,492.4	1,492.4	3.5	3.5	129.69	-562.1	677.4	880.2	873.6	6.65	132.400		
1,600.0	1,600.0	1,592.4	1,592.4	3.6	3.6	129.69	-562.1	677.4	880.2	873.5	6.74	130.661		
1,700.0	1,700.0	1,692.4	1,692.4	3.7	3.7	129.69	-562.1	677.4	880.2	873.4	6.83	128.879		
1,800.0	1,800.0	1,792.4	1,792.4	3.8	3.8	129.69	-562.1	677.4	880.2	873.3	6.93	127.063		
1,900.0	1,900.0	1,892.4	1,892.4	3.9	3.8	129.69	-562.1	677.4	880.2	873.2	7.03	125.219		
2,000.0	2,000.0	1,992.4	1,992.4	3.9	3.9	129.69	-562.1	677.4	880.2	873.1	7.14	123.357		
2,100.0	2,100.0	2,092.4	2,092.4	4.0	4.0	129.69	-562.1	677.4	880.2	873.0	7.25	121.483		
2,200.0	2,200.0	2,192.4	2,192.4	4.1	4.1	129.69	-562.1	677.4	880.2	872.9	7.36	119.604		
2,300.0	2,300.0	2,292.4	2,292.4	4.2	4.2	129.69	-562.1	677.4	880.2	872.8	7.48	117.726		
2,400.0	2,400.0	2,392.4	2,392.4	4.3	4.3	129.69	-562.1	677.4	880.2	872.6	7.60	115.853		
2,500.0	2,500.0	2,492.4	2,492.4	4.4	4.4	129.69	-562.1	677.4	880.2	872.5	7.72	113.990		
2,600.0	2,600.0	2,573.6	2,573.6	4.5	4.4	129.72	-563.0	677.7	881.2	873.4	7.81	112.807		
2,700.0	2,700.0	2,653.2	2,653.1	4.6	4.4	129.83	-566.0	678.6	884.5	876.6	7.88	112.220		
2,800.0	2,800.0	2,740.9	2,740.6	4.7	4.4	130.04	-571.5	680.2	889.9	882.0	7.95	111.950		
2,900.0	2,900.0	2,840.7	2,840.2	4.8	4.4	130.29	-578.2	682.1	895.7	887.7	8.02	111.630		
3,000.0	3,000.0	2,940.4	2,939.7	4.9	4.3	130.53	-584.9	684.1	901.6	893.5	8.10	111.253		
3,100.0	3,100.0	3,040.2	3,039.2	5.0	4.3	130.77	-591.6	686.1	907.4	899.3	8.19	110.824		
3,200.0	3,200.0	3,139.9	3,138.7	5.1	4.3	131.01	-598.2	688.0	913.3	905.0	8.28	110.345		
3,300.0	3,300.0	3,239.7	3,238.2	5.2	4.3	131.24	-604.9	690.0	919.2	910.8	8.37	109.820		
3,400.0	3,400.0	3,339.4	3,337.7	5.3	4.3	131.47	-611.6	692.0	925.1	916.6	8.47	109.250		
3,500.0	3,500.0	3,439.2	3,437.2	5.4	4.3	131.70	-618.3	693.9	931.0	922.5	8.57	108.639		
3,600.0	3,600.0	3,539.0	3,536.7	5.5	4.3	131.93	-624.9	695.9	937.0	928.3	8.68	107.991		
3,700.0	3,700.0	3,638.7	3,636.3	5.7	4.3	132.15	-631.6	697.8	942.9	934.1	8.79	107.308		
3,800.0	3,800.0	3,738.5	3,735.8	5.8	4.3	132.37	-638.3	699.8	948.9	940.0	8.90	106.593		
3,900.0	3,900.0	3,838.2	3,835.3	5.9	4.3	132.58	-645.0	701.8	954.8	945.8	9.02	105.849		
4,000.0	4,000.0	3,938.0	3,934.8	6.0	4.3	132.80	-651.6	703.7	960.8	951.7	9.14	105.079		
4,100.0	4,100.0	4,037.7	4,034.3	6.1	4.3	133.01	-658.3	705.7	966.8	957.6	9.27	104.287		
4,200.0	4,200.0	4,137.5	4,133.8	6.2	4.3	133.22	-665.0	707.7	972.8	963.4	9.40	103.474		
4,300.0	4,300.0	4,237.2	4,233.3	6.3	4.4	133.43	-671.7	709.6	978.9	969.3	9.54	102.644		
4,400.0	4,400.0	4,337.0	4,332.9	6.5	4.4	133.63	-678.3	711.6	984.9	975.2	9.68	101.800		
4,500.0	4,500.0	4,436.8	4,432.4	6.6	4.4	133.83	-685.0	713.6	991.0	981.2	9.82	100.943		
4,600.0	4,600.0	4,536.5	4,531.9	6.7	4.5	134.03	-691.7	715.5	997.0	987.1	9.96	100.076		
4,700.0	4,700.0	4,636.3	4,631.4	6.8	4.5	134.23	-698.4	717.5	1,003.1	993.0	10.11	99.202		
4,800.0	4,800.0	4,736.0	4,730.9	6.9	4.6	134.42	-705.0	719.4	1,009.2	998.9	10.26	98.322		
4,900.0	4,900.0	4,835.8	4,830.4	7.0	4.6	134.61	-711.7	721.4	1,015.3	1,004.9	10.42	97.439		
5,000.0	5,000.0	4,935.5	4,929.9	7.2	4.7	134.80	-718.4	723.4	1,021.4	1,010.8	10.58	96.557		
5,100.0	5,100.0	5,035.1	5,047.2	7.3	4.8	134.99	-725.2	725.4	1,026.7	1,016.0	10.75	95.518		
5,200.0	5,200.0	5,171.7	5,165.8	7.4	4.8	135.12	-729.7	726.7	1,030.2	1,019.3	10.92	94.332		
5,300.0	5,300.0	5,290.5	5,284.5	7.5	4.9	135.18	-731.9	727.3	1,031.9	1,020.8	11.10	93.001		
5,400.0	5,400.0	5,398.3	5,392.4	7.6	4.9	135.18	-732.1	727.4	1,032.0	1,020.8	11.24	91.787		
5,500.0	5,500.0	5,498.3	5,492.4	7.8	5.0	135.18	-732.1	727.4	1,032.0	1,020.6	11.38	90.671		
5,600.0	5,600.0	5,598.3	5,592.4	7.8	5.1	20.23	-732.1	727.4	1,030.4	1,018.9	11.46	89.881		
5,700.0	5,699.8	5,698.2	5,692.2	7.8	5.1	20.36	-732.1	727.4	1,025.5	1,014.0	11.49	89.229		
5,749.8	5,749.5	5,747.8	5,741.9	7.8	5.1	20.47	-732.1	727.4	1,021.8	1,010.3	11.51	88.774		
5,800.0	5,799.5	5,797.8	5,791.9	7.8	5.2	20.55	-732.1	727.4	1,017.7	1,006.2	11.53	88.273		
5,900.0	5,899.1	5,897.5	5,891.5	7.8	5.2	20.73	-732.1	727.4	1,009.6	998.0	11.57	87.254		
6,000.0	5,998.7	5,997.1	5,991.1	7.8	5.3	20.90	-732.1	727.4	1,001.4	989.8	11.62	86.213		
6,100.0	6,098.4	6,096.7	6,090.8	7.9	5.4	21.08	-732.1	727.4	993.3	981.6	11.66	85.153		
6,200.0	6,198.0	6,196.3	6,190.4	7.9	5.4	21.26	-732.1	727.4	985.2	973.4	11.72	84.074		
6,300.0	6,297.6	6,295.9	6,290.0	7.9	5.5	21.45	-732.1	727.4	977.1	965.3	11.77	82.978		
6,400.0	6,397.2	6,395.6	6,389.6	7.9	5.6	21.64	-732.1	727.4	968.9	957.1	11.84	81.867		

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Concho Resources LLC

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Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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		
6,500.0	6,496.8	6,495.2	6,489.2	7.9	5.7	21.83	-732.1	727.4	960.9	949.0	11.90	80.742		
6,600.0	6,596.5	6,594.8	6,588.9	7.9	5.7	22.02	-732.1	727.4	952.8	940.8	11.97	79.604		
6,700.0	6,696.1	6,694.4	6,688.5	8.0	5.8	22.22	-732.1	727.4	944.7	932.7	12.04	78.456		
6,800.0	6,795.7	6,794.0	6,788.1	8.0	5.9	22.42	-732.1	727.4	936.6	924.5	12.12	77.299		
6,900.0	6,895.3	6,893.7	6,887.7	8.0	6.0	22.63	-732.1	727.4	928.6	916.4	12.20	76.133		
7,000.0	6,994.9	6,993.3	6,987.3	8.1	6.1	22.83	-732.1	727.4	920.6	908.3	12.28	74.962		
7,100.0	7,094.6	7,092.9	7,087.0	8.1	6.2	23.05	-732.1	727.4	912.5	900.2	12.37	73.786		
7,200.0	7,194.2	7,192.5	7,186.6	8.1	6.3	23.26	-732.1	727.4	904.5	892.1	12.46	72.606		
7,300.0	7,293.8	7,292.1	7,286.2	8.2	6.3	23.48	-732.1	727.4	896.5	884.0	12.55	71.424		
7,400.0	7,393.4	7,391.8	7,385.8	8.2	6.4	23.71	-732.1	727.4	888.5	875.9	12.65	70.241		
7,500.0	7,493.0	7,491.4	7,485.4	8.2	6.5	23.93	-732.1	727.4	880.6	867.8	12.75	69.059		
7,600.0	7,592.7	7,591.0	7,585.1	8.3	6.6	24.17	-732.1	727.4	872.6	859.7	12.86	67.878		
7,700.0	7,692.3	7,690.6	7,684.7	8.3	6.7	24.40	-732.1	727.4	864.7	851.7	12.96	66.700		
7,800.0	7,791.9	7,790.2	7,784.3	8.4	6.8	24.64	-732.1	727.4	856.7	843.7	13.07	65.526		
7,900.0	7,891.5	7,889.9	7,883.9	8.4	6.9	24.89	-732.1	727.4	848.8	835.6	13.19	64.356		
8,000.0	7,991.1	7,989.5	7,983.5	8.5	7.0	25.14	-732.1	727.4	840.9	827.6	13.31	63.193		
8,100.0	8,090.8	8,089.1	8,083.2	8.5	7.1	25.39	-732.1	727.4	833.0	819.6	13.43	62.036		
8,200.0	8,190.4	8,188.7	8,182.8	8.6	7.2	25.65	-732.1	727.4	825.2	811.6	13.55	60.887		
8,300.0	8,290.0	8,288.3	8,282.4	8.7	7.3	25.91	-732.1	727.4	817.3	803.6	13.68	59.747		
8,400.0	8,389.6	8,388.0	8,382.0	8.7	7.4	26.18	-732.1	727.4	809.5	795.7	13.81	58.615		
8,500.0	8,489.2	8,487.6	8,481.6	8.8	7.5	26.46	-732.1	727.4	801.7	787.7	13.94	57.494		
8,600.0	8,588.9	8,587.2	8,581.3	8.8	7.6	26.74	-732.1	727.4	793.9	779.8	14.08	56.383		
8,700.0	8,688.5	8,686.8	8,680.9	8.9	7.7	27.02	-732.1	727.4	786.1	771.9	14.22	55.283		
8,800.0	8,788.1	8,786.4	8,780.5	9.0	7.9	27.31	-732.1	727.4	778.4	764.0	14.36	54.195		
8,900.0	8,887.7	8,886.1	8,880.1	9.1	8.0	27.61	-732.1	727.4	770.6	756.1	14.51	53.119		
9,000.0	8,987.3	8,985.7	8,979.7	9.1	8.1	27.91	-732.1	727.4	762.9	748.3	14.66	52.055		
9,100.0	9,087.0	9,085.3	9,079.4	9.2	8.2	28.22	-732.1	727.4	755.2	740.4	14.81	51.005		
9,200.0	9,186.6	9,184.9	9,179.0	9.3	8.3	28.54	-732.1	727.4	747.6	732.6	14.96	49.968		
9,300.0	9,286.2	9,284.5	9,278.6	9.4	8.4	28.86	-732.1	727.4	739.9	724.8	15.12	48.944		
9,400.0	9,385.8	9,384.2	9,378.2	9.4	8.5	29.19	-732.1	727.4	732.3	717.0	15.28	47.935		
9,500.0	9,485.4	10,600.0	10,144.6	9.5	9.9	-43.42	-93.9	580.4	722.7	687.6	35.11	20.586		
9,600.0	9,585.1	10,592.8	10,144.6	9.6	9.9	-41.66	-101.0	581.7	628.8	594.0	34.82	18.062		
9,700.0	9,684.7	10,588.5	10,144.5	9.7	9.9	-40.62	-105.2	582.4	537.2	502.9	34.24	15.689		
9,800.0	9,784.3	10,584.2	10,144.5	9.8	9.9	-39.56	-109.4	583.2	449.0	415.9	33.12	13.555		
9,900.0	9,883.9	10,580.0	10,144.5	9.8	9.9	-38.50	-113.6	583.9	366.9	335.9	31.02	11.828		
10,000.0	9,983.5	10,575.6	10,144.5	9.9	9.9	-37.43	-117.9	584.7	295.9	268.8	27.13	10.908		
10,100.0	10,083.2	10,571.3	10,144.5	10.0	9.8	-36.36	-122.1	585.5	246.0	224.7	21.28	11.561		
10,185.6	10,168.4	10,567.6	10,144.5	10.1	9.8	-35.44	-125.8	586.2	230.6	211.8	18.87	12.224 CC, ES		
10,200.0	10,182.8	10,567.0	10,144.5	10.1	9.8	-35.28	-126.4	586.3	231.1	211.9	19.20	12.036		
10,300.0	10,282.4	10,562.6	10,144.5	10.2	9.8	-34.20	-130.7	587.1	257.4	232.0	25.40	10.134		
10,400.0	10,382.0	10,558.2	10,144.4	10.3	9.8	-33.11	-135.0	587.9	314.7	283.3	31.46	10.004		
10,500.0	10,481.6	10,553.8	10,144.4	10.4	9.8	-32.01	-139.4	588.7	389.7	354.5	35.11	11.097		
10,515.4	10,497.0	10,553.1	10,144.4	10.4	9.8	-31.85	-140.0	588.8	402.2	366.8	35.33	11.382		
10,525.0	10,506.5	10,552.8	10,144.4	10.4	9.8	-20.47	-140.4	588.9	410.0	374.5	35.57	11.526		
10,550.0	10,531.5	10,552.7	10,144.4	10.4	9.8	11.57	-140.4	588.9	430.8	394.7	36.16	11.916		
10,575.0	10,556.3	10,553.9	10,144.4	10.4	9.8	30.87	-139.3	588.7	451.9	415.2	36.68	12.321		
10,600.0	10,581.1	10,556.2	10,144.4	10.4	9.8	38.42	-136.9	588.2	473.2	436.0	37.15	12.737		
10,625.0	10,605.7	10,559.8	10,144.4	10.4	9.8	40.28	-133.4	587.6	494.5	456.9	37.57	13.162		
10,650.0	10,630.0	10,564.6	10,144.5	10.4	9.8	39.48	-128.8	586.7	515.8	477.9	37.96	13.590		
10,675.0	10,654.0	10,570.5	10,144.5	10.5	9.8	37.42	-122.9	585.6	537.1	498.8	38.31	14.021		
10,700.0	10,677.7	10,577.6	10,144.5	10.5	9.9	34.79	-115.9	584.3	558.1	519.5	38.63	14.450		

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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		
10,725.0	10,700.9	10,585.9	10,144.5	10.5	9.9	31.99	-107.8	582.9	578.9	540.0	38.92	14.876		
10,750.0	10,723.5	10,595.3	10,144.6	10.5	9.9	29.24	-98.5	581.2	599.4	560.2	39.19	15.296		
10,775.0	10,745.6	10,605.8	10,144.6	10.5	9.9	26.64	-88.1	579.4	619.5	580.0	39.43	15.708		
10,800.0	10,767.1	10,617.5	10,144.7	10.5	10.0	24.26	-76.7	577.5	639.0	599.4	39.67	16.110		
10,825.0	10,787.9	10,630.2	10,144.7	10.5	10.0	22.10	-64.1	575.4	658.0	618.2	39.88	16.500		
10,850.0	10,807.9	10,643.9	10,144.7	10.6	10.1	20.17	-50.6	573.2	676.4	636.4	40.08	16.877		
10,875.0	10,827.2	10,658.6	10,144.8	10.6	10.1	18.46	-36.0	570.9	694.2	653.9	40.27	17.238		
10,900.0	10,845.6	10,674.4	10,144.9	10.6	10.2	16.95	-20.5	568.6	711.2	670.7	40.44	17.584		
10,925.0	10,863.0	10,691.0	10,144.9	10.6	10.3	15.62	-4.0	566.2	727.3	686.7	40.61	17.912		
10,950.0	10,879.6	10,708.5	10,145.0	10.7	10.3	14.45	13.4	563.8	742.7	701.9	40.76	18.219		
10,975.0	10,895.1	10,726.9	10,145.0	10.7	10.4	13.42	31.6	561.4	757.1	716.2	40.91	18.505		
11,000.0	10,909.6	10,746.1	10,145.1	10.7	10.5	12.52	50.6	559.0	770.6	729.6	41.06	18.770		
11,025.0	10,923.0	10,766.0	10,145.2	10.8	10.6	11.74	70.4	556.7	783.1	741.9	41.19	19.012		
11,050.0	10,935.2	10,786.6	10,145.2	10.8	10.7	11.06	90.8	554.4	794.6	753.3	41.32	19.230		
11,075.0	10,946.4	10,807.8	10,145.3	10.8	10.8	10.47	111.9	552.2	805.0	763.5	41.44	19.423		
11,100.0	10,956.3	10,829.6	10,145.4	10.9	10.9	9.96	133.6	550.1	814.3	772.7	41.57	19.590		
11,125.0	10,965.0	10,851.9	10,145.5	10.9	11.1	9.53	155.9	548.2	822.4	780.7	41.68	19.730		
11,150.0	10,972.6	10,874.6	10,145.6	10.9	11.2	9.17	178.5	546.3	829.4	787.6	41.80	19.844		
11,175.0	10,978.8	10,897.8	10,145.6	11.0	11.3	8.87	201.6	544.7	835.2	793.3	41.91	19.930		
11,200.0	10,983.8	10,921.2	10,145.7	11.0	11.4	8.64	225.0	543.2	839.8	797.8	42.02	19.987		
11,225.0	10,987.5	10,944.9	10,145.8	11.1	11.6	8.46	248.6	541.8	843.2	801.1	42.12	20.016		
11,250.0	10,989.9	10,968.7	10,145.9	11.1	11.7	8.34	272.4	540.7	845.3	803.1	42.23	20.018		
11,275.0	10,991.0	10,992.6	10,146.0	11.1	11.9	8.27	296.3	539.7	846.2	803.9	42.33	19.992		
11,284.1	10,991.0	11,001.4	10,146.0	11.2	11.9	8.26	305.0	539.5	846.2	803.9	42.36	19.975		
11,300.0	10,991.0	11,016.6	10,146.1	11.2	12.0	8.24	320.3	539.0	846.1	803.7	42.43	19.942		
11,400.0	10,990.9	11,115.1	10,146.4	11.4	12.6	8.23	418.8	537.4	845.6	802.8	42.86	19.731		
11,500.0	10,990.8	11,215.1	10,146.8	11.7	13.3	8.24	518.8	535.9	845.2	801.8	43.34	19.502		
11,600.0	10,990.7	11,315.1	10,147.1	12.1	14.0	8.24	618.8	534.5	844.7	800.8	43.87	19.256		
11,700.0	10,990.6	11,415.1	10,147.5	12.5	14.7	8.24	718.7	533.0	844.2	799.8	44.45	18.994		
11,800.0	10,990.5	11,515.1	10,147.8	13.0	15.4	8.25	818.7	531.6	843.8	798.7	45.07	18.720		
11,900.0	10,990.4	11,615.1	10,148.2	13.5	16.1	8.25	918.7	530.1	843.3	797.6	45.74	18.435		
12,000.0	10,990.2	11,715.1	10,148.5	14.0	16.9	8.26	1,018.7	528.7	842.9	796.4	46.46	18.142		
12,100.0	10,990.1	11,815.1	10,148.9	14.6	17.6	8.26	1,118.7	527.2	842.4	795.2	47.21	17.842		
12,200.0	10,990.0	11,915.1	10,149.2	15.2	18.4	8.26	1,218.7	525.8	841.9	793.9	48.01	17.537		
12,300.0	10,989.9	12,015.1	10,149.6	15.9	19.2	8.27	1,318.7	524.3	841.5	792.6	48.84	17.229		
12,400.0	10,989.8	12,115.1	10,149.9	16.6	19.9	8.27	1,418.7	522.9	841.0	791.3	49.71	16.919		
12,500.0	10,989.7	12,215.1	10,150.3	17.3	20.7	8.28	1,518.6	521.4	840.6	789.9	50.61	16.608		
12,600.0	10,989.6	12,315.1	10,150.6	18.0	21.5	8.28	1,618.6	520.0	840.1	788.6	51.54	16.299		
12,700.0	10,989.5	12,415.1	10,151.0	18.7	22.3	8.29	1,718.6	518.5	839.6	787.1	52.51	15.991		
12,800.0	10,989.3	12,515.1	10,151.3	19.4	23.1	8.29	1,818.6	517.1	839.2	785.7	53.50	15.686		
12,900.0	10,989.2	12,615.1	10,151.7	20.2	23.9	8.29	1,918.6	515.6	838.7	784.2	54.52	15.384		
13,000.0	10,989.1	12,715.1	10,152.1	20.9	24.8	8.30	2,018.6	514.2	838.3	782.7	55.57	15.086		
13,100.0	10,989.0	12,815.1	10,152.4	21.7	25.6	8.30	2,118.6	512.8	837.8	781.2	56.64	14.793		
13,200.0	10,988.9	12,915.1	10,152.8	22.5	26.4	8.31	2,218.6	511.3	837.3	779.6	57.73	14.505		
13,300.0	10,988.8	13,015.1	10,153.1	23.2	27.2	8.31	2,318.6	509.9	836.9	778.0	58.84	14.222		
13,400.0	10,988.7	13,115.1	10,153.5	24.0	28.0	8.32	2,418.5	508.4	836.4	776.4	59.98	13.945		
13,500.0	10,988.6	13,215.1	10,153.8	24.8	28.9	8.32	2,518.5	507.0	836.0	774.8	61.13	13.674		
13,600.0	10,988.4	13,315.1	10,154.2	25.6	29.7	8.33	2,618.5	505.5	835.5	773.2	62.31	13.410		
13,700.0	10,988.3	13,415.1	10,154.5	26.4	30.5	8.33	2,718.5	504.1	835.0	771.5	63.50	13.151		
13,800.0	10,988.2	13,515.1	10,154.9	27.2	31.4	8.33	2,818.5	502.6	834.6	769.9	64.70	12.899		
13,900.0	10,988.1	13,615.1	10,155.2	28.0	32.2	8.34	2,918.5	501.2	834.1	768.2	65.92	12.653		

