

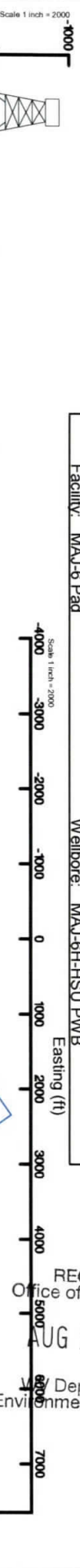


CNX GAS COMPANY, LLC

Location: Marshall County, WV
 Field: Marshall
 Facility: MAJ-6 Pad

Slot: Slot H
 Well: MAJ-6H-HSU
 Wellbore: MAJ-6H-HSU PWB

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VES Gyro <24°> (50°-738') : 0.17° Inc. 67.00ft MD, 67.00ft TVD, -0.02ft VS

OES MWD <17-12°> (738)(903-3222) : 0.23° Inc. 920.00ft MD, 919.99ft TVD, 1.92ft VS

BH AT Curve <8-12°> (10677)(11032-19371) : 10901.66ft TVD, 488.17ft N, 724.13ft E
 APS EM <12-14°> (3239)(3268-10677) : 3267.98ft TVD, 0.27ft N, 0.66ft E
 OES MWD <17-12°> (738)(903-3222) : 919.99ft TVD, 0.33ft S, 2.88ft E
 VES Gyro <24°> (50°-738') : 67.00ft TVD, 0.05ft N, 0.03ft E

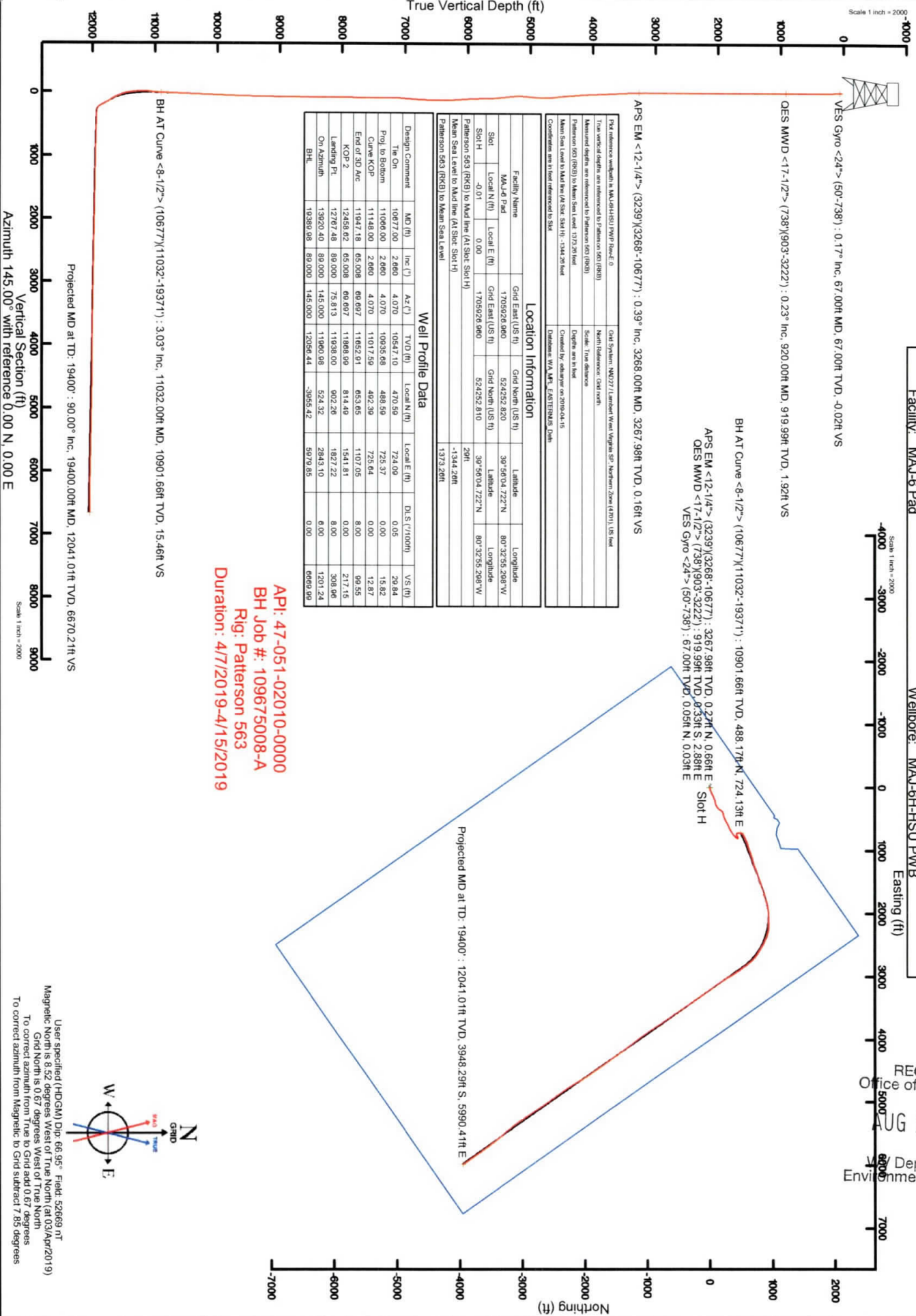
APS EM <12-14°> (3239)(3268-10677) : 0.39° Inc. 3268.00ft MD, 3267.98ft TVD, 0.16ft VS

Field reference wellbore is MAJ-6H-HSU PWB	Grid System: NAD83 / Lambert West Virginia SR / Northern Zone (4301) US Feet
True vertical depths are referenced to Patterson 563 (RKB)	North reference: Grid North
Measured depths are referenced to Patterson 563 (RKB)	Scale: True distance
Patterson 563 (RKB) to Mean Sea Level (MSL) 1373.29ft	Depth are in feet
Mean Sea Level to Mean Slot (A) Slot (Slot H) -1344.20ft	Created by: adrian on 2019-04-15
Coordinates are in feet referenced to NAD	Database: WVA_MW_EASTERNUS_Data

Location Information			
Facility Name	MAJ-6 Pad	Grid East (US ft)	3975904.7227 N
Local E (ft)	4070	Grid North (US ft)	8073255.208 W
Slot H	-0.01	Grid East (US ft)	524252.810
	0.00	Grid North (US ft)	3975904.7227 N
		Latitude	39°59'04.7227 N
		Longitude	80°32'55.208 W
		Local E (ft)	20ft
		Local N (ft)	-1344.20ft
		Local S (ft)	1373.29ft

