



I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **03/07/19** thru **03/14/19** conduct or supervise the taking of a **MWD Survey** from a depth of **153'** to a depth of **4229'**; that the data is true, correct, complete and within the limitations of the tool as set forth by **Wellbenders Directional Services**; that I am authorized and qualified to make this report; that this survey was conducted at the request of **XTO Energy Inc** for the **PLU 15 Twin Wells Ranch 106H** API No. **30-015-45055** in **Eddy County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by **Wellbenders Directional Services**.

Larry Wright

**Larry
Wright**

Digitally signed
by Larry Wright
Date:
2020.03.19
13:37:21 -05'00'

*13901 Hwy 105W, Conroe, Texas
77304
PH 936-539-9602*

Well Name:	PLU 15 Twin Wells Ranch 106H	Operator:	XTO
Rig:	H & P 467	County / State:	Eddy County, NM
Geo Datum:	NAD 1927 (NADCON CONUS)	Map Zone:	New Mexico East 3001
SHL LAT/LONG:	32° 12' 39.506 N, 103° 45' 46.859 W	System Datum:	Mean Sea Level
API:	3001545055	North Reference:	GRID
GL:	3559'	Total Correction:	6.46
RKB Height:	27'	Grid Convergence:	0.3
Elevation:	3586'	VS Direction:	177.96
Field:	Purple Sage	Survey Tool Type:	Magnetic MWD
DD Personnel:		MWD Personnel:	

Gamma	Survey NUM	Survey MD	INC	AZM	TVD	SECT	N-S	E-W	DLS
	TieIn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
	MWD	153.00	0.22	224.10	153.00	0.21	-0.21	-0.20	0.14
	MWD	282.00	0.70	225.60	282.00	0.93	-0.94	-0.94	0.37
	MWD	373.00	0.48	359.80	372.99	0.94	-0.95	-1.34	1.20
	MWD	466.00	0.62	214.90	465.99	0.96	-0.97	-1.63	1.13
	MWD	610.00	0.48	229.30	609.98	1.99	-2.00	-2.53	0.14
	MWD	705.00	0.31	207.30	704.98	2.47	-2.49	-2.95	0.24
	MWD	799.00	0.22	136.20	798.98	2.83	-2.85	-2.94	0.34
	MWD	897.00	0.60	148.60	896.98	3.40	-3.42	-2.54	0.40
	MWD	1022.00	0.80	148.80	1021.97	4.72	-4.73	-1.75	0.16
	MWD	1116.00	0.60	196.70	1115.96	5.74	-5.76	-1.55	0.64
	MWD	1211.00	0.70	229.80	1210.96	6.60	-6.61	-2.14	0.40
	MWD	1305.00	0.90	222.70	1304.95	7.51	-7.52	-3.08	0.24
	MWD	1400.00	0.80	250.60	1399.94	8.27	-8.29	-4.21	0.44
	MWD	1494.00	0.80	243.20	1493.93	8.77	-8.81	-5.42	0.11
	MWD	1589.00	1.10	268.60	1588.92	9.08	-9.13	-6.92	0.54
	MWD	1683.00	1.20	279.30	1682.90	8.93	-8.99	-8.79	0.25
	MWD	1777.00	1.40	282.40	1776.87	8.52	-8.58	-10.88	0.23
	MWD	1872.00	1.50	284.10	1871.84	7.95	-8.03	-13.22	0.11
	MWD	1966.00	1.70	284.50	1965.81	7.29	-7.38	-15.77	0.21
	MWD	2060.00	2.00	286.60	2059.76	6.45	-6.56	-18.69	0.33
	MWD	2154.00	2.20	291.00	2153.69	5.31	-5.45	-21.95	0.27
	MWD	2249.00	2.10	289.60	2248.63	4.06	-4.21	-25.29	0.12
	MWD	2343.00	2.40	283.90	2342.55	2.98	-3.16	-28.82	0.40
	MWD	2437.00	2.70	282.40	2436.46	2.01	-2.21	-32.89	0.33
	MWD	2532.00	3.00	282.10	2531.34	0.98	-1.21	-37.51	0.32
	MWD	2626.00	2.80	274.20	2625.22	0.27	-0.53	-42.20	0.47
	MWD	2720.00	2.90	263.40	2719.11	0.34	-0.63	-46.86	0.58

[illegible]



I Joseph Proske, certify that I am employed by Scout Downhole Inc. (SDI). That I did on the day(s) of 03/17/19 thru 04/12/19 conduct or supervise the taking of a MWD Survey from a depth of 4360' to a depth of 22184'; that the data is true, correct, complete and within the limitations of the tool as set forth by Scout Downhole Inc. (SDI).; that I am authorized and qualified to make this report; that this survey was conducted at the request of XTO Energy LLC for the Poker Lake Unit 15 Twin Wells Ranch 106H API No. 30-015-45055 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Scout Downhole Inc. (SDI).

