

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM136223
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. PITCHBLEND 24-25 FEDERAL/603H
2. Name of Operator COG OPERATING LLC		9. API Well No. 3002551660
3a. Address 600 West Illinois Ave, Midland, TX 79701	3b. Phone No. (include area code) (432) 683-7443	10. Field and Pool or Exploratory Area FAIRVIEW MILLS/Bone Spring
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 24/T25S/R34E/NMP		11. Country or Parish, State LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

COG Operating LLC respectfully requests approval for the following changes to the original approved APD.

BHL Changes:
From: 50' FSL and 1000' FEL Section. 25. T25S. R34E.
To: 50' FSL and 1254' FEL Section. 25. T25S. R34E.
C102 Attached.

Drilling Changes:
Drilling Program, Directional Plan, AC Report and Specs Attached.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) MAYTE REYES / Ph: (281) 293-1000	Title Regulatory Analyst
Signature (Electronic Submission)	Date 01/15/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 05/20/2025
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office CARLSBAD	

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.

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NWNE / 255 FNL / 1480 FEL / TWSP: 25S / RANGE: 34E / SECTION: 24 / LAT: 32.122488 / LONG: -103.419916 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 1000 FEL / TWSP: 25S / RANGE: 34E / SECTION: 24 / LAT: 32.122913 / LONG: -103.418366 (TVD: 12335 feet, MD: 12391 feet)

BHL: SESE / 50 FSL / 1000 FEL / TWSP: 25S / RANGE: 34E / SECTION: 25 / LAT: 32.094304 / LONG: -103.418372 (TVD: 12513 feet, MD: 22588 feet)

CONFIDENTIAL

Well Name: PITCHBLENDE 24-25 FEDERAL	Well Location: T25S / R34E / SEC 24 / NWNW / 32.122488 / -103.419916	County or Parish/State: LEA / NM
Well Number: 603H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM136223	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002551660	Operator: COG OPERATING LLC	

Notice of Intent

Sundry ID: 2831860

Type of Submission: Notice of Intent Type of Action: APD Change

Date Sundry Submitted: 01/15/2025 Time Sundry Submitted: 01:17

Date proposed operation will begin: 01/15/2025

Procedure Description: COG Operating LLC respectfully requests approval for the following changes to the original approved APD. BHL Changes: From: 50' FSL and 1000' FEL Section. 25. T25S. R34E. To: 50' FSL and 1254' FEL Section. 25. T25S. R34E. C102 Attached. Drilling Changes: Drilling Program, Directional Plan, AC Report and Specs Attached.

NOI Attachments

Procedure Description

- Pitchblende_24_25_Federal_Com_603H_Drilling_Program_01082025_20250115131711.pdf
- Pitchblende_24_25_Federal_Com_603H_Directonal_Plan_20250115131542.pdf
- Wedge_513_7.625_0.375_P110_ICY_10112023_20250115131541.pdf
- 23_5.5_Wedge_441_P110_CY_20250115131536.pdf
- Wedge_513_7.625_0.375_P110_ICY_01192024_90rbw_20250115131536.pdf
- API_BTC_10.750_0.400_J55_Casing_11092022_20250115131536.pdf
- Pitchblende_24_25_Federal_Com_603H_AC_Report_20250115131535.pdf
- COG_Pitchblende_24_25_Federal_Com_603H_New_C102_20250115131533.pdf
- 23_5.5_TXP_BTC_P110_CY_20250115131535.pdf

Received by OCD: 5/21/2025 2:09:45 PM

Page 5 of 60

Well Name: PITCHBLENDE 24-25 FEDERAL	Well Location: T25S / R34E / SEC 24 / NWNE / 32.122488 / -103.419916	County or Parish/State: LEA / NM
Well Number: 603H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM136223	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002551660	Operator: COG OPERATING LLC	

Conditions of Approval

Additional

PITCHBLENDE_24_25_FED_COM_603H_COAs_20250509113230.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 15, 2025 01:13 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
Phone: (575)748-6940	Zip: 88210
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: 05/20/2025
Signature: Chris Walls	

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

WELL LOCATION INFORMATION

API Number 30-025-51660	Pool Code 96340	Pool Name Fairview Mills; Bone Spring
Property Code	Property Name PITCHBLEND 24-25 FEDERAL COM	Well Number 603H
OGRID No. 229137	Operator Name COG OPERATING LLC	Ground Level Elevation 3353.1'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL B	Section 24	Township 25-S	Range 34-E	Lot	Ft. from N/S 255 FNL	Ft. from E/W 1480 FEL	Latitude 32.122488°N	Longitude 103.419916°W	County LEA
----------------	----------------------	-------------------------	----------------------	-----	--------------------------------	---------------------------------	--------------------------------	----------------------------------	----------------------

Bottom Hole Location

UL P	Section 25	Township 25-S	Range 34-E	Lot	Ft. from N/S 50 FSL	Ft. from E/W 1254 FEL	Latitude 32.094306°N	Longitude 103.419192°W	County LEA
----------------	----------------------	-------------------------	----------------------	-----	-------------------------------	---------------------------------	--------------------------------	----------------------------------	----------------------

Dedicated Acres 640	Infill or Defining Well Defining	Defining Well API 30-025-51660	Overlapping Spacing Unit (Y/N) N	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL B	Section 24	Township 25-S	Range 34-E	Lot	Ft. from N/S 255 FNL	Ft. from E/W 1480 FEL	Latitude 32.122488°N	Longitude 103.419916°W	County LEA
----------------	----------------------	-------------------------	----------------------	-----	--------------------------------	---------------------------------	--------------------------------	----------------------------------	----------------------

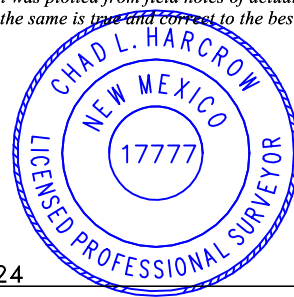
First Take Point (FTP)

UL A	Section 24	Township 25-S	Range 34-E	Lot	Ft. from N/S 100 FNL	Ft. from E/W 1254 FEL	Latitude 32.122914°N	Longitude 103.419186°W	County LEA
----------------	----------------------	-------------------------	----------------------	-----	--------------------------------	---------------------------------	--------------------------------	----------------------------------	----------------------

Last Take Point (LTP)

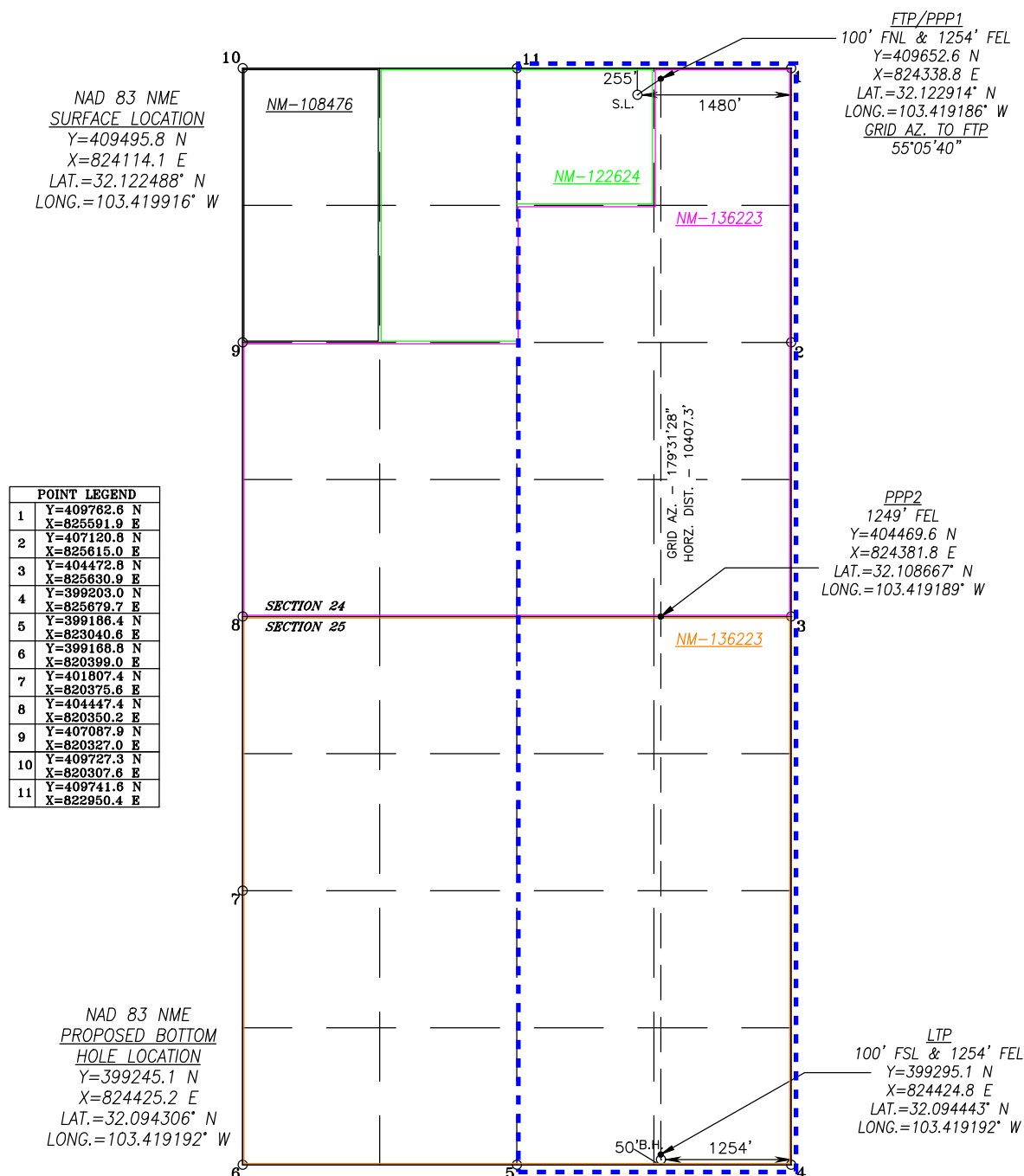
UL P	Section 25	Township 25-S	Range 34-E	Lot	Ft. from N/S 100 FSL	Ft. from E/W 1254 FEL	Latitude 32.094443°N	Longitude 103.419192°W	County LEA
----------------	----------------------	-------------------------	----------------------	-----	--------------------------------	---------------------------------	--------------------------------	----------------------------------	----------------------

Unitized Area or Area of Uniform Interest COM	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 3353.1'
---	--	---

OPERATOR CERTIFICATIONS <i>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.</i> <i>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.</i>		SURVEYOR CERTIFICATIONS <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>	
Signature Mayte Reyes	Date 12/6/2024	 Chad Harcrow 11/10/24	
Printed Name Mayte Reyes	Certificate Number 17777	Date of Survey NOVEMBER 3, 2021	
Email Address mayte.x.reyes@cop.com		W.O.#24-1089	DRAWN BY: WN PAGE 1 OF 2

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.



DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST

PITCHBLEND 24-25 FEDERAL PROJECT

PITCHBLEND 24-25 FED COM 603H

OWB

PWP0

Anticollision Report

19 December, 2024

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Reference	PWP0		
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 22,597.2usft	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	12/19/2024		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	2,000.0	PWP0 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp-Initilzd Con	
2,000.0	11,867.0	PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corri	
11,867.0	22,597.2	PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corri	

Summary						
	Reference	Offset	Distance			
Site Name	Measured	Measured	Between	Between	Separation	Warning
Offset Well - Wellbore - Design	Depth	Depth	Centres	Ellipses	Factor	
	(usft)	(usft)	(usft)	(usft)		
BANDANA FEDERAL PROJECT						
BANDANA FEDERAL COM 601H - OWB - AWP	12,150.0	20,285.0	521.1	433.0	5.914 SF	
BANDANA FEDERAL COM 601H - OWB - AWP	12,225.0	20,285.0	501.4	419.8	6.147 ES	
BANDANA FEDERAL COM 601H - OWB - AWP	12,257.2	20,285.0	499.4	421.1	6.380 CC	
BANDANA FEDERAL COM 702H - OWB - AWP	12,225.0	20,620.0	751.2	656.7	7.949 SF	
BANDANA FEDERAL COM 702H - OWB - AWP	12,325.0	20,620.0	727.5	638.0	8.129 ES	
BANDANA FEDERAL COM 702H - OWB - AWP	12,351.7	20,620.0	726.4	638.5	8.263 CC	
PITCHBLENDE 24-25 FEDERAL PROJECT						
PITCHBLENDE 24-25 FED COM 604H - OWB - PWP0	1,966.6	1,966.8	54.1	45.4	6.175 CC	
PITCHBLENDE 24-25 FED COM 604H - OWB - PWP0	2,000.0	2,000.0	54.1	45.3	6.116 ES	
PITCHBLENDE 24-25 FED COM 604H - OWB - PWP0	2,100.0	2,098.9	55.1	46.0	6.085 SF	
PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0	2,548.6	2,545.8	25.1	14.0	2.261	Caution - Monitor Closely, CC, ES, SF
PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0	2,000.0	2,000.0	30.0	22.0	3.732	CC, ES, SF

