U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

01/30/2025

Well Name: AVION FEDERAL COM

Well Location: T23S / R32E / SEC 22 / NENE / 32.296512 / -103.657895

County or Parish/State: LEA / NM

Well Number: 501H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM88163

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002553790

Operator: COG OPERATING LLC

Notice of Intent

Sundry ID: 2833084

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/21/2025

Time Sundry Submitted: 02:12

Date proposed operation will begin: 01/21/2025

Procedure Description: COG Operating LLC, respectfully requests approval for the following changes to the original approved APD. SHL Change: Due to another company pipelines being in the way of the original SHL. From: 325' FNL & 1215' FEL Section 22. T23S. R32E. To: 265' FNL & 1325' FEL Section 22. T23S. R32E. BHL Change: From: 50' FSL & 330' FEL Section 27. T23S. R32E. To: 50' FSL & 660' FEL Section 27. T23S. R32E. C102 Attached. Drilling: Drilling Program, Directional Program, AC Report and Specs Attached.

NOI Attachments

Procedure Description

AVION_FEDERAL_COM_501H_Updated_New_C102_20250121140925.pdf

AVION_FEDERAL_COM_501H_PWP1_WPLOT_20250121140920.pdf

Avion_Fed_Com_501H_Updated_Drilling_Program_for_Sundry_20250121140921.pdf

AVION_FEDERAL_COM_501H_PWP1_AC_RPT_20250121140920.pdf

AVION_FEDERAL_COM_501H_PWP1_DIR_RPT_20250121140920.pdf

5.500_23_P110_CY_TXP_BTC_08192024_20250121140917.pdf

5.500_23_P110_CY_WEDGE_441_08192024_20250121140920.pdf

Well Name: AVION FEDERAL COM

Well Location: T23S / R32E / SEC 22 / NENE / 32.296512 / -103.657895

County or Parish/State: LEA / NM

Well Number: 501H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM88163

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002553790

Operator: COG OPERATING LLC

Conditions of Approval

Additional

SEC22_T23S_R32E_AVION_FED_COM_Lea__CONOCOPHILLIPS_COMPANY_45567_JS_20250129111817.pdf

AVION_FED_COM_501H_COAs_20250129111817.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: MAYTE REYES

Signed on: JAN 21, 2025 02:09 PM

Name: COG OPERATING LLC

Title: Regulatory Analyst

Street Address: 925 N ELDRIDGE PARKWAY

City: HOUSTON **State:** TX

Phone: (281) 293-1000

Email address: MAYTE.X.REYES@CONOCOPHILLIPS.COM

Field

Representative Name: Gerald Herrera

Street Address: 2208 West Main Street

City: Artesia **State:** NM **Zip:** 88210

Phone: (575)748-6940

Email address: gerald.a.herrera@conocophillips.com

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 01/29/2025

Signature: Chris Walls

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-53790	17644	Diamondtail; Bone Spring
Property Code	**Property Name**	**Well Number**
325741	AVION FEDERAL COM	501H
OGRID No.	**Operator Name**	**Ground Level Elevation**
229137	COG OPERATING LLC	3701.8'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	22	23-S	32-E		265 FNL	1325 FEL	32.296676°N	103.658251°W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	27	23-S	32-E		50 FSL	660 FEL	32.268511°N	103.656092°W	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640	Infill	30-025-53791	N	
Order Numbers.			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	22	23-S	32-E		265 FNL	1325 FEL	32.296676°N	103.658251°W	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	22	23-S	32-E		100 FNL	660 FEL	32.297134°N	103.656100°W	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	27	23-S	32-E		100 FSL	660 FEL	32.268649°N	103.656092°W	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation:
COM		3701.8'

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Signature: Mayte Reyes Date: 1/21/2025

Printed Name: Mayte Reyes

Email Address: mayte.x.reyes@cop.com

SURVEYOR CERTIFICATIONS

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made be me or under my supervision, and that the same is true and correct to the best of my belief.

CHAD L. HARCROW NEW MEXICO 17777 LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 12/16/24

Signature and Seal of Professional Suveyor

Certificate Number: 17777

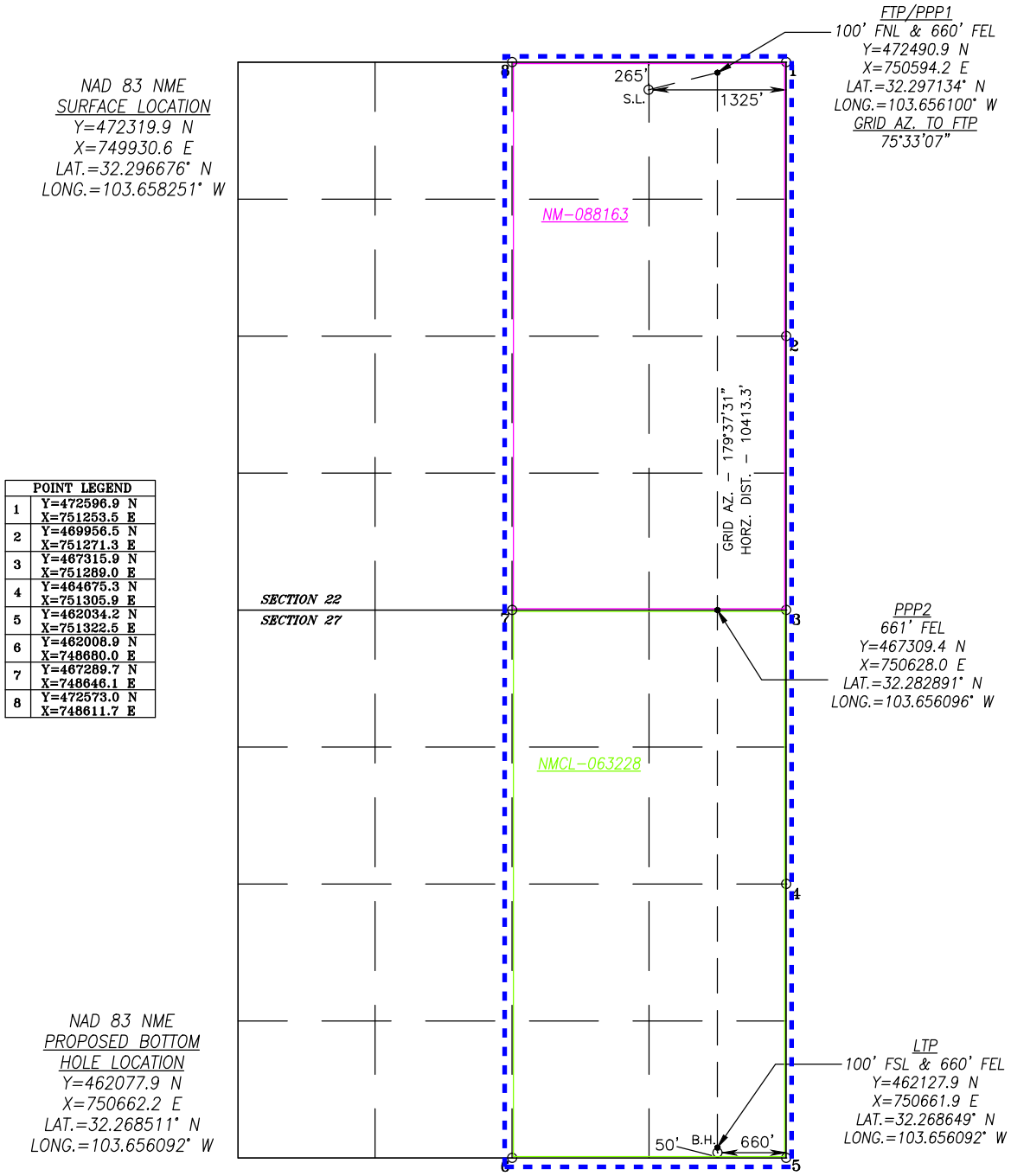
Date of Survey: DECEMBER 10, 2024

W.O.#24-1254 | DRAWN BY: WN | PAGE 1 OF 2

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



POINT LEGEND	
1	Y=472596.9 N X=751253.5 E
2	Y=469956.5 N X=751271.3 E
3	Y=467315.9 N X=751289.0 E
4	Y=464675.3 N X=751305.9 E
5	Y=462034.2 N X=751322.5 E
6	Y=462008.9 N X=748680.0 E
7	Y=467289.7 N X=748646.1 E
8	Y=472573.0 N X=748611.7 E

PAGE 2 OF 2

ConocoPhillips Company - Avion Fed Com 502H

1. Geologic Formations

TVD of target	9,950' EOL	Pilot hole depth	NA
MD at TD:	20,222'	Deepest expected fresh water:	713'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1225	Water	
Top of Salt	1698	Salt	
Base of Salt	4693	Salt	
Lamar	4946	Salt Water	
Bell Canyon	5002	Salt Water	
Cherry Canyon	5895	Oil/Gas	
Brushy Canyon	7056	Oil/Gas	
Bone Spring	8795	Oil/Gas	
1st Bone Spring Sand	9909	Target Oil/Gas	

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5”	0	1320	13.375”	54.5	J55	BTC	1.87	1.31	12.64
12.25”	0	4970	9.625”	40	L80-IC	BTC	1.50	1.47	4.76
8.75”	0	20,222	5.5”	23	P110-CY	TXP BTC	2.96	3.71	3.19
						BLM Minimum Safety Factor	1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.
All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172

ConocoPhillips Company - Avion Fed Com 502H

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

ConocoPhillips Company - Avion Fed Com 502H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	610	13.5	1.75	9.21	12	Lead: Class C
	179	14.8	1.35	6.8	8	Tail: Class C
Inter.	990	12.8	1.8	9.21	12	Lead: Class C
	351	14.8	1.34	6.52	8	Tail: Class C
Prod.	1070	10.2	2.98	14.92	72	Lead: Tuned Light
	2210	13.2	1.42	7.45	19	Tail: Class H

Intermediate cement job to be performed offline.
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%
1st Intermediate	0’	50%
Production	4,470'	20% OH in Lateral (KOP to EOL) – 50% OH in Vertical

ConocoPhillips Company - Avion Fed Com 502H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
Y	A variance is requested for the use of BOPE break testing on intermediate skids (in accordance with the 30 day full BOPE test requirements).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4”	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4”	13-5/8”	10M	Annular	x	50% testing pressure
			Blind Ram	x	10M
			Pipe Ram	x	
			Double Ram		
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with 43 CFR Part 3170 Subpart 3172.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per 43 CFR Part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

ConocoPhillips Company - Avion Fed Com 502H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Saturated Brine	9 - 10	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 - 9.5	28-34	N/C

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

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

6. Logging and Testing Procedures

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

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
N	CBL	Production casing
Y	Mud log	Intermediate shoe to TD
N	PEX	

ConocoPhillips Company - Avion Fed Com 502H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4920 psi at 9950' TVD
Abnormal Temperature	NO 155 Deg. F.

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

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

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR Part 3170 Subpart 3176. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

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

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

DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST
AVION FEDERAL COM PROJECT
AVION FEDERAL COM 501H

OWB
PWP1

Anticollision Report

12 January, 2025

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Reference PWP1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.0usft	**Error Model:**	ISCWSA
Depth Range:	0.0 to 21,292.3usft	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,000.0usft	**Error Surface:**	Combined Pedal Curve
Warning Levels Evaluated at:	2.79 **Sigma**	**Casing Method:**	Added to Error Values

Survey Tool Program **Date** 1/12/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	2,000.0	PWP1 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp-Initilzd Con
2,000.0	10,557.9	PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corr
10,557.9	21,292.3	PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corr

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
AVION FEDERAL COM PROJECT						
AVION FEDERAL COM 301H - OWB - AWP	9,127.6	9,084.1	350.2	328.7	16.319	CC, ES
AVION FEDERAL COM 301H - OWB - AWP	9,200.0	9,151.2	350.9	329.3	16.307	SF
AVION FEDERAL COM 502H - OWB - PWP1	1,715.7	1,715.9	39.2	31.5	5.126	CC, ES
AVION FEDERAL COM 502H - OWB - PWP1	1,800.0	1,799.8	39.9	31.9	4.985	SF
AVION FEDERAL COM 503H - OWB - PWP1	1,500.0	1,499.0	79.9	72.9	11.378	CC, ES
AVION FEDERAL COM 503H - OWB - PWP1	1,600.0	1,596.4	81.5	74.1	11.069	SF
AVION FEDERAL COM 701H - OWB - PWP1	1,500.0	1,500.0	20.0	13.0	2.848	Normal Operations, CC, ES, SF
AVION FEDERAL COM 702H - OWB - PWP1	1,472.0	1,472.4	15.1	7.7	2.041	Caution - Monitor Closely, CC, ES
AVION FEDERAL COM 702H - OWB - PWP1	1,500.0	1,500.3	15.4	7.7	2.015	Caution - Monitor Closely, SF
AVION FEDERAL COM 703H - OWB - PWP1	2,000.0	1,999.0	60.0	51.8	7.281	CC, ES
AVION FEDERAL COM 703H - OWB - PWP1	2,100.0	2,099.0	61.7	53.0	7.135	SF
AVION FEDERAL COM 704H - OWB - PWP1	1,200.0	1,199.0	99.9	93.6	15.845	CC, ES
AVION FEDERAL COM 704H - OWB - PWP1	1,400.0	1,392.2	106.4	99.3	15.058	SF
GRUMPY CAT 15 FEDERAL 214H - OWB - AWP	10,705.5	15,725.0	320.1	200.2	2.670	Normal Operations, CC, ES, SF
BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)						
BEDLINGTON FED COM 501H - OWB - AWP	19,979.2	16,940.3	996.3	860.6	7.342	CC
BEDLINGTON FED COM 501H - OWB - AWP	20,000.0	16,927.0	996.3	860.5	7.335	ES
BEDLINGTON FED COM 501H - OWB - AWP	20,100.0	16,842.5	997.6	861.3	7.320	SF

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP — **Offset Site Error:** 0.0 usft

Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS — **Rule Assigned:** — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
2,400.0	2,398.7	2,389.1	2,389.1	5.1	3.8	31.18	-209.1	1,000.2	997.8	988.8	9.09	109.776	
2,500.0	2,497.5	2,488.0	2,487.9	5.3	3.9	31.75	-208.8	1,000.9	985.0	975.6	9.41	104.733	
2,550.0	2,546.7	2,536.6	2,536.6	5.4	3.9	32.09	-208.5	1,001.2	977.5	968.0	9.48	103.094	
2,600.0	2,595.7	2,584.5	2,584.4	5.4	3.9	32.36	-208.3	1,001.6	969.7	960.2	9.55	101.513	
2,700.0	2,693.9	2,683.2	2,683.1	5.6	4.0	32.93	-207.7	1,002.4	954.3	944.5	9.79	97.493	
2,800.0	2,792.0	2,780.1	2,780.0	5.7	4.0	33.50	-207.0	1,003.3	938.9	928.9	10.02	93.708	
2,900.0	2,890.2	2,880.0	2,880.0	5.9	4.1	34.09	-206.2	1,004.3	923.7	913.5	10.26	90.061	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
3,000.0	2,988.4	2,976.3	2,976.2	6.1	4.2	34.68	-205.3	1,005.3	908.6	898.1	10.49	86.615	
3,100.0	3,086.5	3,074.3	3,074.3	6.3	4.2	35.28	-204.3	1,006.5	893.8	883.0	10.73	83.316	
3,200.0	3,184.7	3,171.5	3,171.4	6.4	4.3	35.88	-203.0	1,007.8	879.1	868.1	10.96	80.185	
3,300.0	3,282.8	3,269.9	3,269.8	6.6	4.4	36.51	-201.7	1,009.2	864.5	853.3	11.20	77.188	
3,400.0	3,381.0	3,368.7	3,368.6	6.8	4.5	37.16	-200.3	1,010.7	850.1	838.7	11.44	74.325	
3,500.0	3,479.2	3,466.6	3,466.5	7.0	4.5	37.82	-199.0	1,012.1	835.8	824.1	11.67	71.595	
3,600.0	3,577.3	3,566.5	3,566.3	7.2	4.6	38.52	-197.6	1,013.6	821.6	809.7	11.91	68.986	
3,700.0	3,675.5	3,664.6	3,664.4	7.4	4.7	39.22	-196.1	1,015.0	807.5	795.4	12.14	66.498	
3,800.0	3,773.7	3,762.7	3,762.5	7.5	4.8	39.95	-194.7	1,016.4	793.5	781.2	12.38	64.124	
3,900.0	3,871.8	3,863.1	3,862.9	7.7	4.9	40.73	-193.3	1,017.8	779.7	767.1	12.61	61.853	
4,000.0	3,970.0	3,966.3	3,966.0	7.9	5.0	41.59	-192.0	1,018.7	765.5	752.7	12.82	59.711	
4,100.0	4,068.1	4,066.4	4,066.1	8.1	5.1	42.48	-191.0	1,019.0	751.1	738.1	13.02	57.709	
4,200.0	4,166.3	4,164.4	4,164.1	8.3	5.1	43.41	-190.1	1,019.1	736.7	723.5	13.20	55.812	
4,300.0	4,264.5	4,261.0	4,260.8	8.5	5.1	44.44	-190.3	1,018.9	722.7	709.3	13.38	54.018	
4,400.0	4,362.6	4,356.7	4,356.4	8.7	5.0	45.54	-190.9	1,018.7	709.2	695.6	13.59	52.195	
4,500.0	4,460.8	4,450.5	4,450.3	8.9	5.0	46.66	-191.8	1,018.8	696.4	682.6	13.81	50.418	
4,600.0	4,559.0	4,541.9	4,541.6	9.1	5.0	47.83	-193.4	1,019.3	684.7	670.6	14.05	48.747	
4,700.0	4,657.1	4,638.2	4,637.8	9.3	5.1	49.13	-195.9	1,020.3	674.1	659.8	14.28	47.208	
4,800.0	4,755.3	4,750.1	4,749.7	9.5	5.1	50.68	-198.2	1,020.9	663.2	648.7	14.50	45.745	
4,900.0	4,853.4	4,853.8	4,853.5	9.7	5.0	52.14	-198.9	1,019.8	650.6	636.0	14.66	44.366	
5,000.0	4,951.6	4,952.8	4,952.4	9.9	5.0	53.61	-199.6	1,018.6	638.3	623.5	14.84	43.027	
5,100.0	5,049.8	5,049.4	5,049.0	10.1	4.9	55.10	-200.3	1,017.3	626.4	611.4	15.01	41.734	
5,200.0	5,147.9	5,147.8	5,147.4	10.3	4.8	56.66	-201.0	1,016.0	614.9	599.7	15.18	40.501	
5,300.0	5,246.1	5,246.5	5,246.1	10.5	4.8	58.29	-201.7	1,014.6	603.8	588.5	15.36	39.323	
5,400.0	5,344.3	5,343.6	5,343.2	10.7	4.7	59.94	-202.2	1,013.3	593.2	577.7	15.53	38.194	
5,500.0	5,442.4	5,441.5	5,441.1	10.9	4.7	61.67	-202.9	1,012.0	583.3	567.6	15.71	37.124	
5,569.0	5,510.1	5,507.9	5,507.5	11.0	4.7	62.87	-203.3	1,011.2	576.8	561.0	15.81	36.475	
5,600.0	5,540.6	5,539.3	5,538.9	11.1	4.7	63.40	-203.6	1,010.8	574.0	558.2	15.85	36.220	
5,700.0	5,639.2	5,637.0	5,636.6	11.3	4.6	64.94	-204.3	1,009.6	566.2	550.1	16.03	35.313	
5,800.0	5,738.1	5,735.4	5,735.0	11.5	4.6	66.31	-205.1	1,008.4	559.9	543.7	16.21	34.538	
5,900.0	5,837.4	5,835.4	5,834.9	11.7	4.6	67.50	-205.8	1,007.2	555.0	538.6	16.38	33.883	
6,000.0	5,937.0	5,943.7	5,943.2	11.9	4.6	68.30	-204.2	1,007.0	550.3	533.7	16.53	33.294	
6,100.0	6,036.8	6,061.5	6,060.8	12.1	4.6	68.46	-197.6	1,007.9	543.9	527.3	16.67	32.636	
6,200.0	6,136.7	6,172.2	6,171.2	12.3	4.6	68.14	-188.8	1,008.4	536.7	519.9	16.81	31.929	
6,300.0	6,236.7	6,295.1	6,293.1	12.4	4.6	67.07	-173.7	1,008.8	527.2	510.2	16.96	31.083	
6,302.3	6,239.0	6,297.9	6,295.9	12.4	4.6	138.70	-173.3	1,008.8	526.9	510.0	16.96	31.060	
6,400.0	6,336.7	6,396.0	6,392.7	12.4	4.7	137.49	-157.5	1,009.3	515.4	498.3	17.08	30.171	
6,500.0	6,436.7	6,493.9	6,489.3	12.5	4.7	136.22	-141.6	1,009.8	503.9	486.7	17.21	29.274	
6,600.0	6,536.7	6,592.3	6,586.4	12.6	4.8	134.89	-125.8	1,010.5	492.8	475.5	17.35	28.413	
6,700.0	6,636.7	6,698.8	6,691.5	12.6	4.9	133.47	-108.4	1,009.7	480.9	463.4	17.49	27.496	
6,800.0	6,736.7	6,797.6	6,788.9	12.7	4.9	132.14	-92.2	1,008.3	468.6	450.9	17.63	26.580	
6,900.0	6,836.7	6,894.5	6,884.5	12.8	5.0	130.77	-76.5	1,007.2	456.9	439.1	17.77	25.710	
7,000.0	6,936.7	6,991.9	6,980.7	12.8	5.1	129.30	-60.8	1,006.3	445.8	427.8	17.92	24.879	
7,100.0	7,036.7	7,089.2	7,076.7	12.9	5.2	127.79	-45.3	1,005.5	435.1	417.1	18.07	24.083	
7,200.0	7,136.7	7,184.2	7,170.6	13.0	5.3	126.31	-31.0	1,004.8	425.4	407.2	18.22	23.355	
7,300.0	7,236.7	7,280.0	7,265.5	13.0	5.4	124.85	-17.6	1,004.5	416.9	398.5	18.37	22.699	
7,400.0	7,336.7	7,375.0	7,359.8	13.1	5.5	123.51	-5.7	1,004.2	409.6	391.1	18.52	22.124	
7,500.0	7,436.7	7,470.3	7,454.4	13.2	5.6	122.21	5.0	1,004.4	403.7	385.0	18.66	21.627	
7,600.0	7,536.7	7,569.0	7,552.6	13.3	5.7	120.91	15.4	1,004.9	398.5	379.7	18.81	21.181	
7,700.0	7,636.7	7,676.9	7,659.5	13.3	5.8	119.14	29.5	1,004.9	392.0	373.0	18.98	20.648	
7,800.0	7,736.7	7,771.5	7,753.3	13.4	6.0	117.43	42.4	1,005.3	385.8	366.6	19.15	20.148	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
7,900.0	7,836.7	7,868.5	7,849.5	13.5	6.1	115.69	54.9	1,006.3	380.9	361.6	19.31	19.723	
8,000.0	7,936.7	7,967.2	7,947.4	13.5	6.2	113.92	67.4	1,007.4	376.6	357.1	19.48	19.329	
8,100.0	8,036.7	8,064.6	8,044.1	13.6	6.4	112.29	78.5	1,008.4	373.0	353.3	19.65	18.985	
8,200.0	8,136.7	8,170.3	8,149.2	13.7	6.5	110.64	89.8	1,008.9	369.6	349.8	19.81	18.655	
8,300.0	8,236.7	8,270.1	8,248.4	13.7	6.6	109.02	101.1	1,008.0	364.8	344.9	19.98	18.263	
8,400.0	8,336.7	8,367.3	8,345.0	13.8	6.8	107.53	111.2	1,007.4	361.0	340.8	20.14	17.925	
8,500.0	8,436.7	8,464.4	8,441.7	13.9	6.9	106.17	120.2	1,007.1	358.0	337.7	20.29	17.640	
8,600.0	8,536.7	8,563.5	8,540.4	14.0	7.1	104.83	128.9	1,007.0	355.6	335.1	20.45	17.389	
8,700.0	8,636.7	8,661.6	8,638.2	14.0	7.2	103.49	137.5	1,007.2	353.6	333.0	20.60	17.161	
8,800.0	8,736.7	8,761.2	8,737.5	14.1	7.3	102.29	144.9	1,007.4	352.1	331.3	20.75	16.965	
8,900.0	8,836.7	8,859.8	8,835.9	14.2	7.5	101.29	151.2	1,007.4	350.8	329.9	20.90	16.789	
9,000.0	8,936.7	8,957.0	8,933.0	14.2	7.6	100.49	156.1	1,007.8	350.3	329.2	21.07	16.622	
9,038.6	8,975.3	8,995.0	8,971.0	14.3	7.6	100.37	156.8	1,007.9	350.2	329.0	21.26	16.476	
9,100.0	9,036.7	9,057.0	9,032.9	14.3	7.7	100.65	155.2	1,007.6	350.3	328.8	21.43	16.341	
9,127.6	9,064.2	9,084.1	9,059.9	14.3	7.7	100.92	153.5	1,007.3	350.2	328.7	21.46	16.319 CC, ES	
9,200.0	9,136.7	9,151.2	9,126.6	14.4	7.8	102.24	145.5	1,006.2	350.9	329.3	21.52	16.307 SF	
9,300.0	9,236.7	9,243.4	9,216.4	14.4	8.0	105.57	125.1	1,003.8	353.7	332.1	21.58	16.391	
9,400.0	9,336.7	9,309.0	9,278.1	14.5	8.1	109.04	103.0	1,002.1	362.3	340.3	22.00	16.471	
9,500.0	9,436.7	9,381.7	9,344.1	14.6	8.3	113.41	72.7	1,003.5	381.0	358.4	22.61	16.851	
9,600.0	9,536.7	9,457.1	9,409.5	14.7	8.4	118.36	35.2	1,005.6	407.8	384.4	23.36	17.459	
9,700.0	9,636.7	9,531.0	9,470.2	14.7	8.6	123.59	-6.8	1,004.7	440.7	416.4	24.27	18.156	
9,800.0	9,736.7	9,581.0	9,508.4	14.8	8.8	127.32	-39.0	1,002.9	482.1	456.3	25.88	18.633	
9,900.0	9,836.7	9,615.3	9,532.5	14.9	9.0	129.93	-63.3	1,001.8	533.5	505.8	27.72	19.242	
10,000.0	9,936.7	9,641.0	9,549.1	14.9	9.1	131.86	-82.9	1,001.4	594.0	564.5	29.50	20.131	
10,100.0	10,036.7	9,664.8	9,563.3	15.0	9.2	133.60	-102.0	1,001.4	661.7	630.7	31.04	21.318	
10,200.0	10,136.7	9,689.0	9,576.5	15.1	9.2	135.31	-122.3	1,001.9	735.3	703.0	32.33	22.743	
10,300.0	10,236.7	9,689.0	9,576.5	15.2	9.2	135.31	-122.3	1,001.9	813.5	779.9	33.65	24.177	
10,400.0	10,336.7	9,716.9	9,590.1	15.2	9.3	137.22	-146.7	1,002.7	894.7	860.2	34.54	25.904	
10,500.0	10,436.7	9,736.0	9,598.3	15.3	9.4	138.48	-163.9	1,003.2	979.0	943.6	35.39	27.663	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 502H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 9487-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.29	-0.2	-40.0	40.0				
100.0	100.0	100.0	100.0	0.6	0.6	-90.29	-0.2	-40.0	40.0	38.4	1.61	24.781	
200.0	200.0	200.0	200.0	1.1	1.1	-90.29	-0.2	-40.0	40.0	37.5	2.55	15.684	
300.0	300.0	300.0	300.0	1.4	1.4	-90.29	-0.2	-40.0	40.0	36.8	3.18	12.595	
400.0	400.0	400.0	400.0	1.7	1.7	-90.29	-0.2	-40.0	40.0	36.3	3.68	10.869	
500.0	500.0	500.0	500.0	1.9	1.9	-90.29	-0.2	-40.0	40.0	35.9	4.11	9.721	
600.0	600.0	600.0	600.0	2.1	2.1	-90.29	-0.2	-40.0	40.0	35.5	4.50	8.885	
700.0	700.0	700.0	700.0	2.3	2.3	-90.29	-0.2	-40.0	40.0	35.1	4.86	8.239	
800.0	800.0	800.0	800.0	2.5	2.5	-90.29	-0.2	-40.0	40.0	34.8	5.18	7.720	
900.0	900.0	900.0	900.0	2.7	2.7	-90.29	-0.2	-40.0	40.0	34.5	5.49	7.290	
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	-90.29	-0.2	-40.0	40.0	34.2	5.77	6.927	
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	-90.29	-0.2	-40.0	40.0	34.0	6.05	6.615	
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	-90.29	-0.2	-40.0	40.0	33.7	6.31	6.343	
1,300.0	1,300.0	1,300.0	1,300.0	3.4	3.4	-90.29	-0.2	-40.0	40.0	33.4	6.56	6.102	
1,400.0	1,400.0	1,400.0	1,400.0	3.5	3.5	-90.29	-0.2	-40.0	40.0	33.2	6.79	5.888	
1,500.0	1,500.0	1,500.0	1,500.0	3.7	3.7	-90.29	-0.2	-40.0	40.0	33.0	7.02	5.695	
1,600.0	1,600.0	1,600.2	1,600.2	3.8	3.9	-87.81	1.5	-39.7	39.7	32.4	7.25	5.475	
1,700.0	1,700.0	1,700.2	1,700.1	4.0	4.2	-80.22	6.7	-38.6	39.2	31.6	7.58	5.167	
1,715.7	1,715.7	1,715.9	1,715.7	4.0	4.3	-78.56	7.8	-38.4	39.2	31.5	7.64	5.126 CC, ES	
1,800.0	1,800.0	1,799.8	1,799.2	4.1	4.5	-67.67	15.2	-36.9	39.9	31.9	8.00	4.985 SF	
1,900.0	1,900.0	1,898.5	1,897.3	4.3	4.8	-52.04	26.9	-34.5	43.9	35.3	8.59	5.106	
2,000.0	2,000.0	1,997.0	1,994.5	4.4	4.9	-37.20	41.6	-31.5	52.5	43.3	9.13	5.750	
2,100.0	2,100.0	2,095.8	2,092.2	4.5	5.1	-99.63	56.7	-28.5	64.2	54.6	9.60	6.689	
2,200.0	2,199.8	2,194.9	2,190.0	4.7	5.3	-95.81	71.9	-25.4	77.3	67.3	10.00	7.731	
2,300.0	2,299.5	2,293.9	2,287.9	4.9	5.4	-95.24	87.1	-22.3	90.9	80.6	10.34	8.793	
2,400.0	2,398.7	2,392.9	2,385.6	5.1	5.6	-96.65	102.3	-19.3	104.9	94.3	10.65	9.853	
2,500.0	2,497.5	2,491.7	2,483.2	5.3	5.8	-99.33	117.4	-16.2	119.5	108.5	10.93	10.932	
2,550.0	2,546.7	2,541.0	2,531.9	5.4	5.9	-100.98	125.0	-14.7	127.1	116.1	11.02	11.528	
2,600.0	2,595.7	2,590.2	2,580.4	5.4	6.0	-102.77	132.5	-13.1	134.9	123.8	11.12	12.131	
2,700.0	2,693.9	2,689.0	2,678.0	5.6	6.1	-105.80	147.6	-10.1	150.9	139.5	11.35	13.296	
2,800.0	2,792.0	2,789.3	2,777.3	5.7	6.3	-108.59	161.8	-7.2	166.4	154.8	11.63	14.310	
2,900.0	2,890.2	2,889.8	2,877.0	5.9	6.5	-111.34	174.3	-4.7	181.1	169.2	11.92	15.203	
3,000.0	2,988.4	2,990.4	2,977.0	6.1	6.6	-114.09	185.1	-2.5	195.2	183.0	12.20	16.004	
3,100.0	3,086.5	3,091.0	3,077.1	6.3	6.8	-116.87	194.2	-0.7	208.8	196.3	12.48	16.728	
3,200.0	3,184.7	3,191.5	3,177.4	6.4	7.0	-119.70	201.6	0.8	221.8	209.1	12.76	17.390	
3,300.0	3,282.8	3,292.0	3,277.7	6.6	7.2	-122.59	207.2	2.0	234.6	221.6	13.03	18.002	
3,400.0	3,381.0	3,392.3	3,377.9	6.8	7.3	-125.54	211.1	2.8	247.1	233.8	13.30	18.576	
3,500.0	3,479.2	3,492.3	3,477.9	7.0	7.5	-128.55	213.3	3.2	259.6	246.0	13.58	19.123	
3,600.0	3,577.3	3,591.7	3,577.3	7.2	7.6	-131.60	213.8	3.3	272.2	258.4	13.80	19.725	
3,700.0	3,675.5	3,689.9	3,675.5	7.4	7.7	-134.44	213.8	3.3	285.4	271.3	14.07	20.278	
3,800.0	3,773.7	3,788.1	3,773.7	7.5	7.8	-137.02	213.8	3.3	299.2	284.8	14.36	20.831	
3,900.0	3,871.8	3,886.2	3,871.8	7.7	7.9	-139.38	213.8	3.3	313.5	298.8	14.66	21.389	
4,000.0	3,970.0	3,984.4	3,970.0	7.9	8.0	-141.54	213.8	3.3	328.3	313.4	14.96	21.949	
4,100.0	4,068.1	4,082.5	4,068.1	8.1	8.1	-143.50	213.8	3.3	343.6	328.3	15.27	22.507	
4,200.0	4,166.3	4,180.7	4,166.3	8.3	8.2	-145.30	213.8	3.3	359.2	343.6	15.58	23.061	
4,300.0	4,264.5	4,278.9	4,264.5	8.5	8.3	-146.95	213.8	3.3	375.1	359.2	15.89	23.610	
4,400.0	4,362.6	4,377.0	4,362.6	8.7	8.5	-148.47	213.8	3.3	391.4	375.1	16.20	24.152	
4,500.0	4,460.8	4,475.2	4,460.8	8.9	8.6	-149.87	213.8	3.3	407.8	391.3	16.52	24.685	
4,600.0	4,559.0	4,573.4	4,559.0	9.1	8.7	-151.15	213.8	3.3	424.5	407.7	16.84	25.210	
4,700.0	4,657.1	4,671.5	4,657.1	9.3	8.8	-152.34	213.8	3.3	441.4	424.2	17.16	25.725	
4,800.0	4,755.3	4,769.7	4,755.3	9.5	8.9	-153.45	213.8	3.3	458.4	441.0	17.48	26.231	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 502H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 9487-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
4,900.0	4,853.4	4,867.8	4,853.4	9.7	9.0	-154.47	213.8	3.3	475.6	457.8	17.80	26.726	
5,000.0	4,951.6	4,966.0	4,951.6	9.9	9.1	-155.42	213.8	3.3	493.0	474.9	18.12	27.211	
5,100.0	5,049.8	5,064.2	5,049.8	10.1	9.2	-156.31	213.8	3.3	510.4	492.0	18.44	27.686	
5,200.0	5,147.9	5,162.3	5,147.9	10.3	9.3	-157.14	213.8	3.3	528.0	509.3	18.76	28.150	
5,300.0	5,246.1	5,260.5	5,246.1	10.5	9.4	-157.92	213.8	3.3	545.7	526.6	19.08	28.603	
5,400.0	5,344.3	5,358.7	5,344.3	10.7	9.5	-158.65	213.8	3.3	563.5	544.1	19.40	29.047	
5,500.0	5,442.4	5,456.8	5,442.4	10.9	9.6	-159.33	213.8	3.3	581.3	561.6	19.72	29.480	
5,569.0	5,510.1	5,524.5	5,510.1	11.0	9.7	-159.78	213.8	3.3	593.7	573.8	19.92	29.801	
5,600.0	5,540.6	5,555.0	5,540.6	11.1	9.7	-160.00	213.8	3.3	599.1	579.1	20.00	29.950	
5,700.0	5,639.2	5,653.6	5,639.2	11.3	9.8	-160.62	213.8	3.3	615.2	594.8	20.34	30.250	
5,800.0	5,738.1	5,752.5	5,738.1	11.5	9.9	-161.12	213.8	3.3	628.8	608.1	20.66	30.435	
5,900.0	5,837.4	5,851.8	5,837.4	11.7	10.0	-161.52	213.8	3.3	640.0	619.0	20.98	30.511	
6,000.0	5,937.0	5,951.4	5,937.0	11.9	10.1	-161.81	213.8	3.3	648.8	627.5	21.28	30.484	
6,100.0	6,036.8	6,051.2	6,036.8	12.1	10.2	-162.02	213.8	3.3	655.0	633.5	21.58	30.360	
6,200.0	6,136.7	6,151.1	6,136.7	12.3	10.3	-162.15	213.8	3.3	658.8	637.0	21.85	30.147	
6,300.0	6,236.7	6,251.1	6,236.7	12.4	10.4	-162.19	213.8	3.3	660.1	638.1	22.06	29.918	
6,302.3	6,239.0	6,253.4	6,239.0	12.4	10.4	-90.53	213.8	3.3	660.1	638.1	22.07	29.912	
6,400.0	6,336.7	6,351.1	6,336.7	12.4	10.5	-90.53	213.8	3.3	660.1	637.9	22.23	29.698	
6,500.0	6,436.7	6,451.1	6,436.7	12.5	10.6	-90.53	213.8	3.3	660.1	637.7	22.39	29.480	
6,600.0	6,536.7	6,551.1	6,536.7	12.6	10.7	-90.53	213.8	3.3	660.1	637.6	22.56	29.265	
6,700.0	6,636.7	6,651.1	6,636.7	12.6	10.8	-90.53	213.8	3.3	660.1	637.4	22.72	29.054	
6,800.0	6,736.7	6,751.1	6,736.7	12.7	10.9	-90.53	213.8	3.3	660.1	637.2	22.89	28.845	
6,900.0	6,836.7	6,851.1	6,836.7	12.8	11.0	-90.53	213.8	3.3	660.1	637.1	23.05	28.639	
7,000.0	6,936.7	6,951.1	6,936.7	12.8	11.1	-90.53	213.8	3.3	660.1	636.9	23.21	28.437	
7,100.0	7,036.7	7,051.1	7,036.7	12.9	11.2	-90.53	213.8	3.3	660.1	636.8	23.38	28.237	
7,200.0	7,136.7	7,151.1	7,136.7	13.0	11.3	-90.53	213.8	3.3	660.1	636.6	23.54	28.040	
7,300.0	7,236.7	7,251.1	7,236.7	13.0	11.4	-90.53	213.8	3.3	660.1	636.4	23.71	27.846	
7,400.0	7,336.7	7,351.1	7,336.7	13.1	11.5	-90.53	213.8	3.3	660.1	636.3	23.87	27.655	
7,500.0	7,436.7	7,451.1	7,436.7	13.2	11.6	-90.53	213.8	3.3	660.1	636.1	24.03	27.466	
7,600.0	7,536.7	7,551.1	7,536.7	13.3	11.7	-90.53	213.8	3.3	660.1	635.9	24.20	27.280	
7,700.0	7,636.7	7,651.1	7,636.7	13.3	11.8	-90.53	213.8	3.3	660.1	635.8	24.36	27.096	
7,800.0	7,736.7	7,751.1	7,736.7	13.4	11.9	-90.53	213.8	3.3	660.1	635.6	24.53	26.915	
7,900.0	7,836.7	7,851.1	7,836.7	13.5	12.0	-90.53	213.8	3.3	660.1	635.4	24.69	26.737	
8,000.0	7,936.7	7,951.1	7,936.7	13.5	12.0	-90.53	213.8	3.3	660.1	635.3	24.85	26.561	
8,100.0	8,036.7	8,051.1	8,036.7	13.6	12.1	-90.53	213.8	3.3	660.1	635.1	25.02	26.387	
8,200.0	8,136.7	8,151.1	8,136.7	13.7	12.2	-90.53	213.8	3.3	660.1	634.9	25.18	26.215	
8,300.0	8,236.7	8,251.1	8,236.7	13.7	12.3	-90.53	213.8	3.3	660.1	634.8	25.34	26.046	
8,400.0	8,336.7	8,351.1	8,336.7	13.8	12.4	-90.53	213.8	3.3	660.1	634.6	25.51	25.879	
8,500.0	8,436.7	8,451.1	8,436.7	13.9	12.5	-90.53	213.8	3.3	660.1	634.5	25.67	25.714	
8,600.0	8,536.7	8,551.1	8,536.7	14.0	12.6	-90.53	213.8	3.3	660.1	634.3	25.84	25.551	
8,700.0	8,636.7	8,651.1	8,636.7	14.0	12.7	-90.53	213.8	3.3	660.1	634.1	26.00	25.390	
8,800.0	8,736.7	8,751.1	8,736.7	14.1	12.8	-90.53	213.8	3.3	660.1	634.0	26.16	25.232	
8,900.0	8,836.7	8,851.1	8,836.7	14.2	12.9	-90.53	213.8	3.3	660.1	633.8	26.33	25.075	
9,000.0	8,936.7	8,951.1	8,936.7	14.2	13.0	-90.53	213.8	3.3	660.1	633.6	26.49	24.920	
9,100.0	9,036.7	9,051.1	9,036.7	14.3	13.1	-90.53	213.8	3.3	660.1	633.5	26.65	24.767	
9,200.0	9,136.7	9,151.1	9,136.7	14.4	13.2	-90.53	213.8	3.3	660.1	633.3	26.82	24.616	
9,300.0	9,236.7	9,251.1	9,236.7	14.4	13.3	-90.53	213.8	3.3	660.1	633.1	26.98	24.467	
9,400.0	9,336.7	9,351.1	9,336.7	14.5	13.4	-90.53	213.8	3.3	660.1	633.0	27.14	24.320	
9,500.0	9,436.7	9,451.1	9,436.7	14.6	13.5	-90.53	213.8	3.3	660.1	632.8	27.30	24.179	
9,510.0	9,446.7	9,461.1	9,446.7	14.6	13.5	-90.53	213.8	3.3	660.1	632.8	27.32	24.165	
9,600.0	9,536.7	9,550.4	9,535.9	14.7	13.5	-90.90	209.6	3.3	660.2	632.7	27.42	24.075	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 502H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 9487-r.5 MWD+IFR1+SAG+FDIR **Rule Assigned:** **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,700.0	9,636.7	9,644.5	9,627.2	14.7	13.6	-92.76	188.0	3.5	660.8	633.2	27.54	23.996	
9,800.0	9,736.7	9,727.4	9,703.0	14.8	13.6	-95.66	154.5	3.7	663.8	636.1	27.69	23.971	
9,900.0	9,836.7	9,797.1	9,761.4	14.9	13.7	-98.91	116.5	3.9	671.8	643.8	27.93	24.049	
10,000.0	9,936.7	9,854.3	9,804.7	14.9	13.7	-102.04	79.3	4.2	686.8	658.5	28.33	24.244	
10,100.0	10,036.7	9,900.0	9,836.0	15.0	13.8	-104.78	46.0	4.4	710.5	681.6	28.93	24.556	
10,200.0	10,136.7	9,938.5	9,859.7	15.1	13.8	-107.22	15.7	4.6	743.2	713.5	29.73	25.003	
10,300.0	10,236.7	9,975.0	9,879.9	15.2	13.8	-109.60	-14.7	4.8	784.9	754.3	30.63	25.623	
10,400.0	10,336.7	10,000.0	9,892.4	15.2	13.8	-111.26	-36.3	4.9	834.6	803.0	31.65	26.372	
10,500.0	10,436.7	10,016.7	9,900.1	15.3	13.8	-112.37	-51.1	5.0	891.5	858.8	32.70	27.260	
10,557.9	10,494.5	10,025.0	9,903.7	15.3	13.9	-112.93	-58.6	5.1	927.4	894.3	33.03	28.078	
10,575.0	10,511.7	10,025.0	9,903.7	15.3	13.9	65.88	-58.6	5.1	938.3	905.1	33.21	28.252	
10,600.0	10,536.6	10,035.6	9,908.2	15.3	13.9	63.01	-68.2	5.1	954.0	920.6	33.42	28.550	
10,625.0	10,561.4	10,040.7	9,910.2	15.3	13.9	60.58	-72.9	5.2	969.7	936.1	33.65	28.817	
10,650.0	10,586.1	10,050.0	9,913.9	15.4	13.9	58.05	-81.5	5.2	985.2	951.4	33.86	29.096	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 503H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 10536-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.50	-0.7	-79.9	79.9				
100.0	100.0	99.0	99.0	0.6	0.6	-90.50	-0.7	-79.9	79.9	78.3	1.61	49.670	
200.0	200.0	199.0	199.0	1.1	1.0	-90.50	-0.7	-79.9	79.9	77.4	2.55	31.387	
300.0	300.0	299.0	299.0	1.4	1.4	-90.50	-0.7	-79.9	79.9	76.7	3.17	25.184	
400.0	400.0	399.0	399.0	1.7	1.7	-90.50	-0.7	-79.9	79.9	76.2	3.68	21.726	
500.0	500.0	499.0	499.0	1.9	1.9	-90.50	-0.7	-79.9	79.9	75.8	4.11	19.429	
600.0	600.0	599.0	599.0	2.1	2.1	-90.50	-0.7	-79.9	79.9	75.4	4.50	17.755	
700.0	700.0	699.0	699.0	2.3	2.3	-90.50	-0.7	-79.9	79.9	75.0	4.85	16.463	
800.0	800.0	799.0	799.0	2.5	2.5	-90.50	-0.7	-79.9	79.9	74.7	5.18	15.425	
900.0	900.0	899.0	899.0	2.7	2.7	-90.50	-0.7	-79.9	79.9	74.4	5.49	14.567	
1,000.0	1,000.0	999.0	999.0	2.9	2.9	-90.50	-0.7	-79.9	79.9	74.1	5.77	13.841	
1,100.0	1,100.0	1,099.0	1,099.0	3.1	3.1	-90.50	-0.7	-79.9	79.9	73.9	6.05	13.217	
1,200.0	1,200.0	1,199.0	1,199.0	3.2	3.2	-90.50	-0.7	-79.9	79.9	73.6	6.31	12.673	
