XTO ENERGY, INC.

Lea County, NM
Sec 32, Twn 20S, Rng 33E (True North)
Chistera 32 State 3H

Wellbore #1

Design: Wellbore #1

QES Survey Report

18 September, 2018

QES
DIRECTIONAL DRILLING

Company:	XTO ENERGY, INC.	**Local Co-ordinate Reference:**	Well Chistera 32 State 3H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Site:	Sec 32, Twn 20S, Rng 33E (True North)	**MD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Well:	Chistera 32 State 3H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Project	Lea County, NM		
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	Sec 32, Twn 20S, Rng 33E (True North)				
Site Position:		**Northing:**	559,286.62 usft	**Latitude:**	32° 32' 9.164 N
From:	Map	**Easting:**	702,019.60 usft	**Longitude:**	103° 40' 40.120 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.35 °

Well	Chistera 32 State 3H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	559,286.62 usft	**Latitude:**	32° 32' 9.164 N
	+E/-W	0.0 usft	**Easting:**	702,019.60 usft	**Longitude:**	103° 40' 40.120 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,623.0 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	8/29/2018	6.90	60.32	47,986.72760305

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	179.07

Survey Program **Date** 9/18/2018

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
180.0	8,440.0	Tie In Surveys (Wellbore #1)	MWD	OWSG MWD - Standard
8,513.0	16,150.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard

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
180.0	0.40	9.20	180.0	0.6	0.1	-0.6	0.22	0.22	0.00
299.0	0.50	34.80	299.0	1.5	0.5	-1.4	0.19	0.08	21.51
425.0	0.10	330.20	425.0	2.0	0.7	-2.0	0.37	-0.32	-51.27
542.0	0.30	209.40	542.0	1.8	0.5	-1.8	0.31	0.17	-103.25
663.0	0.60	211.50	663.0	1.0	0.0	-1.0	0.25	0.25	1.74
753.0	0.50	193.00	753.0	0.2	-0.3	-0.2	0.22	-0.11	-20.56
897.0	0.50	201.60	897.0	-1.0	-0.7	1.0	0.05	0.00	5.97
1,006.0	0.60	213.50	1,006.0	-1.9	-1.2	1.9	0.14	0.09	10.92
1,132.0	0.50	211.30	1,132.0	-2.9	-1.8	2.9	0.08	-0.08	-1.75

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Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

