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

Sundry Print Report

08/16/2024

Well Name: MEAT LOVER FEDERAL COM

Well Location: T23S / R33E / SEC 18 / NENE / 32.311278 / -103.607162

County or Parish/State: LEA / NM

Well Number: 602H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMLC0068848

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002550279

Operator: COG OPERATING LLC

Notice of Intent

Sundry ID: 2801792

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 07/18/2024

Time Sundry Submitted: 12:58

Date proposed operation will begin: 07/18/2024

Procedure Description: COG Operating requests a change to our approved APD for this well to reflect a change in Pool and BHL. Change BHL FROM: 50' FSL & 1870' FEL 30-23S-33E Change BHL TO: 50' FSL & 1980' FEL SESE 19-23S-33E Lea Co., NM Change Pool FROM: 98177 WC-025 G-09 S223332A; UPR WOLFCAMP TO: 17644 Diamondtail; Bone Spring COG Operating requests a variance to allow for break testing as attached. COG Operating requests permission to perform bradenhead cementing on the intermediate casing as attached

NOI Attachments

Procedure Description

MEAT_LOVER_FED_COM_602H_C102_NAD83_signed_7_18_24_20240718125819.pdf

MEAT_LOVER_FED_COM_602H_PWP2_PLAN_RPT_20240718125813.pdf

COP_BOP_Break_Testing_Documentation_6_07_23_20240718125813.pdf

MEAT_LOVER_FED_COM_602H_PWP2_WP_20240718125813.pdf

MEAT_LOVER_FED_COM_602H_revised_drill_plan_7_18_24_20240718125813.pdf

MEAT_LOVER_FED_COM_602H_PWP2_AC_RPT_20240718125813.pdf

COP_Offline_Bradenhead_Intermediate_Documentation_3_11_23__Rev2_20240718125814.pdf

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Well Location: T23S / R33E / SEC 18 / NENE / 32.311278 / -103.607162

County or Parish/State: LEA / NM

Well Number: 602H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMLC0068848

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002550279

Operator: COG OPERATING LLC

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: STAN WAGNER

Signed on: JUL 18, 2024 12:58 PM

Name: COG OPERATING LLC

Title: Regulatory Advisor

Street Address: 600 WEST ILLINOIS AVE

City: MIDLAND **State:** TX

Phone: (432) 253-9685

Email address: STAN.S.WAGNER@CONOCOPHILLIPS.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KEITH P IMMATTY

BLM POC Title: ENGINEER

BLM POC Phone: 5759884722

BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition: Approved

Disposition Date: 08/13/2024

Signature: KEITH IMMATTY

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

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ 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 recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be 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.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand 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: NENE / 270 FNL / 1310 FEL / TWSP: 23S / RANGE: 33E / SECTION: 18 / LAT: 32.311278 / LONG: -103.607162 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 1000 FEL / TWSP: 23S / RANGE: 33E / SECTION: 18 / LAT: 32.311742 / LONG: -103.606159 (TVD: 12308 feet, MD: 12371 feet)

PPP: NENE / 1 FNL / 1000 FEL / TWSP: 23S / RANGE: 33E / SECTION: 19 / LAT: 32.297511 / LONG: -103.606145 (TVD: 12492 feet, MD: 17600 feet)

BHL: SESE / 50 FSL / 1870 FEL / TWSP: 23S / RANGE: 33E / SECTION: 30 / LAT: 32.272244 / LONG: -103.60612 (TVD: 12535 feet, MD: 26629 feet)

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-50279	14865	CRUZ;BONE SPRING

Property Code	Property Name	Well Number
332964	MEAT LOVER FEDERAL COM	602H

OGRID No.	Operator Name	Elevation
229137	COG OPERATING LLC	3716.5'

Surface Location

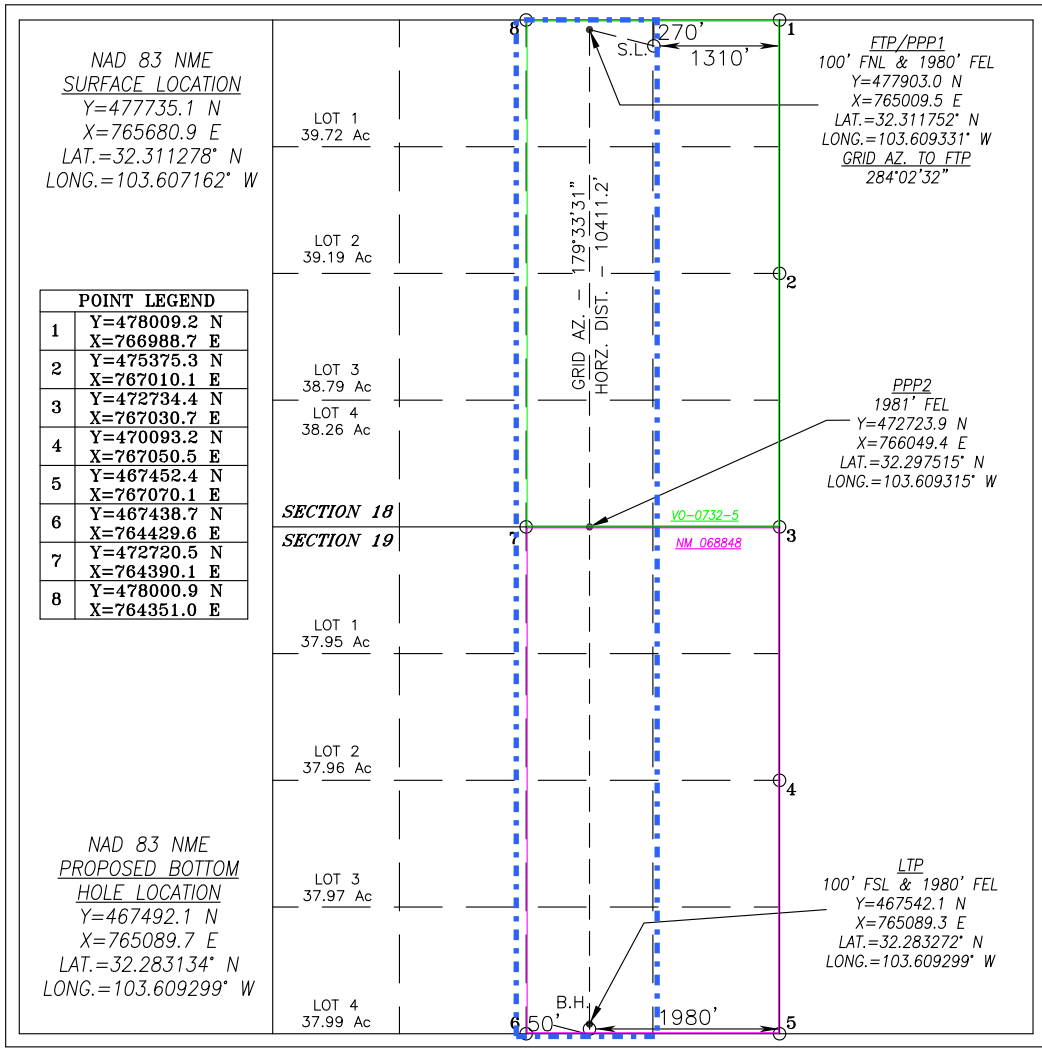
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	23-S	33-E		270	NORTH	1310	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	19	23-S	33-E		50	SOUTH	1980	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320		Com	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

Stan Wagner 7/18/24
Signature Date

Stan Wagner
Printed Name

E-mail Address

SURVEYOR CERTIFICATION

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

MAY 28, 2021
Date of Survey

Signature & Seal of Professional Surveyor

CHAD L. HARCROW NEW MEXICO 17777 LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 6/13/24
Certificate No. CHAD HARCROW 17777
W.O. #24-557 DRAWN BY: WN

DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST
MEAT LOVER FED COM PROJECT
MEAT LOVER FED COM #602H
300255027900
OWB

Plan: PWP2

Standard Planning Report

08 July, 2024

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB=27 @ 3743.5usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	KB=27 @ 3743.5usft
Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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 MEAT LOVER FED COM PROJECT

Site Position:		**Northing:**	477,926.73 usft	**Latitude:**	32° 18' 42.901 N
From:	Map	**Easting:**	720,599.28 usft	**Longitude:**	103° 37' 9.447 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well MEAT LOVER FED COM #602H

Well Position	**+N/-S**	0.0 usft	**Northing:**	477,675.40 usft	**Latitude:**	32° 18' 40.155 N
	+E/-W	0.0 usft	**Easting:**	724,497.60 usft	**Longitude:**	103° 36' 24.044 W
Position Uncertainty		3.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,716.5 usft
Grid Convergence:		0.39 °				

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	9/18/2024	6.30	59.91	47,393.36246288

Design PWP2

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	183.30

Plan Survey Tool Program **Date** 7/8/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,307.8	PWP2 (OWB)	r.5 MWD+IFR1+SAG+FDIR	
				ISCWSA MWD + IFR1 + SAG ·	

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,950.0	9.00	287.90	1,948.2	10.8	-33.6	2.00	2.00	0.00	287.90	
5,786.1	9.00	287.90	5,737.0	195.3	-604.6	0.00	0.00	0.00	0.00	
6,686.1	0.00	0.00	6,633.3	217.0	-671.7	1.00	-1.00	8.01	180.00	
10,575.3	0.00	0.00	10,522.5	217.0	-671.7	0.00	0.00	0.00	0.00	
11,325.3	90.00	179.56	11,000.0	-260.5	-668.1	12.00	12.00	23.94	179.56	
21,307.8	90.00	179.56	11,000.0	-10,242.7	-591.4	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

