

Submit Copy To Appropriate District  
Office  
District I – (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II – (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III – (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV – (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-50525
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator XTO PERMIAN OPERATING LLC.		6. State Oil & Gas Lease No.
3. Address of Operator 6401 HOLIDAY HILL ROAD BUILDING 5, MIDLAND, TX 79707		7. Lease Name or Unit Agreement Name Perla Verde 31 State Com
4. Well Location Unit Letter <u>P</u> : <u>2 30</u> feet from the <u>South</u> line and <u>1301</u> feet from the <u>East</u> line Section <u>31</u> Township <u>19S</u> Range <u>35E</u> NMPM County <u>Lea</u>		8. Well Number <u>202H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number <u>0 5830</u>
10. Pool name or Wildcat Wildcat G-07 S223021G; Bone Spring		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
DOWNHOLE COMMINGLE <input type="checkbox"/>	P AND A <input type="checkbox"/>
CLOSED-LOOP SYSTEM <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: <input type="checkbox"/>	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

XTO Energy, Inc. requests permission to make the following changes to the original APD:

Change Well Name from Perla Verde 31 State Com 202H to Perla Verde 31 State Com 402H

Change SHL fr/230'FSL & 1301'FEL, Section 31-T19S-R35E to 242'FSL & 1229'FWL, Section 31-T19S-R35E  
Change BHL fr/50'FNL & 1980'FEL, Section 31-T19S-R35E to 50'FNL & 2280'FWL, Section 30-T19S-R35E

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cassie Evans TITLE Lead Regulatory Analyst DATE 5/3/23

Type or print name Cassie Evans E-mail address: cassie.evans@exxonmobil.com PHONE: 432.214.7887

**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any):

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 Road, 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, NM 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-025- 50 529</b>	<sup>2</sup> Pool Code 37570	<sup>3</sup> Pool Name Lea; Bone Spring
<sup>4</sup> Property Code 313270	<sup>5</sup> Property Name <b>PERLA VERDE 31 STATE COM</b>	<sup>6</sup> Well Number <b>402H</b>
<sup>7</sup> OGRID No. <b>005380</b>	<sup>8</sup> Operator Name <b>XTO ENERGY, INC.</b>	<sup>9</sup> Elevation <b>3,702'</b>

<sup>10</sup> Surface Location

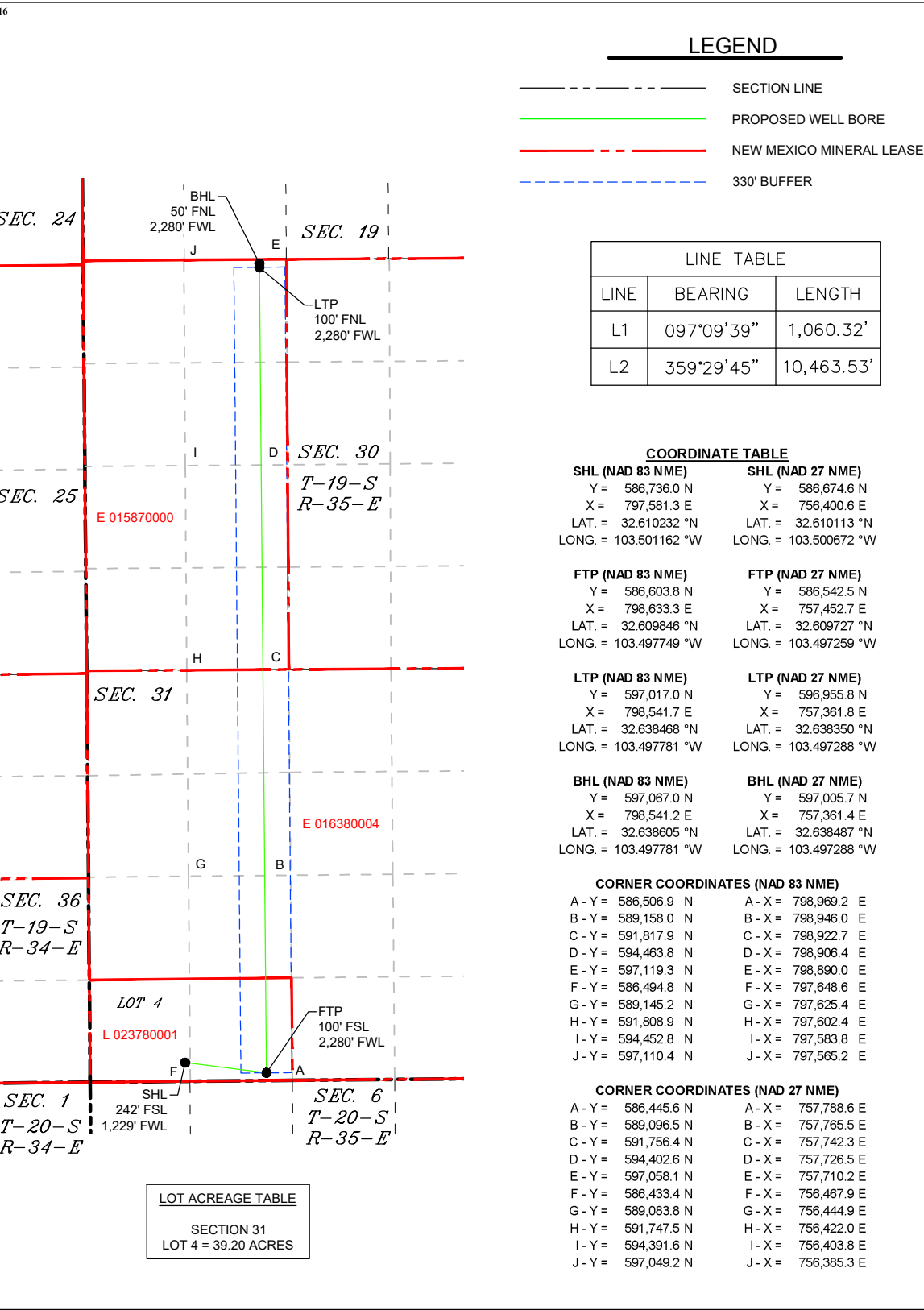
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>4</b>	<b>31</b>	<b>19 S</b>	<b>35 E</b>		<b>242</b>	<b>SOUTH</b>	<b>1,229</b>	<b>WEST</b>	<b>LEA</b>

