

Survey Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well Remuda South 25 State 902H - Slot S-25_902H
Project:	Eddy County, NM (NAD27) NMEZ	TVD Reference:	3062+22 @ 3084.00usft (Orion Perseus)
Site:	Remuda South 25 State Pad	MD Reference:	3062+22 @ 3084.00usft (Orion Perseus)
Well:	Remuda South 25 State 902H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	TRUEPERF_EDM

Project	Eddy County, NM (NAD27) NMEZ		
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	Remuda South 25 State Pad, Centered on 904H				
Site Position:		Northing:	464,640.20 ft	Latitude:	32° 16' 36.472 N
From:	Map	Easting:	621,538.20 ft	Longitude:	103° 56' 24.314 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.21 °

Well	Remuda South 25 State 902H - Slot S-25_902H					
Well Position	+N/-S	0.00 usft	Northing:	464,639.65 ft	Latitude:	32° 16' 36.514 N
	+E/-W	0.00 usft	Easting:	620,218.45 ft	Longitude:	103° 56' 39.687 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,062.00 usft

Wellbore	Lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/16/18	7.05	60.04	47,856

Design	Lateral				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	176.95	

Survey Program	Date	04/16/18		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
526.00	18,085.00	Survey #1 (Lateral)	MWD	MWD v3:standard declination
18,135.00	18,135.00	Survey #2 (Lateral)	Projection	Projection

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
430.00	0.70	4.80	429.99	1.93	0.53	-1.90	0.00	0.00	0.00
S-25_121H_SL - S-25_101H_SL - S-25_902H_SL									
526.00	0.80	345.70	525.98	3.16	0.41	-3.14	0.28	0.10	-19.90
622.00	0.90	11.50	621.97	4.55	0.40	-4.52	0.41	0.10	26.87
686.00	0.70	28.10	685.97	5.39	0.68	-5.35	0.48	-0.31	25.94
777.00	0.40	16.30	776.96	6.18	1.03	-6.12	0.35	-0.33	-12.97
875.00	0.40	41.50	874.96	6.77	1.36	-6.69	0.18	0.00	25.71
971.00	0.40	8.40	970.96	7.35	1.63	-7.25	0.24	0.00	-34.48
1,068.00	0.30	118.20	1,067.96	7.57	1.90	-7.45	0.59	-0.10	113.20

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Wellbore: Lateral

Design: Lateral

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S-25_902H

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3062+22 @ 3084.00usft (Orion Perseus)

MD Reference:

3062+22 @ 3084.00usft (Orion Perseus)

North Reference:

Grid

Survey Calculation Method:

Minimum Curvature

Database:

TRUEPERF_EDM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,162.00	0.40	209.00	1,161.95	7.16	1.96	-7.05	0.54	0.11	96.60
1,257.00	0.50	163.60	1,256.95	6.48	1.91	-6.36	0.38	0.11	-47.79
1,351.00	0.50	175.10	1,350.95	5.67	2.07	-5.56	0.11	0.00	12.23
1,445.00	1.10	184.60	1,444.94	4.37	2.03	-4.25	0.65	0.64	10.11
1,540.00	0.80	192.80	1,539.93	2.81	1.81	-2.71	0.35	-0.32	8.63
1,636.00	0.80	177.30	1,635.92	1.49	1.69	-1.39	0.22	0.00	-16.15
1,733.00	0.80	192.20	1,732.91	0.15	1.58	-0.06	0.21	0.00	15.36
1,829.00	1.10	175.20	1,828.89	-1.42	1.52	1.50	0.43	0.31	-17.71
1,924.00	1.00	149.80	1,923.88	-3.05	2.01	3.15	0.50	-0.11	-26.74
2,018.00	1.10	144.40	2,017.86	-4.49	2.95	4.64	0.15	0.11	-5.74
2,113.00	0.40	200.90	2,112.85	-5.54	3.36	5.71	0.99	-0.74	59.47
2,301.00	0.40	273.40	2,300.85	-6.12	2.47	6.24	0.25	0.00	38.56
2,396.00	0.40	295.70	2,395.85	-5.95	1.84	6.04	0.16	0.00	23.47
2,491.00	0.40	243.50	2,490.85	-5.96	1.24	6.02	0.37	0.00	-54.95
2,585.00	1.40	170.30	2,584.84	-7.24	1.14	7.29	1.43	1.06	-77.87
2,679.00	1.30	149.80	2,678.81	-9.29	1.87	9.38	0.52	-0.11	-21.81
2,774.00	0.50	105.80	2,773.80	-10.33	2.82	10.47	1.06	-0.84	-46.32
2,869.00	1.00	42.00	2,868.79	-9.83	3.77	10.02	0.95	0.53	-67.16
2,965.00	0.80	156.60	2,964.79	-9.82	4.60	10.05	1.58	-0.21	119.37
3,060.00	0.50	252.30	3,059.78	-10.56	4.46	10.78	1.04	-0.32	100.74
3,155.00	1.70	316.00	3,154.76	-9.67	3.09	9.82	1.63	1.26	67.05
3,251.00	2.10	324.70	3,250.71	-7.21	1.08	7.26	0.51	0.42	9.06
3,346.00	1.90	325.60	3,345.65	-4.49	-0.81	4.44	0.21	-0.21	0.95
3,440.00	1.50	325.60	3,439.61	-2.19	-2.39	2.06	0.43	-0.43	0.00
3,534.00	1.40	321.10	3,533.58	-0.28	-3.80	0.08	0.16	-0.11	-4.79
3,623.00	0.80	309.30	3,622.57	0.96	-4.97	-1.22	0.72	-0.67	-13.26
3,718.00	0.40	331.80	3,717.56	1.67	-5.64	-1.97	0.48	-0.42	23.68
3,813.00	0.50	308.50	3,812.56	2.22	-6.12	-2.54	0.22	0.11	-24.53
3,908.00	0.60	308.00	3,907.55	2.79	-6.83	-3.14	0.11	0.11	-0.53
4,004.00	0.90	321.30	4,003.54	3.68	-7.70	-4.09	0.36	0.31	13.85
4,099.00	0.90	312.00	4,098.53	4.76	-8.72	-5.22	0.15	0.00	-9.79
4,194.00	0.30	290.00	4,193.53	5.35	-9.51	-5.85	0.67	-0.63	-23.16
4,289.00	0.30	258.60	4,288.53	5.38	-9.99	-5.91	0.17	0.00	-33.05
4,384.00	0.30	195.10	4,383.53	5.10	-10.30	-5.64	0.33	0.00	-66.84
4,480.00	0.40	166.60	4,479.52	4.53	-10.28	-5.07	0.21	0.10	-29.69
4,575.00	0.50	168.40	4,574.52	3.80	-10.12	-4.33	0.11	0.11	1.89
4,671.00	0.60	174.90	4,670.52	2.89	-10.00	-3.41	0.12	0.10	6.77
4,766.00	0.40	188.30	4,765.51	2.06	-10.00	-2.59	0.24	-0.21	14.11
4,860.00	0.50	177.40	4,859.51	1.33	-10.03	-1.86	0.14	0.11	-11.60
4,955.00	0.50	177.30	4,954.51	0.50	-9.99	-1.03	0.00	0.00	-0.11
5,050.00	0.90	194.00	5,049.50	-0.64	-10.15	0.10	0.47	0.42	17.58
5,145.00	0.60	165.00	5,144.49	-1.84	-10.20	1.30	0.50	-0.32	-30.53

