

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

EMNRD-OCD ARTESIA
REC'D: 7/8/2020

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

AS-DRILLED PLAT

¹ API Number 30-015-45847	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP
⁴ Property Code 325339	⁵ Property Name POKER LAKE UNIT 25 BD	⁶ Well Number 104H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁹ Elevation 3,345'

¹⁰ Surface Location

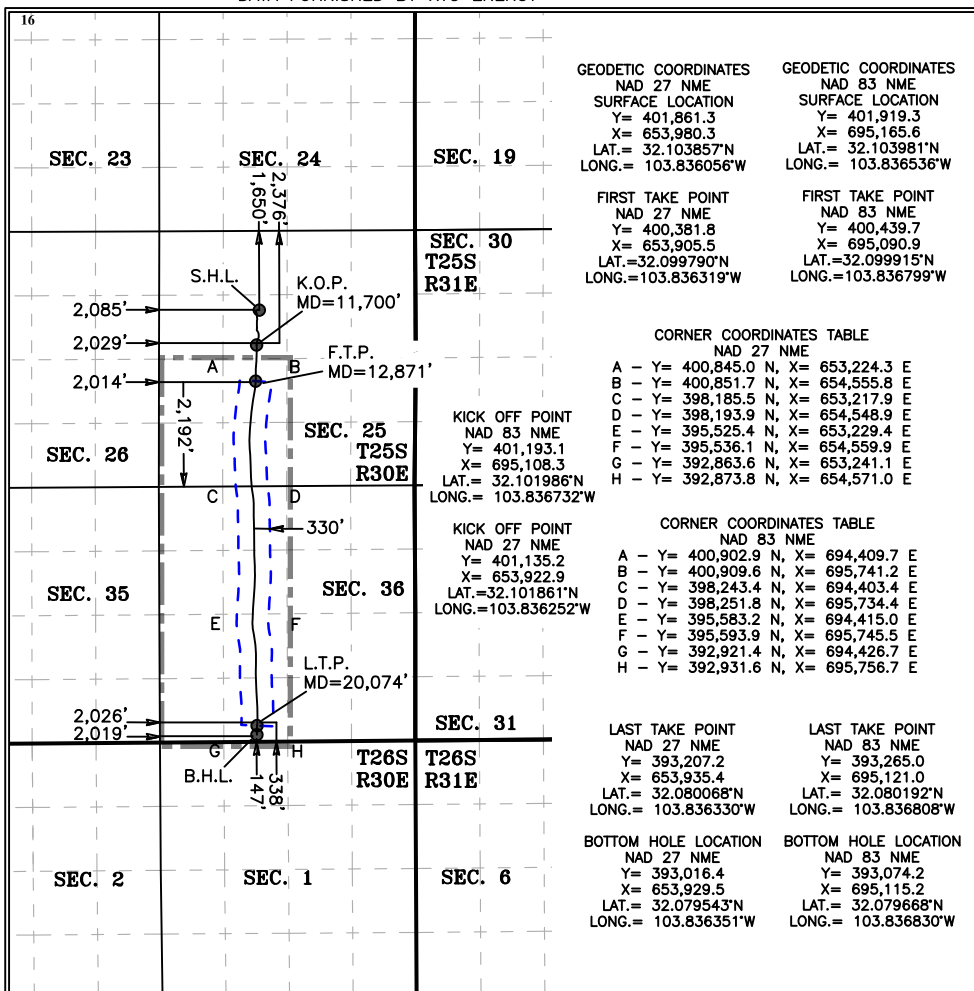
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	25	25 S	30 E		1,650	NORTH	2,085	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	25 S	30 E		147	SOUTH	2,019	WEST	EDDY

¹² Dedicated Acres 480	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.
NOTE: AS-DRILLED BOTTOM HOLE PLOTTED FROM
DATA FURNISHED BY XTO ENERGY



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Cheryl Rowell Date: 6/25/20

Printed Name: Cheryl Rowell

E-mail Address: cheryl_rowell@xtoenergy.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

6-26-2020

Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP 23786
Certificate Number



JC 2018010052

RWP 7/10/2020

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number



I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **07/23/19** thru **11/06/19** conduct or supervise the taking of a **MWD Survey and Third Party Corrections** from a depth of **198'** to a depth of **18660'** and from a depth of **12797'** to a depth of **18998'** and from a depth of **17888'** to a depth of **20265'**; 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 **Poker Lake Unit 25 Brushy Draw 164H API No. 30-015-45847** 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:
2019.12.12
13:01:59 -06'00'