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)
1,195.0	0.40	212.30	1,195.0	-3.3	-2.1	3.3	0.16	-0.16	1.59
1,258.0	0.40	209.20	1,258.0	-3.7	-2.3	3.7	0.03	0.00	-4.92
1,384.0	0.60	212.40	1,384.0	-4.6	-2.9	4.6	0.16	0.16	2.54
1,460.0	0.50	210.20	1,460.0	-5.3	-3.2	5.2	0.13	-0.13	-2.89
1,559.0	1.60	210.60	1,558.9	-6.8	-4.2	6.8	1.11	1.11	0.40
1,622.0	1.00	148.10	1,621.9	-8.1	-4.3	8.0	2.29	-0.95	-99.21
1,685.0	1.20	159.10	1,684.9	-9.1	-3.8	9.1	0.46	0.32	17.46
1,708.0	0.90	177.30	1,707.9	-9.5	-3.7	9.5	1.93	-1.30	79.13
1,780.0	1.20	158.00	1,779.9	-10.8	-3.4	10.8	0.64	0.42	-26.81
1,812.0	1.10	173.70	1,811.9	-11.4	-3.2	11.4	1.03	-0.31	49.06
1,875.0	1.00	154.50	1,874.9	-12.5	-2.9	12.5	0.58	-0.16	-30.48
1,938.0	1.00	160.00	1,937.9	-13.5	-2.5	13.5	0.15	0.00	8.73
1,955.0	0.50	135.00	1,954.9	-13.7	-2.4	13.7	3.45	-2.94	-147.06
2,019.0	0.20	99.70	2,018.9	-13.9	-2.1	13.9	0.56	-0.47	-55.16
2,113.0	0.10	64.40	2,112.9	-13.9	-1.9	13.9	0.14	-0.11	-37.55
2,145.0	0.20	70.40	2,144.9	-13.9	-1.8	13.9	0.32	0.31	18.75
2,208.0	0.30	93.90	2,207.9	-13.9	-1.5	13.9	0.22	0.16	37.30
2,271.0	1.00	41.20	2,270.9	-13.5	-1.0	13.5	1.35	1.11	-83.65
2,335.0	1.70	50.00	2,334.8	-12.4	0.1	12.4	1.14	1.09	13.75
2,398.0	2.10	41.80	2,397.8	-11.0	1.6	11.0	0.77	0.63	-13.02
2,461.0	2.10	46.00	2,460.8	-9.3	3.2	9.4	0.24	0.00	6.67
2,525.0	3.10	51.00	2,524.7	-7.4	5.4	7.5	1.60	1.56	7.81
2,588.0	3.80	58.20	2,587.6	-5.2	8.5	5.4	1.30	1.11	11.43
2,651.0	4.20	73.10	2,650.4	-3.5	12.5	3.7	1.76	0.63	23.65
2,778.0	4.70	77.00	2,777.1	-1.0	22.0	1.3	0.46	0.39	3.07
2,904.0	5.20	70.00	2,902.6	2.2	32.4	-1.6	0.62	0.40	-5.56
3,030.0	6.40	62.20	3,027.9	7.4	44.0	-6.7	1.14	0.95	-6.19
3,156.0	6.40	53.40	3,153.2	14.8	55.8	-13.9	0.78	0.00	-6.98
3,201.0	6.30	56.70	3,197.9	17.7	59.9	-16.7	0.84	-0.22	7.33
3,285.0	5.60	57.50	3,281.4	22.4	67.2	-21.3	0.84	-0.83	0.95
3,348.0	5.30	52.60	3,344.1	25.9	72.1	-24.7	0.88	-0.48	-7.78
3,411.0	4.50	40.50	3,406.9	29.5	76.0	-28.3	2.07	-1.27	-19.21
3,474.0	4.40	32.90	3,469.7	33.4	78.9	-32.1	0.95	-0.16	-12.06
3,537.0	4.60	24.10	3,532.5	37.7	81.3	-36.4	1.14	0.32	-13.97
3,568.0	4.60	22.00	3,563.4	40.0	82.2	-38.7	0.54	0.00	-6.77
3,600.0	4.40	17.70	3,595.3	42.4	83.1	-41.0	1.23	-0.63	-13.44
3,663.0	4.10	6.50	3,658.2	46.9	84.1	-45.6	1.40	-0.48	-17.78
3,726.0	3.40	359.30	3,721.0	51.0	84.3	-49.7	1.34	-1.11	-11.43
3,789.0	3.50	353.50	3,783.9	54.8	84.1	-53.4	0.58	0.16	-9.21
3,853.0	3.10	344.50	3,847.8	58.4	83.4	-57.1	1.02	-0.63	-14.06
3,916.0	3.60	341.10	3,910.7	61.9	82.3	-60.6	0.85	0.79	-5.40
3,979.0	3.00	331.10	3,973.6	65.2	80.9	-63.9	1.32	-0.95	-15.87
4,043.0	2.60	336.60	4,037.5	68.0	79.5	-66.7	0.75	-0.63	8.59