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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
14,000.0	10,988.0	13,715.1	10,155.6	28.8	33.0	8.34	3,018.5	499.7	833.6	766.5	67.16	12.413	
14,100.0	10,987.9	13,815.1	10,155.9	29.6	33.9	8.35	3,118.5	498.3	833.2	764.8	68.41	12.179	
14,200.0	10,987.8	13,915.1	10,156.3	30.4	34.7	8.35	3,218.4	496.8	832.7	763.1	69.68	11.951	
14,300.0	10,987.7	14,015.1	10,156.6	31.3	35.5	8.36	3,318.4	495.4	832.3	761.3	70.95	11.730	
14,400.0	10,987.5	14,115.1	10,157.0	32.1	36.4	8.36	3,418.4	493.9	831.8	759.6	72.24	11.515	
14,500.0	10,987.4	14,215.1	10,157.3	32.9	37.2	8.36	3,518.4	492.5	831.3	757.8	73.54	11.305	
14,600.0	10,987.3	14,315.1	10,157.7	33.7	38.1	8.37	3,618.4	491.1	830.9	756.0	74.85	11.101	
14,700.0	10,987.2	14,415.1	10,158.0	34.5	38.9	8.37	3,718.4	489.6	830.4	754.3	76.17	10.902	
14,800.0	10,987.1	14,515.1	10,158.4	35.4	39.7	8.38	3,818.4	488.2	830.0	752.5	77.50	10.710	
14,900.0	10,987.0	14,615.1	10,158.8	36.2	40.6	8.38	3,918.4	486.7	829.5	750.7	78.84	10.522	
15,000.0	10,986.9	14,715.1	10,159.1	37.0	41.4	8.39	4,018.3	485.3	829.0	748.9	80.18	10.339	
15,100.0	10,986.8	14,815.1	10,159.5	37.9	42.3	8.39	4,118.3	483.8	828.6	747.0	81.54	10.162	
15,200.0	10,986.7	14,915.1	10,159.8	38.7	43.1	8.40	4,218.3	482.4	828.1	745.2	82.90	9.989	
15,300.0	10,986.5	15,015.1	10,160.2	39.5	44.0	8.40	4,318.3	480.9	827.7	743.4	84.27	9.821	
15,400.0	10,986.4	15,115.1	10,160.5	40.4	44.8	8.40	4,418.3	479.5	827.2	741.6	85.65	9.658	
15,500.0	10,986.3	15,215.1	10,160.9	41.2	45.7	8.41	4,518.3	478.0	826.7	739.7	87.03	9.499	
15,513.1	10,986.3	15,228.0	10,160.9	41.3	45.8	8.41	4,531.2	477.8	826.7	739.5	87.21	9.479	
15,551.4	10,986.3	15,264.8	10,161.0	41.6	46.1	8.41	4,568.0	477.6	826.5	738.8	87.74	9.420	
15,600.0	10,986.2	15,313.5	10,161.2	42.0	46.5	8.41	4,616.7	477.5	826.3	737.9	88.42	9.345	
15,700.0	10,986.1	15,413.5	10,161.6	42.9	47.3	8.42	4,716.7	477.4	825.8	736.0	89.82	9.195	
15,800.0	10,986.0	15,513.5	10,161.9	43.7	48.2	8.42	4,816.7	477.3	825.4	734.2	91.22	9.048	
15,900.0	10,985.9	15,613.5	10,162.3	44.6	49.0	8.43	4,916.7	477.2	824.9	732.3	92.63	8.906	
16,000.0	10,985.8	15,713.5	10,162.6	45.4	49.9	8.43	5,016.7	477.1	824.5	730.4	94.04	8.767	
16,100.0	10,985.7	15,813.5	10,163.0	46.2	50.7	8.44	5,116.7	477.0	824.0	728.6	95.46	8.632	
16,200.0	10,985.6	15,913.5	10,163.3	47.1	51.6	8.44	5,216.7	476.9	823.6	726.7	96.88	8.501	
16,300.0	10,985.5	16,013.5	10,163.7	47.9	52.4	8.45	5,316.7	476.8	823.1	724.8	98.31	8.373	
16,400.0	10,985.4	16,113.5	10,164.1	48.8	53.3	8.45	5,416.7	476.7	822.7	722.9	99.74	8.248	
16,500.0	10,985.3	16,213.4	10,164.4	49.6	54.1	8.46	5,516.7	476.6	822.2	721.0	101.17	8.127	
16,600.0	10,985.2	16,313.4	10,164.8	50.4	55.0	8.46	5,616.7	476.5	821.8	719.1	102.61	8.008	
16,700.0	10,985.1	16,413.4	10,165.1	51.3	55.8	8.47	5,716.7	476.4	821.3	717.2	104.06	7.893	
16,800.0	10,985.0	16,513.4	10,165.5	52.1	56.7	8.47	5,816.6	476.3	820.9	715.3	105.51	7.780	
16,900.0	10,984.9	16,613.4	10,165.8	53.0	57.5	8.48	5,916.6	476.2	820.4	713.4	106.96	7.670	
17,000.0	10,984.8	16,713.4	10,166.2	53.8	58.4	8.48	6,016.6	476.1	819.9	711.5	108.41	7.563	
17,100.0	10,984.7	16,813.4	10,166.5	54.7	59.2	8.49	6,116.6	476.0	819.5	709.6	109.87	7.459	
17,200.0	10,984.5	16,913.4	10,166.9	55.5	60.1	8.49	6,216.6	475.9	819.0	707.7	111.33	7.357	
17,300.0	10,984.4	17,013.4	10,167.2	56.4	60.9	8.50	6,316.6	475.8	818.6	705.8	112.79	7.257	
17,400.0	10,984.3	17,113.4	10,167.6	57.2	61.8	8.50	6,416.6	475.7	818.1	703.9	114.26	7.160	
17,500.0	10,984.2	17,213.4	10,168.0	58.1	62.6	8.51	6,516.6	475.6	817.7	702.0	115.73	7.065	
17,600.0	10,984.1	17,313.4	10,168.3	58.9	63.5	8.51	6,616.6	475.5	817.2	700.0	117.20	6.973	
17,700.0	10,984.0	17,413.4	10,168.7	59.8	64.4	8.52	6,716.6	475.4	816.8	698.1	118.68	6.882	
17,800.0	10,983.9	17,513.4	10,169.0	60.6	65.2	8.52	6,816.6	475.2	816.3	696.2	120.16	6.794	
17,900.0	10,983.8	17,613.4	10,169.4	61.5	66.1	8.53	6,916.6	475.1	815.9	694.2	121.64	6.707	
18,000.0	10,983.7	17,713.4	10,169.7	62.3	66.9	8.53	7,016.6	475.0	815.4	692.3	123.12	6.623	
18,100.0	10,983.6	17,813.4	10,170.1	63.2	67.8	8.53	7,116.6	474.9	815.0	690.4	124.60	6.540	
18,200.0	10,983.5	17,913.4	10,170.4	64.0	68.6	8.54	7,216.6	474.8	814.5	688.4	126.09	6.460	
18,300.0	10,983.4	18,013.4	10,170.8	64.9	69.5	8.54	7,316.6	474.7	814.1	686.5	127.58	6.381	
18,400.0	10,983.3	18,113.4	10,171.1	65.7	70.3	8.55	7,416.6	474.6	813.6	684.5	129.07	6.304	
18,500.0	10,983.2	18,213.4	10,171.5	66.6	71.2	8.55	7,516.6	474.5	813.2	682.6	130.57	6.228	
18,600.0	10,983.1	18,313.4	10,171.9	67.4	72.0	8.56	7,616.6	474.4	812.7	680.6	132.06	6.154	
18,700.0	10,983.0	18,413.4	10,172.2	68.3	72.9	8.56	7,716.6	474.3	812.2	678.7	133.56	6.082	
18,800.0	10,982.9	18,513.4	10,172.6	69.1	73.7	8.57	7,816.6	474.2	811.8	676.7	135.06	6.011	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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
18,900.0	10,982.8	18,613.4	10,172.9	70.0	74.6	8.57	7,916.6	474.1	811.3	674.8	136.56	5.941	
19,000.0	10,982.7	18,713.4	10,173.3	70.8	75.5	8.58	8,016.6	474.0	810.9	672.8	138.06	5.874	
19,100.0	10,982.6	18,813.4	10,173.6	71.7	76.3	8.58	8,116.6	473.9	810.4	670.9	139.56	5.807	
19,200.0	10,982.5	18,913.4	10,174.0	72.5	77.2	8.59	8,216.6	473.8	810.0	668.9	141.07	5.742	
19,300.0	10,982.4	19,013.4	10,174.3	73.4	78.0	8.59	8,316.6	473.7	809.5	667.0	142.57	5.678	
19,400.0	10,982.3	19,113.4	10,174.7	74.2	78.9	8.60	8,416.6	473.6	809.1	665.0	144.08	5.615	
19,500.0	10,982.2	19,213.4	10,175.0	75.1	79.7	8.60	8,516.6	473.5	808.6	663.0	145.59	5.554	
19,600.0	10,982.1	19,313.4	10,175.4	75.9	80.6	8.61	8,616.6	473.4	808.2	661.1	147.10	5.494	
19,700.0	10,982.0	19,413.4	10,175.8	76.8	81.4	8.61	8,716.6	473.3	807.7	659.1	148.61	5.435	
19,800.0	10,981.8	19,513.4	10,176.1	77.7	82.3	8.62	8,816.6	473.2	807.3	657.1	150.13	5.377	
19,900.0	10,981.7	19,613.4	10,176.5	78.5	83.2	8.62	8,916.6	473.0	806.8	655.2	151.64	5.321	
20,000.0	10,981.6	19,713.4	10,176.8	79.4	84.0	8.63	9,016.6	472.9	806.4	653.2	153.16	5.265	
20,100.0	10,981.5	19,813.4	10,177.2	80.2	84.9	8.63	9,116.6	472.8	805.9	651.2	154.67	5.210	
20,200.0	10,981.4	19,913.4	10,177.5	81.1	85.7	8.64	9,216.6	472.7	805.5	649.3	156.19	5.157	
20,300.0	10,981.3	20,013.4	10,177.9	81.9	86.6	8.64	9,316.6	472.6	805.0	647.3	157.71	5.104	
20,400.0	10,981.2	20,113.4	10,178.2	82.8	87.4	8.65	9,416.6	472.5	804.5	645.3	159.23	5.053	
20,500.0	10,981.1	20,213.4	10,178.6	83.6	88.3	8.65	9,516.6	472.4	804.1	643.3	160.75	5.002	
20,600.0	10,981.0	20,313.4	10,178.9	84.5	89.1	8.66	9,616.6	472.3	803.6	641.4	162.23	4.954	
20,618.9	10,981.0	20,329.8	10,179.0	84.7	89.2	8.66	9,633.0	472.3	803.6	641.1	162.44	4.947 SF	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	130.97		-562.2	647.4	857.5				
100.0	100.0	92.6	92.6	3.0	3.0	130.97		-562.2	647.4	857.4	851.4	6.00	142.839	
200.0	200.0	192.6	192.6	3.0	3.0	130.97		-562.2	647.4	857.4	851.4	6.04	141.977	
300.0	300.0	292.6	292.6	3.0	3.1	130.97		-562.2	647.4	857.4	851.3	6.12	140.082	
400.0	400.0	392.6	392.6	3.0	3.2	130.97		-562.2	647.4	857.4	851.2	6.24	137.314	
500.0	500.0	492.6	492.6	3.1	3.4	130.97		-562.2	647.4	857.4	851.0	6.41	133.859	
600.0	600.0	592.6	592.6	3.1	3.6	130.97		-562.2	647.4	857.4	850.8	6.60	129.911	
700.0	700.0	692.6	692.6	3.1	3.8	130.97		-562.2	647.4	857.4	850.6	6.82	125.652	
800.0	800.0	792.6	792.6	3.2	4.0	130.97		-562.2	647.4	857.4	850.4	7.07	121.232	
900.0	900.0	892.6	892.6	3.2	4.2	130.97		-562.2	647.4	857.4	850.1	7.34	116.769	
1,000.0	1,000.0	892.6	892.6	3.2	4.5	130.97		-562.2	647.4	857.4	849.8	7.63	112.351	
1,100.0	1,100.0	1,092.6	1,092.6	3.3	4.8	130.97		-562.2	647.4	857.4	849.5	7.94	108.040	
1,200.0	1,200.0	1,192.6	1,192.6	3.4	5.0	130.97		-562.2	647.4	857.4	849.2	8.25	103.876	
1,300.0	1,300.0	1,292.6	1,292.6	3.4	5.3	130.97		-562.2	647.4	857.4	848.9	8.58	99.882	
1,400.0	1,400.0	1,392.6	1,392.6	3.5	5.6	130.97		-562.2	647.4	857.4	848.5	8.92	96.074	
1,500.0	1,500.0	1,492.6	1,492.6	3.5	5.9	130.97		-562.2	647.4	857.4	848.2	9.27	92.454	
1,600.0	1,600.0	1,592.6	1,592.6	3.6	6.3	130.97		-562.2	647.4	857.4	847.8	9.63	89.023	
1,700.0	1,700.0	1,692.6	1,692.6	3.7	6.6	130.97		-562.2	647.4	857.4	847.4	10.00	85.776	
1,800.0	1,800.0	1,792.6	1,792.6	3.8	6.9	130.97		-562.2	647.4	857.4	847.1	10.37	82.707	
1,900.0	1,900.0	1,892.6	1,892.6	3.9	7.2	130.97		-562.2	647.4	857.4	846.7	10.74	79.807	
2,000.0	2,000.0	1,992.6	1,992.6	3.9	7.5	130.97		-562.2	647.4	857.4	846.3	11.13	77.068	
2,100.0	2,100.0	2,092.6	2,092.6	4.0	7.9	130.97		-562.2	647.4	857.4	845.9	11.51	74.480	
2,200.0	2,200.0	2,192.6	2,192.6	4.1	8.2	130.97		-562.2	647.4	857.4	845.5	11.90	72.034	
2,300.0	2,300.0	2,292.6	2,292.6	4.2	8.5	130.97		-562.2	647.4	857.4	845.1	12.30	69.722	
2,400.0	2,400.0	2,392.6	2,392.6	4.3	8.9	130.97		-562.2	647.4	857.4	844.7	12.70	67.534	
2,500.0	2,500.0	2,492.6	2,492.6	4.4	9.2	130.97		-562.2	647.4	857.4	844.3	13.10	65.463	
2,600.0	2,600.0	2,622.1	2,622.1	4.5	9.6	131.07		-562.0	644.8	855.8	842.3	13.59	62.983	
2,700.0	2,700.0	2,753.5	2,753.2	4.6	10.1	131.42		-561.2	636.2	850.5	836.5	14.07	60.441	
2,800.0	2,800.0	2,864.1	2,863.2	4.7	10.4	131.87		-560.2	625.1	842.4	827.9	14.50	58.076	
2,900.0	2,900.0	2,963.5	2,962.1	4.8	10.8	132.30		-559.3	614.7	834.0	819.1	14.92	55.915	
3,000.0	3,000.0	3,063.0	3,061.0	4.9	11.1	132.74		-558.4	604.4	825.7	810.4	15.33	53.858	
3,100.0	3,100.0	3,162.4	3,159.9	5.0	11.4	133.18		-557.5	594.0	817.5	801.7	15.75	51.898	
3,200.0	3,200.0	3,261.9	3,258.8	5.1	11.8	133.64		-556.6	583.7	809.2	793.1	16.18	50.029	
3,300.0	3,300.0	3,361.3	3,357.7	5.2	12.1	134.11		-555.7	573.3	801.1	784.5	16.60	48.247	
3,400.0	3,400.0	3,460.8	3,456.6	5.3	12.5	134.58		-554.8	563.0	793.0	776.0	17.04	46.547	
3,500.0	3,500.0	3,560.2	3,555.5	5.4	12.8	135.07		-553.9	552.6	784.9	767.5	17.47	44.925	
3,600.0	3,600.0	3,659.7	3,654.4	5.5	13.1	135.56		-553.0	542.2	777.0	759.0	17.91	43.377	
3,700.0	3,700.0	3,759.2	3,753.3	5.7	13.5	136.07		-552.1	531.9	769.0	750.7	18.36	41.897	
3,800.0	3,800.0	3,858.6	3,852.3	5.8	13.8	136.58		-551.2	521.5	761.2	742.4	18.80	40.483	
3,900.0	3,900.0	3,958.1	3,951.2	5.9	14.2	137.11		-550.3	511.2	753.4	734.1	19.25	39.132	
4,000.0	4,000.0	4,057.5	4,050.1	6.0	14.5	137.65		-549.4	500.8	745.6	725.9	19.70	37.839	
4,100.0	4,100.0	4,157.0	4,149.0	6.1	14.9	138.20		-548.5	490.5	737.9	717.8	20.16	36.602	
4,200.0	4,200.0	4,256.4	4,247.9	6.2	15.2	138.76		-547.6	480.1	730.3	709.7	20.62	35.418	
4,300.0	4,300.0	4,355.9	4,346.8	6.3	15.6	139.33		-546.7	469.8	722.8	701.7	21.08	34.284	
4,400.0	4,400.0	4,455.3	4,445.7	6.5	15.9	139.91		-545.8	459.4	715.3	693.8	21.55	33.198	
4,500.0	4,500.0	4,554.8	4,544.6	6.6	16.3	140.51		-544.8	449.0	708.0	685.9	22.02	32.157	
4,600.0	4,600.0	4,654.2	4,643.5	6.7	16.6	141.11		-543.9	438.7	700.6	678.2	22.49	31.158	
4,700.0	4,700.0	4,753.7	4,742.4	6.8	17.0	141.73		-543.0	428.3	693.4	670.5	22.96	30.201	
4,800.0	4,800.0	4,853.1	4,841.3	6.9	17.3	142.37		-542.1	418.0	686.3	662.8	23.44	29.283	
4,900.0	4,900.0	4,952.6	4,940.2	7.0	17.7	143.02		-541.2	407.6	679.2	655.3	23.92	28.401	
5,000.0	5,000.0	5,052.0	5,039.1	7.2	18.0	143.68		-540.3	397.3	672.3	647.9	24.40	27.556	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,100.0	5,151.5	5,138.1	7.3	18.4	144.35	-539.4	386.9	665.4	640.5	24.88	26.743	
5,200.0	5,200.0	5,250.9	5,237.0	7.4	18.7	145.04	-538.5	376.5	658.6	633.2	25.37	25.963	
5,300.0	5,300.0	5,350.4	5,335.9	7.5	19.1	145.74	-537.6	366.2	651.9	626.1	25.85	25.214	
5,400.0	5,400.0	5,449.8	5,434.8	7.6	19.5	146.45	-536.7	355.8	645.3	619.0	26.35	24.494	
5,500.0	5,500.0	5,549.3	5,533.7	7.8	19.8	147.19	-535.8	345.5	638.8	612.0	26.84	23.803	
5,600.0	5,600.0	5,648.6	5,632.4	7.8	20.2	33.10	-534.9	335.1	631.0	603.7	27.27	23.140	
5,700.0	5,699.8	5,747.3	5,730.7	7.8	20.5	34.25	-534.0	324.9	620.4	592.8	27.64	22.445	
5,749.8	5,749.5	5,796.3	5,779.4	7.8	20.7	34.91	-533.5	319.8	614.2	586.3	27.83	22.068	
5,800.0	5,799.5	5,845.6	5,828.4	7.8	20.9	35.54	-533.1	314.6	607.6	579.5	28.02	21.681	
5,900.0	5,899.1	5,943.9	5,926.1	7.8	21.2	36.84	-532.2	304.4	594.7	566.3	28.41	20.933	
6,000.0	5,998.7	6,042.1	6,023.8	7.8	21.6	38.20	-531.3	294.2	582.1	553.3	28.80	20.214	
6,100.0	6,098.4	6,140.3	6,121.5	7.9	21.9	39.61	-530.4	283.9	569.9	540.7	29.19	19.523	
6,200.0	6,198.0	6,238.5	6,219.1	7.9	22.3	41.09	-529.5	273.7	558.0	528.4	29.58	18.862	
6,300.0	6,297.6	6,336.7	6,316.8	7.9	22.6	42.62	-528.6	263.5	546.5	516.5	29.98	18.229	
6,400.0	6,397.2	6,435.0	6,414.5	7.9	23.0	44.22	-527.7	253.3	535.4	505.1	30.38	17.624	
6,500.0	6,496.8	6,533.2	6,512.2	7.9	23.3	45.89	-526.8	243.0	524.8	494.0	30.78	17.048	
6,600.0	6,596.5	6,631.4	6,609.9	7.9	23.7	47.62	-525.9	232.8	514.6	483.4	31.19	16.501	
6,700.0	6,696.1	6,729.6	6,707.5	8.0	24.1	49.41	-525.0	222.6	505.0	473.4	31.60	15.982	
6,800.0	6,795.7	6,827.8	6,805.2	8.0	24.4	51.27	-524.1	212.3	495.8	463.8	32.01	15.491	
6,900.0	6,895.3	6,926.1	6,902.9	8.0	24.8	53.20	-523.2	202.1	487.2	454.8	32.42	15.029	
7,000.0	6,994.9	7,024.3	7,000.6	8.1	25.1	55.19	-522.3	191.9	479.2	446.4	32.83	14.596	
7,100.0	7,094.6	7,122.5	7,098.3	8.1	25.5	57.25	-521.5	181.7	471.8	438.6	33.25	14.191	
7,200.0	7,194.2	7,220.7	7,195.9	8.1	25.8	59.36	-520.6	171.4	465.1	431.4	33.66	13.815	
7,300.0	7,293.8	7,318.9	7,293.6	8.2	26.2	61.54	-519.7	161.2	459.0	424.9	34.08	13.467	
7,400.0	7,393.4	7,417.1	7,391.3	8.2	26.5	63.77	-518.8	151.0	453.6	419.1	34.50	13.147	
7,500.0	7,493.0	7,515.4	7,489.0	8.2	26.9	66.04	-517.9	140.8	448.9	414.0	34.92	12.855	
7,600.0	7,592.7	7,613.6	7,586.7	8.3	27.2	68.36	-517.0	130.5	445.0	409.7	35.34	12.592	
7,700.0	7,692.3	7,711.8	7,684.3	8.3	27.6	70.71	-516.1	120.3	441.9	406.1	35.76	12.355	
7,800.0	7,791.9	7,810.0	7,782.0	8.4	28.0	73.09	-515.2	110.1	439.5	403.3	36.18	12.146	
7,900.0	7,891.5	7,908.2	7,879.7	8.4	28.3	75.49	-514.3	99.8	437.9	401.3	36.61	11.963	
8,000.0	7,991.1	8,006.5	7,977.4	8.5	28.7	77.91	-513.4	89.6	437.1	400.1	37.03	11.806	
8,046.3	8,037.3	8,052.0	8,022.7	8.5	28.8	79.03	-513.0	84.9	437.0	399.8	37.22	11.741 CC	
8,100.0	8,090.8	8,104.7	8,075.1	8.5	29.0	80.33	-512.5	79.4	437.2	399.7	37.45	11.673 ES	
8,200.0	8,190.4	8,202.9	8,172.8	8.6	29.4	82.74	-511.6	69.2	438.0	400.1	37.87	11.566	
8,300.0	8,290.0	8,301.1	8,270.4	8.7	29.7	85.14	-510.7	58.9	439.6	401.3	38.29	11.481	
8,400.0	8,389.6	8,399.3	8,368.1	8.7	30.1	87.52	-509.8	48.7	442.1	403.3	38.71	11.419	
8,500.0	8,489.2	8,497.6	8,465.8	8.8	30.5	89.88	-508.9	38.5	445.3	406.1	39.14	11.378	
8,600.0	8,588.9	8,595.8	8,563.5	8.8	30.8	92.19	-508.0	28.2	449.2	409.7	39.56	11.356	
8,700.0	8,688.5	8,694.0	8,661.2	8.9	31.2	94.46	-507.1	18.0	454.0	414.0	39.98	11.354	
8,800.0	8,788.1	8,792.2	8,758.8	9.0	31.5	96.68	-506.2	7.8	459.4	419.0	40.41	11.370	
8,900.0	8,887.7	8,890.4	8,856.5	9.1	31.9	98.85	-505.3	-2.4	465.5	424.7	40.83	11.401	
9,000.0	8,987.3	8,988.6	8,954.2	9.1	32.2	100.97	-504.5	-12.7	472.3	431.1	41.26	11.449	
9,100.0	9,087.0	9,086.9	9,051.9	9.2	32.6	103.02	-503.6	-22.9	479.8	438.1	41.69	11.510	
9,200.0	9,186.6	9,185.1	9,149.6	9.3	33.0	105.00	-502.7	-33.1	487.8	445.7	42.11	11.584	
9,300.0	9,286.2	9,283.3	9,247.2	9.4	33.3	106.93	-501.8	-43.3	496.5	453.9	42.54	11.669	
9,400.0	9,385.8	9,381.5	9,344.9	9.4	33.7	108.78	-500.9	-53.6	505.7	462.7	42.98	11.766	
9,500.0	9,485.4	9,479.7	9,442.6	9.5	34.0	110.57	-500.0	-63.8	515.4	472.0	43.41	11.872	
9,600.0	9,585.1	9,578.0	9,540.3	9.6	34.4	112.30	-499.1	-74.0	525.6	481.7	43.85	11.987	
9,700.0	9,684.7	9,676.2	9,638.0	9.7	34.7	113.96	-498.2	-84.3	536.2	491.9	44.28	12.109	
9,800.0	9,784.3	9,789.4	9,750.4	9.8	35.2	116.00	-495.2	-96.8	546.9	502.2	44.73	12.228	
9,900.0	9,883.9	9,922.5	9,877.3	9.8	35.6	121.02	-465.6	-121.5	552.9	507.7	45.13	12.251	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,983.5	10,025.9	9,966.1	9.9	36.0	127.11		-420.5	-148.6	558.0	512.5	45.49	12.268	
10,100.0	10,083.2	10,101.8	10,023.1	10.0	36.2	132.62		-376.3	-172.2	568.8	522.9	45.89	12.395	
10,200.0	10,182.8	10,157.4	10,059.4	10.1	36.3	137.06		-338.7	-190.9	589.2	542.8	46.38	12.704	
10,300.0	10,282.4	10,200.0	10,083.9	10.2	36.4	140.64		-307.3	-206.0	620.8	573.9	46.90	13.239	
10,400.0	10,382.0	10,230.4	10,099.4	10.3	36.4	143.24		-283.6	-217.1	663.5	616.1	47.34	14.016	
10,500.0	10,481.6	10,250.0	10,108.5	10.4	36.4	144.93		-267.8	-224.4	716.0	668.4	47.63	15.033	
10,515.4	10,497.0	10,258.4	10,112.2	10.4	36.5	145.66		-261.0	-227.5	724.8	676.7	48.12	15.064	
10,525.0	10,506.5	10,260.4	10,113.0	10.4	36.5	159.59		-259.3	-228.2	730.4	682.3	48.13	15.175	
10,550.0	10,531.5	10,266.0	10,115.4	10.4	36.5	-161.22		-254.7	-230.3	745.5	697.3	48.17	15.476	
10,575.0	10,556.3	10,275.0	10,119.1	10.4	36.5	-133.98		-247.2	-233.7	761.1	712.9	48.22	15.785	
10,600.0	10,581.1	10,275.0	10,119.1	10.4	36.5	-118.81		-247.2	-233.7	777.2	729.0	48.23	16.115	
10,625.0	10,605.7	10,284.4	10,122.8	10.4	36.5	-108.40		-239.3	-237.3	793.6	745.3	48.27	16.442	
10,650.0	10,630.0	10,291.1	10,125.2	10.4	36.5	-100.87		-233.7	-239.8	810.2	762.0	48.29	16.779	
10,675.0	10,654.0	10,300.0	10,128.5	10.5	36.5	-94.64		-226.0	-243.2	827.1	778.8	48.32	17.118	
10,700.0	10,677.7	10,300.0	10,128.5	10.5	36.5	-89.80		-226.0	-243.2	844.1	795.8	48.31	17.474	
10,725.0	10,700.9	10,312.1	10,132.6	10.5	36.5	-84.88		-215.6	-247.8	861.1	812.8	48.35	17.812	
10,750.0	10,723.5	10,325.0	10,136.6	10.5	36.5	-80.43		-204.4	-252.7	878.2	829.8	48.39	18.149	
10,775.0	10,745.6	10,325.0	10,136.6	10.5	36.5	-76.90		-204.4	-252.7	895.1	846.7	48.37	18.505	
10,800.0	10,767.1	10,334.6	10,139.4	10.5	36.6	-73.28		-196.0	-256.3	911.9	863.5	48.39	18.844	
10,825.0	10,787.9	10,342.4	10,141.6	10.5	36.6	-70.01		-189.1	-259.3	928.5	880.1	48.41	19.181	
10,850.0	10,807.9	10,350.0	10,143.5	10.6	36.6	-67.00		-182.4	-262.2	945.0	896.5	48.43	19.513	
10,875.0	10,827.2	10,358.3	10,145.6	10.6	36.6	-64.22		-175.0	-265.4	961.1	912.6	48.45	19.838	
10,900.0	10,845.6	10,366.4	10,147.4	10.6	36.6	-61.66		-167.8	-268.5	976.9	928.4	48.47	20.156	
10,925.0	10,863.0	10,375.0	10,149.2	10.6	36.6	-59.30		-160.0	-271.8	992.4	943.9	48.49	20.464	
10,950.0	10,879.6	10,382.8	10,150.7	10.7	36.6	-57.15		-152.9	-274.8	1,007.5	959.0	48.52	20.765	
10,975.0	10,895.1	10,391.2	10,152.2	10.7	36.6	-55.18		-145.3	-278.0	1,022.1	973.6	48.54	21.055	
11,000.0	10,909.6	10,400.0	10,153.6	10.7	36.7	-53.37		-137.3	-281.4	1,036.3	987.8	48.58	21.334	
11,025.0	10,923.0	10,408.2	10,154.8	10.8	36.7	-51.73		-129.8	-284.5	1,050.1	1,001.5	48.61	21.602	
11,050.0	10,935.2	10,416.8	10,155.8	10.8	36.7	-50.24		-122.0	-287.7	1,063.3	1,014.6	48.65	21.857	
11,075.0	10,946.4	10,425.0	10,156.7	10.8	36.7	-48.88		-114.4	-290.9	1,076.0	1,027.3	48.69	22.100	
11,100.0	10,956.3	10,434.2	10,157.5	10.9	36.7	-47.65		-106.0	-294.3	1,088.1	1,039.4	48.73	22.328	
11,125.0	10,965.0	10,450.0	10,158.5	10.9	36.7	-46.58		-91.3	-300.3	1,099.7	1,050.9	48.80	22.534	
11,150.0	10,972.6	10,450.0	10,158.5	10.9	36.7	-45.55		-91.3	-300.3	1,110.6	1,061.8	48.83	22.746	
11,175.0	10,978.8	10,460.7	10,158.9	11.0	36.7	-44.67		-81.5	-304.3	1,121.0	1,072.1	48.89	22.930	
11,200.0	10,983.8	10,470.4	10,159.0	11.0	36.8	-43.90		-72.4	-308.0	1,130.7	1,081.7	48.95	23.099	
11,225.0	10,987.5	10,499.3	10,159.1	11.1	36.8	-43.42		-45.6	-318.6	1,139.6	1,090.5	49.07	23.225	
11,250.0	10,989.9	10,531.5	10,159.2	11.1	36.8	-43.12		-15.5	-330.2	1,147.3	1,098.1	49.20	23.320	
11,275.0	10,991.0	10,564.2	10,159.3	11.1	36.9	-42.97		15.2	-341.5	1,153.9	1,104.6	49.34	23.389	
11,284.1	10,991.0	10,576.2	10,159.4	11.2	36.9	-42.95		26.4	-345.6	1,156.0	1,106.7	49.39	23.409	
11,300.0	10,991.0	10,597.2	10,159.4	11.2	36.9	-43.20		46.2	-352.7	1,159.6	1,110.1	49.48	23.438	
11,400.0	10,990.9	10,731.8	10,159.9	11.4	37.2	-44.66		174.2	-394.3	1,180.3	1,130.2	50.08	23.568	
11,500.0	10,990.8	10,870.1	10,160.4	11.7	37.4	-45.87		307.5	-430.8	1,198.0	1,147.3	50.72	23.618	
11,600.0	10,990.7	11,011.5	10,160.9	12.1	37.7	-46.84		445.6	-461.4	1,212.5	1,161.1	51.41	23.586	
11,700.0	10,990.6	11,155.5	10,161.4	12.5	38.0	-47.58		587.6	-485.6	1,223.5	1,171.3	52.13	23.469	
11,800.0	10,990.5	11,301.4	10,162.0	13.0	38.4	-48.07		732.5	-502.7	1,230.8	1,177.9	52.88	23.274	
11,900.0	10,990.4	11,448.5	10,162.5	13.5	38.8	-48.34		879.2	-512.5	1,234.4	1,180.7	53.66	23.002	
12,000.0	10,990.2	11,572.9	10,163.0	14.0	39.1	-48.39		1,003.5	-515.3	1,234.6	1,180.2	54.43	22.681	
12,100.0	10,990.1	11,672.9	10,163.3	14.6	39.4	-48.40		1,103.5	-516.8	1,234.3	1,179.1	55.22	22.354	
12,200.0	10,990.0	11,772.9	10,163.7	15.2	39.7	-48.42		1,203.5	-518.2	1,234.0	1,178.0	56.04	22.020	
12,300.0	10,989.9	11,872.9	10,164.0	15.9	40.0	-48.44		1,303.5	-519.7	1,233.7	1,176.8	56.90	21.681	
12,400.0	10,989.8	11,972.9	10,164.4	16.6	40.4	-48.45		1,403.5	-521.1	1,233.4	1,175.6	57.80	21.339	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,500.0	10,989.7	12,072.9	10,164.7	17.3	40.7	-48.47	1,503.5	-522.6	1,233.1	1,174.4	58.73	20.995		
12,600.0	10,989.6	12,172.9	10,165.1	18.0	41.1	-48.49	1,603.4	-524.0	1,232.8	1,173.1	59.70	20.650		
12,700.0	10,989.5	12,272.9	10,165.5	18.7	41.5	-48.50	1,703.4	-525.5	1,232.5	1,171.8	60.70	20.305		
12,800.0	10,989.3	12,372.9	10,165.8	19.4	41.9	-48.52	1,803.4	-526.9	1,232.2	1,170.5	61.72	19.963		
12,900.0	10,989.2	12,472.9	10,166.2	20.2	42.3	-48.54	1,903.4	-528.4	1,231.9	1,169.1	62.78	19.622		
13,000.0	10,989.1	12,572.9	10,166.5	20.9	42.7	-48.56	2,003.4	-529.9	1,231.6	1,167.7	63.86	19.285		
13,100.0	10,989.0	12,672.9	10,166.9	21.7	43.1	-48.57	2,103.4	-531.3	1,231.3	1,166.3	64.97	18.952		
13,200.0	10,988.9	12,772.9	10,167.3	22.5	43.6	-48.59	2,203.4	-532.8	1,231.0	1,164.9	66.10	18.624		
13,300.0	10,988.8	12,872.9	10,167.6	23.2	44.1	-48.61	2,303.4	-534.2	1,230.7	1,163.4	67.25	18.300		
13,400.0	10,988.7	12,972.9	10,168.0	24.0	44.5	-48.62	2,403.3	-535.7	1,230.4	1,161.9	68.42	17.982		
13,500.0	10,988.6	13,072.9	10,168.3	24.8	45.0	-48.64	2,503.3	-537.1	1,230.1	1,160.5	69.62	17.669		
13,600.0	10,988.4	13,172.9	10,168.7	25.6	45.5	-48.66	2,603.3	-538.6	1,229.8	1,158.9	70.83	17.363		
13,700.0	10,988.3	13,272.9	10,169.1	26.4	46.0	-48.67	2,703.3	-540.1	1,229.5	1,157.4	72.06	17.062		
13,800.0	10,988.2	13,372.9	10,169.4	27.2	46.5	-48.69	2,803.3	-541.5	1,229.2	1,155.9	73.30	16.768		
13,900.0	10,988.1	13,472.9	10,169.8	28.0	47.1	-48.71	2,903.3	-543.0	1,228.9	1,154.3	74.57	16.480		
14,000.0	10,988.0	13,572.9	10,170.1	28.8	47.6	-48.72	3,003.3	-544.4	1,228.6	1,152.7	75.84	16.199		
14,100.0	10,987.9	13,672.9	10,170.5	29.6	48.1	-48.74	3,103.3	-545.9	1,228.3	1,151.1	77.13	15.924		
14,200.0	10,987.8	13,772.9	10,170.8	30.4	48.7	-48.76	3,203.2	-547.3	1,228.0	1,149.5	78.44	15.655		
14,300.0	10,987.7	13,872.9	10,171.2	31.3	49.3	-48.77	3,303.2	-548.8	1,227.7	1,147.9	79.76	15.392		
14,400.0	10,987.5	13,972.9	10,171.6	32.1	49.8	-48.79	3,403.2	-550.2	1,227.4	1,146.3	81.09	15.136		
14,500.0	10,987.4	14,072.9	10,171.9	32.9	50.4	-48.81	3,503.2	-551.7	1,227.1	1,144.6	82.43	14.886		
14,600.0	10,987.3	14,172.8	10,172.3	33.7	51.0	-48.83	3,603.2	-553.2	1,226.8	1,143.0	83.79	14.642		
14,700.0	10,987.2	14,272.8	10,172.6	34.5	51.6	-48.84	3,703.2	-554.6	1,226.5	1,141.3	85.15	14.404		
14,800.0	10,987.1	14,372.8	10,173.0	35.4	52.2	-48.86	3,803.2	-556.1	1,226.2	1,139.6	86.52	14.171		
14,900.0	10,987.0	14,472.8	10,173.4	36.2	52.8	-48.88	3,903.2	-557.5	1,225.9	1,137.9	87.91	13.945		
15,000.0	10,986.9	14,572.8	10,173.7	37.0	53.4	-48.89	4,003.2	-559.0	1,225.6	1,136.3	89.30	13.724		
15,100.0	10,986.8	14,672.8	10,174.1	37.9	54.1	-48.91	4,103.1	-560.4	1,225.3	1,134.6	90.70	13.509		
15,200.0	10,986.7	14,772.8	10,174.4	38.7	54.7	-48.93	4,203.1	-561.9	1,225.0	1,132.8	92.11	13.299		
15,300.0	10,986.5	14,872.8	10,174.8	39.5	55.3	-48.94	4,303.1	-563.3	1,224.7	1,131.1	93.53	13.094		
15,400.0	10,986.4	14,972.8	10,175.2	40.4	56.0	-48.96	4,403.1	-564.8	1,224.4	1,129.4	94.96	12.894		
15,500.0	10,986.3	15,072.8	10,175.5	41.2	56.6	-48.98	4,503.1	-566.3	1,224.1	1,127.7	96.39	12.699		
15,513.1	10,986.3	15,085.9	10,175.6	41.3	56.7	-48.98	4,516.2	-566.4	1,224.0	1,127.4	96.58	12.674		
15,551.4	10,986.3	15,137.3	10,175.7	41.6	57.1	-48.99	4,567.6	-566.9	1,223.9	1,126.8	97.14	12.599		
15,600.0	10,986.2	15,185.3	10,175.9	42.0	57.4	-49.00	4,615.5	-567.0	1,223.8	1,126.0	97.84	12.508		
15,700.0	10,986.1	15,285.3	10,176.3	42.9	58.0	-49.02	4,715.5	-567.1	1,223.5	1,124.2	99.29	12.323		
15,800.0	10,986.0	15,385.3	10,176.6	43.7	58.7	-49.03	4,815.5	-567.2	1,223.2	1,122.5	100.74	12.142		
15,900.0	10,985.9	15,485.3	10,177.0	44.6	59.4	-49.05	4,915.5	-567.3	1,222.9	1,120.7	102.20	11.966		
16,000.0	10,985.8	15,585.3	10,177.4	45.4	60.0	-49.07	5,015.5	-567.4	1,222.6	1,118.9	103.66	11.794		
16,100.0	10,985.7	15,685.3	10,177.7	46.2	60.7	-49.08	5,115.5	-567.5	1,222.3	1,117.2	105.13	11.626		
16,200.0	10,985.6	15,785.3	10,178.1	47.1	61.4	-49.10	5,215.5	-567.6	1,222.0	1,115.4	106.61	11.462		
16,300.0	10,985.5	15,885.3	10,178.4	47.9	62.1	-49.12	5,315.5	-567.7	1,221.7	1,113.6	108.09	11.303		
16,400.0	10,985.4	15,985.2	10,178.8	48.8	62.8	-49.13	5,415.5	-567.9	1,221.4	1,111.8	109.58	11.147		
16,500.0	10,985.3	16,085.2	10,179.2	49.6	63.5	-49.15	5,515.5	-568.0	1,221.1	1,110.0	111.07	10.994		
16,600.0	10,985.2	16,185.2	10,179.5	50.4	64.2	-49.17	5,615.5	-568.1	1,220.8	1,108.2	112.56	10.846		
16,700.0	10,985.1	16,285.2	10,179.9	51.3	64.9	-49.18	5,715.5	-568.2	1,220.5	1,106.4	114.06	10.700		
16,800.0	10,985.0	16,385.2	10,180.2	52.1	65.6	-49.20	5,815.5	-568.3	1,220.2	1,104.6	115.57	10.559		
16,900.0	10,984.9	16,485.2	10,180.6	53.0	66.3	-49.22	5,915.5	-568.4	1,219.9	1,102.8	117.07	10.420		
17,000.0	10,984.8	16,585.2	10,181.0	53.8	67.0	-49.23	6,015.5	-568.5	1,219.6	1,101.0	118.59	10.285		
17,100.0	10,984.7	16,685.2	10,181.3	54.7	67.7	-49.25	6,115.5	-568.6	1,219.3	1,099.2	120.10	10.152		
17,200.0	10,984.5	16,785.2	10,181.7	55.5	68.4	-49.27	6,215.5	-568.8	1,219.0	1,097.4	121.62	10.023		
17,300.0	10,984.4	16,885.2	10,182.1	56.4	69.2	-49.28	6,315.5	-568.9	1,218.7	1,095.6	123.14	9.897		

