

20025-48502



XTO Energy

Lea County, NM (NAD-27)
CHISTERA 32 STATE
#5H

OH

Plan: PERMIT

Standard Planning Report

07 February, 2018

HOBBS OCD
FEB 19 2018
RECEIVED



Project: Lea County, NM (NAD-27)
Site: CHISTERA 32 STATE
Well: #5H
Wellbore: OH
Design: PERMIT

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: #5H

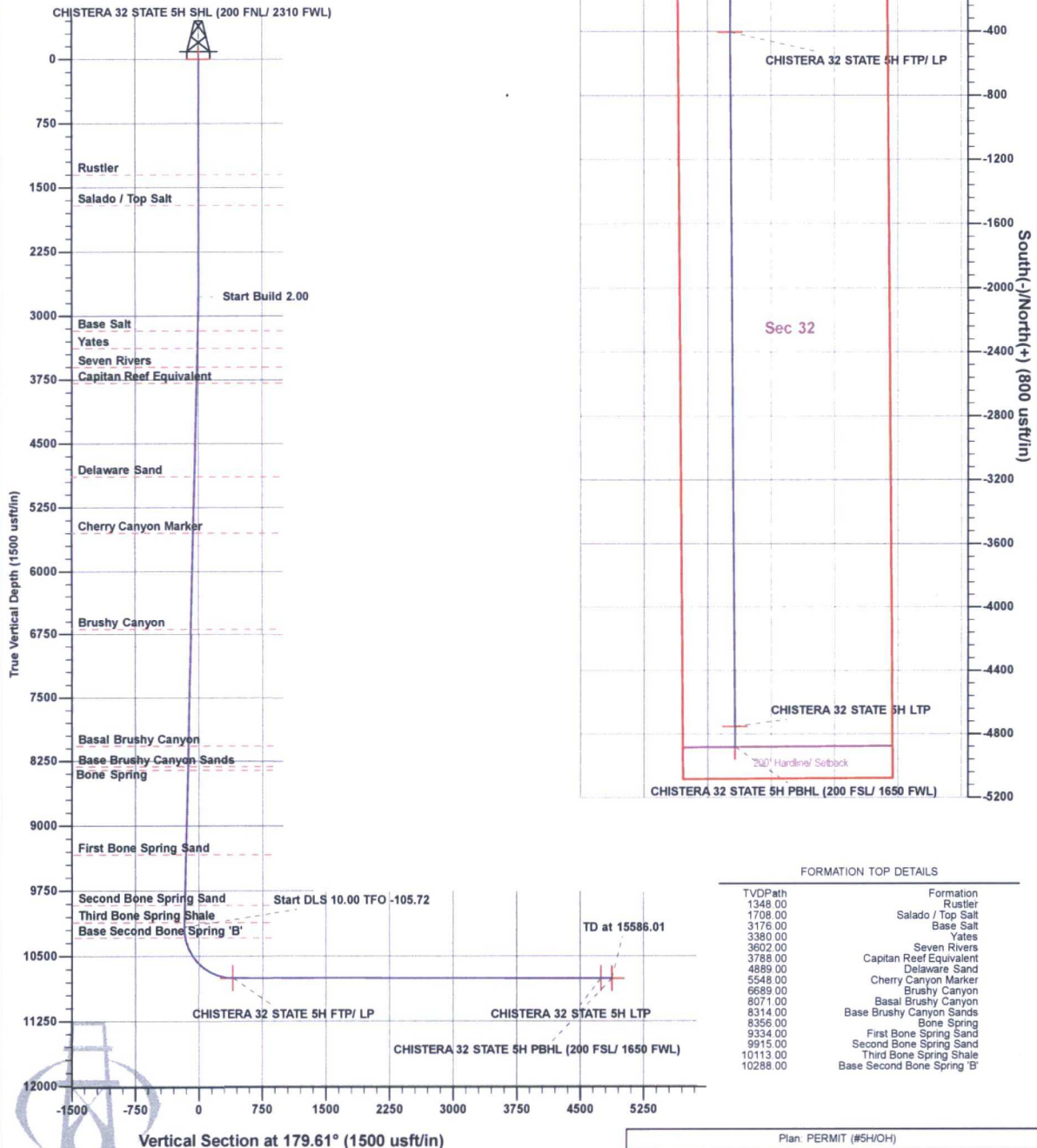
Rig Name
RKB = 25' @ 3634.00usft
Ground Level: 3609.00
Easting: 699495.80
Latitude: 32.536199
Longitude: -103.685998
+N/-S: 0.00
+E/-W: 0.00
Northing: 559387.60