Joseph Proske

Joseph
Proske

Digitally signed by:
Joseph Proske
DN: CN = Joseph
Proske email =
jproske@scoutdrilltech.
com C = US O = Scout
Downhole OU = SDI
Date: 2020.03.20 09:28:
15 -05'00'

1125 Beach Airport Rd, Conroe, Texas
77301
PH 936-756-3255 FAX 936-756-3229



XTO Energy

Eddy County, NM

PLU 15 Twin Wells Ranch

PLU 15 Twin Wells Ranch 106H

Wellbore #1

Survey: Scout MWD

Standard Survey Report

26 June, 2019



Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 15 Twin Wells Ranch 106H
Project:	Eddy County, NM	TVD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Site:	PLU 15 Twin Wells Ranch	MD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Well:	PLU 15 Twin Wells Ranch 106H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 Single User Db

Project	Eddy County, NM		
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		PLU 15 Twin Wells Ranch			
Site Position:		Northing:	440,939.70 usft	Latitude:	32° 12' 39.506 N
From:	Map	Easting:	676,390.50 usft	Longitude:	103° 45' 46.859 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.30 °

Well	PLU 15 Twin Wells Ranch 106H					
Well Position	+N/-S	0.00 usft	Northing:	440,939.70 usft	Latitude:	32° 12' 39.506 N
	+E/-W	0.00 usft	Easting:	676,390.50 usft	Longitude:	103° 45' 46.859 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,559.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	02/22/19	6.77	59.90	47,927.10000000

Design	Surveys				
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	230.92	

Survey Program	Date	06/26/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
153.00	4,229.00	Wellbenders (Wellbore #1)	MWD	MWD - Standard	
4,360.00	22,245.00	Scout MWD (Wellbore #1)	A008Mb_MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

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)	
4,229.00	5.71	127.00	4,226.24	-29.60	-36.45	46.95	0.00	0.00	0.00	
4,360.00	4.44	116.85	4,356.72	-35.81	-26.72	43.32	1.18	-0.97	-7.75	
First Scout MWD Survey @ 4360.00' MD										
4,454.00	2.99	119.05	4,450.52	-38.64	-21.33	40.92	1.55	-1.54	2.34	
4,549.00	1.19	124.50	4,545.46	-40.40	-18.35	39.72	1.90	-1.89	5.74	
4,643.00	0.09	354.24	4,639.45	-40.88	-17.55	39.40	1.33	-1.17	-138.57	
4,737.00	1.27	314.34	4,733.44	-40.08	-18.31	39.48	1.28	1.26	-42.45	
4,831.00	1.80	315.48	4,827.41	-38.30	-20.09	39.74	0.56	0.56	1.21	
4,926.00	1.67	316.19	4,922.36	-36.24	-22.09	39.99	0.14	-0.14	0.75	
5,020.00	1.85	311.00	5,016.32	-34.26	-24.18	40.37	0.26	0.19	-5.52	

Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 15 Twin Wells Ranch 106H
Project:	Eddy County, NM	TVD Reference:	GL 3559' + 27" KB @ 3586.00usft (H&P 467)
Site:	PLU 15 Twin Wells Ranch	MD Reference:	GL 3559' + 27" KB @ 3586.00usft (H&P 467)
Well:	PLU 15 Twin Wells Ranch 106H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 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)	
5,115.00	1.80	312.50	5,111.27	-32.24	-26.44	40.85	0.07	-0.05	1.58	
5,210.00	1.93	313.29	5,206.22	-30.14	-28.71	41.28	0.14	0.14	0.83	
5,304.00	2.02	311.79	5,300.16	-27.95	-31.09	41.75	0.11	0.10	-1.60	
5,399.00	1.89	315.31	5,395.11	-25.72	-33.44	42.17	0.19	-0.14	3.71	
5,493.00	1.19	331.48	5,489.08	-23.76	-35.00	42.15	0.87	-0.74	17.20	
5,587.00	1.01	341.50	5,583.06	-22.11	-35.73	41.68	0.28	-0.19	10.66	
5,682.00	1.01	336.84	5,678.04	-20.55	-36.32	41.15	0.09	0.00	-4.91	
5,776.00	1.05	330.95	5,772.03	-19.04	-37.07	40.78	0.12	0.04	-6.27	
5,871.00	1.10	330.42	5,867.01	-17.48	-37.94	40.47	0.05	0.05	-0.56	
5,965.00	1.32	326.47	5,960.99	-15.79	-38.98	40.22	0.25	0.23	-4.20	
6,060.00	2.20	321.90	6,055.94	-13.45	-40.71	40.08	0.94	0.93	-4.81	
6,154.00	1.85	333.85	6,149.89	-10.67	-42.50	39.71	0.58	-0.37	12.71	
6,249.00	1.10	46.01	6,244.86	-8.66	-42.52	38.46	1.94	-0.79	75.96	
6,343.00	1.49	79.32	6,338.84	-7.80	-40.67	36.49	0.88	0.41	35.44	
6,438.00	1.14	65.00	6,433.81	-7.17	-38.59	34.48	0.50	-0.37	-15.07	
6,532.00	0.18	86.62	6,527.81	-6.77	-37.60	33.46	1.04	-1.02	23.00	
6,627.00	0.31	178.02	6,622.81	-7.02	-37.44	33.49	0.38	0.14	96.21	
6,722.00	0.57	189.54	6,717.80	-7.74	-37.51	34.00	0.29	0.27	12.13	
6,816.00	0.53	193.93	6,811.80	-8.62	-37.69	34.70	0.06	-0.04	4.67	
6,911.00	0.70	192.09	6,906.79	-9.62	-37.92	35.50	0.18	0.18	-1.94	
7,006.00	0.53	195.16	7,001.79	-10.61	-38.16	36.31	0.18	-0.18	3.23	
7,101.00	0.26	182.94	7,096.78	-11.25	-38.28	36.81	0.30	-0.28	-12.86	
7,196.00	0.09	195.78	7,191.78	-11.54	-38.31	37.02	0.18	-0.18	13.52	
7,290.00	0.04	23.42	7,285.78	-11.58	-38.32	37.05	0.14	-0.05	-183.36	
7,385.00	0.18	74.84	7,380.78	-11.51	-38.16	36.88	0.17	0.15	54.13	
7,479.00	0.09	90.40	7,474.78	-11.47	-37.95	36.69	0.10	-0.10	16.55	
7,573.00	0.18	145.68	7,568.78	-11.59	-37.79	36.64	0.16	0.10	58.81	
7,668.00	0.26	138.82	7,663.78	-11.88	-37.57	36.65	0.09	0.08	-7.22	
7,762.00	0.31	148.49	7,757.78	-12.26	-37.29	36.67	0.07	0.05	10.29	
7,857.00	0.40	148.23	7,852.78	-12.76	-36.98	36.75	0.09	0.09	-0.27	
7,952.00	0.40	157.98	7,947.78	-13.35	-36.68	36.89	0.07	0.00	10.26	
8,046.00	0.44	171.69	8,041.78	-14.01	-36.51	37.17	0.11	0.04	14.59	
8,140.00	0.48	185.32	8,135.77	-14.76	-36.49	37.63	0.12	0.04	14.50	
8,234.00	0.26	199.73	8,229.77	-15.35	-36.60	38.09	0.25	-0.23	15.33	
8,329.00	0.26	218.98	8,324.77	-15.72	-36.81	38.48	0.09	0.00	20.26	
8,423.00	0.53	238.23	8,418.77	-16.11	-37.31	39.12	0.32	0.29	20.48	
8,517.00	0.57	258.71	8,512.76	-16.43	-38.14	39.97	0.21	0.04	21.79	
8,611.00	0.44	253.87	8,606.76	-16.63	-38.95	40.72	0.15	-0.14	-5.15	
8,706.00	0.57	251.59	8,701.76	-16.88	-39.75	41.49	0.14	0.14	-2.40	
8,800.00	0.66	236.21	8,795.75	-17.33	-40.64	42.47	0.20	0.10	-16.36	
8,895.00	0.84	205.80	8,890.74	-18.26	-41.40	43.65	0.45	0.19	-32.01	
8,989.00	1.23	193.40	8,984.73	-19.86	-41.93	45.07	0.48	0.41	-13.19	
9,084.00	1.10	197.97	9,079.71	-21.72	-42.45	46.64	0.17	-0.14	4.81	

Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 15 Twin Wells Ranch 106H
Project:	Eddy County, NM	TVD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Site:	PLU 15 Twin Wells Ranch	MD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Well:	PLU 15 Twin Wells Ranch 106H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 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)
9,179.00	1.01	228.91	9,174.69	-23.14	-43.36	48.25	0.60	-0.09	32.57
9,274.00	1.01	248.42	9,269.68	-23.99	-44.77	49.88	0.36	0.00	20.54
9,369.00	0.97	320.23	9,364.67	-23.68	-46.06	50.69	1.22	-0.04	75.59
9,463.00	1.01	313.11	9,458.65	-22.51	-47.18	50.81	0.14	0.04	-7.57
9,558.00	0.88	292.46	9,553.64	-21.65	-48.46	51.27	0.38	-0.14	-21.74
9,653.00	0.88	283.49	9,648.63	-21.21	-49.85	52.06	0.14	0.00	-9.44
9,747.00	1.10	265.21	9,742.61	-21.11	-51.45	53.25	0.41	0.23	-19.45
9,842.00	1.93	243.33	9,837.58	-21.91	-53.79	55.56	1.05	0.87	-23.03
9,936.00	2.24	242.09	9,931.52	-23.48	-56.82	58.91	0.33	0.33	-1.32
10,031.00	2.20	270.92	10,026.45	-24.32	-60.29	62.13	1.16	-0.04	30.35
10,126.00	2.51	266.79	10,121.37	-24.40	-64.19	65.21	0.37	0.33	-4.35
10,221.00	2.11	263.28	10,216.29	-24.73	-68.00	68.38	0.45	-0.42	-3.69
10,316.00	2.11	279.27	10,311.23	-24.65	-71.46	71.02	0.62	0.00	16.83
10,411.00	1.54	287.09	10,406.18	-23.99	-74.41	72.89	0.65	-0.60	8.23
10,506.00	1.36	299.93	10,501.15	-23.05	-76.61	74.00	0.39	-0.19	13.52
10,532.00	1.19	310.91	10,527.14	-22.72	-77.08	74.16	1.14	-0.65	42.23
10,606.00	1.36	307.84	10,601.13	-21.68	-78.35	74.49	0.25	0.23	-4.15
10,700.00	1.05	288.59	10,695.11	-20.72	-80.05	75.21	0.54	-0.33	-20.48
10,795.00	1.23	74.22	10,790.10	-20.17	-79.89	74.74	2.29	0.19	153.29
10,890.00	1.32	74.31	10,885.07	-19.59	-77.86	72.79	0.09	0.09	0.09
10,956.00	1.32	95.41	10,951.06	-19.46	-76.37	71.55	0.73	0.00	31.97
10,997.00	1.24	76.28	10,992.05	-19.40	-75.47	70.82	1.06	-0.20	-46.66
11,091.00	8.50	142.63	11,085.68	-24.69	-70.26	70.10	8.60	7.72	70.59
11,138.00	14.49	130.87	11,131.72	-31.30	-63.70	69.18	13.62	12.74	-25.02
11,185.00	19.39	124.77	11,176.67	-39.61	-52.83	65.98	11.08	10.43	-12.98
11,233.00	22.57	123.71	11,221.48	-49.26	-38.62	61.04	6.67	6.63	-2.21
11,280.00	24.72	127.22	11,264.53	-60.22	-23.29	56.04	5.47	4.57	7.47
11,327.00	29.34	129.51	11,306.39	-73.49	-6.57	51.43	10.07	9.83	4.87
11,374.00	34.57	131.61	11,346.26	-89.69	12.30	46.99	11.37	11.13	4.47
11,422.00	39.35	131.86	11,384.60	-108.90	33.82	42.38	9.96	9.96	0.52
11,469.00	42.95	131.51	11,419.98	-129.46	56.92	37.42	7.68	7.66	-0.74
11,517.00	45.92	133.74	11,454.26	-152.22	81.63	32.58	6.99	6.19	4.65
11,564.00	48.54	133.50	11,486.17	-176.02	106.60	28.20	5.59	5.57	-0.51
11,611.00	53.05	134.62	11,515.87	-201.35	132.76	23.86	9.77	9.60	2.38
11,658.00	55.83	135.25	11,543.20	-228.35	159.82	19.87	6.01	5.91	1.34
11,705.00	60.04	135.71	11,568.15	-256.75	187.74	16.10	9.00	8.96	0.98
11,752.00	64.51	136.81	11,590.01	-286.80	216.49	12.72	9.73	9.51	2.34
11,800.00	68.67	142.31	11,609.09	-320.33	245.02	11.71	13.62	8.67	11.46
11,847.00	70.16	149.39	11,625.63	-356.72	269.69	15.50	14.45	3.17	15.06
11,894.00	68.90	157.31	11,642.09	-396.03	289.43	24.95	16.01	-2.68	16.85
11,941.00	67.80	165.44	11,659.45	-437.37	303.37	40.19	16.24	-2.34	17.30
11,989.00	68.64	167.35	11,677.27	-480.69	313.86	59.36	4.09	1.75	3.98
12,036.00	68.66	170.15	11,694.38	-523.62	322.40	79.79	5.55	0.04	5.96

Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 15 Twin Wells Ranch 106H
Project:	Eddy County, NM	TVD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Site:	PLU 15 Twin Wells Ranch	MD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Well:	PLU 15 Twin Wells Ranch 106H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 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)
12,083.00	69.64	173.39	11,711.11	-567.08	328.68	102.31	6.77	2.09	6.89
12,130.00	71.00	176.69	11,726.94	-611.17	332.50	127.13	7.22	2.89	7.02
12,178.00	74.17	180.78	11,741.31	-656.94	333.49	155.21	10.47	6.60	8.52
12,225.00	76.20	182.19	11,753.33	-702.36	332.31	184.75	5.20	4.32	3.00
12,272.00	81.70	183.42	11,762.34	-748.41	330.05	215.54	11.98	11.70	2.62
12,320.00	87.05	184.38	11,767.04	-796.05	326.80	248.09	11.32	11.15	2.00
12,367.00	87.56	183.89	11,769.25	-842.88	323.42	280.24	1.50	1.09	-1.04
12,414.00	89.40	181.73	11,770.50	-889.80	321.12	311.60	6.04	3.91	-4.60
12,509.00	92.16	181.35	11,769.20	-984.75	318.56	373.44	2.93	2.91	-0.40
12,603.00	91.56	181.42	11,766.15	-1,078.67	316.29	434.40	0.64	-0.64	0.07
12,698.00	90.40	181.85	11,764.53	-1,173.61	313.58	496.36	1.30	-1.22	0.45
12,793.00	88.27	178.19	11,765.63	-1,268.59	313.55	556.25	4.46	-2.24	-3.85
12,887.00	86.76	176.90	11,769.71	-1,362.41	317.57	612.27	2.11	-1.61	-1.37
12,982.00	87.17	177.25	11,774.74	-1,457.15	322.41	668.23	0.57	0.43	0.37
13,076.00	89.18	178.72	11,777.73	-1,551.04	325.71	724.85	2.65	2.14	1.56
13,171.00	88.51	177.79	11,779.64	-1,645.97	328.61	782.45	1.21	-0.71	-0.98
13,265.00	88.88	177.56	11,781.78	-1,739.87	332.42	838.68	0.46	0.39	-0.24
13,360.00	91.49	178.18	11,781.48	-1,834.79	335.95	895.77	2.82	2.75	0.65
13,454.00	90.59	177.12	11,779.77	-1,928.70	339.80	951.97	1.48	-0.96	-1.13
13,549.00	90.14	177.62	11,779.17	-2,023.59	344.16	1,008.41	0.71	-0.47	0.53
13,644.00	90.33	177.19	11,778.78	-2,118.50	348.46	1,064.89	0.49	0.20	-0.45
13,738.00	91.83	177.98	11,777.01	-2,212.39	352.42	1,121.00	1.80	1.60	0.84
13,832.00	92.21	181.35	11,773.69	-2,306.32	352.97	1,179.78	3.61	0.40	3.59
13,927.00	90.72	181.29	11,771.26	-2,401.26	350.78	1,241.33	1.57	-1.57	-0.06
14,022.00	91.96	180.95	11,769.04	-2,496.21	348.93	1,302.62	1.35	1.31	-0.36
14,116.00	90.62	180.55	11,766.92	-2,590.18	347.70	1,362.81	1.49	-1.43	-0.43
14,210.00	88.60	180.13	11,767.56	-2,684.17	347.14	1,422.49	2.19	-2.15	-0.45
14,305.00	87.56	180.28	11,770.75	-2,779.12	346.80	1,482.60	1.11	-1.09	0.16
14,397.00	88.31	179.69	11,774.06	-2,871.05	346.82	1,540.54	1.04	0.82	-0.64
14,492.00	89.65	180.70	11,775.75	-2,966.04	346.50	1,600.66	1.77	1.41	1.06
14,587.00	92.33	180.24	11,774.11	-3,061.01	345.72	1,661.13	2.86	2.82	-0.48
14,681.00	92.57	180.67	11,770.09	-3,154.92	344.98	1,720.91	0.52	0.26	0.46
14,776.00	90.60	180.77	11,767.47	-3,249.87	343.78	1,781.69	2.08	-2.07	0.11
14,871.00	90.75	180.26	11,766.35	-3,344.86	342.93	1,842.23	0.56	0.16	-0.54
14,966.00	90.51	180.11	11,765.30	-3,439.85	342.62	1,902.35	0.30	-0.25	-0.16
15,061.00	90.33	180.12	11,764.61	-3,534.85	342.43	1,962.38	0.19	-0.19	0.01
15,155.00	90.40	179.83	11,764.01	-3,628.85	342.47	2,021.60	0.32	0.07	-0.31
15,250.00	90.43	179.80	11,763.32	-3,723.85	342.78	2,081.24	0.04	0.03	-0.03
15,344.00	90.70	179.28	11,762.39	-3,817.84	343.53	2,139.90	0.62	0.29	-0.55
15,439.00	89.85	178.08	11,761.94	-3,912.81	345.72	2,198.07	1.55	-0.89	-1.26
15,533.00	90.25	177.55	11,761.85	-4,006.74	349.31	2,254.50	0.71	0.43	-0.56
15,627.00	90.81	177.54	11,760.98	-4,100.65	353.33	2,310.57	0.60	0.60	-0.01
15,721.00	89.56	177.68	11,760.68	-4,194.57	357.25	2,366.73	1.34	-1.33	0.15
15,816.00	91.09	181.40	11,760.14	-4,289.54	358.02	2,426.00	4.23	1.61	3.92

Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 15 Twin Wells Ranch 106H
Project:	Eddy County, NM	TVD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Site:	PLU 15 Twin Wells Ranch	MD Reference:	GL 3559' + 27' KB @ 3586.00usft (H&P 467)
Well:	PLU 15 Twin Wells Ranch 106H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 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)
15,910.00	89.36	181.39	11,759.77	-4,383.51	355.73	2,487.01	1.84	-1.84	-0.01
16,005.00	90.00	181.58	11,760.30	-4,478.48	353.26	2,548.78	0.70	0.67	0.20
16,099.00	90.61	182.14	11,759.80	-4,572.42	350.21	2,610.37	0.88	0.65	0.60
16,193.00	88.80	181.32	11,760.29	-4,666.38	347.38	2,671.80	2.11	-1.93	-0.87
16,288.00	88.44	181.30	11,762.58	-4,761.32	345.20	2,733.34	0.38	-0.38	-0.02
16,382.00	88.48	181.46	11,765.10	-4,855.26	342.94	2,794.31	0.18	0.04	0.17
16,476.00	88.84	181.40	11,767.30	-4,949.21	340.60	2,855.35	0.39	0.38	-0.06
16,570.00	88.80	181.03	11,769.24	-5,043.17	338.60	2,916.12	0.40	-0.04	-0.39
16,664.00	88.92	180.91	11,771.11	-5,137.13	337.01	2,976.59	0.18	0.13	-0.13
16,758.00	88.77	180.45	11,773.00	-5,231.11	335.90	3,036.69	0.51	-0.16	-0.49
16,853.00	88.42	181.08	11,775.33	-5,326.07	334.63	3,097.54	0.76	-0.37	0.66
16,947.00	87.90	180.98	11,778.35	-5,420.01	332.94	3,158.06	0.56	-0.55	-0.11
17,074.00	89.98	179.17	11,780.70	-5,546.97	332.78	3,238.22	2.17	1.64	-1.43
17,168.00	90.41	179.96	11,780.38	-5,640.97	333.49	3,296.92	0.96	0.46	0.84
17,262.00	89.38	181.90	11,780.55	-5,734.95	331.96	3,357.34	2.34	-1.10	2.06
17,356.00	88.67	180.34	11,782.15	-5,828.91	330.13	3,418.00	1.82	-0.76	-1.66
17,451.00	88.96	179.47	11,784.11	-5,923.89	330.28	3,477.75	0.97	0.31	-0.92
17,545.00	90.19	178.95	11,784.81	-6,017.88	331.58	3,535.99	1.42	1.31	-0.55
17,640.00	89.27	178.20	11,785.26	-6,112.85	333.94	3,594.02	1.25	-0.97	-0.79