1,300.0	1,300.0	1,299.0	1,299.0	3.4	3.4	-90.50	-0.7	-79.9	79.9	73.3	6.55	12.192	
1,400.0	1,400.0	1,399.0	1,399.0	3.5	3.5	-90.50	-0.7	-79.9	79.9	73.1	6.79	11.763	
1,500.0	1,500.0	1,499.0	1,499.0	3.7	3.7	-90.50	-0.7	-79.9	79.9	72.9	7.02	11.378 CC, ES	
1,600.0	1,600.0	1,596.4	1,596.4	3.8	3.8	-90.11	-0.1	-81.4	81.5	74.1	7.36	11.069 SF	
1,700.0	1,700.0	1,693.6	1,693.5	4.0	4.0	-88.99	1.5	-86.1	86.2	78.5	7.78	11.089	
1,800.0	1,800.0	1,790.4	1,789.9	4.1	4.3	-87.38	4.3	-93.7	94.3	86.1	8.18	11.520	
1,900.0	1,900.0	1,886.5	1,885.3	4.3	4.6	-85.55	8.1	-104.4	105.6	97.0	8.58	12.313	
2,000.0	2,000.0	1,983.0	1,980.7	4.4	4.7	-83.70	13.0	-117.9	120.0	111.2	8.80	13.641	
2,100.0	2,100.0	2,081.5	2,078.0	4.5	4.8	-153.99	18.2	-132.4	136.9	127.7	9.17	14.925	
2,200.0	2,199.8	2,179.5	2,174.8	4.7	5.0	-153.44	23.4	-146.9	156.8	147.2	9.62	16.298	
2,300.0	2,299.5	2,276.8	2,270.9	4.9	5.2	-153.46	28.6	-161.2	179.8	169.7	10.05	17.879	
2,400.0	2,398.7	2,373.3	2,366.3	5.1	5.4	-153.85	33.7	-175.4	205.8	195.3	10.48	19.638	
2,500.0	2,497.5	2,469.0	2,460.7	5.3	5.6	-154.45	38.8	-189.5	234.9	224.0	10.90	21.556	
2,550.0	2,546.7	2,516.4	2,507.6	5.4	5.6	-154.80	41.3	-196.4	250.5	239.5	11.04	22.696	
2,600.0	2,595.7	2,563.7	2,554.3	5.4	5.7	-155.27	43.8	-203.4	266.6	255.4	11.18	23.856	
2,700.0	2,693.9	2,658.3	2,647.7	5.6	5.9	-156.07	48.9	-217.3	298.8	287.3	11.52	25.947	
2,800.0	2,792.0	2,752.9	2,741.2	5.7	6.1	-156.71	53.9	-231.2	331.0	319.2	11.86	27.916	
2,900.0	2,890.2	2,847.5	2,834.6	5.9	6.3	-157.23	58.9	-245.2	363.3	351.1	12.20	29.771	
3,000.0	2,988.4	2,942.1	2,928.1	6.1	6.5	-157.68	63.9	-259.1	395.5	383.0	12.55	31.522	
3,100.0	3,086.5	3,036.7	3,021.5	6.3	6.6	-158.05	68.9	-273.0	427.8	414.9	12.90	33.175	
3,200.0	3,184.7	3,131.4	3,115.0	6.4	6.8	-158.37	74.0	-286.9	460.2	446.9	13.25	34.737	
3,300.0	3,282.8	3,226.0	3,208.4	6.6	7.0	-158.65	79.0	-300.9	492.5	478.9	13.60	36.216	
3,400.0	3,381.0	3,320.6	3,301.8	6.8	7.2	-158.90	84.0	-314.8	524.8	510.9	13.95	37.617	
3,500.0	3,479.2	3,415.2	3,395.3	7.0	7.4	-159.12	89.0	-328.7	557.1	542.8	14.31	38.945	
3,600.0	3,577.3	3,509.8	3,488.7	7.2	7.5	-159.31	94.1	-342.6	589.5	574.8	14.66	40.206	
3,700.0	3,675.5	3,604.4	3,582.2	7.4	7.7	-159.48	99.1	-356.5	621.8	606.8	15.02	41.404	
3,800.0	3,773.7	3,699.0	3,675.6	7.5	7.9	-159.64	104.1	-370.5	654.2	638.8	15.38	42.543	
3,900.0	3,871.8	3,793.6	3,769.1	7.7	8.1	-159.78	109.1	-384.4	686.5	670.8	15.74	43.627	
4,000.0	3,970.0	3,888.2	3,862.5	7.9	8.3	-159.91	114.1	-398.3	718.9	702.8	16.10	44.661	
4,100.0	4,068.1	3,982.8	3,955.9	8.1	8.5	-160.03	119.2	-412.2	751.3	734.8	16.46	45.646	
4,200.0	4,166.3	4,077.4	4,049.4	8.3	8.7	-160.13	124.2	-426.2	783.6	766.8	16.82	46.587	
4,300.0	4,264.5	4,172.0	4,142.8	8.5	8.8	-160.23	129.2	-440.1	816.0	798.8	17.18	47.486	
4,400.0	4,362.6	4,266.6	4,236.3	8.7	9.0	-160.33	134.2	-454.0	848.4	830.8	17.55	48.345	
4,500.0	4,460.8	4,361.2	4,329.7	8.9	9.2	-160.41	139.2	-467.9	880.8	862.8	17.91	49.167	
4,600.0	4,559.0	4,455.9	4,423.2	9.1	9.4	-160.49	144.3	-481.8	913.1	894.9	18.28	49.955	
4,700.0	4,657.1	4,550.5	4,516.6	9.3	9.6	-160.56	149.3	-495.8	945.5	926.9	18.65	50.709	
4,800.0	4,755.3	4,645.1	4,610.0	9.5	9.8	-160.63	154.3	-509.7	977.9	958.9	19.01	51.432	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 701H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 12028-r.5 MWD+IFR1+SAG+FDIR — **Rule Assigned:** — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.43	0.2	20.0	20.0				
100.0	100.0	100.0	100.0	0.6	0.6	89.43	0.2	20.0	20.0	18.4	1.61	12.391	
200.0	200.0	200.0	200.0	1.1	1.1	89.43	0.2	20.0	20.0	17.5	2.55	7.842	
300.0	300.0	300.0	300.0	1.4	1.4	89.43	0.2	20.0	20.0	16.8	3.18	6.298	
400.0	400.0	400.0	400.0	1.7	1.7	89.43	0.2	20.0	20.0	16.3	3.68	5.435	
500.0	500.0	500.0	500.0	1.9	1.9	89.43	0.2	20.0	20.0	15.9	4.11	4.861	
600.0	600.0	600.0	600.0	2.1	2.1	89.43	0.2	20.0	20.0	15.5	4.50	4.442	
700.0	700.0	700.0	700.0	2.3	2.3	89.43	0.2	20.0	20.0	15.1	4.86	4.119	
800.0	800.0	800.0	800.0	2.5	2.5	89.43	0.2	20.0	20.0	14.8	5.18	3.860	
900.0	900.0	900.0	900.0	2.7	2.7	89.43	0.2	20.0	20.0	14.5	5.49	3.645	
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	89.43	0.2	20.0	20.0	14.2	5.77	3.464	
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	89.43	0.2	20.0	20.0	14.0	6.05	3.308	
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	89.43	0.2	20.0	20.0	13.7	6.31	3.171	
1,300.0	1,300.0	1,300.0	1,300.0	3.4	3.4	89.43	0.2	20.0	20.0	13.4	6.56	3.051	
1,400.0	1,400.0	1,400.0	1,400.0	3.5	3.5	89.43	0.2	20.0	20.0	13.2	6.79	2.944	Normal Operations
1,500.0	1,500.0	1,500.0	1,500.0	3.7	3.7	89.43	0.2	20.0	20.0	13.0	7.02	2.848	Normal Operations, CC, ES, SF
1,600.0	1,600.0	1,599.3	1,599.3	3.8	3.8	88.46	0.6	21.7	21.7	14.3	7.38	2.941	Normal Operations
1,700.0	1,700.0	1,698.3	1,698.2	4.0	4.0	86.29	1.7	26.7	26.8	19.0	7.82	3.430	
1,800.0	1,800.0	1,796.9	1,796.4	4.1	4.3	84.07	3.6	35.0	35.4	27.1	8.24	4.292	
1,900.0	1,900.0	1,894.8	1,893.5	4.3	4.5	82.32	6.3	46.5	47.3	38.7	8.64	5.479	
2,000.0	2,000.0	1,991.7	1,989.3	4.4	4.8	81.06	9.6	61.0	62.7	53.7	9.02	6.949	
2,100.0	2,100.0	2,087.9	2,083.8	4.5	5.1	8.64	13.6	78.6	79.7	70.2	9.48	8.404	
2,200.0	2,199.8	2,185.5	2,179.1	4.7	5.2	8.35	18.3	98.9	96.0	86.1	9.88	9.714	
2,300.0	2,299.5	2,284.6	2,275.9	4.9	5.4	8.39	23.1	119.9	109.1	98.8	10.32	10.568	
2,400.0	2,398.7	2,384.1	2,373.0	5.1	5.6	8.67	27.9	140.9	118.8	108.0	10.77	11.030	
2,500.0	2,497.5	2,483.9	2,470.5	5.3	5.8	9.17	32.7	161.9	125.0	113.8	11.21	11.152	
2,550.0	2,546.7	2,533.9	2,519.3	5.4	5.8	9.50	35.1	172.5	126.9	115.5	11.36	11.172	
2,600.0	2,595.7	2,583.9	2,568.0	5.4	5.9	9.86	37.5	183.0	128.3	116.8	11.50	11.158	
2,700.0	2,693.9	2,683.8	2,665.6	5.6	6.1	10.55	42.4	204.1	131.1	119.3	11.86	11.056	
2,800.0	2,792.0	2,783.7	2,763.2	5.7	6.3	11.22	47.2	225.2	134.0	121.8	12.23	10.958	
2,900.0	2,890.2	2,883.7	2,860.8	5.9	6.5	11.85	52.0	246.2	136.9	124.3	12.60	10.865	
3,000.0	2,988.4	2,983.6	2,958.3	6.1	6.7	12.46	56.8	267.3	139.8	126.8	12.97	10.776	
3,100.0	3,086.5	3,083.6	3,055.9	6.3	6.9	13.05	61.7	288.4	142.7	129.3	13.35	10.691	
3,200.0	3,184.7	3,183.5	3,153.5	6.4	7.1	13.61	66.5	309.5	145.6	131.9	13.72	10.610	
3,300.0	3,282.8	3,283.5	3,251.1	6.6	7.3	14.15	71.3	330.6	148.5	134.4	14.10	10.532	
3,400.0	3,381.0	3,383.4	3,348.7	6.8	7.5	14.67	76.2	351.7	151.5	137.0	14.49	10.458	
3,500.0	3,479.2	3,483.4	3,446.2	7.0	7.7	15.17	81.0	372.8	154.5	139.6	14.87	10.388	
3,600.0	3,577.3	3,583.3	3,543.8	7.2	7.9	15.65	85.8	393.8	157.4	142.2	15.25	10.321	
3,700.0	3,675.5	3,683.3	3,641.4	7.4	8.1	16.11	90.7	414.9	160.4	144.8	15.64	10.257	
3,800.0	3,773.7	3,783.2	3,739.0	7.5	8.3	16.56	95.5	436.0	163.4	147.4	16.03	10.196	
3,900.0	3,871.8	3,883.2	3,836.5	7.7	8.5	16.99	100.3	457.1	166.4	150.0	16.42	10.138	
4,000.0	3,970.0	3,983.1	3,934.1	7.9	8.7	17.40	105.1	478.2	169.4	152.6	16.80	10.083	
4,100.0	4,068.1	4,083.1	4,031.7	8.1	8.9	17.80	110.0	499.3	172.5	155.3	17.19	10.030	
4,200.0	4,166.3	4,183.0	4,129.3	8.3	9.1	18.19	114.8	520.4	175.5	157.9	17.58	9.979	
4,300.0	4,264.5	4,283.0	4,226.9	8.5	9.4	18.56	119.6	541.4	178.5	160.5	17.98	9.931	
4,400.0	4,362.6	4,382.9	4,324.4	8.7	9.6	18.92	124.5	562.5	181.6	163.2	18.37	9.885	
4,500.0	4,460.8	4,482.8	4,422.0	8.9	9.8	19.27	129.3	583.6	184.6	165.9	18.76	9.841	
4,600.0	4,559.0	4,582.8	4,519.6	9.1	10.0	19.61	134.1	604.7	187.7	168.5	19.15	9.799	
4,700.0	4,657.1	4,682.7	4,617.2	9.3	10.2	19.94	138.9	625.8	190.7	171.2	19.55	9.759	
4,800.0	4,755.3	4,782.7	4,714.8	9.5	10.4	20.25	143.8	646.9	193.8	173.9	19.94	9.720	
4,900.0	4,853.4	4,882.6	4,812.3	9.7	10.6	20.56	148.6	667.9	196.9	176.6	20.33	9.683	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 701H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 12028-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
5,000.0	4,951.6	4,982.6	4,909.9	9.9	10.8	20.85	153.4	689.0	200.0	179.2	20.73	9.648	
5,100.0	5,049.8	5,082.5	5,007.5	10.1	11.0	21.14	158.3	710.1	203.1	181.9	21.12	9.614	
5,200.0	5,147.9	5,182.5	5,105.1	10.3	11.3	21.42	163.1	731.2	206.2	184.6	21.52	9.582	
5,300.0	5,246.1	5,282.4	5,202.6	10.5	11.5	21.69	167.9	752.3	209.3	187.3	21.91	9.550	
5,400.0	5,344.3	5,382.4	5,300.2	10.7	11.7	21.96	172.8	773.4	212.4	190.0	22.30	9.521	
5,500.0	5,442.4	5,482.3	5,397.8	10.9	11.9	22.21	177.6	794.5	215.5	192.8	22.70	9.492	
5,569.0	5,510.1	5,551.3	5,465.1	11.0	12.0	22.38	180.9	809.0	217.6	194.6	22.95	9.480	
5,600.0	5,540.6	5,582.3	5,495.4	11.1	12.1	22.45	182.4	815.5	218.7	195.6	23.06	9.482	
5,700.0	5,639.2	5,682.1	5,592.9	11.3	12.3	22.51	187.2	836.6	223.8	200.3	23.48	9.531	
5,800.0	5,738.1	5,781.8	5,690.2	11.5	12.5	22.34	192.1	857.6	231.2	207.3	23.89	9.679	
5,900.0	5,837.4	5,884.9	5,791.0	11.7	12.9	21.98	196.9	878.7	240.5	216.1	24.43	9.845	
6,000.0	5,937.0	5,988.6	5,892.8	11.9	13.1	21.54	201.3	898.2	250.5	225.7	24.87	10.075	
6,100.0	6,036.8	6,092.5	5,995.0	12.1	13.3	21.04	205.4	915.9	261.3	236.0	25.26	10.341	
6,200.0	6,136.7	6,196.5	6,097.7	12.3	13.5	20.48	209.0	931.8	272.7	247.1	25.65	10.633	
6,300.0	6,236.7	6,300.6	6,200.8	12.4	13.7	19.89	212.3	945.9	284.9	258.9	25.97	10.971	
6,302.3	6,239.0	6,303.0	6,203.2	12.4	13.7	91.53	212.3	946.2	285.2	259.2	25.97	10.979	
6,400.0	6,336.7	6,405.0	6,304.5	12.4	13.9	90.94	215.1	958.2	296.6	270.3	26.23	11.305	
6,500.0	6,436.7	6,509.8	6,408.7	12.5	14.1	90.45	217.5	968.7	306.6	280.1	26.49	11.573	
6,600.0	6,536.7	6,615.0	6,513.6	12.6	14.3	90.08	219.5	977.3	314.8	288.1	26.73	11.775	
6,700.0	6,636.7	6,720.5	6,618.8	12.6	14.5	89.80	221.0	984.1	321.2	294.3	26.96	11.915	
6,800.0	6,736.7	6,826.2	6,724.4	12.7	14.7	89.60	222.2	989.1	325.9	298.7	27.17	11.993	
6,900.0	6,836.7	6,932.1	6,830.2	12.8	14.8	89.49	222.8	992.1	328.8	301.4	27.37	12.013	
7,000.0	6,936.7	7,038.0	6,936.2	12.8	14.9	89.44	223.1	993.2	329.8	302.3	27.51	11.987	
7,100.0	7,036.7	7,138.5	7,036.7	12.9	15.0	89.44	223.1	993.2	329.8	302.2	27.62	11.943	
7,200.0	7,136.7	7,238.5	7,136.7	13.0	15.0	89.44	223.1	993.2	329.8	302.1	27.74	11.891	
7,300.0	7,236.7	7,338.5	7,236.7	13.0	15.1	89.44	223.1	993.2	329.8	302.0	27.86	11.840	
7,400.0	7,336.7	7,438.5	7,336.7	13.1	15.1	89.44	223.1	993.2	329.8	301.8	27.98	11.789	
7,500.0	7,436.7	7,538.5	7,436.7	13.2	15.2	89.44	223.1	993.2	329.8	301.7	28.10	11.738	
7,600.0	7,536.7	7,638.5	7,536.7	13.3	15.2	89.44	223.1	993.2	329.8	301.6	28.22	11.687	
7,700.0	7,636.7	7,738.5	7,636.7	13.3	15.3	89.44	223.1	993.2	329.8	301.5	28.34	11.637	
7,800.0	7,736.7	7,838.5	7,736.7	13.4	15.4	89.44	223.1	993.2	329.8	301.4	28.46	11.587	
7,900.0	7,836.7	7,938.5	7,836.7	13.5	15.4	89.44	223.1	993.2	329.8	301.2	28.59	11.537	
8,000.0	7,936.7	8,038.5	7,936.7	13.5	15.5	89.44	223.1	993.2	329.8	301.1	28.71	11.487	
8,100.0	8,036.7	8,138.5	8,036.7	13.6	15.5	89.44	223.1	993.2	329.8	301.0	28.83	11.438	
8,200.0	8,136.7	8,238.5	8,136.7	13.7	15.6	89.44	223.1	993.2	329.8	300.9	28.96	11.389	
8,300.0	8,236.7	8,338.5	8,236.7	13.7	15.6	89.44	223.1	993.2	329.8	300.7	29.08	11.340	
8,400.0	8,336.7	8,438.5	8,336.7	13.8	15.7	89.44	223.1	993.2	329.8	300.6	29.21	11.292	
8,500.0	8,436.7	8,538.5	8,436.7	13.9	15.8	89.44	223.1	993.2	329.8	300.5	29.33	11.244	
8,600.0	8,536.7	8,638.5	8,536.7	14.0	15.8	89.44	223.1	993.2	329.8	300.4	29.46	11.196	
8,700.0	8,636.7	8,738.5	8,636.7	14.0	15.9	89.44	223.1	993.2	329.8	300.2	29.58	11.148	
8,800.0	8,736.7	8,838.5	8,736.7	14.1	15.9	89.44	223.1	993.2	329.8	300.1	29.71	11.101	
8,900.0	8,836.7	8,938.5	8,836.7	14.2	16.0	89.44	223.1	993.2	329.8	300.0	29.84	11.054	
9,000.0	8,936.7	9,038.5	8,936.7	14.2	16.1	89.44	223.1	993.2	329.8	299.9	29.96	11.007	
9,100.0	9,036.7	9,138.5	9,036.7	14.3	16.1	89.44	223.1	993.2	329.8	299.7	30.09	10.960	
9,200.0	9,136.7	9,238.5	9,136.7	14.4	16.2	89.44	223.1	993.2	329.8	299.6	30.22	10.914	
9,300.0	9,236.7	9,338.5	9,236.7	14.4	16.2	89.44	223.1	993.2	329.8	299.5	30.35	10.868	
9,400.0	9,336.7	9,438.5	9,336.7	14.5	16.3	89.44	223.1	993.2	329.8	299.3	30.48	10.822	
9,500.0	9,436.7	9,538.5	9,436.7	14.6	16.4	89.44	223.1	993.2	329.8	299.2	30.60	10.777	
9,600.0	9,536.7	9,638.5	9,536.7	14.7	16.4	89.44	223.1	993.2	329.8	299.1	30.73	10.732	
9,700.0	9,636.7	9,738.5	9,636.7	14.7	16.5	89.44	223.1	993.2	329.8	299.0	30.86	10.687	
9,800.0	9,736.7	9,838.5	9,736.7	14.8	16.5	89.44	223.1	993.2	329.8	298.8	30.99	10.642	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 701H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 12028-r.5 MWD+IFR1+SAG+FDIR — **Rule Assigned:** — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,900.0	9,836.7	9,938.5	9,836.7	14.9	16.6	89.44	223.1	993.2	329.8	298.7	31.12	10.598	
10,000.0	9,936.7	10,038.5	9,936.7	14.9	16.7	89.44	223.1	993.2	329.8	298.6	31.25	10.554	
10,100.0	10,036.7	10,138.5	10,036.7	15.0	16.7	89.44	223.1	993.2	329.8	298.4	31.38	10.510	
10,200.0	10,136.7	10,238.5	10,136.7	15.1	16.8	89.44	223.1	993.2	329.8	298.3	31.51	10.466	
10,300.0	10,236.7	10,338.5	10,236.7	15.2	16.8	89.44	223.1	993.2	329.8	298.2	31.64	10.423	
10,400.0	10,336.7	10,438.5	10,336.7	15.2	16.9	89.44	223.1	993.2	329.8	298.0	31.77	10.380	
10,500.0	10,436.7	10,538.5	10,436.7	15.3	17.0	89.44	223.1	993.2	329.8	297.9	31.91	10.337	
10,557.9	10,494.5	10,596.4	10,494.5	15.3	17.0	89.44	223.1	993.2	329.8	297.9	31.96	10.319	
10,575.0	10,511.7	10,613.5	10,511.7	15.3	17.0	-90.24	223.1	993.2	329.8	297.8	31.98	10.315	
10,600.0	10,536.6	10,638.5	10,536.6	15.3	17.0	-90.50	223.1	993.2	329.8	297.8	32.00	10.306	
10,625.0	10,561.4	10,663.3	10,561.4	15.3	17.0	-90.99	223.1	993.2	329.9	297.8	32.04	10.297	
10,650.0	10,586.1	10,688.0	10,586.1	15.4	17.1	-91.69	223.1	993.2	330.0	297.9	32.08	10.287	
10,675.0	10,610.5	10,712.3	10,610.5	15.4	17.1	-92.58	223.1	993.2	330.2	298.0	32.12	10.278	
10,700.0	10,634.6	10,736.4	10,634.6	15.4	17.1	-93.66	223.1	993.2	330.6	298.4	32.17	10.274	
10,725.0	10,658.3	10,760.1	10,658.3	15.4	17.1	-94.88	223.1	993.2	331.2	298.9	32.23	10.275	
10,750.0	10,681.5	10,783.4	10,681.5	15.4	17.1	-96.24	223.1	993.2	332.1	299.8	32.29	10.285	
10,775.0	10,704.3	10,806.1	10,704.3	15.4	17.1	-97.69	223.1	993.2	333.5	301.2	32.36	10.308	
10,800.0	10,726.4	10,828.3	10,726.4	15.4	17.1	-99.20	223.1	993.2	335.4	303.0	32.42	10.346	
10,825.0	10,747.9	10,849.8	10,747.9	15.4	17.2	-100.75	223.1	993.2	338.0	305.5	32.49	10.403	
10,850.0	10,768.8	10,870.6	10,768.8	15.4	17.2	-102.28	223.1	993.2	341.3	308.7	32.55	10.483	
10,875.0	10,788.9	10,890.7	10,788.9	15.4	17.2	-103.76	223.1	993.2	345.4	312.8	32.62	10.589	
10,900.0	10,808.1	10,910.0	10,808.1	15.5	17.2	-105.16	223.1	993.2	350.4	317.8	32.68	10.724	
10,925.0	10,826.5	10,928.4	10,826.5	15.5	17.2	-106.44	223.1	993.2	356.5	323.8	32.74	10.890	
10,950.0	10,844.0	10,945.9	10,844.0	15.5	17.2	-107.56	223.1	993.2	363.7	330.9	32.79	11.092	
10,975.0	10,860.6	10,962.5	10,860.6	15.5	17.2	-108.51	223.1	993.2	372.0	339.1	32.83	11.329	
11,000.0	10,876.1	10,978.0	10,876.1	15.6	17.2	-109.24	223.1	993.2	381.4	348.5	32.87	11.603	
11,025.0	10,890.6	10,992.5	10,890.6	15.6	17.3	-109.74	223.1	993.2	392.0	359.1	32.90	11.915	
11,050.0	10,904.0	11,005.9	10,904.0	15.6	17.3	-109.96	223.1	993.2	403.8	370.9	32.93	12.264	
11,075.0	10,916.3	11,018.2	10,916.3	15.6	17.3	-109.90	223.1	993.2	416.8	383.8	32.94	12.651	
11,100.0	10,927.5	11,029.3	10,927.5	15.7	17.3	-109.51	223.1	993.2	430.8	397.8	32.95	13.072	
11,125.0	10,937.4	11,039.3	10,937.4	15.7	17.3	-108.78	223.1	993.2	445.9	412.9	32.96	13.528	
11,150.0	10,946.1	11,048.0	10,946.1	15.7	17.3	-107.66	223.1	993.2	462.0	429.0	32.96	14.016	
11,175.0	10,953.6	11,055.5	10,953.6	15.8	17.3	-106.14	223.1	993.2	479.0	446.0	32.96	14.534	
11,200.0	10,959.9	11,061.7	10,959.9	15.8	17.3	-104.16	223.1	993.2	496.8	463.9	32.95	15.078	
11,225.0	10,964.8	11,066.7	10,964.8	15.9	17.3	-101.72	223.1	993.2	515.4	482.5	32.94	15.647	
11,250.0	10,968.5	11,070.4	10,968.5	15.9	17.3	-98.77	223.1	993.2	534.6	501.7	32.93	16.238	
11,275.0	10,970.9	11,072.7	10,970.9	15.9	17.3	-95.31	223.1	993.2	554.4	521.5	32.91	16.848	
11,300.0	10,971.9	11,073.8	10,971.9	16.0	17.3	-91.35	223.1	993.2	574.7	541.8	32.89	17.474	
11,307.9	10,972.0	11,073.9	10,972.0	16.0	17.3	-90.00	223.1	993.2	581.2	548.3	32.88	17.674	
11,400.0	10,972.0	11,073.9	10,972.0	16.2	17.3	-90.00	223.1	993.2	659.1	626.3	32.81	20.086	
11,500.0	10,972.0	11,073.9	10,972.0	16.5	17.3	-90.00	223.1	993.2	747.4	714.6	32.75	22.822	
11,600.0	10,972.0	11,073.9	10,972.0	16.7	17.3	-90.00	223.1	993.2	838.3	805.6	32.69	25.641	
11,700.0	10,972.0	11,073.9	10,972.0	17.1	17.3	-90.00	223.1	993.2	931.0	898.4	32.65	28.515	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR — **Rule Assigned:** — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.58	-0.2	-19.9	19.9				
100.0	100.0	100.0	100.0	0.6	0.6	-90.58	-0.2	-19.9	19.9	18.3	1.61	12.329	
200.0	200.0	200.0	200.0	1.1	1.1	-90.58	-0.2	-19.9	19.9	17.4	2.55	7.803	
300.0	300.0	300.0	300.0	1.4	1.4	-90.58	-0.2	-19.9	19.9	16.7	3.18	6.266	
400.0	400.0	400.0	400.0	1.7	1.7	-90.58	-0.2	-19.9	19.9	16.2	3.68	5.407	
500.0	500.0	500.0	500.0	1.9	1.9	-90.58	-0.2	-19.9	19.9	15.8	4.11	4.836	
600.0	600.0	600.0	600.0	2.1	2.1	-90.58	-0.2	-19.9	19.9	15.4	4.50	4.420	
700.0	700.0	700.0	700.0	2.3	2.3	-90.58	-0.2	-19.9	19.9	15.0	4.86	4.099	
800.0	800.0	800.0	800.0	2.5	2.5	-90.58	-0.2	-19.9	19.9	14.7	5.18	3.841	
900.0	900.0	900.0	900.0	2.7	2.7	-90.58	-0.2	-19.9	19.9	14.4	5.49	3.627	
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	-90.58	-0.2	-19.9	19.9	14.1	5.77	3.446	
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	-90.58	-0.2	-19.9	19.9	13.9	6.05	3.291	
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	-90.58	-0.2	-19.9	19.9	13.6	6.31	3.156	
1,300.0	1,300.0	1,300.4	1,300.4	3.4	3.5	-86.50	1.1	-18.8	18.8	12.2	6.61	2.845	Normal Operations
1,400.0	1,400.0	1,400.6	1,400.4	3.5	3.8	-71.41	5.2	-15.4	16.2	9.2	7.01	2.318	Caution - Monitor Closely
1,472.0	1,472.0	1,472.4	1,472.0	3.6	4.0	-50.00	9.7	-11.6	15.1	7.7	7.41	2.041	Caution - Monitor Closely, CC, ES
1,500.0	1,500.0	1,500.3	1,499.7	3.7	4.1	-39.59	11.8	-9.8	15.4	7.7	7.63	2.015	Caution - Monitor Closely, SF
1,600.0	1,600.0	1,599.2	1,597.9	3.8	4.4	-5.56	21.1	-2.0	21.3	12.8	8.44	2.520	Normal Operations
1,700.0	1,700.0	1,698.2	1,696.0	4.0	4.6	12.15	31.6	6.8	32.6	23.7	8.89	3.667	
1,800.0	1,800.0	1,797.5	1,794.2	4.1	4.8	22.48	41.4	17.1	45.1	35.9	9.24	4.883	
1,900.0	1,900.0	1,896.4	1,891.9	4.3	4.9	31.23	49.5	30.0	58.4	49.0	9.41	6.208	
2,000.0	2,000.0	1,995.1	1,989.5	4.4	5.1	37.07	57.3	43.3	72.6	63.0	9.67	7.514	
2,100.0	2,100.0	2,094.2	2,087.3	4.5	5.3	-31.14	65.2	56.7	85.8	75.8	9.99	8.589	
2,200.0	2,199.8	2,193.6	2,185.5	4.7	5.4	-29.61	73.1	70.1	96.2	85.8	10.41	9.246	
2,300.0	2,299.5	2,293.3	2,284.0	4.9	5.6	-29.32	81.0	83.5	103.6	92.8	10.83	9.567	
2,400.0	2,398.7	2,393.2	2,382.6	5.1	5.8	-29.99	89.0	97.0	108.0	96.7	11.26	9.590	
2,500.0	2,497.5	2,493.1	2,481.3	5.3	6.0	-31.56	96.9	110.4	109.4	97.7	11.69	9.360	
2,550.0	2,546.7	2,543.1	2,530.7	5.4	6.1	-32.71	100.9	117.2	109.0	97.2	11.84	9.211	
2,600.0	2,595.7	2,593.0	2,580.0	5.4	6.2	-34.00	104.9	123.9	108.3	96.3	11.98	9.043	
2,700.0	2,693.9	2,692.9	2,678.6	5.6	6.4	-36.61	112.8	137.4	107.1	94.8	12.34	8.682	
2,800.0	2,792.0	2,792.8	2,777.3	5.7	6.6	-39.27	120.8	150.8	106.1	93.4	12.69	8.363	
2,900.0	2,890.2	2,892.6	2,875.9	5.9	6.8	-41.98	128.7	164.3	105.4	92.3	13.03	8.083	
3,000.0	2,988.4	2,992.5	2,974.6	6.1	7.0	-44.72	136.6	177.7	104.8	91.5	13.37	7.840	
3,100.0	3,086.5	3,092.4	3,073.2	6.3	7.2	-47.48	144.6	191.2	104.6	90.9	13.70	7.632	
3,162.7	3,148.1	3,155.0	3,135.1	6.4	7.3	-49.22	149.6	199.6	104.5	90.6	13.90	7.517	
3,200.0	3,184.7	3,192.3	3,171.8	6.4	7.4	-50.25	152.5	204.7	104.5	90.5	14.02	7.455	
