



OCD – HOBBS
10/15/2018
RECEIVED

XTO Energy

Lea County, NM (NAD-27)

Mis Amigos

#108H

OH

Plan: PERMIT Rev2

Standard Planning Report

12 October, 2018



Project: Lea County, NM (NAD-27)
Site: Mis Amigos
Well: #108H
Wellbore: OH
Design: PERMIT Rev2

PROJECT DETAILS: Lea County, NM (NAD-27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #108H

Rig Name:		RKB = 25' @ 3683.00usft		Ground Level: 3658.00	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	457160.50	725352.60	32.254748	-103.604363

DESIGN TARGET DETAILS

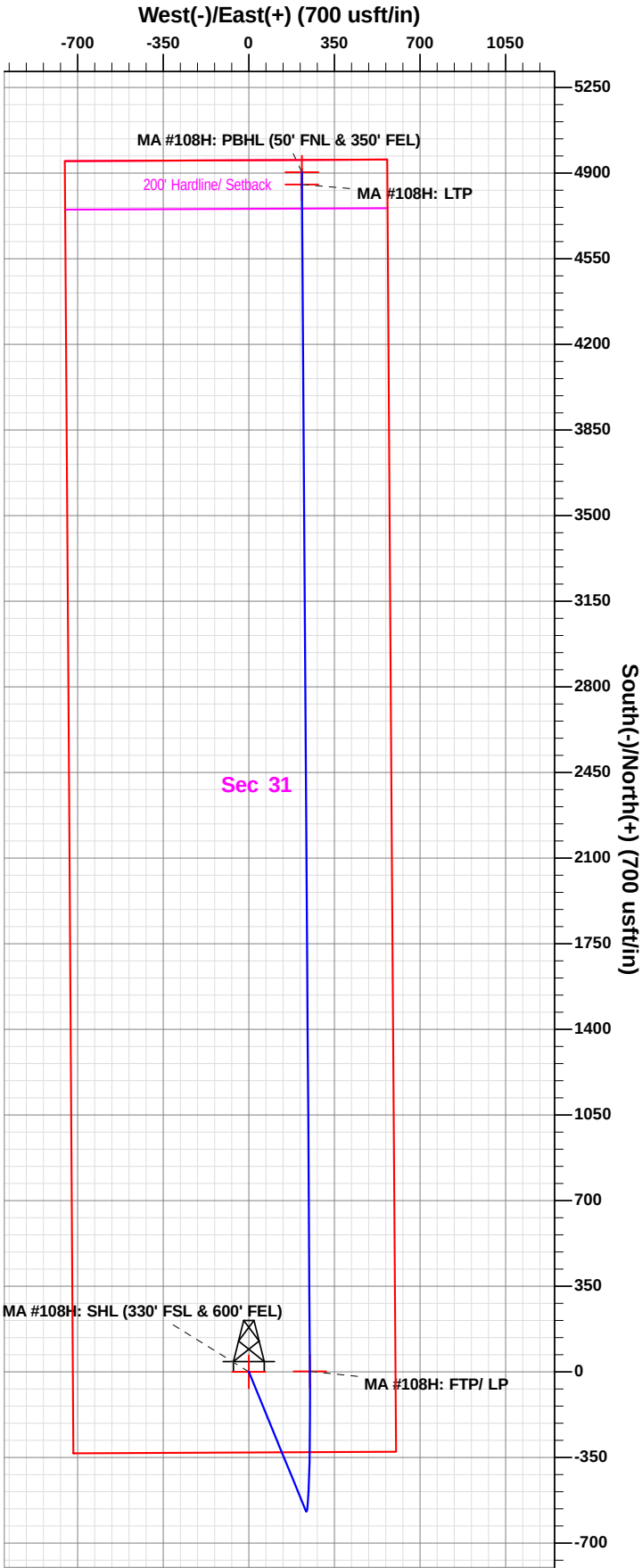
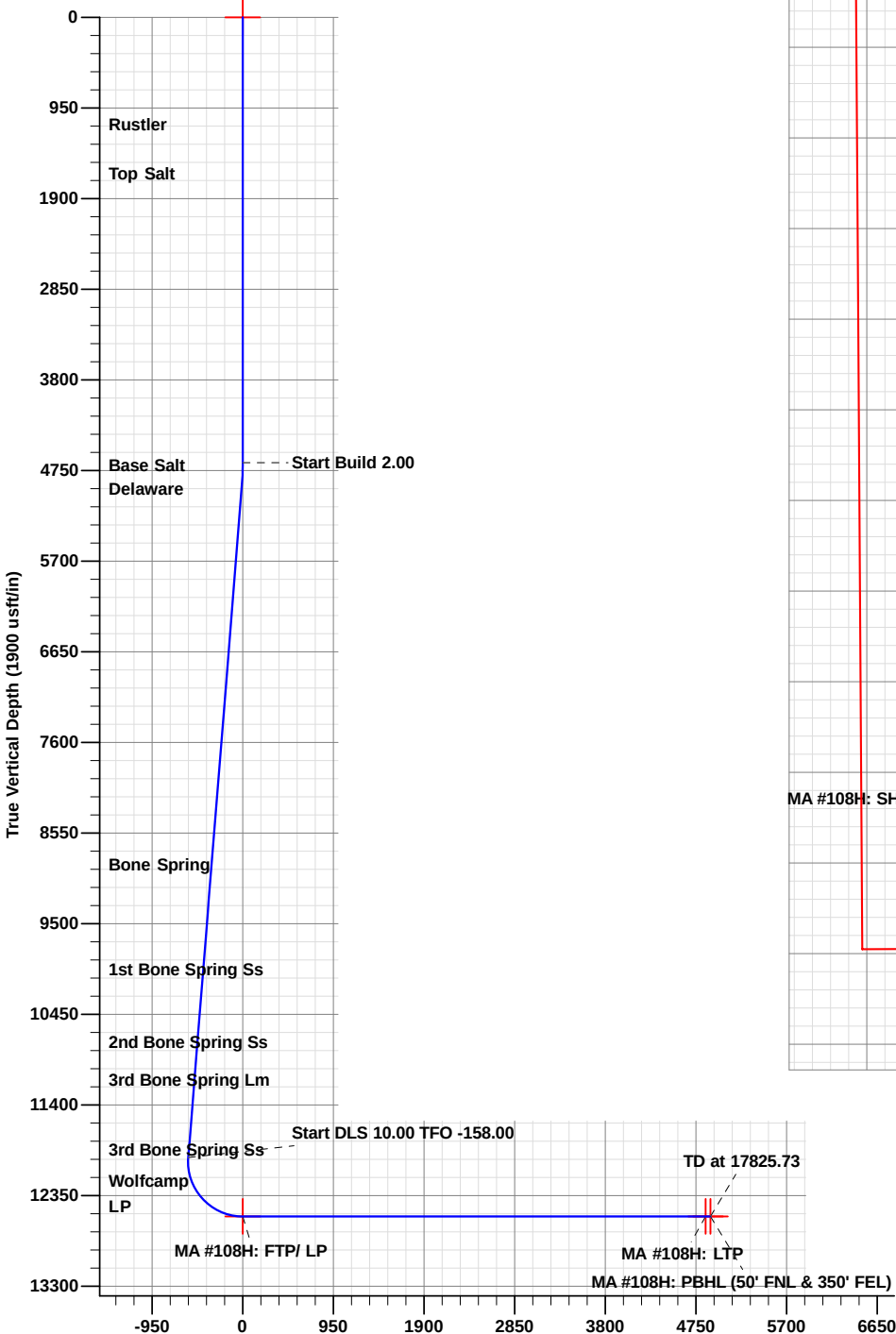
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
MA #108H: SHL (330' FSL & 600' FEL)	0.00	0.00	0.00	457160.50	725352.60	32.254748	-103.604363	Point
MA #108H: FTP/ LP	12570.00	1.30	249.90	457161.80	725602.50	32.254747	-103.603555	Point
MA #108H: LTP	12570.00	4853.20	217.20	462013.70	725569.80	32.268084	-103.603554	Point
MA #108H: PBHL (50' FNL & 350' FEL)	12570.00	4903.20	216.90	462063.70	725569.50	32.268222	-103.603553	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4670.00	0.00	0.00	4670.00	0.00	0.00	0.00	0.00	0.00
3	4915.94	4.92	157.69	4915.64	-9.76	4.01	2.00	157.69	-9.79
4	11978.10	4.92	157.69	11951.79	-569.96	233.88	0.00	0.00	-571.54
5	12923.72	90.00	359.61	12570.00	1.30	249.90	10.00	-158.00	-0.40
6	17775.73	90.00	359.61	12570.00	4853.20	217.23	0.00	0.00	4851.61
7	17825.73	90.00	359.61	12570.00	4903.20	216.89	0.00	0.00	4901.61

