

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

API 47-061-01960 County Monongalia District Battelle  
Quad Wadestown Pad Name ERP Field/Pool Name \_\_\_\_\_  
Farm name Phoenix Energy Resources LLC 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 4391789.1 Easting 562323.7  
Landing Point of Curve Northing 4392082.2 Easting 562390.6  
Bottom Hole Northing 4395618.2 Easting 559989.7

Elevation (ft) 1338' 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 FOR 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, SOLTEX

Date permit issued 8/19/2024 Date drilling commenced 1/12/2025 Date drilling ceased 3/21/2025  
Date completion activities began 5/16/2025 Date completion activities ceased 6/13/25  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

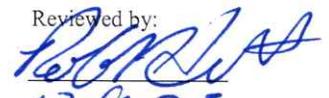
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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 1220' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 2367' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1220' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:  
  
12-9-25  
**03/13/2026**

API 47-061 - 01960 Farm name Phoenix Energy Resources LLC Well number 5H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	24"	100'	New			Y-10 bbls
Surface	17 1/2"	13 3/8"	1339'	New	J55/54.5	201'	Y- 30 bbls to surface
Coal							
Intermediate 1	12 1/4"	9 5/8"	2656'	New	J55/36		Y- 20 bbls to surface
Intermediate 2							
Intermediate 3							
Production	8.5"	5.5"	22,610'	New	20		Y-5 bbls to Surface
Tubing							
Packer type and depth set							

Comment Details Conductor cement via grout job- cement to surface

Casing depths based on KB elevation.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	228	15.6	1.18	269	0	>8 hrs
Surface	L NCM 956	1255	15.6	1.14	254	0	8 hrs
Coal							
Intermediate 1	L NCM 956	915	15.6	1.13	1032	0	8 hrs
Intermediate 2							
Intermediate 3							
Production	NCM- 956	4170	14.5	1.16	4832	0	> 8 hrs
Tubing							

Drillers TD (ft) 22,658' Loggers TD (ft) 22,610'

Deepest formation penetrated Marcellus Plug back to (ft) 7900-7100

Plug back procedure Plug back was for lost BHA/lateral, Cement plug was sent from top of fish at 7,900' to 7,100' for kick-off on sidetrack

Kick off depth (ft) 7445'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

Surface: shoe track and every third joint to surface  
Intermediate: shoe track and every third joint to surface  
Production: shoe track and every joint in the lateral to KOP, then every third joint to surface

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_





50631

**ERP 5H**

## Perforation Report

Stage Number	Report Date	Total Shots	Cluster 1 Top TD	Cluster 5 Bottom TD
1	5/16/2025			22,499
2	5/17/2025	40	22,456	22,300
3	5/17/2025	40	22,258	22,102
4	5/17/2025	40	22,061	21,904
5	5/18/2025	40	21,863	21,707
6	5/18/2025	40	21,665	21,509
7	5/18/2025	40	21,467	21,311
8	5/19/2025	40	21,269	21,113
9	5/19/2025	40	21,072	20,915
10	5/20/2025	40	20,874	20,718
11	5/16/2025	40	20,676	20,520
12	5/20/2025	40	20,478	20,322
13	5/21/2025	40	20,280	20,124
14	5/21/2025	40	20,083	19,926
15	5/22/2025	40	19,885	19,729
16	5/22/2025	40	19,687	19,531
17	5/22/2025	40	19,489	19,333
18	5/23/2025	40	19,291	19,135
19	5/23/2025	40	19,094	18,937
20	5/24/2025	40	18,896	18,740
21	5/24/2025	40	18,698	18,542
22	5/24/2025	40	18,500	18,334
23	5/25/2025	40	18,302	18,146
24	5/25/2025	40	18,105	17,948
25	5/25/2025	40	17,907	17,751
26	5/26/2025	40	17,709	17,553
27	5/27/2025	40	17,511	17,355
28	5/27/2025	40	17,313	17,157
29	5/28/2025	40	17,116	16,959
30	5/28/2025	40	16,918	16,762
31	5/29/2025	40	16,720	16,564
32	5/29/2025	40	16,522	16,366
33	5/29/2025	40	16,324	16,168
34	5/30/2025	40	16,127	15,970
35	5/30/2025	40	15,929	15,773
36	5/31/2025	40	15,731	15,575
37	5/31/2025	40	15,533	15,377
38	6/1/2025	40	15,335	15,179
39	6/1/2025	40	15,138	14,981
40	6/1/2025	40	14,940	14,784
41	6/2/2025	40	14,742	14,586
42	6/2/2025	40	14,544	14,388