Offset Design:	BANDANA FEDERAL PROJECT - BANDANA FEDERAL COM 601H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program:	100-r.5 SDI_KPR_WL_NS-CT, 12022-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
11,600.0	11,580.6	20,285.0	12,551.1	15.4	61.4	53.26	366.2	438.6	980.8	881.5	99.26	9.881		
11,700.0	11,680.6	20,285.0	12,551.1	15.5	61.4	53.26	366.2	438.6	885.0	786.0	98.93	8.946		
11,800.0	11,780.6	20,285.0	12,551.1	15.5	61.4	53.26	366.2	438.6	790.2	691.8	98.42	8.029		
11,867.0	11,847.5	20,285.0	12,551.1	15.6	61.4	53.26	366.2	438.6	727.5	629.6	97.94	7.428		
11,875.0	11,855.6	20,285.0	12,551.1	15.6	61.4	-128.18	366.2	438.6	720.0	622.2	97.83	7.360		
11,900.0	11,880.5	20,285.0	12,551.1	15.6	61.4	-133.37	366.2	438.6	697.1	599.6	97.57	7.145		
11,925.0	11,905.4	20,285.0	12,551.1	15.6	61.4	-137.57	366.2	438.6	674.8	577.6	97.23	6.940		
11,950.0	11,930.2	20,285.0	12,551.1	15.6	61.4	-140.99	366.2	438.6	653.1	556.3	96.80	6.747		
11,975.0	11,954.7	20,285.0	12,551.1	15.6	61.4	-143.78	366.2	438.6	632.2	536.0	96.26	6.568		
12,000.0	11,978.9	20,285.0	12,551.1	15.6	61.4	-146.07	366.2	438.6	612.3	516.6	95.61	6.404		
12,025.0	12,002.7	20,285.0	12,551.1	15.6	61.4	-147.95	366.2	438.6	593.4	498.6	94.82	6.258		
12,050.0	12,026.1	20,285.0	12,551.1	15.7	61.4	-149.50	366.2	438.6	575.8	481.9	93.87	6.134		
12,075.0	12,049.1	20,285.0	12,551.1	15.7	61.4	-150.77	366.2	438.6	559.5	466.8	92.74	6.034		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: BANDANA FEDERAL PROJECT - BANDANA FEDERAL COM 601H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 12022-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		No-Go Distance (usft)	Warning
12,100.0	12,071.4	20,285.0	12,551.1	15.7	61.4	-151.81	366.2	438.6	544.9	453.5	91.42	5.961	
12,125.0	12,093.2	20,285.0	12,551.1	15.7	61.4	-152.65	366.2	438.6	532.1	442.2	89.88	5.920	
12,150.0	12,114.3	20,285.0	12,551.1	15.7	61.4	-153.32	366.2	438.6	521.1	433.0	88.12	5.914 SF	
12,175.0	12,134.6	20,285.0	12,551.1	15.7	61.4	-153.82	366.2	438.6	512.3	426.2	86.14	5.947	
12,200.0	12,154.2	20,285.0	12,551.1	15.7	61.4	-154.18	366.2	438.6	505.7	421.7	83.95	6.023	
12,225.0	12,172.9	20,285.0	12,551.1	15.8	61.4	-154.41	366.2	438.6	501.4	419.8	81.57	6.147 ES	
12,250.0	12,190.8	20,285.0	12,551.1	15.8	61.4	-154.51	366.2	438.6	499.5	420.4	79.02	6.320	
12,257.2	12,195.7	20,285.0	12,551.1	15.8	61.4	-154.52	366.2	438.6	499.4	421.1	78.27	6.380 CC	
12,275.0	12,207.7	20,285.0	12,551.1	15.8	61.4	-154.48	366.2	438.6	500.0	423.6	76.36	6.547	
12,300.0	12,223.6	20,285.0	12,551.1	15.8	61.4	-154.33	366.2	438.6	502.9	429.3	73.65	6.829	
12,325.0	12,238.5	20,285.0	12,551.1	15.8	61.4	-154.05	366.2	438.6	508.2	437.3	70.93	7.165	
12,350.0	12,252.3	20,285.0	12,551.1	15.9	61.4	-153.63	366.2	438.6	515.8	447.5	68.26	7.557	
12,375.0	12,265.0	20,285.0	12,551.1	15.9	61.4	-153.05	366.2	438.6	525.6	459.9	65.69	8.000	
12,400.0	12,276.5	20,285.0	12,551.1	15.9	61.4	-152.32	366.2	438.6	537.3	474.1	63.27	8.492	
12,425.0	12,286.9	20,285.0	12,551.1	15.9	61.4	-151.40	366.2	438.6	551.0	489.9	61.02	9.029	
12,450.0	12,296.1	20,285.0	12,551.1	15.9	61.4	-150.26	366.2	438.6	566.3	507.3	58.97	9.603	
12,475.0	12,304.1	20,285.0	12,551.1	16.0	61.4	-148.88	366.2	438.6	583.1	526.0	57.11	10.210	
12,500.0	12,310.7	20,285.0	12,551.1	16.0	61.4	-147.19	366.2	438.6	601.3	545.8	55.46	10.842	
12,525.0	12,316.2	20,285.0	12,551.1	16.0	61.4	-145.15	366.2	438.6	620.6	566.6	54.00	11.494	
12,550.0	12,320.3	20,285.0	12,551.1	16.0	61.4	-142.66	366.2	438.6	641.0	588.3	52.72	12.159	
12,575.0	12,323.2	20,285.0	12,551.1	16.0	61.4	-139.62	366.2	438.6	662.3	610.7	51.61	12.832	
12,600.0	12,324.7	20,285.0	12,551.1	16.1	61.4	-135.89	366.2	438.6	684.3	633.6	50.65	13.508	
12,617.0	12,325.0	20,285.0	12,551.1	16.1	61.4	-132.87	366.2	438.6	699.5	649.4	50.09	13.966	
12,700.0	12,325.0	20,285.0	12,551.1	16.2	61.4	-132.87	366.2	438.6	775.7	727.9	47.77	16.238	
12,800.0	12,325.0	20,285.0	12,551.1	16.4	61.4	-132.87	366.2	438.6	869.1	823.4	45.67	19.031	
12,900.0	12,325.0	20,285.0	12,551.1	16.6	61.4	-132.87	366.2	438.6	963.8	919.7	44.11	21.852	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: BANDANA FEDERAL PROJECT - BANDANA FEDERAL COM 702H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 1096-r.5 MWD+IFR1+MS, 9605-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	
11,900.0	11,880.5	20,620.0	12,804.7	15.6	65.8	113.45	304.9	-154.5	981.2	880.3	100.85	9.729	
11,925.0	11,905.4	20,620.0	12,804.7	15.6	65.8	119.00	304.9	-154.5	958.7	857.9	100.72	9.518	
11,950.0	11,930.2	20,620.0	12,804.7	15.6	65.8	123.83	304.9	-154.5	936.6	836.0	100.55	9.314	
11,975.0	11,954.7	20,620.0	12,804.7	15.6	65.8	127.97	304.9	-154.5	915.0	814.7	100.34	9.119	
12,000.0	11,978.9	20,620.0	12,804.7	15.6	65.8	131.52	304.9	-154.5	894.1	794.0	100.09	8.933	
12,025.0	12,002.7	20,620.0	12,804.7	15.6	65.8	134.54	304.9	-154.5	873.8	774.0	99.77	8.758	
12,050.0	12,026.1	20,620.0	12,804.7	15.7	65.8	137.12	304.9	-154.5	854.4	755.0	99.40	8.596	
12,075.0	12,049.1	20,620.0	12,804.7	15.7	65.8	139.32	304.9	-154.5	835.9	737.0	98.96	8.447	
12,100.0	12,071.4	20,620.0	12,804.7	15.7	65.8	141.18	304.9	-154.5	818.5	720.1	98.45	8.314	
12,125.0	12,093.2	20,620.0	12,804.7	15.7	65.8	142.77	304.9	-154.5	802.2	704.4	97.85	8.199	
12,150.0	12,114.3	20,620.0	12,804.7	15.7	65.8	144.10	304.9	-154.5	787.3	690.1	97.16	8.103	
12,175.0	12,134.6	20,620.0	12,804.7	15.7	65.8	145.23	304.9	-154.5	773.7	677.3	96.38	8.028	
12,200.0	12,154.2	20,620.0	12,804.7	15.7	65.8	146.16	304.9	-154.5	761.7	666.2	95.49	7.976	
12,225.0	12,172.9	20,620.0	12,804.7	15.8	65.8	146.92	304.9	-154.5	751.2	656.7	94.50	7.949 SF	
12,250.0	12,190.8	20,620.0	12,804.7	15.8	65.8	147.52	304.9	-154.5	742.5	649.1	93.41	7.950	
12,275.0	12,207.7	20,620.0	12,804.7	15.8	65.8	147.98	304.9	-154.5	735.6	643.4	92.20	7.979	
12,300.0	12,223.6	20,620.0	12,804.7	15.8	65.8	148.30	304.9	-154.5	730.6	639.7	90.90	8.038	
12,325.0	12,238.5	20,620.0	12,804.7	15.8	65.8	148.50	304.9	-154.5	727.5	638.0	89.50	8.129 ES	
12,350.0	12,252.3	20,620.0	12,804.7	15.9	65.8	148.57	304.9	-154.5	726.4	638.4	88.01	8.253	
12,351.7	12,253.2	20,620.0	12,804.7	15.9	65.8	148.57	304.9	-154.5	726.4	638.5	87.91	8.263 CC	
12,375.0	12,265.0	20,620.0	12,804.7	15.9	65.8	148.52	304.9	-154.5	727.3	640.8	86.47	8.411	
12,400.0	12,276.5	20,620.0	12,804.7	15.9	65.8	148.34	304.9	-154.5	730.1	645.2	84.87	8.602	
12,425.0	12,286.9	20,620.0	12,804.7	15.9	65.8	148.03	304.9	-154.5	734.8	651.6	83.24	8.828	
12,450.0	12,296.1	20,620.0	12,804.7	15.9	65.8	147.59	304.9	-154.5	741.5	659.9	81.60	9.087	
12,475.0	12,304.1	20,620.0	12,804.7	16.0	65.8	147.01	304.9	-154.5	749.9	670.0	79.97	9.378	
12,500.0	12,310.7	20,620.0	12,804.7	16.0	65.8	146.27	304.9	-154.5	760.1	681.7	78.37	9.700	
12,525.0	12,316.2	20,620.0	12,804.7	16.0	65.8	145.37	304.9	-154.5	771.9	695.1	76.81	10.050	
12,550.0	12,320.3	20,620.0	12,804.7	16.0	65.8	144.27	304.9	-154.5	785.3	710.0	75.31	10.428	
12,575.0	12,323.2	20,620.0	12,804.7	16.0	65.8	142.97	304.9	-154.5	800.1	726.2	73.88	10.829	
12,600.0	12,324.7	20,620.0	12,804.7	16.1	65.8	141.42	304.9	-154.5	816.2	743.6	72.54	11.252	
12,617.0	12,325.0	20,620.0	12,804.7	16.1	65.8	140.21	304.9	-154.5	827.8	756.1	71.67	11.549	
12,700.0	12,325.0	20,620.0	12,804.7	16.2	65.8	140.21	304.9	-154.5	887.8	820.0	67.78	13.098	
12,800.0	12,325.0	20,620.0	12,804.7	16.4	65.8	140.21	304.9	-154.5	964.6	900.9	63.71	15.141	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 604H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12046-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.2	0.2	0.0	0.0	-34.16	44.8	-30.4	54.1				
100.0	100.0	100.2	100.2	0.6	0.6	-34.16	44.8	-30.4	54.1	52.5	1.59	34.010	
200.0	200.0	200.2	200.2	1.1	1.1	-34.16	44.8	-30.4	54.1	51.6	2.54	21.281	
300.0	300.0	300.2	300.2	1.4	1.4	-34.16	44.8	-30.4	54.1	50.9	3.19	16.965	
400.0	400.0	400.2	400.2	1.7	1.7	-34.16	44.8	-30.4	54.1	50.4	3.72	14.547	
500.0	500.0	500.2	500.2	1.9	1.9	-34.16	44.8	-30.4	54.1	50.0	4.19	12.934	
600.0	600.0	600.2	600.2	2.1	2.1	-34.16	44.8	-30.4	54.1	49.5	4.61	11.754	
700.0	700.0	700.2	700.2	2.3	2.3	-34.16	44.8	-30.4	54.1	49.1	4.99	10.839	
800.0	800.0	800.2	800.2	2.5	2.5	-34.16	44.8	-30.4	54.1	48.8	5.36	10.102	
900.0	900.0	900.2	900.2	2.7	2.7	-34.16	44.8	-30.4	54.1	48.4	5.70	9.490	
1,000.0	1,000.0	1,000.2	1,000.2	2.9	2.9	-34.16	44.8	-30.4	54.1	48.1	6.03	8.971	
1,100.0	1,100.0	1,100.2	1,100.2	3.1	3.1	-34.16	44.8	-30.4	54.1	47.8	6.35	8.523	
1,200.0	1,200.0	1,200.2	1,200.2	3.2	3.2	-34.16	44.8	-30.4	54.1	47.5	6.66	8.131	
1,300.0	1,300.0	1,300.2	1,300.2	3.4	3.4	-34.16	44.8	-30.4	54.1	47.2	6.96	7.784	
1,400.0	1,400.0	1,400.2	1,400.2	3.5	3.5	-34.16	44.8	-30.4	54.1	46.9	7.24	7.473	
1,500.0	1,500.0	1,500.2	1,500.2	3.7	3.7	-34.16	44.8	-30.4	54.1	46.6	7.53	7.194	
1,600.0	1,600.0	1,600.2	1,600.2	3.8	3.8	-34.16	44.8	-30.4	54.1	46.3	7.80	6.940	
1,700.0	1,700.0	1,700.2	1,700.2	4.0	4.0	-34.16	44.8	-30.4	54.1	46.1	8.07	6.708	
1,800.0	1,800.0	1,800.2	1,800.2	4.1	4.1	-34.16	44.8	-30.4	54.1	45.8	8.34	6.494	
1,900.0	1,900.0	1,900.2	1,900.2	4.3	4.3	-34.16	44.8	-30.4	54.1	45.5	8.60	6.298	
1,966.6	1,966.6	1,966.8	1,966.8	4.4	4.4	-34.16	44.8	-30.4	54.1	45.4	8.77	6.175 CC	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-34.16	44.8	-30.4	54.1	45.3	8.85	6.116 ES	
2,100.0	2,100.0	2,098.9	2,098.9	4.6	4.5	-84.71	45.0	-32.1	55.1	46.0	9.05	6.085 SF	
2,200.0	2,199.8	2,197.0	2,196.9	4.8	4.7	-93.29	45.4	-37.1	58.8	49.5	9.28	6.331	
2,300.0	2,299.5	2,294.0	2,293.5	5.0	4.8	-104.82	46.2	-45.4	67.4	57.9	9.52	7.082	
2,400.0	2,398.7	2,389.2	2,388.0	5.3	5.0	-116.07	47.2	-56.7	83.0	73.1	9.86	8.416	
2,400.2	2,398.9	2,389.4	2,388.2	5.3	5.0	-116.09	47.2	-56.7	83.0	73.2	9.86	8.419	
2,500.0	2,497.7	2,482.7	2,480.4	5.4	5.2	-124.76	48.6	-70.8	105.1	94.8	10.25	10.251	
2,600.0	2,596.8	2,574.5	2,570.7	5.6	5.4	-130.39	50.1	-87.6	131.8	121.2	10.64	12.388	
2,700.0	2,695.8	2,664.6	2,658.7	5.7	5.6	-134.06	51.9	-106.8	162.5	151.5	11.02	14.744	
2,800.0	2,794.8	2,753.1	2,744.5	5.9	5.8	-136.47	53.9	-128.4	196.6	185.3	11.31	17.385	
2,900.0	2,893.8	2,846.4	2,834.5	6.1	5.9	-138.24	56.1	-152.4	232.2	220.6	11.60	20.009	
3,000.0	2,992.9	2,939.6	2,924.6	6.2	6.1	-139.54	58.4	-176.4	267.9	256.0	11.94	22.446	
3,100.0	3,091.9	3,032.8	3,014.7	6.4	6.2	-140.54	60.6	-200.4	303.7	291.5	12.27	24.755	
3,200.0	3,190.9	3,126.1	3,104.8	6.6	6.4	-141.32	62.8	-224.4	339.6	327.0	12.61	26.942	
3,300.0	3,289.9	3,219.3	3,194.9	6.7	6.6	-141.96	65.0	-248.4	375.5	362.6	12.94	29.013	
3,400.0	3,389.0	3,312.6	3,284.9	6.9	6.7	-142.48	67.3	-272.4	411.5	398.2	13.28	30.976	
3,500.0	3,488.0	3,405.8	3,375.0	7.1	6.9	-142.92	69.5	-296.4	447.5	433.9	13.63	32.838	
3,600.0	3,587.0	3,499.1	3,465.1	7.2	7.1	-143.30	71.7	-320.4	483.5	469.6	13.97	34.604	
3,700.0	3,686.0	3,592.3	3,555.2	7.4	7.3	-143.62	74.0	-344.4	519.6	505.2	14.32	36.281	
3,800.0	3,785.1	3,685.6	3,645.2	7.6	7.5	-143.90	76.2	-368.4	555.6	540.9	14.67	37.874	
3,900.0	3,884.1	3,778.8	3,735.3	7.8	7.6	-144.15	78.4	-392.4	591.6	576.6	15.02	39.389	
3,994.0	3,977.2	3,866.5	3,820.0	7.9	7.8	-144.35	80.5	-415.0	625.6	610.2	15.35	40.764	
4,000.0	3,983.1	3,872.1	3,825.4	7.9	7.8	-144.38	80.6	-416.4	627.7	612.3	15.36	40.860	
4,100.0	4,082.3	3,965.6	3,915.8	8.2	8.0	-144.74	82.9	-440.5	663.0	647.2	15.81	41.932	
4,200.0	4,181.6	4,059.7	4,006.6	8.4	8.2	-144.99	85.1	-464.7	697.0	680.9	16.16	43.130	
4,300.0	4,281.2	4,154.2	4,097.9	8.6	8.4	-145.14	87.4	-489.0	729.7	713.1	16.51	44.196	
4,400.0	4,380.9	4,249.1	4,189.7	8.7	8.6	-145.20	89.6	-513.4	760.9	744.1	16.86	45.140	
4,500.0	4,480.7	4,344.5	4,281.8	8.9	8.8	-145.19	91.9	-538.0	790.9	773.7	17.20	45.972	
4,600.0	4,580.6	4,440.3	4,374.3	9.0	9.0	-145.12	94.2	-562.6	819.4	801.9	17.55	46.701	
4,700.0	4,680.6	4,536.4	4,467.2	9.2	9.2	-144.98	96.5	-587.4	846.6	828.8	17.89	47.338	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design:	PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 604H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program:	0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12046-r.5 MWD+IFR1+SAG+FDIR											Offset Well Error:	0.0 usft
Reference	Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
4,794.4	4,775.0	4,627.5	4,555.2	9.3	9.4	-97.37	98.7	-610.8	871.1	852.9	18.18	47.914	
4,800.0	4,780.6	4,632.9	4,560.4	9.3	9.4	-97.35	98.8	-612.2	872.5	854.3	18.19	47.959	
4,900.0	4,880.6	4,729.5	4,653.7	9.5	9.6	-96.99	101.1	-637.1	897.8	879.2	18.60	48.280	
5,000.0	4,980.6	4,826.1	4,747.0	9.6	9.8	-96.65	103.4	-661.9	923.1	904.2	18.90	48.838	
5,100.0	5,080.6	4,922.7	4,840.3	9.7	10.0	-96.32	105.7	-686.8	948.4	929.2	19.21	49.376	
5,200.0	5,180.6	5,019.3	4,933.6	9.8	10.2	-96.02	108.1	-711.7	973.8	954.3	19.52	49.894	
5,300.0	5,280.6	5,115.9	5,027.0	9.9	10.5	-95.73	110.4	-736.5	999.2	979.4	19.83	50.394	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12177-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.1	0.1	0.0	0.0	-0.51	45.0	-0.4	45.0				
100.0	100.0	100.1	100.1	0.6	0.6	-0.51	45.0	-0.4	45.0	43.4	1.60	28.212	
200.0	200.0	200.1	200.1	1.1	1.1	-0.51	45.0	-0.4	45.0	42.4	2.55	17.614	
300.0	300.0	300.1	300.1	1.4	1.4	-0.51	45.0	-0.4	45.0	41.8	3.21	14.010	
400.0	400.0	400.1	400.1	1.7	1.7	-0.51	45.0	-0.4	45.0	41.2	3.75	11.987	
500.0	500.0	500.1	500.1	1.9	1.9	-0.51	45.0	-0.4	45.0	40.8	4.23	10.634	
600.0	600.0	600.1	600.1	2.1	2.1	-0.51	45.0	-0.4	45.0	40.3	4.67	9.643	
700.0	700.0	700.1	700.1	2.3	2.3	-0.51	45.0	-0.4	45.0	39.9	5.07	8.874	
800.0	800.0	800.1	800.1	2.5	2.5	-0.51	45.0	-0.4	45.0	39.5	5.45	8.254	
900.0	900.0	900.1	900.1	2.7	2.7	-0.51	45.0	-0.4	45.0	39.2	5.82	7.738	
1,000.0	1,000.0	1,000.1	1,000.1	2.9	2.9	-0.51	45.0	-0.4	45.0	38.8	6.16	7.301	
1,100.0	1,100.0	1,100.1	1,100.1	3.1	3.1	-0.51	45.0	-0.4	45.0	38.5	6.50	6.923	
1,200.0	1,200.0	1,200.1	1,200.1	3.2	3.2	-0.51	45.0	-0.4	45.0	38.2	6.83	6.592	
1,300.0	1,300.0	1,300.1	1,300.1	3.4	3.4	-0.51	45.0	-0.4	45.0	37.9	7.14	6.299	
1,400.0	1,400.0	1,400.1	1,400.1	3.5	3.5	-0.51	45.0	-0.4	45.0	37.5	7.45	6.037	
1,500.0	1,500.0	1,500.1	1,500.1	3.7	3.7	-0.51	45.0	-0.4	45.0	37.2	7.76	5.800	
1,600.0	1,600.0	1,600.1	1,600.1	3.8	3.8	-0.51	45.0	-0.4	45.0	36.9	8.06	5.586	
1,700.0	1,700.0	1,700.1	1,700.1	4.0	4.0	-0.51	45.0	-0.4	45.0	36.7	8.35	5.390	
1,800.0	1,800.0	1,800.1	1,800.1	4.1	4.1	-0.51	45.0	-0.4	45.0	36.4	8.64	5.210	
1,900.0	1,900.0	1,900.1	1,900.1	4.3	4.3	-0.51	45.0	-0.4	45.0	36.1	8.92	5.044	
1,966.6	1,966.6	1,966.7	1,966.7	4.4	4.4	-0.51	45.0	-0.4	45.0	35.9	9.11	4.941	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-0.51	45.0	-0.4	45.0	35.8	9.20	4.890	
2,100.0	2,100.0	2,099.9	2,099.9	4.6	4.5	-47.38	45.3	1.3	44.1	34.6	9.47	4.653	
2,200.0	2,199.8	2,199.6	2,199.4	4.8	4.7	-45.60	46.0	6.5	41.3	31.5	9.84	4.197	
2,300.0	2,299.5	2,299.2	2,298.6	5.0	4.9	-42.05	47.3	15.0	36.8	26.6	10.22	3.603	
2,400.0	2,398.7	2,398.6	2,397.3	5.3	5.0	-35.38	49.0	27.0	30.9	20.3	10.62	2.909 Normal Operations	
2,400.2	2,398.9	2,398.8	2,397.5	5.3	5.0	-35.36	49.0	27.0	30.9	20.3	10.62	2.907 Normal Operations	
2,500.0	2,497.7	2,497.7	2,495.2	5.4	5.2	-20.78	51.3	42.3	25.8	14.9	10.96	2.358 Caution - Monitor Closely	
2,548.6	2,545.9	2,545.8	2,542.5	5.5	5.3	-9.79	52.5	50.9	25.1	14.0	11.08	2.261 Caution - Monitor Closely, CC, ES, SF	
2,600.0	2,596.8	2,596.5	2,592.2	5.6	5.5	3.04	54.0	60.8	26.1	14.9	11.17	2.332 Caution - Monitor Closely	
2,700.0	2,695.8	2,694.8	2,688.0	5.7	5.6	24.12	57.2	82.5	33.8	22.5	11.25	3.000	
2,800.0	2,794.8	2,793.7	2,784.1	5.9	5.8	36.43	60.6	105.7	45.6	34.2	11.48	3.976	
2,900.0	2,893.8	2,892.7	2,880.3	6.1	6.0	43.49	64.0	128.9	58.7	47.0	11.74	5.001	
3,000.0	2,992.9	2,991.6	2,976.4	6.2	6.2	47.94	67.4	152.0	72.3	60.3	12.03	6.012	
3,100.0	3,091.9	3,090.5	3,072.5	6.4	6.4	50.98	70.8	175.2	86.3	73.9	12.34	6.989	
3,200.0	3,190.9	3,189.5	3,168.6	6.6	6.5	53.16	74.2	198.3	100.4	87.7	12.66	7.926	
3,300.0	3,289.9	3,288.4	3,264.8	6.7	6.7	54.81	77.7	221.5	114.6	101.6	12.99	8.821	
3,400.0	3,389.0	3,387.3	3,360.9	6.9	6.9	56.09	81.1	244.7	128.9	115.6	13.32	9.675	
3,500.0	3,488.0	3,486.3	3,457.0	7.1	7.1	57.12	84.5	267.8	143.2	129.6	13.65	10.490	
3,600.0	3,587.0	3,585.2	3,553.1	7.2	7.3	57.95	87.9	291.0	157.6	143.6	13.99	11.267	
3,700.0	3,686.0	3,684.2	3,649.3	7.4	7.5	58.65	91.3	314.2	172.0	157.6	14.32	12.008	
3,800.0	3,785.1	3,783.1	3,745.4	7.6	7.7	59.24	94.7	337.3	186.4	171.7	14.66	12.716	
3,900.0	3,884.1	3,882.0	3,841.5	7.8	7.8	59.75	98.1	360.5	200.8	185.8	15.00	13.392	
3,994.0	3,977.2	3,975.1	3,931.9	7.9	8.0	60.16	101.3	382.3	214.4	199.1	15.31	14.007	
4,000.0	3,983.1	3,981.0	3,937.7	7.9	8.0	60.20	101.5	383.7	215.3	200.0	15.32	14.049	
4,100.0	4,082.3	4,079.9	4,033.7	8.2	8.2	60.50	104.9	406.8	230.2	214.4	15.77	14.594	
4,200.0	4,181.6	4,178.6	4,129.7	8.4	8.4	60.43	108.3	429.9	246.0	229.9	16.12	15.262	
4,300.0	4,281.2	4,277.2	4,225.4	8.6	8.6	60.05	111.7	453.0	262.6	246.2	16.47	15.951	
4,400.0	4,380.9	4,375.6	4,321.0	8.7	8.8	59.44	115.1	476.0	280.2	263.4	16.82	16.662	
4,500.0	4,480.7	4,473.7	4,416.4	8.9	9.0	58.63	118.5	499.0	298.7	281.5	17.17	17.396	
4,600.0	4,580.6	4,571.6	4,511.5	9.0	9.2	57.67	121.9	521.9	318.1	300.6	17.52	18.155	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12177-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
4,700.0	4,680.6	4,669.2	4,606.4	9.2	9.4	56.60	125.2	544.8	338.6	320.8	17.88	18.942	
4,794.4	4,775.0	4,761.1	4,695.6	9.3	9.6	102.94	128.4	566.3	359.0	340.8	18.20	19.729	
4,800.0	4,780.6	4,766.5	4,700.9	9.3	9.6	102.86	128.6	567.6	360.3	342.1	18.21	19.780	
4,900.0	4,880.6	4,863.7	4,795.3	9.5	9.8	101.58	131.9	590.3	382.5	363.9	18.65	20.513	
5,000.0	4,980.6	4,960.9	4,889.7	9.6	10.0	100.44	135.3	613.1	404.9	385.9	18.98	21.337	
5,100.0	5,080.6	5,058.0	4,984.1	9.7	10.3	99.42	138.6	635.8	427.4	408.1	19.30	22.141	
5,200.0	5,180.6	5,155.2	5,078.5	9.8	10.5	98.50	142.0	658.6	450.1	430.4	19.63	22.925	
5,300.0	5,280.6	5,252.3	5,172.9	9.9	10.7	97.67	145.3	681.3	472.8	452.9	19.96	23.691	
5,400.0	5,380.6	5,349.5	5,267.3	10.0	10.9	96.92	148.7	704.1	495.7	475.4	20.28	24.437	
5,500.0	5,480.6	5,446.7	5,361.7	10.0	11.1	96.23	152.0	726.8	518.6	498.0	20.61	25.164	
5,600.0	5,580.6	5,543.8	5,456.1	10.1	11.3	95.60	155.4	749.6	541.5	520.6	20.93	25.872	
5,700.0	5,680.6	5,641.0	5,550.5	10.2	11.5	95.02	158.7	772.3	564.6	543.3	21.25	26.562	
5,800.0	5,780.6	5,738.1	5,644.9	10.3	11.7	94.49	162.1	795.1	587.6	566.1	21.58	27.234	
5,900.0	5,880.6	5,835.3	5,739.3	10.4	11.9	93.99	165.4	817.8	610.8	588.9	21.90	27.888	
6,000.0	5,980.6	5,932.5	5,833.7	10.5	12.1	93.54	168.8	840.6	633.9	611.7	22.22	28.526	
6,100.0	6,080.6	6,029.6	5,928.1	10.6	12.3	93.11	172.1	863.3	657.1	634.6	22.55	29.146	
6,200.0	6,180.6	6,126.8	6,022.5	10.7	12.5	92.72	175.5	886.1	680.4	657.5	22.87	29.751	
6,300.0	6,280.6	6,223.9	6,116.9	10.8	12.8	92.34	178.8	908.8	703.6	680.4	23.19	30.340	