FORMATION TOP DETAILS

TVDPath	Formation
1227.00	Rustler
1745.00	Top Salt
4794.00	Base Salt
5046.00	Delaware
8990.00	Bone Spring
10081.00	1st Bone Spring Ss
10842.00	2nd Bone Spring Ss
11239.00	3rd Bone Spring Lm
11977.00	3rd Bone Spring Ss
12298.00	Wolfcamp
12570.00	LP



The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by Prototype are at the sole risk and responsibility of the customer.

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

¹ API Number	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name MIS AMIGOS	⁶ Well Number 108H
⁷ OGRID No.	⁸ Operator Name XTO ENERGY INC.	⁹ Elevation 3,658'

¹⁰ Surface Location

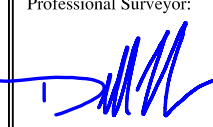
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	31	23 S	33 E		330	SOUTH	600	EAST	LEA

¹¹ 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
A	31	23 S	33 E		50	NORTH	350	EAST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

¹⁶ CORNER COORDINATES TABLE NAD 27 NME A - Y= 456,826.9 N, X= 724,635.4 E B - Y= 456,833.6 N, X= 725,954.8 E C - Y= 459,467.2 N, X= 724,617.6 E D - Y= 459,473.8 N, X= 725,936.5 E E - Y= 462,109.1 N, X= 724,600.2 E F - Y= 462,115.4 N, X= 725,919.2 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 456,885.6 N, X= 765,819.2 E B - Y= 456,892.3 N, X= 767,138.6 E C - Y= 459,526.0 N, X= 765,801.3 E D - Y= 459,532.6 N, X= 767,120.2 E E - Y= 462,167.9 N, X= 765,783.9 E F - Y= 462,174.2 N, X= 767,102.9 E GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 457,219.2 X= 766,536.4 LAT.= 32.254870°N LONG.= 103.604844°W LAST TAKE POINT NAD 83 NME Y= 462,072.5 X= 766,753.5 LAT.= 32.268207°N LONG.= 103.604034°W GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 457,160.5 X= 725,352.6 LAT.= 32.254748°N LONG.= 103.604363°W LAST TAKE POINT NAD 27 NME Y= 456,931.8 X= 725,604.1 LAT.= 32.254115°N LONG.= 103.603554°W FIRST TAKE POINT NAD 83 NME Y= 456,990.5 X= 766,787.9 LAT.= 32.254237°N LONG.= 103.604035°W BOTTOM HOLE LOCATION NAD 83 NME Y= 462,122.5 X= 766,753.2 LAT.= 32.268344°N LONG.= 103.604034°W FIRST TAKE POINT NAD 27 NME Y= 456,931.8 X= 725,604.1 LAT.= 32.254115°N LONG.= 103.603554°W BOTTOM HOLE LOCATION NAD 27 NME Y= 462,063.7 X= 725,569.5 LAT.= 32.268221°N LONG.= 103.603553°W		¹⁷ 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. Signature _____ Date _____ Printed Name _____ E-mail Address _____ ¹⁸ 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. 7-17-2018 Date of Survey Signature and Seal of Professional Surveyor:  MARK DILLON HARP 23786 Certificate Number AI/JC 2018020572	
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Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #108H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3683.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3683.00usft
Site:	Mis Amigos	North Reference:	Grid
Well:	#108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT Rev2		

Project	Lea County, NM (NAD-27)		
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		Mis Amigos			
Site Position:		Northing:	457,160.50 usft	Latitude:	32.254748
From:	Map	Easting:	725,352.60 usft	Longitude:	-103.604363
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	#108H					
Well Position	+N/-S	0.00 usft	Northing:	457,160.50 usft	Latitude:	32.254748
	+E/-W	0.00 usft	Easting:	725,352.60 usft	Longitude:	-103.604363
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,658.00 usft