<sup>11</sup> 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
<b>C</b>	<b>30</b>	<b>19 S</b>	<b>35 E</b>		<b>50</b>	<b>NORTH</b>	<b>2,280</b>	<b>WEST</b>	<b>LEA</b>

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



**<sup>17</sup> OPERATOR CERTIFICATION**

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cassie Evans 6/8/23

Signature Date

Cassie Evans

Printed Name

cassie.evans@exxonmobil.com  
E-mail Address

**<sup>18</sup> 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.

06/08/2023

Date of Survey

Signature and Seal of  
Professional Surveyor:



MARK DILLON HARP 23786  
Certificate Number

DB/AI 618.013009.00-04

P:\618.013 XTO Energy - NM\009 Perla Verde Unit - Lea\00 - Perla Verde Unit\Wells\04 402H\DWG\C-102.dwg

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

☐ AMENDED REPORT

<sup>1</sup> API Number <b>30-025- 50 529</b>	<sup>2</sup> Pool Code 97983	<sup>3</sup> Pool Name WC-025 G-08 S203506D; Bone Spring
<sup>4</sup> Property Code 313270	<sup>5</sup> Property Name <b>PERLA VERDE 31 STATE COM</b>	
<sup>6</sup> Well Number <b>402H</b>		
<sup>7</sup> OGRID No. <b>005380</b>	<sup>8</sup> Operator Name <b>XTO ENERGY, INC.</b>	
	<sup>9</sup> Elevation <b>3,702'</b>	

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	31	19 S	35 E		242	SOUTH	1,229	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>C</b>	<b>30</b>	<b>19 S</b>	<b>35 E</b>		<b>50</b>	<b>NORTH</b>	<b>2,280</b>	<b>WEST</b>	<b>LEA</b>

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
320			

16

**LEGEND**

SECTION LINE

PROPOSED WELL BORE

NEW MEXICO MINERAL LEASE

330' BUFFER

SEC. 24

SEC. 19

SEC. 25

SEC. 30

SEC. 31

SEC. 36

SEC. 6

LOT 4

SHL 50' FNL 2,280' FWL

BHL

J

E

LTP 100' FNL 2,280' FWL

I

D

T-19-S R-35-E

E 015870000

H

C

G

B

F

A

FTP 100' FSL 2,280' FWL

SHL 242' FSL 1,229' FWL

T-19-S R-34-E

T-20-S R-35-E

T-20-S R-34-E

L 023780001

E 016380004

LINE	BEARING	LENGTH
L1	097°09'39"	1,060.32'
L2	359°29'45"	10,463.53'

SHL (NAD 83 NME)		SHL (NAD 27 NME)	
Y =	586,736.0 N	Y =	586,674.6 N
X =	797,581.3 E	X =	756,400.6 E
LAT. =	32.610232 °N	LAT. =	32.610113 °N
LONG. =	103.501162 °W	LONG. =	103.500672 °W

FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	586,603.8 N	Y =	586,542.5 N
X =	798,633.3 E	X =	757,452.7 E
LAT. =	32.609846 °N	LAT. =	32.609727 °N
LONG. =	103.497749 °W	LONG. =	103.497259 °W

LTP (NAD 83 NME)		LTP (NAD 27 NME)	
Y =	597,017.0 N	Y =	596,955.8 N
X =	798,541.7 E	X =	757,361.8 E
LAT. =	32.638468 °N	LAT. =	32.638350 °N
LONG. =	103.497781 °W	LONG. =	103.497288 °W

BHL (NAD 83 NME)		BHL (NAD 27 NME)	
Y =	597,067.0 N	Y =	597,005.7 N
X =	798,541.2 E	X =	757,361.4 E
LAT. =	32.638605 °N	LAT. =	32.638487 °N
LONG. =	103.497781 °W	LONG. =	103.497288 °W

Point	Y	X
A	586,506.9 N	798,969.2 E
B	589,158.0 N	798,946.0 E
C	591,817.9 N	798,922.7 E
D	594,463.8 N	798,906.4 E
E	597,119.3 N	798,890.0 E
F	586,494.8 N	797,648.6 E
G	589,145.2 N	797,625.4 E
H	591,808.9 N	797,602.4 E
I	594,452.8 N	797,583.8 E
J	597,110.4 N	797,565.2 E

Point	Y	X
A	586,445.6 N	757,788.6 E
B	589,096.5 N	757,765.5 E
C	591,756.4 N	757,742.3 E
D	594,402.6 N	757,726.5 E
E	597,058.1 N	757,710.2 E
F	586,433.4 N	756,467.9 E
G	589,083.8 N	756,444.9 E
H	591,747.5 N	756,422.0 E
I	594,391.6 N	756,403.8 E
J	597,049.2 N	756,385.3 E