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Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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
Start Build 2.00									
1,600.0	2.00	287.90	1,600.0	0.5	-1.7	-0.4	2.00	2.00	0.00
1,700.0	4.00	287.90	1,699.8	2.1	-6.6	-1.8	2.00	2.00	0.00
1,800.0	6.00	287.90	1,799.5	4.8	-14.9	-4.0	2.00	2.00	0.00
1,900.0	8.00	287.90	1,898.7	8.6	-26.5	-7.0	2.00	2.00	0.00
1,950.0	9.00	287.90	1,948.2	10.8	-33.6	-8.9	2.00	2.00	0.00
Start 3836.1 hold at 1950.0 MD									
2,000.0	9.00	287.90	1,997.5	13.2	-41.0	-10.9	0.00	0.00	0.00
2,100.0	9.00	287.90	2,096.3	18.1	-55.9	-14.8	0.00	0.00	0.00
2,200.0	9.00	287.90	2,195.1	22.9	-70.8	-18.7	0.00	0.00	0.00
2,300.0	9.00	287.90	2,293.8	27.7	-85.7	-22.7	0.00	0.00	0.00
2,400.0	9.00	287.90	2,392.6	32.5	-100.6	-26.6	0.00	0.00	0.00
2,500.0	9.00	287.90	2,491.4	37.3	-115.4	-30.6	0.00	0.00	0.00
2,600.0	9.00	287.90	2,590.1	42.1	-130.3	-34.5	0.00	0.00	0.00
2,700.0	9.00	287.90	2,688.9	46.9	-145.2	-38.5	0.00	0.00	0.00
2,800.0	9.00	287.90	2,787.7	51.7	-160.1	-42.4	0.00	0.00	0.00
2,900.0	9.00	287.90	2,886.5	56.5	-175.0	-46.3	0.00	0.00	0.00
3,000.0	9.00	287.90	2,985.2	61.3	-189.9	-50.3	0.00	0.00	0.00
3,100.0	9.00	287.90	3,084.0	66.1	-204.8	-54.2	0.00	0.00	0.00
3,200.0	9.00	287.90	3,182.8	70.9	-219.6	-58.2	0.00	0.00	0.00
3,300.0	9.00	287.90	3,281.5	75.8	-234.5	-62.1	0.00	0.00	0.00
3,400.0	9.00	287.90	3,380.3	80.6	-249.4	-66.0	0.00	0.00	0.00
3,500.0	9.00	287.90	3,479.1	85.4	-264.3	-70.0	0.00	0.00	0.00
3,600.0	9.00	287.90	3,577.8	90.2	-279.2	-73.9	0.00	0.00	0.00
3,700.0	9.00	287.90	3,676.6	95.0	-294.1	-77.9	0.00	0.00	0.00
3,800.0	9.00	287.90	3,775.4	99.8	-309.0	-81.8	0.00	0.00	0.00
3,900.0	9.00	287.90	3,874.1	104.6	-323.8	-85.8	0.00	0.00	0.00
4,000.0	9.00	287.90	3,972.9	109.4	-338.7	-89.7	0.00	0.00	0.00
4,100.0	9.00	287.90	4,071.7	114.2	-353.6	-93.6	0.00	0.00	0.00
4,200.0	9.00	287.90	4,170.5	119.0	-368.5	-97.6	0.00	0.00	0.00
4,300.0	9.00	287.90	4,269.2	123.8	-383.4	-101.5	0.00	0.00	0.00
4,400.0	9.00	287.90	4,368.0	128.6	-398.3	-105.5	0.00	0.00	0.00
4,500.0	9.00	287.90	4,466.8	133.4	-413.2	-109.4	0.00	0.00	0.00
4,600.0	9.00	287.90	4,565.5	138.3	-428.0	-113.4	0.00	0.00	0.00
4,700.0	9.00	287.90	4,664.3	143.1	-442.9	-117.3	0.00	0.00	0.00
4,800.0	9.00	287.90	4,763.1	147.9	-457.8	-121.2	0.00	0.00	0.00
4,900.0	9.00	287.90	4,861.8	152.7	-472.7	-125.2	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB=27 @ 3743.5usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	KB=27 @ 3743.5usft
Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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)
5,000.0	9.00	287.90	4,960.6	157.5	-487.6	-129.1	0.00	0.00	0.00
5,100.0	9.00	287.90	5,059.4	162.3	-502.5	-133.1	0.00	0.00	0.00
5,200.0	9.00	287.90	5,158.1	167.1	-517.4	-137.0	0.00	0.00	0.00
5,300.0	9.00	287.90	5,256.9	171.9	-532.3	-140.9	0.00	0.00	0.00
5,400.0	9.00	287.90	5,355.7	176.7	-547.1	-144.9	0.00	0.00	0.00
5,500.0	9.00	287.90	5,454.4	181.5	-562.0	-148.8	0.00	0.00	0.00
5,600.0	9.00	287.90	5,553.2	186.3	-576.9	-152.8	0.00	0.00	0.00
5,700.0	9.00	287.90	5,652.0	191.1	-591.8	-156.7	0.00	0.00	0.00
5,786.1	9.00	287.90	5,737.0	195.3	-604.6	-160.1	0.00	0.00	0.00
Start DLS 1.00 TFO 180.00									
5,800.0	8.86	287.90	5,750.8	195.9	-606.7	-160.7	1.00	-1.00	0.00
5,900.0	7.86	287.90	5,849.7	200.4	-620.5	-164.3	1.00	-1.00	0.00
6,000.0	6.86	287.90	5,948.9	204.4	-632.7	-167.5	1.00	-1.00	0.00
6,100.0	5.86	287.90	6,048.2	207.8	-643.2	-170.3	1.00	-1.00	0.00
6,200.0	4.86	287.90	6,147.8	210.6	-652.1	-172.7	1.00	-1.00	0.00
6,300.0	3.86	287.90	6,247.5	213.0	-659.4	-174.6	1.00	-1.00	0.00
6,400.0	2.86	287.90	6,347.3	214.8	-664.9	-176.1	1.00	-1.00	0.00
6,500.0	1.86	287.90	6,447.3	216.0	-668.9	-177.1	1.00	-1.00	0.00
6,600.0	0.86	287.90	6,547.2	216.8	-671.1	-177.7	1.00	-1.00	0.00
6,686.1	0.00	0.00	6,633.3	217.0	-671.7	-177.9	1.00	-1.00	83.76
Start 3889.2 hold at 6686.1 MD									
6,700.0	0.00	0.00	6,647.2	217.0	-671.7	-177.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,747.2	217.0	-671.7	-177.9	0.00	0.00	0.00
6,900.0	0.00	0.00	6,847.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,000.0	0.00	0.00	6,947.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,100.0	0.00	0.00	7,047.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,147.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,247.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,400.0	0.00	0.00	7,347.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,447.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,547.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,647.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,747.2	217.0	-671.7	-177.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,847.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,947.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,047.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,147.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,247.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,347.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,447.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,547.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,647.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,747.2	217.0	-671.7	-177.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,847.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,947.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,047.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,147.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,247.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,347.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,447.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,547.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,647.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,747.2	217.0	-671.7	-177.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,847.2	217.0	-671.7	-177.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB=27 @ 3743.5usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	KB=27 @ 3743.5usft
Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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)
10,000.0	0.00	0.00	9,947.2	217.0	-671.7	-177.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,047.2	217.0	-671.7	-177.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,147.2	217.0	-671.7	-177.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,247.2	217.0	-671.7	-177.9	0.00	0.00	0.00
10,400.0	0.00	0.00	10,347.2	217.0	-671.7	-177.9	0.00	0.00	0.00
10,500.0	0.00	0.00	10,447.2	217.0	-671.7	-177.9	0.00	0.00	0.00
10,575.3	0.00	0.00	10,522.5	217.0	-671.7	-177.9	0.00	0.00	0.00
Start DLS 12.00 TFO 179.56									
10,600.0	2.97	179.56	10,547.2	216.3	-671.7	-177.2	12.00	12.00	726.18
10,700.0	14.97	179.56	10,645.8	200.8	-671.6	-161.7	12.00	12.00	0.00
10,800.0	26.97	179.56	10,739.0	165.0	-671.3	-126.1	12.00	12.00	0.00
10,900.0	38.97	179.56	10,822.8	110.7	-670.9	-71.9	12.00	12.00	0.00
10,985.2	49.19	179.56	10,883.9	51.6	-670.5	-12.8	12.00	12.00	0.00
FTP (MEAT LOVER FED COM #602H)									
11,000.0	50.97	179.56	10,893.4	40.2	-670.4	-1.5	12.00	12.00	0.00
11,100.0	62.97	179.56	10,947.8	-43.5	-669.7	82.0	12.00	12.00	0.00
11,200.0	74.97	179.56	10,983.6	-136.6	-669.0	175.0	12.00	12.00	0.00
11,300.0	86.97	179.56	10,999.3	-235.2	-668.3	273.4	12.00	12.00	0.00
11,325.3	90.00	179.56	11,000.0	-260.5	-668.1	298.6	12.00	12.00	0.00
Start 9982.5 hold at 11325.3 MD									
11,400.0	90.00	179.56	11,000.0	-335.2	-667.5	373.1	0.00	0.00	0.00
11,500.0	90.00	179.56	11,000.0	-435.2	-666.7	472.9	0.00	0.00	0.00
11,600.0	90.00	179.56	11,000.0	-535.2	-666.0	572.7	0.00	0.00	0.00
11,700.0	90.00	179.56	11,000.0	-635.2	-665.2	672.5	0.00	0.00	0.00
11,800.0	90.00	179.56	11,000.0	-735.2	-664.4	772.3	0.00	0.00	0.00
11,900.0	90.00	179.56	11,000.0	-835.2	-663.7	872.1	0.00	0.00	0.00
12,000.0	90.00	179.56	11,000.0	-935.2	-662.9	971.8	0.00	0.00	0.00
12,100.0	90.00	179.56	11,000.0	-1,035.2	-662.1	1,071.6	0.00	0.00	0.00
12,200.0	90.00	179.56	11,000.0	-1,135.2	-661.4	1,171.4	0.00	0.00	0.00
12,300.0	90.00	179.56	11,000.0	-1,235.2	-660.6	1,271.2	0.00	0.00	0.00
12,400.0	90.00	179.56	11,000.0	-1,335.2	-659.8	1,371.0	0.00	0.00	0.00
12,500.0	90.00	179.56	11,000.0	-1,435.2	-659.0	1,470.8	0.00	0.00	0.00
12,600.0	90.00	179.56	11,000.0	-1,535.2	-658.3	1,570.6	0.00	0.00	0.00
12,700.0	90.00	179.56	11,000.0	-1,635.2	-657.5	1,670.4	0.00	0.00	0.00
12,800.0	90.00	179.56	11,000.0	-1,735.2	-656.7	1,770.1	0.00	0.00	0.00
12,900.0	90.00	179.56	11,000.0	-1,835.2	-656.0	1,869.9	0.00	0.00	0.00
13,000.0	90.00	179.56	11,000.0	-1,935.2	-655.2	1,969.7	0.00	0.00	0.00
13,100.0	90.00	179.56	11,000.0	-2,035.2	-654.4	2,069.5	0.00	0.00	0.00
13,200.0	90.00	179.56	11,000.0	-2,135.2	-653.7	2,169.3	0.00	0.00	0.00
13,300.0	90.00	179.56	11,000.0	-2,235.2	-652.9	2,269.1	0.00	0.00	0.00
13,400.0	90.00	179.56	11,000.0	-2,335.2	-652.1	2,368.9	0.00	0.00	0.00
13,500.0	90.00	179.56	11,000.0	-2,435.1	-651.4	2,468.6	0.00	0.00	0.00
13,600.0	90.00	179.56	11,000.0	-2,535.1	-650.6	2,568.4	0.00	0.00	0.00
13,700.0	90.00	179.56	11,000.0	-2,635.1	-649.8	2,668.2	0.00	0.00	0.00
13,800.0	90.00	179.56	11,000.0	-2,735.1	-649.1	2,768.0	0.00	0.00	0.00
13,900.0	90.00	179.56	11,000.0	-2,835.1	-648.3	2,867.8	0.00	0.00	0.00
14,000.0	90.00	179.56	11,000.0	-2,935.1	-647.5	2,967.6	0.00	0.00	0.00
14,100.0	90.00	179.56	11,000.0	-3,035.1	-646.8	3,067.4	0.00	0.00	0.00
14,200.0	90.00	179.56	11,000.0	-3,135.1	-646.0	3,167.2	0.00	0.00	0.00
14,300.0	90.00	179.56	11,000.0	-3,235.1	-645.2	3,266.9	0.00	0.00	0.00
14,400.0	90.00	179.56	11,000.0	-3,335.1	-644.5	3,366.7	0.00	0.00	0.00
14,500.0	90.00	179.56	11,000.0	-3,435.1	-643.7	3,466.5	0.00	0.00	0.00
14,600.0	90.00	179.56	11,000.0	-3,535.1	-642.9	3,566.3	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB=27 @ 3743.5usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	KB=27 @ 3743.5usft
Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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)
14,700.0	90.00	179.56	11,000.0	-3,635.1	-642.1	3,666.1	0.00	0.00	0.00
14,800.0	90.00	179.56	11,000.0	-3,735.1	-641.4	3,765.9	0.00	0.00	0.00
14,900.0	90.00	179.56	11,000.0	-3,835.1	-640.6	3,865.7	0.00	0.00	0.00
15,000.0	90.00	179.56	11,000.0	-3,935.1	-639.8	3,965.4	0.00	0.00	0.00
15,100.0	90.00	179.56	11,000.0	-4,035.1	-639.1	4,065.2	0.00	0.00	0.00
15,200.0	90.00	179.56	11,000.0	-4,135.1	-638.3	4,165.0	0.00	0.00	0.00
15,300.0	90.00	179.56	11,000.0	-4,235.1	-637.5	4,264.8	0.00	0.00	0.00
15,400.0	90.00	179.56	11,000.0	-4,335.1	-636.8	4,364.6	0.00	0.00	0.00
15,500.0	90.00	179.56	11,000.0	-4,435.1	-636.0	4,464.4	0.00	0.00	0.00
15,600.0	90.00	179.56	11,000.0	-4,535.1	-635.2	4,564.2	0.00	0.00	0.00
15,700.0	90.00	179.56	11,000.0	-4,635.1	-634.5	4,663.9	0.00	0.00	0.00
15,800.0	90.00	179.56	11,000.0	-4,735.1	-633.7	4,763.7	0.00	0.00	0.00
15,900.0	90.00	179.56	11,000.0	-4,835.1	-632.9	4,863.5	0.00	0.00	0.00
16,000.0	90.00	179.56	11,000.0	-4,935.1	-632.2	4,963.3	0.00	0.00	0.00
16,100.0	90.00	179.56	11,000.0	-5,035.1	-631.4	5,063.1	0.00	0.00	0.00
16,200.0	90.00	179.56	11,000.0	-5,135.1	-630.6	5,162.9	0.00	0.00	0.00
16,300.0	90.00	179.56	11,000.0	-5,235.1	-629.9	5,262.7	0.00	0.00	0.00
16,400.0	90.00	179.56	11,000.0	-5,335.1	-629.1	5,362.5	0.00	0.00	0.00
16,500.0	90.00	179.56	11,000.0	-5,435.1	-628.3	5,462.2	0.00	0.00	0.00
16,600.0	90.00	179.56	11,000.0	-5,535.1	-627.6	5,562.0	0.00	0.00	0.00
16,700.0	90.00	179.56	11,000.0	-5,635.1	-626.8	5,661.8	0.00	0.00	0.00
16,800.0	90.00	179.56	11,000.0	-5,735.1	-626.0	5,761.6	0.00	0.00	0.00
16,900.0	90.00	179.56	11,000.0	-5,835.0	-625.3	5,861.4	0.00	0.00	0.00
17,000.0	90.00	179.56	11,000.0	-5,935.0	-624.5	5,961.2	0.00	0.00	0.00
17,100.0	90.00	179.56	11,000.0	-6,035.0	-623.7	6,061.0	0.00	0.00	0.00
17,200.0	90.00	179.56	11,000.0	-6,135.0	-622.9	6,160.7	0.00	0.00	0.00
17,300.0	90.00	179.56	11,000.0	-6,235.0	-622.2	6,260.5	0.00	0.00	0.00
17,400.0	90.00	179.56	11,000.0	-6,335.0	-621.4	6,360.3	0.00	0.00	0.00
17,500.0	90.00	179.56	11,000.0	-6,435.0	-620.6	6,460.1	0.00	0.00	0.00
17,600.0	90.00	179.56	11,000.0	-6,535.0	-619.9	6,559.9	0.00	0.00	0.00
17,700.0	90.00	179.56	11,000.0	-6,635.0	-619.1	6,659.7	0.00	0.00	0.00
17,800.0	90.00	179.56	11,000.0	-6,735.0	-618.3	6,759.5	0.00	0.00	0.00
17,900.0	90.00	179.56	11,000.0	-6,835.0	-617.6	6,859.3	0.00	0.00	0.00
18,000.0	90.00	179.56	11,000.0	-6,935.0	-616.8	6,959.0	0.00	0.00	0.00
18,100.0	90.00	179.56	11,000.0	-7,035.0	-616.0	7,058.8	0.00	0.00	0.00
18,200.0	90.00	179.56	11,000.0	-7,135.0	-615.3	7,158.6	0.00	0.00	0.00
18,300.0	90.00	179.56	11,000.0	-7,235.0	-614.5	7,258.4	0.00	0.00	0.00
18,400.0	90.00	179.56	11,000.0	-7,335.0	-613.7	7,358.2	0.00	0.00	0.00
18,500.0	90.00	179.56	11,000.0	-7,435.0	-613.0	7,458.0	0.00	0.00	0.00
18,600.0	90.00	179.56	11,000.0	-7,535.0	-612.2	7,557.8	0.00	0.00	0.00
18,700.0	90.00	179.56	11,000.0	-7,635.0	-611.4	7,657.5	0.00	0.00	0.00
18,800.0	90.00	179.56	11,000.0	-7,735.0	-610.7	7,757.3	0.00	0.00	0.00
18,900.0	90.00	179.56	11,000.0	-7,835.0	-609.9	7,857.1	0.00	0.00	0.00
19,000.0	90.00	179.56	11,000.0	-7,935.0	-609.1	7,956.9	0.00	0.00	0.00
19,100.0	90.00	179.56	11,000.0	-8,035.0	-608.4	8,056.7	0.00	0.00	0.00
19,200.0	90.00	179.56	11,000.0	-8,135.0	-607.6	8,156.5	0.00	0.00	0.00
19,300.0	90.00	179.56	11,000.0	-8,235.0	-606.8	8,256.3	0.00	0.00	0.00
19,400.0	90.00	179.56	11,000.0	-8,335.0	-606.1	8,356.1	0.00	0.00	0.00
19,500.0	90.00	179.56	11,000.0	-8,435.0	-605.3	8,455.8	0.00	0.00	0.00
19,600.0	90.00	179.56	11,000.0	-8,535.0	-604.5	8,555.6	0.00	0.00	0.00
19,700.0	90.00	179.56	11,000.0	-8,635.0	-603.7	8,655.4	0.00	0.00	0.00
19,800.0	90.00	179.56	11,000.0	-8,735.0	-603.0	8,755.2	0.00	0.00	0.00
19,900.0	90.00	179.56	11,000.0	-8,835.0	-602.2	8,855.0	0.00	0.00	0.00
20,000.0	90.00	179.56	11,000.0	-8,935.0	-601.4	8,954.8	0.00	0.00	0.00

