



Job Number: SYMO-150340
Company: XTO Energy
Lease/Well: Corral Canyon Federal 3H
Location: Eddy County, NM
Rig Name: Noram #25
RKB: 25'
G.L. or M.S.L.: GL

State/Country: New Mexico/USA
Declination: 7.25°
Grid: East To Grid North
File name: S:\2015SU-1\XTOENE-1\MOICORRAL-23H.SVY
Date/Time: 08-May-15 / 09:16
Curve Name: Surface - 7947' M.D. (SRG)

30015 48922
NM OIL CONSERVATION
ARTESA DISTRICT
OCT 27 2015
RECEIVED

MS Survey

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 347.46
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 2947' MD is, to the best of
our knowledge a true and accurate account of
the well bore
Tavis Beck 5/7/15
MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth FT	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.52	220.18	100.00	-.35	-.29	-.27	.45	220.18	.52
200.00	.38	194.44	200.00	-1.01	-.67	-.85	1.21	213.37	.24
300.00	.40	245.90	299.99	-1.48	-1.07	-1.21	1.82	215.89	.34
400.00	.52	232.64	399.99	-1.90	-1.75	-1.47	2.58	222.69	.16
500.00	.75	246.31	499.98	-2.43	-2.71	-1.79	3.64	228.05	.27
600.00	.67	233.49	599.98	-3.05	-3.78	-2.15	4.85	231.13	.18
700.00	.42	208.37	699.97	-3.72	-4.42	-2.67	5.78	229.96	.34
800.00	.71	194.93	799.97	-4.64	-4.76	-3.49	6.64	225.73	.32
900.00	1.30	157.00	899.95	-6.28	-4.47	-5.16	7.71	215.46	.86
1000.00	1.49	111.37	999.93	-7.80	-2.82	-7.00	8.29	199.87	1.10
1100.00	1.11	49.76	1099.90	-7.65	-.87	-7.27	7.69	186.48	1.37
1200.00	1.67	335.17	1199.88	-5.70	-.74	-5.40	5.75	187.41	1.74

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
1300.00	1.33	270.18	1299.85	-4.37	-2.51	-3.72	5.04	209.90	1.64
1400.00	1.50	218.21	1399.83	-5.40	-4.48	-4.29	7.02	219.72	1.25
1500.00	1.47	131.23	1499.80	-7.27	-4.33	-6.16	8.46	210.77	2.04
1600.00	1.63	66.98	1599.77	-7.56	-2.05	-6.93	7.83	195.21	1.65
1700.00	1.66	345.10	1699.74	-5.60	-1.12	-5.23	5.71	191.28	2.16
1800.00	1.81	273.93	1799.71	-4.10	-3.07	-3.33	5.12	216.82	2.02
1900.00	1.46	207.78	1899.68	-5.11	-5.24	-3.86	7.32	225.67	1.81
2000.00	1.32	141.22	1999.65	-7.14	-5.11	-5.86	8.78	215.58	1.53
2100.00	1.30	64.79	2099.63	-7.55	-3.36	-6.64	8.27	203.98	1.62
2200.00	1.73	338.04	2199.61	-5.67	-2.90	-4.91	6.37	207.07	2.10
2300.00	1.24	285.82	2299.58	-3.98	-4.50	-2.90	6.01	228.56	1.38
2400.00	1.34	211.16	2399.56	-4.68	-6.15	-3.23	7.73	232.72	1.57
2500.00	2.07	144.99	2499.52	-7.16	-5.72	-5.75	9.16	218.61	1.96
2600.00	2.47	99.59	2599.45	-9.00	-2.56	-8.23	9.36	195.86	1.79
2700.00	2.26	79.92	2699.37	-9.01	1.51	-9.13	9.14	170.50	.83
2800.00	1.83	13.86	2799.32	-7.12	3.83	-7.78	8.08	151.70	2.26
2900.00	1.87	305.41	2899.28	-4.62	2.89	-5.14	5.45	148.03	2.08
3000.00	2.17	292.23	2999.21	-2.96	-20	-2.85	2.97	183.81	.55
3100.00	2.16	291.21	3099.14	-1.56	-3.71	-7.72	4.02	247.14	.04
3200.00	1.67	288.31	3199.09	-.42	-6.85	1.07	6.86	266.47	.50
3300.00	1.77	299.06	3299.04	.79	-9.58	2.85	9.61	274.69	.34
3400.00	1.48	303.03	3399.00	2.24	-12.01	4.79	12.22	280.56	.31
3500.00	1.09	284.24	3498.98	3.18	-14.02	6.14	14.37	282.77	.57
3600.00	1.38	295.17	3598.95	3.92	-16.03	7.31	16.50	283.75	.37
3700.00	.92	283.78	3698.93	4.63	-17.90	8.40	18.49	284.49	.51
3800.00	.98	296.01	3798.92	5.19	-19.45	9.29	20.13	284.95	.21
3900.00	1.11	280.89	3898.90	5.75	-21.17	10.21	21.93	285.20	.30
4000.00	.82	272.74	3998.89	5.97	-22.83	10.78	23.60	284.65	.32
4100.00	.81	269.62	4098.88	6.00	-24.25	11.12	24.98	283.89	.05
4200.00	.91	294.11	4198.87	6.32	-25.69	11.74	26.45	283.82	.38
4300.00	1.06	279.61	4298.85	6.80	-27.32	12.57	28.16	283.97	.29
4400.00	.81	300.38	4398.84	7.31	-28.84	13.40	29.76	284.22	.42
4500.00	.85	287.92	4498.83	7.89	-30.16	14.25	31.18	284.67	.18
4600.00	.83	267.45	4598.82	8.09	-31.59	14.76	32.61	284.36	.30