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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)
4,106.0	2.60	325.20	4,100.5	70.5	78.1	-69.3	0.82	0.00	-18.10
4,169.0	2.90	331.90	4,163.4	73.1	76.5	-71.9	0.70	0.48	10.63
4,232.0	2.50	320.10	4,226.3	75.6	74.9	-74.3	1.08	-0.63	-18.73
4,295.0	2.40	324.40	4,289.3	77.7	73.2	-76.5	0.33	-0.16	6.83
4,358.0	2.50	320.00	4,352.2	79.8	71.6	-78.7	0.34	0.16	-6.98
4,421.0	2.50	322.10	4,415.1	82.0	69.9	-80.8	0.15	0.00	3.33
4,485.0	2.50	314.90	4,479.1	84.0	68.0	-82.9	0.49	0.00	-11.25
4,611.0	2.20	310.80	4,605.0	87.6	64.2	-86.5	0.27	-0.24	-3.25
4,674.0	2.10	321.60	4,667.9	89.3	62.6	-88.2	0.66	-0.16	17.14
4,737.0	2.10	317.30	4,730.9	91.0	61.1	-90.0	0.25	0.00	-6.83
4,800.0	2.60	320.40	4,793.8	93.0	59.4	-92.0	0.82	0.79	4.92
4,863.0	2.20	316.70	4,856.8	94.9	57.7	-94.0	0.68	-0.63	-5.87
4,926.0	2.60	318.10	4,919.7	96.9	55.9	-96.0	0.64	0.63	2.22
4,990.0	2.50	317.00	4,983.7	99.0	54.0	-98.1	0.17	-0.16	-1.72
5,053.0	2.20	320.40	5,046.6	100.9	52.3	-100.1	0.52	-0.48	5.40
5,116.0	2.40	321.50	5,109.6	102.9	50.7	-102.1	0.33	0.32	1.75
5,179.0	2.00	320.90	5,172.5	104.8	49.2	-104.0	0.64	-0.63	-0.95
5,242.0	1.80	321.30	5,235.5	106.4	47.8	-105.6	0.32	-0.32	0.63
5,306.0	2.10	329.70	5,299.4	108.2	46.6	-107.4	0.65	0.47	13.13
5,369.0	2.00	330.20	5,362.4	110.1	45.5	-109.4	0.16	-0.16	0.79
5,432.0	2.30	332.00	5,425.3	112.2	44.4	-111.5	0.49	0.48	2.86
5,496.0	2.40	333.30	5,489.3	114.5	43.2	-113.8	0.18	0.16	2.03
5,559.0	2.10	331.50	5,552.2	116.7	42.0	-116.0	0.49	-0.48	-2.86
5,622.0	2.20	316.80	5,615.2	118.6	40.6	-118.0	0.89	0.16	-23.33
5,685.0	2.30	316.40	5,678.2	120.4	38.9	-119.8	0.16	0.16	-0.63
5,748.0	2.40	320.40	5,741.1	122.4	37.2	-121.7	0.30	0.16	6.35
5,812.0	2.50	324.60	5,805.0	124.5	35.6	-123.9	0.32	0.16	6.56
5,875.0	2.00	322.30	5,868.0	126.5	34.1	-126.0	0.81	-0.79	-3.65
5,938.0	2.00	326.60	5,931.0	128.3	32.8	-127.8	0.24	0.00	6.83
6,001.0	2.10	321.50	5,993.9	130.1	31.5	-129.6	0.33	0.16	-8.10
6,065.0	2.00	322.40	6,057.9	131.9	30.1	-131.4	0.16	-0.16	1.41
6,128.0	2.20	323.40	6,120.8	133.8	28.7	-133.3	0.32	0.32	1.59
6,192.0	1.80	328.10	6,184.8	135.6	27.4	-135.2	0.67	-0.63	7.34
6,255.0	1.90	333.70	6,247.8	137.4	26.4	-136.9	0.33	0.16	8.89
6,319.0	1.80	321.90	6,311.7	139.1	25.3	-138.7	0.61	-0.16	-18.44
6,382.0	1.70	325.20	6,374.7	140.7	24.2	-140.3	0.23	-0.16	5.24
6,446.0	1.60	324.40	6,438.7	142.2	23.1	-141.8	0.16	-0.16	-1.25
6,509.0	2.10	316.10	6,501.6	143.7	21.8	-143.4	0.90	0.79	-13.17
6,572.0	1.60	310.10	6,564.6	145.1	20.4	-144.8	0.85	-0.79	-9.52
6,635.0	2.00	304.20	6,627.6	146.3	18.8	-146.0	0.70	0.63	-9.37
6,698.0	1.70	312.30	6,690.5	147.6	17.2	-147.3	0.63	-0.48	12.86
6,761.0	2.10	304.60	6,753.5	148.9	15.5	-148.6	0.75	0.63	-12.22
6,824.0	2.10	294.50	6,816.5	150.0	13.5	-149.7	0.59	0.00	-16.03

