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Phone: (575) 393-6161 Fax: (575) 393-0720
District II
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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-Rec'd: 09/29/2020

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 30-015-46325	² Pool Code 96217	³ Pool Name Willow-Lake;Bone Spring, SE
⁴ Property Code 314121	⁵ Property Name CORRAL CANYON 10-15 FED COM	⁶ Well Number 10H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 3,032'

¹⁰ Surface Location

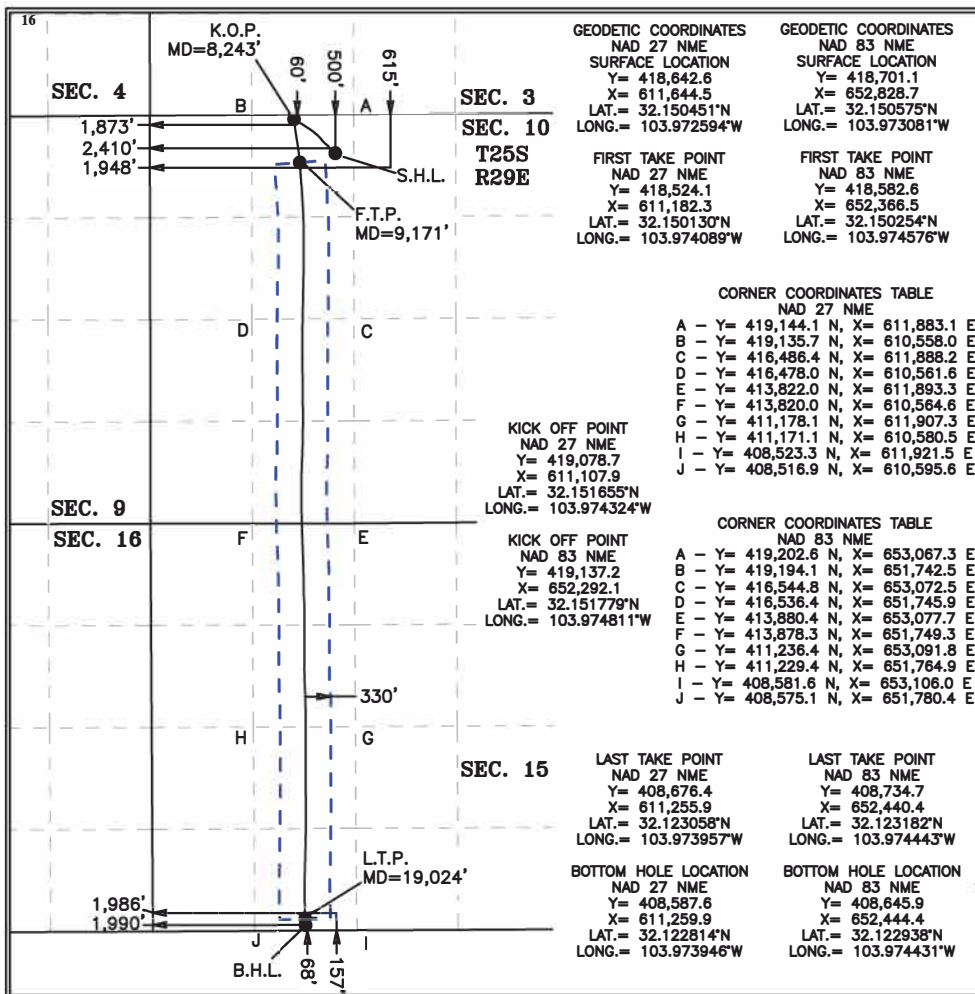
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	10	25 S	29 E		500	NORTH	2,410	WEST	EDDY

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	15	25 S	29 E		68	SOUTH	1,990	WEST	EDDY

¹² Dedicated Acres 320	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.

Cassie Evans 09/017/2020
Signature Date
Cassie Evans
Printed Name
cassie_evans@xtoenergy.com
E-mail Address

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.

9-3-2020

Date of Survey

Signature and Seal of
Professional Surveyor:

Mark Dillon Harp
MARK DILLON HARP 23786
Certificate Number



JC 2017091548

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



MWD SURVEY CERTIFICATION

Legacy Directional Drilling, LLC.

State of NEW MEXICO

County of Eddy

I, Brandon Cox certify that; I am employed by Legacy Directional Drilling, LLC.;

that I did on the day(s) of November 28, 2019 through December 29, 2019 conduct or supervise

the taking of a MWD survey from a depth of 197 Feet to a depth of 19168 Feet;

that the data is true, correct, complete and within the limitations of the tool set forth by

Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report; that this survey was

conducted at the request of XTO ENERGY INC. for the

Corral Canyon 10-15 Fed Com 10H Well, A.P.I No. 30-015-46325 in

Willow Lake; Bone Spring SE Field and that I have reviewed this report and find that it conforms

to the principles and procedures set forth by Legacy Directional Drilling, LLC.

