

WORTHINGTON D 10H

LATITUDE: 39°30'00"
SCALE: 1" = 2000'

SCALE: 1" = 2000'
LONGITUDE: 80°17'30"

PERMITTED

AS-DRILLED

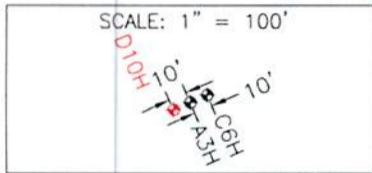
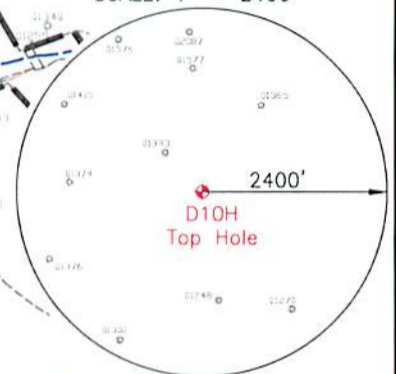
State Plane Coordinate West Virginia North Top Hole Location	State Plane Coordinate West Virginia North Top Hole Location
NAD 27 Feet N: 359384.670 E: 1768046.846	NAD 27 Feet N: 359384.670 E: 1768046.846
UTM Zone 17 (SPCS83) Meters N: 4370696.682 E: 558340.831 NAD 27 N 39.4838096 W 080.3218042	UTM Zone 17 (SPCS83) Meters N: 4370696.682 E: 558340.831 NAD 27 N 39.4838096 W 080.3218042
Landing Point Location	Landing Point Location
NAD 27 Feet N: 359235.813 E: 1766076.359	NAD 27 Feet N: 359174.053 E: 1766086.049
UTM Zone 17 (SPCS83) Meters N: 4370641.321 E: 557741.243 NAD 27 N 39.4833512 W 080.3287803	UTM Zone 17 (SPCS83) Meters N: 4370622.554 E: 557744.509 NAD 27 N 39.4831819 W 080.3287440
Bottom Hole Location	Bottom Hole Location
NAD 27 Feet N: 350672.977 E: 1766346.651	NAD 27 Feet N: 350638.066 E: 1766332.422
UTM Zone 17 (SPCS83) Meters N: 4368033.908 E: 557867.066 NAD 27 N 39.4598494 W 080.3275433	UTM Zone 17 (SPCS83) Meters N: 4368023.199 E: 557862.908 NAD 27 N 39.4597532 W 080.3275926

REFERENCES

1" = 200'

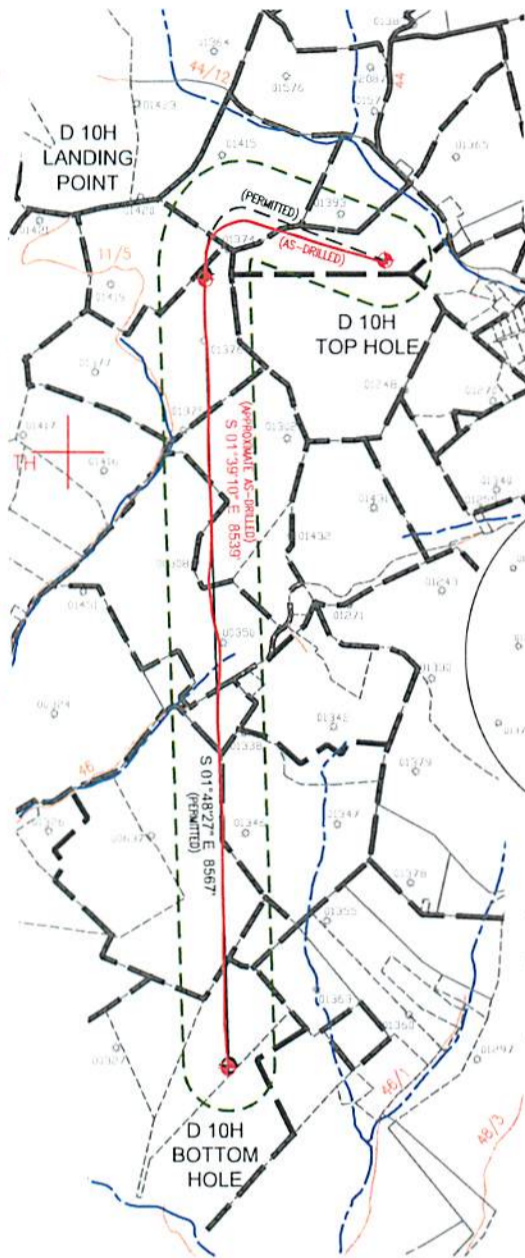


SCALE: 1" = 2400'



LINE LEGEND

LEASE BOUNDARY	— — — — —
SURFACE BOUNDARY	- - - - -
CREEK / STREAM	~ ~ ~ ~ ~
ROADS	— — — — —
PROPOSED LATERAL	— — — — —
APPROXIMATE CURVE	- - - - -
AS-DRILLED LATERAL	— — — — —
500' LATERAL OFFSET	- - - - -
EXISTING GAS WELL	⊙



NOTES ON SURVEY

1. NO DWELLINGS WITHIN 625' WERE FOUND.
2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD 83.
4. WELL ELEVATION ESTABLISHED BY RTK GPS NAVD 88.
5. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF MARION COUNTY IN MAY 2016 AND FILES PROVIDED BY XTO ENERGY, INC.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WVDEP.



2402 PENNSYLVANIA 66 DELMONT, PA 15626
(724) 757 - 2417 www.jonesconsultant.com

SHEET 1 OF 2

FILE #: JC2016-38
DRAWING #: WORTHINGTON D 10H WELL
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: RTK GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: Ryan Jones
R.P.E.: _____ P.S.: 2165



(+) DENOTES LOCATION OF AS-DRILLED WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: 07/31/2018
OPERATOR'S WELL #: WORTHINGTON D 10H
API WELL #: 47 049 02420
STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: LOWER WEST FORK RIVER (0502000206) ELEVATION: 1,194' FINISH GRADE
COUNTY/DISTRICT: MARION / LINCOLN QUADRANGLE: SHINSTON 7.5'
SURFACE OWNER: XTO ENERGY INC. ACREAGE: 104.40±
OIL & GAS ROYALTY OWNER: RADDISH, ET AL ACREAGE: 585±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,573' (TVD), 17,207' (TMD)

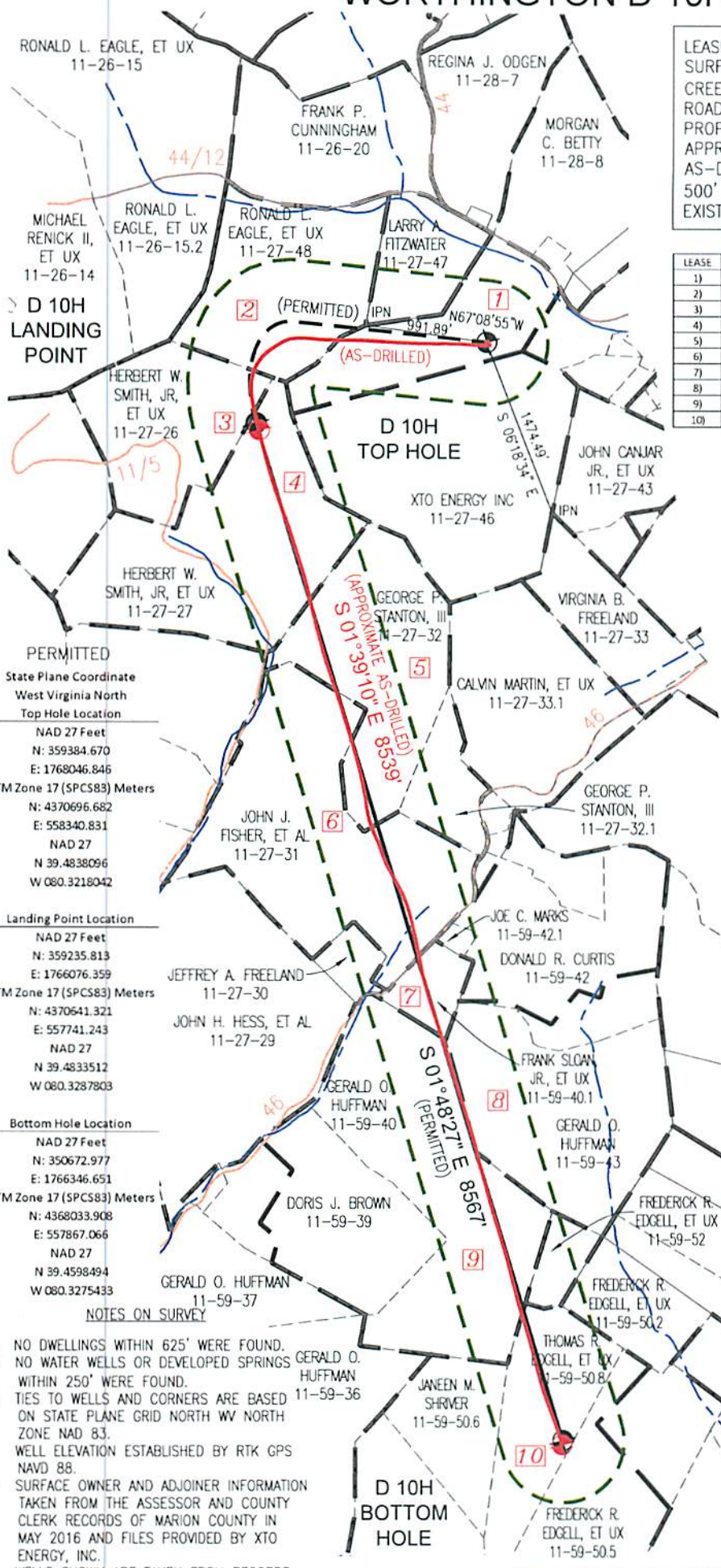
WELL OPERATOR: XTO ENERGY INC. Address: 190 THORN HILL ROAD City: WARRENDALE State: PA Zip Code: 15086
DESIGNATED AGENT: GARY BEALL Address: P.O. BOX 1008 City: JANE LEW State: WV Zip Code: 26378

WORTHINGTON D 10H

LINE LEGEND

LEASE BOUNDARY	
SURFACE BOUNDARY	
CREEK / STREAM	
ROADS	
PROPOSED LATERAL	
APPROXIMATE CURVE	
AS-DRILLED LATERAL	
500' LATERAL OFFSET	
EXISTING GAS WELL	