Wellbore	OH				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/24/2018	6.86	60.07	47,846

Design	PERMIT Rev2			
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.61

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,670.00	0.00	0.00	4,670.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,915.94	4.92	157.69	4,915.64	-9.76	4.01	2.00	2.00	0.00	157.69	
11,978.10	4.92	157.69	11,951.79	-569.96	233.88	0.00	0.00	0.00	0.00	
12,923.72	90.00	359.61	12,570.00	1.30	249.90	10.00	9.00	-16.72	-158.00	MA #108H: FTP/ LF
17,775.73	90.00	359.61	12,570.00	4,853.20	217.23	0.00	0.00	0.00	0.00	MA #108H: LTP
17,825.73	90.00	359.61	12,570.00	4,903.20	216.89	0.00	0.00	0.00	0.00	MA #108H: PBHL (I



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #108H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3683.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3683.00usft
Site:	Mis Amigos	North Reference:	Grid
Well:	#108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT Rev2		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,227.00	0.00	0.00	1,227.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,745.00	0.00	0.00	1,745.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,670.00	0.00	0.00	4,670.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.60	157.69	4,700.00	-0.15	0.06	-0.15	2.00	2.00	0.00
4,794.04	2.48	157.69	4,794.00	-2.48	1.02	-2.49	2.00	2.00	0.00



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Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3683.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3683.00usft
Site:	Mis Amigos	North Reference:	Grid
Well:	#108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT Rev2		

