



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Wednesday, June 7, 2023
WELL WORK PERMIT
Horizontal 6A / New Drill

NORTHEAST NATURAL ENERGY LLC
707 VIRGINIA STREET EAST
STE 1200
CHARLESTON, WV 25301

Re: Permit approval for DOLLS RUN 3H
47-061-01929-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.


James A. Martin
Chief

Operator's Well Number: DOLLS RUN 3H
Farm Name: BRYAN & SIERRA VANNOR
U.S. WELL NUMBER: 47-061-01929-00-00
Horizontal 6A New Drill
Date Issued: 6/7/2023

Promoting a healthy environment.

06/09/2023



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Harold Ward, Cabinet Secretary
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June 7, 2023

Northeast Natural Energy, LLC
707 Virginia Street East, Suite 100
Charleston, WV 25301

Re: Operator Comments from Northeast Natural Energy regarding API #'s 4706101929, 4706101930, 4706101931, and 4706101932.

Dear Mr. James Kotcon, West Virginia Chapter of Sierra Club:

The Office of Oil and Gas (OOG) has completed its review of the above referenced permit application submitted by Northeast Natural Energy, LLC. The Monongalia County oil and gas inspector examined the site to ensure compliance with all applicable requirements of Article 6A, Chapter 22 of the West Virginia Code and Legislative Rule Title 35, Series 8. Also, your comments were sent to the applicant to ensure it was aware of your concerns. The applicant's response is enclosed for your records.

After considering your comments, and the applicant's response, the OOG has determined that the application meets the requirements set forth in the above statute and legislative rule. Consequently, the OOG is issuing the permit today. For your information and convenience, I am including with this letter a copy of the permit as issued.

Please contact Taylor Brewer at (304) 926-0499, extension 41108 if you have questions.

Sincerely,

A handwritten signature in blue ink that reads 'Taylor Brewer'.

Taylor Brewer
Assistant Chief - Permitting
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 41108

Promoting a healthy environment.

06/09/2023



northeast

NATURAL ENERGY

June 1, 2023

Attn: Charles Taylor Brewer, Assistant Chief – Permitting
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Public Comment – Dolls Run 3H, 5H, 7H, and 9H wells

Dear Mr. Brewer,

Northeast Natural Energy, LLC (“NNE”) received public comments (attached) from a Mr. James Kotcon on behalf of the West Virginia Chapter of the Sierra Club regarding its Dolls Run 3H (061-01929), 5H (061-01930), 7H (061-01931) and 9H (061-01932) permit applications from the Office of Oil and Gas on May 24th, 2023. NNE respectfully responds as follows:

NNE is fully committed to the safe and responsible development of the energy resources that our state is fortunate to contain. Responsible development at NNE means not only complying with the state and federal regulations that govern our industry, but being a good steward within the communities where we operate as well. NNE is proud that its employees live and work in West Virginia and take our responsibility to our shared environment seriously.

To demonstrate this responsibility, our company chose to be observed and measured, through third-party auditors, to ensure that our policies, procedures, and practices protect the communities in which we live and work. These audits led to NNE becoming the first US based Exploration and Production company to receive certifications from both Equitable Origins “EO” and MiQ. EO’s certification is based on Environmental, Social and Governance “ESG” policies and performance, while MiQ’s certification is based on Methane intensity. In both regards NNE is proud of our record as a responsible operator and industry leader in methane intensity performance. Although NNE has achieved one of the lowest methane intensity levels in the U.S., we are committed to continuous improvement and are exploring and implementing additional emission reduction strategies. These strategies are highlighted on our website (www.northeastnaturalenergy.com) and published annual Sustainability Report.

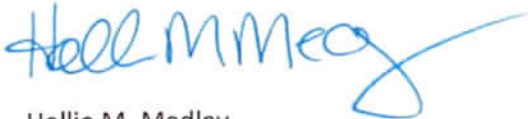
With respect to methane and VOC emissions, both are reported to the WV DEP Division of Air Quality and the United States Environmental Protection Agency (“EPA”). NNE remains in compliance with all permitting and reporting requirements of both agencies. The public can review EPA’s Greenhouse Gas (“GHG”) reporting requirements and data at the following links:

- EPA GHGRP O&G Industry: <https://www.epa.gov/ghgreporting/ghgrp-and-oil-and-gas-industry>
- EPA FLIGHT: <https://ghgdata.epa.gov/ghgp/main.do>

In regard to the concern expressed about noise; in addition to technologies that have already been implemented that improve operational efficiencies and reduce noise, truck traffic and emissions such as the use of Tier IV, dual fuel, and natural gas-powered engines and waterline systems, NNE is currently evaluating opportunities to both study and reduce noise resulting from its operations.