17,734.00	90.74	177.26	11,785.25	-6,206.77	337.67	3,650.33	1.86	1.56	-1.00
17,829.00	90.58	176.62	11,784.16	-6,301.63	342.74	3,706.19	0.69	-0.17	-0.67
17,923.00	88.56	174.62	11,784.86	-6,395.34	349.91	3,759.69	3.02	-2.15	-2.13
18,018.00	89.74	176.54	11,786.27	-6,490.04	357.23	3,813.70	2.37	1.24	2.02
18,112.00	89.31	177.05	11,787.05	-6,583.89	362.49	3,868.78	0.71	-0.46	0.54
18,206.00	91.63	175.92	11,786.28	-6,677.70	368.25	3,923.44	2.75	2.47	-1.20
18,301.00	93.48	180.60	11,782.04	-6,772.53	371.13	3,980.98	5.29	1.95	4.93
18,395.00	92.49	182.88	11,777.15	-6,866.36	368.28	4,042.34	2.64	-1.05	2.43
18,490.00	91.11	182.75	11,774.16	-6,961.19	363.62	4,105.74	1.46	-1.45	-0.14
18,585.00	90.24	183.46	11,773.04	-7,056.04	358.48	4,169.52	1.18	-0.92	0.75
18,679.00	90.48	182.07	11,772.45	-7,149.93	353.94	4,232.22	1.50	0.26	-1.48
18,773.00	89.44	180.09	11,772.52	-7,243.91	352.17	4,292.84	2.38	-1.11	-2.11
18,868.00	92.63	180.56	11,770.80	-7,338.88	351.63	4,353.12	3.39	3.36	0.49
18,962.00	91.78	179.39	11,767.19	-7,432.81	351.67	4,412.30	1.54	-0.90	-1.24
19,056.00	90.31	179.02	11,765.47	-7,526.78	352.98	4,470.52	1.61	-1.56	-0.39
19,151.00	88.31	178.92	11,766.62	-7,621.75	354.68	4,529.06	2.11	-2.11	-0.11
19,245.00	89.21	179.19	11,768.65	-7,715.72	356.23	4,587.09	1.00	0.96	0.29
19,339.00	91.60	178.91	11,767.99	-7,809.69	357.79	4,645.12	2.56	2.54	-0.30
19,434.00	91.05	180.14	11,765.79	-7,904.66	358.58	4,704.37	1.42	-0.58	1.29
19,528.00	89.97	180.43	11,764.95	-7,998.66	358.11	4,763.98	1.19	-1.15	0.31
19,622.00	89.51	180.60	11,765.38	-8,092.65	357.27	4,823.89	0.52	-0.49	0.18
19,716.00	89.03	179.79	11,766.58	-8,186.64	356.95	4,883.38	1.00	-0.51	-0.86
19,811.00	88.75	181.05	11,768.42	-8,281.62	356.25	4,943.79	1.36	-0.29	1.33
19,905.00	91.57	182.30	11,768.15	-8,375.57	353.50	5,005.15	3.28	3.00	1.33