LEASE	LESSOR	MINERAL ACREAGE
1)	JAMES RUDDOLPH HEATER LIVING TRUST, ET AL	19.658
2)	CAROLYN R. GROVER, ET AL	39.17
3)	GAYLE D JUSTICE, ET AL	34.60
4)	EXPLORATION PARTNERS, LLC, ET AL	64.55
5)	AMANDA M. HESS, ET AL	51.250
6)	AMANDA M. HESS, ET AL	67.500
7)	FREDERICK R. EDGELL, ET AL	7.500
8)	RONALD D. MARTIN, ET AL	66.500
9)	HARRY G. MOORHEAD, ET AL	94.000
10)	ROY W. EDGELL, ET AL	140.51825



D 10H LANDING POINT

D 10H TOP HOLE

D 10H BOTTOM HOLE

PERMITTED
State Plane Coordinate
West Virginia North
Top Hole Location
NAD 27 Feet
N: 359384.670
E: 1768046.846
UTM Zone 17 (SPCS83) Meters
N: 4370696.682
E: 558340.831
NAD 27
N 39.4838096
W 080.3218042

Landing Point Location
NAD 27 Feet
N: 359235.813
E: 1766076.359
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N: 4370641.321
E: 557741.243
NAD 27
N 39.4833512
W 080.3287803

Bottom Hole Location
NAD 27 Feet
N: 350672.977
E: 1766346.651
UTM Zone 17 (SPCS83) Meters
N: 4368033.908
E: 557867.066
NAD 27
N 39.4598494
W 080.3275433

- NOTES ON SURVEY**
- NO DWELLINGS WITHIN 625' WERE FOUND.
 - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
 - TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD 83.
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NAD 27
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NAD 27 Feet
N: 359174.053
E: 1766086.049
UTM Zone 17 (SPCS83) Meters
N: 4370622.554
E: 557744.509
NAD 27
N 39.4831819
W 080.3287440

Bottom Hole Location
NAD 27 Feet
N: 350638.066
E: 1766332.422
UTM Zone 17 (SPCS83) Meters
N: 4368023.199
E: 557862.908
NAD 27
N 39.4597532
W 080.3275926

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SUPPLEMENTAL SURFACE AND LESSOR EXHIBIT

WORTHINGTON D 10H

Drawn By: JRV	Date: 07/31/18	LINCOLN DISTRICT MARION COUNTY, WEST VIRGINIA	
Scale: 1" = 1200'	Sheet: SHEET 2 OF 2	File No.: JC2016-38	
A/E # 1600261			



XTO ENERGY INC

Location: Marion County, WV
 Field: Marion
 Facility: Worthington Unit
 Well: Worthington D Unit 10H
 Wellbore: Worthington D Unit 10H PWB

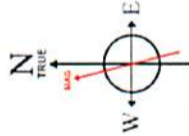


File reference is Marion Worthington D Unit 10H PWB Rec-2
 True vertical depths are referenced to Patterson 553 (RKB)
 Measured depths are referenced to Patterson 553 (RKB)
 Patterson 553 (RKB) to Mean Sea Level: 1222 Feet
 Mean Sea Level to Ground level (At Slot Slot #10): -114 Feet
 Coordinates are in feet referenced to SPM

Location Information			
Facility Name	Worthington Unit	Grid East (US ft)	Grid North (US ft)
Worthington Unit		1768056.016	359388.660
Slot	Slot #10	Grid East (US ft)	Grid North (US ft)
Slot #10		1768046.850	359384.670
Patterson 553 (RKB) to Ground level (At Slot Slot #10):			20ft
Mean Sea Level to Ground level (At Slot Slot #10):			-1194ft
Patterson 553 (RKB) to Mean Sea Level:			1222ft

Javris Gyro <8.3/4> (25<-4750>) 0.28" Inc. 38.00ft MD. 38.00ft TVD. 0.03ft VS

API: 47-049-02420-0000
 BH Job #: 9163052
 Rig: Patterson 583
 Duration: 5/17/2018-5/25/2018



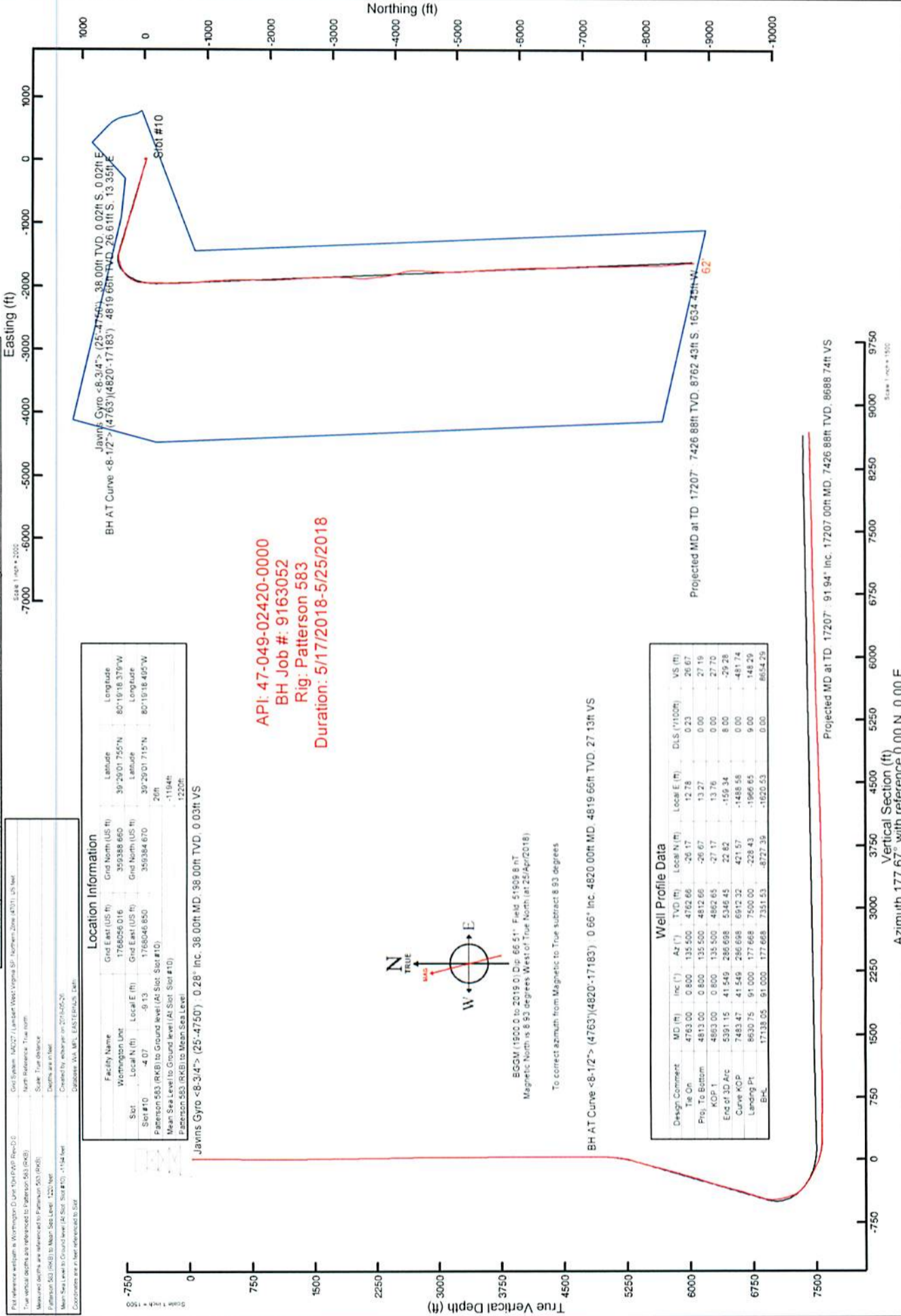
BGGM (1900.0 to 2019.0) Dip: 66.51° Field: 51909.8 ft
 Magnetic North is 8.93 degrees West of True North (at 25/Apr/2018)

To correct azimuth from Magnetic to True subtract 8.93 degrees

BH AT Curve <8-1/2> (4763)(4820-17183) 0.66" Inc. 4820.00ft MD. 4819.66ft TVD. 27.13ft VS

Well Profile Data						
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)
Tie On	4763.00	0.800	135.500	4762.66	-26.17	12.78
Peg To Bottom	4813.00	0.800	135.500	4812.66	-26.67	13.27
KOP 1	4863.00	0.800	135.500	4862.65	-27.17	13.76
End of 3D Arc	5391.15	41.549	289.698	5346.45	22.82	-159.34
Curve KOP	7483.47	41.549	289.698	6912.32	421.57	-1458.58
Landing Pt	8630.75	91.000	177.668	7500.00	-228.43	-1966.65
BHL	17738.05	91.000	177.668	7351.53	-8727.39	-1620.53

Projected MD at TD 17207' 91.94" Inc. 17207.00ft MD. 7426.86ft TVD. 8688.74ft VS



Vertical Section (ft)
 Azimuth 177.67° with reference 0.00 N, 0.00 E

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Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207'
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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Edsaryar
Scale	0.999944	Report Generated	26/May/2018 at 20:30
Convergence at slot	0.52° West	Database/Source file	WA_MPL_EASTERNUS_Defm/Worthington_D_Unit_10H_AWP_Proj_17207_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4.07	-9.13	1768046.85	359384.67	39°29'01.715"N	80°19'18.495"W
Facility Reference Pt			1768056.02	359388.66	39°29'01.755"N	80°19'18.379"W
Field Reference Pt			609601.22	0.00	38°23'48.753"N	84°21'09.765"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 583 (RKB) to Facility Vertical Datum	26.00ft
Horizontal Reference Pt	Slot	Patterson 583 (RKB) to Mean Sea Level	1220.00ft
Vertical Reference Pt	Patterson 583 (RKB)	Patterson 583 (RKB) to Ground Level at Slot (Slot #10)	26.00ft
MD Reference Pt	Patterson 583 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	177.67°

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Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations) † = interpolated/extrapolated station

