



CNX GAS COMPANY, LLC

Location: Barbour County, WV
 Field: Barbour
 Facility: AUD Pad

Slot: Slot #3
 Well: AUD 3D
 Wellbore: AUD 3D (PWB)



Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
AUD Pad		1832785.360	224616.950	39°06'54.718"N	80°05'21.527"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #3	0.00	0.00	1832785.360	224616.950	39°06'54.718"N	80°05'21.527"W
Patterson 331 (RT) to Mud line (At Slot: Slot #3)				25ft		
Mean Sea Level to Mud line (At Slot: Slot #3)				-1532ft		
Patterson 331 (RT) to Mean Sea Level				1557ft		

Well Profile Data

Design Comment	MD (ft)	Inc. (")	Az. (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	5612.20	0.420	116.040	5611.68	-40.10	55.46	0.00	67.91
T.O.C.	5700.00	0.420	116.040	5699.48	-40.39	56.03	0.00	68.52
Curve KOP	5850.00	0.420	116.040	5849.48	-40.87	57.02	0.00	69.58
Build	6575.82	57.804	244.560	6458.81	-186.65	-244.15	8.00	-51.26
Hold	7565.66	57.804	244.560	6986.22	-546.47	-1000.56	0.00	-359.07
End of 3D Arc	8861.15	85.000	135.000	7550.87	-1519.09	-1054.98	8.00	264.45
Landing PL	9011.15	91.000	135.000	7556.10	-1625.04	-949.03	4.00	414.20
End of Tangent	12111.15	91.000	135.000	7502.00	-3816.74	1242.67	0.00	3511.84
Turn	12386.08	91.000	129.501	7497.20	-4001.49	1446.07	2.00	3786.60
BHL	17537.44	91.000	129.501	7407.28	-7277.70	5420.35	0.00	8927.57

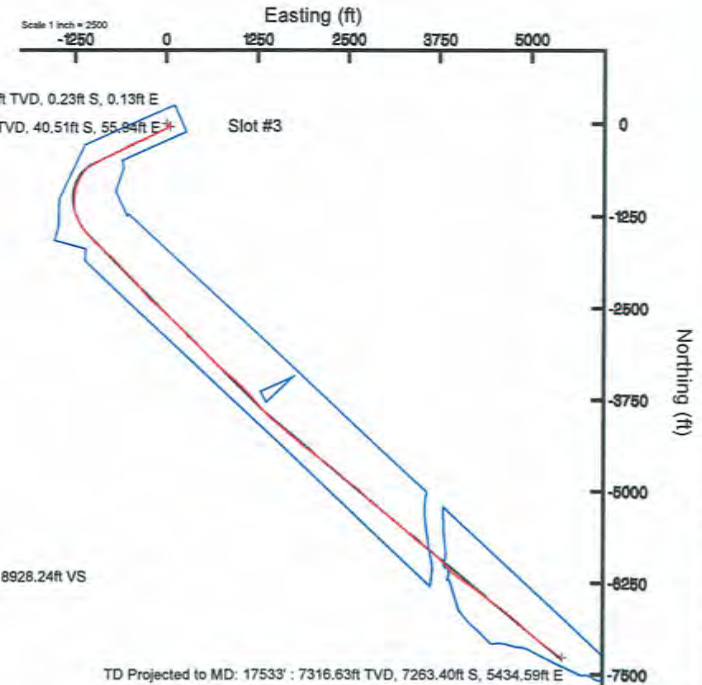
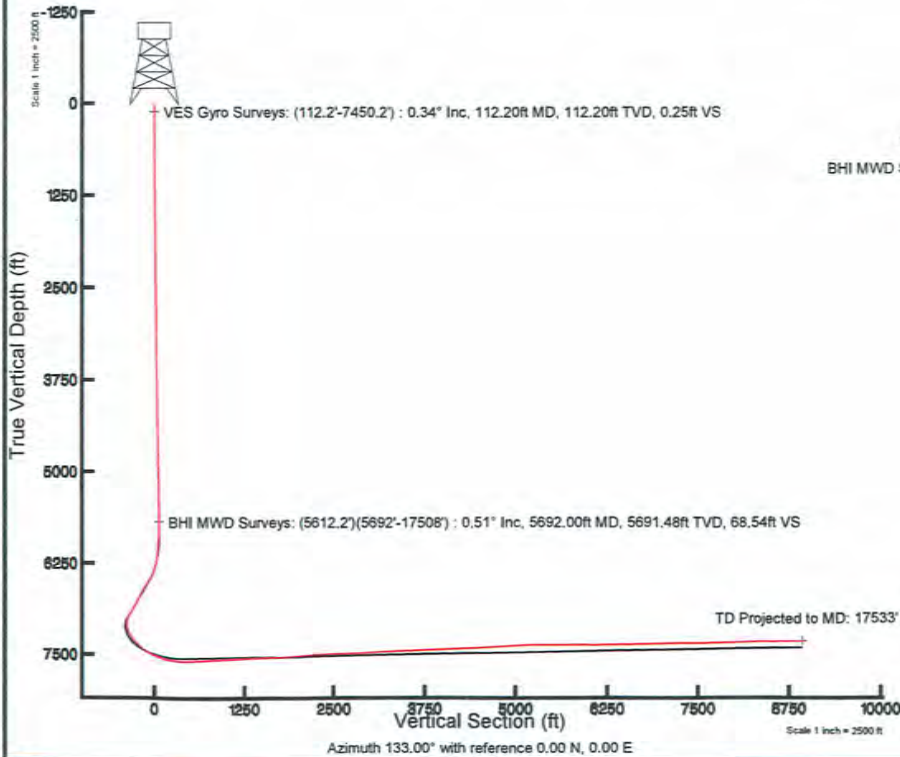
Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
AUD 3D BHL Rev-3	17537.44	7407.28	-7277.70	5420.35	1838205.59	217339.41	39°05'43.132"N	80°04'12.174"W
AUD 3D LP Rev-3	9011.15	7556.10	-1625.04	-949.03	1831836.35	222991.95	39°06'38.594"N	80°05'33.431"W
AUD-3D LL	7598.00	-3786.09	1362.02	1834147.35	220830.94	39°06'17.385"N	80°05'03.935"W	
AUD-3D LP	7598.00	-1426.02	-854.80	1831930.58	223190.96	39°06'40.566"N	80°05'32.252"W	