3,300.0	3,282.8	3,292.1	3,270.5	6.6	7.6	-53.02	160.5	218.1	104.7	90.4	14.33	7.308	
3,400.0	3,381.0	3,392.0	3,369.1	6.8	7.7	-55.77	168.4	231.6	105.2	90.6	14.64	7.188	
3,500.0	3,479.2	3,491.9	3,467.8	7.0	7.9	-58.49	176.3	245.0	105.9	91.0	14.93	7.093	
3,600.0	3,577.3	3,592.3	3,567.0	7.2	8.1	-61.25	184.2	258.4	106.7	91.6	15.17	7.037	
3,700.0	3,675.5	3,693.3	3,667.0	7.4	8.3	-64.62	191.4	270.6	106.9	91.4	15.42	6.929	
3,800.0	3,773.7	3,794.1	3,767.0	7.5	8.5	-68.74	197.7	281.2	106.4	90.8	15.65	6.799	
3,900.0	3,871.8	3,894.6	3,867.0	7.7	8.7	-73.71	203.1	290.3	105.6	89.8	15.84	6.671	
4,000.0	3,970.0	3,994.8	3,966.8	7.9	8.9	-79.57	207.5	297.9	105.0	89.0	15.99	6.568	
4,056.8	4,025.8	4,051.6	4,023.4	8.0	9.0	-83.30	209.7	301.5	104.9	88.8	16.06	6.530	
4,100.0	4,068.1	4,094.7	4,066.4	8.1	9.0	-86.32	211.1	303.9	104.9	88.8	16.11	6.515	
4,200.0	4,166.3	4,194.1	4,165.6	8.3	9.2	-93.87	213.8	308.5	106.1	89.9	16.23	6.536	
4,300.0	4,264.5	4,293.0	4,264.5	8.5	9.4	-101.99	215.5	311.5	109.0	92.7	16.39	6.652	
4,400.0	4,362.6	4,391.3	4,362.8	8.7	9.5	-110.35	216.5	313.1	114.3	97.7	16.63	6.876	
4,500.0	4,460.8	4,489.3	4,460.8	8.9	9.6	-118.50	216.6	313.3	122.3	105.4	16.89	7.239	
4,600.0	4,559.0	4,587.5	4,559.0	9.1	9.7	-125.68	216.6	313.3	132.6	115.3	17.26	7.681	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
4,700.0	4,657.1	4,685.6	4,657.1	9.3	9.7	-131.76	216.6	313.3	144.7	127.0	17.67	8.189	
4,800.0	4,755.3	4,783.8	4,755.3	9.5	9.8	-136.88	216.6	313.3	158.2	140.1	18.08	8.749	
4,900.0	4,853.4	4,881.9	4,853.4	9.7	9.9	-141.18	216.6	313.3	172.7	154.2	18.48	9.344	
5,000.0	4,951.6	4,980.1	4,951.6	9.9	10.0	-144.81	216.6	313.3	188.0	169.2	18.87	9.962	
5,100.0	5,049.8	5,078.3	5,049.8	10.1	10.1	-147.88	216.6	313.3	204.0	184.8	19.26	10.595	
5,200.0	5,147.9	5,176.4	5,147.9	10.3	10.2	-150.51	216.6	313.3	220.5	200.9	19.63	11.234	
5,300.0	5,246.1	5,274.6	5,246.1	10.5	10.3	-152.77	216.6	313.3	237.3	217.4	19.99	11.876	
5,400.0	5,344.3	5,372.8	5,344.3	10.7	10.4	-154.73	216.6	313.3	254.5	234.2	20.34	12.515	
5,500.0	5,442.4	5,470.9	5,442.4	10.9	10.4	-156.44	216.6	313.3	272.0	251.3	20.68	13.150	
5,569.0	5,510.1	5,538.6	5,510.1	11.0	10.5	-157.50	216.6	313.3	284.1	263.2	20.90	13.596	
5,600.0	5,540.6	5,569.1	5,540.6	11.1	10.5	-157.97	216.6	313.3	289.5	268.5	20.98	13.795	
5,700.0	5,639.2	5,667.6	5,639.2	11.3	10.6	-159.25	216.6	313.3	305.3	284.0	21.32	14.319	
5,800.0	5,738.1	5,766.6	5,738.1	11.5	10.7	-160.23	216.6	313.3	318.9	297.2	21.65	14.729	
5,900.0	5,837.4	5,865.9	5,837.4	11.7	10.8	-160.98	216.6	313.3	330.0	308.1	21.96	15.028	
6,000.0	5,937.0	5,965.5	5,937.0	11.9	10.9	-161.53	216.6	313.3	338.7	316.5	22.26	15.219	
6,100.0	6,036.8	6,065.2	6,036.8	12.1	11.0	-161.91	216.6	313.3	345.0	322.5	22.54	15.305	
6,200.0	6,136.7	6,165.2	6,136.7	12.3	11.1	-162.13	216.6	313.3	348.8	326.0	22.81	15.293	
6,300.0	6,236.7	6,265.2	6,236.7	12.4	11.1	-162.20	216.6	313.3	350.1	327.1	23.01	15.218	
6,302.3	6,239.0	6,267.5	6,239.0	12.4	11.1	-90.54	216.6	313.3	350.1	327.1	23.01	15.215	
6,400.0	6,336.7	6,365.2	6,336.7	12.4	11.2	-90.54	216.6	313.3	350.1	327.0	23.16	15.119	
6,500.0	6,436.7	6,465.2	6,436.7	12.5	11.3	-90.54	216.6	313.3	350.1	326.8	23.31	15.020	
6,600.0	6,536.7	6,565.2	6,536.7	12.6	11.4	-90.54	216.6	313.3	350.1	326.7	23.46	14.922	
6,700.0	6,636.7	6,665.2	6,636.7	12.6	11.5	-90.54	216.6	313.3	350.1	326.5	23.61	14.826	
6,800.0	6,736.7	6,765.2	6,736.7	12.7	11.6	-90.54	216.6	313.3	350.1	326.3	23.77	14.731	
6,900.0	6,836.7	6,865.2	6,836.7	12.8	11.7	-90.54	216.6	313.3	350.1	326.2	23.92	14.637	
7,000.0	6,936.7	6,965.2	6,936.7	12.8	11.7	-90.54	216.6	313.3	350.1	326.0	24.07	14.544	
7,100.0	7,036.7	7,065.2	7,036.7	12.9	11.8	-90.54	216.6	313.3	350.1	325.9	24.23	14.452	
7,200.0	7,136.7	7,165.2	7,136.7	13.0	11.9	-90.54	216.6	313.3	350.1	325.7	24.38	14.361	
7,300.0	7,236.7	7,265.2	7,236.7	13.0	12.0	-90.54	216.6	313.3	350.1	325.6	24.53	14.271	
7,400.0	7,336.7	7,365.2	7,336.7	13.1	12.1	-90.54	216.6	313.3	350.1	325.4	24.69	14.183	
7,500.0	7,436.7	7,465.2	7,436.7	13.2	12.2	-90.54	216.6	313.3	350.1	325.3	24.84	14.095	
7,600.0	7,536.7	7,565.2	7,536.7	13.3	12.3	-90.54	216.6	313.3	350.1	325.1	24.99	14.008	
7,700.0	7,636.7	7,665.2	7,636.7	13.3	12.4	-90.54	216.6	313.3	350.1	325.0	25.15	13.923	
7,800.0	7,736.7	7,765.2	7,736.7	13.4	12.4	-90.54	216.6	313.3	350.1	324.8	25.30	13.838	
7,900.0	7,836.7	7,865.2	7,836.7	13.5	12.5	-90.54	216.6	313.3	350.1	324.7	25.45	13.754	
8,000.0	7,936.7	7,965.2	7,936.7	13.5	12.6	-90.54	216.6	313.3	350.1	324.5	25.61	13.672	
8,100.0	8,036.7	8,065.2	8,036.7	13.6	12.7	-90.54	216.6	313.3	350.1	324.4	25.76	13.590	
8,200.0	8,136.7	8,165.2	8,136.7	13.7	12.8	-90.54	216.6	313.3	350.1	324.2	25.92	13.509	
8,300.0	8,236.7	8,265.2	8,236.7	13.7	12.9	-90.54	216.6	313.3	350.1	324.0	26.07	13.429	
8,400.0	8,336.7	8,365.2	8,336.7	13.8	13.0	-90.54	216.6	313.3	350.1	323.9	26.23	13.350	
8,500.0	8,436.7	8,465.2	8,436.7	13.9	13.0	-90.54	216.6	313.3	350.1	323.7	26.38	13.272	
8,600.0	8,536.7	8,565.2	8,536.7	14.0	13.1	-90.54	216.6	313.3	350.1	323.6	26.53	13.195	
8,700.0	8,636.7	8,665.2	8,636.7	14.0	13.2	-90.54	216.6	313.3	350.1	323.4	26.69	13.119	
8,800.0	8,736.7	8,765.2	8,736.7	14.1	13.3	-90.54	216.6	313.3	350.1	323.3	26.84	13.043	
8,900.0	8,836.7	8,865.2	8,836.7	14.2	13.4	-90.54	216.6	313.3	350.1	323.1	27.00	12.968	
9,000.0	8,936.7	8,965.2	8,936.7	14.2	13.5	-90.54	216.6	313.3	350.1	323.0	27.15	12.894	
9,100.0	9,036.7	9,065.2	9,036.7	14.3	13.6	-90.54	216.6	313.3	350.1	322.8	27.31	12.821	
9,200.0	9,136.7	9,165.2	9,136.7	14.4	13.6	-90.54	216.6	313.3	350.1	322.7	27.46	12.749	
9,300.0	9,236.7	9,265.2	9,236.7	14.4	13.7	-90.54	216.6	313.3	350.1	322.5	27.62	12.677	
9,400.0	9,336.7	9,365.2	9,336.7	14.5	13.8	-90.54	216.6	313.3	350.1	322.3	27.77	12.607	
9,500.0	9,436.7	9,465.2	9,436.7	14.6	13.9	-90.54	216.6	313.3	350.1	322.2	27.93	12.537	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR — **Rule Assigned:** — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,600.0	9,536.7	9,565.2	9,536.7	14.7	14.0	-90.54	216.6	313.3	350.1	322.0	28.08	12.467	
9,700.0	9,636.7	9,665.2	9,636.7	14.7	14.1	-90.54	216.6	313.3	350.1	321.9	28.24	12.399	
9,800.0	9,736.7	9,765.2	9,736.7	14.8	14.2	-90.54	216.6	313.3	350.1	321.7	28.39	12.331	
9,900.0	9,836.7	9,865.2	9,836.7	14.9	14.2	-90.54	216.6	313.3	350.1	321.6	28.55	12.264	
10,000.0	9,936.7	9,965.2	9,936.7	14.9	14.3	-90.54	216.6	313.3	350.1	321.4	28.70	12.197	
10,100.0	10,036.7	10,065.2	10,036.7	15.0	14.4	-90.54	216.6	313.3	350.1	321.3	28.86	12.132	
10,200.0	10,136.7	10,165.2	10,136.7	15.1	14.5	-90.54	216.6	313.3	350.1	321.1	29.01	12.067	
10,300.0	10,236.7	10,265.2	10,236.7	15.2	14.6	-90.54	216.6	313.3	350.1	320.9	29.17	12.002	
10,400.0	10,336.7	10,365.2	10,336.7	15.2	14.7	-90.54	216.6	313.3	350.1	320.8	29.33	11.939	
10,500.0	10,436.7	10,465.2	10,436.7	15.3	14.8	-90.54	216.6	313.3	350.1	320.6	29.48	11.876	
10,557.9	10,494.5	10,523.0	10,494.5	15.3	14.8	-90.54	216.6	313.3	350.1	320.6	29.55	11.848	
10,575.0	10,511.7	10,540.2	10,511.7	15.3	14.8	89.88	216.6	313.3	350.1	320.6	29.56	11.842	
10,589.0	10,525.7	10,554.2	10,525.7	15.3	14.8	90.00	216.6	313.3	350.1	320.5	29.57	11.838	
10,600.0	10,536.6	10,565.1	10,536.6	15.3	14.8	90.14	216.6	313.3	350.1	320.5	29.58	11.836	
10,625.0	10,561.4	10,589.9	10,561.4	15.3	14.9	90.60	216.6	313.3	350.1	320.5	29.59	11.833	
10,650.0	10,586.1	10,614.6	10,586.1	15.4	14.9	91.26	216.6	313.3	350.2	320.6	29.59	11.835	
10,675.0	10,610.5	10,639.0	10,610.5	15.4	14.9	92.11	216.6	313.3	350.4	320.8	29.58	11.843	
10,700.0	10,634.6	10,663.1	10,634.6	15.4	14.9	93.12	216.6	313.3	350.7	321.1	29.57	11.859	
10,725.0	10,658.3	10,686.8	10,658.3	15.4	14.9	94.29	216.6	313.3	351.2	321.7	29.55	11.886	
10,750.0	10,681.5	10,710.0	10,681.5	15.4	15.0	95.57	216.6	313.3	352.1	322.6	29.52	11.926	
10,775.0	10,704.3	10,732.7	10,704.3	15.4	15.0	96.95	216.6	313.3	353.3	323.8	29.49	11.982	
10,800.0	10,726.4	10,754.9	10,726.4	15.4	15.0	98.39	216.6	313.3	355.1	325.6	29.45	12.058	
10,825.0	10,747.9	10,776.4	10,747.9	15.4	15.0	99.86	216.6	313.3	357.4	328.0	29.40	12.156	
10,850.0	10,768.8	10,797.3	10,768.8	15.4	15.0	101.32	216.6	313.3	360.4	331.1	29.35	12.279	
10,875.0	10,788.9	10,817.3	10,788.9	15.4	15.1	102.73	216.6	313.3	364.2	334.9	29.30	12.432	
10,900.0	10,808.1	10,836.6	10,808.1	15.5	15.1	104.07	216.6	313.3	369.0	339.7	29.25	12.615	
10,925.0	10,826.5	10,855.0	10,826.5	15.5	15.1	105.30	216.6	313.3	374.6	345.4	29.19	12.832	
10,950.0	10,844.0	10,872.5	10,844.0	15.5	15.1	106.39	216.6	313.3	381.3	352.2	29.14	13.085	
10,975.0	10,860.6	10,889.1	10,860.6	15.5	15.1	107.30	216.6	313.3	389.2	360.1	29.10	13.374	
11,000.0	10,876.1	10,904.6	10,876.1	15.6	15.1	108.02	216.6	313.3	398.1	369.0	29.06	13.701	
11,025.0	10,890.6	10,919.1	10,890.6	15.6	15.1	108.50	216.6	313.3	408.2	379.2	29.02	14.065	
11,050.0	10,904.0	10,932.5	10,904.0	15.6	15.2	108.73	216.6	313.3	419.4	390.4	28.99	14.467	
11,075.0	10,916.3	10,944.8	10,916.3	15.6	15.2	108.69	216.6	313.3	431.8	402.8	28.97	14.905	
11,100.0	10,927.5	10,956.0	10,927.5	15.7	15.2	108.33	216.6	313.3	445.2	416.3	28.95	15.378	
11,125.0	10,937.4	10,965.9	10,937.4	15.7	15.2	107.65	216.6	313.3	459.8	430.8	28.94	15.884	
11,150.0	10,946.1	10,974.6	10,946.1	15.7	15.2	106.60	216.6	313.3	475.3	446.3	28.94	16.422	
11,175.0	10,953.6	10,982.1	10,953.6	15.8	15.2	105.16	216.6	313.3	491.7	462.8	28.94	16.990	
11,200.0	10,959.9	10,988.4	10,959.9	15.8	15.2	103.30	216.6	313.3	509.0	480.1	28.95	17.584	
11,225.0	10,964.8	10,993.3	10,964.8	15.9	15.2	101.00	216.6	313.3	527.1	498.1	28.96	18.202	
11,250.0	10,968.5	10,997.0	10,968.5	15.9	15.2	98.23	216.6	313.3	545.8	516.8	28.97	18.843	
11,275.0	10,970.9	10,999.4	10,970.9	15.9	15.2	94.98	216.6	313.3	565.1	536.1	28.98	19.502	
11,300.0	10,971.9	11,000.4	10,971.9	16.0	15.2	91.26	216.6	313.3	584.9	555.9	28.99	20.177	
11,307.9	10,972.0	11,000.5	10,972.0	16.0	15.2	90.00	216.6	313.3	591.2	562.3	28.99	20.393	
11,400.0	10,972.0	11,000.5	10,972.0	16.2	15.2	90.00	216.6	313.3	667.7	638.7	29.05	22.986	
11,500.0	10,972.0	11,000.5	10,972.0	16.5	15.2	90.00	216.6	313.3	754.7	725.6	29.12	25.916	
11,600.0	10,972.0	11,000.5	10,972.0	16.7	15.2	90.00	216.6	313.3	844.6	815.4	29.19	28.929	
11,700.0	10,972.0	11,000.5	10,972.0	17.1	15.2	90.00	216.6	313.3	936.5	907.2	29.27	31.998	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 703H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 11926-r.5 MWD+IFR1+SAG+FDIR — **Rule Assigned:** — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.48	-0.5	-60.0	60.0				
100.0	100.0	99.0	99.0	0.6	0.6	-90.48	-0.5	-60.0	60.0	58.1	1.94	30.980	
200.0	200.0	199.0	199.0	1.1	1.0	-90.48	-0.5	-60.0	60.0	57.1	2.87	20.879	
300.0	300.0	299.0	299.0	1.4	1.4	-90.48	-0.5	-60.0	60.0	56.5	3.50	17.139	
400.0	400.0	399.0	399.0	1.7	1.7	-90.48	-0.5	-60.0	60.0	56.0	4.01	14.978	
500.0	500.0	499.0	499.0	1.9	1.9	-90.48	-0.5	-60.0	60.0	55.6	4.44	13.512	
600.0	600.0	599.0	599.0	2.1	2.1	-90.48	-0.5	-60.0	60.0	55.2	4.83	12.427	
700.0	700.0	699.0	699.0	2.3	2.3	-90.48	-0.5	-60.0	60.0	54.8	5.18	11.580	
800.0	800.0	799.0	799.0	2.5	2.5	-90.48	-0.5	-60.0	60.0	54.5	5.51	10.893	
900.0	900.0	899.0	899.0	2.7	2.7	-90.48	-0.5	-60.0	60.0	54.2	5.81	10.321	
1,000.0	1,000.0	999.0	999.0	2.9	2.9	-90.48	-0.5	-60.0	60.0	53.9	6.10	9.835	
1,100.0	1,100.0	1,099.0	1,099.0	3.1	3.1	-90.48	-0.5	-60.0	60.0	53.6	6.37	9.414	
1,200.0	1,200.0	1,199.0	1,199.0	3.2	3.2	-90.48	-0.5	-60.0	60.0	53.4	6.63	9.046	
1,300.0	1,300.0	1,299.0	1,299.0	3.4	3.4	-90.48	-0.5	-60.0	60.0	53.1	6.88	8.719	
1,400.0	1,400.0	1,399.0	1,399.0	3.5	3.5	-90.48	-0.5	-60.0	60.0	52.9	7.12	8.426	
1,500.0	1,500.0	1,499.0	1,499.0	3.7	3.7	-90.48	-0.5	-60.0	60.0	52.7	7.35	8.163	
1,600.0	1,600.0	1,599.0	1,599.0	3.8	3.8	-90.48	-0.5	-60.0	60.0	52.6	7.42	8.090	
1,700.0	1,700.0	1,699.0	1,699.0	4.0	4.0	-90.48	-0.5	-60.0	60.0	52.4	7.63	7.862	
1,800.0	1,800.0	1,799.0	1,799.0	4.1	4.1	-90.48	-0.5	-60.0	60.0	52.2	7.84	7.653	
1,900.0	1,900.0	1,899.0	1,899.0	4.3	4.3	-90.48	-0.5	-60.0	60.0	52.0	8.04	7.460	
2,000.0	2,000.0	1,999.0	1,999.0	4.4	4.4	-90.48	-0.5	-60.0	60.0	51.8	8.24	7.281	CC, ES
2,100.0	2,100.0	2,099.0	2,099.0	4.5	4.6	-162.63	-0.5	-60.0	61.7	53.0	8.64	7.135	SF
2,200.0	2,199.8	2,198.8	2,198.8	4.7	4.8	-163.94	-0.5	-60.0	66.7	57.6	9.11	7.319	
2,300.0	2,299.5	2,296.5	2,296.5	4.9	5.0	-164.87	0.5	-61.3	76.3	66.7	9.62	7.937	
2,400.0	2,398.7	2,393.2	2,393.1	5.1	5.2	-164.69	3.5	-65.1	91.9	81.8	10.09	9.100	
2,500.0	2,497.5	2,488.3	2,487.8	5.3	5.4	-163.88	8.5	-71.4	113.2	102.6	10.55	10.728	
2,550.0	2,546.7	2,535.2	2,534.4	5.4	5.4	-163.36	11.6	-75.4	126.0	115.3	10.65	11.829	
2,600.0	2,595.7	2,582.7	2,581.6	5.4	5.4	-162.88	15.2	-79.9	139.6	128.9	10.73	13.015	
2,700.0	2,693.9	2,678.9	2,677.1	5.6	5.6	-162.13	22.4	-89.1	167.1	156.0	11.03	15.144	
2,800.0	2,792.0	2,775.0	2,772.5	5.7	5.7	-161.59	29.6	-98.4	194.5	183.2	11.35	17.137	
2,900.0	2,890.2	2,871.2	2,867.9	5.9	5.9	-161.18	36.9	-107.6	222.0	210.3	11.67	19.016	
3,000.0	2,988.4	2,967.3	2,963.3	6.1	6.0	-160.86	44.1	-116.8	249.4	237.4	12.00	20.792	
3,100.0	3,086.5	3,063.5	3,058.8	6.3	6.2	-160.61	51.4	-126.0	276.9	264.6	12.32	22.470	
3,200.0	3,184.7	3,159.6	3,154.2	6.4	6.3	-160.40	58.6	-135.2	304.4	291.7	12.65	24.060	
3,300.0	3,282.8	3,255.8	3,249.6	6.6	6.5	-160.23	65.8	-144.5	331.9	318.9	12.98	25.565	
3,400.0	3,381.0	3,351.9	3,345.1	6.8	6.6	-160.08	73.1	-153.7	359.3	346.0	13.31	26.993	
3,500.0	3,479.2	3,448.1	3,440.5	7.0	6.8	-159.95	80.3	-162.9	386.8	373.2	13.64	28.349	
3,600.0	3,577.3	3,544.2	3,535.9	7.2	6.9	-159.84	87.6	-172.1	414.3	400.3	13.98	29.637	
3,700.0	3,675.5	3,640.3	3,631.3	7.4	7.1	-159.75	94.8	-181.3	441.8	427.5	14.31	30.863	
3,800.0	3,773.7	3,736.5	3,726.8	7.5	7.3	-159.66	102.0	-190.5	469.3	454.6	14.65	32.030	
3,900.0	3,871.8	3,832.6	3,822.2	7.7	7.4	-159.59	109.3	-199.8	496.8	481.8	14.99	33.142	
4,000.0	3,970.0	3,928.8	3,917.6	7.9	7.6	-159.52	116.5	-209.0	524.2	508.9	15.33	34.203	
4,100.0	4,068.1	4,024.9	4,013.1	8.1	7.7	-159.46	123.7	-218.2	551.7	536.1	15.67	35.215	
4,200.0	4,166.3	4,121.1	4,108.5	8.3	7.9	-159.41	131.0	-227.4	579.2	563.2	16.01	36.183	
4,300.0	4,264.5	4,217.2	4,203.9	8.5	8.1	-159.36	138.2	-236.6	606.7	590.4	16.35	37.109	
4,400.0	4,362.6	4,313.4	4,299.3	8.7	8.2	-159.31	145.5	-245.8	634.2	617.5	16.69	37.994	
4,500.0	4,460.8	4,409.5	4,394.8	8.9	8.4	-159.27	152.7	-255.1	661.7	644.7	17.04	38.842	
4,600.0	4,559.0	4,505.7	4,490.2	9.1	8.6	-159.23	159.9	-264.3	689.2	671.8	17.38	39.655	
4,700.0	4,657.1	4,601.8	4,585.6	9.3	8.7	-159.19	167.2	-273.5	716.7	699.0	17.72	40.435	
4,800.0	4,755.3	4,698.0	4,681.1	9.5	8.9	-159.16	174.4	-282.7	744.2	726.1	18.07	41.184	
4,900.0	4,853.4	4,794.1	4,776.5	9.7	9.1	-159.13	181.7	-291.9	771.7	753.2	18.42	41.889	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 703H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 11926-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
5,000.0	4,951.6	4,901.0	4,882.7	9.9	9.3	-159.14	189.2	-301.6	798.6	779.8	18.79	42.492	
5,100.0	5,049.8	5,010.2	4,991.4	10.1	9.5	-159.23	195.7	-309.8	824.0	804.9	19.17	42.982	
5,200.0	5,147.9	5,120.2	5,101.1	10.3	9.6	-159.40	200.9	-316.4	848.0	828.4	19.55	43.386	
5,300.0	5,246.1	5,231.0	5,211.6	10.5	9.8	-159.64	204.8	-321.4	870.4	850.5	19.91	43.711	
5,400.0	5,344.3	5,342.4	5,323.0	10.7	10.0	-159.96	207.5	-324.8	891.4	871.1	20.27	43.967	
5,500.0	5,442.4	5,454.4	5,435.0	10.9	10.2	-160.35	208.8	-326.4	910.9	890.2	20.62	44.172	
5,569.0	5,510.1	5,528.6	5,509.1	11.0	10.2	-160.64	208.9	-326.6	923.4	902.6	20.82	44.351	
5,600.0	5,540.6	5,559.0	5,539.6	11.1	10.3	-160.79	208.9	-326.6	928.9	908.0	20.89	44.462	
5,700.0	5,639.2	5,657.6	5,638.2	11.3	10.3	-161.21	208.9	-326.6	945.0	923.8	21.19	44.597	
5,800.0	5,738.1	5,756.5	5,737.1	11.5	10.4	-161.55	208.9	-326.6	958.7	937.2	21.49	44.620	
5,900.0	5,837.4	5,855.8	5,836.4	11.7	10.5	-161.82	208.9	-326.6	969.9	948.1	21.78	44.542	
6,000.0	5,937.0	5,955.4	5,936.0	11.9	10.6	-162.03	208.9	-326.6	978.7	956.6	22.06	44.369	
6,100.0	6,036.8	6,055.2	6,035.8	12.1	10.7	-162.18	208.9	-326.6	985.0	962.6	22.33	44.108	
6,200.0	6,136.7	6,155.1	6,135.7	12.3	10.8	-162.27	208.9	-326.6	988.8	966.2	22.59	43.768	
6,300.0	6,236.7	6,255.1	6,235.7	12.4	10.9	-162.30	208.9	-326.6	990.1	967.3	22.79	43.449	
6,302.3	6,239.0	6,257.4	6,238.0	12.4	10.9	-90.64	208.9	-326.6	990.1	967.3	22.79	43.440	
6,400.0	6,336.7	6,355.1	6,335.7	12.4	10.9	-90.64	208.9	-326.6	990.1	967.1	22.94	43.163	
6,500.0	6,436.7	6,455.1	6,435.7	12.5	11.0	-90.64	208.9	-326.6	990.1	967.0	23.09	42.879	
6,600.0	6,536.7	6,555.1	6,535.7	12.6	11.1	-90.64	208.9	-326.6	990.1	966.8	23.24	42.598	
6,700.0	6,636.7	6,655.1	6,635.7	12.6	11.2	-90.64	208.9	-326.6	990.1	966.7	23.39	42.320	
6,800.0	6,736.7	6,755.1	6,735.7	12.7	11.3	-90.64	208.9	-326.6	990.1	966.5	23.55	42.046	
6,900.0	6,836.7	6,855.1	6,835.7	12.8	11.4	-90.64	208.9	-326.6	990.1	966.4	23.70	41.775	
7,000.0	6,936.7	6,955.1	6,935.7	12.8	11.5	-90.64	208.9	-326.6	990.1	966.2	23.85	41.508	
7,100.0	7,036.7	7,055.1	7,035.7	12.9	11.5	-90.64	208.9	-326.6	990.1	966.1	24.01	41.244	
7,200.0	7,136.7	7,155.1	7,135.7	13.0	11.6	-90.64	208.9	-326.6	990.1	965.9	24.16	40.983	
7,300.0	7,236.7	7,255.1	7,235.7	13.0	11.7	-90.64	208.9	-326.6	990.1	965.8	24.31	40.725	
7,400.0	7,336.7	7,355.1	7,335.7	13.1	11.8	-90.64	208.9	-326.6	990.1	965.6	24.46	40.470	
7,500.0	7,436.7	7,455.1	7,435.7	13.2	11.9	-90.64	208.9	-326.6	990.1	965.4	24.62	40.218	
7,600.0	7,536.7	7,555.1	7,535.7	13.3	12.0	-90.64	208.9	-326.6	990.1	965.3	24.77	39.969	
7,700.0	7,636.7	7,655.1	7,635.7	13.3	12.1	-90.64	208.9	-326.6	990.1	965.1	24.92	39.723	
7,800.0	7,736.7	7,755.1	7,735.7	13.4	12.1	-90.64	208.9	-326.6	990.1	965.0	25.08	39.480	
7,900.0	7,836.7	7,855.1	7,835.7	13.5	12.2	-90.64	208.9	-326.6	990.1	964.8	25.23	39.239	
8,000.0	7,936.7	7,955.1	7,935.7	13.5	12.3	-90.64	208.9	-326.6	990.1	964.7	25.39	39.002	
8,100.0	8,036.7	8,055.1	8,035.7	13.6	12.4	-90.64	208.9	-326.6	990.1	964.5	25.54	38.767	
8,200.0	8,136.7	8,155.1	8,135.7	13.7	12.5	-90.64	208.9	-326.6	990.1	964.4	25.69	38.534	
8,300.0	8,236.7	8,255.1	8,235.7	13.7	12.6	-90.64	208.9	-326.6	990.1	964.2	25.85	38.305	
8,400.0	8,336.7	8,355.1	8,335.7	13.8	12.7	-90.64	208.9	-326.6	990.1	964.1	26.00	38.078	
8,500.0	8,436.7	8,455.1	8,435.7	13.9	12.7	-90.64	208.9	-326.6	990.1	963.9	26.16	37.853	
8,600.0	8,536.7	8,555.1	8,535.7	14.0	12.8	-90.64	208.9	-326.6	990.1	963.8	26.31	37.631	
8,700.0	8,636.7	8,655.1	8,635.7	14.0	12.9	-90.64	208.9	-326.6	990.1	963.6	26.46	37.412	
8,800.0	8,736.7	8,755.1	8,735.7	14.1	13.0	-90.64	208.9	-326.6	990.1	963.4	26.62	37.195	
8,900.0	8,836.7	8,855.1	8,835.7	14.2	13.1	-90.64	208.9	-326.6	990.1	963.3	26.77	36.980	
9,000.0	8,936.7	8,955.1	8,935.7	14.2	13.2	-90.64	208.9	-326.6	990.1	963.1	26.93	36.768	
9,100.0	9,036.7	9,055.1	9,035.7	14.3	13.2	-90.64	208.9	-326.6	990.1	963.0	27.08	36.558	
9,200.0	9,136.7	9,155.1	9,135.7	14.4	13.3	-90.64	208.9	-326.6	990.1	962.8	27.24	36.350	
9,300.0	9,236.7	9,255.1	9,235.7	14.4	13.4	-90.64	208.9	-326.6	990.1	962.7	27.39	36.145	
9,400.0	9,336.7	9,355.1	9,335.7	14.5	13.5	-90.64	208.9	-326.6	990.1	962.5	27.55	35.942	
9,500.0	9,436.7	9,455.1	9,435.7	14.6	13.6	-90.64	208.9	-326.6	990.1	962.4	27.70	35.741	
9,600.0	9,536.7	9,555.1	9,535.7	14.7	13.7	-90.64	208.9	-326.6	990.1	962.2	27.86	35.542	
9,700.0	9,636.7	9,655.1	9,635.7	14.7	13.8	-90.64	208.9	-326.6	990.1	962.0	28.01	35.345	
9,800.0	9,736.7	9,755.1	9,735.7	14.8	13.8	-90.64	208.9	-326.6	990.1	961.9	28.17	35.150	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 703H - OWB - PWP1

