

# Wellbenders

## End Of Well Report



<b>Company:</b>	XTO Energy	<b>Local Co-ordinate Reference:</b>	Well #1310
<b>Project:</b>	Winkler County, TX	<b>TVD Reference:</b>	RKB=26.5' @ 2838.50usft (Scan Producer)
<b>Site:</b>	University Block 20	<b>MD Reference:</b>	RKB=26.5' @ 2838.50usft (Scan Producer)
<b>Well:</b>	#1310	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Project		Winkler County, TX	
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Texas Central 4203		

Site	University Block 20				
Site Position:		Northing:	761,235.91 usft	Latitude:	31.726236
From:	Map	Easting:	1,082,226.69 usft	Longitude:	-103.285398
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.52 °

Well		#1310				
Well Position	+N-S	0.00 usft	Northing:	763,597.74 usft	Latitude:	31.732867
	+E-W	0.00 usft	Easting:	1,084,161.71 usft	Longitude:	-103.279378
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,812.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/11/2017	6.78	59.65	47,673.64964512

Design		OH		
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	7.28

Survey Program		Date	8/4/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.00	11,188.00	Survey #1 (OH)	WBDS_IGRF	OWSG MWD + IGRF or WMM	

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<b>Well:</b>	#1310	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.30	37.28	200.00	0.42	0.32	0.45	200.00	37.28	0.15
387.00	0.50	26.38	386.99	1.54	0.98	1.65	187.00	30.47	0.11
567.00	0.80	19.08	566.98	3.43	1.74	3.62	180.00	21.89	0.17
757.00	1.40	11.88	756.95	6.95	2.65	7.23	190.00	14.50	0.32
950.00	1.60	10.88	949.88	11.91	3.64	12.27	193.00	11.35	0.10
1,147.00	1.50	3.18	1,146.81	17.18	4.30	17.59	197.00	7.16	0.12
1,340.00	1.90	26.98	1,339.73	22.55	5.90	23.12	193.00	16.50	0.42
1,474.00	1.60	12.88	1,473.66	26.36	7.32	27.07	134.00	20.54	0.39
1,663.00	1.90	307.18	1,662.59	30.82	5.41	31.26	189.00	336.87	1.01
1,852.00	2.10	13.68	1,851.50	36.08	3.74	36.27	189.00	342.31	1.16
2,042.00	2.30	16.48	2,041.36	43.12	5.64	43.49	190.00	15.15	0.12
2,231.00	2.30	35.38	2,230.21	49.85	8.91	50.58	189.00	25.93	0.40
2,421.00	2.80	36.98	2,420.02	56.67	13.91	57.97	190.00	36.26	0.27
2,610.00	3.00	36.98	2,608.78	64.30	19.66	66.28	189.00	36.98	0.11
2,800.00	0.50	31.68	2,798.68	68.98	23.09	71.35	190.00	36.23	1.32
2,989.00	0.80	34.38	2,987.66	70.77	24.27	73.28	189.00	33.34	0.16
3,084.00	1.00	46.98	3,082.65	71.89	25.25	74.51	95.00	41.39	0.29
3,178.00	1.50	39.28	3,176.63	73.40	26.63	76.18	94.00	42.36	0.56
3,273.00	2.00	45.38	3,271.59	75.52	28.60	78.54	95.00	42.77	0.56
3,368.00	2.30	50.78	3,366.52	77.89	31.25	81.23	95.00	48.27	0.38
3,463.00	2.40	46.88	3,461.44	80.46	34.18	84.14	95.00	48.79	0.20
3,558.00	2.40	42.98	3,556.36	83.27	36.99	87.29	95.00	44.93	0.17
3,652.00	2.50	40.98	3,650.27	86.26	39.68	90.59	94.00	41.96	0.14
3,747.00	2.70	41.08	3,745.17	89.51	42.51	94.18	95.00	41.03	0.21
3,969.00	1.20	352.38	3,967.05	95.76	45.63	100.77	222.00	26.60	0.95
4,061.00	1.10	333.38	4,059.03	97.50	45.11	102.43	92.00	343.30	0.43