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)
Base Salt									
4,800.00	2.60	157.69	4,799.96	-2.73	1.12	-2.74	2.00	2.00	0.00
4,900.00	4.60	157.69	4,899.75	-8.54	3.50	-8.56	2.00	2.00	0.00
4,915.94	4.92	157.69	4,915.64	-9.76	4.01	-9.79	2.00	2.00	0.00
5,000.00	4.92	157.69	4,999.39	-16.43	6.74	-16.47	0.00	0.00	0.00
5,046.78	4.92	157.69	5,046.00	-20.14	8.26	-20.20	0.00	0.00	0.00
Delaware									
5,100.00	4.92	157.69	5,099.02	-24.36	10.00	-24.43	0.00	0.00	0.00
5,200.00	4.92	157.69	5,198.65	-32.29	13.25	-32.38	0.00	0.00	0.00
5,300.00	4.92	157.69	5,298.28	-40.23	16.51	-40.34	0.00	0.00	0.00
5,400.00	4.92	157.69	5,397.92	-48.16	19.76	-48.29	0.00	0.00	0.00
5,500.00	4.92	157.69	5,497.55	-56.09	23.02	-56.25	0.00	0.00	0.00
5,600.00	4.92	157.69	5,597.18	-64.02	26.27	-64.20	0.00	0.00	0.00
5,700.00	4.92	157.69	5,696.81	-71.96	29.53	-72.16	0.00	0.00	0.00
5,800.00	4.92	157.69	5,796.44	-79.89	32.78	-80.11	0.00	0.00	0.00
5,900.00	4.92	157.69	5,896.07	-87.82	36.04	-88.06	0.00	0.00	0.00
6,000.00	4.92	157.69	5,995.71	-95.75	39.29	-96.02	0.00	0.00	0.00
6,100.00	4.92	157.69	6,095.34	-103.69	42.55	-103.97	0.00	0.00	0.00
6,200.00	4.92	157.69	6,194.97	-111.62	45.80	-111.93	0.00	0.00	0.00
6,300.00	4.92	157.69	6,294.60	-119.55	49.06	-119.88	0.00	0.00	0.00
6,400.00	4.92	157.69	6,394.23	-127.48	52.31	-127.84	0.00	0.00	0.00
6,500.00	4.92	157.69	6,493.86	-135.42	55.57	-135.79	0.00	0.00	0.00
6,600.00	4.92	157.69	6,593.50	-143.35	58.82	-143.75	0.00	0.00	0.00
6,700.00	4.92	157.69	6,693.13	-151.28	62.08	-151.70	0.00	0.00	0.00
6,800.00	4.92	157.69	6,792.76	-159.21	65.33	-159.65	0.00	0.00	0.00
6,900.00	4.92	157.69	6,892.39	-167.15	68.59	-167.61	0.00	0.00	0.00
7,000.00	4.92	157.69	6,992.02	-175.08	71.84	-175.56	0.00	0.00	0.00
7,100.00	4.92	157.69	7,091.65	-183.01	75.10	-183.52	0.00	0.00	0.00
7,200.00	4.92	157.69	7,191.29	-190.94	78.35	-191.47	0.00	0.00	0.00
7,300.00	4.92	157.69	7,290.92	-198.88	81.61	-199.43	0.00	0.00	0.00
7,400.00	4.92	157.69	7,390.55	-206.81	84.86	-207.38	0.00	0.00	0.00
7,500.00	4.92	157.69	7,490.18	-214.74	88.12	-215.33	0.00	0.00	0.00
7,600.00	4.92	157.69	7,589.81	-222.67	91.37	-223.29	0.00	0.00	0.00
7,700.00	4.92	157.69	7,689.45	-230.60	94.63	-231.24	0.00	0.00	0.00
7,800.00	4.92	157.69	7,789.08	-238.54	97.88	-239.20	0.00	0.00	0.00
7,900.00	4.92	157.69	7,888.71	-246.47	101.14	-247.15	0.00	0.00	0.00
8,000.00	4.92	157.69	7,988.34	-254.40	104.39	-255.11	0.00	0.00	0.00
8,100.00	4.92	157.69	8,087.97	-262.33	107.65	-263.06	0.00	0.00	0.00
8,200.00	4.92	157.69	8,187.60	-270.27	110.90	-271.02	0.00	0.00	0.00
8,300.00	4.92	157.69	8,287.24	-278.20	114.16	-278.97	0.00	0.00	0.00
8,400.00	4.92	157.69	8,386.87	-286.13	117.41	-286.92	0.00	0.00	0.00
8,500.00	4.92	157.69	8,486.50	-294.06	120.67	-294.88	0.00	0.00	0.00
8,600.00	4.92	157.69	8,586.13	-302.00	123.92	-302.83	0.00	0.00	0.00
8,700.00	4.92	157.69	8,685.76	-309.93	127.18	-310.79	0.00	0.00	0.00
8,800.00	4.92	157.69	8,785.39	-317.86	130.43	-318.74	0.00	0.00	0.00
8,900.00	4.92	157.69	8,885.03	-325.79	133.69	-326.70	0.00	0.00	0.00
9,000.00	4.92	157.69	8,984.66	-333.73	136.94	-334.65	0.00	0.00	0.00
9,005.36	4.92	157.69	8,990.00	-334.15	137.12	-335.08	0.00	0.00	0.00
Bone Spring									
9,100.00	4.92	157.69	9,084.29	-341.66	140.20	-342.61	0.00	0.00	0.00
9,200.00	4.92	157.69	9,183.92	-349.59	143.45	-350.56	0.00	0.00	0.00
9,300.00	4.92	157.69	9,283.55	-357.52	146.71	-358.51	0.00	0.00	0.00
9,400.00	4.92	157.69	9,383.18	-365.46	149.96	-366.47	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #108H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3683.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3683.00usft
Site:	Mis Amigos	North Reference:	Grid