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6,887.0	2.20	306.90	6,879.4	151.2	11.5	-151.0	0.75	0.16	19.68
6,950.0	1.70	303.50	6,942.4	152.4	9.8	-152.3	0.81	-0.79	-5.40
7,014.0	1.60	295.90	7,006.4	153.3	8.2	-153.2	0.38	-0.16	-11.88
7,077.0	1.60	296.20	7,069.3	154.1	6.6	-154.0	0.01	0.00	0.48
7,140.0	1.50	285.30	7,132.3	154.7	5.0	-154.6	0.49	-0.16	-17.30
7,203.0	1.50	284.10	7,195.3	155.1	3.4	-155.1	0.05	0.00	-1.90
7,266.0	1.80	300.40	7,258.3	155.8	1.8	-155.8	0.88	0.48	25.87
7,330.0	1.80	287.20	7,322.2	156.7	-0.1	-156.6	0.65	0.00	-20.63
7,393.0	1.70	297.20	7,385.2	157.4	-1.8	-157.4	0.51	-0.16	15.87
7,456.0	1.50	302.10	7,448.2	158.2	-3.4	-158.3	0.38	-0.32	7.78
7,519.0	1.30	280.10	7,511.2	158.8	-4.8	-158.9	0.90	-0.32	-34.92
7,582.0	1.40	280.10	7,574.1	159.1	-6.2	-159.1	0.16	0.16	0.00
7,645.0	2.20	307.60	7,637.1	159.9	-8.0	-160.0	1.83	1.27	43.65
7,709.0	2.00	309.30	7,701.1	161.4	-9.8	-161.5	0.33	-0.31	2.66
7,772.0	2.20	333.60	7,764.0	163.2	-11.2	-163.3	1.44	0.32	38.57
7,835.0	2.70	342.00	7,827.0	165.7	-12.2	-165.8	0.98	0.79	13.33
7,898.0	2.10	337.00	7,889.9	168.1	-13.1	-168.3	1.01	-0.95	-7.94
7,961.0	2.10	335.20	7,952.9	170.2	-14.0	-170.5	0.10	0.00	-2.86
8,024.0	2.10	332.40	8,015.8	172.3	-15.0	-172.5	0.16	0.00	-4.44
8,088.0	2.10	334.20	8,079.8	174.4	-16.1	-174.7	0.10	0.00	2.81
8,151.0	2.00	332.70	8,142.7	176.4	-17.1	-176.7	0.18	-0.16	-2.38
8,214.0	1.80	324.80	8,205.7	178.2	-18.2	-178.5	0.52	-0.32	-12.54
8,277.0	2.10	330.90	8,268.7	180.0	-19.3	-180.3	0.58	0.48	9.68
8,341.0	1.60	336.50	8,332.6	181.9	-20.2	-182.2	0.83	-0.78	8.75
8,404.0	1.80	318.20	8,395.6	183.4	-21.2	-183.7	0.91	0.32	-29.05
MWD Tie-in @ 8440.0' MD / 8431.6' TVD									
8,440.0	1.40	335.30	8,431.6	184.2	-21.8	-184.6	1.72	-1.11	47.50
8,513.0	1.60	322.20	8,504.6	185.9	-22.8	-186.2	0.54	0.27	-17.95
8,576.0	1.60	321.40	8,567.5	187.2	-23.9	-187.6	0.04	0.00	-1.27
8,640.0	1.50	321.90	8,631.5	188.6	-25.0	-189.0	0.16	-0.16	0.78
8,702.0	1.30	322.60	8,693.5	189.8	-25.9	-190.2	0.32	-0.32	1.13
8,766.0	1.30	323.70	8,757.5	191.0	-26.8	-191.4	0.04	0.00	1.72
8,829.0	1.10	320.50	8,820.5	192.0	-27.6	-192.4	0.33	-0.32	-5.08
8,892.0	0.80	301.00	8,883.5	192.7	-28.3	-193.1	0.69	-0.48	-30.95
8,955.0	0.60	288.70	8,946.5	193.0	-29.0	-193.5	0.40	-0.32	-19.52
9,018.0	0.30	299.90	9,009.5	193.2	-29.5	-193.7	0.49	-0.48	17.78
9,082.0	1.90	300.60	9,073.4	193.8	-30.5	-194.3	2.50	2.50	1.09
9,145.0	2.10	298.00	9,136.4	194.9	-32.5	-195.4	0.35	0.32	-4.13
9,208.0	1.60	339.60	9,199.4	196.3	-33.8	-196.8	2.21	-0.79	66.03
9,271.0	1.60	344.60	9,262.4	197.9	-34.3	-198.5	0.22	0.00	7.94
9,335.0	1.20	342.80	9,326.3	199.4	-34.8	-200.0	0.63	-0.63	-2.81
9,398.0	1.10	337.90	9,389.3	200.6	-35.2	-201.2	0.22	-0.16	-7.78
9,461.0	1.70	337.00	9,452.3	202.1	-35.8	-202.6	0.95	0.95	-1.43
9,524.0	1.80	336.00	9,515.3	203.8	-36.5	-204.4	0.17	0.16	-1.59