Lastly, NNE is not seeking approval to discharge fluids, and abides by all water withdraw limitations outlined in its approved Water Management Plan. These limitations include monitored minimum gauge readings and maximum pump rates. NNE also utilizes special floating suctions designed to protect aquatic life at all approved withdraw locations. Water reuse and recycling is also highlighted on NNE's website (www.northeastnaturalenergy.com) and annual Sustainability Report.

Sincerely,



Hollie M. Medley
Regulatory Manager



**SIERRA
CLUB**

Sierra Club
West Virginia Chapter

P.O. Box 4142
Morgantown, WV 26504

May 23, 2023

Taylor Brewer, B.S., M.S. Assistant Chief –
Permit Review
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304

Via e-mail to: charles.t.brewer@wv.gov

Re: Draft Permits: 061-01929, 01930, 01931, 01932
Northeast Natural Energy, Dolls Run 3H, 5H, 7H, 9H

Dear Mr. Brewer:

Please accept the following comments on behalf of the approximately 2,600 members of the West Virginia Chapter of Sierra Club. We oppose the issuance of the proposed permits due to the unacceptably high environmental impacts and the lax emissions limits being authorized. Specifically, these permits authorize drilling for four horizontal wells in Monongalia County

Development of the Marcellus gas industry generally has resulted in significant emissions of greenhouse gases, especially methane. The Intergovernmental Panel on Climate Change has recommend that the use of fossil fuels be phased out as quickly as possible in order to avoid dangerous anthropogenic interference with the climate system. Unfortunately, the world is much too far behind schedule to allow further development.

Should WV-DEP decide to issue these permits, the permits absolutely must require the most stringent methane emissions reductions possible. The permits must include provisions for continuous monitoring of methane, as well as other volatile organic compounds, especially those known to be toxic (benzene, hydrogen

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sulfide, etc.). There must also be stringent emissions limits for these compounds, with explicit requirements that these limits apply during well development, malfunctions, and other upsets.

We are also concerned about noise impacts, and recommend that the permit prohibit adverse noise impacts, with no noise greater than 10 decibels above ambient background at the nearest residence or sensitive receptor. Furthermore, the permits should prohibit noise generating activities between 7 PM and 7 AM.

The permits are all located in the Dunkard Creek watershed, and we are aware of five additional permits in this same watershed from this company, not to mention the numerous wells already established. We are concerned about potential for dewatering parts of Dunkard Creek. Dunkard Creek was the site of massive fish kills in 2009 associated with low flows and high pollutant discharges creating favorable conditions for a Golden Algae bloom. Since massive amounts of water are used during hydraulic fracturing, the permits must include prohibitions on water withdrawals that reduce stream flows below the harmonic mean flow. The permits must also prohibit discharges of waste water with Total Dissolved Solids greater than 300 PPM, and require instream monitoring to verify water quality.

Many other issues must be addressed for these permits to be compatible with environmental and human health protection. We request that the comment period for these permits be extended for an additional 60 days, to allow a more complete evaluation of these very significant facilities.

Sincerely,

James Kotcon
Chair
West Virginia Chapter of Sierra Club
jkotcon@gmail.com
304-594-3322 (cell)

06/09/2023



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601 57th Street, S.E.
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Harold Ward, Cabinet Secretary
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June 7, 2023

Northeast Natural Energy, LLC
707 Virginia Street East, Suite 100
Charleston, WV 25301

Re: Operator Comments from Northeast Natural Energy regarding API #'s 4706101929, 4706101930, 4706101931, and 4706101932.

Dear Ms. Betsy Jaeger Lawson:

The Office of Oil and Gas (OOG) has completed its review of the above referenced permit application submitted by Northeast Natural Energy, LLC. The Monongalia County oil and gas inspector examined the site to ensure compliance with all applicable requirements of Article 6A, Chapter 22 of the West Virginia Code and Legislative Rule Title 35, Series 8. Also, your comments were sent to the applicant to ensure it was aware of your concerns. The applicant's response is enclosed for your records.

After considering your comments, and the applicant's response, the OOG has determined that the application meets the requirements set forth in the above statute and legislative rule. Consequently, the OOG is issuing the permit today. For your information and convenience, I am including with this letter a copy of the permit as issued.

Please contact Taylor Brewer at (304) 926-0499, extension 41108 if you have questions.

Sincerely,

A handwritten signature in blue ink that reads "Taylor Brewer". The signature is written in a cursive style.