Plot reference wellpath is AUD 3D PWP Rev-E.0	
True vertical depths are referenced to Patterson 331 (RT)	Grid System: NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet
Measured depths are referenced to Patterson 331 (RT)	North Reference: Grid north
Patterson 331 (RT) to Mean Sea Level: 1557 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #3): -1532 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: frsjesl on 27/Aug/2013



BOGM (1945.0 to 2015.0) Dip: 66.69° Field: 52186.8 nT
 Magnetic North is 8.52 degrees West of True North (at 02/Aug/2013)
 Grid North is 0.38 degrees West of True North
 To correct azimuth from True to Grid add 0.38 degrees
 To correct azimuth from Magnetic to Grid subtract 8.54 degrees



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Actual Wellpath Report

AUD 3D AWP Proj: 17533'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Frisjesl
Scale	0.99998	Report Generated	27/Aug/2013 at 13:46
Convergence at slot	0.38° West	Database/Source file	WA_EasternUS/AUD_3D_AWB_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1832785.36	224616.95	39°06'54.718"N	80°05'21.527"W
Facility Reference Pt			1832785.36	224616.95	39°06'54.718"N	80°05'21.527"W
Field Reference Pt			1853088.00	260038.65	39°12'46.064"N	80°01'06.538"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 331 (RT) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 331 (RT) to Mean Sea Level	1557.00ft
Vertical Reference Pt	Patterson 331 (RT)	Patterson 331 (RT) to Mud Line at Slot (Slot #3)	25.00ft
MD Reference Pt	Patterson 331 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	133.00°

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Actual Wellpath Report

AUD 3D AWP Proj: 17533
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC
Area	Barbour County, WV
Field	Barbour
Facility	AUD Pad
Slot	Slot #3
Well	AUD 3D
Wellbore	AUD 3D (AWB)

WELLPATH DATA (187 stations) † = interpolated/extrapolated station

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]
0.00†	0.000	150.630	0.00	0.00	0.00	0.00	1832785.36	224616.95	39°06'54.718"N	80°05'21.527"W	0.00	0.000	0.00
25.00	0.000	150.630	25.00	0.00	0.00	0.00	1832785.36	224616.95	39°06'54.718"N	80°05'21.527"W	0.00	0.000	0.00
112.20	0.340	150.630	112.20	0.25	-0.23	0.13	1832785.49	224616.72	39°06'54.715"N	80°05'21.525"W	0.26	150.630	0.39
212.20	0.410	107.900	212.20	0.85	-0.59	0.61	1832785.97	224616.36	39°06'54.712"N	80°05'21.519"W	0.85	134.104	0.28
312.20	0.300	102.790	312.20	1.40	-0.76	1.21	1832786.57	224616.19	39°06'54.710"N	80°05'21.512"W	1.43	122.227	0.11
412.20	0.440	113.900	412.19	1.99	-0.98	1.82	1832787.17	224615.97	39°06'54.708"N	80°05'21.504"W	2.06	118.255	0.16
512.20	0.290	64.440	512.19	2.45	-1.02	2.39	1832787.75	224615.93	39°06'54.708"N	80°05'21.497"W	2.60	113.111	0.33
612.20	0.420	77.180	612.19	2.75	-0.83	2.98	1832788.34	224616.12	39°06'54.710"N	80°05'21.489"W	3.09	105.587	0.15
712.20	0.950	77.240	712.18	3.42	-0.57	4.15	1832789.51	224616.38	39°06'54.712"N	80°05'21.474"W	4.18	97.786	0.53
812.20	0.940	89.040	812.17	4.48	-0.37	5.77	1832791.13	224616.58	39°06'54.714"N	80°05'21.454"W	5.79	93.667	0.19
912.20	0.880	86.450	912.16	5.59	-0.31	7.36	1832792.72	224616.64	39°06'54.715"N	80°05'21.434"W	7.37	92.402	0.07
1012.20	0.640	113.660	1012.15	6.65	-0.49	8.64	1832794.00	224616.46	39°06'54.713"N	80°05'21.417"W	8.65	93.215	0.43
1112.20	0.510	103.370	1112.14	7.56	-0.81	9.58	1832794.94	224616.14	39°06'54.710"N	80°05'21.405"W	9.62	94.845	0.17
1212.20	0.820	105.300	1212.14	8.58	-1.10	10.71	1832796.07	224615.85	39°06'54.707"N	80°05'21.391"W	10.76	95.888	0.31
1312.20	0.550	117.330	1312.13	9.68	-1.51	11.82	1832797.18	224615.44	39°06'54.703"N	80°05'21.377"W	11.92	97.294	0.30
1412.20	0.670	115.270	1412.12	10.70	-1.98	12.78	1832798.14	224614.97	39°06'54.699"N	80°05'21.365"W	12.93	98.822	0.12
1512.20	0.620	112.080	1512.12	11.76	-2.44	13.81	1832799.17	224614.51	39°06'54.694"N	80°05'21.352"W	14.02	100.005	0.06
1612.20	0.510	136.200	1612.11	12.71	-2.96	14.62	1832799.98	224613.99	39°06'54.689"N	80°05'21.341"W	14.91	101.450	0.26
1712.20	0.380	99.050	1712.11	13.43	-3.33	15.25	1832800.61	224613.62	39°06'54.686"N	80°05'21.333"W	15.61	102.330	0.31
1812.20	0.640	120.520	1812.10	14.25	-3.67	16.06	1832801.42	224613.28	39°06'54.682"N	80°05'21.323"W	16.48	102.870	0.32
1912.20	0.620	123.890	1912.10	15.33	-4.26	16.99	1832802.35	224612.69	39°06'54.677"N	80°05'21.311"W	17.52	104.059	0.04
2012.20	0.630	132.300	2012.09	16.41	-4.93	17.85	1832803.21	224612.02	39°06'54.670"N	80°05'21.300"W	18.52	105.432	0.09
2112.20	0.460	133.760	2112.09	17.36	-5.57	18.54	1832803.90	224611.38	39°06'54.664"N	80°05'21.291"W	19.36	106.731	0.17
2212.20	0.720	121.260	2212.08	18.38	-6.18	19.37	1832804.73	224610.77	39°06'54.658"N	80°05'21.281"W	20.33	107.689	0.29
2312.20	0.560	148.930	2312.08	19.47	-6.92	20.16	1832805.52	224610.03	39°06'54.651"N	80°05'21.271"W	21.32	108.951	0.34
2412.20	0.600	114.090	2412.07	20.43	-7.56	20.89	1832806.25	224609.39	39°06'54.644"N	80°05'21.261"W	22.22	109.882	0.35
2512.20	0.860	135.190	2512.06	21.68	-8.30	21.90	1832807.26	224608.65	39°06'54.637"N	80°05'21.249"W	23.42	110.761	0.37
2612.20	0.870	119.730	2612.05	23.17	-9.21	23.09	1832808.45	224607.74	39°06'54.628"N	80°05'21.233"W	24.86	111.749	0.23
2712.20	0.650	125.790	2712.04	24.47	-9.92	24.21	1832809.57	224607.03	39°06'54.621"N	80°05'21.219"W	26.16	112.282	0.23
2812.20	0.860	143.210	2812.04	25.77	-10.85	25.12	1832810.47	224606.10	39°06'54.612"N	80°05'21.208"W	27.36	113.367	0.31