Company:	XTO ENERGY, INC.	**Local Co-ordinate Reference:**	Well Chistera 32 State 3H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Site:	Sec 32, Twn 20S, Rng 33E (True North)	**MD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Well:	Chistera 32 State 3H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

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)
9,587.0	1.80	333.50	9,578.2	205.6	-37.4	-206.2	0.12	0.00	-3.97
9,650.0	1.80	21.30	9,641.2	207.4	-37.5	-208.0	2.31	0.00	75.87
9,723.0	1.90	27.60	9,714.2	209.6	-36.5	-210.1	0.31	0.14	8.63
9,786.0	2.00	6.70	9,777.1	211.6	-35.9	-212.1	1.13	0.16	-33.17
9,849.0	1.90	327.00	9,840.1	213.5	-36.3	-214.1	2.11	-0.16	-63.02
9,913.0	1.90	323.10	9,904.1	215.3	-37.5	-215.9	0.20	0.00	-6.09
9,976.0	1.80	333.00	9,967.0	217.0	-38.6	-217.6	0.53	-0.16	15.71
10,039.0	1.70	338.10	10,030.0	218.7	-39.4	-219.4	0.29	-0.16	8.10
10,102.0	1.60	329.50	10,093.0	220.4	-40.2	-221.0	0.42	-0.16	-13.65
10,165.0	1.60	331.90	10,156.0	221.9	-41.1	-222.5	0.11	0.00	3.81
10,228.0	0.10	355.80	10,219.0	222.7	-41.5	-223.4	2.40	-2.38	37.94
10,291.0	0.30	171.30	10,282.0	222.6	-41.5	-223.3	0.63	0.32	278.57
10,355.0	0.70	184.30	10,345.9	222.1	-41.5	-222.7	0.65	0.63	20.31
10,418.0	0.80	184.80	10,408.9	221.3	-41.5	-221.9	0.16	0.16	0.79
10,470.0	0.60	184.40	10,460.9	220.6	-41.6	-221.3	0.38	-0.38	-0.77
10,533.0	0.80	198.30	10,523.9	219.9	-41.7	-220.5	0.41	0.32	22.06
10,596.0	1.00	192.00	10,586.9	218.9	-42.0	-219.6	0.35	0.32	-10.00
10,628.0	0.70	204.80	10,618.9	218.5	-42.1	-219.1	1.10	-0.94	40.00
10,659.0	1.10	201.30	10,649.9	218.0	-42.3	-218.7	1.30	1.29	-11.29
10,691.0	4.40	187.10	10,681.9	216.5	-42.6	-217.2	10.45	10.31	-44.38
10,722.0	7.90	182.50	10,712.7	213.2	-42.8	-213.9	11.39	11.29	-14.84
10,754.0	11.70	179.00	10,744.2	207.8	-42.9	-208.4	12.01	11.88	-10.94
10,786.0	15.20	175.60	10,775.3	200.3	-42.5	-201.0	11.21	10.94	-10.63
10,817.0	18.50	175.10	10,805.0	191.4	-41.8	-192.0	10.66	10.65	-1.61
10,849.0	19.40	175.30	10,835.3	181.0	-40.9	-181.7	2.82	2.81	0.63
10,881.0	19.90	176.20	10,865.4	170.3	-40.1	-170.9	1.83	1.56	2.81
10,912.0	22.70	179.20	10,894.3	159.0	-39.7	-159.7	9.69	9.03	9.68
10,944.0	25.70	180.80	10,923.5	145.9	-39.7	-146.6	9.60	9.38	5.00
10,975.0	28.00	180.00	10,951.1	131.9	-39.8	-132.6	7.51	7.42	-2.58
11,007.0	30.70	179.30	10,979.0	116.2	-39.7	-116.9	8.51	8.44	-2.19
11,039.0	33.70	178.50	11,006.1	99.2	-39.3	-99.8	9.47	9.38	-2.50
11,070.0	36.80	177.10	11,031.4	81.3	-38.6	-81.9	10.33	10.00	-4.52
11,102.0	39.60	176.50	11,056.6	61.6	-37.5	-62.2	8.83	8.75	-1.88
11,133.0	43.00	177.10	11,079.8	41.1	-36.4	-41.7	11.04	10.97	1.94
11,165.0	46.50	177.10	11,102.6	18.6	-35.2	-19.2	10.94	10.94	0.00
11,197.0	50.00	177.10	11,123.9	-5.2	-34.0	4.6	10.94	10.94	0.00
11,228.0	52.70	177.60	11,143.2	-29.4	-32.9	28.8	8.80	8.71	1.61
11,260.0	55.30	178.50	11,162.0	-55.2	-32.0	54.7	8.44	8.13	2.81
11,291.0	57.80	179.70	11,179.1	-81.1	-31.6	80.6	8.69	8.06	3.87
11,323.0	60.50	180.90	11,195.5	-108.6	-31.8	108.0	9.03	8.44	3.75
11,355.0	63.00	181.10	11,210.7	-136.8	-32.3	136.2	7.83	7.81	0.63
11,386.0	66.00	180.90	11,224.0	-164.7	-32.8	164.2	9.69	9.68	-0.65
11,418.0	69.20	180.20	11,236.2	-194.3	-33.1	193.7	10.20	10.00	-2.19