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,241.00	0.50	83.00	5,240.49	-2.28	-9.66	1.76	0.76	-0.10	-85.42
5,336.00	0.70	72.50	5,335.48	-2.05	-8.69	1.59	0.24	0.21	-11.05
5,431.00	0.60	77.70	5,430.48	-1.77	-7.65	1.36	0.12	-0.11	5.47
5,527.00	0.50	99.30	5,526.47	-1.73	-6.75	1.37	0.24	-0.10	22.50
5,622.00	0.30	86.90	5,621.47	-1.78	-6.09	1.46	0.23	-0.21	-13.05
5,718.00	0.20	147.30	5,717.47	-1.91	-5.75	1.60	0.28	-0.10	62.92
5,813.00	0.10	281.10	5,812.47	-2.04	-5.74	1.73	0.29	-0.11	140.84
5,908.00	0.10	48.20	5,907.47	-1.96	-5.76	1.65	0.19	0.00	133.79
6,003.00	0.10	56.00	6,002.47	-1.86	-5.63	1.56	0.01	0.00	8.21
6,099.00	0.20	283.80	6,098.47	-1.78	-5.72	1.47	0.29	0.10	-137.71
6,194.00	0.30	196.50	6,193.47	-1.97	-5.95	1.66	0.37	0.11	-91.89
6,290.00	0.30	242.80	6,289.47	-2.33	-6.25	1.99	0.25	0.00	48.23
6,384.00	0.20	180.30	6,383.47	-2.61	-6.47	2.26	0.29	-0.11	-66.49
6,481.00	0.30	253.30	6,480.47	-2.85	-6.71	2.49	0.32	0.10	75.26
6,576.00	0.30	254.80	6,575.46	-2.99	-7.19	2.60	0.01	0.00	1.58
6,672.00	0.40	275.20	6,671.46	-3.02	-7.77	2.60	0.16	0.10	21.25
6,767.00	0.60	291.30	6,766.46	-2.81	-8.56	2.35	0.26	0.21	16.95
6,863.00	0.60	275.70	6,862.45	-2.58	-9.53	2.07	0.17	0.00	-16.25
6,960.00	0.80	273.10	6,959.45	-2.49	-10.71	1.92	0.21	0.21	-2.68
7,055.00	1.10	257.90	7,054.43	-2.65	-12.26	1.99	0.41	0.32	-16.00
7,150.00	1.40	228.30	7,149.41	-3.61	-14.02	2.86	0.74	0.32	-31.16
7,245.00	1.90	208.30	7,244.37	-5.77	-15.64	4.93	0.80	0.53	-21.05
7,339.00	2.00	217.90	7,338.32	-8.43	-17.38	7.50	0.36	0.11	10.21
7,433.00	1.40	217.20	7,432.28	-10.64	-19.08	9.61	0.64	-0.64	-0.74
7,445.00	1.50	210.00	7,444.27	-10.90	-19.25	9.86	1.73	0.83	-60.00
7,534.00	1.90	202.80	7,533.23	-13.27	-20.41	12.16	0.51	0.45	-8.09
7,631.00	1.70	123.00	7,630.20	-15.53	-19.82	14.46	2.39	-0.21	-82.27
7,728.00	2.10	100.50	7,727.15	-16.64	-16.87	15.72	0.86	0.41	-23.20
7,823.00	2.70	87.60	7,822.06	-16.86	-12.92	16.15	0.85	0.63	-13.58
7,919.00	1.90	91.40	7,917.99	-16.81	-9.07	16.30	0.85	-0.83	3.96
8,015.00	1.50	70.20	8,013.94	-16.42	-6.30	16.06	0.77	-0.42	-22.08
8,110.00	1.40	29.30	8,108.92	-14.99	-4.56	14.72	1.07	-0.11	-43.05
8,207.00	1.10	28.00	8,205.89	-13.13	-3.54	12.92	0.31	-0.31	-1.34
8,301.00	0.50	15.50	8,299.88	-11.94	-3.01	11.76	0.66	-0.64	-13.30
8,397.00	0.60	320.40	8,395.88	-11.15	-3.22	10.96	0.54	0.10	-57.40
8,492.00	1.40	313.70	8,490.86	-9.96	-4.37	9.72	0.85	0.84	-7.05
8,588.00	1.40	309.10	8,586.84	-8.41	-6.13	8.08	0.12	0.00	-4.79
8,683.00	2.00	311.50	8,681.79	-6.58	-8.27	6.13	0.64	0.63	2.53
8,778.00	1.70	290.60	8,776.74	-4.99	-10.83	4.41	0.77	-0.32	-22.00
8,872.00	1.40	275.60	8,870.71	-4.39	-13.28	3.67	0.53	-0.32	-15.96
8,894.67	1.40	276.87	8,893.37	-4.33	-13.83	3.58	0.14	0.00	5.62
S-25_702H_FTP									
8,968.00	1.40	281.00	8,966.68	-4.05	-15.60	3.21	0.14	0.00	5.63