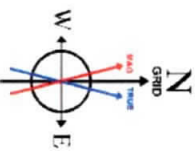
Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)	VS (ft)
Tra On	10077.00	2.860	4.070	10647.10	470.59	724.09	0.06	29.84
Proj to Bottom	11066.00	2.860	4.070	10935.68	488.59	725.37	0.00	15.82
Curve KOP	11148.00	2.860	4.070	11017.59	492.39	725.64	0.00	12.87
End of 3D Arc	11847.18	65.008	69.697	11652.91	653.65	1107.05	8.00	96.55
KOP 2	12458.62	65.008	69.697	11968.90	814.49	1541.81	0.00	217.15
Landing Pt	12767.48	89.000	75.813	11938.00	902.26	1827.22	8.00	308.66
On Azimuth	13920.40	89.000	145.000	11960.86	524.32	2943.10	8.00	1201.24
BH	19399.98	89.000	145.000	12096.44	-3955.42	5979.85	0.00	6669.99

API: 47-051-02010-0000
 BH Job #: 109675008-A
 Rig: Patterson 563
 Duration: 4/7/2019-4/15/2019



Projected MD at TD: 19400' : 90.00° Inc. 19400.00ft MD, 12041.01ft TVD, 6670.21ft VS

Azimuth 145.00° with reference 0.00 N, 0.00 E



User specified (HRGM) Dip: 66.95° Field: 528689 mT
 Magnetic North is 6.52 degrees West of True North (at 03/4/2019)
 To correct azimuth from the Grid North to True North
 To correct azimuth from the Grid North to True North
 To correct azimuth from Magnetic to Grid subtract 7.55 degrees



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Edsaryar
Scale	0.999955	Report Generated	15/Apr/2019 at 16:39
Convergence at slot	0.67° West	Database/Source file	WA_MPL_EASTERNNUS_Defn/MAJ-6H-HSU_AWP_Proj_19400_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.01	0.00	1705926.96	524252.81	39°56'04.722"N	80°32'55.298"W
Facility Reference Pt			1705926.96	524252.82	39°56'04.722"N	80°32'55.298"W
Field Reference Pt			1704323.48	525162.98	39°56'13.531"N	80°33'16.019"W

WELLPATH DATUM

Calculation method	Minimum curvature		Patterson 563 (RKB) to Facility Vertical Datum	1373.26ft
Horizontal Reference Pt	Slot		Patterson 563 (RKB) to Mean Sea Level	1373.26ft
Vertical Reference Pt	Patterson 563 (RKB)		Patterson 563 (RKB) to Mud Line at Slot (Slot H)	29.00ft
MD Reference Pt	Patterson 563 (RKB)		Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level		Section Azimuth	145.00°



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 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)	(°)	(ft/100ft)	(ft/100ft)	(°/100ft)
0.00†	0.000	32.350	0.00	0.00	0.00	0.00	1705926.96	524252.81	39°56'04.722"N	80°32'55.298"W	0.00	0.000	0.00	0.00	0.00
29.00	0.000	32.350	29.00	0.00	0.00	0.00	1705926.96	524252.81	39°56'04.722"N	80°32'55.298"W	0.00	0.000	0.00	0.00	0.00
67.00	0.170	32.350	67.00	-0.02	0.05	0.03	1705926.99	524252.86	39°56'04.722"N	80°32'55.298"W	0.06	32.350	0.45	0.45	85.13
117.00	0.240	154.050	117.00	0.05	0.02	0.12	1705927.17	524252.83	39°56'04.722"N	80°32'55.297"W	0.12	82.064	0.72	0.14	243.40
167.00	0.160	46.820	167.00	0.15	-0.02	0.21	1705927.17	524252.78	39°56'04.722"N	80°32'55.296"W	0.21	98.108	0.65	-0.16	-214.46
217.00	0.080	81.730	217.00	0.15	0.02	0.30	1705927.26	524252.83	39°56'04.722"N	80°32'55.295"W	0.30	85.674	0.21	-0.16	69.82
267.00	0.310	114.170	267.00	0.28	-0.03	0.46	1705927.42	524252.78	39°56'04.722"N	80°32'55.292"W	0.46	93.494	0.49	0.46	64.88
317.00	0.080	128.940	317.00	0.43	-0.11	0.61	1705927.57	524252.70	39°56'04.721"N	80°32'55.291"W	0.62	99.838	0.47	-0.46	29.54
367.00	0.150	66.350	367.00	0.48	-0.10	0.69	1705927.65	524252.71	39°56'04.721"N	80°32'55.289"W	0.70	98.273	0.27	0.14	-125.18
417.00	0.190	100.350	417.00	0.55	-0.09	0.83	1705927.79	524252.72	39°56'04.721"N	80°32'55.288"W	0.84	96.116	0.21	0.08	68.00
467.00	0.130	72.070	467.00	0.63	-0.09	0.97	1705927.93	524252.77	39°56'04.721"N	80°32'55.284"W	0.97	95.117	0.19	-0.12	-56.56
517.00	0.190	66.650	517.00	0.66	-0.04	1.10	1705928.06	524252.77	39°56'04.721"N	80°32'55.284"W	1.10	91.904	0.12	0.12	-10.84
567.00	0.310	97.890	567.00	0.77	-0.02	1.31	1705928.27	524252.79	39°56'04.722"N	80°32'55.282"W	1.31	90.975	0.35	0.24	62.48
617.00	0.110	85.070	617.00	0.89	-0.04	1.49	1705928.45	524252.77	39°56'04.722"N	80°32'55.279"W	1.49	91.410	0.41	-0.40	-25.64
667.00	0.260	79.130	667.00	0.96	-0.01	1.65	1705928.61	524252.80	39°56'04.722"N	80°32'55.277"W	1.65	90.389	0.30	0.30	-11.88
717.00	0.260	97.380	717.00	1.08	0.00	1.88	1705928.84	524252.81	39°56'04.722"N	80°32'55.274"W	1.88	90.134	0.16	0.00	36.50
755.00	0.380	98.720	755.00	1.22	-0.03	2.09	1705929.05	524252.78	39°56'04.722"N	80°32'55.272"W	2.09	90.950	0.32	0.32	3.53
920.00	0.230	128.950	919.99	1.92	-0.33	2.88	1705929.84	524252.48	39°56'04.719"N	80°32'55.261"W	2.90	96.444	0.13	-0.09	18.32
1015.00	0.200	116.780	1014.99	2.25	-0.52	3.18	1705930.14	524252.29	39°56'04.717"N	80°32'55.257"W	3.22	99.291	0.06	-0.03	-12.81
1110.00	0.220	62.680	1109.99	2.42	-0.51	3.49	1705930.45	524252.30	39°56'04.717"N	80°32'55.253"W	3.53	98.334	0.20	0.02	-56.95
1205.00	0.260	347.680	1204.99	2.25	-0.22	3.61	1705930.57	524252.59	39°56'04.720"N	80°32'55.253"W	3.61	93.443	0.31	0.04	-78.92
1301.00	0.050	15.250	1300.99	2.02	0.04	3.57	1705930.53	524252.85	39°56'04.722"N	80°32'55.253"W	3.57	89.419	0.23	-0.22	28.72
1396.00	0.270	270.870	1395.99	1.86	0.08	3.36	1705930.32	524252.89	39°56'04.723"N	80°32'55.255"W	3.36	88.642	0.30	0.23	-109.87
1492.00	0.280	318.220	1491.99	1.50	0.26	2.98	1705929.94	524253.07	39°56'04.725"N	80°32'55.260"W	2.99	85.045	0.23	0.01	49.32
1587.00	0.360	283.050	1586.99	1.04	0.50	2.53	1705929.49	524253.31	39°56'04.727"N	80°32'55.266"W	2.58	78.856	0.22	0.08	-37.02
1682.00	0.110	300.890	1681.99	0.74	0.61	2.16	1705929.12	524253.42	39°56'04.728"N	80°32'55.276"W	2.25	74.173	0.27	-0.26	18.78
1778.00	0.500	242.600	1777.99	0.60	0.47	1.71	1705928.67	524253.28	39°56'04.727"N	80°32'55.276"W	1.77	74.721	0.47	0.41	-60.72
1873.00	0.300	216.720	1872.98	0.62	0.08	1.19	1705928.15	524252.89	39°56'04.723"N	80°32'55.283"W	1.20	86.305	0.28	-0.21	-27.24
1968.00	0.340	232.980	1967.98	0.71	-0.29	0.82	1705927.78	524252.52	39°56'04.719"N	80°32'55.288"W	0.87	109.603	0.10	0.04	17.12
2063.00	0.220	112.470	2062.98	0.87	-0.53	0.76	1705927.72	524252.28	39°56'04.717"N	80°32'55.288"W	0.93	124.844	0.52	-0.13	-126.85