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6 of 31

43	6/3/2025	40	14,346	14,190
44	6/3/2025	40	14,149	13,992
45	6/3/2025	40	13,951	13,795
46	6/4/2025	40	13,753	13,597
47	6/4/2025	40	13,555	13,399
48	6/4/2025	40	13,357	13,201
49	6/5/2025	40	13,160	13,003
50	6/5/2025	40	12,962	12,806
51	6/6/2025	40	12,764	12,608
52	6/6/2025	40	12,566	12,410
53	6/6/2025	40	12,368	12,212
54	6/7/2025	40	12,171	12,014
55	6/7/2025	40	11,973	11,817
56	6/8/2025	40	11,775	11,619
57	6/8/2025	40	11,577	11,421
58	6/8/2025	40	11,379	11,223
59	6/9/2025	40	11,182	11,025
60	6/9/2025	40	10,984	10,828
61	6/10/2025	40	10,786	10,630
62	6/10/2025	40	10,588	10,432
63	6/10/2025	40	10,390	10,234
64	6/11/2025	40	10,193	10,036
65	6/11/2025	40	9,995	9,839
66	6/12/2025	40	9,797	9,641
67	6/12/2025	40	9,599	9,443
68	6/12/2025	40	9,401	9,245
69	6/13/2025	40	9,204	9,047
70	6/13/2025	40	9,006	8,850
71	6/13/2025	40	8,808	8,652