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9,064.00	1.10	247.20	9,062.66	-4.18	-17.60	3.24	0.81	-0.31	-35.21
9,094.59	0.94	247.28	9,093.25	-4.39	-18.10	3.42	0.53	-0.53	0.27
S-25_701H_FTP									
9,159.00	0.60	247.60	9,157.65	-4.72	-18.90	3.71	0.53	-0.53	0.49
9,253.00	1.30	330.70	9,251.64	-3.98	-19.88	2.92	1.45	0.74	88.40
9,348.00	0.50	359.70	9,346.63	-2.63	-20.41	1.54	0.94	-0.84	30.53
9,443.00	0.80	295.70	9,441.62	-1.93	-21.01	0.81	0.77	0.32	-67.37
9,540.00	0.70	248.10	9,538.61	-1.85	-22.17	0.67	0.63	-0.10	-49.07
9,564.00	0.90	232.50	9,562.61	-2.02	-22.45	0.82	1.22	0.83	-65.00
9,627.00	5.40	152.80	9,625.51	-4.96	-21.49	3.81	8.43	7.14	-126.51
9,659.00	9.80	148.90	9,657.22	-8.64	-19.39	7.59	13.84	13.75	-12.19
9,690.00	14.90	147.20	9,687.50	-14.25	-15.87	13.38	16.49	16.45	-5.48
9,722.00	19.00	146.20	9,718.10	-22.04	-10.74	21.44	12.84	12.81	-3.12
9,754.00	21.80	144.60	9,748.09	-31.21	-4.40	30.93	8.92	8.75	-5.00
9,786.00	22.90	145.30	9,777.69	-41.17	2.59	41.25	3.54	3.44	2.19
9,817.00	24.90	148.60	9,806.03	-51.71	9.42	52.13	7.76	6.45	10.65
9,848.00	26.30	150.50	9,833.99	-63.25	16.20	64.03	5.23	4.52	6.13
9,880.00	26.90	151.30	9,862.60	-75.77	23.17	76.90	2.18	1.87	2.50
9,912.00	28.30	151.60	9,890.96	-88.80	30.25	90.28	4.40	4.37	0.94
9,943.00	31.80	152.20	9,917.79	-102.49	37.56	104.34	11.33	11.29	1.94
9,975.00	33.90	151.90	9,944.67	-117.82	45.70	120.09	6.58	6.56	-0.94
10,006.00	36.00	151.10	9,970.07	-133.43	54.17	136.12	6.93	6.77	-2.58
10,038.00	39.40	151.10	9,995.39	-150.55	63.63	153.73	10.62	10.62	0.00
10,085.00	44.90	153.20	10,030.22	-178.44	78.33	182.36	12.08	11.70	4.47
10,132.00	50.10	156.30	10,061.97	-209.78	93.07	214.44	12.08	11.06	6.60
10,179.00	54.00	159.10	10,090.87	-244.07	107.10	249.42	9.53	8.30	5.96
10,229.00	57.50	157.40	10,119.01	-282.44	122.43	288.56	7.54	7.00	-3.40
10,276.00	61.50	156.50	10,142.86	-319.70	138.28	326.60	8.67	8.51	-1.91
10,324.00	66.50	156.70	10,163.89	-359.28	155.41	367.04	10.42	10.42	0.42
10,347.00	68.70	156.85	10,172.66	-378.82	163.80	387.00	9.59	9.57	0.65
Wellpath Crosses Section Line @ Heel									
10,371.00	71.00	157.00	10,180.92	-399.54	172.63	408.16	9.59	9.57	0.63
10,418.00	75.90	157.60	10,194.31	-441.10	190.00	450.58	10.50	10.43	1.28
10,465.00	79.50	159.10	10,204.32	-483.77	206.94	494.10	8.27	7.66	3.19
10,512.26	82.16	159.69	10,211.85	-527.44	223.36	538.58	5.76	5.62	1.25
S-25_902H_LP p3									
10,513.00	82.20	159.70	10,211.95	-528.13	223.61	539.28	5.76	5.63	1.24
10,513.89	82.26	159.68	10,212.07	-528.95	223.91	540.11	6.60	6.38	-1.71
S-25_902H_LP									
10,522.19	82.79	159.54	10,213.15	-536.66	226.78	547.97	6.60	6.38	-1.71
S-25_101H_FTP									
10,550.03	84.56	159.07	10,216.22	-562.55	236.56	574.34	6.60	6.38	-1.70
S-25_121H_FTP									
10,560.00	85.20	158.90	10,217.11	-571.82	240.12	583.79	6.60	6.38	-1.69

