

NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: Bunner Pad

Slot: Slot 1H
 Well: Bunner 1H
 Wellbore: Bunner 1H PWB

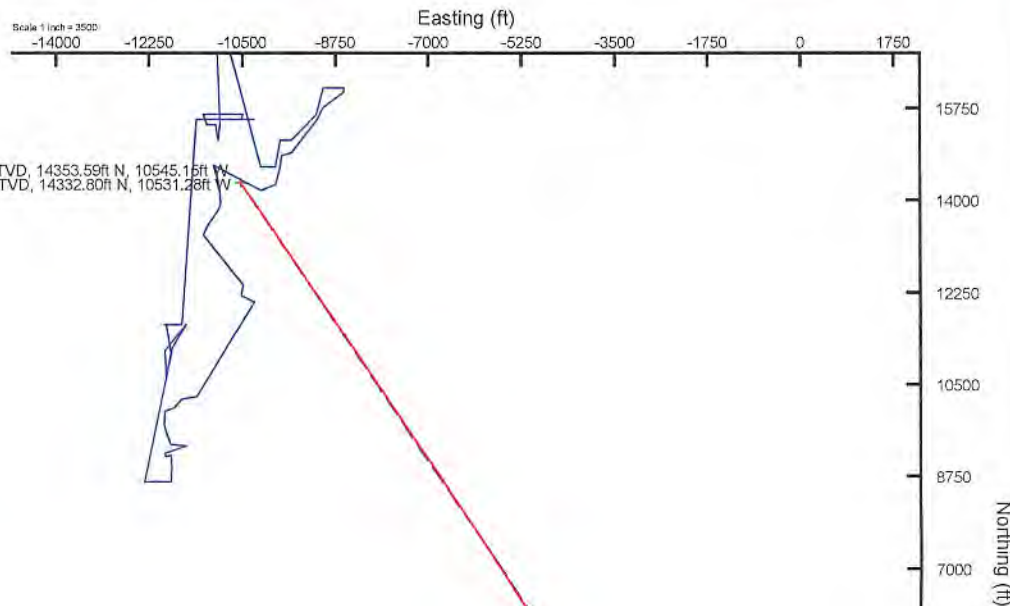


Wellbore Name: Bunner 1H PWB	Wellbore ID: 111543081
Well Name: Bunner 1H	Well ID: 111543081
Well Type: Production	Well Status: Active
Well Depth: 17791.45 ft	Well Completion: Open Hole
Well Orientation: Azimuth 326.37°	Well Completion Date: 12/09/2022

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Bunner Pad	1706458.500	424248.370	39°29'45.2447"N	80°13'3.6735"W	
Slot 1H	Local V (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot 1H	0.00	0.00	1706458.500	424248.370	39°29'45.2447"N
Patterson 277 (RKB) to Ground level (At Slot 1H)					268
Mean Sea Level to Ground level (At Slot 1H)					-1277ft
Patterson 277 (RKB) to Mean Sea Level					1309ft

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local H (ft)	Local E (ft)	DLS (F/1000)	VS (ft)
Tie On	7224.00	12.990	216.450	7135.85	-614.82	-410.78	0.96	-284.26
Projection	7300.00	12.990	216.450	7209.00	-628.36	-420.93	0.00	-290.07
Built+Turn	7500.24	14.811	230.490	7454.50	-659.31	-456.09	2.84	-296.37
Landing Pt	8604.92	00.000	334.000	8090.00	-113.32	-920.60	6.25	415.50
End of Turn	8890.53	80.000	326.288	8090.00	220.85	-1112.42	2.00	799.97
BHL	25992.60	00.000	326.288	8090.00	14355.55	-12543.41	0.00	17792.11

Well Data			
Slot	Well	Wellbore	Wellpath
Slot 1H	Bunner 1H	Bunner 1H AWA	Bunner 1H AWP Proj 25995'
Slot 1H	Bunner 1H	Bunner 1H PWB	Bunner 1H Rev-A.0

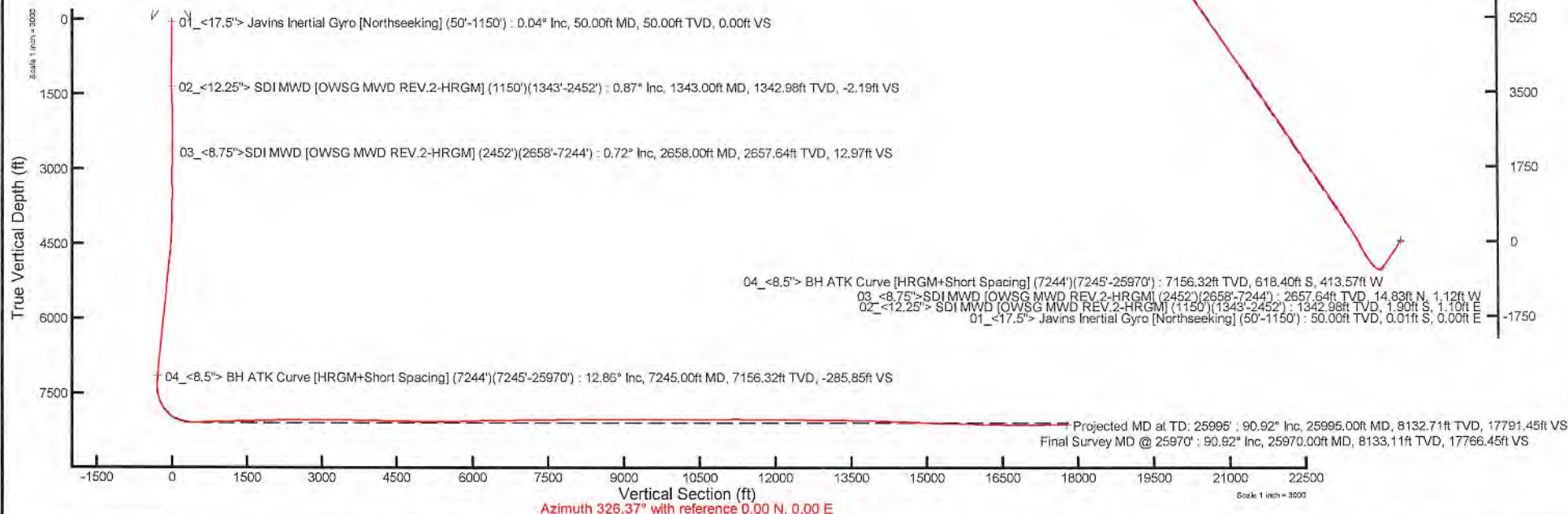


Projected MD at TD: 25995' : 8132.71ft TVD, 14353.59ft N, 10545.16ft W
 Final Survey MD @ 25970' : 8133.11ft TVD, 14332.80ft N, 10531.28ft W

API: 4706101960000
 BH Job #: 111543081
 Rig: Patterson 277
 Duration: 12/03/2022 - 12/09/2022



User specified HDGM Dip: 66.39° Field: 51603 nT
 Magnetic North is 8.59 degrees West of True North (at 12/2/2022)
 Grid North is 0.49 degrees West of True North
 To correct azimuth from True to Grid add 0.48 degrees
 To correct azimuth from Magnetic to Grid subtract 8.63 degrees





Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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Environmental Protection



REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Manajohj
Scale	0.999941	Report Generated	12/12/2022 at 2:04:26 PM
Convergence at slot	0.46° West	Database	WA_MPL_EASTERNUS_Defn

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	1766458.50	424248.37	39°39'45.2443"N	80°13'3.6735"W
Facility Reference Pt			1766458.50	424248.37	39°39'45.2443"N	80°13'3.6735"W
Field Reference Pt			1777685.71	440640.65	39°42'28.1140"N	80°10'41.6900"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 277 (RKB) to Facility Vertical Datum	1305.00ft
Horizontal Reference Pt	Slot	Patterson 277 (RKB) to Mean Sea Level	1305.00ft
Vertical Reference Pt	Patterson 277 (RKB)	Patterson 277 (RKB) to Ground Level at Slot (Slot 1H)	28.00ft
MD Reference Pt	Patterson 277 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	326.37°



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Bunner 1H AWP Proj: 25995'