Brandon Cox

Surveyor's Signature

MWD Field Operator

Title

Mark L. Miller

Supervisor's Signature

Mark L. Miller

Printed Name

V.P. Technology

Title



Legacy Directional Drilling, LLC.
MWD Survey Data Certification

OPERATOR:	XTO ENERGY INC.	JOB NUMBER:	HU190211
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WELL NAME:	CORRAL CANYON 10-15 FED COM 10H	COUNTY & STATE:	EDDY Co., NM
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FIELD:	WILLOW LAKE; BONE SPRING SE	API NUMBER:	30-015-46325
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TIE-IN DATA							
DEPTH (FT)	INC (°)	AZM (°)	TVD (FT)	N/S (FT)	E/W (FT)	PROPOSED DIRECTION	DATA SOURCE
0	0	0	0	0	0	179.66	

FIRST SURVEY			
DATE	DEPTH (FT)	INC (°)	AZM (°)
28-Nov-2019	197	0.86	174.53

SURVEY INSTRUMENT TYPE:	Legacy MWD
TOTAL CORRECTION USED:	6.73
NORTH REFERENCE:	GRID

LAST SURVEY			
DATE	DEPTH (FT)	INC (°)	AZM (°)
29-Dec-2019	19113	92.18	177.25

TO THE BEST OF MY KNOWLEDGE I CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT

PROJECTION TO TD			
DATE	DEPTH (FT)	INC (°)	AZM (°)
29-Dec-2019	19168	92.18	177.25

Brandon Cox

Print Name

MWD OPERATOR(S) PERFORMING SURVEYS:

BRANDON COX

NEILL COOPER

BO BARNES

NEILL COOPER

Brandon Cox

Signature

December 29, 2019

Today's Date



Directional Survey Report

Company Name: XTO ENERGY INC.

State/Prov: NM

Survey Company: Legacy Directional

Proposed Azimuth: 179.66°

Well Name: CORRAL CANYON 10-15 FED COM 10H

County: Eddy

Job Number: HU190211

Declination: 6.73°

Field: WILLOW LAKE; BONE SPRING SE

Location: 19.6 MI SW of LOVING NM

Latitude: 32° 9' 1.624" N

North Reference: GRID

Rig ID: AKITA 803

API/UWI: 30-015-46325

Longitude: 103° 58' 21.338" W

KB: 3063 FT

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
Tie-In	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	179.66	0
1	197	0.86	174.53	196.99	-1.47	0.14	1.47	0.44	197.00	1.48	174.53	51.3
2	319	1.29	174.79	318.97	-3.75	0.35	3.75	0.35	122.00	3.77	174.62	58.6
3	409	1.59	175.76	408.94	-6.00	0.54	6.01	0.33	90.00	6.03	174.89	58.6
4	498	1.65	181.68	497.91	-8.52	0.59	8.52	0.20	89.00	8.54	176.03	65.9
5	573	1.63	189.21	572.88	-10.65	0.39	10.65	0.29	75.00	10.66	177.91	65.9
6	715	1.84	195.51	714.81	-14.84	-0.54	14.84	0.20	142.00	14.85	182.10	65.9
7	769	1.87	219.55	768.78	-16.35	-1.34	16.35	1.43	54.00	16.41	184.67	65.9
8	859	2.87	271.21	858.71	-17.44	-4.53	17.41	2.50	90.00	18.02	194.55	73.1
9	952	4.63	288.63	951.51	-16.19	-10.41	16.13	2.23	93.00	19.25	212.74	73.1
10	1042	6.30	296.75	1041.10	-12.81	-18.26	12.70	2.04	90.00	22.31	234.96	80.4
11	1133	6.30	297.49	1131.55	-8.26	-27.15	8.09	0.09	91.00	28.38	253.09	80.4
12	1223	6.36	303.02	1221.01	-3.26	-35.71	3.05	0.68	90.00	35.86	264.78	87.7
13	1313	6.56	320.42	1310.44	3.42	-43.17	-3.68	2.18	90.00	43.30	274.53	95.0
14	1403	6.86	330.22	1399.83	12.05	-49.11	-12.34	1.31	90.00	50.57	283.78	95.0
15	1493	6.44	330.23	1489.22	21.09	-54.29	-21.42	0.47	90.00	58.24	291.23	102.3
16	1584	6.16	329.40	1579.67	29.73	-59.31	-30.08	0.32	91.00	66.34	296.62	102.3
17	1674	5.85	329.08	1669.18	37.82	-64.12	-38.20	0.35	90.00	74.44	300.53	102.3
18	1764	5.68	331.30	1758.73	45.66	-68.62	-46.07	0.31	90.00	82.42	303.64	116.9
19	1854	5.70	332.96	1848.28	53.55	-72.79	-53.98	0.18	90.00	90.36	306.34	116.9
20	1945	5.56	334.46	1938.84	61.55	-76.74	-62.00	0.22	91.00	98.38	308.73	124.1
21	2035	5.18	337.33	2028.45	69.23	-80.19	-69.71	0.52	90.00	105.94	310.81	124.1
22	2125	4.87	340.67	2118.10	76.59	-83.02	-77.08	0.47	90.00	112.95	312.69	124.1
23	2216	5.18	331.17	2208.75	83.83	-86.28	-84.34	0.97	91.00	120.30	314.18	124.1
24	2306	6.60	313.09	2298.28	90.92	-92.02	-91.47	2.58	90.00	129.36	314.66	124.1
25	2396	6.63	306.47	2387.69	97.55	-99.97	-98.14	0.85	90.00	139.68	314.30	124.1
26	2486	5.23	309.18	2477.20	103.23	-107.33	-103.86	1.59	90.00	148.91	313.88	124.1
27	2577	4.64	313.63	2567.87	108.39	-113.21	-109.05	0.77	91.00	156.73	313.75	124.1
28	2667	4.75	308.68	2657.56	113.23	-118.75	-113.93	0.47	90.00	164.08	313.64	124.1
29	2757	4.92	306.84	2747.24	117.87	-124.75	-118.61	0.26	90.00	171.63	313.38	124.1
30	2847	5.26	311.23	2836.89	122.90	-130.94	-123.68	0.57	90.00	179.58	313.19	124.1
31	2938	6.87	314.23	2927.38	129.45	-137.98	-130.26	1.80	91.00	189.20	313.17	109.6
32	3028	6.47	315.56	3016.77	136.82	-145.39	-137.68	0.48	90.00	199.64	313.26	109.6
33	3119	6.19	316.04	3107.21	144.02	-152.38	-144.92	0.31	91.00	209.67	313.38	109.6