6,400.0	6,380.6	6,321.1	6,211.3	10.8	13.0	92.00	182.1	931.5	726.9	703.4	23.51	30.914	
6,500.0	6,480.6	6,418.3	6,305.7	10.9	13.2	91.67	185.5	954.3	750.2	726.4	23.84	31.473	
6,600.0	6,580.6	6,515.4	6,400.1	11.0	13.4	91.37	188.8	977.0	773.6	749.4	24.16	32.023	
6,700.0	6,680.6	6,620.8	6,502.6	11.1	13.6	91.06	192.4	1,001.4	796.6	772.2	24.47	32.556	
6,800.0	6,780.6	6,734.2	6,613.3	11.2	13.8	90.77	196.0	1,025.7	818.0	793.2	24.82	32.957	
6,900.0	6,880.6	6,848.6	6,725.4	11.3	14.1	90.52	199.3	1,048.1	837.5	812.4	25.17	33.280	
7,000.0	6,980.6	6,963.8	6,838.8	11.4	14.3	90.31	202.3	1,068.3	855.1	829.6	25.50	33.531	
7,100.0	7,080.6	7,079.9	6,953.4	11.5	14.5	90.12	204.9	1,086.4	870.7	844.9	25.83	33.711	
7,200.0	7,180.6	7,196.6	7,069.0	11.6	14.8	89.97	207.3	1,102.3	884.3	858.2	26.15	33.824	
7,300.0	7,280.6	7,314.0	7,185.6	11.6	15.0	89.84	209.3	1,116.0	896.0	869.5	26.45	33.873	
7,400.0	7,380.6	7,431.8	7,302.9	11.7	15.2	89.74	211.0	1,127.3	905.6	878.8	26.74	33.861	
7,500.0	7,480.6	7,550.1	7,420.8	11.8	15.4	89.66	212.3	1,136.2	913.1	886.1	27.02	33.790	
7,600.0	7,580.6	7,668.8	7,539.3	11.9	15.6	89.60	213.2	1,142.8	918.7	891.4	27.29	33.665	
7,700.0	7,680.6	7,787.6	7,658.0	12.0	15.8	89.56	213.8	1,146.9	922.2	894.6	27.54	33.489	
7,800.0	7,780.6	7,906.6	7,777.0	12.1	15.9	89.55	214.1	1,148.6	923.6	895.8	27.75	33.283	
7,900.0	7,880.6	8,010.3	7,880.7	12.2	16.0	89.55	214.1	1,148.7	923.6	895.8	27.86	33.151	
8,000.0	7,980.6	8,110.3	7,980.7	12.3	16.0	89.55	214.1	1,148.7	923.6	895.6	27.99	32.997	
8,100.0	8,080.6	8,210.3	8,080.7	12.3	16.1	89.55	214.1	1,148.7	923.6	895.5	28.12	32.844	
8,200.0	8,180.6	8,310.3	8,180.7	12.4	16.1	89.55	214.1	1,148.7	923.6	895.4	28.25	32.692	
8,300.0	8,280.6	8,410.3	8,280.7	12.5	16.2	89.55	214.1	1,148.7	923.6	895.2	28.38	32.541	
8,400.0	8,380.6	8,510.3	8,380.7	12.6	16.2	89.55	214.1	1,148.7	923.6	895.1	28.51	32.391	
8,500.0	8,480.6	8,610.3	8,480.7	12.7	16.3	89.55	214.1	1,148.7	923.6	895.0	28.65	32.242	
8,600.0	8,580.6	8,710.3	8,580.7	12.8	16.3	89.55	214.1	1,148.7	923.6	894.8	28.78	32.095	
8,700.0	8,680.6	8,810.3	8,680.7	12.9	16.4	89.55	214.1	1,148.7	923.6	894.7	28.91	31.948	
8,800.0	8,780.6	8,910.3	8,780.7	13.0	16.4	89.55	214.1	1,148.7	923.6	894.6	29.04	31.802	
8,900.0	8,880.6	9,010.3	8,880.7	13.0	16.5	89.55	214.1	1,148.7	923.6	894.4	29.18	31.657	
9,000.0	8,980.6	9,110.3	8,980.7	13.1	16.6	89.55	214.1	1,148.7	923.6	894.3	29.31	31.513	
9,100.0	9,080.6	9,210.3	9,080.7	13.2	16.6	89.55	214.1	1,148.7	923.6	894.2	29.44	31.370	
9,200.0	9,180.6	9,310.3	9,180.7	13.3	16.7	89.55	214.1	1,148.7	923.6	894.0	29.58	31.229	
9,300.0	9,280.6	9,410.3	9,280.7	13.4	16.7	89.55	214.1	1,148.7	923.6	893.9	29.71	31.088	
9,400.0	9,380.6	9,510.3	9,380.7	13.5	16.8	89.55	214.1	1,148.7	923.6	893.8	29.84	30.948	
9,500.0	9,480.6	9,610.3	9,480.7	13.6	16.8	89.55	214.1	1,148.7	923.6	893.6	29.98	30.809	
9,600.0	9,580.6	9,710.3	9,580.7	13.6	16.9	89.55	214.1	1,148.7	923.6	893.5	30.11	30.671	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12177-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,700.0	9,680.6	9,810.3	9,680.7	13.7	16.9	89.55	214.1	1,148.7	923.6	893.4	30.25	30.534	
9,800.0	9,780.6	9,910.3	9,780.7	13.8	17.0	89.55	214.1	1,148.7	923.6	893.2	30.38	30.398	
9,900.0	9,880.6	10,010.3	9,880.7	13.9	17.0	89.55	214.1	1,148.7	923.6	893.1	30.52	30.263	
10,000.0	9,980.6	10,110.3	9,980.7	14.0	17.1	89.55	214.1	1,148.7	923.6	893.0	30.66	30.129	
10,100.0	10,080.6	10,210.3	10,080.7	14.1	17.1	89.55	214.1	1,148.7	923.6	892.8	30.79	29.996	
10,200.0	10,180.6	10,310.3	10,180.7	14.2	17.2	89.55	214.1	1,148.7	923.6	892.7	30.93	29.864	
10,300.0	10,280.6	10,410.3	10,280.7	14.3	17.3	89.55	214.1	1,148.7	923.6	892.6	31.06	29.732	
10,400.0	10,380.6	10,510.3	10,380.7	14.3	17.3	89.55	214.1	1,148.7	923.6	892.4	31.20	29.602	
10,500.0	10,480.6	10,610.3	10,480.7	14.4	17.4	89.55	214.1	1,148.7	923.6	892.3	31.34	29.473	
10,600.0	10,580.6	10,710.3	10,580.7	14.5	17.4	89.55	214.1	1,148.7	923.6	892.1	31.48	29.344	
10,700.0	10,680.6	10,810.3	10,680.7	14.6	17.5	89.55	214.1	1,148.7	923.6	892.0	31.61	29.217	
10,800.0	10,780.6	10,910.3	10,780.7	14.7	17.5	89.55	214.1	1,148.7	923.6	891.9	31.75	29.090	
10,900.0	10,880.6	11,010.3	10,880.7	14.8	17.6	89.55	214.1	1,148.7	923.6	891.7	31.89	28.964	
11,000.0	10,980.6	11,110.3	10,980.7	14.9	17.7	89.55	214.1	1,148.7	923.6	891.6	32.03	28.839	
11,100.0	11,080.6	11,210.3	11,080.7	14.9	17.7	89.55	214.1	1,148.7	923.6	891.5	32.16	28.715	
11,200.0	11,180.6	11,310.3	11,180.7	15.0	17.8	89.55	214.1	1,148.7	923.6	891.3	32.30	28.592	
11,300.0	11,280.6	11,410.3	11,280.7	15.1	17.8	89.55	214.1	1,148.7	923.6	891.2	32.44	28.470	
11,400.0	11,380.6	11,510.3	11,380.7	15.2	17.9	89.55	214.1	1,148.7	923.6	891.0	32.58	28.348	
11,500.0	11,480.6	11,610.3	11,480.7	15.3	17.9	89.55	214.1	1,148.7	923.6	890.9	32.72	28.228	
11,600.0	11,580.6	11,710.3	11,580.7	15.4	18.0	89.55	214.1	1,148.7	923.6	890.8	32.86	28.108	
11,700.0	11,680.6	11,810.3	11,680.7	15.5	18.1	89.55	214.1	1,148.7	923.6	890.6	33.00	27.989	
11,800.0	11,780.6	11,910.3	11,780.7	15.5	18.1	89.55	214.1	1,148.7	923.6	890.5	33.14	27.871	
11,867.0	11,847.5	11,977.2	11,847.6	15.6	18.2	89.55	214.1	1,148.7	923.6	890.4	33.22	27.803	
11,875.0	11,855.6	11,985.3	11,855.7	15.6	18.2	-89.99	214.1	1,148.7	923.6	890.4	33.23	27.797	
11,883.6	11,864.1	11,993.8	11,864.2	15.6	18.2	-90.00	214.1	1,148.7	923.6	890.4	33.23	27.791	
11,900.0	11,880.5	12,010.2	11,880.6	15.6	18.2	-90.05	214.1	1,148.7	923.6	890.4	33.25	27.779	
11,925.0	11,905.4	12,035.1	11,905.5	15.6	18.2	-90.20	214.1	1,148.7	923.6	890.4	33.27	27.762	
11,950.0	11,930.2	12,059.8	11,930.3	15.6	18.2	-90.42	214.1	1,148.7	923.6	890.3	33.29	27.743	
11,975.0	11,954.7	12,084.3	11,954.8	15.6	18.2	-90.72	214.1	1,148.7	923.7	890.4	33.32	27.725	
12,000.0	11,978.9	12,108.5	11,979.0	15.6	18.2	-91.08	214.1	1,148.7	923.8	890.5	33.34	27.708	
12,025.0	12,002.7	12,132.4	12,002.8	15.6	18.3	-91.50	214.1	1,148.7	924.0	890.6	33.36	27.693	
12,050.0	12,026.1	12,155.8	12,026.2	15.7	18.3	-91.98	214.1	1,148.7	924.3	890.9	33.39	27.681	
12,075.0	12,049.1	12,178.9	12,049.3	15.7	18.3	-92.50	214.1	1,148.7	924.7	891.3	33.42	27.671	
12,100.0	12,071.4	12,204.3	12,071.7	15.7	18.3	-93.09	213.3	1,148.7	925.2	891.8	33.44	27.672	
12,125.0	12,093.2	12,230.3	12,100.6	15.7	18.3	-93.68	211.1	1,148.7	925.9	892.5	33.45	27.678	
12,150.0	12,114.3	12,257.1	12,127.1	15.7	18.3	-94.27	207.4	1,148.7	926.7	893.2	33.47	27.687	
12,175.0	12,134.6	12,284.6	12,154.1	15.7	18.3	-94.86	202.1	1,148.7	927.6	894.1	33.49	27.697	
12,200.0	12,154.2	12,312.9	12,181.5	15.7	18.3	-95.44	194.9	1,148.8	928.6	895.1	33.51	27.707	
12,225.0	12,172.9	12,342.0	12,209.2	15.8	18.3	-96.03	185.9	1,148.9	929.6	896.1	33.54	27.715	
12,250.0	12,190.8	12,372.1	12,237.2	15.8	18.3	-96.61	174.8	1,148.9	930.8	897.2	33.58	27.720	
12,275.0	12,207.7	12,403.1	12,265.2	15.8	18.3	-97.18	161.6	1,149.0	932.0	898.4	33.62	27.719	
12,300.0	12,223.6	12,435.2	12,293.2	15.8	18.4	-97.74	146.0	1,149.2	933.3	899.6	33.68	27.709	
12,325.0	12,238.5	12,468.3	12,321.0	15.8	18.4	-98.29	128.1	1,149.3	934.6	900.8	33.75	27.690	
12,350.0	12,252.3	12,502.4	12,348.2	15.9	18.4	-98.83	107.5	1,149.4	935.9	902.0	33.84	27.659	
12,375.0	12,265.0	12,537.7	12,374.8	15.9	18.4	-99.35	84.3	1,149.6	937.1	903.2	33.94	27.615	
12,400.0	12,276.5	12,574.1	12,400.3	15.9	18.5	-99.84	58.4	1,149.8	938.4	904.3	34.05	27.558	
12,425.0	12,286.9	12,611.6	12,424.5	15.9	18.5	-100.31	29.7	1,150.0	939.6	905.4	34.18	27.488	
12,450.0	12,296.1	12,650.1	12,446.9	15.9	18.6	-100.74	-1.6	1,150.2	940.7	906.4	34.32	27.407	
12,475.0	12,304.1	12,689.7	12,467.2	16.0	18.6	-101.12	-35.6	1,150.5	941.7	907.3	34.48	27.316	
12,500.0	12,310.7	12,730.2	12,485.0	16.0	18.7	-101.46	-72.0	1,150.7	942.6	908.0	34.63	27.220	
12,525.0	12,316.2	12,771.6	12,499.9	16.0	18.7	-101.74	-110.5	1,151.0	943.4	908.6	34.78	27.122	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12177-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
12,550.0	12,320.3	12,813.6	12,511.6	16.0	18.8	-101.96	-150.9	1,151.3	943.9	909.0	34.93	27.026	
12,575.0	12,323.2	12,856.1	12,519.7	16.0	18.9	-102.12	-192.6	1,151.6	944.3	909.3	35.06	26.936	
12,600.0	12,324.7	12,899.0	12,524.2	16.1	19.0	-102.20	-235.3	1,151.9	944.5	909.3	35.17	26.855	
12,617.0	12,325.0	12,928.2	12,525.0	16.1	19.0	-102.22	-264.4	1,152.1	944.5	909.3	35.24	26.807	
12,700.0	12,325.0	13,010.8	12,525.0	16.2	19.2	-102.22	-347.0	1,152.7	944.5	908.9	35.56	26.562	
12,800.0	12,325.0	13,110.8	12,525.0	16.4	19.5	-102.22	-447.0	1,153.4	944.4	908.3	36.02	26.217	
12,900.0	12,325.0	13,210.8	12,525.0	16.6	19.7	-102.22	-547.0	1,154.2	944.3	907.7	36.56	25.829	
13,000.0	12,325.0	13,310.8	12,525.0	16.9	20.0	-102.22	-647.0	1,154.9	944.2	907.0	37.16	25.407	
13,100.0	12,325.0	13,410.8	12,525.0	17.2	20.4	-102.22	-747.0	1,155.6	944.1	906.2	37.83	24.955	
13,200.0	12,325.0	13,510.8	12,525.0	17.6	20.7	-102.23	-847.0	1,156.3	944.0	905.4	38.56	24.480	
13,300.0	12,325.0	13,610.8	12,525.0	18.0	21.1	-102.23	-947.0	1,157.1	943.9	904.5	39.35	23.988	
13,400.0	12,325.0	13,710.8	12,525.0	18.5	21.5	-102.23	-1,047.0	1,157.8	943.8	903.6	40.19	23.483	
13,500.0	12,325.0	13,810.8	12,525.0	19.0	22.0	-102.23	-1,147.0	1,158.5	943.7	902.6	41.08	22.970	
13,600.0	12,325.0	13,910.8	12,525.0	19.5	22.4	-102.23	-1,247.0	1,159.2	943.6	901.6	42.02	22.454	
13,700.0	12,325.0	14,010.8	12,525.0	20.0	22.9	-102.23	-1,347.0	1,160.0	943.5	900.5	43.01	21.937	
13,800.0	12,325.0	14,110.8	12,525.0	20.6	23.4	-102.23	-1,447.0	1,160.7	943.4	899.4	44.04	21.423	
13,900.0	12,325.0	14,210.8	12,525.0	21.2	24.0	-102.23	-1,547.0	1,161.4	943.3	898.2	45.10	20.915	
14,000.0	12,325.0	14,310.8	12,525.0	21.8	24.5	-102.24	-1,647.0	1,162.1	943.2	897.0	46.20	20.415	
14,100.0	12,325.0	14,410.8	12,525.0	22.4	25.1	-102.24	-1,747.0	1,162.9	943.1	895.8	47.34	19.923	
14,200.0	12,325.0	14,510.8	12,525.0	23.1	25.7	-102.24	-1,847.0	1,163.6	943.0	894.5	48.50	19.443	
14,300.0	12,325.0	14,610.8	12,525.0	23.7	26.2	-102.24	-1,947.0	1,164.3	942.9	893.2	49.70	18.973	
14,400.0	12,325.0	14,710.8	12,525.0	24.4	26.9	-102.24	-2,047.0	1,165.0	942.8	891.9	50.92	18.516	
14,500.0	12,325.0	14,810.8	12,525.0	25.1	27.5	-102.24	-2,147.0	1,165.7	942.7	890.6	52.16	18.072	
14,600.0	12,325.0	14,910.8	12,525.0	25.8	28.1	-102.24	-2,247.0	1,166.5	942.6	889.2	53.43	17.641	
14,700.0	12,325.0	15,010.8	12,525.0	26.5	28.8	-102.24	-2,346.9	1,167.2	942.5	887.8	54.72	17.224	
14,800.0	12,325.0	15,110.8	12,525.0	27.2	29.4	-102.25	-2,446.9	1,167.9	942.5	886.4	56.04	16.819	
14,900.0	12,325.0	15,210.8	12,525.0	27.9	30.1	-102.25	-2,546.9	1,168.6	942.4	885.0	57.36	16.428	
15,000.0	12,325.0	15,310.8	12,525.0	28.6	30.8	-102.25	-2,646.9	1,169.4	942.3	883.6	58.71	16.049	
15,100.0	12,325.0	15,410.8	12,525.0	29.3	31.4	-102.25	-2,746.9	1,170.1	942.2	882.1	60.07	15.684	
15,200.0	12,325.0	15,510.8	12,525.0	30.1	32.1	-102.25	-2,846.9	1,170.8	942.1	880.6	61.45	15.330	
15,300.0	12,325.0	15,610.8	12,525.0	30.8	32.8	-102.25	-2,946.9	1,171.5	942.0	879.1	62.84	14.989	
15,400.0	12,325.0	15,710.8	12,525.0	31.6	33.6	-102.25	-3,046.9	1,172.3	941.9	877.6	64.25	14.660	
15,500.0	12,325.0	15,810.8	12,525.0	32.3	34.3	-102.25	-3,146.9	1,173.0	941.8	876.1	65.67	14.342	
15,600.0	12,325.0	15,910.8	12,525.0	33.1	35.0	-102.26	-3,246.9	1,173.7	941.7	874.6	67.09	14.035	
15,700.0	12,325.0	16,010.8	12,525.0	33.9	35.7	-102.26	-3,346.9	1,174.4	941.6	873.1	68.53	13.739	
15,800.0	12,325.0	16,110.8	12,525.0	34.6	36.5	-102.26	-3,446.9	1,175.2	941.5	871.5	69.98	13.453	
15,900.0	12,325.0	16,210.8	12,525.0	35.4	37.2	-102.26	-3,546.9	1,175.9	941.4	870.0	71.44	13.177	
16,000.0	12,325.0	16,310.8	12,525.0	36.2	37.9	-102.26	-3,646.9	1,176.6	941.3	868.4	72.91	12.910	
16,100.0	12,325.0	16,410.8	12,525.0	37.0	38.7	-102.26	-3,746.9	1,177.3	941.2	866.8	74.39	12.653	
16,200.0	12,325.0	16,510.8	12,525.0	37.8	39.4	-102.26	-3,846.9	1,178.1	941.1	865.2	75.87	12.404	
16,300.0	12,325.0	16,610.8	12,525.0	38.6	40.2	-102.26	-3,946.9	1,178.8	941.0	863.7	77.36	12.164	
16,400.0	12,325.0	16,710.8	12,525.0	39.3	41.0	-102.27	-4,046.9	1,179.5	940.9	862.1	78.86	11.931	
16,500.0	12,325.0	16,810.8	12,525.0	40.1	41.7	-102.27	-4,146.9	1,180.2	940.8	860.5	80.37	11.707	
16,600.0	12,325.0	16,910.8	12,525.0	40.9	42.5	-102.27	-4,246.9	1,180.9	940.7	858.9	81.88	11.489	
16,700.0	12,325.0	17,010.8	12,525.0	41.7	43.3	-102.27	-4,346.9	1,181.7	940.6	857.2	83.40	11.279	
16,800.0	12,325.0	17,110.8	12,525.0	42.5	44.1	-102.27	-4,446.9	1,182.4	940.5	855.6	84.92	11.076	
16,900.0	12,325.0	17,210.8	12,525.0	43.3	44.8	-102.27	-4,546.9	1,183.1	940.4	854.0	86.45	10.879	
17,000.0	12,325.0	17,310.8	12,525.0	44.1	45.6	-102.27	-4,646.9	1,183.8	940.3	852.4	87.98	10.688	
17,100.0	12,325.0	17,410.8	12,525.0	45.0	46.4	-102.27	-4,746.9	1,184.6	940.3	850.7	89.52	10.503	
17,200.0	12,325.0	17,510.8	12,525.0	45.8	47.2	-102.28	-4,846.9	1,185.3	940.2	849.1	91.06	10.324	
17,300.0	12,325.0	17,610.8	12,525.0	46.6	48.0	-102.28	-4,946.9	1,186.0	940.1	847.5	92.61	10.151	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12177-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
17,380.5	12,325.0	17,690.4	12,525.0	47.2	48.6	-102.28	-5,026.5	1,186.6	940.0	846.1	93.85	10.016	
17,400.0	12,325.0	17,709.0	12,525.0	47.4	48.8	-102.28	-5,045.1	1,186.8	940.0	845.9	94.15	9.984	
17,500.0	12,325.0	17,809.0	12,525.0	48.2	49.6	-102.28	-5,145.1	1,187.7	940.1	844.4	95.70	9.823	
17,600.0	12,325.0	17,909.0	12,525.0	49.0	50.3	-102.28	-5,245.1	1,188.6	940.2	842.9	97.26	9.667	
17,700.0	12,325.0	18,009.0	12,525.0	49.8	51.1	-102.27	-5,345.1	1,189.5	940.3	841.5	98.83	9.515	
17,800.0	12,325.0	18,109.0	12,525.0	50.7	52.0	-102.27	-5,445.1	1,190.4	940.4	840.0	100.39	9.367	
17,900.0	12,325.0	18,209.0	12,525.0	51.5	52.8	-102.27	-5,545.1	1,191.4	940.5	838.5	101.96	9.224	
18,000.0	12,325.0	18,309.0	12,525.0	52.3	53.6	-102.27	-5,645.0	1,192.3	940.6	837.0	103.53	9.085	
18,100.0	12,325.0	18,409.0	12,525.0	53.1	54.4	-102.27	-5,745.0	1,193.2	940.7	835.6	105.11	8.950	
18,200.0	12,325.0	18,509.0	12,525.0	54.0	55.2	-102.27	-5,845.0	1,194.1	940.8	834.1	106.69	8.818	
18,300.0	12,325.0	18,609.0	12,525.0	54.8	56.0	-102.27	-5,945.0	1,195.0	940.9	832.6	108.27	8.690	
18,400.0	12,325.0	18,709.0	12,525.0	55.6	56.8	-102.27	-6,045.0	1,196.0	941.0	831.1	109.85	8.566	
18,500.0	12,325.0	18,809.0	12,525.0	56.4	57.6	-102.26	-6,145.0	1,196.9	941.1	829.6	111.44	8.445	
18,600.0	12,325.0	18,909.0	12,525.0	57.3	58.4	-102.26	-6,245.0	1,197.8	941.2	828.1	113.03	8.327	
18,700.0	12,325.0	19,009.0	12,525.0	58.1	59.2	-102.26	-6,345.0	1,198.7	941.3	826.6	114.62	8.212	
18,800.0	12,325.0	19,109.0	12,525.0	58.9	60.1	-102.26	-6,445.0	1,199.6	941.3	825.1	116.21	8.101	
18,900.0	12,325.0	19,209.0	12,525.0	59.7	60.9	-102.26	-6,545.0	1,200.6	941.4	823.6	117.80	7.992	
19,000.0	12,325.0	19,309.0	12,525.0	60.6	61.7	-102.26	-6,645.0	1,201.5	941.5	822.1	119.40	7.886	
19,100.0	12,325.0	19,409.0	12,525.0	61.4	62.5	-102.26	-6,745.0	1,202.4	941.6	820.6	121.00	7.782	
19,200.0	12,325.0	19,509.0	12,525.0	62.2	63.3	-102.26	-6,845.0	1,203.3	941.7	819.1	122.60	7.681	
19,300.0	12,325.0	19,609.0	12,525.0	63.1	64.1	-102.25	-6,945.0	1,204.2	941.8	817.6	124.20	7.583	
19,400.0	12,325.0	19,709.0	12,525.0	63.9	65.0	-102.25	-7,045.0	1,205.2	941.9	816.1	125.81	7.487	
19,500.0	12,325.0	19,809.0	12,525.0	64.8	65.8	-102.25	-7,145.0	1,206.1	942.0	814.6	127.41	7.394	
19,600.0	12,325.0	19,909.0	12,525.0	65.6	66.6	-102.25	-7,245.0	1,207.0	942.1	813.1	129.02	7.302	
19,700.0	12,325.0	20,009.0	12,525.0	66.4	67.4	-102.25	-7,345.0	1,207.9	942.2	811.6	130.63	7.213	
19,800.0	12,325.0	20,109.0	12,525.0	67.3	68.3	-102.25	-7,445.0	1,208.8	942.3	810.1	132.24	7.126	
19,900.0	12,325.0	20,209.0	12,525.0	68.1	69.1	-102.25	-7,545.0	1,209.8	942.4	808.6	133.85	7.041	
20,000.0	12,325.0	20,309.0	12,525.0	68.9	69.9	-102.25	-7,645.0	1,210.7	942.5	807.0	135.46	6.958	
20,100.0	12,325.0	20,409.0	12,525.0	69.8	70.8	-102.24	-7,745.0	1,211.6	942.6	805.5	137.07	6.877	
20,200.0	12,325.0	20,509.0	12,525.0	70.6	71.6	-102.24	-7,845.0	1,212.5	942.7	804.0	138.69	6.797	
20,300.0	12,325.0	20,609.0	12,525.0	71.5	72.4	-102.24	-7,944.9	1,213.4	942.8	802.5	140.31	6.720	
20,400.0	12,325.0	20,709.0	12,525.0	72.3	73.2	-102.24	-8,044.9	1,214.4	942.9	801.0	141.92	6.644	
20,500.0	12,325.0	20,809.0	12,525.0	73.1	74.1	-102.24	-8,144.9	1,215.3	943.0	799.4	143.54	6.569	
20,600.0	12,325.0	20,909.0	12,525.0	74.0	74.9	-102.24	-8,244.9	1,216.2	943.1	797.9	145.16	6.497	
20,700.0	12,325.0	21,009.0	12,525.0	74.8	75.7	-102.24	-8,344.9	1,217.1	943.2	796.4	146.78	6.426	
20,800.0	12,325.0	21,109.0	12,525.0	75.7	76.6	-102.24	-8,444.9	1,218.0	943.3	794.9	148.41	6.356	
20,900.0	12,325.0	21,209.0	12,525.0	76.5	77.4	-102.23	-8,544.9	1,219.0	943.4	793.3	150.03	6.288	
21,000.0	12,325.0	21,309.0	12,525.0	77.3	78.2	-102.23	-8,644.9	1,219.9	943.5	791.8	151.65	6.221	
21,100.0	12,325.0	21,409.0	12,525.0	78.2	79.1	-102.23	-8,744.9	1,220.8	943.6	790.3	153.28	6.156	
21,200.0	12,325.0	21,509.0	12,525.0	79.0	79.9	-102.23	-8,844.9	1,221.7	943.7	788.8	154.90	6.092	
21,300.0	12,325.0	21,609.0	12,525.0	79.9	80.7	-102.23	-8,944.9	1,222.6	943.8	787.2	156.53	6.029	
21,400.0	12,325.0	21,709.0	12,525.0	80.7	81.6	-102.23	-9,044.9	1,223.6	943.8	785.7	158.16	5.968	
21,500.0	12,325.0	21,809.0	12,525.0	81.6	82.4	-102.23	-9,144.9	1,224.5	943.9	784.2	159.79	5.907	
21,600.0	12,325.0	21,909.0	12,525.0	82.4	83.3	-102.22	-9,244.9	1,225.4	944.0	782.6	161.42	5.848	
21,700.0	12,325.0	22,009.0	12,525.0	83.2	84.1	-102.22	-9,344.9	1,226.3	944.1	781.1	163.05	5.791	
21,800.0	12,325.0	22,109.0	12,525.0	84.1	84.9	-102.22	-9,444.9	1,227.2	944.2	779.6	164.68	5.734	
21,900.0	12,325.0	22,209.0	12,525.0	84.9	85.8	-102.22	-9,544.9	1,228.2	944.3	778.0	166.31	5.678	
22,000.0	12,325.0	22,309.0	12,525.0	85.8	86.6	-102.22	-9,644.9	1,229.1	944.4	776.5	167.94	5.624	
22,100.0	12,325.0	22,409.0	12,525.0	86.6	87.5	-102.22	-9,744.9	1,230.0	944.5	774.9	169.57	5.570	
22,200.0	12,325.0	22,509.0	12,525.0	87.5	88.3	-102.22	-9,844.9	1,230.9	944.6	773.4	171.21	5.517	
22,300.0	12,325.0	22,609.0	12,525.0	88.3	89.1	-102.22	-9,944.9	1,231.8	944.7	771.9	172.84	5.466	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design:	PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 703H - OWB - PWP0											Offset Site Error:	0.0 usft
Survey Program:	0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12177-r.5 MWD+IFR1+SAG+FDIR											Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	
22,400.0	12,325.0	22,709.0	12,525.0	89.2	90.0	-102.21	-10,044.9	1,232.8	944.8	770.3	174.48	5.415	
22,500.0	12,325.0	22,809.0	12,525.0	90.0	90.8	-102.21	-10,144.9	1,233.7	944.9	768.8	176.11	5.365	
22,597.2	12,325.0	22,906.1	12,525.0	90.8	91.6	-102.21	-10,242.0	1,234.6	945.0	767.3	177.70	5.318	