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 11926-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,900.0	9,836.7	9,855.1	9,835.7	14.9	13.9	-90.64	208.9	-326.6	990.1	961.7	28.32	34.958	
10,000.0	9,936.7	9,955.1	9,935.7	14.9	14.0	-90.64	208.9	-326.6	990.1	961.6	28.48	34.767	
10,100.0	10,036.7	10,055.1	10,035.7	15.0	14.1	-90.64	208.9	-326.6	990.1	961.4	28.63	34.578	
10,200.0	10,136.7	10,155.1	10,135.7	15.1	14.2	-90.64	208.9	-326.6	990.1	961.3	28.79	34.392	
10,300.0	10,236.7	10,255.1	10,235.7	15.2	14.3	-90.64	208.9	-326.6	990.1	961.1	28.94	34.207	
10,400.0	10,336.7	10,355.1	10,335.7	15.2	14.3	-90.64	208.9	-326.6	990.1	961.0	29.10	34.024	
10,500.0	10,436.7	10,455.1	10,435.7	15.3	14.4	-90.64	208.9	-326.6	990.1	960.8	29.25	33.843	
10,557.9	10,494.5	10,513.0	10,493.5	15.3	14.5	-90.64	208.9	-326.6	990.1	960.7	29.32	33.765	
10,575.0	10,511.7	10,530.1	10,510.7	15.3	14.5	89.75	208.9	-326.6	990.1	960.7	29.34	33.747	
10,600.0	10,536.6	10,555.0	10,535.6	15.3	14.5	89.84	208.9	-326.6	990.1	960.7	29.36	33.721	
10,623.9	10,560.4	10,578.8	10,559.4	15.3	14.5	90.00	208.9	-326.6	990.1	960.7	29.38	33.697	
10,625.0	10,561.4	10,579.9	10,560.4	15.3	14.5	90.01	208.9	-326.6	990.1	960.7	29.38	33.696	
10,650.0	10,586.1	10,604.5	10,585.1	15.4	14.6	90.24	208.9	-326.6	990.1	960.7	29.40	33.673	
10,675.0	10,610.5	10,628.9	10,609.5	15.4	14.6	90.55	208.9	-326.6	990.1	960.7	29.42	33.652	
10,700.0	10,634.6	10,653.0	10,633.6	15.4	14.6	90.91	208.9	-326.6	990.2	960.7	29.44	33.634	
10,725.0	10,658.3	10,676.7	10,657.3	15.4	14.6	91.33	208.9	-326.6	990.4	960.9	29.46	33.620	
10,750.0	10,681.5	10,699.9	10,680.5	15.4	14.6	91.79	208.9	-326.6	990.6	961.1	29.47	33.611	
10,775.0	10,704.3	10,722.7	10,703.3	15.4	14.7	92.28	208.9	-326.6	991.0	961.5	29.49	33.607	
10,800.0	10,726.4	10,744.8	10,725.4	15.4	14.7	92.81	208.9	-326.6	991.6	962.1	29.50	33.610	
10,825.0	10,747.9	10,766.4	10,746.9	15.4	14.7	93.34	208.9	-326.6	992.4	962.9	29.52	33.621	
10,850.0	10,768.8	10,787.2	10,767.8	15.4	14.7	93.88	208.9	-326.6	993.4	963.9	29.53	33.641	
10,875.0	10,788.9	10,807.3	10,787.9	15.4	14.7	94.41	208.9	-326.6	994.8	965.2	29.54	33.672	
10,900.0	10,808.1	10,826.6	10,807.1	15.5	14.7	94.91	208.9	-326.6	996.5	966.9	29.56	33.715	
10,925.0	10,826.5	10,845.0	10,825.5	15.5	14.8	95.38	208.9	-326.6	998.5	968.9	29.57	33.770	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 704H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 11999-r.5 MWD+IFR1+SAG+FDIR — **Rule Assigned:** — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.52	-0.9	-99.9	99.9				
100.0	100.0	99.0	99.0	0.6	0.6	-90.52	-0.9	-99.9	99.9	98.3	1.61	62.103	
200.0	200.0	199.0	199.0	1.1	1.0	-90.52	-0.9	-99.9	99.9	97.4	2.55	39.244	
300.0	300.0	299.0	299.0	1.4	1.4	-90.52	-0.9	-99.9	99.9	96.7	3.17	31.488	
400.0	400.0	399.0	399.0	1.7	1.7	-90.52	-0.9	-99.9	99.9	96.2	3.68	27.164	
500.0	500.0	499.0	499.0	1.9	1.9	-90.52	-0.9	-99.9	99.9	95.8	4.11	24.292	
600.0	600.0	599.0	599.0	2.1	2.1	-90.52	-0.9	-99.9	99.9	95.4	4.50	22.199	
700.0	700.0	699.0	699.0	2.3	2.3	-90.52	-0.9	-99.9	99.9	95.1	4.85	20.584	
800.0	800.0	799.0	799.0	2.5	2.5	-90.52	-0.9	-99.9	99.9	94.7	5.18	19.286	
900.0	900.0	899.0	899.0	2.7	2.7	-90.52	-0.9	-99.9	99.9	94.4	5.49	18.213	
1,000.0	1,000.0	999.0	999.0	2.9	2.9	-90.52	-0.9	-99.9	99.9	94.1	5.77	17.306	
1,100.0	1,100.0	1,099.0	1,099.0	3.1	3.1	-90.52	-0.9	-99.9	99.9	93.9	6.05	16.526	
1,200.0	1,200.0	1,199.0	1,199.0	3.2	3.2	-90.52	-0.9	-99.9	99.9	93.6	6.31	15.845	CC, ES
1,300.0	1,300.0	1,295.7	1,295.7	3.4	3.4	-90.30	-0.5	-101.5	101.5	94.8	6.69	15.166	
1,400.0	1,400.0	1,392.2	1,392.0	3.5	3.6	-89.70	0.6	-106.2	106.4	99.3	7.07	15.058	SF
1,500.0	1,500.0	1,488.2	1,487.7	3.7	3.8	-88.81	2.4	-114.0	114.6	107.2	7.43	15.426	
1,600.0	1,600.0	1,583.6	1,582.5	3.8	4.0	-87.76	4.9	-124.9	126.1	118.3	7.77	16.230	
1,700.0	1,700.0	1,678.1	1,675.9	4.0	4.3	-86.67	8.1	-138.7	140.8	132.7	8.14	17.293	
1,800.0	1,800.0	1,771.6	1,767.9	4.1	4.6	-85.62	11.9	-155.3	158.8	150.3	8.52	18.638	
1,900.0	1,900.0	1,863.9	1,858.0	4.3	4.8	-84.65	16.4	-174.5	180.0	171.1	8.88	20.281	
2,000.0	2,000.0	1,958.7	1,950.0	4.4	5.0	-83.77	21.5	-196.6	203.8	194.6	9.19	22.175	
2,100.0	2,100.0	2,055.4	2,043.8	4.5	5.2	-154.68	26.7	-219.4	229.4	219.8	9.56	23.992	
2,200.0	2,199.8	2,151.2	2,136.8	4.7	5.4	-154.35	32.0	-242.0	258.0	248.0	9.99	25.821	
2,300.0	2,299.5	2,246.0	2,228.8	4.9	5.5	-154.32	37.1	-264.4	289.6	279.2	10.41	27.816	
2,400.0	2,398.7	2,339.8	2,319.8	5.1	5.7	-154.49	42.2	-286.5	324.2	313.4	10.82	29.955	
2,500.0	2,497.5	2,432.4	2,409.6	5.3	5.9	-154.78	47.3	-308.3	361.8	350.6	11.23	32.221	
2,550.0	2,546.7	2,478.2	2,454.1	5.4	6.0	-154.97	49.8	-319.1	381.7	370.3	11.37	33.561	
2,600.0	2,595.7	2,523.9	2,498.4	5.4	6.1	-155.32	52.3	-329.9	402.0	390.5	11.51	34.922	
2,700.0	2,693.9	2,615.2	2,587.0	5.6	6.2	-155.94	57.3	-351.4	442.6	430.7	11.85	37.361	
2,800.0	2,792.0	2,706.5	2,675.6	5.7	6.4	-156.45	62.2	-372.9	483.2	471.0	12.18	39.655	
2,900.0	2,890.2	2,797.8	2,764.2	5.9	6.6	-156.88	67.2	-394.5	523.8	511.3	12.53	41.816	
3,000.0	2,988.4	2,889.1	2,852.7	6.1	6.8	-157.25	72.2	-416.0	564.5	551.6	12.87	43.851	
3,100.0	3,086.5	2,980.4	2,941.3	6.3	6.9	-157.57	77.2	-437.5	605.2	591.9	13.22	45.770	
3,200.0	3,184.7	3,071.7	3,029.9	6.4	7.1	-157.85	82.1	-459.0	645.9	632.3	13.57	47.582	
3,300.0	3,282.8	3,163.0	3,118.5	6.6	7.3	-158.10	87.1	-480.6	686.6	672.6	13.93	49.293	
3,400.0	3,381.0	3,254.3	3,207.1	6.8	7.5	-158.32	92.1	-502.1	727.3	713.0	14.29	50.910	
3,500.0	3,479.2	3,345.6	3,295.7	7.0	7.7	-158.52	97.1	-523.6	768.0	753.3	14.64	52.441	
3,600.0	3,577.3	3,436.9	3,384.3	7.2	7.9	-158.69	102.0	-545.1	808.7	793.7	15.01	53.891	
3,700.0	3,675.5	3,528.2	3,472.9	7.4	8.1	-158.85	107.0	-566.6	849.5	834.1	15.37	55.266	
3,800.0	3,773.7	3,619.5	3,561.5	7.5	8.3	-159.00	112.0	-588.2	890.2	874.5	15.74	56.570	
3,900.0	3,871.8	3,710.8	3,650.1	7.7	8.4	-159.13	117.0	-609.7	930.9	914.8	16.10	57.809	
4,000.0	3,970.0	3,802.1	3,738.6	7.9	8.6	-159.25	122.0	-631.2	971.7	955.2	16.47	58.986	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - GRUMPY CAT 15 FEDERAL 214H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 72-MWD - OWSG R1 **Rule Assigned:** **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,900.0	9,836.7	15,725.0	10,699.2	14.9	92.8	61.86	363.5	932.0	908.3	833.4	74.87	12.132	
10,000.0	9,936.7	15,725.0	10,699.2	14.9	92.8	61.86	363.5	932.0	814.8	738.1	76.69	10.624	
10,100.0	10,036.7	15,725.0	10,699.2	15.0	92.8	61.86	363.5	932.0	723.0	643.9	79.15	9.135	
10,200.0	10,136.7	15,725.0	10,699.2	15.1	92.8	61.86	363.5	932.0	633.7	551.2	82.52	7.680	
10,300.0	10,236.7	15,725.0	10,699.2	15.2	92.8	61.86	363.5	932.0	548.1	460.9	87.22	6.284	
10,400.0	10,336.7	15,725.0	10,699.2	15.2	92.8	61.86	363.5	932.0	468.3	374.5	93.80	4.992	
10,500.0	10,436.7	15,725.0	10,699.2	15.3	92.8	61.86	363.5	932.0	397.7	295.0	102.69	3.873	
10,557.9	10,494.5	15,725.0	10,699.2	15.3	92.8	61.86	363.5	932.0	363.2	254.5	108.66	3.343	
10,575.0	10,511.7	15,725.0	10,699.2	15.3	92.8	-118.87	363.5	932.0	354.3	243.8	110.48	3.207	
10,600.0	10,536.6	15,725.0	10,699.2	15.3	92.8	-120.21	363.5	932.0	342.9	229.8	113.05	3.033	
10,625.0	10,561.4	15,725.0	10,699.2	15.3	92.8	-121.24	363.5	932.0	333.6	218.2	115.38	2.891	Normal Operations
10,650.0	10,586.1	15,725.0	10,699.2	15.4	92.8	-121.99	363.5	932.0	326.6	209.2	117.36	2.783	Normal Operations
10,675.0	10,610.5	15,725.0	10,699.2	15.4	92.8	-122.45	363.5	932.0	322.1	203.2	118.85	2.710	Normal Operations
10,700.0	10,634.6	15,725.0	10,699.2	15.4	92.8	-122.65	363.5	932.0	320.2	200.4	119.77	2.673	Normal Operations
10,705.5	10,639.8	15,725.0	10,699.2	15.4	92.8	-122.65	363.5	932.0	320.1	200.2	119.89	2.670	Normal Operations, CC, ES, SF
10,725.0	10,658.3	15,725.0	10,699.2	15.4	92.8	-122.57	363.5	932.0	320.9	200.8	120.06	2.673	Normal Operations
10,750.0	10,681.5	15,725.0	10,699.2	15.4	92.8	-122.23	363.5	932.0	324.3	204.6	119.71	2.709	Normal Operations
10,775.0	10,704.3	15,725.0	10,699.2	15.4	92.8	-121.61	363.5	932.0	330.2	211.4	118.79	2.780	Normal Operations
10,800.0	10,726.4	15,725.0	10,699.2	15.4	92.8	-120.70	363.5	932.0	338.5	221.1	117.37	2.884	Normal Operations
10,825.0	10,747.9	15,725.0	10,699.2	15.4	92.8	-119.50	363.5	932.0	349.0	233.4	115.57	3.020	
10,850.0	10,768.8	15,725.0	10,699.2	15.4	92.8	-117.98	363.5	932.0	361.5	248.0	113.51	3.185	
10,875.0	10,788.9	15,725.0	10,699.2	15.4	92.8	-116.13	363.5	932.0	375.7	264.4	111.28	3.376	
10,900.0	10,808.1	15,725.0	10,699.2	15.5	92.8	-113.92	363.5	932.0	391.5	282.5	108.99	3.592	
10,925.0	10,826.5	15,725.0	10,699.2	15.5	92.8	-111.33	363.5	932.0	408.6	301.8	106.71	3.829	
10,950.0	10,844.0	15,725.0	10,699.2	15.5	92.8	-108.34	363.5	932.0	426.7	322.3	104.47	4.085	
10,975.0	10,860.6	15,725.0	10,699.2	15.5	92.8	-104.93	363.5	932.0	445.8	343.5	102.33	4.357	
11,000.0	10,876.1	15,725.0	10,699.2	15.6	92.8	-101.11	363.5	932.0	465.7	365.4	100.30	4.643	
11,025.0	10,890.6	15,725.0	10,699.2	15.6	92.8	-96.88	363.5	932.0	486.2	387.8	98.38	4.942	
11,050.0	10,904.0	15,725.0	10,699.2	15.6	92.8	-92.27	363.5	932.0	507.1	410.5	96.59	5.250	
11,075.0	10,916.3	15,725.0	10,699.2	15.6	92.8	-87.36	363.5	932.0	528.5	433.5	94.91	5.568	
11,100.0	10,927.5	15,725.0	10,699.2	15.7	92.8	-82.21	363.5	932.0	550.1	456.7	93.35	5.892	
11,125.0	10,937.4	15,725.0	10,699.2	15.7	92.8	-76.95	363.5	932.0	571.9	480.0	91.90	6.223	
11,150.0	10,946.1	15,725.0	10,699.2	15.7	92.8	-71.68	363.5	932.0	593.8	503.3	90.55	6.558	
11,175.0	10,953.6	15,725.0	10,699.2	15.8	92.8	-66.52	363.5	932.0	615.8	526.5	89.30	6.896	
11,200.0	10,959.9	15,725.0	10,699.2	15.8	92.8	-61.57	363.5	932.0	637.7	549.6	88.13	7.237	
11,225.0	10,964.8	15,725.0	10,699.2	15.9	92.8	-56.91	363.5	932.0	659.6	572.6	87.03	7.579	
11,250.0	10,968.5	15,725.0	10,699.2	15.9	92.8	-52.58	363.5	932.0	681.4	595.4	86.00	7.923	
11,275.0	10,970.9	15,725.0	10,699.2	15.9	92.8	-48.62	363.5	932.0	703.0	617.9	85.04	8.266	
11,300.0	10,971.9	15,725.0	10,699.2	16.0	92.8	-45.01	363.5	932.0	724.3	640.2	84.13	8.609	
11,307.9	10,972.0	15,725.0	10,699.2	16.0	92.8	-43.95	363.5	932.0	731.0	647.2	83.86	8.717	
11,400.0	10,972.0	15,725.0	10,699.2	16.2	92.8	-43.95	363.5	932.0	810.6	729.6	80.98	10.009	
11,500.0	10,972.0	15,725.0	10,699.2	16.5	92.8	-43.95	363.5	932.0	899.6	821.2	78.43	11.470	
11,600.0	10,972.0	15,725.0	10,699.2	16.7	92.8	-43.95	363.5	932.0	990.7	914.4	76.36	12.974	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design: BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 501H - OWB - AWP