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 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 (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)
2158.00	0.210	245.590	2157.98	0.99	-0.67	0.77	1705927.73	524252.14	39°56'04.715"N	80°32'55.288"W	1.03	131.034	0.42	-0.01	140.13
2254.00	0.130	132.510	2253.98	1.07	-0.82	0.69	1705927.65	524251.99	39°56'04.714"N	80°32'55.289"W	1.07	139.759	0.30	-0.08	-117.79
2349.00	0.210	148.010	2348.98	1.35	-1.04	0.87	1705927.83	524251.77	39°56'04.712"N	80°32'55.287"W	1.35	140.241	0.10	0.08	16.32
2444.00	0.150	265.330	2443.98	1.46	-1.20	0.83	1705927.79	524251.61	39°56'04.710"N	80°32'55.287"W	1.46	145.167	0.33	-0.06	123.49
2540.00	0.110	192.560	2539.98	1.46	-1.30	0.69	1705927.65	524251.51	39°56'04.709"N	80°32'55.289"W	1.47	152.068	0.16	-0.04	-75.80
2635.00	0.240	33.240	2634.98	1.45	-1.22	0.78	1705927.74	524251.59	39°56'04.710"N	80°32'55.288"W	1.45	147.505	0.36	0.14	-167.71
2730.00	0.190	21.880	2729.98	1.29	-0.91	0.95	1705927.91	524251.90	39°56'04.713"N	80°32'55.286"W	1.31	133.848	0.07	-0.05	-11.96
2826.00	0.220	11.130	2825.98	1.07	-0.58	1.04	1705928.00	524252.23	39°56'04.716"N	80°32'55.285"W	1.19	119.118	0.05	0.03	-11.20
2921.00	0.240	285.890	2920.98	0.79	-0.35	0.88	1705927.84	524252.46	39°56'04.718"N	80°32'55.287"W	0.95	111.370	0.33	0.02	-89.73
3017.00	0.190	84.830	3016.98	0.48	-0.14	0.64	1705927.60	524252.67	39°56'04.720"N	80°32'55.290"W	0.66	102.161	0.22	-0.05	59.34
3112.00	0.220	204.770	3206.98	0.17	0.19	0.57	1705927.53	524253.00	39°56'04.724"N	80°32'55.291"W	0.65	73.532	0.10	0.02	26.92
3207.00	0.200	11.040	3238.98	0.16	0.19	0.56	1705927.52	524253.00	39°56'04.724"N	80°32'55.291"W	0.59	71.183	1.30	-0.06	519.59
3268.00	0.390	74.470	3267.98	0.16	0.27	0.66	1705927.62	524253.08	39°56'04.724"N	80°32'55.290"W	0.71	68.109	1.21	0.66	218.72
3364.00	4.280	87.270	3363.88	2.18	0.52	4.56	1705931.52	524253.33	39°56'04.727"N	80°32'55.240"W	4.59	83.439	4.06	4.05	13.33
3462.00	7.250	83.060	3461.37	7.05	1.45	14.35	1705941.31	524254.26	39°56'04.738"N	80°32'55.114"W	14.42	84.247	3.06	3.03	-4.30
3556.00	6.530	72.560	3554.70	11.45	3.76	25.34	1705952.30	524256.57	39°56'04.762"N	80°32'54.974"W	25.62	81.549	1.54	-0.77	-11.17
3651.00	9.030	71.190	3648.82	15.16	7.79	37.55	1705964.51	524260.60	39°56'04.803"N	80°32'54.818"W	38.35	78.283	2.64	2.63	-1.44
3746.00	10.710	68.830	3742.41	19.35	13.38	52.84	1705979.80	524266.19	39°56'04.860"N	80°32'54.622"W	54.51	75.790	1.82	1.77	-2.48
3841.00	12.150	65.800	3835.52	23.33	20.67	70.19	1705997.15	524273.48	39°56'04.934"N	80°32'54.400"W	73.17	73.594	1.64	1.52	-3.19
3936.00	13.230	64.170	3928.20	26.94	29.50	89.10	1706016.05	524282.31	39°56'05.024"N	80°32'54.159"W	93.85	71.679	1.20	1.14	-1.72
4031.00	14.610	63.860	4020.41	30.51	39.52	109.64	1706036.59	524292.32	39°56'05.125"N	80°32'53.897"W	116.54	70.179	1.45	1.45	-0.33
4124.00	15.040	66.060	4110.31	34.64	49.58	131.19	1706058.15	524302.39	39°56'05.227"N	80°32'53.622"W	140.25	69.298	0.76	0.46	2.37
4219.00	15.190	67.930	4202.03	39.79	59.26	153.99	1706080.95	524312.07	39°56'05.325"N	80°32'53.331"W	165.00	68.953	0.54	0.16	1.97
4314.00	16.150	69.030	4293.49	45.77	68.66	177.87	1706104.82	524321.47	39°56'05.421"N	80°32'53.025"W	190.66	68.891	1.06	1.01	1.16
4409.00	14.610	71.420	4385.09	52.36	77.21	201.56	1706128.51	524330.02	39°56'05.508"N	80°32'52.723"W	215.84	69.040	1.75	-1.62	2.52
4506.00	14.720	74.240	4478.93	59.88	84.46	225.02	1706151.97	524339.26	39°56'05.582"N	80°32'52.423"W	240.35	69.428	0.74	0.11	2.91
4601.00	17.240	77.620	4570.25	69.28	90.75	250.39	1706177.34	524343.56	39°56'05.647"N	80°32'52.098"W	266.33	70.077	2.83	2.65	3.56
4696.00	18.290	71.910	4660.73	79.03	98.40	278.31	1706205.26	524351.21	39°56'05.726"N	80°32'51.741"W	295.20	70.528	2.14	1.11	-6.01
4791.00	18.300	59.420	4750.96	84.52	110.62	305.33	1706232.28	524363.43	39°56'05.850"N	80°32'51.396"W	324.76	70.085	4.12	0.01	-13.15