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12101-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		No-Go		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Distance (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-90.57	-0.3	-30.0	30.0					
100.0	100.0	100.0	100.0	0.6	0.6	-90.57	-0.3	-30.0	30.0	28.4	1.58	18.953		
200.0	200.0	200.0	200.0	1.1	1.1	-90.57	-0.3	-30.0	30.0	27.5	2.52	11.909		
300.0	300.0	300.0	300.0	1.4	1.4	-90.57	-0.3	-30.0	30.0	26.9	3.14	9.540		
400.0	400.0	400.0	400.0	1.7	1.7	-90.57	-0.3	-30.0	30.0	26.4	3.65	8.222		
500.0	500.0	500.0	500.0	1.9	1.9	-90.57	-0.3	-30.0	30.0	25.9	4.08	7.347		
600.0	600.0	600.0	600.0	2.1	2.1	-90.57	-0.3	-30.0	30.0	25.5	4.47	6.710		
633.3	633.3	633.3	633.3	2.2	2.2	-90.57	-0.3	-30.0	30.0	25.4	4.59	6.538		
700.0	700.0	700.0	700.0	2.3	2.3	-90.57	-0.3	-30.0	30.0	25.2	4.82	6.219		
800.0	800.0	800.0	800.0	2.5	2.5	-90.57	-0.3	-30.0	30.0	24.9	5.15	5.825		
833.3	833.3	833.3	833.3	2.6	2.6	-90.57	-0.3	-30.0	30.0	24.7	5.25	5.712		
900.0	900.0	900.0	900.0	2.7	2.7	-90.57	-0.3	-30.0	30.0	24.5	5.46	5.499		
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	-90.57	-0.3	-30.0	30.0	24.3	5.74	5.224		
1,033.3	1,033.3	1,033.3	1,033.3	2.9	2.9	-90.57	-0.3	-30.0	30.0	24.2	5.83	5.143		
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	-90.57	-0.3	-30.0	30.0	24.0	6.02	4.987		
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	-90.57	-0.3	-30.0	30.0	23.7	6.28	4.781		
1,233.3	1,233.3	1,233.3	1,233.3	3.3	3.3	-90.57	-0.3	-30.0	30.0	23.6	6.36	4.719		
1,300.0	1,300.0	1,300.0	1,300.0	3.4	3.4	-90.57	-0.3	-30.0	30.0	23.5	6.52	4.599		
1,400.0	1,400.0	1,400.0	1,400.0	3.5	3.5	-90.57	-0.3	-30.0	30.0	23.2	6.76	4.436		
1,421.1	1,421.1	1,421.1	1,421.1	3.6	3.6	-90.57	-0.3	-30.0	30.0	23.2	6.81	4.405		
1,500.0	1,500.0	1,500.0	1,500.0	3.7	3.7	-90.57	-0.3	-30.0	30.0	23.0	6.99	4.290		
1,521.1	1,521.1	1,521.1	1,521.1	3.7	3.7	-90.57	-0.3	-30.0	30.0	23.0	7.04	4.262		
1,600.0	1,600.0	1,600.0	1,600.0	3.8	3.8	-90.57	-0.3	-30.0	30.0	22.8	7.21	4.158		
1,621.1	1,621.1	1,621.1	1,621.1	3.9	3.9	-90.57	-0.3	-30.0	30.0	22.7	7.26	4.132		
1,700.0	1,700.0	1,700.0	1,700.0	4.0	4.0	-90.57	-0.3	-30.0	30.0	22.6	7.43	4.038		
1,721.1	1,721.1	1,721.1	1,721.1	4.0	4.0	-90.57	-0.3	-30.0	30.0	22.5	7.47	4.014		
1,800.0	1,800.0	1,800.0	1,800.0	4.1	4.1	-90.57	-0.3	-30.0	30.0	22.4	7.64	3.928		
1,821.1	1,821.1	1,821.1	1,821.1	4.2	4.2	-90.57	-0.3	-30.0	30.0	22.3	7.68	3.906		
1,900.0	1,900.0	1,900.0	1,900.0	4.3	4.3	-90.57	-0.3	-30.0	30.0	22.2	7.84	3.826		
1,933.3	1,933.3	1,933.3	1,933.3	4.3	4.3	-90.57	-0.3	-30.0	30.0	22.1	7.91	3.794		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-90.57	-0.3	-30.0	30.0	22.0	8.04	3.732 CC, ES, SF		
2,100.0	2,100.0	2,098.9	2,098.9	4.6	4.5	-139.09	0.2	-31.6	33.0	24.5	8.41	3.920		
2,200.0	2,199.8	2,197.3	2,197.1	4.8	4.7	-141.42	1.6	-36.5	41.8	32.9	8.94	4.683		
2,300.0	2,299.5	2,294.6	2,294.1	5.0	4.9	-143.64	4.0	-44.5	56.7	47.3	9.44	6.005		
2,400.0	2,398.7	2,390.4	2,389.2	5.3	5.1	-145.26	7.3	-55.4	77.4	67.5	9.92	7.803		
2,400.2	2,398.9	2,390.6	2,389.4	5.3	5.1	-145.26	7.3	-55.5	77.5	67.6	9.93	7.807		
2,500.0	2,497.7	2,485.3	2,483.0	5.4	5.2	-146.11	11.4	-69.2	102.5	92.3	10.19	10.051		
2,600.0	2,596.8	2,581.9	2,578.4	5.6	5.3	-146.46	15.8	-84.0	128.3	117.8	10.51	12.207		
2,700.0	2,695.8	2,678.5	2,673.7	5.7	5.5	-146.69	20.2	-98.8	154.1	143.2	10.84	14.218		
2,800.0	2,794.8	2,775.1	2,769.1	5.9	5.6	-146.86	24.6	-113.6	179.9	168.7	11.17	16.109		
2,900.0	2,893.8	2,871.7	2,864.5	6.1	5.8	-146.98	29.1	-128.4	205.7	194.2	11.50	17.889		
3,000.0	2,992.9	2,968.3	2,959.8	6.2	6.0	-147.08	33.5	-143.2	231.5	219.7	11.83	19.569		
3,100.0	3,091.9	3,065.0	3,055.2	6.4	6.1	-147.16	37.9	-158.0	257.3	245.2	12.16	21.154		
3,200.0	3,190.9	3,161.6	3,150.6	6.6	6.3	-147.22	42.3	-172.8	283.1	270.6	12.50	22.653		
3,300.0	3,289.9	3,258.2	3,245.9	6.7	6.5	-147.28	46.7	-187.6	308.9	296.1	12.83	24.073		
3,400.0	3,389.0	3,354.8	3,341.3	6.9	6.6	-147.32	51.1	-202.4	334.8	321.6	13.17	25.418		
3,500.0	3,488.0	3,451.4	3,436.7	7.1	6.8	-147.36	55.5	-217.2	360.6	347.1	13.51	26.694		
3,600.0	3,587.0	3,548.0	3,532.0	7.2	7.0	-147.39	60.0	-232.1	386.4	372.5	13.85	27.907		
3,700.0	3,686.0	3,644.6	3,627.4	7.4	7.2	-147.42	64.4	-246.9	412.2	398.0	14.18	29.060		
3,800.0	3,785.1	3,741.2	3,722.8	7.6	7.3	-147.45	68.8	-261.7	438.0	423.5	14.52	30.158		
3,900.0	3,884.1	3,837.8	3,818.1	7.8	7.5	-147.47	73.2	-276.5	463.8	449.0	14.86	31.205		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12101-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
3,994.0	3,977.2	3,928.7	3,907.8	7.9	7.7	-147.49	77.4	-290.4	488.1	472.9	15.18	32.160	
4,000.0	3,983.1	3,934.4	3,913.5	7.9	7.7	-147.50	77.6	-291.3	489.6	474.4	15.19	32.228	
4,100.0	4,082.3	4,031.3	4,009.1	8.2	7.9	-147.59	82.1	-306.1	514.7	499.0	15.64	32.911	
4,200.0	4,181.6	4,128.4	4,105.0	8.4	8.1	-147.58	86.5	-321.0	538.2	522.3	15.97	33.699	
4,300.0	4,281.2	4,225.9	4,201.2	8.6	8.2	-147.48	91.0	-335.9	560.4	544.1	16.30	34.370	
4,400.0	4,380.9	4,323.7	4,297.7	8.7	8.4	-147.29	95.4	-350.9	581.1	564.5	16.63	34.935	
4,500.0	4,480.7	4,421.7	4,394.5	8.9	8.6	-147.02	99.9	-366.0	600.5	583.5	16.96	35.401	
4,600.0	4,580.6	4,520.0	4,491.5	9.0	8.8	-146.67	104.4	-381.0	618.4	601.1	17.28	35.778	
4,700.0	4,680.6	4,618.5	4,588.7	9.2	9.0	-146.26	108.9	-396.1	634.9	617.3	17.60	36.074	
4,794.4	4,775.0	4,711.6	4,680.7	9.3	9.2	-98.38	113.2	-410.4	649.2	631.3	17.87	36.329	
4,800.0	4,780.6	4,717.1	4,686.1	9.3	9.2	-98.35	113.4	-411.2	650.0	632.1	17.88	36.352	
4,900.0	4,880.6	4,815.9	4,783.6	9.5	9.4	-97.77	117.9	-426.3	664.6	646.3	18.26	36.394	
5,000.0	4,980.6	4,914.6	4,881.0	9.6	9.6	-97.21	122.4	-441.5	679.2	660.7	18.54	36.640	
5,100.0	5,080.6	5,013.3	4,978.4	9.7	9.7	-96.68	126.9	-456.6	693.9	675.1	18.82	36.880	
5,200.0	5,180.6	5,112.0	5,075.9	9.8	9.9	-96.17	131.5	-471.7	708.6	689.5	19.09	37.112	
5,300.0	5,280.6	5,210.7	5,173.3	9.9	10.1	-95.68	136.0	-486.9	723.4	704.1	19.37	37.339	
5,400.0	5,380.6	5,309.4	5,270.8	10.0	10.3	-95.21	140.5	-502.0	738.3	718.6	19.66	37.559	
5,500.0	5,480.6	5,408.1	5,368.2	10.0	10.5	-94.76	145.0	-517.1	753.2	733.2	19.94	37.773	
5,600.0	5,580.6	5,506.8	5,465.7	10.1	10.7	-94.33	149.5	-532.2	768.1	747.9	20.22	37.982	
5,700.0	5,680.6	5,605.6	5,563.1	10.2	10.9	-93.91	154.0	-547.4	783.1	762.6	20.51	38.184	
5,800.0	5,780.6	5,704.3	5,660.5	10.3	11.1	-93.51	158.5	-562.5	798.1	777.3	20.79	38.382	
5,900.0	5,880.6	5,803.0	5,758.0	10.4	11.3	-93.12	163.0	-577.6	813.2	792.1	21.08	38.574	
6,000.0	5,980.6	5,901.7	5,855.4	10.5	11.5	-92.75	167.6	-592.8	828.3	806.9	21.37	38.761	
6,100.0	6,080.6	6,000.4	5,952.9	10.6	11.7	-92.39	172.1	-607.9	843.4	821.7	21.66	38.943	
6,200.0	6,180.6	6,099.1	6,050.3	10.7	11.9	-92.04	176.6	-623.0	858.6	836.6	21.95	39.120	
6,300.0	6,280.6	6,208.8	6,158.7	10.8	12.1	-91.68	181.4	-639.3	873.3	851.1	22.23	39.291	
6,400.0	6,380.6	6,324.8	6,273.6	10.8	12.3	-91.36	186.0	-654.6	886.4	863.8	22.55	39.307	
6,500.0	6,480.6	6,441.4	6,389.4	10.9	12.5	-91.09	189.9	-667.6	897.5	874.6	22.86	39.254	
6,600.0	6,580.6	6,558.6	6,506.0	11.0	12.7	-90.87	193.1	-678.4	906.7	883.5	23.17	39.135	
6,700.0	6,680.6	6,676.1	6,623.2	11.1	12.9	-90.70	195.7	-687.0	913.9	890.5	23.46	38.956	
6,800.0	6,780.6	6,794.0	6,740.8	11.2	13.1	-90.58	197.5	-693.2	919.2	895.5	23.74	38.719	
6,900.0	6,880.6	6,912.0	6,858.9	11.3	13.3	-90.50	198.7	-697.2	922.6	898.6	24.00	38.433	
7,000.0	6,980.6	7,030.2	6,977.0	11.4	13.4	-90.47	199.2	-698.8	923.9	899.7	24.23	38.138	
7,100.0	7,080.6	7,133.8	7,080.6	11.5	13.5	-90.47	199.2	-698.9	924.0	899.6	24.36	37.935	
7,200.0	7,180.6	7,233.8	7,180.6	11.6	13.6	-90.47	199.2	-698.9	924.0	899.5	24.50	37.706	
7,300.0	7,280.6	7,333.8	7,280.6	11.6	13.6	-90.47	199.2	-698.9	924.0	899.3	24.65	37.479	
7,400.0	7,380.6	7,433.8	7,380.6	11.7	13.7	-90.47	199.2	-698.9	924.0	899.2	24.80	37.255	
7,500.0	7,480.6	7,533.8	7,480.6	11.8	13.7	-90.47	199.2	-698.9	924.0	899.0	24.95	37.034	
7,600.0	7,580.6	7,633.8	7,580.6	11.9	13.8	-90.47	199.2	-698.9	924.0	898.9	25.10	36.814	
7,700.0	7,680.6	7,733.8	7,680.6	12.0	13.9	-90.47	199.2	-698.9	924.0	898.7	25.25	36.597	
7,800.0	7,780.6	7,833.8	7,780.6	12.1	13.9	-90.47	199.2	-698.9	924.0	898.6	25.40	36.383	
7,900.0	7,880.6	7,933.8	7,880.6	12.2	14.0	-90.47	199.2	-698.9	924.0	898.4	25.54	36.171	
8,000.0	7,980.6	8,033.8	7,980.6	12.3	14.1	-90.47	199.2	-698.9	924.0	898.3	25.69	35.961	
8,100.0	8,080.6	8,133.8	8,080.6	12.3	14.1	-90.47	199.2	-698.9	924.0	898.1	25.84	35.753	
8,200.0	8,180.6	8,233.8	8,180.6	12.4	14.2	-90.47	199.2	-698.9	924.0	898.0	25.99	35.547	
8,300.0	8,280.6	8,333.8	8,280.6	12.5	14.3	-90.47	199.2	-698.9	924.0	897.8	26.14	35.344	
8,400.0	8,380.6	8,433.8	8,380.6	12.6	14.3	-90.47	199.2	-698.9	924.0	897.7	26.29	35.142	
8,500.0	8,480.6	8,533.8	8,480.6	12.7	14.4	-90.47	199.2	-698.9	924.0	897.5	26.44	34.943	
8,600.0	8,580.6	8,633.8	8,580.6	12.8	14.4	-90.47	199.2	-698.9	924.0	897.4	26.59	34.746	
8,700.0	8,680.6	8,733.8	8,680.6	12.9	14.5	-90.47	199.2	-698.9	924.0	897.2	26.74	34.551	
8,800.0	8,780.6	8,833.8	8,780.6	13.0	14.6	-90.47	199.2	-698.9	924.0	897.1	26.89	34.358	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12101-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
8,900.0	8,880.6	8,933.8	8,880.6	13.0	14.6	-90.47	199.2	-698.9	924.0	896.9	27.04	34.167	
9,000.0	8,980.6	9,033.8	8,980.6	13.1	14.7	-90.47	199.2	-698.9	924.0	896.8	27.19	33.978	
9,100.0	9,080.6	9,133.8	9,080.6	13.2	14.8	-90.47	199.2	-698.9	924.0	896.6	27.34	33.790	
9,200.0	9,180.6	9,233.8	9,180.6	13.3	14.8	-90.47	199.2	-698.9	924.0	896.5	27.49	33.605	
9,300.0	9,280.6	9,333.8	9,280.6	13.4	14.9	-90.47	199.2	-698.9	924.0	896.3	27.65	33.422	
9,400.0	9,380.6	9,433.8	9,380.6	13.5	15.0	-90.47	199.2	-698.9	924.0	896.2	27.80	33.240	
9,500.0	9,480.6	9,533.8	9,480.6	13.6	15.0	-90.47	199.2	-698.9	924.0	896.0	27.95	33.060	
9,600.0	9,580.6	9,633.8	9,580.6	13.6	15.1	-90.47	199.2	-698.9	924.0	895.9	28.10	32.883	
9,700.0	9,680.6	9,733.8	9,680.6	13.7	15.2	-90.47	199.2	-698.9	924.0	895.7	28.25	32.706	
9,800.0	9,780.6	9,833.8	9,780.6	13.8	15.2	-90.47	199.2	-698.9	924.0	895.6	28.40	32.532	
9,900.0	9,880.6	9,933.8	9,880.6	13.9	15.3	-90.47	199.2	-698.9	924.0	895.4	28.55	32.359	
10,000.0	9,980.6	10,033.8	9,980.6	14.0	15.4	-90.47	199.2	-698.9	924.0	895.3	28.70	32.188	
10,100.0	10,080.6	10,133.8	10,080.6	14.1	15.4	-90.47	199.2	-698.9	924.0	895.1	28.86	32.019	
10,200.0	10,180.6	10,233.8	10,180.6	14.2	15.5	-90.47	199.2	-698.9	924.0	895.0	29.01	31.852	
10,300.0	10,280.6	10,333.8	10,280.6	14.3	15.6	-90.47	199.2	-698.9	924.0	894.8	29.16	31.686	
10,400.0	10,380.6	10,433.8	10,380.6	14.3	15.6	-90.47	199.2	-698.9	924.0	894.7	29.31	31.521	
10,500.0	10,480.6	10,533.8	10,480.6	14.4	15.7	-90.47	199.2	-698.9	924.0	894.5	29.46	31.358	
10,600.0	10,580.6	10,633.8	10,580.6	14.5	15.8	-90.47	199.2	-698.9	924.0	894.3	29.62	31.197	
10,700.0	10,680.6	10,733.8	10,680.6	14.6	15.8	-90.47	199.2	-698.9	924.0	894.2	29.77	31.038	
10,800.0	10,780.6	10,833.8	10,780.6	14.7	15.9	-90.47	199.2	-698.9	924.0	894.0	29.92	30.880	
10,900.0	10,880.6	10,933.8	10,880.6	14.8	16.0	-90.47	199.2	-698.9	924.0	893.9	30.07	30.723	
11,000.0	10,980.6	11,033.8	10,980.6	14.9	16.0	-90.47	199.2	-698.9	924.0	893.7	30.23	30.568	
11,100.0	11,080.6	11,133.8	11,080.6	14.9	16.1	-90.47	199.2	-698.9	924.0	893.6	30.38	30.414	
11,200.0	11,180.6	11,233.8	11,180.6	15.0	16.2	-90.47	199.2	-698.9	924.0	893.4	30.53	30.262	
11,300.0	11,280.6	11,333.8	11,280.6	15.1	16.2	-90.47	199.2	-698.9	924.0	893.3	30.69	30.111	
11,400.0	11,380.6	11,433.8	11,380.6	15.2	16.3	-90.47	199.2	-698.9	924.0	893.1	30.84	29.962	
11,500.0	11,480.6	11,533.8	11,480.6	15.3	16.4	-90.47	199.2	-698.9	924.0	893.0	30.99	29.814	
11,600.0	11,580.6	11,633.8	11,580.6	15.4	16.5	-90.47	199.2	-698.9	924.0	892.8	31.14	29.667	
11,700.0	11,680.6	11,733.8	11,680.6	15.5	16.5	-90.47	199.2	-698.9	924.0	892.7	31.30	29.522	
11,800.0	11,780.6	11,833.8	11,780.6	15.5	16.6	-90.47	199.2	-698.9	924.0	892.5	31.45	29.378	
11,867.0	11,847.5	11,900.7	11,847.5	15.6	16.6	-90.47	199.2	-698.9	924.0	892.4	31.54	29.295	
11,869.7	11,850.2	11,903.4	11,850.2	15.6	16.6	90.00	199.2	-698.9	924.0	892.4	31.54	29.292	
11,875.0	11,855.6	11,908.8	11,855.6	15.6	16.6	90.00	199.2	-698.9	924.0	892.4	31.55	29.288	
11,900.0	11,880.5	11,933.7	11,880.5	15.6	16.7	90.07	199.2	-698.9	924.0	892.4	31.57	29.266	
11,925.0	11,905.4	11,958.6	11,905.4	15.6	16.7	90.22	199.2	-698.9	924.0	892.4	31.59	29.247	
11,950.0	11,930.2	11,983.4	11,930.2	15.6	16.7	90.44	199.2	-698.9	924.0	892.4	31.61	29.229	
11,975.0	11,954.7	12,007.9	11,954.7	15.6	16.7	90.73	199.2	-698.9	924.0	892.4	31.63	29.211	
12,000.0	11,978.9	12,032.1	11,978.9	15.6	16.7	91.10	199.2	-698.9	924.1	892.5	31.65	29.195	
12,025.0	12,002.7	12,055.9	12,002.7	15.6	16.7	91.52	199.2	-698.9	924.3	892.7	31.67	29.182	
12,050.0	12,026.1	12,079.3	12,026.1	15.7	16.8	91.99	199.2	-698.9	924.6	892.9	31.70	29.172	