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Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB=27 @ 3743.5usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	KB=27 @ 3743.5usft
Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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)
20,100.0	90.00	179.56	11,000.0	-9,035.0	-600.7	9,054.6	0.00	0.00	0.00
20,200.0	90.00	179.56	11,000.0	-9,135.0	-599.9	9,154.3	0.00	0.00	0.00
20,300.0	90.00	179.56	11,000.0	-9,234.9	-599.1	9,254.1	0.00	0.00	0.00
20,400.0	90.00	179.56	11,000.0	-9,334.9	-598.4	9,353.9	0.00	0.00	0.00
20,500.0	90.00	179.56	11,000.0	-9,434.9	-597.6	9,453.7	0.00	0.00	0.00
20,600.0	90.00	179.56	11,000.0	-9,534.9	-596.8	9,553.5	0.00	0.00	0.00
20,700.0	90.00	179.56	11,000.0	-9,634.9	-596.1	9,653.3	0.00	0.00	0.00
20,800.0	90.00	179.56	11,000.0	-9,734.9	-595.3	9,753.1	0.00	0.00	0.00
20,900.0	90.00	179.56	11,000.0	-9,834.9	-594.5	9,852.8	0.00	0.00	0.00
21,000.0	90.00	179.56	11,000.0	-9,934.9	-593.8	9,952.6	0.00	0.00	0.00
21,100.0	90.00	179.56	11,000.0	-10,034.9	-593.0	10,052.4	0.00	0.00	0.00
21,200.0	90.00	179.56	11,000.0	-10,134.9	-592.2	10,152.2	0.00	0.00	0.00
21,257.8	90.00	179.56	11,000.0	-10,192.7	-591.8	10,209.9	0.00	0.00	0.00
LTP (MEAT LOVER FED COM #602H)									
21,300.0	90.00	179.56	11,000.0	-10,234.9	-591.5	10,252.0	0.00	0.00	0.00
21,307.8	90.00	179.56	11,000.0	-10,242.7	-591.4	10,259.8	0.00	0.00	0.00
TD at 21307.8 - PBHL (MEAT LOVER FED COM #602H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (MEAT LOVER FEL - plan hits target center - Circle (radius 50.0)	90.00	179.58	11,000.0	-10,192.7	-591.8	467,482.70	723,905.80	32° 16' 59.333 N	103° 36' 31.742 W
PBHL (MEAT LOVER FE - plan hits target center - Rectangle (sides W100.0 H10,000.0 D20.0)	0.00	359.57	11,000.0	-10,242.7	-591.4	467,432.70	723,906.20	32° 16' 58.838 N	103° 36' 31.741 W
FTP (MEAT LOVER FEL - plan misses target center by 164.4usft at 10985.2usft MD (10883.9 TVD, 51.6 N, -670.5 E) - Circle (radius 50.0)	0.00	0.00	11,000.0	167.9	-671.3	477,843.30	723,826.30	32° 18' 41.861 N	103° 36' 31.853 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
21,307.8	11,000.0	5-1/2" Production Casing	5-1/2	6-3/4

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Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB=27 @ 3743.5usft
Project:	LEA COUNTY SOUTHEAST	**MD Reference:**	KB=27 @ 3743.5usft
Site:	MEAT LOVER FED COM PROJECT	**North Reference:**	Grid
Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,500.0	1,500.0	0.0	0.0	Start Build 2.00
1,950.0	1,948.2	10.8	-33.6	Start 3836.1 hold at 1950.0 MD
5,786.1	5,737.0	195.3	-604.6	Start DLS 1.00 TFO 180.00
6,686.1	6,633.3	217.0	-671.7	Start 3889.2 hold at 6686.1 MD
10,575.3	10,522.5	217.0	-671.7	Start DLS 12.00 TFO 179.56
11,325.3	11,000.0	-260.5	-668.1	Start 9982.5 hold at 11325.3 MD
21,307.8	11,000.0	-10,242.7	-591.4	TD at 21307.8

BOPE Break Testing Variance

Initial and 21 Day Testing of 10K BOP's:

Component	High Test Pressure	Low Test Pressure	Duration
Annular Preventer	5,000 psig	250 psig	10 min
Rams	5,000 psig	250 psig	10 min
Manifold	5,000 psig	250 psig	10 min
Wellhead	1,500 psig	-	10 min
Upper / Lower / Kelly Valves	5,000 psig	250 psig	10 min
TIW safety valves / Dart	5,000 psig	250 psig	10 min
Standpipe and mud line to pumps	5,000 psig	250 psig	10 min
Surface Casing (with 8.4 ppg fluid)	1,500 psig	-	30 min

*Equipment satisfies 10M BOPE but break test variance applies to 5M system

COG Production LLC formally requests variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow break/shell testing of blowout preventor (BOP) and blowout prevention equipment (BOPE) during batch drilling operations of the intermediate hole section. This variance only applies to 5M BOPE or less formation.

Initial testing of the BOP will be conducted, verifying all components of BOP, BOPE, and choke manifold meet the minimum and maximum anticipated surface pressure (MASP) in accordance with API RP 53 and Onshore Order No. 2, reference table above. Once initial test pressures are achieved, shell testing of the BOP and choke manifold would be conducted within the time limit from initial test to the congruent 21-day test. A complete pressure test of the BOPE components will be completed no later than 21 days following the completion of the initial pressure test or latest complete BOP pressure test date succeeding the initial test, per API RP 53 (6.5.3.4.1 (d)).

BOP and BOPE Testing

- Minimum of Class 3 stack arrangement with one set of blind/blind shear rams and pipe rams shall be installed for a 5K pressure rated system per API RP 53 (6.1.2.9)
    - Classification - COP minimum of Class 3 arrangement apply for all Delaware Basin area wells.
    - Arrangement - Annular preventer, upper pipe rams, blind rams, mud cross, lower pipe rams
- Complete BOP and BOPE test performed at initial installation on well pad.
    - Initial test performed on well with deepest planned intermediate hole section (allowable 200' TVD variance between intermediate hole sections)
    - Annular preventer tested to 100 percent of MASP, or 70 percent of rated working pressure (RWP), whichever is greater.
    - Notify BLM 4 Hrs. prior to testing
- Complete BOP and BOPE test every 21 days in accordance with API RP 53 (6.5.3.4.1 (d)).
- BOP/BOPE shell test (inclusive of manifold shell test) performed during batch drilling operations during rig transition between wells (within the 21-day time limit per API RP 53).
- Function test BOP elements per API RP 53 (6.5.3.1).
    - Required on (1) initial installation of stack, (2) every 7 days, (3) after repair/replacement of any control components
    - Alternate between drillers panel and remote panel

Securing the Wellhead

- Prior to moving rig off check for flow
    - Ensure floats are holding, casing is full of kill mud and backside is static.
- Secure the well with sleeve/plug with BPV
- Disconnect BOP from the wellhead and walk with the rig to another well on the pad.
    - Utilizing BOP wrangler/cradle, maintaining control and upright position of the BOP during movement
- Once BOP is separated from wellhead the Temporary Abandonment (TA) cap will be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- Test TA cap to 5,000 psi for 10 min.

COG Production LLC believes that the combination of drilling fluid inside the casing, abandonment plug with BPV, casing and annular valves and the TA cap provide multiple barriers to ensure complete closure of the wellbore prior to skidding/walking the rig.