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TRUEPERF_EDM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,609.00	90.70	159.00	10,218.86	-617.50	257.70	630.34	11.23	11.22	0.20
10,656.00	91.80	159.10	10,217.84	-661.39	274.51	675.05	2.35	2.34	0.21
10,703.00	88.90	159.00	10,217.55	-705.27	291.31	719.77	6.17	-6.17	-0.21
10,706.00	88.84	159.08	10,217.61	-708.07	292.38	722.63	3.36	-1.92	2.76
Wellpath Crosses FTP									
10,745.45	88.09	160.17	10,218.66	-745.04	306.11	760.27	3.36	-1.91	2.77
S-25_902H_FTP									
10,750.00	88.00	160.30	10,218.82	-749.32	307.65	764.63	3.36	-1.91	2.77
S-25_122H_FTP									
10,798.00	89.80	163.50	10,219.74	-794.93	322.55	810.97	7.65	3.75	6.67
10,894.00	89.20	168.10	10,220.58	-887.97	346.10	905.13	4.83	-0.62	4.79
10,990.00	92.10	172.80	10,219.49	-982.60	362.02	1,000.47	5.75	3.02	4.90
11,085.00	91.60	173.70	10,216.42	-1,076.89	373.18	1,095.22	1.08	-0.53	0.95
11,181.00	90.00	176.20	10,215.08	-1,172.49	381.62	1,191.14	3.09	-1.67	2.60
11,276.00	87.80	176.20	10,216.91	-1,267.26	387.92	1,286.11	2.32	-2.32	0.00
11,371.00	88.40	177.40	10,220.06	-1,362.06	393.22	1,381.05	1.41	0.63	1.26
11,424.00	89.20	178.30	10,221.17	-1,415.01	395.21	1,434.03	2.27	1.51	1.70
11,466.00	90.50	179.60	10,221.28	-1,457.00	395.98	1,476.01	4.38	3.10	3.10
11,562.00	88.80	179.90	10,221.86	-1,552.99	396.40	1,571.89	1.80	-1.77	0.31
11,658.00	90.90	179.80	10,222.11	-1,648.99	396.65	1,667.76	2.19	2.19	-0.10
11,753.00	89.90	180.60	10,221.45	-1,743.98	396.31	1,762.60	1.35	-1.05	0.84
11,849.00	89.40	180.50	10,222.04	-1,839.98	395.39	1,858.41	0.53	-0.52	-0.10
11,944.00	91.20	179.70	10,221.54	-1,934.97	395.23	1,953.26	2.07	1.89	-0.84
12,040.00	89.40	180.60	10,221.04	-2,030.96	394.98	2,049.10	2.10	-1.87	0.94
12,136.00	89.20	180.80	10,222.21	-2,126.95	393.80	2,144.89	0.29	-0.21	0.21
12,232.00	88.40	179.30	10,224.22	-2,222.92	393.72	2,240.72	1.77	-0.83	-1.56
12,328.00	89.30	177.90	10,226.15	-2,318.87	396.06	2,336.66	1.73	0.94	-1.46
12,423.00	89.40	179.90	10,227.23	-2,413.85	397.89	2,431.60	2.11	0.11	2.11
12,518.00	89.80	181.30	10,227.89	-2,508.84	396.89	2,526.40	1.53	0.42	1.47
12,614.00	88.20	181.30	10,229.56	-2,604.79	394.72	2,622.10	1.67	-1.67	0.00
12,745.00	91.80	181.60	10,229.56	-2,735.73	391.40	2,752.68	2.76	2.75	0.23
12,841.00	90.80	181.80	10,227.39	-2,831.66	388.55	2,848.32	1.06	-1.04	0.21
12,936.00	89.00	181.70	10,227.55	-2,926.61	385.65	2,942.99	1.90	-1.89	-0.11
13,032.00	89.10	179.70	10,229.14	-3,022.59	384.48	3,038.76	2.09	0.10	-2.08
13,128.00	87.90	179.10	10,231.66	-3,118.55	385.49	3,134.64	1.40	-1.25	-0.62
13,222.00	87.80	178.00	10,235.18	-3,212.45	387.86	3,228.54	1.17	-0.11	-1.17
13,318.00	89.70	178.00	10,237.28	-3,308.36	391.21	3,324.49	1.98	1.98	0.00
13,412.00	90.70	179.00	10,236.95	-3,402.33	393.67	3,418.46	1.50	1.06	1.06
13,508.00	90.40	179.90	10,236.03	-3,498.32	394.59	3,514.36	0.99	-0.31	0.94
13,603.00	89.60	180.20	10,236.03	-3,593.32	394.51	3,609.22	0.90	-0.84	0.32
13,699.00	89.30	179.70	10,236.95	-3,689.31	394.59	3,705.08	0.61	-0.31	-0.52
13,794.00	90.30	179.10	10,237.28	-3,784.31	395.59	3,799.99	1.23	1.05	-0.63
13,890.00	89.00	178.60	10,237.87	-3,880.28	397.52	3,895.94	1.45	-1.35	-0.52