12,075.0	12,049.1	12,102.4	12,049.2	15.7	16.8	92.51	199.2	-698.9	925.0	893.3	31.72	29.167	
12,100.0	12,071.4	12,127.8	12,074.5	15.7	16.8	93.10	198.4	-698.9	925.6	893.9	31.73	29.175	
12,125.0	12,093.2	12,153.8	12,100.5	15.7	16.8	93.69	196.3	-698.8	926.3	894.5	31.73	29.189	
12,150.0	12,114.3	12,180.5	12,126.9	15.7	16.8	94.28	192.6	-698.8	927.1	895.3	31.74	29.206	
12,175.0	12,134.6	12,207.9	12,153.8	15.7	16.8	94.86	187.2	-698.8	928.0	896.2	31.75	29.223	
12,200.0	12,154.2	12,236.2	12,181.2	15.7	16.8	95.45	180.1	-698.7	929.0	897.2	31.77	29.239	
12,225.0	12,172.9	12,265.3	12,208.8	15.8	16.8	96.03	171.1	-698.6	930.1	898.3	31.80	29.250	
12,250.0	12,190.8	12,295.3	12,236.7	15.8	16.8	96.61	160.1	-698.5	931.2	899.4	31.83	29.256	
12,275.0	12,207.7	12,326.3	12,264.8	15.8	16.8	97.18	146.9	-698.4	932.4	900.6	31.87	29.253	
12,300.0	12,223.6	12,358.2	12,292.7	15.8	16.9	97.74	131.4	-698.3	933.7	901.8	31.93	29.239	
12,325.0	12,238.5	12,391.2	12,320.4	15.8	16.9	98.29	113.5	-698.2	935.0	903.0	32.01	29.210	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0												Offset Site Error: 0.0 usft	
Survey Program: Reference		0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12101-r.5 MWD+IFR1+SAG+FDIR						Rule Assigned:		Offset Well Error: 0.0 usft			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
12,350.0	12,252.3	12,425.3	12,347.7	15.9	16.9	98.83	93.0	-698.0	936.3	904.2	32.10	29.166	
12,375.0	12,265.0	12,460.5	12,374.2	15.9	16.9	99.34	69.9	-697.8	937.7	905.4	32.22	29.104	
12,400.0	12,276.5	12,496.9	12,399.8	15.9	16.9	99.84	44.1	-697.6	938.9	906.6	32.35	29.024	
12,425.0	12,286.9	12,534.3	12,423.9	15.9	17.0	100.30	15.5	-697.4	940.2	907.7	32.50	28.927	
12,450.0	12,296.1	12,572.8	12,446.4	15.9	17.0	100.73	-15.8	-697.1	941.3	908.6	32.67	28.814	
12,475.0	12,304.1	12,612.4	12,466.7	16.0	17.1	101.11	-49.7	-696.8	942.4	909.5	32.85	28.689	
12,500.0	12,310.7	12,652.8	12,484.6	16.0	17.1	101.45	-86.0	-696.5	943.3	910.2	33.03	28.557	
12,525.0	12,316.2	12,694.1	12,499.6	16.0	17.2	101.74	-124.5	-696.2	944.1	910.8	33.22	28.420	
12,550.0	12,320.3	12,736.1	12,511.3	16.0	17.2	101.96	-164.8	-695.9	944.7	911.3	33.40	28.285	
12,575.0	12,323.2	12,778.7	12,519.6	16.0	17.3	102.11	-206.5	-695.5	945.1	911.5	33.56	28.158	
12,600.0	12,324.7	12,821.5	12,524.1	16.1	17.4	102.20	-249.1	-695.2	945.3	911.6	33.71	28.041	
12,617.0	12,325.0	12,850.7	12,525.0	16.1	17.4	102.21	-278.2	-694.9	945.4	911.6	33.80	27.970	
12,700.0	12,325.0	12,933.8	12,525.0	16.2	17.6	102.21	-361.3	-694.3	945.4	911.2	34.13	27.699	
12,800.0	12,325.0	13,033.8	12,525.0	16.4	17.8	102.21	-461.3	-693.4	945.4	910.8	34.61	27.317	
12,900.0	12,325.0	13,133.8	12,525.0	16.6	18.1	102.21	-561.3	-692.6	945.4	910.2	35.16	26.890	
13,000.0	12,325.0	13,233.8	12,525.0	16.9	18.4	102.21	-661.3	-691.8	945.4	909.6	35.78	26.423	
13,100.0	12,325.0	13,333.8	12,525.0	17.2	18.7	102.21	-761.3	-691.0	945.4	908.9	36.47	25.925	
13,200.0	12,325.0	13,433.8	12,525.0	17.6	19.1	102.21	-861.3	-690.1	945.4	908.1	37.22	25.402	
13,300.0	12,325.0	13,533.8	12,525.0	18.0	19.5	102.21	-961.3	-689.3	945.4	907.3	38.03	24.861	
13,400.0	12,325.0	13,633.8	12,525.0	18.5	19.9	102.21	-1,061.3	-688.5	945.4	906.5	38.89	24.308	
13,500.0	12,325.0	13,733.8	12,525.0	19.0	20.4	102.21	-1,161.2	-687.7	945.4	905.6	39.81	23.748	
13,600.0	12,325.0	13,833.8	12,525.0	19.5	20.9	102.21	-1,261.2	-686.9	945.4	904.6	40.77	23.186	
13,700.0	12,325.0	13,933.8	12,525.0	20.0	21.4	102.21	-1,361.2	-686.0	945.4	903.6	41.78	22.626	
13,800.0	12,325.0	14,033.8	12,525.0	20.6	21.9	102.21	-1,461.2	-685.2	945.4	902.5	42.83	22.071	
13,900.0	12,325.0	14,133.8	12,525.0	21.2	22.5	102.21	-1,561.2	-684.4	945.4	901.4	43.92	21.523	
14,000.0	12,325.0	14,233.8	12,525.0	21.8	23.0	102.21	-1,661.2	-683.6	945.4	900.3	45.05	20.985	
14,100.0	12,325.0	14,333.8	12,525.0	22.4	23.6	102.21	-1,761.2	-682.8	945.4	899.2	46.21	20.459	
14,200.0	12,325.0	14,433.8	12,525.0	23.1	24.2	102.21	-1,861.2	-681.9	945.4	898.0	47.40	19.945	
14,300.0	12,325.0	14,533.8	12,525.0	23.7	24.8	102.21	-1,961.2	-681.1	945.4	896.7	48.62	19.446	
14,400.0	12,325.0	14,633.8	12,525.0	24.4	25.5	102.21	-2,061.2	-680.3	945.4	895.5	49.86	18.960	
14,500.0	12,325.0	14,733.8	12,525.0	25.1	26.1	102.21	-2,161.2	-679.5	945.4	894.2	51.13	18.490	
14,600.0	12,325.0	14,833.8	12,525.0	25.8	26.8	102.21	-2,261.2	-678.6	945.4	892.9	52.42	18.035	
14,700.0	12,325.0	14,933.8	12,525.0	26.5	27.5	102.21	-2,361.2	-677.8	945.4	891.6	53.73	17.594	
14,800.0	12,325.0	15,033.8	12,525.0	27.2	28.1	102.21	-2,461.2	-677.0	945.4	890.3	55.06	17.169	
14,900.0	12,325.0	15,133.8	12,525.0	27.9	28.8	102.21	-2,561.2	-676.2	945.4	889.0	56.41	16.758	
15,000.0	12,325.0	15,233.8	12,525.0	28.6	29.5	102.21	-2,661.2	-675.4	945.4	887.6	57.78	16.362	
15,100.0	12,325.0	15,333.8	12,525.0	29.3	30.2	102.21	-2,761.2	-674.5	945.4	886.2	59.16	15.980	
15,200.0	12,325.0	15,433.8	12,525.0	30.1	31.0	102.21	-2,861.2	-673.7	945.4	884.8	60.56	15.611	
15,300.0	12,325.0	15,533.8	12,525.0	30.8	31.7	102.21	-2,961.2	-672.9	945.4	883.4	61.97	15.256	
15,400.0	12,325.0	15,633.8	12,525.0	31.6	32.4	102.21	-3,061.2	-672.1	945.4	882.0	63.39	14.914	
15,500.0	12,325.0	15,733.8	12,525.0	32.3	33.1	102.21	-3,161.2	-671.2	945.4	880.5	64.82	14.584	
15,600.0	12,325.0	15,833.8	12,525.0	33.1	33.9	102.21	-3,261.2	-670.4	945.4	879.1	66.27	14.265	
15,700.0	12,325.0	15,933.8	12,525.0	33.9	34.6	102.21	-3,361.2	-669.6	945.4	877.6	67.72	13.959	
15,800.0	12,325.0	16,033.8	12,525.0	34.6	35.4	102.21	-3,461.2	-668.8	945.4	876.2	69.19	13.663	
15,900.0	12,325.0	16,133.8	12,525.0	35.4	36.2	102.21	-3,561.2	-668.0	945.4	874.7	70.66	13.378	
16,000.0	12,325.0	16,233.8	12,525.0	36.2	36.9	102.21	-3,661.2	-667.1	945.4	873.2	72.15	13.103	
16,100.0	12,325.0	16,333.8	12,525.0	37.0	37.7	102.21	-3,761.2	-666.3	945.4	871.7	73.64	12.838	
16,200.0	12,325.0	16,433.8	12,525.0	37.8	38.5	102.21	-3,861.2	-665.5	945.4	870.2	75.14	12.582	
16,300.0	12,325.0	16,533.8	12,525.0	38.6	39.2	102.21	-3,961.2	-664.7	945.4	868.7	76.64	12.335	
16,400.0	12,325.0	16,633.8	12,525.0	39.3	40.0	102.21	-4,061.2	-663.9	945.4	867.2	78.15	12.096	
16,500.0	12,325.0	16,733.8	12,525.0	40.1	40.8	102.21	-4,161.1	-663.0	945.4	865.7	79.67	11.866	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0											Offset Site Error:		0.0 usft	
Survey Program:		0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12101-r.5 MWD+IFR1+SAG+FDIR							Rule Assigned:		Offset Well Error:		0.0 usft	
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor		
16,600.0	12,325.0	16,833.8	12,525.0	40.9	41.6	102.21	-4,261.1	-662.2	945.4	864.2	81.20	11.643		
16,700.0	12,325.0	16,933.8	12,525.0	41.7	42.4	102.21	-4,361.1	-661.4	945.4	862.6	82.73	11.428		
16,800.0	12,325.0	17,033.8	12,525.0	42.5	43.1	102.21	-4,461.1	-660.6	945.4	861.1	84.26	11.220		
16,900.0	12,325.0	17,133.8	12,525.0	43.3	43.9	102.21	-4,561.1	-659.7	945.4	859.6	85.80	11.018		
17,000.0	12,325.0	17,233.8	12,525.0	44.1	44.7	102.21	-4,661.1	-658.9	945.4	858.0	87.34	10.823		
17,100.0	12,325.0	17,333.8	12,525.0	45.0	45.5	102.21	-4,761.1	-658.1	945.4	856.5	88.89	10.635		
17,200.0	12,325.0	17,433.8	12,525.0	45.8	46.3	102.21	-4,861.1	-657.3	945.4	854.9	90.45	10.452		
17,300.0	12,325.0	17,533.8	12,525.0	46.6	47.1	102.21	-4,961.1	-656.5	945.4	853.4	92.00	10.275		
17,400.0	12,325.0	17,633.8	12,525.0	47.4	47.9	102.21	-5,061.1	-655.6	945.4	851.8	93.57	10.104		
17,500.0	12,325.0	17,733.8	12,525.0	48.2	48.7	102.21	-5,161.1	-654.8	945.4	850.2	95.13	9.938		
17,600.0	12,325.0	17,833.8	12,525.0	49.0	49.6	102.21	-5,261.1	-654.0	945.4	848.7	96.70	9.776		
17,700.0	12,325.0	17,933.8	12,525.0	49.8	50.4	102.21	-5,361.1	-653.2	945.4	847.1	98.27	9.620		
17,800.0	12,325.0	18,033.8	12,525.0	50.7	51.2	102.21	-5,461.1	-652.4	945.4	845.5	99.85	9.468		
17,900.0	12,325.0	18,133.8	12,525.0	51.5	52.0	102.21	-5,561.1	-651.5	945.4	843.9	101.42	9.321		
18,000.0	12,325.0	18,233.8	12,525.0	52.3	52.8	102.21	-5,661.1	-650.7	945.4	842.4	103.00	9.178		
18,100.0	12,325.0	18,333.8	12,525.0	53.1	53.6	102.21	-5,761.1	-649.9	945.4	840.8	104.59	9.039		
18,200.0	12,325.0	18,433.8	12,525.0	54.0	54.4	102.21	-5,861.1	-649.1	945.4	839.2	106.17	8.904		
18,300.0	12,325.0	18,533.8	12,525.0	54.8	55.2	102.21	-5,961.1	-648.2	945.4	837.6	107.76	8.773		
18,400.0	12,325.0	18,633.8	12,525.0	55.6	56.1	102.21	-6,061.1	-647.4	945.4	836.0	109.35	8.645		
18,500.0	12,325.0	18,733.8	12,525.0	56.4	56.9	102.21	-6,161.1	-646.6	945.4	834.4	110.95	8.521		
18,600.0	12,325.0	18,833.8	12,525.0	57.3	57.7	102.21	-6,261.1	-645.8	945.4	832.8	112.54	8.400		
18,700.0	12,325.0	18,933.8	12,525.0	58.1	58.5	102.21	-6,361.1	-645.0	945.4	831.2	114.14	8.283		
18,800.0	12,325.0	19,033.8	12,525.0	58.9	59.4	102.21	-6,461.1	-644.1	945.4	829.6	115.74	8.168		
18,900.0	12,325.0	19,133.8	12,525.0	59.7	60.2	102.21	-6,561.1	-643.3	945.4	828.0	117.34	8.057		
19,000.0	12,325.0	19,233.8	12,525.0	60.6	61.0	102.21	-6,661.1	-642.5	945.4	826.4	118.94	7.948		
19,100.0	12,325.0	19,333.8	12,525.0	61.4	61.8	102.21	-6,761.1	-641.7	945.4	824.8	120.55	7.842		
19,200.0	12,325.0	19,433.8	12,525.0	62.2	62.7	102.21	-6,861.1	-640.8	945.4	823.2	122.15	7.739		
19,300.0	12,325.0	19,533.8	12,525.0	63.1	63.5	102.21	-6,961.1	-640.0	945.4	821.6	123.76	7.639		
19,400.0	12,325.0	19,633.8	12,525.0	63.9	64.3	102.21	-7,061.0	-639.2	945.4	820.0	125.37	7.541		
19,500.0	12,325.0	19,733.8	12,525.0	64.8	65.1	102.21	-7,161.0	-638.4	945.4	818.4	126.98	7.445		
19,600.0	12,325.0	19,833.8	12,525.0	65.6	66.0	102.21	-7,261.0	-637.6	945.4	816.8	128.59	7.352		
19,700.0	12,325.0	19,933.8	12,525.0	66.4	66.8	102.21	-7,361.0	-636.7	945.4	815.2	130.21	7.260		
19,800.0	12,325.0	20,033.8	12,525.0	67.3	67.6	102.21	-7,461.0	-635.9	945.4	813.5	131.82	7.171		
19,900.0	12,325.0	20,133.8	12,525.0	68.1	68.5	102.21	-7,561.0	-635.1	945.4	811.9	133.44	7.085		
20,000.0	12,325.0	20,233.8	12,525.0	68.9	69.3	102.21	-7,661.0	-634.3	945.4	810.3	135.06	7.000		
20,100.0	12,325.0	20,333.8	12,525.0	69.8	70.1	102.21	-7,761.0	-633.5	945.4	808.7	136.68	6.917		
20,200.0	12,325.0	20,433.8	12,525.0	70.6	71.0	102.21	-7,861.0	-632.6	945.4	807.1	138.30	6.836		
20,300.0	12,325.0	20,533.8	12,525.0	71.5	71.8	102.21	-7,961.0	-631.8	945.4	805.4	139.92	6.757		
20,400.0	12,325.0	20,633.8	12,525.0	72.3	72.6	102.21	-8,061.0	-631.0	945.4	803.8	141.54	6.679		
20,500.0	12,325.0	20,733.8	12,525.0	73.1	73.5	102.21	-8,161.0	-630.2	945.4	802.2	143.16	6.603		
20,600.0	12,325.0	20,833.8	12,525.0	74.0	74.3	102.21	-8,261.0	-629.3	945.4	800.6	144.79	6.529		
20,700.0	12,325.0	20,933.8	12,525.0	74.8	75.2	102.21	-8,361.0	-628.5	945.4	798.9	146.41	6.457		
20,800.0	12,325.0	21,033.8	12,525.0	75.7	76.0	102.21	-8,461.0	-627.7	945.4	797.3	148.04	6.386		
20,900.0	12,325.0	21,133.8	12,525.0	76.5	76.8	102.21	-8,561.0	-626.9	945.4	795.7	149.67	6.316		
21,000.0	12,325.0	21,233.8	12,525.0	77.3	77.7	102.21	-8,661.0	-626.1	945.4	794.1	151.30	6.248		
21,100.0	12,325.0	21,333.8	12,525.0	78.2	78.5	102.21	-8,761.0	-625.2	945.4	792.4	152.93	6.182		
21,200.0	12,325.0	21,433.8	12,525.0	79.0	79.3	102.21	-8,861.0	-624.4	945.4	790.8	154.56	6.117		
21,300.0	12,325.0	21,533.8	12,525.0	79.9	80.2	102.21	-8,961.0	-623.6	945.4	789.2	156.19	6.053		
21,400.0	12,325.0	21,633.8	12,525.0	80.7	81.0	102.21	-9,061.0	-622.8	945.4	787.5	157.82	5.990		
21,500.0	12,325.0	21,733.8	12,525.0	81.6	81.9	102.21	-9,161.0	-621.9	945.4	785.9	159.45	5.929		
21,600.0	12,325.0	21,833.8	12,525.0	82.4	82.7	102.21	-9,261.0	-621.1	945.4	784.3	161.08	5.869		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Offset Design: PITCHBLENDE 24-25 FEDERAL PROJECT - PITCHBLENDE 24-25 FED COM 704H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 12101-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
21,700.0	12,325.0	21,933.8	12,525.0	83.2	83.6	102.21	-9,361.0	-620.3	945.4	782.6	162.72	5.810	
21,800.0	12,325.0	22,033.8	12,525.0	84.1	84.4	102.21	-9,461.0	-619.5	945.4	781.0	164.35	5.752	
21,900.0	12,325.0	22,133.8	12,525.0	84.9	85.2	102.21	-9,561.0	-618.7	945.4	779.4	165.99	5.695	
22,000.0	12,325.0	22,233.8	12,525.0	85.8	86.1	102.21	-9,661.0	-617.8	945.4	777.7	167.62	5.640	
22,100.0	12,325.0	22,333.8	12,525.0	86.6	86.9	102.21	-9,761.0	-617.0	945.4	776.1	169.26	5.585	
22,200.0	12,325.0	22,433.8	12,525.0	87.5	87.8	102.21	-9,861.0	-616.2	945.4	774.5	170.89	5.532	
22,300.0	12,325.0	22,533.8	12,525.0	88.3	88.6	102.21	-9,961.0	-615.4	945.4	772.8	172.53	5.479	
22,400.0	12,325.0	22,633.8	12,525.0	89.2	89.5	102.21	-10,060.9	-614.6	945.4	771.2	174.17	5.428	
22,500.0	12,325.0	22,733.8	12,525.0	90.0	90.3	102.21	-10,160.9	-613.7	945.4	769.6	175.81	5.377	
22,510.3	12,325.0	22,744.1	12,525.0	90.1	90.4	102.21	-10,171.3	-613.6	945.4	769.4	175.98	5.372	
22,597.2	12,325.0	22,829.4	12,525.0	90.8	91.1	102.21	-10,256.6	-612.9	945.4	768.0	177.39	5.329	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=27ft @ 3380.1usft