SECTION 31
LOT 4 = 39.20 ACRES

*I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

Cassie Evans 6/8/23

---

Signature \_\_\_\_\_

Date \_\_\_\_\_

Cassie Evans

Printed Name \_\_\_\_\_

cassie.evans@exxonmobil.com  
E-mail Address

*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.*

**06/08/2023**

Date of Survey

Signature and Seal of  
Professional Surveyor:



MARK DILLON HARP 23786  
Certificate Number

DB/AI 618.013009.00-04

# Long Lead\_Well Planning

Perla Verde

Perla Verde

PERLA VERDE 31 STATE COM 402H

402H

Plan: Plan 1

## Standard Planning Report

26 April, 2023

ExxonMobil

Planning Report

<b>Database:</b>	LMRKPROD3	<b>Local Co-ordinate Reference:</b>	Well PERLA VERDE 31 STATE COM 402H
<b>Company:</b>	Long Lead_Well Planning	<b>TVD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Project:</b>	Perla Verde	<b>MD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Site:</b>	Perla Verde	<b>North Reference:</b>	Grid
<b>Well:</b>	PERLA VERDE 31 STATE COM 402H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	402H		
<b>Design:</b>	Plan 1		

<b>Project</b>	Perla Verde		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Perla Verde		
<b>Site Position:</b>		<b>Northing:</b>	586,673.20 usft
<b>From:</b>	Map	<b>Easting:</b>	756,310.50 usft
<b>Position Uncertainty:</b>	3.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 36' 36.399 N
		<b>Longitude:</b>	103° 30' 3.473 W

<b>Well</b>	PERLA VERDE 31 STATE COM 402H		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b> 586,674.60 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b> 756,400.60 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>	0.45 °	<b>Ground Level:</b>	3,702.0 usft

<b>Wellbore</b>	402H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	4/14/2023	6.33	60.20	47,536.19699622

<b>Design</b>	Plan 1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	359.50	

<b>Plan Survey Tool Program</b>	<b>Date</b>	4/26/2023			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	21,680.2 Plan 1 (402H)	XOM_R2OWSG MWD+IFR1+		
			OWSG MWD + IFR1 + Multi-Si		

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
3,000.4	20.01	127.93	2,980.2	-106.3	136.4	2.00	2.00	0.00	127.93	
6,022.4	20.01	127.93	5,819.8	-741.8	952.0	0.00	0.00	0.00	0.00	
7,022.8	0.00	0.00	6,800.0	-848.1	1,088.3	2.00	-2.00	0.00	180.00	
10,091.6	0.00	0.00	9,868.8	-848.1	1,088.3	0.00	0.00	0.00	0.00	
11,216.6	90.00	359.50	10,585.0	-131.9	1,082.1	8.00	0.00	0.00	359.50	402H_FTP

# ExxonMobil

## Planning Report

<b>Database:</b>	LMRKPROD3	<b>Local Co-ordinate Reference:</b>	Well PERLA VERDE 31 STATE COM 402H
<b>Company:</b>	Long Lead_Well Planning	<b>TVD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Project:</b>	Perla Verde	<b>MD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Site:</b>	Perla Verde	<b>North Reference:</b>	Grid
<b>Well:</b>	PERLA VERDE 31 STATE COM 402H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	402H		
<b>Design:</b>	Plan 1		