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70631

**ERP 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	5/16/2025	6,016	6,517	9,032	80	429	7,242	301,324	497
2	5/17/2025	6,261	5,894	9,839	95	10	9,659	452,960	493
3	5/17/2025	6,067	4,937	9,679	94	69	9,589	456,380	429
4	5/17/2025	6,207	5,078	9,604	92	55	9,530	453,940	484
5	5/18/2025	5,967	6,200	9,900	94	45	9,666	458,300	480
6	5/18/2025	6,026	5,717	9,828	97	50	9,160	454,900	475
7	5/18/2025	6,319	6,675	9,885	95	140	9,671	452,640	471
8	5/19/2025	6,164	7,522	9,941	94	51	9,528	456,480	467
9	5/19/2025	6,437	6,780	9,940	95	462	9,489	454,080	462
10	5/20/2025	6,141	6,410	9,903	94	10	9,650	452,800	458
11	5/16/2025	6,005	5,070	9,668	97	41	9,449	450,840	453
12	5/20/2025	5,788	7,621	9,824	95	10	9,686	455,560	449
13	5/21/2025	6,317	7,947	9,642	93	12	9,520	456,640	445
14	5/21/2025	6,438	7,140	9,802	95	45	10,526	452,580	440
15	5/22/2025	6,689	7,047	9,781	96	429	9,596	452,080	436
16	5/22/2025	6,176	5,390	9,624	97	50	9,444	451,900	432
17	5/22/2025	5,983	6,711	9,580	95	429	9,543	453,360	427
18	5/23/2025	5,988	6,978	9,572	96	10	9,476	449,920	423
19	5/23/2025	6,512	7,820	9,543	98	68	9,421	450,000	418
20	5/24/2025	6,196	9,722	9,600	97	429	9,490	456,360	414
21	5/24/2025	6,375	6,830	9,495	93	60	9,520	453,340	410
22	5/24/2025	6,072	7,609	9,738	97	429	9,390	446,320	405
23	5/25/2025	6,249	7,214	9,692	98	43	9,553	456,900	401
24	5/25/2025	6,228	7,974	9,749	97	429	9,474	453,340	397
25	5/25/2025	5,747	8,073	9,551	96	10	8,483	459,260	392
26	5/26/2025	6,383	7,841	9,639	96	429	8,401	453,700	388
27	5/27/2025	6,293	5,219	9,656	97	10	8,485	455,960	384
28	5/27/2025	6,209	7,439	9,409	96	429	8,502	456,500	379
29	5/28/2025	6,258	6,953	9,605	96	10	8,738	458,140	375
30	5/28/2025	6,243	5,436	9,378	96	10	8,495	450,900	370
31	5/29/2025	6,366	8,011	9,341	97	429	8,580	457,580	366
32	5/29/2025	6,440	5,679	9,587	97	10	8,485	457,020	362
33	5/29/2025	6,435	5,637	9,706	97	10	8,426	452,020	357
34	5/30/2025	6,320	7,330	9,459	99	10	8,841	454,780	353
35	5/30/2025	6,401	6,940	9,795	97	10	8,438	452,280	349
36	5/31/2025	6,288	6,329	8,263	81	429	8,351	451,100	344
37	5/31/2025	6,366	7,316	9,264	98	10	8,375	455,260	340
38	6/1/2025	6,175	8,851	9,513	97	10	8,495	457,480	335
39	6/1/2025	6,404	5,263	9,749	97	10	8,505	451,740	331
40	6/1/2025	5,963	8,101	9,680	98	10	8,435	450,280	327
41	6/2/2025	6,368	7,715	9,356	98	10	8,461	457,060	322

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42	6/2/2025	6,390	8,024	9,464	97	10	8,483	455,480	318
43	6/3/2025	4,859	7,712	9,310	96	10	8,511	455,660	314
44	6/3/2025	4,701	7,066	9,408	97	10	8,503	459,840	309
45	6/3/2025	5,121	7,704	9,504	97	10	8,418	455,060	305
46	6/4/2025	5,047	7,586	9,247	97	10	8,578	459,440	300
47	6/4/2025	5,407	7,820	9,483	97	10	8,486	459,540	296
48	6/4/2025	5,521	8,882	9,534	97	10	8,702	454,700	292
49	6/5/2025	5,063	8,402	9,645	97	10	8,429	454,760	287
50	6/5/2025	6,061	8,242	9,461	87	10	10,550	444,660	283
51	6/6/2025	5,359	6,872	9,229	96	10	9,436	453,460	279
52	6/6/2025	5,402	7,887	9,254	95	10	9,709	456,300	274
53	6/6/2025	6,081	8,048	9,081	98	10	9,420	453,420	270
54	6/7/2025	6,697	7,773	9,476	97	265	8,567	457,660	265
55	6/7/2025	6,466	7,705	9,057	98	10	9,698	452,680	261
56	6/8/2025	6,431	7,831	8,985	97	10	9,444	452,400	257
57	6/8/2025	6,315	8,208	8,812	98	10	9,702	454,400	252
58	6/8/2025	6,552	7,987	8,895	98	10	10,042	458,460	248
59	6/9/2025	6,285	7,894	9,075	97	10	9,635	459,300	244
60	6/9/2025	6,393	8,697	9,200	98	10	9,676	827,080	239
61	6/10/2025	6,671	7,910	9,042	97	10	9,380	453,000	235
62	6/10/2025	5,870	8,265	9,306	98	10	9,713	455,040	231
63	6/10/2025	5,710	8,009	9,240	97	10	9,568	455,160	226
64	6/11/2025	6,587	8,277	9,066	96	10	9,568	453,760	222
65	6/11/2025	6,867	8,090	9,168	96	10	9,695	455,080	218
66	6/12/2025	6,621	8,248	9,055	97	10	9,564	456,020	214
67	6/12/2025	6,542	7,846	8,885	99	10	9,507	456,208	210
68	6/12/2025	6,536	8,585	9,120	98	10	9,833	461,980	205
69	6/13/2025	5,859	4,950	9,055	99	10	9,103	441,060	201
70	6/13/2025	5,985	5,380	9,138	100	10	9,559	460,220	196
71	6/13/2025	5,398	8,554	9,100	98	10	9,370	459,500	192