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Actual Wellpath Report
 AUD 3D AWP Proj: 17533
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC
Area	Barbour County, WV
Field	Barbour
Facility	AUD Pad
Slot	Slot #3
Well	AUD 3D
Wellbore	AUD 3D (AWB)

WELLPATH DATA (187 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]
2912.20	0.570	128.850	2912.03	27.00	-11.76	25.95	1832811.31	224605.19	39°06'54.603"N	80°05'21.197"W	28.49	114.385	0.34
3012.20	0.650	128.440	3012.02	28.06	-12.43	26.78	1832812.14	224604.52	39°06'54.597"N	80°05'21.186"W	29.53	114.893	0.08
3112.20	0.840	139.580	3112.01	29.36	-13.34	27.70	1832813.06	224603.61	39°06'54.588"N	80°05'21.174"W	30.75	115.711	0.24
3212.20	0.650	127.490	3212.01	30.65	-14.24	28.63	1832813.99	224602.71	39°06'54.579"N	80°05'21.163"W	31.98	116.450	0.25
3312.20	0.840	149.730	3312.00	31.92	-15.22	29.45	1832814.81	224601.73	39°06'54.569"N	80°05'21.152"W	33.15	117.333	0.34
3412.20	0.680	124.300	3411.99	33.21	-16.19	30.31	1832815.67	224600.76	39°06'54.560"N	80°05'21.141"W	34.36	118.108	0.37
3512.20	0.520	135.380	3511.98	34.25	-16.85	31.12	1832816.48	224600.10	39°06'54.553"N	80°05'21.131"W	35.38	118.430	0.20
3612.20	0.810	120.370	3611.98	35.39	-17.53	32.05	1832817.40	224599.42	39°06'54.547"N	80°05'21.119"W	36.53	118.675	0.34
3712.20	0.730	119.970	3711.97	36.70	-18.20	33.21	1832818.57	224598.75	39°06'54.540"N	80°05'21.104"W	37.87	118.729	0.08
3812.20	0.970	122.550	3811.96	38.15	-18.98	34.47	1832819.83	224597.97	39°06'54.532"N	80°05'21.088"W	39.35	118.831	0.24
3912.20	0.980	148.270	3911.94	39.81	-20.16	35.64	1832820.99	224596.79	39°06'54.521"N	80°05'21.073"W	40.94	119.496	0.43
4012.20	1.050	147.210	4011.93	41.52	-21.66	36.58	1832821.94	224595.29	39°06'54.506"N	80°05'21.061"W	42.51	120.625	0.07
4112.20	0.920	154.380	4111.91	43.16	-23.15	37.42	1832822.78	224593.80	39°06'54.491"N	80°05'21.050"W	44.01	121.740	0.18
4212.20	0.780	140.550	4211.90	44.58	-24.40	38.20	1832823.56	224592.55	39°06'54.479"N	80°05'21.040"W	45.33	122.565	0.25
4312.20	0.910	144.230	4311.89	46.04	-25.57	39.10	1832824.46	224591.38	39°06'54.467"N	80°05'21.029"W	46.72	123.182	0.14
4412.20	1.040	144.670	4411.88	47.70	-26.95	40.09	1832825.45	224590.00	39°06'54.454"N	80°05'21.016"W	48.31	123.914	0.13
4512.20	0.880	134.420	4511.86	49.36	-28.23	41.16	1832826.52	224588.72	39°06'54.441"N	80°05'21.002"W	49.91	124.444	0.23
4612.20	1.220	124.830	4611.84	51.18	-29.38	42.59	1832827.94	224587.57	39°06'54.430"N	80°05'20.984"W	51.74	124.600	0.38
4712.20	1.120	125.030	4711.82	53.20	-30.55	44.26	1832829.62	224586.40	39°06'54.419"N	80°05'20.963"W	53.78	124.612	0.10
4812.20	1.130	129.890	4811.80	55.15	-31.74	45.82	1832831.18	224585.21	39°06'54.407"N	80°05'20.943"W	55.74	124.712	0.10
4912.20	1.460	137.260	4911.78	57.41	-33.31	47.44	1832832.80	224583.64	39°06'54.392"N	80°05'20.922"W	57.96	125.074	0.37
5012.20	1.450	132.990	5011.75	59.95	-35.11	49.23	1832834.59	224581.84	39°06'54.374"N	80°05'20.900"W	60.46	125.494	0.11
5112.20	1.140	135.030	5111.72	62.20	-36.67	50.86	1832836.22	224580.28	39°06'54.359"N	80°05'20.879"W	62.70	125.795	0.31
5212.20	0.760	125.360	5211.71	63.86	-37.76	52.10	1832837.46	224579.19	39°06'54.348"N	80°05'20.863"W	64.35	125.933	0.41
5312.20	0.740	106.680	5311.70	65.09	-38.33	53.26	1832838.62	224578.62	39°06'54.342"N	80°05'20.848"W	65.62	125.741	0.24
5412.20	0.600	130.580	5411.69	66.19	-38.86	54.28	1832839.64	224578.10	39°06'54.337"N	80°05'20.833"W	66.75	125.598	0.31
5512.20	0.500	148.770	5511.69	67.14	-39.57	54.90	1832840.26	224577.38	39°06'54.330"N	80°05'20.827"W	67.67	125.782	0.20
5612.20	0.420	116.040	5611.68	67.91	-40.10	55.46	1832840.81	224576.85	39°06'54.325"N	80°05'20.820"W	68.44	125.873	0.27
5692.00	0.510	141.210	5691.48	68.54	-40.51	55.94	1832841.30	224576.44	39°06'54.321"N	80°05'20.814"W	69.07	125.909	0.28
5737.00	1.230	168.410	5736.48	69.13	-41.14	56.16	1832841.52	224575.81	39°06'54.315"N	80°05'20.811"W	69.62	126.221	1.80