Well:	#108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT Rev2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.00	4.92	157.69	9,482.82	-373.39	153.22	-374.42	0.00	0.00	0.00
9,600.00	4.92	157.69	9,582.45	-381.32	156.47	-382.38	0.00	0.00	0.00
9,700.00	4.92	157.69	9,682.08	-389.25	159.73	-390.33	0.00	0.00	0.00
9,800.00	4.92	157.69	9,781.71	-397.19	162.98	-398.29	0.00	0.00	0.00
9,900.00	4.92	157.69	9,881.34	-405.12	166.24	-406.24	0.00	0.00	0.00
10,000.00	4.92	157.69	9,980.97	-413.05	169.49	-414.20	0.00	0.00	0.00
10,100.00	4.92	157.69	10,080.61	-420.98	172.75	-422.15	0.00	0.00	0.00
10,100.40	4.92	157.69	10,081.00	-421.02	172.76	-422.18	0.00	0.00	0.00
1st Bone Spring Ss									
10,200.00	4.92	157.69	10,180.24	-428.92	176.00	-430.10	0.00	0.00	0.00
10,300.00	4.92	157.69	10,279.87	-436.85	179.26	-438.06	0.00	0.00	0.00
10,400.00	4.92	157.69	10,379.50	-444.78	182.51	-446.01	0.00	0.00	0.00
10,500.00	4.92	157.69	10,479.13	-452.71	185.77	-453.97	0.00	0.00	0.00
10,600.00	4.92	157.69	10,578.77	-460.65	189.02	-461.92	0.00	0.00	0.00
10,700.00	4.92	157.69	10,678.40	-468.58	192.28	-469.88	0.00	0.00	0.00
10,800.00	4.92	157.69	10,778.03	-476.51	195.53	-477.83	0.00	0.00	0.00
10,864.21	4.92	157.69	10,842.00	-481.60	197.62	-482.94	0.00	0.00	0.00
2nd Bone Spring Ss									
10,900.00	4.92	157.69	10,877.66	-484.44	198.79	-485.79	0.00	0.00	0.00
11,000.00	4.92	157.69	10,977.29	-492.38	202.04	-493.74	0.00	0.00	0.00
11,100.00	4.92	157.69	11,076.92	-500.31	205.30	-501.69	0.00	0.00	0.00
11,200.00	4.92	157.69	11,176.56	-508.24	208.55	-509.65	0.00	0.00	0.00
11,262.68	4.92	157.69	11,239.00	-513.21	210.59	-514.63	0.00	0.00	0.00
3rd Bone Spring Lm									
11,300.00	4.92	157.69	11,276.19	-516.17	211.81	-517.60	0.00	0.00	0.00
11,400.00	4.92	157.69	11,375.82	-524.11	215.06	-525.56	0.00	0.00	0.00
11,500.00	4.92	157.69	11,475.45	-532.04	218.32	-533.51	0.00	0.00	0.00
11,600.00	4.92	157.69	11,575.08	-539.97	221.57	-541.47	0.00	0.00	0.00
11,700.00	4.92	157.69	11,674.71	-547.90	224.83	-549.42	0.00	0.00	0.00
11,800.00	4.92	157.69	11,774.35	-555.84	228.08	-557.38	0.00	0.00	0.00
11,900.00	4.92	157.69	11,873.98	-563.77	231.34	-565.33	0.00	0.00	0.00
11,978.10	4.92	157.69	11,951.79	-569.96	233.88	-571.54	0.00	0.00	0.00
12,000.00	3.00	141.83	11,973.64	-571.28	234.59	-572.87	10.00	-8.75	-72.43
12,003.37	2.74	137.51	11,977.00	-571.41	234.70	-573.00	10.00	-7.67	-128.23
3rd Bone Spring Ss									
12,050.00	3.21	34.60	12,023.60	-571.16	236.20	-572.75	10.00	1.00	-220.69
12,100.00	7.85	13.10	12,073.35	-566.68	237.77	-568.29	10.00	9.28	-42.99
12,150.00	12.76	7.77	12,122.53	-557.88	239.29	-559.50	10.00	9.83	-10.66
12,200.00	17.72	5.39	12,170.76	-544.83	240.75	-546.45	10.00	9.92	-4.77
12,250.00	22.70	4.02	12,217.67	-527.62	242.14	-529.25	10.00	9.96	-2.73
12,300.00	27.68	3.13	12,262.90	-506.38	243.45	-508.03	10.00	9.97	-1.79
12,340.42	31.72	2.59	12,298.00	-486.38	244.44	-488.04	10.00	9.98	-1.31
Wolfcamp									
12,350.00	32.67	2.49	12,306.11	-481.28	244.67	-482.94	10.00	9.98	-1.13
12,400.00	37.67	2.00	12,346.97	-452.52	245.79	-454.18	10.00	9.98	-0.97
12,450.00	42.66	1.61	12,385.17	-420.29	246.80	-421.96	10.00	9.99	-0.77
12,500.00	47.65	1.29	12,420.41	-384.86	247.69	-386.54	10.00	9.99	-0.64
12,550.00	52.65	1.02	12,452.44	-346.50	248.46	-348.18	10.00	9.99	-0.55
12,600.00	57.65	0.78	12,481.00	-305.48	249.11	-307.17	10.00	9.99	-0.48
12,650.00	62.64	0.57	12,505.89	-262.13	249.61	-263.83	10.00	9.99	-0.43
12,700.00	67.64	0.37	12,526.90	-216.78	249.98	-218.48	10.00	9.99	-0.39
12,750.00	72.64	0.19	12,543.88	-169.77	250.21	-171.47	10.00	9.99	-0.36
12,800.00	77.63	0.02	12,556.70	-121.46	250.30	-123.16	10.00	9.99	-0.34