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
<b>402H_SHL</b>									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Start Build 2.00</b>									
2,100.0	2.00	127.93	2,100.0	-1.1	1.4	-1.1	2.00	2.00	0.00
2,200.0	4.00	127.93	2,199.8	-4.3	5.5	-4.3	2.00	2.00	0.00
2,300.0	6.00	127.93	2,299.5	-9.6	12.4	-9.8	2.00	2.00	0.00
2,400.0	8.00	127.93	2,398.7	-17.1	22.0	-17.3	2.00	2.00	0.00
2,500.0	10.00	127.93	2,497.5	-26.8	34.3	-27.0	2.00	2.00	0.00
2,600.0	12.00	127.93	2,595.6	-38.5	49.4	-38.9	2.00	2.00	0.00
2,700.0	14.00	127.93	2,693.1	-52.3	67.1	-52.9	2.00	2.00	0.00
2,800.0	16.00	127.93	2,789.6	-68.2	87.5	-69.0	2.00	2.00	0.00
2,900.0	18.00	127.93	2,885.3	-86.2	110.6	-87.1	2.00	2.00	0.00
3,000.0	20.00	127.93	2,979.8	-106.2	136.3	-107.4	2.00	2.00	0.00
3,000.4	20.01	127.93	2,980.2	-106.3	136.4	-107.5	2.00	2.00	0.00
<b>Start 3022.1 hold at 3000.4 MD</b>									
3,100.0	20.01	127.93	3,073.8	-127.2	163.3	-128.6	0.00	0.00	0.00
3,200.0	20.01	127.93	3,167.7	-148.3	190.3	-149.9	0.00	0.00	0.00
3,300.0	20.01	127.93	3,261.7	-169.3	217.2	-171.2	0.00	0.00	0.00
3,400.0	20.01	127.93	3,355.7	-190.3	244.2	-192.4	0.00	0.00	0.00
3,500.0	20.01	127.93	3,449.6	-211.3	271.2	-213.7	0.00	0.00	0.00
3,600.0	20.01	127.93	3,543.6	-232.4	298.2	-235.0	0.00	0.00	0.00
3,700.0	20.01	127.93	3,637.6	-253.4	325.2	-256.2	0.00	0.00	0.00
3,800.0	20.01	127.93	3,731.5	-274.4	352.2	-277.5	0.00	0.00	0.00
3,900.0	20.01	127.93	3,825.5	-295.5	379.2	-298.8	0.00	0.00	0.00
4,000.0	20.01	127.93	3,919.5	-316.5	406.2	-320.0	0.00	0.00	0.00
4,100.0	20.01	127.93	4,013.4	-337.5	433.1	-341.3	0.00	0.00	0.00
4,200.0	20.01	127.93	4,107.4	-358.5	460.1	-362.6	0.00	0.00	0.00
4,300.0	20.01	127.93	4,201.4	-379.6	487.1	-383.8	0.00	0.00	0.00
4,400.0	20.01	127.93	4,295.3	-400.6	514.1	-405.1	0.00	0.00	0.00
4,500.0	20.01	127.93	4,389.3	-421.6	541.1	-426.3	0.00	0.00	0.00
4,600.0	20.01	127.93	4,483.3	-442.7	568.1	-447.6	0.00	0.00	0.00
4,700.0	20.01	127.93	4,577.2	-463.7	595.1	-468.9	0.00	0.00	0.00
4,800.0	20.01	127.93	4,671.2	-484.7	622.1	-490.1	0.00	0.00	0.00
4,900.0	20.01	127.93	4,765.1	-505.8	649.1	-511.4	0.00	0.00	0.00
5,000.0	20.01	127.93	4,859.1	-526.8	676.0	-532.7	0.00	0.00	0.00
5,100.0	20.01	127.93	4,953.1	-547.8	703.0	-553.9	0.00	0.00	0.00
5,200.0	20.01	127.93	5,047.0	-568.8	730.0	-575.2	0.00	0.00	0.00
5,300.0	20.01	127.93	5,141.0	-589.9	757.0	-596.5	0.00	0.00	0.00
5,400.0	20.01	127.93	5,235.0	-610.9	784.0	-617.7	0.00	0.00	0.00
5,500.0	20.01	127.93	5,328.9	-631.9	811.0	-639.0	0.00	0.00	0.00
5,600.0	20.01	127.93	5,422.9	-653.0	838.0	-660.3	0.00	0.00	0.00
5,700.0	20.01	127.93	5,516.9	-674.0	865.0	-681.5	0.00	0.00	0.00
5,800.0	20.01	127.93	5,610.8	-695.0	891.9	-702.8	0.00	0.00	0.00
5,900.0	20.01	127.93	5,704.8	-716.1	918.9	-724.0	0.00	0.00	0.00
6,000.0	20.01	127.93	5,798.8	-737.1	945.9	-745.3	0.00	0.00	0.00
6,022.4	20.01	127.93	5,819.8	-741.8	952.0	-750.1	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
6,100.0	18.46	127.93	5,893.1	-757.5	972.1	-766.0	2.00	-2.00	0.00
6,200.0	16.46	127.93	5,988.5	-775.9	995.8	-784.6	2.00	-2.00	0.00
6,300.0	14.46	127.93	6,084.8	-792.3	1,016.8	-801.2	2.00	-2.00	0.00
6,400.0	12.46	127.93	6,182.1	-806.6	1,035.2	-815.6	2.00	-2.00	0.00
6,500.0	10.46	127.93	6,280.1	-818.8	1,050.8	-828.0	2.00	-2.00	0.00

# ExxonMobil

## Planning Report

<b>Database:</b>	LMRKPROD3	<b>Local Co-ordinate Reference:</b>	Well PERLA VERDE 31 STATE COM 402H
<b>Company:</b>	Long Lead_Well Planning	<b>TVD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Project:</b>	Perla Verde	<b>MD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Site:</b>	Perla Verde	<b>North Reference:</b>	Grid
<b>Well:</b>	PERLA VERDE 31 STATE COM 402H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	402H		
<b>Design:</b>	Plan 1		