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
CHISTERA 32 STATE 5H SHL (200 FNL/ 2310 FWL)	0.00	0.00	0.00	559387.60	699495.80	32.536199	-103.685998	Point
CHISTERA 32 STATE 5H FTP/ LP	10751.00	-404.10	-657.30	559883.50	698838.50	32.535099	-103.688139	Point
CHISTERA 32 STATE 5H LTP	10756.00	-4753.00	-627.90	554634.60	698867.90	32.523145	-103.688129	Point
CHISTERA 32 STATE 5H PBHL (200 FSL/ 1650 FWL)	10756.00	-4883.00	-627.00	554504.60	698868.80	32.522788	-103.688128	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2780.00	0.00	0.00	2780.00	0.00	0.00	0.00	0.00	0.00
3	3029.80	5.00	285.38	3029.48	2.89	-10.49	2.00	285.38	-2.96
4	10194.08	5.00	285.38	10166.54	168.38	-612.06	0.00	0.00	-172.54
5	11107.00	89.94	179.61	10751.00	-404.10	-657.30	10.00	-105.72	399.62
6	15456.00	89.94	179.61	10755.85	-4753.00	-627.88	0.00	0.00	4748.62
7	15586.01	89.94	179.61	10756.00	-4883.00	-627.00	0.00	0.00	4878.62



FORMATION TOP DETAILS

TVDPath	Formation
1348.00	Rustler
1708.00	Salado / Top Salt
3176.00	Base Salt
3380.00	Yates
3602.00	Seven Rivers
3788.00	Capitan Reef Equivalent
4889.00	Delaware Sand
5548.00	Cherry Canyon Marker
6689.00	Brushy Canyon
8071.00	Basal Brushy Canyon
8314.00	Base Brushy Canyon Sands
8356.00	Bone Spring
9334.00	First Bone Spring Sand
9915.00	Second Bone Spring Sand
10113.00	Third Bone Spring Shale
10288.00	Base Second Bone Spring 'B'

Plan: PERMIT (#5H/OH)

Created By: Matthew May Date: 8:38, February 07 2018

Note: All Plan details including boundary lines and offset well data is subject to customers approval



Database: EDM 5000.1 Single User Db
Company: XTO Energy
Project: Lea County, NM (NAD-27)
Site: CHISTERA 32 STATE
Well: #5H
Wellbore: OH
Design: PERMIT

Local Co-ordinate Reference: Well #5H
TVD Reference: RKB = 25' @ 3634.00usft
MD Reference: RKB = 25' @ 3634.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project Lea County, NM (NAD-27)

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

System Datum: Mean Sea Level

Site CHISTERA 32 STATE

Site Position: Northing: 559,387.70 usft Latitude: 32.536199
From: Map Easting: 699,525.90 usft Longitude: -103.685901
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.35 °

Well #5H

Well Position +N/-S -0.10 usft Northing: 559,387.60 usft Latitude: 32.536199
+E/-W -30.10 usft Easting: 699,495.80 usft Longitude: -103.685998
Position Uncertainty 0.00 usft Wellhead Elevation: 0.00 usft Ground Level: 3,609.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/7/2018	6.96	60.32	48,044