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Slot	Slot 1H		

WELLPATH DATA (286 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00†	0.000	205.310	0.00	0.00	0.00	0.00	1766458.50	424248.37	39°39'45.2443"N	80°13'3.6735"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	205.310	28.00	0.00	0.00	0.00	1766458.50	424248.37	39°39'45.2443"N	80°13'3.6735"W	0.00	0.000	0.00	0.00	0.00
50.00	0.040	205.310	50.00	0.00	-0.01	0.00	1766458.50	424248.36	39°39'45.2443"N	80°13'3.6736"W	-0.01	205.310	0.18	0.18	0.00
100.00	0.180	238.370	100.00	-0.01	-0.06	-0.08	1766458.42	424248.31	39°39'45.2437"N	80°13'3.6745"W	0.10	230.533	0.30	0.28	66.12
150.00	0.220	210.880	150.00	-0.05	-0.19	-0.19	1766458.31	424248.18	39°39'45.2425"N	80°13'3.6760"W	0.27	225.943	0.21	0.08	-54.98
200.00	0.280	214.560	200.00	-0.14	-0.37	-0.31	1766458.19	424248.00	39°39'45.2407"N	80°13'3.6775"W	0.48	220.132	0.12	0.12	7.36
250.00	0.240	222.860	250.00	-0.21	-0.55	-0.45	1766458.05	424247.82	39°39'45.2389"N	80°13'3.6793"W	0.71	219.578	0.11	-0.08	16.60
300.00	0.210	91.300	300.00	-0.28	-0.63	-0.43	1766458.07	424247.74	39°39'45.2381"N	80°13'3.6790"W	-0.76	214.610	0.82	-0.06	-263.12
350.00	0.220	105.030	350.00	-0.41	-0.65	-0.25	1766458.25	424247.72	39°39'45.2379"N	80°13'3.6766"W	0.70	200.790	0.10	0.02	27.46
400.00	0.230	232.560	400.00	-0.49	-0.74	-0.24	1766458.26	424247.68	39°39'45.2370"N	80°13'3.6764"W	0.78	197.638	0.81	0.02	255.06
450.00	0.200	119.530	450.00	-0.57	-0.84	-0.24	1766458.26	424247.53	39°39'45.2360"N	80°13'3.6765"W	0.88	195.812	0.72	-0.06	-226.08
500.00	0.340	178.490	500.00	-0.77	-1.03	-0.16	1766458.34	424247.34	39°39'45.2341"N	80°13'3.6754"W	1.05	188.738	0.58	0.28	117.92
550.00	0.260	215.650	550.00	-0.94	-1.28	-0.22	1766458.28	424247.09	39°39'45.2317"N	80°13'3.6762"W	1.29	189.842	0.41	-0.16	74.32
600.00	0.200	217.840	600.00	-1.01	-1.44	-0.34	1766458.16	424246.93	39°39'45.2301"N	80°13'3.6777"W	1.48	193.351	0.12	-0.12	4.38
650.00	0.270	142.480	650.00	-1.15	-1.60	-0.32	1766458.18	424246.77	39°39'45.2285"N	80°13'3.6775"W	1.63	191.411	0.59	0.14	-150.72
700.00	0.310	147.690	700.00	-1.41	-1.81	-0.18	1766458.32	424246.56	39°39'45.2265"N	80°13'3.6756"W	1.82	185.648	0.10	0.08	10.42
750.00	0.200	112.960	749.99	-1.61	-1.95	-0.03	1766458.47	424246.42	39°39'45.2250"N	80°13'3.6737"W	1.96	180.762	0.37	-0.22	-69.46
800.00	0.240	131.000	799.99	-1.79	-2.06	0.13	1766458.63	424246.31	39°39'45.2240"N	80°13'3.6716"W	2.06	176.291	0.16	0.08	36.08
850.00	0.260	167.180	849.99	-1.99	-2.24	0.24	1766458.74	424246.13	39°39'45.2222"N	80°13'3.6703"W	2.25	173.938	0.31	0.04	72.36
900.00	0.240	199.520	899.99	-2.16	-2.45	0.23	1766458.73	424245.92	39°39'45.2202"N	80°13'3.6704"W	2.46	174.681	0.28	-0.04	84.68
950.00	0.360	227.090	949.99	-2.25	-2.65	0.08	1766458.58	424245.72	39°39'45.2181"N	80°13'3.6723"W	2.65	178.321	0.37	0.24	55.14
1000.00	0.450	179.440	999.99	-2.44	-2.96	-0.04	1766458.46	424245.41	39°39'45.2151"N	80°13'3.6737"W	2.96	180.686	0.67	0.18	-95.30
1050.00	0.240	119.270	1049.99	-2.70	-3.20	0.06	1766458.56	424245.17	39°39'45.2127"N	80°13'3.6725"W	3.20	178.965	0.78	-0.42	-120.34
1100.00	0.110	315.110	1099.99	-2.74	-3.22	0.12	1766458.62	424245.15	39°39'45.2125"N	80°13'3.6717"W	3.22	177.949	0.69	-0.26	-328.32
1150.00	0.130	353.140	1149.99	-2.65	-3.13	0.07	1766458.57	424245.24	39°39'45.2134"N	80°13'3.6722"W	3.13	178.633	0.16	0.04	76.06
1343.00	0.870	46.070	1342.98	-2.19	-1.90	1.10	1766459.60	424246.47	39°39'45.2257"N	80°13'3.6592"W	2.19	149.790	0.41	0.38	27.42
1405.00	0.900	26.150	1404.98	-1.86	-1.13	1.66	1766460.16	424247.24	39°39'45.2333"N	80°13'3.6522"W	2.01	124.335	0.50	0.05	-32.13
1500.00	1.860	355.860	1499.95	-0.14	1.08	1.87	1766460.37	424249.45	39°39'45.2551"N	80°13'3.6497"W	2.16	60.162	1.24	1.01	-31.88
1595.00	2.800	351.770	1594.87	3.30	4.91	1.43	1766459.93	424253.28	39°39'45.2930"N	80°13'3.6557"W	5.11	16.254	1.00	0.99	-4.31
1690.00	2.230	341.020	1689.78	7.18	8.95	0.50	1766459.00	424257.32	39°39'45.3329"N	80°13'3.6681"W	8.97	3.184	0.78	-0.60	-11.32

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Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
1785.00	1.920	313.490	1784.72	10.52	11.80	-1.26	1766457.24	424260.17	39°39'45.3608"N	80°13'3.6908"W	11.86	353.815	1.09	-0.33	-28.98
1881.00	1.060	348.640	1880.69	12.91	13.77	-2.60	1766455.90	424262.14	39°39'45.3803"N	80°13'3.7082"W	14.02	349.314	1.27	-0.90	36.61
1976.00	1.280	36.130	1975.67	14.09	15.49	-2.15	1766456.35	424263.86	39°39'45.3973"N	80°13'3.7026"W	15.64	352.111	1.01	0.23	49.99
2071.00	0.570	64.370	2070.65	14.39	16.55	-1.10	1766457.41	424264.92	39°39'45.4079"N	80°13'3.6892"W	16.59	356.216	0.87	-0.75	29.73
2166.00	0.000	351.340	2165.65	14.32	16.76	-0.67	1766457.83	424265.13	39°39'45.4099"N	80°13'3.6838"W	16.77	357.714	0.60	-0.60	0.00
2261.00	0.260	255.200	2260.65	14.39	16.70	-0.88	1766457.62	424265.07	39°39'45.4093"N	80°13'3.6864"W	16.73	356.993	0.27	0.27	0.00
2356.00	0.200	253.620	2355.65	14.51	16.60	-1.24	1766457.26	424264.97	39°39'45.4083"N	80°13'3.6911"W	16.65	355.712	0.06	-0.06	-1.66
2452.00	0.210	199.940	2451.65	14.46	16.39	-1.47	1766457.03	424264.76	39°39'45.4062"N	80°13'3.6939"W	16.45	354.890	0.19	0.01	-55.92
2658.00	0.720	158.540	2657.64	12.97	14.83	-1.12	1766457.38	424263.20	39°39'45.3908"N	80°13'3.6894"W	14.87	355.678	0.28	0.25	-20.10
2754.00	0.980	170.110	2753.63	11.63	13.46	-0.76	1766457.74	424261.83	39°39'45.3773"N	80°13'3.6846"W	13.48	356.772	0.32	0.27	12.05
2848.00	0.840	165.550	2847.62	10.24	12.00	-0.45	1766458.05	424260.37	39°39'45.3629"N	80°13'3.6805"W	12.01	357.857	0.17	-0.15	-4.85
2943.00	1.360	154.800	2942.60	8.47	10.31	0.20	1766458.70	424258.68	39°39'45.3462"N	80°13'3.6720"W	10.31	1.137	0.59	0.55	-11.32
3038.00	0.110	44.610	3037.60	7.37	9.35	0.75	1766459.25	424257.72	39°39'45.3368"N	80°13'3.6649"W	9.38	4.578	1.48	-1.32	-115.99
3133.00	0.140	316.200	3132.60	7.50	9.50	0.73	1766459.23	424257.87	39°39'45.3383"N	80°13'3.6651"W	9.53	4.409	0.18	0.03	-93.06
3228.00	0.240	347.780	3227.59	7.80	9.78	0.61	1766459.11	424258.15	39°39'45.3410"N	80°13'3.6667"W	9.80	3.570	0.15	0.11	33.24
3323.00	0.240	333.380	3322.59	8.19	10.15	0.48	1766458.98	424258.52	39°39'45.3447"N	80°13'3.6684"W	10.16	2.700	0.06	0.00	-15.16
3418.00	0.140	17.420	3417.59	8.46	10.44	0.42	1766458.92	424258.81	39°39'45.3475"N	80°13'3.6692"W	10.45	2.328	0.18	-0.11	46.36
3512.00	0.210	8.770	3511.59	8.66	10.72	0.48	1766458.98	424259.09	39°39'45.3503"N	80°13'3.6684"W	10.73	2.590	0.08	0.07	-9.20
3606.00	1.610	216.330	3605.58	8.33	9.83	-0.27	1766458.23	424258.19	39°39'45.3414"N	80°13'3.6780"W	9.83	358.419	1.91	1.49	-162.17
3702.00	3.240	218.640	3701.49	7.04	6.62	-2.76	1766455.74	424254.99	39°39'45.3095"N	80°13'3.7095"W	7.17	337.334	1.70	1.70	2.41
3797.00	3.390	225.780	3796.33	5.71	2.58	-6.45	1766452.05	424250.93	39°39'45.2692"N	80°13'3.7563"W	6.94	291.665	0.46	0.16	7.52
3891.00	4.190	215.650	3890.13	3.98	-2.17	-10.45	1766448.05	424246.20	39°39'45.2221"N	80°13'3.8069"W	10.67	258.291	1.11	0.85	-10.78
3986.00	4.540	216.650	3984.85	1.49	-8.00	-14.71	1766443.79	424240.37	39°39'45.1641"N	80°13'3.8608"W	16.75	241.461	0.38	0.37	1.05
4082.00	4.560	211.020	4080.55	-1.43	-14.32	-18.95	1766439.55	424234.05	39°39'45.1013"N	80°13'3.9143"W	23.75	232.920	0.47	0.02	-5.86
4177.00	5.120	215.520	4175.21	-4.56	-21.01	-23.36	1766435.14	424227.36	39°39'45.0349"N	80°13'3.9700"W	31.41	228.033	0.71	0.59	4.74
4272.00	6.930	216.110	4269.68	-8.05	-29.09	-29.20	1766429.30	424219.28	39°39'44.9546"N	80°13'4.0439"W	41.22	225.108	1.91	1.91	0.62
4370.00	8.520	215.040	4366.79	-12.74	-39.81	-36.85	1766421.65	424208.56	39°39'44.8480"N	80°13'4.1407"W	54.25	222.791	1.63	1.62	-1.09
4465.00	9.340	214.690	4460.64	-18.14	-51.91	-45.28	1766413.22	424196.46	39°39'44.7278"N	80°13'4.2472"W	68.88	221.097	0.87	0.86	-0.37
4560.00	10.060	212.590	4554.28	-24.34	-65.24	-54.14	1766404.37	424183.13	39°39'44.5953"N	80°13'4.3591"W	84.78	219.686	0.84	0.76	-2.21
4655.00	11.060	207.470	4647.67	-32.09	-80.32	-62.81	1766395.69	424168.06	39°39'44.4457"N	80°13'4.4684"W	101.96	218.026	1.44	1.05	-5.39