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 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 [ft/100ft]	Build Rate [ft/100ft]	Turn Rate [ft/100ft]
4885.00	16.940	43.000	4840.61	82.80	128.16	327.39	17066254.34	524380.96	39°56'06.026"N	80°32'51.115"W	351.58	68.622	5.46	-1.45	-17.47
4980.00	15.350	35.850	4931.87	75.80	148.47	344.20	1706271.14	524401.28	39°56'06.229"N	80°32'50.902"W	374.86	66.666	2.68	-1.67	-7.53
5074.00	14.720	33.640	5022.65	67.37	168.50	358.10	1706285.04	524421.30	39°56'06.428"N	80°32'50.727"W	395.76	64.801	0.91	-0.67	-2.35
5169.00	14.020	514.620	5114.69	60.31	187.15	372.43	1706299.38	524439.96	39°56'06.614"N	80°32'50.546"W	416.81	63.320	2.21	-0.74	8.40
5263.00	14.270	58.040	5205.87	58.29	201.80	389.83	1706316.77	524454.61	39°56'06.761"N	80°32'50.325"W	438.97	62.631	4.36	0.27	17.47
5388.00	15.530	73.420	5297.71	62.93	211.64	411.96	1706338.90	524464.44	39°56'06.861"N	80°32'50.042"W	463.15	62.809	4.35	1.33	16.19
5452.00	18.180	78.950	5387.67	72.86	218.04	438.42	1706365.36	524470.84	39°56'06.927"N	80°32'49.703"W	489.65	63.588	3.29	2.82	5.88
5547.00	19.040	74.600	5477.71	84.08	224.99	467.91	1706394.85	524477.79	39°56'06.999"N	80°32'49.326"W	519.19	64.319	1.72	0.91	-4.58
5642.00	18.380	67.310	5567.70	92.47	234.89	496.67	1706423.61	524487.69	39°56'07.100"N	80°32'48.958"W	549.41	64.689	2.56	-0.69	-7.67
5737.00	16.730	59.910	5658.28	96.83	247.52	522.33	1706449.26	524500.32	39°56'07.228"N	80°32'48.631"W	578.01	64.644	2.92	-1.74	-7.79
5832.00	16.310	58.010	5749.36	98.70	261.45	545.47	1706472.41	524514.24	39°56'07.368"N	80°32'48.336"W	604.89	64.391	0.72	-0.44	-2.00
5927.00	14.870	58.360	5840.87	100.12	274.91	567.16	1706494.10	524527.71	39°56'07.504"N	80°32'48.059"W	630.28	64.140	1.52	-1.52	0.37
6022.00	14.040	66.000	5932.87	103.03	285.99	588.07	1706515.00	524538.79	39°56'07.616"N	80°32'47.793"W	653.93	64.065	2.19	-0.87	8.04
6117.00	15.890	68.960	6024.64	108.37	295.35	610.74	1706537.67	524548.14	39°56'07.711"N	80°32'47.503"W	678.40	64.192	2.11	1.95	3.12
6212.00	17.780	68.110	6115.57	114.80	305.43	636.34	1706563.27	524558.22	39°56'07.813"N	80°32'47.176"W	705.84	64.360	2.01	1.99	-0.89
6307.00	18.320	61.590	6205.90	119.80	317.94	662.93	1706589.86	524568.06	39°56'07.940"N	80°32'46.836"W	735.23	64.378	2.20	0.57	-6.86
6405.00	17.970	58.040	6299.03	122.37	333.27	689.31	1706616.23	524586.06	39°56'08.095"N	80°32'46.500"W	765.64	64.197	1.18	-0.36	-3.62
6499.00	17.740	56.430	6388.50	123.50	348.86	713.54	1706640.47	524601.66	39°56'08.251"N	80°32'46.191"W	794.26	63.945	0.58	-0.24	-1.71
6594.00	17.080	55.220	6479.15	123.91	364.83	737.06	1706663.98	524617.62	39°56'08.412"N	80°32'45.892"W	822.41	63.666	0.79	-0.69	-1.27
6689.00	15.150	50.350	6570.42	122.96	380.71	758.08	1706688.00	524633.50	39°56'08.571"N	80°32'45.624"W	848.31	63.334	2.48	-2.03	-5.13
6784.00	13.210	45.790	6662.52	120.22	396.20	775.42	1706712.34	524648.99	39°56'08.726"N	80°32'45.404"W	870.78	62.935	2.35	-2.04	-4.80
6879.00	11.590	41.200	6755.30	116.20	410.95	789.49	1706716.41	524663.74	39°56'08.874"N	80°32'45.226"W	890.04	62.502	1.99	-1.71	-4.83
6974.00	9.910	33.930	6848.64	110.99	424.91	800.34	1706721.26	524677.70	39°56'09.013"N	80°32'45.089"W	906.14	62.035	2.27	-1.77	-7.65
7069.00	6.910	18.600	6942.62	104.65	437.12	806.73	1706733.65	524689.91	39°56'09.134"N	80°32'45.008"W	917.54	61.549	3.92	-3.16	-16.14
7164.00	4.470	318.280	7037.22	97.58	445.30	806.08	1706733.01	524698.09	39°56'09.215"N	80°32'45.018"W	920.91	61.082	6.41	-2.57	-63.49
7259.00	4.860	237.720	7131.93	91.38	448.33	799.60	1706728.53	524701.12	39°56'09.224"N	80°32'45.101"W	916.71	60.721	3.74	0.41	-46.91
7361.00	5.490	273.070	7233.54	88.50	445.96	791.19	1706718.12	524698.75	39°56'09.220"N	80°32'45.209"W	908.22	60.592	3.24	0.62	-35.93
7456.00	4.740	236.770	7328.16	88.22	441.34	784.10	1706711.02	524694.13	39°56'09.173"N	80°32'45.289"W	899.77	60.627	0.79	-0.79	-0.32
7554.00	3.770	235.450	7428.89	88.07	437.29	778.06	1706704.98	524690.08	39°56'09.133"N	80°32'45.376"W	892.52	60.663	0.99	-0.99	-1.35
7649.00	3.070	234.550	7520.72	88.06	434.04	773.41	1706700.33	524686.83	39°56'09.100"N	80°32'45.436"W	886.88	60.699	0.74	-0.74	-0.95