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
17,400.0	10,984.3	16,985.2	10,182.4	57.2	69.9	-49.30	6,415.5	-569.0	1,218.4	1,093.7	124.67	9.773		
17,500.0	10,984.2	17,085.2	10,182.8	58.1	70.6	-49.32	6,515.5	-569.1	1,218.1	1,091.9	126.20	9.652		
17,600.0	10,984.1	17,185.2	10,183.1	58.9	71.4	-49.33	6,615.5	-569.2	1,217.8	1,090.1	127.73	9.534		
17,700.0	10,984.0	17,285.2	10,183.5	59.8	72.1	-49.35	6,715.5	-569.3	1,217.5	1,088.2	129.27	9.418		
17,800.0	10,983.9	17,385.2	10,183.9	60.6	72.8	-49.37	6,815.5	-569.4	1,217.2	1,086.4	130.81	9.305		
17,900.0	10,983.8	17,485.2	10,184.2	61.5	73.6	-49.38	6,915.5	-569.5	1,216.9	1,084.6	132.35	9.195		
18,000.0	10,983.7	17,585.2	10,184.6	62.3	74.3	-49.40	7,015.5	-569.7	1,216.6	1,082.7	133.89	9.086		
18,100.0	10,983.6	17,685.2	10,184.9	63.2	75.1	-49.42	7,115.5	-569.8	1,216.3	1,080.9	135.44	8.980		
18,200.0	10,983.5	17,785.2	10,185.3	64.0	75.8	-49.43	7,215.5	-569.9	1,216.0	1,079.0	136.99	8.877		
18,300.0	10,983.4	17,885.2	10,185.7	64.9	76.6	-49.45	7,315.5	-570.0	1,215.7	1,077.2	138.54	8.775		
18,400.0	10,983.3	17,985.2	10,186.0	65.7	77.3	-49.47	7,415.5	-570.1	1,215.4	1,075.3	140.10	8.675		
18,500.0	10,983.2	18,085.2	10,186.4	66.6	78.1	-49.48	7,515.5	-570.2	1,215.1	1,073.5	141.66	8.578		
18,600.0	10,983.1	18,185.2	10,186.7	67.4	78.8	-49.50	7,615.4	-570.3	1,214.8	1,071.6	143.22	8.483		
18,700.0	10,983.0	18,285.2	10,187.1	68.3	79.6	-49.52	7,715.4	-570.4	1,214.5	1,069.8	144.78	8.389		
18,800.0	10,982.9	18,385.2	10,187.5	69.1	80.3	-49.53	7,815.4	-570.6	1,214.2	1,067.9	146.34	8.297		
18,900.0	10,982.8	18,485.2	10,187.8	70.0	81.1	-49.55	7,915.4	-570.7	1,213.9	1,066.0	147.91	8.207		
19,000.0	10,982.7	18,585.2	10,188.2	70.8	81.9	-49.57	8,015.4	-570.8	1,213.7	1,064.2	149.48	8.119		
19,100.0	10,982.6	18,685.2	10,188.5	71.7	82.6	-49.59	8,115.4	-570.9	1,213.4	1,062.3	151.05	8.033		
19,200.0	10,982.5	18,785.2	10,188.9	72.5	83.4	-49.60	8,215.4	-571.0	1,213.1	1,060.4	152.62	7.948		
19,300.0	10,982.4	18,885.2	10,189.3	73.4	84.2	-49.62	8,315.4	-571.1	1,212.8	1,058.6	154.19	7.865		
19,400.0	10,982.3	18,985.2	10,189.6	74.2	85.0	-49.64	8,415.4	-571.2	1,212.5	1,056.7	155.77	7.784		
19,500.0	10,982.2	19,085.2	10,190.0	75.1	85.7	-49.65	8,515.4	-571.3	1,212.2	1,054.8	157.35	7.704		
19,600.0	10,982.1	19,185.2	10,190.3	75.9	86.5	-49.67	8,615.4	-571.5	1,211.9	1,052.9	158.93	7.625		
19,700.0	10,982.0	19,285.2	10,190.7	76.8	87.3	-49.69	8,715.4	-571.6	1,211.6	1,051.1	160.51	7.548		
19,800.0	10,981.8	19,385.2	10,191.1	77.7	88.1	-49.70	8,815.4	-571.7	1,211.3	1,049.2	162.09	7.473		
19,900.0	10,981.7	19,485.2	10,191.4	78.5	88.8	-49.72	8,915.4	-571.8	1,211.0	1,047.3	163.68	7.399		
20,000.0	10,981.6	19,585.2	10,191.8	79.4	89.6	-49.74	9,015.4	-571.9	1,210.7	1,045.4	165.26	7.326		
20,100.0	10,981.5	19,685.2	10,192.1	80.2	90.4	-49.75	9,115.4	-572.0	1,210.4	1,043.5	166.85	7.254		
20,200.0	10,981.4	19,785.2	10,192.5	81.1	91.2	-49.77	9,215.4	-572.1	1,210.1	1,041.7	168.44	7.184		
20,300.0	10,981.3	19,885.2	10,192.9	81.9	92.0	-49.79	9,315.4	-572.2	1,209.8	1,039.8	170.03	7.115		
20,400.0	10,981.2	19,985.2	10,193.2	82.8	92.8	-49.81	9,415.4	-572.4	1,209.5	1,037.9	171.62	7.048		
20,500.0	10,981.1	20,085.2	10,193.6	83.6	93.6	-49.82	9,515.4	-572.5	1,209.2	1,036.0	173.21	6.981		
20,600.0	10,981.0	20,185.2	10,194.0	84.5	94.3	-49.84	9,615.4	-572.6	1,208.9	1,034.1	174.81	6.916		
20,616.8	10,981.0	20,198.4	10,194.0	84.6	94.4	-49.84	9,628.6	-572.6	1,208.9	1,033.8	175.07	6.905		
20,618.9	10,981.0	20,198.4	10,194.0	84.7	94.4	-49.84	9,628.6	-572.6	1,208.9	1,033.8	175.10	6.904 SF		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10609-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	89.81	0.1	30.1	30.1					
100.0	100.0	99.7	99.7	3.0	3.0	89.81	0.1	30.1	30.1	24.1	6.00	5.017		
200.0	200.0	199.7	199.7	3.0	3.0	89.81	0.1	30.1	30.1	24.1	6.00	5.014		
300.0	300.0	299.7	299.7	3.0	3.0	89.81	0.1	30.1	30.1	24.1	6.01	5.009		
400.0	400.0	399.7	399.7	3.0	3.0	89.81	0.1	30.1	30.1	24.1	6.02	5.001		
500.0	500.0	499.7	499.7	3.1	3.1	89.81	0.1	30.1	30.1	24.1	6.03	4.991		
600.0	600.0	599.7	599.7	3.1	3.1	89.81	0.1	30.1	30.1	24.1	6.05	4.978		
700.0	700.0	699.7	699.7	3.1	3.1	89.81	0.1	30.1	30.1	24.0	6.07	4.962		
800.0	800.0	799.7	799.7	3.2	3.2	89.81	0.1	30.1	30.1	24.0	6.09	4.944		
900.0	900.0	899.7	899.7	3.2	3.2	89.81	0.1	30.1	30.1	24.0	6.11	4.924		
1,000.0	1,000.0	999.7	999.7	3.2	3.2	89.81	0.1	30.1	30.1	24.0	6.14	4.901		
1,100.0	1,100.0	1,099.7	1,099.7	3.3	3.3	89.81	0.1	30.1	30.1	23.9	6.17	4.877		
1,200.0	1,200.0	1,199.7	1,199.7	3.4	3.4	89.81	0.1	30.1	30.1	23.9	6.21	4.850		
1,300.0	1,300.0	1,299.7	1,299.7	3.4	3.4	89.81	0.1	30.1	30.1	23.9	6.24	4.821		
1,400.0	1,400.0	1,399.7	1,399.7	3.5	3.5	89.81	0.1	30.1	30.1	23.8	6.28	4.790		
1,500.0	1,500.0	1,499.7	1,499.7	3.5	3.5	89.81	0.1	30.1	30.1	23.8	6.33	4.758		
1,600.0	1,600.0	1,599.7	1,599.7	3.6	3.6	89.81	0.1	30.1	30.1	23.7	6.37	4.724		
1,700.0	1,700.0	1,699.7	1,699.7	3.7	3.7	89.81	0.1	30.1	30.1	23.7	6.42	4.688		
1,800.0	1,800.0	1,799.7	1,799.7	3.8	3.8	89.81	0.1	30.1	30.1	23.6	6.47	4.651		
1,900.0	1,900.0	1,899.7	1,899.7	3.9	3.9	89.81	0.1	30.1	30.1	23.6	6.53	4.613		
2,000.0	2,000.0	1,999.7	1,999.7	3.9	3.9	89.81	0.1	30.1	30.1	23.5	6.58	4.573		
2,100.0	2,100.0	2,099.7	2,099.7	4.0	4.0	89.81	0.1	30.1	30.1	23.5	6.64	4.533		
2,200.0	2,200.0	2,199.7	2,199.7	4.1	4.1	89.81	0.1	30.1	30.1	23.4	6.70	4.492		
2,300.0	2,300.0	2,299.7	2,299.7	4.2	4.2	89.81	0.1	30.1	30.1	23.3	6.76	4.450		
2,400.0	2,400.0	2,399.7	2,399.7	4.3	4.3	89.81	0.1	30.1	30.1	23.3	6.83	4.407		
2,500.0	2,500.0	2,499.7	2,499.7	4.4	4.4	89.81	0.1	30.1	30.1	23.2	6.90	4.364 CC, ES, SF		
2,600.0	2,600.0	2,598.6	2,598.6	4.5	4.5	89.82	0.1	31.8	31.8	24.8	6.97	4.567		
2,700.0	2,700.0	2,697.3	2,697.2	4.6	4.5	89.84	0.1	36.9	37.0	29.9	7.04	5.253		
2,800.0	2,800.0	2,795.5	2,795.0	4.7	4.5	89.87	0.1	45.3	45.6	38.5	7.12	6.403		
2,900.0	2,900.0	2,894.3	2,893.2	4.8	4.6	89.90	0.1	56.5	56.8	49.6	7.20	7.892		
3,000.0	3,000.0	2,993.7	2,991.9	4.9	4.6	89.92	0.1	67.8	68.3	61.0	7.29	9.365		
3,100.0	3,100.0	3,093.0	3,090.6	5.0	4.6	89.93	0.1	79.2	79.7	72.4	7.39	10.795		
3,200.0	3,200.0	3,192.4	3,189.3	5.1	4.7	89.94	0.1	90.6	91.2	83.7	7.49	12.181		
3,300.0	3,300.0	3,291.7	3,287.9	5.2	4.7	89.94	0.1	102.0	102.7	95.1	7.59	13.523		
3,400.0	3,400.0	3,391.0	3,386.6	5.3	4.8	89.95	0.1	113.4	114.1	106.4	7.70	14.821		
3,500.0	3,500.0	3,490.4	3,485.3	5.4	4.9	89.95	0.1	124.7	125.6	117.8	7.81	16.076		
3,600.0	3,600.0	3,589.7	3,584.0	5.5	4.9	89.96	0.1	136.1	137.0	129.1	7.93	17.286		
3,700.0	3,700.0	3,689.1	3,682.7	5.7	5.0	89.96	0.1	147.5	148.5	140.4	8.05	18.454		
3,800.0	3,800.0	3,788.4	3,781.4	5.8	5.1	89.96	0.1	158.9	159.9	151.8	8.17	19.579		
3,900.0	3,900.0	3,887.8	3,880.1	5.9	5.1	89.97	0.1	170.3	171.4	163.1	8.30	20.663		
4,000.0	4,000.0	3,987.1	3,978.7	6.0	5.2	89.97	0.1	181.7	182.9	174.4	8.42	21.707		
4,100.0	4,100.0	4,086.4	4,077.4	6.1	5.3	89.97	0.1	193.0	194.3	185.8	8.56	22.711		
4,200.0	4,200.0	4,185.8	4,176.1	6.2	5.3	89.97	0.1	204.4	205.8	197.1	8.69	23.678		
4,300.0	4,300.0	4,285.1	4,274.8	6.3	5.4	89.97	0.1	215.8	217.2	208.4	8.83	24.607		
4,400.0	4,400.0	4,384.5	4,373.5	6.5	5.5	89.97	0.1	227.2	228.7	219.7	8.97	25.501		
4,500.0	4,500.0	4,483.8	4,472.2	6.6	5.6	89.98	0.1	238.6	240.1	231.0	9.11	26.361		
4,600.0	4,600.0	4,583.1	4,570.9	6.7	5.7	89.98	0.1	249.9	251.6	242.3	9.25	27.188		
4,700.0	4,700.0	4,682.5	4,669.6	6.8	5.8	89.98	0.1	261.3	263.1	253.7	9.40	27.982		
4,800.0	4,800.0	4,781.8	4,768.2	6.9	5.9	89.98	0.1	272.7	274.5	265.0	9.55	28.747		
4,900.0	4,900.0	4,881.2	4,866.9	7.0	5.9	89.98	0.1	284.1	286.0	276.3	9.70	29.481		
5,000.0	5,000.0	4,980.5	4,965.6	7.2	6.0	89.98	0.1	295.5	297.4	287.6	9.85	30.188		

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10609-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis			Distance									Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	5,100.0	5,079.9	5,064.3	7.3	6.1	89.98	0.1	306.9	308.9	298.9	10.01	30.868		
5,200.0	5,200.0	5,179.2	5,163.0	7.4	6.2	89.98	0.1	318.2	320.3	310.2	10.16	31.522		
5,300.0	5,300.0	5,278.5	5,261.7	7.5	6.3	89.98	0.1	329.6	331.8	321.5	10.32	32.151		
5,400.0	5,400.0	5,377.9	5,360.4	7.6	6.4	89.98	0.1	341.0	343.3	332.8	10.48	32.756		
5,500.0	5,500.0	5,477.2	5,459.1	7.8	6.5	89.98	0.1	352.4	354.7	344.1	10.64	33.338		
5,600.0	5,600.0	5,576.7	5,557.9	7.8	6.6	-25.05	0.1	363.8	364.6	353.8	10.80	33.744		
5,700.0	5,699.8	5,676.5	5,657.0	7.8	6.7	-25.33	0.1	375.2	371.3	360.4	10.98	33.821		
5,749.8	5,749.5	5,726.2	5,706.4	7.8	6.8	-25.56	0.1	380.9	373.5	362.5	11.07	33.740		
5,800.0	5,799.5	5,776.3	5,756.2	7.8	6.8	-25.84	0.1	386.6	375.3	364.2	11.16	33.619		
5,900.0	5,899.1	5,876.2	5,855.4	7.8	6.9	-26.39	0.1	398.1	379.0	367.6	11.36	33.373		
6,000.0	5,998.7	5,976.1	5,954.6	7.8	7.0	-26.92	0.1	409.5	382.7	371.1	11.55	33.124		
6,100.0	6,098.4	6,075.9	6,053.8	7.9	7.1	-27.45	0.1	421.0	386.4	374.7	11.75	32.873		
6,200.0	6,198.0	6,175.8	6,153.0	7.9	7.3	-27.97	0.1	432.4	390.2	378.2	11.96	32.621		
6,300.0	6,297.6	6,275.7	6,252.2	7.9	7.4	-28.47	0.1	443.9	393.9	381.8	12.17	32.370		
6,400.0	6,397.2	6,375.5	6,351.5	7.9	7.5	-28.97	0.1	455.3	397.8	385.4	12.38	32.120		
6,500.0	6,496.8	6,475.4	6,450.7	7.9	7.6	-29.46	0.1	466.7	401.6	389.0	12.60	31.873		
6,600.0	6,596.5	6,575.3	6,549.9	7.9	7.7	-29.93	0.1	478.2	405.5	392.7	12.82	31.628		
6,700.0	6,696.1	6,675.1	6,649.1	8.0	7.8	-30.40	0.1	489.6	409.4	396.3	13.04	31.388		
6,800.0	6,795.7	6,775.0	6,748.3	8.0	7.9	-30.86	0.1	501.1	413.3	400.0	13.27	31.152		
6,900.0	6,895.3	6,874.9	6,847.5	8.0	8.0	-31.31	0.1	512.5	417.3	403.8	13.49	30.921		
7,000.0	6,994.9	6,974.7	6,946.7	8.1	8.1	-31.76	0.1	523.9	421.2	407.5	13.72	30.695		
7,100.0	7,094.6	7,074.6	7,045.9	8.1	8.3	-32.19	0.1	535.4	425.2	411.3	13.95	30.474		
7,200.0	7,194.2	7,174.5	7,145.1	8.1	8.4	-32.62	0.1	546.8	429.3	415.1	14.19	30.258		
7,300.0	7,293.8	7,274.4	7,244.4	8.2	8.5	-33.04	0.1	558.3	433.3	418.9	14.42	30.048		
7,400.0	7,393.4	7,374.2	7,343.6	8.2	8.6	-33.45	0.1	569.7	437.4	422.7	14.66	29.844		
7,500.0	7,493.0	7,474.1	7,442.8	8.2	8.7	-33.85	0.1	581.2	441.5	426.6	14.89	29.645		
7,600.0	7,592.7	7,574.0	7,542.0	8.3	8.8	-34.25	0.1	592.6	445.6	430.5	15.13	29.452		
7,700.0	7,692.3	7,673.8	7,641.2	8.3	9.0	-34.63	0.1	604.0	449.7	434.4	15.37	29.265		
7,800.0	7,791.9	7,773.7	7,740.4	8.4	9.1	-35.02	0.1	615.5	453.9	438.3	15.61	29.082		
7,900.0	7,891.5	7,873.6	7,839.6	8.4	9.2	-35.39	0.1	626.9	458.1	442.2	15.85	28.906		
8,000.0	7,991.1	7,973.4	7,938.8	8.5	9.3	-35.76	0.1	638.4	462.3	446.2	16.09	28.734		
8,100.0	8,090.8	8,073.3	8,038.0	8.5	9.4	-36.12	0.1	649.8	466.5	450.1	16.33	28.568		
8,200.0	8,190.4	8,173.2	8,137.3	8.6	9.6	-36.47	0.1	661.3	470.7	454.1	16.57	28.406		
8,300.0	8,290.0	8,273.0	8,236.5	8.7	9.7	-36.82	0.1	672.7	474.9	458.1	16.81	28.250		
8,400.0	8,389.6	8,372.9	8,335.7	8.7	9.8	-37.16	0.1	684.1	479.2	462.2	17.06	28.098		
8,500.0	8,489.2	8,472.8	8,434.9	8.8	9.9	-37.50	0.1	695.6	483.5	466.2	17.30	27.951		
8,600.0	8,588.9	8,572.6	8,534.1	8.8	10.1	-37.83	0.1	707.0	487.8	470.3	17.54	27.808		
8,700.0	8,688.5	8,672.5	8,633.3	8.9	10.2	-38.15	0.1	718.5	492.1	474.3	17.79	27.670		
8,800.0	8,788.1	8,772.4	8,732.5	9.0	10.3	-38.47	0.1	729.9	496.4	478.4	18.03	27.535		
8,900.0	8,887.7	8,872.2	8,831.7	9.1	10.4	-38.79	0.1	741.3	500.8	482.5	18.27	27.405		
9,000.0	8,987.3	8,972.1	8,930.9	9.1	10.6	-39.09	0.1	752.8	505.2	486.6	18.52	27.279		
9,100.0	9,087.0	9,072.0	9,030.2	9.2	10.7	-39.40	0.1	764.2	509.5	490.8	18.76	27.156		
9,200.0	9,186.6	9,171.9	9,129.4	9.3	10.8	-39.69	0.1	775.7	513.9	494.9	19.01	27.037		
9,300.0	9,286.2	9,271.7	9,228.6	9.4	10.9	-39.99	0.1	787.1	518.3	499.1	19.25	26.921		
9,400.0	9,385.8	9,371.6	9,327.8	9.4	11.1	-40.27	0.1	798.6	522.7	503.2	19.50	26.809		
9,500.0	9,485.4	9,471.5	9,427.0	9.5	11.2	-40.56	0.1	810.0	527.2	507.4	19.74	26.700		
9,600.0	9,585.1	9,571.3	9,526.2	9.6	11.3	-40.83	0.1	821.4	531.6	511.6	19.99	26.594		
9,700.0	9,684.7	9,671.2	9,625.4	9.7	11.5	-41.11	0.1	832.9	536.1	515.8	20.24	26.491		
9,800.0	9,784.3	9,771.1	9,724.6	9.8	11.6	-41.37	0.1	844.3	540.5	520.1	20.48	26.390		
9,900.0	9,883.9	9,870.9	9,823.8	9.8	11.7	-41.64	0.1	855.8	545.0	524.3	20.73	26.293		
10,000.0	9,983.5	9,970.8	9,923.0	9.9	11.8	-41.90	0.1	867.2	549.5	528.5	20.98	26.198		

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10609-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,100.0	10,083.2	10,070.7	10,022.3	10.0	12.0	-42.15	0.1	878.6	554.0	532.8	21.22	26.105		
10,200.0	10,182.8	10,170.5	10,121.5	10.1	12.1	-42.41	0.1	890.1	558.5	537.0	21.47	26.015		
10,300.0	10,282.4	10,270.4	10,220.7	10.2	12.2	-42.65	0.1	901.5	563.0	541.3	21.72	25.927		
10,400.0	10,382.0	10,370.3	10,319.9	10.3	12.4	-42.90	0.1	913.0	567.6	545.6	21.96	25.842		
10,500.0	10,481.6	10,470.1	10,419.1	10.4	12.5	-43.14	0.1	924.4	572.1	549.9	22.21	25.758		
10,515.4	10,497.0	10,485.5	10,434.4	10.4	12.5	-43.17	0.1	926.2	572.8	550.6	22.20	25.806		
10,525.0	10,506.5	10,495.1	10,443.9	10.4	12.5	-30.30	0.1	927.3	573.2	551.0	22.21	25.809		
10,550.0	10,531.5	10,520.1	10,468.7	10.4	12.6	6.12	0.1	930.1	574.0	551.8	22.24	25.810		
10,575.0	10,556.3	10,545.0	10,493.5	10.4	12.6	30.37	0.1	933.0	574.4	552.1	22.26	25.801		
10,600.0	10,581.1	10,569.8	10,518.1	10.4	12.6	43.33	0.1	935.8	574.4	552.1	22.28	25.782		
10,625.0	10,605.7	10,594.5	10,542.6	10.4	12.7	50.89	0.1	938.7	574.1	551.8	22.29	25.754		
10,650.0	10,630.0	10,613.9	10,561.9	10.4	12.7	55.78	0.1	940.9	573.5	551.1	22.30	25.711		
10,675.0	10,654.0	10,625.0	10,572.9	10.5	12.8	59.08	0.4	942.3	572.9	550.6	22.32	25.669		
10,700.0	10,677.7	10,642.1	10,589.9	10.5	12.8	61.70	1.3	944.6	572.5	550.2	22.32	25.653		
10,725.0	10,700.9	10,656.3	10,603.8	10.5	12.8	63.72	2.5	946.6	572.2	549.9	22.33	25.620		
10,750.0	10,723.5	10,675.0	10,622.2	10.5	12.8	65.55	4.6	949.5	572.2	549.8	22.32	25.630		
10,756.3	10,729.2	10,675.0	10,622.2	10.5	12.8	65.82	4.6	949.5	572.1	549.8	22.36	25.591		
10,775.0	10,745.6	10,684.5	10,631.4	10.5	12.8	66.84	6.0	951.1	572.2	549.8	22.39	25.560		
10,800.0	10,767.1	10,700.0	10,646.5	10.5	12.8	68.16	8.6	953.8	572.5	550.1	22.40	25.556		
10,825.0	10,787.9	10,712.6	10,658.7	10.5	12.8	69.23	11.0	956.1	573.0	550.6	22.45	25.528		
10,850.0	10,807.9	10,725.0	10,670.5	10.6	12.8	70.19	13.7	958.4	573.8	551.3	22.49	25.509		
10,875.0	10,827.2	10,740.7	10,685.4	10.6	12.8	71.21	17.6	961.5	574.8	552.3	22.49	25.554		
10,900.0	10,845.6	10,754.8	10,698.6	10.6	12.8	72.08	21.4	964.5	576.0	553.5	22.50	25.599		
10,925.0	10,863.0	10,768.8	10,711.7	10.6	12.9	72.90	25.6	967.5	577.6	555.1	22.50	25.668		
10,950.0	10,879.6	10,782.8	10,724.5	10.7	12.9	73.66	30.1	970.7	579.5	557.0	22.49	25.765		
10,975.0	10,895.1	10,800.0	10,740.1	10.7	12.9	74.54	36.2	974.7	581.7	559.2	22.42	25.945		
11,000.0	10,909.6	10,810.8	10,749.7	10.7	12.9	75.03	40.3	977.3	584.2	561.7	22.42	26.054		
11,025.0	10,923.0	10,825.0	10,762.3	10.8	12.9	75.66	46.0	980.9	587.0	564.7	22.36	26.253		
11,050.0	10,935.2	10,838.7	10,774.2	10.8	12.9	76.22	51.9	984.4	590.3	568.0	22.29	26.480		
11,075.0	10,946.4	10,850.0	10,783.8	10.8	12.9	76.58	56.9	987.4	593.9	571.6	22.24	26.707		
11,100.0	10,956.3	10,866.7	10,797.8	10.9	12.9	77.22	64.8	991.9	597.8	575.7	22.10	27.052		
11,125.0	10,965.0	10,880.6	10,809.3	10.9	12.9	77.65	71.7	995.7	602.2	580.2	21.98	27.391		
11,150.0	10,972.6	10,894.6	10,820.5	10.9	13.0	78.04	79.0	999.7	607.0	585.1	21.86	27.765		
11,175.0	10,978.8	10,908.6	10,831.5	11.0	13.0	78.37	86.6	1,003.8	612.1	590.4	21.73	28.169		
11,200.0	10,983.8	10,925.0	10,844.1	11.0	13.0	78.82	95.9	1,008.6	617.7	596.1	21.58	28.624		
11,225.0	10,987.5	10,936.6	10,852.8	11.1	13.0	78.89	102.8	1,012.2	623.7	602.2	21.47	29.055		
11,250.0	10,989.9	10,950.0	10,862.6	11.1	13.0	79.04	110.9	1,016.3	630.1	608.8	21.34	29.522		
11,275.0	10,991.0	10,964.8	10,873.1	11.1	13.0	79.22	120.2	1,020.9	636.9	615.7	21.23	30.004		
11,284.1	10,991.0	10,969.9	10,876.7	11.2	13.0	79.25	123.5	1,022.5	639.5	618.3	21.19	30.179		
11,300.0	10,991.0	10,979.1	10,883.0	11.2	13.1	79.88	129.5	1,025.5	644.2	623.0	21.13	30.482		
11,400.0	10,990.9	11,046.0	10,924.9	11.4	13.1	84.00	176.7	1,047.6	677.6	656.6	21.09	32.134		
11,500.0	10,990.8	11,131.1	10,967.1	11.7	13.2	87.93	244.2	1,077.3	715.7	694.1	21.57	33.171		
11,600.0	10,990.7	11,235.0	11,000.0	12.1	13.4	90.76	335.2	1,114.6	754.6	732.1	22.46	33.597		
11,700.0	10,990.6	11,353.2	11,011.0	12.5	13.5	91.58	445.0	1,156.1	791.5	768.1	23.46	33.740		
11,800.0	10,990.5	11,484.5	11,010.9	13.0	13.7	91.49	569.5	1,198.0	824.7	800.1	24.61	33.515		
11,900.0	10,990.4	11,620.0	11,010.7	13.5	13.9	91.42	699.8	1,235.1	853.5	827.6	25.89	32.966		
12,000.0	10,990.2	11,759.0	11,010.5	14.0	14.3	91.36	835.1	1,266.7	877.7	850.4	27.31	32.134		
12,100.0	10,990.1	11,901.2	11,010.3	14.6	14.8	91.32	974.9	1,292.2	897.0	868.2	28.81	31.132		
12,200.0	10,990.0	12,045.8	11,010.2	15.2	15.5	91.29	1,118.3	1,311.0	911.5	881.1	30.39	29.992		
12,300.0	10,989.9	12,192.1	11,010.0	15.9	16.2	91.27	1,264.2	1,322.7	920.9	888.9	32.00	28.776		
12,400.0	10,989.8	12,339.5	11,009.8	16.6	17.1	91.26	1,411.5	1,326.9	925.2	891.5	33.63	27.510		