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
4700.00	.51	245.31	4698.81	7.87	-32.72	14.79	33.65	283.53	.41
4800.00	.49	283.22	4798.81	7.78	-33.54	14.88	34.43	283.07	.33
4900.00	.74	270.64	4898.80	7.89	-34.60	15.21	35.49	282.84	.28
5000.00	.80	259.93	4998.79	7.77	-35.93	15.39	36.76	282.21	.16
5100.00	.83	228.98	5098.78	7.18	-37.17	15.07	37.85	280.93	.44
5200.00	.93	256.18	5198.77	6.51	-38.50	14.71	39.05	279.59	.43
5300.00	1.06	252.43	5298.76	6.03	-40.17	-14.61	40.62	278.54	.15
5400.00	1.25	235.83	5398.74	5.14	-41.96	14.13	42.27	276.99	.38
5500.00	1.20	236.04	5498.72	3.94	-43.73	13.34	43.90	275.15	.05
5600.00	1.30	255.11	5598.69	3.07	-45.69	12.92	45.79	273.84	.43
5700.00	1.17	254.97	5698.67	2.51	-47.77	12.82	47.84	273.01	.13
5800.00	1.05	256.15	5798.65	2.03	-49.65	12.76	49.69	272.34	.12
5900.00	1.03	245.11	5898.63	1.43	-51.35	12.55	51.37	271.60	.20
6000.00	.64	242.58	5998.62	.79	-52.67	12.21	52.67	270.86	.39
6100.00	.95	227.70	6098.61	-.02	-53.77	11.66	53.77	269.98	.37
6200.00	.89	206.96	6198.60	-1.27	-54.74	10.64	54.75	268.67	.34
6300.00	.79	227.53	6298.59	-2.43	-55.60	9.70	55.65	267.50	.32
6400.00	.99	202.61	6398.58	-3.69	-56.44	8.65	56.56	266.26	.43
6500.00	.84	198.44	6498.57	-5.18	-57.00	7.32	57.24	264.80	.16
6600.00	.69	191.70	6598.56	-6.47	-57.36	6.14	57.72	263.56	.17
6700.00	1.03	190.98	6698.54	-7.94	-57.65	4.77	58.20	262.16	.34
6800.00	2.01	212.50	6798.51	-10.30	-58.77	2.70	59.66	260.06	1.12
6900.00	2.19	247.67	6898.45	-12.51	-61.47	1.14	62.73	258.50	1.28
7000.00	2.27	270.24	6998.37	-13.23	-65.22	1.25	66.55	258.54	.88
7100.00	3.64	268.29	7098.24	-13.31	-70.38	2.29	71.62	259.29	1.37
7200.00	3.01	273.06	7198.07	-13.27	-76.17	3.59	77.32	260.12	.69
7300.00	1.27	249.57	7298.00	-13.51	-79.83	4.14	80.97	260.39	1.91
7400.00	1.96	251.36	7397.96	-14.45	-82.49	3.81	83.75	260.07	.69
7500.00	1.90	263.99	7497.90	-15.17	-85.76	3.82	87.09	259.97	.43
7600.00	1.79	258.06	7597.85	-15.66	-88.94	4.02	90.31	260.01	.22
7700.00	1.73	249.13	7697.80	-16.52	-91.87	3.82	93.35	259.80	.28
7800.00	1.53	233.49	7797.76	-17.86	-94.36	3.06	96.03	259.28	.49
7900.00	1.67	207.17	7897.72	-19.95	-96.10	1.39	98.15	258.27	.74
Last Survey Depth Recorded									
7947.00	1.57	209.75	7944.70	-21.12	-96.73	.39	99.01	257.69	.26