Break Testing

- Skid rig over the next well on pad and center over wellhead, N/U BOP with the use of the BOP quick connect.
- Shell test the BOP and choke manifold to 5,000 psig and 250 psig. Hold each test for 10 minutes.
    - In accordance with API RP 53 (6.5.3.4.1(b)) BOP shell test will satisfy pressure test of quick connect seals
    - Notify BLM 4 hours prior to testing
- RWP of BOP quick connect is 10K (Certificate of Conformance attached)

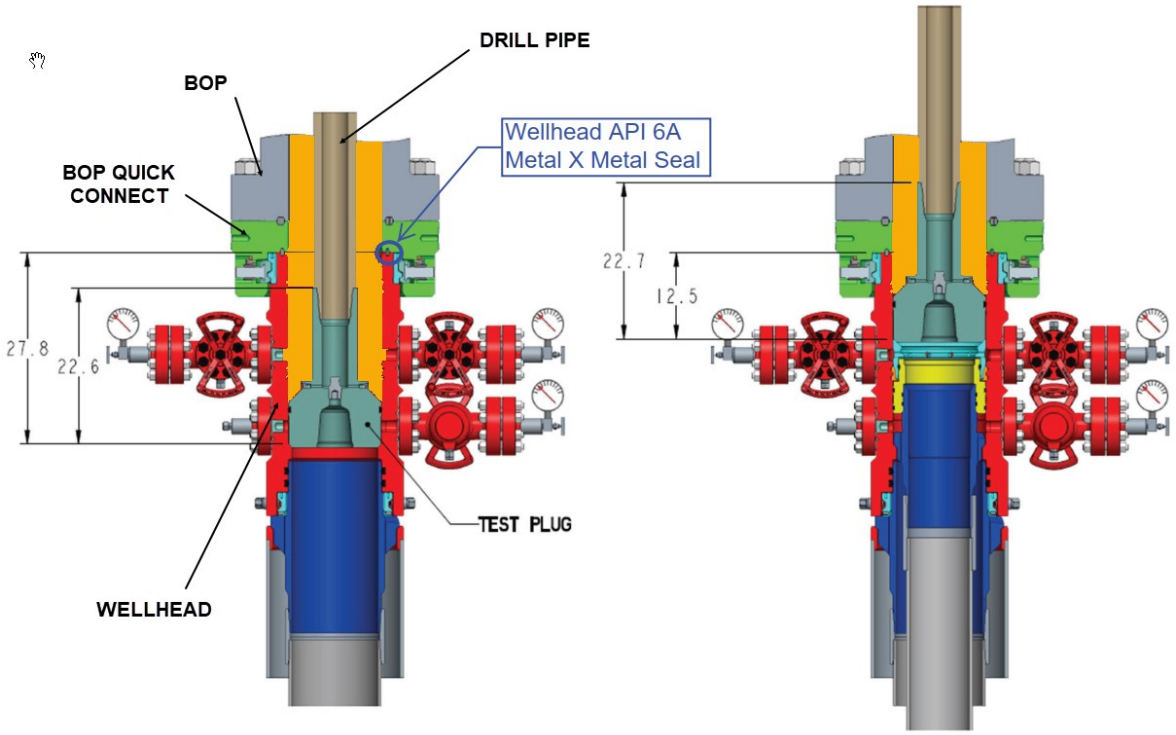

Figure 1: Test plug installed (The orange sections above indicate the areas exposed to the pressure test)

Example Well Control Plan Content

A. Well Control Component Table

This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2” 1502 Lo-Torque Valves	10M

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating.

General Procedure

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut in.
5. Notify tool pusher/company representative.
6. Read and record the following:
    a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

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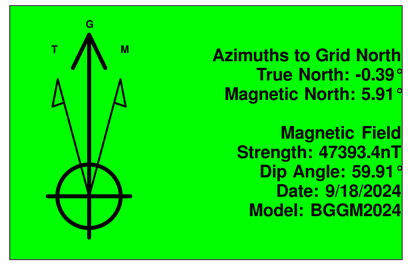
Project:	LEA COUNTY SOUTHEAST
Site:	MEAT LOVER FED COM PROJECT
Well:	MEAT LOVER FED COM #602H
Wellbore:	OWB
Design:	PWP2
GL:	3716.5
KB=27 @ 3743.5usft	



Azimuths to Grid North
True North: -0.39°
Magnetic North: 5.91°

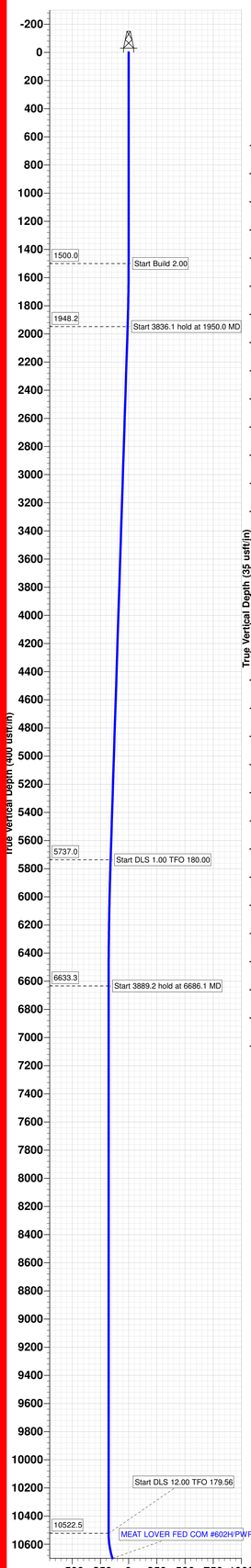
Magnetic Field
Strength: 47393.4nT
Dip Angle: 59.91°
Date: 9/18/2024
Model: BGGM2024

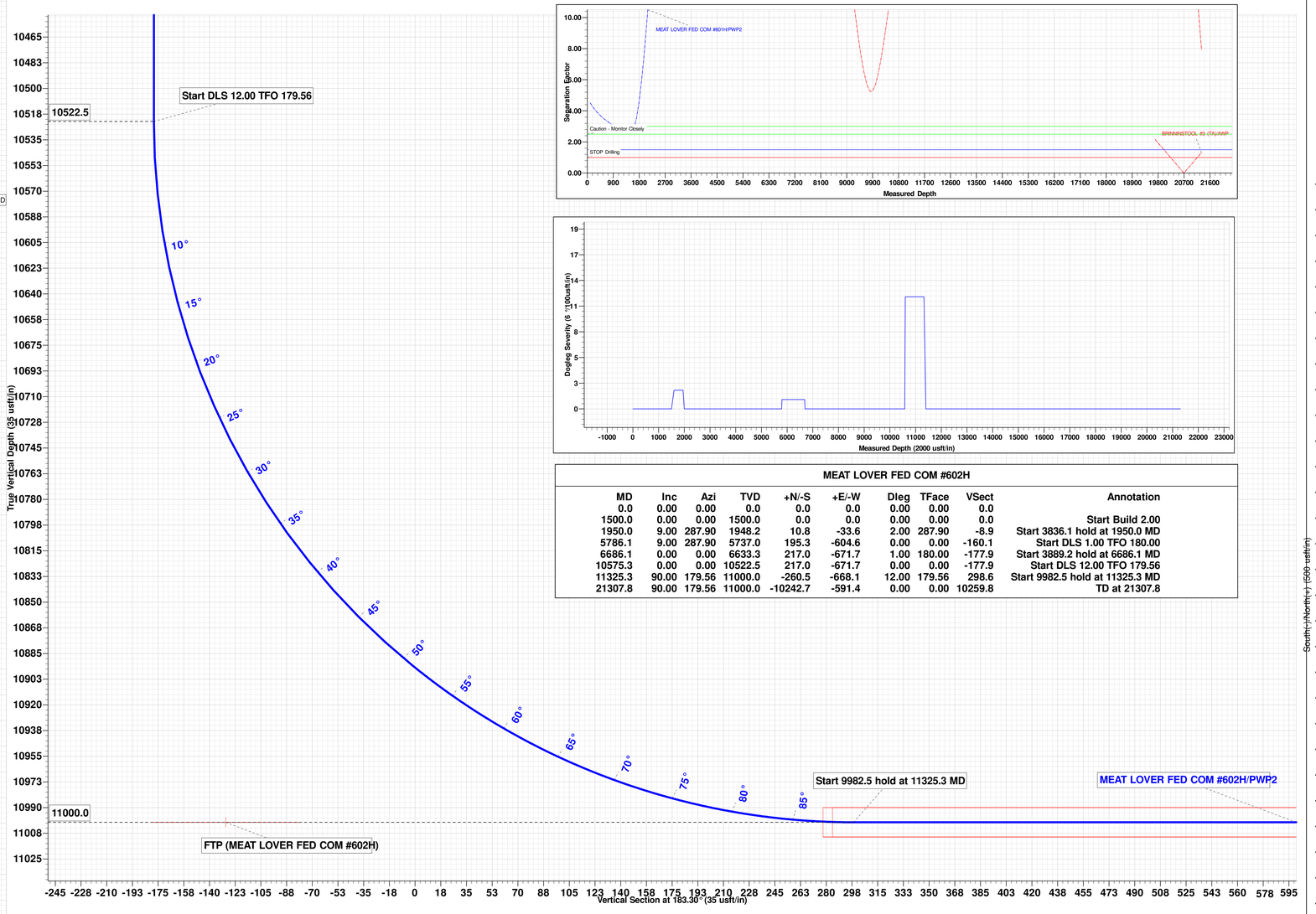
WELL DETAILS: MEAT LOVER FED COM #602H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	477675.40	724497.60	32° 18' 40.155 N	103° 36' 24.044 W

DESIGN TARGET DETAILS

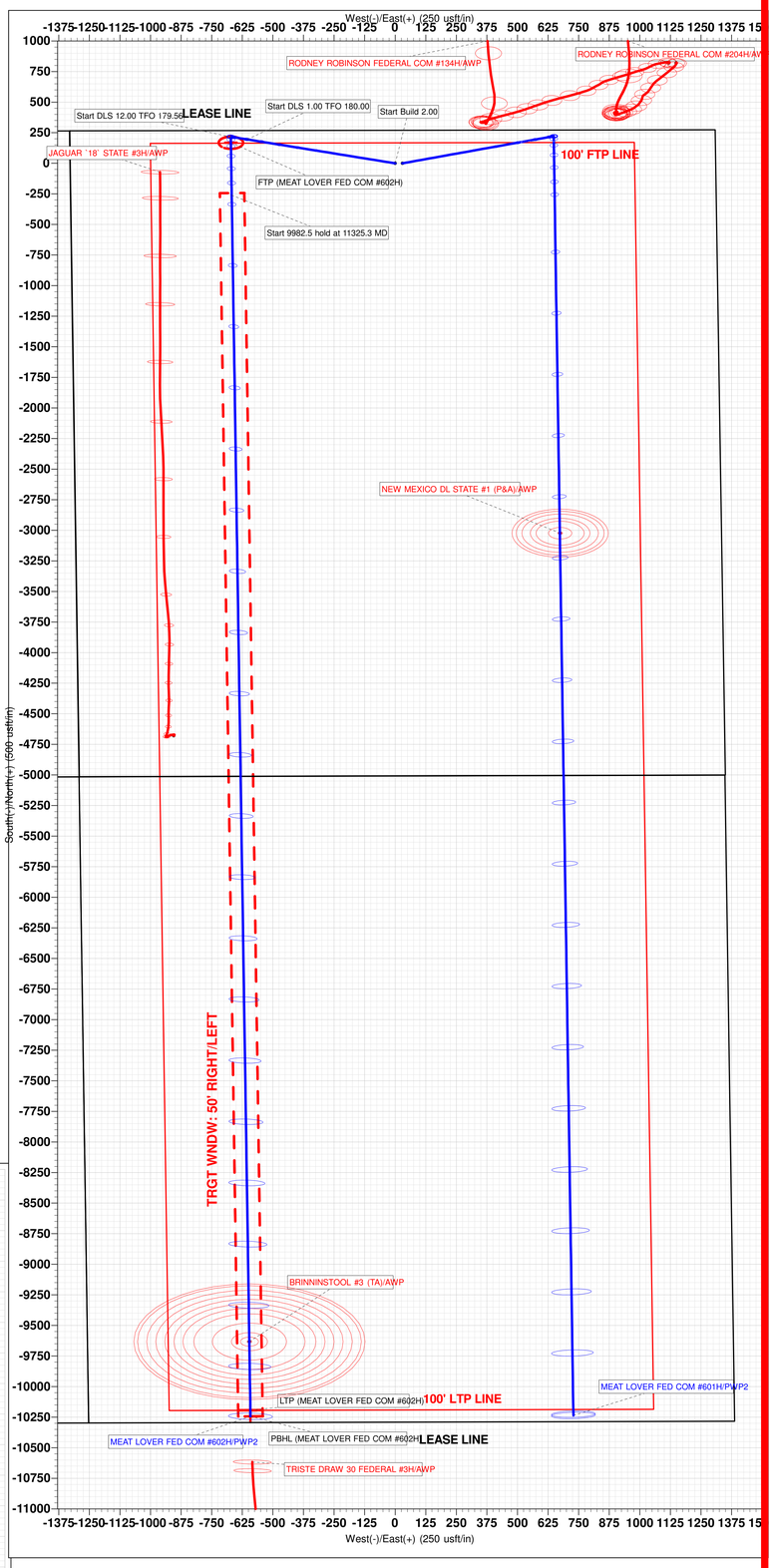
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (MEAT LOVER FED COM #602H)	11000.0	167.9	-671.3	477843.30	723826.30	32° 18' 41.861 N	103° 36' 31.853 W
LTP (MEAT LOVER FED COM #602H)	11000.0	-10192.7	-591.8	467482.70	723905.80	32° 16' 59.333 N	103° 36' 31.742 W
PBHL (MEAT LOVER FED COM #602H)	11000.0	-10242.7	-591.4	467432.70	723906.20	32° 16' 58.838 N	103° 36' 31.741 W