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 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 [ft/100ft]	Build Rate [ft/100ft]	Turn Rate [ft/100ft]
7744.00	2.650	237.870	7615.60	87.97	431.40	769.48	1706696.40	524684.19	39°56'09.073"N	80°32'45.486"W	882.16	60.723	0.48	-0.44	3.49
7839.00	2.630	243.250	7710.50	87.55	429.25	765.67	1706692.60	524682.04	39°56'09.052"N	80°32'45.534"W	877.79	60.724	0.26	-0.02	5.66
8124.00	1.940	256.690	7995.28	84.83	425.20	755.14	1706682.06	524677.99	39°56'09.010"N	80°32'45.669"W	866.62	60.617	0.30	-0.24	4.72
8218.00	1.630	253.120	8089.23	83.83	424.44	752.31	1706679.24	524677.23	39°56'09.003"N	80°32'45.705"W	863.78	60.569	0.35	-0.33	-3.80
8313.00	1.060	257.980	8184.20	83.06	423.87	750.16	1706677.08	524676.66	39°56'08.997"N	80°32'45.733"W	861.63	60.522	0.61	-0.60	5.12
8408.00	1.160	254.930	8279.19	82.39	423.43	748.37	1706675.30	524676.22	39°56'08.992"N	80°32'45.755"W	859.86	60.498	0.12	0.11	-3.21
8502.00	0.990	240.600	8373.17	81.99	422.79	746.74	1706673.67	524675.58	39°56'08.986"N	80°32'45.776"W	858.12	60.483	0.34	-0.18	-15.24
8597.00	1.010	260.940	8468.16	81.54	422.25	745.20	1706672.13	524675.04	39°56'08.980"N	80°32'45.796"W	856.52	60.463	0.37	0.02	21.41
8691.00	0.960	250.030	8562.14	80.97	421.85	743.64	1706670.57	524674.64	39°56'08.976"N	80°32'45.816"W	854.97	60.435	0.21	-0.05	-11.61
8786.00	0.960	264.270	8657.13	80.38	421.50	742.10	1706669.03	524674.29	39°56'08.972"N	80°32'45.836"W	853.45	60.404	0.25	0.00	14.99
9168.00	1.350	297.780	9039.05	74.81	423.28	734.94	1706666.86	524676.07	39°56'08.989"N	80°32'45.928"W	848.12	60.061	0.20	0.10	8.77
9263.00	0.940	308.680	9134.04	73.07	424.29	733.34	1706660.27	524677.08	39°56'08.999"N	80°32'45.948"W	847.24	59.948	0.49	-0.43	11.47
9358.00	1.140	304.380	9229.02	71.44	425.31	731.95	1706658.88	524678.10	39°56'09.009"N	80°32'45.966"W	846.55	59.841	0.23	0.21	-4.53
9453.00	1.140	323.830	9324.00	69.61	426.61	730.61	1706657.54	524679.40	39°56'09.022"N	80°32'45.984"W	846.04	59.719	0.41	0.00	20.47
9547.00	1.130	328.710	9417.98	67.75	428.15	729.58	1706655.51	524680.94	39°56'09.037"N	80°32'45.997"W	845.93	59.594	0.10	-0.01	5.19
9642.00	1.100	341.340	9512.97	65.94	429.82	728.80	1706653.73	524682.25	39°56'09.053"N	80°32'46.008"W	846.11	59.470	0.26	-0.03	13.29
9825.00	2.030	336.760	9695.89	61.08	434.46	726.96	1706653.89	524687.25	39°56'09.099"N	80°32'46.032"W	846.89	59.136	0.51	0.51	-2.50
9920.00	2.060	338.700	9790.83	57.77	437.60	725.68	1706652.60	524690.39	39°56'09.130"N	80°32'46.049"W	847.41	58.909	0.08	0.03	2.04
10014.00	2.540	345.410	9884.76	54.18	441.19	724.54	1706651.47	524693.98	39°56'09.165"N	80°32'46.064"W	848.29	58.662	0.58	0.51	7.14
10109.00	2.390	349.630	9979.67	50.41	445.17	723.65	1706650.58	524697.96	39°56'09.204"N	80°32'46.076"W	849.62	58.401	0.25	-0.16	4.44
10203.00	2.320	354.590	10073.59	46.97	448.99	723.12	1706650.05	524701.78	39°56'09.242"N	80°32'46.083"W	851.18	58.163	0.23	-0.07	5.28
10298.00	2.400	1.070	10168.51	43.69	452.90	722.98	1706649.90	524705.69	39°56'09.281"N	80°32'46.086"W	853.12	57.936	0.29	0.08	6.82
10487.00	2.890	5.150	10357.31	36.85	461.60	723.48	1706650.40	524714.39	39°56'09.367"N	80°32'46.081"W	858.19	57.461	0.28	0.26	2.16
10582.00	2.660	3.120	10452.20	33.29	466.19	723.81	1706650.74	524718.97	39°56'09.412"N	80°32'46.077"W	860.95	57.216	0.26	-0.24	-2.14
10677.00	2.660	4.070	10547.10	29.84	470.59	724.09	1706651.02	524723.37	39°56'09.455"N	80°32'46.074"W	863.57	56.980	0.05	0.00	1.00
11032.00	3.030	356.690	10901.66	15.46	488.17	724.13	1706651.06	524740.96	39°56'09.629"N	80°32'46.076"W	873.31	56.014	0.15	0.10	-2.08
11127.00	3.770	4.330	10996.49	10.91	493.79	724.22	1706651.15	524746.54	39°56'09.685"N	80°32'46.076"W	876.54	55.713	0.91	0.78	8.04
11222.00	14.390	25.460	11090.18	2.65	507.61	729.55	1706656.48	524760.39	39°56'09.822"N	80°32'46.010"W	888.77	55.171	11.53	-11.18	22.24
11317.00	18.150	51.840	11181.49	-4.00	527.44	746.29	1706673.21	524780.22	39°56'10.020"N	80°32'45.798"W	913.86	54.749	8.63	3.96	27.77
11412.00	22.890	65.010	11270.48	-1.60	544.41	774.70	1706701.62	524797.19	39°56'10.191"N	80°32'45.436"W	946.86	54.903	6.94	4.99	13.86



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'

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**BAKER
HUGHES**
a GE company



REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 stations)