XTOENERGY

XTO Energy Inc

Eddy County, NM (NAD 27)

Corral Canyon Federal

Corral Canyon Federal 3H

Wellbore #1 / Job#1513432

Design: Surveys (Noram 25)

Standard Survey Report

26 May, 2015

XTOENERGY

Survey Report

Company: XTO Energy Inc
Project: Eddy County, NM (NAD 27)
Site: Corral Canyon Federal
Well: Corral Canyon Federal 3H
Wellbore: Wellbore #1 / Job#1513432
Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
TVD Reference: RKB @ 3029.00usft (Noram 25)
MD Reference: RKB @ 3029.00usft (Noram 25)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Project	Eddy County, NM (NAD 27)		
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	Corral Canyon Federal		
Site Position:		Northing: 419,285.50 usft	Latitude: 32° 9' 8.30126 N
From: Map		Easting: 601,708.20 usft	Longitude: 104° 0' 16.89527 W
Position Uncertainty:	0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.17 °

Well	Corral Canyon Federal 3H		
Well Position	+N/-S	0.00 usft	Northing: 419,285.50 usft
	+E/-W	0.00 usft	Easting: 601,708.20 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
			Ground Level: 3,004.00 usft

Wellbore	Wellbore #1 / Job#1513432		
Magnetics	Model Name	Sample Date	Declination
	HDGM	5/8/2015	7.35
			Dip Angle
			60.00
			Field Strength
			48,290

Design	Surveys (Noram 25)		
Audit Notes:			
Version: 1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			1.89

Survey Program	Date 5/26/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	7,947.00	MS Gyro Survey (Wellbore #1 / Job#15134	NS-GYRO-MS
8,048.00	15,530.00	Phoenix MWD Survey (Wellbore #1 / Job#	PHX+MWD+HDGM
			Description
			North sensing gyrocompassing m/s
			PHX+MWD+HDGM

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.52	220.18	100.00	-0.35	-0.29	-0.36	0.52	0.52	0.00
200.00	0.38	194.44	200.00	-1.01	-0.67	-1.04	0.24	-0.14	-25.74
300.00	0.40	245.90	299.99	-1.48	-1.07	-1.51	0.34	0.02	51.46
400.00	0.52	232.64	399.99	-1.90	-1.75	-1.95	0.16	0.12	-13.26
500.00	0.75	246.31	499.98	-2.43	-2.71	-2.52	0.27	0.23	13.67
600.00	0.67	233.49	599.98	-3.05	-3.78	-3.17	0.18	-0.08	-12.82
700.00	0.42	208.37	699.97	-3.72	-4.42	-3.86	0.34	-0.25	-25.12
800.00	0.71	194.93	799.97	-4.64	-4.76	-4.79	0.32	0.29	-13.44
900.00	1.30	157.00	899.95	-6.28	-4.47	-6.42	0.86	0.59	-37.93