XTO Energy

Eddy County, NM (Nad-27 / East Zone)

Poker Lake Unit 25 BD

#164H

ST02

Design: ST02

End Of Well Report

08 November, 2019



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well #164H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Project	Eddy County, NM (Nad-27 / East Zone)		
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	Poker Lake Unit 25 BD		
Site Position:		Northing:	400,908.10 usft
From:	Map	Easting:	652,415.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	32.101256
		Longitude:	-103.841124
		Grid Convergence:	0.262 °

Well		#164H				
Well Position	+N/-S	0.00 usft	Northing:	401,861.30 usft	Latitude:	32.103857
	+E/-W	0.00 usft	Easting:	653,980.30 usft	Longitude:	-103.836056
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,345.00 usft

Wellbore	ST02				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/2/2019	6.810	59.880	47,595.60988549

Design	ST02			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 17,867.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.86



Wellbenders End Of Well Report

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Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	WBDS_SQL_2

Survey Program		Date	11/8/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
198.00	12,759.00	Survey #1 (Wellbore #1)	WBDS_IGRF	OWSG MWD + IGRF or WMM	
12,797.00	17,867.00	Survey #1 (ST01)	WBDS_IGRF	OWSG MWD + IGRF or WMM	
17,888.00	20,265.00	Survey #1 (ST02)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

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
198.00	0.79	274.94	197.99	0.12	-1.36	-0.12	198.00	274.94	0.40
285.00	0.40	295.33	284.99	0.30	-2.23	-0.30	87.00	281.76	0.50
379.00	0.62	277.04	378.99	0.50	-3.03	-0.51	94.00	284.20	0.29
473.00	0.79	297.17	472.98	0.86	-4.11	-0.87	94.00	288.33	0.32
599.00	0.70	305.08	598.97	1.70	-5.52	-1.71	126.00	300.89	0.11
656.00	0.70	331.01	655.96	2.20	-5.97	-2.22	57.00	318.05	0.55
693.00	0.62	333.03	692.96	2.58	-6.17	-2.59	37.00	331.96	0.23
786.00	0.79	286.36	785.95	3.21	-7.01	-3.23	93.00	306.72	0.62
880.00	1.10	331.54	879.94	4.18	-8.07	-4.20	94.00	312.85	0.83
975.00	0.70	324.95	974.93	5.46	-8.83	-5.48	95.00	328.98	0.43
1,069.00	0.70	323.01	1,068.92	6.39	-9.51	-6.41	94.00	323.98	0.03
1,083.00	0.70	344.19	1,082.92	6.54	-9.58	-6.56	14.00	333.60	1.84
1,227.00	1.19	356.65	1,226.90	8.88	-9.91	-8.90	144.00	352.04	0.37
1,322.00	2.20	296.30	1,321.87	10.67	-11.60	-10.70	95.00	316.65	2.02
1,417.00	3.12	266.65	1,416.77	11.33	-15.82	-11.37	95.00	278.86	1.71
1,512.00	3.69	257.42	1,511.60	10.51	-21.38	-10.56	95.00	261.65	0.83
1,605.00	4.00	258.91	1,604.39	9.24	-27.49	-9.30	93.00	258.19	0.35
1,699.00	4.00	260.41	1,698.16	8.06	-33.94	-8.14	94.00	259.66	0.11
1,794.00	3.12	240.81	1,792.98	6.25	-39.46	-6.34	95.00	251.83	1.57