MID	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)
11506.00	30.110	63.770	11354.55	5.18	562.57	812.47	1706739.39	524815.36	39°56'10.375"N	80°32'44.953"W	988.23	55.300	7.70	7.68	-1.32
11601.00	37.110	66.300	11433.62	14.44	584.65	860.15	1706787.07	524837.44	39°56'10.598"N	80°32'44.345"W	1040.04	55.796	7.51	7.37	2.66
11695.00	44.700	73.830	11504.66	30.70	605.30	917.99	1706844.90	524858.08	39°56'10.809"N	80°32'43.605"W	1099.59	56.600	9.62	8.07	8.01
11790.00	52.180	72.110	11567.64	52.56	626.16	985.88	1706912.80	524878.94	39°56'11.023"N	80°32'42.737"W	1167.92	57.579	7.99	7.87	-1.81
11885.00	59.260	70.500	11621.12	74.53	651.35	1060.17	1706987.08	524904.13	39°56'11.280"N	80°32'41.787"W	1244.28	58.434	7.58	7.45	-1.69
11980.00	63.950	73.810	11666.29	99.22	676.90	1139.70	1707066.61	524929.68	39°56'11.542"N	80°32'40.770"W	1325.56	59.293	5.81	4.94	3.48
12074.00	64.250	73.140	11707.35	126.02	700.95	1220.77	1707147.67	524953.73	39°56'11.789"N	80°32'39.733"W	1407.69	60.136	0.72	0.32	-0.71
12169.00	64.520	69.640	11748.43	150.18	728.28	1301.93	1707228.83	524981.06	39°56'12.068"N	80°32'38.695"W	1491.78	60.778	3.33	0.28	-3.68
12264.00	64.800	69.500	11789.09	171.78	758.25	1382.39	1707309.29	525011.03	39°56'12.374"N	80°32'37.667"W	1576.69	61.255	0.32	0.29	-0.15
12359.00	64.730	70.610	11829.59	194.10	787.57	1463.17	1707390.06	525040.34	39°56'12.673"N	80°32'36.634"W	1661.66	61.708	1.06	-0.07	1.17
12453.00	65.710	71.570	11868.99	217.83	815.15	1543.93	1707470.82	525067.92	39°56'12.955"N	80°32'35.602"W	1745.91	62.167	1.46	1.04	1.13
12548.00	72.920	71.580	11902.53	243.24	843.15	1628.22	1707555.10	525095.52	39°56'13.241"N	80°32'34.524"W	1833.57	62.623	7.59	7.59	-0.09
12643.00	81.970	72.440	11923.16	270.35	871.75	1716.32	1707643.20	525124.52	39°56'13.534"N	80°32'33.397"W	1925.02	63.073	9.57	9.53	0.91
12737.00	87.110	74.870	11932.10	300.28	898.06	1806.08	1707732.96	525150.83	39°56'13.804"N	80°32'32.249"W	2017.04	63.561	6.04	5.47	2.59
12832.00	88.950	80.860	11935.37	337.15	918.01	1898.86	1707825.73	525170.78	39°56'14.012"N	80°32'31.061"W	2109.12	64.198	6.59	1.94	6.31
12927.00	89.020	85.090	11937.05	381.70	929.62	1993.11	1707919.97	525182.39	39°56'14.137"N	80°32'29.853"W	2199.24	64.995	4.45	0.07	4.45
13022.00	88.980	85.950	11938.71	429.93	937.04	2087.80	1708014.66	525189.81	39°56'14.222"N	80°32'28.638"W	2288.44	65.829	0.91	-0.04	0.91
13116.00	88.980	91.830	11940.38	482.32	938.86	2181.73	1708108.59	525191.63	39°56'14.250"N	80°32'27.433"W	2375.16	66.716	6.25	6.25	6.25
13211.00	88.980	101.930	11942.08	545.64	927.50	2275.91	1708202.76	525180.27	39°56'14.149"N	80°32'26.222"W	2457.64	67.828	10.63	0.00	10.63
13306.00	88.980	109.790	11943.77	619.26	901.56	2367.20	1708294.05	525154.33	39°56'13.903"N	80°32'25.046"W	2533.08	69.150	8.27	0.00	8.27
13401.00	88.980	117.050	11945.47	700.12	863.83	2454.31	1708381.15	525116.60	39°56'13.540"N	80°32'23.923"W	2601.89	70.610	7.64	0.00	7.64
13495.00	88.980	120.030	11947.14	784.25	818.93	2536.86	1708463.70	525071.71	39°56'13.106"N	80°32'22.856"W	2665.77	72.109	3.17	0.00	3.17
13590.00	88.950	122.490	11948.86	871.19	769.65	2618.05	1708544.89	525022.42	39°56'12.628"N	80°32'21.807"W	2728.84	73.618	2.59	-0.03	2.59
13685.00	89.020	130.270	11950.54	961.14	713.35	2694.46	1708621.30	524966.13	39°56'12.080"N	80°32'20.818"W	2787.29	75.171	8.19	0.07	8.19
13779.00	88.920	137.810	11952.23	1053.34	648.07	2761.98	1708688.81	524900.85	39°56'11.443"N	80°32'19.941"W	2836.99	76.795	8.02	-0.11	8.02
13874.00	89.020	143.930	11953.94	1148.03	574.42	2821.89	1708748.72	524827.20	39°56'10.722"N	80°32'19.161"W	2879.76	78.494	6.44	0.11	6.44
13969.00	88.920	145.370	11955.57	1243.02	496.95	2876.85	1708803.97	524749.73	39°56'09.963"N	80°32'17.444"W	2919.45	80.199	1.52	0.00	1.52
14064.00	88.950	144.890	11957.25	1338.00	399.11	2931.15	1708850.67	524671.81	39°56'09.199"N	80°32'17.736"W	2960.95	81.865	0.51	-0.07	-0.51
14159.00	88.950	149.710	11958.99	1432.88	319.12	2982.45	1708909.27	524591.90	39°56'08.415"N	80°32'17.065"W	3001.67	83.513	5.07	0.00	5.07
14253.00	88.950	148.100	11960.71	1526.64	258.63	3030.99	1708957.80	524511.43	39°56'07.625"N	80°32'16.430"W	3042.00	85.123	1.71	0.00	-1.71