XTOENERGY

Survey Report

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
 TVD Reference: RKB @ 3029.00usft (Noram 25)
 MD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
1,000.00	1.49	111.37	999.93	-7.80	-2.82	-7.89	1.10	0.19	-45.63
1,100.00	1.11	49.76	1,099.90	-7.65	-0.87	-7.67	1.37	-0.38	-61.61
1,200.00	1.67	335.17	1,199.88	-5.70	-0.74	-5.72	1.74	0.56	-74.59
1,300.00	1.33	270.18	1,299.85	-4.37	-2.51	-4.45	1.64	-0.34	-64.99
1,400.00	1.50	218.21	1,399.83	-5.40	-4.48	-5.54	1.25	0.17	-51.97
1,500.00	1.47	131.23	1,499.80	-7.27	-4.33	-7.41	2.04	-0.03	-86.98
1,600.00	1.63	66.98	1,599.77	-7.56	-2.05	-7.62	1.65	0.16	-64.25
1,700.00	1.66	345.10	1,699.74	-5.60	-1.12	-5.64	2.16	0.03	-81.88
1,800.00	1.81	273.93	1,799.71	-4.10	-3.07	-4.19	2.02	0.15	-71.17
1,900.00	1.46	207.78	1,899.68	-5.11	-5.24	-5.28	1.81	-0.35	-66.15
2,000.00	1.32	141.22	1,999.65	-7.14	-5.11	-7.30	1.53	-0.14	-66.56
2,100.00	1.30	64.79	2,099.63	-7.55	-3.36	-7.66	1.62	-0.02	-76.43
2,200.00	1.73	338.04	2,199.61	-5.67	-2.90	-5.76	2.10	0.43	-86.75
2,300.00	1.24	285.82	2,299.58	-3.98	-4.50	-4.12	1.38	-0.49	-52.22
2,400.00	1.34	211.16	2,399.56	-4.68	-6.15	-4.88	1.57	0.10	-74.66
2,500.00	2.07	144.99	2,499.52	-7.16	-5.72	-7.35	1.96	0.73	-66.17
2,600.00	2.47	99.59	2,599.45	-9.00	-2.56	-9.08	1.79	0.40	-45.40
2,700.00	2.26	79.92	2,699.37	-9.01	1.51	-8.96	0.83	-0.21	-19.67
2,800.00	1.83	13.86	2,799.32	-7.12	3.83	-6.99	2.26	-0.43	-66.06
2,900.00	1.87	305.41	2,899.28	-4.62	2.89	-4.52	2.08	0.04	-68.45
3,000.00	2.17	292.23	2,999.21	-2.96	-0.20	-2.97	0.55	0.30	-13.18
3,100.00	2.16	291.21	3,099.14	-1.56	-3.71	-1.68	0.04	-0.01	-1.02
3,200.00	1.67	288.31	3,199.09	-0.42	-6.85	-0.65	0.50	-0.49	-2.90
3,300.00	1.77	299.06	3,299.04	0.79	-9.58	0.47	0.34	0.10	10.75
3,400.00	1.48	303.03	3,399.00	2.24	-12.01	1.84	0.31	-0.29	3.97
3,500.00	1.09	284.24	3,498.98	3.18	-14.02	2.71	0.57	-0.39	-18.79
3,600.00	1.38	295.17	3,598.95	3.92	-16.03	3.39	0.37	0.29	10.93
3,700.00	0.92	283.78	3,698.93	4.83	-17.90	4.03	0.51	-0.46	-11.39
3,800.00	0.98	296.01	3,798.92	5.19	-19.45	4.55	0.21	0.06	12.23
3,900.00	1.11	280.89	3,898.90	5.75	-21.17	5.05	0.30	0.13	-15.12
4,000.00	0.82	272.74	3,998.89	5.97	-22.83	5.21	0.32	-0.29	-8.15
4,100.00	0.81	269.62	4,098.88	6.00	-24.25	5.19	0.05	-0.01	-3.12
4,200.00	0.91	294.11	4,198.87	6.32	-25.69	5.47	0.38	0.10	24.49
4,300.00	1.06	279.61	4,298.85	6.80	-27.32	5.89	0.29	0.15	-14.50
4,400.00	0.81	300.38	4,398.84	7.31	-28.84	6.35	0.42	-0.25	20.77
4,500.00	0.85	287.92	4,498.83	7.89	-30.16	6.89	0.18	0.04	-12.46
4,600.00	0.83	267.45	4,598.82	8.09	-31.59	7.04	0.30	-0.02	-20.47
4,700.00	0.51	245.31	4,698.81	7.87	-32.72	6.79	0.41	-0.32	-22.14
4,800.00	0.49	283.22	4,798.81	7.78	-33.54	6.67	0.33	-0.02	37.91
4,900.00	0.74	270.64	4,898.80	7.89	-34.60	6.74	0.28	0.25	-12.58
5,000.00	0.80	259.93	4,998.79	7.77	-35.93	6.58	0.16	0.06	-10.71
5,100.00	0.83	228.98	5,098.78	7.18	-37.17	5.95	0.44	0.03	-30.95
5,200.00	0.93	256.18	5,198.77	6.51	-38.50	5.23	0.43	0.10	27.20