Wellbenders End Of Well Report

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Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26.5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)	
1,888.00	2.81	220.68	1,886.86	3.25	-43.20	-3.36	94.00	231.28	1.15	
1,983.00	2.90	224.64	1,981.74	-0.22	-46.40	0.11	95.00	222.69	0.23	
2,076.00	3.30	214.62	2,074.60	-4.10	-49.58	3.98	93.00	219.31	0.72	
2,170.00	2.02	241.34	2,168.50	-7.12	-52.57	6.99	94.00	224.71	1.86	
2,263.00	1.49	273.50	2,261.46	-7.83	-55.21	7.70	93.00	254.93	1.18	
2,357.00	1.71	276.40	2,355.43	-7.60	-57.83	7.46	94.00	275.05	0.25	
2,450.00	1.41	269.72	2,448.39	-7.45	-60.35	7.31	93.00	273.38	0.38	
2,544.00	1.32	269.64	2,542.36	-7.47	-62.59	7.31	94.00	269.68	0.10	
2,638.00	1.32	270.16	2,636.34	-7.47	-64.76	7.31	94.00	269.90	0.01	
2,731.00	1.01	272.80	2,729.32	-7.43	-66.65	7.26	93.00	271.30	0.34	
2,824.00	1.32	271.75	2,822.30	-7.35	-68.53	7.19	93.00	272.21	0.33	
2,919.00	1.10	274.73	2,917.28	-7.25	-70.54	7.07	95.00	273.10	0.24	
3,013.00	1.01	281.41	3,011.26	-7.01	-72.25	6.83	94.00	277.93	0.16	
3,107.00	1.41	229.56	3,105.25	-7.59	-73.94	7.41	94.00	250.89	1.19	
3,201.00	1.41	207.06	3,199.22	-9.37	-75.35	9.19	94.00	218.31	0.59	
3,296.00	1.80	184.91	3,294.18	-11.90	-76.01	11.72	95.00	194.62	0.76	
3,389.00	2.42	170.32	3,387.12	-15.29	-75.80	15.11	93.00	176.54	0.88	
3,483.00	2.29	160.74	3,481.04	-19.02	-74.85	18.84	94.00	165.66	0.44	
3,577.00	2.81	148.43	3,574.95	-22.76	-73.02	22.58	94.00	153.96	0.80	
3,670.00	2.99	163.55	3,667.83	-27.03	-71.14	26.85	93.00	156.23	0.84	
3,764.00	3.69	161.71	3,761.67	-32.25	-69.50	32.08	94.00	162.53	0.75	
3,859.00	4.48	159.33	3,856.43	-38.62	-67.23	38.46	95.00	160.41	0.85	
3,952.00	4.22	157.58	3,949.16	-45.19	-64.64	45.03	93.00	158.48	0.31	
4,044.00	4.09	158.02	4,040.92	-51.36	-62.12	51.20	92.00	157.80	0.15	
4,139.00	5.41	164.26	4,135.59	-58.81	-59.64	58.66	95.00	161.57	1.49	
4,233.00	6.11	166.45	4,229.11	-67.94	-57.27	67.80	94.00	165.42	0.78	
4,328.00	5.89	165.05	4,323.59	-77.56	-54.82	77.43	95.00	165.76	0.28	



Wellbenders End Of Well Report

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Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)	
4,423.00	6.11	164.52	4,418.07	-87.14	-52.22	87.02	95.00	164.78	0.24	
4,517.00	6.29	166.19	4,511.52	-96.97	-49.65	96.84	94.00	165.37	0.27	
4,612.00	5.89	178.50	4,605.99	-106.89	-48.28	106.77	95.00	172.14	1.43	
4,706.00	5.89	180.34	4,699.49	-116.54	-48.19	116.42	94.00	179.42	0.20	
4,801.00	6.02	179.20	4,793.98	-126.39	-48.14	126.27	95.00	179.76	0.18	
4,896.00	5.80	178.14	4,888.48	-136.17	-47.92	136.05	95.00	178.68	0.26	
4,990.00	5.49	178.32	4,982.02	-145.41	-47.63	145.30	94.00	178.23	0.33	
5,084.00	5.10	176.91	5,075.62	-154.08	-47.28	153.96	94.00	177.64	0.44	
5,179.00	4.88	174.10	5,170.26	-162.32	-46.63	162.20	95.00	175.54	0.35	
5,273.00	4.62	174.89	5,263.94	-170.06	-45.89	169.95	94.00	174.48	0.29	
5,367.00	4.70	168.91	5,357.63	-177.61	-44.81	177.50	94.00	171.87	0.52	
5,461.00	4.79	169.44	5,451.30	-185.25	-43.35	185.14	94.00	169.18	0.11	
5,554.00	5.41	186.84	5,543.94	-193.42	-43.16	193.31	93.00	178.67	1.78	
5,649.00	5.10	187.11	5,638.54	-202.06	-44.21	201.95	95.00	186.97	0.33	
5,744.00	4.88	188.25	5,733.18	-210.25	-45.32	210.14	95.00	187.67	0.25	
5,838.00	5.19	190.10	5,826.82	-218.39	-46.64	218.27	94.00	189.20	0.37	
5,933.00	5.19	188.16	5,921.43	-226.87	-48.00	226.75	95.00	189.13	0.18	
6,027.00	5.32	188.51	6,015.04	-235.39	-49.25	235.27	94.00	188.34	0.14	
6,121.00	5.19	183.42	6,108.64	-243.94	-50.15	243.82	94.00	186.00	0.51	
6,214.00	4.70	176.56	6,201.29	-251.95	-50.17	251.82	93.00	180.16	0.82	
6,308.00	4.62	175.86	6,294.98	-259.57	-49.66	259.44	94.00	176.21	0.10	
6,402.00	4.70	176.12	6,388.67	-267.19	-49.13	267.06	94.00	175.99	0.09	
6,496.00	5.10	178.32	6,482.33	-275.20	-48.75	275.08	94.00	177.26	0.47	
6,588.00	5.01	178.67	6,573.97	-283.31	-48.53	283.19	92.00	178.49	0.10	
6,681.00	4.88	178.58	6,666.63	-291.32	-48.34	291.20	93.00	178.63	0.14	
6,774.00	4.48	178.41	6,759.32	-298.91	-48.14	298.79	93.00	178.50	0.43	
6,867.00	4.40	181.22	6,852.04	-306.10	-48.12	305.99	93.00	179.80	0.25	