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
4750.00	12.390	208.500	4740.69	-41.26	-97.36	-71.88	1766386.63	424151.02	39°39'44.2765"N	80°13'4.5826"W	121.02	216.437	1.42	1.40	1.08
4846.00	13.960	205.200	4834.16	-52.07	-116.89	-81.72	1766376.78	424131.49	39°39'44.0827"N	80°13'4.7065"W	142.62	214.959	1.81	-1.64	-3.44
4940.00	14.390	208.750	4925.30	-63.35	-137.39	-92.17	1766366.34	424110.99	39°39'43.8793"N	80°13'4.8380"W	165.44	213.856	1.03	0.46	3.78
5035.00	14.860	213.120	5017.22	-73.63	-157.94	-104.50	1766354.00	424090.44	39°39'43.6752"N	80°13'4.9936"W	189.38	213.491	1.26	0.49	4.60
5129.00	14.430	214.560	5108.17	-82.74	-177.68	-117.73	1766340.78	424070.70	39°39'43.4791"N	80°13'5.1607"W	213.15	213.528	0.60	-0.46	-1.53
5227.00	14.630	213.250	5203.04	-92.14	-198.09	-131.44	1766327.06	424050.29	39°39'43.2763"N	80°13'5.3340"W	237.73	213.567	0.39	0.20	-1.34
5322.00	14.400	214.180	5295.00	-101.31	-217.89	-144.66	1766313.85	424030.49	39°39'43.0796"N	80°13'5.5009"W	261.54	213.580	0.34	-0.24	0.98
5418.00	14.460	215.520	5387.98	-110.08	-237.52	-158.33	1766300.18	424010.86	39°39'42.8845"N	80°13'5.6737"W	285.46	213.687	0.35	0.06	1.40
5512.00	14.510	218.220	5478.99	-117.93	-256.33	-172.43	1766286.08	423992.06	39°39'42.6975"N	80°13'5.8521"W	308.93	213.929	0.72	0.05	2.87
5608.00	14.440	216.270	5571.94	-125.79	-275.43	-186.95	1766271.56	423972.96	39°39'42.5076"N	80°13'6.0359"W	332.89	214.168	0.51	-0.07	-2.03
5703.00	13.930	211.600	5664.05	-134.65	-294.72	-199.95	1766258.56	423953.67	39°39'42.3160"N	80°13'6.2001"W	356.15	214.155	1.32	-0.54	-4.92
5798.00	14.470	211.450	5756.14	-144.44	-314.58	-212.14	1766246.37	423933.81	39°39'42.1187"N	80°13'6.3539"W	379.43	213.994	0.57	0.57	-0.16
5893.00	15.010	214.430	5848.02	-154.04	-334.86	-225.29	1766233.23	423913.54	39°39'41.9173"N	80°13'6.5199"W	403.59	213.932	0.98	0.57	3.14
5988.00	14.900	213.370	5939.80	-163.41	-355.20	-238.96	1766219.55	423893.19	39°39'41.7151"N	80°13'6.6927"W	428.10	213.931	0.31	-0.12	-1.12
6083.00	13.790	209.330	6031.84	-173.33	-375.27	-251.23	1766207.29	423873.12	39°39'41.5158"N	80°13'6.8474"W	451.60	213.800	1.57	-1.17	-4.25
6181.00	13.860	209.500	6127.00	-183.94	-395.67	-262.73	1766195.79	423852.72	39°39'41.3133"N	80°13'6.9924"W	474.96	213.584	0.08	0.07	0.17
6276.00	14.440	212.140	6219.12	-193.95	-415.61	-274.63	1766183.88	423832.79	39°39'41.1154"N	80°13'7.1426"W	498.15	213.457	0.91	0.61	2.78
6370.00	15.220	216.430	6309.99	-202.97	-435.46	-288.19	1766170.32	423812.94	39°39'40.9181"N	80°13'7.3140"W	522.19	213.497	1.43	0.83	4.56
6465.00	15.140	216.620	6401.68	-211.41	-455.45	-303.00	1766155.52	423792.95	39°39'40.7194"N	80°13'7.5012"W	547.03	213.635	0.10	-0.08	0.20
6560.00	15.160	215.720	6493.37	-219.98	-475.49	-317.65	1766140.87	423772.91	39°39'40.5201"N	80°13'7.6865"W	571.84	213.745	0.25	0.02	-0.95
6655.00	15.090	212.170	6585.09	-229.43	-496.05	-331.49	1766127.03	423752.36	39°39'40.3159"N	80°13'7.8614"W	596.61	213.753	0.98	-0.07	-3.74
6750.00	15.260	210.600	6676.77	-239.94	-517.27	-344.44	1766114.08	423731.13	39°39'40.1051"N	80°13'8.0247"W	621.46	213.658	0.47	0.18	-1.65
6845.00	15.140	212.290	6768.45	-250.44	-538.52	-357.43	1766101.09	423709.88	39°39'39.8941"N	80°13'8.1887"W	646.34	213.573	0.48	-0.13	1.78
6940.00	14.880	213.770	6860.21	-260.19	-559.15	-370.84	1766087.69	423689.25	39°39'39.6892"N	80°13'8.3580"W	670.95	213.553	0.49	-0.27	1.56
7035.00	13.960	216.120	6952.22	-268.84	-578.55	-384.37	1766074.15	423669.86	39°39'39.4964"N	80°13'8.5291"W	694.59	213.599	1.15	-0.97	2.47
7130.00	13.890	216.140	7044.42	-276.75	-597.01	-397.85	1766060.67	423651.39	39°39'39.3129"N	80°13'8.6996"W	717.43	213.680	0.07	-0.07	0.02
7224.00	12.990	216.450	7135.85	-284.25	-614.62	-410.78	1766047.74	423633.79	39°39'39.1378"N	80°13'8.8631"W	739.26	213.757	0.96	-0.96	0.33
7245.00	12.860	216.440	7156.32	-285.85	-618.40	-413.57	1766044.95	423630.01	39°39'39.1003"N	80°13'8.8984"W	743.95	213.774	0.62	-0.62	-0.05
7340.00	13.910	228.630	7248.75	-290.99	-634.46	-428.43	1766030.10	423613.95	39°39'38.9404"N	80°13'9.0866"W	765.56	214.030	3.16	1.11	-12.83
7435.00	14.640	233.860	7340.82	-293.06	-649.08	-446.69	1766011.84	423599.33	39°39'38.7944"N	80°13'9.3187"W	787.94	214.535	1.56	0.77	5.51