Taylor Brewer
Assistant Chief - Permitting
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 41108



northeast

NATURAL ENERGY

May 30, 2023

Attn: Charles Taylor Brewer, Assistant Chief – Permitting
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Public Comment – Dolls Run 3H, 5H, 7H, and 9H wells

Dear Mr. Brewer,

Northeast Natural Energy, LLC (“NNE”) received public comments (attached) from a Ms. Betsy Lawson regarding its Dolls Run 3H (061-01929), 5H (061-01930), 7H (061-01931) and 9H (061-01932) permit applications from the Office of Oil and Gas on May 22nd, 2023. NNE respectfully responds as follows:

NNE is fully committed to the safe and responsible development of the energy resources that our state is fortunate to contain. Responsible development at NNE means not only complying with the state and federal regulations that govern our industry, but being a good steward within the communities where we operate as well.

With respect to methane and VOC emissions, both are reported to the WV DEP Division of Air Quality and the United States Environmental Protection Agency (“EPA”). NNE remains in compliance with all permitting and reporting requirements of both agencies. The public can review EPA’s Greenhouse Gas (“GHG”) reporting requirements and data at the following links:

- EPA GHGRP O&G Industry: <https://www.epa.gov/ghgreporting/ghgrp-and-oil-and-gas-industry>
- EPA FLIGHT: <https://ghgdata.epa.gov/ghgp/main.do>

Methane Intensity is a measure of methane emissions relative to natural gas production. NNE reports this number publicly in its Sustainability Report that can be reviewed on its website at <https://northeastnaturalenergy.com/>. This report also outlines NNE’s ongoing efforts to explore and implement new technologies, operational efficiencies, and additional monitoring techniques to reduce emissions year after year.

In regard to the concern expressed about noise; in addition to technologies that have already been implemented that improve operational efficiencies and reduce noise, truck traffic and emissions such as the use of Tier IV, dual fuel, and natural gas-powered engines and waterline systems, NNE is currently evaluating opportunities to both study and reduce noise resulting from its operations.

As expressed previously, NNE encourages the community to contact us with any questions or concerns. Contact information is listed on our website: www.northeastnaturalenergy.com. If an individual is uncomfortable to contact us directly, they may use our 24-hour emergency number (866-207-1846) where issues or concerns can be submitted anonymously. This number is also listed on every well site sign posted at the access entrance.

Sincerely,



Hollie M. Medley
Regulatory Manager

Permit Review

ATTN: Taylor Brewer, B.S., M.S.
Assistant Chief - Permitting
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 41108

Re: Permit Numbers: **061-01929, 01930, 01931, 01932**

Well Numbers: **Dolls Run 3H, 5H, 7H, 9H**

County: **Monongalia**

Operator: **Northeast Natural Energy**

May 20, 2023

Dear Mr. Brewer,

This letter is in response to the four permit applications referenced above, which will have a direct impact on my neighborhood. The photograph on page five shows the Dolls Run well pad as seen from Gallus Road, about fifty yards from my driveway.

The response from NNE to my comment letter of last October referring to the first fracking permit (061-01914) states that NNE received certification from both Equitable Origins (EO) and MiQ, two independent third-party auditors who guarantee "responsibly sourced gas." MiQ focuses on methane emissions while EO focuses on environmental, social, and governance standards.

To learn more about this certification, I read a paper published by the Institute of Physics (IOP), which described the what, why, and how of certifying natural gas, with two references to NNE. Further research showed that NNE uses LUMEN Terrain from Avitas, a Baker Hughes venture, to provide continuous monitoring of methane emissions, a technology approved for certification use. NNE earned an EO100™ certification and an "A" grading from MiQ. An "A" grading represents a methane intensity of less than or equal to 0.05%. How does "methane intensity" compare to actual emissions rates? The biggest leaks are associated with initial well development, and with "malfunctions and upsets". Those are also the hardest to monitor. Please make sure the permit includes requirements for continuous methane monitoring, and that each well be required to meet that emission limit or better at each sampling time.

Since there will be monitoring of **methane emissions**, does this also include **volatile organic chemicals**? Please include specific emissions limits for each VOC. The permit should also specify how monitoring data will be available to the public. Given the big social component of EO's certification, total public transparency should be available.

According to the IOP article, Equitable Origin was developed to address the “externalities” of oil and gas production. These include local air and water pollution, water use, **noise** and light, land degradation, risks of exposure to explosions or environmental harm and health impacts. (page 3.) But nowhere in the IOP article was it described how these externalities are measured. Nor were they mentioned in any of the industry literature about certification. Who does EO interview to determine the impacts of noise? (The acoustics of our “holler” often amplify sound.) I was not able to find an independent, non-industry source to evaluate the EO100 certification.