Wellbenders End Of Well Report

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Design:	ST02	Database:	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)	
6,961.00	4.40	181.40	6,945.76	-313.31	-48.28	313.19	94.00	181.31	0.01	
7,055.00	4.48	179.55	7,039.48	-320.59	-48.34	320.47	94.00	180.47	0.17	
7,149.00	4.62	177.97	7,133.18	-328.04	-48.18	327.93	94.00	178.75	0.20	
7,243.00	4.70	179.64	7,226.87	-335.68	-48.02	335.56	94.00	178.81	0.17	
7,336.00	4.70	178.41	7,319.56	-343.30	-47.89	343.18	93.00	179.03	0.11	
7,430.00	4.88	179.37	7,413.23	-351.14	-47.74	351.03	94.00	178.90	0.21	
7,524.00	4.40	178.41	7,506.92	-358.75	-47.60	358.63	94.00	178.91	0.52	
7,618.00	4.48	178.32	7,600.64	-366.02	-47.39	365.90	94.00	178.36	0.09	
7,712.00	4.79	182.27	7,694.33	-373.61	-47.44	373.50	94.00	180.36	0.47	
7,806.00	5.19	183.68	7,787.98	-381.78	-47.86	381.66	94.00	183.00	0.45	
7,900.00	4.40	189.22	7,881.65	-389.58	-48.72	389.46	94.00	186.22	0.97	
7,994.00	4.22	194.58	7,975.38	-396.49	-50.16	396.36	94.00	191.84	0.47	
8,089.00	3.38	187.55	8,070.17	-402.64	-51.41	402.52	95.00	191.45	1.01	
8,183.00	2.90	180.16	8,164.03	-407.77	-51.78	407.64	94.00	184.14	0.67	
8,277.00	3.60	171.38	8,257.88	-413.07	-51.35	412.94	94.00	175.30	0.91	
8,372.00	2.51	173.05	8,352.74	-418.08	-50.65	417.95	95.00	172.07	1.15	
8,467.00	2.68	163.82	8,447.65	-422.28	-49.78	422.15	95.00	168.28	0.47	
8,562.00	2.81	138.15	8,542.54	-426.15	-47.60	426.03	95.00	150.68	1.29	
8,656.00	2.59	139.82	8,636.44	-429.48	-44.70	429.37	94.00	138.95	0.25	
8,751.00	3.21	143.60	8,731.31	-433.26	-41.73	433.16	95.00	141.91	0.68	
8,844.00	4.22	133.67	8,824.12	-437.72	-37.71	437.63	93.00	137.96	1.28	
8,938.00	5.80	148.08	8,917.76	-444.14	-32.70	444.06	94.00	142.01	2.14	
9,032.00	6.42	152.66	9,011.23	-452.84	-27.77	452.77	94.00	150.49	0.84	
9,126.00	6.42	155.38	9,104.64	-462.29	-23.17	462.23	94.00	154.02	0.32	
9,220.00	6.90	163.99	9,198.00	-472.49	-19.43	472.45	94.00	159.84	1.18	
9,314.00	6.20	165.84	9,291.39	-482.84	-16.63	482.80	94.00	164.87	0.78	
9,408.00	6.29	169.98	9,384.83	-492.84	-14.49	492.80	94.00	167.92	0.49	