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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
7530.00	14.640	248.890	7432.77	-290.98	-660.49	-467.59	1765990.93	423587.92	39°39'38.6800"N	80°13'9.5848"W	809.26	215.297	3.99	0.00	15.82
7625.00	16.990	276.030	7524.29	-279.50	-663.36	-492.63	1765965.90	423585.05	39°39'38.6497"N	80°13'9.9047"W	826.28	216.599	8.09	2.47	28.57
7720.00	20.300	293.580	7614.37	-256.77	-655.30	-521.57	1765936.96	423593.11	39°39'38.7270"N	80°13'10.2755"W	837.53	218.517	6.82	3.48	18.47
7814.00	26.090	304.870	7700.78	-223.78	-636.94	-553.52	1765905.02	423611.47	39°39'38.9060"N	80°13'10.6858"W	843.84	220.992	7.74	6.16	12.01
7909.00	33.570	311.170	7783.15	-178.92	-607.66	-590.49	1765868.05	423640.75	39°39'39.1924"N	80°13'11.1616"W	847.30	224.179	8.53	7.87	6.63
8004.00	40.770	316.990	7858.82	-122.88	-567.62	-631.49	1765827.05	423680.79	39°39'39.5849"N	80°13'11.6899"W	849.10	228.049	8.43	7.58	6.13
8099.00	48.760	323.270	7926.26	-56.48	-516.21	-674.09	1765784.45	423732.20	39°39'40.0896"N	80°13'12.2399"W	849.04	232.556	9.60	8.40	6.61
8193.00	56.890	324.460	7983.02	18.28	-455.75	-718.18	1765740.36	423792.65	39°39'40.6836"N	80°13'12.8099"W	850.58	237.601	8.72	8.66	1.27
8288.00	65.130	327.730	8029.03	101.29	-386.80	-764.41	1765694.14	423861.59	39°39'41.3613"N	80°13'13.4080"W	856.70	243.160	9.18	8.67	3.44
8382.00	72.490	327.690	8062.98	188.85	-312.76	-811.20	1765647.35	423935.63	39°39'42.0893"N	80°13'14.0138"W	869.40	248.916	7.83	7.33	-0.04
8477.00	79.410	327.820	8086.03	280.92	-234.86	-860.34	1765598.22	424013.52	39°39'42.8552"N	80°13'14.6501"W	891.82	254.731	7.29	7.28	0.14
8572.00	88.340	331.350	8096.16	375.12	-153.49	-908.08	1765550.48	424094.89	39°39'43.6556"N	80°13'15.2689"W	920.96	260.406	10.10	9.40	3.72
8668.00	92.860	335.290	8095.16	470.37	-67.75	-951.16	1765507.39	424180.62	39°39'44.4995"N	80°13'15.8286"W	953.57	265.926	6.25	4.71	4.10
8763.00	93.390	332.830	8089.98	564.36	17.54	-992.65	1765465.91	424265.91	39°39'45.3391"N	80°13'16.3679"W	992.81	271.012	2.65	0.56	-2.59
8858.00	93.020	331.100	8084.67	658.76	101.26	-1037.23	1765421.33	424349.62	39°39'46.1629"N	80°13'16.9465"W	1042.16	275.576	1.86	-0.39	-1.82
8953.00	91.380	327.330	8081.02	753.55	182.79	-1085.81	1765372.76	424431.15	39°39'46.9649"N	80°13'17.5760"W	1101.09	279.556	4.32	-1.73	-3.97
9047.00	91.350	327.420	8078.78	847.51	261.94	-1136.48	1765322.09	424510.29	39°39'47.7430"N	80°13'18.2320"W	1166.27	282.979	0.10	-0.03	0.10
9143.00	91.320	327.550	8076.54	943.47	342.87	-1188.06	1765270.51	424591.22	39°39'48.5387"N	80°13'18.8999"W	1236.55	286.098	0.14	-0.03	0.14
9238.00	91.510	327.130	8074.20	1038.42	422.83	-1239.32	1765219.26	424671.17	39°39'49.3248"N	80°13'19.5635"W	1309.46	288.838	0.49	0.20	-0.44
9333.00	91.290	327.380	8071.88	1133.38	502.70	-1290.69	1765167.89	424751.04	39°39'50.1101"N	80°13'20.2286"W	1385.13	291.280	0.35	-0.23	0.26
9428.00	91.350	327.490	8069.69	1228.34	582.75	-1341.81	1765116.78	424831.08	39°39'50.8971"N	80°13'20.8905"W	1462.89	293.475	0.13	0.06	0.12
9523.00	91.320	327.140	8067.47	1323.30	662.68	-1393.09	1765065.49	424911.01	39°39'51.6830"N	80°13'21.5545"W	1542.68	295.440	0.37	-0.03	-0.37
9618.00	91.260	327.170	8065.33	1418.27	742.48	-1444.61	1765013.98	424990.80	39°39'52.4675"N	80°13'22.2214"W	1624.24	297.202	0.07	-0.06	0.03
9713.00	91.600	327.800	8062.96	1513.22	822.56	-1495.65	1764962.94	425070.88	39°39'53.2548"N	80°13'22.8824"W	1706.92	298.809	0.75	0.36	0.66
9808.00	91.790	326.740	8060.15	1608.17	902.44	-1547.00	1764911.60	425150.75	39°39'54.0402"N	80°13'23.5471"W	1790.98	300.257	1.13	0.20	-1.12
9904.00	91.540	325.990	8057.36	1704.13	982.33	-1600.15	1764858.45	425230.64	39°39'54.8255"N	80°13'24.2349"W	1877.62	301.546	0.82	-0.26	-0.79
9999.00	90.860	326.670	8055.38	1799.11	1061.38	-1652.80	1764805.80	425309.68	39°39'55.6025"N	80°13'24.9164"W	1964.25	302.707	1.01	-0.72	0.72
10094.00	91.110	327.010	8053.74	1894.09	1140.90	-1704.76	1764753.85	425389.20	39°39'56.3842"N	80°13'25.5890"W	2051.30	303.792	0.44	0.26	0.36
10189.00	91.600	327.550	8051.50	1989.05	1220.80	-1756.09	1764702.51	425469.09	39°39'57.1697"N	80°13'26.2536"W	2138.74	304.806	0.77	0.52	0.57
10285.00	91.910	326.290	8048.56	2085.00	1301.20	-1808.47	1764650.14	425549.49	39°39'57.9601"N	80°13'26.9316"W	2227.93	305.785	1.35	0.32	-1.31



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
10380.00	91.110	326.280	8046.05	2179.96	1380.19	-1861.18	1764597.43	425628.48	39°39'58.7366"N	80°13'27.6138"W	2317.09	306.559	0.84	-0.84	-0.01
10475.00	90.860	325.790	8044.42	2274.95	1458.97	-1914.25	1764544.37	425707.25	39°39'59.5109"N	80°13'28.3005"W	2406.85	307.313	0.56	-0.26	-0.52
10569.00	90.890	325.560	8042.98	2368.93	1536.59	-1967.25	1764491.37	425784.87	39°40'0.2737"N	80°13'28.9862"W	2496.23	307.993	0.25	0.03	-0.24
10664.00	90.650	325.190	8041.71	2463.91	1614.76	-2021.22	1764437.40	425863.03	39°40'1.0419"N	80°13'29.6845"W	2587.04	308.621	0.46	-0.25	-0.39
10759.00	90.250	326.970	8040.96	2558.90	1693.59	-2074.23	1764384.40	425941.85	39°40'1.8167"N	80°13'30.3704"W	2677.81	309.231	1.92	-0.42	1.87
10854.00	89.350	325.380	8041.29	2653.89	1772.50	-2127.11	1764331.52	426020.76	39°40'2.5924"N	80°13'31.0548"W	2768.82	309.804	1.92	-0.95	-1.67
10949.00	90.180	326.920	8041.68	2748.89	1851.40	-2180.02	1764278.61	426099.65	39°40'3.3679"N	80°13'31.7396"W	2860.10	310.340	1.84	0.87	1.62
11043.00	89.600	327.270	8041.86	2842.88	1930.32	-2231.09	1764227.55	426178.57	39°40'4.1437"N	80°13'32.4007"W	2950.23	310.866	0.72	-0.62	0.37
11138.00	89.850	326.730	8042.32	2937.87	2009.99	-2282.83	1764175.81	426258.24	39°40'4.9269"N	80°13'33.0706"W	3041.60	311.363	0.63	0.26	-0.57
11238.00	89.010	325.700	8043.26	3032.87	2088.94	-2335.65	1764122.99	426337.18	39°40'5.7030"N	80°13'33.7542"W	3133.52	311.809	1.40	-0.88	-1.08
11328.00	89.420	326.730	8044.56	3127.85	2167.89	-2388.47	1764070.17	426416.13	39°40'6.4790"N	80°13'34.4378"W	3225.61	312.228	1.17	0.43	1.08
11425.00	90.340	326.640	8044.77	3224.85	2248.95	-2441.75	1764016.90	426497.18	39°40'7.2758"N	80°13'35.1275"W	3319.62	312.646	0.95	0.95	-0.09
11520.00	89.720	326.080	8044.72	3319.85	2328.04	-2494.38	1763964.28	426576.26	39°40'8.0532"N	80°13'35.8086"W	3411.99	313.024	0.88	-0.65	-0.59
11614.00	89.080	326.160	8045.70	3413.84	2406.07	-2546.77	1763911.88	426654.29	39°40'8.8202"N	80°13'36.4867"W	3503.60	313.373	0.69	-0.88	0.09
11709.00	89.420	326.640	8046.95	3508.84	2485.19	-2599.34	1763859.32	426733.41	39°40'9.5979"N	80°13'37.1671"W	3596.21	313.714	0.62	0.36	0.51
11802.00	88.950	326.890	8048.27	3601.82	2562.97	-2650.31	1763808.36	426811.19	39°40'10.3625"N	80°13'37.8269"W	3686.86	314.040	0.57	-0.51	0.27
11897.00	89.420	326.910	8049.62	3696.81	2642.55	-2702.18	1763756.48	426890.78	39°40'11.1447"N	80°13'38.4985"W	3779.53	314.361	0.50	0.49	0.02
11992.00	88.680	325.370	8051.20	3791.79	2721.42	-2755.10	1763703.57	426969.63	39°40'11.9200"N	80°13'39.1834"W	3872.56	314.648	1.80	-0.78	-1.62
12086.00	89.320	325.980	8052.84	3885.77	2799.04	-2808.10	1763650.57	427047.24	39°40'12.6828"N	80°13'39.8692"W	3964.85	314.907	0.94	0.68	0.65
12181.00	88.370	325.360	8054.75	3980.74	2877.47	-2861.66	1763597.01	427125.67	39°40'13.4536"N	80°13'40.5623"W	4058.20	315.158	1.19	-1.00	-0.65
12276.00	89.350	326.970	8056.64	4075.72	2956.37	-2914.55	1763544.13	427204.55	39°40'14.2290"N	80°13'41.2467"W	4151.47	315.408	1.98	1.03	1.68
12369.00	88.430	325.630	8058.44	4168.70	3033.72	-2966.14	1763492.55	427281.90	39°40'14.9894"N	80°13'41.9145"W	4242.81	315.645	1.75	-0.99	-1.44
12464.00	89.080	326.400	8060.51	4263.67	3112.47	-3019.22	1763439.46	427360.65	39°40'15.7634"N	80°13'42.6016"W	4336.27	315.871	1.06	0.68	0.81
12558.00	88.860	326.120	8062.20	4357.66	3190.63	-3071.43	1763387.26	427438.80	39°40'16.5316"N	80°13'43.2772"W	4428.74	316.091	0.38	-0.23	-0.30
12653.00	89.200	326.700	8063.80	4452.64	3269.75	-3123.98	1763334.71	427517.92	39°40'17.3093"N	80°13'43.9575"W	4522.22	316.306	0.71	0.36	0.61
12748.00	88.980	326.690	8065.31	4547.63	3349.14	-3176.13	1763282.56	427597.30	39°40'18.0897"N	80°13'44.6327"W	4615.69	316.519	0.23	-0.23	-0.01
12843.00	88.830	326.980	8067.13	4642.61	3428.65	-3228.09	1763230.60	427676.81	39°40'18.8713"N	80°13'45.3054"W	4709.16	316.726	0.34	-0.16	0.31
12938.00	89.450	327.190	8068.55	4737.59	3508.39	-3279.71	1763178.99	427756.55	39°40'19.6552"N	80°13'45.9738"W	4802.64	316.929	0.69	0.65	0.22
13032.00	89.050	326.100	8069.79	4831.58	3586.90	-3331.39	1763127.31	427835.05	39°40'20.4269"N	80°13'46.6428"W	4895.30	317.115	1.24	-0.43	-1.16
13127.00	89.050	326.250	8071.36	4926.57	3665.81	-3384.26	1763074.44	427913.95	39°40'21.2025"N	80°13'47.3272"W	4989.13	317.287	0.16	0.00	0.16