Company:	XTO ENERGY, INC.	**Local Co-ordinate Reference:**	Well Chistera 32 State 3H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Site:	Sec 32, Twn 20S, Rng 33E (True North)	**MD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Well:	Chistera 32 State 3H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

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)
11,450.0	72.10	180.20	11,246.8	-224.5	-33.2	223.9	9.06	9.06	0.00
11,481.0	74.60	179.70	11,255.7	-254.2	-33.1	253.6	8.21	8.06	-1.61
11,513.0	76.50	179.30	11,263.7	-285.2	-32.9	284.6	6.06	5.94	-1.25
11,545.0	76.80	179.30	11,271.1	-316.3	-32.5	315.7	0.94	0.94	0.00
11,576.0	78.30	179.30	11,277.8	-346.6	-32.1	346.0	4.84	4.84	0.00
11,608.0	81.20	179.00	11,283.4	-378.1	-31.6	377.5	9.11	9.06	-0.94
11,671.0	85.50	179.00	11,290.7	-440.6	-30.5	440.1	6.83	6.83	0.00
11,734.0	86.00	178.80	11,295.4	-503.4	-29.3	502.9	0.85	0.79	-0.32
11,798.0	86.40	178.60	11,299.6	-567.3	-27.9	566.7	0.70	0.63	-0.31
11,861.0	86.40	178.60	11,303.6	-630.1	-26.4	629.6	0.00	0.00	0.00
11,924.0	86.20	178.30	11,307.7	-693.0	-24.7	692.5	0.57	-0.32	-0.48
11,987.0	85.90	177.90	11,312.0	-755.8	-22.6	755.3	0.79	-0.48	-0.63
12,049.0	85.70	178.10	11,316.6	-817.6	-20.4	817.1	0.46	-0.32	0.32
12,113.0	84.90	177.10	11,321.8	-881.3	-17.7	880.9	2.00	-1.25	-1.56
12,176.0	86.30	176.90	11,326.6	-944.0	-14.5	943.7	2.24	2.22	-0.32
12,239.0	86.50	176.70	11,330.6	-1,006.8	-10.9	1,006.5	0.45	0.32	-0.32
12,303.0	86.30	175.80	11,334.6	-1,070.6	-6.8	1,070.3	1.44	-0.31	-1.41
12,366.0	86.30	175.50	11,338.7	-1,133.2	-2.0	1,133.1	0.48	0.00	-0.48
12,429.0	86.60	177.10	11,342.6	-1,196.0	2.1	1,195.9	2.58	0.48	2.54
12,492.0	88.60	177.80	11,345.2	-1,258.9	4.9	1,258.8	3.36	3.17	1.11
12,558.0	89.90	177.80	11,346.1	-1,324.8	7.4	1,324.8	1.97	1.97	0.00