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
34	3209	6.08	317.56	3196.70	151.03	-158.97	-151.97	0.22	90.00	219.27	313.53	109.6
35	3300	6.56	319.03	3287.14	158.51	-165.63	-159.49	0.56	91.00	229.25	313.74	109.6
36	3390	6.78	319.20	3376.53	166.41	-172.47	-167.43	0.25	90.00	239.66	313.98	167.9
37	3480	7.10	319.58	3465.88	174.67	-179.55	-175.73	0.36	90.00	250.49	314.21	109.6
38	3571	7.38	320.29	3556.15	183.44	-186.93	-184.55	0.32	91.00	261.90	314.46	109.6
39	3661	7.44	320.38	3645.40	192.38	-194.34	-193.53	0.07	90.00	273.45	314.71	109.6
40	3751	7.67	321.33	3734.62	201.56	-201.80	-202.75	0.29	90.00	285.22	314.96	109.6
41	3842	8.05	315.41	3824.76	210.84	-210.07	-212.08	0.98	91.00	297.63	315.10	109.6
42	3932	8.27	312.39	3913.85	219.69	-219.28	-220.98	0.54	90.00	310.39	315.05	109.6
43	4022	7.73	309.50	4002.98	227.90	-228.73	-229.25	0.75	90.00	322.89	314.90	109.6
44	4113	7.66	308.73	4093.16	235.59	-238.18	-237.00	0.14	91.00	335.01	314.69	109.6
45	4203	7.90	309.79	4182.33	243.30	-247.61	-244.76	0.31	90.00	347.14	314.50	116.9
46	4293	8.01	310.34	4271.46	251.32	-257.15	-252.84	0.15	90.00	359.56	314.34	116.9
47	4383	8.25	311.50	4360.56	259.65	-266.76	-261.23	0.32	90.00	372.27	314.23	124.1
48	4474	7.39	308.26	4450.71	267.60	-276.25	-269.24	1.06	91.00	384.61	314.09	124.1
49	4564	7.34	307.67	4539.97	274.70	-285.34	-276.39	0.10	90.00	396.08	313.91	124.1
50	4654	7.19	308.63	4629.25	281.73	-294.29	-283.47	0.21	90.00	407.41	313.75	131.4
51	4745	6.18	304.87	4719.63	288.09	-302.76	-289.88	1.21	91.00	417.92	313.58	131.4
52	4835	6.09	303.76	4809.11	293.51	-310.70	-295.35	0.17	90.00	427.42	313.37	131.4
53	4926	5.88	303.91	4899.62	298.79	-318.59	-300.68	0.23	91.00	436.78	313.16	131.4
54	5016	6.01	304.68	4989.13	304.05	-326.29	-305.98	0.17	90.00	445.99	312.98	138.7
55	5106	5.91	304.65	5078.64	309.36	-333.97	-311.34	0.11	90.00	455.24	312.81	138.7
56	5197	5.73	302.85	5169.18	314.49	-341.64	-316.51	0.28	91.00	464.35	312.63	138.7
57	5287	5.57	301.62	5258.74	319.22	-349.14	-321.28	0.22	90.00	473.07	312.44	138.7
58	5377	5.43	302.42	5348.32	323.79	-356.45	-325.90	0.18	90.00	481.56	312.25	138.7
59	5468	5.24	302.89	5438.93	328.35	-363.57	-330.51	0.21	91.00	489.90	312.09	138.7
60	5558	4.97	301.11	5528.57	332.60	-370.36	-334.79	0.35	90.00	497.79	311.93	131.4
61	5648	4.62	302.43	5618.26	336.56	-376.76	-338.79	0.41	90.00	505.19	311.77	131.4
62	5739	4.43	303.88	5708.97	340.48	-382.77	-342.75	0.24	91.00	512.29	311.65	138.7
63	5829	4.30	304.15	5798.71	344.31	-388.45	-346.61	0.15	90.00	519.08	311.55	138.7
64	5919	4.15	303.62	5888.47	348.01	-393.95	-350.34	0.17	90.00	525.65	311.46	138.7
65	6010	4.56	303.67	5979.21	351.84	-399.71	-354.21	0.45	91.00	532.50	311.36	131.4
66	6100	4.82	303.24	6068.90	355.90	-405.85	-358.30	0.29	90.00	539.79	311.25	131.4
67	6191	4.67	304.07	6159.59	360.07	-412.11	-362.51	0.18	91.00	547.25	311.14	131.4
68	6281	4.50	302.94	6249.30	364.04	-418.11	-366.51	0.21	90.00	554.38	311.05	131.4
69	6371	4.47	302.03	6339.03	367.82	-424.05	-370.33	0.09	90.00	561.34	310.94	124.1
70	6462	4.16	300.76	6429.77	371.39	-429.89	-373.93	0.36	91.00	568.10	310.82	124.1
71	6552	4.15	300.67	6519.53	374.72	-435.50	-377.30	0.01	90.00	574.52	310.71	124.1
72	6642	3.97	296.89	6609.31	377.79	-441.07	-380.40	0.36	90.00	580.75	310.58	124.1