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 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
14348.00	89.050	146.100	11962.37	1621.56	178.89	3082.58	1709009.39	524431.69	39°56'06.843"N	80°32'15.756"W	3087.76	86.679	2.11	0.11	-2.11
14454.00	89.020	145.270	11964.16	1727.54	91.35	3142.32	1709069.14	524344.15	39°56'05.985"N	80°32'14.976"W	3143.65	88.335	0.78	-0.03	-0.78
14549.00	89.020	144.480	11965.78	1822.52	13.66	3196.98	1709123.79	524266.47	39°56'05.224"N	80°32'14.263"W	3197.01	89.755	0.83	0.00	-0.83
14643.00	88.920	144.310	11967.47	1916.50	-62.75	3251.69	1709178.50	524190.06	39°56'04.475"N	80°32'13.550"W	3252.30	91.106	0.21	-0.11	-0.18
14737.00	88.890	144.740	11969.27	2010.48	-139.29	3306.24	1709233.04	524113.53	39°56'03.725"N	80°32'12.838"W	3309.17	92.412	0.46	-0.03	0.46
14832.00	88.890	145.200	11971.11	2105.46	-217.07	3360.76	1709287.56	524035.75	39°56'02.962"N	80°32'12.127"W	3367.76	93.696	0.48	0.00	0.48
14926.00	88.800	146.170	11973.00	2199.43	-294.69	3413.74	1709340.54	523958.13	39°56'02.201"N	80°32'11.435"W	3426.43	94.934	1.04	-0.10	1.03
15021.00	88.740	145.820	11975.04	2294.40	-373.43	3466.85	1709393.65	523879.40	39°56'01.429"N	80°32'10.742"W	3486.91	96.148	0.37	-0.06	-0.37
15115.00	89.140	145.580	11976.78	2388.37	-451.07	3519.82	1709446.61	523801.77	39°56'00.668"N	80°32'10.050"W	3548.60	97.303	0.50	0.43	-0.26
15210.00	89.110	145.400	11978.23	2483.36	-529.34	3573.63	1709500.43	523723.50	39°55'59.901"N	80°32'09.348"W	3612.62	98.426	0.19	-0.03	-0.19
15304.00	89.080	145.210	11979.72	2577.35	-606.62	3627.13	1709553.92	523646.22	39°55'59.143"N	80°32'08.650"W	3677.51	99.494	0.20	-0.03	-0.20
15398.00	89.200	145.800	11981.13	2671.33	-684.08	3680.36	1709607.15	523568.76	39°55'58.384"N	80°32'07.955"W	3743.40	100.530	0.64	0.13	0.63
15492.00	89.020	146.010	11982.59	2765.31	-761.91	3733.05	1709659.83	523490.93	39°55'57.620"N	80°32'07.267"W	3810.01	101.536	0.29	-0.19	0.22
15587.00	88.990	146.670	11984.24	2860.27	-840.97	3785.69	1709712.48	523411.88	39°55'56.845"N	80°32'06.580"W	3877.98	102.525	0.70	-0.03	0.69
15681.00	89.050	147.270	11985.85	2954.20	-919.77	3836.92	1709763.70	523333.09	39°55'56.072"N	80°32'05.911"W	3945.62	103.480	0.64	0.06	0.64
15775.00	88.950	145.230	11987.49	3048.16	-997.91	3889.14	1709815.91	523254.95	39°55'55.306"N	80°32'05.229"W	4015.12	104.391	2.17	-0.11	-2.17
15870.00	88.920	143.500	11989.25	3143.13	-1075.10	3944.47	1709871.25	523177.76	39°55'54.550"N	80°32'04.507"W	4088.36	105.246	1.82	-0.03	-1.82
15964.00	88.990	143.070	11990.97	3237.07	-1150.44	4000.66	1709927.43	523102.42	39°55'53.811"N	80°32'03.775"W	4162.79	106.043	0.46	0.07	-0.46
16058.00	88.990	142.940	11992.62	3331.00	-1225.51	4057.22	1709983.99	523027.36	39°55'53.076"N	80°32'03.038"W	4238.26	106.807	0.14	0.00	-0.14
16153.00	88.990	142.460	11994.30	3425.91	-1301.07	4114.78	1710041.54	522951.80	39°55'52.336"N	80°32'02.288"W	4315.57	107.547	0.51	0.00	-0.51
16246.00	89.170	143.100	11995.79	3518.83	-1375.11	4171.02	1710097.79	522877.76	39°55'51.611"N	80°32'01.555"W	4391.85	108.247	0.71	0.19	0.69
16341.00	88.680	143.950	11997.57	3613.75	-1451.49	4227.43	1710154.25	522801.39	39°55'50.862"N	80°32'00.819"W	4469.73	108.950	1.03	-0.52	0.89
16436.00	89.020	144.320	11999.48	3708.75	-1528.46	4283.13	1710209.89	522724.42	39°55'50.108"N	80°32'00.093"W	4547.68	109.639	0.53	0.36	0.39
16530.00	89.110	143.670	12001.02	3802.72	-1604.50	4338.38	1710265.14	522648.39	39°55'49.363"N	80°31'59.373"W	4625.58	110.296	0.70	0.10	-0.69
16625.00	89.110	143.820	12002.49	3897.69	-1681.09	4394.56	1710321.31	522571.79	39°55'48.612"N	80°31'58.641"W	4705.13	110.934	0.16	0.00	0.16
16719.00	90.580	145.010	12002.74	3991.68	-1757.54	4449.25	1710376.01	522495.36	39°55'47.863"N	80°31'57.927"W	4783.81	111.555	2.01	1.56	1.27
16818.00	89.080	145.910	12003.02	4085.67	-1834.96	4502.52	1710429.30	522417.93	39°55'47.104"N	80°31'57.232"W	4862.10	112.173	1.86	-1.60	0.96
16908.00	89.350	144.410	12004.33	4180.66	-1912.92	4556.81	1710483.56	522339.97	39°55'46.340"N	80°31'56.524"W	4942.05	112.772	1.60	0.28	-1.58
17003.00	89.320	146.830	12005.43	4275.64	-1991.32	4610.45	1710537.20	522261.58	39°55'45.571"N	80°31'55.824"W	5022.11	113.360	2.55	-0.03	2.55
17097.00	89.450	149.620	12006.44	4369.48	-2071.22	4659.94	1710586.68	522181.69	39°55'44.787"N	80°31'55.177"W	5099.51	113.964	2.97	0.14	2.97



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'
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WV Department of
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH DATA (205 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]
17192.00	89.690	149.310	12007.15	4464.18	-2153.04	4708.21	1710634.95	522099.87	39°55'43.984"N	80°31'54.545"W	5177.14	114.574	0.41	0.25	-0.33
17286.00	90.150	147.280	12007.28	4558.02	-2233.01	4757.61	1710684.34	522019.91	39°55'43.200"N	80°31'53.899"W	5255.58	115.143	2.21	0.49	-2.16
17381.00	89.110	145.990	12007.90	4652.98	-2312.35	4809.85	1710736.59	521940.57	39°55'42.422"N	80°31'53.217"W	5336.82	115.676	1.74	-1.09	-1.36
17475.00	89.200	145.060	12009.28	4746.96	-2389.83	4863.05	1710789.78	521865.09	39°55'41.662"N	80°31'52.523"W	5418.54	116.171	0.99	0.10	-0.99
17570.00	88.950	143.590	12010.82	4841.94	-2466.99	4918.45	1710845.18	521786.94	39°55'40.906"N	80°31'51.801"W	5502.47	116.637	1.57	-0.26	-1.51
17665.00	88.710	143.010	12012.75	4936.88	-2543.14	4975.25	1710901.94	521709.79	39°55'40.160"N	80°31'51.061"W	5587.51	117.074	0.66	-0.25	-0.61
17760.00	88.740	146.310	12014.87	5031.84	-2620.60	5030.14	1710956.86	521632.33	39°55'39.400"N	80°31'50.344"W	5671.85	117.519	3.47	0.03	3.47
17854.00	89.020	145.700	12016.71	5125.81	-2698.52	5082.68	1711009.41	521554.41	39°55'38.636"N	80°31'49.659"W	5754.63	117.965	0.71	0.30	-0.65
17949.00	89.110	146.160	12018.26	5220.78	-2777.21	5135.90	1711062.62	521475.73	39°55'37.865"N	80°31'48.964"W	5838.69	118.402	0.49	0.09	0.48
18043.00	88.990	147.620	12019.82	5314.72	-2855.93	5187.24	1711113.95	521397.01	39°55'37.093"N	80°31'48.293"W	5921.47	118.836	1.56	-0.13	1.55
18138.00	88.980	146.240	12021.50	5409.65	-2935.53	5239.06	1711165.78	521317.42	39°55'36.312"N	80°31'47.617"W	6005.42	119.263	1.45	-0.01	-1.45
18233.00	88.990	146.450	12023.18	5504.60	-3014.59	5291.70	1711218.42	521238.36	39°55'35.537"N	80°31'46.929"W	6090.15	119.669	0.22	0.01	0.22
18327.00	89.020	144.300	12024.81	5598.58	-3091.93	5345.10	1711271.81	521161.03	39°55'34.778"N	80°31'46.233"W	6174.96	120.048	2.29	0.03	-2.29
18422.00	88.920	140.200	12026.52	5693.44	-3167.01	5403.24	1711329.95	521085.94	39°55'34.043"N	80°31'45.475"W	6262.99	120.376	4.32	-0.11	-4.32
18517.00	88.980	139.570	12028.26	5788.04	-3239.65	5464.44	1711391.15	521013.31	39°55'33.332"N	80°31'44.679"W	6352.60	120.662	0.67	0.06	-0.66
18611.00	88.860	140.870	12030.04	5881.70	-3311.88	5524.58	1711451.28	520941.09	39°55'32.625"N	80°31'43.897"W	6441.23	120.942	1.39	-0.13	1.38
18706.00	88.770	141.350	12032.00	5976.46	-3385.80	5584.21	1711510.91	520867.16	39°55'31.901"N	80°31'43.121"W	6530.47	121.229	0.51	-0.09	0.51
18801.00	88.620	143.450	12034.16	6071.33	-3461.05	5642.15	1711568.85	520791.92	39°55'31.164"N	80°31'42.366"W	6619.12	121.526	2.22	-0.16	2.21
18896.00	88.920	143.190	12036.20	6166.27	-3537.22	5698.89	1711625.58	520715.76	39°55'30.418"N	80°31'41.626"W	6707.40	121.827	0.42	0.32	-0.27
18991.00	89.540	144.910	12037.48	6261.24	-3614.11	5754.65	1711681.34	520638.86	39°55'29.664"N	80°31'40.899"W	6795.43	122.130	1.92	0.65	1.81
19086.00	88.800	144.950	12038.86	6356.23	-3691.86	5809.23	1711735.92	520561.12	39°55'28.902"N	80°31'40.188"W	6883.09	122.437	0.78	-0.78	0.04
19181.00	89.050	144.790	12040.64	6451.21	-3769.54	5863.89	1711790.57	520483.45	39°55'28.141"N	80°31'39.475"W	6970.98	122.735	0.31	0.26	-0.17
19276.00	90.250	144.970	12041.22	6546.21	-3847.24	5918.54	1711845.22	520405.75	39°55'27.379"N	80°31'38.762"W	7059.06	123.025	1.28	1.26	0.19
19371.00	90.000	144.330	12041.01	6641.21	-3924.73	5973.50	1711900.18	520328.27	39°55'26.620"N	80°31'38.045"W	7147.46	123.306	0.72	-0.26	-0.67
19400.00	90.000	144.330	12041.01	6670.21	-3948.29	5990.41	1711917.09	520304.71	39°55'26.389"N	80°31'37.825"W	7174.54	123.389	0.00	0.00	0.00