Design PERMIT

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	179.61

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	
2,780.00	0.00	0.00	2,780.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,029.80	5.00	285.38	3,029.48	2.89	-10.49	2.00	2.00	0.00	285.38	
10,194.08	5.00	285.38	10,166.54	168.38	-612.06	0.00	0.00	0.00	0.00	
11,107.00	89.94	179.61	10,751.00	-404.10	-657.30	10.00	9.30	-11.59	-105.72	CHISTERA 32 STA
15,456.00	89.94	179.61	10,755.86	-4,753.00	-627.88	0.00	0.00	0.00	0.00	CHISTERA 32 STA
15,586.01	89.94	179.61	10,756.00	-4,883.00	-627.00	0.00	0.00	0.00	0.00	CHISTERA 32 STA



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MD Reference: RKB = 25' @ 3634.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
1,300.00	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
1,800.00	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
2,780.00	0.00	0.00	2,780.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.40	285.38	2,800.00	0.02	-0.07	-0.02	2.00	2.00	0.00
2,900.00	2.40	285.38	2,899.96	0.67	-2.42	-0.68	2.00	2.00	0.00
3,000.00	4.40	285.38	2,999.78	2.24	-8.14	-2.29	2.00	2.00	0.00
3,029.80	5.00	285.38	3,029.48	2.89	-10.49	-2.96	2.00	2.00	0.00
3,100.00	5.00	285.38	3,099.42	4.51	-16.39	-4.62	0.00	0.00	0.00
3,200.00	5.00	285.38	3,199.04	6.82	-24.79	-6.99	0.00	0.00	0.00
3,300.00	5.00	285.38	3,298.66	9.13	-33.18	-9.35	0.00	0.00	0.00
3,400.00	5.00	285.38	3,398.28	11.44	-41.58	-11.72	0.00	0.00	0.00
3,500.00	5.00	285.38	3,497.90	13.75	-49.98	-14.09	0.00	0.00	0.00
3,600.00	5.00	285.38	3,597.52	16.06	-58.37	-16.46	0.00	0.00	0.00
3,700.00	5.00	285.38	3,697.14	18.37	-66.77	-18.82	0.00	0.00	0.00
3,800.00	5.00	285.38	3,796.76	20.68	-75.17	-21.19	0.00	0.00	0.00
3,900.00	5.00	285.38	3,896.38	22.99	-83.56	-23.56	0.00	0.00	0.00
4,000.00	5.00	285.38	3,996.00	25.30	-91.96	-25.92	0.00	0.00	0.00
4,100.00	5.00	285.38	4,095.62	27.61	-100.36	-28.29	0.00	0.00	0.00
4,200.00	5.00	285.38	4,195.24	29.92	-108.75	-30.66	0.00	0.00	0.00
4,300.00	5.00	285.38	4,294.86	32.23	-117.15	-33.02	0.00	0.00	0.00
4,400.00	5.00	285.38	4,394.48	34.54	-125.55	-35.39	0.00	0.00	0.00
4,500.00	5.00	285.38	4,494.10	36.85	-133.94	-37.76	0.00	0.00	0.00
4,600.00	5.00	285.38	4,593.72	39.16	-142.34	-40.13	0.00	0.00	0.00
4,700.00	5.00	285.38	4,693.34	41.47	-150.74	-42.49	0.00	0.00	0.00
4,800.00	5.00	285.38	4,792.96	43.78	-159.13	-44.86	0.00	0.00	0.00
4,900.00	5.00	285.38	4,892.58	46.09	-167.53	-47.23	0.00	0.00	0.00
5,000.00	5.00	285.38	4,992.20	48.40	-175.93	-49.59	0.00	0.00	0.00
5,100.00	5.00	285.38	5,091.82	50.71	-184.32	-51.96	0.00	0.00	0.00