XTOENERGY

Survey Report

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
5,300.00	1.06	252.43	5,298.76	6.03	-40.17	4.71	0.15	0.13	-3.75
5,400.00	1.25	235.83	5,398.74	5.14	-41.96	3.76	0.38	0.19	-16.60
5,500.00	1.20	236.04	5,498.72	3.94	-43.73	2.50	0.05	-0.05	0.21
5,600.00	1.30	255.11	5,598.69	3.07	-45.69	1.56	0.43	0.10	19.07
5,700.00	1.17	254.97	5,698.67	2.51	-47.77	0.93	0.13	-0.13	-0.14
5,800.00	1.05	256.15	5,798.65	2.03	-49.65	0.39	0.12	-0.12	1.18
5,900.00	1.03	245.11	5,898.63	1.43	-51.35	-0.26	0.20	-0.02	-11.04
6,000.00	0.64	242.58	5,998.62	0.79	-52.67	-0.94	0.39	-0.39	-2.53
6,100.00	0.95	227.70	6,098.61	-0.02	-53.77	-1.79	0.37	0.31	-14.88
6,200.00	0.89	206.96	6,198.60	-1.27	-54.74	-3.08	0.34	-0.06	-20.74
6,300.00	0.79	227.53	6,298.59	-2.43	-55.60	-4.26	0.32	-0.10	20.57
6,400.00	0.99	202.81	6,398.58	-3.69	-56.44	-5.55	0.43	0.20	-24.92
6,500.00	0.84	198.44	6,498.57	-5.18	-57.00	-7.06	0.16	-0.15	-4.17
6,600.00	0.69	191.70	6,598.56	-6.47	-57.36	-8.36	0.17	-0.15	-6.74
6,700.00	1.03	190.98	6,698.55	-7.94	-57.65	-9.84	0.34	0.34	-0.72
6,800.00	2.01	212.50	6,798.51	-10.30	-58.77	-12.24	1.12	0.98	21.52
6,900.00	2.19	247.67	6,898.45	-12.51	-61.47	-14.53	1.28	0.18	35.17
7,000.00	2.27	270.24	6,998.37	-13.23	-65.22	-15.37	0.88	0.08	22.57
7,100.00	3.64	268.29	7,098.24	-13.31	-70.38	-15.63	1.37	1.37	-1.95
7,200.00	3.01	273.06	7,198.07	-13.27	-76.17	-15.77	0.69	-0.63	4.77
7,300.00	1.27	249.57	7,298.00	-13.51	-79.83	-16.14	1.91	-1.74	-23.49
7,400.00	1.96	251.36	7,397.96	-14.45	-82.49	-17.16	0.69	0.69	1.79
7,500.00	1.90	263.99	7,497.90	-15.17	-85.76	-17.99	0.43	-0.06	12.63
7,600.00	1.79	258.06	7,597.85	-15.66	-88.94	-18.59	0.22	-0.11	-5.93
7,700.00	1.73	249.13	7,697.80	-16.52	-91.87	-19.55	0.28	-0.06	-8.93
7,800.00	1.53	233.49	7,797.76	-17.86	-94.36	-20.96	0.49	-0.20	-15.64
7,900.00	1.67	207.17	7,897.72	-19.95	-96.10	-23.11	0.74	0.14	-26.32
7,947.00	1.57	209.75	7,944.70	-21.12	-96.73	-24.29	0.26	-0.21	5.49
Tie-on to MS Gyro Survey									
8,048.00	4.00	343.70	8,045.63	-18.93	-98.41	-22.17	5.16	2.41	132.62
First Phoenix MWD Survey									
8,079.00	9.70	351.30	8,076.40	-15.31	-99.10	-18.57	18.58	18.39	24.52
8,111.00	14.70	359.00	8,107.67	-8.58	-99.58	-11.86	16.40	15.63	24.06
8,142.00	17.50	2.70	8,137.45	0.01	-99.43	-3.27	9.62	9.03	11.94
8,174.00	19.80	2.90	8,167.77	10.23	-98.93	6.96	7.19	7.19	0.63
8,205.00	22.50	2.50	8,196.68	21.40	-98.41	18.14	8.72	8.71	-1.29
8,237.00	25.50	2.00	8,225.91	34.40	-97.90	31.16	9.40	9.38	-1.56
8,268.00	26.90	0.90	8,253.72	48.09	-97.56	44.84	4.78	4.52	-3.55
8,300.00	27.90	359.20	8,282.13	62.81	-97.55	59.56	3.97	3.13	-5.31
8,332.00	28.70	358.50	8,310.31	77.98	-97.85	74.71	2.71	2.50	-2.19
8,363.00	29.90	0.60	8,337.34	93.15	-97.97	89.86	5.10	3.87	6.77
8,395.00	31.20	2.10	8,364.90	109.40	-97.58	106.13	4.71	4.06	4.89
8,426.00	34.30	1.50	8,390.97	126.16	-97.06	122.89	10.05	10.00	-1.94
8,458.00	38.60	0.20	8,416.70	145.17	-96.79	141.90	13.65	13.44	-4.06