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Actual Wellpath Report

AUD 3D AWP Proj: 17533'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

WELLPATH DATA (187 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]
5784.00	5.440	209.620	5783.39	70.06	-43.57	55.16	1832840.52	224573.38	39°06'54.291"N	80°05'20.824"W	70.29	128.303	9.76
5879.00	6.180	265.640	5877.97	67.63	-47.88	47.83	1832833.19	224569.07	39°06'54.248"N	80°05'20.916"W	67.68	135.026	5.78
5974.00	11.450	248.340	5971.83	60.13	-51.75	33.96	1832819.32	224565.20	39°06'54.208"N	80°05'21.092"W	61.90	146.726	6.15
6068.00	15.550	238.930	6063.23	52.67	-61.70	14.48	1832799.84	224555.25	39°06'54.109"N	80°05'21.338"W	63.38	166.788	4.93
6163.00	24.210	240.990	6152.48	43.14	-77.75	-13.51	1832771.85	224539.20	39°06'53.948"N	80°05'21.692"W	78.91	189.858	9.14
6257.00	31.060	243.730	6235.71	28.59	-97.85	-52.16	1832733.20	224519.10	39°06'53.747"N	80°05'22.181"W	110.89	208.059	7.41
6351.00	40.990	244.700	6311.64	8.56	-121.82	-101.90	1832683.46	224495.13	39°06'53.507"N	80°05'22.810"W	158.82	219.911	10.58
6445.00	47.780	244.860	6378.78	-15.83	-149.82	-161.35	1832624.01	224467.14	39°06'53.226"N	80°05'23.562"W	220.18	227.123	7.22
6540.00	54.860	245.210	6438.11	-43.65	-181.09	-228.54	1832556.82	224435.87	39°06'52.913"N	80°05'24.411"W	291.59	231.608	7.46
6634.00	57.830	246.540	6490.20	-74.07	-213.05	-299.95	1832485.42	224403.91	39°06'52.592"N	80°05'25.315"W	367.91	234.615	3.37
6728.00	57.810	247.080	6540.27	-106.19	-244.38	-373.08	1832412.29	224372.58	39°06'52.278"N	80°05'26.240"W	445.99	236.774	0.49
6823.00	57.790	245.250	6590.89	-137.81	-276.86	-446.61	1832338.76	224340.09	39°06'51.952"N	80°05'27.170"W	525.46	238.204	1.63
6918.00	57.800	242.780	6641.53	-166.63	-312.08	-518.86	1832266.51	224304.88	39°06'51.599"N	80°05'28.084"W	605.48	238.974	2.20
7012.00	57.750	242.630	6691.65	-193.45	-348.54	-589.52	1832195.85	224268.42	39°06'51.234"N	80°05'28.977"W	684.85	239.407	0.15
7107.00	57.790	243.230	6742.32	-220.84	-385.11	-661.08	1832124.29	224231.85	39°06'50.868"N	80°05'29.882"W	765.08	239.777	0.54
7201.00	57.790	243.780	6792.42	-248.70	-420.59	-732.26	1832053.11	224196.37	39°06'50.513"N	80°05'30.782"W	844.46	240.128	0.50
7295.00	57.720	244.060	6842.58	-277.09	-455.54	-803.67	1831981.71	224161.41	39°06'50.163"N	80°05'31.685"W	923.80	240.454	0.26
7390.00	57.790	244.640	6893.26	-306.34	-490.33	-876.10	1831909.28	224126.64	39°06'49.814"N	80°05'32.601"W	1003.98	240.766	0.52
7485.00	57.830	243.680	6943.87	-335.36	-525.37	-948.46	1831836.92	224091.59	39°06'49.463"N	80°05'33.516"W	1084.24	241.017	0.86
7580.00	55.890	239.520	6995.82	-360.75	-563.16	-1018.42	1831766.96	224053.80	39°06'49.085"N	80°05'34.400"W	1163.75	241.059	4.20
7674.00	55.770	229.740	7048.70	-376.40	-608.08	-1081.71	1831703.67	224008.88	39°06'48.637"N	80°05'35.200"W	1240.92	240.658	8.61
7770.00	55.780	216.540	7102.86	-376.60	-665.79	-1135.79	1831649.59	223951.17	39°06'48.063"N	80°05'35.881"W	1316.55	239.621	11.36
7864.00	55.770	211.800	7155.75	-364.67	-730.07	-1179.43	1831605.96	223886.90	39°06'47.425"N	80°05'36.429"W	1387.10	238.242	4.17
7958.00	55.770	201.140	7208.73	-342.61	-799.48	-1213.99	1831571.40	223817.49	39°06'46.737"N	80°05'36.862"W	1453.59	236.633	9.37
8053.00	56.730	192.600	7261.58	-307.85	-874.96	-1236.84	1831548.54	223742.01	39°06'45.989"N	80°05'37.145"W	1515.04	234.724	7.54
8148.00	56.750	188.910	7313.69	-265.47	-952.98	-1251.66	1831533.73	223663.99	39°06'45.217"N	80°05'37.327"W	1573.16	232.715	3.25
8242.00	58.720	184.870	7363.89	-218.62	-1031.87	-1261.16	1831524.22	223585.10	39°06'44.437"N	80°05'37.441"W	1629.51	230.710	4.19
8336.00	60.740	177.750	7411.31	-164.64	-1112.95	-1262.97	1831522.42	223504.02	39°06'43.635"N	80°05'37.457"W	1683.37	228.613	6.88
8430.00	63.800	168.270	7455.13	-100.97	-1195.38	-1252.76	1831532.63	223421.60	39°06'42.821"N	80°05'37.320"W	1731.57	226.343	9.50
8525.00	66.810	156.830	7494.92	-26.01	-1277.49	-1226.84	1831558.55	223339.48	39°06'42.011"N	80°05'36.985"W	1771.19	223.841	11.39