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ERP North 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	300	Sand/silt
Sand/red shale	300	575	Sand/red shale
sandstone/siltstone/red silt	575	665	sandstone/siltstone/red silt
Washington coal	665	669	coal
siltstone/sandstone/limestone	669	734	carbonaceous silt/sandstone
Waynesburg coal	734	739	Waynesburg coal
sandstone/limestone	739	994	sandstone/limestone
Sewickley Coal	994	1000	Sewickley Coal
Limestone/siltstone/red beds	1000	1211	Limestone/siltstone/red beds
Pittsburgh coal	1211	1220	Pittsburgh coal
Limestone/siltstone	1220	1300	Limestone/siltstone
Red Rock/siltstone/limestone	1300	2060	Red Rock/siltstone/limestone
siltstone/sandstone	2060	2149	siltstone/sandstone
Little Lime	2149	2217	Little Lime
Big Lime	2217	2367	Limestone
Big Injun	2367	2500	Sandstone
Sand/silt	2500	2546	Sand/silt
Gantz	2546	2552	Sandstone
Sand/shale	2552	2962	Sand/shale
Gordon	2962	3060	Sandstone
Siltstone/sandstone	3060	3230	Siltstone/sandstone
Fourth Sand	3230	3340	Sandstone
siltstone/sandstone	3340	5200	siltstone/sandstone
Gray shale/siltstone	5200	7399	Gray shale/siltstone
Middlesex	7399	7646	Middlesex
Burkett	7646	7800	Burkett
Geneseo	7800	7856	Geneseo
Tully	7856	7898	Tully
Hamilton	7898	7990	Hamilton
Marcellus	7990	8102	Marcellus
Onondaga	8102		Onondaga