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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.00	5.00	285.38	5,191.44	53.02	-192.72	-54.33	0.00	0.00	0.00
5,300.00	5.00	285.38	5,291.06	55.33	-201.12	-56.70	0.00	0.00	0.00
5,400.00	5.00	285.38	5,390.68	57.64	-209.51	-59.06	0.00	0.00	0.00
5,500.00	5.00	285.38	5,490.30	59.95	-217.91	-61.43	0.00	0.00	0.00
5,600.00	5.00	285.38	5,589.92	62.26	-226.31	-63.80	0.00	0.00	0.00
5,700.00	5.00	285.38	5,689.54	64.57	-234.70	-66.16	0.00	0.00	0.00
5,800.00	5.00	285.38	5,789.16	66.88	-243.10	-68.53	0.00	0.00	0.00
5,900.00	5.00	285.38	5,888.78	69.19	-251.50	-70.90	0.00	0.00	0.00
6,000.00	5.00	285.38	5,988.40	71.50	-259.89	-73.26	0.00	0.00	0.00
6,100.00	5.00	285.38	6,088.02	73.81	-268.29	-75.63	0.00	0.00	0.00
6,200.00	5.00	285.38	6,187.64	76.12	-276.69	-78.00	0.00	0.00	0.00
6,300.00	5.00	285.38	6,287.26	78.43	-285.08	-80.37	0.00	0.00	0.00
6,400.00	5.00	285.38	6,386.88	80.74	-293.48	-82.73	0.00	0.00	0.00
6,500.00	5.00	285.38	6,486.50	83.05	-301.88	-85.10	0.00	0.00	0.00
6,600.00	5.00	285.38	6,586.12	85.36	-310.27	-87.47	0.00	0.00	0.00
6,700.00	5.00	285.38	6,685.74	87.67	-318.67	-89.83	0.00	0.00	0.00
6,800.00	5.00	285.38	6,785.36	89.98	-327.07	-92.20	0.00	0.00	0.00
6,900.00	5.00	285.38	6,884.98	92.29	-335.46	-94.57	0.00	0.00	0.00
7,000.00	5.00	285.38	6,984.60	94.60	-343.86	-96.94	0.00	0.00	0.00
7,100.00	5.00	285.38	7,084.22	96.91	-352.26	-99.30	0.00	0.00	0.00
7,200.00	5.00	285.38	7,183.84	99.22	-360.65	-101.67	0.00	0.00	0.00
7,300.00	5.00	285.38	7,283.46	101.53	-369.05	-104.04	0.00	0.00	0.00
7,400.00	5.00	285.38	7,383.08	103.84	-377.45	-106.40	0.00	0.00	0.00
7,500.00	5.00	285.38	7,482.70	106.15	-385.84	-108.77	0.00	0.00	0.00
7,600.00	5.00	285.38	7,582.32	108.46	-394.24	-111.14	0.00	0.00	0.00
7,700.00	5.00	285.38	7,681.94	110.77	-402.64	-113.50	0.00	0.00	0.00
7,800.00	5.00	285.38	7,781.56	113.08	-411.03	-115.87	0.00	0.00	0.00
7,900.00	5.00	285.38	7,881.18	115.39	-419.43	-118.24	0.00	0.00	0.00
8,000.00	5.00	285.38	7,980.80	117.70	-427.83	-120.61	0.00	0.00	0.00
8,100.00	5.00	285.38	8,080.42	120.01	-436.22	-122.97	0.00	0.00	0.00
8,200.00	5.00	285.38	8,180.04	122.32	-444.62	-125.34	0.00	0.00	0.00
8,300.00	5.00	285.38	8,279.66	124.63	-453.02	-127.71	0.00	0.00	0.00
8,400.00	5.00	285.38	8,379.28	126.94	-461.41	-130.07	0.00	0.00	0.00
8,500.00	5.00	285.38	8,478.90	129.25	-469.81	-132.44	0.00	0.00	0.00
8,600.00	5.00	285.38	8,578.52	131.56	-478.21	-134.81	0.00	0.00	0.00
8,700.00	5.00	285.38	8,678.14	133.87	-486.60	-137.18	0.00	0.00	0.00
8,800.00	5.00	285.38	8,777.76	136.18	-495.00	-139.54	0.00	0.00	0.00
8,900.00	5.00	285.38	8,877.38	138.49	-503.40	-141.91	0.00	0.00	0.00
9,000.00	5.00	285.38	8,977.00	140.80	-511.79	-144.28	0.00	0.00	0.00
9,100.00	5.00	285.38	9,076.62	143.11	-520.19	-146.64	0.00	0.00	0.00
9,200.00	5.00	285.38	9,176.24	145.42	-528.59	-149.01	0.00	0.00	0.00
9,300.00	5.00	285.38	9,275.86	147.73	-536.98	-151.38	0.00	0.00	0.00
9,400.00	5.00	285.38	9,375.48	150.04	-545.38	-153.74	0.00	0.00	0.00
9,500.00	5.00	285.38	9,475.10	152.35	-553.78	-156.11	0.00	0.00	0.00
9,600.00	5.00	285.38	9,574.72	154.66	-562.17	-158.48	0.00	0.00	0.00
9,700.00	5.00	285.38	9,674.34	156.97	-570.57	-160.85	0.00	0.00	0.00
9,800.00	5.00	285.38	9,773.96	159.28	-578.97	-163.21	0.00	0.00	0.00
9,900.00	5.00	285.38	9,873.58	161.59	-587.36	-165.58	0.00	0.00	0.00
10,000.00	5.00	285.38	9,973.20	163.90	-595.76	-167.95	0.00	0.00	0.00
10,100.00	5.00	285.38	10,072.82	166.21	-604.16	-170.31	0.00	0.00	0.00
10,194.08	5.00	285.38	10,166.54	168.38	-612.06	-172.54	0.00	0.00	0.00
10,200.00	4.87	278.65	10,172.44	168.49	-612.55	-172.65	10.00	-2.14	-113.67
10,250.00	6.40	228.15	10,222.23	166.94	-616.73	-171.14	10.00	3.07	-101.00
10,300.00	10.40	206.88	10,271.69	161.05	-620.85	-165.27	10.00	8.00	-42.53