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Concho Resources LLC

Anticollision Report

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Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10609-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,500.0	10,989.7	12,455.4	11,009.7	17.3	17.7	91.26	1,527.4	1,325.6	925.5	890.4	35.03	26.417	
12,600.0	10,989.6	12,555.4	11,009.6	18.0	18.4	91.26	1,627.4	1,324.2	925.4	889.1	36.35	25.458	
12,700.0	10,989.5	12,655.4	11,009.5	18.7	19.0	91.26	1,727.4	1,322.7	925.4	887.7	37.70	24.545	
12,800.0	10,989.3	12,755.4	11,009.3	19.4	19.6	91.26	1,827.4	1,321.3	925.4	886.3	39.08	23.678	
12,900.0	10,989.2	12,855.4	11,009.2	20.2	20.3	91.26	1,927.4	1,319.8	925.4	884.9	40.49	22.855	
13,000.0	10,989.1	12,955.4	11,009.1	20.9	21.0	91.26	2,027.4	1,318.4	925.4	883.5	41.92	22.075	
13,100.0	10,989.0	13,055.4	11,009.0	21.7	21.7	91.26	2,127.3	1,316.9	925.4	882.0	43.37	21.336	
13,200.0	10,988.9	13,155.4	11,008.9	22.5	22.4	91.26	2,227.3	1,315.5	925.4	880.6	44.84	20.636	
13,300.0	10,988.8	13,255.4	11,008.8	23.2	23.1	91.26	2,327.3	1,314.0	925.4	879.1	46.33	19.973	
13,400.0	10,988.7	13,355.4	11,008.6	24.0	23.8	91.26	2,427.3	1,312.6	925.4	877.5	47.83	19.345	
13,500.0	10,988.6	13,455.4	11,008.5	24.8	24.5	91.25	2,527.3	1,311.1	925.4	876.0	49.35	18.750	
13,600.0	10,988.4	13,555.4	11,008.4	25.6	25.3	91.25	2,627.3	1,309.7	925.4	874.5	50.88	18.186	
13,700.0	10,988.3	13,655.4	11,008.3	26.4	26.0	91.25	2,727.3	1,308.2	925.4	872.9	52.43	17.650	
13,800.0	10,988.2	13,755.4	11,008.2	27.2	26.8	91.25	2,827.3	1,306.7	925.3	871.4	53.98	17.142	
13,900.0	10,988.1	13,855.4	11,008.1	28.0	27.5	91.25	2,927.3	1,305.3	925.3	869.8	55.54	16.659	
14,000.0	10,988.0	13,955.4	11,007.9	28.8	28.3	91.25	3,027.3	1,303.8	925.3	868.2	57.12	16.200	
14,100.0	10,987.9	14,055.4	11,007.8	29.6	29.1	91.25	3,127.2	1,302.4	925.3	866.6	58.70	15.764	
14,200.0	10,987.8	14,155.4	11,007.7	30.4	29.8	91.25	3,227.2	1,300.9	925.3	865.0	60.29	15.348	
14,300.0	10,987.7	14,255.4	11,007.6	31.3	30.6	91.25	3,327.2	1,299.5	925.3	863.4	61.89	14.952	
14,400.0	10,987.5	14,355.4	11,007.5	32.1	31.4	91.25	3,427.2	1,298.0	925.3	861.8	63.49	14.574	
14,500.0	10,987.4	14,455.4	11,007.4	32.9	32.2	91.25	3,527.2	1,296.6	925.3	860.2	65.10	14.214	
14,600.0	10,987.3	14,555.4	11,007.2	33.7	33.0	91.25	3,627.2	1,295.1	925.3	858.6	66.71	13.870	
14,700.0	10,987.2	14,655.4	11,007.1	34.5	33.8	91.25	3,727.2	1,293.7	925.3	856.9	68.33	13.541	
14,800.0	10,987.1	14,755.4	11,007.0	35.4	34.6	91.25	3,827.2	1,292.2	925.3	855.3	69.96	13.226	
14,900.0	10,987.0	14,855.4	11,006.9	36.2	35.4	91.25	3,927.2	1,290.8	925.3	853.7	71.59	12.925	
15,000.0	10,986.9	14,955.4	11,006.8	37.0	36.2	91.25	4,027.1	1,289.3	925.3	852.0	73.22	12.636	
15,100.0	10,986.8	15,055.4	11,006.7	37.9	37.0	91.25	4,127.1	1,287.9	925.2	850.4	74.86	12.359	
15,200.0	10,986.7	15,155.4	11,006.6	38.7	37.8	91.25	4,227.1	1,286.4	925.2	848.7	76.50	12.094	
15,300.0	10,986.5	15,255.4	11,006.4	39.5	38.6	91.25	4,327.1	1,285.0	925.2	847.1	78.15	11.839	
15,400.0	10,986.4	15,355.4	11,006.3	40.4	39.4	91.25	4,427.1	1,283.5	925.2	845.4	79.80	11.595	
15,500.0	10,986.3	15,455.4	11,006.2	41.2	40.3	91.25	4,527.1	1,282.1	925.2	843.8	81.45	11.359	
15,503.0	10,986.3	15,458.4	11,006.2	41.2	40.3	91.25	4,530.1	1,282.0	925.2	843.7	81.50	11.353	
15,513.1	10,986.3	15,466.0	11,006.2	41.3	40.3	91.25	4,537.7	1,281.9	925.2	843.6	81.65	11.332	
15,551.4	10,986.3	15,496.3	11,006.2	41.6	40.6	91.25	4,568.0	1,281.7	925.3	843.0	82.21	11.254	
15,571.2	10,986.2	15,514.3	11,006.1	41.8	40.7	91.25	4,586.0	1,281.7	925.3	842.7	82.53	11.212	
15,600.0	10,986.2	15,543.2	11,006.1	42.0	41.0	91.25	4,614.8	1,281.7	925.2	842.2	83.00	11.147	
15,700.0	10,986.1	15,643.2	11,006.0	42.9	41.8	91.25	4,714.8	1,281.6	925.2	840.6	84.66	10.929	
15,800.0	10,986.0	15,743.2	11,005.9	43.7	42.6	91.25	4,814.8	1,281.4	925.2	838.9	86.32	10.719	
15,900.0	10,985.9	15,843.2	11,005.8	44.6	43.4	91.25	4,914.8	1,281.3	925.2	837.2	87.98	10.516	
16,000.0	10,985.8	15,943.2	11,005.7	45.4	44.3	91.25	5,014.8	1,281.2	925.2	835.5	89.64	10.321	
16,100.0	10,985.7	16,043.2	11,005.6	46.2	45.1	91.25	5,114.8	1,281.0	925.1	833.8	91.31	10.132	
16,200.0	10,985.6	16,143.2	11,005.5	47.1	45.9	91.25	5,214.8	1,280.9	925.1	832.2	92.98	9.950	
16,300.0	10,985.5	16,243.2	11,005.4	47.9	46.7	91.25	5,314.8	1,280.8	925.1	830.5	94.65	9.774	
16,400.0	10,985.4	16,343.2	11,005.3	48.8	47.6	91.25	5,414.8	1,280.7	925.1	828.8	96.32	9.604	
16,500.0	10,985.3	16,443.2	11,005.2	49.6	48.4	91.25	5,514.8	1,280.5	925.1	827.1	97.99	9.440	
16,600.0	10,985.2	16,543.2	11,005.1	50.4	49.2	91.25	5,614.8	1,280.4	925.0	825.4	99.67	9.281	
16,700.0	10,985.1	16,643.2	11,005.0	51.3	50.1	91.25	5,714.8	1,280.3	925.0	823.7	101.34	9.128	
16,800.0	10,985.0	16,743.2	11,004.9	52.1	50.9	91.25	5,814.8	1,280.2	925.0	822.0	103.02	8.979	
16,900.0	10,984.9	16,843.2	11,004.8	53.0	51.7	91.25	5,914.8	1,280.0	925.0	820.3	104.70	8.835	
17,000.0	10,984.8	16,943.2	11,004.7	53.8	52.6	91.25	6,014.8	1,279.9	925.0	818.6	106.38	8.695	
17,100.0	10,984.7	17,043.2	11,004.6	54.7	53.4	91.25	6,114.8	1,279.8	924.9	816.9	108.06	8.559	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10609-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,200.0	10,984.5	17,143.2	11,004.5	55.5	54.2	91.25	6,214.8	1,279.6	924.9	815.2	109.75	8.428	
17,300.0	10,984.4	17,243.2	11,004.4	56.4	55.1	91.25	6,314.8	1,279.5	924.9	813.5	111.43	8.300	
17,400.0	10,984.3	17,343.2	11,004.3	57.2	55.9	91.25	6,414.8	1,279.4	924.9	811.8	113.12	8.176	
17,500.0	10,984.2	17,443.2	11,004.2	58.1	56.8	91.25	6,514.8	1,279.3	924.9	810.1	114.80	8.056	
17,600.0	10,984.1	17,543.2	11,004.1	58.9	57.6	91.25	6,614.8	1,279.1	924.8	808.4	116.49	7.939	
17,700.0	10,984.0	17,643.2	11,004.0	59.8	58.4	91.25	6,714.8	1,279.0	924.8	806.6	118.18	7.826	
17,800.0	10,983.9	17,743.2	11,003.9	60.6	59.3	91.25	6,814.8	1,278.9	924.8	804.9	119.87	7.715	
17,900.0	10,983.8	17,843.2	11,003.8	61.5	60.1	91.25	6,914.8	1,278.8	924.8	803.2	121.56	7.608	
18,000.0	10,983.7	17,943.2	11,003.7	62.3	61.0	91.25	7,014.8	1,278.6	924.8	801.5	123.25	7.503	
18,100.0	10,983.6	18,043.2	11,003.6	63.2	61.8	91.25	7,114.8	1,278.5	924.7	799.8	124.94	7.401	
18,200.0	10,983.5	18,143.2	11,003.5	64.0	62.6	91.26	7,214.8	1,278.4	924.7	798.1	126.64	7.302	
18,300.0	10,983.4	18,243.2	11,003.4	64.9	63.5	91.26	7,314.8	1,278.2	924.7	796.4	128.33	7.206	
18,400.0	10,983.3	18,343.2	11,003.3	65.7	64.3	91.26	7,414.8	1,278.1	924.7	794.7	130.02	7.112	
18,500.0	10,983.2	18,443.2	11,003.2	66.6	65.2	91.26	7,514.8	1,278.0	924.7	792.9	131.72	7.020	
18,600.0	10,983.1	18,543.2	11,003.1	67.4	66.0	91.26	7,614.8	1,277.9	924.6	791.2	133.42	6.931	
18,700.0	10,983.0	18,643.2	11,003.0	68.3	66.9	91.26	7,714.8	1,277.7	924.6	789.5	135.11	6.843	
18,800.0	10,982.9	18,743.2	11,002.9	69.1	67.7	91.26	7,814.8	1,277.6	924.6	787.8	136.81	6.758	
18,900.0	10,982.8	18,843.2	11,002.8	70.0	68.6	91.26	7,914.8	1,277.5	924.6	786.1	138.51	6.675	
19,000.0	10,982.7	18,943.2	11,002.7	70.8	69.4	91.26	8,014.8	1,277.4	924.6	784.4	140.20	6.594	
19,100.0	10,982.6	19,043.2	11,002.5	71.7	70.2	91.26	8,114.8	1,277.2	924.5	782.6	141.90	6.515	
19,200.0	10,982.5	19,143.2	11,002.4	72.5	71.1	91.26	8,214.8	1,277.1	924.5	780.9	143.60	6.438	
19,300.0	10,982.4	19,243.2	11,002.3	73.4	71.9	91.26	8,314.8	1,277.0	924.5	779.2	145.30	6.363	
19,400.0	10,982.3	19,343.2	11,002.2	74.2	72.8	91.26	8,414.8	1,276.9	924.5	777.5	147.00	6.289	
19,500.0	10,982.2	19,443.2	11,002.1	75.1	73.6	91.26	8,514.8	1,276.7	924.5	775.8	148.70	6.217	
19,600.0	10,982.1	19,543.2	11,002.0	75.9	74.5	91.26	8,614.8	1,276.6	924.4	774.0	150.40	6.146	
19,700.0	10,982.0	19,643.2	11,001.9	76.8	75.3	91.26	8,714.8	1,276.5	924.4	772.3	152.11	6.077	
19,800.0	10,981.8	19,743.2	11,001.8	77.7	76.2	91.26	8,814.8	1,276.3	924.4	770.6	153.81	6.010	
19,900.0	10,981.7	19,843.2	11,001.7	78.5	77.0	91.26	8,914.8	1,276.2	924.4	768.9	155.51	5.944	
20,000.0	10,981.6	19,943.2	11,001.6	79.4	77.9	91.26	9,014.8	1,276.1	924.4	767.1	157.21	5.880	
20,100.0	10,981.5	20,043.2	11,001.5	80.2	78.7	91.26	9,114.8	1,276.0	924.3	765.4	158.92	5.816	
20,200.0	10,981.4	20,143.2	11,001.4	81.1	79.6	91.26	9,214.8	1,275.8	924.3	763.7	160.62	5.755	
20,300.0	10,981.3	20,243.2	11,001.3	81.9	80.4	91.26	9,314.8	1,275.7	924.3	762.0	162.32	5.694	
20,400.0	10,981.2	20,343.2	11,001.2	82.8	81.3	91.26	9,414.8	1,275.6	924.3	760.2	164.03	5.635	
20,500.0	10,981.1	20,443.2	11,001.1	83.6	82.1	91.26	9,514.8	1,275.5	924.3	758.5	165.73	5.577	
20,600.0	10,981.0	20,543.2	11,001.0	84.5	83.0	91.26	9,614.8	1,275.3	924.2	756.8	167.44	5.520	
20,618.9	10,981.0	20,562.0	11,001.0	84.7	83.1	91.26	9,633.7	1,275.3	924.2	756.5	167.76	5.509	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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		ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #806H - OWB - PWP1											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.3	0.3	3.0	3.0	-90.38	-0.2	-30.0	30.0					
100.0	100.0	100.3	100.3	3.0	3.0	-90.38	-0.2	-30.0	30.0	24.0	6.00	4.997		
200.0	200.0	200.3	200.3	3.0	3.0	-90.38	-0.2	-30.0	30.0	24.0	6.04	4.965		
300.0	300.0	300.3	300.3	3.0	3.1	-90.38	-0.2	-30.0	30.0	23.9	6.12	4.899		
400.0	400.0	400.3	400.3	3.0	3.2	-90.38	-0.2	-30.0	30.0	23.8	6.24	4.804		
500.0	500.0	500.3	500.3	3.1	3.4	-90.38	-0.2	-30.0	30.0	23.6	6.40	4.687		
600.0	600.0	600.3	600.3	3.1	3.6	-90.38	-0.2	-30.0	30.0	23.4	6.59	4.553		
700.0	700.0	700.3	700.3	3.1	3.8	-90.38	-0.2	-30.0	30.0	23.2	6.80	4.409		
800.0	800.0	800.3	800.3	3.2	4.0	-90.38	-0.2	-30.0	30.0	23.0	7.04	4.259		
900.0	900.0	900.3	900.3	3.2	4.2	-90.38	-0.2	-30.0	30.0	22.7	7.30	4.109		
1,000.0	1,000.0	1,000.3	1,000.3	3.2	4.5	-90.38	-0.2	-30.0	30.0	22.4	7.58	3.960		
1,100.0	1,100.0	1,100.3	1,100.3	3.3	4.8	-90.38	-0.2	-30.0	30.0	22.1	7.87	3.814		
1,200.0	1,200.0	1,200.3	1,200.3	3.4	5.1	-90.38	-0.2	-30.0	30.0	21.8	8.17	3.674		
1,300.0	1,300.0	1,300.3	1,300.3	3.4	5.4	-90.38	-0.2	-30.0	30.0	21.5	8.48	3.539		
1,400.0	1,400.0	1,400.3	1,400.3	3.5	5.7	-90.38	-0.2	-30.0	30.0	21.2	8.80	3.410		
1,500.0	1,500.0	1,500.3	1,500.3	3.5	6.0	-90.38	-0.2	-30.0	30.0	20.9	9.13	3.287		
1,600.0	1,600.0	1,600.3	1,600.3	3.6	6.3	-90.38	-0.2	-30.0	30.0	20.5	9.46	3.171		
1,700.0	1,700.0	1,700.3	1,700.3	3.7	6.6	-90.38	-0.2	-30.0	30.0	20.2	9.80	3.060		
1,800.0	1,800.0	1,800.3	1,800.3	3.8	6.9	-90.38	-0.2	-30.0	30.0	19.9	10.15	2.956		
1,900.0	1,900.0	1,900.3	1,900.3	3.9	7.2	-90.38	-0.2	-30.0	30.0	19.5	10.50	2.857		
2,000.0	2,000.0	2,000.3	2,000.3	3.9	7.6	-90.38	-0.2	-30.0	30.0	19.1	10.86	2.763		
2,100.0	2,100.0	2,100.3	2,100.3	4.0	7.9	-90.38	-0.2	-30.0	30.0	18.8	11.22	2.675		
2,200.0	2,200.0	2,200.3	2,200.3	4.1	8.2	-90.38	-0.2	-30.0	30.0	18.4	11.58	2.591		
2,300.0	2,300.0	2,300.3	2,300.3	4.2	8.6	-90.38	-0.2	-30.0	30.0	18.1	11.95	2.511		
2,400.0	2,400.0	2,400.3	2,400.3	4.3	8.9	-90.38	-0.2	-30.0	30.0	17.7	12.32	2.436		
2,416.6	2,416.6	2,416.9	2,416.9	4.3	9.0	-90.38	-0.2	-30.0	30.0	17.6	12.38	2.424 CC		
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	-90.38	-0.2	-30.0	30.0	17.3	12.69	2.365 ES, SF		
2,600.0	2,600.0	2,599.6	2,599.5	4.5	9.6	-92.77	-1.5	-31.1	31.2	18.1	13.05	2.390		
2,700.0	2,700.0	2,698.6	2,698.4	4.6	9.9	-98.87	-5.4	-34.5	35.0	21.6	13.41	2.610		
2,800.0	2,800.0	2,797.8	2,797.4	4.7	10.2	-106.04	-11.4	-39.8	41.5	27.7	13.81	3.006		
2,900.0	2,900.0	2,897.5	2,896.7	4.8	10.5	-111.41	-17.8	-45.3	48.8	34.6	14.25	3.426		
3,000.0	3,000.0	2,997.1	2,995.9	4.9	10.8	-115.36	-24.1	-50.8	56.4	41.7	14.69	3.842		
3,100.0	3,100.0	3,096.8	3,095.2	5.0	11.1	-118.36	-30.4	-56.3	64.2	49.1	15.12	4.248		
3,200.0	3,200.0	3,196.4	3,194.5	5.1	11.5	-120.71	-36.7	-61.9	72.2	56.6	15.56	4.640		
3,300.0	3,300.0	3,296.1	3,293.8	5.2	11.8	-122.59	-43.1	-67.4	80.2	64.2	15.99	5.017		
3,400.0	3,400.0	3,395.7	3,393.1	5.3	12.1	-124.12	-49.4	-72.9	88.3	71.9	16.43	5.378		
3,500.0	3,500.0	3,495.4	3,492.4	5.4	12.5	-125.40	-55.7	-78.4	96.5	79.7	16.86	5.724		
3,600.0	3,600.0	3,595.0	3,591.7	5.5	12.8	-126.47	-62.0	-83.9	104.7	87.4	17.29	6.055		
3,700.0	3,700.0	3,694.6	3,691.0	5.7	13.1	-127.39	-68.4	-89.4	113.0	95.2	17.73	6.372		
3,800.0	3,800.0	3,794.3	3,790.3	5.8	13.5	-128.19	-74.7	-95.0	121.2	103.1	18.16	6.674		
3,900.0	3,900.0	3,893.9	3,889.6	5.9	13.8	-128.88	-81.0	-100.5	129.5	110.9	18.60	6.963		
4,000.0	4,000.0	3,993.6	3,988.8	6.0	14.1	-129.49	-87.3	-106.0	137.8	118.8	19.04	7.239		
4,100.0	4,100.0	4,093.2	4,088.1	6.1	14.5	-130.03	-93.7	-111.5	146.1	126.7	19.47	7.503		
4,200.0	4,200.0	4,192.9	4,187.4	6.2	14.8	-130.51	-100.0	-117.0	154.5	134.5	19.91	7.756		
4,300.0	4,300.0	4,292.5	4,286.7	6.3	15.2	-130.95	-106.3	-122.5	162.8	142.4	20.35	7.998		
4,400.0	4,400.0	4,392.2	4,386.0	6.5	15.5	-131.34	-112.6	-128.0	171.1	150.3	20.79	8.230		
4,500.0	4,500.0	4,491.8	4,485.3	6.6	15.8	-131.69	-119.0	-133.6	179.5	158.3	21.24	8.452		
4,600.0	4,600.0	4,491.5	4,484.6	6.7	16.2	-132.01	-125.3	-139.1	187.8	166.2	21.68	8.665		
4,700.0	4,700.0	4,491.1	4,483.9	6.8	16.5	-132.31	-131.6	-144.6	196.2	174.1	22.12	8.869		
4,800.0	4,800.0	4,790.7	4,783.2	6.9	16.9	-132.58	-137.9	-150.1	204.6	182.0	22.57	9.065		
4,900.0	4,900.0	4,890.4	4,882.5	7.0	17.2	-132.83	-144.3	-155.6	212.9	189.9	23.01	9.253		

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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		ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #806H - OWB - PWP1											Offset Site Error:	0.0 usft		
Survey Program: 0-MWD+IFR1+FDIR															Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
5,000.0	5,000.0	4,990.0	4,981.8	7.2	17.6	-133.06	-150.6	-161.1	221.3	197.9	23.46	9.434				
5,100.0	5,100.0	5,089.7	5,081.0	7.3	17.9	-133.28	-156.9	-166.7	229.7	205.8	23.91	9.608				
5,200.0	5,200.0	5,189.3	5,180.3	7.4	18.3	-133.47	-163.2	-172.2	238.1	213.7	24.36	9.776				
5,300.0	5,300.0	5,289.0	5,279.6	7.5	18.6	-133.66	-169.6	-177.7	246.5	221.7	24.80	9.937				
5,400.0	5,400.0	5,388.6	5,378.9	7.6	19.0	-133.83	-175.9	-183.2	254.9	229.6	25.25	10.092				
5,500.0	5,500.0	5,488.3	5,478.2	7.8	19.3	-134.00	-182.2	-188.7	263.2	237.5	25.70	10.241				
5,600.0	5,600.0	5,587.8	5,577.4	7.8	19.7	111.03	-188.5	-194.2	272.3	246.1	26.13	10.421				
5,700.0	5,699.8	5,687.2	5,676.5	7.8	20.0	111.68	-194.8	-199.7	282.6	256.1	26.50	10.661				
5,749.8	5,749.5	5,736.6	5,725.7	7.8	20.2	112.21	-198.0	-202.5	288.2	261.5	26.68	10.802				
5,800.0	5,799.5	5,786.3	5,775.2	7.8	20.4	112.90	-201.1	-205.2	294.1	267.2	26.86	10.950				
5,900.0	5,899.1	5,885.4	5,873.9	7.8	20.7	114.21	-207.4	-210.7	305.9	278.7	27.22	11.240				
6,000.0	5,998.7	5,984.5	5,972.6	7.8	21.1	115.42	-213.7	-216.2	317.9	290.3	27.58	11.525				
6,100.0	6,098.4	6,083.5	6,071.4	7.9	21.4	116.54	-220.0	-221.7	330.0	302.1	27.96	11.804				
6,200.0	6,198.0	6,182.6	6,170.1	7.9	21.8	117.58	-226.3	-227.1	342.3	313.9	28.34	12.077				
6,300.0	6,297.6	6,281.6	6,268.8	7.9	22.1	118.55	-232.6	-232.6	354.6	325.9	28.73	12.344				
6,400.0	6,397.2	6,380.7	6,367.5	7.9	22.5	119.45	-238.9	-238.1	367.0	337.9	29.12	12.605				
6,500.0	6,496.8	6,479.8	6,466.2	7.9	22.8	120.30	-245.1	-243.6	379.5	350.0	29.52	12.859				
6,600.0	6,596.5	6,578.8	6,564.9	7.9	23.2	121.09	-251.4	-249.1	392.1	362.2	29.92	13.108				
6,700.0	6,696.1	6,677.9	6,663.6	8.0	23.6	121.83	-257.7	-254.6	404.8	374.5	30.32	13.350				
6,800.0	6,795.7	6,777.0	6,762.3	8.0	23.9	122.52	-264.0	-260.0	417.5	386.8	30.73	13.586				
6,900.0	6,895.3	6,876.0	6,861.0	8.0	24.3	123.18	-270.3	-265.5	430.3	399.2	31.14	13.816				
7,000.0	6,994.9	6,975.1	6,959.8	8.1	24.6	123.80	-276.6	-271.0	443.1	411.6	31.56	14.041				
7,100.0	7,094.6	7,074.1	7,058.5	8.1	25.0	124.38	-282.9	-276.5	456.0	424.0	31.98	14.259				
7,200.0	7,194.2	7,173.2	7,157.2	8.1	25.3	124.93	-289.2	-282.0	468.9	436.5	32.40	14.472				
7,300.0	7,293.8	7,272.3	7,255.9	8.2	25.7	125.45	-295.4	-287.5	481.9	449.1	32.83	14.680				
7,400.0	7,393.4	7,371.3	7,354.6	8.2	26.0	125.94	-301.7	-292.9	494.9	461.7	33.25	14.883				
7,500.0	7,493.0	7,470.4	7,453.3	8.2	26.4	126.41	-308.0	-298.4	508.0	474.3	33.68	15.080				
7,600.0	7,592.7	7,569.5	7,552.0	8.3	26.7	126.86	-314.3	-303.9	521.0	486.9	34.12	15.272				
7,700.0	7,692.3	7,668.5	7,650.7	8.3	27.1	127.28	-320.6	-309.4	534.1	499.6	34.55	15.460				
7,800.0	7,791.9	7,767.6	7,749.4	8.4	27.5	127.69	-326.9	-314.9	547.2	512.3	34.99	15.642				
7,900.0	7,891.5	7,866.7	7,848.2	8.4	27.8	128.07	-333.2	-320.3	560.4	525.0	35.42	15.820				
8,000.0	7,991.1	7,965.7	7,946.9	8.5	28.2	128.44	-339.5	-325.8	573.6	537.7	35.86	15.994				
8,100.0	8,090.8	8,064.8	8,045.6	8.5	28.5	128.79	-345.7	-331.3	586.8	550.5	36.30	16.163				
8,200.0	8,190.4	8,163.8	8,144.3	8.6	28.9	129.12	-352.0	-336.8	600.0	563.2	36.75	16.328				
8,300.0	8,290.0	8,262.9	8,243.0	8.7	29.2	129.44	-358.3	-342.3	613.2	576.0	37.19	16.489				
8,400.0	8,389.6	8,362.0	8,341.7	8.7	29.6	129.75	-364.6	-347.8	626.5	588.8	37.64	16.646				
8,500.0	8,489.2	8,461.0	8,440.4	8.8	29.9	130.04	-370.9	-353.2	639.7	601.7	38.08	16.799				
8,600.0	8,588.9	8,560.1	8,539.1	8.8	30.3	130.32	-377.2	-358.7	653.0	614.5	38.53	16.949				
8,700.0	8,688.5	8,659.2	8,637.8	8.9	30.7	130.60	-383.5	-364.2	666.3	627.4	38.98	17.094				
8,800.0	8,788.1	8,758.2	8,736.6	9.0	31.0	130.86	-389.8	-369.7	679.7	640.2	39.43	17.237				
8,900.0	8,887.7	8,857.3	8,835.3	9.1	31.4	131.11	-396.0	-375.2	693.0	653.1	39.88	17.375				
9,000.0	8,987.3	8,956.3	8,934.0	9.1	31.7	131.35	-402.3	-380.7	706.3	666.0	40.34	17.511				
9,100.0	9,087.0	9,055.4	9,032.7	9.2	32.1	131.58	-408.6	-386.1	719.7	678.9	40.79	17.643				
9,200.0	9,186.6	9,154.5	9,131.4	9.3	32.4	131.80	-414.9	-391.6	733.0	691.8	41.25	17.772				
9,300.0	9,286.2	9,253.5	9,230.1	9.4	32.8	132.02	-421.2	-397.1	746.4	704.7	41.70	17.899				
9,400.0	9,385.8	9,352.6	9,328.8	9.4	33.2	132.23	-427.5	-402.6	759.8	717.7	42.16	18.022				
9,500.0	9,485.4	9,451.7	9,427.5	9.5	33.5	132.43	-433.8	-408.1	773.2	730.6	42.62	18.142				
9,600.0	9,585.1	9,550.7	9,526.2	9.6	33.9	132.62	-440.1	-413.6	786.6	743.5	43.08	18.260				
9,700.0	9,684.7	9,649.8	9,625.0	9.7	34.2	132.81	-446.3	-419.0	800.0	756.5	43.54	18.375				
9,800.0	9,784.3	9,748.8	9,723.7	9.8	34.6	132.99	-452.6	-424.5	813.4	769.4	44.00	18.487				
9,900.0	9,883.9	9,847.9	9,822.4	9.8	35.0	133.16	-458.9	-430.0	826.9	782.4	44.46	18.597				