Offset Site Error: 3.0 usft

Survey Program: 100-Standard Keeper 104, 10088-MWD+IFR1+FDIR

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
19,800.0	10,972.0	17,090.1	10,673.3	78.5	57.8	-77.03	-8,773.1	1,695.0	999.1	864.3	134.76	7.414	
19,900.0	10,972.0	17,005.4	10,678.7	79.4	57.1	-77.32	-8,857.5	1,694.9	996.8	861.6	135.27	7.369	
19,979.2	10,972.0	16,940.3	10,682.5	80.0	56.5	-77.54	-8,922.5	1,695.7	996.3	860.6	135.69	7.342 CC	
20,000.0	10,972.0	16,927.0	10,683.2	80.2	56.4	-77.58	-8,935.8	1,695.9	996.3	860.5	135.82	7.335 ES	
20,100.0	10,972.0	16,842.5	10,687.1	81.1	55.7	-77.82	-9,020.1	1,698.4	997.6	861.3	136.29	7.320 SF	

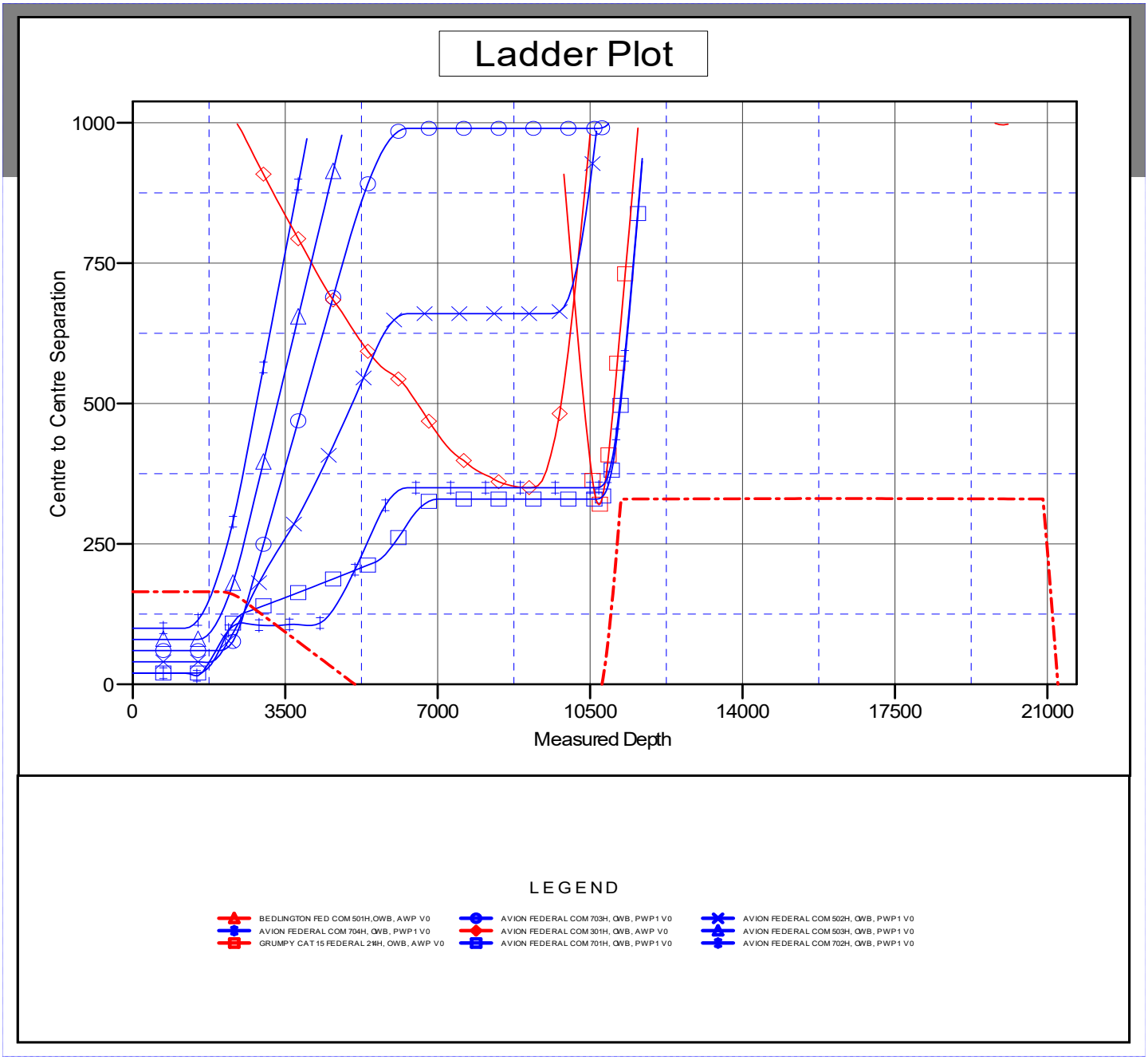
ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB=27ft @ 3729.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AVION FEDERAL COM 501H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.36°



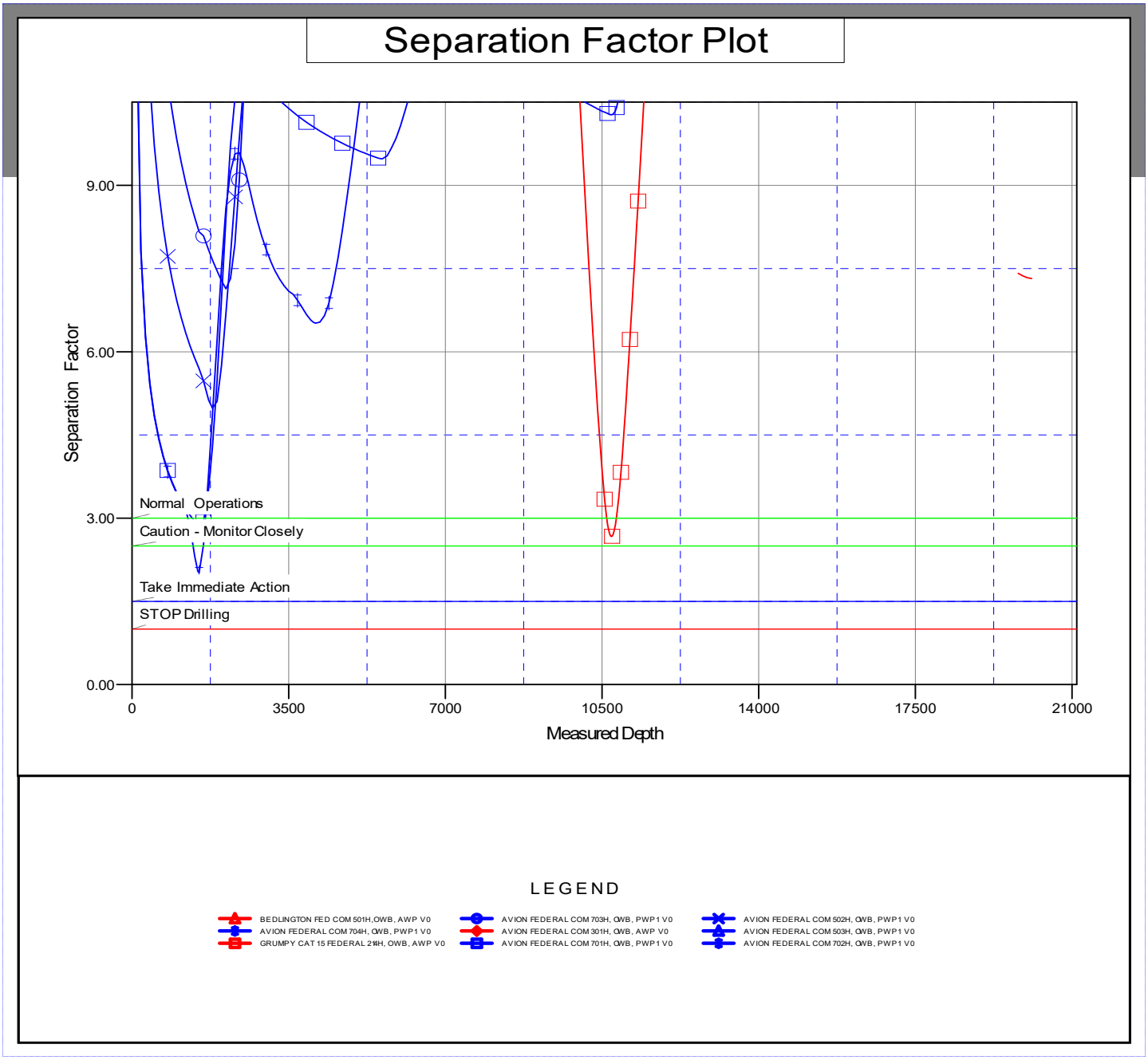
ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Reference Site:	AVION FEDERAL COM PROJECT	**MD Reference:**	RKB=27ft @ 3729.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to RKB=27ft @ 3729.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AVION FEDERAL COM 501H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.36°



DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST
AVION FEDERAL COM PROJECT
AVION FEDERAL COM 501H

OWB

Plan: PWP1

Standard Planning Report

12 January, 2025

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

Project LEA COUNTY SOUTHEAST

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site AVION FEDERAL COM PROJECT

Site Position:		**Northing:**	467,238.17 usft	**Latitude:**	32° 16' 57.890 N
From:	Map	**Easting:**	708,776.75 usft	**Longitude:**	103° 39' 27.986 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well AVION FEDERAL COM 501H

Well Position	**+N/-S**	0.0 usft	**Northing:**	472,260.40 usft	**Latitude:**	32° 17' 47.590 N
	+E/-W	0.0 usft	**Easting:**	708,747.20 usft	**Longitude:**	103° 39' 27.962 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,702.0 usft
Grid Convergence:		0.36 °				

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	4/1/2025	6.30	59.88	47,320.70154010

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	175.92

Plan Survey Tool Program **Date** 1/12/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	2,000.0	PWP1 (OWB)	r.5 SDI_KPR_WL_NS-CT SDI Keeper Wireline Gyrocomp	
2	2,000.0	10,557.9	PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG ·	
3	10,557.9	21,292.3	PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG ·	

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,550.0	11.00	71.66	2,546.7	16.6	50.0	2.00	2.00	0.00	71.66	
5,569.0	11.00	71.66	5,510.1	197.8	596.8	0.00	0.00	0.00	0.00	
6,302.3	0.00	0.00	6,239.0	219.9	663.4	1.50	-1.50	0.00	180.00	
10,557.9	0.00	0.00	10,494.5	219.9	663.4	0.00	0.00	0.00	0.00	
11,307.9	90.00	179.63	10,972.0	-257.6	666.5	12.00	12.00	23.95	179.63	
21,242.3	90.00	179.63	10,972.0	-10,191.8	731.1	0.00	0.00	0.00	0.00	
21,292.3	90.00	179.63	10,972.0	-10,241.8	731.4	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

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
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	2.00	71.66	2,100.0	0.5	1.7	-0.4	2.00	2.00	0.00
2,200.0	4.00	71.66	2,199.8	2.2	6.6	-1.7	2.00	2.00	0.00
2,300.0	6.00	71.66	2,299.5	4.9	14.9	-3.9	2.00	2.00	0.00
2,400.0	8.00	71.66	2,398.7	8.8	26.5	-6.9	2.00	2.00	0.00
2,500.0	10.00	71.66	2,497.5	13.7	41.3	-10.7	2.00	2.00	0.00
2,550.0	11.00	71.66	2,546.7	16.6	50.0	-13.0	2.00	2.00	0.00
2,600.0	11.00	71.66	2,595.7	19.6	59.0	-15.3	0.00	0.00	0.00
2,700.0	11.00	71.66	2,693.9	25.6	77.1	-20.0	0.00	0.00	0.00
2,800.0	11.00	71.66	2,792.0	31.6	95.2	-24.7	0.00	0.00	0.00
2,900.0	11.00	71.66	2,890.2	37.6	113.4	-29.4	0.00	0.00	0.00
3,000.0	11.00	71.66	2,988.4	43.6	131.5	-34.1	0.00	0.00	0.00
3,100.0	11.00	71.66	3,086.5	49.6	149.6	-38.8	0.00	0.00	0.00
3,200.0	11.00	71.66	3,184.7	55.6	167.7	-43.5	0.00	0.00	0.00
3,300.0	11.00	71.66	3,282.8	61.6	185.8	-48.2	0.00	0.00	0.00
3,400.0	11.00	71.66	3,381.0	67.6	203.9	-52.9	0.00	0.00	0.00
3,500.0	11.00	71.66	3,479.2	73.6	222.0	-57.6	0.00	0.00	0.00
3,600.0	11.00	71.66	3,577.3	79.6	240.1	-62.3	0.00	0.00	0.00
3,700.0	11.00	71.66	3,675.5	85.6	258.3	-67.0	0.00	0.00	0.00
3,800.0	11.00	71.66	3,773.7	91.6	276.4	-71.7	0.00	0.00	0.00
3,900.0	11.00	71.66	3,871.8	97.6	294.5	-76.4	0.00	0.00	0.00
4,000.0	11.00	71.66	3,970.0	103.6	312.6	-81.1	0.00	0.00	0.00
4,100.0	11.00	71.66	4,068.1	109.6	330.7	-85.8	0.00	0.00	0.00
4,200.0	11.00	71.66	4,166.3	115.6	348.8	-90.5	0.00	0.00	0.00
4,300.0	11.00	71.66	4,264.5	121.6	366.9	-95.2	0.00	0.00	0.00
4,400.0	11.00	71.66	4,362.6	127.6	385.0	-99.9	0.00	0.00	0.00
4,500.0	11.00	71.66	4,460.8	133.6	403.2	-104.6	0.00	0.00	0.00
4,600.0	11.00	71.66	4,559.0	139.6	421.3	-109.3	0.00	0.00	0.00
4,700.0	11.00	71.66	4,657.1	145.6	439.4	-114.0	0.00	0.00	0.00
4,800.0	11.00	71.66	4,755.3	151.6	457.5	-118.7	0.00	0.00	0.00
4,900.0	11.00	71.66	4,853.4	157.7	475.6	-123.4	0.00	0.00	0.00
5,000.0	11.00	71.66	4,951.6	163.7	493.7	-128.1	0.00	0.00	0.00
5,100.0	11.00	71.66	5,049.8	169.7	511.8	-132.8	0.00	0.00	0.00
5,200.0	11.00	71.66	5,147.9	175.7	529.9	-137.5	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

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)
5,300.0	11.00	71.66	5,246.1	181.7	548.1	-142.2	0.00	0.00	0.00
5,400.0	11.00	71.66	5,344.3	187.7	566.2	-146.9	0.00	0.00	0.00
5,500.0	11.00	71.66	5,442.4	193.7	584.3	-151.6	0.00	0.00	0.00
5,569.0	11.00	71.66	5,510.1	197.8	596.8	-154.8	0.00	0.00	0.00
5,600.0	10.54	71.66	5,540.6	199.6	602.3	-156.2	1.50	-1.50	0.00
5,700.0	9.04	71.66	5,639.2	205.0	618.4	-160.4	1.50	-1.50	0.00
5,800.0	7.54	71.66	5,738.1	209.5	632.1	-164.0	1.50	-1.50	0.00
5,900.0	6.04	71.66	5,837.4	213.2	643.3	-166.9	1.50	-1.50	0.00
6,000.0	4.54	71.66	5,937.0	216.1	652.0	-169.1	1.50	-1.50	0.00
6,100.0	3.04	71.66	6,036.8	218.2	658.3	-170.8	1.50	-1.50	0.00
6,200.0	1.54	71.66	6,136.7	219.5	662.1	-171.7	1.50	-1.50	0.00
6,302.3	0.00	0.00	6,239.0	219.9	663.4	-172.1	1.50	-1.50	0.00
6,400.0	0.00	0.00	6,336.7	219.9	663.4	-172.1	0.00	0.00	0.00
6,500.0	0.00	0.00	6,436.7	219.9	663.4	-172.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,536.7	219.9	663.4	-172.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,636.7	219.9	663.4	-172.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,736.7	219.9	663.4	-172.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,836.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,936.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,100.0	0.00	0.00	7,036.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,136.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,236.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,336.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,436.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,536.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,636.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,736.7	219.9	663.4	-172.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,836.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,936.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,036.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,200.0	0.00	0.00	8,136.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,300.0	0.00	0.00	8,236.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,400.0	0.00	0.00	8,336.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,500.0	0.00	0.00	8,436.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,600.0	0.00	0.00	8,536.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,636.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,800.0	0.00	0.00	8,736.7	219.9	663.4	-172.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,836.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,000.0	0.00	0.00	8,936.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,100.0	0.00	0.00	9,036.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,200.0	0.00	0.00	9,136.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,300.0	0.00	0.00	9,236.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,336.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,436.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,600.0	0.00	0.00	9,536.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,636.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,800.0	0.00	0.00	9,736.7	219.9	663.4	-172.1	0.00	0.00	0.00
9,900.0	0.00	0.00	9,836.7	219.9	663.4	-172.1	0.00	0.00	0.00
10,000.0	0.00	0.00	9,936.7	219.9	663.4	-172.1	0.00	0.00	0.00
10,100.0	0.00	0.00	10,036.7	219.9	663.4	-172.1	0.00	0.00	0.00
10,200.0	0.00	0.00	10,136.7	219.9	663.4	-172.1	0.00	0.00	0.00
10,300.0	0.00	0.00	10,236.7	219.9	663.4	-172.1	0.00	0.00	0.00
10,400.0	0.00	0.00	10,336.7	219.9	663.4	-172.1	0.00	0.00	0.00
10,500.0	0.00	0.00	10,436.7	219.9	663.4	-172.1	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,557.9	0.00	0.00	10,494.5	219.9	663.4	-172.1	0.00	0.00	0.00
10,575.0	2.05	179.63	10,511.7	219.6	663.4	-171.8	12.00	12.00	0.00
10,600.0	5.05	179.63	10,536.6	218.0	663.4	-170.2	12.00	12.00	0.00
10,625.0	8.05	179.63	10,561.4	215.2	663.4	-167.4	12.00	12.00	0.00
10,650.0	11.05	179.63	10,586.1	211.0	663.5	-163.2	12.00	12.00	0.00
10,675.0	14.05	179.63	10,610.5	205.6	663.5	-157.8	12.00	12.00	0.00
10,700.0	17.05	179.63	10,634.6	198.9	663.5	-151.1	12.00	12.00	0.00
10,725.0	20.05	179.63	10,658.3	190.9	663.6	-143.2	12.00	12.00	0.00
10,750.0	23.05	179.63	10,681.5	181.8	663.6	-134.0	12.00	12.00	0.00
10,775.0	26.05	179.63	10,704.3	171.4	663.7	-123.7	12.00	12.00	0.00
10,800.0	29.05	179.63	10,726.4	159.8	663.8	-112.1	12.00	12.00	0.00
10,825.0	32.05	179.63	10,747.9	147.1	663.9	-99.4	12.00	12.00	0.00
10,850.0	35.05	179.63	10,768.8	133.3	664.0	-85.7	12.00	12.00	0.00
10,875.0	38.05	179.63	10,788.9	118.4	664.1	-70.8	12.00	12.00	0.00
10,900.0	41.05	179.63	10,808.1	102.5	664.2	-54.9	12.00	12.00	0.00
10,925.0	44.05	179.63	10,826.5	85.6	664.3	-38.0	12.00	12.00	0.00
10,950.0	47.05	179.63	10,844.0	67.7	664.4	-20.2	12.00	12.00	0.00
10,975.0	50.05	179.63	10,860.6	49.0	664.5	-1.5	12.00	12.00	0.00
11,000.0	53.05	179.63	10,876.1	29.4	664.6	18.0	12.00	12.00	0.00
11,025.0	56.05	179.63	10,890.6	9.1	664.8	38.3	12.00	12.00	0.00
11,050.0	59.05	179.63	10,904.0	-12.0	664.9	59.4	12.00	12.00	0.00
11,075.0	62.05	179.63	10,916.3	-33.8	665.0	81.1	12.00	12.00	0.00
11,100.0	65.05	179.63	10,927.5	-56.2	665.2	103.4	12.00	12.00	0.00
11,125.0	68.05	179.63	10,937.4	-79.1	665.3	126.3	12.00	12.00	0.00
11,150.0	71.05	179.63	10,946.1	-102.5	665.5	149.7	12.00	12.00	0.00
11,175.0	74.05	179.63	10,953.6	-126.4	665.7	173.5	12.00	12.00	0.00
11,200.0	77.05	179.63	10,959.9	-150.6	665.8	197.6	12.00	12.00	0.00
11,225.0	80.05	179.63	10,964.8	-175.1	666.0	222.1	12.00	12.00	0.00
11,250.0	83.05	179.63	10,968.5	-199.8	666.1	246.8	12.00	12.00	0.00
11,275.0	86.05	179.63	10,970.9	-224.7	666.3	271.6	12.00	12.00	0.00
11,300.0	89.05	179.63	10,971.9	-249.7	666.5	296.5	12.00	12.00	0.00
11,307.9	90.00	179.63	10,972.0	-257.6	666.5	304.4	12.00	12.00	0.00
11,400.0	90.00	179.63	10,972.0	-349.7	667.1	396.3	0.00	0.00	0.00
11,500.0	90.00	179.63	10,972.0	-449.7	667.8	496.1	0.00	0.00	0.00
11,600.0	90.00	179.63	10,972.0	-549.7	668.4	595.9	0.00	0.00	0.00
11,700.0	90.00	179.63	10,972.0	-649.7	669.1	695.7	0.00	0.00	0.00
11,800.0	90.00	179.63	10,972.0	-749.7	669.7	795.5	0.00	0.00	0.00
11,900.0	90.00	179.63	10,972.0	-849.7	670.4	895.3	0.00	0.00	0.00
12,000.0	90.00	179.63	10,972.0	-949.7	671.0	995.0	0.00	0.00	0.00
12,100.0	90.00	179.63	10,972.0	-1,049.7	671.7	1,094.8	0.00	0.00	0.00
12,200.0	90.00	179.63	10,972.0	-1,149.7	672.3	1,194.6	0.00	0.00	0.00
12,300.0	90.00	179.63	10,972.0	-1,249.7	673.0	1,294.4	0.00	0.00	0.00
12,400.0	90.00	179.63	10,972.0	-1,349.7	673.6	1,394.2	0.00	0.00	0.00
12,500.0	90.00	179.63	10,972.0	-1,449.7	674.3	1,494.0	0.00	0.00	0.00
12,600.0	90.00	179.63	10,972.0	-1,549.6	674.9	1,593.8	0.00	0.00	0.00
12,700.0	90.00	179.63	10,972.0	-1,649.6	675.6	1,693.6	0.00	0.00	0.00
12,800.0	90.00	179.63	10,972.0	-1,749.6	676.2	1,793.4	0.00	0.00	0.00
12,900.0	90.00	179.63	10,972.0	-1,849.6	676.9	1,893.2	0.00	0.00	0.00
13,000.0	90.00	179.63	10,972.0	-1,949.6	677.5	1,992.9	0.00	0.00	0.00
13,100.0	90.00	179.63	10,972.0	-2,049.6	678.2	2,092.7	0.00	0.00	0.00
13,200.0	90.00	179.63	10,972.0	-2,149.6	678.8	2,192.5	0.00	0.00	0.00
13,300.0	90.00	179.63	10,972.0	-2,249.6	679.5	2,292.3	0.00	0.00	0.00
13,400.0	90.00	179.63	10,972.0	-2,349.6	680.1	2,392.1	0.00	0.00	0.00
13,500.0	90.00	179.63	10,972.0	-2,449.6	680.8	2,491.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

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)
13,600.0	90.00	179.63	10,972.0	-2,549.6	681.4	2,591.7	0.00	0.00	0.00
13,700.0	90.00	179.63	10,972.0	-2,649.6	682.1	2,691.5	0.00	0.00	0.00
13,800.0	90.00	179.63	10,972.0	-2,749.6	682.7	2,791.3	0.00	0.00	0.00
13,900.0	90.00	179.63	10,972.0	-2,849.6	683.4	2,891.1	0.00	0.00	0.00
14,000.0	90.00	179.63	10,972.0	-2,949.6	684.0	2,990.9	0.00	0.00	0.00
14,100.0	90.00	179.63	10,972.0	-3,049.6	684.7	3,090.6	0.00	0.00	0.00
14,200.0	90.00	179.63	10,972.0	-3,149.6	685.3	3,190.4	0.00	0.00	0.00
14,300.0	90.00	179.63	10,972.0	-3,249.6	686.0	3,290.2	0.00	0.00	0.00
14,400.0	90.00	179.63	10,972.0	-3,349.6	686.6	3,390.0	0.00	0.00	0.00
14,500.0	90.00	179.63	10,972.0	-3,449.6	687.3	3,489.8	0.00	0.00	0.00
14,600.0	90.00	179.63	10,972.0	-3,549.6	687.9	3,589.6	0.00	0.00	0.00
14,700.0	90.00	179.63	10,972.0	-3,649.6	688.6	3,689.4	0.00	0.00	0.00
14,800.0	90.00	179.63	10,972.0	-3,749.6	689.2	3,789.2	0.00	0.00	0.00
14,900.0	90.00	179.63	10,972.0	-3,849.6	689.9	3,889.0	0.00	0.00	0.00
15,000.0	90.00	179.63	10,972.0	-3,949.6	690.5	3,988.8	0.00	0.00	0.00
15,100.0	90.00	179.63	10,972.0	-4,049.6	691.2	4,088.5	0.00	0.00	0.00
15,200.0	90.00	179.63	10,972.0	-4,149.6	691.8	4,188.3	0.00	0.00	0.00
15,300.0	90.00	179.63	10,972.0	-4,249.6	692.5	4,288.1	0.00	0.00	0.00
15,400.0	90.00	179.63	10,972.0	-4,349.6	693.1	4,387.9	0.00	0.00	0.00
15,500.0	90.00	179.63	10,972.0	-4,449.6	693.8	4,487.7	0.00	0.00	0.00
15,600.0	90.00	179.63	10,972.0	-4,549.6	694.4	4,587.5	0.00	0.00	0.00
15,700.0	90.00	179.63	10,972.0	-4,649.6	695.1	4,687.3	0.00	0.00	0.00
15,800.0	90.00	179.63	10,972.0	-4,749.6	695.7	4,787.1	0.00	0.00	0.00
15,900.0	90.00	179.63	10,972.0	-4,849.6	696.4	4,886.9	0.00	0.00	0.00
16,000.0	90.00	179.63	10,972.0	-4,949.6	697.0	4,986.7	0.00	0.00	0.00
16,100.0	90.00	179.63	10,972.0	-5,049.6	697.7	5,086.4	0.00	0.00	0.00
16,200.0	90.00	179.63	10,972.0	-5,149.6	698.3	5,186.2	0.00	0.00	0.00
16,300.0	90.00	179.63	10,972.0	-5,249.6	699.0	5,286.0	0.00	0.00	0.00
16,400.0	90.00	179.63	10,972.0	-5,349.6	699.6	5,385.8	0.00	0.00	0.00
16,500.0	90.00	179.63	10,972.0	-5,449.6	700.3	5,485.6	0.00	0.00	0.00
16,600.0	90.00	179.63	10,972.0	-5,549.6	700.9	5,585.4	0.00	0.00	0.00
16,700.0	90.00	179.63	10,972.0	-5,649.6	701.6	5,685.2	0.00	0.00	0.00
16,800.0	90.00	179.63	10,972.0	-5,749.6	702.2	5,785.0	0.00	0.00	0.00
16,900.0	90.00	179.63	10,972.0	-5,849.6	702.9	5,884.8	0.00	0.00	0.00
17,000.0	90.00	179.63	10,972.0	-5,949.6	703.5	5,984.6	0.00	0.00	0.00
17,100.0	90.00	179.63	10,972.0	-6,049.6	704.2	6,084.3	0.00	0.00	0.00
17,200.0	90.00	179.63	10,972.0	-6,149.6	704.8	6,184.1	0.00	0.00	0.00
17,300.0	90.00	179.63	10,972.0	-6,249.6	705.5	6,283.9	0.00	0.00	0.00
17,400.0	90.00	179.63	10,972.0	-6,349.5	706.1	6,383.7	0.00	0.00	0.00
17,500.0	90.00	179.63	10,972.0	-6,449.5	706.8	6,483.5	0.00	0.00	0.00
17,600.0	90.00	179.63	10,972.0	-6,549.5	707.4	6,583.3	0.00	0.00	0.00
17,700.0	90.00	179.63	10,972.0	-6,649.5	708.1	6,683.1	0.00	0.00	0.00
17,800.0	90.00	179.63	10,972.0	-6,749.5	708.7	6,782.9	0.00	0.00	0.00
17,900.0	90.00	179.63	10,972.0	-6,849.5	709.4	6,882.7	0.00	0.00	0.00
18,000.0	90.00	179.63	10,972.0	-6,949.5	710.0	6,982.5	0.00	0.00	0.00
18,100.0	90.00	179.63	10,972.0	-7,049.5	710.7	7,082.2	0.00	0.00	0.00
18,200.0	90.00	179.63	10,972.0	-7,149.5	711.3	7,182.0	0.00	0.00	0.00
18,300.0	90.00	179.63	10,972.0	-7,249.5	712.0	7,281.8	0.00	0.00	0.00
18,400.0	90.00	179.63	10,972.0	-7,349.5	712.6	7,381.6	0.00	0.00	0.00
18,500.0	90.00	179.63	10,972.0	-7,449.5	713.3	7,481.4	0.00	0.00	0.00
18,600.0	90.00	179.63	10,972.0	-7,549.5	713.9	7,581.2	0.00	0.00	0.00
18,700.0	90.00	179.63	10,972.0	-7,649.5	714.6	7,681.0	0.00	0.00	0.00
18,800.0	90.00	179.63	10,972.0	-7,749.5	715.2	7,780.8	0.00	0.00	0.00
18,900.0	90.00	179.63	10,972.0	-7,849.5	715.9	7,880.6	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,000.0	90.00	179.63	10,972.0	-7,949.5	716.5	7,980.4	0.00	0.00	0.00
19,100.0	90.00	179.63	10,972.0	-8,049.5	717.2	8,080.2	0.00	0.00	0.00
19,200.0	90.00	179.63	10,972.0	-8,149.5	717.8	8,179.9	0.00	0.00	0.00
19,300.0	90.00	179.63	10,972.0	-8,249.5	718.5	8,279.7	0.00	0.00	0.00
19,400.0	90.00	179.63	10,972.0	-8,349.5	719.1	8,379.5	0.00	0.00	0.00
19,500.0	90.00	179.63	10,972.0	-8,449.5	719.8	8,479.3	0.00	0.00	0.00
19,600.0	90.00	179.63	10,972.0	-8,549.5	720.4	8,579.1	0.00	0.00	0.00
19,700.0	90.00	179.63	10,972.0	-8,649.5	721.1	8,678.9	0.00	0.00	0.00
19,800.0	90.00	179.63	10,972.0	-8,749.5	721.7	8,778.7	0.00	0.00	0.00
19,900.0	90.00	179.63	10,972.0	-8,849.5	722.4	8,878.5	0.00	0.00	0.00
20,000.0	90.00	179.63	10,972.0	-8,949.5	723.0	8,978.3	0.00	0.00	0.00
20,100.0	90.00	179.63	10,972.0	-9,049.5	723.7	9,078.1	0.00	0.00	0.00
20,200.0	90.00	179.63	10,972.0	-9,149.5	724.3	9,177.8	0.00	0.00	0.00
20,300.0	90.00	179.63	10,972.0	-9,249.5	725.0	9,277.6	0.00	0.00	0.00
20,400.0	90.00	179.63	10,972.0	-9,349.5	725.6	9,377.4	0.00	0.00	0.00
20,500.0	90.00	179.63	10,972.0	-9,449.5	726.3	9,477.2	0.00	0.00	0.00
20,600.0	90.00	179.63	10,972.0	-9,549.5	726.9	9,577.0	0.00	0.00	0.00
20,700.0	90.00	179.63	10,972.0	-9,649.5	727.6	9,676.8	0.00	0.00	0.00
20,800.0	90.00	179.63	10,972.0	-9,749.5	728.2	9,776.6	0.00	0.00	0.00
20,900.0	90.00	179.63	10,972.0	-9,849.5	728.9	9,876.4	0.00	0.00	0.00
21,000.0	90.00	179.63	10,972.0	-9,949.5	729.5	9,976.2	0.00	0.00	0.00
21,100.0	90.00	179.63	10,972.0	-10,049.5	730.2	10,076.0	0.00	0.00	0.00
21,200.0	90.00	179.63	10,972.0	-10,149.5	730.8	10,175.7	0.00	0.00	0.00
21,242.3	90.00	179.63	10,972.0	-10,191.8	731.1	10,218.0	0.00	0.00	0.00
21,292.3	90.00	179.63	10,972.0	-10,241.8	731.4	10,267.9	0.00	0.00	0.00

