

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-061-01908 County Monongalia District Clay  
Quad Blacksville Pad Name Bunner Field/Pool Name \_\_\_\_\_  
Farm name Patricia A. Bunner Well Number 5H  
Operator (as registered with the OOG) Northeast Natural Energy LLC  
Address 707 Virginia St. E., Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4390599.3 Easting 567118.0  
Landing Point of Curve Northing 4390761.1 Easting 567431.7  
Bottom Hole Northing 4395314.2 Easting 564281.2

Elevation (ft) 1,277' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine

Mud Type(s) and Additive(s)  
Synthetic Based Mud - Horizontal Section: BIO-BASE 365, CALCIUM CHLORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE (BARITE),  
M-I-X II MEDIUM, MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CARB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIUM, WALNUT NUT PLUG MEDIUM

Date permit issued 9/19/2022 Date drilling commenced 10/11/2022 Date drilling ceased 11/04/2022  
Date completion activities began 2/13/2023 Date completion activities ceased 3/30/2023  
Verbal plugging (Y/N) NA Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 1,150' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1,359' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 865' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) \_\_\_\_\_

Reviewed by:

02/23/2024





## Bunner 5H Stimulation Report

Stage Number	Report Date	ISIP (psi)	Breakdown Pressure (psi)	Avg Treating Pressure (psi)	Avg Treating Rate (BPM)	Pad Volume (bbls)	Total Clean Fluid (Bbls)	Total Proppant Amount (lbs)	Flush Volume (bbls)
1	2/13/2023	5,539	6,778	8,435	84	487	7,488	300,580	595
2	2/13/2023	5,820	6,505	8,767	85	51	10,589	495,014	592
3	2/13/2023	5,030	5,081	9,142	82	162	11,508	500,453	603
4	2/14/2023	5,564	5,129	9,159	83	5	10,609	499,340	585
5	2/14/2023	6,202	6,160	9,563	86	19	10,841	500,140	583
6	2/14/2023	5,931	5,797	9,781	86	3	10,813	498,800	577
7	2/14/2023	5,754	6,700	9,769	87	17	11,092	501,850	575
8	2/15/2023	5,109	6,086	9,425	85	31	10,812	499,960	569
9	2/15/2023	5,527	6,604	9,572	88	59	10,850	505,310	563
10	2/16/2023	6,162	6,729	9,732	88	91	10,806	500,420	545
11	2/16/2023	5,472	6,907	9,641	87	84	10,903	501,320	571
12	2/17/2023	5,334	7,256	9,491	87	143	10,784	499,860	552
13	2/17/2023	5,291	6,676	9,650	88	89	10,831	499,920	531
14	2/17/2023	5,940	5,649	9,476	88	94	10,685	504,300	538
15	2/18/2023	5,606	6,283	9,668	88	36	10,741	500,200	541
16	2/18/2023	6,213	5,510	9,644	89	129	10,802	502,600	531
17	2/19/2023	5,531	6,788	9,636	87	46	10,657	499,860	531
18	2/19/2023	5,971	5,749	9,428	91	82	10,576	500,106	511
19	2/19/2023	5,813	6,150	9,174	89	100	11,023	501,980	520
20	2/20/2023	5,242	6,535	9,332	90	36	10,487	500,280	498
21	2/20/2023	5,447	7,185	9,321	88	53	11,533	500,940	511
22	2/21/2023	5,935	7,209	9,571	88	69	10,831	499,070	503
23	2/21/2023	5,457	8,013	9,645	87	27	10,572	503,180	509
24	2/22/2023	5,680	7,464	9,583	90	102	10,329	499,786	501
25	2/22/2023	5,350	7,562	9,569	90	78	10,832	504,510	494
26	2/22/2023	5,477	7,944	9,551	90	49	10,645	501,280	488
27	2/23/2023	5,264	8,061	9,543	86	46	9,853	500,580	487
28	2/24/2023	5,495	7,684	9,733	88	43	10,691	498,540	484
29	2/24/2023	5,281	6,320	9,585	90	113	10,348	500,202	483
30	2/24/2023	5,476	7,569	9,769	85	100	10,780	501,540	476
31	2/25/2023	5,467	7,935	9,731	87	60	10,357	500,784	461
32	2/25/2023	5,752	7,847	9,651	85	21	10,560	498,410	466
33	2/26/2023	5,552	7,831	9,625	89	78	10,161	499,655	459
34	2/26/2023	5,765	7,944	9,657	84	51	10,602	501,840	452
35	2/27/2023	5,179	8,851	9,825	87	58	10,241	497,945	447
36	2/27/2023	5,799	8,188	9,668	89	24	10,591	501,380	454
37	2/28/2023	5,382	8,140	9,249	87	19	10,101	499,822	450
38	2/28/2023	5,987	8,463	9,600	88	45	10,560	500,260	424
39	3/1/2023	5,619	8,576	9,774	88	68	10,091	500,483	420
40	3/1/2023	5,280	8,434	9,628	89	31	10,606	499,880	438
41	3/2/2023	5,418	7,464	9,474	90	41	10,016	500,866	432
42	3/2/2023	5,438	7,520	9,627	90	80	10,584	499,700	417
43	3/3/2023	5,598	7,625	9,443	87	100	10,372	499,552	416
44	3/3/2023	5,485	7,657	9,786	90	73	10,760	500,140	406
45	3/4/2023	6,131	8,368	9,536	90	17	9,958	497,400	394

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Stage Number	Report Date	ISIP (psi)	Breakdown Pressure (psi)	Avg Treating Pressure (psi)	Avg Treating Rate (BPM)	Pad Volume (bbls)	Total Clean Fluid (Bbls)	Total Proppant Amount (lbs)	Flush Volume (bbls)
46	3/5/2023	5,950	8,360	9,605	88	30	10,509	499,535	396
47	3/5/2023	5,967	8,206	9,251	90	69	10,606	500,120	397
48	3/6/2023	5,857	8,497	9,497	90	59	10,698	499,779	406
49	3/6/2023	5,765	8,153	9,326	90	69	10,890	499,960	473
50	3/7/2023	5,831	7,749	9,380	90	53	10,780	501,580	389
51	3/7/2023	5,730	7,978	9,300	92	178	12,291	500,220	381
52	3/8/2023	5,721	8,418	9,364	88	34	10,366	501,230	377
53	3/9/2023	5,479	7,915	9,317	92	63	10,591	500,240	376
54	3/9/2023	5,705	8,203	9,305	90	31	10,552	501,820	370
55	3/10/2023	5,526	8,174	9,285	92	42	10,681	500,020	348
56	3/10/2023	5,559	7,938	9,272	90	33	10,246	501,400	361
57	3/11/2023	5,542	7,705	9,207	91	65	10,638	499,440	357
58	3/11/2023	5,883	7,995	9,281	90	40	10,659	501,140	353
59	3/12/2023	5,196	7,996	9,386	92	57	10,556	500,320	340
60	3/12/2023	5,969	8,079	9,320	90	32	9,467	454,580	350
61	3/12/2023	5,687	8,134	9,246	90	10	9,687	454,440	340
62	3/13/2023	5,845	8,399	9,377	92	114	9,683	455,980	444
63	3/13/2023	5,703	8,165	9,235	93	93	9,673	455,460	347
64	3/14/2023	5,707	8,163	9,101	92	38	9,378	455,820	321
65	3/14/2023	6,027	8,146	8,899	90	30	9,681	454,354	323
66	3/15/2023	6,171	8,102	8,923	90	22	9,615	457,100	302
67	3/15/2023	6,307	6,028	8,665	90	65	9,544	454,469	303
68	3/16/2023	6,055	7,359	8,967	86	88	9,041	458,536	318
69	3/16/2023	5,821	8,434	8,796	89	38	9,600	455,413	317
70	3/17/2023	6,176	8,045	8,874	91	22	8,767	458,818	445
71	3/17/2023	6,401	7,516	8,634	89	51	9,848	456,000	290
72	3/17/2023	6,224	7,849	8,821	92	34	9,026	455,927	283
73	3/18/2023	6,551	8,246	8,824	93	87	9,543	454,680	276
74	3/18/2023	6,333	7,760	8,981	94	85	9,404	455,325	284
75	3/19/2023	6,416	7,895	8,725	90	19	8,874	453,213	281
76	3/19/2023	6,748	7,398	8,859	92	67	9,578	455,680	265
77	3/20/2023	5,951	8,291	8,902	91	34	9,169	457,663	226
78	3/20/2023	5,944	7,079	8,763	93	75	9,429	454,980	254
79	3/20/2023	6,008	7,569	8,667	91	62	8,977	454,614	217
80	3/21/2023	6,183	7,316	8,567	92	68	9,126	454,800	258
81	3/21/2023	6,477	6,813	8,493	93	62	8,382	456,945	241
82	3/22/2023	6,080	6,638	8,529	93	71	9,266	456,100	245
83	3/22/2023	5,845	7,647	8,733	94	168	9,365	454,558	232
84	3/23/2023	6,534	7,950	8,774	94	45	9,687	409,673	236
85	3/23/2023	5,993	7,671	9,013	92	64	9,498	456,060	229
86	3/24/2023	6,227	6,755	8,639	93	46	9,469	457,123	230
87	3/24/2023	6,497	7,391	8,667	93	99	9,291	455,520	214
88	3/24/2023	6,438	7,289	8,568	93	36	9,549	456,748	220
89	3/25/2023	6,614	7,661	8,561	94	55	9,262	456,060	203
90	3/25/2023	6,080	7,590	8,740	94	51	9,332	457,599	205
91	3/26/2023	5,964	7,667	8,601	93	67	10,127	455,060	194
92	3/26/2023	5,796	8,124	8,621	92	60	9,281	454,004	200

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**Bunner 5H**  
Perforation Report

Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
1	2/13/2023		26,822	
2	2/13/2023	40	26,686	26,528
3	2/13/2023	40	26,486	26,328
4	2/14/2023	40	26,286	26,127
5	2/14/2023	40	26,085	25,927
6	2/14/2023	40	25,885	25,727
7	2/14/2023	40	25,685	25,527
8	2/15/2023	40	25,485	25,326
9	2/15/2023	40	25,284	25,126
10	2/16/2023	40	25,084	24,926
11	2/16/2023	40	24,884	24,726
12	2/17/2023	40	24,684	24,526
13	2/17/2023	40	24,484	24,325
14	2/17/2023	40	24,283	24,125
15	2/18/2023	40	24,083	23,925
16	2/18/2023	40	23,883	23,725
17	2/19/2023	40	23,683	23,524
18	2/19/2023	40	23,482	23,324
19	2/19/2023	40	23,282	23,124
20	2/20/2023	40	23,082	22,924
21	2/20/2023	40	22,882	22,724
22	2/21/2023	40	22,682	22,523
23	2/21/2023	40	22,481	22,323
24	2/22/2023	40	22,281	22,123
25	2/22/2023	40	22,081	21,923
26	2/22/2023	40	21,881	21,722
27	2/23/2023	40	21,680	21,522
28	2/24/2023	40	21,480	21,322
29	2/24/2023	40	21,280	21,122
30	2/24/2023	40	21,080	20,922
31	2/25/2023	40	20,880	20,721
32	2/25/2023	40	20,679	20,521
33	2/26/2023	40	20,479	20,321
34	2/26/2023	40	20,279	20,121
35	2/27/2023	40	20,079	19,921
36	2/27/2023	40	19,878	19,720
37	2/28/2023	40	19,678	19,520
38	2/28/2023	40	19,478	19,320
39	3/1/2023	40	19,278	19,120
40	3/1/2023	40	19,078	18,919
41	3/2/2023	40	18,877	18,719
42	3/2/2023	40	18,677	18,519
43	3/3/2023	40	18,477	18,319
44	3/3/2023	40	18,277	18,119
45	3/4/2023	40	18,076	17,918
46	3/5/2023	40	17,876	17,718
47	3/5/2023	40	17,676	17,518