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #806H - 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
10,000.0	9,983.5	9,947.0	9,921.1	9.9	35.3	133.33		-465.2	-435.5	840.3	795.4	44.93	18.704	
10,100.0	10,083.2	10,046.0	10,019.8	10.0	35.7	133.50		-471.5	-441.0	853.8	808.4	45.39	18.809	
10,200.0	10,182.8	10,145.1	10,118.5	10.1	36.0	133.66		-477.8	-446.5	867.2	821.3	45.86	18.911	
10,300.0	10,282.4	10,244.2	10,217.2	10.2	36.4	133.81		-484.1	-451.9	880.7	834.3	46.32	19.012	
10,400.0	10,382.0	10,343.2	10,315.9	10.3	36.7	133.96		-490.4	-457.4	894.1	847.3	46.79	19.110	
10,500.0	10,481.6	10,442.3	10,414.6	10.4	37.1	134.11		-496.6	-462.9	907.6	860.3	47.26	19.206	
10,515.4	10,497.0	10,457.6	10,429.9	10.4	37.2	134.13		-497.6	-463.7	909.7	862.2	47.45	19.172	
10,525.0	10,506.5	10,467.0	10,439.3	10.4	37.2	147.22		-498.2	-464.3	911.0	863.5	47.48	19.185	
10,550.0	10,531.5	10,491.8	10,463.9	10.4	37.3	-175.92		-499.8	-465.6	914.8	867.2	47.58	19.226	
10,575.0	10,556.3	10,550.0	10,522.0	10.4	37.5	-151.46		-500.7	-468.9	918.6	871.0	47.65	19.278	
10,600.0	10,581.1	10,620.6	10,592.0	10.4	37.7	-138.23		-492.3	-473.0	921.7	874.0	47.70	19.323	
10,625.0	10,605.7	10,690.4	10,659.2	10.4	37.9	-130.26		-474.0	-477.0	924.0	876.3	47.74	19.355	
10,650.0	10,630.0	10,745.0	10,709.3	10.4	38.1	-124.94		-452.9	-480.2	925.6	877.8	47.79	19.368	
10,675.0	10,654.0	10,821.9	10,775.3	10.5	38.3	-120.50		-413.9	-484.5	926.4	878.6	47.81	19.378	
10,700.0	10,677.7	10,870.1	10,813.2	10.5	38.4	-117.27		-384.0	-487.0	926.8	878.9	47.85	19.368	
10,725.0	10,700.9	10,937.1	10,860.4	10.5	38.6	-113.98		-336.8	-490.4	926.7	878.8	47.87	19.360	
10,750.0	10,723.5	10,988.2	10,891.7	10.5	38.7	-111.33		-296.5	-492.7	926.2	878.3	47.89	19.340	
10,775.0	10,745.6	11,035.1	10,916.5	10.5	38.8	-108.95		-256.8	-494.7	925.6	877.7	47.92	19.315	
10,800.0	10,767.1	11,078.3	10,935.8	10.5	38.8	-106.80		-218.2	-496.4	924.8	876.8	47.95	19.286	
10,825.0	10,787.9	11,118.2	10,950.5	10.5	38.9	-104.84		-181.1	-497.7	923.9	876.0	47.99	19.255	
10,850.0	10,807.9	11,155.1	10,961.2	10.6	38.9	-103.04		-145.9	-498.8	923.1	875.1	48.03	19.220	
10,875.0	10,827.2	11,189.4	10,968.8	10.6	38.9	-101.38		-112.4	-499.8	922.3	874.2	48.08	19.184	
10,900.0	10,845.6	11,221.5	10,973.6	10.6	39.0	-99.84		-80.7	-500.5	921.6	873.4	48.13	19.146	
10,925.0	10,863.0	11,251.7	10,976.2	10.6	39.0	-98.40		-50.6	-501.1	920.9	872.7	48.20	19.107	
10,950.0	10,879.6	11,279.8	10,977.0	10.7	39.0	-97.06		-22.6	-501.5	920.4	872.1	48.28	19.066	
10,975.0	10,895.1	11,299.3	10,976.9	10.7	39.0	-96.09		-3.0	-501.8	920.1	871.8	48.37	19.022	
10,991.1	10,904.5	11,312.3	10,976.9	10.7	39.0	-95.49		10.0	-502.0	920.1	871.6	48.44	18.995	
11,000.0	10,909.6	11,319.6	10,976.9	10.7	39.0	-95.16		17.3	-502.1	920.1	871.6	48.48	18.980	
11,025.0	10,923.0	11,340.7	10,976.9	10.8	39.1	-94.25		38.3	-502.4	920.3	871.7	48.58	18.942	
11,050.0	10,935.2	11,362.4	10,976.8	10.8	39.1	-93.39		60.1	-502.7	920.6	871.9	48.69	18.907	
11,075.0	10,946.4	11,384.7	10,976.8	10.8	39.1	-92.59		82.4	-503.0	921.0	872.2	48.80	18.874	
11,100.0	10,956.3	11,407.7	10,976.8	10.9	39.1	-91.84		105.3	-503.4	921.5	872.6	48.91	18.841	
11,125.0	10,965.0	11,431.0	10,976.7	10.9	39.1	-91.17		128.7	-503.7	922.1	873.1	49.02	18.809	
11,150.0	10,972.6	11,454.9	10,976.7	10.9	39.1	-90.59		152.5	-504.0	922.6	873.5	49.14	18.776	
11,175.0	10,978.8	11,479.1	10,976.7	11.0	39.2	-90.09		176.7	-504.4	923.1	873.9	49.25	18.744	
11,200.0	10,983.8	11,503.5	10,976.6	11.0	39.2	-89.68		201.2	-504.7	923.5	874.2	49.36	18.711	
11,225.0	10,987.5	11,528.3	10,976.6	11.1	39.2	-89.38		225.9	-505.1	923.9	874.4	49.47	18.676	
11,250.0	10,989.9	11,553.1	10,976.6	11.1	39.2	-89.18		250.8	-505.5	924.1	874.5	49.58	18.640	
11,275.0	10,991.0	11,578.1	10,976.5	11.1	39.3	-89.09		275.8	-505.8	924.2	874.5	49.68	18.602	
11,284.1	10,991.0	11,587.2	10,976.5	11.2	39.3	-89.08		284.8	-506.0	924.2	874.5	49.72	18.589	
11,300.0	10,991.0	11,603.1	10,976.5	11.2	39.3	-89.08		300.8	-506.2	924.2	874.4	49.78	18.564	
11,400.0	10,990.9	11,703.1	10,976.3	11.4	39.4	-89.08		400.7	-507.6	924.2	873.9	50.26	18.388	
11,500.0	10,990.8	11,803.1	10,976.2	11.7	39.6	-89.07		500.7	-509.1	924.2	873.4	50.81	18.188	
11,600.0	10,990.7	11,903.1	10,976.0	12.1	39.7	-89.07		600.7	-510.5	924.2	872.8	51.43	17.969	
11,700.0	10,990.6	12,003.1	10,975.9	12.5	39.9	-89.07		700.7	-511.9	924.2	872.1	52.12	17.733	
11,800.0	10,990.5	12,103.1	10,975.7	13.0	40.1	-89.07		800.7	-513.4	924.2	871.3	52.85	17.486	
11,900.0	10,990.4	12,203.1	10,975.6	13.5	40.3	-89.06		900.7	-514.8	924.2	870.5	53.64	17.228	
12,000.0	10,990.2	12,303.1	10,975.4	14.0	40.6	-89.06		1,000.7	-516.3	924.2	869.7	54.48	16.963	
12,100.0	10,990.1	12,403.1	10,975.3	14.6	40.8	-89.06		1,100.7	-517.7	924.2	868.8	55.36	16.693	
12,200.0	10,990.0	12,503.1	10,975.1	15.2	41.1	-89.06		1,200.7	-519.1	924.2	867.9	56.29	16.419	
12,300.0	10,989.9	12,603.1	10,974.9	15.9	41.4	-89.05		1,300.7	-520.6	924.2	866.9	57.24	16.145	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #806H - 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	10,989.8	12,703.1	10,974.8	16.6	41.7	-89.05	-89.05	1,400.6	-522.0	924.2	865.9	58.23	15.870	
12,500.0	10,989.7	12,803.1	10,974.6	17.3	42.0	-89.05	-89.05	1,500.6	-523.5	924.2	864.9	59.26	15.596	
12,600.0	10,989.6	12,903.1	10,974.5	18.0	42.3	-89.05	-89.05	1,600.6	-524.9	924.2	863.9	60.31	15.324	
12,700.0	10,989.5	13,003.1	10,974.3	18.7	42.7	-89.04	-89.04	1,700.6	-526.3	924.2	862.8	61.39	15.055	
12,800.0	10,989.3	13,103.1	10,974.2	19.4	43.1	-89.04	-89.04	1,800.6	-527.8	924.2	861.7	62.49	14.789	
12,900.0	10,989.2	13,203.1	10,974.0	20.2	43.4	-89.04	-89.04	1,900.6	-529.2	924.2	860.5	63.62	14.527	
13,000.0	10,989.1	13,303.1	10,973.9	20.9	43.8	-89.04	-89.04	2,000.6	-530.7	924.2	859.4	64.77	14.269	
13,100.0	10,989.0	13,403.1	10,973.7	21.7	44.2	-89.03	-89.03	2,100.6	-532.1	924.2	858.2	65.94	14.015	
13,200.0	10,988.9	13,503.1	10,973.6	22.5	44.6	-89.03	-89.03	2,200.6	-533.5	924.2	857.0	67.13	13.767	
13,300.0	10,988.8	13,603.1	10,973.4	23.2	45.1	-89.03	-89.03	2,300.5	-535.0	924.1	855.8	68.34	13.523	
13,400.0	10,988.7	13,703.1	10,973.3	24.0	45.5	-89.03	-89.03	2,400.5	-536.4	924.1	854.6	69.57	13.284	
13,500.0	10,988.6	13,803.1	10,973.1	24.8	46.0	-89.02	-89.02	2,500.5	-537.9	924.1	853.3	70.81	13.051	
13,600.0	10,988.4	13,903.1	10,973.0	25.6	46.4	-89.02	-89.02	2,600.5	-539.3	924.1	852.1	72.07	12.823	
13,700.0	10,988.3	14,003.1	10,972.8	26.4	46.9	-89.02	-89.02	2,700.5	-540.7	924.1	850.8	73.35	12.599	
13,800.0	10,988.2	14,103.1	10,972.6	27.2	47.4	-89.02	-89.02	2,800.5	-542.2	924.1	849.5	74.64	12.381	
13,900.0	10,988.1	14,203.1	10,972.5	28.0	47.9	-89.01	-89.01	2,900.5	-543.6	924.1	848.2	75.94	12.169	
14,000.0	10,988.0	14,303.1	10,972.3	28.8	48.4	-89.01	-89.01	3,000.5	-545.1	924.1	846.9	77.26	11.961	
14,100.0	10,987.9	14,403.1	10,972.2	29.6	48.9	-89.01	-89.01	3,100.5	-546.5	924.1	845.5	78.59	11.758	
14,200.0	10,987.8	14,503.1	10,972.0	30.4	49.5	-89.01	-89.01	3,200.5	-547.9	924.1	844.2	79.94	11.561	
14,300.0	10,987.7	14,603.1	10,971.9	31.3	50.0	-89.00	-89.00	3,300.4	-549.4	924.1	842.8	81.29	11.368	
14,400.0	10,987.5	14,703.1	10,971.7	32.1	50.5	-89.00	-89.00	3,400.4	-550.8	924.1	841.5	82.66	11.180	
14,500.0	10,987.4	14,803.1	10,971.6	32.9	51.1	-89.00	-89.00	3,500.4	-552.3	924.1	840.1	84.04	10.997	
14,600.0	10,987.3	14,903.1	10,971.4	33.7	51.7	-88.99	-88.99	3,600.4	-553.7	924.1	838.7	85.42	10.818	
14,700.0	10,987.2	15,003.1	10,971.3	34.5	52.2	-88.99	-88.99	3,700.4	-555.1	924.1	837.3	86.82	10.644	
14,800.0	10,987.1	15,103.1	10,971.1	35.4	52.8	-88.99	-88.99	3,800.4	-556.6	924.1	835.9	88.23	10.474	
14,900.0	10,987.0	15,203.1	10,971.0	36.2	53.4	-88.99	-88.99	3,900.4	-558.0	924.1	834.5	89.65	10.309	
15,000.0	10,986.9	15,303.1	10,970.8	37.0	54.0	-88.98	-88.98	4,000.4	-559.5	924.1	833.0	91.07	10.147	
15,100.0	10,986.8	15,403.1	10,970.6	37.9	54.6	-88.98	-88.98	4,100.4	-560.9	924.1	831.6	92.50	9.990	
15,200.0	10,986.7	15,503.1	10,970.5	38.7	55.2	-88.98	-88.98	4,200.3	-562.3	924.1	830.2	93.95	9.836	
15,300.0	10,986.5	15,603.1	10,970.3	39.5	55.8	-88.98	-88.98	4,300.3	-563.8	924.1	828.7	95.40	9.687	
15,400.0	10,986.4	15,703.1	10,970.2	40.4	56.4	-88.97	-88.97	4,400.3	-565.2	924.1	827.2	96.85	9.541	
15,500.0	10,986.3	15,803.1	10,970.0	41.2	57.1	-88.97	-88.97	4,500.3	-566.7	924.1	825.8	98.32	9.399	
15,513.1	10,986.3	15,816.2	10,970.0	41.3	57.1	-88.97	-88.97	4,513.4	-566.9	924.1	825.6	98.51	9.381	
15,513.1	10,986.3	15,816.3	10,970.0	41.3	57.1	-88.97	-88.97	4,513.5	-566.9	924.1	825.6	98.51	9.381	
15,551.4	10,986.3	15,867.9	10,969.9	41.6	57.5	-88.97	-88.97	4,565.1	-567.3	924.1	825.0	99.13	9.322	
15,553.9	10,986.3	15,871.6	10,969.9	41.7	57.5	-88.97	-88.97	4,568.8	-567.3	924.1	825.0	99.18	9.318	
15,600.0	10,986.2	15,915.4	10,969.9	42.0	57.8	-88.97	-88.97	4,612.7	-567.3	924.2	824.3	99.85	9.256	
15,700.0	10,986.1	16,015.4	10,969.7	42.9	58.4	-88.96	-88.96	4,712.7	-567.5	924.1	822.8	101.32	9.121	
15,800.0	10,986.0	16,115.4	10,969.5	43.7	59.1	-88.96	-88.96	4,812.7	-567.6	924.1	821.3	102.81	8.989	
15,900.0	10,985.9	16,215.4	10,969.4	44.6	59.7	-88.96	-88.96	4,912.7	-567.7	924.1	819.9	104.30	8.861	
16,000.0	10,985.8	16,315.4	10,969.2	45.4	60.4	-88.95	-88.95	5,012.7	-567.8	924.1	818.4	105.79	8.735	
16,100.0	10,985.7	16,415.4	10,969.1	46.2	61.0	-88.95	-88.95	5,112.7	-567.9	924.1	816.9	107.30	8.613	
16,200.0	10,985.6	16,515.4	10,968.9	47.1	61.7	-88.95	-88.95	5,212.7	-568.0	924.1	815.3	108.80	8.494	
16,300.0	10,985.5	16,615.4	10,968.8	47.9	62.4	-88.94	-88.94	5,312.7	-568.1	924.1	813.8	110.32	8.377	
16,400.0	10,985.4	16,715.4	10,968.6	48.8	63.0	-88.94	-88.94	5,412.7	-568.2	924.1	812.3	111.83	8.263	
16,500.0	10,985.3	16,815.4	10,968.5	49.6	63.7	-88.94	-88.94	5,512.7	-568.3	924.1	810.8	113.36	8.152	
16,600.0	10,985.2	16,915.4	10,968.3	50.4	64.4	-88.93	-88.93	5,612.7	-568.4	924.1	809.3	114.89	8.044	
16,700.0	10,985.1	17,015.4	10,968.1	51.3	65.1	-88.93	-88.93	5,712.7	-568.5	924.1	807.7	116.42	7.938	
16,800.0	10,985.0	17,115.4	10,968.0	52.1	65.8	-88.93	-88.93	5,812.7	-568.6	924.1	806.2	117.96	7.835	
16,900.0	10,984.9	17,215.4	10,967.8	53.0	66.5	-88.93	-88.93	5,912.7	-568.7	924.1	804.6	119.50	7.733	
17,000.0	10,984.8	17,315.4	10,967.7	53.8	67.2	-88.92	-88.92	6,012.7	-568.8	924.1	803.1	121.05	7.635	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,100.0	10,984.7	17,415.4	10,967.5	54.7	67.9	-88.92	6,112.7	-568.9	924.1	801.5	122.60	7.538	
17,200.0	10,984.5	17,515.4	10,967.4	55.5	68.6	-88.92	6,212.7	-569.0	924.1	800.0	124.15	7.444	
17,300.0	10,984.4	17,615.4	10,967.2	56.4	69.3	-88.91	6,312.6	-569.1	924.1	798.4	125.71	7.351	
17,400.0	10,984.3	17,715.4	10,967.0	57.2	70.0	-88.91	6,412.6	-569.2	924.1	796.9	127.27	7.261	
17,500.0	10,984.2	17,815.4	10,966.9	58.1	70.7	-88.91	6,512.6	-569.3	924.1	795.3	128.84	7.173	
17,600.0	10,984.1	17,915.4	10,966.7	58.9	71.4	-88.90	6,612.6	-569.4	924.1	793.7	130.41	7.087	
17,700.0	10,984.0	18,015.4	10,966.6	59.8	72.2	-88.90	6,712.6	-569.5	924.1	792.2	131.98	7.002	
17,800.0	10,983.9	18,115.4	10,966.4	60.6	72.9	-88.90	6,812.6	-569.7	924.1	790.6	133.55	6.919	
17,900.0	10,983.8	18,215.4	10,966.3	61.5	73.6	-88.89	6,912.6	-569.8	924.1	789.0	135.13	6.839	
18,000.0	10,983.7	18,315.4	10,966.1	62.3	74.4	-88.89	7,012.6	-569.9	924.1	787.4	136.72	6.759	
18,100.0	10,983.6	18,415.4	10,965.9	63.2	75.1	-88.89	7,112.6	-570.0	924.1	785.8	138.30	6.682	
18,200.0	10,983.5	18,515.4	10,965.8	64.0	75.8	-88.88	7,212.6	-570.1	924.1	784.2	139.89	6.606	
18,300.0	10,983.4	18,615.4	10,965.6	64.9	76.6	-88.88	7,312.6	-570.2	924.1	782.6	141.48	6.532	
18,400.0	10,983.3	18,715.4	10,965.5	65.7	77.3	-88.88	7,412.6	-570.3	924.1	781.0	143.08	6.459	
18,500.0	10,983.2	18,815.4	10,965.3	66.6	78.1	-88.87	7,512.6	-570.4	924.1	779.5	144.67	6.388	
18,600.0	10,983.1	18,915.4	10,965.2	67.4	78.8	-88.87	7,612.6	-570.5	924.1	777.9	146.27	6.318	
18,700.0	10,983.0	19,015.4	10,965.0	68.3	79.6	-88.87	7,712.6	-570.6	924.1	776.2	147.87	6.249	
18,800.0	10,982.9	19,115.4	10,964.8	69.1	80.3	-88.86	7,812.6	-570.7	924.1	774.6	149.48	6.182	
18,900.0	10,982.8	19,215.4	10,964.7	70.0	81.1	-88.86	7,912.6	-570.8	924.1	773.0	151.08	6.117	
19,000.0	10,982.7	19,315.4	10,964.5	70.8	81.8	-88.86	8,012.6	-570.9	924.1	771.4	152.69	6.052	
19,100.0	10,982.6	19,415.4	10,964.4	71.7	82.6	-88.85	8,112.6	-571.0	924.1	769.8	154.30	5.989	
19,200.0	10,982.5	19,515.4	10,964.2	72.5	83.3	-88.85	8,212.6	-571.1	924.1	768.2	155.92	5.927	
19,300.0	10,982.4	19,615.4	10,964.1	73.4	84.1	-88.85	8,312.6	-571.2	924.1	766.6	157.53	5.866	
19,400.0	10,982.3	19,715.4	10,963.9	74.2	84.9	-88.84	8,412.6	-571.3	924.1	765.0	159.15	5.807	
19,500.0	10,982.2	19,815.4	10,963.7	75.1	85.6	-88.84	8,512.6	-571.4	924.1	763.3	160.77	5.748	
19,600.0	10,982.1	19,915.4	10,963.6	75.9	86.4	-88.84	8,612.6	-571.5	924.1	761.7	162.39	5.691	
19,700.0	10,982.0	20,015.4	10,963.4	76.8	87.2	-88.83	8,712.6	-571.6	924.1	760.1	164.01	5.634	
19,800.0	10,981.8	20,115.4	10,963.3	77.7	87.9	-88.83	8,812.6	-571.7	924.1	758.5	165.64	5.579	
19,900.0	10,981.7	20,215.4	10,963.1	78.5	88.7	-88.83	8,912.6	-571.9	924.1	756.8	167.26	5.525	
20,000.0	10,981.6	20,315.4	10,963.0	79.4	89.5	-88.82	9,012.6	-572.0	924.1	755.2	168.89	5.472	
20,100.0	10,981.5	20,415.4	10,962.8	80.2	90.3	-88.82	9,112.6	-572.1	924.1	753.6	170.52	5.419	
20,200.0	10,981.4	20,515.4	10,962.7	81.1	91.0	-88.82	9,212.6	-572.2	924.1	752.0	172.15	5.368	
20,300.0	10,981.3	20,615.4	10,962.5	81.9	91.8	-88.81	9,312.6	-572.3	924.1	750.3	173.79	5.317	
20,400.0	10,981.2	20,715.4	10,962.3	82.8	92.6	-88.81	9,412.6	-572.4	924.1	748.7	175.42	5.268	
20,500.0	10,981.1	20,815.4	10,962.2	83.6	93.4	-88.81	9,512.6	-572.5	924.1	747.0	177.06	5.219	
20,600.0	10,981.0	20,915.4	10,962.0	84.5	94.2	-88.80	9,612.6	-572.6	924.1	745.4	178.70	5.171	
20,616.0	10,981.0	20,931.4	10,962.0	84.6	94.3	-88.80	9,628.6	-572.6	924.1	745.1	178.96	5.164	
20,618.9	10,981.0	20,931.4	10,962.0	84.7	94.3	-88.80	9,628.6	-572.6	924.1	745.1	178.99	5.163	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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, 7829-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference				Offset				Semi Major Axis				Distance	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	174.20	-564.7	57.4	567.7				
100.0	100.0	95.8	95.8	3.0	3.0	174.22	-564.4	57.2	567.3	561.3	6.00	94.536	
200.0	200.0	196.2	196.2	3.0	3.0	174.26	-563.6	56.7	566.5	560.5	6.01	94.266	
300.0	300.0	297.9	297.9	3.0	3.0	174.29	-562.5	56.3	565.4	559.4	6.03	93.766	
400.0	400.0	397.3	397.3	3.0	3.0	174.33	-561.5	55.7	564.3	558.2	6.06	93.105	
500.0	500.0	495.9	495.9	3.1	3.1	174.42	-560.7	54.8	563.4	557.3	6.10	92.390	
578.5	578.5	570.0	570.0	3.1	3.1	174.47	-560.5	54.2	563.1	556.9	6.13	91.854	
600.0	600.0	591.4	591.4	3.1	3.1	174.48	-560.5	54.1	563.1	556.9	6.14	91.734	
700.0	700.0	689.5	689.5	3.1	3.1	174.54	-560.7	53.6	563.2	557.0	6.18	91.174	
800.0	800.0	786.0	786.0	3.2	3.1	174.62	-561.4	52.9	563.9	557.7	6.22	90.711	
900.0	900.0	885.6	885.5	3.2	3.1	174.73	-562.4	51.9	564.9	558.6	6.26	90.185	
1,000.0	1,000.0	983.2	983.1	3.2	3.1	174.89	-563.8	50.5	566.1	559.8	6.32	89.597	
1,100.0	1,100.0	1,083.2	1,083.1	3.3	3.2	175.11	-565.6	48.4	567.7	561.3	6.38	88.951	
1,200.0	1,200.0	1,189.3	1,189.1	3.4	3.2	175.21	-566.5	47.5	568.4	562.0	6.45	88.070	
1,300.0	1,300.0	1,288.0	1,287.8	3.4	3.2	175.22	-567.0	47.4	569.0	562.5	6.53	87.103	
1,400.0	1,400.0	1,387.5	1,387.4	3.5	3.3	175.28	-567.8	46.9	569.8	563.2	6.62	86.077	
1,500.0	1,500.0	1,489.5	1,489.3	3.5	3.3	175.45	-568.5	45.2	570.3	563.6	6.71	84.968	
1,600.0	1,600.0	1,589.1	1,589.0	3.6	3.4	175.70	-569.1	42.8	570.7	563.9	6.81	83.834	
1,700.0	1,700.0	1,687.7	1,687.5	3.7	3.4	175.99	-570.0	40.0	571.4	564.5	6.91	82.705	
1,800.0	1,800.0	1,801.7	1,801.5	3.8	3.5	176.31	-570.4	36.8	571.7	564.7	7.02	81.473	
1,900.0	1,900.0	1,910.8	1,910.4	3.9	3.6	176.40	-567.4	35.7	568.8	561.7	7.12	79.896	
2,000.0	2,000.0	2,012.4	2,012.0	3.9	3.6	176.44	-563.8	35.0	565.3	558.1	7.23	78.189	
2,100.0	2,100.0	2,093.8	2,093.4	4.0	3.6	176.47	-561.9	34.6	563.0	555.6	7.34	76.661	
2,108.1	2,108.1	2,100.0	2,099.6	4.0	3.6	176.47	-561.9	34.6	563.0	555.6	7.35	76.564 CC, ES	
2,200.0	2,200.0	2,187.0	2,186.5	4.1	3.7	176.49	-562.5	34.5	563.6	556.2	7.46	75.549	
2,300.0	2,300.0	2,286.9	2,286.5	4.2	3.7	176.47	-563.3	34.7	564.4	556.8	7.58	74.411	
2,400.0	2,400.0	2,386.2	2,385.7	4.3	3.7	176.20	-564.1	37.5	565.4	557.7	7.71	73.322	
2,500.0	2,500.0	2,475.0	2,474.5	4.4	3.7	175.86	-565.5	41.0	567.2	559.4	7.84	72.388	
2,600.0	2,600.0	2,561.9	2,561.3	4.5	3.7	175.69	-569.2	42.9	571.7	563.7	7.96	71.776	
2,700.0	2,700.0	2,667.7	2,666.9	4.6	3.7	175.36	-574.5	46.6	576.9	568.8	8.11	71.138	
2,800.0	2,800.0	2,771.0	2,770.0	4.7	3.7	175.05	-578.2	50.1	580.7	572.5	8.26	70.343	
2,900.0	2,900.0	2,871.8	2,870.7	4.8	3.8	174.67	-581.5	54.3	584.4	576.0	8.40	69.540	
3,000.0	3,000.0	2,971.3	2,970.0	4.9	3.8	174.30	-584.7	58.3	588.0	579.4	8.55	68.742	
3,100.0	3,100.0	3,070.3	3,069.0	5.0	3.8	174.01	-588.0	61.7	591.7	583.0	8.71	67.946	
3,200.0	3,200.0	3,183.9	3,182.5	5.1	3.9	173.99	-590.5	62.2	593.8	585.0	8.88	66.876	
3,300.0	3,300.0	3,274.0	3,272.5	5.2	4.0	174.35	-593.1	58.7	596.3	587.3	9.04	65.996	
3,400.0	3,400.0	3,376.0	3,374.0	5.3	4.0	175.15	-596.9	50.7	599.3	590.1	9.20	65.137	
3,500.0	3,500.0	3,481.1	3,478.6	5.4	4.1	176.17	-600.6	40.2	602.1	592.8	9.37	64.260	
3,600.0	3,600.0	3,587.5	3,584.3	5.5	4.2	177.31	-603.1	28.4	603.8	594.3	9.54	63.294	
3,700.0	3,700.0	3,690.0	3,685.5	5.7	4.3	178.81	-604.7	12.5	604.9	595.2	9.71	62.284	
3,800.0	3,800.0	3,786.6	3,780.5	5.8	4.3	-179.53	-606.1	-5.0	606.2	596.3	9.88	61.338	
3,900.0	3,900.0	3,881.8	3,874.6	5.9	4.4	-178.16	-608.0	-19.5	608.6	598.5	10.06	60.525	
4,000.0	4,000.0	3,979.8	3,971.5	6.0	4.5	-176.86	-610.3	-33.5	611.6	601.3	10.23	59.776	
4,100.0	4,100.0	4,075.7	4,066.5	6.1	4.6	-175.62	-613.0	-46.9	615.3	604.8	10.41	59.113	
4,200.0	4,200.0	4,172.7	4,162.5	6.2	4.7	-174.43	-616.0	-60.1	619.6	609.0	10.59	58.517	
4,300.0	4,300.0	4,263.7	4,252.4	6.3	4.7	-173.21	-619.6	-73.7	625.2	614.4	10.77	58.059	
4,400.0	4,400.0	4,362.6	4,349.9	6.5	4.8	-171.84	-623.9	-89.5	631.7	620.7	10.96	57.652	
4,500.0	4,500.0	4,460.3	4,446.5	6.6	4.9	-170.61	-628.4	-103.9	638.5	627.3	11.15	57.286	
4,600.0	4,600.0	4,556.3	4,541.4	6.7	5.0	-169.45	-632.9	-117.9	645.8	634.4	11.33	56.971	
4,700.0	4,700.0	4,654.4	4,638.5	6.8	5.1	-168.42	-638.3	-130.8	653.7	642.2	11.53	56.705	
4,800.0	4,800.0	4,755.4	4,738.6	6.9	5.2	-167.50	-644.0	-142.8	661.7	650.0	11.73	56.435	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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, 7829-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
4,900.0	4,900.0	4,849.0	4,831.0	7.0	5.3	-166.43	-648.9	-156.6	670.2	658.3	11.92	56.231	
5,000.0	5,000.0	4,948.8	4,929.3	7.2	5.4	-165.15	-653.9	-173.4	679.3	667.2	12.12	56.064	
5,100.0	5,100.0	5,050.8	5,029.7	7.3	5.5	-163.91	-658.9	-190.0	688.5	676.2	12.32	55.900	
5,200.0	5,200.0	5,151.1	5,128.8	7.4	5.6	-162.86	-663.9	-204.8	697.6	685.1	12.52	55.733	
5,300.0	5,300.0	5,254.9	5,231.7	7.5	5.7	-161.96	-669.1	-217.9	706.3	693.5	12.72	55.527	
5,400.0	5,400.0	5,356.1	5,332.2	7.6	5.8	-161.22	-674.2	-229.3	714.6	701.7	12.92	55.303	
5,500.0	5,500.0	5,454.8	5,430.2	7.8	5.9	-160.57	-679.4	-239.6	723.1	709.9	13.12	55.091	
5,600.0	5,600.0	5,560.6	5,535.3	7.8	6.1	85.03	-684.7	-249.8	730.9	717.6	13.29	55.007	
5,700.0	5,699.8	5,659.7	5,633.8	7.8	6.2	85.91	-689.1	-260.0	738.2	724.8	13.40	55.091	
5,749.8	5,749.5	5,707.5	5,681.3	7.8	6.2	86.41	-691.2	-264.8	741.9	728.4	13.46	55.134	
5,800.0	5,799.5	5,753.5	5,727.0	7.8	6.3	87.03	-693.2	-270.0	745.9	732.3	13.51	55.197	
5,900.0	5,899.1	5,849.5	5,822.1	7.8	6.4	88.39	-697.3	-282.0	754.4	740.8	13.63	55.353	
6,000.0	5,998.7	5,947.5	5,919.4	7.8	6.5	89.69	-701.9	-293.6	763.5	749.7	13.75	55.514	
6,100.0	6,098.4	6,046.6	6,017.6	7.9	6.6	91.00	-706.3	-305.5	772.9	759.0	13.88	55.680	
6,200.0	6,198.0	6,144.5	6,114.5	7.9	6.7	92.43	-709.7	-319.4	782.8	768.8	14.01	55.866	
6,300.0	6,297.6	6,245.3	6,214.4	7.9	6.8	93.77	-713.3	-332.4	792.7	778.5	14.15	56.030	
6,400.0	6,397.2	6,350.0	6,318.3	7.9	6.9	94.99	-717.6	-343.8	802.4	788.1	14.29	56.148	
6,500.0	6,496.8	6,441.9	6,409.6	7.9	7.0	96.03	-721.4	-353.9	812.4	798.0	14.43	56.291	
6,600.0	6,596.5	6,547.5	6,514.5	7.9	7.2	97.22	-725.7	-365.8	823.0	808.4	14.58	56.435	
6,700.0	6,696.1	6,635.9	6,602.2	8.0	7.3	98.22	-729.0	-376.1	833.7	819.0	14.73	56.589	
6,800.0	6,795.7	6,722.4	6,687.6	8.0	7.4	99.40	-731.4	-389.4	846.1	831.3	14.89	56.830	
6,900.0	6,895.3	6,835.6	6,798.9	8.0	7.5	101.13	-732.1	-409.6	858.8	843.8	15.04	57.088	
7,000.0	6,994.9	6,987.7	6,949.7	8.1	7.7	103.07	-731.2	-429.4	868.3	853.1	15.21	57.071	
7,100.0	7,094.6	7,087.2	7,048.7	8.1	7.8	104.22	-728.6	-439.0	874.4	859.0	15.35	56.945	
7,200.0	7,194.2	7,175.0	7,136.0	8.1	7.9	105.24	-726.5	-448.1	881.5	866.0	15.49	56.890	
7,300.0	7,293.8	7,254.3	7,214.9	8.2	8.0	106.09	-726.2	-456.4	890.6	874.9	15.65	56.915	
7,400.0	7,393.4	7,340.6	7,300.6	8.2	8.1	106.96	-727.7	-466.3	902.0	886.2	15.82	57.022	
7,500.0	7,493.0	7,456.1	7,415.4	8.2	8.2	108.03	-730.5	-478.7	913.9	897.9	15.99	57.137	
7,600.0	7,592.7	7,565.5	7,524.4	8.3	8.3	108.90	-732.9	-487.7	923.9	907.8	16.17	57.127	
7,700.0	7,692.3	7,704.2	7,662.9	8.3	8.5	109.75	-734.8	-492.9	930.1	913.7	16.38	56.772	
7,800.0	7,791.9	7,795.7	7,754.4	8.4	8.6	110.23	-736.3	-494.9	935.9	919.3	16.55	56.531	
7,900.0	7,891.5	7,888.3	7,846.9	8.4	8.6	110.79	-737.4	-498.2	942.3	925.6	16.65	56.591	
8,000.0	7,991.1	8,445.2	8,360.7	8.5	8.9	121.89	-566.4	-498.4	918.0	899.1	18.92	48.527	
8,100.0	8,090.8	8,697.0	8,527.6	8.5	9.3	134.50	-380.4	-503.6	877.8	857.6	20.25	43.342	
8,200.0	8,190.4	8,850.3	8,587.1	8.6	9.7	145.00	-240.2	-512.2	835.0	814.8	20.22	41.293	
8,300.0	8,290.0	8,901.6	8,598.8	8.7	9.9	148.81	-190.3	-514.4	797.2	777.9	19.35	41.210	
8,400.0	8,389.6	8,931.5	8,604.7	8.7	10.0	151.06	-161.0	-515.2	769.8	751.4	18.41	41.808	
8,500.0	8,489.2	8,953.3	8,608.6	8.8	10.1	152.70	-139.5	-515.7	754.3	736.6	17.69	42.640	
8,571.4	8,560.4	8,964.6	8,610.4	8.8	10.1	153.56	-128.4	-515.8	750.9	733.5	17.44	43.058	
8,600.0	8,588.9	8,969.0	8,611.1	8.8	10.1	153.89	-124.1	-515.9	751.5	734.1	17.42	43.137	
8,700.0	8,688.5	8,983.0	8,613.3	8.9	10.2	154.95	-110.3	-516.0	761.7	743.9	17.74	42.944	
8,800.0	8,788.1	8,995.5	8,615.2	9.0	10.2	155.90	-97.9	-516.1	784.4	765.8	18.59	42.197	
8,900.0	8,887.7	9,006.8	8,616.8	9.1	10.3	156.75	-86.8	-516.2	818.6	798.8	19.80	41.345	
9,000.0	8,987.3	9,016.9	8,618.2	9.1	10.3	157.52	-76.7	-516.2	863.0	841.9	21.17	40.758	
9,100.0	9,087.0	9,026.2	8,619.4	9.2	10.4	158.22	-67.5	-516.2	916.1	893.6	22.57	40.596 SF	
9,200.0	9,186.6	9,034.6	8,620.5	9.3	10.4	158.86	-59.1	-516.2	976.5	952.6	23.89	40.869	
9,300.0	9,286.2	9,047.0	8,622.0	9.4	10.4	159.79	-46.9	-516.2	1,043.0	1,017.9	25.11	41.528	
9,400.0	9,385.8	9,047.0	8,622.0	9.4	10.4	159.79	-46.9	-516.2	1,114.4	1,088.1	26.23	42.486	
9,500.0	9,485.4	9,047.0	8,622.0	9.5	10.4	159.79	-46.9	-516.2	1,189.9	1,162.7	27.23	43.695	
9,600.0	9,585.1	9,062.3	8,623.8	9.6	10.5	160.95	-31.6	-516.1	1,268.7	1,240.5	28.14	45.083	
9,700.0	9,684.7	9,068.2	8,624.5	9.7	10.5	161.38	-25.9	-516.1	1,350.3	1,321.3	28.97	46.618	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL COM 501H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 7829-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
9,800.0	9,784.3	9,073.6	8,625.1	9.8	10.6	161.79	-20.4	-516.0	1,434.2	1,404.5	29.72	48.259	
9,900.0	9,883.9	9,078.8	8,625.6	9.8	10.6	162.18	-15.3	-516.0	1,520.0	1,489.6	30.41	49.978	
10,000.0	9,983.5	9,083.6	8,626.1	9.9	10.6	162.54	-10.5	-515.9	1,607.5	1,576.4	31.06	51.755	
10,100.0	10,083.2	9,088.2	8,626.6	10.0	10.6	162.88	-5.9	-515.9	1,696.3	1,664.6	31.66	53.572	
10,200.0	10,182.8	9,092.6	8,627.0	10.1	10.6	163.21	-1.6	-515.8	1,786.3	1,754.0	32.23	55.414	
10,300.0	10,282.4	9,096.7	8,627.4	10.2	10.7	163.51	2.5	-515.8	1,877.3	1,844.5	32.78	57.272	
10,400.0	10,382.0	9,100.6	8,627.8	10.3	10.7	163.81	6.4	-515.7	1,969.1	1,935.8	33.30	59.137	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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: 89-MWD, 679-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference				Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	171.20	-564.6	87.4	571.4				
100.0	100.0	92.7	92.7	3.0	3.0	171.19	-564.5	87.5	571.2	565.2	6.00	95.149	
200.0	200.0	193.0	193.0	3.0	3.1	171.17	-564.0	87.6	570.8	564.7	6.05	94.276	
230.9	230.9	222.0	222.0	3.0	3.1	171.17	-564.0	87.6	570.7	564.6	6.08	93.890	
300.0	300.0	288.5	288.5	3.0	3.2	171.14	-564.1	88.0	570.9	564.8	6.16	92.683	
400.0	400.0	387.5	387.5	3.0	3.3	171.10	-564.6	88.4	571.5	565.1	6.34	90.184	
500.0	500.0	486.3	486.3	3.1	3.5	171.06	-565.2	88.9	572.2	565.6	6.56	87.289	
600.0	600.0	584.8	584.8	3.1	3.7	171.00	-566.1	89.6	573.2	566.4	6.80	84.290	
700.0	700.0	681.5	681.5	3.1	3.8	170.81	-567.1	91.7	574.6	567.6	6.94	82.807	
800.0	800.0	781.3	781.2	3.2	3.9	170.50	-568.2	95.1	576.2	569.2	7.01	82.188	
900.0	900.0	875.8	875.6	3.2	3.9	170.19	-569.8	98.5	578.5	571.4	7.11	81.323	
1,000.0	1,000.0	978.2	978.0	3.2	4.0	169.91	-571.9	101.8	581.0	573.8	7.26	80.037	
1,100.0	1,100.0	1,081.1	1,080.8	3.3	4.2	169.69	-573.4	104.3	582.9	575.4	7.44	78.340	
1,200.0	1,200.0	1,181.9	1,181.6	3.4	4.3	169.43	-574.7	107.2	584.7	577.0	7.65	76.436	
1,300.0	1,300.0	1,283.3	1,282.9	3.4	4.5	169.24	-575.8	109.4	586.1	578.2	7.89	74.322	
1,400.0	1,400.0	1,380.5	1,380.1	3.5	4.7	169.17	-577.1	110.4	587.7	579.6	8.14	72.202	
1,500.0	1,500.0	1,472.1	1,471.7	3.5	4.9	169.08	-579.2	111.8	590.2	581.8	8.40	70.261	
1,600.0	1,600.0	1,566.2	1,565.7	3.6	5.1	168.94	-582.5	113.9	594.1	585.4	8.68	68.416	
1,700.0	1,700.0	1,666.6	1,666.0	3.7	5.3	168.77	-586.4	116.5	598.4	589.4	9.00	66.489	
1,800.0	1,800.0	1,763.6	1,762.9	3.8	5.6	168.66	-590.3	118.4	602.8	593.4	9.32	64.658	
1,900.0	1,900.0	1,865.0	1,864.2	3.9	5.9	168.67	-595.0	119.2	607.4	597.7	9.67	62.815	
2,000.0	2,000.0	1,965.6	1,964.6	3.9	6.1	168.76	-599.5	119.1	611.8	601.7	10.03	61.017	
2,100.0	2,100.0	2,067.9	2,066.9	4.0	6.4	168.85	-603.8	119.0	615.9	605.5	10.40	59.225	
2,200.0	2,200.0	2,169.2	2,168.1	4.1	6.7	168.96	-607.8	118.6	619.7	608.9	10.78	57.492	
2,300.0	2,300.0	2,265.5	2,264.3	4.2	7.0	169.02	-611.7	118.7	623.6	612.5	11.15	55.924	
2,400.0	2,400.0	2,354.0	2,352.7	4.3	7.3	168.89	-615.9	120.9	628.9	617.4	11.50	54.661	
2,500.0	2,500.0	2,453.4	2,451.9	4.4	7.6	168.59	-621.2	125.4	635.0	623.1	11.90	53.344	
2,600.0	2,600.0	2,541.0	2,539.2	4.5	7.8	168.25	-626.2	130.2	641.7	629.4	12.26	52.336	
2,700.0	2,700.0	2,635.0	2,632.7	4.6	8.1	167.76	-632.8	137.3	650.1	637.5	12.65	51.407	
2,800.0	2,800.0	2,727.7	2,724.6	4.7	8.4	167.11	-640.1	146.5	660.0	647.0	13.03	50.651	
2,900.0	2,900.0	2,863.2	2,859.2	4.8	8.9	166.04	-646.4	160.6	666.8	653.2	13.58	49.098	
3,000.0	3,000.0	2,968.6	2,964.2	4.9	9.2	165.31	-648.6	170.0	671.0	657.0	14.02	47.877	
3,100.0	3,100.0	3,070.1	3,065.3	5.0	9.5	164.67	-650.5	178.3	675.0	660.5	14.44	46.740	
3,200.0	3,200.0	3,173.2	3,168.1	5.1	9.9	164.06	-652.1	186.3	678.6	663.7	14.87	45.621	
3,300.0	3,300.0	3,270.0	3,264.6	5.2	10.2	163.49	-653.2	193.6	681.8	666.6	15.29	44.598	
3,400.0	3,400.0	3,365.0	3,359.1	5.3	10.5	162.77	-654.4	203.0	685.9	670.2	15.70	43.695	
3,500.0	3,500.0	3,453.1	3,446.4	5.4	10.8	161.85	-655.8	215.0	691.6	675.5	16.08	43.012	
3,600.0	3,600.0	3,554.6	3,546.8	5.5	11.2	160.72	-657.6	230.0	698.0	681.5	16.51	42.285	
3,700.0	3,700.0	3,658.4	3,649.5	5.7	11.5	159.63	-659.0	244.7	704.2	687.2	16.95	41.551	
3,800.0	3,800.0	3,764.1	3,754.2	5.8	11.9	158.56	-659.8	259.1	709.8	692.4	17.39	40.810	
3,900.0	3,900.0	3,873.4	3,862.7	5.9	12.2	157.60	-659.8	272.0	714.2	696.4	17.85	40.009	
4,000.0	4,000.0	3,975.8	3,964.3	6.0	12.6	156.63	-658.7	284.7	718.1	699.8	18.28	39.272	
4,100.0	4,100.0	4,078.5	4,066.1	6.1	13.0	155.54	-656.5	298.6	721.7	703.0	18.72	38.562	
4,200.0	4,200.0	4,181.4	4,168.1	6.2	13.3	154.48	-653.9	312.2	725.0	705.8	19.15	37.867	
4,300.0	4,300.0	4,286.4	4,272.2	6.3	13.7	153.43	-650.8	325.5	727.9	708.4	19.58	37.174	
4,400.0	4,400.0	4,392.4	4,377.4	6.5	14.0	152.45	-647.3	337.7	730.2	710.2	20.02	36.471	
4,500.0	4,500.0	4,495.6	4,479.9	6.6	14.4	151.57	-643.5	348.4	731.9	711.4	20.45	35.785	
4,600.0	4,600.0	4,597.9	4,581.7	6.7	14.7	150.74	-639.6	358.4	733.3	712.4	20.88	35.117	
4,700.0	4,700.0	4,700.9	4,684.2	6.8	15.1	150.00	-635.9	367.1	734.3	712.9	21.31	34.453	
4,800.0	4,800.0	4,785.0	4,767.7	6.9	15.4	149.20	-631.9	376.7	736.1	714.4	21.69	33.940	
4,900.0	4,900.0	4,871.9	4,853.2	7.0	15.7	148.03	-626.9	391.3	739.9	717.9	22.05	33.549	