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]	[°]	[°]	[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]
0.00†	0.000	147.400	0.00	0.00	0.00	0.00	1768046.85	359384.67	39°29'01.715"N	80°19'18.495"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	147.400	26.00	0.00	0.00	0.00	1768046.85	359384.67	39°29'01.715"N	80°19'18.495"W	0.00	0.000	0.00	0.00	0.00
38.00	0.280	147.400	38.00	0.03	-0.02	0.02	1768046.87	359384.65	39°29'01.714"N	80°19'18.495"W	0.03	147.400	2.33	2.33	1228.33
63.00	0.200	331.900	63.00	0.04	-0.04	0.03	1768046.88	359384.63	39°29'01.714"N	80°19'18.495"W	0.05	143.226	1.92	-0.32	-702.00
88.00	0.380	301.000	88.00	-0.05	0.04	-0.06	1768046.79	359384.71	39°29'01.715"N	80°19'18.496"W	0.08	304.440	0.93	0.72	-123.60
113.00	0.360	288.500	113.00	-0.12	0.11	-0.21	1768046.64	359384.78	39°29'01.716"N	80°19'18.498"W	0.24	298.001	0.33	-0.08	-50.00
138.00	0.470	265.000	138.00	-0.14	0.13	-0.39	1768046.47	359384.80	39°29'01.716"N	80°19'18.500"W	0.41	288.244	0.80	0.44	-94.00
163.00	0.420	260.900	163.00	-0.13	0.10	-0.58	1768046.27	359384.72	39°29'01.716"N	80°19'18.503"W	0.59	280.166	0.24	-0.20	-16.40
188.00	0.330	234.500	188.00	-0.08	0.05	-0.73	1768046.12	359384.78	39°29'01.715"N	80°19'18.504"W	0.73	273.728	0.77	-0.36	-105.60
213.00	0.300	230.200	213.00	0.00	-0.04	-0.84	1768046.01	359384.64	39°29'01.714"N	80°19'18.506"W	0.84	267.513	0.15	-0.12	-17.20
238.00	0.360	237.800	238.00	0.08	-0.12	-0.95	1768045.90	359384.56	39°29'01.713"N	80°19'18.507"W	0.96	262.819	0.30	0.24	30.40
263.00	0.490	261.500	263.00	0.13	-0.18	-1.13	1768045.72	359384.50	39°29'01.713"N	80°19'18.510"W	1.14	261.025	0.86	0.52	94.80
288.00	0.410	259.800	287.99	0.16	-0.21	-1.32	1768045.53	359384.47	39°29'01.713"N	80°19'18.512"W	1.34	260.981	0.32	-0.32	-6.80
313.00	0.360	264.600	312.99	0.17	-0.23	-1.49	1768045.36	359384.45	39°29'01.712"N	80°19'18.514"W	1.50	261.099	0.24	-0.20	19.20
338.00	0.330	271.100	337.99	0.17	-0.24	-1.64	1768045.21	359384.45	39°29'01.712"N	80°19'18.516"W	1.65	261.699	0.20	-0.12	26.00
363.00	0.390	288.900	362.99	0.14	-0.21	-1.79	1768045.06	359384.48	39°29'01.713"N	80°19'18.518"W	1.80	263.312	0.50	0.24	71.20
388.00	0.500	285.500	387.99	0.07	-0.15	-1.97	1768044.88	359384.54	39°29'01.713"N	80°19'18.520"W	1.98	265.568	0.45	0.44	-13.60
413.00	0.430	302.200	412.99	-0.01	-0.07	-2.16	1768044.69	359384.62	39°29'01.714"N	80°19'18.523"W	2.16	268.041	0.61	-0.28	66.80
438.00	0.470	309.600	437.99	-0.14	0.04	-2.32	1768044.53	359384.73	39°29'01.715"N	80°19'18.525"W	2.32	271.028	0.28	0.16	29.60
463.00	0.460	317.000	462.99	-0.28	0.18	-2.46	1768044.39	359384.87	39°29'01.716"N	80°19'18.527"W	2.47	274.186	0.24	-0.04	29.60
488.00	0.480	358.600	487.99	-0.46	0.36	-2.53	1768044.32	359385.05	39°29'01.718"N	80°19'18.527"W	2.56	278.048	1.34	0.08	166.40
513.00	0.670	13.100	512.99	-0.71	0.61	-2.50	1768044.35	359385.30	39°29'01.721"N	80°19'18.527"W	2.58	283.592	0.95	0.76	58.00
538.00	0.750	28.800	537.99	-0.99	0.89	-2.39	1768044.47	359385.58	39°29'01.723"N	80°19'18.526"W	2.55	290.432	0.84	0.32	62.80
563.00	0.820	29.700	562.98	-1.28	1.19	-2.22	1768044.64	359385.88	39°29'01.726"N	80°19'18.524"W	2.52	298.141	0.28	0.28	3.60
588.00	0.800	39.800	587.98	-1.56	1.48	-2.02	1768044.84	359386.17	39°29'01.729"N	80°19'18.521"W	2.51	306.159	0.58	-0.08	40.40
613.00	0.710	49.800	612.98	-1.79	1.71	-1.79	1768045.07	359386.40	39°29'01.732"N	80°19'18.518"W	2.48	313.679	0.64	-0.36	40.00
638.00	0.930	33.800	637.98	-2.04	1.98	-1.56	1768045.31	359386.67	39°29'01.734"N	80°19'18.515"W	2.52	321.738	1.26	0.88	-64.00
663.00	0.920	43.600	662.97	-2.35	2.30	-1.31	1768045.56	359386.98	39°29'01.737"N	80°19'18.512"W	2.64	330.256	0.63	-0.04	39.20
688.00	0.950	46.800	687.97	-2.62	2.58	-1.02	1768045.85	359387.26	39°29'01.740"N	80°19'18.508"W	2.78	338.406	0.24	0.12	12.80
713.00	0.710	59.400	712.97	-2.83	2.80	-0.74	1768046.14	359387.48	39°29'01.742"N	80°19'18.505"W	2.90	345.253	1.20	-0.96	50.40

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Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207'

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Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (F'/100ft)	Build Rate (F'/100ft)	Turn Rate (F'/100ft)
738.00	1.060	42.900	737.96	-3.07	3.05	-0.45	1768046.43	359387.73	39°29'01.745"N	80°19'18.501"W	3.08	351.662	1.72	1.40	-66.00
763.00	0.820	52.500	762.96	-3.33	3.33	-0.15	1768046.73	359388.00	39°29'01.748"N	80°19'18.497"W	3.33	357.456	1.15	-0.96	38.40
788.00	0.800	60.400	787.96	-3.52	3.53	0.15	1768047.03	359388.19	39°29'01.749"N	80°19'18.493"W	3.53	2.366	0.45	-0.08	31.60
813.00	0.720	67.100	812.96	-3.65	3.67	0.44	1768047.33	359388.34	39°29'01.751"N	80°19'18.490"W	3.70	6.864	0.48	-0.32	26.80
838.00	0.650	75.100	837.95	-3.74	3.77	0.72	1768047.61	359388.43	39°29'01.752"N	80°19'18.486"W	3.84	10.868	0.47	-0.28	32.00
863.00	0.940	62.600	862.95	-3.86	3.90	1.04	1768047.93	359388.56	39°29'01.753"N	80°19'18.482"W	4.04	14.967	1.35	1.16	-50.00
888.00	0.730	79.100	887.95	-3.97	4.03	1.38	1768048.27	359388.68	39°29'01.754"N	80°19'18.478"W	4.26	18.939	1.27	-0.84	66.00
913.00	0.690	83.900	912.95	-4.00	4.07	1.69	1768048.57	359388.73	39°29'01.755"N	80°19'18.474"W	4.41	22.510	0.29	-0.16	19.20
938.00	0.430	99.000	937.95	-3.99	4.07	1.93	1768048.82	359388.73	39°29'01.755"N	80°19'18.471"W	4.51	25.351	1.19	-1.04	60.40
963.00	0.740	88.300	962.95	-3.97	4.06	2.18	1768049.07	359388.71	39°29'01.755"N	80°19'18.467"W	4.61	28.256	1.31	1.24	-42.80
988.00	0.810	84.800	987.94	-3.98	4.08	2.52	1768049.41	359388.73	39°29'01.755"N	80°19'18.463"W	4.80	31.687	0.34	0.28	-14.00
1013.00	0.690	89.900	1012.94	-3.98	4.10	2.85	1768049.73	359388.74	39°29'01.755"N	80°19'18.459"W	4.99	34.779	0.55	-0.48	20.40
1038.00	0.680	91.500	1037.94	-3.97	4.10	3.15	1768050.03	359388.74	39°29'01.755"N	80°19'18.455"W	5.17	37.526	0.09	-0.04	6.40
1063.00	0.600	102.700	1062.94	-3.92	4.06	3.42	1768050.31	359388.70	39°29'01.755"N	80°19'18.452"W	5.31	40.101	0.59	-0.32	44.80
1088.00	0.830	86.800	1087.94	-3.89	4.05	3.73	1768050.62	359388.68	39°29'01.755"N	80°19'18.448"W	5.50	42.684	1.21	0.92	-63.60
1113.00	0.820	97.200	1112.93	-3.86	4.03	4.09	1768050.98	359388.67	39°29'01.754"N	80°19'18.443"W	5.74	45.396	0.60	-0.04	41.60
1138.00	0.700	93.700	1137.93	-3.82	4.00	4.42	1768051.31	359388.63	39°29'01.754"N	80°19'18.439"W	5.96	47.844	0.51	-0.48	-14.00
1163.00	0.860	102.700	1162.93	-3.75	3.95	4.75	1768051.64	359388.58	39°29'01.754"N	80°19'18.435"W	6.18	50.282	0.80	0.64	36.00
1188.00	0.590	103.200	1187.93	-3.67	3.88	5.06	1768051.95	359388.50	39°29'01.753"N	80°19'18.431"W	6.38	52.541	1.08	-1.08	2.00
1213.00	0.860	113.400	1212.92	-3.55	3.78	5.36	1768052.24	359388.40	39°29'01.752"N	80°19'18.427"W	6.56	54.843	1.19	1.08	40.80
1238.00	0.750	111.800	1237.92	-3.41	3.64	5.68	1768052.57	359388.26	39°29'01.751"N	80°19'18.423"W	6.75	57.367	0.45	-0.44	-6.40
1263.00	0.830	113.100	1262.92	-3.26	3.51	6.00	1768052.88	359388.12	39°29'01.749"N	80°19'18.419"W	6.95	59.698	0.33	0.32	5.20
1288.00	0.820	129.200	1287.92	-3.06	3.32	6.31	1768053.19	359387.94	39°29'01.747"N	80°19'18.415"W	7.13	62.213	0.93	-0.04	64.40
1313.00	0.920	122.000	1312.91	-2.83	3.10	6.62	1768053.49	359387.71	39°29'01.745"N	80°19'18.411"W	7.31	64.864	0.59	0.40	-28.80
1338.00	0.980	121.500	1337.91	-2.60	2.89	6.97	1768053.85	359387.49	39°29'01.743"N	80°19'18.406"W	7.54	67.502	0.24	0.24	-2.00
1363.00	0.970	137.200	1362.91	-2.32	2.62	7.30	1768054.17	359387.22	39°29'01.741"N	80°19'18.402"W	7.75	70.248	1.07	-0.04	62.80
1388.00	0.990	144.300	1387.90	-1.98	2.29	7.57	1768054.44	359386.89	39°29'01.737"N	80°19'18.399"W	7.90	73.166	0.49	0.08	28.40
1413.00	0.880	154.000	1412.90	-1.62	1.94	7.78	1768054.64	359386.54	39°29'01.734"N	80°19'18.396"W	8.01	75.984	0.77	-0.44	38.80
1438.00	1.020	156.500	1437.90	-1.24	1.56	7.95	1768054.81	359386.16	39°29'01.730"N	80°19'18.394"W	8.10	78.865	0.58	0.56	10.00
1463.00	1.040	154.100	1462.89	-0.82	1.16	8.14	1768055.00	359385.75	39°29'01.726"N	80°19'18.391"W	8.22	81.912	0.19	0.08	-9.60



Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207'
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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
1488.00	1.010	157.200	1487.89	-0.41	0.75	8.32	1768055.18	359385.34	39°29'01.722"N	80°19'18.389"W	8.35	84.856	0.25	-0.12	12.40
1513.00	1.080	161.900	1512.88	0.02	0.32	8.48	1768055.33	359384.91	39°29'01.718"N	80°19'18.387"W	8.49	87.825	0.44	0.28	18.80
1538.00	0.870	160.700	1537.88	0.43	-0.08	8.62	1768055.46	359384.51	39°29'01.714"N	80°19'18.385"W	8.62	90.539	0.84	-0.84	-4.80
1563.00	1.160	165.200	1562.88	0.86	-0.50	8.74	1768055.59	359384.09	39°29'01.710"N	80°19'18.384"W	8.76	93.305	1.20	1.16	18.00
1588.00	1.050	164.800	1587.87	1.33	-0.97	8.87	1768055.71	359383.62	39°29'01.705"N	80°19'18.382"W	8.92	96.246	0.44	-0.44	-1.60
1613.00	1.040	163.100	1612.87	1.77	-1.41	8.99	1768055.83	359383.18	39°29'01.701"N	80°19'18.380"W	9.10	98.902	0.13	-0.04	-6.80
1638.00	1.030	163.600	1637.86	2.21	-1.84	9.12	1768055.96	359382.75	39°29'01.696"N	80°19'18.379"W	9.31	101.411	0.05	-0.04	2.00
1663.00	0.820	167.800	1662.86	2.60	-2.23	9.22	1768056.05	359382.35	39°29'01.693"N	80°19'18.378"W	9.49	103.601	0.88	-0.84	16.80
1688.00	0.950	155.500	1687.86	2.97	-2.60	9.35	1768056.17	359381.95	39°29'01.689"N	80°19'18.376"W	9.70	105.516	0.92	0.52	-49.20
1713.00	0.940	164.100	1712.85	3.36	-2.98	9.49	1768056.31	359381.60	39°29'01.685"N	80°19'18.374"W	9.95	107.439	0.57	-0.04	34.40
1738.00	1.020	167.700	1737.85	3.78	-3.40	9.59	1768056.41	359381.19	39°29'01.681"N	80°19'18.373"W	10.18	109.492	0.40	0.32	14.40
1763.00	0.730	169.100	1762.85	4.16	-3.77	9.67	1768056.49	359380.81	39°29'01.677"N	80°19'18.372"W	10.38	111.294	1.16	-1.16	5.60
1788.00	0.780	142.400	1787.85	4.46	-4.06	9.80	1768056.62	359380.52	39°29'01.674"N	80°19'18.370"W	10.61	112.497	1.41	0.20	-106.80
1813.00	1.210	159.900	1812.84	4.85	-4.44	10.00	1768056.81	359380.14	39°29'01.671"N	80°19'18.368"W	10.94	113.958	2.09	1.72	70.00
1838.00	0.780	164.200	1837.84	5.26	-4.85	10.14	1768056.94	359379.72	39°29'01.667"N	80°19'18.366"W	11.24	115.592	1.74	-1.72	17.20
1863.00	0.810	168.300	1862.84	5.60	-5.19	10.22	1768057.02	359379.39	39°29'01.663"N	80°19'18.365"W	11.46	116.933	0.26	0.12	16.40
1888.00	0.580	166.400	1887.83	5.90	-5.49	10.28	1768057.08	359379.09	39°29'01.660"N	80°19'18.364"W	11.66	118.085	0.92	-0.92	-7.60
1913.00	1.230	164.800	1912.83	6.29	-5.87	10.38	1768057.18	359378.71	39°29'01.657"N	80°19'18.363"W	11.93	119.477	2.60	2.60	-6.40
1938.00	1.020	164.000	1937.83	6.76	-6.34	10.52	1768057.31	359378.23	39°29'01.652"N	80°19'18.361"W	12.28	121.095	0.84	-0.84	-3.20
1963.00	1.090	160.000	1962.82	7.21	-6.78	10.66	1768057.45	359377.79	39°29'01.648"N	80°19'18.359"W	12.63	122.460	0.41	0.28	-16.00
1988.00	1.070	158.200	1987.82	7.65	-7.22	10.83	1768057.61	359377.35	39°29'01.643"N	80°19'18.357"W	13.01	123.698	0.16	-0.08	-7.20
2013.00	0.950	153.100	2012.81	8.06	-7.62	11.01	1768057.79	359376.95	39°29'01.639"N	80°19'18.355"W	13.39	124.700	0.60	-0.48	-20.40
2038.00	0.560	135.900	2037.81	8.34	-7.89	11.19	1768057.96	359376.67	39°29'01.637"N	80°19'18.352"W	13.69	125.211	1.79	-1.56	-68.80
2063.00	0.740	138.100	2062.81	8.56	-8.10	11.38	1768058.15	359376.46	39°29'01.635"N	80°19'18.350"W	13.97	125.452	0.73	0.72	8.80
2088.00	0.800	136.100	2087.81	8.81	-8.35	11.61	1768058.38	359376.22	39°29'01.632"N	80°19'18.347"W	14.30	125.723	0.26	0.24	-8.00
2113.00	0.540	155.600	2112.81	9.05	-8.58	11.78	1768058.55	359375.98	39°29'01.630"N	80°19'18.345"W	14.57	126.077	1.37	-1.04	78.00
2138.00	0.580	163.500	2137.80	9.28	-8.81	11.86	1768058.63	359375.75	39°29'01.628"N	80°19'18.344"W	14.78	126.601	0.35	0.16	31.60
2163.00	0.800	138.700	2162.80	9.54	-9.06	12.01	1768058.78	359375.50	39°29'01.625"N	80°19'18.342"W	15.05	127.029	1.46	0.88	-99.20
2188.00	0.950	142.300	2187.80	9.85	-9.36	12.25	1768059.02	359375.20	39°29'01.622"N	80°19'18.339"W	15.42	127.363	0.64	0.60	14.40
2213.00	0.970	171.100	2212.80	10.23	-9.73	12.41	1768059.17	359374.83	39°29'01.618"N	80°19'18.337"W	15.77	128.089	1.91	0.08	115.20

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Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207'

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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [F/100ft]	Build Rate [F/100ft]	Turn Rate [F/100ft]
2238.00	0.930	172.400	2237.79	10.64	-10.14	12.47	1768059.23	359374.42	39°29'01.614"N	80°19'18.336"W	16.08	129.108	0.18	-0.16	5.20
2263.00	0.990	148.100	2262.79	11.03	-10.52	12.61	1768059.37	359374.03	39°29'01.611"N	80°19'18.334"W	16.43	129.839	1.63	0.24	-97.20
2288.00	1.060	164.000	2287.79	11.44	-10.93	12.79	1768059.54	359373.62	39°29'01.607"N	80°19'18.332"W	16.83	130.511	1.17	0.28	63.60
2313.00	0.850	162.200	2312.78	11.84	-11.33	12.91	1768059.66	359373.22	39°29'01.603"N	80°19'18.330"W	17.18	131.262	0.85	-0.84	-7.20
2338.00	1.040	181.000	2337.78	12.25	-11.73	12.97	1768059.71	359372.82	39°29'01.599"N	80°19'18.330"W	17.49	132.141	1.44	0.76	75.20
2363.00	0.810	152.100	2362.78	12.64	-12.12	13.04	1768059.78	359372.44	39°29'01.595"N	80°19'18.329"W	17.80	132.885	2.05	-0.92	-115.60
2388.00	1.260	159.100	2387.77	13.06	-12.53	13.23	1768059.96	359372.02	39°29'01.591"N	80°19'18.326"W	18.22	133.450	1.87	1.80	28.00
2413.00	1.200	177.300	2412.77	13.58	-13.05	13.34	1768060.07	359371.50	39°29'01.586"N	80°19'18.325"W	18.66	134.373	1.57	-0.24	72.80
2438.00	1.180	181.400	2437.76	14.10	-13.57	13.34	1768060.07	359370.98	39°29'01.581"N	80°19'18.325"W	19.03	135.477	0.35	-0.08	16.40
2463.00	1.170	187.100	2462.76	14.61	-14.08	13.30	1768060.02	359370.47	39°29'01.575"N	80°19'18.325"W	19.37	136.516	0.47	-0.04	22.80
2488.00	0.920	194.300	2487.75	15.05	-14.52	13.22	1768059.94	359370.03	39°29'01.571"N	80°19'18.327"W	19.64	137.685	1.13	-1.00	28.80
2513.00	1.020	190.200	2512.75	15.46	-14.94	13.13	1768059.85	359369.61	39°29'01.567"N	80°19'18.328"W	19.89	138.676	0.49	0.40	-16.40
2538.00	1.090	191.400	2537.74	15.91	-15.39	13.05	1768059.76	359369.16	39°29'01.563"N	80°19'18.329"W	20.18	139.708	0.29	-0.28	4.80
2563.00	1.070	187.900	2562.74	16.37	-15.85	12.97	1768059.67	359368.70	39°29'01.558"N	80°19'18.330"W	20.48	140.717	0.28	-0.08	-14.00
2588.00	1.030	195.500	2587.73	16.81	-16.30	12.88	1768059.58	359368.25	39°29'01.554"N	80°19'18.331"W	20.77	141.696	0.58	-0.16	30.40
2613.00	1.090	178.700	2612.73	17.26	-16.76	12.82	1768059.52	359367.80	39°29'01.549"N	80°19'18.332"W	21.10	142.577	1.26	0.24	-67.20
2638.00	0.900	169.900	2637.73	17.70	-17.19	12.86	1768059.55	359367.37	39°29'01.545"N	80°19'18.331"W	21.47	143.192	0.97	-0.76	-35.20
2663.00	0.930	186.600	2662.72	18.09	-17.58	12.87	1768059.56	359366.97	39°29'01.541"N	80°19'18.331"W	21.79	143.790	1.07	0.12	66.80
2688.00	0.630	156.200	2687.72	18.42	-17.91	12.90	1768059.59	359366.64	39°29'01.538"N	80°19'18.331"W	22.07	144.225	2.00	-1.20	-121.60
2713.00	0.480	149.500	2712.72	18.64	-18.13	13.01	1768059.70	359366.43	39°29'01.535"N	80°19'18.329"W	22.31	144.323	0.65	-0.60	-26.80
2738.00	0.820	158.900	2737.72	18.90	-18.38	13.13	1768059.81	359366.17	39°29'01.533"N	80°19'18.328"W	22.59	144.461	1.42	1.36	37.60
2763.00	0.490	163.500	2762.72	19.17	-18.65	13.23	1768059.90	359365.90	39°29'01.530"N	80°19'18.326"W	22.86	144.660	1.34	-1.32	18.40
2788.00	0.860	205.000	2787.71	19.44	-18.92	13.18	1768059.85	359365.63	39°29'01.528"N	80°19'18.327"W	23.06	145.151	2.36	1.48	166.00
2813.00	0.670	205.000	2812.71	19.74	-19.23	13.04	1768059.71	359365.33	39°29'01.525"N	80°19'18.329"W	23.23	145.863	0.76	-0.76	0.00
2838.00	0.840	211.700	2837.71	20.02	-19.52	12.88	1768059.55	359365.04	39°29'01.522"N	80°19'18.331"W	23.38	146.580	0.77	0.68	26.80
2863.00	0.920	179.200	2862.71	20.38	-19.87	12.78	1768059.45	359364.68	39°29'01.518"N	80°19'18.332"W	23.63	147.245	1.99	0.32	-130.00
2888.00	0.670	183.300	2887.71	20.72	-20.22	12.78	1768059.44	359364.34	39°29'01.515"N	80°19'18.332"W	23.92	147.706	1.02	-1.00	16.40
2913.00	0.330	156.300	2912.70	20.93	-20.43	12.80	1768059.46	359364.12	39°29'01.513"N	80°19'18.332"W	24.11	147.934	1.62	-1.36	-108.00
2938.00	0.100	156.400	2937.70	21.02	-20.52	12.84	1768059.50	359364.04	39°29'01.512"N	80°19'18.331"W	24.20	147.966	0.92	-0.92	0.40
2963.00	0.290	161.300	2962.70	21.10	-20.60	12.87	1768059.53	359363.96	39°29'01.511"N	80°19'18.331"W	24.28	148.008	0.76	0.76	19.60