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Actual Wellpath Report

AUD 3D AWP Proj: 17533'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

WELLPATH DATA (187 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]
8619.00	70.840	148.740	7528.92	56.40	-1355.31	-1186.73	1831598.66	223261.67	39°06'41.245"N	80°05'36.469"W	1801.44	221.206	9.10
8714.00	74.360	142.420	7557.35	144.82	-1430.00	-1135.49	1831649.90	223186.98	39°06'40.510"N	80°05'35.813"W	1825.99	218.451	7.35
8810.00	82.100	138.910	7576.92	237.88	-1502.60	-1075.94	1831709.44	223114.38	39°06'39.796"N	80°05'35.051"W	1848.10	215.605	8.82
8905.00	85.100	136.720	7587.51	331.94	-1572.54	-1012.55	1831772.83	223044.44	39°06'39.109"N	80°05'34.241"W	1870.33	212.777	3.90
9000.00	91.390	133.590	7590.42	426.77	-1639.82	-945.63	1831839.75	222977.17	39°06'38.449"N	80°05'33.387"W	1892.94	209.971	7.39
9094.00	91.880	127.940	7587.74	520.62	-1701.15	-874.49	1831910.89	222915.84	39°06'37.847"N	80°05'32.479"W	1912.76	207.206	6.03
9188.00	92.460	129.300	7584.18	614.27	-1759.77	-801.10	1831984.28	222857.21	39°06'37.272"N	80°05'31.543"W	1933.54	204.476	1.57
9283.00	92.460	132.850	7580.10	709.12	-1822.13	-729.56	1832055.81	222794.86	39°06'36.661"N	80°05'30.631"W	1962.76	201.821	3.73
9377.00	92.490	137.650	7576.04	802.93	-1888.80	-663.47	1832121.91	222728.19	39°06'36.006"N	80°05'29.787"W	2001.94	199.355	5.10
9472.00	92.400	136.650	7571.98	897.59	-1958.39	-598.92	1832186.45	222658.61	39°06'35.322"N	80°05'28.962"W	2047.92	197.005	1.06
9567.00	93.020	134.190	7567.49	992.39	-2025.97	-532.32	1832253.05	222591.02	39°06'34.659"N	80°05'28.111"W	2094.74	194.722	2.67
9662.00	92.590	136.240	7562.84	1087.20	-2093.31	-465.48	1832319.89	222523.68	39°06'33.998"N	80°05'27.258"W	2144.44	192.537	2.20
9757.00	92.860	139.760	7558.32	1181.72	-2163.82	-402.00	1832383.37	222453.18	39°06'33.305"N	80°05'26.447"W	2200.84	190.524	3.71
9851.00	92.710	142.300	7553.75	1274.68	-2236.81	-342.95	1832442.42	222380.19	39°06'32.587"N	80°05'25.692"W	2262.95	188.717	2.70
9945.00	92.520	138.930	7549.46	1367.74	-2309.38	-283.38	1832501.99	222307.62	39°06'31.874"N	80°05'24.930"W	2326.70	186.996	3.59
10040.00	92.590	133.490	7545.23	1462.46	-2377.86	-217.73	1832567.64	222239.14	39°06'31.201"N	80°05'24.091"W	2387.81	185.232	5.72
10134.00	92.340	131.600	7541.18	1556.37	-2441.36	-148.54	1832636.82	222175.64	39°06'30.578"N	80°05'23.208"W	2445.87	183.482	2.03
10228.00	92.740	132.950	7537.02	1650.27	-2504.53	-79.06	1832706.31	222112.48	39°06'29.958"N	80°05'22.322"W	2505.78	181.808	1.50
10323.00	92.590	133.330	7532.60	1745.16	-2569.42	-9.81	1832775.55	222047.59	39°06'29.321"N	80°05'21.438"W	2569.44	180.219	0.43
10418.00	93.390	134.660	7527.64	1840.02	-2635.31	58.44	1832843.80	221981.70	39°06'28.675"N	80°05'20.566"W	2635.96	178.730	1.63
10512.00	93.480	134.460	7522.01	1933.81	-2701.15	125.29	1832910.65	221915.86	39°06'28.028"N	80°05'19.713"W	2704.05	177.344	0.23
10607.00	93.900	135.830	7515.90	2028.55	-2768.35	192.16	1832977.51	221848.66	39°06'27.368"N	80°05'18.859"W	2775.01	176.029	1.51
10702.00	93.450	138.780	7509.81	2123.07	-2838.02	256.44	1833041.79	221778.99	39°06'26.684"N	80°05'18.038"W	2849.59	174.837	3.13
10796.00	93.510	134.120	7504.10	2216.70	-2906.01	321.06	1833106.42	221711.00	39°06'26.016"N	80°05'17.212"W	2923.69	173.695	4.95
10890.00	92.710	132.780	7499.00	2310.56	-2970.56	389.20	1833174.56	221646.46	39°06'25.382"N	80°05'16.343"W	2995.94	172.536	1.66
10984.00	92.800	134.600	7494.48	2404.44	-3035.41	457.09	1833242.44	221581.61	39°06'24.746"N	80°05'15.476"W	3069.63	171.436	1.94
11078.00	92.190	135.290	7490.39	2498.30	-3101.75	523.56	1833308.91	221515.27	39°06'24.094"N	80°05'14.627"W	3145.63	170.419	0.98
11173.00	91.720	135.750	7487.15	2593.15	-3169.49	590.08	1833375.43	221447.53	39°06'23.429"N	80°05'13.778"W	3223.95	169.454	0.69
11267.00	92.650	133.000	7483.56	2687.04	-3235.18	657.22	1833442.56	221381.84	39°06'22.784"N	80°05'12.921"W	3301.26	168.517	3.09
11362.00	92.400	131.680	7479.38	2781.94	-3299.10	727.37	1833512.71	221317.92	39°06'22.157"N	80°05'12.026"W	3378.33	167.567	1.41