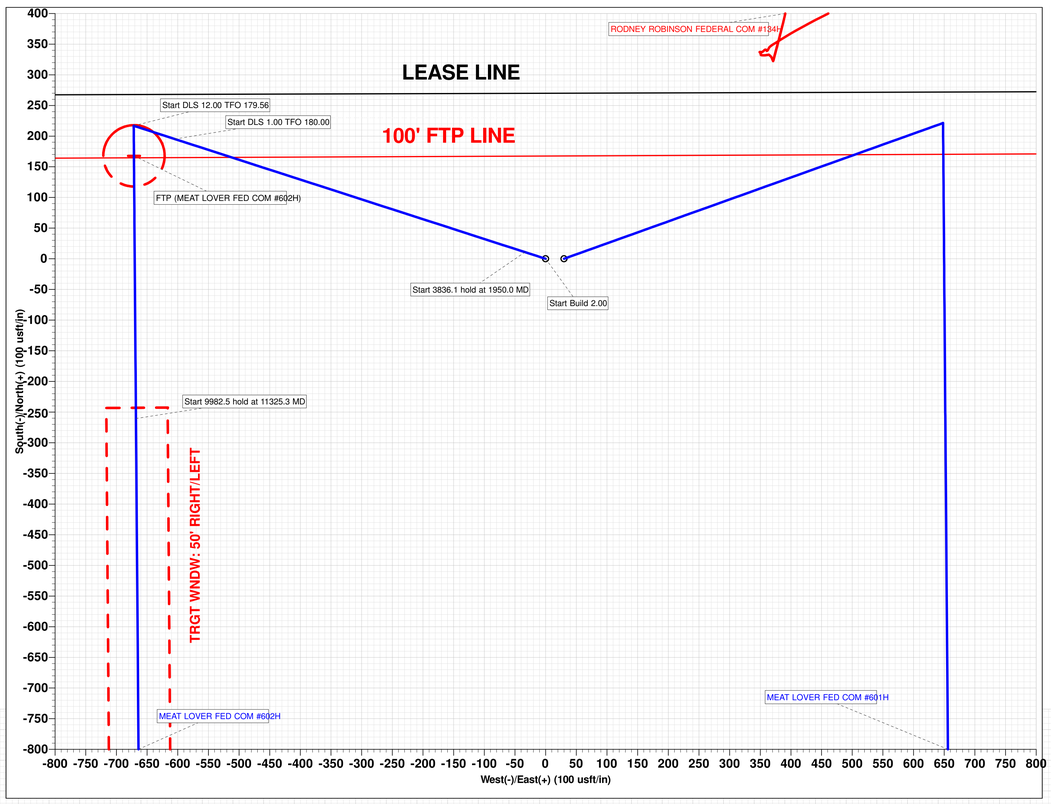


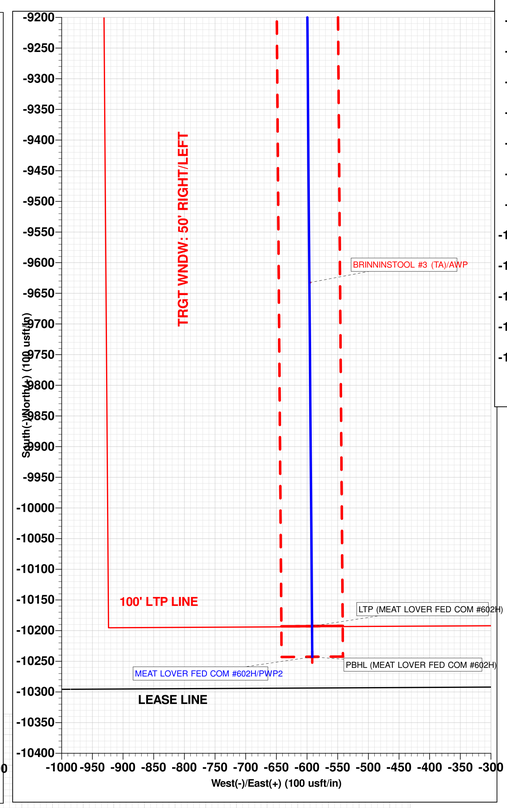


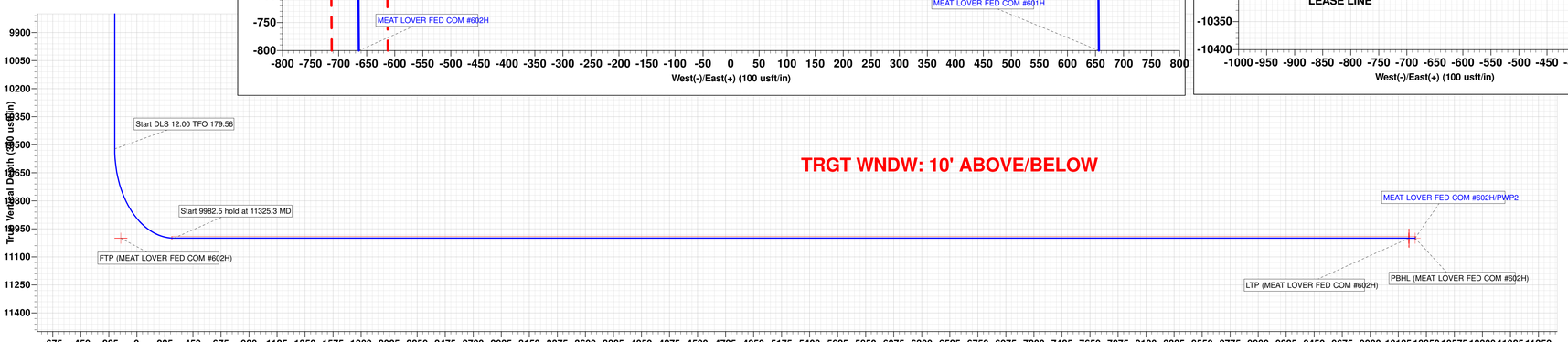
MEAT LOVER FED COM #602H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
1950.0	9.00	287.90	1948.2	10.8	-33.6	2.00	287.90	-8.9	Start 3836.1 hold at 1950.0 MD
5786.1	9.00	287.90	5737.0	195.3	-604.6	0.00	0.00	-160.1	Start DLS 1.00 TFO 180.00
6686.1	0.00	0.00	6633.3	217.0	-671.7	1.00	180.00	-177.9	Start 3889.2 hold at 6686.1 MD
10575.3	0.00	0.00	10522.5	217.0	-671.7	0.00	0.00	-177.9	Start DLS 12.00 TFO 179.56
11325.3	90.00	179.56	11000.0	-260.5	-668.1	12.00	179.56	298.6	Start 9982.5 hold at 11325.3 MD
21307.8	90.00	179.56	11000.0	-10242.7	-591.4	0.00	0.00	10259.8	TD at 21307.8









ConocoPhillips - Meat Lover Fed Com 602H

1. Geologic Formations

TVD of target	11,000' EOL	Pilot hole depth	NA
MD at TD:	21,307'	Deepest expected fresh water:	345'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1332	Water	
Top of Salt	1832	Salt	
Base of Salt	4788	Salt	
Lamar	5041	Salt Water	
Bell Canyon	5106	Salt Water	
Cherry Canyon	5872	Oil/Gas	
Brushy Canyon	7345	Oil/Gas	
Bone Spring	8870	Oil/Gas	
1st Bone Spring Sand	10090	Oil/Gas	
2nd Bone Spring Sand	10693	Target	
3rd Bone Spring Sand	0	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	1682	10.75"	45.5	J55	BTC	2.72	1.14	9.34	10.40
9.875"	0	8500	7.625"	29.7	L80-ICY	BTC	1.48	1.27	2.88	2.90
8.750"	8500	10480	7.625"	29.7	P110-ICY	W513	1.50	1.92	3.43	2.06
6.75"	0	10280	5.5"	23	P110-CY	BTC	2.27	2.70	3.08	3.08
6.75"	10280	21,307	5.5"	23	P110-CY	W441	2.12	2.52	2.88	2.62
				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 Onshore Oil and Gas Order #2 III.B.1.h

The 5 1/2" talon 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 - Meat Lover Fed Com 602H

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

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3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	802	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter. Bradenhead	261	15.6	1.2	5.28	6	Stage 1 Lead: Class H
	98	16.2	1.123	4.6	11	Stage 1 Tail: Class H
	2500	14.8	1.52	7.2	4	Bradenhead: Thixotropic Class C
	400	14.8	1.33	6.4	5	Top Out: Class C
Prod	568	12.7	1.68	9.09	72	Lead: 50:50:10 H Blend
	1054	14.5	1.18	5.26	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results
Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0’	50%
1st Intermediate	0’	50%
Production	9,980'	35% OH in Lateral (KOP to EOL)

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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	5000psi
			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 Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per 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.

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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	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9 - 12	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
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

ConocoPhillips - Meat Lover Fed Com 602H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6865 psi at 11000' TVD
Abnormal Temperature	NO 165 Deg. F.

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

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

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

8. Other Facets of Operation

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

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

DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST
MEAT LOVER FED COM PROJECT
MEAT LOVER FED COM #602H
300255027900
OWB
PWP2

Anticollision Report

08 July, 2024

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP2	**Offset TVD Reference:**	Offset Datum

Reference PWP2

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum 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** 7/8/2024

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	21,307.8	PWP2 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corr

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
CALZONE FEDERAL PROJECT						
BRINNINSTOOL #3 (TA) - OWB - AWP	20,700.0	10,980.7	3.0	-459.0	0.007	STOP Drilling, CC, ES, SF
FOXGLOVE 29 FEDERAL #4H - OWB - AWP						Out of range
HORNED VIPER 20 FEDERAL #2H - OWB - AWP						Out of range
NEW MEXICO DL STATE #1 (P&A) - OWB - AWP						Out of range
RODNEY ROBINSON FEDERAL COM #134H - OWB - A						Out of range
RODNEY ROBINSON FEDERAL COM #204H - OWB - A						Out of range
MEAT LOVER FED COM PROJECT						
JAGUAR `18` STATE #2H - OWB - AWP						Out of range
JAGUAR `18` STATE #3H - OWB - AWP	9,832.3	14,158.0	409.1	331.0	5.237	CC, ES, SF
MEAT LOVER FED COM #601H - OWB - PWP2	1,500.0	1,499.3	30.0	18.4	2.589	Normal Operations, CC, ES, SF
MEAT LOVER FED COM #605H - OWB - PWP2						Out of range
MEAT LOVER FED COM #606H - OWB - PWP2						Out of range
TRISTE DRAW 30 FEDERAL #1H - OWB - AWP						Out of range
TRISTE DRAW 30 FEDERAL #2H - OWB - AWP						Out of range
TRISTE DRAW 30 FEDERAL #3H - OWB - AWP	21,307.8	15,405.0	377.5	330.0	7.945	CC, ES, SF
SYLVESTER FED COM PROJECT						
SYLVESTER FEDERAL COM #502H - OWB - PWP1						Out of range
SYLVESTER FEDERAL COM #702H - OWB - PWP1						Out of range

Offset Design: CALZONE FEDERAL PROJECT - BRINNINSTOOL #3 (TA) - OWB - AWP — **Offset Site Error:** 0.0 usft

Survey Program: 250-r.5 INC-ONLY — **Rule Assigned:** — **Offset Well Error:** 10.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
19,700.0	11,000.0	10,962.4	10,955.3	76.6	330.0	-1.56	-9,631.6	-595.6	996.8	534.9	461.92	2.158	Caution - Monitor Closely
19,800.0	11,000.0	10,963.9	10,956.9	77.5	330.0	-1.70	-9,631.6	-595.6	896.8	434.8	461.99	1.941	Caution - Monitor Closely
19,900.0	11,000.0	10,965.5	10,958.5	78.3	330.1	-1.88	-9,631.6	-595.6	796.8	334.8	462.07	1.724	Caution - Monitor Closely
20,000.0	11,000.0	10,967.2	10,960.1	79.1	330.1	-2.11	-9,631.7	-595.6	696.9	234.7	462.15	1.508	Caution - Monitor Closely
20,100.0	11,000.0	10,968.9	10,961.9	80.0	330.2	-2.42	-9,631.7	-595.6	596.9	134.6	462.23	1.291	Take Immediate Action
20,200.0	11,000.0	10,970.7	10,963.6	80.8	330.2	-2.86	-9,631.7	-595.6	496.9	34.6	462.32	1.075	Take Immediate Action