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)
6,600.0	8.46	127.93	6,378.7	-828.9	1,063.8	-838.2	2.00	-2.00	0.00
6,700.0	6.46	127.93	6,477.9	-836.9	1,074.0	-846.2	2.00	-2.00	0.00
6,800.0	4.46	127.93	6,577.4	-842.7	1,081.5	-852.2	2.00	-2.00	0.00
6,900.0	2.46	127.93	6,677.2	-846.5	1,086.3	-855.9	2.00	-2.00	0.00
7,000.0	0.46	127.93	6,777.2	-848.0	1,088.3	-857.5	2.00	-2.00	0.00
7,022.8	0.00	0.00	6,800.0	-848.1	1,088.3	-857.5	2.00	-2.00	0.00
Start 3068.8 hold at 7022.8 MD									
10,091.6	0.00	0.00	9,868.8	-848.1	1,088.3	-857.5	0.00	0.00	0.00
Start Turn 0.00									
10,100.0	0.67	359.50	9,877.2	-848.0	1,088.3	-857.5	8.00	8.00	0.00
10,200.0	8.67	359.50	9,976.8	-839.9	1,088.3	-849.3	8.00	8.00	0.00
10,300.0	16.67	359.50	10,074.3	-818.0	1,088.1	-827.4	8.00	8.00	0.00
10,400.0	24.67	359.50	10,167.8	-782.7	1,087.8	-792.2	8.00	8.00	0.00
10,500.0	32.67	359.50	10,255.4	-734.8	1,087.4	-744.2	8.00	8.00	0.00
10,600.0	40.67	359.50	10,335.6	-675.1	1,086.8	-684.5	8.00	8.00	0.00
10,700.0	48.67	359.50	10,406.6	-604.8	1,086.2	-614.3	8.00	8.00	0.00
10,800.0	56.67	359.50	10,467.2	-525.4	1,085.5	-534.8	8.00	8.00	0.00
10,900.0	64.67	359.50	10,516.2	-438.3	1,084.8	-447.7	8.00	8.00	0.00
11,000.0	72.67	359.50	10,552.5	-345.2	1,084.0	-354.7	8.00	8.00	0.00
11,100.0	80.67	359.50	10,575.5	-248.0	1,083.1	-257.4	8.00	8.00	0.00
11,200.0	88.67	359.50	10,584.8	-148.5	1,082.2	-157.9	8.00	8.00	0.00
11,216.6	90.00	359.50	10,585.0	-131.9	1,082.1	-141.3	8.00	8.00	0.00
Start 10413.7 hold at 11216.6 MD - 402H_FTP									
11,300.0	90.00	359.50	10,585.0	-48.5	1,081.4	-57.9	0.00	0.00	0.00
11,400.0	90.00	359.50	10,585.0	51.5	1,080.5	42.1	0.00	0.00	0.00
11,500.0	90.00	359.50	10,585.0	151.5	1,079.6	142.1	0.00	0.00	0.00
11,600.0	90.00	359.50	10,585.0	251.5	1,078.8	242.1	0.00	0.00	0.00
11,700.0	90.00	359.50	10,585.0	351.5	1,077.9	342.1	0.00	0.00	0.00
11,800.0	90.00	359.50	10,585.0	451.5	1,077.0	442.1	0.00	0.00	0.00
11,900.0	90.00	359.50	10,585.0	551.5	1,076.1	542.1	0.00	0.00	0.00
12,000.0	90.00	359.50	10,585.0	651.5	1,075.3	642.1	0.00	0.00	0.00
12,100.0	90.00	359.50	10,585.0	751.5	1,074.4	742.1	0.00	0.00	0.00
12,200.0	90.00	359.50	10,585.0	851.5	1,073.5	842.1	0.00	0.00	0.00
12,300.0	90.00	359.50	10,585.0	951.5	1,072.6	942.1	0.00	0.00	0.00
12,400.0	90.00	359.50	10,585.0	1,051.5	1,071.8	1,042.1	0.00	0.00	0.00
12,500.0	90.00	359.50	10,585.0	1,151.5	1,070.9	1,142.1	0.00	0.00	0.00
12,600.0	90.00	359.50	10,585.0	1,251.4	1,070.0	1,242.1	0.00	0.00	0.00
12,700.0	90.00	359.50	10,585.0	1,351.4	1,069.2	1,342.1	0.00	0.00	0.00
12,800.0	90.00	359.50	10,585.0	1,451.4	1,068.3	1,442.1	0.00	0.00	0.00
12,900.0	90.00	359.50	10,585.0	1,551.4	1,067.4	1,542.1	0.00	0.00	0.00
13,000.0	90.00	359.50	10,585.0	1,651.4	1,066.5	1,642.1	0.00	0.00	0.00
13,100.0	90.00	359.50	10,585.0	1,751.4	1,065.7	1,742.1	0.00	0.00	0.00
13,200.0	90.00	359.50	10,585.0	1,851.4	1,064.8	1,842.1	0.00	0.00	0.00
13,300.0	90.00	359.50	10,585.0	1,951.4	1,063.9	1,942.1	0.00	0.00	0.00
13,400.0	90.00	359.50	10,585.0	2,051.4	1,063.0	2,042.1	0.00	0.00	0.00
13,500.0	90.00	359.50	10,585.0	2,151.4	1,062.2	2,142.1	0.00	0.00	0.00
13,600.0	90.00	359.50	10,585.0	2,251.4	1,061.3	2,242.1	0.00	0.00	0.00
13,700.0	90.00	359.50	10,585.0	2,351.4	1,060.4	2,342.1	0.00	0.00	0.00
13,800.0	90.00	359.50	10,585.0	2,451.4	1,059.6	2,442.1	0.00	0.00	0.00
13,900.0	90.00	359.50	10,585.0	2,551.4	1,058.7	2,542.1	0.00	0.00	0.00
14,000.0	90.00	359.50	10,585.0	2,651.4	1,057.8	2,642.1	0.00	0.00	0.00
14,100.0	90.00	359.50	10,585.0	2,751.4	1,056.9	2,742.1	0.00	0.00	0.00
14,200.0	90.00	359.50	10,585.0	2,851.4	1,056.1	2,842.1	0.00	0.00	0.00



# ExxonMobil

## Planning Report

<b>Database:</b>	LMRKPROD3	<b>Local Co-ordinate Reference:</b>	Well PERLA VERDE 31 STATE COM 402H
<b>Company:</b>	Long Lead_Well Planning	<b>TVD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Project:</b>	Perla Verde	<b>MD Reference:</b>	RKB(3702+30)' @ 3732.0usft
<b>Site:</b>	Perla Verde	<b>North Reference:</b>	Grid
<b>Well:</b>	PERLA VERDE 31 STATE COM 402H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	402H		
<b>Design:</b>	Plan 1		