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Actual Wellpath Report

AUD 3D AWP Proj: 17533'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

WELLPATH DATA (187 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]
11456.00	92.650	131.680	7475.24	2875.83	-3361.55	797.50	1833582.85	221255.48	39°06'21.544"N	80°05'11.131"W	3454.85	166.654	0.27
11550.00	92.620	129.930	7470.91	2969.65	-3422.91	868.58	1833653.92	221194.12	39°06'20.942"N	80°05'10.224"W	3531.39	165.761	1.86
11644.00	92.520	130.630	7466.70	3063.45	-3483.62	940.22	1833725.56	221133.41	39°06'20.347"N	80°05'09.310"W	3608.27	164.896	0.75
11739.00	92.590	134.600	7462.46	3158.34	-3547.86	1010.05	1833795.39	221069.17	39°06'19.717"N	80°05'08.419"W	3688.84	164.109	4.18
11834.00	92.740	134.490	7458.05	3253.20	-3614.43	1077.68	1833863.02	221002.60	39°06'19.063"N	80°05'07.556"W	3771.67	163.397	0.20
11928.00	92.650	139.140	7453.62	3346.86	-3682.87	1141.92	1833927.26	220934.16	39°06'18.391"N	80°05'06.735"W	3855.85	162.773	4.94
12024.00	92.090	138.790	7449.65	3442.26	-3755.23	1204.89	1833990.23	220861.81	39°06'17.680"N	80°05'05.931"W	3943.79	162.211	0.69
12118.00	92.340	139.720	7446.02	3535.63	-3826.39	1266.20	1834051.53	220790.64	39°06'16.980"N	80°05'05.147"W	4030.45	161.690	1.02
12213.00	92.160	138.470	7442.29	3630.02	-3898.13	1328.36	1834113.69	220718.90	39°06'16.275"N	80°05'04.353"W	4118.25	161.183	1.33
12308.00	92.130	133.330	7438.73	3724.80	-3966.28	1394.40	1834179.73	220650.75	39°06'15.606"N	80°05'03.509"W	4204.25	160.630	5.41
12402.00	92.280	129.430	7435.11	3818.67	-4028.36	1464.87	1834250.19	220588.67	39°06'14.997"N	80°05'02.610"W	4286.44	160.017	4.15
12496.00	92.090	130.000	7431.53	3912.45	-4088.38	1537.12	1834322.45	220528.66	39°06'14.408"N	80°05'01.689"W	4367.79	159.395	0.64
12591.00	92.310	130.320	7427.88	4007.26	-4149.61	1609.67	1834395.00	220467.43	39°06'13.808"N	80°05'00.763"W	4450.87	158.798	0.41
12685.00	92.280	129.360	7424.12	4101.04	-4209.78	1681.79	1834467.11	220407.26	39°06'13.217"N	80°04'59.844"W	4533.28	158.223	1.02
12779.00	92.120	130.680	7420.51	4194.85	-4270.18	1753.72	1834539.04	220346.86	39°06'12.625"N	80°04'58.926"W	4616.27	157.673	1.41
12874.00	93.200	130.030	7416.10	4289.64	-4331.63	1826.04	1834611.36	220285.42	39°06'12.022"N	80°04'58.004"W	4700.79	157.142	1.33
12968.00	92.370	127.630	7411.53	4383.27	-4390.49	1899.17	1834684.49	220226.56	39°06'11.445"N	80°04'57.071"W	4783.64	156.608	2.70
13063.00	92.960	126.970	7407.12	4477.70	-4448.00	1974.66	1834759.98	220169.05	39°06'10.882"N	80°04'56.109"W	4866.62	156.061	0.93
13157.00	92.860	126.160	7402.34	4570.99	-4503.92	2050.06	1834835.37	220113.13	39°06'10.334"N	80°04'55.148"W	4948.54	155.526	0.87
13251.00	93.390	126.760	7397.22	4664.24	-4559.70	2125.55	1834910.86	220057.35	39°06'09.787"N	80°04'54.186"W	5030.79	155.007	0.85
13346.00	93.420	127.830	7391.58	4758.60	-4617.16	2200.99	1834986.30	219999.89	39°06'09.224"N	80°04'53.224"W	5114.93	154.513	1.12
13441.00	94.190	127.480	7385.27	4852.97	-4675.07	2276.03	1835061.34	219941.98	39°06'08.657"N	80°04'52.268"W	5199.67	154.041	0.89
13536.00	93.360	129.980	7379.02	4947.50	-4734.37	2349.98	1835135.28	219882.68	39°06'08.075"N	80°04'51.325"W	5285.51	153.602	2.77
13631.00	92.560	132.090	7374.11	5042.31	-4796.65	2421.53	1835206.84	219820.40	39°06'07.464"N	80°04'50.412"W	5373.24	153.214	2.37
13726.00	91.790	129.220	7370.51	5137.15	-4858.49	2493.55	1835278.85	219758.56	39°06'06.858"N	80°04'49.494"W	5461.02	152.832	3.13
13820.00	90.680	124.960	7368.48	5230.60	-4915.15	2568.49	1835353.80	219701.90	39°06'06.302"N	80°04'48.538"W	5545.80	152.410	4.68
13915.00	90.490	130.120	7367.51	5325.14	-4973.02	2643.79	1835429.09	219644.04	39°06'05.735"N	80°04'47.579"W	5632.10	152.004	5.43
14009.00	90.400	136.820	7366.78	5419.08	-5037.65	2711.97	1835497.27	219579.41	39°06'05.101"N	80°04'46.708"W	5721.25	151.705	7.13
14103.00	90.400	133.050	7366.12	5513.00	-5104.03	2778.50	1835563.80	219513.03	39°06'04.449"N	80°04'45.859"W	5811.30	151.437	4.01
14198.00	89.880	126.830	7365.89	5607.82	-5164.99	2851.30	1835636.60	219452.08	39°06'03.851"N	80°04'44.931"W	5899.75	151.099	6.57