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
 TVD Reference: RKB @ 3029.00usft (Noram 25)
 MD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
	8,490.00	41.70	359.70	8,441.16	165.80	-96.81	162.52	9.74	9.69	-1.56
	8,521.00	45.10	0.10	8,463.68	187.10	-96.84	183.80	11.00	10.97	1.29
	8,552.00	50.00	1.50	8,484.60	209.96	-96.51	206.66	16.15	15.81	4.52
	8,584.00	53.60	3.20	8,504.38	235.08	-95.47	231.80	12.00	11.25	5.31
	8,615.00	56.20	4.70	8,522.21	260.38	-93.72	257.15	9.27	8.39	4.84
	8,647.00	58.60	7.10	8,539.45	287.19	-90.94	284.03	9.81	7.50	7.50
	8,678.00	61.50	8.90	8,554.93	313.78	-87.20	310.74	10.62	9.35	5.81
	8,710.00	64.50	10.80	8,569.45	341.87	-82.31	338.97	10.76	9.38	5.94
	8,741.00	68.70	12.20	8,581.76	369.74	-76.64	367.01	14.17	13.55	4.52
	8,773.00	71.70	13.10	8,592.60	399.11	-70.04	396.58	9.74	9.38	2.81
	8,804.00	73.90	13.90	8,601.77	427.90	-63.13	425.59	7.51	7.10	2.58
	8,835.00	77.50	14.80	8,609.42	457.00	-55.68	454.92	11.95	11.61	2.90
	8,867.00	81.50	15.40	8,615.25	487.37	-47.49	485.54	12.64	12.50	1.88
	8,898.00	84.90	15.70	8,618.92	517.02	-39.24	515.45	11.01	10.97	0.97
	8,928.00	87.00	15.80	8,621.04	545.82	-31.11	544.50	7.01	7.00	0.33
	8,959.00	87.40	15.30	8,622.56	575.65	-22.81	574.59	2.06	1.29	-1.61
	8,991.00	87.90	14.50	8,623.87	606.55	-14.59	605.74	2.95	1.56	-2.50
	9,022.00	88.60	13.70	8,624.82	636.60	-7.04	636.02	3.43	2.26	-2.58
	9,054.00	88.60	12.30	8,625.60	667.77	0.15	667.41	4.37	0.00	-4.38
	9,085.00	89.00	10.90	8,626.25	698.13	6.38	697.96	4.70	1.29	-4.52
	9,117.00	89.10	8.80	8,626.78	729.65	11.86	729.65	6.57	0.31	-6.56
	9,148.00	89.30	7.30	8,627.21	760.34	16.20	760.46	4.88	0.65	-4.84
	9,179.00	89.20	6.30	8,627.62	791.12	19.87	791.35	3.24	-0.32	-3.23
	9,274.00	89.50	4.40	8,628.69	885.70	28.72	886.16	2.02	0.32	-2.00
	9,368.00	90.40	3.10	8,628.78	979.49	34.87	980.11	1.68	0.96	-1.38
	9,462.00	92.30	4.50	8,626.56	1,073.25	41.10	1,074.03	2.51	2.02	1.49
	9,557.00	91.50	2.70	8,623.41	1,168.01	47.06	1,168.93	2.07	-0.84	-1.89
	9,652.00	90.10	1.40	8,622.08	1,262.94	50.46	1,263.91	2.01	-1.47	-1.37
	9,746.00	89.90	1.60	8,622.08	1,356.90	52.92	1,357.91	0.30	-0.21	0.21
	9,840.00	90.00	1.60	8,622.17	1,450.87	55.54	1,451.91	0.11	0.11	0.00
	9,935.00	92.10	2.30	8,620.43	1,545.79	58.77	1,546.89	2.33	2.21	0.74
	10,029.00	91.70	2.10	8,617.31	1,639.67	62.38	1,640.83	0.48	-0.43	-0.21
	10,124.00	90.90	1.70	8,615.15	1,734.59	65.53	1,735.81	0.94	-0.84	-0.42
	10,218.00	92.50	1.80	8,612.37	1,828.50	68.40	1,829.76	1.71	1.70	0.11
	10,313.00	92.70	1.50	8,608.06	1,923.37	71.13	1,924.67	0.38	0.21	-0.32
	10,407.00	92.50	1.80	8,603.79	2,017.23	73.84	2,018.57	0.38	-0.21	0.32
	10,502.00	92.20	1.50	8,599.90	2,112.11	76.57	2,113.49	0.45	-0.32	-0.32
	10,596.00	89.40	0.90	8,596.58	2,206.07	78.54	2,207.46	3.05	-2.98	-0.64
	10,627.00	88.50	359.60	8,599.15	2,237.06	78.67	2,238.44	5.10	-2.90	-4.19
	10,659.00	88.20	359.10	8,600.07	2,269.05	78.31	2,270.40	1.82	-0.94	-1.56
	10,690.00	88.90	359.50	8,600.86	2,300.04	77.93	2,301.36	2.60	2.26	1.29
	10,785.00	90.20	0.90	8,601.60	2,395.03	78.26	2,396.31	2.01	1.37	1.47
	10,880.00	91.30	2.50	8,600.36	2,489.97	81.08	2,491.29	2.04	1.16	1.68