Offset Depths are relative to Offset Datum

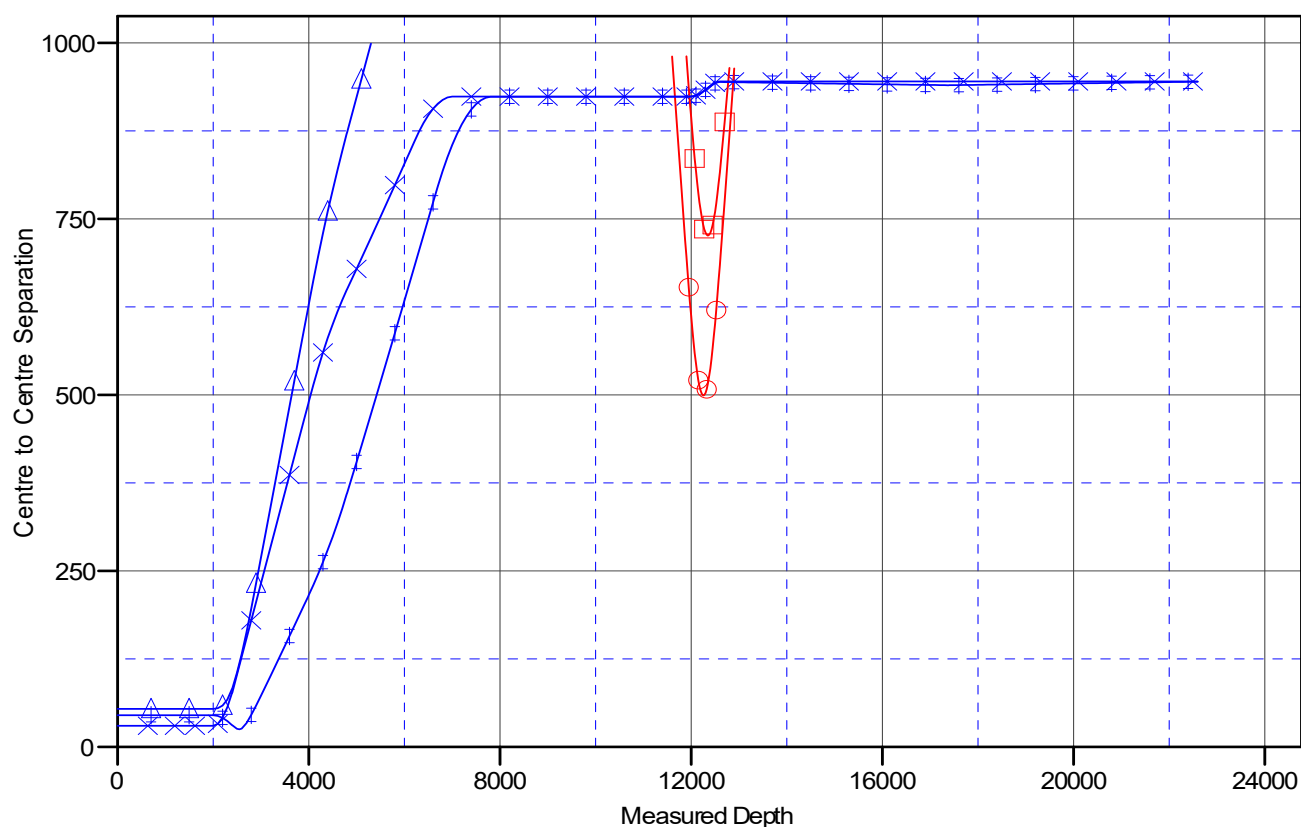
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: PITCHBLENDE 24-25 FED COM 603H

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

Grid Convergence at Surface is: 0.49°

Ladder Plot



LEGEND

BANDANA FEDERAL COM 603H, OWB, AWP V0
 BANDANA FEDERAL COM 703H, OWB, AWP V0
 PITCHBLENDE 24-25 FED COM 704H, OWB, PWP0 V0
 PITCHBLENDE 24-25 FED COM 604H, OWB, PWP0 V0
 PITCHBLENDE 24-25 FED COM 703H, OWB, PWP0 V0

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=27ft @ 3380.1usft
Reference Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	MD Reference:	RKB=27ft @ 3380.1usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	PITCHBLENDE 24-25 FED COM 603H	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:	PWP0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=27ft @ 3380.1usft

Offset Depths are relative to Offset Datum

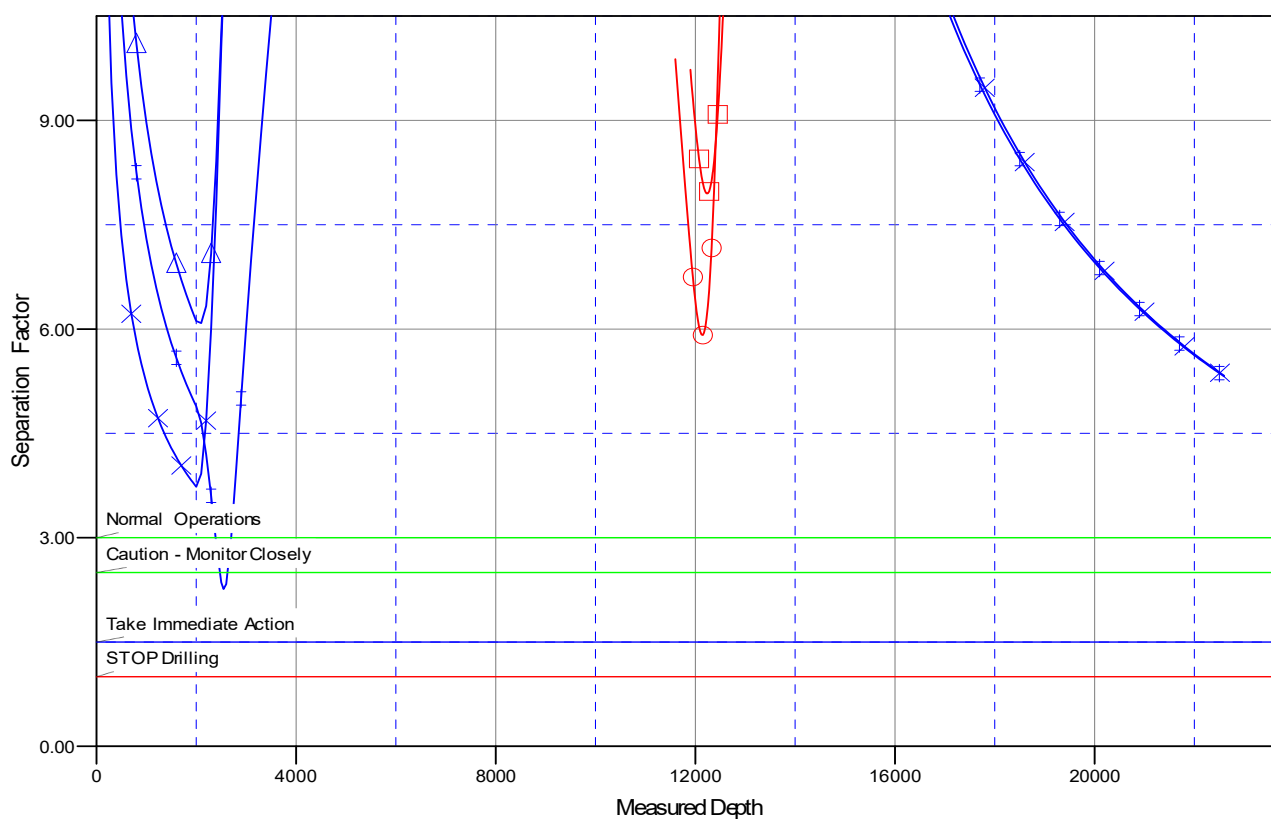
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: PITCHBLENDE 24-25 FED COM 603H

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

Grid Convergence at Surface is: 0.49°

Separation Factor Plot



LEGEND

BANDANA FEDERAL COM 603H, OWB, AWP V0
 BANDANA FEDERAL COM 704H, OWB, AWP V0
 PITCHBLENDE 24-25 FED COM 704H, OWB, PWP0 V0
 PITCHBLENDE 24-25 FED COM 604H, OWB, PWP0 V0
 PITCHBLENDE 24-25 FED COM 703H, OWB, PWP0 V0

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

DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST

PITCHBLEND 24-25 FEDERAL PROJECT

PITCHBLEND 24-25 FED COM 603H

OWB

Plan: PWP0

Standard Planning Report

19 December, 2024

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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		PITCHBLENDE 24-25 FEDERAL PROJECT			
Site Position:		Northing:	409,683.59 usft	Latitude:	32° 7' 23.035 N
From:	Map	Easting:	781,763.86 usft	Longitude:	103° 25' 23.524 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	PITCHBLENDE 24-25 FED COM 603H					
Well Position	+N/-S	0.0 usft	Northing:	409,437.80 usft	Latitude:	32° 7' 20.505 N
	+E/-W	0.0 usft	Easting:	782,927.50 usft	Longitude:	103° 25' 10.018 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,353.1 usft
Grid Convergence:		0.49 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	10/1/2025	6.04	59.62	47,113.86119671

Design	PWP0				
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	178.26

Plan Survey Tool Program		Date	12/19/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	2,000.0 PWP0 (OWB)	r.5 SDI_KPR_WL_NS-CT SDI Keeper Wireline Gyrocomp		
2	2,000.0	11,867.0 PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG		
3	11,867.0	22,597.2 PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG		