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #108H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3683.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3683.00usft
Site:	Mis Amigos	North Reference:	Grid
Well:	#108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT Rev2		

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)
12,850.00	82.63	359.85	12,565.27	-72.22	250.24	-73.92	10.00	9.99	-0.33
12,900.00	87.63	359.69	12,569.51	-22.41	250.04	-24.11	10.00	9.99	-0.32
12,923.72	90.00	359.61	12,570.00	1.30	249.90	-0.40	10.00	9.99	-0.32
LP									
13,000.00	90.00	359.61	12,570.00	77.58	249.39	75.88	0.00	0.00	0.00
13,100.00	90.00	359.61	12,570.00	177.58	248.71	175.88	0.00	0.00	0.00
13,200.00	90.00	359.61	12,570.00	277.57	248.04	275.88	0.00	0.00	0.00
13,300.00	90.00	359.61	12,570.00	377.57	247.37	375.88	0.00	0.00	0.00
13,400.00	90.00	359.61	12,570.00	477.57	246.69	475.88	0.00	0.00	0.00
13,500.00	90.00	359.61	12,570.00	577.57	246.02	575.88	0.00	0.00	0.00
13,600.00	90.00	359.61	12,570.00	677.57	245.35	675.88	0.00	0.00	0.00
13,700.00	90.00	359.61	12,570.00	777.56	244.67	775.88	0.00	0.00	0.00
13,800.00	90.00	359.61	12,570.00	877.56	244.00	875.88	0.00	0.00	0.00
13,900.00	90.00	359.61	12,570.00	977.56	243.33	975.88	0.00	0.00	0.00
14,000.00	90.00	359.61	12,570.00	1,077.56	242.65	1,075.88	0.00	0.00	0.00
14,100.00	90.00	359.61	12,570.00	1,177.55	241.98	1,175.88	0.00	0.00	0.00
14,200.00	90.00	359.61	12,570.00	1,277.55	241.31	1,275.88	0.00	0.00	0.00
14,300.00	90.00	359.61	12,570.00	1,377.55	240.63	1,375.88	0.00	0.00	0.00
14,400.00	90.00	359.61	12,570.00	1,477.55	239.96	1,475.88	0.00	0.00	0.00
14,500.00	90.00	359.61	12,570.00	1,577.54	239.29	1,575.88	0.00	0.00	0.00
14,600.00	90.00	359.61	12,570.00	1,677.54	238.61	1,675.88	0.00	0.00	0.00
14,700.00	90.00	359.61	12,570.00	1,777.54	237.94	1,775.88	0.00	0.00	0.00
14,800.00	90.00	359.61	12,570.00	1,877.54	237.27	1,875.88	0.00	0.00	0.00
14,900.00	90.00	359.61	12,570.00	1,977.54	236.59	1,975.88	0.00	0.00	0.00
15,000.00	90.00	359.61	12,570.00	2,077.53	235.92	2,075.88	0.00	0.00	0.00
15,100.00	90.00	359.61	12,570.00	2,177.53	235.24	2,175.88	0.00	0.00	0.00
15,200.00	90.00	359.61	12,570.00	2,277.53	234.57	2,275.88	0.00	0.00	0.00
15,300.00	90.00	359.61	12,570.00	2,377.53	233.90	2,375.88	0.00	0.00	0.00
15,400.00	90.00	359.61	12,570.00	2,477.52	233.22	2,475.88	0.00	0.00	0.00
15,500.00	90.00	359.61	12,570.00	2,577.52	232.55	2,575.88	0.00	0.00	0.00
15,600.00	90.00	359.61	12,570.00	2,677.52	231.88	2,675.88	0.00	0.00	0.00
15,700.00	90.00	359.61	12,570.00	2,777.52	231.20	2,775.88	0.00	0.00	0.00
15,800.00	90.00	359.61	12,570.00	2,877.52	230.53	2,875.88	0.00	0.00	0.00
15,900.00	90.00	359.61	12,570.00	2,977.51	229.86	2,975.88	0.00	0.00	0.00
16,000.00	90.00	359.61	12,570.00	3,077.51	229.18	3,075.88	0.00	0.00	0.00
16,100.00	90.00	359.61	12,570.00	3,177.51	228.51	3,175.88	0.00	0.00	0.00