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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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: 89-MWD, 679-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
5,000.0	5,000.0	4,975.3	4,954.4	7.2	16.0	146.44	-620.1	411.4	745.1	722.6	22.46	33.171	
5,100.0	5,100.0	5,038.3	5,016.1	7.3	16.3	145.52	-617.3	423.9	752.6	729.8	22.74	33.093	
5,200.0	5,200.0	5,104.4	5,080.7	7.4	16.5	144.66	-617.4	437.8	764.9	741.9	23.01	33.239	
5,300.0	5,300.0	5,181.2	5,155.6	7.5	16.8	143.81	-621.0	454.3	781.2	757.9	23.32	33.496	
5,400.0	5,400.0	5,288.6	5,260.8	7.6	17.2	142.83	-626.7	475.2	797.3	773.5	23.79	33.515	
5,500.0	5,500.0	5,369.7	5,340.2	7.8	17.5	142.27	-633.4	490.1	815.0	790.8	24.13	33.769	
5,600.0	5,600.0	5,489.1	5,457.3	7.8	17.9	26.49	-643.7	510.9	831.1	806.5	24.61	33.771	
5,700.0	5,699.8	5,614.9	5,581.5	7.8	18.4	25.92	-651.6	529.8	840.7	815.7	25.04	33.572	
5,749.8	5,749.5	5,659.5	5,625.6	7.8	18.5	25.78	-654.1	535.9	843.7	818.5	25.18	33.502	
5,800.0	5,799.5	5,696.8	5,662.5	7.8	18.7	25.73	-656.9	541.0	847.0	821.7	25.30	33.483	
5,900.0	5,899.1	5,783.1	5,747.5	7.8	19.0	25.76	-666.0	552.1	855.4	829.8	25.58	33.442	
6,000.0	5,998.7	5,884.7	5,847.7	7.8	19.4	25.92	-678.3	563.9	864.4	838.4	25.94	33.324	
6,100.0	6,098.4	5,996.1	5,957.6	7.9	19.8	26.07	-690.8	576.5	872.5	846.1	26.34	33.124	
6,200.0	6,198.0	6,102.7	6,063.1	7.9	20.1	26.21	-701.7	587.8	879.3	852.6	26.72	32.910	
6,300.0	6,297.6	6,215.4	6,174.7	7.9	20.6	26.34	-712.2	599.3	885.2	858.1	27.12	32.637	
6,400.0	6,397.2	6,328.4	6,286.9	7.9	21.0	26.46	-721.4	609.7	889.5	862.0	27.52	32.318	
6,500.0	6,496.8	6,437.6	6,395.4	7.9	21.4	26.59	-729.3	618.9	892.6	864.7	27.91	31.980	
6,600.0	6,596.5	6,551.1	6,508.3	7.9	21.8	26.73	-736.5	627.5	894.6	866.3	28.31	31.598	
6,700.0	6,696.1	6,677.0	6,633.7	8.0	22.2	26.79	-741.5	636.5	894.3	865.6	28.74	31.116	
6,800.0	6,795.7	6,784.5	6,741.1	8.0	22.6	26.81	-744.0	643.3	892.3	863.2	29.11	30.648	
6,900.0	6,895.3	6,918.6	6,875.0	8.0	23.1	27.03	-746.0	647.3	887.5	857.9	29.56	30.025	
7,000.0	6,994.9	7,042.9	6,999.3	8.1	23.5	27.32	-745.5	647.7	879.6	849.7	29.96	29.359	
7,100.0	7,094.6	7,154.8	7,111.1	8.1	23.9	27.47	-742.2	647.8	869.6	839.3	30.32	28.680	
7,200.0	7,194.2	7,254.4	7,210.7	8.1	24.2	27.62	-738.8	647.4	858.9	828.3	30.66	28.018	
7,300.0	7,293.8	7,355.0	7,311.3	8.2	24.5	27.89	-736.3	645.6	848.2	817.2	31.00	27.363	
7,400.0	7,393.4	7,451.2	7,407.4	8.2	24.8	28.26	-734.8	642.7	837.4	806.1	31.33	26.727	
7,500.0	7,493.0	7,538.0	7,494.2	8.2	25.1	28.63	-734.5	640.3	827.9	796.2	31.65	26.153	
7,600.0	7,592.7	7,631.1	7,587.3	8.3	25.4	29.03	-735.1	638.4	819.5	787.5	31.99	25.615	
7,700.0	7,692.3	7,735.6	7,691.7	8.3	25.7	29.54	-736.0	635.7	811.1	778.8	32.36	25.064	
7,800.0	7,791.9	7,836.9	7,792.9	8.4	26.0	30.11	-737.1	632.0	802.3	769.6	32.73	24.514	
7,900.0	7,891.5	7,929.6	7,885.6	8.4	26.3	30.59	-737.9	629.4	793.9	760.8	33.08	24.003	
8,000.0	7,991.1	8,050.4	8,006.4	8.5	26.7	31.00	-737.7	629.0	786.4	752.9	33.50	23.472	
8,100.0	8,090.8	9,087.0	8,648.8	8.5	29.1	-25.13	-111.7	643.6	723.1	691.0	32.05	22.559	
8,200.0	8,190.4	9,086.8	8,648.8	8.6	29.1	-25.10	-111.9	643.6	642.3	609.4	32.94	19.500	
8,300.0	8,290.0	9,086.6	8,648.8	8.7	29.1	-25.07	-112.2	643.6	567.8	533.9	33.92	16.741	
8,400.0	8,389.6	9,086.3	8,648.8	8.7	29.1	-25.03	-112.4	643.6	502.2	467.3	34.90	14.390	
8,500.0	8,489.2	9,086.2	8,648.8	8.8	29.1	-25.02	-112.5	643.6	449.5	413.7	35.73	12.580	
8,600.0	8,588.9	9,086.0	8,648.8	8.8	29.1	-24.99	-112.7	643.6	414.5	378.3	36.26	11.431	
8,700.0	8,688.5	9,085.8	8,648.8	8.9	29.1	-24.96	-112.9	643.6	402.0	365.4	36.67	10.965	
8,701.0	8,689.5	9,085.8	8,648.8	8.9	29.1	-24.96	-112.9	643.6	402.0	365.4	36.67	10.963 CC, ES, SF	
8,800.0	8,788.1	9,085.6	8,648.8	9.0	29.1	-24.93	-113.1	643.6	414.1	376.9	37.12	11.155	
8,900.0	8,887.7	9,085.4	8,648.8	9.1	29.1	-24.90	-113.3	643.6	448.6	411.3	37.31	12.023	
9,000.0	8,987.3	9,085.2	8,648.8	9.1	29.1	-24.87	-113.5	643.6	501.0	463.9	37.11	13.501	
9,100.0	9,087.0	9,085.0	8,648.8	9.2	29.1	-24.84	-113.7	643.6	566.4	529.7	36.70	15.433	
9,200.0	9,186.6	9,084.8	8,648.8	9.3	29.1	-24.81	-113.9	643.6	640.8	604.5	36.28	17.665	
9,300.0	9,286.2	9,084.6	8,648.8	9.4	29.1	-24.78	-114.2	643.6	721.4	685.5	35.92	20.085	
9,400.0	9,385.8	9,084.4	8,648.8	9.4	29.1	-24.75	-114.4	643.6	806.4	770.7	35.66	22.612	
9,500.0	9,485.4	9,084.1	8,648.7	9.5	29.1	-24.72	-114.6	643.6	894.5	859.0	35.50	25.194	
9,600.0	9,585.1	9,083.9	8,648.7	9.6	29.1	-24.69	-114.8	643.6	984.8	949.4	35.43	27.797	
9,700.0	9,684.7	9,083.7	8,648.7	9.7	29.1	-24.65	-115.1	643.6	1,076.9	1,041.5	35.42	30.399	
9,800.0	9,784.3	9,083.4	8,648.7	9.8	29.1	-24.62	-115.3	643.6	1,170.2	1,134.8	35.48	32.986	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL COM 502H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 89-MWD, 679-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.0	9,883.9	9,083.2	8,648.7	9.8	29.1	-24.58	-115.6	643.6	1,264.6	1,229.0	35.58	35.547	
10,000.0	9,983.5	9,082.9	8,648.7	9.9	29.1	-24.55	-115.8	643.6	1,359.8	1,324.1	35.71	38.076	
10,100.0	10,083.2	9,082.7	8,648.7	10.0	29.1	-24.51	-116.1	643.6	1,455.6	1,419.8	35.88	40.569	
10,200.0	10,182.8	9,082.4	8,648.7	10.1	29.1	-24.48	-116.3	643.6	1,552.0	1,515.9	36.07	43.024	
10,300.0	10,282.4	9,082.2	8,648.7	10.2	29.1	-24.44	-116.6	643.6	1,648.8	1,612.5	36.29	45.438	
10,400.0	10,382.0	9,081.9	8,648.7	10.3	29.1	-24.40	-116.8	643.6	1,745.9	1,709.4	36.52	47.811	
10,500.0	10,481.6	9,081.6	8,648.7	10.4	29.1	-24.36	-117.1	643.6	1,843.4	1,806.6	36.76	50.142	
10,515.4	10,497.0	9,081.6	8,648.7	10.4	29.1	-24.36	-117.2	643.6	1,858.4	1,821.6	36.83	50.466	
10,525.0	10,506.5	9,081.7	8,648.7	10.4	29.1	-16.63	-117.1	643.6	1,867.8	1,830.9	36.85	50.685	
10,550.0	10,531.5	9,083.1	8,648.7	10.4	29.1	6.47	-115.7	643.6	1,892.2	1,855.3	36.92	51.252	
10,575.0	10,556.3	9,086.1	8,648.8	10.4	29.1	18.61	-112.7	643.6	1,916.5	1,879.5	36.99	51.810	
10,600.0	10,581.1	9,090.8	8,649.0	10.4	29.1	21.34	-108.0	643.6	1,940.7	1,903.6	37.07	52.356	
10,625.0	10,605.7	9,092.7	8,649.0	10.4	29.1	20.84	-106.0	643.6	1,964.7	1,927.6	37.14	52.905	
10,650.0	10,630.0	9,098.0	8,649.2	10.4	29.2	19.14	-100.7	643.6	1,988.4	1,951.2	37.21	53.434	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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=25' @ 3016.8usft (TBD)