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

String/Diameter	Start MD		End MD		Interval	Start TVD		End TVD		Start N/S	Start E/W	End N/S	End E/W
	[ft]	[ft]	[ft]	[ft]		[ft]	[ft]	[ft]	[ft]				
36in Open Hole	29.00		94.00		65.00	29.00	94.00	0.00	0.00	0.00	0.00	0.07	0.07
30in Conductor	29.00		94.00		65.00	29.00	94.00	0.00	0.00	0.00	0.00	0.07	0.07
24in Open Hole	94.00		895.00		801.00	94.00	894.99	0.07	0.07	0.07	0.07	-0.27	2.80
18.625in Casing Surface	29.00		895.00		866.00	29.00	894.99	0.00	0.00	0.00	0.00	-0.27	2.80
17.5in Open Hole	895.00		3279.00		2384.00	894.99	3278.98	-0.27	0.29	0.29	2.80	0.29	0.78
13.375in Casing Intermediate	29.00		3206.00		3177.00	29.00	3205.98	0.00	0.00	0.00	0.00	0.19	0.57
12.25in Open Hole	3279.00		11066.00		7787.00	3278.98	10935.61	0.29	0.78	0.78	490.04	0.19	724.08
9.625in Casing Intermediate	29.00		10966.00		10937.00	29.00	10835.75	0.00	0.00	0.00	0.00	0.00	724.29
8.5in Open Hole	11066.00		19400.00		8334.00	10935.61	12041.01	490.04	724.08	724.08	-3948.29	0.00	5990.41
5.5in Casing Production	29.00		19400.00		19371.00	29.00	12041.01	0.00	0.00	0.00	-3948.29	0.00	5990.41

TARGETS									
Name	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Shape	
	[ft]	[ft]	[ft]	[US ft]	[US ft]				
MAJ-6H-HSU LP Rev-6	11938.00	902.26	1827.22	1707754.09	525155.03	39°56'13.848"N	80°32'31.978"W	point	
MAJ-6H-HSU AZI Rev-2	11960.98	524.32	2843.10	1708769.93	524777.11	39°56'10.229"N	80°32'18.881"W	point	
MAJ-6 Lease Lines	12028.26	9.88	-62.47	1705864.49	524262.69	39°56'04.812"N	80°32'56.102"W	polygon	
MAJ-6H-HSU BHL Rev-6	12056.44	-3955.42	5979.85	1711906.53	520297.58	39°55'26.317"N	80°31'37.959"W	point	



Actual Wellpath Report

MAJ-6H-HSU AWP Proj: 19400'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWB
Facility	MAJ-6 Pad		

WELLPATH COMPOSITION - Ref Wellbore: MAJ-6H-HSU AWB				Ref Wellpath: MAJ-6H-HSU AWP Proj: 19400'		Wellbore	
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment				
[ft]	[ft]						
29.00	755.00	VESSI GyroFlex v4	01 VES Gyro <24"> (50'-738')				MAJ-6H-HSU AWB
755.00	3239.00	OWSG MWD rev2 - Standard	02 QES MWD <17-1/2"> (738')(903'-3222')				MAJ-6H-HSU AWB
3239.00	10677.00	BH NavITrak (Axial)	03 APS EM <12-1/4"> (3239')(3268'-10677')				MAJ-6H-HSU AWB
10677.00	19371.00	BH AutoTrak Curve (Short)	04 BH AT Curve <8-1/2"> (10677')(11032'-19371')				MAJ-6H-HSU AWB
19371.00	19400.00	Blind Drilling (std)	Projection to bit				MAJ-6H-HSU AWB



Actual Wellpath Report
MAJ-6H-HSU AWP Proj: 19400'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	CNX GAS COMPANY, LLC	Slot	Slot H
Area	Marshall County, WV	Well	MAJ-6H-HSU
Field	Marshall	Wellbore	MAJ-6H-HSU AWP
Facility	MAJ-6 Pad		

COMMENTS

Wellpath general comments
 API: 47-051-02010-0000
 BH Job #: 109675008-A
 Rig: Patterson 563
 Duration: 4/7/2019-4/15/2019
 VES Gyro <24"> (50'-738')
 OES MWD <17'-1/2"> (738')(903'-3222')
 APS EM <12'-1/4"> (3239')(3268'-10677')
 BH AT Curve <8'-1/2"> (10677')(11032'-19371')
 Projected MD at TD: 19400'