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
73	6733	3.81	295.77	6700.10	380.53	-446.61	-383.17	0.19	91.00	586.74	310.43	124.1
74	6823	4.86	298.18	6789.84	383.63	-452.66	-386.31	1.18	90.00	593.36	310.28	124.1
75	6913	4.85	300.40	6879.52	387.35	-459.30	-390.07	0.21	90.00	600.83	310.14	131.4
76	7004	4.50	296.63	6970.21	390.90	-465.81	-393.66	0.51	91.00	608.10	310.00	131.4
77	7094	4.59	295.34	7059.93	394.02	-472.22	-396.82	0.15	90.00	615.02	309.84	116.9
78	7184	4.50	295.96	7149.65	397.11	-478.65	-399.94	0.11	90.00	621.94	309.68	124.1
79	7275	3.97	288.30	7240.40	399.66	-484.85	-402.53	0.85	91.00	628.34	309.50	124.1
80	7365	3.84	286.24	7330.19	401.48	-490.70	-404.39	0.21	90.00	634.02	309.29	124.1
81	7395	3.61	282.67	7360.13	401.97	-492.59	-404.89	1.09	30.00	635.79	309.22	124.1
82	7544	3.74	279.98	7508.82	403.84	-501.95	-406.82	0.14	149.00	644.24	308.82	116.9
83	7634	5.53	285.45	7598.52	405.51	-509.02	-408.52	2.05	90.00	650.80	308.54	116.9
84	7724	7.36	300.03	7687.96	409.55	-518.20	-412.62	2.71	90.00	660.50	308.32	131.4
85	7812	6.47	312.83	7775.32	415.74	-526.71	-418.86	2.02	88.00	671.02	308.28	102.3
86	7902	4.66	331.18	7864.90	422.39	-532.19	-425.54	2.80	90.00	679.45	308.44	109.6
87	7992	3.16	331.20	7954.69	427.77	-535.15	-430.94	1.67	90.00	685.11	308.64	109.6
88	8083	3.19	351.08	8045.55	432.47	-536.75	-435.65	1.20	91.00	689.30	308.86	116.9
89	8173	1.01	11.39	8135.49	435.72	-536.98	-438.90	2.52	90.00	691.52	309.06	124.1
90	8263	0.56	134.01	8225.48	436.19	-536.51	-439.37	1.55	90.00	691.45	309.11	124.1
91	8308	4.21	168.89	8270.44	434.42	-536.04	-437.59	8.36	45.00	689.97	309.02	124.1
92	8353	8.20	170.54	8315.16	429.63	-535.19	-432.80	8.87	45.00	686.30	308.76	124.1
93	8399	12.63	171.10	8360.39	421.42	-533.87	-424.58	9.63	46.00	680.16	308.29	124.1
94	8444	16.38	172.28	8403.95	410.27	-532.26	-413.42	8.36	45.00	672.03	307.63	131.4
95	8489	20.50	174.27	8446.63	396.13	-530.62	-399.28	9.26	45.00	662.18	306.74	124.1
96	8534	24.70	175.28	8488.17	378.92	-529.06	-382.05	9.37	45.00	650.75	305.61	124.1
97	8579	28.81	174.65	8528.34	358.74	-527.27	-361.86	9.15	45.00	637.74	304.23	124.1
98	8624	33.09	173.27	8566.93	335.74	-524.82	-338.84	9.64	45.00	623.02	302.61	124.1
99	8670	37.47	172.19	8604.47	309.39	-521.44	-312.48	9.62	46.00	606.32	300.68	124.1
100	8715	41.75	171.54	8639.13	281.00	-517.38	-284.06	9.56	45.00	588.76	298.51	124.1
101	8760	46.49	171.01	8671.43	250.04	-512.62	-253.08	10.57	45.00	570.35	296.00	124.1
102	8805	51.95	170.84	8700.81	216.41	-507.25	-219.41	12.14	45.00	551.48	293.10	124.1
103	8850	57.10	170.81	8726.91	180.24	-501.41	-183.21	11.44	45.00	532.82	289.77	124.1
104	8896	61.20	170.53	8750.50	141.28	-495.00	-144.22	8.93	46.00	514.77	285.93	124.1
105	8986	69.11	172.34	8788.28	60.58	-482.89	-63.45	8.98	90.00	486.68	277.15	124.1
106	9076	78.33	173.21	8813.49	-25.03	-472.05	22.23	10.29	90.00	472.72	266.96	131.4
107	9166	84.58	174.66	8826.85	-113.49	-462.66	110.74	7.12	90.00	476.38	256.22	131.4
108	9256	90.48	176.40	8830.73	-203.09	-455.66	200.38	6.83	90.00	498.87	245.98	138.7
109	9321	89.27	176.18	8830.87	-267.95	-451.46	265.27	1.89	65.00	524.98	239.31	124.1
110	9410	89.16	176.03	8832.09	-356.74	-445.41	354.09	0.21	89.00	570.66	231.31	131.4
111	9499	88.29	175.16	8834.07	-445.45	-438.58	442.84	1.38	89.00	625.12	224.55	131.4