XTO ENERGY

Survey Report

Company: XTO Energy Inc
 Project: Eddy County, NM (NAD 27)
 Site: Corral Canyon Federal
 Well: Corral Canyon Federal 3H
 Wellbore: Wellbore #1 / Job#1513432
 Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
 TVD Reference: RKB @ 3029.00usft (Noram 25)
 MD Reference: RKB @ 3029.00usft (Noram 25)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Compass 5000 GCR

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)
10,974.00	88.70	1.50	8,600.36	2,583.91	84.36	2,585.28	2.96	-2.77	-1.06
11,068.00	88.30	2.30	8,602.82	2,677.82	87.48	2,679.25	0.95	-0.43	0.85
11,163.00	88.40	3.20	8,605.56	2,772.67	92.03	2,774.20	0.95	0.11	0.95
11,257.00	87.90	3.60	8,608.59	2,866.46	97.60	2,868.12	0.68	-0.53	0.43
11,352.00	88.00	2.80	8,611.99	2,961.25	102.90	2,963.03	0.85	0.11	-0.84
11,446.00	89.10	0.80	8,614.37	3,055.17	105.85	3,057.00	2.43	1.17	-2.13
11,541.00	87.90	358.80	8,616.86	3,150.13	105.52	3,151.89	2.45	-1.26	-2.11
11,635.00	89.00	358.00	8,619.40	3,244.05	102.90	3,245.68	1.45	1.17	-0.85
11,730.00	91.50	359.50	8,618.98	3,339.02	100.83	3,340.53	3.07	2.63	1.58
11,824.00	91.50	359.50	8,616.52	3,432.98	100.01	3,434.41	0.00	0.00	0.00
11,919.00	91.00	1.50	8,614.45	3,527.95	100.84	3,529.36	2.17	-0.53	2.11
12,013.00	89.90	0.90	8,613.71	3,621.93	102.80	3,623.35	1.33	-1.17	-0.64
12,108.00	90.90	1.90	8,613.05	3,716.89	105.13	3,718.34	1.49	1.05	1.05
12,202.00	90.30	1.40	8,612.06	3,810.85	107.83	3,812.33	0.83	-0.64	-0.53
12,297.00	91.30	3.40	8,610.74	3,905.75	111.81	3,907.31	2.35	1.05	2.11
12,391.00	90.40	2.50	8,609.34	3,999.61	116.65	4,001.28	1.35	-0.96	-0.96
12,486.00	90.60	3.00	8,608.51	4,094.50	121.20	4,096.27	0.57	0.21	0.53
12,580.00	90.30	3.70	8,607.78	4,188.34	126.70	4,190.24	0.81	-0.32	0.74
12,674.00	90.80	5.90	8,606.87	4,282.00	134.56	4,284.10	2.40	0.53	2.34
12,769.00	89.20	3.50	8,606.87	4,376.67	142.34	4,378.98	3.04	-1.68	-2.53
12,863.00	89.10	3.60	8,608.27	4,470.48	148.16	4,472.93	0.15	-0.11	0.11
12,958.00	90.50	3.60	8,608.60	4,565.29	154.13	4,567.89	1.47	1.47	0.00
13,052.00	90.10	3.00	8,608.11	4,659.13	159.54	4,661.85	0.77	-0.43	-0.64
13,147.00	90.00	3.80	8,608.02	4,753.96	165.17	4,756.82	0.85	-0.11	0.84
13,241.00	89.20	0.70	8,608.68	4,847.87	168.86	4,850.80	3.41	-0.85	-3.30
13,335.00	88.00	358.30	8,610.98	4,941.83	168.04	4,944.69	2.85	-1.28	-2.55
13,430.00	89.50	0.90	8,613.05	5,036.80	167.38	5,039.58	3.16	1.58	2.74