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Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
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WELLPATH DATA (293 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
2988.00	0.410	155.500	2987.70	21.25	-20.74	12.92	1768059.58	359363.82	39°29'01.510"N	80°19'18.330"W	24.43	148.070	0.50	0.48	-23.20
3013.00	0.120	152.100	3012.70	21.35	-20.84	12.97	1768059.63	359363.71	39°29'01.509"N	80°19'18.330"W	24.55	148.101	1.16	-1.16	-13.60
3038.00	0.090	317.900	3037.70	21.36	-20.85	12.97	1768059.63	359363.70	39°29'01.509"N	80°19'18.330"W	24.56	148.113	0.83	-0.12	663.20
3063.00	0.090	315.200	3062.70	21.33	-20.82	12.94	1768059.60	359363.73	39°29'01.509"N	80°19'18.330"W	24.52	148.132	0.02	0.00	-10.80
3088.00	0.300	141.800	3087.70	21.37	-20.86	12.97	1768059.63	359363.69	39°29'01.508"N	80°19'18.330"W	24.56	148.125	1.56	0.84	-693.60
3113.00	0.210	67.700	3112.70	21.41	-20.89	13.05	1768059.71	359363.66	39°29'01.508"N	80°19'18.329"W	24.64	148.003	1.26	-0.36	-296.40
3138.00	0.020	52.700	3137.70	21.39	-20.87	13.10	1768059.76	359363.68	39°29'01.508"N	80°19'18.328"W	24.64	147.888	0.76	-0.76	-60.00
3163.00	0.250	50.500	3162.70	21.35	-20.84	13.15	1768059.80	359363.72	39°29'01.509"N	80°19'18.328"W	24.64	147.752	0.92	0.92	-8.80
3213.00	0.250	91.600	3212.70	21.29	-20.77	13.34	1768060.00	359363.78	39°29'01.509"N	80°19'18.325"W	24.68	147.291	0.35	0.00	82.20
3263.00	0.390	165.200	3262.70	21.47	-20.94	13.49	1768060.15	359363.61	39°29'01.508"N	80°19'18.323"W	24.91	147.204	0.80	0.28	147.20
3313.00	0.430	194.000	3312.70	21.81	-21.28	13.49	1768060.14	359363.26	39°29'01.504"N	80°19'18.323"W	25.20	147.634	0.42	0.08	57.60
3363.00	0.430	182.700	3362.70	22.18	-21.65	13.44	1768060.09	359362.90	39°29'01.501"N	80°19'18.324"W	25.48	148.182	0.17	0.00	-22.60
3413.00	0.390	177.500	3412.70	22.54	-22.01	13.43	1768060.08	359362.54	39°29'01.497"N	80°19'18.324"W	25.79	148.603	0.11	-0.08	-10.40
3463.00	0.330	148.000	3462.70	22.83	-22.30	13.52	1768060.16	359362.25	39°29'01.494"N	80°19'18.323"W	26.08	148.781	0.38	-0.12	-59.00
3513.00	0.380	248.600	3512.70	23.01	-22.49	13.44	1768060.08	359362.06	39°29'01.492"N	80°19'18.324"W	26.20	149.134	1.09	0.10	201.20
3563.00	0.440	245.800	3562.69	23.14	-22.62	13.11	1768059.75	359361.93	39°29'01.491"N	80°19'18.328"W	26.15	149.910	0.13	0.12	-5.60
3613.00	0.490	215.900	3612.69	23.38	-22.88	12.81	1768059.45	359361.68	39°29'01.489"N	80°19'18.332"W	26.22	150.754	0.49	0.10	-59.80
3663.00	0.310	136.100	3662.69	23.65	-23.15	12.78	1768059.41	359361.41	39°29'01.486"N	80°19'18.332"W	26.44	151.100	1.06	-0.36	-159.60
3713.00	0.620	247.200	3712.69	23.84	-23.35	12.62	1768059.26	359361.21	39°29'01.484"N	80°19'18.334"W	26.54	151.606	1.57	0.62	222.20
3763.00	0.380	236.500	3762.69	24.02	-23.55	12.23	1768058.87	359361.01	39°29'01.482"N	80°19'18.339"W	26.53	152.544	0.51	-0.48	-21.40
3813.00	0.340	167.100	3812.69	24.26	-23.78	12.13	1768058.76	359360.78	39°29'01.480"N	80°19'18.340"W	26.70	152.977	0.82	-0.08	-138.80
3863.00	0.050	258.000	3862.69	24.41	-23.93	12.14	1768058.77	359360.63	39°29'01.478"N	80°19'18.340"W	26.83	153.100	0.69	-0.58	181.80
3913.00	0.560	263.300	3912.69	24.43	-23.96	11.88	1768058.51	359360.60	39°29'01.478"N	80°19'18.344"W	26.75	153.636	1.02	1.02	10.60
3963.00	0.520	269.200	3962.69	24.44	-24.00	11.41	1768058.04	359360.57	39°29'01.477"N	80°19'18.350"W	26.57	154.574	0.14	-0.08	11.80
4013.00	0.380	280.700	4012.68	24.40	-23.97	11.02	1768057.65	359360.60	39°29'01.478"N	80°19'18.355"W	26.38	155.313	0.33	-0.28	23.00
4063.00	0.550	254.200	4062.68	24.41	-24.00	10.62	1768057.25	359360.57	39°29'01.477"N	80°19'18.360"W	26.25	156.125	0.54	0.34	-53.00
4113.00	0.270	269.600	4112.68	24.47	-24.07	10.28	1768056.90	359360.51	39°29'01.477"N	80°19'18.364"W	26.17	156.882	0.60	-0.56	30.80
4163.00	0.430	229.100	4162.68	24.58	-24.19	10.02	1768056.64	359360.39	39°29'01.476"N	80°19'18.367"W	26.18	157.511	0.57	0.32	-81.00
4213.00	0.320	201.900	4212.68	24.82	-24.45	9.82	1768056.45	359360.14	39°29'01.473"N	80°19'18.370"W	26.34	158.110	0.41	-0.22	-54.40
4263.00	0.520	124.100	4262.68	25.09	-24.70	9.96	1768056.58	359359.88	39°29'01.470"N	80°19'18.368"W	26.63	158.045	1.10	0.40	-155.60

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Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #10
XTO ENERGY INC	Worthington D Unit 10H
Area	Well
Field	Wellbore
Facility	Worthington D Unit 10H AWP