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
112	9588	89.75	176.49	8835.60	-534.20	-432.10	531.62	2.22	89.00	687.08	218.97	138.7
113	9674	91.20	177.34	8834.88	-620.07	-427.47	617.52	1.95	86.00	753.13	214.58	138.7
114	9760	91.09	176.60	8833.16	-705.93	-422.93	703.41	0.87	86.00	822.92	210.93	138.7
115	9848	90.08	177.05	8832.27	-793.79	-418.05	791.29	1.26	88.00	897.14	207.77	146.0
116	9937	90.50	177.62	8831.81	-882.69	-413.91	880.22	0.80	89.00	974.92	205.12	146.0
117	10024	90.14	178.62	8831.33	-969.64	-411.06	967.18	1.22	87.00	1053.17	202.97	146.0
118	10114	91.88	180.72	8829.74	-1059.61	-410.54	1057.16	3.03	90.00	1136.37	201.18	146.0
119	10207	91.88	180.63	8826.69	-1152.56	-411.64	1150.10	0.10	93.00	1223.86	199.65	146.0
120	10297	90.00	179.51	8825.21	-1242.54	-411.75	1240.08	2.43	90.00	1308.99	198.33	153.3
121	10388	89.05	179.22	8825.97	-1333.53	-410.74	1331.07	1.09	91.00	1395.35	197.12	146.0
122	10478	90.84	180.74	8826.06	-1423.52	-410.71	1421.06	2.61	90.00	1481.59	196.09	146.0
123	10568	88.82	180.76	8826.32	-1513.51	-411.88	1511.04	2.24	90.00	1568.56	195.22	153.3
124	10658	92.69	182.46	8825.14	-1603.45	-414.41	1600.96	4.70	90.00	1656.13	194.49	153.3
125	10748	91.85	181.54	8821.57	-1693.32	-417.55	1690.81	1.38	90.00	1744.04	193.85	153.3
126	10840	91.18	181.37	8819.14	-1785.26	-419.88	1782.74	0.75	92.00	1833.97	193.24	153.3
127	10930	88.54	178.85	8819.36	-1875.24	-420.06	1872.72	4.05	90.00	1921.71	192.63	153.3
128	11021	91.54	181.41	8819.30	-1966.22	-420.26	1963.70	4.33	91.00	2010.64	192.06	153.3
129	11111	92.02	181.91	8816.50	-2056.14	-422.87	2053.60	0.77	90.00	2099.18	191.62	153.3
130	11201	90.64	180.94	8814.41	-2146.09	-425.11	2143.53	1.87	90.00	2187.79	191.20	153.3
131	11291	89.75	180.76	8814.11	-2236.08	-426.44	2233.51	1.01	90.00	2276.38	190.80	153.3
132	11382	90.20	180.84	8814.14	-2327.07	-427.71	2324.49	0.50	91.00	2366.05	190.41	160.6
133	11472	90.17	180.44	8813.85	-2417.06	-428.72	2414.47	0.45	90.00	2454.79	190.06	160.6
134	11562	90.78	180.55	8813.11	-2507.05	-429.50	2504.46	0.69	90.00	2543.58	189.72	160.6
135	11653	90.20	179.91	8812.33	-2598.05	-429.86	2595.45	0.95	91.00	2633.37	189.39	160.6
136	11743	89.08	179.61	8812.90	-2688.04	-429.48	2685.45	1.29	90.00	2722.14	189.08	160.6
137	11833	89.05	179.12	8814.36	-2778.03	-428.49	2775.44	0.55	90.00	2810.88	188.77	160.6
138	11923	87.87	178.37	8816.78	-2867.97	-426.52	2865.39	1.55	90.00	2899.51	188.46	160.6
139	12014	90.34	179.71	8818.20	-2958.94	-424.99	2956.36	3.09	91.00	2989.30	188.17	160.6
140	12104	89.75	179.27	8818.13	-3048.93	-424.19	3046.36	0.82	90.00	3078.30	187.92	160.6
141	12194	91.62	179.84	8817.06	-3138.92	-423.49	3136.35	2.17	90.00	3167.36	187.68	160.6
142	12285	90.08	179.60	8815.71	-3229.91	-423.05	3227.34	1.71	91.00	3257.49	187.46	160.6
143	12376	89.19	179.51	8816.29	-3320.90	-422.34	3318.34	0.98	91.00	3347.65	187.25	160.6
144	12466	91.57	180.31	8815.69	-3410.89	-422.20	3408.33	2.79	90.00	3436.92	187.06	160.6
145	12556	89.80	180.09	8814.61	-3500.88	-422.51	3498.31	1.98	90.00	3526.28	186.88	160.6
146	12647	90.08	180.64	8814.71	-3591.88	-423.09	3589.30	0.68	91.00	3616.71	186.72	160.6
147	12737	88.77	180.40	8815.61	-3681.87	-423.91	3679.29	1.48	90.00	3706.19	186.57	160.6
148	12827	89.69	180.74	8816.82	-3771.85	-424.81	3769.27	1.09	90.00	3795.70	186.43	167.9
149	12918	88.99	181.67	8817.87	-3862.83	-426.72	3860.23	1.28	91.00	3886.32	186.30	160.6
150	13008	89.22	182.54	8819.28	-3952.75	-430.02	3950.13	1.00	90.00	3976.08	186.21	167.9