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP2	**Offset TVD Reference:**	Offset Datum

Offset Design: CALZONE FEDERAL PROJECT - BRINNINSTOOL #3 (TA) - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 250-r.5 INC-ONLY **Rule Assigned:** **Offset Well Error:** 10.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
20,300.0	11,000.0	10,972.5	10,965.5	81.7	330.3	-3.52	-9,631.8	-595.6	396.9	-65.5	462.41	0.858	STOP Drilling
20,400.0	11,000.0	10,974.5	10,967.4	82.5	330.3	-4.63	-9,631.8	-595.6	296.9	-165.6	462.50	0.642	STOP Drilling
20,500.0	11,000.0	10,976.5	10,969.4	83.4	330.4	-6.88	-9,631.8	-595.6	197.0	-265.6	462.60	0.426	STOP Drilling
20,600.0	11,000.0	10,978.5	10,971.5	84.2	330.4	-13.89	-9,631.9	-595.6	97.0	-365.7	462.71	0.210	STOP Drilling
20,680.3	11,000.0	10,980.3	10,973.3	84.9	330.5	-63.34	-9,631.9	-595.6	16.7	-446.2	462.90	0.036	STOP Drilling
20,700.0	11,000.0	10,980.7	10,973.7	85.0	330.5	-110.95	-9,631.9	-595.6	3.0	-459.0	462.09	0.007	STOP Drilling, CC, ES, SF
20,800.0	11,000.0	10,983.0	10,976.0	85.9	330.6	-168.70	-9,632.0	-595.6	103.0	-359.9	462.87	0.222	STOP Drilling
20,900.0	11,000.0	10,985.4	10,978.3	86.7	330.7	-174.20	-9,632.0	-595.6	202.9	-260.0	462.99	0.438	STOP Drilling
21,000.0	11,000.0	10,987.8	10,980.8	87.6	330.7	-176.16	-9,632.1	-595.6	302.9	-160.2	463.10	0.654	STOP Drilling
21,100.0	11,000.0	10,990.4	10,983.4	88.4	330.8	-177.17	-9,632.2	-595.6	402.9	-60.3	463.22	0.870	STOP Drilling
21,200.0	11,000.0	10,993.1	10,986.1	89.3	330.9	-177.78	-9,632.2	-595.6	502.9	39.5	463.34	1.085	Take Immediate Action
21,307.8	11,000.0	10,996.2	10,989.2	90.2	331.0	-178.21	-9,632.3	-595.6	610.6	147.1	463.48	1.317	Take Immediate Action

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP2	**Offset TVD Reference:**	Offset Datum

Offset Design: MEAT LOVER FED COM PROJECT - JAGUAR `18` STATE #3H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 5112-r.5 MWD

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
9,000.0	8,947.2	14,158.0	9,775.0	16.0	77.2	-134.99	-72.3	-961.1	927.4	864.2	63.20	14.674	
9,100.0	9,047.2	14,158.0	9,775.0	16.1	77.2	-134.99	-72.3	-961.1	838.8	774.9	63.99	13.110	
9,200.0	9,147.2	14,158.0	9,775.0	16.1	77.2	-134.99	-72.3	-961.1	753.1	688.1	65.00	11.587	
9,300.0	9,247.2	14,158.0	9,775.0	16.2	77.2	-134.99	-72.3	-961.1	671.4	605.0	66.32	10.122	
9,400.0	9,347.2	14,158.0	9,775.0	16.3	77.2	-134.99	-72.3	-961.1	595.2	527.1	68.07	8.744	
9,500.0	9,447.2	14,158.0	9,775.0	16.4	77.2	-134.99	-72.3	-961.1	527.1	456.8	70.31	7.497	
9,600.0	9,547.2	14,158.0	9,775.0	16.4	77.2	-134.99	-72.3	-961.1	470.5	397.5	72.99	6.446	
9,700.0	9,647.2	14,158.0	9,775.0	16.5	77.2	-134.99	-72.3	-961.1	430.0	354.3	75.74	5.677	
9,800.0	9,747.2	14,158.0	9,775.0	16.6	77.2	-134.99	-72.3	-961.1	410.4	332.6	77.77	5.277	
9,832.3	9,779.5	14,158.0	9,775.0	16.6	77.2	-134.99	-72.3	-961.1	409.1	331.0	78.13	5.237	CC, ES, SF
9,900.0	9,847.2	14,158.0	9,775.0	16.6	77.2	-134.99	-72.3	-961.1	414.7	336.4	78.31	5.296	
10,000.0	9,947.2	14,158.0	9,775.0	16.7	77.2	-134.99	-72.3	-961.1	442.2	364.8	77.34	5.717	
10,100.0	10,047.2	14,158.0	9,775.0	16.8	77.2	-134.99	-72.3	-961.1	488.9	413.4	75.57	6.470	
10,200.0	10,147.2	14,158.0	9,775.0	16.8	77.2	-134.99	-72.3	-961.1	550.1	476.4	73.68	7.466	
10,300.0	10,247.2	14,158.0	9,775.0	16.9	77.2	-134.99	-72.3	-961.1	621.4	549.4	72.04	8.626	
10,400.0	10,347.2	14,158.0	9,775.0	17.0	77.2	-134.99	-72.3	-961.1	699.8	629.0	70.73	9.893	
10,500.0	10,447.2	14,158.0	9,775.0	17.1	77.2	-134.99	-72.3	-961.1	783.1	713.3	69.75	11.227	
10,575.3	10,522.5	14,158.0	9,775.0	17.1	77.2	-134.99	-72.3	-961.1	848.2	779.0	69.18	12.261	
10,600.0	10,547.2	14,158.0	9,775.0	17.1	77.2	41.83	-72.3	-961.1	869.7	800.7	69.03	12.598	
10,625.0	10,572.1	14,158.0	9,775.0	17.1	77.2	38.60	-72.3	-961.1	891.2	822.2	68.92	12.930	
10,650.0	10,596.9	14,158.0	9,775.0	17.1	77.2	35.74	-72.3	-961.1	912.3	843.4	68.84	13.251	
10,675.0	10,621.5	14,158.0	9,775.0	17.1	77.2	33.22	-72.3	-961.1	933.0	864.2	68.80	13.562	
10,700.0	10,645.8	14,158.0	9,775.0	17.1	77.2	31.00	-72.3	-961.1	953.3	884.5	68.77	13.862	
10,725.0	10,669.8	14,158.0	9,775.0	17.1	77.2	29.02	-72.3	-961.1	973.2	904.4	68.77	14.152	
10,750.0	10,693.4	14,158.0	9,775.0	17.1	77.2	27.28	-72.3	-961.1	992.6	923.9	68.79	14.431	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP2	**Offset TVD Reference:**	Offset Datum

Offset Design: MEAT LOVER FED COM PROJECT - MEAT LOVER FED COM #601H - OWB - PWP2

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	89.81	0.1	30.0	30.0				
100.0	100.0	99.3	99.3	3.1	3.1	89.81	0.1	30.0	30.0	23.3	6.65	4.511	
200.0	200.0	199.3	199.3	3.3	3.3	89.81	0.1	30.0	30.0	22.9	7.10	4.225	
300.0	300.0	299.3	299.3	3.6	3.6	89.81	0.1	30.0	30.0	22.5	7.53	3.986	
400.0	400.0	399.3	399.3	3.8	3.8	89.81	0.1	30.0	30.0	22.1	7.93	3.783	
500.0	500.0	499.3	499.3	4.0	4.0	89.81	0.1	30.0	30.0	21.7	8.32	3.607	
600.0	600.0	599.3	599.3	4.1	4.1	89.81	0.1	30.0	30.0	21.3	8.69	3.452	
700.0	700.0	699.3	699.3	4.3	4.3	89.81	0.1	30.0	30.0	21.0	9.05	3.315	
800.0	800.0	799.3	799.3	4.5	4.5	89.81	0.1	30.0	30.0	20.6	9.40	3.193	
900.0	900.0	899.3	899.3	4.7	4.7	89.81	0.1	30.0	30.0	20.3	9.73	3.082	
1,000.0	1,000.0	999.3	999.3	4.8	4.8	89.81	0.1	30.0	30.0	19.9	10.06	2.982	Normal Operations
1,100.0	1,100.0	1,099.3	1,099.3	5.0	5.0	89.81	0.1	30.0	30.0	19.6	10.38	2.890	Normal Operations
1,200.0	1,200.0	1,199.3	1,199.3	5.2	5.2	89.81	0.1	30.0	30.0	19.3	10.69	2.806	Normal Operations
1,300.0	1,300.0	1,299.3	1,299.3	5.3	5.3	89.81	0.1	30.0	30.0	19.0	11.00	2.728	Normal Operations
1,400.0	1,400.0	1,399.3	1,399.3	5.5	5.5	89.81	0.1	30.0	30.0	18.7	11.30	2.656	Normal Operations
1,500.0	1,500.0	1,499.3	1,499.3	5.6	5.6	89.81	0.1	30.0	30.0	18.4	11.59	2.589	Normal Operations, CC, ES, SF
1,600.0	1,600.0	1,598.2	1,598.2	5.8	5.8	161.84	0.7	31.6	33.3	21.3	12.01	2.769	Normal Operations
1,700.0	1,699.8	1,696.5	1,696.4	6.1	6.1	161.68	2.4	36.3	43.1	30.7	12.40	3.473	
1,800.0	1,799.5	1,793.5	1,793.0	6.3	6.3	161.49	5.2	44.1	59.4	46.6	12.78	4.646	
1,900.0	1,898.7	1,888.7	1,887.5	6.5	6.5	161.31	9.0	54.8	82.0	68.9	13.13	6.245	
1,950.0	1,948.2	1,935.5	1,933.8	6.5	6.6	161.23	11.2	61.1	95.6	82.4	13.24	7.221	
2,000.0	1,997.5	1,981.7	1,979.4	6.6	6.7	161.17	13.7	68.0	110.4	97.1	13.35	8.271	
2,100.0	2,096.3	2,073.8	2,070.0	6.7	6.8	160.80	19.4	83.8	142.1	128.5	13.53	10.496	
2,200.0	2,195.1	2,168.3	2,162.8	6.8	6.9	160.46	25.5	100.8	174.5	160.7	13.78	12.663	
2,300.0	2,293.8	2,262.9	2,255.7	7.0	7.0	160.23	31.5	117.8	206.9	192.9	14.05	14.733	
2,400.0	2,392.6	2,357.5	2,348.5	7.1	7.1	160.06	37.6	134.8	239.4	225.1	14.32	16.719	
2,500.0	2,491.4	2,452.1	2,441.4	7.3	7.3	159.93	43.7	151.8	271.8	257.2	14.59	18.624	
2,600.0	2,590.1	2,546.7	2,534.2	7.4	7.4	159.83	49.8	168.8	304.3	289.4	14.88	20.453	
2,700.0	2,688.9	2,641.3	2,627.1	7.6	7.6	159.74	55.9	185.8	336.7	321.5	15.16	22.207	
2,800.0	2,787.7	2,735.9	2,719.9	7.7	7.7	159.68	62.0	202.8	369.2	353.7	15.45	23.890	
2,900.0	2,886.5	2,830.5	2,812.8	7.9	7.9	159.62	68.0	219.8	401.6	385.9	15.75	25.504	
3,000.0	2,985.2	2,925.1	2,905.6	8.1	8.0	159.57	74.1	236.8	434.0	418.0	16.04	27.053	
3,100.0	3,084.0	3,019.7	2,998.5	8.2	8.2	159.53	80.2	253.7	466.5	450.1	16.35	28.539	
3,200.0	3,182.8	3,114.2	3,091.3	8.4	8.3	159.49	86.3	270.7	498.9	482.3	16.65	29.966	
3,300.0	3,281.5	3,208.8	3,184.2	8.5	8.5	159.46	92.4	287.7	531.4	514.4	16.96	31.335	
3,400.0	3,380.3	3,303.4	3,277.0	8.7	8.6	159.43	98.5	304.7	563.8	546.6	17.27	32.650	
3,500.0	3,479.1	3,398.0	3,369.9	8.9	8.8	159.41	104.5	321.7	596.3	578.7	17.58	33.913	
3,600.0	3,577.8	3,492.6	3,462.7	9.0	9.0	159.39	110.6	338.7	628.7	610.8	17.90	35.126	
3,700.0	3,676.6	3,587.2	3,555.6	9.2	9.1	159.37	116.7	355.7	661.2	643.0	18.22	36.292	
3,800.0	3,775.4	3,681.8	3,648.4	9.4	9.3	159.35	122.8	372.7	693.6	675.1	18.54	37.413	
3,900.0	3,874.1	3,776.4	3,741.3	9.6	9.5	159.33	128.9	389.7	726.1	707.2	18.86	38.491	
4,000.0	3,972.9	3,871.0	3,834.1	9.7	9.6	159.32	135.0	406.7	758.5	739.3	19.19	39.529	
4,100.0	4,071.7	3,965.5	3,927.0	9.9	9.8	159.30	141.1	423.7	791.0	771.4	19.52	40.527	
4,200.0	4,170.5	4,060.1	4,019.8	10.1	10.0	159.29	147.1	440.7	823.4	803.6	19.85	41.487	
4,300.0	4,269.2	4,154.7	4,112.7	10.3	10.2	159.28	153.2	457.6	855.9	835.7	20.18	42.413	
4,400.0	4,368.0	4,249.3	4,205.5	10.4	10.3	159.27	159.3	474.6	888.3	867.8	20.51	43.304	
4,500.0	4,466.8	4,343.9	4,298.4	10.6	10.5	159.26	165.4	491.6	920.8	899.9	20.85	44.164	
4,600.0	4,565.5	4,438.5	4,391.2	10.8	10.7	159.25	171.5	508.6	953.2	932.0	21.19	44.992	
4,700.0	4,664.3	4,533.1	4,484.1	11.0	10.9	159.24	177.6	525.6	985.6	964.1	21.52	45.791	