WELLPATH DATA (293 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)
4313.00	0.240	65.100	4312.68	25.18	-24.78	10.24	1768056.86	359359.79	39°29'01.470"N	80°19'18.365"W	26.82	157.551	0.89	-0.56	-118.00
4363.00	0.410	239.800	4362.68	25.22	-24.83	10.18	1768056.80	359359.75	39°29'01.469"N	80°19'18.365"W	26.84	157.706	1.30	0.34	349.40
4413.00	0.360	116.500	4412.68	25.38	-24.99	10.17	1768056.79	359359.59	39°29'01.468"N	80°19'18.365"W	26.98	157.863	1.36	-0.10	-246.60
4463.00	0.130	349.500	4462.68	25.40	-25.01	10.30	1768056.92	359359.57	39°29'01.467"N	80°19'18.364"W	27.04	157.619	0.90	-0.46	-254.00
4513.00	0.520	104.000	4512.68	25.41	-25.00	10.51	1768057.13	359359.57	39°29'01.467"N	80°19'18.361"W	27.12	157.208	1.17	0.78	229.00
4563.00	0.390	90.000	4562.67	25.48	-25.06	10.90	1768057.52	359359.51	39°29'01.467"N	80°19'18.356"W	27.33	156.498	0.34	-0.26	-28.00
4613.00	0.530	91.500	4612.67	25.50	-25.07	11.30	1768057.92	359359.50	39°29'01.467"N	80°19'18.351"W	27.49	155.736	0.28	0.28	3.00
4663.00	0.710	133.900	4662.67	25.74	-25.29	11.75	1768058.37	359359.28	39°29'01.465"N	80°19'18.345"W	27.88	155.071	0.96	0.36	84.80
4713.00	0.800	127.100	4712.66	26.19	-25.71	12.25	1768058.87	359358.85	39°29'01.461"N	80°19'18.339"W	28.48	154.517	0.25	0.18	-13.60
4763.00	0.800	135.500	4762.66	26.67	-26.17	12.78	1768059.39	359358.38	39°29'01.456"N	80°19'18.332"W	29.12	153.977	0.23	0.00	16.80
4820.00	0.660	118.000	4819.66	27.13	-26.61	13.35	1768059.95	359357.94	39°29'01.452"N	80°19'18.325"W	29.77	153.363	0.46	-0.25	-30.70
4915.00	2.930	297.060	4914.62	26.21	-25.76	11.67	1768058.28	359358.80	39°29'01.460"N	80°19'18.346"W	28.28	155.635	3.78	2.39	188.48
5010.00	11.140	279.190	5008.83	23.18	-23.19	0.42	1768047.06	359361.48	39°29'01.485"N	80°19'18.490"W	23.19	178.951	8.84	8.64	-18.81
5105.00	16.890	283.360	5100.97	17.61	-18.53	-22.08	1768024.60	359366.35	39°29'01.532"N	80°19'18.777"W	28.82	230.001	6.14	6.05	4.39
5200.00	25.750	283.040	5189.38	8.39	-10.67	-55.68	1767991.08	359374.51	39°29'01.609"N	80°19'19.205"W	56.69	259.155	9.33	9.33	-0.34
5294.00	34.640	289.890	5270.57	-7.16	3.06	-100.80	1767946.09	359388.65	39°29'01.745"N	80°19'19.781"W	100.84	271.739	10.13	9.46	7.29
5389.00	41.600	288.100	5345.26	-28.40	22.07	-156.23	1767890.84	359408.17	39°29'01.933"N	80°19'20.488"W	157.78	278.040	7.42	7.33	-1.88
5484.00	41.620	286.420	5416.29	-49.55	40.78	-216.47	1767830.77	359427.43	39°29'02.118"N	80°19'21.256"W	220.28	280.670	1.17	0.02	-1.77
5578.00	41.590	285.380	5486.58	-69.08	57.88	-276.50	1767770.91	359445.08	39°29'02.287"N	80°19'22.022"W	282.49	281.824	0.74	-0.03	-1.11
5673.00	41.560	284.200	5557.65	-87.63	73.98	-337.45	1767710.11	359461.73	39°29'02.446"N	80°19'22.799"W	345.46	282.365	0.82	-0.03	-1.24
5767.00	41.470	284.430	5628.04	-105.48	89.38	-397.82	1767649.89	359477.68	39°29'02.598"N	80°19'23.569"W	407.74	282.663	0.19	-0.10	0.24
5862.00	41.590	285.650	5699.16	-124.28	105.73	-458.64	1767589.22	359494.58	39°29'02.760"N	80°19'24.345"W	470.67	282.981	0.86	0.13	1.28
5956.00	41.550	285.560	5769.48	-143.49	122.50	-518.72	1767529.30	359511.91	39°29'02.925"N	80°19'25.111"W	532.99	283.288	0.08	-0.04	-0.10
6050.00	41.530	286.560	5839.84	-163.16	139.75	-578.62	1767469.57	359529.70	39°29'03.096"N	80°19'25.875"W	595.26	283.578	0.71	-0.02	1.06
6145.00	41.540	286.160	5910.95	-183.34	157.49	-639.06	1767409.29	359547.99	39°29'03.271"N	80°19'26.646"W	658.18	283.844	0.28	0.01	-0.42
6239.00	41.540	286.380	5981.31	-203.22	174.96	-698.90	1767349.62	359566.00	39°29'03.444"N	80°19'27.409"W	720.47	284.054	0.16	0.00	0.23
6334.00	41.600	287.500	6052.39	-224.03	193.32	-759.20	1767289.50	359584.92	39°29'03.625"N	80°19'28.178"W	783.43	284.286	0.78	0.06	1.18
6428.00	41.550	289.130	6122.71	-246.02	212.92	-818.41	1767230.47	359605.06	39°29'03.819"N	80°19'28.933"W	845.66	284.583	1.15	-0.05	1.73
6523.00	41.520	288.900	6193.82	-268.95	233.45	-877.97	1767171.11	359626.12	39°29'04.022"N	80°19'29.693"W	908.47	284.890	0.16	-0.03	-0.24
6618.00	41.510	286.820	6264.96	-290.68	252.76	-937.89	1767111.36	359645.98	39°29'04.213"N	80°19'30.457"W	971.35	285.082	1.45	-0.01	-2.19



Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207'

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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
6712.00	41.620	285.930	6335.29	-310.68	270.34	-997.73	1767051.69	359664.11	39°29'04.386"N	80°19'31.220"W	1033.70	285.160	0.64	0.12	-0.95
6807.00	41.560	285.010	6406.34	-329.95	287.16	-1058.50	1766991.08	359681.48	39°29'04.552"N	80°19'31.995"W	1096.76	285.178	0.65	-0.06	-0.97
6901.00	41.620	284.980	6476.65	-348.53	303.30	-1118.78	1766930.96	359698.17	39°29'04.712"N	80°19'32.764"W	1159.16	285.168	0.07	0.06	-0.03
6995.00	41.850	284.980	6547.54	-367.35	319.65	-1179.87	1766870.03	359715.08	39°29'04.874"N	80°19'33.543"W	1222.40	285.159	0.24	0.24	0.00
7091.00	41.740	286.400	6618.37	-386.94	336.77	-1240.82	1766809.24	359732.75	39°29'05.043"N	80°19'34.321"W	1285.71	285.185	1.00	-0.12	1.49
7185.00	41.850	288.130	6688.45	-407.94	355.36	-1300.64	1766749.59	359751.89	39°29'05.226"N	80°19'35.083"W	1348.31	285.281	1.23	0.12	1.84
7280.00	41.870	288.590	6759.20	-430.34	375.33	-1360.81	1766689.61	359772.41	39°29'05.424"N	80°19'35.851"W	1411.62	285.420	0.32	0.02	0.48
7374.00	41.790	287.600	6829.25	-452.22	394.80	-1420.39	1766630.21	359792.42	39°29'05.616"N	80°19'36.611"W	1474.24	285.533	0.71	-0.09	-1.05
7469.00	41.890	284.320	6900.03	-472.10	412.22	-1481.30	1766569.46	359810.40	39°29'05.788"N	80°19'37.388"W	1537.59	285.551	2.31	0.11	-3.45
7563.00	40.970	268.050	6970.72	-481.32	418.95	-1542.69	1766508.15	359817.69	39°29'05.855"N	80°19'38.171"W	1598.57	285.193	11.47	-0.98	-17.31
7658.00	40.870	254.200	7042.65	-474.28	409.41	-1603.85	1766446.90	359808.71	39°29'05.760"N	80°19'38.951"W	1655.28	284.320	9.54	-0.11	-14.58
7753.00	40.870	251.340	7114.49	-458.30	391.00	-1663.21	1766387.38	359790.84	39°29'05.578"N	80°19'39.708"W	1708.55	283.229	1.97	0.00	-3.01
7847.00	43.970	248.580	7183.89	-438.97	369.24	-1722.75	1766327.65	359769.63	39°29'05.363"N	80°19'40.467"W	1761.87	282.097	3.85	3.30	-2.94
7942.00	47.910	238.570	7250.02	-410.99	338.76	-1783.63	1766266.50	359739.71	39°29'05.062"N	80°19'41.243"W	1815.51	280.754	8.62	4.15	-10.54
8037.00	52.950	224.620	7310.70	-367.82	293.23	-1840.54	1766209.18	359694.71	39°29'04.612"N	80°19'41.969"W	1863.75	279.052	12.48	5.31	-14.68
8131.00	58.100	213.060	7364.01	-309.51	232.91	-1888.80	1766160.37	359634.84	39°29'04.016"N	80°19'42.585"W	1903.10	277.030	11.51	5.48	-12.30
8226.00	61.540	201.400	7411.89	-238.20	160.02	-1926.14	1766122.37	359562.30	39°29'03.295"N	80°19'43.061"W	1932.77	274.749	11.20	3.62	-12.27
8321.00	62.740	188.260	7456.43	-158.19	79.08	-1947.52	1766100.25	359481.55	39°29'02.495"N	80°19'43.333"W	1949.12	272.325	12.29	1.26	-13.83
8415.00	65.040	182.120	7497.83	-74.56	-4.93	-1955.10	1766091.90	359397.63	39°29'01.865"N	80°19'43.430"W	1955.11	269.856	6.35	2.45	-6.53
8510.00	72.370	180.470	7532.31	13.71	-93.35	-1957.07	1766089.12	359309.23	39°29'00.791"N	80°19'43.455"W	1959.29	267.269	7.88	7.72	-1.74
8605.00	79.510	180.610	7555.37	105.69	-185.44	-1957.94	1766087.41	359217.15	39°28'59.881"N	80°19'43.466"W	1966.70	264.589	7.52	7.52	0.15
8699.00	87.880	181.950	7565.69	198.85	-278.77	-1960.03	1766084.46	359123.86	39°28'58.959"N	80°19'43.493"W	1979.76	261.905	9.02	8.90	1.43
8794.00	89.880	180.710	7567.55	293.63	-373.72	-1962.24	1766081.39	359028.94	39°28'58.020"N	80°19'43.521"W	1997.51	259.217	2.48	2.11	-1.31
8888.00	89.940	179.240	7567.69	387.55	-467.71	-1962.20	1766080.57	358934.95	39°28'57.091"N	80°19'43.520"W	2017.17	256.593	1.57	0.06	-1.56
8983.00	89.110	178.890	7568.48	482.52	-562.70	-1960.65	1766081.25	358839.96	39°28'56.153"N	80°19'43.500"W	2039.79	253.987	0.95	-0.87	-0.37
9078.00	89.080	177.360	7569.98	577.50	-657.63	-1957.54	1766083.49	358745.01	39°28'55.214"N	80°19'43.461"W	2065.05	251.430	1.61	-0.03	-1.61
9172.00	89.170	175.780	7571.42	671.47	-751.45	-1951.91	1766088.26	358651.15	39°28'54.287"N	80°19'43.389"W	2091.57	248.944	1.68	0.10	-1.68
9267.00	90.180	174.390	7571.96	766.37	-846.10	-1943.78	1766095.53	358556.44	39°28'53.352"N	80°19'43.285"W	2119.94	246.477	1.81	1.06	-1.46
9361.00	90.180	173.930	7571.66	860.19	-939.61	-1934.21	1766104.24	358462.85	39°28'52.427"N	80°19'43.163"W	2150.36	244.090	0.49	0.00	-0.49
9454.00	90.490	175.090	7571.12	953.05	-1032.18	-1925.31	1766112.29	358370.21	39°28'51.512"N	80°19'43.049"W	2184.54	241.804	1.29	0.33	1.25