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
151	13098	89.44	183.54	8820.33	-4042.62	-434.80	4039.97	1.14	90.00	4065.93	186.14	167.9
152	13189	91.29	182.24	8819.75	-4133.50	-439.38	4130.82	2.48	91.00	4156.78	186.07	160.6
153	13279	90.64	180.24	8818.23	-4223.46	-441.33	4220.76	2.34	90.00	4246.45	185.97	160.6
154	13369	90.59	179.85	8817.27	-4313.45	-441.40	4310.76	0.44	90.00	4335.98	185.84	167.9
155	13460	90.81	180.47	8816.16	-4404.44	-441.66	4401.75	0.72	91.00	4426.53	185.73	167.9
156	13550	90.20	179.78	8815.36	-4494.44	-441.85	4491.74	1.02	90.00	4516.11	185.61	167.9
157	13640	89.30	178.31	8815.76	-4584.42	-440.35	4581.73	1.92	90.00	4605.52	185.49	167.9
158	13731	90.42	179.44	8815.98	-4675.40	-438.57	4672.72	1.75	91.00	4695.93	185.36	167.9
159	13821	89.64	178.43	8815.93	-4765.38	-436.89	4762.71	1.42	90.00	4785.37	185.24	167.9
160	13911	92.24	179.21	8814.45	-4855.35	-435.04	4852.68	3.02	90.00	4874.80	185.12	167.9
161	14002	88.26	178.36	8814.06	-4946.30	-433.11	4943.65	4.47	91.00	4965.23	185.00	167.9
162	14092	87.40	177.12	8817.46	-5036.17	-429.56	5033.53	1.68	90.00	5054.45	184.88	167.9
163	14182	88.26	177.10	8820.87	-5125.99	-425.03	5123.38	0.96	90.00	5143.58	184.74	167.9
164	14273	90.92	178.14	8821.52	-5216.90	-421.25	5214.31	3.14	91.00	5233.88	184.62	167.9
165	14363	89.89	178.24	8820.89	-5306.85	-418.41	5304.27	1.15	90.00	5323.32	184.51	167.9
166	14453	88.96	177.98	8821.79	-5396.79	-415.44	5394.23	1.07	90.00	5412.76	184.40	167.9
167	14544	91.71	178.86	8821.26	-5487.75	-412.93	5485.20	3.17	91.00	5503.26	184.30	167.9
168	14634	90.84	179.34	8819.26	-5577.71	-411.52	5575.17	1.10	90.00	5592.87	184.22	167.9
169	14724	90.67	179.35	8818.07	-5667.70	-410.49	5665.17	0.19	90.00	5682.55	184.14	167.9
170	14815	89.44	178.36	8817.98	-5758.68	-408.67	5756.15	1.74	91.00	5773.16	184.06	167.9
171	14905	90.59	178.59	8817.96	-5848.65	-406.28	5846.13	1.30	90.00	5862.74	183.97	167.9
172	14995	91.71	178.91	8816.15	-5938.61	-404.31	5936.10	1.29	90.00	5952.35	183.89	167.9
173	15085	89.58	179.20	8815.14	-6028.58	-402.83	6026.09	2.39	90.00	6042.03	183.82	167.9
174	15176	89.64	179.71	8815.76	-6119.58	-401.96	6117.08	0.56	91.00	6132.76	183.76	175.1
175	15266	91.43	180.50	8814.92	-6209.57	-402.13	6207.07	2.17	90.00	6222.57	183.71	175.1
176	15357	90.25	180.44	8813.59	-6300.55	-402.88	6298.05	1.30	91.00	6313.42	183.66	175.1
177	15447	90.14	180.27	8813.28	-6390.55	-403.43	6388.04	0.22	90.00	6403.27	183.61	175.1
178	15538	90.98	180.18	8812.39	-6481.54	-403.79	6479.03	0.93	91.00	6494.11	183.56	175.1
179	15628	90.31	179.40	8811.38	-6571.54	-403.46	6569.03	1.14	90.00	6583.91	183.51	175.1
180	15718	90.76	179.40	8810.54	-6661.53	-402.52	6659.02	0.50	90.00	6673.68	183.46	175.1
181	15808	90.87	179.31	8809.26	-6751.51	-401.51	6749.01	0.16	90.00	6763.44	183.40	175.1
182	15899	90.34	178.56	8808.29	-6842.49	-399.81	6840.00	1.01	91.00	6854.16	183.34	175.1
183	15989	90.17	178.07	8807.89	-6932.45	-397.17	6929.97	0.58	90.00	6943.82	183.28	175.1
184	16079	90.00	177.57	8807.76	-7022.39	-393.74	7019.93	0.59	90.00	7033.42	183.21	175.1
185	16170	90.11	178.18	8807.67	-7113.32	-390.37	7110.88	0.68	91.00	7124.03	183.14	175.1
186	16260	89.38	179.24	8808.07	-7203.30	-388.34	7200.87	1.43	90.00	7213.76	183.09	175.1
187	16350	90.03	179.99	8808.54	-7293.29	-387.74	7290.86	1.10	90.00	7303.59	183.04	175.1
188	16441	90.42	179.77	8808.18	-7384.29	-387.55	7381.86	0.49	91.00	7394.45	183.00	175.1
189	16531	90.64	179.50	8807.35	-7474.29	-386.98	7471.86	0.39	90.00	7484.30	182.96	175.1