www.prototypewellplanning.com
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #5H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3634.00usft
Project:	Lea County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3634.00usft
Site:	CHISTERA 32 STATE	North Reference:	Grid
Well:	#5H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

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)
10,350.00	15.01	197.89	10,320.46	150.86	-624.89	-155.11	10.00	9.21	-17.98
10,400.00	19.81	193.12	10,368.16	136.44	-628.80	-140.71	10.00	9.59	-9.55
10,450.00	24.68	190.16	10,414.43	117.90	-632.56	-122.20	10.00	9.75	-5.92
10,500.00	29.59	188.13	10,458.91	95.39	-636.15	-99.72	10.00	9.83	-4.06
10,550.00	34.53	186.63	10,501.27	69.07	-639.54	-73.42	10.00	9.87	-2.99
10,600.00	39.48	185.47	10,541.19	39.15	-642.69	-43.53	10.00	9.90	-2.32
10,650.00	44.44	184.53	10,578.35	5.86	-645.59	-10.25	10.00	9.92	-1.88
10,700.00	49.41	183.74	10,612.49	-30.56	-648.21	26.15	10.00	9.93	-1.57
10,750.00	54.38	183.06	10,643.34	-69.82	-650.54	65.39	10.00	9.94	-1.36
10,800.00	59.36	182.46	10,670.66	-111.63	-652.55	107.19	10.00	9.95	-1.20
10,850.00	64.33	181.92	10,694.24	-155.67	-654.23	151.21	10.00	9.95	-1.08
10,900.00	69.31	181.43	10,713.92	-201.60	-655.57	197.13	10.00	9.96	-0.99
10,950.00	74.29	180.96	10,729.53	-249.07	-656.56	244.60	10.00	9.96	-0.93
11,000.00	79.27	180.52	10,740.95	-297.73	-657.18	293.25	10.00	9.96	-0.89
11,050.00	84.26	180.09	10,748.11	-347.20	-657.45	342.71	10.00	9.96	-0.86
11,100.00	89.24	179.67	10,750.95	-397.10	-657.34	392.61	10.00	9.96	-0.84
11,107.00	89.94	179.61	10,751.00	-404.10	-657.30	399.62	10.00	9.96	-0.84
11,200.00	89.94	179.61	10,751.10	-497.10	-656.67	492.61	0.00	0.00	0.00
11,300.00	89.94	179.61	10,751.22	-597.09	-655.99	592.61	0.00	0.00	0.00
11,400.00	89.94	179.61	10,751.33	-697.09	-655.32	692.61	0.00	0.00	0.00
11,500.00	89.94	179.61	10,751.44	-797.09	-654.64	792.61	0.00	0.00	0.00
11,600.00	89.94	179.61	10,751.55	-897.09	-653.96	892.61	0.00	0.00	0.00
11,700.00	89.94	179.61	10,751.66	-997.08	-653.29	992.61	0.00	0.00	0.00
11,800.00	89.94	179.61	10,751.77	-1,097.08	-652.61	1,092.61	0.00	0.00	0.00
11,900.00	89.94	179.61	10,751.89	-1,197.08	-651.94	1,192.61	0.00	0.00	0.00