Survey Report

Company: XTO Energy

Local Co-ordinate Reference: Well Remuda South 25 State 902H - Slot S-25_902H

Project: Eddy County, NM (NAD27) NMEZ

TVD Reference: 3062+22 @ 3084.00usft (Orion Perseus)

Site: Remuda South 25 State Pad

MD Reference: 3062+22 @ 3084.00usft (Orion Perseus)

Well: Remuda South 25 State 902H

North Reference: Grid

Wellbore: Lateral

Survey Calculation Method: Minimum Curvature

Design: Lateral

Database: TRUEPERF_EDM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,986.00	90.20	177.70	10,238.54	-3,976.23	400.61	3,991.91	1.56	1.25	-0.94
14,081.00	89.80	178.80	10,238.54	-4,071.18	403.52	4,086.88	1.23	-0.42	1.16
14,176.00	91.00	179.00	10,237.87	-4,166.16	405.34	4,181.82	1.28	1.26	0.21
14,271.00	89.30	179.30	10,237.63	-4,261.14	406.75	4,276.75	1.82	-1.79	0.32
14,367.00	90.30	178.40	10,237.96	-4,357.12	408.68	4,372.70	1.40	1.04	-0.94
14,460.00	89.30	179.50	10,238.28	-4,450.10	410.38	4,465.64	1.60	-1.08	1.18
14,556.00	89.80	179.20	10,239.04	-4,546.09	411.47	4,561.55	0.61	0.52	-0.31
14,651.00	88.50	179.90	10,240.45	-4,641.08	412.21	4,656.44	1.55	-1.37	0.74
14,745.00	89.00	181.60	10,242.50	-4,735.04	410.98	4,750.20	1.88	0.53	1.81
14,840.00	89.90	181.20	10,243.41	-4,830.01	408.66	4,844.91	1.04	0.95	-0.42
14,935.00	90.40	182.10	10,243.16	-4,924.97	405.93	4,939.59	1.08	0.53	0.95
15,031.00	90.80	182.70	10,242.16	-5,020.88	401.91	5,035.15	0.75	0.42	0.62
15,126.00	89.40	180.70	10,241.99	-5,115.83	399.09	5,129.82	2.57	-1.47	-2.11
15,221.00	89.00	179.20	10,243.32	-5,210.82	399.17	5,224.68	1.63	-0.42	-1.58
15,317.00	90.80	178.50	10,243.49	-5,306.79	401.10	5,320.62	2.01	1.87	-0.73
15,413.00	91.10	178.90	10,241.89	-5,402.76	403.28	5,416.56	0.52	0.31	0.42
15,510.00	91.40	180.40	10,239.78	-5,499.73	403.87	5,513.43	1.58	0.31	1.55
15,606.00	90.20	179.80	10,238.44	-5,595.72	403.70	5,609.27	1.40	-1.25	-0.62