16,200.00	90.00	359.61	12,570.00	3,277.51	227.84	3,275.88	0.00	0.00	0.00
16,300.00	90.00	359.61	12,570.00	3,377.50	227.16	3,375.88	0.00	0.00	0.00
16,400.00	90.00	359.61	12,570.00	3,477.50	226.49	3,475.88	0.00	0.00	0.00
16,500.00	90.00	359.61	12,570.00	3,577.50	225.82	3,575.88	0.00	0.00	0.00
16,600.00	90.00	359.61	12,570.00	3,677.50	225.14	3,675.88	0.00	0.00	0.00
16,700.00	90.00	359.61	12,570.00	3,777.49	224.47	3,775.88	0.00	0.00	0.00
16,800.00	90.00	359.61	12,570.00	3,877.49	223.80	3,875.88	0.00	0.00	0.00
16,900.00	90.00	359.61	12,570.00	3,977.49	223.12	3,975.88	0.00	0.00	0.00
17,000.00	90.00	359.61	12,570.00	4,077.49	222.45	4,075.88	0.00	0.00	0.00
17,100.00	90.00	359.61	12,570.00	4,177.49	221.78	4,175.88	0.00	0.00	0.00
17,200.00	90.00	359.61	12,570.00	4,277.48	221.10	4,275.88	0.00	0.00	0.00
17,300.00	90.00	359.61	12,570.00	4,377.48	220.43	4,375.88	0.00	0.00	0.00
17,400.00	90.00	359.61	12,570.00	4,477.48	219.76	4,475.88	0.00	0.00	0.00
17,500.00	90.00	359.61	12,570.00	4,577.48	219.08	4,575.88	0.00	0.00	0.00
17,600.00	90.00	359.61	12,570.00	4,677.47	218.41	4,675.88	0.00	0.00	0.00
17,700.00	90.00	359.61	12,570.00	4,777.47	217.74	4,775.88	0.00	0.00	0.00
17,775.73	90.00	359.61	12,570.00	4,853.20	217.23	4,851.61	0.00	0.00	0.00
17,800.00	90.00	359.61	12,570.00	4,877.47	217.06	4,875.88	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #108H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3683.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3683.00usft
Site:	Mis Amigos	North Reference:	Grid
Well:	#108H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT Rev2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,825.73	90.00	359.61	12,570.00	4,903.20	216.89	4,901.61	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
MA #108H: SHL (330' - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	457,160.50	725,352.60	32.254748	-103.604363
MA #108H: FTP/ LP - plan hits target center - Point	0.00	0.00	12,570.00	1.30	249.90	457,161.80	725,602.50	32.254747	-103.603555
MA #108H: LTP - plan misses target center by 0.03usft at 17775.73usft MD (12570.00 TVD, 4853.20 N, 217.23 E) - Point	0.00	0.00	12,570.00	4,853.20	217.20	462,013.70	725,569.80	32.268084	-103.603554
MA #108H: PBHL (50 - plan misses target center by 0.01usft at 17825.73usft MD (12570.00 TVD, 4903.20 N, 216.89 E) - Point	0.00	0.00	12,570.00	4,903.20	216.90	462,063.70	725,569.50	32.268222	-103.603554

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,227.00	1,227.00	Rustler				
1,745.00	1,745.00	Top Salt				
4,794.04	4,794.00	Base Salt				
5,046.78	5,046.00	Delaware				
9,005.36	8,990.00	Bone Spring				
10,100.40	10,081.00	1st Bone Spring Ss				
10,864.21	10,842.00	2nd Bone Spring Ss				
11,262.68	11,239.00	3rd Bone Spring Lm				
12,003.37	11,977.00	3rd Bone Spring Ss				
12,340.42	12,298.00	Wolfcamp				
12,923.72	12,570.00	LP		0.00		