12,000.00	89.94	179.61	10,752.00	-1,297.08	-651.26	1,292.61	0.00	0.00	0.00
12,100.00	89.94	179.61	10,752.11	-1,397.07	-650.58	1,392.61	0.00	0.00	0.00
12,200.00	89.94	179.61	10,752.22	-1,497.07	-649.91	1,492.61	0.00	0.00	0.00
12,300.00	89.94	179.61	10,752.33	-1,597.07	-649.23	1,592.61	0.00	0.00	0.00
12,400.00	89.94	179.61	10,752.44	-1,697.07	-648.55	1,692.61	0.00	0.00	0.00
12,500.00	89.94	179.61	10,752.56	-1,797.07	-647.88	1,792.61	0.00	0.00	0.00
12,600.00	89.94	179.61	10,752.67	-1,897.06	-647.20	1,892.61	0.00	0.00	0.00
12,700.00	89.94	179.61	10,752.78	-1,997.06	-646.52	1,992.61	0.00	0.00	0.00
12,800.00	89.94	179.61	10,752.89	-2,097.06	-645.85	2,092.61	0.00	0.00	0.00
12,900.00	89.94	179.61	10,753.00	-2,197.06	-645.17	2,192.61	0.00	0.00	0.00
13,000.00	89.94	179.61	10,753.11	-2,297.05	-644.49	2,292.61	0.00	0.00	0.00
13,100.00	89.94	179.61	10,753.23	-2,397.05	-643.82	2,392.61	0.00	0.00	0.00
13,200.00	89.94	179.61	10,753.34	-2,497.05	-643.14	2,492.61	0.00	0.00	0.00
13,300.00	89.94	179.61	10,753.45	-2,597.05	-642.46	2,592.61	0.00	0.00	0.00
13,400.00	89.94	179.61	10,753.56	-2,697.04	-641.79	2,692.61	0.00	0.00	0.00
13,500.00	89.94	179.61	10,753.67	-2,797.04	-641.11	2,792.61	0.00	0.00	0.00
13,600.00	89.94	179.61	10,753.78	-2,897.04	-640.44	2,892.61	0.00	0.00	0.00
13,700.00	89.94	179.61	10,753.89	-2,997.04	-639.76	2,992.61	0.00	0.00	0.00
13,800.00	89.94	179.61	10,754.01	-3,097.03	-639.08	3,092.61	0.00	0.00	0.00
13,900.00	89.94	179.61	10,754.12	-3,197.03	-638.41	3,192.61	0.00	0.00	0.00
14,000.00	89.94	179.61	10,754.23	-3,297.03	-637.73	3,292.61	0.00	0.00	0.00
14,100.00	89.94	179.61	10,754.34	-3,397.03	-637.05	3,392.61	0.00	0.00	0.00
14,200.00	89.94	179.61	10,754.45	-3,497.03	-636.38	3,492.61	0.00	0.00	0.00
14,300.00	89.94	179.61	10,754.56	-3,597.02	-635.70	3,592.61	0.00	0.00	0.00
14,400.00	89.94	179.61	10,754.68	-3,697.02	-635.02	3,692.61	0.00	0.00	0.00
14,500.00	89.94	179.61	10,754.79	-3,797.02	-634.35	3,792.61	0.00	0.00	0.00
14,600.00	89.94	179.61	10,754.90	-3,897.02	-633.67	3,892.61	0.00	0.00	0.00
14,700.00	89.94	179.61	10,755.01	-3,997.01	-632.99	3,992.61	0.00	0.00	0.00
14,800.00	89.94	179.61	10,755.12	-4,097.01	-632.32	4,092.61	0.00	0.00	0.00