13,524.00	88.60	1.00	8,614.61	5,130.77	168.94	5,133.55	0.96	-0.96	0.11
13,618.00	89.50	1.20	8,616.17	5,224.74	170.75	5,227.53	0.98	0.96	0.21
13,713.00	90.30	0.90	8,616.33	5,319.72	172.49	5,322.52	0.90	0.84	-0.32
13,807.00	91.50	1.70	8,614.86	5,413.68	174.62	5,416.50	1.53	1.28	0.85
13,902.00	90.50	1.30	8,613.20	5,508.63	177.10	5,511.48	1.13	-1.05	-0.42
13,996.00	90.80	2.30	8,612.13	5,602.58	180.06	5,605.47	1.11	0.32	1.06
14,091.00	89.80	1.30	8,611.64	5,697.53	183.04	5,700.47	1.49	-1.05	-1.05
14,185.00	90.60	1.10	8,611.31	5,791.51	185.01	5,794.46	0.88	0.85	-0.21
14,280.00	90.50	1.50	8,610.40	5,886.48	187.16	5,889.45	0.43	-0.11	0.42
14,375.00	90.70	2.30	8,609.40	5,981.42	190.31	5,984.44	0.87	0.21	0.84
14,469.00	90.20	2.20	8,608.66	6,075.35	194.00	6,078.44	0.54	-0.53	-0.11
14,564.00	90.00	3.30	8,608.50	6,170.23	198.56	6,173.43	1.18	-0.21	1.16
14,658.00	89.20	2.80	8,609.15	6,264.10	203.56	6,267.40	1.00	-0.85	-0.53
14,753.00	90.40	4.40	8,609.48	6,358.91	209.53	6,362.36	2.11	1.26	1.68
14,847.00	91.00	7.20	8,608.34	6,452.41	219.03	6,456.12	3.05	0.64	2.98
14,942.00	89.10	2.80	8,608.25	6,547.02	227.30	6,550.95	5.04	-2.00	-4.63

XTOENERGY

Survey Report

Company: XTO Energy Inc
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Site: Corral Canyon Federal
Well: Corral Canyon Federal 3H
Wellbore: Wellbore #1 / Job#1513432
Design: Surveys (Noram 25)

Local Co-ordinate Reference: Well Corral Canyon Federal 3H
TVD Reference: RKB @ 3029.00usft (Noram 25)
MD Reference: RKB @ 3029.00usft (Noram 25)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Doglog Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,036.00	90.10	1.40	8,608.91	6,640.95	230.75	6,644.95	1.83	1.06	-1.49
15,131.00	90.30	2.30	8,608.58	6,735.90	233.81	6,739.95	0.97	0.21	0.95
15,225.00	90.20	2.30	8,608.17	6,829.82	237.59	6,833.94	0.11	-0.11	0.00
15,319.00	89.70	2.70	8,608.25	6,923.73	241.69	6,927.94	0.68	-0.53	0.43
15,413.00	89.10	3.20	8,609.23	7,017.60	246.52	7,021.91	0.83	-0.64	0.53
Final Phoenix MWD Survey									
15,530.00	89.10	3.20	8,611.07	7,134.40	253.05	7,138.87	0.00	0.00	0.00
Projection to TD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
7,947.00	7,944.70	-21.12	-96.73	Tie-on to MS Gyro Survey
8,048.00	8,045.63	-18.93	-98.41	First Phoenix MWD Survey
15,413.00	8,609.23	7,017.60	246.52	Final Phoenix MWD Survey
15,530.00	8,611.07	7,134.40	253.05	Projection to TD

Checked By: _____ Approved By: _____ Date: _____