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Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
48	3/6/2023	40	17,476	17,318
49	3/6/2023	40	17,276	17,117
50	3/7/2023	40	17,075	16,917
51	3/7/2023	40	16,875	16,717
52	3/8/2023	40	16,675	16,517
53	3/9/2023	40	16,475	16,317
54	3/9/2023	40	16,275	16,116
55	3/10/2023	40	16,074	15,916
56	3/10/2023	40	15,874	15,716
57	3/11/2023	40	15,674	15,516
58	3/11/2023	40	15,474	15,315
59	3/12/2023	40	15,273	15,115
60	3/12/2023	40	15,073	14,915
61	3/12/2023	40	14,873	14,715
62	3/13/2023	40	14,673	14,515
63	3/13/2023	40	14,473	14,314
64	3/14/2023	40	14,272	14,114
65	3/14/2023	40	14,072	13,914
66	3/15/2023	40	13,872	13,714
67	3/15/2023	40	13,672	13,513
68	3/16/2023	40	13,471	13,313
69	3/16/2023	40	13,271	13,113
70	3/17/2023	40	13,071	12,913
71	3/17/2023	40	12,871	12,713
72	3/17/2023	40	12,671	12,512
73	3/18/2023	40	12,470	12,312
74	3/18/2023	40	12,270	12,112
75	3/19/2023	40	12,070	11,912
76	3/19/2023	40	11,870	11,711
77	3/20/2023	40	11,669	11,511
78	3/20/2023	40	11,469	11,311
79	3/20/2023	40	11,269	11,111
80	3/21/2023	40	11,069	10,911
81	3/21/2023	40	10,869	10,710
82	3/22/2023	40	10,668	10,510
83	3/22/2023	40	10,468	10,310
84	3/23/2023	40	10,268	10,110
85	3/23/2023	40	10,068	9,910
86	3/24/2023	40	9,867	9,709
87	3/24/2023	40	9,667	9,509
88	3/24/2023	40	9,467	9,309
89	3/25/2023	40	9,267	9,109
90	3/25/2023	40	9,067	8,908
91	3/26/2023	40	8,866	8,708
92	3/26/2023	40	8,666	8,508

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**Bunner Completion Lithology**

Lithology/Formation	Top Depth in FT TVD	Bottom Depth in FT TVD	Describe rock type and record quantity and type of fluid (freshwater, brine, oil, gas, H2S, etc)
Sand/silt	0	280	Sand/silt
silt/shale	280	520	silt/shale
sandstone	520	590	sandstone
coal	530	533	coal
coal	580	584	coal
sandstone	590	680	sandstone
siltstone/sandstone	680	715	siltstone/sandstone
sandstone/siltstone	715	767	sandstone/siltstone
sandstone/limestone	767	800	sandstone/limestone
Limestone/sandstone/shale	800	865	Limestone/sandstone/shale
Pittsburgh coal	865	873	Pittsburgh coal
Limestone/siltstone	873	910	Limestone/siltstone
Limestone	910	950	Limestone
sandstone/siltstone	950	974	sandstone/siltstone
coal	974	978	coal
sandstone/siltstone	978	1000	sandstone/siltstone
Limestone	1000	1040	Limestone
Limestone/siltstone	1040	1063	Limestone/siltstone
coal	1063	1066	coal
Limestone/siltstone	1066	1090	Limestone/siltstone
Maxon	1090	1110	Maxon
Limestone/siltstone	1110	1220	Limestone/siltstone
Red Rock/siltstone/limestone	1220	1440	Red Rock/siltstone/limestone
Limestone/siltstone	1440	1610	Limestone/siltstone
sandstone/siltstone	1610	2080	sandstone/siltstone
Little Lime	2080	2140	Little Lime
Big Lime	2140	2250	Big Lime
siltstone/sandstone	2250	2320	siltstone/sandstone
Big Injun	2320	2410	Big Injun
Gantz	2410	2420	Gantz
Sand/shale	2420	5560	Sand/shale
gray shale/siltstone	5560	7705	gray shale/siltstone
Middlesex	7395	7646	Middlesex
Burkett	7646	7819	Burkett
Geneseo	7819	7870	Geneseo
Tully	7870	7923	Tully
Hamilton	7923	8026	Hamilton
Marcellus	8026	TD	Marcellus

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# NORTHEAST NATURAL ENERGY, LLC

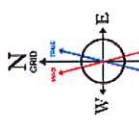
Location: Monongalia County, WV  
 Field: Monongalia  
 Facility: Bunner Pad  
 Slot: Slot 5H  
 Well: Bunner 5H  
 Wellbore: Bunner 5H PWB



Entity Name	Local E (ft)	Local N (ft)	Latitude	Longitude
Bunner Pad	176648.920	424248.370	39°39'45.3447N	80°13'3.6250W
SK1	-0.21	-0.00	39°39'45.3447N	80°13'3.6250W
SK2	176648.920	424248.370	39°39'45.3447N	80°13'3.6250W

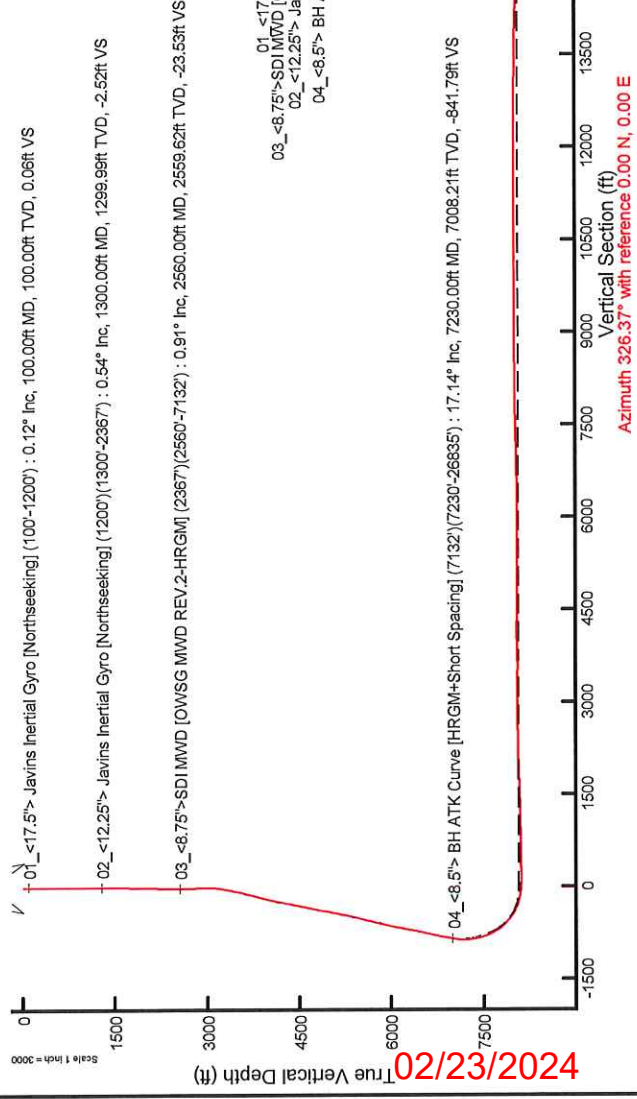
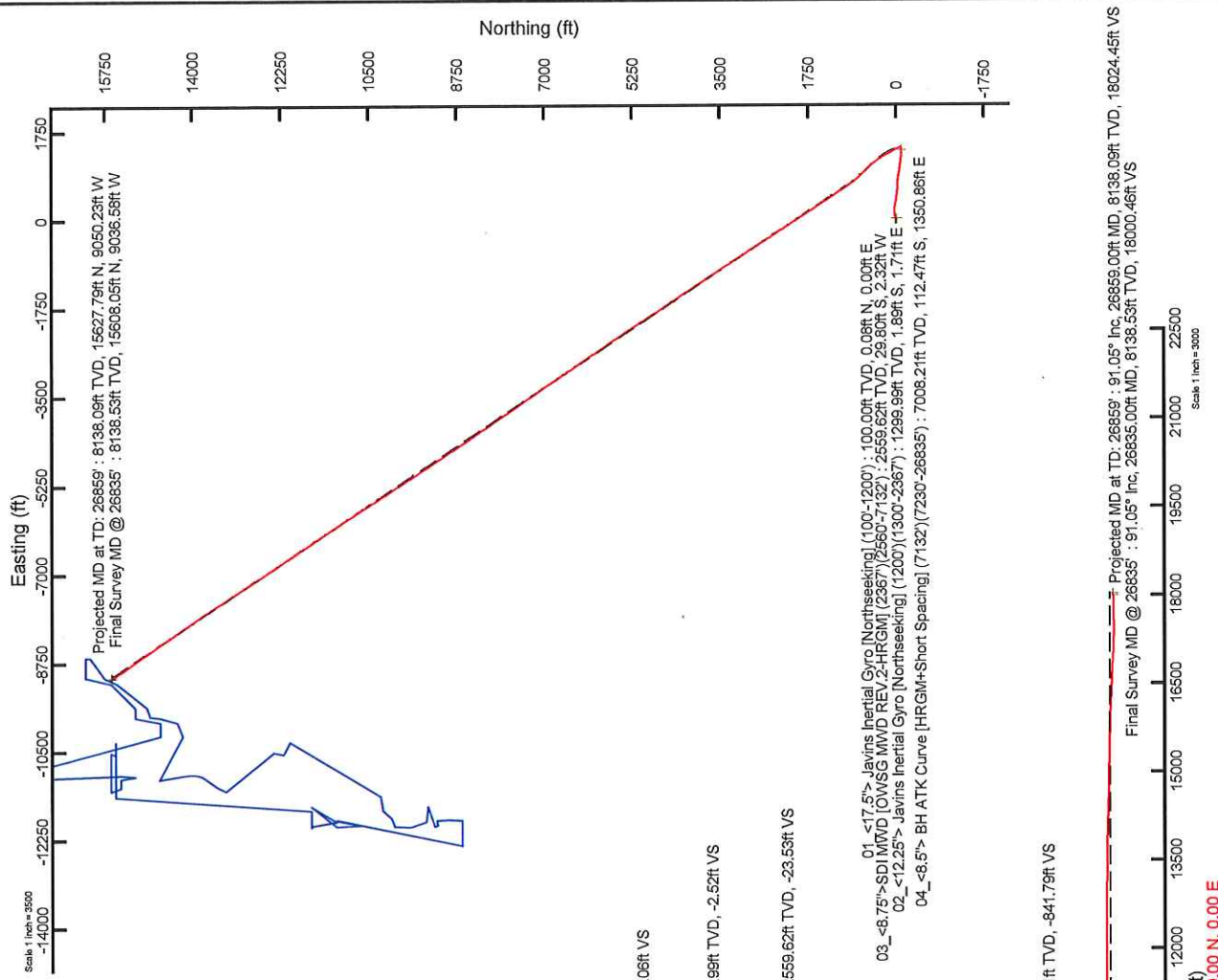
Depth Comment	MD (ft)	AS (ft)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)	VS (ft)
Top On	7132.00	17.80	92.80	-111.20	1321.72	0.76	-424.59
Preposition	7222.00	17.80	92.80	-112.55	1340.73	0.00	-840.89
Atoid NOCO Zone	7699.61	18.003	339.058	-43.28	1394.24	6.30	-408.29
Build*Tim	8034.28	35.000	338.000	7763.11	96.46	1330.81	4.80
Landing Pt	8719.28	90.000	315.000	8070.00	580.62	993.39	8.50
Hold	9295.13	90.000	328.557	8070.00	1007.53	638.62	2.00
BHL	26830.07	90.000	328.557	15938.97	-9034.76	0.00	18025.20