12,621.0	90.70	177.60	11,345.7	-1,387.8	9.9	1,387.7	1.31	1.27	-0.32
12,684.0	90.70	177.20	11,345.0	-1,450.7	12.8	1,450.7	0.63	0.00	-0.63
12,747.0	90.70	177.20	11,344.2	-1,513.6	15.9	1,513.7	0.00	0.00	0.00
12,810.0	90.20	178.80	11,343.7	-1,576.6	18.1	1,576.7	2.66	-0.79	2.54
12,873.0	90.30	179.50	11,343.4	-1,639.6	19.0	1,639.7	1.12	0.16	1.11
12,936.0	90.40	179.30	11,343.0	-1,702.6	19.6	1,702.6	0.35	0.16	-0.32
13,000.0	90.30	179.00	11,342.7	-1,766.5	20.6	1,766.6	0.49	-0.16	-0.47
13,063.0	90.60	179.20	11,342.2	-1,829.5	21.6	1,829.6	0.57	0.48	0.32
13,126.0	90.60	179.20	11,341.5	-1,892.5	22.5	1,892.6	0.00	0.00	0.00
13,189.0	90.30	178.80	11,341.0	-1,955.5	23.6	1,955.6	0.79	-0.48	-0.63
13,252.0	90.40	178.60	11,340.6	-2,018.5	25.0	2,018.6	0.35	0.16	-0.32
13,316.0	90.30	178.10	11,340.2	-2,082.5	26.8	2,082.6	0.80	-0.16	-0.78
13,379.0	90.20	177.80	11,340.0	-2,145.4	29.1	2,145.6	0.50	-0.16	-0.48
13,442.0	89.20	178.10	11,340.3	-2,208.4	31.3	2,208.6	1.66	-1.59	0.48
13,504.0	88.90	178.10	11,341.3	-2,270.3	33.4	2,270.6	0.48	-0.48	0.00
13,568.0	90.00	179.00	11,341.9	-2,334.3	35.0	2,334.6	2.22	1.72	1.41
13,631.0	90.80	179.30	11,341.5	-2,397.3	36.0	2,397.6	1.36	1.27	0.48
13,694.0	90.90	179.00	11,340.6	-2,460.3	36.9	2,460.6	0.50	0.16	-0.48
13,757.0	90.90	178.10	11,339.6	-2,523.3	38.5	2,523.6	1.43	0.00	-1.43
13,820.0	90.80	179.30	11,338.6	-2,586.2	39.9	2,586.5	1.91	-0.16	1.90
13,883.0	90.10	179.30	11,338.1	-2,649.2	40.7	2,649.5	1.11	-1.11	0.00
13,946.0	90.20	178.60	11,338.0	-2,712.2	41.8	2,712.5	1.12	0.16	-1.11

Company:	XTO ENERGY, INC.	**Local Co-ordinate Reference:**	Well Chistera 32 State 3H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Site:	Sec 32, Twn 20S, Rng 33E (True North)	**MD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Well:	Chistera 32 State 3H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