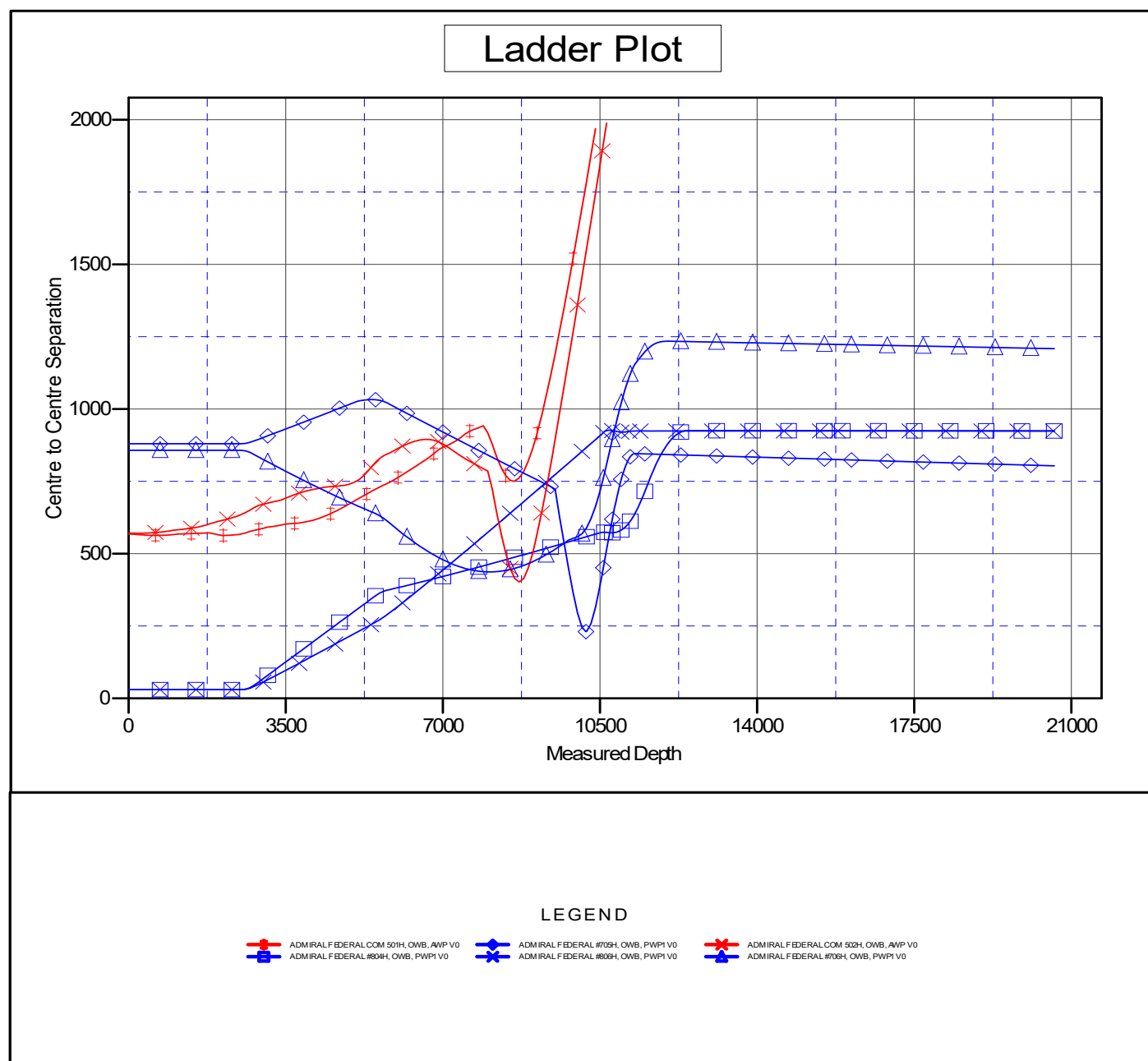
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL #805H

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

Grid Convergence at Surface is: 0.18°



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 WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #805H	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=25' @ 3016.8usft (TBD)

Offset Depths are relative to Offset Datum

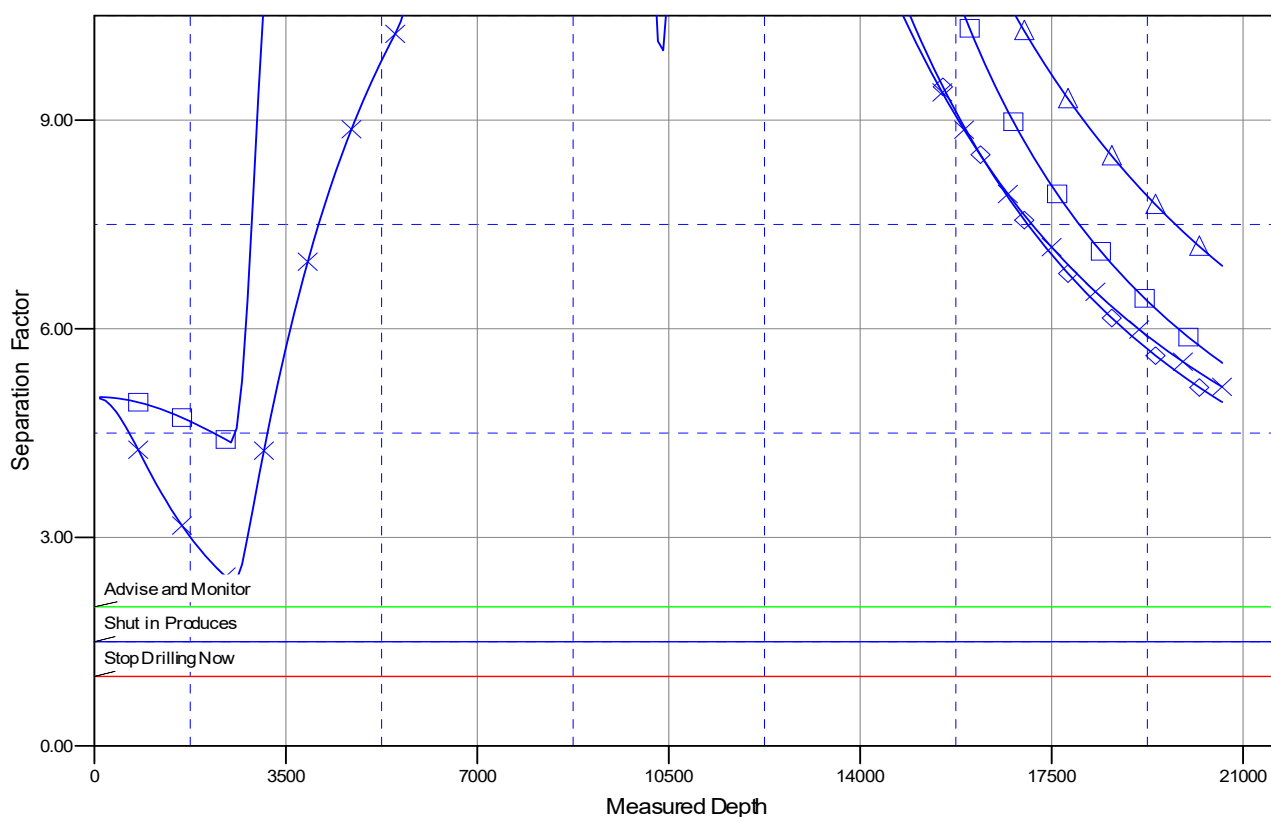
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL #805H

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

Grid Convergence at Surface is: 0.18°

Separation Factor Plot



LEGEND

	ADMIRAL FEDERAL.COM 501H, OWB, AWP V0		ADMIRAL FEDERAL #705H, OWB, PWP1 V0		ADMIRAL FEDERAL.COM 502H, OWB, AWP V0
	ADMIRAL FEDERAL #804H, OWB, PWP1 V0		ADMIRAL FEDERAL #806H, OWB, PWP1 V0		ADMIRAL FEDERAL #706H, OWB, PWP1 V0

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

ADMIRAL FEDERAL PROJECT (ATLAS 2529)

ADMIRAL FEDERAL #805H

OWB

Plan: PWP1

Standard Survey Report

10 December, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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

Well	ADMIRAL FEDERAL #805H				
Well Position	+N/-S	0.0 usft	Northing:	398,658.30 usft	Latitude: 32° 5' 44.070 N
	+E/-W	0.0 usft	Easting:	604,860.00 usft	Longitude: 103° 59' 40.987 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level: 2,991.8 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/20/2020	6.81	59.74	47,444.66113061

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	2.09	

Survey Tool Program	Date	12/10/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,515.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,515.0	20,618.9	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
5,600.0	2.00	115.00	5,600.0	-0.7	1.6	-0.7	2.00	2.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,700.0	4.00	115.00	5,699.8	-2.9	6.3	-2.7	2.00	2.00	0.00
5,749.8	5.00	115.00	5,749.5	-4.6	9.9	-4.2	2.00	2.00	0.00
Start 4765.6 hold at 5749.8 MD									
5,800.0	5.00	115.00	5,799.5	-6.4	13.8	-5.9	0.00	0.00	0.00
5,900.0	5.00	115.00	5,899.1	-10.1	21.7	-9.3	0.00	0.00	0.00
6,000.0	5.00	115.00	5,998.7	-13.8	29.6	-12.7	0.00	0.00	0.00
6,100.0	5.00	115.00	6,098.4	-17.5	37.5	-16.1	0.00	0.00	0.00
6,200.0	5.00	115.00	6,198.0	-21.2	45.4	-19.5	0.00	0.00	0.00
6,300.0	5.00	115.00	6,297.6	-24.9	53.3	-22.9	0.00	0.00	0.00
6,400.0	5.00	115.00	6,397.2	-28.5	61.2	-26.3	0.00	0.00	0.00
6,500.0	5.00	115.00	6,496.8	-32.2	69.1	-29.7	0.00	0.00	0.00
6,600.0	5.00	115.00	6,596.5	-35.9	77.0	-33.1	0.00	0.00	0.00
6,700.0	5.00	115.00	6,696.1	-39.6	84.9	-36.5	0.00	0.00	0.00
6,800.0	5.00	115.00	6,795.7	-43.3	92.8	-39.8	0.00	0.00	0.00
6,900.0	5.00	115.00	6,895.3	-46.9	100.6	-43.2	0.00	0.00	0.00
7,000.0	5.00	115.00	6,994.9	-50.6	108.5	-46.6	0.00	0.00	0.00
7,100.0	5.00	115.00	7,094.6	-54.3	116.4	-50.0	0.00	0.00	0.00
7,200.0	5.00	115.00	7,194.2	-58.0	124.3	-53.4	0.00	0.00	0.00
7,300.0	5.00	115.00	7,293.8	-61.7	132.2	-56.8	0.00	0.00	0.00
7,400.0	5.00	115.00	7,393.4	-65.3	140.1	-60.2	0.00	0.00	0.00
7,500.0	5.00	115.00	7,493.0	-69.0	148.0	-63.6	0.00	0.00	0.00
7,600.0	5.00	115.00	7,592.7	-72.7	155.9	-67.0	0.00	0.00	0.00
7,700.0	5.00	115.00	7,692.3	-76.4	163.8	-70.4	0.00	0.00	0.00
7,800.0	5.00	115.00	7,791.9	-80.1	171.7	-73.7	0.00	0.00	0.00
7,900.0	5.00	115.00	7,891.5	-83.7	179.6	-77.1	0.00	0.00	0.00
8,000.0	5.00	115.00	7,991.1	-87.4	187.5	-80.5	0.00	0.00	0.00
8,100.0	5.00	115.00	8,090.8	-91.1	195.4	-83.9	0.00	0.00	0.00
8,200.0	5.00	115.00	8,190.4	-94.8	203.3	-87.3	0.00	0.00	0.00
8,300.0	5.00	115.00	8,290.0	-98.5	211.1	-90.7	0.00	0.00	0.00
8,400.0	5.00	115.00	8,389.6	-102.1	219.0	-94.1	0.00	0.00	0.00
8,500.0	5.00	115.00	8,489.2	-105.8	226.9	-97.5	0.00	0.00	0.00
8,600.0	5.00	115.00	8,588.9	-109.5	234.8	-100.9	0.00	0.00	0.00
8,700.0	5.00	115.00	8,688.5	-113.2	242.7	-104.3	0.00	0.00	0.00
8,800.0	5.00	115.00	8,788.1	-116.9	250.6	-107.7	0.00	0.00	0.00
8,900.0	5.00	115.00	8,887.7	-120.5	258.5	-111.0	0.00	0.00	0.00
9,000.0	5.00	115.00	8,987.3	-124.2	266.4	-114.4	0.00	0.00	0.00
9,100.0	5.00	115.00	9,087.0	-127.9	274.3	-117.8	0.00	0.00	0.00
9,200.0	5.00	115.00	9,186.6	-131.6	282.2	-121.2	0.00	0.00	0.00
9,300.0	5.00	115.00	9,286.2	-135.3	290.1	-124.6	0.00	0.00	0.00
9,400.0	5.00	115.00	9,385.8	-138.9	298.0	-128.0	0.00	0.00	0.00
9,500.0	5.00	115.00	9,485.4	-142.6	305.9	-131.4	0.00	0.00	0.00
9,600.0	5.00	115.00	9,585.1	-146.3	313.7	-134.8	0.00	0.00	0.00
9,700.0	5.00	115.00	9,684.7	-150.0	321.6	-138.2	0.00	0.00	0.00
9,800.0	5.00	115.00	9,784.3	-153.7	329.5	-141.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,900.0	5.00	115.00	9,883.9	-157.3	337.4	-144.9	0.00	0.00	0.00
10,000.0	5.00	115.00	9,983.5	-161.0	345.3	-148.3	0.00	0.00	0.00
10,100.0	5.00	115.00	10,083.2	-164.7	353.2	-151.7	0.00	0.00	0.00
10,200.0	5.00	115.00	10,182.8	-168.4	361.1	-155.1	0.00	0.00	0.00
10,300.0	5.00	115.00	10,282.4	-172.1	369.0	-158.5	0.00	0.00	0.00
10,400.0	5.00	115.00	10,382.0	-175.8	376.9	-161.9	0.00	0.00	0.00
10,500.0	5.00	115.00	10,481.6	-179.4	384.8	-165.3	0.00	0.00	0.00
10,515.4	5.00	115.00	10,497.0	-180.0	386.0	-165.8	0.00	0.00	0.00
Start DLS 12.00 TFO -115.74									
10,600.0	9.15	28.42	10,581.1	-175.6	392.6	-161.2	12.00	4.91	-102.36
10,700.0	20.46	11.36	10,677.7	-151.4	399.8	-136.7	12.00	11.31	-17.07
10,800.0	32.26	6.34	10,767.1	-107.6	406.2	-92.7	12.00	11.80	-5.02
10,900.0	44.16	3.83	10,845.6	-46.1	411.5	-31.1	12.00	11.90	-2.51
11,000.0	56.09	2.21	10,909.6	30.4	415.4	45.5	12.00	11.94	-1.62
11,100.0	68.05	1.00	10,956.3	118.6	417.9	133.7	12.00	11.95	-1.21
11,200.0	80.01	359.97	10,983.8	214.5	418.7	229.6	12.00	11.96	-1.02
11,284.1	90.06	359.17	10,991.0	298.2	418.0	313.2	12.00	11.96	-0.95
Start 4229.0 hold at 11284.1 MD									
11,300.0	90.06	359.17	10,991.0	314.1	417.8	329.1	0.00	0.00	0.00
11,400.0	90.06	359.17	10,990.9	414.1	416.3	429.0	0.00	0.00	0.00
11,500.0	90.06	359.17	10,990.8	514.1	414.9	528.8	0.00	0.00	0.00
11,600.0	90.06	359.17	10,990.7	614.1	413.5	628.7	0.00	0.00	0.00
11,700.0	90.06	359.17	10,990.6	714.0	412.0	728.6	0.00	0.00	0.00
11,800.0	90.06	359.17	10,990.5	814.0	410.6	828.5	0.00	0.00	0.00
11,900.0	90.06	359.17	10,990.4	914.0	409.1	928.3	0.00	0.00	0.00
12,000.0	90.06	359.17	10,990.2	1,014.0	407.7	1,028.2	0.00	0.00	0.00
12,100.0	90.06	359.17	10,990.1	1,114.0	406.2	1,128.1	0.00	0.00	0.00
12,200.0	90.06	359.17	10,990.0	1,214.0	404.8	1,227.9	0.00	0.00	0.00
12,300.0	90.06	359.17	10,989.9	1,314.0	403.4	1,327.8	0.00	0.00	0.00
12,400.0	90.06	359.17	10,989.8	1,414.0	401.9	1,427.7	0.00	0.00	0.00
12,500.0	90.06	359.17	10,989.7	1,514.0	400.5	1,527.6	0.00	0.00	0.00
12,600.0	90.06	359.17	10,989.6	1,614.0	399.0	1,627.4	0.00	0.00	0.00
12,700.0	90.06	359.17	10,989.5	1,713.9	397.6	1,727.3	0.00	0.00	0.00
12,800.0	90.06	359.17	10,989.3	1,813.9	396.1	1,827.2	0.00	0.00	0.00
12,900.0	90.06	359.17	10,989.2	1,913.9	394.7	1,927.0	0.00	0.00	0.00
13,000.0	90.06	359.17	10,989.1	2,013.9	393.3	2,026.9	0.00	0.00	0.00
13,100.0	90.06	359.17	10,989.0	2,113.9	391.8	2,126.8	0.00	0.00	0.00
13,200.0	90.06	359.17	10,988.9	2,213.9	390.4	2,226.6	0.00	0.00	0.00
13,300.0	90.06	359.17	10,988.8	2,313.9	388.9	2,326.5	0.00	0.00	0.00
13,400.0	90.06	359.17	10,988.7	2,413.9	387.5	2,426.4	0.00	0.00	0.00
13,500.0	90.06	359.17	10,988.6	2,513.9	386.0	2,526.3	0.00	0.00	0.00
13,600.0	90.06	359.17	10,988.4	2,613.8	384.6	2,626.1	0.00	0.00	0.00
13,700.0	90.06	359.17	10,988.3	2,713.8	383.2	2,726.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,800.0	90.06	359.17	10,988.2	2,813.8	381.7	2,825.9	0.00	0.00	0.00
13,900.0	90.06	359.17	10,988.1	2,913.8	380.3	2,925.7	0.00	0.00	0.00
14,000.0	90.06	359.17	10,988.0	3,013.8	378.8	3,025.6	0.00	0.00	0.00
14,100.0	90.06	359.17	10,987.9	3,113.8	377.4	3,125.5	0.00	0.00	0.00
14,200.0	90.06	359.17	10,987.8	3,213.8	375.9	3,225.4	0.00	0.00	0.00
14,300.0	90.06	359.17	10,987.7	3,313.8	374.5	3,325.2	0.00	0.00	0.00
14,400.0	90.06	359.17	10,987.5	3,413.8	373.1	3,425.1	0.00	0.00	0.00
14,500.0	90.06	359.17	10,987.4	3,513.8	371.6	3,525.0	0.00	0.00	0.00
14,600.0	90.06	359.17	10,987.3	3,613.7	370.2	3,624.8	0.00	0.00	0.00
14,700.0	90.06	359.17	10,987.2	3,713.7	368.7	3,724.7	0.00	0.00	0.00
14,800.0	90.06	359.17	10,987.1	3,813.7	367.3	3,824.6	0.00	0.00	0.00
14,900.0	90.06	359.17	10,987.0	3,913.7	365.8	3,924.4	0.00	0.00	0.00
15,000.0	90.06	359.17	10,986.9	4,013.7	364.4	4,024.3	0.00	0.00	0.00
15,100.0	90.06	359.17	10,986.8	4,113.7	363.0	4,124.2	0.00	0.00	0.00
15,200.0	90.06	359.17	10,986.7	4,213.7	361.5	4,224.1	0.00	0.00	0.00
15,300.0	90.06	359.17	10,986.5	4,313.7	360.1	4,323.9	0.00	0.00	0.00
15,400.0	90.06	359.17	10,986.4	4,413.7	358.6	4,423.8	0.00	0.00	0.00
15,500.0	90.06	359.17	10,986.3	4,513.6	357.2	4,523.7	0.00	0.00	0.00
15,513.1	90.06	359.17	10,986.3	4,526.7	357.0	4,536.7	0.00	0.00	0.00
Start DLS 2.00 TFO 90.37									
15,551.4	90.06	359.94	10,986.3	4,565.0	356.7	4,575.0	2.00	-0.01	2.00
Start 5067.5 hold at 15551.4 MD									
15,600.0	90.06	359.94	10,986.2	4,613.6	356.7	4,623.6	0.00	0.00	0.00
15,700.0	90.06	359.94	10,986.1	4,713.6	356.5	4,723.5	0.00	0.00	0.00
15,800.0	90.06	359.94	10,986.0	4,813.6	356.4	4,823.4	0.00	0.00	0.00
15,900.0	90.06	359.94	10,985.9	4,913.6	356.3	4,923.4	0.00	0.00	0.00
16,000.0	90.06	359.94	10,985.8	5,013.6	356.2	5,023.3	0.00	0.00	0.00
16,100.0	90.06	359.94	10,985.7	5,113.6	356.1	5,123.2	0.00	0.00	0.00
16,200.0	90.06	359.94	10,985.6	5,213.6	356.0	5,223.2	0.00	0.00	0.00
16,300.0	90.06	359.94	10,985.5	5,313.6	355.9	5,323.1	0.00	0.00	0.00
16,400.0	90.06	359.94	10,985.4	5,413.6	355.8	5,423.0	0.00	0.00	0.00
16,500.0	90.06	359.94	10,985.3	5,513.6	355.7	5,522.9	0.00	0.00	0.00
16,600.0	90.06	359.94	10,985.2	5,613.6	355.6	5,622.9	0.00	0.00	0.00
16,700.0	90.06	359.94	10,985.1	5,713.6	355.5	5,722.8	0.00	0.00	0.00
16,800.0	90.06	359.94	10,985.0	5,813.6	355.4	5,822.7	0.00	0.00	0.00
16,900.0	90.06	359.94	10,984.9	5,913.6	355.3	5,922.7	0.00	0.00	0.00
17,000.0	90.06	359.94	10,984.8	6,013.6	355.2	6,022.6	0.00	0.00	0.00
17,100.0	90.06	359.94	10,984.7	6,113.6	355.1	6,122.5	0.00	0.00	0.00
17,200.0	90.06	359.94	10,984.5	6,213.6	354.9	6,222.5	0.00	0.00	0.00
17,300.0	90.06	359.94	10,984.4	6,313.6	354.8	6,322.4	0.00	0.00	0.00
17,400.0	90.06	359.94	10,984.3	6,413.6	354.7	6,422.3	0.00	0.00	0.00
17,500.0	90.06	359.94	10,984.2	6,513.6	354.6	6,522.2	0.00	0.00	0.00
17,600.0	90.06	359.94	10,984.1	6,613.6	354.5	6,622.2	0.00	0.00	0.00
17,700.0	90.06	359.94	10,984.0	6,713.6	354.4	6,722.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,800.0	90.06	359.94	10,983.9	6,813.6	354.3	6,822.0	0.00	0.00	0.00
17,900.0	90.06	359.94	10,983.8	6,913.6	354.2	6,922.0	0.00	0.00	0.00
18,000.0	90.06	359.94	10,983.7	7,013.6	354.1	7,021.9	0.00	0.00	0.00
18,100.0	90.06	359.94	10,983.6	7,113.6	354.0	7,121.8	0.00	0.00	0.00
18,200.0	90.06	359.94	10,983.5	7,213.6	353.9	7,221.7	0.00	0.00	0.00
18,300.0	90.06	359.94	10,983.4	7,313.6	353.8	7,321.7	0.00	0.00	0.00
18,400.0	90.06	359.94	10,983.3	7,413.6	353.7	7,421.6	0.00	0.00	0.00
18,500.0	90.06	359.94	10,983.2	7,513.6	353.6	7,521.5	0.00	0.00	0.00
18,600.0	90.06	359.94	10,983.1	7,613.6	353.5	7,621.5	0.00	0.00	0.00
18,700.0	90.06	359.94	10,983.0	7,713.6	353.3	7,721.4	0.00	0.00	0.00
18,800.0	90.06	359.94	10,982.9	7,813.6	353.2	7,821.3	0.00	0.00	0.00
18,900.0	90.06	359.94	10,982.8	7,913.6	353.1	7,921.3	0.00	0.00	0.00
19,000.0	90.06	359.94	10,982.7	8,013.6	353.0	8,021.2	0.00	0.00	0.00
19,100.0	90.06	359.94	10,982.6	8,113.6	352.9	8,121.1	0.00	0.00	0.00
19,200.0	90.06	359.94	10,982.5	8,213.6	352.8	8,221.0	0.00	0.00	0.00
19,300.0	90.06	359.94	10,982.4	8,313.6	352.7	8,321.0	0.00	0.00	0.00
19,400.0	90.06	359.94	10,982.3	8,413.6	352.6	8,420.9	0.00	0.00	0.00
19,500.0	90.06	359.94	10,982.2	8,513.6	352.5	8,520.8	0.00	0.00	0.00
19,600.0	90.06	359.94	10,982.1	8,613.6	352.4	8,620.8	0.00	0.00	0.00
19,700.0	90.06	359.94	10,982.0	8,713.6	352.3	8,720.7	0.00	0.00	0.00
19,800.0	90.06	359.94	10,981.8	8,813.6	352.2	8,820.6	0.00	0.00	0.00
19,900.0	90.06	359.94	10,981.7	8,913.6	352.1	8,920.6	0.00	0.00	0.00
20,000.0	90.06	359.94	10,981.6	9,013.6	352.0	9,020.5	0.00	0.00	0.00
20,100.0	90.06	359.94	10,981.5	9,113.6	351.9	9,120.4	0.00	0.00	0.00
20,200.0	90.06	359.94	10,981.4	9,213.6	351.7	9,220.3	0.00	0.00	0.00
20,300.0	90.06	359.94	10,981.3	9,313.6	351.6	9,320.3	0.00	0.00	0.00
20,400.0	90.06	359.94	10,981.2	9,413.6	351.5	9,420.2	0.00	0.00	0.00
20,500.0	90.06	359.94	10,981.1	9,513.6	351.4	9,520.1	0.00	0.00	0.00
20,600.0	90.06	359.94	10,981.0	9,613.6	351.3	9,620.1	0.00	0.00	0.00
20,618.9	90.06	359.94	10,981.0	9,632.5	351.3	9,638.9	0.00	0.00	0.00
TD at 20618.9									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #805H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3016.8usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3016.8usft (TBD)
Well:	ADMIRAL FEDERAL #805H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

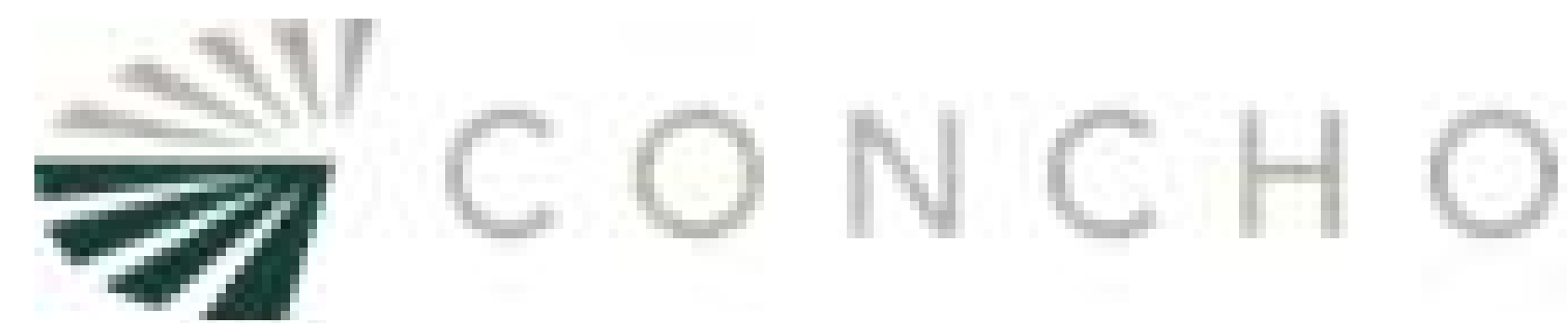
Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H5,109.0 D20.0)	0.06	179.94	10,981.0	9,632.5	351.3	408,290.80	605,211.30	32° 7' 19.386 N	103° 59' 36.550 W
LTP (ADMIRAL FED C - plan misses target center by 0.9usft at 20488.9usft MD (10981.1 TVD, 9502.5 N, 351.4 E) - Point	0.00	0.00	10,981.0	9,502.5	352.3	408,160.80	605,212.30	32° 7' 18.100 N	103° 59' 36.543 W
POI 1 (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H4,973.0 D20.0)	0.06	179.17	10,986.3	4,526.7	357.0	403,185.02	605,217.00	32° 6' 28.857 N	103° 59' 36.671 W
FTP (ADMIRAL FED C - plan misses target center by 412.4usft at 10800.0usft MD (10767.1 TVD, -107.6 N, 406.2 E) - Circle (radius 50.0)	0.00	0.00	10,991.0	-453.1	429.9	398,205.16	605,289.90	32° 5' 39.572 N	103° 59' 36.006 W