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well #164H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26.5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)	
9,501.00	7.30	172.52	9,477.18	-503.71	-12.83	503.68	93.00	171.34	1.13	
9,595.00	7.12	176.21	9,570.44	-515.45	-11.67	515.42	94.00	174.34	0.53	
9,689.00	6.20	177.88	9,663.80	-526.33	-11.10	526.30	94.00	176.99	1.00	
9,784.00	5.10	179.20	9,758.34	-535.68	-10.85	535.65	95.00	178.48	1.17	
9,878.00	6.51	183.50	9,851.85	-545.18	-11.12	545.15	94.00	181.61	1.57	
9,973.00	7.12	187.11	9,946.18	-556.40	-12.17	556.36	95.00	185.39	0.78	
10,067.00	6.20	189.57	10,039.55	-567.18	-13.74	567.15	94.00	188.26	1.02	
10,161.00	5.32	202.58	10,133.08	-576.21	-16.26	576.17	94.00	195.58	1.67	
10,255.00	6.42	205.21	10,226.58	-584.99	-20.17	584.94	94.00	204.02	1.20	
10,349.00	6.02	204.42	10,320.03	-594.23	-24.44	594.17	94.00	204.83	0.44	
10,443.00	4.88	205.39	10,413.60	-602.33	-28.20	602.26	94.00	204.85	1.22	
10,537.00	5.01	201.52	10,507.25	-609.76	-31.42	609.69	94.00	203.43	0.38	
10,632.00	4.88	198.80	10,601.90	-617.45	-34.24	617.36	95.00	200.18	0.28	
10,725.00	4.40	199.85	10,694.59	-624.55	-36.73	624.46	93.00	199.30	0.52	
10,819.00	4.62	199.41	10,788.30	-631.51	-39.21	631.41	94.00	199.62	0.24	
10,912.00	6.02	197.48	10,880.90	-639.70	-41.92	639.59	93.00	198.32	1.52	
11,006.00	7.69	191.77	10,974.23	-650.55	-44.68	650.44	94.00	194.28	1.92	
11,100.00	7.38	191.24	11,067.41	-662.63	-47.14	662.52	94.00	191.51	0.34	
11,194.00	6.90	190.80	11,160.68	-674.10	-49.38	673.98	94.00	191.03	0.51	
11,287.00	6.81	190.01	11,253.02	-685.02	-51.38	684.89	93.00	190.41	0.14	
11,381.00	6.20	189.57	11,346.41	-695.51	-53.19	695.38	94.00	189.80	0.65	
11,395.00	6.02	188.51	11,360.33	-696.98	-53.43	696.85	14.00	189.05	1.52	
11,436.00	5.80	189.92	11,401.12	-701.15	-54.10	701.02	41.00	189.20	0.64	
11,543.00	5.14	189.17	11,507.63	-711.21	-55.80	711.07	107.00	189.57	0.62	
11,636.00	4.55	188.55	11,600.30	-718.97	-57.01	718.83	93.00	188.88	0.64	
11,730.00	8.45	180.36	11,693.68	-729.57	-57.61	729.42	94.00	183.23	4.25	
11,777.00	11.95	174.83	11,739.93	-737.87	-57.19	737.73	47.00	177.13	7.72	



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well #164H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26.5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)
11,823.00	11.58	172.30	11,784.96	-747.19	-56.14	747.05	46.00	173.58	1.38
11,870.00	14.15	174.91	11,830.78	-757.59	-55.00	757.45	47.00	173.73	5.60
11,916.00	18.43	176.45	11,874.92	-770.45	-54.05	770.31	46.00	175.78	9.35
11,963.00	20.91	178.42	11,919.18	-786.25	-53.36	786.12	47.00	177.49	5.46
12,009.00	24.20	179.57	11,961.65	-803.89	-53.06	803.76	46.00	179.03	7.22
12,056.00	29.97	181.89	12,003.48	-825.27	-53.38	825.14	47.00	180.84	12.48
12,102.00	31.46	181.90	12,043.03	-848.76	-54.16	848.62	46.00	181.90	3.24
12,149.00	32.34	180.37	12,082.93	-873.59	-54.64	873.45	47.00	181.13	2.54
12,196.00	36.67	180.76	12,121.65	-900.20	-54.91	900.07	47.00	180.58	9.22
12,243.00	41.64	180.81	12,158.08	-929.87	-55.32	929.73	47.00	180.79	10.57
12,290.00	40.79	180.94	12,193.44	-960.83	-55.79	960.69	47.00	180.87	1.82
12,337.00	44.22	181.58	12,228.08	-992.57	-56.50	992.43	47.00	181.27	7.36
12,384.00	48.11	183.69	12,260.63	-1,026.43	-58.07	1,026.28	47.00	182.67	8.89
12,431.00	53.37	183.83	12,290.36	-1,062.73	-60.46	1,062.58	47.00	183.76	11.19
12,478.00	57.98	185.61	12,316.86	-1,101.40	-63.67	1,101.24	47.00	184.74	10.29
12,524.00	61.20	184.53	12,340.14	-1,140.91	-67.17	1,140.74	46.00	185.06	7.29
12,571.00	67.96	182.41	12,360.31	-1,183.25	-69.72	1,183.08	47.00	183.44	14.95
12,618.00	78.39	181.80	12,373.89	-1,228.15	-71.36	1,227.97	47.00	182.10	22.23
12,665.00	82.26	179.95	12,381.79	-1,274.47	-72.06	1,274.29	47.00	180.87	9.10
12,712.00	82.26	178.99	12,388.12	-1,321.03	-71.63	1,320.86	47.00	179.47	2.02
12,759.00	85.61	179.82	12,393.09	-1,367.76	-71.15	1,367.58	47.00	179.41	7.34
12,797.00	86.12	180.04	12,395.83	-1,405.66	-71.10	1,405.48	38.00	179.93	1.46
12,828.00	88.95	183.52	12,397.16	-1,436.61	-72.06	1,436.43	31.00	181.78	14.46
12,860.00	89.51	183.80	12,397.59	-1,468.54	-74.11	1,468.36	32.00	183.66	1.96
12,891.00	89.59	183.52	12,397.83	-1,499.48	-76.08	1,499.29	31.00	183.66	0.94
12,984.00	93.40	186.40	12,395.41	-1,592.07	-84.12	1,591.86	93.00	184.96	5.13
13,078.00	94.33	190.04	12,389.07	-1,684.88	-97.52	1,684.64	94.00	188.22	3.99