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)
14,300.0	90.00	359.50	10,585.0	2,951.4	1,055.2	2,942.1	0.00	0.00	0.00
14,400.0	90.00	359.50	10,585.0	3,051.4	1,054.3	3,042.1	0.00	0.00	0.00
14,500.0	90.00	359.50	10,585.0	3,151.4	1,053.5	3,142.1	0.00	0.00	0.00
14,600.0	90.00	359.50	10,585.0	3,251.4	1,052.6	3,242.1	0.00	0.00	0.00
14,700.0	90.00	359.50	10,585.0	3,351.4	1,051.7	3,342.1	0.00	0.00	0.00
14,800.0	90.00	359.50	10,585.0	3,451.4	1,050.8	3,442.1	0.00	0.00	0.00
14,900.0	90.00	359.50	10,585.0	3,551.4	1,050.0	3,542.1	0.00	0.00	0.00
15,000.0	90.00	359.50	10,585.0	3,651.4	1,049.1	3,642.1	0.00	0.00	0.00
15,100.0	90.00	359.50	10,585.0	3,751.4	1,048.2	3,742.1	0.00	0.00	0.00
15,200.0	90.00	359.50	10,585.0	3,851.3	1,047.3	3,842.1	0.00	0.00	0.00
15,300.0	90.00	359.50	10,585.0	3,951.3	1,046.5	3,942.1	0.00	0.00	0.00
15,400.0	90.00	359.50	10,585.0	4,051.3	1,045.6	4,042.1	0.00	0.00	0.00
15,500.0	90.00	359.50	10,585.0	4,151.3	1,044.7	4,142.1	0.00	0.00	0.00
15,600.0	90.00	359.50	10,585.0	4,251.3	1,043.9	4,242.1	0.00	0.00	0.00
15,700.0	90.00	359.50	10,585.0	4,351.3	1,043.0	4,342.1	0.00	0.00	0.00
15,800.0	90.00	359.50	10,585.0	4,451.3	1,042.1	4,442.1	0.00	0.00	0.00
15,900.0	90.00	359.50	10,585.0	4,551.3	1,041.2	4,542.1	0.00	0.00	0.00
16,000.0	90.00	359.50	10,585.0	4,651.3	1,040.4	4,642.1	0.00	0.00	0.00
16,100.0	90.00	359.50	10,585.0	4,751.3	1,039.5	4,742.1	0.00	0.00	0.00
16,200.0	90.00	359.50	10,585.0	4,851.3	1,038.6	4,842.1	0.00	0.00	0.00
16,300.0	90.00	359.50	10,585.0	4,951.3	1,037.7	4,942.1	0.00	0.00	0.00
16,400.0	90.00	359.50	10,585.0	5,051.3	1,036.9	5,042.1	0.00	0.00	0.00
16,500.0	90.00	359.50	10,585.0	5,151.3	1,036.0	5,142.1	0.00	0.00	0.00
16,600.0	90.00	359.50	10,585.0	5,251.3	1,035.1	5,242.1	0.00	0.00	0.00
16,700.0	90.00	359.50	10,585.0	5,351.3	1,034.3	5,342.1	0.00	0.00	0.00
16,800.0	90.00	359.50	10,585.0	5,451.3	1,033.4	5,442.1	0.00	0.00	0.00
16,900.0	90.00	359.50	10,585.0	5,551.3	1,032.5	5,542.1	0.00	0.00	0.00
17,000.0	90.00	359.50	10,585.0	5,651.3	1,031.6	5,642.1	0.00	0.00	0.00
17,100.0	90.00	359.50	10,585.0	5,751.3	1,030.8	5,742.1	0.00	0.00	0.00
17,200.0	90.00	359.50	10,585.0	5,851.3	1,029.9	5,842.1	0.00	0.00	0.00
17,300.0	90.00	359.50	10,585.0	5,951.3	1,029.0	5,942.1	0.00	0.00	0.00
17,400.0	90.00	359.50	10,585.0	6,051.3	1,028.1	6,042.1	0.00	0.00	0.00
17,500.0	90.00	359.50	10,585.0	6,151.3	1,027.3	6,142.1	0.00	0.00	0.00
17,600.0	90.00	359.50	10,585.0	6,251.3	1,026.4	6,242.1	0.00	0.00	0.00
17,700.0	90.00	359.50	10,585.0	6,351.3	1,025.5	6,342.1	0.00	0.00	0.00
17,800.0	90.00	359.50	10,585.0	6,451.2	1,024.7	6,442.1	0.00	0.00	0.00
17,900.0	90.00	359.50	10,585.0	6,551.2	1,023.8	6,542.1	0.00	0.00	0.00
18,000.0	90.00	359.50	10,585.0	6,651.2	1,022.9	6,642.1	0.00	0.00	0.00
18,100.0	90.00	359.50	10,585.0	6,751.2	1,022.0	6,742.1	0.00	0.00	0.00
18,200.0	90.00	359.50	10,585.0	6,851.2	1,021.2	6,842.1	0.00	0.00	0.00
18,300.0	90.00	359.50	10,585.0	6,951.2	1,020.3	6,942.1	0.00	0.00	0.00
18,400.0	90.00	359.50	10,585.0	7,051.2	1,019.4	7,042.1	0.00	0.00	0.00
18,500.0	90.00	359.50	10,585.0	7,151.2	1,018.5	7,142.1	0.00	0.00	0.00
18,600.0	90.00	359.50	10,585.0	7,251.2	1,017.7	7,242.1	0.00	0.00	0.00
18,700.0	90.00	359.50	10,585.0	7,351.2	1,016.8	7,342.1	0.00	0.00	0.00
18,800.0	90.00	359.50	10,585.0	7,451.2	1,015.9	7,442.1	0.00	0.00	0.00
18,900.0	90.00	359.50	10,585.0	7,551.2	1,015.1	7,542.1	0.00	0.00	0.00
19,000.0	90.00	359.50	10,585.0	7,651.2	1,014.2	7,642.1	0.00	0.00	0.00
19,100.0	90.00	359.50	10,585.0	7,751.2	1,013.3	7,742.1	0.00	0.00	0.00
19,200.0	90.00	359.50	10,585.0	7,851.2	1,012.4	7,842.1	0.00	0.00	0.00
19,300.0	90.00	359.50	10,585.0	7,951.2	1,011.6	7,942.1	0.00	0.00	0.00
19,400.0	90.00	359.50	10,585.0	8,051.2	1,010.7	8,042.1	0.00	0.00	0.00
19,500.0	90.00	359.50	10,585.0	8,151.2	1,009.8	8,142.1	0.00	0.00	0.00
19,600.0	90.00	359.50	10,585.0	8,251.2	1,009.0	8,242.1	0.00	0.00	0.00