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
13222.00	88.890	325.160	8073.07	5021.54	3744.28	-3437.78	1763020.93	427992.42	39°40'21.9737"N	80°13'48.0198"W	5083.11	317.444	1.16	-0.17	-1.15
13317.00	90.220	325.290	8073.81	5116.52	3822.31	-3491.96	1762966.75	428070.44	39°40'22.7404"N	80°13'48.7208"W	5177.24	317.586	1.41	1.40	0.14
13412.00	89.720	324.980	8073.86	5211.50	3900.25	-3546.27	1762912.45	428148.39	39°40'23.5064"N	80°13'49.4234"W	5271.43	317.722	0.62	-0.53	-0.33
13505.00	89.570	325.140	8074.43	5304.47	3975.49	-3599.53	1762859.19	428224.62	39°40'24.2555"N	80°13'50.1124"W	5363.68	317.848	0.24	-0.18	0.17
13599.00	90.250	325.520	8074.58	5398.45	4053.80	-3653.00	1762805.72	428301.92	39°40'25.0152"N	80°13'50.8043"W	5456.90	317.977	0.83	0.72	0.40
13694.00	90.980	324.970	8073.56	5493.43	4131.84	-3707.16	1762751.57	428379.96	39°40'25.7822"N	80°13'51.5049"W	5551.14	318.101	0.96	0.77	-0.58
13789.00	90.800	324.190	8072.08	5588.37	4209.25	-3762.21	1762696.52	428457.37	39°40'26.5427"N	80°13'52.2170"W	5645.53	318.210	0.84	-0.19	-0.82
13884.00	90.980	324.460	8070.61	5683.30	4286.42	-3817.60	1762641.13	428534.52	39°40'27.3008"N	80°13'52.9335"W	5739.99	318.311	0.34	0.19	0.28
13979.00	91.170	324.780	8068.83	5778.24	4363.86	-3872.60	1762586.14	428611.96	39°40'28.0617"N	80°13'53.6449"W	5834.40	318.413	0.39	0.20	0.34
14074.00	91.320	325.200	8066.76	5873.19	4441.65	-3927.09	1762531.65	428689.75	39°40'28.8261"N	80°13'54.3498"W	5928.77	318.518	0.47	0.16	0.44
14169.00	91.690	325.690	8064.27	5968.14	4519.86	-3980.95	1762477.79	428767.96	39°40'29.5947"N	80°13'55.0468"W	6023.05	318.627	0.65	0.39	0.52
14264.00	91.940	325.320	8061.26	6063.08	4598.12	-4034.73	1762424.02	428846.21	39°40'30.3638"N	80°13'55.7427"W	6117.33	318.734	0.47	0.26	-0.39
14360.00	91.140	325.040	8058.68	6159.03	4676.90	-4089.52	1762369.23	428924.99	39°40'31.1380"N	80°13'56.4517"W	6212.70	318.833	0.88	-0.83	-0.29
14455.00	90.830	324.290	8057.05	6253.97	4754.39	-4144.46	1762314.29	429002.47	39°40'31.8993"N	80°13'57.1623"W	6307.20	318.921	0.85	-0.33	-0.79
14550.00	90.550	325.130	8055.90	6348.92	4831.92	-4199.34	1762259.42	429080.00	39°40'32.6611"N	80°13'57.8723"W	6401.71	319.007	0.93	-0.29	0.88
14644.00	90.180	324.590	8055.30	6442.89	4908.79	-4253.44	1762205.32	429156.86	39°40'33.4164"N	80°13'58.5722"W	6495.23	319.091	0.70	-0.39	-0.57
14739.00	90.710	326.290	8054.56	6537.87	4987.02	-4307.33	1762151.44	429235.09	39°40'34.1852"N	80°13'59.2695"W	6589.65	319.183	1.87	0.56	1.79
14834.00	91.080	326.100	8053.08	6632.85	5065.95	-4360.18	1762098.59	429314.01	39°40'34.9609"N	80°13'59.9536"W	6683.93	319.282	0.44	0.39	-0.20
14929.00	91.020	326.390	8051.34	6727.84	5144.92	-4412.95	1762045.82	429392.98	39°40'35.7371"N	80°14'0.6369"W	6778.23	319.379	0.31	-0.06	0.31
15025.00	91.020	326.010	8049.63	6823.82	5224.68	-4466.35	1761992.42	429472.73	39°40'36.5210"N	80°14'1.3281"W	6873.54	319.474	0.40	0.00	-0.40
15120.00	91.110	326.000	8047.86	6918.80	5303.43	-4519.46	1761939.32	429551.48	39°40'37.2950"N	80°14'2.0155"W	6967.92	319.563	0.10	0.09	-0.01
15215.00	89.970	324.720	8046.97	7013.78	5381.59	-4573.45	1761885.33	429629.63	39°40'38.0630"N	80°14'2.7142"W	7062.43	319.641	1.80	-1.20	-1.35
15311.00	90.310	326.210	8046.73	7109.77	5460.67	-4627.87	1761830.91	429708.70	39°40'38.8401"N	80°14'3.4185"W	7157.94	319.719	1.59	0.35	1.55
15406.00	90.680	326.280	8045.91	7204.76	5539.65	-4680.66	1761778.13	429787.68	39°40'39.6164"N	80°14'4.1018"W	7252.33	319.804	0.40	0.39	0.07
15501.00	90.490	326.250	8044.94	7299.76	5618.65	-4733.41	1761725.38	429866.68	39°40'40.3929"N	80°14'4.7848"W	7346.73	319.888	0.20	-0.20	-0.03
15595.00	91.020	326.120	8043.71	7393.75	5696.74	-4785.72	1761673.07	429944.76	39°40'41.1604"N	80°14'5.4619"W	7440.16	319.967	0.58	0.56	-0.14
15690.00	90.920	326.070	8042.10	7488.73	5775.58	-4838.71	1761620.09	430023.59	39°40'41.9352"N	80°14'6.1478"W	7534.61	320.044	0.12	-0.11	-0.05
15785.00	91.290	326.460	8040.27	7583.72	5854.56	-4891.45	1761567.34	430102.58	39°40'42.7115"N	80°14'6.8307"W	7629.04	320.121	0.57	0.39	0.41
15881.00	90.710	326.590	8038.59	7679.70	5934.63	-4944.40	1761514.41	430182.64	39°40'43.4985"N	80°14'7.5162"W	7724.43	320.201	0.62	-0.60	0.14
15975.00	90.800	326.160	8037.35	7773.69	6012.89	-4996.44	1761462.36	430260.90	39°40'44.2677"N	80°14'8.1901"W	7817.89	320.275	0.47	0.10	-0.46