Database: EDM 5000.1 Single User Db
Company: XTO Energy
Project: Lea County, NM (NAD-27)
Site: CHISTERA 32 STATE
Well: #5H
Wellbore: OH
Design: PERMIT

Local Co-ordinate Reference: Well #5H
TVD Reference: RKB = 25' @ 3634.00usft
MD Reference: RKB = 25' @ 3634.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
14,900.00	89.94	179.61	10,755.23	-4,197.01	-631.64	4,192.61	0.00	0.00	0.00
15,000.00	89.94	179.61	10,755.35	-4,297.01	-630.96	4,292.61	0.00	0.00	0.00
15,100.00	89.94	179.61	10,755.46	-4,397.00	-630.29	4,392.61	0.00	0.00	0.00
15,200.00	89.94	179.61	10,755.57	-4,497.00	-629.61	4,492.61	0.00	0.00	0.00
15,300.00	89.94	179.61	10,755.68	-4,597.00	-628.93	4,592.61	0.00	0.00	0.00
15,400.00	89.94	179.61	10,755.79	-4,697.00	-628.26	4,692.61	0.00	0.00	0.00
15,456.00	89.94	179.61	10,755.86	-4,753.00	-627.88	4,748.62	0.00	0.00	0.00
15,500.00	89.94	179.61	10,755.90	-4,797.00	-627.58	4,792.61	0.00	0.00	0.00
15,586.01	89.94	179.61	10,756.00	-4,883.00	-627.00	4,878.62	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									
CHISTERA 32 STATE	0.00	0.00	0.00	0.00	0.00	559,387.60	699,495.80	32.536199	-103.685998
- plan hits target center									
- Point									
CHISTERA 32 STATE	0.00	0.01	10,751.00	-404.10	-657.30	558,983.50	698,838.50	32.535099	-103.688139
- plan hits target center									
- Point									
CHISTERA 32 STATE	0.00	0.00	10,756.00	-4,753.00	-627.90	554,634.60	698,867.90	32.523145	-103.688129
- plan misses target center by 0.15usft at 15456.00usft MD (10755.85 TVD, -4753.00 N, -627.88 E)									
- Point									
CHISTERA 32 STATE	0.00	0.00	10,756.00	-4,883.00	-627.00	554,504.60	698,868.80	32.522788	-103.688129
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,348.00	1,348.00	Rustler			
1,708.00	1,708.00	Salado / Top Salt			
3,176.88	3,176.00	Base Salt			
3,381.65	3,380.00	Yates			
3,604.50	3,602.00	Seven Rivers			
3,791.21	3,788.00	Capitan Reef Equivalent			
4,896.41	4,889.00	Delaware Sand			
5,557.92	5,548.00	Cherry Canyon Marker			
6,703.27	6,689.00	Brushy Canyon			
8,090.54	8,071.00	Basal Brushy Canyon			
8,334.47	8,314.00	Base Brushy Canyon Sands			
8,376.63	8,356.00	Bone Spring			
9,358.36	9,334.00	First Bone Spring Sand			
9,941.58	9,915.00	Second Bone Spring Sand			
10,140.33	10,113.00	Third Bone Spring Shale			
10,316.62	10,288.00	Base Second Bone Spring 'B'			



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