Well	Wellbore	Wellpath
SK1-SH	Bunner 5H PWB	Bunner 5H RevA-J
SK2-SH	Bunner 5H	Bunner 5H AMP Proj. 26859



User specified HDGM Dip: 68.40° Field: 51.680 NT  
 Magnetic North is 8.99 degrees West of True North (at 10/24/2022)  
 To correct azimuth from True to Grid add 0.46 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.53 degrees

API: 47061019080000  
 BH Job #: 111543070  
 Rig: Patterson 277  
 Duration: 10/26/2022 - 11/01/2022



01 <17.5°> Javins Inertial Gyro [Northseeking] (100°-1200') : 100.00ft TVD, 0.09ft N, 0.00ft E  
 03\_-8.75°>SDI MWID [OWSG MWID REV.2-HRGM] (2367°)(2560-7132) : 2559.62ft TVD, 29.80ft S, 2.32ft W  
 02\_-12.25°> Javins Inertial Gyro [Northseeking] (1200°)(1300-2367) : 1299.99ft TVD, 1.89ft S, 1.7ft E  
 04\_-8.5°> BH ATK Curve [HRGM+Short Spacing] (7132°)(7230-26835) : 7008.21ft TVD, 112.47ft S, 1350.86ft E

Projected MD at TD: 26859 : 91.05° Inc, 26859.00ft MD, 8138.09ft N, 9036.58ft W  
 Final Survey MD @ 26835 : 8138.53ft TVD, 15608.05ft N, 9036.58ft W

Projected MD at TD: 26859 : 91.05° Inc, 26859.00ft MD, 8138.09ft TVD, 18024.45ft VS  
 Final Survey MD @ 26835 : 91.05° Inc, 26835.00ft MD, 8138.53ft TVD, 18000.46ft VS

Vertical Section (ft)  
 Azimuth 326.37° with reference 0.00 N, 0.00 E

2023/12/04







### REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 5H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 5H AWB
Slot	Slot 5H		

### 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	11/4/2022 at 10:36:53 AM
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	-0.21	40.00	1766498.50	424248.16	39°39'45.2454"N	80°13'3.1620"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 5H)	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°



# Actual Wellpath Report

Burner 5H AWP Proj: 26859  
Page 2 of 13



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWP
Slot	Slot 5H		

## WELLPATH DATA (283 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]
0.00H	0.000	357.740	0.00	0.00	0.00	0.00	1766498.50	424248.16	39°39'45.2454"N	80°13'3.1620"W	0.00	0.000	0.00	0.00	0.00
28.00	0.000	357.740	28.00	0.00	0.00	0.00	1766498.50	424248.16	39°39'45.2454"N	80°13'3.1620"W	0.00	0.000	0.00	0.00	0.00
100.00	0.120	357.740	100.00	0.06	0.08	0.00	1766498.50	424248.24	39°39'45.2462"N	80°13'3.1621"W	0.08	357.740	0.17	0.17	0.00
200.00	0.080	7.670	200.00	0.21	0.25	0.00	1766498.50	424248.41	39°39'45.2479"N	80°13'3.1620"W	0.25	0.509	0.04	-0.04	9.93
300.00	0.090	116.160	300.00	0.19	0.28	0.08	1766498.58	424248.44	39°39'45.2482"N	80°13'3.1610"W	0.30	16.125	0.14	0.01	108.49
400.00	0.090	123.840	400.00	0.05	0.21	0.22	1766498.72	424248.37	39°39'45.2475"N	80°13'3.1592"W	0.30	46.678	0.01	0.00	7.68
500.00	0.120	133.330	500.00	-0.12	0.09	0.36	1766498.86	424248.25	39°39'45.2463"N	80°13'3.1574"W	0.37	75.967	0.03	0.03	9.49
600.00	0.190	121.540	600.00	-0.38	-0.07	0.58	1766499.08	424248.09	39°39'45.2448"N	80°13'3.1546"W	0.58	96.806	0.08	0.07	-11.79
700.00	0.150	102.930	700.00	-0.62	-0.18	0.85	1766499.35	424247.98	39°39'45.2437"N	80°13'3.1512"W	0.87	102.331	0.07	-0.04	-18.61
800.00	0.070	177.750	800.00	-0.77	-0.28	0.98	1766499.48	424247.88	39°39'45.2428"N	80°13'3.1495"W	1.01	105.753	0.15	-0.08	74.82
900.00	0.150	118.340	900.00	-0.94	-0.40	1.09	1766499.59	424247.76	39°39'45.2416"N	80°13'3.1480"W	1.16	110.022	0.13	0.08	-59.41
1000.00	0.190	153.650	1000.00	-1.22	-0.61	1.28	1766499.78	424247.55	39°39'45.2395"N	80°13'3.1456"W	1.42	115.413	0.11	0.04	35.31
1100.00	0.180	141.930	1100.00	-1.54	-0.88	1.45	1766499.95	424247.28	39°39'45.2368"N	80°13'3.1433"W	1.70	121.249	0.04	-0.01	-11.72
1200.00	0.250	161.490	1200.00	-1.91	-1.21	1.62	1766500.12	424246.95	39°39'45.2336"N	80°13'3.1412"W	2.02	126.824	0.10	0.07	19.56
1300.00	0.540	177.110	1299.99	-2.52	-1.89	1.71	1766500.21	424246.27	39°39'45.2269"N	80°13'3.1399"W	2.55	137.827	0.31	0.29	15.62
1400.00	0.460	201.640	1399.99	-3.15	-2.73	1.59	1766500.09	424245.43	39°39'45.2185"N	80°13'3.1414"W	3.16	149.854	0.23	-0.08	24.53
1500.00	0.540	209.040	1499.99	-3.60	-3.52	1.21	1766499.71	424244.64	39°39'45.2107"N	80°13'3.1462"W	3.72	161.014	0.10	0.08	7.40
1600.00	0.970	200.070	1599.98	-4.32	-4.73	0.69	1766499.19	424243.44	39°39'45.1988"N	80°13'3.1527"W	4.78	171.677	0.44	0.43	-8.97
1700.00	1.210	190.160	1699.96	-5.58	-6.56	0.21	1766498.71	424241.60	39°39'45.1806"N	80°13'3.1586"W	6.56	178.127	0.30	0.24	-9.91
1800.00	1.390	190.930	1799.93	-7.21	-8.79	-0.20	1766498.30	424239.37	39°39'45.1585"N	80°13'3.1637"W	8.79	181.314	0.18	0.18	0.77
1900.00	1.840	190.250	1899.89	-9.23	-11.56	-0.72	1766497.78	424236.60	39°39'45.1311"N	80°13'3.1700"W	11.58	183.551	0.45	0.45	-0.68
2000.00	1.820	191.400	1999.84	-11.51	-14.70	-1.32	1766497.18	424233.46	39°39'45.1001"N	80°13'3.1773"W	14.76	185.120	0.04	-0.02	1.15
2100.00	1.710	188.680	2099.80	-13.73	-17.73	-1.86	1766496.64	424230.43	39°39'45.0701"N	80°13'3.1839"W	17.83	185.976	0.14	-0.11	-2.72
2200.00	1.890	184.980	2199.75	-16.13	-20.85	-2.22	1766496.28	424227.31	39°39'45.0392"N	80°13'3.1883"W	20.96	186.090	0.21	0.18	-3.70
2300.00	1.780	189.710	2299.69	-18.54	-24.02	-2.63	1766495.87	424224.14	39°39'45.0078"N	80°13'3.1932"W	24.16	186.247	0.19	-0.11	4.73
2400.00	1.750	191.360	2366.66	-20.02	-26.05	-3.01	1766495.49	424222.11	39°39'44.9878"N	80°13'3.1978"W	26.22	186.584	0.09	-0.04	2.46
2500.00	0.910	124.320	2559.62	-23.53	-29.80	-2.32	1766496.18	424218.36	39°39'44.9507"N	80°13'3.1886"W	29.89	184.453	0.84	-0.44	-34.74
2600.00	3.110	39.780	2654.57	-23.49	-28.25	-0.05	1766498.45	424219.92	39°39'44.9663"N	80°13'3.1597"W	28.25	180.098	3.32	2.32	-88.99
2700.00	6.030	23.490	2752.25	-19.94	-21.48	3.71	1766502.20	424226.68	39°39'45.0334"N	80°13'3.1124"W	21.80	170.214	3.23	2.98	-16.62
2800.00	8.800	35.440	2846.45	-14.63	-10.98	9.91	1766508.41	424237.18	39°39'45.1377"N	80°13'3.0342"W	14.79	137.939	3.32	2.92	12.58

## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
2943.00	11.060	49.050	2940.03	-10.87	0.91	21.01	1766519.51	424249.07	39°39'45.2561"N	80°13'2.8935"W	21.03	87.509	3.41	2.38	14.33
3038.00	12.520	61.300	3033.04	-10.60	11.83	36.93	1766535.42	424259.99	39°39'45.3653"N	80°13'2.6911"W	38.78	72.231	3.04	1.54	12.89
3133.00	12.820	75.010	3125.75	-14.85	19.51	56.14	1766554.64	424267.67	39°39'45.4426"N	80°13'2.4461"W	59.44	70.841	3.17	0.32	14.43
3228.00	15.980	84.450	3217.77	-24.38	23.50	79.35	1766577.84	424271.66	39°39'45.4839"N	80°13'2.1498"W	82.76	73.504	4.13	3.33	9.94
3322.00	19.080	91.580	3307.40	-39.33	24.33	107.60	1766606.09	424272.49	39°39'45.4943"N	80°13'1.7887"W	110.31	77.260	4.01	3.30	7.59
3417.00	19.510	88.940	3397.07	-56.83	24.19	138.98	1766637.47	424272.35	39°39'45.4955"N	80°13'1.3874"W	141.07	80.125	1.02	0.45	-2.78
3512.00	20.200	88.670	3486.42	-74.13	24.87	171.24	1766669.73	424273.02	39°39'45.5047"N	80°13'0.9750"W	173.03	81.738	0.73	0.73	-0.28
3607.00	20.690	99.130	3575.46	-94.30	22.58	204.22	1766702.70	424270.74	39°39'45.4847"N	80°13'0.5531"W	205.46	83.690	3.88	0.52	11.01
3705.00	21.140	103.710	3667.01	-119.05	15.65	238.48	1766736.96	424263.81	39°39'45.4189"N	80°13'0.1143"W	238.99	86.246	1.73	0.46	4.67
3800.00	21.270	99.960	3755.58	-143.53	8.61	272.10	1766770.58	424256.77	39°39'45.3519"N	80°12'59.6837"W	272.23	88.188	1.43	0.14	-3.95
3895.00	20.510	99.840	3844.34	-166.86	2.78	305.46	1766803.95	424250.94	39°39'45.2970"N	80°12'59.2565"W	305.48	89.478	0.80	-0.80	-0.13
3990.00	18.220	103.470	3933.96	-189.19	-3.52	336.31	1766834.79	424244.64	39°39'45.2371"N	80°12'58.8614"W	336.33	90.600	2.72	-2.41	3.82
4086.00	17.800	102.760	4025.26	-210.81	-10.26	365.22	1766863.70	424237.90	39°39'45.1728"N	80°12'58.4911"W	365.36	91.609	0.49	-0.44	-0.74
4180.00	17.870	97.950	4114.75	-230.79	-15.43	393.52	1766891.99	424232.73	39°39'45.1240"N	80°12'58.1287"W	393.82	92.245	1.57	0.07	-5.12
4275.00	17.710	93.700	4205.21	-249.22	-18.38	422.37	1766920.85	424229.78	39°39'45.0971"N	80°12'57.7595"W	422.77	92.491	1.38	-0.17	-4.47
4370.00	17.670	96.480	4295.72	-267.27	-20.94	451.12	1766949.59	424227.23	39°39'45.0741"N	80°12'57.3917"W	451.60	92.657	0.89	-0.04	2.93
4465.00	17.480	96.430	4386.28	-285.74	-24.16	479.62	1766978.09	424224.00	39°39'45.0445"N	80°12'57.0269"W	480.23	92.884	0.20	-0.20	-0.05
4560.00	17.370	96.130	4476.92	-304.00	-27.27	507.90	1767006.37	424220.89	39°39'45.0159"N	80°12'56.6650"W	508.63	93.074	0.15	-0.12	-0.32
4658.00	17.650	98.430	4570.38	-323.31	-31.01	537.14	1767035.61	424217.15	39°39'44.9813"N	80°12'56.2907"W	538.03	93.304	0.76	0.29	2.35
4753.00	18.440	95.830	4660.71	-342.50	-34.65	566.33	1767064.80	424213.51	39°39'44.9476"N	80°12'55.9170"W	567.39	93.501	1.19	0.83	-2.74
4848.00	18.840	95.050	4750.73	-361.64	-37.53	596.56	1767095.03	424210.63	39°39'44.9216"N	80°12'55.5302"W	597.74	93.600	0.50	0.40	-0.82
4942.00	17.990	91.770	4839.92	-379.53	-39.31	626.19	1767124.65	424208.85	39°39'44.9063"N	80°12'55.1512"W	627.42	93.592	1.43	-0.92	-3.49
5037.00	17.720	91.560	4930.34	-396.36	-40.16	655.31	1767153.77	424208.00	39°39'44.9002"N	80°12'54.7788"W	656.54	93.507	0.29	-0.28	-0.22
5132.00	18.440	91.340	5020.65	-413.31	-40.90	684.78	1767183.24	424207.26	39°39'44.8951"N	80°12'54.4019"W	686.00	93.418	0.76	0.76	-0.23
5228.00	18.330	92.250	5111.75	-430.86	-41.85	715.04	1767213.50	424206.31	39°39'44.8882"N	80°12'54.0149"W	716.27	93.350	0.32	-0.11	0.95
5323.00	18.080	94.180	5201.04	-448.46	-43.49	744.36	1767242.81	424204.67	39°39'44.8742"N	80°12'53.6398"W	745.63	93.344	0.69	-0.27	2.05
5418.00	18.450	93.630	5292.21	-466.79	-45.54	774.38	1767272.83	424202.62	39°39'44.8564"N	80°12'53.2558"W	775.71	93.366	0.43	0.39	-0.57
5513.00	19.390	95.790	5382.07	-485.91	-48.09	805.07	1767303.52	424200.08	39°39'44.8336"N	80°12'52.8631"W	806.50	93.418	1.23	0.99	2.27
5608.00	19.860	99.720	5475.33	-507.89	-52.58	838.00	1767336.45	424195.58	39°39'44.7918"N	80°12'52.4416"W	839.64	93.590	1.41	0.47	3.97
5703.00	20.440	101.520	5564.51	-530.73	-58.62	870.16	1767368.60	424189.54	39°39'44.7346"N	80°12'52.0298"W	872.13	93.854	0.89	0.61	1.89

## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 5H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
5801.00	19.970	100.630	5652.73	-553.56	-64.86	902.02	1767400.46	424183.31	39°39'44.6755"N	80°12'51.6218"W	904.34	94.113	0.60	-0.50	-0.95
5896.00	19.520	99.120	5742.14	-575.66	-70.37	933.63	1767432.07	424177.80	39°39'44.6235"N	80°12'51.2170"W	936.28	94.310	0.72	-0.47	-1.59
5991.00	19.100	97.520	5831.80	-596.66	-74.92	964.71	1767463.15	424173.25	39°39'44.5810"N	80°12'50.8191"W	967.62	94.441	0.71	-0.44	-1.68
6086.00	18.960	100.320	5921.61	-617.60	-79.72	995.30	1767493.74	424168.45	39°39'44.5360"N	80°12'50.4274"W	998.49	94.579	0.97	-0.15	2.95
6180.00	18.330	99.940	6010.68	-638.39	-86.00	1024.89	1767523.33	424163.16	39°39'44.4861"N	80°12'50.0486"W	1028.41	94.741	0.68	-0.67	-0.40
6275.00	18.110	93.980	6100.92	-657.70	-88.61	1054.33	1767552.77	424159.56	39°39'44.4528"N	80°12'49.6717"W	1058.05	94.804	1.97	-0.23	-6.27
6370.00	17.910	93.760	6191.27	-675.58	-90.59	1083.64	1767582.07	424157.58	39°39'44.4355"N	80°12'49.2968"W	1087.42	94.779	0.22	-0.21	-0.23
6465.00	16.940	94.010	6281.91	-692.90	-92.52	1112.02	1767610.45	424155.65	39°39'44.4187"N	80°12'48.9337"W	1115.86	94.756	1.02	-1.02	0.26
6560.00	16.450	96.020	6372.90	-709.94	-94.89	1139.21	1767637.64	424153.27	39°39'44.3973"N	80°12'48.5859"W	1143.15	94.762	0.80	-0.52	2.12
6658.00	18.120	97.640	6466.47	-728.84	-98.38	1168.11	1767666.54	424149.79	39°39'44.3662"N	80°12'48.2159"W	1172.25	94.814	1.77	1.70	1.65
6753.00	19.610	96.580	6556.37	-748.88	-102.17	1198.59	1767697.02	424146.00	39°39'44.3301"N	80°12'47.8258"W	1202.94	94.872	1.61	1.57	-1.12
6848.00	19.660	95.160	6645.84	-769.18	-105.43	1230.34	1767728.77	424142.74	39°39'44.3003"N	80°12'47.4195"W	1234.85	94.898	0.51	0.05	-1.49
6944.00	19.720	93.970	6736.23	-788.93	-107.69	1262.60	1767761.03	424140.47	39°39'44.2805"N	80°12'47.0068"W	1267.19	94.875	0.81	0.06	-2.39
7038.00	18.120	93.930	6825.15	-807.28	-109.49	1293.03	1767791.45	424138.68	39°39'44.2651"N	80°12'46.6176"W	1297.66	94.840	1.74	-1.70	1.13
7132.00	17.490	92.860	6914.65	-824.59	-111.20	1321.72	1767820.14	424136.97	39°39'44.2505"N	80°12'46.2505"W	1326.39	94.809	0.76	-0.67	-1.14
7230.00	17.140	92.120	7008.21	-841.79	-112.47	1350.86	1767849.28	424135.70	39°39'44.2402"N	80°12'45.8778"W	1355.53	94.759	0.42	-0.36	-0.76
7325.00	15.490	84.360	7099.39	-855.92	-111.74	1377.48	1767875.89	424136.43	39°39'44.2495"N	80°12'45.5375"W	1382.00	94.638	2.87	-1.74	-8.17
7420.00	10.490	50.050	7192.06	-860.93	-104.92	1396.77	1767895.19	424143.24	39°39'44.3184"N	80°12'45.2915"W	1400.71	94.296	9.46	-5.26	-36.12
7515.00	10.600	19.530	7285.53	-854.74	-91.12	1406.33	1767904.74	424157.04	39°39'44.4555"N	80°12'45.1707"W	1409.28	93.707	5.81	0.12	-32.13
7610.00	11.880	340.440	7378.84	-839.99	-73.65	1405.98	1767904.39	424174.51	39°39'44.6282"N	80°12'45.1770"W	1407.90	92.999	7.97	1.35	-41.15
7705.00	16.840	329.680	7470.86	-816.75	-52.54	1395.75	1767894.16	424195.62	39°39'44.8360"N	80°12'45.3099"W	1396.74	92.156	5.91	5.22	-11.33
7800.00	20.560	336.820	7560.84	-786.59	-25.31	1382.23	1767880.64	424222.85	39°39'45.1040"N	80°12'45.4856"W	1382.46	91.049	4.59	3.92	7.52
7895.00	26.800	333.300	7647.80	-748.89	9.19	1366.02	1767864.44	424257.35	39°39'45.4437"N	80°12'45.6963"W	1366.05	89.615	6.73	6.57	-3.71
7990.00	33.600	330.870	7729.86	-701.37	51.34	1343.58	1767841.99	424299.49	39°39'45.8585"N	80°12'45.9876"W	1344.56	87.812	7.27	7.16	-2.56
8085.00	39.830	331.570	7805.98	-644.81	101.10	1316.27	1767814.69	424349.26	39°39'46.3481"N	80°12'46.3418"W	1320.14	85.608	6.57	6.56	0.74
8180.00	46.440	331.670	7875.26	-580.16	158.22	1285.41	1767783.84	424406.37	39°39'46.9102"N	80°12'46.7421"W	1295.12	82.983	6.96	6.96	0.11
8275.00	51.800	330.690	7937.42	-508.61	221.11	1250.78	1767749.20	424469.26	39°39'47.5290"N	80°12'47.1913"W	1270.17	79.975	5.70	5.64	-1.03
8370.00	58.900	327.130	7991.98	-429.78	288.63	1209.95	1767708.37	424536.77	39°39'48.1930"N	80°12'47.7203"W	1243.90	76.583	8.00	7.40	-3.71
8465.00	65.500	323.670	8036.27	-345.82	357.70	1162.20	1767660.63	424605.84	39°39'48.8719"N	80°12'48.3378"W	1216.00	72.893	7.66	6.95	-3.64
8560.00	71.980	322.540	8070.70	-257.48	428.46	1109.06	1767607.50	424676.59	39°39'49.5670"N	80°12'49.0245"W	1188.95	68.877	6.91	6.82	-1.19



## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 5H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Bunner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
8656.00	78.630	319.380	8094.79	-166.07	499.76	1051.19	1767549.63	424747.88	39°39'50.2671"N	80°12'49.7717"W	1163.94	64.573	7.70	7.00	-3.33
8752.00	85.660	316.050	8107.91	-72.13	570.04	987.24	1767485.68	424818.17	39°39'50.9566"N	80°12'50.5966"W	1140.00	59.998	8.09	7.32	-3.47
8847.00	85.440	314.050	8115.28	20.74	637.02	920.33	1767418.78	424885.19	39°39'51.6138"N	80°12'51.4589"W	1119.31	55.308	2.11	-0.23	-2.11
8942.00	88.310	316.440	8120.46	113.80	704.42	853.56	1767352.01	424952.54	39°39'52.2741"N	80°12'52.3196"W	1106.69	50.468	3.93	3.02	2.52
9037.00	90.950	320.150	8121.07	207.83	775.32	790.37	1767288.82	425023.44	39°39'52.9699"N	80°12'53.1348"W	1107.17	45.551	4.79	2.78	3.91
9132.00	91.170	323.930	8119.31	302.52	850.20	731.96	1767230.41	425098.31	39°39'53.7053"N	80°12'53.8893"W	1121.87	40.726	3.98	0.23	3.98
9227.00	91.910	326.690	8116.76	397.46	928.28	677.91	1767176.37	425176.38	39°39'54.4726"N	80°12'54.5883"W	1149.46	36.140	3.01	0.78	2.91
9333.00	90.740	324.550	8114.31	503.42	1015.73	618.08	1767116.54	425263.83	39°39'55.3322"N	80°12'55.3624"W	1189.00	31.321	2.30	-1.10	-2.02
9427.00	90.280	326.570	8113.47	597.40	1093.25	564.92	1767063.39	425341.34	39°39'56.0940"N	80°12'56.0500"W	1230.58	27.327	2.20	-0.49	2.15
9522.00	90.030	325.780	8113.21	692.40	1172.16	512.04	1767010.51	425420.25	39°39'56.8698"N	80°12'56.7342"W	1279.12	23.597	0.87	-0.26	-0.83
9617.00	90.890	326.790	8112.45	787.39	1251.18	459.31	1766957.78	425499.27	39°39'57.6465"N	80°12'57.4165"W	1332.83	20.158	1.40	0.91	1.06
9712.00	91.110	326.950	8110.79	882.38	1330.73	407.40	1766905.87	425578.81	39°39'58.4286"N	80°12'58.0884"W	1391.69	17.022	0.29	0.23	0.17
9807.00	91.260	326.440	8108.83	977.35	1410.11	355.25	1766853.73	425658.18	39°39'59.2089"N	80°12'58.7634"W	1454.17	14.140	0.56	0.16	-0.54
9902.00	91.110	326.410	8106.86	1072.33	1489.24	302.72	1766801.20	425737.31	39°39'59.9868"N	80°12'59.4431"W	1519.70	11.490	0.16	-0.16	-0.03
9997.00	91.360	327.090	8104.82	1167.31	1568.67	250.64	1766749.13	425816.73	39°40'00.7677"N	80°13'00.1171"W	1588.57	9.078	0.76	0.26	0.72
10092.00	90.740	326.630	8103.07	1262.29	1648.20	198.72	1766697.21	425896.26	39°40'01.5496"N	80°13'00.7893"W	1660.14	6.875	0.81	-0.65	-0.48
10187.00	91.760	326.990	8101.00	1357.26	1727.68	146.73	1766645.22	425975.74	39°40'02.3310"N	80°13'01.4622"W	1733.90	4.854	1.14	1.07	0.38
10283.00	92.060	326.830	8097.80	1453.20	1808.07	94.34	1766592.84	426056.12	39°40'03.1212"N	80°13'02.1403"W	1810.53	2.987	0.35	0.31	-0.17
10378.00	91.720	326.970	8094.67	1548.15	1887.61	42.49	1766540.99	426135.65	39°40'03.9032"N	80°13'02.8114"W	1888.09	1.290	0.39	-0.36	0.15
10473.00	91.630	326.530	8091.89	1643.10	1967.02	-9.57	1766488.93	426215.06	39°40'04.6839"N	80°13'03.4853"W	1967.04	359.721	0.47	-0.09	-0.46
10568.00	91.820	327.040	8089.03	1738.06	2046.46	-61.59	1766436.92	426294.50	39°40'05.4649"N	80°13'04.1586"W	2047.39	358.276	0.57	0.20	0.54
10663.00	91.720	326.650	8086.10	1833.01	2125.96	-113.52	1766384.99	426373.99	39°40'06.2464"N	80°13'04.8308"W	2128.99	356.944	0.42	-0.11	-0.41
10757.00	91.750	326.260	8083.25	1926.97	2204.27	-165.44	1766333.07	426452.29	39°40'07.0162"N	80°13'05.5027"W	2210.47	355.708	0.42	0.03	-0.41
10852.00	91.820	327.190	8080.29	2021.92	2303.65	-217.54	1766280.98	426531.67	39°40'07.7966"N	80°13'06.1770"W	2293.99	354.559	0.98	0.07	0.98
10948.00	92.190	326.830	8076.93	2117.85	2364.12	-269.77	1766228.74	426612.14	39°40'08.5877"N	80°13'06.8533"W	2379.47	353.490	0.54	0.39	-0.38
11042.00	91.290	326.650	8074.08	2211.81	2442.69	-321.30	1766177.22	426690.70	39°40'09.3601"N	80°13'07.5202"W	2463.73	352.507	0.98	-0.96	-0.19
11137.00	91.020	326.370	8072.17	2306.79	2521.90	-373.71	1766124.81	426769.91	39°40'10.1388"N	80°13'08.1986"W	2549.44	351.571	0.41	-0.28	-0.29
11233.00	90.650	327.290	8070.77	2402.77	2602.25	-426.23	1766072.30	426850.25	39°40'10.9287"N	80°13'08.8784"W	2636.92	350.698	1.03	-0.39	0.96
11328.00	90.550	326.260	8069.77	2497.76	2681.71	-478.28	1766020.25	426929.71	39°40'11.7099"N	80°13'09.5521"W	2724.03	349.888	1.09	-0.11	-1.08
11423.00	91.260	326.590	8068.27	2592.75	2760.85	-530.81	1765967.72	427008.84	39°40'12.4878"N	80°13'10.2320"W	2811.42	349.117	0.82	0.75	0.35



# Actual Wellpath Report

Burner 5H AWP Proj: 26859'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 stations)

MID [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]
11518.00	90.680	327.360	8066.66	2687.73	2840.49	-582.58	1765915.96	427088.48	39°40'13.2707"N	80°13'10.9021"W	2899.62	348.410	1.01	-0.61	0.81
11614.00	90.370	326.980	8065.78	2783.72	2921.16	-634.62	1765863.92	427169.14	39°40'14.0638"N	80°13'11.5759"W	2989.30	347.743	0.51	-0.32	-0.40
11709.00	89.880	325.460	8065.58	2878.71	3000.11	-687.44	1765811.10	427248.09	39°40'14.8399"N	80°13'12.2595"W	3077.87	347.094	1.68	-0.52	-1.60
11804.00	90.180	327.720	8065.53	2973.71	3079.41	-739.75	1765758.80	427327.38	39°40'15.6194"N	80°13'12.9365"W	3167.02	346.492	2.40	0.32	2.38
11898.00	90.490	327.000	8064.98	3067.69	3158.56	-790.45	1765708.10	427406.53	39°40'16.3976"N	80°13'13.5929"W	3255.97	345.950	0.83	0.33	-0.77
11997.00	89.420	327.050	8065.05	3166.68	3241.61	-844.33	1765654.22	427489.58	39°40'17.2141"N	80°13'14.2905"W	3349.77	345.401	1.08	-1.08	0.05
12092.00	89.410	326.930	8066.02	3261.67	3321.27	-896.08	1765602.48	427569.23	39°40'17.9973"N	80°13'14.9605"W	3440.03	344.901	0.13	-0.01	-0.13
12188.00	89.940	327.010	8066.57	3357.66	3401.76	-948.41	1765550.15	427649.71	39°40'18.7885"N	80°13'15.6379"W	3531.49	344.422	0.56	0.55	0.08
12283.00	88.860	326.710	8067.56	3452.65	3481.30	-1000.34	1765498.22	427729.25	39°40'19.5705"N	80°13'16.3102"W	3622.17	343.968	1.18	-1.14	-0.32
12378.00	88.950	327.110	8069.38	3547.63	3560.88	-1052.19	1765446.37	427808.82	39°40'20.3528"N	80°13'16.9815"W	3713.08	343.538	0.43	0.09	0.42
12473.00	91.510	326.650	8069.00	3642.62	3640.43	-1104.10	1765394.47	427888.37	39°40'21.1349"N	80°13'17.6534"W	3804.18	343.128	2.74	2.69	-0.48
12569.00	91.570	326.810	8066.42	3738.58	3720.67	-1156.74	1765341.83	427968.60	39°40'21.9236"N	80°13'18.3349"W	3896.34	342.730	0.18	0.06	0.17
12664.00	91.630	326.600	8063.77	3833.54	3800.05	-1208.87	1765289.70	428047.97	39°40'22.7039"N	80°13'19.0097"W	3987.70	342.353	0.23	0.06	-0.22
12759.00	91.790	326.930	8060.93	3928.50	3879.47	-1260.91	1765237.66	428127.39	39°40'23.4847"N	80°13'19.6834"W	4079.24	341.995	0.39	0.17	0.35
12854.00	91.290	326.650	8058.38	4023.46	3958.93	-1312.93	1765185.65	428206.84	39°40'24.2658"N	80°13'20.3568"W	4170.96	341.653	0.60	-0.53	-0.29
12950.00	89.820	326.390	8057.45	4119.45	4038.99	-1365.88	1765132.70	428286.90	39°40'25.0529"N	80°13'21.0422"W	4263.69	341.316	1.56	-1.53	-0.27
13045.00	89.940	328.190	8057.65	4214.44	4118.92	-1417.22	1765081.37	428366.83	39°40'25.8387"N	80°13'21.7069"W	4355.92	341.013	1.90	0.13	1.89
13141.00	88.950	326.980	8058.58	4310.41	4199.96	-1468.67	1765029.92	428447.86	39°40'26.6354"N	80°13'22.3733"W	4449.34	340.726	1.63	-1.03	-1.26
13236.00	89.290	327.040	8060.04	4405.39	4279.63	-1520.39	1764978.20	428527.53	39°40'27.4187"N	80°13'23.0430"W	4541.68	340.442	0.36	0.36	0.06
13331.00	90.150	326.010	8060.50	4500.39	4358.87	-1572.79	1764925.80	428606.76	39°40'28.1976"N	80°13'23.7212"W	4633.94	340.159	1.41	0.91	-1.08
13426.00	89.570	326.980	8060.73	4595.39	4438.08	-1625.23	1764873.37	428685.97	39°40'28.9763"N	80°13'24.4000"W	4726.31	339.887	1.19	-0.61	1.02
13522.00	87.840	324.920	8062.90	4691.35	4517.60	-1678.96	1764819.64	428765.48	39°40'29.7578"N	80°13'25.0954"W	4819.50	339.612	2.80	-1.80	-2.15
13617.00	88.800	326.630	8065.69	4786.30	4596.11	-1732.37	1764766.23	428843.99	39°40'30.5294"N	80°13'25.7865"W	4911.75	339.348	2.06	1.01	1.80
13712.00	89.570	327.040	8067.04	4881.29	4675.62	-1784.33	1764714.27	428923.50	39°40'31.3111"N	80°13'26.4592"W	5004.53	339.112	0.92	0.81	0.43
13807.00	90.030	327.140	8067.37	4976.28	4755.38	-1835.95	1764662.66	429003.25	39°40'32.0952"N	80°13'27.1276"W	5097.48	338.889	0.50	0.48	0.11
13902.00	90.490	327.500	8066.94	5071.26	4835.34	-1887.24	1764611.37	429083.20	39°40'32.8813"N	80°13'27.7918"W	5190.59	338.679	0.61	0.48	0.38
13998.00	90.220	326.910	8066.34	5167.25	4916.04	-1939.24	1764559.38	429163.90	39°40'33.6747"N	80°13'28.4651"W	5284.70	338.472	0.68	-0.28	-0.61
14093.00	90.280	326.160	8065.93	5262.25	4995.29	-1991.62	1764507.00	429243.14	39°40'34.4537"N	80°13'29.1432"W	5377.68	338.263	0.79	0.06	-0.79
14188.00	90.060	327.260	8065.65	5357.24	5074.70	-2043.77	1764454.86	429322.55	39°40'35.2343"N	80°13'29.8183"W	5470.79	338.054	1.18	-0.23	1.16
14283.00	90.490	327.280	8065.19	5452.23	5154.61	-2095.13	1764403.50	429402.46	39°40'36.0200"N	80°13'30.4834"W	5564.13	337.880	0.45	0.45	0.02