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Actual Wellpath Report

AUD 3D AWP Proj: 17533'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

WELLPATH DATA (187 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]
14292.00	89.850	127.360	7366.11	5701.32	-5221.68	2926.28	1835711.58	219395.38	39°06'03.296"N	80°04'43.975"W	5985.74	150.733	0.56
14386.00	89.820	130.590	7366.38	5795.08	-5280.80	2999.35	1835784.64	219336.27	39°06'02.716"N	80°04'43.043"W	6073.13	150.405	3.44
14480.00	88.890	131.170	7367.44	5889.01	-5342.31	3070.41	1835855.71	219274.75	39°06'02.112"N	80°04'42.137"W	6161.80	150.113	1.17
14574.00	89.450	129.660	7368.80	5982.90	-5403.25	3141.97	1835927.26	219213.82	39°06'01.515"N	80°04'41.224"W	6250.36	149.822	1.71
14668.00	89.910	128.290	7369.33	6076.66	-5462.37	3215.05	1836000.34	219154.70	39°06'00.935"N	80°04'40.293"W	6338.29	149.520	1.54
14762.00	90.650	128.990	7368.87	6170.39	-5521.06	3288.47	1836073.75	219096.01	39°06'00.360"N	80°04'39.357"W	6426.21	149.221	1.08
14857.00	90.890	134.090	7367.59	6265.32	-5584.03	3359.54	1836144.83	219033.04	39°05'59.742"N	80°04'38.450"W	6516.74	148.967	5.37
14951.00	91.170	131.350	7365.90	6359.29	-5647.79	3428.59	1836213.87	218969.28	39°05'59.116"N	80°04'37.569"W	6607.02	148.739	2.93
15045.00	90.920	122.720	7364.18	6452.68	-5704.34	3503.54	1836288.82	218912.73	39°05'58.562"N	80°04'36.614"W	6694.35	148.442	9.18
15139.00	91.320	124.390	7362.34	6545.38	-5756.29	3581.86	1836367.14	218860.79	39°05'58.053"N	80°04'35.616"W	6779.72	148.108	1.83
15234.00	91.080	131.880	7360.35	6639.95	-5814.90	3656.51	1836441.79	218802.18	39°05'57.479"N	80°04'34.664"W	6868.99	147.838	7.89
15328.00	90.950	133.570	7358.69	6733.93	-5878.66	3725.55	1836510.83	218738.42	39°05'56.853"N	80°04'33.783"W	6959.77	147.636	1.80
15422.00	91.140	135.230	7356.97	6827.89	-5944.42	3792.70	1836577.97	218672.66	39°05'56.207"N	80°04'32.926"W	7051.29	147.461	1.78
15516.00	91.450	138.600	7354.85	6921.63	-6013.04	3856.88	1836642.16	218604.04	39°05'55.533"N	80°04'32.107"W	7143.68	147.323	3.60
15610.00	91.750	137.370	7352.22	7015.23	-6082.85	3919.77	1836705.05	218534.23	39°05'54.847"N	80°04'31.303"W	7236.41	147.202	1.35
15704.00	91.450	126.870	7349.59	7109.06	-6145.78	3989.37	1836774.64	218471.30	39°05'54.229"N	80°04'30.415"W	7327.05	147.011	11.17
15799.00	90.620	124.870	7347.87	7203.30	-6201.44	4066.34	1836851.61	218415.65	39°05'53.684"N	80°04'29.435"W	7415.72	146.747	2.28
15892.00	89.940	122.850	7347.42	7295.11	-6253.25	4143.56	1836928.83	218363.84	39°05'53.177"N	80°04'28.451"W	7501.48	146.471	2.29
15987.00	90.310	126.380	7347.21	7389.08	-6307.20	4221.73	1837007.00	218309.88	39°05'52.649"N	80°04'27.455"W	7589.72	146.204	3.74
16081.00	90.430	128.650	7346.60	7482.64	-6364.44	4296.28	1837081.55	218252.65	39°05'52.088"N	80°04'26.505"W	7678.81	145.979	2.42
16175.00	91.140	126.860	7345.32	7576.24	-6421.99	4370.59	1837155.86	218195.10	39°05'51.524"N	80°04'25.558"W	7768.14	145.762	2.05
16269.00	90.950	125.210	7343.60	7669.52	-6477.28	4446.59	1837231.86	218139.81	39°05'50.982"N	80°04'24.589"W	7856.67	145.531	1.77
16363.00	91.420	125.970	7341.66	7762.72	-6531.97	4523.02	1837308.28	218085.12	39°05'50.446"N	80°04'23.616"W	7945.08	145.300	0.95
16457.00	91.480	127.420	7339.28	7856.12	-6588.12	4598.36	1837383.62	218028.97	39°05'49.896"N	80°04'22.655"W	8034.19	145.086	1.54
16551.00	91.420	128.300	7336.90	7949.71	-6645.79	4672.55	1837457.81	217971.30	39°05'49.331"N	80°04'21.710"W	8124.00	144.890	0.94
16645.00	92.400	129.860	7333.77	8043.43	-6705.02	4745.48	1837530.73	217912.08	39°05'48.750"N	80°04'20.780"W	8214.43	144.711	1.96
16739.00	92.340	129.220	7329.88	8137.18	-6764.81	4817.91	1837603.16	217852.29	39°05'48.163"N	80°04'19.857"W	8305.11	144.541	0.68
16833.00	92.370	133.620	7326.02	8231.04	-6826.93	4888.32	1837673.57	217790.17	39°05'47.554"N	80°04'18.958"W	8396.58	144.396	4.68
16927.00	91.450	132.650	7322.88	8324.99	-6891.16	4956.87	1837742.13	217725.94	39°05'46.923"N	80°04'18.084"W	8488.74	144.272	1.42
17021.00	90.960	129.590	7320.91	8418.90	-6952.96	5027.66	1837812.91	217664.15	39°05'46.317"N	80°04'17.181"W	8580.27	144.129	3.30