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<b>Site:</b>	University Block 20	<b>MD Reference:</b>	RKB=26.5' @ 2838.50usft (Scan Producer)
<b>Well:</b>	#1310	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
4,125.00	1.20	6.78	4,123.02	98.72	44.91	103.61	64.00	350.83	1.04	
4,220.00	1.20	12.98	4,218.00	100.67	45.26	105.60	95.00	9.88	0.14	
4,314.00	1.20	3.68	4,311.98	102.61	45.54	107.56	94.00	8.33	0.21	
4,405.00	1.30	5.38	4,402.96	104.59	45.70	109.54	91.00	4.57	0.12	
4,502.00	1.40	14.28	4,499.93	106.84	46.09	111.82	97.00	10.00	0.24	
4,597.00	1.50	19.28	4,594.90	109.14	46.79	114.19	95.00	16.87	0.17	
4,692.00	1.60	27.78	4,689.86	111.48	47.82	116.64	95.00	23.67	0.26	
4,787.00	1.60	44.68	4,784.83	113.60	49.37	118.94	95.00	36.23	0.49	
4,881.00	1.60	45.38	4,878.79	115.45	51.23	121.02	94.00	45.03	0.02	
4,976.00	1.40	45.38	4,973.76	117.20	53.00	122.97	95.00	45.38	0.21	
5,071.00	1.40	43.68	5,068.73	118.86	54.62	124.82	95.00	44.53	0.04	
5,105.00	1.30	41.38	5,102.72	119.44	55.17	125.47	34.00	42.58	0.33	
5,289.00	1.40	62.18	5,286.67	122.06	58.53	128.49	184.00	52.17	0.27	
5,384.00	1.30	54.38	5,381.64	123.23	60.44	129.90	95.00	58.43	0.22	
5,479.00	1.20	55.08	5,476.62	124.43	62.13	131.30	95.00	54.72	0.11	
5,573.00	1.10	51.38	5,570.60	125.55	63.64	132.61	94.00	53.31	0.13	
5,668.00	1.10	51.38	5,665.58	126.69	65.07	133.92	95.00	51.38	0.00	
5,763.00	1.10	47.48	5,760.57	127.88	66.45	135.27	95.00	49.43	0.08	
5,857.00	1.20	56.28	5,854.55	129.03	67.93	136.60	94.00	52.07	0.22	
5,952.00	1.10	51.78	5,949.53	130.15	69.48	137.91	95.00	54.13	0.14	
6,046.00	1.10	51.78	6,043.51	131.26	70.90	139.19	94.00	51.78	0.00	
6,141.00	0.90	55.18	6,138.50	132.26	72.22	140.34	95.00	53.31	0.22	
6,235.00	0.90	52.28	6,232.49	133.13	73.41	141.36	94.00	53.73	0.05	
6,330.00	0.80	24.28	6,327.48	134.19	74.28	142.52	95.00	39.12	0.44	
6,425.00	0.80	58.58	6,422.47	135.14	75.12	143.57	95.00	41.43	0.50	
6,519.00	0.80	53.38	6,516.46	135.87	76.20	144.44	94.00	55.98	0.08	
6,615.00	0.80	44.28	6,612.45	136.75	77.21	145.44	96.00	48.83	0.13	

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<b>Site:</b>	University Block 20	<b>MD Reference:</b>	RKB=26.5' @ 2838.50usft (Scan Producer)
<b>Well:</b>	#1310	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
6,710.00	0.70	40.28	6,707.44	137.67	78.05	146.45	95.00	42.42	0.12	
6,804.00	0.60	37.38	6,801.43	138.50	78.72	147.36	94.00	38.94	0.11	
6,899.00	0.70	32.78	6,896.43	139.38	79.33	148.31	95.00	34.91	0.12	
6,995.00	0.80	27.68	6,992.42	140.47	79.96	149.47	96.00	30.06	0.13	
7,089.00	0.90	19.58	7,086.41	141.75	80.51	150.81	94.00	23.39	0.17	
7,183.00	0.80	21.88	7,180.40	143.05	81.01	152.16	94.00	20.66	0.11	
7,278.00	0.70	359.28	7,275.39	144.25	81.25	153.38	95.00	11.35	0.33	
7,372.00	0.70	348.58	7,369.38	145.38	81.13	154.49	94.00	353.93	0.14	
7,467.00	0.50	340.48	7,464.38	146.34	80.87	155.41	95.00	345.21	0.23	
7,561.00	0.60	299.18	7,558.38	146.97	80.31	155.96	94.00	317.87	0.42	
7,656.00	0.50	305.28	7,653.37	147.45	79.53	156.34	95.00	301.96	0.12	
7,750.00	0.40	354.68	7,747.37	148.01	79.17	156.85	94.00	327.06	0.41	
7,845.00	0.50	284.78	7,842.37	148.45	78.74	157.23	95.00	315.29	0.55	
7,939.00	0.40	321.98	7,936.36	148.81	78.14	157.52	94.00	301.24	0.32	
8,034.00	0.40	353.08	8,031.36	149.40	77.89	158.07	95.00	337.53	0.23	
8,129.00	0.30	327.28	8,126.36	149.94	77.72	158.58	95.00	342.06	0.19	
8,224.00	0.30	291.28	8,221.36	150.24	77.35	158.83	95.00	309.28	0.20	
8,318.00	0.30	277.88	8,315.36	150.36	76.88	158.90	94.00	284.58	0.07	
8,413.00	0.40	278.98	8,410.35	150.45	76.31	158.91	95.00	278.51	0.11	
8,506.00	0.50	275.38	8,503.35	150.54	75.58	158.91	93.00	276.98	0.11	
8,601.00	0.60	277.28	8,598.35	150.64	74.68	158.89	95.00	276.42	0.11	
8,695.00	0.80	288.98	8,692.34	150.92	73.57	159.02	94.00	283.97	0.26	
8,789.00	1.00	306.68	8,786.33	151.62	72.29	159.56	94.00	298.82	0.36	
8,882.00	1.60	322.88	8,879.31	153.14	70.85	160.89	93.00	316.66	0.75	
8,976.00	2.60	336.28	8,973.24	156.14	69.20	163.65	94.00	331.18	1.18	
9,071.00	1.30	340.18	9,068.18	159.13	67.97	166.46	95.00	337.58	1.37	
9,165.00	1.40	314.58	9,162.16	160.94	66.79	168.10	94.00	326.90	0.64	