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	
2,400.2	8.00	47.42	2,398.9	18.9	20.6	2.00	2.00	0.00	47.42	
3,994.0	8.00	47.42	3,977.2	169.0	184.0	0.00	0.00	0.00	0.00	
4,794.4	0.00	0.00	4,775.0	206.8	225.1	1.00	-1.00	0.00	180.00	
11,867.0	0.00	0.00	11,847.5	206.8	225.1	0.00	0.00	0.00	0.00	
12,617.0	90.00	179.53	12,325.0	-270.6	229.0	12.00	12.00	23.94	179.53	
22,597.2	90.00	179.53	12,325.0	-10,250.5	311.0	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	47.42	2,100.0	1.2	1.3	-1.1	2.00	2.00	0.00
2,200.0	4.00	47.42	2,199.8	4.7	5.1	-4.6	2.00	2.00	0.00
2,300.0	6.00	47.42	2,299.5	10.6	11.6	-10.3	2.00	2.00	0.00
2,400.2	8.00	47.42	2,398.9	18.9	20.6	-18.3	2.00	2.00	0.00
2,500.0	8.00	47.42	2,497.7	28.3	30.8	-27.3	0.00	0.00	0.00
2,600.0	8.00	47.42	2,596.8	37.7	41.0	-36.4	0.00	0.00	0.00
2,700.0	8.00	47.42	2,695.8	47.1	51.3	-45.6	0.00	0.00	0.00
2,800.0	8.00	47.42	2,794.8	56.5	61.5	-54.7	0.00	0.00	0.00
2,900.0	8.00	47.42	2,893.8	66.0	71.8	-63.8	0.00	0.00	0.00
3,000.0	8.00	47.42	2,992.9	75.4	82.0	-72.9	0.00	0.00	0.00
3,100.0	8.00	47.42	3,091.9	84.8	92.3	-82.0	0.00	0.00	0.00
3,200.0	8.00	47.42	3,190.9	94.2	102.6	-91.1	0.00	0.00	0.00
3,300.0	8.00	47.42	3,289.9	103.7	112.8	-100.2	0.00	0.00	0.00
3,400.0	8.00	47.42	3,389.0	113.1	123.1	-109.3	0.00	0.00	0.00
3,500.0	8.00	47.42	3,488.0	122.5	133.3	-118.4	0.00	0.00	0.00
3,600.0	8.00	47.42	3,587.0	131.9	143.6	-127.5	0.00	0.00	0.00
3,700.0	8.00	47.42	3,686.0	141.3	153.8	-136.6	0.00	0.00	0.00
3,800.0	8.00	47.42	3,785.1	150.8	164.1	-145.7	0.00	0.00	0.00
3,900.0	8.00	47.42	3,884.1	160.2	174.3	-154.8	0.00	0.00	0.00
3,994.0	8.00	47.42	3,977.2	169.0	184.0	-163.4	0.00	0.00	0.00
4,000.0	7.94	47.42	3,983.1	169.6	184.6	-163.9	1.00	-1.00	0.00
4,100.0	6.94	47.42	4,082.3	178.4	194.1	-172.4	1.00	-1.00	0.00
4,200.0	5.94	47.42	4,181.6	186.0	202.4	-179.7	1.00	-1.00	0.00
4,300.0	4.94	47.42	4,281.2	192.4	209.4	-185.9	1.00	-1.00	0.00
4,400.0	3.94	47.42	4,380.9	197.6	215.1	-191.0	1.00	-1.00	0.00
4,500.0	2.94	47.42	4,480.7	201.7	219.5	-194.9	1.00	-1.00	0.00
4,600.0	1.94	47.42	4,580.6	204.6	222.6	-197.7	1.00	-1.00	0.00
4,700.0	0.94	47.42	4,680.6	206.3	224.5	-199.4	1.00	-1.00	0.00
4,794.4	0.00	0.00	4,775.0	206.8	225.1	-199.9	1.00	-1.00	0.00
4,800.0	0.00	0.00	4,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
4,900.0	0.00	0.00	4,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,000.0	0.00	0.00	4,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,100.0	0.00	0.00	5,080.6	206.8	225.1	-199.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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)
5,200.0	0.00	0.00	5,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,300.0	0.00	0.00	5,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,400.0	0.00	0.00	5,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,500.0	0.00	0.00	5,480.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,100.0	0.00	0.00	6,080.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,200.0	0.00	0.00	6,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,300.0	0.00	0.00	6,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,400.0	0.00	0.00	6,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,500.0	0.00	0.00	6,480.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,600.0	0.00	0.00	6,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,700.0	0.00	0.00	6,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
6,900.0	0.00	0.00	6,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,000.0	0.00	0.00	6,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,100.0	0.00	0.00	7,080.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,400.0	0.00	0.00	7,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,480.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,080.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,480.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,080.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,480.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,080.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,400.0	0.00	0.00	10,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,500.0	0.00	0.00	10,480.6	206.8	225.1	-199.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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)
10,600.0	0.00	0.00	10,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,800.0	0.00	0.00	10,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
10,900.0	0.00	0.00	10,880.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,000.0	0.00	0.00	10,980.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,100.0	0.00	0.00	11,080.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,200.0	0.00	0.00	11,180.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,300.0	0.00	0.00	11,280.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,400.0	0.00	0.00	11,380.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,500.0	0.00	0.00	11,480.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,600.0	0.00	0.00	11,580.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,700.0	0.00	0.00	11,680.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,800.0	0.00	0.00	11,780.6	206.8	225.1	-199.9	0.00	0.00	0.00
11,867.0	0.00	0.00	11,847.5	206.8	225.1	-199.9	0.00	0.00	0.00
11,875.0	0.96	179.53	11,855.6	206.7	225.1	-199.8	12.00	12.00	0.00
11,900.0	3.96	179.53	11,880.5	205.7	225.1	-198.7	12.00	12.00	0.00
11,925.0	6.96	179.53	11,905.4	203.3	225.1	-196.4	12.00	12.00	0.00
11,950.0	9.96	179.53	11,930.2	199.6	225.1	-192.7	12.00	12.00	0.00
11,975.0	12.96	179.53	11,954.7	194.6	225.2	-187.7	12.00	12.00	0.00
12,000.0	15.96	179.53	11,978.9	188.4	225.2	-181.5	12.00	12.00	0.00
12,025.0	18.96	179.53	12,002.7	180.9	225.3	-174.0	12.00	12.00	0.00
12,050.0	21.96	179.53	12,026.1	172.1	225.4	-165.2	12.00	12.00	0.00
12,075.0	24.96	179.53	12,049.1	162.2	225.4	-155.3	12.00	12.00	0.00
12,100.0	27.96	179.53	12,071.4	151.1	225.5	-144.2	12.00	12.00	0.00
12,125.0	30.96	179.53	12,093.2	138.8	225.6	-131.9	12.00	12.00	0.00
12,150.0	33.96	179.53	12,114.3	125.3	225.7	-118.4	12.00	12.00	0.00
12,175.0	36.96	179.53	12,134.6	110.8	225.9	-103.9	12.00	12.00	0.00
12,200.0	39.96	179.53	12,154.2	95.3	226.0	-88.4	12.00	12.00	0.00
12,225.0	42.96	179.53	12,172.9	78.7	226.1	-71.9	12.00	12.00	0.00
12,250.0	45.96	179.53	12,190.8	61.2	226.3	-54.3	12.00	12.00	0.00
12,275.0	48.96	179.53	12,207.7	42.8	226.4	-35.9	12.00	12.00	0.00
12,300.0	51.96	179.53	12,223.6	23.5	226.6	-16.7	12.00	12.00	0.00
12,325.0	54.96	179.53	12,238.5	3.4	226.7	3.4	12.00	12.00	0.00
12,350.0	57.96	179.53	12,252.3	-17.4	226.9	24.3	12.00	12.00	0.00
12,375.0	60.96	179.53	12,265.0	-38.9	227.1	45.8	12.00	12.00	0.00
12,400.0	63.96	179.53	12,276.5	-61.1	227.3	67.9	12.00	12.00	0.00
12,425.0	66.96	179.53	12,286.9	-83.8	227.5	90.7	12.00	12.00	0.00
12,450.0	69.96	179.53	12,296.1	-107.1	227.7	113.9	12.00	12.00	0.00
12,475.0	72.96	179.53	12,304.1	-130.8	227.8	137.6	12.00	12.00	0.00
12,500.0	75.96	179.53	12,310.7	-154.9	228.0	161.7	12.00	12.00	0.00
12,525.0	78.96	179.53	12,316.2	-179.3	228.2	186.1	12.00	12.00	0.00
12,550.0	81.96	179.53	12,320.3	-203.9	228.4	210.7	12.00	12.00	0.00
12,575.0	84.96	179.53	12,323.2	-228.7	228.7	235.6	12.00	12.00	0.00
12,600.0	87.96	179.53	12,324.7	-253.7	228.9	260.5	12.00	12.00	0.00
12,617.0	90.00	179.53	12,325.0	-270.6	229.0	277.5	12.00	12.00	0.00
12,700.0	90.00	179.53	12,325.0	-353.7	229.7	360.5	0.00	0.00	0.00
12,800.0	90.00	179.53	12,325.0	-453.7	230.5	460.5	0.00	0.00	0.00
12,900.0	90.00	179.53	12,325.0	-553.7	231.3	560.4	0.00	0.00	0.00
13,000.0	90.00	179.53	12,325.0	-653.7	232.1	660.4	0.00	0.00	0.00
13,100.0	90.00	179.53	12,325.0	-753.7	233.0	760.4	0.00	0.00	0.00
13,200.0	90.00	179.53	12,325.0	-853.7	233.8	860.4	0.00	0.00	0.00
13,300.0	90.00	179.53	12,325.0	-953.7	234.6	960.3	0.00	0.00	0.00
13,400.0	90.00	179.53	12,325.0	-1,053.7	235.4	1,060.3	0.00	0.00	0.00
13,500.0	90.00	179.53	12,325.0	-1,153.7	236.3	1,160.3	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	179.53	12,325.0	-1,253.7	237.1	1,260.3	0.00	0.00	0.00
13,700.0	90.00	179.53	12,325.0	-1,353.6	237.9	1,360.2	0.00	0.00	0.00
13,800.0	90.00	179.53	12,325.0	-1,453.6	238.7	1,460.2	0.00	0.00	0.00
13,900.0	90.00	179.53	12,325.0	-1,553.6	239.5	1,560.2	0.00	0.00	0.00
14,000.0	90.00	179.53	12,325.0	-1,653.6	240.4	1,660.2	0.00	0.00	0.00
14,100.0	90.00	179.53	12,325.0	-1,753.6	241.2	1,760.1	0.00	0.00	0.00
14,200.0	90.00	179.53	12,325.0	-1,853.6	242.0	1,860.1	0.00	0.00	0.00
14,300.0	90.00	179.53	12,325.0	-1,953.6	242.8	1,960.1	0.00	0.00	0.00
14,400.0	90.00	179.53	12,325.0	-2,053.6	243.6	2,060.1	0.00	0.00	0.00
14,500.0	90.00	179.53	12,325.0	-2,153.6	244.5	2,160.0	0.00	0.00	0.00
14,600.0	90.00	179.53	12,325.0	-2,253.6	245.3	2,260.0	0.00	0.00	0.00
14,700.0	90.00	179.53	12,325.0	-2,353.6	246.1	2,360.0	0.00	0.00	0.00
14,800.0	90.00	179.53	12,325.0	-2,453.6	246.9	2,460.0	0.00	0.00	0.00
14,900.0	90.00	179.53	12,325.0	-2,553.6	247.8	2,559.9	0.00	0.00	0.00
15,000.0	90.00	179.53	12,325.0	-2,653.6	248.6	2,659.9	0.00	0.00	0.00
15,100.0	90.00	179.53	12,325.0	-2,753.6	249.4	2,759.9	0.00	0.00	0.00
15,200.0	90.00	179.53	12,325.0	-2,853.6	250.2	2,859.9	0.00	0.00	0.00
15,300.0	90.00	179.53	12,325.0	-2,953.6	251.0	2,959.8	0.00	0.00	0.00
15,400.0	90.00	179.53	12,325.0	-3,053.6	251.9	3,059.8	0.00	0.00	0.00
15,500.0	90.00	179.53	12,325.0	-3,153.6	252.7	3,159.8	0.00	0.00	0.00
15,600.0	90.00	179.53	12,325.0	-3,253.6	253.5	3,259.8	0.00	0.00	0.00
15,700.0	90.00	179.53	12,325.0	-3,353.6	254.3	3,359.7	0.00	0.00	0.00
15,800.0	90.00	179.53	12,325.0	-3,453.6	255.1	3,459.7	0.00	0.00	0.00
15,900.0	90.00	179.53	12,325.0	-3,553.6	256.0	3,559.7	0.00	0.00	0.00
16,000.0	90.00	179.53	12,325.0	-3,653.6	256.8	3,659.7	0.00	0.00	0.00
16,100.0	90.00	179.53	12,325.0	-3,753.6	257.6	3,759.6	0.00	0.00	0.00
16,200.0	90.00	179.53	12,325.0	-3,853.6	258.4	3,859.6	0.00	0.00	0.00
16,300.0	90.00	179.53	12,325.0	-3,953.6	259.3	3,959.6	0.00	0.00	0.00
16,400.0	90.00	179.53	12,325.0	-4,053.6	260.1	4,059.6	0.00	0.00	0.00
16,500.0	90.00	179.53	12,325.0	-4,153.6	260.9	4,159.6	0.00	0.00	0.00
16,600.0	90.00	179.53	12,325.0	-4,253.6	261.7	4,259.5	0.00	0.00	0.00
16,700.0	90.00	179.53	12,325.0	-4,353.5	262.5	4,359.5	0.00	0.00	0.00
16,800.0	90.00	179.53	12,325.0	-4,453.5	263.4	4,459.5	0.00	0.00	0.00
16,900.0	90.00	179.53	12,325.0	-4,553.5	264.2	4,559.5	0.00	0.00	0.00
17,000.0	90.00	179.53	12,325.0	-4,653.5	265.0	4,659.4	0.00	0.00	0.00
17,100.0	90.00	179.53	12,325.0	-4,753.5	265.8	4,759.4	0.00	0.00	0.00
17,200.0	90.00	179.53	12,325.0	-4,853.5	266.7	4,859.4	0.00	0.00	0.00
17,300.0	90.00	179.53	12,325.0	-4,953.5	267.5	4,959.4	0.00	0.00	0.00
17,400.0	90.00	179.53	12,325.0	-5,053.5	268.3	5,059.3	0.00	0.00	0.00
17,500.0	90.00	179.53	12,325.0	-5,153.5	269.1	5,159.3	0.00	0.00	0.00
17,600.0	90.00	179.53	12,325.0	-5,253.5	269.9	5,259.3	0.00	0.00	0.00
17,700.0	90.00	179.53	12,325.0	-5,353.5	270.8	5,359.3	0.00	0.00	0.00
17,800.0	90.00	179.53	12,325.0	-5,453.5	271.6	5,459.2	0.00	0.00	0.00
17,900.0	90.00	179.53	12,325.0	-5,553.5	272.4	5,559.2	0.00	0.00	0.00
18,000.0	90.00	179.53	12,325.0	-5,653.5	273.2	5,659.2	0.00	0.00	0.00
18,100.0	90.00	179.53	12,325.0	-5,753.5	274.0	5,759.2	0.00	0.00	0.00
18,200.0	90.00	179.53	12,325.0	-5,853.5	274.9	5,859.1	0.00	0.00	0.00
18,300.0	90.00	179.53	12,325.0	-5,953.5	275.7	5,959.1	0.00	0.00	0.00
18,400.0	90.00	179.53	12,325.0	-6,053.5	276.5	6,059.1	0.00	0.00	0.00
18,500.0	90.00	179.53	12,325.0	-6,153.5	277.3	6,159.1	0.00	0.00	0.00
18,600.0	90.00	179.53	12,325.0	-6,253.5	278.2	6,259.0	0.00	0.00	0.00
18,700.0	90.00	179.53	12,325.0	-6,353.5	279.0	6,359.0	0.00	0.00	0.00
18,800.0	90.00	179.53	12,325.0	-6,453.5	279.8	6,459.0	0.00	0.00	0.00
18,900.0	90.00	179.53	12,325.0	-6,553.5	280.6	6,559.0	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	179.53	12,325.0	-6,653.5	281.4	6,658.9	0.00	0.00	0.00	
19,100.0	90.00	179.53	12,325.0	-6,753.5	282.3	6,758.9	0.00	0.00	0.00	
19,200.0	90.00	179.53	12,325.0	-6,853.5	283.1	6,858.9	0.00	0.00	0.00	
19,300.0	90.00	179.53	12,325.0	-6,953.5	283.9	6,958.9	0.00	0.00	0.00	
19,400.0	90.00	179.53	12,325.0	-7,053.5	284.7	7,058.8	0.00	0.00	0.00	
19,500.0	90.00	179.53	12,325.0	-7,153.5	285.6	7,158.8	0.00	0.00	0.00	
19,600.0	90.00	179.53	12,325.0	-7,253.5	286.4	7,258.8	0.00	0.00	0.00	
19,700.0	90.00	179.53	12,325.0	-7,353.4	287.2	7,358.8	0.00	0.00	0.00	
19,800.0	90.00	179.53	12,325.0	-7,453.4	288.0	7,458.7	0.00	0.00	0.00	
19,900.0	90.00	179.53	12,325.0	-7,553.4	288.8	7,558.7	0.00	0.00	0.00	
20,000.0	90.00	179.53	12,325.0	-7,653.4	289.7	7,658.7	0.00	0.00	0.00	
20,100.0	90.00	179.53	12,325.0	-7,753.4	290.5	7,758.7	0.00	0.00	0.00	
20,200.0	90.00	179.53	12,325.0	-7,853.4	291.3	7,858.6	0.00	0.00	0.00	
20,300.0	90.00	179.53	12,325.0	-7,953.4	292.1	7,958.6	0.00	0.00	0.00	
20,400.0	90.00	179.53	12,325.0	-8,053.4	292.9	8,058.6	0.00	0.00	0.00	
20,500.0	90.00	179.53	12,325.0	-8,153.4	293.8	8,158.6	0.00	0.00	0.00	
20,600.0	90.00	179.53	12,325.0	-8,253.4	294.6	8,258.6	0.00	0.00	0.00	
20,700.0	90.00	179.53	12,325.0	-8,353.4	295.4	8,358.5	0.00	0.00	0.00	
20,800.0	90.00	179.53	12,325.0	-8,453.4	296.2	8,458.5	0.00	0.00	0.00	
20,900.0	90.00	179.53	12,325.0	-8,553.4	297.1	8,558.5	0.00	0.00	0.00	
21,000.0	90.00	179.53	12,325.0	-8,653.4	297.9	8,658.5	0.00	0.00	0.00	
21,100.0	90.00	179.53	12,325.0	-8,753.4	298.7	8,758.4	0.00	0.00	0.00	
21,200.0	90.00	179.53	12,325.0	-8,853.4	299.5	8,858.4	0.00	0.00	0.00	
21,300.0	90.00	179.53	12,325.0	-8,953.4	300.3	8,958.4	0.00	0.00	0.00	
21,400.0	90.00	179.53	12,325.0	-9,053.4	301.2	9,058.4	0.00	0.00	0.00	
21,500.0	90.00	179.53	12,325.0	-9,153.4	302.0	9,158.3	0.00	0.00	0.00	
21,600.0	90.00	179.53	12,325.0	-9,253.4	302.8	9,258.3	0.00	0.00	0.00	
21,700.0	90.00	179.53	12,325.0	-9,353.4	303.6	9,358.3	0.00	0.00	0.00	
21,800.0	90.00	179.53	12,325.0	-9,453.4	304.5	9,458.3	0.00	0.00	0.00	
21,900.0	90.00	179.53	12,325.0	-9,553.4	305.3	9,558.2	0.00	0.00	0.00	
22,000.0	90.00	179.53	12,325.0	-9,653.4	306.1	9,658.2	0.00	0.00	0.00	
22,100.0	90.00	179.53	12,325.0	-9,753.4	306.9	9,758.2	0.00	0.00	0.00	
22,200.0	90.00	179.53	12,325.0	-9,853.4	307.7	9,858.2	0.00	0.00	0.00	
22,300.0	90.00	179.53	12,325.0	-9,953.4	308.6	9,958.1	0.00	0.00	0.00	
22,400.0	90.00	179.53	12,325.0	-10,053.4	309.4	10,058.1	0.00	0.00	0.00	
22,500.0	90.00	179.53	12,325.0	-10,153.4	310.2	10,158.1	0.00	0.00	0.00	
22,597.2	90.00	179.53	12,325.0	-10,250.5	311.0	10,255.2	0.00	0.00	0.00	

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
FTP_PITCHBLENDE 24	0.00	0.00	12,325.0	156.8	224.7	409,594.60	783,152.20	32° 7' 22.038 N	103° 25' 7.390 W
- plan misses target center by 163.4usft at 12270.3usft MD (12204.6 TVD, 46.3 N, 226.4 E)									
- Circle (radius 50.0)									
LTP_PITCHBLENDE 24	90.00	0.00	12,325.0	-10,200.5	310.2	399,237.30	783,237.70	32° 5' 39.542 N	103° 25' 7.418 W
- plan misses target center by 47.1usft at 22500.0usft MD (12325.0 TVD, -10153.4 N, 310.2 E)									
- Circle (radius 50.0)									
PBHL_PITCHBLENDE 2	0.00	359.50	12,325.0	-10,250.5	310.6	399,187.30	783,238.10	32° 5' 39.047 N	103° 25' 7.418 W
- plan misses target center by 0.4usft at 22597.1usft MD (12325.0 TVD, -10250.5 N, 311.0 E)									
- Rectangle (sides W100.0 H10,408.3 D20.0)									

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well PITCHBLENDE 24-25 FED COM 603H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=27ft @ 3380.1usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=27ft @ 3380.1usft
Site:	PITCHBLENDE 24-25 FEDERAL PROJECT	North Reference:	Grid
Well:	PITCHBLENDE 24-25 FED COM 603H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	Start Build 2.00
2,400.2	2,398.9	18.9	20.6	Start 1593.8 hold at 2400.2 MD
3,994.0	3,977.2	169.0	184.0	Start Drop -1.00
4,794.4	4,775.0	206.8	225.1	Start 7072.5 hold at 4794.4 MD
11,867.0	11,847.5	206.8	225.1	Start DLS 12.00 TFO 179.53
12,617.0	12,325.0	-270.6	229.0	Start 9980.2 hold at 12617.0 MD
22,597.2	12,325.0	-10,250.5	311.0	TD at 22597.2