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
TNGT WNDW:50'A/B_3	11.00	251.66	5,510.1	197.8	596.8	472,458.22	709,343.97	32° 17' 49.510 N	103° 39' 20.995 W
- plan hits target center - Rectangle (sides W70.0 H100.0 D3,018.9)									
KOP BOX_0'N x 100'S_	0.00	359.63	10,494.5	219.9	663.4	472,480.30	709,410.60	32° 17' 49.725 N	103° 39' 20.217 W
- plan hits target center - Rectangle (sides W100.0 H100.0 D4,255.5)									
FTP (AVION FEDERAL	0.00	0.01	10,972.0	170.9	663.6	472,431.30	709,410.80	32° 17' 49.240 N	103° 39' 20.218 W
- plan misses target center by 164.1usft at 10957.4usft MD (10849.0 TVD, 62.3 N, 664.4 E) - Circle (radius 50.0)									
LTP (AVION FEDERAL (	0.00	0.01	10,972.0	-10,191.8	731.1	462,068.60	709,478.30	32° 16' 6.690 N	103° 39' 20.195 W
- plan hits target center - Point									
PBHL (AVION FEDERAI	0.00	359.63	10,972.0	-10,241.8	731.4	462,018.60	709,478.60	32° 16' 6.196 N	103° 39' 20.195 W
- plan hits target center - Rectangle (sides W100.0 H10,412.8 D20.0)									

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well AVION FEDERAL COM 501H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	RKB=27ft @ 3729.0usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	RKB=27ft @ 3729.0usft
Site:	AVION FEDERAL COM PROJECT	**North Reference:**	Grid
Well:	AVION FEDERAL COM 501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP1		

Plan Annotations

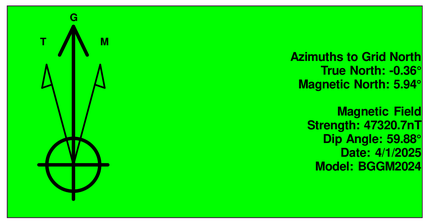
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
0.0	0.0	0.0	0.0	HOLD TO NUDGE KOP
2,000.0	2,000.0	0.0	0.0	NUDGE @ DLS 2.00
2,550.0	2,546.6	16.6	50.0	HOLD TANGENT
5,569.0	5,510.2	197.8	596.8	END NUDGE
6,302.3	6,239.0	219.9	663.4	HOLD TO CURVE KOP
10,557.9	10,494.6	219.9	663.4	KOP-START DLS 12.00 TFO 179.63
11,307.9	10,972.0	-257.6	666.5	EOC-HOLD
21,242.3	10,972.0	-10,191.8	731.1	LTP-HOLD
21,292.3	10,972.0	-10,241.8	731.4	TD @ 21292.3 MD / 10267.9 VS

ConocoPhillips

Project:	LEA COUNTY SOUTHEAST
Site:	AVION FEDERAL COM PROJECT
Well:	AVION FEDERAL COM 501H
Wellbore:	OWB
Design:	PWP1
GL:	3702.0
RKB=27ft @ 3729.0usft	

WELL DETAILS: AVION FEDERAL COM 501H

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.0	0.0	472260.40	708747.20	32° 17' 47.590 N	103° 39' 27.962 W

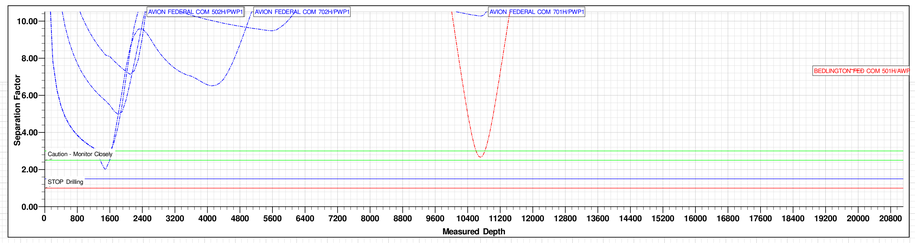


Azimuths to Grid North
True North: -0.36°
Magnetic North: 5.94°

Magnetic Field
Strength: 47320.7nT
Dip Angle: 59.88°
Date: 4/1/2025
Model: BGGM2024

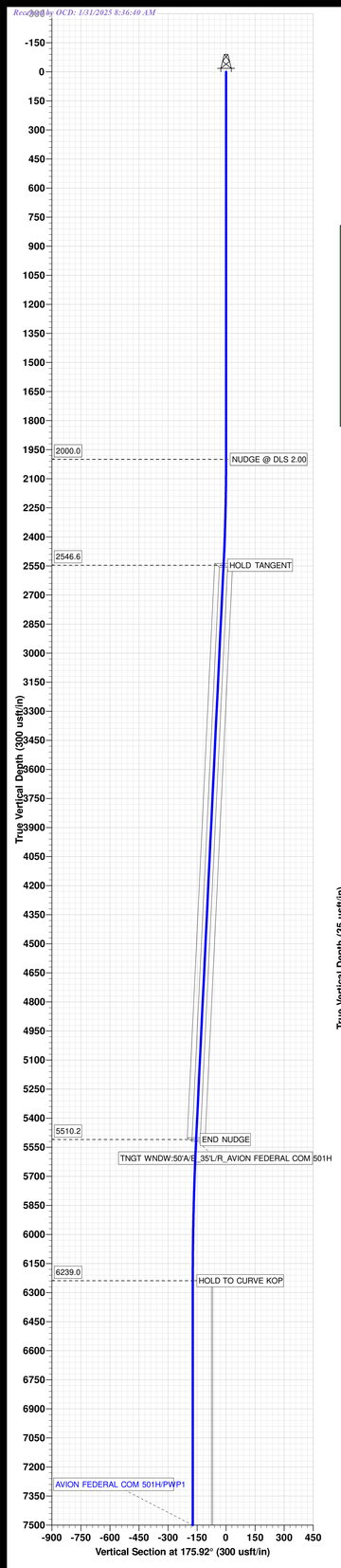
DESIGN TARGET DETAILS

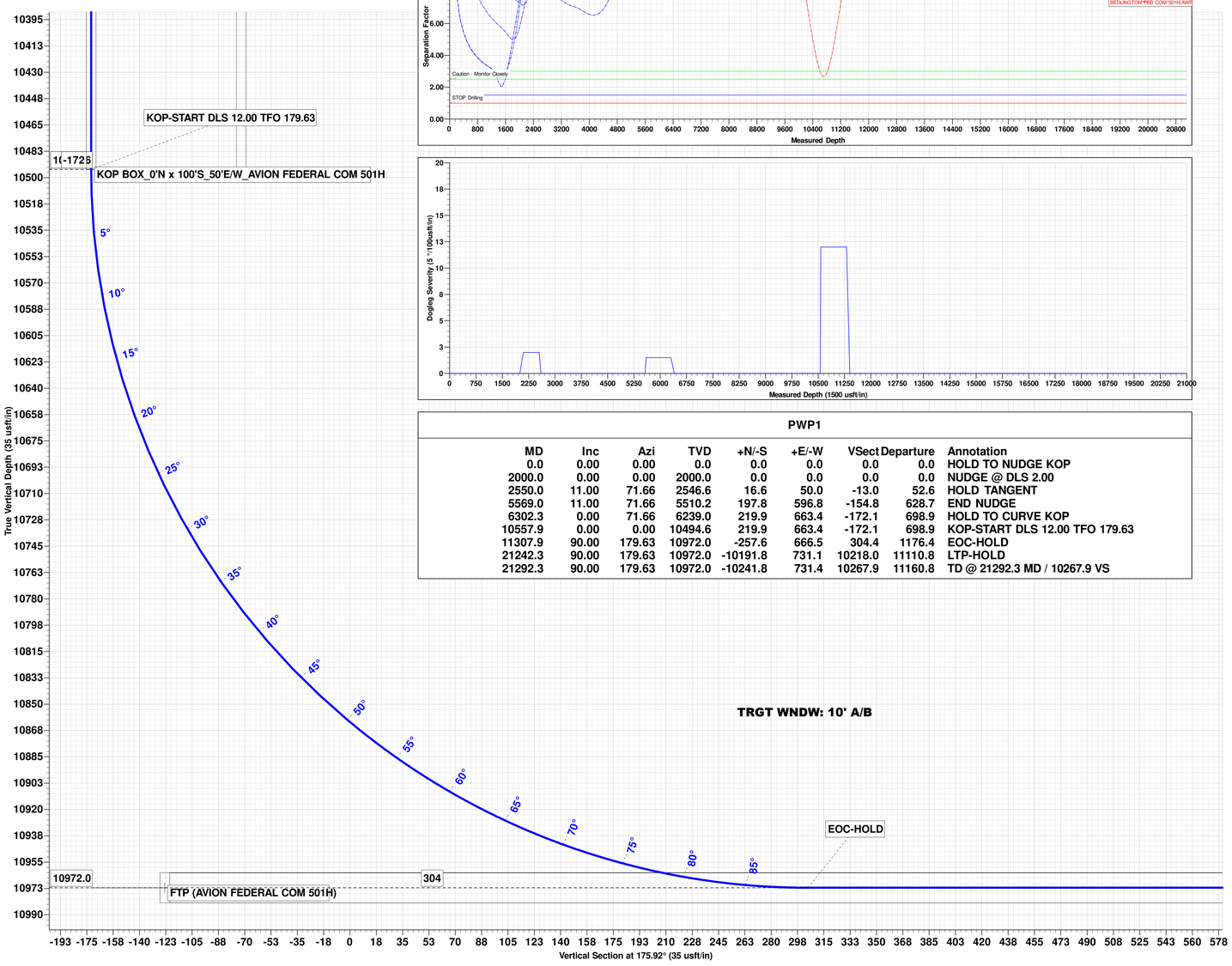
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
TNGT WNDW:50'A/B_35'L/R_AVION FEDERAL COM 501H	5510.1	197.8	596.8	472458.22	709343.98	Rectangle (Sides: L100.0 W70.0)
KOP BOX_0'N x 100'S_50'E/W_AVION FEDERAL COM 501H	10494.5	219.9	663.4	472480.30	709410.60	Rectangle (Sides: L100.0 W100.0)
FTP (AVION FEDERAL COM 501H)	10972.0	170.9	663.6	472431.30	709410.80	Circle (Radius: 50.0)
LTP (AVION FEDERAL COM 501H)	10972.0	-10191.8	731.1	462068.60	709478.30	Point
PBHL (AVION FEDERAL COM 501H)	10972.0	-10241.8	731.4	462018.60	709478.60	Rectangle (Sides: L10412.8 W100.0)

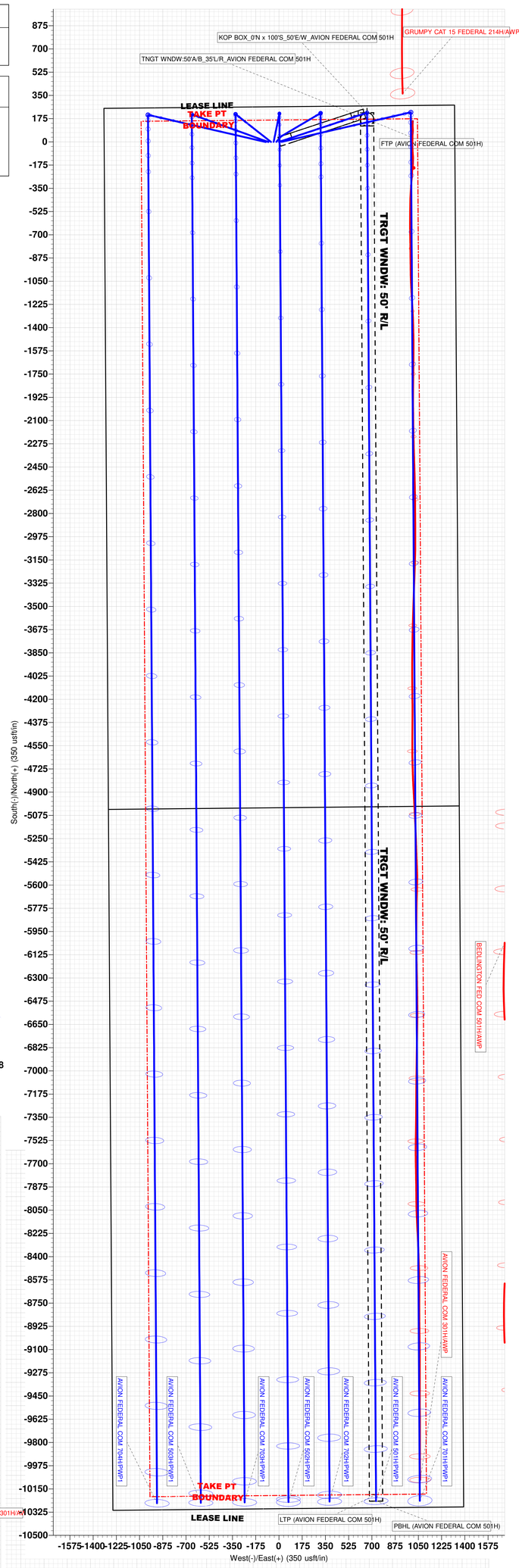


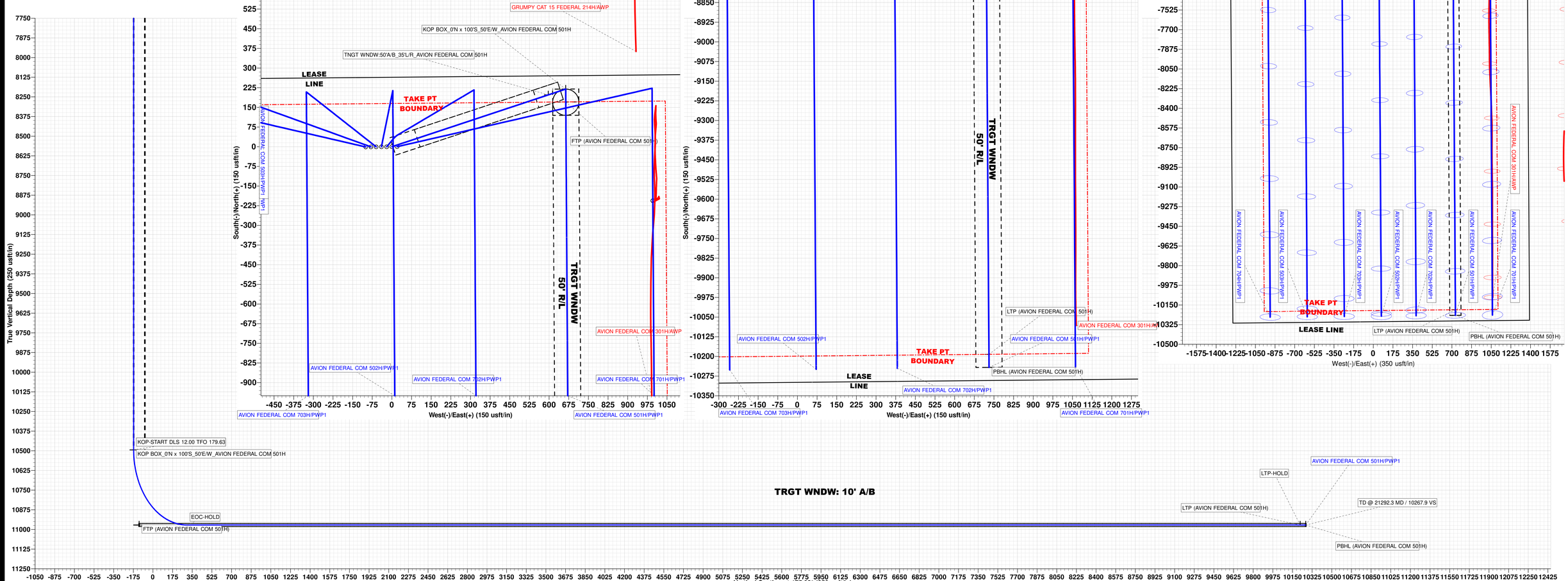
PWP1

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	HOLD TO NUDGE KOP
2000.0	0.00	0.00	2000.0	0.0	0.0	0.0	0.0	NUDGE @ DLS 2.00
2550.0	11.00	71.66	2546.6	16.6	50.0	-13.0	52.6	HOLD TANGENT
5569.0	11.00	71.66	5510.2	197.8	596.8	-154.8	628.7	END NUDGE
6302.3	0.00	71.66	6239.0	219.9	663.4	-172.1	698.9	HOLD TO CURVE KOP
10557.9	0.00	0.00	10494.6	219.9	663.4	-172.1	698.9	KOP-START DLS 12.00 TFO 179.63
11307.9	90.00	179.63	10972.0	-257.6	666.5	304.4	1176.4	EOC-HOLD
21242.3	90.00	179.63	10972.0	-10191.8	731.1	10218.0	11110.8	LTP-HOLD
21292.3	90.00	179.63	10972.0	-10241.8	731.4	10267.9	11160.8	TD @ 21292.3 MD / 10267.9 VS









Tenaris

TXP® BTC

Coupling	Pipe Body
Grade: **P110-CY**	Grade: **P110-CY**
Body: **White**	1st Band: **White**
1st Band: **Grey**	2nd Band: **Grey**
2nd Band: **-**	3rd Band: **-**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	5.500 in.	**Wall Thickness**	0.415 in.	**Grade**	P110-CY
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.415 in.	**Body Yield Strength**	729 x1000 lb
Nominal Weight	23.00 lb/ft	**Plain End Weight**	22.56 lb/ft	**Min. Internal Yield Pressure**	14,530 psi
Drift	4.545 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	4.670 in.			**Collapse Pressure**	14,540 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	6.200 in.	**Tension Efficiency**	100 %	**Minimum**	12,980 ft-lb
Coupling Length	9.450 in.	**Joint Yield Strength**	729 x1000 lb	**Optimum**	14,420 ft-lb
Connection ID	4.658 in.	**Internal Pressure Capacity**	14,530 psi	**Maximum**	15,860 ft-lb
Make-up Loss	4.204 in.	**Compression Efficiency**	100 %		
Threads per inch	5	**Compression Strength**	729 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	92 °/100 ft	**Operating Torque**	24,200 ft-lb
		External Pressure Capacity	14,540 psi	**Yield Torque**	26,900 ft-lb
		Coupling Face Load	302,000 lb		

Notes

This connection is fully interchangeable with:
TXP® BTC - 5.5 in. - 0.275 (15.50) / 0.304 (17.00) / 0.361 (20.00) / 0.476 (26.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version
Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.
Standard coupling design comes with optimized 20° bevel.

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris

TenarisHydril Wedge 441®

Coupling	Pipe Body
Grade: **P110-CY**	Grade: **P110-CY**
Body: **White**	1st Band: **White**
1st Band: **Grey**	2nd Band: **Grey**
2nd Band: **-**	3rd Band: **-**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	5.500 in.	**Wall Thickness**	0.415 in.	**Grade**	P110-CY
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.415 in.	**Body Yield Strength**	729 x1000 lb
Nominal Weight	23.00 lb/ft	**Plain End Weight**	22.56 lb/ft	**Min. Internal Yield Pressure**	14,530 psi
Drift	4.545 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	4.670 in.			**Collapse Pressure**	14,540 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.900 in.	**Tension Efficiency**	90.80 %	**Minimum**	15,000 ft-lb
Coupling Length	8.714 in.	**Joint Yield Strength**	662 x1000 lb	**Optimum**	16,000 ft-lb
Connection ID	4.670 in.	**Internal Pressure Capacity**	14,530 psi	**Maximum**	19,200 ft-lb
Make-up Loss	3.780 in.	**Compression Efficiency**	90.80 %	**Operation Limit Torques**	
Threads per inch	3.40	**Compression Strength**	662 x1000 lb	**Operating Torque**	33,000 ft-lb
Connection OD Option	Regular	**Max. Allowable Bending**	83.54 °/100 ft	**Yield Torque**	39,000 ft-lb
		External Pressure Capacity	14,540 psi	**Buck-On**	
		Coupling Face Load	172,000 lb	**Minimum**	19,200 ft-lb
				Maximum	20,700 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.476 (26.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
WELL NAME & NO.:	AVION FED COM 501H
LOCATION:	Section 22, T.23 S., R.32 E.
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	(•) Conventional	( ) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[ ] EchoMeter	[ ] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[ ] Break Testing	[x] Offline Cementing	[ ] Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

Due to surface pressure Operator must use a 5M BOP system to drill below the surface shoe.

1. The **13-3/8** inch surface casing shall be set at approximately **1320 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable

fresh water) and cemented to the surface. The surface hole shall be **17 1/2 inch** in diameter.

a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

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 **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) psi.**

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.

d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

GENERAL REQUIREMENTS

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

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

☒ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
        iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line

must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement

reaches 500 psi compressive strength (including lead when specified).

ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

v. The results of the test shall be reported to the appropriate BLM office.

vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

JS 1/29/2025

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 427046

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 427046
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	The C-103 NOI was not approved or rejected; however, the work requested in the C-103 NOI was performed and completed without NMOCD approval. This action will result in review for potential compliance actions.	8/26/2025