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<b>Site:</b>	University Block 20	<b>MD Reference:</b>	RKB=26.5' @ 2838.50usft (Scan Producer)
<b>Well:</b>	#1310	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	CL (usft)	CL Azi (°)	DLeg (°/100ft)	
9,260.00	1.50	308.08	9,257.13	162.52	64.99	169.44	95.00	311.22	0.20	
9,355.00	2.00	305.98	9,352.08	164.26	62.67	170.88	95.00	306.88	0.53	
9,449.00	2.30	292.18	9,446.02	165.93	59.59	172.15	94.00	298.60	0.63	
9,554.00	2.00	270.48	9,550.95	166.74	55.81	172.47	105.00	282.10	0.82	
9,594.00	2.60	270.48	9,590.91	166.76	54.20	172.28	40.00	270.48	1.50	
9,645.00	1.60	298.68	9,641.88	167.11	52.42	172.41	51.00	281.16	2.76	
9,695.00	1.50	288.38	9,691.86	167.65	51.19	172.79	50.00	293.70	0.59	
9,788.00	1.70	290.28	9,784.83	168.51	48.74	173.33	93.00	289.39	0.22	
9,927.00	1.40	298.68	9,923.77	170.04	45.32	174.42	139.00	294.08	0.27	
10,022.00	2.10	312.98	10,018.73	171.79	43.03	175.85	95.00	307.27	0.86	
10,116.00	1.90	321.68	10,112.67	174.18	40.80	177.95	94.00	317.11	0.39	
10,211.00	1.60	304.78	10,207.63	176.18	38.73	179.66	95.00	313.96	0.62	
10,306.00	1.40	297.78	10,302.60	177.47	36.62	180.68	95.00	301.52	0.29	
10,401.00	1.40	298.78	10,397.57	178.57	34.57	181.51	95.00	298.28	0.03	
10,496.00	1.30	299.58	10,492.54	179.66	32.62	182.35	95.00	299.17	0.11	
10,590.00	1.70	282.88	10,586.51	180.50	30.33	182.89	94.00	290.11	0.63	
10,685.00	1.80	286.88	10,681.47	181.25	27.53	183.28	95.00	284.94	0.17	
10,779.00	1.70	290.38	10,775.42	182.16	24.81	183.84	94.00	288.58	0.16	
10,874.00	1.80	306.38	10,870.38	183.54	22.29	184.88	95.00	298.61	0.52	
10,969.00	0.80	288.08	10,965.35	184.63	20.46	185.73	95.00	300.78	1.13	
11,063.00	0.20	282.58	11,059.35	184.87	19.67	185.87	94.00	286.98	0.64	
11,160.00	0.90	324.48	11,156.34	185.53	19.07	186.45	97.00	317.23	0.79	
11,188.00	1.00	314.38	11,184.34	185.88	18.76	186.75	28.00	319.17	0.70	
TD: Y= 763783.05 / X= 1084185.39 - Final Station Closure= 186.82' /Direction= 5.76°										

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<b>Site:</b>	University Block 20	<b>MD Reference:</b>	RKB=26.5' @ 2838.50usft (Scan Producer)
<b>Well:</b>	#1310	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N-S (usft)	+E-W (usft)		
11,188.00	11,184.34	185.88	18.76	TD: Y= 763783.05 / X= 1084185.39	
11,188.00	11,184.34	185.88	18.76	Final Station Closure Distance= 186.82' /Direction= 5.76°	

Checked By: _____	Approved By: _____	Date: _____
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