ExxonMobil

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PERLA VERDE 31 STATE COM 402H
Company:	Long Lead_Well Planning	TVD Reference:	RKB(3702+30)' @ 3732.0usft
Project:	Perla Verde	MD Reference:	RKB(3702+30)' @ 3732.0usft
Site:	Perla Verde	North Reference:	Grid
Well:	PERLA VERDE 31 STATE COM 402H	Survey Calculation Method:	Minimum Curvature
Wellbore:	402H		
Design:	Plan 1		

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)	
19,700.0	90.00	359.50	10,585.0	8,351.2	1,008.1	8,342.1	0.00	0.00	0.00	
19,800.0	90.00	359.50	10,585.0	8,451.2	1,007.2	8,442.1	0.00	0.00	0.00	
19,900.0	90.00	359.50	10,585.0	8,551.2	1,006.3	8,542.1	0.00	0.00	0.00	
20,000.0	90.00	359.50	10,585.0	8,651.2	1,005.5	8,642.1	0.00	0.00	0.00	
20,100.0	90.00	359.50	10,585.0	8,751.2	1,004.6	8,742.1	0.00	0.00	0.00	
20,200.0	90.00	359.50	10,585.0	8,851.2	1,003.7	8,842.1	0.00	0.00	0.00	
20,300.0	90.00	359.50	10,585.0	8,951.2	1,002.8	8,942.1	0.00	0.00	0.00	
20,400.0	90.00	359.50	10,585.0	9,051.1	1,002.0	9,042.1	0.00	0.00	0.00	
20,500.0	90.00	359.50	10,585.0	9,151.1	1,001.1	9,142.1	0.00	0.00	0.00	
20,600.0	90.00	359.50	10,585.0	9,251.1	1,000.2	9,242.1	0.00	0.00	0.00	
20,700.0	90.00	359.50	10,585.0	9,351.1	999.4	9,342.1	0.00	0.00	0.00	
20,800.0	90.00	359.50	10,585.0	9,451.1	998.5	9,442.1	0.00	0.00	0.00	
20,900.0	90.00	359.50	10,585.0	9,551.1	997.6	9,542.1	0.00	0.00	0.00	
21,000.0	90.00	359.50	10,585.0	9,651.1	996.7	9,642.1	0.00	0.00	0.00	
21,100.0	90.00	359.50	10,585.0	9,751.1	995.9	9,742.1	0.00	0.00	0.00	
21,200.0	90.00	359.50	10,585.0	9,851.1	995.0	9,842.1	0.00	0.00	0.00	
21,300.0	90.00	359.50	10,585.0	9,951.1	994.1	9,942.1	0.00	0.00	0.00	
21,400.0	90.00	359.50	10,585.0	10,051.1	993.2	10,042.1	0.00	0.00	0.00	
21,500.0	90.00	359.50	10,585.0	10,151.1	992.4	10,142.1	0.00	0.00	0.00	
21,600.0	90.00	359.50	10,585.0	10,251.1	991.5	10,242.1	0.00	0.00	0.00	
21,630.3	90.00	359.50	10,585.0	10,281.4	991.2	10,272.4	0.00	0.00	0.00	
Start 49.9 hold at 21630.3 MD - 402H_LTP										
21,680.2	90.00	359.50	10,585.0	10,331.3	990.8	10,322.3	0.00	0.00	0.00	
TD at 21680.2 - 402H_BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
402H_SHL	0.00	0.00	0.0	0.0	0.0	586,674.60	756,400.60	32° 36' 36.406 N		103° 30' 2.420 W
- hit/miss target										
- Shape										
- plan hits target center										
- Rectangle (sides W20.0 H20.0 D0.0)										
402H_BHL	0.00	0.00	10,585.0	10,331.3	990.8	597,005.90	757,391.40	32° 38' 18.554 N		103° 29' 49.887 W
- plan hits target center										
- Point										
402H_FTP	0.00	0.00	10,585.0	-131.9	1,082.1	586,542.70	757,482.70	32° 36' 35.016 N		103° 29' 49.782 W
- plan hits target center										
- Point										
402H_LTP	0.00	0.00	10,585.0	10,281.4	991.3	596,956.00	757,391.90	32° 38' 18.060 N		103° 29' 49.886 W
- plan misses target center by 0.1usft at 21630.3usft MD (10585.0 TVD, 10281.4 N, 991.2 E)										
- Point										

ExxonMobil

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PERLA VERDE 31 STATE COM 402H
Company:	Long Lead_Well Planning	TVD Reference:	RKB(3702+30)' @ 3732.0usft
Project:	Perla Verde	MD Reference:	RKB(3702+30)' @ 3732.0usft
Site:	Perla Verde	North Reference:	Grid
Well:	PERLA VERDE 31 STATE COM 402H	Survey Calculation Method:	Minimum Curvature
Wellbore:	402H		
Design:	Plan 1		