1-03257

Actual Wellpath Report

AUD 3D AWP Proj: 17533'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

WELLPATH DATA (187 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]
17116.00	90.490	129.080	7319.70	8513.70	-7013.17	5101.14	1837886.38	217603.94	39°05'45.726"N	80°04'16.244"W	8672.14	143.969	0.73
17210.00	90.550	127.860	7318.85	8607.40	-7071.64	5174.73	1837959.97	217545.46	39°05'45.153"N	80°04'15.306"W	8762.76	143.805	1.30
17304.00	90.370	126.950	7318.10	8700.95	-7128.74	5249.39	1838034.64	217488.37	39°05'44.593"N	80°04'14.354"W	8852.97	143.633	0.99
17398.00	90.370	124.990	7317.49	8794.24	-7183.95	5325.46	1838110.71	217433.16	39°05'44.053"N	80°04'13.385"W	8942.58	143.450	2.09
17492.00	90.370	126.500	7316.88	8887.48	-7238.86	5401.75	1838187.00	217378.25	39°05'43.515"N	80°04'12.413"W	9032.16	143.269	1.61
17508.00	90.340	126.850	7316.78	8903.38	-7248.41	5414.59	1838199.83	217368.70	39°05'43.421"N	80°04'12.250"W	9047.50	143.240	2.20
17533.00	90.340	126.850	7316.63	8928.24	-7263.40	5434.59	1838219.83	217353.70	39°05'43.274"N	80°04'11.995"W	9071.48	143.196	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
AUD 3D BHL Rev-3		7407.28	-7277.70	5420.35	1838205.59	217339.41	39°05'43.132"N	80°04'12.174"W	point
AUD 3D LP Rev-3		7556.10	-1625.04	-949.03	1831836.35	222991.95	39°06'38.594"N	80°05'33.431"W	point
AUD-3D LL		7598.00	-3786.09	1362.02	1834147.35	220830.94	39°06'17.385"N	80°05'03.935"W	point
AUD-3D LP		7598.00	-1426.02	-854.80	1831930.58	223190.96	39°06'40.568"N	80°05'32.252"W	point

WELLPATH COMPOSITION - Ref Wellbore: AUD 3D (AWB) Ref Wellpath: AUD 3D AWP Proj: 17533'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	5512.20	Generic gyro - northseeking (Standard)	VES Gyro Surveys (112.2'-7450.2')	AUD 3D (AWB)
5512.20	17508.00	NaviTrak (AT Curve Short Spaced)	BHI AT Curve (5612.2')(5692'-17508')	AUD 3D (AWB)
17508.00	17533.00	Blind Drilling (std)	Projection to bit	AUD 3D (AWB)

1-03287



Actual Wellpath Report

AUD 3D AWP Proj: 17533'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CNX GAS COMPANY, LLC	Slot	Slot #3
Area	Barbour County, WV	Well	AUD 3D
Field	Barbour	Wellbore	AUD 3D (AWB)
Facility	AUD Pad		

COMMENTS

Wellpath general comments
 VES Gyro Surveys: (112.2'-7450.2')
 BHI MWD Surveys: (5612.2')(5692'-17508')
 TD Projected to MD: 17533'