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
190	16621	88.82	179.97	8807.77	-7564.28	-386.56	7561.85	2.09	90.00	7574.15	182.93	175.1
191	16712	90.06	180.49	8808.66	-7655.27	-386.92	7652.84	1.48	91.00	7665.04	182.89	175.1
192	16802	90.90	180.20	8807.91	-7745.27	-387.47	7742.83	0.99	90.00	7754.95	182.86	175.1
193	16893	88.85	179.12	8808.11	-7836.26	-386.93	7833.82	2.55	91.00	7845.81	182.83	175.1
194	16983	88.38	179.52	8810.28	-7926.23	-385.86	7923.80	0.69	90.00	7935.61	182.79	175.1
195	17073	89.89	180.71	8811.64	-8016.21	-386.04	8013.78	2.14	90.00	8025.50	182.76	175.1
196	17164	90.73	180.23	8811.15	-8107.21	-386.79	8104.77	1.06	91.00	8116.43	182.73	175.1
197	17254	88.96	178.83	8811.39	-8197.20	-386.05	8194.76	2.51	90.00	8206.28	182.70	175.1
198	17344	88.88	179.13	8813.09	-8287.17	-384.45	8284.74	0.34	90.00	8296.08	182.66	175.1
199	17434	90.06	180.10	8813.92	-8377.16	-383.84	8374.73	1.70	90.00	8385.95	182.62	175.1
200	17524	89.55	179.56	8814.23	-8467.16	-383.57	8464.73	0.83	90.00	8475.84	182.59	175.1
201	17615	90.84	180.31	8813.92	-8558.15	-383.47	8555.73	1.64	91.00	8566.74	182.57	175.1
202	17705	91.18	180.51	8812.33	-8648.14	-384.11	8645.70	0.44	90.00	8656.66	182.54	175.1
203	17795	91.29	180.22	8810.39	-8738.11	-384.69	8735.68	0.34	90.00	8746.58	182.52	175.1
204	17885	90.42	180.47	8809.05	-8828.10	-385.23	8825.66	1.01	90.00	8836.50	182.50	175.1
205	17975	92.41	181.18	8806.82	-8918.06	-386.52	8915.61	2.35	90.00	8926.43	182.48	175.1
206	18066	88.52	180.14	8806.09	-9009.03	-387.57	9006.57	4.42	91.00	9017.36	182.46	175.1
207	18156	91.71	181.93	8805.91	-9099.00	-389.20	9096.53	4.06	90.00	9107.32	182.45	175.1
208	18247	88.15	181.16	8806.02	-9189.95	-391.65	9187.47	4.00	91.00	9198.29	182.44	175.1
209	18337	90.76	182.45	8806.87	-9279.89	-394.49	9277.39	3.23	90.00	9288.28	182.43	175.1
210	18427	93.39	182.05	8803.61	-9369.76	-398.02	9367.23	2.96	90.00	9378.21	182.43	175.1
211	18518	93.05	180.63	8798.50	-9460.59	-400.14	9458.05	1.60	91.00	9469.05	182.42	175.1
212	18608	91.62	179.38	8794.84	-9550.51	-400.15	9547.97	2.11	90.00	9558.89	182.40	175.1
213	18698	91.57	179.27	8792.33	-9640.47	-399.09	9637.93	0.13	90.00	9648.72	182.37	175.1
214	18789	90.59	178.29	8790.62	-9731.43	-397.15	9728.90	1.52	91.00	9739.53	182.34	175.1
215	18879	92.09	177.90	8788.51	-9821.35	-394.16	9818.84	1.72	90.00	9829.26	182.30	182.4
216	18969	92.61	177.93	8784.82	-9911.22	-390.89	9908.72	0.58	90.00	9918.92	182.26	175.1
217	19060	91.32	177.32	8781.70	-10002.08	-387.12	9999.61	1.57	91.00	10009.57	182.22	182.4
218	19113	92.18	177.25	8780.08	-10055.00	-384.61	10052.54	1.63	53.00	10062.35	182.19	182.4
PTB	19168	92.18	177.25	8777.99	-10109.89	-381.97	10107.45	0.00	55.00	10117.10	182.16	0.5