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
16070.00	90.950	326.130	8035.90	7868.68	6091.78	-5049.36	1761409.45	430339.77	39°40'45.0430"N	80°14'8.8751"W	7912.38	320.345	0.16	0.16	-0.03
16165.00	91.260	325.710	8034.07	7963.66	6170.45	-5102.59	1761356.23	430418.44	39°40'45.8161"N	80°14'9.5641"W	8006.92	320.411	0.55	0.33	-0.44
16261.00	90.860	325.820	8032.29	8059.64	6249.80	-5156.58	1761302.23	430497.79	39°40'46.5960"N	80°14'10.2630"W	8102.49	320.475	0.43	-0.42	0.11
16356.00	90.740	326.830	8030.97	8154.63	6328.85	-5209.25	1761249.56	430576.83	39°40'47.3729"N	80°14'10.9449"W	8196.99	320.542	1.07	-0.13	1.08
16450.00	90.220	325.950	8030.18	8248.62	6407.13	-5261.28	1761197.54	430655.11	39°40'48.1423"N	80°14'11.6186"W	8290.50	320.609	1.09	-0.55	-0.94
16546.00	89.690	326.730	8030.25	8344.62	6487.03	-5314.49	1761144.33	430735.01	39°40'48.9277"N	80°14'12.3075"W	8386.03	320.674	0.98	-0.55	0.81
16641.00	89.940	326.790	8030.56	8439.62	6566.49	-5366.57	1761092.26	430814.46	39°40'49.7087"N	80°14'12.9818"W	8480.50	320.742	0.27	0.26	0.06
16736.00	89.940	327.140	8030.66	8534.61	6646.13	-5418.36	1761040.47	430894.10	39°40'50.4915"N	80°14'13.6526"W	8574.94	320.811	0.37	0.00	0.37
16831.00	89.940	326.920	8030.76	8629.61	6725.83	-5470.05	1760988.78	430973.79	39°40'51.2750"N	80°14'14.3221"W	8669.39	320.879	0.23	0.00	-0.23
16926.00	89.720	326.710	8031.04	8724.60	6805.34	-5522.05	1760936.78	431053.29	39°40'52.0565"N	80°14'14.9955"W	8763.89	320.943	0.32	-0.23	-0.22
17021.00	89.850	327.080	8031.40	8819.60	6884.92	-5573.94	1760884.90	431132.87	39°40'52.8387"N	80°14'15.6675"W	8858.38	321.007	0.41	0.14	0.39
17116.00	90.340	327.470	8031.24	8914.59	6964.84	-5625.30	1760833.55	431212.78	39°40'53.6244"N	80°14'16.3328"W	8952.82	321.073	0.66	0.52	0.41
17211.00	90.180	327.320	8030.81	9009.57	7044.86	-5676.49	1760782.36	431292.80	39°40'54.4111"N	80°14'16.9959"W	9047.24	321.139	0.23	-0.17	-0.16
17306.00	90.490	327.080	8030.25	9104.56	7124.72	-5727.95	1760730.90	431372.65	39°40'55.1961"N	80°14'17.6625"W	9141.72	321.202	0.41	0.33	-0.25
17401.00	90.400	327.040	8029.62	9199.65	7204.44	-5779.60	1760679.25	431452.37	39°40'55.9797"N	80°14'18.3315"W	9236.22	321.262	0.10	-0.09	-0.04
17496.00	90.150	327.080	8029.06	9294.54	7284.17	-5831.26	1760627.60	431532.09	39°40'56.7635"N	80°14'19.0006"W	9330.74	321.321	0.27	-0.26	0.04
17590.00	89.970	326.840	8028.96	9388.53	7362.97	-5882.51	1760576.35	431610.89	39°40'57.5380"N	80°14'19.6644"W	9424.29	321.378	0.32	-0.19	-0.26
17686.00	89.720	326.870	8029.22	9484.53	7443.35	-5935.00	1760523.86	431691.26	39°40'58.3281"N	80°14'20.3442"W	9519.85	321.433	0.26	-0.26	0.03
17781.00	89.910	326.900	8029.53	9579.53	7522.92	-5986.90	1760471.97	431770.83	39°40'59.1102"N	80°14'21.0164"W	9614.43	321.486	0.20	0.20	0.03
17876.00	90.120	327.100	8029.60	9674.52	7602.59	-6038.64	1760420.23	431850.50	39°40'59.8934"N	80°14'21.6866"W	9708.99	321.540	0.31	0.22	0.21
17971.00	89.970	326.880	8029.43	9769.52	7682.26	-6090.39	1760368.48	431930.16	39°41'0.6765"N	80°14'22.3569"W	9803.57	321.593	0.28	-0.16	-0.23
18067.00	89.600	326.390	8029.79	9865.51	7762.43	-6143.19	1760315.68	432010.33	39°41'1.4645"N	80°14'23.0406"W	9899.20	321.642	0.64	-0.39	-0.51
18162.00	89.940	327.500	8030.17	9960.51	7842.05	-6195.01	1760263.87	432089.95	39°41'2.2472"N	80°14'23.7118"W	9993.79	321.692	1.22	0.36	1.17
18257.00	89.510	326.850	8030.63	10055.49	7921.88	-6246.50	1760212.38	432169.77	39°41'3.0319"N	80°14'24.3788"W	10088.36	321.744	0.82	-0.45	-0.68
18353.00	89.970	327.360	8031.06	10151.49	8002.49	-6298.64	1760160.24	432250.37	39°41'3.8243"N	80°14'25.0542"W	10183.94	321.794	0.72	0.48	0.53
18447.00	89.780	326.870	8031.27	10245.48	8081.43	-6349.68	1760109.21	432329.30	39°41'4.6002"N	80°14'25.7153"W	10277.54	321.843	0.56	-0.20	-0.52
18541.00	90.000	327.170	8031.45	10339.47	8160.28	-6400.85	1760058.05	432408.15	39°41'5.3753"N	80°14'26.3781"W	10371.16	321.890	0.40	0.23	0.32
18637.00	90.060	326.920	8031.40	10435.46	8240.83	-6453.07	1760005.83	432488.70	39°41'6.1671"N	80°14'27.0545"W	10466.78	321.937	0.27	0.06	-0.26
18731.00	90.180	326.620	8031.20	10529.46	8319.46	-6504.58	1759954.32	432567.32	39°41'6.9400"N	80°14'27.7217"W	10560.45	321.980	0.34	0.13	-0.32
18827.00	89.970	327.610	8031.07	10625.45	8400.08	-6556.70	1759902.20	432647.94	39°41'7.7324"N	80°14'28.3969"W	10656.06	322.026	1.05	-0.22	1.03



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	NORTHEAST NATURAL ENERGY, LLC		Well	Bunner 1H
Field	Monongalia		API/Legal	
Facility	Bunner Pad		Wellbore	Bunner 1H AWB
Slot	Slot 1H			