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well #164H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26.5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)	
13,172.00	90.55	188.53	12,385.07	-1,777.54	-112.67	1,777.26	94.00	189.28	4.33	
13,266.00	90.69	190.50	12,384.05	-1,870.24	-128.21	1,869.92	94.00	189.51	2.10	
13,359.00	86.93	188.28	12,385.98	-1,961.95	-143.38	1,961.60	93.00	189.39	4.69	
13,453.00	86.59	187.54	12,391.29	-2,054.91	-156.29	2,054.52	94.00	187.91	0.87	
13,547.00	89.99	183.71	12,394.10	-2,148.38	-165.49	2,147.97	94.00	185.62	5.45	
13,640.00	90.10	185.67	12,394.03	-2,241.07	-173.10	2,240.64	93.00	184.69	2.11	
13,734.00	89.79	186.60	12,394.12	-2,334.53	-183.14	2,334.07	94.00	186.13	1.04	
13,828.00	88.73	182.15	12,395.33	-2,428.22	-190.31	2,427.75	94.00	184.38	4.87	
13,922.00	89.59	186.47	12,396.71	-2,521.92	-197.38	2,521.43	94.00	184.31	4.69	
14,016.00	91.92	183.15	12,395.47	-2,615.56	-205.26	2,615.05	94.00	184.81	4.31	
14,109.00	92.00	178.32	12,392.29	-2,708.47	-206.45	2,707.96	93.00	180.74	5.19	
14,203.00	92.12	177.59	12,388.91	-2,802.35	-203.10	2,801.85	94.00	177.96	0.79	
14,298.00	89.12	176.40	12,387.88	-2,897.20	-198.12	2,896.71	95.00	176.99	3.40	
14,392.00	89.34	174.46	12,389.15	-2,990.89	-190.63	2,990.42	94.00	175.43	2.08	
14,486.00	89.03	178.12	12,390.48	-3,084.67	-184.55	3,084.21	94.00	176.29	3.91	
14,578.00	89.37	178.18	12,391.77	-3,176.61	-181.58	3,176.16	92.00	178.15	0.38	
14,673.00	89.31	178.15	12,392.86	-3,271.56	-178.54	3,271.11	95.00	178.17	0.07	
14,767.00	89.99	178.37	12,393.44	-3,365.51	-175.68	3,365.07	94.00	178.26	0.76	
14,861.00	89.23	177.70	12,394.08	-3,459.45	-172.46	3,459.02	94.00	178.04	1.08	
14,955.00	88.78	177.71	12,395.71	-3,553.36	-168.69	3,552.94	94.00	177.70	0.48	
15,049.00	89.17	172.88	12,397.39	-3,647.00	-160.99	3,646.60	94.00	175.29	5.15	
15,143.00	88.08	171.48	12,399.65	-3,740.10	-148.20	3,739.72	94.00	172.18	1.89	
15,238.00	90.21	172.93	12,401.06	-3,834.20	-135.32	3,833.86	95.00	172.21	2.71	
15,332.00	89.76	173.52	12,401.09	-3,927.55	-124.23	3,927.23	94.00	173.22	0.79	
15,425.00	87.83	177.88	12,403.05	-4,020.24	-117.26	4,019.94	93.00	175.70	5.13	
15,519.00	89.87	180.51	12,404.93	-4,114.19	-115.94	4,113.90	94.00	179.20	3.54	
15,613.00	89.73	181.41	12,405.26	-4,208.18	-117.52	4,207.88	94.00	180.96	0.97	