15,701.00	88.60	180.60	10,239.43	-5,690.71	403.37	5,704.11	1.88	-1.68	0.84
15,797.00	89.30	180.90	10,241.19	-5,786.68	402.11	5,799.88	0.79	0.73	0.31
15,892.00	89.50	180.80	10,242.19	-5,881.67	400.71	5,894.65	0.24	0.21	-0.11
15,987.00	88.70	180.70	10,243.68	-5,976.64	399.46	5,989.43	0.85	-0.84	-0.11
16,082.00	89.10	179.90	10,245.50	-6,071.63	398.96	6,084.25	0.94	0.42	-0.84
16,176.00	90.50	180.40	10,245.83	-6,165.62	398.72	6,178.10	1.58	1.49	0.53
16,270.00	88.80	180.00	10,246.40	-6,259.62	398.39	6,271.95	1.86	-1.81	-0.43
16,366.00	89.20	179.40	10,248.08	-6,355.60	398.89	6,367.82	0.75	0.42	-0.62
16,461.00	89.10	178.70	10,249.49	-6,450.57	400.47	6,462.75	0.74	-0.11	-0.74
16,557.00	90.00	178.40	10,250.24	-6,546.54	402.90	6,558.70	0.99	0.94	-0.31
16,652.00	90.50	178.40	10,249.83	-6,641.50	405.55	6,653.67	0.53	0.53	0.00
16,748.00	90.90	177.50	10,248.66	-6,737.43	408.98	6,749.65	1.03	0.42	-0.94
16,842.00	88.30	175.80	10,249.31	-6,831.26	414.48	6,843.63	3.30	-2.77	-1.81
16,938.00	88.40	177.10	10,252.08	-6,927.03	420.42	6,939.59	1.36	0.10	1.35
17,034.00	90.00	178.80	10,253.42	-7,022.95	423.85	7,035.56	2.43	1.67	1.77
17,129.00	91.00	180.20	10,252.59	-7,117.94	424.68	7,130.46	1.81	1.05	1.47
17,224.00	91.80	180.90	10,250.27	-7,212.91	423.77	7,225.24	1.12	0.84	0.74
17,320.00	91.80	181.70	10,247.25	-7,308.84	421.59	7,320.92	0.83	0.00	0.83
17,415.00	90.70	182.00	10,245.18	-7,403.76	418.52	7,415.54	1.20	-1.16	0.32
17,512.00	89.50	181.50	10,245.01	-7,500.72	415.56	7,512.20	1.34	-1.24	-0.52
17,607.00	90.40	181.00	10,245.09	-7,595.69	413.49	7,606.93	1.08	0.95	-0.53
17,704.00	91.60	181.10	10,243.40	-7,692.66	411.71	7,703.67	1.24	1.24	0.10
17,798.00	90.80	180.80	10,241.43	-7,786.62	410.16	7,797.42	0.91	-0.85	-0.32
17,893.00	92.30	181.00	10,238.86	-7,881.57	408.66	7,892.15	1.59	1.58	0.21