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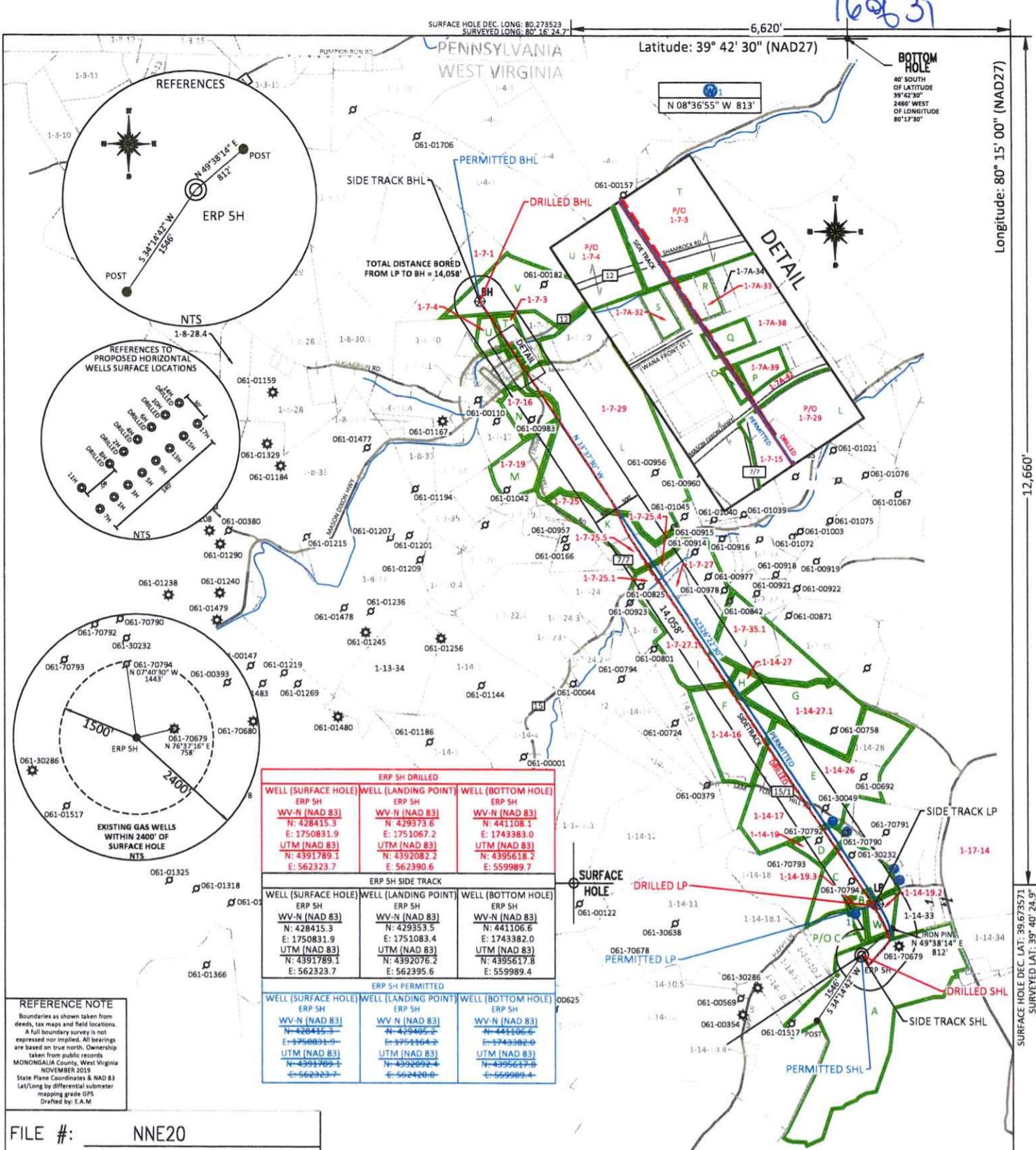
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ERP SH DRILLED		
WELL (SURFACE HOLE)	WELL (LANDING POINT)	WELL (BOTTOM HOLE)
ERP SH WV-N (NAD 83) N: 428415.3 E: 1750831.9 UTM (NAD 83) N: 4391789.1 E: 562323.7	ERP SH WV-N (NAD 83) N: 429373.6 E: 1751067.2 UTM (NAD 83) N: 4392082.2 E: 562390.6	ERP SH WV-N (NAD 83) N: 441108.1 E: 1743382.0 UTM (NAD 83) N: 4395618.2 E: 559989.7
ERP SH SIDE TRACK		
WELL (SURFACE HOLE)	WELL (LANDING POINT)	WELL (BOTTOM HOLE)
ERP SH WV-N (NAD 83) N: 428415.3 E: 1750831.9 UTM (NAD 83) N: 4391789.1 E: 562323.7	ERP SH WV-N (NAD 83) N: 429353.5 E: 1751083.4 UTM (NAD 83) N: 4392076.2 E: 562395.6	ERP SH WV-N (NAD 83) N: 441106.6 E: 1743382.0 UTM (NAD 83) N: 4395617.8 E: 559989.4
ERP SH PERMITTED		
WELL (SURFACE HOLE)	WELL (LANDING POINT)	WELL (BOTTOM HOLE)
ERP SH WV-N (NAD 83) N: 428415.3 E: 1750831.9 UTM (NAD 83) N: 4391789.1 E: 562323.7	ERP SH WV-N (NAD 83) N: 429406.2 E: 1751164.2 UTM (NAD 83) N: 4392092.4 E: 562420.6	ERP SH WV-N (NAD 83) N: 441306.6 E: 1743382.0 UTM (NAD 83) N: 4395617.8 E: 559989.4