WELLPATH DATA (286 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]
18923.00	89.970	327.190	8031.13	10721.44	8480.95	-6608.42	1759850.48	432728.81	39°41'8.5274"N	80°14'29.0670"W	10751.64	322.074	0.44	0.00	-0.44
19019.00	90.150	327.480	8031.02	10817.42	8561.77	-6660.24	1759798.67	432809.62	39°41'9.3219"N	80°14'29.7383"W	10847.24	322.120	0.36	0.19	0.30
19114.00	90.520	327.560	8030.47	10912.40	8641.91	-6711.25	1759747.66	432889.75	39°41'10.1097"N	80°14'30.3992"W	10941.82	322.167	0.40	0.39	0.08
19209.00	90.280	327.080	8029.81	11007.39	8721.87	-6762.55	1759696.37	432969.71	39°41'10.8957"N	80°14'31.0638"W	11036.44	322.212	0.56	-0.25	-0.51
19304.00	90.520	327.400	8029.14	11102.37	8801.76	-6813.95	1759644.96	433049.59	39°41'11.6810"N	80°14'31.7297"W	11131.07	322.254	0.42	0.25	0.34
19400.00	90.060	327.390	8028.66	11198.35	8882.63	-6865.68	1759593.24	433130.45	39°41'12.4760"N	80°14'32.3999"W	11226.69	322.298	0.48	-0.48	-0.01
19495.00	89.690	325.440	8028.86	11293.35	8961.76	-6918.23	1759540.69	433209.59	39°41'13.2537"N	80°14'33.0804"W	11321.44	322.333	2.09	-0.39	-2.05
19590.00	89.720	325.410	8029.35	11388.34	9039.98	-6972.14	1759486.79	433287.80	39°41'14.0224"N	80°14'33.7783"W	11416.30	322.359	0.04	0.03	-0.03
19686.00	89.720	325.830	8029.82	11484.33	9119.21	-7026.35	1759432.58	433367.02	39°41'14.8009"N	80°14'34.4800"W	11512.15	322.386	0.44	0.00	0.44
19782.00	89.970	326.950	8030.08	11580.32	9199.16	-7079.49	1759379.45	433446.97	39°41'15.5867"N	80°14'35.1682"W	11607.91	322.419	1.20	0.26	1.17
19877.00	89.540	325.620	8030.49	11675.32	9278.18	-7132.21	1759326.72	433525.98	39°41'16.3633"N	80°14'35.8510"W	11702.70	322.450	1.47	-0.45	-1.40
19973.00	89.570	325.910	8031.23	11771.31	9357.54	-7186.22	1759272.72	433605.34	39°41'17.1432"N	80°14'36.5502"W	11798.53	322.477	0.30	0.03	0.30
20069.00	89.570	326.390	8031.95	11867.31	9437.27	-7239.69	1759219.25	433685.06	39°41'17.9267"N	80°14'37.2427"W	11894.34	322.507	0.50	0.00	0.50
20163.00	89.570	326.150	8032.66	11961.31	9515.44	-7291.89	1759167.06	433763.23	39°41'18.6950"N	80°14'37.9186"W	11988.13	322.536	0.26	0.00	-0.26
20259.00	89.110	325.740	8033.77	12057.30	9594.97	-7345.64	1759113.31	433842.76	39°41'19.4765"N	80°14'38.6146"W	12083.96	322.563	0.64	-0.48	-0.43
20354.00	89.630	326.580	8034.81	12152.29	9673.88	-7398.54	1759060.41	433921.65	39°41'20.2519"N	80°14'39.2996"W	12178.76	322.591	1.04	0.55	0.88
20450.00	89.170	325.210	8035.82	12248.28	9753.36	-7452.37	1759006.59	434001.13	39°41'21.0330"N	80°14'39.9965"W	12274.60	322.617	1.51	-0.48	-1.43
20546.00	89.750	326.340	8036.72	12344.27	9832.73	-7506.36	1758952.60	434080.50	39°41'21.8130"N	80°14'40.6955"W	12370.45	322.642	1.32	0.60	1.18
20641.00	89.420	325.860	8037.41	12439.26	9911.58	-7559.34	1758899.62	434159.34	39°41'22.5879"N	80°14'41.3816"W	12465.27	322.668	0.61	-0.35	-0.51
20736.00	89.510	326.190	8038.30	12534.26	9990.36	-7612.43	1758846.54	434238.12	39°41'23.3620"N	80°14'42.0691"W	12560.11	322.693	0.36	0.09	0.35
20831.00	89.260	326.390	8039.32	12629.25	10069.38	-7665.15	1758793.82	434317.13	39°41'24.1366"N	80°14'42.7518"W	12654.92	322.720	0.34	-0.26	0.21
20926.00	89.450	326.410	8040.38	12724.24	10148.50	-7717.72	1758741.25	434396.25	39°41'24.9163"N	80°14'43.4327"W	12749.71	322.748	0.20	0.20	0.02
21022.00	89.380	326.450	8041.36	12820.24	10228.48	-7770.80	1758688.18	434476.23	39°41'25.7024"N	80°14'44.1201"W	12845.51	322.775	0.08	-0.07	0.04
21116.00	89.480	326.310	8042.30	12914.23	10306.76	-7822.84	1758636.14	434554.50	39°41'26.4716"N	80°14'44.7942"W	12939.32	322.801	0.18	0.11	-0.15
21211.00	89.660	326.430	8043.01	13009.23	10385.85	-7875.45	1758583.53	434633.59	39°41'27.2490"N	80°14'45.4756"W	13034.14	322.827	0.23	0.19	0.13
21307.00	89.170	325.410	8043.99	13105.22	10465.36	-7929.24	1758529.74	434713.09	39°41'28.0303"N	80°14'46.1721"W	13129.99	322.850	1.18	-0.51	-1.06
21402.00	89.260	325.500	8045.29	13200.20	10543.60	-7983.11	1758475.88	434791.33	39°41'28.7991"N	80°14'46.8694"W	13224.89	322.869	0.13	0.09	0.09
21497.00	89.480	326.510	8046.34	13295.19	10622.36	-8036.22	1758422.77	434870.08	39°41'29.5731"N	80°14'47.5572"W	13319.74	322.891	1.09	0.23	1.06
21592.00	88.650	325.530	8047.89	13390.18	10701.13	-8089.31	1758369.68	434948.84	39°41'30.3471"N	80°14'48.2447"W	13414.58	322.913	1.35	-0.87	-1.03
21687.00	89.050	326.030	8049.80	13485.15	10779.66	-8142.72	1758316.27	435027.38	39°41'31.1189"N	80°14'48.9363"W	13509.45	322.933	0.67	0.42	0.53



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]
21782.00	88.890	325.920	8051.50	13580.13	10858.39	-8195.87	1758263.13	435106.09	39°41'31.8925"N	80°14'49.6245"W	13604.30	322.955	0.20	-0.17	-0.12
21878.00	88.980	326.360	8053.29	13676.12	10938.09	-8249.35	1758209.65	435185.79	39°41'32.6758"N	80°14'50.3171"W	13700.13	322.977	0.47	0.09	0.46
21973.00	89.170	326.760	8054.82	13771.10	11017.35	-8301.70	1758157.31	435265.05	39°41'33.4548"N	80°14'50.9951"W	13794.94	323.002	0.47	0.20	0.42
22068.00	88.980	326.090	8056.36	13866.09	11096.49	-8354.23	1758104.78	435344.19	39°41'34.2326"N	80°14'51.6755"W	13889.75	323.025	0.73	-0.20	-0.71
22164.00	88.920	326.100	8058.11	13962.07	11176.16	-8407.77	1758051.25	435423.85	39°41'35.0154"N	80°14'52.3689"W	13985.60	323.046	0.06	-0.06	0.01
22258.00	87.810	325.670	8060.80	14056.03	11253.95	-8460.47	1757998.55	435501.63	39°41'35.7799"N	80°14'53.0513"W	14079.45	323.065	1.27	-1.18	-0.46
22353.00	87.880	326.560	8064.37	14150.96	11332.76	-8513.39	1757945.63	435580.43	39°41'36.5543"N	80°14'53.7368"W	14174.25	323.085	0.94	0.07	0.94
22449.00	88.060	326.300	8067.77	14246.90	11412.69	-8566.44	1757892.58	435660.37	39°41'37.3399"N	80°14'54.4239"W	14270.02	323.108	0.33	0.19	-0.27
22544.00	88.830	326.120	8070.35	14341.86	11491.62	-8619.26	1757839.77	435739.29	39°41'38.1155"N	80°14'55.1079"W	14364.85	323.128	0.83	0.81	-0.19
22639.00	89.140	326.210	8072.03	14436.85	11570.52	-8672.15	1757786.88	435818.18	39°41'38.8909"N	80°14'55.7929"W	14459.70	323.148	0.34	0.33	0.09
22732.00	87.880	325.970	8074.45	14529.81	11647.67	-8724.01	1757735.02	435895.33	39°41'39.6491"N	80°14'56.4646"W	14552.55	323.167	1.38	-1.35	-0.26
22827.00	87.810	326.100	8078.02	14624.74	11726.41	-8777.05	1757681.99	435974.06	39°41'40.4228"N	80°14'57.1515"W	14647.36	323.186	0.16	-0.07	0.14
22922.00	87.290	325.570	8082.08	14719.65	11804.94	-8830.35	1757628.69	436052.59	39°41'41.1945"N	80°14'57.8417"W	14742.17	323.203	0.78	-0.55	-0.56
23016.00	87.570	326.470	8086.30	14813.56	11882.81	-8882.83	1757576.21	436130.45	39°41'41.9598"N	80°14'58.5214"W	14835.96	323.221	1.00	0.30	0.96
23111.00	87.230	325.880	8090.61	14908.46	11961.65	-8935.66	1757523.39	436209.29	39°41'42.7345"N	80°14'59.2056"W	14930.74	323.239	0.72	-0.36	-0.62
23206.00	87.320	325.950	8095.12	15003.35	12040.24	-8988.84	1757470.21	436287.87	39°41'43.5068"N	80°14'59.8943"W	15025.53	323.258	0.12	0.09	0.07
23302.00	87.350	325.790	8099.59	15099.24	12119.62	-9042.64	1757416.41	436367.25	39°41'44.2868"N	80°15'0.5911"W	15121.33	323.273	0.17	0.03	-0.17
23397.00	87.450	326.020	8103.90	15194.14	12198.21	-9095.84	1757363.21	436445.83	39°41'45.0591"N	80°15'1.2800"W	15216.13	323.289	0.26	0.11	0.24
23492.00	87.570	326.260	8108.02	15289.05	12277.02	-9148.72	1757310.33	436524.64	39°41'45.8336"N	80°15'1.9650"W	15310.92	323.307	0.28	0.13	0.25
23587.00	87.420	325.610	8112.18	15383.95	12355.84	-9201.89	1757257.18	436603.26	39°41'46.6062"N	80°15'2.6534"W	15405.73	323.323	0.70	-0.16	-0.68
23683.00	87.690	326.420	8116.27	15479.86	12435.17	-9255.50	1757203.57	436682.78	39°41'47.3877"N	80°15'3.3478"W	15501.54	323.340	0.89	0.28	0.84
23778.00	88.650	326.250	8119.30	15574.81	12514.20	-9308.13	1757150.94	436761.80	39°41'48.1644"N	80°15'4.0296"W	15596.36	323.358	1.03	1.01	-0.18
23873.00	88.460	326.150	8121.70	15669.78	12593.12	-9360.96	1757098.11	436840.72	39°41'48.9399"N	80°15'4.7139"W	15691.21	323.375	0.23	-0.20	-0.11
23968.00	88.310	325.910	8124.38	15764.74	12671.87	-9414.02	1757045.05	436919.47	39°41'49.7138"N	80°15'5.4011"W	15786.08	323.391	0.30	-0.16	-0.25
24063.00	88.710	326.460	8126.85	15859.71	12750.77	-9466.88	1756992.20	436998.36	39°41'50.4892"N	80°15'6.0857"W	15880.93	323.408	0.72	0.42	0.58
24159.00	88.340	325.900	8129.32	15955.68	12830.50	-9520.29	1756938.79	437078.09	39°41'51.2727"N	80°15'6.7775"W	15976.79	323.424	0.70	-0.39	-0.58
24254.00	88.580	325.800	8131.87	16050.64	12909.09	-9573.60	1756885.49	437156.67	39°41'52.0450"N	80°15'7.4679"W	16071.67	323.439	0.27	0.25	-0.11
24349.00	88.980	326.490	8133.89	16145.62	12987.97	-9626.51	1756832.58	437235.54	39°41'52.8201"N	80°15'8.1533"W	16166.54	323.455	0.84	0.42	0.73
24445.00	89.510	326.130	8135.16	16241.61	13067.84	-9679.76	1756779.33	437315.41	39°41'53.6050"N	80°15'8.8430"W	16262.41	323.471	0.67	0.55	-0.38
24540.00	88.950	325.570	8136.44	16336.59	13146.45	-9733.08	1756726.01	437394.02	39°41'54.3774"N	80°15'9.5336"W	16357.32	323.485	0.83	-0.59	-0.59