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well #164H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26.5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)	
15,707.00	90.04	177.87	12,405.45	-4,302.16	-116.93	4,301.86	94.00	179.64	3.78	
15,801.00	89.57	178.90	12,405.77	-4,396.12	-114.28	4,395.83	94.00	178.38	1.20	
15,894.00	90.57	177.87	12,405.66	-4,489.08	-111.65	4,488.80	93.00	178.39	1.54	
15,988.00	89.54	177.88	12,405.57	-4,583.02	-108.17	4,582.74	94.00	177.88	1.10	
16,082.00	93.63	179.03	12,402.97	-4,676.93	-105.64	4,676.65	94.00	178.45	4.52	
16,176.00	92.84	180.11	12,397.66	-4,770.77	-104.93	4,770.50	94.00	179.57	1.42	
16,270.00	91.86	180.65	12,393.81	-4,864.69	-105.55	4,864.42	94.00	180.38	1.19	
16,365.00	92.17	180.59	12,390.47	-4,959.62	-106.58	4,959.35	95.00	180.62	0.33	
16,459.00	91.64	179.66	12,387.34	-5,053.57	-106.79	5,053.29	94.00	180.12	1.14	
16,553.00	88.61	176.24	12,387.14	-5,147.49	-103.43	5,147.22	94.00	177.95	4.86	
16,647.00	90.88	176.78	12,387.55	-5,241.30	-97.70	5,241.05	94.00	176.51	2.48	
16,742.00	91.97	178.42	12,385.19	-5,336.19	-93.73	5,335.94	95.00	177.60	2.07	
16,835.00	92.48	178.37	12,381.58	-5,429.08	-91.12	5,428.84	93.00	178.40	0.55	
16,930.00	88.61	179.55	12,380.68	-5,524.04	-89.40	5,523.81	95.00	178.96	4.26	
17,023.00	91.78	183.64	12,380.36	-5,616.97	-91.99	5,616.73	93.00	181.59	5.56	
17,116.00	88.78	183.14	12,379.91	-5,709.80	-97.49	5,709.54	93.00	183.39	3.27	
17,210.00	87.94	182.07	12,382.60	-5,803.66	-101.76	5,803.39	94.00	182.61	1.45	
17,304.00	90.24	184.06	12,384.09	-5,897.50	-106.78	5,897.22	94.00	183.07	3.24	
17,398.00	90.32	185.52	12,383.63	-5,991.17	-114.63	5,990.87	94.00	184.79	1.56	
17,492.00	90.49	181.92	12,382.97	-6,084.95	-120.73	6,084.64	94.00	183.72	3.83	
17,586.00	90.69	184.28	12,382.00	-6,178.80	-125.81	6,178.48	94.00	183.10	2.52	
17,680.00	90.71	184.61	12,380.85	-6,272.52	-133.10	6,272.17	94.00	184.44	0.35	
17,774.00	86.54	181.69	12,383.11	-6,366.32	-138.26	6,365.96	94.00	183.15	5.41	
17,867.00	86.23	181.57	12,388.97	-6,459.09	-140.90	6,458.73	93.00	181.63	0.36	
17,888.00	86.43	181.63	12,390.31	-6,480.04	-141.49	6,479.68	21.00	181.60	0.99	
17,950.00	80.62	178.01	12,397.30	-6,541.61	-141.30	6,541.24	62.00	179.83	11.02	
17,981.00	80.73	178.14	12,402.33	-6,572.18	-140.28	6,571.82	31.00	178.08	0.55	