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)
14,009.0	90.00	177.80	11,337.9	-2,775.2	43.8	2,775.5	1.31	-0.32	-1.27
14,072.0	89.80	178.60	11,338.0	-2,838.2	45.8	2,838.5	1.31	-0.32	1.27
14,135.0	89.60	178.30	11,338.3	-2,901.1	47.5	2,901.5	0.57	-0.32	-0.48
14,198.0	90.00	179.70	11,338.5	-2,964.1	48.6	2,964.5	2.31	0.63	2.22
14,262.0	90.10	180.20	11,338.5	-3,028.1	48.7	3,028.5	0.80	0.16	0.78
14,325.0	91.00	179.70	11,337.9	-3,091.1	48.7	3,091.5	1.63	1.43	-0.79
14,388.0	92.90	180.90	11,335.7	-3,154.1	48.4	3,154.4	3.57	3.02	1.90
14,451.0	93.70	181.30	11,332.1	-3,217.0	47.2	3,217.3	1.42	1.27	0.63
14,514.0	92.80	180.60	11,328.5	-3,279.9	46.1	3,280.2	1.81	-1.43	-1.11
14,578.0	92.30	180.00	11,325.7	-3,343.8	45.8	3,344.1	1.22	-0.78	-0.94
14,641.0	92.60	180.00	11,323.0	-3,406.7	45.8	3,407.0	0.48	0.48	0.00
14,704.0	93.10	179.50	11,319.8	-3,469.7	46.1	3,469.9	1.12	0.79	-0.79
14,768.0	91.30	179.20	11,317.4	-3,533.6	46.8	3,533.9	2.85	-2.81	-0.47
14,831.0	90.90	178.80	11,316.2	-3,596.6	47.9	3,596.9	0.90	-0.63	-0.63
14,894.0	91.30	178.50	11,315.0	-3,659.5	49.4	3,659.9	0.79	0.63	-0.48
14,957.0	91.70	178.50	11,313.3	-3,722.5	51.0	3,722.8	0.63	0.63	0.00
15,020.0	92.10	178.10	11,311.2	-3,785.4	52.9	3,785.8	0.90	0.63	-0.63
15,083.0	92.20	178.10	11,308.9	-3,848.4	55.0	3,848.7	0.16	0.16	0.00
15,146.0	92.30	177.60	11,306.4	-3,911.3	57.3	3,911.7	0.81	0.16	-0.79
15,210.0	92.70	177.80	11,303.6	-3,975.2	59.9	3,975.6	0.70	0.63	0.31
15,273.0	91.30	177.40	11,301.4	-4,038.1	62.5	4,038.5	2.31	-2.22	-0.63
15,337.0	91.20	177.60	11,300.0	-4,102.0	65.3	4,102.5	0.35	-0.16	0.31
15,399.0	91.10	177.20	11,298.8	-4,163.9	68.1	4,164.5	0.66	-0.16	-0.65
15,463.0	91.40	177.20	11,297.4	-4,227.8	71.3	4,228.4	0.47	0.47	0.00
15,526.0	91.10	178.60	11,296.0	-4,290.8	73.6	4,291.4	2.27	-0.48	2.22
15,589.0	91.20	179.30	11,294.7	-4,353.7	74.7	4,354.4	1.12	0.16	1.11
15,652.0	91.40	179.20	11,293.3	-4,416.7	75.6	4,417.4	0.35	0.32	-0.16
15,716.0	91.40	179.20	11,291.7	-4,480.7	76.5	4,481.3	0.00	0.00	0.00
15,779.0	91.60	179.00	11,290.1	-4,543.7	77.4	4,544.3	0.45	0.32	-0.32
15,842.0	90.30	178.80	11,289.0	-4,606.6	78.7	4,607.3	2.09	-2.06	-0.32
15,905.0	90.00	178.50	11,288.9	-4,669.6	80.1	4,670.3	0.67	-0.48	-0.48
15,968.0	90.10	178.60	11,288.8	-4,732.6	81.7	4,733.3	0.22	0.16	0.16
16,032.0	90.20	178.30	11,288.7	-4,796.6	83.5	4,797.3	0.49	0.16	-0.47
16,100.0	90.00	178.10	11,288.5	-4,864.5	85.6	4,865.3	0.42	-0.29	-0.29
100' LTP Crossed @ 16100.1' MD / 11288.5' TVD									
16,100.1	90.00	178.10	11,288.5	-4,864.6	85.6	4,865.4	0.00	0.00	0.00
TD @ 16150.0' MD / 11288.5' TVD									
16,150.0	90.00	178.10	11,288.5	-4,914.5	87.3	4,915.3	0.00	0.00	0.00

Company:	XTO ENERGY, INC.	**Local Co-ordinate Reference:**	Well Chistera 32 State 3H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Site:	Sec 32, Twn 20S, Rng 33E (True North)	**MD Reference:**	WELL @ 3639.5usft (Trinidad 445)
Well:	Chistera 32 State 3H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,440.0	8,431.6	184.2	-21.8	MWD Tie-in @ 8440.0' MD / 8431.6' TVD
16,100.1	11,288.5	-4,864.6	85.6	100' LTP Crossed @ 16100.1' MD / 11288.5' TVD
16,150.0	11,288.5	-4,914.5	87.3	TD @ 16150.0' MD / 11288.5' TVD

Checked By: _____ Approved By: _____ Date: _____