NNE's response to my October letter stated that they use Tier IV engines, which operate at lower decibel levels and have fewer emissions. Are these engines used in all phases of operation, from site construction, drilling, fracking, extracting, and processing? Since construction of the well pad began months ago, we can hear constant noise from the earth-moving equipment and related activities. Neighbors on Sugar Grove Road can hear the noise clearly three miles away from the pad site. Our house is 1.25 miles away. Often, the noise has continued all night. One neighbor, who was kept awake for several nights from the noise, was so distraught, he phoned 911, not knowing who else to contact. The permit should include a requirement that noise not exceed 10 decibels above background at the nearest home, and that noise generating equipment not be allowed to operate from 7 PM to 7 AM. If noise is not part of the DEP permitting rules, it should be.

NNE said in their response letter that noise complaints from drilling and completion projects have been extremely rare. I might suggest that few people who live in the Cassville, New Hill and Core area would have any idea of who to contact or how to complain. The permit should include a public notice in the *Dominion Post* and signs posted at the entrance to the site with a phone number to call to register complaints about noise, intrusive truck traffic, land and water degradation, and other impositions.

Section 5.2 of the IOP article says: *“The assessor also visits the sites and interviews local stakeholders: regulatory agencies, **land owners**, indigenous community representatives, and other local community organizations. If operators are described to be non-responsive to local stake-holder concerns, or other complaints arise in these interviews, it will be flagged in the assessor’s report.”* **Shouldn’t local residents be given access to the assessor for Equitable Origins?**

A further question is raised in the S&B Global article regarding pipelines: *“without dedicated pipeline capacity to carry certified gas, there was no way to ensure they were getting the cleaner molecules.”* If certified natural gas requires all new purpose-built pipelines, I fail to see a big environmental advantage, given how pipelines create a lot of erosion and potential for more leaks and explosions. While driving west on Route 7

last week, we were held up by the construction of a new pipeline that looked to be coming from the Dolls Run pad, running north, under Route 7, and just east of Little Indian Creek Road. Is this a purpose-built pipeline for certified gas? Is an older pipeline running parallel to it just beyond L.I.C. Road not qualified to transport certified gas? How many new pipelines will the Dolls Run pad require to qualify for certification?

Much more important than the inconvenience to the people who happen to live close to the well pad is the concern of global climate disruption. Scientists have issued a final warning to the planet as the latest assessment by the Intergovernmental Panel on Climate Change (IPCC) indicates that Earth is on the brink of **irreversible damage** to the climate. Of the last 22 years, 20 have been the hottest on record. The MiQ certification is a step in the right direction but none of the principles or performance targets avoid methane emissions, and the "industry best" claim does not negate the fact that climate change is real and methane is a major contributor. Our future depends on investment in renewable energy now, not more fossil fuel extraction.

According to the WV State Code, 22-1-1, *"Restoring and protecting the environment is fundamental to the health and welfare of individual citizens, and our government has a duty to provide and maintain a healthful environment for our citizens."* In the past, local WV DEP officials whom I have dealt with have all been helpful and responded to my questions. But, in the end, the fossil fuel industry always prevails.

NNE does sound like a more responsible operator than the strip mining company who trashed our neighborhood a decade ago. One can see from the following photo that site construction at the well pad is nearly complete and the first drilling rig is in place. I will be anxious to see how seriously NNE adheres to the principles of their certifications and, if local residents have their sleep disrupted, what will be done about it.

Sincerely,

Betsy Lawson

cc:
Mike John, President
Northeast Natural Energy
707 Virginia Street East, Suite 1200
Charleston, WV 25301

Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail code: 1101A
Washington, DC 20460

Delegate Joe Statler
Room 442M, Building 1
State Capitol Complex
Charleston, WV 2530
joe.statler@wvhouse.gov

references:

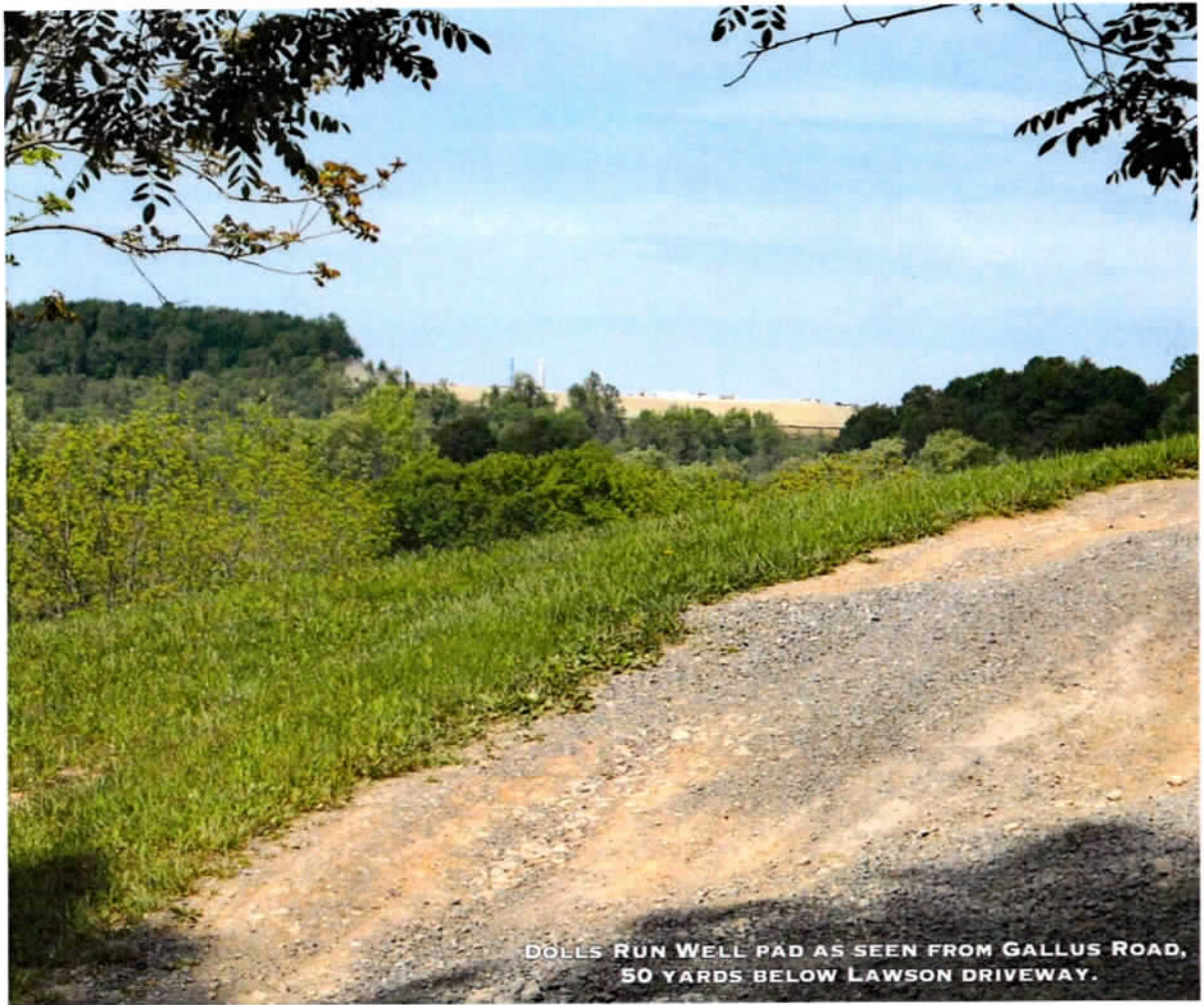
<https://iopscience.iop.org/article/10.1088/1748-9326/acb4af>

<https://www.bakerhughes.com/case-study/northeast-natural-energy-case-study>

<https://www.businesswire.com/news/home/20210428006241/en/Northeast-Natural-Energy-Announces-the-Use-of-LUMEN-Terrain-as-it-Seeks-Independent-Certification-of-the-Company's-Natural-Gas-Production-through-Equitable-Origin-and-MiQ-Standards>

<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/natural-gas/101421-certified-natural-gas-midstream-sector-begins-embracing-concept-standards>

https://news.okstate.edu/articles/engineering-architecture-technology/2019/baker_hughes_announces_lumen_developed_and_designed_by_osu.html





west virginia department of environmental protection

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Harold Ward, Cabinet Secretary
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June 7, 2023

Northeast Natural Energy, LLC
707 Virginia Street East, Suite 100
Charleston, WV 25301

Re: Operator Comments from Northeast Natural Energy regarding API #'s 4706101929, 4706101930, 4706101931, and 4706101932.

Dear Mr. Duane Nichols:

The Office of Oil and Gas (OOG) has completed its review of the above referenced permit application submitted by Northeast Natural Energy, LLC. The Monongalia County oil and gas inspector examined the site to ensure compliance with all applicable requirements of Article 6A, Chapter 22 of the West Virginia Code and Legislative Rule Title 35, Series 8. Also, your comments were sent to the applicant to ensure it was aware of your concerns. The applicant's response is enclosed for your records.