**REFERENCE NOTE**  
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records MONONGALIA County, West Virginia NOVEMBER 2019  
 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS  
 Drafted by: L.A.M

FILE #: NNE20  
 DRAWING #: 3059  
 SCALE: PLAT: 1" = 2600'  
TICK: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1/200  
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 Signed: \_\_\_\_\_  
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
**WVDEP**  
**OFFICE OF OIL & GAS**  
**601 57TH STREET**  
**CHARLESTON, WV 25304**  
 Well Type:  Oil  Waste Diposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow  
 WATERSHED: DUNKARD CREEK  
 COUNTY/DISTRICT: MONONGALIA / BATTELLE  
 SURFACE OWNER: Phoenix Energy Resources, LLC  
 OIL & GAS ROYALTY OWNER: Phoenix Energy Resources, LLC, et al.  
 LEASE NUMBERS: \_\_\_\_\_

DATE: JULY 31, 2025  
 OPERATOR'S WELL #: ERP 5H (AS-DRILLED)  
 API WELL #: 47 61 01960  
 STATE COUNTY PERMIT  
 AS-BUILT ELEVATION: 1,338.6'  
 QUADRANGLE: WADESTOWN  
 ACREAGE: 908.354 +/-  
 ACREAGE: 54.587 +/-

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_  
 TARGET FORMATION: MARCELLUS  
 WELL OPERATOR: Northeast Natural Energy LLC  
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200  
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301  
 DRILLED DEPTH: TVD: 8,011' TMD: 22,658'  
 DESIGNATED AGENT: JOHN ADAMS  
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200  
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

PROPERTY OWNER INDEX	
1-7-1	CONSOL MINING COMPANY LLC
1-7-3	CONSOLIDATION COAL COMPANY
1-7-4	CONSOLIDATION COAL COMPANY
1-7-15	ALBERTA R MYERS
1-7-16	TRACEY D & ELIZABETH A DAVIS
1-7-19	REBECCA L FRODELIUS & WILLIAM C & TAMELA D CROSS
1-7-25	CLOVIS FAMILY IRREVOCABLE TRUST DATED MAY 23 2011 (LIFE)
1-7-25.1	RANDY & BETH A STILES
1-7-25.4	EDWARD F HOLIPSKY JR
1-7-25.5	JOSHUA V CLOVIS
1-7-27	EDWARD F HOLIPSKY JR
1-7-27.1	EDWARD F HOLIPSKY
1-7-29	CLOVIS FAMILY IRREVOCABLE TRUST DATED MAY 23 2011 (LIFE)
1-7-35.1	EDWARD F HOLIPSKY JR
1-14-16	RUSSELL L & VIRGINIA M TOOTHMAN
1-14-17	RANDELL LEE LANTZ
1-14-19	NORMA WILLIAMS
1-14-19.3	CHAD A SWANSON
1-14-26	RANDELL LEE LANTZ
1-14-27	N/A
1-14-27.1	RUSSELL L & VIRGINIA M TOOTHMAN
1-17-14	ERP FEDERAL MINING COMPLEX LLC
1-7A-32	CURTIS R & CRYSAAN E MOORE
1-7A-33	CURTIS R & CRYSAAN E MOORE
1-7A-38	SHAWN ALLEN TRUMP & ALEEDA MARIE FORD
1-7A-39	WOLFPEN KNOB DEVELOPMENT COMPANY
1-7A-42	WOLFPEN KNOB DEVELOPMENT COMPANY
1-14-19.2	FEDERAL NATIONAL MORTGAGE ASSOCIATION
1-17-14	PHOENIX FEDERAL MINING COMPLEX LLC