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Worthington D Unit 10H AWP Proj: 17207'

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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert. Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
9549.00	90.990	176.990	7569.89	1048.00	-1126.94	-1918.75	1766117.98	358275.40	39°28'50.576"N	80°19'42.965"W	2225.22	239.573	2.07	0.53	2.00
9544.00	90.620	177.660	7568.55	1142.99	-1221.82	-1914.32	1766121.54	358180.48	39°28'49.638"N	80°19'42.909"W	2271.01	237.452	0.81	-0.39	0.71
9738.00	90.620	176.050	7567.54	1236.97	-1315.67	-1909.16	1766125.84	358086.59	39°28'48.711"N	80°19'42.843"W	2318.60	235.428	1.71	0.00	-1.71
9833.00	90.520	178.040	7566.59	1331.95	-1410.54	-1904.27	1766129.87	357991.69	39°28'47.773"N	80°19'42.780"W	2369.78	233.472	2.10	-0.11	2.09
9927.00	90.550	180.110	7565.71	1425.92	-1504.52	-1902.75	1766130.53	357897.71	39°28'46.844"N	80°19'42.761"W	2425.70	231.666	2.20	0.03	2.20
10022.00	91.290	181.110	7564.19	1520.78	-1599.50	-1903.76	1766128.65	357802.75	39°28'45.905"N	80°19'42.774"W	2486.50	229.964	1.31	0.78	1.05
10117.00	91.480	181.780	7561.89	1615.54	-1694.44	-1906.16	1766125.39	357707.84	39°28'44.967"N	80°19'42.804"W	2550.40	228.365	0.73	0.20	0.71
10211.00	89.380	180.860	7561.19	1709.34	-1788.40	-1908.32	1766122.36	357613.90	39°28'44.038"N	80°19'42.832"W	2615.35	226.858	2.44	-2.23	-0.98
10306.00	89.380	180.530	7562.22	1804.21	-1883.39	-1909.47	1766119.34	357518.93	39°28'43.100"N	80°19'42.846"W	2682.02	225.394	0.35	0.00	-0.35
10401.00	89.450	179.420	7563.19	1899.12	-1978.39	-1909.43	1766119.51	357423.95	39°28'42.161"N	80°19'42.846"W	2749.53	223.984	1.17	0.07	-1.17
10495.00	89.380	178.380	7564.15	1993.09	-2072.36	-1907.63	1766120.46	357329.96	39°28'41.232"N	80°19'42.823"W	2816.69	222.630	1.11	-0.07	-1.11
10590.00	89.480	177.070	7565.09	2088.09	-2167.28	-1903.86	1766123.36	357235.02	39°28'40.294"N	80°19'42.774"W	2884.75	221.298	1.38	0.11	-1.38
10684.00	89.450	175.570	7565.97	2182.05	-2261.08	-1897.82	1766128.53	357141.18	39°28'39.367"N	80°19'42.697"W	2951.99	220.008	1.60	-0.03	-1.60
10779.00	89.380	175.300	7566.94	2276.98	-2355.77	-1890.26	1766135.23	357046.42	39°28'38.431"N	80°19'42.601"W	3020.39	218.743	0.29	-0.07	-0.28
10874.00	89.480	176.410	7567.88	2371.92	-2450.52	-1883.40	1766141.23	356951.62	39°28'37.494"N	80°19'42.513"W	3090.67	217.545	1.17	0.11	1.17
10968.00	89.480	176.830	7568.74	2465.90	-2544.35	-1877.86	1766145.91	356857.75	39°28'36.567"N	80°19'42.443"W	3162.29	216.429	0.45	0.00	0.45
11063.00	89.380	177.430	7569.68	2560.89	-2639.23	-1873.10	1766149.80	356762.84	39°28'35.629"N	80°19'42.382"W	3236.36	215.364	0.64	-0.11	0.63
11157.00	89.450	177.910	7570.64	2654.89	-2733.14	-1869.28	1766152.76	356668.90	39°28'34.701"N	80°19'42.333"W	3311.23	214.369	0.52	0.07	0.51
11252.00	89.380	177.520	7571.61	2749.88	-2828.06	-1865.49	1766155.68	356573.95	39°28'33.763"N	80°19'42.285"W	3387.92	213.410	0.42	-0.07	-0.41
11346.00	89.230	178.530	7572.75	2843.87	-2922.00	-1862.25	1766158.06	356480.00	39°28'32.835"N	80°19'42.243"W	3464.98	212.510	1.09	-0.16	1.07
11441.00	89.940	178.790	7573.44	2938.86	-3016.97	-1860.03	1766159.41	356385.02	39°28'31.896"N	80°19'42.215"W	3544.27	211.655	0.80	0.75	0.27
11536.00	90.090	182.170	7573.41	3033.73	-3111.95	-1860.82	1766157.75	356290.05	39°28'30.957"N	80°19'42.225"W	3625.87	210.878	3.56	0.16	3.56
11630.00	90.400	182.070	7573.01	3127.44	-3205.89	-1864.30	1766153.41	356196.16	39°28'30.029"N	80°19'42.269"W	3708.55	210.179	0.35	0.33	-0.11
11725.00	90.370	185.970	7572.37	3221.84	-3300.63	-1870.96	1766145.89	356107.48	39°28'29.092"N	80°19'42.354"W	3794.03	209.547	4.11	-0.03	4.11
11820.00	91.390	187.430	7570.91	3315.65	-3394.97	-1892.04	1766133.94	356007.25	39°28'28.160"N	80°19'42.495"W	3881.74	209.002	1.87	1.07	1.54
11915.00	91.420	177.540	7568.58	3410.17	-3489.73	-1886.16	1766128.96	355912.54	39°28'27.224"N	80°19'42.547"W	3966.84	208.391	10.41	0.03	-10.41
12009.00	91.050	170.980	7566.55	3503.93	-3583.19	-1876.76	1766137.50	355819.01	39°28'26.300"N	80°19'42.428"W	4044.93	207.644	6.99	-0.39	-6.98
12103.00	91.480	172.790	7564.48	3597.42	-3676.22	-1863.50	1766149.91	355725.86	39°28'25.380"N	80°19'42.258"W	4121.56	206.881	1.98	0.46	1.93
12197.00	91.320	175.990	7562.18	3691.23	-3769.73	-1864.31	1766158.24	355632.28	39°28'24.456"N	80°19'42.141"W	4201.11	206.192	3.41	-0.17	3.40
12292.00	91.350	169.790	7559.96	3785.83	-3863.93	-1842.56	1766169.13	355537.98	39°28'23.525"N	80°19'41.991"W	4280.77	205.495	6.52	0.03	-6.53

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Worthington D Unit 10H AWP Proj: 17207'
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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)
12387.00	91.290	163.300	7557.77	3878.97	-3956.25	-1820.47	1766190.37	355445.47	39°28'22.613"N	80°19'41.709"W	4355.00	204.710	6.83	-0.06	-6.83
12482.00	91.170	164.860	7555.73	3971.28	-4047.58	-1794.42	1766215.58	355353.91	39°28'21.710"N	80°19'41.377"W	4427.51	203.909	1.65	-0.13	1.64
12576.00	91.230	169.240	7553.76	4063.63	-4139.15	-1773.37	1766235.80	355262.16	39°28'20.805"N	80°19'41.109"W	4503.04	203.192	4.66	0.06	4.66
12671.00	91.970	176.510	7551.11	4158.19	-4233.31	-1761.59	1766246.71	355167.89	39°28'19.875"N	80°19'40.958"W	4585.21	202.594	7.69	0.78	7.65
12766.00	91.750	180.010	7548.02	4253.13	-4328.20	-1758.71	1766248.72	355072.99	39°28'18.937"N	80°19'40.922"W	4671.88	202.114	3.69	-0.23	3.68
12860.00	92.090	181.210	7544.87	4346.95	-4422.14	-1759.71	1766246.86	354979.06	39°28'18.008"N	80°19'40.934"W	4759.41	201.699	1.33	0.36	1.28
12955.00	91.720	182.460	7541.72	4441.64	-4517.04	-1762.75	1766242.96	354884.21	39°28'17.070"N	80°19'40.973"W	4848.81	201.318	1.37	-0.39	1.32
13049.00	91.690	183.860	7538.92	4535.17	-4610.85	-1767.93	1766236.92	354790.45	39°28'16.143"N	80°19'41.039"W	4938.17	200.978	1.49	-0.03	1.49
13144.00	91.720	183.530	7536.09	4629.60	-4705.61	-1774.05	1766229.93	354695.75	39°28'15.207"N	80°19'41.117"W	5028.92	200.657	0.35	0.03	-0.35
13238.00	91.850	181.740	7533.16	4723.20	-4799.47	-1778.37	1766224.76	354601.95	39°28'14.279"N	80°19'41.172"W	5118.35	200.331	1.91	0.14	-1.90
13333.00	91.940	179.760	7530.02	4818.00	-4894.40	-1779.61	1766222.65	354507.04	39°28'13.341"N	80°19'41.188"W	5207.90	199.981	2.09	0.09	-2.08
13427.00	92.180	177.670	7526.64	4911.92	-4988.31	-1777.51	1766223.89	354413.12	39°28'12.413"N	80°19'41.161"W	5295.54	199.613	2.24	0.26	-2.22
13521.00	92.150	176.390	7523.09	5005.85	-5082.12	-1772.64	1766227.90	354319.28	39°28'11.485"N	80°19'41.099"W	5382.39	199.229	1.36	-0.03	-1.36
13616.00	92.180	176.760	7519.50	5100.76	-5176.88	-1766.97	1766232.70	354224.47	39°28'10.549"N	80°19'41.026"W	5470.12	198.846	0.39	0.03	0.39
13710.00	91.660	175.650	7516.35	5194.68	-5270.62	-1760.75	1766238.06	354130.69	39°28'09.622"N	80°19'40.947"W	5556.95	198.473	1.30	-0.55	-1.18
13805.00	91.690	176.020	7513.58	5289.59	-5365.33	-1753.85	1766244.09	354035.92	39°28'08.686"N	80°19'40.859"W	5644.71	198.102	0.39	0.03	0.39
13900.00	91.720	176.750	7510.75	5384.52	-5460.09	-1747.87	1766249.21	353941.11	39°28'07.750"N	80°19'40.782"W	5733.03	197.751	0.77	0.03	0.77
13994.00	91.660	177.270	7507.98	5478.47	-5553.93	-1742.97	1766253.26	353847.24	39°28'06.822"N	80°19'40.720"W	5821.00	197.423	0.56	-0.06	0.55
14089.00	91.630	177.600	7505.25	5573.43	-5648.79	-1738.72	1766256.64	353752.35	39°28'05.885"N	80°19'40.665"W	5910.33	197.109	0.35	-0.03	0.35
14183.00	91.320	176.960	7502.83	5667.40	-5742.65	-1734.26	1766260.24	353658.45	39°28'04.957"N	80°19'40.608"W	5998.81	196.804	0.76	-0.33	-0.68
14278.00	91.200	176.130	7500.74	5762.36	-5837.46	-1728.53	1766265.09	353563.61	39°28'04.020"N	80°19'40.535"W	6088.00	196.495	0.88	-0.13	-0.87
14373.00	91.290	177.510	7498.68	5857.32	-5932.29	-1723.26	1766269.49	353468.74	39°28'03.083"N	80°19'40.468"W	6177.51	196.198	1.46	0.09	1.45
14467.00	91.230	177.860	7496.61	5951.30	-6026.19	-1719.47	1766272.43	353374.81	39°28'02.155"N	80°19'40.420"W	6266.70	195.925	0.38	-0.06	0.37
14561.00	91.290	177.470	7494.54	6045.28	-6120.09	-1715.64	1766275.40	353280.89	39°28'01.227"N	80°19'40.371"W	6356.01	195.660	0.42	0.06	-0.41
14655.00	91.290	178.300	7492.43	6139.25	-6214.00	-1712.17	1766278.01	353186.96	39°28'00.299"N	80°19'40.326"W	6445.56	195.405	0.88	0.00	0.88
14750.00	91.230	181.300	7490.34	6234.15	-6308.96	-1711.84	1766277.47	353092.00	39°27'59.360"N	80°19'40.322"W	6537.08	195.181	3.16	-0.06	3.16
14844.00	92.000	181.010	7487.69	6327.94	-6402.90	-1713.73	1766274.72	352998.08	39°27'58.432"N	80°19'40.346"W	6628.28	194.984	0.88	0.82	-0.31
14938.00	92.590	178.280	7483.92	6421.80	-6496.82	-1713.15	1766274.44	352904.17	39°27'57.503"N	80°19'40.339"W	6718.89	194.772	2.97	0.63	-2.90
15033.00	92.490	178.750	7479.71	6516.70	-6591.69	-1710.69	1766276.03	352809.28	39°27'56.566"N	80°19'40.307"W	6810.06	194.549	0.51	-0.11	0.49
15128.00	92.030	179.100	7475.97	6611.60	-6686.60	-1708.91	1766276.95	352714.37	39°27'55.628"N	80°19'40.285"W	6901.52	194.336	0.61	-0.48	0.37