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Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP2	**Offset TVD Reference:**	Offset Datum

Offset Design: MEAT LOVER FED COM PROJECT - TRISTE DRAW 30 FEDERAL #3H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 141-r.5 MWD

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
20,700.0	11,000.0	15,405.0	11,019.2	85.0	77.9	-174.84	-10,616.7	-583.9	983.1	939.1	43.98	22.352	
20,800.0	11,000.0	15,405.0	11,019.2	85.9	77.9	-174.84	-10,616.7	-583.9	883.3	839.0	44.30	19.937	
20,900.0	11,000.0	15,405.0	11,019.2	86.7	77.9	-174.84	-10,616.7	-583.9	783.5	738.8	44.66	17.541	
21,000.0	11,000.0	15,405.0	11,019.2	87.6	77.9	-174.84	-10,616.7	-583.9	683.7	638.6	45.09	15.163	
21,100.0	11,000.0	15,405.0	11,019.2	88.4	77.9	-174.84	-10,616.7	-583.9	584.0	538.4	45.62	12.802	
21,200.0	11,000.0	15,405.0	11,019.2	89.3	77.9	-174.84	-10,616.7	-583.9	484.5	438.1	46.33	10.456	
21,307.8	11,000.0	15,405.0	11,019.2	90.2	77.9	-174.84	-10,616.7	-583.9	377.5	330.0	47.51	7.945	CC, ES, SF

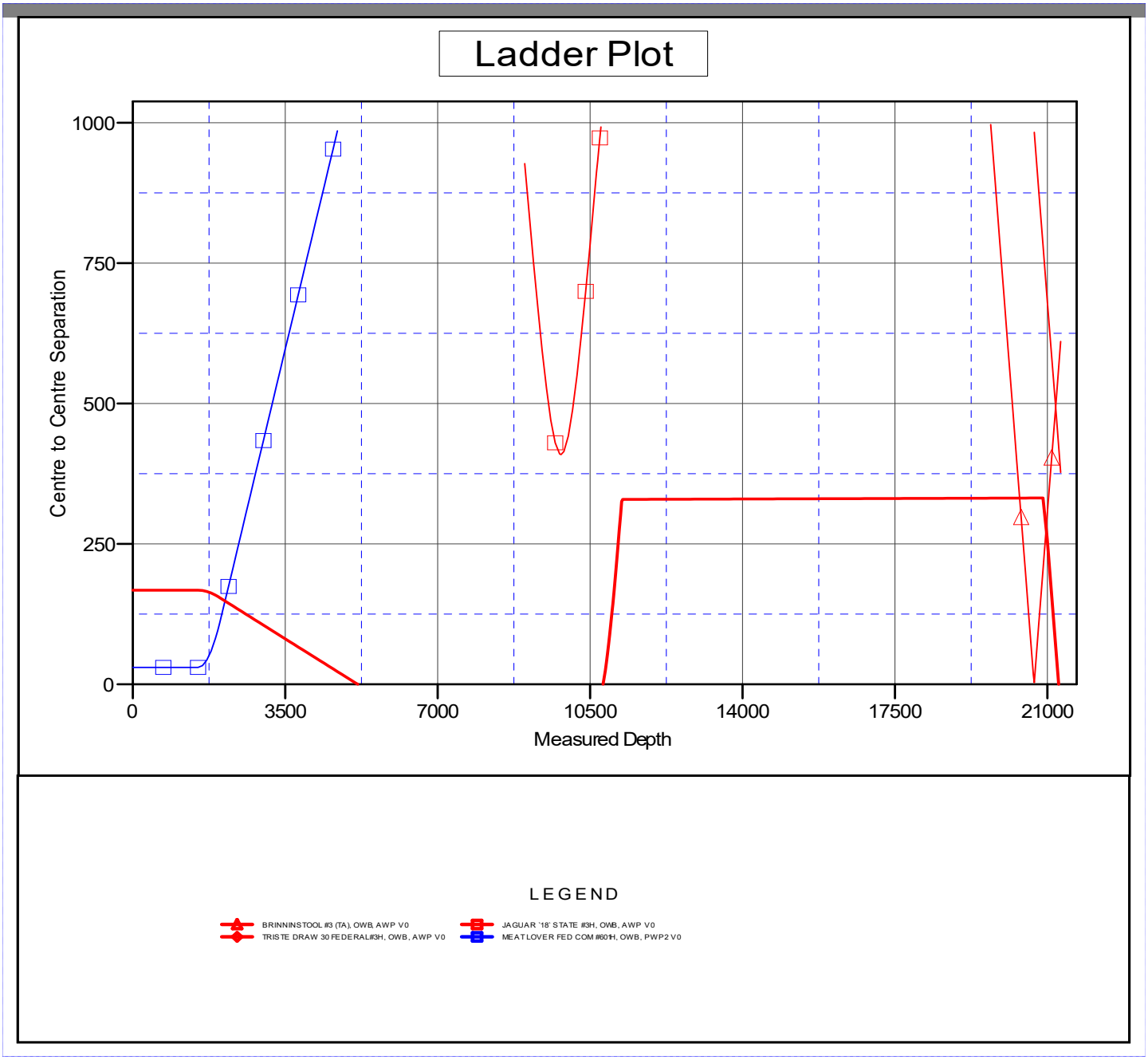
ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP2	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB=27 @ 3743.5usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: MEAT LOVER FED COM #602H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.39°



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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well MEAT LOVER FED COM #602H
Project:	LEA COUNTY SOUTHEAST	**TVD Reference:**	KB=27 @ 3743.5usft
Reference Site:	MEAT LOVER FED COM PROJECT	**MD Reference:**	KB=27 @ 3743.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	MEAT LOVER FED COM #602H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
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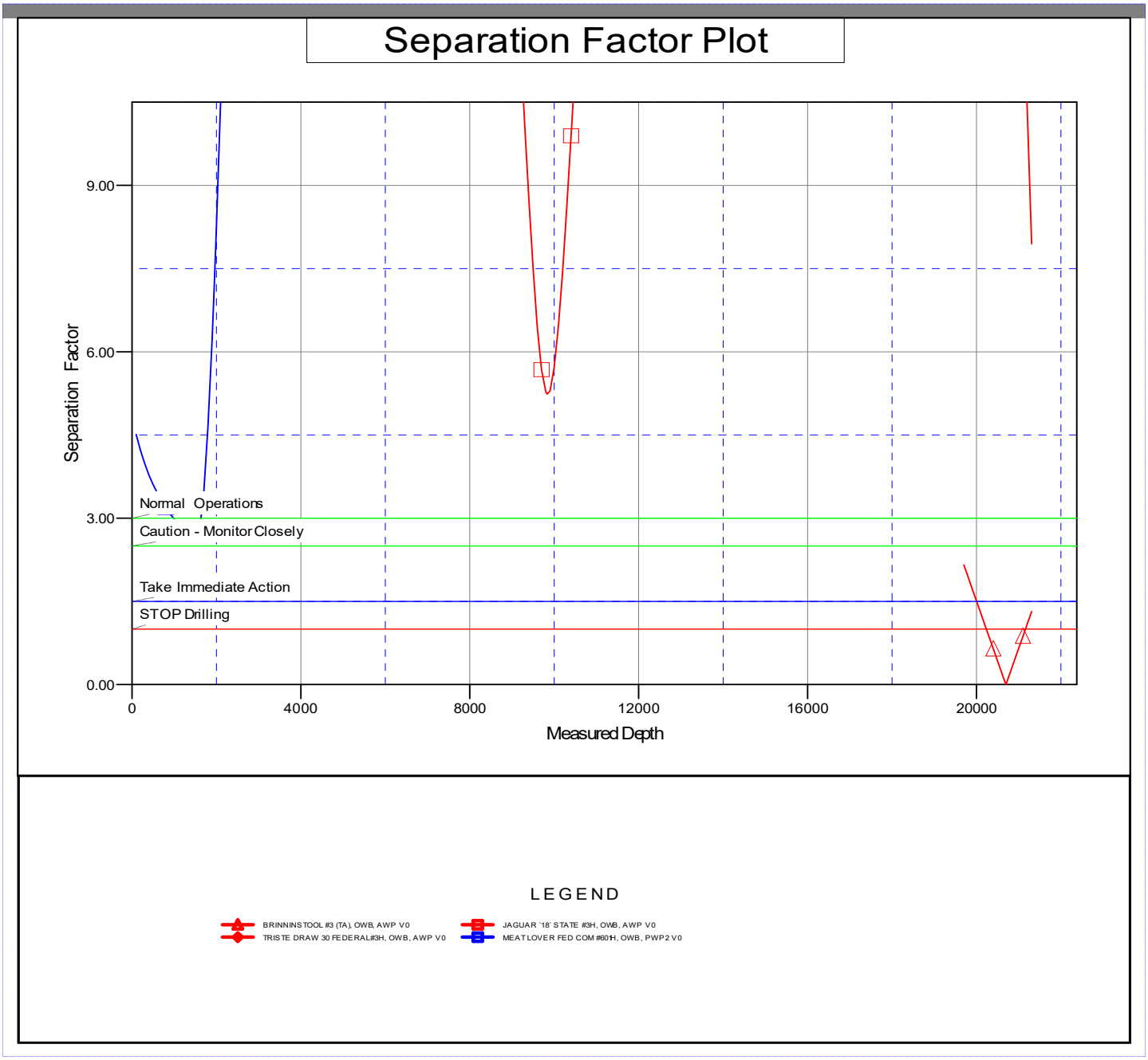
Reference Depths are relative to KB=27 @ 3743.5usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: MEAT LOVER FED COM #602H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.39°



Casing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
11,945' 9-7/8"	465	15.6	1.196	1st Stage: Halliburton Halcem (TOC @ Brushy Canyon)
	1000	14.8	1.519	2nd Stage (Bradenhead squeeze): Halliburton Thixotropic Halcem + 5% Cal-Seal 60, .6% HR-800 + 10% Salt + 3% Microbond
	400	14.8	1.332	Top out Slurry: Halliburton Halcem (TOC @ surface)

COG Production LLC requests variance from minimum standards to pump a two stage cement job on the 7-5/8'' intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. After the bradenhead squeeze, 50 sacks of the 14.8 ppg top out slurry will be pumped followed by shutting down and waiting on cement (WOC) 2 hours. After 2 hours, if necessary, a top out consisting of 350 sacks of Halliburton's Halcem at 14.8 ppg (1.332 yld) will be executed as a contingency. When washing valves, 2 bbls of water will be utilized. If the valves still contain cement, washing will occur in 1 bbl increments up to a maximum of 5 bbls.

COG Production will run a cement bond log (CBL) after the cement job is performed to evaluate the quality of the cement job.

Wellhead & Offline Cementing:

COG Production LLC respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "Offline Cement Intermediate Operational Procedure"

COG Production LLC believes that the combination of drilling fluid inside the casing, the abandonment plug with BPV, casing and annular valves and the TA cap provide multiple barriers to ensure complete closure of the wellbore prior to skidding/walking the rig.