Survey Report

Company: XTO Energy Project: Eddy County, NM (NAD27) NMEZ Site: Remuda South 25 State Pad Well: Remuda South 25 State 902H Wellbore: Lateral Design: Lateral	Local Co-ordinate Reference: Well Remuda South 25 State 902H - Slot S-25_902H TVD Reference: 3062+22 @ 3084.00usft (Orion Perseus) MD Reference: 3062+22 @ 3084.00usft (Orion Perseus) North Reference: Grid Survey Calculation Method: Minimum Curvature Database: TRUEPERF_EDM	
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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,988.00	92.00	181.10	10,235.30	-7,976.49	406.92	7,986.84	0.33	-0.32	0.11
18,023.59	92.26	180.95	10,233.98	-8,012.05	406.29	8,022.32	0.83	0.72	-0.41
S-25_122H_LTP									
18,034.83	92.34	180.91	10,233.52	-8,023.28	406.10	8,033.52	0.83	0.72	-0.41
S-25_902H_LTP - S-25_121H_LTP									
18,035.00	92.34	180.91	10,233.52	-8,023.45	406.10	8,033.69	0.83	0.72	-0.41
Wellpath Crosses LTP									
18,042.89	92.40	180.87	10,233.19	-8,031.34	405.98	8,041.56	0.83	0.72	-0.41
S-25_101H_LTP									
18,085.00	92.70	180.70	10,231.32	-8,073.40	405.40	8,083.53	0.83	0.72	-0.41
S-25_702H_LTP - S-25_701H_LTP									
18,135.00	92.70	180.70	10,228.96	-8,123.34	404.79	8,133.37	0.00	0.00	0.00
TD @ 229FSL,366FEL - S-25_902H_PBHL p2 - S-25_702H_PBHL - S-25_902H_BHL - S-25_902H_PBHL - S-25_122H_PBHL - S-25_701H_PE									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
S-25_902H_SL	0.00	0.00	0.00	0.00	0.00	464,639.65	620,218.45	32° 16' 36.514 N	103° 56' 39.687 W
- actual wellpath misses target center by 429.99usft at 430.00usft MD (429.99 TVD, 1.93 N, 0.53 E)									
- Point									
S-25_902H_FTP	0.00	0.01	10,217.00	-708.07	406.14	463,931.58	620,624.60	32° 16' 29.493 N	103° 56' 34.986 W
- actual wellpath misses target center by 106.66usft at 10745.45usft MD (10218.66 TVD, -745.04 N, 306.11 E)									
- Point									
S-25_902H_BHL	0.00	0.00	10,228.96	-8,123.34	404.79	456,516.29	620,623.24	32° 15' 16.111 N	103° 56' 35.316 W
- actual wellpath hits target center									
- Point									
S-25_902H_LTP	0.00	0.00	10,245.00	-8,024.22	434.99	456,615.41	620,653.45	32° 15' 17.090 N	103° 56' 34.960 W
- actual wellpath misses target center by 31.10usft at 18034.84usft MD (10233.52 TVD, -8023.29 N, 406.10 E)									
- Point									
S-25_902H_PBHL p3	0.00	0.00	10,246.00	-8,155.03	434.55	456,484.60	620,653.00	32° 15' 15.796 N	103° 56' 34.971 W
- actual wellpath misses target center by 46.69usft at 18135.00usft MD (10228.96 TVD, -8123.34 N, 404.79 E)									
- Rectangle (sides W50.00 H7,442.00 D0.00)									

Survey Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well Remuda South 25 State 902H - Slot S-25_902H
Project:	Eddy County, NM (NAD27) NMEZ	TVD Reference:	3062+22 @ 3084.00usft (Orion Perseus)
Site:	Remuda South 25 State Pad	MD Reference:	3062+22 @ 3084.00usft (Orion Perseus)
Well:	Remuda South 25 State 902H	North Reference:	Grid
Wellbore:	Lateral	Survey Calculation Method:	Minimum Curvature
Design:	Lateral	Database:	TRUEPERF_EDM

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,347.00	10,172.66	-378.82	163.80	Wellpath Crosses Section Line @ Heel
10,706.00	10,217.61	-708.07	292.38	Wellpath Crosses FTP
18,035.00	10,233.52	-8,023.45	406.10	Wellpath Crosses LTP
18,135.00	10,228.96	-8,123.34	404.79	TD @ 229FSL,366FEL

Checked By: _____	Approved By: _____	Date: _____
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