After considering your comments, and the applicant's response, the OOG has determined that the application meets the requirements set forth in the above statute and legislative rule. Consequently, the OOG is issuing the permit today. For your information and convenience, I am including with this letter a copy of the permit as issued.

Please contact Taylor Brewer at (304) 926-0499, extension 41108 if you have questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Taylor Brewer", is written over a light blue horizontal line.

Taylor Brewer
Assistant Chief - Permitting
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 41108

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NATURAL ENERGY

June 1, 2023

Attn: Charles Taylor Brewer, Assistant Chief – Permitting
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Public Comment – Dolls Run 3H, 5H, 7H, and 9H wells

Dear Mr. Brewer,

Northeast Natural Energy, LLC (“NNE”) received public comments (attached) from a Mr. Duane Nichols regarding its Dolls Run 3H (061-01929), 5H (061-01930), 7H (061-01931) and 9H (061-01932) permit applications from the Office of Oil and Gas on May 22nd and 23rd, 2023. NNE respectfully responds as follows:

NNE is fully committed to the safe and responsible development of the energy resources that our state is fortunate to contain. Responsible development at NNE means not only complying with the state and federal regulations that govern our industry, but being a good steward within the communities where we operate as well. NNE is proud that its employees live and work in West Virginia and take our responsibility to our shared environment seriously.

Mr. Nichols states concerns regarding traffic exhausts and additional emissions resulting from drilling and completions operations. These were addressed previously in a response dated October 6, 2022, in reference to the Dolls Run 1H (061-01914) application. However, Mr. Nichols may find NNE’s website (www.northeastnaturalenergy.com) and annual Sustainability Report informative regarding NNE’s many ongoing efforts to identify, reduce and eliminate emissions resulting from its operations. These sources also identify NNE’s efforts to reduce truck traffic and provide improvements within our communities, including road repairs.

With respect to methane and VOC emissions, both are reported to the WV DEP Division of Air Quality and the United States Environmental Protection Agency (“EPA”). NNE remains in compliance with all permitting and reporting requirements of both agencies. The public can review EPA’s Greenhouse Gas (“GHG”) reporting requirements and data at the following links:

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- EPA FLIGHT: <https://ghgdata.epa.gov/ghgp/main.do>

In regard to the concern expressed about noise; in addition to technologies that have already been implemented that improve operational efficiencies and reduce noise, truck traffic and emissions such as the use of Tier IV, dual fuel, and natural gas-powered engines and waterline systems, NNE is currently evaluating opportunities to both study and reduce noise resulting from its operations.

Lastly, NNE abides by all water withdraw limitations outlined in its approved Water Management Plan. These limitations include monitored minimum gauge readings and maximum pump rates. NNE also utilizes special floating suction designed to protect aquatic life at all approved withdraw locations. Water reuse and recycling is also highlighted on NNE's website (www.northeastnaturalenergy.com) and annual Sustainability Report.

Sincerely,



Hollie M. Medley
Regulatory Manager



Fwd: WV-DEP ~ Permit Numbers: 061-01929, 01930, 01931, 01932

1 message

Brewer, Charles T <charles.t.brewer@wv.gov>

Mon, May 22, 2023 at 3:57 PM

To: Hollie Medley <hmedley@nne-llc.com>, Cragin Blevins <cragin.blevins@wv.gov>

Hollie,

See comment received by OOG for the Dolls Run location.

----- Forwarded message -----

From: **Duane Nichols** <duane330@aol.com>

Date: Mon, May 22, 2023 at 3:14 PM

Subject: WV-DEP ~ Permit Numbers: 061-01929, 01930, 01931, 01932

To: <charles.t.brewer@wv.gov>

ATTN: Taylor Brewer, B.S., M.S. Assistant Chief - Permitting WVDEP Office of Oil and Gas [601 57th Street, SE Charleston, WV 25304](#)

Re: Permit Numbers: 061-01929, 01930, 01931, 01932 (Horizontal Gas Wells ~ Dolls Run 3H, 5H, 7H, 9H)

Regarding the four permit applications referenced above, these will have a direct impact on Monongalia County including the Mon River valley. But, the real significance will be on our local residents who are stuck in place to breathe the toxic fumes and hazardous complex hydrocarbons. Do you also know that Monongalia County is unique among the counties of WV ~ Largest University, extensive health care facilities, homes of those needing special care, host for crowds of up to 65,000 people at year round sports events, and proximity to two of the largest coal-fired power plants in the State.