Bradenhead Cementing Procedure for Intermediate Casing

1. R/U cement head and test lines
2. Pump first stage conventionally down the 7-5/8" intermediate casing
    a. 15.6 ppg slurry with TOC @ the Brushy Canyon
3. Displace with drilling fluid and bump plug
4. Bump at 500 psi over FCP, hold 5 mins.
5. Bleed back to cement truck to check floats
6. Rig up on 10-3/4" x 7-5/8" annulus by lining up to pump down both valves.
7. Establish injection rate and displace annulus with FW
8. Pump bradenhead squeeze with 14.8 ppg thixotropic slurry
    a. Limit pressure to 1500 psi (10-3/4" surf csg test)
9. After pumping 14.8 ppg thixotropic slurry, pump 50 sacks of 14.8 ppg top out slurry to flush valves of thixotropic cement.
10. WOC 2 hours
11. Top out with 350 sacks of 14.8 ppg top out slurry. If more cement is necessary, note in report and notify BLM.
12. Displace cement with fresh water and clear valves. Start with 2 bbls of fresh water. If more water is necessary, 1 bbl increments will be used to a maximum of 5 bbls.
13. Shut down and monitor the shut-in pressure on the 10-3/4" x 7-5/8" annulus.

Summarized Operational Procedure for Intermediate Casing

1. Run casing as per normal operations.
    a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
2. Land intermediate casing on mandrel hanger through BOP.
    a. If casing is unable to be landed with a mandrel hanger, then the **casing will be cemented online**.
    b. If time from landing mandrel hanger to skidding/walking rig off well exceeds 8 hours, BLM will be notified.
3. Break circulation and confirm no restrictions.
    a. Ensure no blockage of float equipment and appropriate annular returns.
    b. Perform flow check to confirm well is static.
4. Set pack-off
    a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by ensuring pipe is full of drilling fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
    b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by ensuring pipe is full of drilling fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
5. After confirmation of both annular barriers and the two casing barriers, install TA plug/BPV and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.

a. Minimum 4 hrs notice.

6. With the well secured and BLM notified, nipple down BOP and secure on BOP handler.
   a. **Note, if any of the barriers fail to test, the BOP stack will not be nippled down until after the cement job has concluded and tail cement has reached 500 psi**
7. Skid/Walk rig off current well.
8. Confirm well is static before removing TA Plug.
   a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
   b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing, if needed.
   c. Well control plan can be seen in Section B, Well Control Procedures.
   d. If need be, rig can be moved back over well and BOP nippled back up for any further remediation.
9. Rig up return lines to take returns from wellhead to pits and rig choke.
   a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
   b. If either test fails, perform corrections and retest before proceeding.
   c. Return line schematics can be seen in Figure 2.
10. Remove TA Plug/BPV from the casing.
11. Install offline cement tool.
    a. Current offline cement tool schematics can be seen in Figure 1 (Streamflo)
12. Rig up cement head and cementing lines.
    a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
13. Break circulation on well to confirm no restrictions.
    a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
    b. Max anticipated time before circulating with cement truck is 6 hrs.
14. Pump cement job as per plan.
    a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
    b. If plug does not bump on calculated displacement, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
15. Confirm well is static and floats are holding after cement job.
    a. With floats holding and backside static:
       i. Remove cement head.
    b. If floats are leaking:
       i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
    c. If there is flow on the backside:
       i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
16. Remove offline cement tool.
17. Install night cap with pressure gauge for monitoring.
18. Test night cap to 5,000 psi for 10 min.

Example Well Control Plan Content

A. Well Control Component Table

The table below, which covers the cementing of the **5M MASP (Maximum Allowable Surface Pressure) portion of the well**, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2” 1502 Lo-Torque Valves	10M

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

General Procedure While Circulating

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.
6. Read and record the following:
    a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

General Procedure While Cementing

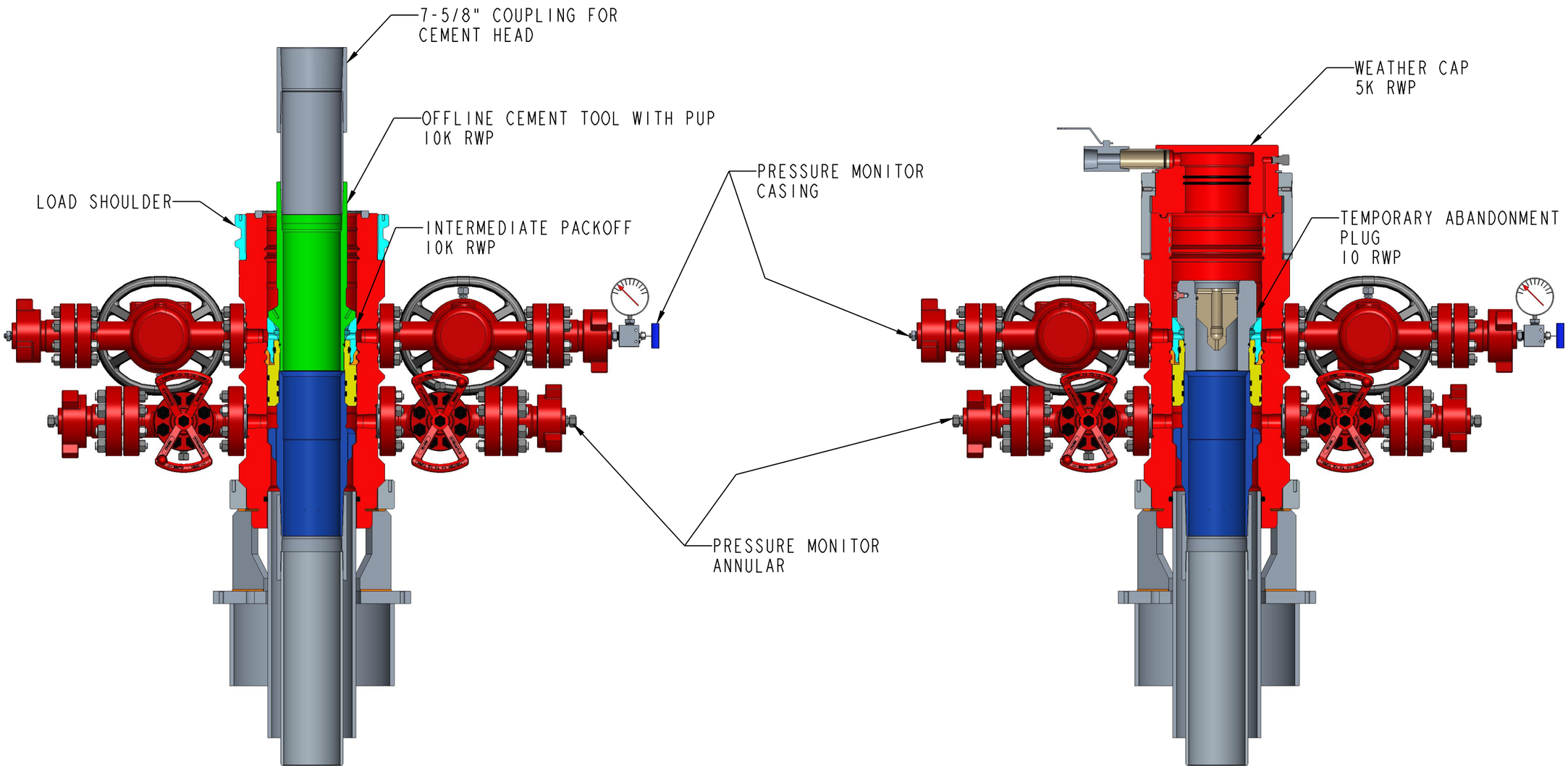
1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.
6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.

7. Continue to place cement until plug bumps.
8. At plug bump close rig choke and cement head.
9. Read and record the following
    a. SICP and AP
    b. Pit gain
    c. Time
    d. Shut-in annulus valves on wellhead

General Procedure After Cementing

1. Sound alarm (alert crew).
2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
3. Confirm shut-in.
4. Notify tool pusher/company representative.
5. Read and record the following:
    a. SICP and AP
    b. Pit gain
    c. Time
    d. Shut-in annulus valves on wellhead

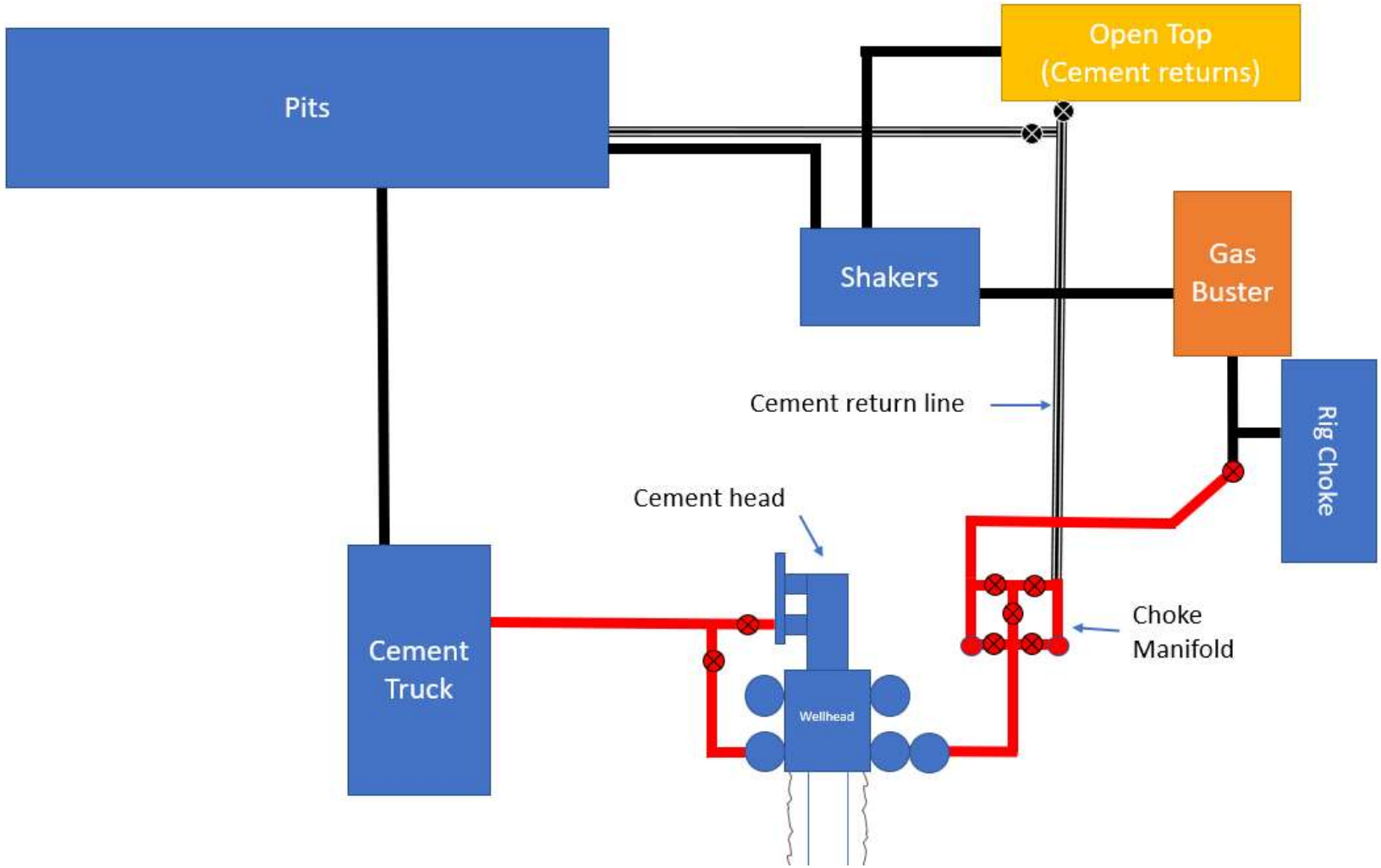
Figure 1: Offline Cement Tool Schematics



CONOCOPHILLIPS COMPANY 7-5/8" OFFLINE CEMENT AND ABANDAMENT PLUG LAYOUT DMLX WELLHEAD ASSEMBLY	DWN.	CWB	03-09-23	Stream Flo Worldwide Expertise - Global Strength	DRAWING No. WH-24621
	CHK.				
	APPR.				
		BY	DATE		

XX-XXXX XX-XXXX	Commonspace		WH-24621	WH-24621

Figure 2: Back Yard Rig Up



*All lines rated to 10M working pressure

**Cement head rated to 7.5M working pressure

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

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

CONDITIONS

Action 375685

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 375685
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	WHEN PERFORMING A BRADENHEAD CEMENT JOB MUST RUN CBL.	9/24/2024