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Worthington D Unit 10H AWP Proj: 17207'
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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

WELLPATH DATA (293 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
15222.00	91.970	179.330	7472.69	6705.51	-6780.54	-1707.63	1766277.37	352620.43	39°27'54.699"N	80°19'40.268"W	6992.26	194.136	0.25	-0.06	0.24
15317.00	91.230	176.990	7470.03	6800.46	-6875.44	-1704.58	1766279.55	352525.51	39°27'53.761"N	80°19'40.229"W	7083.59	193.924	2.58	-0.78	-2.46
15412.00	91.200	177.900	7468.02	6895.44	-6970.33	-1700.34	1766282.92	352430.59	39°27'52.824"N	80°19'40.175"W	7174.72	193.709	0.96	-0.03	0.96
15507.00	91.420	176.970	7465.85	6990.41	-7065.20	-1696.09	1766286.30	352335.69	39°27'51.886"N	80°19'40.121"W	7265.94	193.499	1.01	0.23	-0.98
15601.00	91.230	178.630	7463.67	7084.38	-7159.11	-1692.48	1766289.05	352241.76	39°27'50.958"N	80°19'40.075"W	7356.45	193.301	1.78	-0.20	1.77
15696.00	91.110	180.570	7461.73	7179.30	-7254.08	-1691.82	1766288.84	352146.79	39°27'50.019"N	80°19'40.066"W	7448.75	193.128	2.05	-0.13	2.04
15790.00	91.170	179.770	7459.86	7273.19	-7348.06	-1692.10	1766287.71	352052.82	39°27'49.090"N	80°19'40.070"W	7540.37	192.968	0.85	0.06	-0.85
15885.00	90.580	180.390	7458.41	7368.10	-7443.05	-1692.23	1766286.70	351957.85	39°27'48.151"N	80°19'40.071"W	7633.00	192.809	0.90	-0.62	0.65
15980.00	90.920	179.360	7457.17	7463.02	-7538.04	-1692.03	1766286.04	351862.86	39°27'47.213"N	80°19'40.068"W	7725.61	192.651	1.14	0.36	-1.08
16077.00	90.800	176.130	7455.71	7559.99	-7634.94	-1688.21	1766288.97	351765.94	39°27'46.255"N	80°19'40.020"W	7819.36	192.468	3.33	-0.12	-3.33
16172.00	91.020	176.930	7454.20	7654.96	-7729.75	-1682.46	1766293.85	351671.08	39°27'45.318"N	80°19'39.946"W	7910.74	192.279	0.87	0.23	0.84
16267.00	91.200	178.910	7452.36	7749.94	-7824.67	-1679.01	1766296.43	351576.14	39°27'44.380"N	80°19'39.902"W	8002.78	192.111	2.09	0.19	2.08
16361.00	91.230	178.670	7450.37	7843.90	-7918.63	-1677.03	1766297.56	351482.18	39°27'43.451"N	80°19'39.877"W	8094.26	191.958	0.26	0.03	-0.26
16457.00	91.320	179.240	7448.23	7939.85	-8014.59	-1675.28	1766298.43	351386.21	39°27'42.503"N	80°19'39.855"W	8187.80	191.806	0.60	0.09	0.59
16552.00	91.020	180.230	7446.29	8034.77	-8109.56	-1674.84	1766298.00	351291.24	39°27'41.564"N	80°19'39.849"W	8280.71	191.669	1.09	-0.32	1.04
16646.00	91.540	180.680	7444.19	8128.63	-8203.54	-1675.59	1766296.39	351197.28	39°27'40.635"N	80°19'39.858"W	8372.91	191.544	0.73	0.55	0.48
16741.00	91.320	175.910	7441.82	8223.57	-8298.44	-1672.76	1766298.35	351102.36	39°27'39.697"N	80°19'39.822"W	8465.35	191.397	5.02	-0.23	-5.02
16836.00	91.480	174.020	7439.50	8318.43	-8393.04	-1664.43	1766305.82	351007.70	39°27'38.762"N	80°19'39.716"W	8556.48	191.217	2.00	0.17	-1.99
16931.00	92.000	173.970	7436.62	8413.19	-8487.47	-1654.49	1766314.89	350913.18	39°27'37.829"N	80°19'39.589"W	8647.23	191.031	0.55	0.55	-0.05
17026.00	92.000	173.960	7433.30	8507.94	-8581.89	-1644.51	1766324.01	350818.68	39°27'36.896"N	80°19'39.462"W	8738.03	190.848	0.01	0.00	-0.01
17120.00	92.120	177.150	7429.92	8601.80	-8675.53	-1637.23	1766330.43	350724.98	39°27'35.970"N	80°19'39.369"W	8828.67	190.687	3.39	0.13	3.39
17183.00	91.940	178.740	7427.69	8664.76	-8738.45	-1634.97	1766332.11	350662.05	39°27'35.348"N	80°19'39.340"W	8890.09	190.598	2.54	-0.29	2.52
17207.00	91.940	178.740	7426.88	8688.74	-8762.43	-1634.45	1766332.42	350638.07	39°27'35.111"N	80°19'39.333"W	8913.56	190.566	0.00	0.00	0.00

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Environmental Protection



Actual Wellpath Report

Worthington D Unit 10H AWP Proj: 17207'
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REFERENCE WELLPATH IDENTIFICATION

Operator	XTO ENERGY INC	Slot	Slot #10
Area	Marion County, WV	Well	Worthington D Unit 10H
Field	Marion	Wellbore	Worthington D Unit 10H AWB
Facility	Worthington Unit		

HOLE & CASING SECTIONS - Ref Wellbore: Worthington D Unit 10H AWB Ref Wellpath: Worthington D Unit 10H AWP Proj: 17207'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	26.00	3181.00	3155.00	26.00	3180.70	0.00	0.00	-20.80	13.21
9.625in Casing Intermediate	26.00	3181.00	3155.00	26.00	3180.70	0.00	0.00	-20.80	13.21
8.75in Open Hole	3181.00	4813.00	1632.00	3180.70	4812.66	-20.80	13.21	-26.57	13.28
8.5in Open Hole	4813.00	17207.00	12394.00	4812.66	7426.88	-26.57	13.28	-8762.43	-1634.45
5.5in Casing Production	26.00	17207.00	17181.00	26.00	7426.88	0.00	0.00	-8762.43	-1634.45

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Worthington D-10H BHL - Rev-2	7351.53	-8727.39	-1620.53	1766346.65	350672.98	39°27'35.458"N	80°19'39.156"W	point
Worthington D-10H LP - Rev-1	7470.00	-166.89	-1969.16	1766076.36	359235.81	39°29'00.064"N	80°19'43.609"W	point
Worthington D-10H LP - Rev-4	7500.00	-228.43	-1966.65	1766078.30	359174.25	39°28'59.456"N	80°19'43.577"W	point

WELLPATH COMPOSITION - Ref Wellbore: Worthington D Unit 10H AWB Ref Wellpath: Worthington D Unit 10H AWP Proj: 17207'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	4763.00	BHI Generic gyro - northseeking (Standard)	01 Javins Gyro <8-3/4">(25-4750')	Worthington D Unit 10H AWB
4763.00	17183.00	BHI AutoTrak Curve (Short)	02 BH AT Curve <8-1/2"> (4763')(4820'-17183')	Worthington D Unit 10H AWB
17183.00	17207.00	Blind Drilling (std)	Projection to bit	Worthington D Unit 10H AWB

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COMMENTS

Wellpath general comments
 API: 47-049-02420-0000
 BH Job #: 9163052
 Rig: Patterson 583
 Duration: 5/17/2018-5/25/2018
 Javins Gyro <8-3/4"> (25'-4750')
 BH AT Curve <8-1/2"> (4763')(4820'-17183')
 Projected MD at TD: 17207'

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