# Actual Wellpath Report

Burner 5H AWP Proj: 26859  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
14379.00	89.290	326.950	8065.38	5548.22	5235.23	-2147.25	1764351.38	429483.07	39°40'36.8125"N	80°13'31.1583"W	5658.47	337.699	1.30	-1.25	-0.34
14474.00	89.910	327.310	8066.04	5643.21	5315.01	-2198.81	1764299.82	429562.85	39°40'37.5969"N	80°13'31.8260"W	5751.88	337.525	0.75	0.65	0.38
14569.00	90.090	327.130	8066.04	5738.20	5394.89	-2250.25	1764248.39	429642.72	39°40'38.3821"N	80°13'32.4920"W	5845.37	337.359	0.27	0.19	-0.19
14665.00	90.150	325.880	8065.84	5834.20	5474.94	-2303.22	1764195.42	429722.77	39°40'39.1690"N	80°13'33.1778"W	5939.68	337.184	1.30	0.06	-1.30
14760.00	90.310	326.150	8065.46	5929.19	5553.71	-2356.33	1764142.32	429801.53	39°40'39.9433"N	80°13'33.8651"W	6032.91	337.009	0.33	0.17	0.28
14855.00	90.680	326.490	8064.64	6024.19	5632.76	-2409.01	1764089.64	429880.58	39°40'40.7203"N	80°13'34.5470"W	6126.28	336.845	0.53	0.39	0.36
14950.00	90.150	325.320	8063.95	6119.18	5711.43	-2462.26	1764036.39	429959.24	39°40'41.4934"N	80°13'35.2362"W	6219.58	336.679	1.35	-0.56	-1.23
15046.00	90.740	326.140	8063.20	6215.17	5790.76	-2516.31	1763982.34	430038.57	39°40'42.2731"N	80°13'35.9358"W	6313.85	336.513	1.05	0.61	0.85
15141.00	90.340	326.190	8062.31	6310.17	5869.67	-2569.21	1763929.45	430117.47	39°40'43.0487"N	80°13'36.6204"W	6407.33	336.361	0.42	-0.42	0.05
15236.00	90.150	325.270	8061.90	6405.16	5948.18	-2622.70	1763875.96	430195.97	39°40'43.8203"N	80°13'37.3127"W	6500.72	336.206	0.99	-0.20	-0.97
15331.00	90.860	326.250	8061.06	6500.15	6026.71	-2676.15	1763822.51	430274.50	39°40'44.5921"N	80°13'38.0044"W	6594.16	336.056	1.27	0.75	1.03
15427.00	90.580	325.980	8059.86	6596.14	6106.39	-2729.67	1763769.00	430354.18	39°40'45.3753"N	80°13'38.6971"W	6688.73	335.915	0.41	-0.29	-0.28
15522.00	91.350	326.330	8058.26	6691.13	6185.28	-2782.57	1763716.10	430433.07	39°40'46.1507"N	80°13'39.3819"W	6782.36	335.778	0.89	0.81	0.37
15616.00	91.200	325.490	8056.17	6785.10	6263.11	-2835.24	1763663.43	430510.89	39°40'46.9156"N	80°13'40.0636"W	6874.97	335.644	0.91	-0.16	-0.89
15711.00	91.570	325.910	8053.87	6880.06	6341.57	-2888.76	1763609.92	430589.34	39°40'47.6867"N	80°13'40.7562"W	6968.53	335.509	0.59	0.39	0.44
15807.00	90.400	325.330	8052.22	6976.04	6420.78	-2942.96	1763555.72	430668.55	39°40'48.4652"N	80°13'41.4577"W	7063.11	335.376	1.36	-1.22	-0.60
15902.00	90.980	325.040	8051.07	7071.01	6498.77	-2997.20	1763501.49	430746.54	39°40'49.2316"N	80°13'42.1594"W	7156.62	335.241	0.68	0.61	-0.31
15996.00	90.800	325.960	8049.61	7164.99	6576.23	-3050.43	1763448.26	430823.99	39°40'49.9928"N	80°13'42.8483"W	7249.27	335.115	1.00	-0.19	0.98
16091.00	91.450	326.430	8047.75	7259.97	6655.15	-3103.27	1763395.41	430902.91	39°40'50.7685"N	80°13'43.5323"W	7343.12	335.001	0.84	0.68	0.49
16186.00	91.750	326.210	8045.10	7354.93	6734.18	-3155.94	1763342.76	430981.93	39°40'51.5452"N	80°13'44.2141"W	7437.01	334.890	0.39	0.32	-0.23
16281.00	91.140	327.020	8042.70	7449.90	6813.47	-3208.19	1763290.50	431061.22	39°40'52.3247"N	80°13'44.8907"W	7531.00	334.786	1.07	-0.64	0.85
16376.00	91.450	326.240	8040.55	7544.87	6892.79	-3260.43	1763238.26	431140.53	39°40'53.1044"N	80°13'45.5671"W	7625.03	334.685	0.88	0.33	-0.82
16469.00	90.340	325.310	8039.10	7637.85	6969.68	-3312.73	1763185.97	431217.41	39°40'53.8600"N	80°13'46.2440"W	7716.90	334.578	1.56	-1.19	-1.00
16564.00	91.050	326.140	8037.95	7732.84	7048.17	-3366.23	1763132.48	431295.90	39°40'54.6314"N	80°13'46.9363"W	7810.78	334.471	1.15	0.75	0.87
16658.00	90.430	325.920	8036.74	7826.83	7126.12	-3418.75	1763079.96	431373.85	39°40'55.3976"N	80°13'47.6161"W	7903.76	334.371	0.70	-0.66	-0.23
16753.00	90.920	325.910	8035.62	7921.82	7204.80	-3471.99	1763026.73	431452.52	39°40'56.1708"N	80°13'48.3052"W	7997.73	334.271	0.52	0.52	-0.01
16848.00	89.970	325.580	8034.88	8016.81	7283.31	-3525.46	1762973.26	431531.03	39°40'56.9424"N	80°13'48.9973"W	8091.69	334.171	1.06	-1.00	-0.35
16943.00	90.490	325.300	8034.50	8111.80	7361.55	-3579.35	1762919.37	431609.26	39°40'57.7113"N	80°13'49.6947"W	8185.60	334.070	0.62	0.55	-0.29
17038.00	90.620	325.480	8033.58	8206.78	7439.73	-3633.30	1762865.42	431687.44	39°40'58.4796"N	80°13'50.3929"W	8279.52	333.971	0.23	0.14	0.19
17132.00	91.020	326.100	8032.23	8300.76	7517.46	-3686.15	1762812.58	431765.16	39°40'59.2435"N	80°13'51.0769"W	8372.57	333.879	0.78	0.43	0.66



# Actual Wellpath Report

Burner 5H AWP Proj: 26859'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
17227.00	90.860	326.350	8030.67	8395.75	7596.42	-3738.95	1762759.78	431844.11	39°41'10.0195"N	80°13'51.7605"W	8466.72	333.794	0.31	-0.17	0.26
17321.00	90.950	326.340	8029.19	8489.74	7674.65	-3791.04	1762707.69	431922.34	39°41'10.7885"N	80°13'52.4349"W	8559.92	333.712	0.10	0.10	-0.01
17416.00	90.120	324.920	8028.30	8584.72	7753.06	-3844.67	1762654.07	432000.75	39°41'11.5591"N	80°13'53.1290"W	8653.98	333.624	1.73	-0.87	-1.49
17510.00	90.830	325.890	8027.52	8678.70	7830.43	-3898.03	1762600.70	432078.12	39°41'12.3194"N	80°13'53.8196"W	8747.02	333.536	1.28	0.76	1.03
17604.00	90.770	326.440	8026.21	8772.69	7908.51	-3950.37	1762548.37	432156.18	39°41'13.0868"N	80°13'54.4971"W	8840.24	333.457	0.59	-0.06	0.59
17699.00	90.800	326.020	8024.91	8867.69	7987.47	-4003.17	1762495.57	432235.14	39°41'13.8629"N	80°13'55.1807"W	8934.49	333.381	0.44	0.03	-0.44
17793.00	90.650	325.790	8023.72	8961.67	8065.31	-4055.86	1762442.89	432312.97	39°41'14.6279"N	80°13'55.8627"W	9027.69	333.303	0.29	-0.16	-0.24
17888.00	90.650	326.020	8022.64	9056.67	8143.97	-4109.11	1762389.64	432391.64	39°41'15.4010"N	80°13'56.5520"W	9121.90	333.226	0.24	0.00	0.24
17982.00	90.090	325.380	8022.03	9150.66	8221.62	-4162.08	1762336.67	432469.28	39°41'16.1641"N	80°13'57.2377"W	9215.10	333.150	0.90	-0.60	-0.68
18077.00	89.260	325.250	8022.57	9245.64	8299.74	-4216.14	1762282.62	432547.39	39°41'16.9317"N	80°13'57.9373"W	9309.22	333.070	0.88	-0.87	-0.14
18170.00	91.140	326.920	8022.25	9338.63	8376.91	-4268.03	1762230.74	432624.56	39°41'17.6902"N	80°13'58.6090"W	9401.52	333.001	2.70	2.02	1.80
18265.00	91.290	326.930	8020.23	9433.60	8456.50	-4319.86	1762178.91	432704.14	39°41'18.4725"N	80°13'59.2803"W	9495.97	332.941	0.16	0.16	0.01
18360.00	89.600	325.410	8019.50	9528.59	8535.41	-4372.74	1762126.02	432783.04	39°41'19.2481"N	80°13'59.9649"W	9590.31	332.874	2.39	-1.78	-1.60
18455.00	90.430	326.840	8019.47	9623.59	8614.28	-4425.69	1762073.08	432861.91	39°41'10.0233"N	80°14'0.6504"W	9684.65	332.808	1.74	0.87	1.51
18550.00	89.480	327.300	8019.55	9718.58	8694.01	-4477.34	1762021.44	432941.64	39°41'10.8071"N	80°14'1.3193"W	9779.18	332.752	1.11	-1.00	0.48
18645.00	89.540	327.250	8020.36	9813.56	8773.93	-4528.69	1761970.09	433021.56	39°41'11.5927"N	80°14'1.9846"W	9873.75	332.699	0.08	0.06	-0.05
18740.00	89.880	327.220	8020.84	9908.55	8853.82	-4580.10	1761918.68	433101.44	39°41'12.3780"N	80°14'2.6505"W	9968.32	332.647	0.36	0.36	-0.03
18834.00	89.780	326.670	8021.12	10002.55	8932.60	-4631.38	1761867.41	433180.22	39°41'13.1525"N	80°14'3.3146"W	10061.86	332.594	0.59	-0.11	-0.59
18928.00	89.230	326.770	8021.93	10096.54	9011.18	-4682.95	1761815.83	433258.79	39°41'13.9249"N	80°14'3.9825"W	10155.37	332.540	0.59	-0.59	0.11
19023.00	89.780	326.900	8022.75	10191.53	9090.70	-4734.92	1761763.87	433338.31	39°41'14.7066"N	80°14'4.6556"W	10249.90	332.487	0.59	0.58	0.14
19118.00	90.060	326.570	8022.88	10286.53	9170.14	-4787.03	1761711.76	433417.74	39°41'15.4874"N	80°14'5.3304"W	10344.42	332.434	0.46	0.29	-0.35
19213.00	89.600	326.850	8023.16	10381.53	9249.55	-4839.17	1761659.62	433497.14	39°41'16.2679"N	80°14'6.0057"W	10438.95	332.382	0.57	-0.48	0.29
19306.00	90.250	326.770	8023.29	10474.53	9327.37	-4890.08	1761608.72	433574.96	39°41'17.0329"N	80°14'6.6660"W	10531.51	332.333	0.70	0.70	-0.09
19401.00	90.250	327.260	8022.87	10569.52	9407.06	-4941.80	1761557.00	433654.65	39°41'17.8129"N	80°14'7.3349"W	10626.11	332.286	0.52	0.00	0.52
19495.00	89.750	326.670	8022.87	10663.51	9485.86	-4993.05	1761505.76	433733.44	39°41'18.5909"N	80°14'7.9986"W	10719.71	332.239	0.82	-0.53	-0.63
19590.00	89.780	326.440	8023.26	10758.51	9565.13	-5045.40	1761453.41	433812.71	39°41'19.3700"N	80°14'8.6767"W	10814.24	332.189	0.24	0.03	-0.24
19685.00	90.060	327.040	8023.39	10853.51	9644.57	-5097.50	1761401.31	433892.14	39°41'20.1508"N	80°14'9.3514"W	10908.82	332.142	0.70	0.29	0.63
19780.00	89.780	327.010	8023.53	10948.50	9724.27	-5149.21	1761349.60	433971.83	39°41'20.9343"N	80°14'10.0212"W	11003.44	332.098	0.30	-0.29	-0.03
19875.00	89.820	327.000	8023.86	11043.50	9803.94	-5200.94	1761297.87	434051.50	39°41'21.7175"N	80°14'10.6913"W	11098.07	332.054	0.04	0.04	-0.01
19971.00	89.720	327.100	8024.24	11139.49	9884.50	-5253.16	1761245.66	434132.06	39°41'22.5094"N	80°14'11.3676"W	11193.70	332.011	0.15	-0.10	0.10

## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
20066.00	90.250	327.400	8024.27	11234.48	9964.40	-5304.55	1761194.27	434211.95	39°41'23.2948"N	80°14'12.0334"W	11288.38	331.971	0.64	0.56	0.32
20161.00	89.750	326.650	8024.27	11329.47	10044.09	-5356.26	1761142.57	434291.64	39°41'24.0782"N	80°14'12.7031"W	11383.03	331.930	0.95	-0.53	-0.79
20256.00	90.310	327.230	8024.22	11424.46	10123.71	-5408.08	1761090.75	434371.25	39°41'24.8608"N	80°14'13.3744"W	11477.67	331.889	0.85	0.59	0.61
20351.00	90.310	327.390	8023.71	11519.45	10203.66	-5459.39	1761039.45	434451.20	39°41'25.6468"N	80°14'14.0391"W	11572.37	331.851	0.17	0.00	0.17
20446.00	90.120	326.790	8023.35	11614.44	10283.42	-5511.00	1760987.83	434530.95	39°41'26.4308"N	80°14'14.7077"W	11667.04	331.813	0.66	-0.20	-0.63
20540.00	90.090	327.470	8023.18	11708.43	10362.37	-5562.02	1760936.82	434609.90	39°41'27.2069"N	80°14'15.3686"W	11760.73	331.775	0.72	-0.03	0.72
20635.00	90.370	327.010	8022.80	11803.42	10442.26	-5613.43	1760885.42	434689.78	39°41'27.9922"N	80°14'16.0346"W	11855.43	331.739	0.57	0.29	-0.48
20730.00	90.060	329.140	8022.44	11898.37	10522.88	-5663.66	1760835.19	434770.40	39°41'28.7849"N	80°14'16.6856"W	11950.23	331.710	2.27	-0.33	2.24
20826.00	89.600	326.410	8022.72	11994.33	10604.09	-5714.84	1760784.00	434851.60	39°41'29.5832"N	80°14'17.3489"W	12046.00	331.679	2.88	-0.48	-2.84
20921.00	90.000	327.190	8023.06	12089.33	10683.58	-5766.86	1760731.99	434931.09	39°41'30.3646"N	80°14'18.0227"W	12140.66	331.640	0.92	0.42	0.82
21017.00	89.600	326.600	8023.39	12185.32	10763.99	-5819.29	1760679.56	435011.50	39°41'31.1550"N	80°14'18.7018"W	12236.33	331.603	0.74	-0.42	-0.61
21112.00	90.220	327.360	8023.54	12280.32	10843.65	-5871.06	1760627.80	435091.15	39°41'31.9380"N	80°14'19.3724"W	12331.02	331.568	1.03	0.65	0.80
21207.00	89.880	327.210	8023.46	12375.31	10923.58	-5922.41	1760576.46	435171.07	39°41'32.7237"N	80°14'20.0376"W	12425.76	331.535	0.39	-0.36	-0.16
21302.00	89.380	326.280	8024.07	12470.30	11003.02	-5974.50	1760524.37	435250.51	39°41'33.5046"N	80°14'20.7123"W	12520.42	331.499	1.11	-0.53	-0.98
21396.00	90.370	326.610	8024.28	12564.30	11081.35	-6026.46	1760472.41	435328.84	39°41'34.2745"N	80°14'21.3852"W	12614.06	331.461	1.11	1.05	0.35
21491.00	89.570	326.400	8024.32	12659.30	11160.57	-6078.88	1760419.99	435408.05	39°41'35.0531"N	80°14'22.0642"W	12708.71	331.424	0.87	-0.84	-0.22
21587.00	89.140	325.960	8025.41	12755.29	11240.33	-6132.31	1760366.56	435487.80	39°41'35.8369"N	80°14'22.7561"W	12804.30	331.385	0.64	-0.45	-0.46
21682.00	89.380	326.820	8026.63	12850.28	11319.44	-6184.89	1760313.99	435566.91	39°41'36.6145"N	80°14'23.4370"W	12898.93	331.348	0.94	0.25	0.91
21776.00	89.970	326.670	8027.17	12944.28	11398.04	-6236.44	1760262.44	435645.50	39°41'37.3871"N	80°14'24.1047"W	12992.63	331.315	0.65	0.63	-0.16
21871.00	89.290	326.250	8027.78	13039.27	11477.22	-6288.93	1760209.96	435724.68	39°41'38.1653"N	80°14'24.7845"W	13087.29	331.280	0.84	-0.72	-0.44
21967.00	89.380	326.250	8028.89	13135.27	11557.04	-6342.26	1760156.63	435804.49	39°41'38.9497"N	80°14'25.4751"W	13182.92	331.243	0.09	0.09	0.00
22062.00	89.480	326.700	8029.84	13230.26	11636.23	-6394.72	1760104.17	435883.68	39°41'39.7281"N	80°14'26.1546"W	13277.57	331.209	0.49	0.11	0.47
22157.00	90.890	327.960	8029.53	13325.24	11716.20	-6446.00	1760052.89	435963.64	39°41'40.5142"N	80°14'26.8390"W	13372.37	331.181	1.99	1.48	1.33
22252.00	89.480	325.850	8029.22	13420.23	11795.78	-6497.87	1760001.03	436043.22	39°41'41.2964"N	80°14'27.4909"W	13467.09	331.151	2.67	-1.48	-2.22
22347.00	89.630	326.300	8029.96	13515.23	11874.60	-6550.89	1759948.01	436122.04	39°41'42.0711"N	80°14'28.1775"W	13561.72	331.116	0.50	0.16	0.47
22442.00	89.110	327.040	8031.01	13610.22	11953.97	-6603.08	1759895.82	436201.40	39°41'42.8512"N	80°14'28.8536"W	13656.43	331.085	0.95	-0.55	0.78
22537.00	88.550	326.300	8032.95	13705.20	12033.33	-6655.27	1759843.64	436280.75	39°41'43.6312"N	80°14'29.5296"W	13751.13	331.054	0.98	-0.59	-0.78
22632.00	87.970	326.530	8035.83	13800.15	12112.43	-6707.80	1759791.11	436359.85	39°41'44.4086"N	80°14'30.2099"W	13845.78	331.023	0.66	-0.61	0.24
22727.00	89.200	327.140	8038.20	13896.12	12192.77	-6760.30	1759738.62	436440.18	39°41'45.1983"N	80°14'30.8900"W	13941.49	330.994	1.43	1.28	0.64
22822.00	87.320	326.300	8041.06	13990.07	12271.31	-6811.85	1759687.07	436518.72	39°41'45.9703"N	80°14'31.5578"W	14035.18	330.965	2.19	-2.00	-0.89



# Actual Wellpath Report

Burner 5H AWP Proj: 26859  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Bunner 5H
Field	Monongalia	API/Legal	
Facility	Bunner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## WELLPATH DATA (283 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]
22917.00	87.940	326.380	8044.98	14084.99	12350.31	-6864.46	1759634.46	436597.72	39°41'46.7467"N	80°14'32.2391"W	14129.79	330.934	0.66	0.65	0.08
23012.00	88.920	326.850	8047.59	14179.95	12429.61	-6916.71	1759582.21	436677.01	39°41'47.5261"N	80°14'32.9160"W	14224.49	330.905	1.14	1.03	0.49
23107.00	88.830	326.850	8049.45	14274.93	12509.13	-6968.65	1759530.27	436756.53	39°41'48.3077"N	80°14'33.5888"W	14319.23	330.878	0.09	-0.09	0.00
23202.00	88.000	326.910	8052.08	14369.89	12588.66	-7020.54	1759478.39	436836.06	39°41'49.0895"N	80°14'34.2610"W	14413.97	330.852	0.88	-0.87	0.06
23298.00	87.870	326.180	8055.54	14465.82	12668.71	-7073.43	1759425.50	436916.09	39°41'49.8762"N	80°14'34.9461"W	14509.64	330.824	0.77	-0.14	-0.76
23392.00	87.970	327.090	8058.95	14559.76	12747.16	-7125.09	1759373.84	436994.54	39°41'50.6473"N	80°14'35.6153"W	14603.32	330.797	0.97	0.11	0.97
23487.00	89.570	327.090	8060.99	14654.73	12826.90	-7176.69	1759322.24	437074.27	39°41'51.4310"N	80°14'36.2839"W	14698.10	330.773	1.68	1.68	0.00
23582.00	90.120	326.880	8061.25	14749.72	12906.55	-7228.45	1759270.49	437153.93	39°41'52.2140"N	80°14'36.9545"W	14792.89	330.749	0.62	0.58	-0.22
23678.00	88.680	327.090	8062.25	14845.71	12987.05	-7280.76	1759218.19	437234.41	39°41'53.0052"N	80°14'37.6321"W	14888.68	330.724	1.52	-1.50	0.22
23773.00	88.680	326.760	8064.44	14940.68	13066.63	-7332.59	1759166.36	437313.99	39°41'53.7875"N	80°14'38.3036"W	14983.45	330.700	0.35	0.00	-0.35
23868.00	89.020	327.630	8066.35	15035.65	13146.46	-7384.05	1759114.90	437393.82	39°41'54.5722"N	80°14'38.9704"W	15078.25	330.678	0.98	0.36	0.92
23963.00	88.400	327.250	8068.49	15130.61	13226.51	-7435.16	1759063.79	437473.86	39°41'55.3591"N	80°14'39.6328"W	15173.08	330.658	0.77	-0.65	-0.40
24059.00	87.540	326.250	8071.89	15226.54	13306.74	-7487.76	1759011.20	437554.09	39°41'56.1477"N	80°14'40.3143"W	15268.79	330.633	1.37	-0.90	-1.04
24154.00	89.260	326.980	8074.54	15321.50	13386.03	-7540.01	1758958.95	437633.38	39°41'56.9270"N	80°14'40.9911"W	15363.52	330.609	1.97	1.81	0.77
24248.00	89.140	327.500	8075.85	15415.48	13465.07	-7590.87	1758908.09	437712.41	39°41'57.7039"N	80°14'41.6502"W	15457.35	330.588	0.57	-0.13	0.55
24343.00	89.020	327.210	8077.38	15510.45	13545.06	-7642.11	1758856.85	437792.39	39°41'58.4901"N	80°14'42.3142"W	15552.18	330.568	0.33	-0.13	-0.31
24438.00	89.540	326.220	8078.57	15605.44	13624.46	-7694.24	1758804.72	437871.79	39°41'59.2706"N	80°14'42.9896"W	15646.96	330.545	1.18	0.55	-1.04
24533.00	89.200	326.550	8079.62	15700.44	13703.57	-7746.83	1758752.14	437950.90	39°42'0.0481"N	80°14'43.6707"W	15741.71	330.520	0.50	-0.36	0.35
24628.00	89.050	325.730	8081.07	15795.42	13782.45	-7799.76	1758699.22	438029.77	39°42'0.8233"N	80°14'44.3562"W	15836.42	330.494	0.88	-0.16	-0.86
24724.00	88.590	326.840	8083.04	15891.40	13862.29	-7853.03	1758645.95	438109.60	39°42'1.6079"N	80°14'45.0462"W	15932.14	330.468	1.25	-0.48	1.16
24820.00	87.320	325.770	8086.47	15987.34	13942.11	-7906.25	1758592.73	438189.41	39°42'2.3923"N	80°14'45.7356"W	16027.82	330.443	1.73	-1.32	-1.11
24915.00	87.510	325.670	8090.75	16082.23	14020.52	-7959.12	1758539.28	438267.83	39°42'3.1629"N	80°14'46.4278"W	16122.41	330.416	0.23	0.20	-0.11
25010.00	87.540	326.150	8094.86	16177.14	14099.12	-8012.90	1758486.08	438346.42	39°42'3.9353"N	80°14'47.1167"W	16217.03	330.389	0.51	0.03	0.51
25106.00	87.510	325.970	8099.00	16273.05	14178.69	-8066.45	1758432.54	438425.99	39°42'4.7172"N	80°14'47.8103"W	16312.67	330.364	0.19	-0.03	-0.19
25201.00	87.320	325.780	8103.29	16367.95	14257.26	-8119.69	1758379.30	438504.55	39°42'5.4893"N	80°14'48.4998"W	16407.28	330.338	0.28	-0.20	-0.20
25296.00	87.320	325.660	8107.73	16462.84	14335.67	-8173.14	1758325.86	438582.95	39°42'6.2598"N	80°14'49.1919"W	16501.87	330.311	0.13	0.00	-0.13
25392.00	87.050	326.340	8112.44	16558.72	14415.16	-8226.76	1758272.24	438662.44	39°42'7.0409"N	80°14'49.8863"W	16597.48	330.287	0.76	-0.28	0.71
25487.00	87.290	325.880	8117.13	16653.60	14493.92	-8279.67	1758219.34	438741.20	39°42'7.8150"N	80°14'50.5716"W	16692.12	330.263	0.55	0.25	-0.48
25582.00	86.800	325.500	8122.03	16748.47	14572.29	-8333.15	1758165.86	438819.56	39°42'8.5850"N	80°14'51.2641"W	16786.69	330.237	0.65	-0.52	-0.40
25677.00	86.520	325.750	8127.57	16843.30	14650.56	-8386.69	1758112.32	438897.83	39°42'9.3542"N	80°14'51.9575"W	16881.22	330.211	0.39	-0.29	0.26

### REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

### WELLPATH DATA (283 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]
25770.00	85.960	325.720	8133.67	16936.09	14727.26	-8438.94	1758060.08	438974.52	39°42'10.1078"N	80°14'52.6341"W	16973.74	330.187	0.60	-0.60	-0.03
25865.00	86.310	326.160	8140.07	17030.88	14805.78	-8492.02	1758006.99	439053.04	39°42'10.8794"N	80°14'53.3217"W	17068.26	330.163	0.59	0.37	0.46
25960.00	88.550	326.060	8144.33	17125.77	14884.56	-8544.94	1757954.08	439131.81	39°42'11.6636"N	80°14'54.0071"W	17162.93	330.141	2.36	2.36	-0.11
26055.00	88.740	326.750	8146.57	17220.75	14963.67	-8597.49	1757901.53	439210.91	39°42'12.4310"N	80°14'54.6878"W	17257.70	330.120	0.75	0.20	0.73
26149.00	88.090	324.610	8149.17	17314.70	15041.27	-8650.46	1757848.56	439288.51	39°42'13.1936"N	80°14'55.3739"W	17351.38	330.096	2.38	-0.69	-2.28
26245.00	89.850	326.040	8150.90	17410.66	15120.20	-8705.07	1757793.96	439367.44	39°42'13.9691"N	80°14'56.0809"W	17447.02	330.070	2.36	1.83	1.49
26340.00	90.920	326.570	8150.26	17505.66	15199.24	-8757.77	1757741.27	439446.47	39°42'14.7459"N	80°14'56.7636"W	17541.82	330.050	1.26	1.13	0.56
26435.00	91.970	325.650	8147.87	17600.62	15278.07	-8810.72	1757688.31	439525.30	39°42'15.5206"N	80°14'57.4495"W	17636.56	330.028	1.47	1.11	-0.97
26530.00	92.030	325.590	8144.55	17695.56	15356.43	-8864.34	1757634.71	439603.65	39°42'16.2905"N	80°14'58.1438"W	17731.22	330.005	0.09	0.06	-0.06
26626.00	90.650	325.140	8142.31	17791.51	15435.39	-8918.88	1757580.16	439682.61	39°42'17.0664"N	80°14'58.8501"W	17826.88	329.980	1.51	-1.44	-0.47
26721.00	91.200	326.180	8140.77	17886.49	15513.82	-8972.46	1757526.59	439761.03	39°42'17.8370"N	80°14'59.5440"W	17921.60	329.957	1.24	0.58	1.09
26835.00	91.050	325.350	8138.53	18000.46	15608.05	-9036.58	1757462.47	439855.26	39°42'18.7629"N	80°15'0.3744"W	18035.27	329.930	0.74	-0.13	-0.73
26859.00‡	91.050	325.350	8138.09	18024.45	15627.79	-9050.23	1757448.83	439875.00	39°42'18.9569"N	80°15'0.5511"W	18059.19	329.924	0.00	0.00	0.00

### HOLE & CASING SECTIONS - Ref Wellbore: Burner 5H AWB Ref Wellpath: Burner 5H AWP Proj: 26859'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]
17.5in Open Hole	28.00	1286.00	1258.00	28.00	1285.99	0.00	-1.76	0.00	1.70
13.375in Casing Surface	28.00	1256.00	1228.00	28.00	1256.00	0.00	-1.53	0.00	1.68
12.25in Open Hole	1286.00	2522.00	1236.00	1285.99	2521.62	-1.76	-29.38	1.70	-2.75
9.625in Casing Intermediate	28.00	2492.00	2464.00	28.00	2491.63	0.00	-28.94	0.00	-2.98
8.75in Open Hole	2522.00	7225.00	4703.00	2521.62	7003.43	-29.38	-112.41	-2.75	1349.39
8.5in Open Hole	7225.00	26859.00	19634.00	7003.43	8138.09	-112.41	15627.79	1349.39	-9050.23
5.5in Casing Production	28.00	26829.00	26801.00	28.00	8138.64	0.00	15603.11	0.00	-9033.18

### REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

### TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Burner 5H BHL Rev-6	8070.00	15638.97	-9034.76	1757464.29	439886.18	39°42'19.0687"N	80°15'0.3544"W	point
Burner 5H LP Rev-3	8070.00	560.62	993.39	1767491.83	424808.75	39°39'50.8641"N	80°12'50.5170"W	point
Burner South Hardline #1 (4.1.21)	8600.00	-848.69	2883.24	1769381.56	423399.52	39°39'37.0841"N	80°12'26.2100"W	polygon
2D Polygon: dimensions not calculated								
Burner South Hardline #1 (8.15.2022)	9003.00	8640.03	-11878.48	1754620.75	432887.66	39°41'9.6655"N	80°15'35.9803"W	polygon
2D Polygon: dimensions not calculated								

### WELLPATH COMPOSITION - Ref Wellbore: Burner 5H AWB Ref Wellpath: Burner 5H AWP Proj: 26859'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
28.00	1200.00	BH Generic gyro - northseeking (Standard)	01 <17.5"> Javins Inertial Gyro [Northseeking] (100'-1200')	Burner 5H AWB	10/24/2022
1200.00	2367.00	BH Generic gyro - northseeking (Standard)	02 <12.25"> Javins Inertial Gyro [Northseeking] (1200')(1300'-2367')	Burner 5H AWB	10/24/2022
2367.00	7132.00	OWSG MWD rev2 + HRGM	03 <8.75">SDI MWD [OWSG MWD REV.2-HRGM] (2367')(2560'-7132')	Burner 5H AWB	10/24/2022
7132.00	26859.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 <8.5"> BH ATK Curve [HRGM+Short Spacing] (7132')(7230'-26835')	Burner 5H AWB	10/24/2022





# Actual Wellpath Report

Burner 5H AWP Proj: 26859'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NORTHEAST NATURAL ENERGY, LLC	Well	Burner 5H
Field	Monongalia	API/Legal	
Facility	Burner Pad	Wellbore	Burner 5H AWB
Slot	Slot 5H		

## COMMENTS

### Wellpath general comments

API: 47061019080000  
BH Job #: 111543070  
Rig: Patterson 277  
Duration: 10/26/2022 - 11/01/2022

- 01\_<17.5"> Javins Inertial Gyro [Northseeking] (100'-1200')
- 02\_<12.25"> Javins Inertial Gyro [Northseeking] (1200')(1300'-2367')
- 03\_<8.75">SDI MWD [OWSG MWD REV.2-HRGM] (2367')(2560'-7132')
- 04\_<8.5"> BH ATK Curve [HRGM+Short Spacing] (7132')(7230'-26835')

Final Survey MD @ 26835'  
Projected MD at TD: 26859'

02/23/2024

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/13/2023
Job End Date:	3/26/2023
State:	West Virginia
County:	Monongalia
API Number:	47-061-01908-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	Bunner 5H
Latitude:	39.66256800
Longitude:	-80.21754500
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8,063
Total Base Water Volume (gal):	39,230,142
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Northeast Natural Energy	Carrier/Base Fluid					
Sand (100 Mesh Proppant)	ProFrac	Proppant	Water	7732-18-5	100.00000	87.82556	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	10.71655	None
Hydrochloric Acid (7.5%)	CNR	Acidizing	Silica Substrate	14808-60-7	100.00000	1.18527	None
StimSTREAM FR 9800	Chemstream	Friction Reducer	Water	7732-18-5	85.00000	0.12976	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.05648	None
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.01928	None
			Butene, homopolymer	9003-29-6	25.00000	0.01928	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00231	None
Clearal 268	Chemstream	Biocide					
			Non-hazardous substances	Proprietary	80.00000	0.01800	None

				Glutaraldehyde	111-30-8	20.00000	0.00450	None
				Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00068	None
				Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00068	None
				Ethanol	64-17-5	1.50000	0.00034	None
StimSTREAM SC 405	Chemstream	Scale Control		Non-Hazardous Substances	Proprietary	70.00000	0.01364	None
				Citric Acid	77-92-9	10.00000	0.00195	None
				2-Phosphono-1,2,4-butanetricarboxylic acid (PBTC)	37971-36-1	10.00000	0.00195	None
				Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00195	None
ProHib 100	CNR	Acid Inhibitor		2-Butoxyethanol	111-76-2	60.00000	0.00029	None
				Proprietary material	Proprietary	30.00000	0.00014	None
				Proprietary non-ionic surfactant	Proprietary	20.00000	0.00010	None
				Proprietary corrosion inhibitor	Proprietary	10.00000	0.00005	None
				Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00005	None
ProFE 105	CNR	Iron Control		Citric Acid	77-92-9	20.00000	0.00007	None
				Acetic Acid	64-19-7	5.00000	0.00002	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.								
Other Chemical(s)	Listed Above	See Trade Name(s) List		Water	7732-18-5	85.00000	0.12976	
				Butene, homopolymer	9003-29-6	25.00000	0.01928	
				Non-hazardous substances	Proprietary	80.00000	0.01800	
				Non-Hazardous Substances	Proprietary	70.00000	0.01364	
				Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00231	
				Diethylenetriamine penta (methylene phosphonic acid) (DTPMP)	15827-60-8	10.00000	0.00195	
				Citric Acid	77-92-9	10.00000	0.00195	
				Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00068	
				Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00068	
				Ethanol	64-17-5	1.50000	0.00034	
				Proprietary material	Proprietary	30.00000	0.00014	
				Proprietary non-ionic surfactant	Proprietary	20.00000	0.00010	
				Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00005	
				Proprietary corrosion inhibitor	Proprietary	10.00000	0.00005	
				Acetic Acid	64-19-7	5.00000	0.00002	

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water  
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.  
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

02/23/2024