MWD SURVEY CERTIFICATION

Legacy Directional Drilling, LLC.

State of NEW MEXICO

County of Eddy

I, Brandon Cox certify that; I am employed by Legacy Directional Drilling, LLC.;

that I did on the day(s) of November 28, 2019 through December 29, 2019 conduct or supervise

the taking of a MWD survey from a depth of 197 Feet to a depth of 19168 Feet;

that the data is true, correct, complete and within the limitations of the tool set forth by

Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report; that this survey was

conducted at the request of XTO ENERGY INC. for the

Corral Canyon 10-15 Fed Com 10H Well, A.P.I No. 30-015-46325 in

Willow Lake; Bone Spring SE Field and that I have reviewed this report and find that it conforms

to the principles and procedures set forth by Legacy Directional Drilling, LLC.

Brandon Cox

Surveyor's Signature

MWD Field Operator

Title

Mark L. Miller

Supervisor's Signature

Mark L. Miller

Printed Name

V.P. Technology

Title



Legacy Directional Drilling, LLC.
MWD Survey Data Certification

OPERATOR:	XTO ENERGY INC.	JOB NUMBER:	HU190211
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WELL NAME:	CORRAL CANYON 10-15 FED COM 10H	COUNTY & STATE:	EDDY Co., NM
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FIELD:	WILLOW LAKE; BONE SPRING SE	API NUMBER:	30-015-46325
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TIE-IN DATA							
DEPTH (FT)	INC (°)	AZM (°)	TVD (FT)	N/S (FT)	E/W (FT)	PROPOSED DIRECTION	DATA SOURCE
0	0	0	0	0	0	179.66	

FIRST SURVEY			
DATE	DEPTH (FT)	INC (°)	AZM (°)
28-Nov-2019	197	0.86	174.53

SURVEY INSTRUMENT TYPE:	Legacy MWD
TOTAL CORRECTION USED:	6.73
NORTH REFERENCE:	GRID

LAST SURVEY			
DATE	DEPTH (FT)	INC (°)	AZM (°)
29-Dec-2019	19113	92.18	177.25

TO THE BEST OF MY KNOWLEDGE I CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT

PROJECTION TO TD			
DATE	DEPTH (FT)	INC (°)	AZM (°)
29-Dec-2019	19168	92.18	177.25

Brandon Cox

Print Name

MWD OPERATOR(S) PERFORMING SURVEYS:

BRANDON COX

NEILL COOPER

BO BARNES

NEILL COOPER

Brandon Cox

Signature

December 29, 2019

Today's Date