Wellbenders End Of Well Report

Company:	XTO Energy	Local Co-ordinate Reference:	Well #164H
Project:	Eddy County, NM (Nad-27 / East Zone)	TVD Reference:	RKB = 26..5 @ 3371.50usft (PTEN 225)
Site:	Poker Lake Unit 25 BD	MD Reference:	RKB = 26.5 @ 3371.50usft (PTEN 225)
Well:	#164H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	ST02	Database:	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)	
18,044.00	80.45	174.31	12,412.63	-6,634.19	-136.19	6,633.83	63.00	176.23	6.01	
18,075.00	80.96	172.13	12,417.64	-6,664.56	-132.57	6,664.22	31.00	173.22	7.13	
18,170.00	85.89	169.66	12,428.52	-6,757.71	-117.63	6,757.40	95.00	170.89	5.80	
18,264.00	87.69	169.81	12,433.78	-6,850.06	-100.91	6,849.79	94.00	169.74	1.92	
18,358.00	92.59	171.14	12,433.55	-6,942.73	-85.36	6,942.50	94.00	170.47	5.40	
18,453.00	96.58	173.15	12,425.96	-7,036.51	-72.42	7,036.32	95.00	172.14	4.70	
18,548.00	97.20	179.83	12,414.55	-7,130.60	-66.64	7,130.41	95.00	176.49	7.01	
18,642.00	91.83	182.18	12,407.15	-7,224.25	-68.29	7,224.06	94.00	181.01	6.23	
18,735.00	91.55	182.81	12,404.41	-7,317.12	-72.34	7,316.92	93.00	182.50	0.74	
18,829.00	87.10	179.23	12,405.51	-7,411.06	-74.01	7,410.86	94.00	181.02	6.08	
18,924.00	89.62	179.32	12,408.23	-7,506.01	-72.81	7,505.81	95.00	179.28	2.65	
19,018.00	90.29	179.13	12,408.31	-7,600.00	-71.54	7,599.80	94.00	179.22	0.74	
19,112.00	92.90	180.14	12,405.69	-7,693.95	-70.94	7,693.75	94.00	179.63	2.98	
19,205.00	91.36	178.48	12,402.23	-7,786.87	-69.82	7,786.68	93.00	179.31	2.43	
19,300.00	90.27	176.07	12,400.88	-7,881.75	-65.31	7,881.56	95.00	177.27	2.78	
19,394.00	88.70	174.34	12,401.73	-7,975.41	-57.45	7,975.24	94.00	175.21	2.49	
19,488.00	93.99	175.20	12,399.52	-8,068.96	-48.89	8,068.81	94.00	174.77	5.70	
19,582.00	93.91	177.81	12,393.04	-8,162.55	-43.17	8,162.42	94.00	176.51	2.77	
19,675.00	93.38	181.09	12,387.13	-8,255.34	-42.28	8,255.22	93.00	179.45	3.57	
19,769.00	88.92	176.76	12,385.24	-8,349.26	-40.52	8,349.14	94.00	178.92	6.61	
19,863.00	89.49	180.19	12,386.55	-8,443.21	-38.01	8,443.09	94.00	178.48	3.70	
19,957.00	91.05	181.85	12,386.10	-8,537.18	-39.69	8,537.06	94.00	181.02	2.42	
20,051.00	90.74	183.43	12,384.64	-8,631.07	-44.02	8,630.94	94.00	182.64	1.71	
20,144.00	88.95	181.42	12,384.89	-8,723.98	-47.95	8,723.83	93.00	182.43	2.89	
20,207.00	88.95	181.31	12,386.04	-8,786.95	-49.45	8,786.80	63.00	181.37	0.17	
20,265.00	88.95	181.31	12,387.11	-8,844.92	-50.78	8,844.77	58.00	181.31	0.00	
Final Station Closure Distance= 8845.07 /Direction= 180.33 - Projection to Bit: 20265.00' MD/ 12387.11' TVD - TD: Latitude = 32.079543 / Longitude = -103.836351 - TD: Y= 393016.38 / X= 653929.52										



Wellbenders End Of Well Report

Company: XTO Energy
Project: Eddy County, NM (Nad-27 / East Zone)
Site: Poker Lake Unit 25 BD
Well: #164H
Wellbore: ST02
Design: ST02

Local Co-ordinate Reference: Well #164H
TVD Reference: RKB = 26..5 @ 3371.50usft (PTEN 225)
MD Reference: RKB = 26..5 @ 3371.50usft (PTEN 225)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WBDS_SQL_2

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
20,265.00	12,387.11	-8,844.92	-50.78	Final Station Closure Distance= 8845.07 /Direction= 180.33
20,265.00	12,387.11	-8,844.92	-50.78	Projection to Bit: 20265.00' MD/ 12387.11' TVD
20,265.00	12,387.11	-8,844.92	-50.78	TD: Latitude = 32.079543 / Longitude = -103.836351
20,265.00	12,387.11	-8,844.92	-50.78	TD: Y= 393016.38 / X= 653929.52

Checked By: _____ Approved By: _____ Date: _____