Plan Annotations

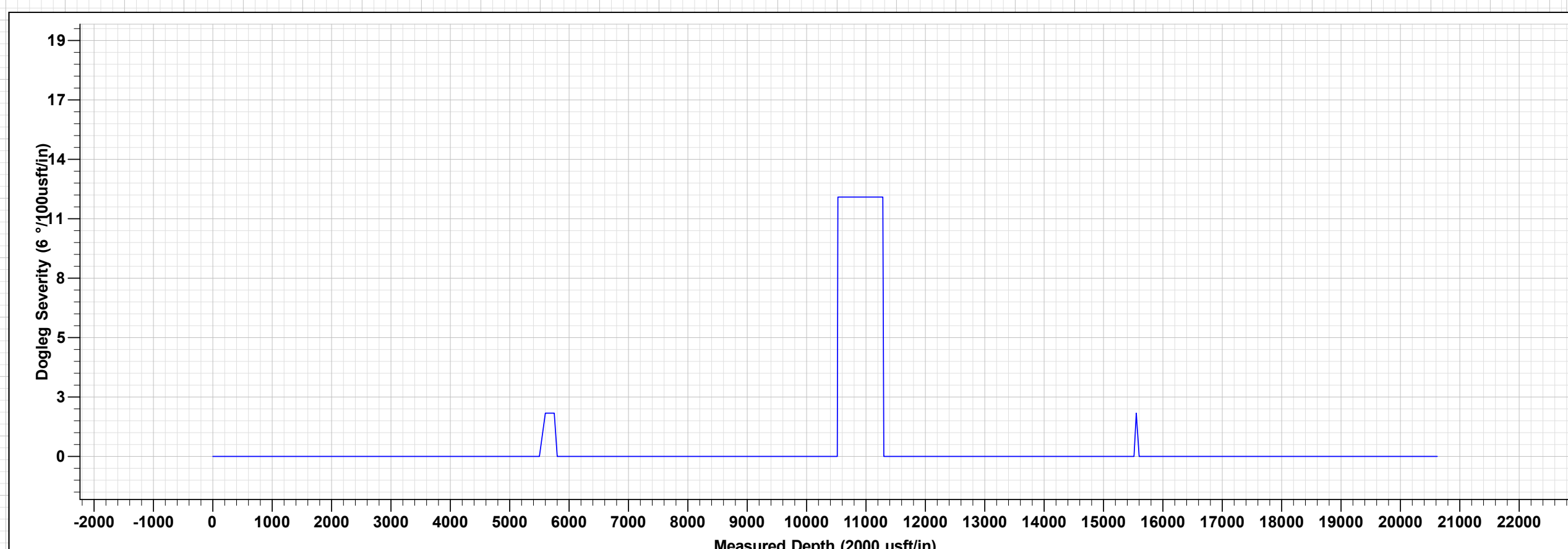
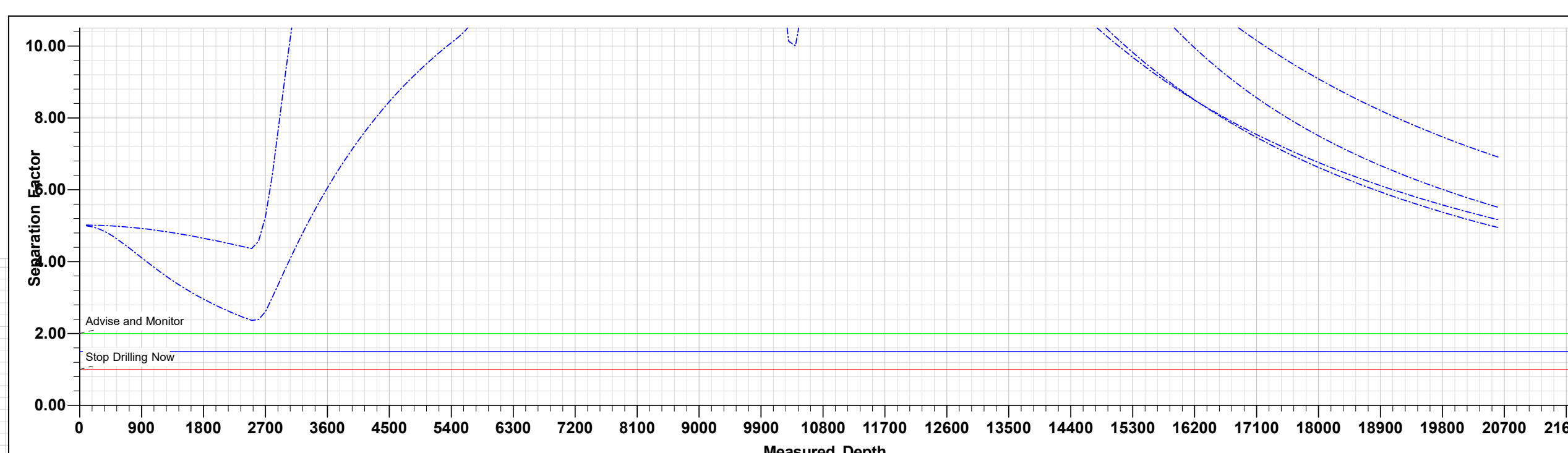
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5500	5500	0	0	Start Build 2.00
5750	5749	-5	10	Start 4765.6 hold at 5749.8 MD
10,515	10,497	-180	386	Start DLS 12.00 TFO -115.74
11,284	10,991	298	418	Start 4229.0 hold at 11284.1 MD
15,513	10,986	4527	357	Start DLS 2.00 TFO 90.37
15,551	10,986	4565	357	Start 5067.5 hold at 15551.4 MD
20,619	10,981	9632	351	TD at 20618.9

Checked By: _____ Approved By: _____ Date: _____

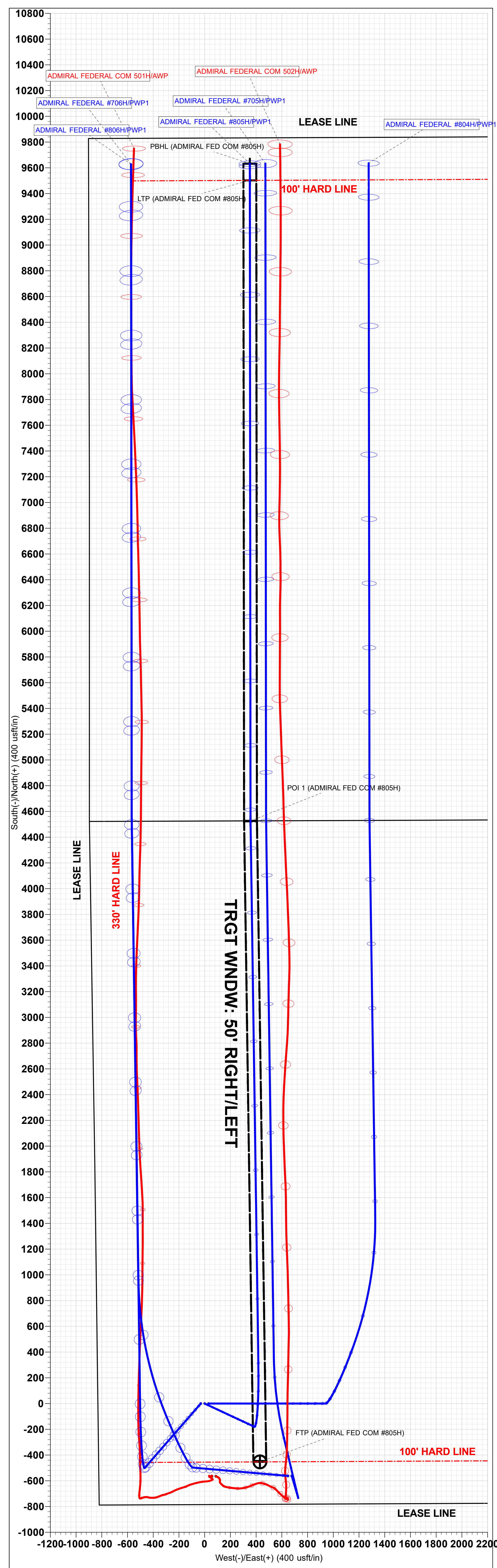
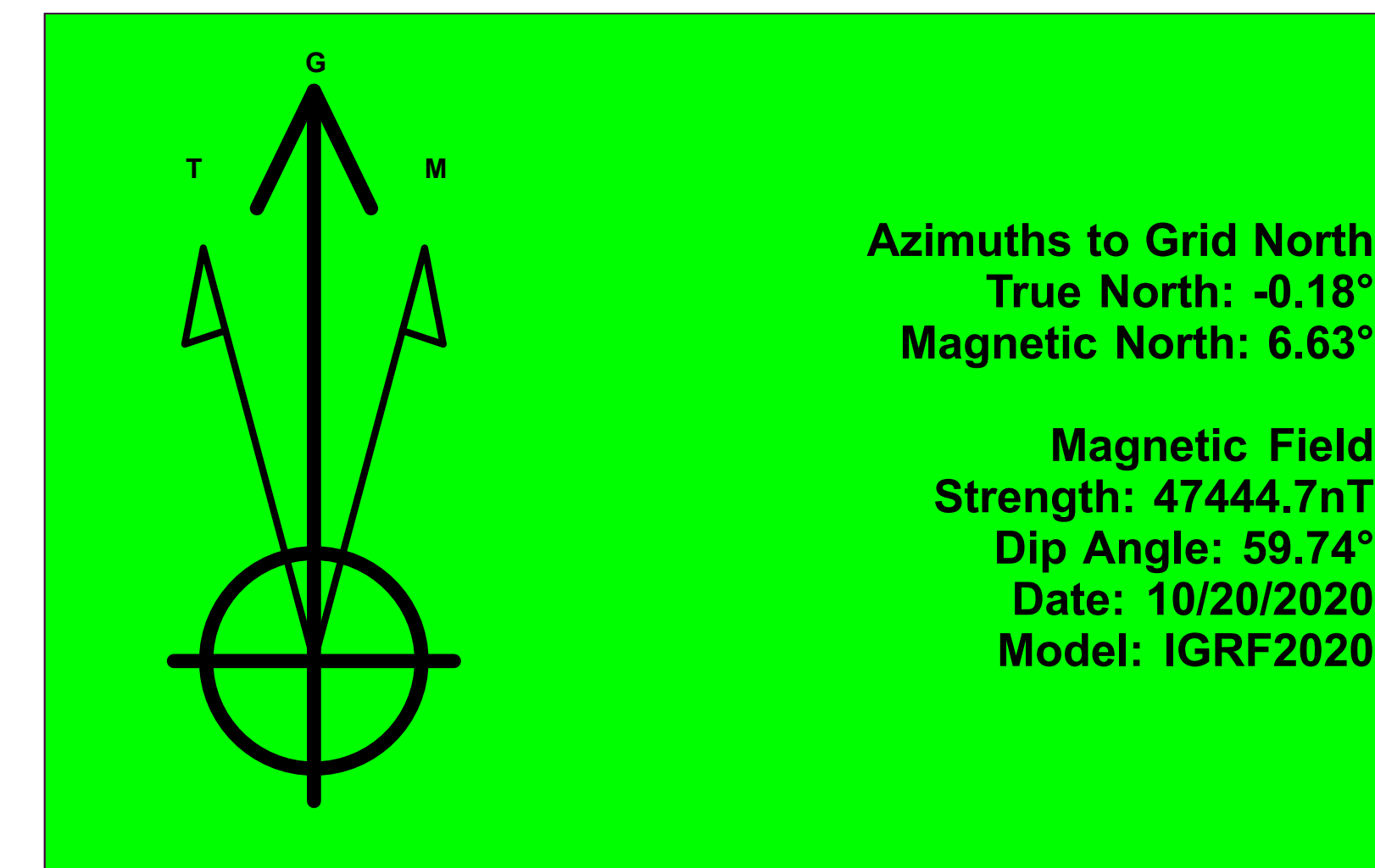
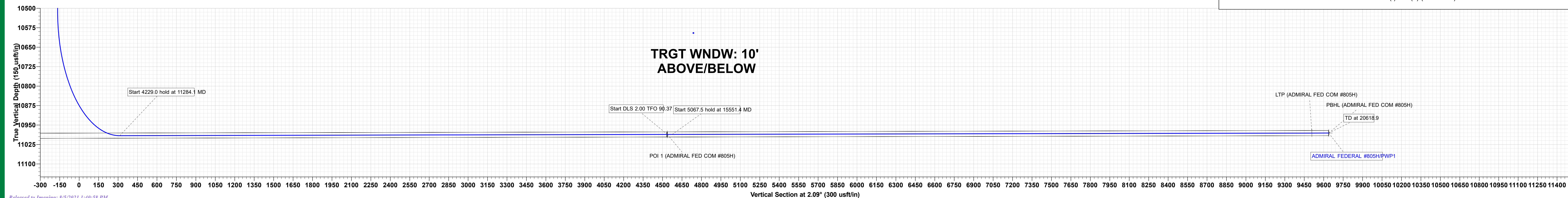
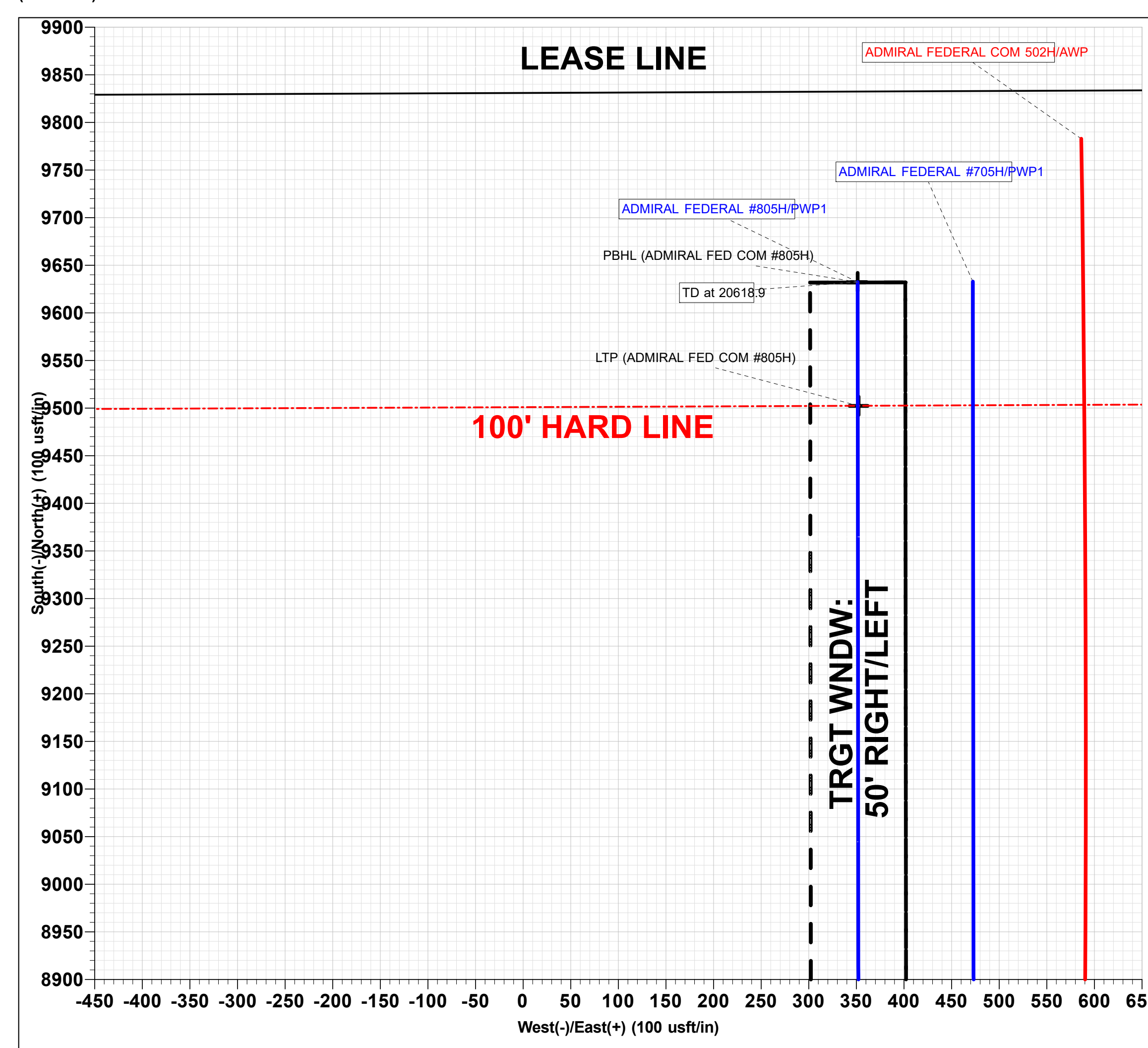
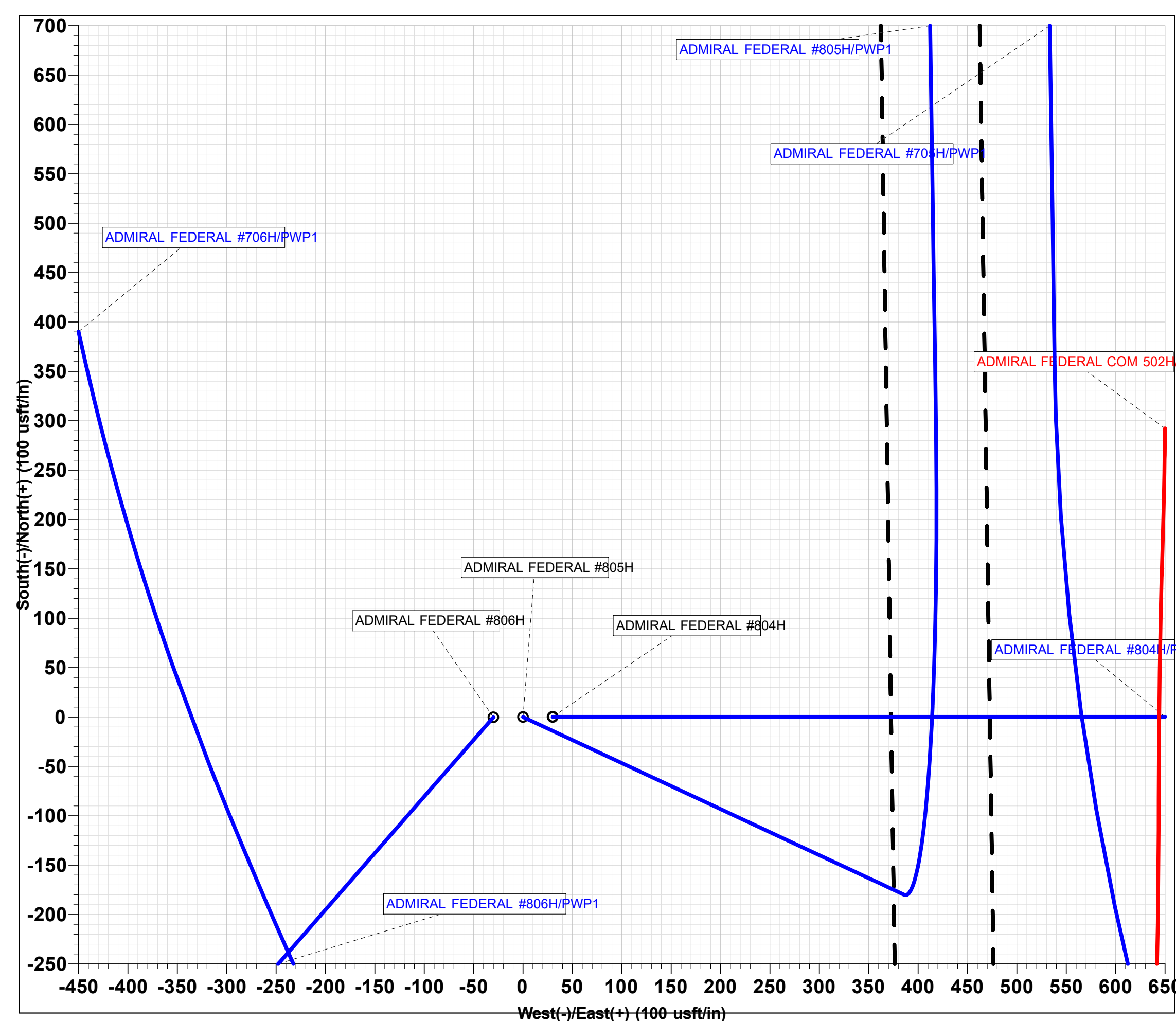
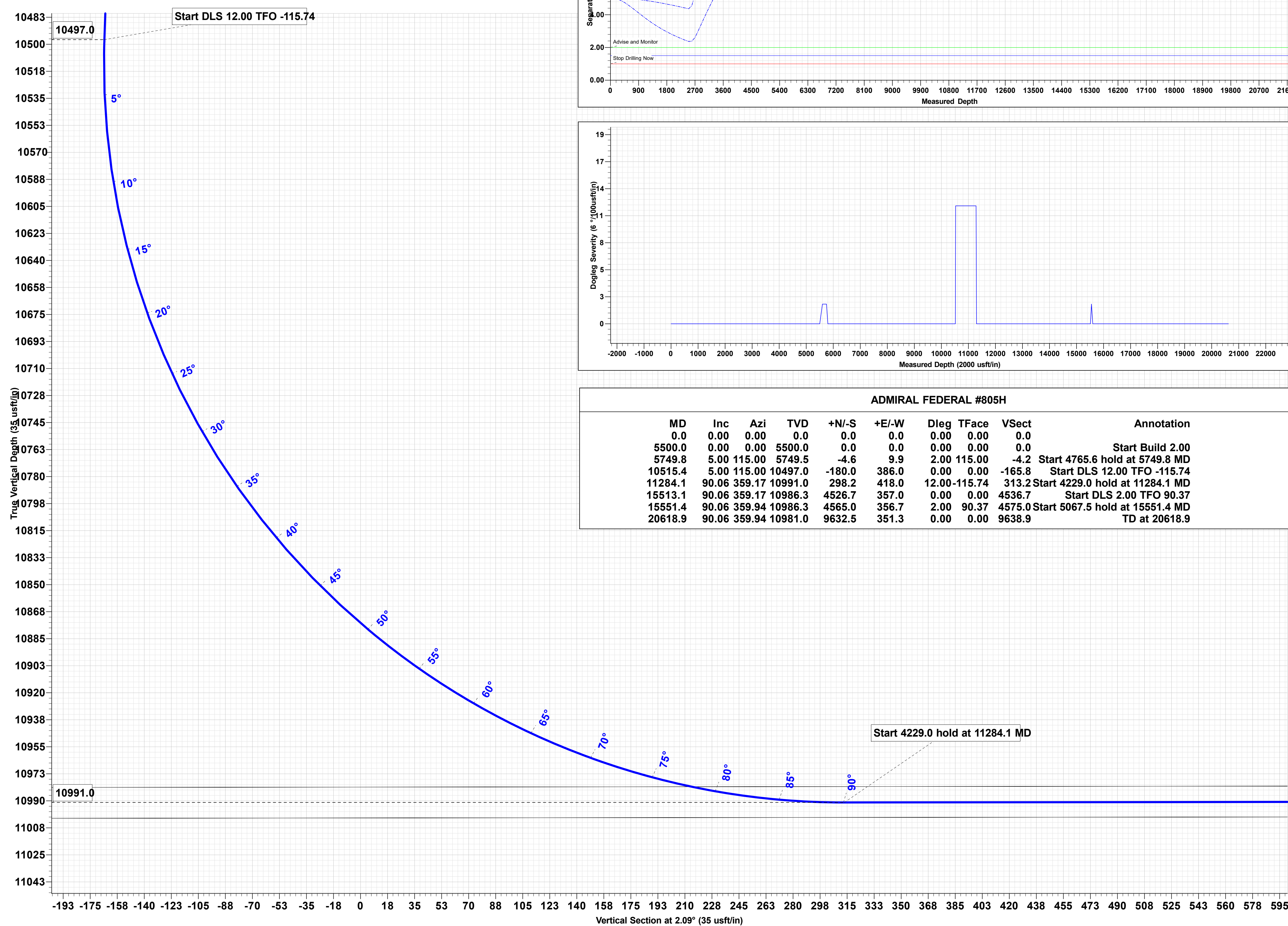
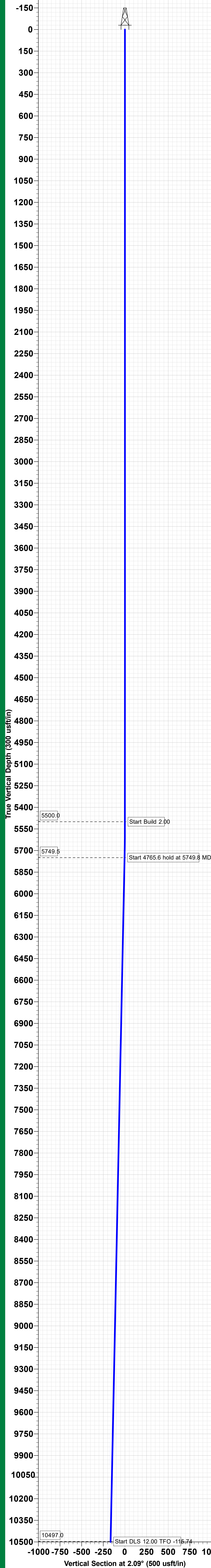


WELL DETAILS: ADMIRAL FEDERAL #805H				
+N/-S	+E/-W	Northing	Easting	Latitude Longitude
0.0	0.0	398658.30	604860.00	32° 5' 44.070 N 103° 59' 40.987 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude Longitude
LTP (ADMIRAL FED COM #805H)	10981.0	9502.5	352.3	408160.80	605212.30	32° 7' 18.100 N 103° 59' 36.543 W
PBHL (ADMIRAL FED COM #805H)	10981.0	9632.5	351.3	406290.80	605211.30	32° 7' 19.386 N 103° 59' 36.550 W
POI 1 (ADMIRAL FED COM #805H)	10986.3	4526.7	357.0	403185.02	605217.00	32° 6' 28.857 N 103° 59' 36.671 W
FTP (ADMIRAL FED COM #805H)	10991.0	-453.1	429.9	398205.16	605289.90	32° 5' 39.572 N 103° 59' 36.006 W



ADMIRAL FEDERAL #805H									
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	
5500.0	0.00	0.00	5500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
5749.8	5.00	115.00	5749.5	-4.6	9.9	2.00	115.00	-4.2	Start 4765.6 hold at 5749.8 MD
10515.4	5.00	115.00	10497.0	-180.0	386.0	0.00	0.00	-165.8	Start DLS 12.00 TFO -10.37
11284.1	90.06	359.17	10991.0	298.2	418.0	12.00	-115.74	313.2	Start 4229.0 hold at 11284.1 MD
15513.1	90.06	359.17	10986.3	4526.7	357.0	0.00	0.00	4538.7	Start DLS 2.00 TFO -93.74
15551.4	90.06	359.94	10986.3	4565.0	356.7	2.00	90.37	4575.0	Start 5067.5 hold at 15551.4 MD
20618.9	90.06	359.94	10981.0	9632.5	351.3	0.00	0.00	9638.9	TD at 20618.9



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG
LEASE NO.:	NMNM115414
LOCATION:	Section 28, T.25 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	Admiral Fed Com 805H
SURFACE HOLE FOOTAGE:	785'/S & 830'/W
BOTTOM HOLE FOOTAGE:	200'/N & 1254'/W

COA

H2S	☐ Yes	☒ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☐ Low	☒ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit

A. HYDROGEN SULFIDE

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

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **610** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

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

C. PRESSURE CONTROL

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

D. SPECIAL REQUIREMENT (S)**Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

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

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.

- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

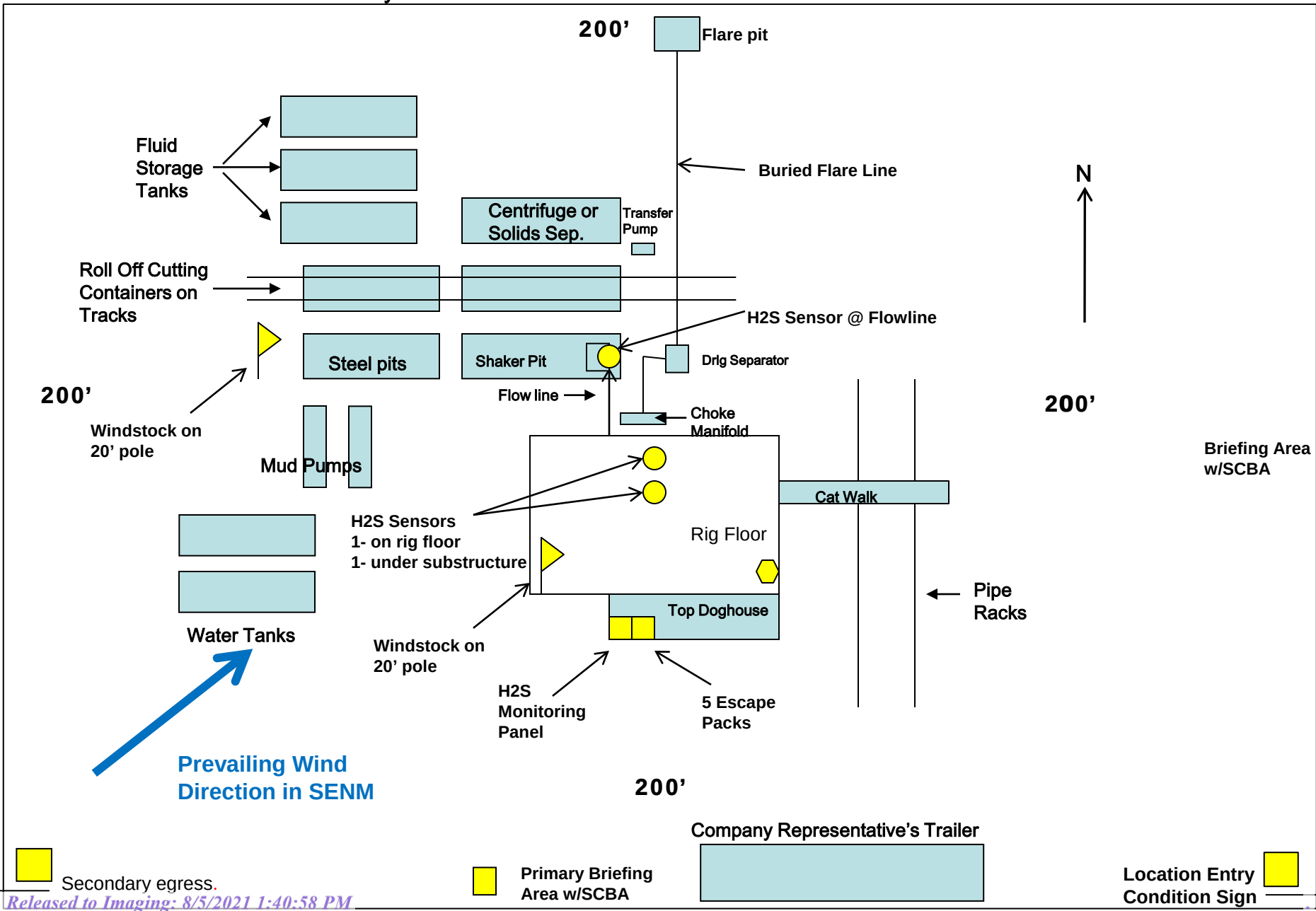
All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location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

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

ZS 062921

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

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



COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S. If H₂S greater than 100 ppm is encountered in the gas stream we will shut in and install H₂S equipment.

- a. Well Control Equipment:
 - Flare line.
 - Choke manifold with remotely operated choke.
 - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED***
- 2. HARD HATS REQUIRED***
- 3. SMOKING IN DESIGNATED AREAS ONLY***
- 4. BE WIND CONSCIOUS AT ALL TIMES***
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

EMERGENCY RESPONSE NUMBERS

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 38790

COMMENTS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38790
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 8/4/2021	8/4/2021

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 38790

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38790
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	8/4/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	8/4/2021
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	8/4/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	8/4/2021
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	8/4/2021