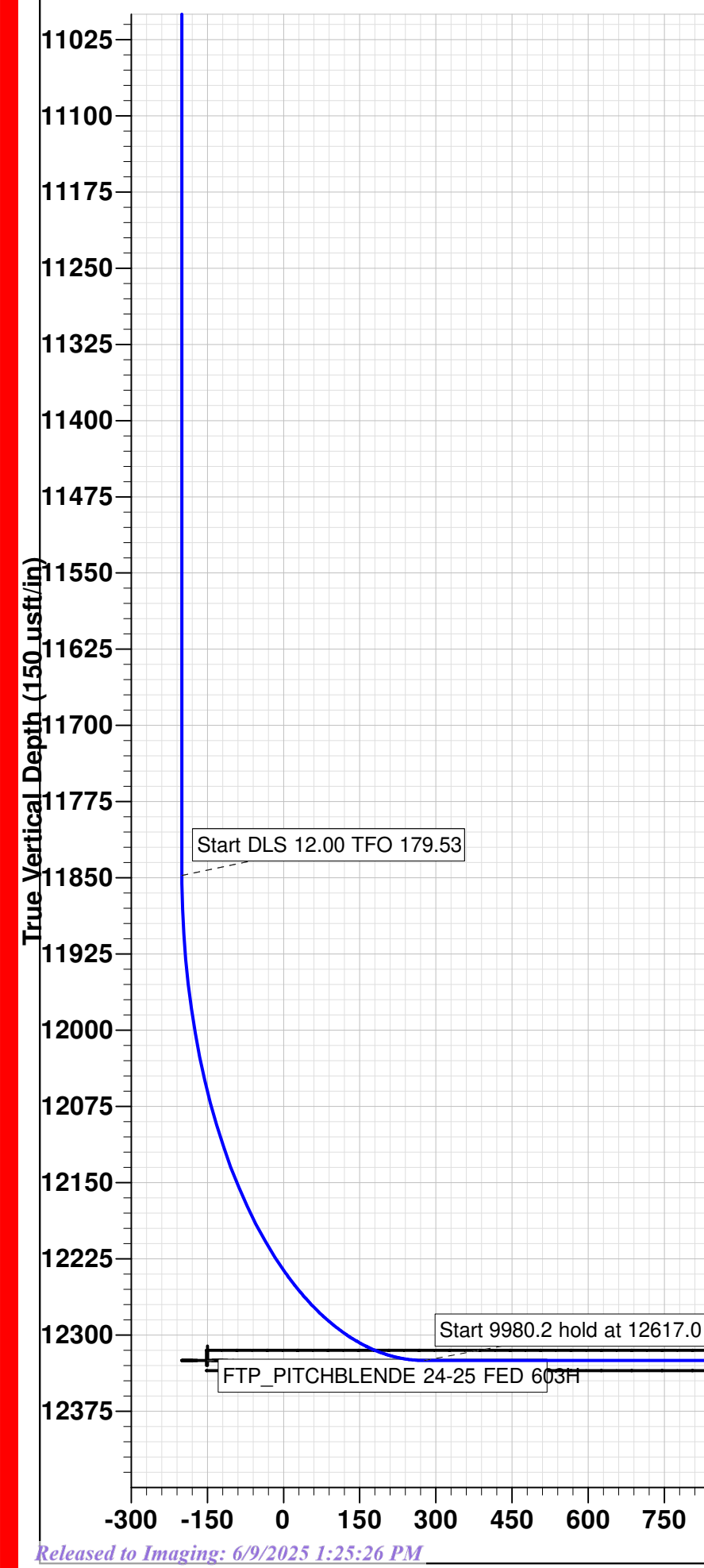
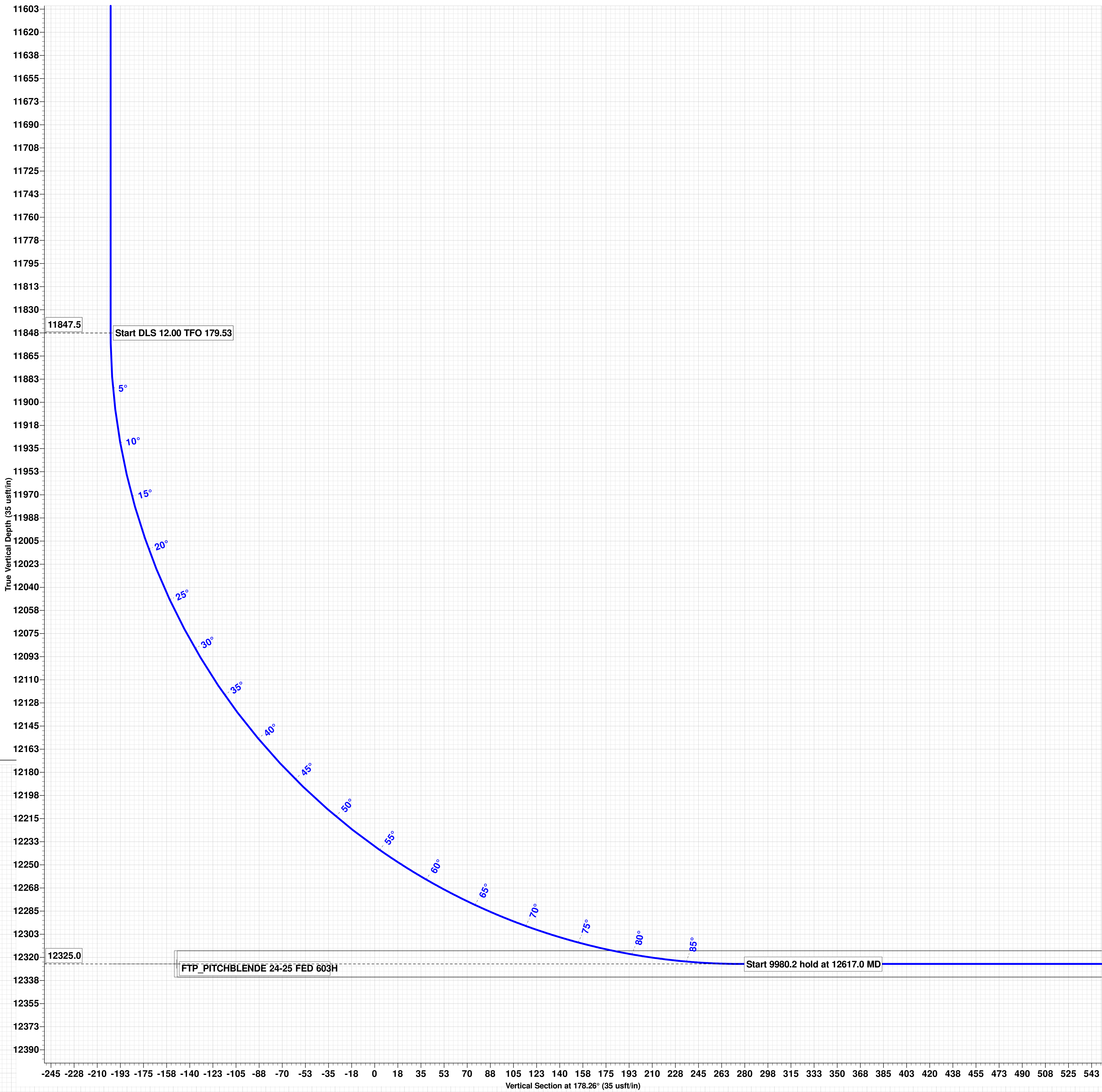
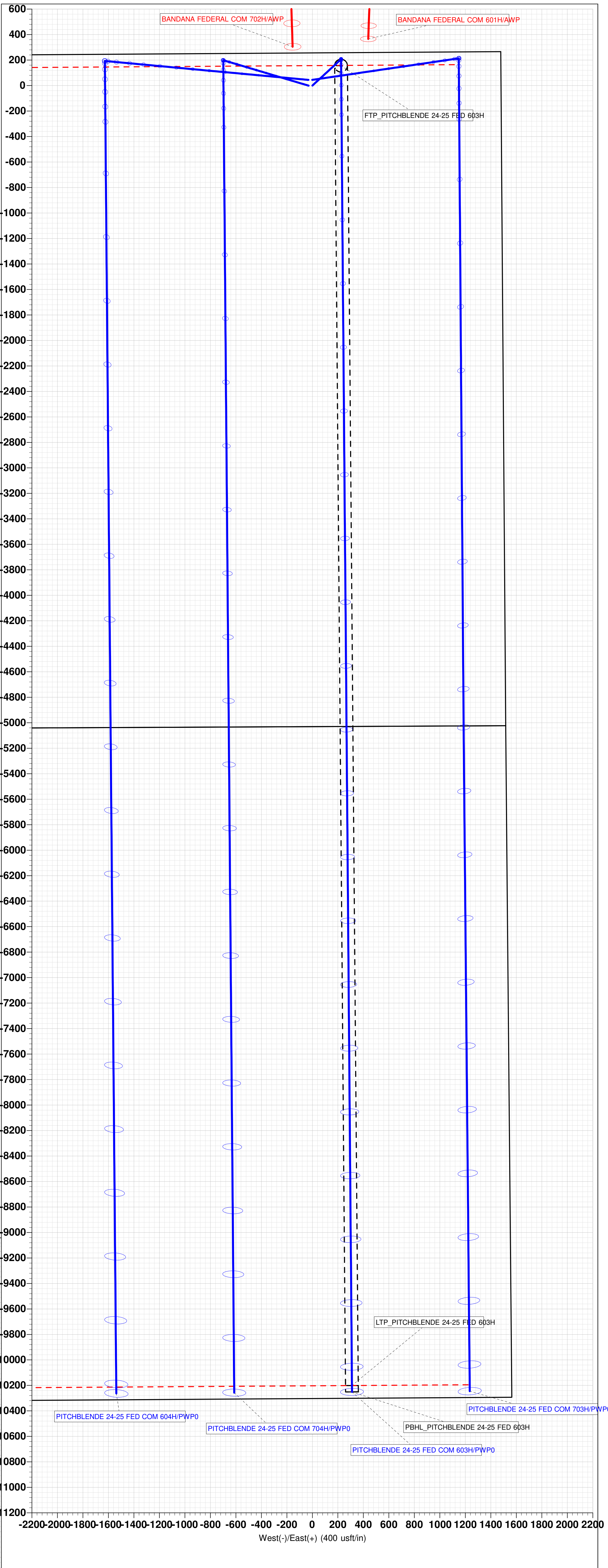


Project: LEA COUNTY SOUTHEAST
Site: PITCHBLEND 24-25 FEDERAL PROJECT
Well: PITCHBLEND 24-25 FED COM 603H
Wellbore: OWB
Design: PWP0
GL: 3353.1
RKB=27ft @ 3380.1usft

WELL DETAILS: PITCHBLEND 24-25 FED COM 603H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	409437.80	782927.50	32° 7' 20.505 N	103° 25' 10.018 W

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP_PITCHBLEND 24-25 FED 603H	12325.0	156.8	224.7	409594.60	783152.20
LTP_PITCHBLEND 24-25 FED 603H	12325.0	-10200.5	310.2	399237.30	783237.70
PBHL_PITCHBLEND 24-25 FED 603H	12325.0	-10250.5	310.6	399187.30	783238.10

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
2400.2	8.00	47.42	2398.9	18.9	20.6	2.00	47.42	-18.3	
3994.0	8.00	47.42	3977.2	169.0	184.0	0.00	0.00	-163.4	
4794.4	0.00	0.00	4775.0	206.8	225.1	1.00	180.00	-199.9	
11867.0	0.00	0.00	11847.5	206.8	225.1	0.00	0.00	-199.9	
12617.0	90.00	179.53	12325.0	-270.6	229.0	12.00	179.53	277.5	
22597.2	90.00	179.53	12325.0	-10250.5	311.0	0.00	0.00	10255.2	



ConocoPhillips - Pitchblende 24-25 Fed Com 603H

1. Geologic Formations

TVD of target	12,415' EOL	Pilot hole depth	NA
MD at TD:	22,687'	Deepest expected fresh water:	300'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	864	Water	
Top of Salt	1300	Salt	
Base of Salt	5096	Salt	
Lamar	5365	Salt Water	
Bell Canyon	5403	Salt Water	
Cherry Canyon	6370	Oil/Gas	
Brushy Canyon	7994	Oil/Gas	
Bone Spring	9312	Oil/Gas	
1st Bone Spring Sand	10441	Oil/Gas	
2nd Bone Spring Sand	10984	Oil/Gas	
3rd Bone Spring Sand	12083	Target Oil/Gas	
Wolfcamp A	12589	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1065	10.75"	45.5	J55	BTC	4.29	1.12	14.76	16.43
9.875"	0	8200	7.625"	29.7	L80-ICY	BTC	1.47	1.07	2.98	3.01
8.750"	8200	11850	7.625"	29.7	P110-ICY	W513	1.27	1.62	3.03	1.82
6.75"	0	11650	5.5"	23	P110-CY	BTC	1.92	2.13	2.72	2.72
6.75"	11650	22,687	5.5"	23	P110-CY	W441	1.80	2.13	2.55	2.32
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

The 5 1/2" W441 casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

ConocoPhillips - Pitchblende 24-25 Fed Com 603H

	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 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

ConocoPhillips - Pitchblende 24-25 Fed Com 603H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	365	13.5	1.75	9	12	Lead: Class C
	187	14.8	1.34	6.34	8	Tail: Class C
Int. Stage 1	1197	11	2.54	15.33	12	Lead: Class C
	112	14.8	1.34	6.52	8	Tail: Class C
Int. Stage 2	580	12.9	1.9	10.52	24	Lead: Class C
	192	14.8	1.34	6.52	8	Tail: Class C
Prod	644	12.7	1.68	9.09	72	Lead: Class C
	1055	14.5	1.18	5.26	19	Tail: Class H

Intermediate cement job to be performed offline.

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

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

Casing String	TOC	% Excess
Surface	0'	50%
Int Stg 1	0'	50%
Int Stg 2	0'	20%
Production	11,350'	35% OH in Lateral (KOP to EOL)

3b. Contingency Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	365	13.5	1.75	9	12	Lead: Class C
	187	14.8	1.34	6.34	8	Tail: Class C
Bradenhead Stage 1	383	15.6	1.216	5.28	6	Stage 1 Lead: Class H
	134	16.2	1.123	4.6	11	Stage 1 Tail: Class H
Bradenhead Stage 2	2500	14.8	1.5	7.2	4	Bradenhead: Thixotropic Class C
	400	14.8	1.33	6.4	5	Top Out: Class C
Prod	644	12.7	1.68	9.09	72	Lead: Class C
	1055	14.5	1.18	5.26	19	Tail: Class H

If conditions dictate, an offline bradenhead cement job will be performed to ensure cement to surface.

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

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

Casing String	TOC	% Excess
Surface	0'	50%
BH Stg 1	0'	50%
BH Stg 2	7,994'	121%
Production	11,350'	35% OH in Lateral (KOP to EOL)

ConocoPhillips - Pitchblende 24-25 Fed Com 603H

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:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	2500psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			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 43 CFR part 3170 Subpart 3172. 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?
Y	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 - Pitchblende 24-25 Fed Com 603H

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	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9.4	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9 - 12.5	35-45	<20

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

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

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
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 - Pitchblende 24-25 Fed Com 603H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	8070 psi at 12415' TVD
Abnormal Temperature	NO 180 Deg. F.

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

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

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

N H₂S is present

Y H₂S Plan attached

8. Other Facets of Operation

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

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

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM136223
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. PITCHBLEND 24-25 FEDERAL/603H
2. Name of Operator COG OPERATING LLC		9. API Well No. 3002551660
3a. Address 600 West Illinois Ave, Midland, TX 79701	3b. Phone No. (include area code) (432) 683-7443	10. Field and Pool or Exploratory Area FAIRVIEW MILLS/Bone Spring
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 24/T25S/R34E/NMP		11. Country or Parish, State LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

COG Operating LLC respectfully requests approval for the following changes to the original approved APD.

BHL Changes:
From: 50' FSL and 1000' FEL Section. 25. T25S. R34E.
To: 50' FSL and 1254' FEL Section. 25. T25S. R34E.
C102 Attached.

Drilling Changes:
Drilling Program, Directional Plan, AC Report and Specs Attached.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) MAYTE REYES / Ph: (281) 293-1000	Title Regulatory Analyst
Signature (Electronic Submission)	Date 01/15/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 05/20/2025
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office CARLSBAD	

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NWNE / 255 FNL / 1480 FEL / TWSP: 25S / RANGE: 34E / SECTION: 24 / LAT: 32.122488 / LONG: -103.419916 (TVD: 0 feet, MD: 0 feet)

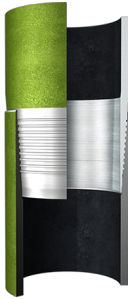
PPP: NENE / 100 FNL / 1000 FEL / TWSP: 25S / RANGE: 34E / SECTION: 24 / LAT: 32.122913 / LONG: -103.418366 (TVD: 12335 feet, MD: 12391 feet)

BHL: SESE / 50 FSL / 1000 FEL / TWSP: 25S / RANGE: 34E / SECTION: 25 / LAT: 32.094304 / LONG: -103.418372 (TVD: 12513 feet, MD: 22588 feet)

CONFIDENTIAL



Wedge 513[®]



Coupling	Pipe Body
Grade: P110-ICY	Grade: P110-ICY
Body: White	1st Band: White
1st Band: Pale Green	2nd Band: Pale Green
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7.625 in.	Wall Thickness	0.375 in.	Grade	P110-ICY
Min. Wall Thickness	90.00 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.625 in.	Wall Thickness	0.375 in.	Body Yield Strength	1068 x1000 lb
Nominal Weight	29.70 lb/ft	Plain End Weight	29.06 lb/ft	Min. Internal Yield Pressure	11,070 psi
Drift	6.750 in.	OD Tolerance	API	SMYS	125,000 psi
Nominal ID	6.875 in.			Collapse Pressure	7360 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.625 in.	Tension Efficiency	60 %	Minimum	9000 ft-lb
Connection ID	6.800 in.	Joint Yield Strength	641 x1000 lb	Optimum	10,800 ft-lb
Make-up Loss	4.420 in.	Internal Pressure Capacity	11,070 psi	Maximum	15,800 ft-lb
Threads per inch	3.29	Compression Efficiency	75.20 %	Operation Limit Torques	
Connection OD Option	Regular	Compression Strength	803 x1000 lb	Operating Torque	53,000 ft-lb
		Max. Allowable Bending	45 °/100 ft	Yield Torque	79,000 ft-lb
		External Pressure Capacity	7360 psi		

Notes

This connection is fully interchangeable with:
Wedge 523[®] - 7.625 in. - 0.375 (29.70) in. (lb/ft)
Connections with Dopeless[®] Technology are fully compatible with the same connection in its Standard version

For the latest 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 has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information –if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com . ©Tenaris 2023. All rights reserved.



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.
Nominal Weight	23 lb/ft	Plain End Weight	22.56 lb/ft
Drift	4.545 in.	OD Tolerance	API
Nominal ID	4.670 in.		
		Body Yield Strength	729 x1000 lb
		Min. Internal Yield Pressure	14,530 psi
		SMYS	110,000 psi
		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 %		
Threads per inch	3.40	Compression Strength	662 x1000 lb	Operation Limit Torques	
Connection OD Option	Regular	Max. Allowable Bending	79 °/100 ft	Operating Torque	33,000 ft-lb
		External Pressure Capacity	14,540 psi	Yield Torque	39,000 ft-lb
		Coupling Face Load	172,000 lb		
				Buck-On	
				Minimum	19,200 ft-lb
				Maximum	20,700 ft-lb

Notes

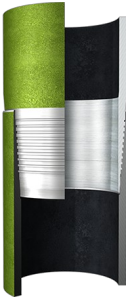
This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.476 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For the latest performance data, always visit our website: www.tenaris.com

Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information –if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com . ©Tenaris 2021. All rights reserved.



Wedge 513[®]



Coupling	Pipe Body
Grade: P110-ICY	Grade: P110-ICY
Body: White	1st Band: White
1st Band: Pale Green	2nd Band: Pale Green
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7.625 in.	Wall Thickness	0.375 in.	Grade	P110-ICY
Min. Wall Thickness	90.00 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.625 in.	Wall Thickness	0.375 in.	Body Yield Strength	1068 x1000 lb
Nominal Weight	29.70 lb/ft	Plain End Weight	29.06 lb/ft	Min. Internal Yield Pressure	11,070 psi
Drift	6.750 in.	OD Tolerance	API	SMYS	125,000 psi
Nominal ID	6.875 in.			Collapse Pressure	7360 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.625 in.	Tension Efficiency	60 %	Minimum	9000 ft-lb
Connection ID	6.800 in.	Joint Yield Strength	641 x1000 lb	Optimum	10,800 ft-lb
Make-up Loss	4.420 in.	Internal Pressure Capacity	11,070 psi	Maximum	15,800 ft-lb
Threads per inch	3.29	Compression Efficiency	75.20 %	Operation Limit Torques	
Connection OD Option	Regular	Compression Strength	803 x1000 lb	Operating Torque	53,000 ft-lb
		Max. Allowable Bending	45 °/100 ft	Yield Torque	79,000 ft-lb
		External Pressure Capacity	7360 psi		

Notes

This connection is fully interchangeable with:
Wedge 523[®] - 7.625 in. - 0.375 (29.70) in. (lb/ft)
Connections with Dopeless[®] Technology are fully compatible with the same connection in its doped version

For the latest 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 has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information –if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com . ©Tenaris 2024. All rights reserved.



API BTC

Coupling	Pipe Body
Grade: J55 (Casing)	Grade: J55 (Casing)
Body: Bright Green	1st Band: Bright Green
1st Band: White	2nd Band: -
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -

Outside Diameter	10.750 in.	Wall Thickness	0.400 in.	Grade	J55 (Casing)
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	Regular				

Pipe Body Data

Geometry			Performance		
Nominal OD	10.750 in.	Drift	9.794 in.	SMYS	55,000 psi
Wall Thickness	0.400 in.	Plain End Weight	44.26 lb/ft	Min UTS	75,000 psi
Nominal Weight	45.500 lb/ft	OD Tolerance	API	Body Yield Strength	715 x1000 lb
Nominal ID	9.950 in.			Min. Internal Yield Pressure	3580 psi
				Collapse Pressure	2090 psi
				Max. Allowed Bending	23 °/100 ft

Connection Data

Geometry		Performance	
Thread per In	5	Joint Strength	796 x1000 lb
Connection OD	11.750 in.	Coupling Face Load	628 x1000 lb
Hand Tight Stand Off	1 in.	Internal Pressure Capacity	3580 psi

Notes

For products according to API Standards 5CT & 5B; Performance calculated considering API Technical Report 5C3 (Sections 9 & 10) equations.
For geometrical and steel grades combinations not considered in the API Standards 5CT and/or 5B; Performance calculations indirectly derived from API Technical Report 5C3 (Sections 9 & 10) equations.
Couplings OD are shown according to current API 5CT 10th Edition.
Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information—if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com . ©Tenaris 2022. All rights reserved.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
WELL NAME & NO.:	PITCHBLENDE 24-25 FED COM 603H
LOCATION:	Section 24, T.25 S., R.34 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	☒ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☒ Break Testing	☒ 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:

1. The **10-3/4** inch surface casing shall be set at approximately **1065 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 **14 3/4 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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Contingency:

Operator has proposed a contingency if losses are encountered, a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Contingency Bradenhead Squeeze

Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

3. **The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.** 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 **10-3/4** 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.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Casing Clearance:

- The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

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 5/9/2025

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 465737

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 465737
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	6/9/2025
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	6/9/2025