Company:	XTO Energy	Local Co-ordinate Reference:	Well PLU 15 Twin Wells Ranch 106H
Project:	Eddy County, NM	TVD Reference:	GL 3559' + 27" KB @ 3586.00usft (H&P 467)
Site:	PLU 15 Twin Wells Ranch	MD Reference:	GL 3559' + 27" KB @ 3586.00usft (H&P 467)
Well:	PLU 15 Twin Wells Ranch 106H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.14 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)
20,000.00	91.67	181.92	11,765.47	-8,470.47	350.01	5,067.68	0.41	0.11	-0.40
20,094.00	90.13	181.81	11,763.99	-8,564.40	346.95	5,129.27	1.64	-1.64	-0.12
20,189.00	89.13	182.11	11,764.61	-8,659.34	343.70	5,191.64	1.10	-1.05	0.32
20,283.00	88.04	181.86	11,766.93	-8,753.26	340.44	5,253.36	1.19	-1.16	-0.27
20,378.00	87.62	182.28	11,770.52	-8,848.13	337.02	5,315.83	0.63	-0.44	0.44
20,472.00	89.22	181.66	11,773.12	-8,942.03	333.79	5,377.53	1.83	1.70	-0.66
20,566.00	90.19	181.20	11,773.60	-9,036.00	331.44	5,438.58	1.14	1.03	-0.49
20,661.00	89.82	177.54	11,773.59	-9,130.98	332.48	5,497.64	3.87	-0.39	-3.85
20,755.00	88.72	176.84	11,774.79	-9,224.85	337.09	5,553.24	1.39	-1.17	-0.74
20,849.00	88.61	176.85	11,776.98	-9,318.69	342.26	5,608.37	0.12	-0.12	0.01
20,944.00	88.71	177.24	11,779.20	-9,413.53	347.16	5,664.36	0.42	0.11	0.41
21,038.00	90.16	179.02	11,780.13	-9,507.47	350.23	5,721.19	2.44	1.54	1.89
21,132.00	89.87	179.06	11,780.10	-9,601.46	351.80	5,779.21	0.31	-0.31	0.04
21,227.00	91.55	179.76	11,778.93	-9,696.44	352.78	5,838.33	1.92	1.77	0.74
21,321.00	91.13	178.97	11,776.73	-9,790.41	353.82	5,896.75	0.95	-0.45	-0.84
21,415.00	90.35	179.01	11,775.51	-9,884.39	355.48	5,954.71	0.83	-0.83	0.04
21,509.00	89.63	178.49	11,775.53	-9,978.36	357.53	6,012.35	0.94	-0.77	-0.55
21,604.00	89.51	178.27	11,776.24	-10,073.32	360.21	6,070.13	0.26	-0.13	-0.23
21,698.00	88.84	177.36	11,777.60	-10,167.24	363.80	6,126.55	1.20	-0.71	-0.97
21,793.00	90.16	179.17	11,778.43	-10,262.19	366.67	6,184.16	2.36	1.39	1.91
21,887.00	89.33	178.69	11,778.84	-10,356.17	368.43	6,242.04	1.02	-0.88	-0.51
21,981.00	89.20	178.29	11,780.05	-10,450.13	370.91	6,299.35	0.45	-0.14	-0.43
22,076.00	88.99	178.48	11,781.55	-10,545.08	373.58	6,357.12	0.30	-0.22	0.20
22,170.00	88.18	178.10	11,783.87	-10,639.01	376.39	6,414.15	0.95	-0.86	-0.40
22,184.00	88.24	178.38	11,784.31	-10,653.00	376.82	6,422.64	2.04	0.43	2.00
Last Scout MWD Survey @ 22184.00' MD									
22,245.00	88.24	178.38	11,786.18	-10,713.94	378.54	6,459.72	0.00	0.00	0.00
Projection to Bit @ 22245.00' MD									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,360.00	4,356.72	-35.81	-26.72	First Scout MWD Survey @ 4360.00' MD
22,184.00	11,784.31	-10,653.00	376.82	Last Scout MWD Survey @ 22184.00' MD
22,245.00	11,786.18	-10,713.94	378.54	Projection to Bit @ 22245.00' MD

Checked By: _____ Approved By: _____ Date: _____