The air pollution will primarily be acute in episodes. 1. Increased traffic will primary involve diesel exhausts. 2. Inadvertent releases during drilling and fracking are unknown, and these cannot be assumed to be negligible. 3. Blow down as part of unregulated drilling and fracking procedures. 4. Leaks and off gases during the final phases of drilling, fracking & completion of the permitted activities. 5. Off gassing and flaring to satisfy production activities and apparent safety operations, etc.

FREQUENT OR CONTINUOUS Monitoring at each stage is essential, if these permits are granted. The public health needs to be protected regardless, with no compromises. Noises and excess lights and road traffic and pot holes 24/7 should be considered.

The monitoring of methane emissions, needs to include volatile organic compounds. Benzene and other dangerous compounds need to be tracked, which can be part of diesel exhaust gases as well as drilling, fracking and completion activities, etc.

The WV State Code, 22-1-1 indicates, 'Restoring and protecting the environment is fundamental to the health and welfare of individual citizens, and our government has a duty to provide and maintain a healthful environment for our citizens.' Thus, the WV-DEP has a responsibility to go beyond routine activities for protection from noise, lights, odors, fumes, toxic gases, hazardous carcinogens, and even land disturbances and water pollution.

It is now time to take into account that trace amounts of highly hazardous compounds are resulting local and regionally, and we all need to consider the extensive fracking operations in other counties, as well as Pennsylvania and Ohio. There is now substantial documentation and publications on these problems, many of the chemicals involved and the occurrence of adverse health effects. These extend from asthma to "white lung" (silicosis) to other human diseases and cancers. These problems cannot be ignored.

Thank you for your attention to these issues.

Duane G. Nichols, Co-Ordinator, Mon Valley Clean Air Coalition, [330 Dream Catcher Circle, Morgantown, WV 26508](#)

06/09/2023

Nichols330@gmail.com, 304-216-5535



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
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June 7, 2023

Northeast Natural Energy, LLC
707 Virginia Street East, Suite 100
Charleston, WV 25301

Re: Operator Comments from Northeast Natural Energy regarding API #'s 4706101929, 4706101930, 4706101931, and 4706101932.

Dear Mr. & Mrs. John and Petra Wood:

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Please contact Taylor Brewer at (304) 926-0499, extension 41108 if you have questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Taylor Brewer', is written above the typed name.

Taylor Brewer
Assistant Chief - Permitting
WVDEP Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
304-926-0499 ext. 41108

Promoting a healthy environment.

06/09/2023



northeast

NATURAL ENERGY

May 22, 2023

Attn: Charles Taylor Brewer, Assistant Chief – Permitting
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Public Comment – Dolls Run 3H, 5H, 7H, and 9H wells

Dear Mr. Brewer,

Northeast Natural Energy, LLC (“NNE”) received public comments (attached) from a Mr. and Mrs. Wood regarding its Dolls Run 3H (061-01929), 5H (061-01930), 7H (061-01931) and 9H (061-01932) permit applications from the Office on May 8th, 2023. NNE respectfully responds as follows:

NNE is fully committed to the safe and responsible development of the energy resources that our state is fortunate to contain. Responsible development at NNE means not only complying with the state and federal regulations that govern our industry, but being a good steward within the communities where we operate as well. We are always open to considering new practices and technologies designed to reduce the environmental and social impact of our operations.

While NNE has already taken steps to deploy technologies that improve operational efficiencies and reduce noise, truck traffic and emissions such as the use of Tier IV, dual fuel, and natural gas-powered engines and waterline systems, we appreciate the additional information provided and do take these seriously. NNE is currently evaluating opportunities to both study and reduce noise, resulting from its operations.

It is currently unknown if or when compression may be used at the Dolls Run well pad. However, should compression be utilized NNE will adhere to all regulatory requirements. As a company practice, NNE currently installs buildings around all onsite compressors to reduce noise and will continue to evaluate new technologies that improve our operations and potential impacts.

In regard to the concern expressed about a geothermal well on the Boggess Pad beginning December 2018; NNE is currently partnering with the USDOE and WVU on a science well to explore and study geothermal and carbon capture technologies. This well has not been drilled to date and will not be located on the Boggess well pad. Construction, unrelated to a geothermal well, commenced on the Boggess well pad in June 2018 and intermittent drilling and completions operations ceased November 2019.