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
3,000.4	2,980.2	-106.3	136.4	Start 3022.1 hold at 3000.4 MD
6,022.4	5,819.8	-741.8	952.0	Start Drop -2.00
7,022.8	6,800.0	-848.1	1,088.3	Start 3068.8 hold at 7022.8 MD
10,091.6	9,868.8	-848.1	1,088.3	Start Turn 0.00
11,216.6	10,585.0	-131.9	1,082.1	Start 10413.7 hold at 11216.6 MD
21,630.3	10,585.0	10,281.4	991.2	Start 49.9 hold at 21630.3 MD
21,680.2	10,585.0	10,331.3	990.8	TD at 21680.2

**DRILLING PLAN: BLM COMPLIANCE**  
(Supplement to BLM 3160-3)

XTO Energy Inc.

Perla Verde 402H

Projected TD: 21680.2' MD / 10585' TVD

SHL: 242' FSL & 1229' FWL , Section 31, T19S, R35E

BHL: 50' FNL & 2310' FWL , Section 30, T19S, R35E

Lea County, NM

**1. Geologic Name of Surface Formation**

A. Quaternary

**2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas**

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	1871'	Water
Top of Salt	2153'	Water
Base of Salt	3412'	Water
Delaware	5829'	Water
Brushy Canyon	7000'	Water/Oil/Gas
Bone Spring	8133'	Water
1st Bone Spring Ss	9570'	Water/Oil/Gas
2nd Bone Spring Ss	10165'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>10585'</b>	<b>Water/Oil/Gas</b>

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9.625 inch casing @ 2103' (50' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9891.6' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 21680.2 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9591.6 feet).

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 2103'	9.625	40	J-55	BTC	New	1.33	2.76	7.49
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	3.76	2.57	1.90
8.75	4000' – 9891.6'	7.625	29.7	HC L-80	Flush Joint	New	2.74	1.92	2.32
6.75	0' – 9791.6'	5.5	23	RY P-110	Semi-Premium	New	1.21	3.25	1.96
6.75	9791.6' - 21680.2'	5.5	23	RY P-110	Semi-Flush	New	1.21	3.00	2.13

- XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
- XTO requests to not utilize centralizers in the curve and lateral
- 7.625 Collapse analyzed using 50% evacuation based on regional experience.
- 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- XTO requests the option to use 5" BTC Float equipment for the the production casing

**Wellhead:**

*Permanent Wellhead – Multibowl System*

A. Starting Head: 11" 10M top flange x 9-5/8" bottom

B. Tubing Head: 11" 10M bottom flange x 7-1/16" 15M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 7-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

#### 4. Cement Program

##### **Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 2103'**

Lead: 600 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft3/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

##### **2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9891.6'**

###### 1st Stage

Optional Lead: 380 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 260 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 7000

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

###### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)

Tail: 790 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

Top of Cement: 0

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests 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 Brush Canyon (7000') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will include the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

##### **Production Casing: 5.5, 23 New Semi-Flush, RY P-110 casing to be set at +/- 21680.2'**

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 9591.6 feet

Tail: 830 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10091.6 feet

Compressives: 12-hr = 800 psi 24 hr = 1500 psi

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

## 5. Pressure Control Equipment

Once the permanent WH is installed on the 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. MASP should not exceed 2515 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 9.625, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nipping up on the 7.625, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production

hole on each of the wells.

A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to ONLY retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that has a hole interval deeper than the first.

## 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 2103'	12.25	FW/Native	8.5-9	35-40	NC
2103' - 9891.6'	8.75	FW / Cut Brine / Direct Emulsion	10-10.5	30-32	NC
9891.6' - 21680.2'	6.75	OBM	8.8-9.3	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 9-5/8" surface casing with brine solution. A 9.7 ppg - 10.2 ppg cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

## 7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 9.625 casing.

## 8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

## 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 170 to 190 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 4844 psi.

## 10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.



State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** \_\_\_\_\_ **OGRID:** \_\_\_\_\_ **Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

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

If Other, please describe: \_\_\_\_\_

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D

**IV. Central Delivery Point Name:** \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date

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

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

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

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

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

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

#### **IX. Anticipated Natural Gas Production:**

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

#### **X. Natural Gas Gathering System (NGGS):**

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

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

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

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

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

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

### **Section 3 - Certifications**

**Effective May 25, 2021**

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

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

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

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

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

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

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

### **Section 4 - Notices**

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

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

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

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

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

Signature: <i>Cassie Evans</i>
Printed Name: Cassie Evans
Title: Regulatory Analyst
E-mail Address: cassie.evans@exxonmobil.com
Date: 08/09/22
Phone: 432.218.3671
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

**VI. Separation Equipment:**

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

**VII. Operational Practices:****1. Subsection B.**

- During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

**2. Subsection C.**

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

**3. Subsection D.**

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- 4. Subsection E.
  - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
  - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
  - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- 5. Subsection F.
  - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
  - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

#### **VIII. Best Management Practices:**

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

**VI. Separation Equipment:**

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

**VII. Operational Practices:**

1. Subsection B.
  - During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
  - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
  - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
2. Subsection C.
  - During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
  - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
  - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
3. Subsection D.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
    - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.



- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- 4. Subsection E.
  - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
  - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
  - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- 5. Subsection F.
  - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
  - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

#### **VIII. Best Management Practices:**

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

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Oil Conservation Division  
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Santa Fe, NM 87505

CONDITIONS  
  
Action 225679

CONDITIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  225679
	Action Type:  [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	6/12/2023