LEASE INDEX			
A	WV-061-005667-001	N	WV-061-000195-001-JOA
B	WV-061-005702-001	O	WV-061-000195-001-JOA
C	WV-061-005697-001	P	WV-061-000195-001-JOA
D	WV-061-006663-001	Q	WV-061-000195-001-JOA
E	WV-061-005810-037	R	WV-061-000195-001-JOA
F	WV-061-000208-001-JOA	S	WV-061-006199-001
G	WV-061-000208-001-JOA	T	WV-061-000195-001-JOA
H	WV-061-000208-001-JOA	U	WV-061-000195-001-JOA
I	WV-061-006368-001	V	WV-061-000195-001-JOA
J	WV-061-000208-001-JOA	W	WV-061-006722-001
K	WV-061-006384-001		
L	WV-061-004196-001		
M	WV-061-006430-001		

03/13/2026

FILE #: <u>NEE20</u>	DATE: <u>JULY 31, 2025</u>
DRAWING #: <u>3059</u>	OPERATOR'S WELL #: <u>ERP 5H (AS-DRILLED)</u>
SCALE: <u>N/A</u>	API WELL #: <u>47</u> <u>61</u> <u>01960</u> STATE COUNTY PERMIT

308631

## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	05/01/2025
Job End Date:	06/13/2025
State:	West Virginia
County:	Monongalia
API Number:	47-061-01960-00-00
Operator Name:	Northeast Natural Energy LLC
Well Name and Number:	ERP 5H
Latitude:	39.673652
Longitude:	-80.27332
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8650
Total Base Water Volume (gal)*:	28244286
Total Base Non Water Volume:	0



Water Source	Percent
Other, > 1000TDS	85.00%

### 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
Clearal 268	Chemstream	Biocide					
EZ-A 431	Obsidian Chemical Solutions	Chemical Blend					
HCL Acid (28%)	CHEMSTREAM	Acid					
Sand	US Silica	Proppant					
StimSTREAM FR 9800	Chemstream	Friction Reducer					
StimSTREAM SC 405	Chemstream	Scale Control					
StimSTREAM SC 810	Chemstream	Scale Control					
Water	CNX	Carrier/Base Fluid					

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Items above are Trade Names. Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	87.87043	None
			Crystalline Silica in the form	14808-60-7	99.90000	11.96608	None

03/13/2026

			of Quartz				
			ACRYLAMIDE- CHLORIDE SALT OF TRIMETHYLAMMONIO- ETHYL ACRYLATE COPOLYMER	69418-26-4	40.00000	0.03123	None
			ALKANES, C12-26- BRANCHED AND LINEAR	90622-53-0	40.00000	0.03123	None
			Hydrogen chloride	7647-01-0	28.00000	0.01223	None
			Glutaraldehyde	111-30-8	20.00000	0.00430	None
			ETHOXYLATED ALCOHOLS (C12-16)	68551-12-2	5.00000	0.00390	None
			AA/Maleic Anhydride Co- polymer	9003-04-7	10.00000	0.00369	None
			AA/ATBS Co-polymer	9003-05-8	10.00000	0.00369	None
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00064	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00064	None
			Ethanol	64-17-5	1.50000	0.00032	None
			Methanol	67-56-1	25.00000	0.00007	None
			Pyridinium, 1- (phenylmethyl)-, ethyl methyl derivs., chlorides	68909-18-2	25.00000	0.00007	None
			Ethoxylated Alcohols	Proprietary	15.00000	0.00004	None
			Ethanoic Acid	Proprietary	15.00000	0.00004	None
			2-ethylhexanol	104-76-7	5.00000	0.00001	None
			Ethoxylated Nonylphenols	127087-87- 0	5.00000	0.00001	None

\* Total Water Volume sources may include various types of water including fresh water, produced water, and 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)

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