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

WELLPATH DATA (286 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
24635.00	88.890	326.400	8138.23	16431.57	13225.18	-9786.21	1756672.88	437472.74	39°41'55.1511"N	80°15'10.2218"W	16452.21	323.500	0.88	-0.06	0.87
24731.00	89.750	325.280	8139.37	16527.56	13304.61	-9840.11	1756618.99	437552.17	39°41'55.9316"N	80°15'10.9199"W	16548.13	323.513	1.47	0.90	-1.17
24826.00	89.600	326.540	8139.91	16622.55	13383.28	-9893.36	1756565.74	437630.83	39°41'56.7046"N	80°15'11.6095"W	16643.04	323.527	1.34	-0.16	1.33
24921.00	88.580	325.600	8141.41	16717.54	13462.09	-9946.38	1756512.73	437709.64	39°41'57.4791"N	80°15'12.2962"W	16737.93	323.541	1.46	-1.07	-0.99
25016.00	90.250	326.300	8142.38	16812.53	13540.80	-9999.57	1756459.55	437788.34	39°41'58.2525"N	80°15'12.9851"W	16832.84	323.555	1.91	1.76	0.74
25112.00	90.090	326.130	8142.10	16908.53	13620.58	-10052.95	1756406.17	437868.12	39°41'59.0366"N	80°15'13.6766"W	16928.74	323.570	0.24	-0.17	-0.18
25207.00	89.690	325.840	8142.28	17003.52	13699.33	-10106.09	1756353.02	437946.86	39°41'59.8103"N	80°15'14.3649"W	17023.65	323.584	0.52	-0.42	-0.31
25302.00	90.620	326.310	8142.02	17098.52	13778.16	-10159.11	1756300.01	438025.68	39°42'0.5849"N	80°15'15.0517"W	17118.56	323.597	1.10	0.98	0.49
25397.00	90.860	326.320	8140.80	17193.51	13857.20	-10211.80	1756247.33	438104.72	39°42'1.3617"N	80°15'15.7342"W	17213.45	323.612	0.25	0.25	0.01
25493.00	90.710	326.200	8139.48	17289.50	13937.02	-10265.11	1756194.01	438184.54	39°42'2.1461"N	80°15'16.4249"W	17309.34	323.627	0.20	-0.16	-0.13
25588.00	90.860	326.300	8138.18	17384.49	14016.00	-10317.89	1756141.24	438263.52	39°42'2.9223"N	80°15'17.1085"W	17404.23	323.641	0.19	0.16	0.11
25684.00	90.580	325.450	8136.97	17480.48	14095.47	-10371.74	1756087.40	438342.98	39°42'3.7031"N	80°15'17.8060"W	17500.15	323.654	0.93	-0.29	-0.89
25779.00	90.770	326.050	8135.86	17575.47	14173.99	-10425.20	1756033.94	438421.49	39°42'4.4746"N	80°15'18.4984"W	17595.08	323.665	0.66	0.20	0.63
25874.00	90.800	326.340	8134.55	17670.46	14252.92	-10478.05	1755981.09	438500.42	39°42'5.2503"N	80°15'19.1831"W	17689.98	323.678	0.31	0.03	0.31
25970.00	90.920	326.300	8133.11	17766.45	14332.80	-10531.28	1755927.86	438580.29	39°42'6.0353"N	80°15'19.8727"W	17785.86	323.693	0.13	0.12	-0.04
25995.00‡	90.920	326.300	8132.71	17791.45	14353.59	-10545.15	1755913.99	438601.09	39°42'6.2396"N	80°15'20.0524"W	17810.83	323.696	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Bunner 1H AWB Ref Wellpath: Bunner 1H AWP Proj: 25995'

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]
17.5in Open Hole	28.00	1280.00	1252.00	28.00	1279.99	0.00	0.00	-2.47	0.53
13.375in Casing Surface	28.00	1250.00	1222.00	28.00	1249.99	0.00	0.00	-2.69	0.34
12.25in Open Hole	1280.00	2530.00	1250.00	1279.99	2529.65	-2.47	0.53	16.00	-1.48
9.625in Casing Intermediate	28.00	2500.00	2472.00	28.00	2499.65	0.00	0.00	16.18	-1.49
8.75in Open Hole	2530.00	7300.00	4770.00	2529.65	7209.88	16.00	-1.48	-627.93	-421.61
8.5in Open Hole	7300.00	25995.00	18695.00	7209.88	8132.71	-627.93	-421.61	14353.59	-10545.15
5.5in Casing Production	28.00	25965.00	25937.00	28.00	8133.19	0.00	0.00	14328.64	-10528.51

Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Bunner 1H BHL Rev-5	8090.00	14355.55	-10543.41	1755915.74	438603.05	39°42'6.2591"N	80°15'20.0303"W	point
Bunner 1H LP Rev-3	8090.00	-113.32	-920.60	1765537.96	424135.05	39°39'44.0515"N	80°13'15.4331"W	point
Bunner South Hardline #1 (4.1.21)	8600.00	-848.90	2923.24	1769381.56	423399.52	39°39'37.0841"N	80°12'26.2100"W	polygon
	2D Polygon: dimensions not calculated							
Bunner South Hardline #1 (8.15.2022)	9003.00	8639.82	-11838.47	1754620.75	432887.66	39°41'9.6655"N	80°15'35.9803"W	polygon
	2D Polygon: dimensions not calculated							

WELLPATH COMPOSITION - Ref Wellbore: Bunner 1H AWB Ref Wellpath: Bunner 1H AWP Proj: 25995'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	1150.00	BH Generic gyro - northseeking (Standard)	01 <17.5"> Javins Inertial Gyro [Northseeking] (50'-1150')	Bunner 1H AWB	12/2/2022
1150.00	2452.00	OWSG MWD rev2 + HRGM	02 <12.25"> SDI MWD [OWSG MWD REV.2-HRGM] (1150')(1343'-2452')	Bunner 1H AWB	12/2/2022
2452.00	7224.00	OWSG MWD rev2 + HRGM	03 <8.75">SDI MWD [OWSG MWD REV.2-HRGM] (2452')(2658'-7244')	Bunner 1H AWB	12/2/2022
7224.00	25995.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 <8.5"> BH ATK Curve [HRGM+Short Spacing] (7244')(7245'-25970')	Bunner 1H AWB	12/2/2022



Actual Wellpath Report

Bunner 1H AWP Proj: 25995'

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REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 1H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 1H AWB
Slot	Slot 1H		

COMMENTS

Wellpath general comments

API: 4706101960000

BH Job #: 111543081

Rig: Patterson 277

Duration: 12/03/2022 - 12/09/2022

01_<17.5"> Javins Inertial Gyro [Northseeking] (50'-1150')

02_<12.25"> SDI MWD [OWSG MWD REV.2-HRGM] (1150')(1343'-2452')

03_<8.75">SDI MWD [OWSG MWD REV.2-HRGM] (2452')(2658'-7244')

04_<8.5"> BH ATK Curve [HRGM+Short Spacing] (7244')(7245'-25970')

Final Survey MD @ 25970'

Projected MD at TD: 25995'