Mr. and Mrs. Wood requested to attend well site safety meetings. Well site locations are on private property, and access is governed by individual lease agreements with land and mineral owners. In addition, environmental health and safety regulations and precautions preclude NNE from inviting the local community to its operational sites. Well site safety meetings are limited to trained onsite personnel, emergency services representatives, and inspectors. Should the local community have questions, comments, or grievances regarding our operations, contact information can be publicly accessed on our website: www.northeastnaturalenergy.com. If an individual is uncomfortable contacting us directly, they may use our 24-hour emergency number (866-207-1846) where issues or concerns can be submitted anonymously.

Finally, NNE would like to address the comment that "most residents are not NNE's stakeholders and receive no benefits from the proposed resource exploitation". NNE is proud that its employees live and work in West Virginia. Not only is NNE committed to community engagement near and around its operations; it has thousands of royalty owners that are paid from the production of natural gas, many of whom live in West Virginia. Further, NNE pays millions of dollars annually in taxes and fees, benefiting all West Virginia citizens. NNE's payment of taxes and royalties increases the standard of living for all stakeholders in its operating area.

Sincerely,



Hollie M. Medley
Regulatory Manager

Permit Review
ATTN: Wade Stansberry, Environmental Resources Specialist 3
West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
Wade.A.Stansberry@wv.gov

May 5, 2023

Permit Number: 061-01931
Well Number: Dolls Run 7H
County: Monongalia
Operator: Northeast Natural Energy

Mr. Stansberry,

We are submitting the following comments with respect to the April 24, 2023, Dolls Run 7H horizontal well Permit ID 061-01931 application by Northeast Natural Energy (NNE) which is 2.9 miles from our residence on Fleming Road in Cassville WV. We are requesting written notice of the permit decision. Additionally, we are requesting notification from the Office of Oil and Gas (OOG) and NNE prior to the onset of drilling activities on the Dolls Run 7H well so that we can notify the OOG and NNE about noise grievances in a timely manner; and please notify us ahead of time as to when the hydraulic fracturing will start on the Dolls Run 7H well.

In the 10-20-22 response letter to our 10-7-22 comment letter regarding Permit Number 061-01914 for the Dolls Run 1H well, NNE failed to respond to our request for inclusion of a noise abatement plan in its permit application as well as our request to attend any on-site Well Site Safety Meeting. "We want people to see what we're doing. We want people to understand what we're doing", said NNE president Mike John during a guided tour of NNE's Yost well pad for some state legislators ⁽¹⁾. Apparently, lawmakers (and corporations) are people but community residents who complain about the noise are not people. Also in that response letter, the regulatory manager representing NNE specifically stated that, "We are unable to respond and make improvements if we don't know about the issues that may arise. We encourage anyone to call or email us." Likewise, we encourage NNE to complete a noise impact assessment before the Dolls Run site is set up, which would minimize abatement costs and allow more options when choosing equipment and placement ⁽²⁾. Perhaps NNE *is* using some noise abatement equipment on its well pads, but if that is true, then it is not nearly enough to block the noise that we hear at our home.

In our rural community, most residents are not NNE's stakeholders and receive no benefits from the proposed resource exploitation, but will experience negative environmental side effects. Low income residents, in particular, have few or no options to avoid the negative environmental consequences. The closer residents live to the well pad, the greater the odds that they will be exposed to air, light, and noise pollution. An analysis of well location and census data by the Wall Street Journal revealed that at least 15.3 million Americans now live within a mile of a well that has been drilled since

2000, with an “unprecedented industrialization” of communities now experiencing “24/7” industrial noise, stadium lighting, earth-moving equipment, and truck traffic ⁽³⁾. This is precisely what has happened in our part of Monongalia County.

The response letter we received from NNE regarding Permit Number 061-01914 additionally stated that, “While grievances from our operations are rare, when they exist, we want to know about them”, yet there are no formal means to air our grievances to NNE. Most of the neighbors we ask about the noise also say that they are disturbed by it. One study found that 96% of survey respondents were “worried about their overall health as a result of the noise.” Fifty-seven percent were bothered “a great deal” by the noise, and slightly more than half of respondents said that their sleep was disturbed “a great deal” by the noise ⁽⁴⁾. Another study found that every participant experienced effects from unconventional natural gas development in one or more of five categories; psychological stress, social stress, environment, physical health, and traffic ⁽⁵⁾. In still another study, both day and night low-frequency noise measurements exceeded the level recommended to minimize impacts such as nausea and headaches >97% of the time ⁽⁶⁾. Sustained low-frequency noises negatively affect our health, disturb our sleep and concentration, and cause chronic stress ^(7,8).

We would like NNE to hear us! We have longstanding noise grievances and we want NNE to make improvements. Specifically, please implement technologically available controls on the low-frequency noise caused by Dolls Run 7H well-pad drilling, hydraulic fracturing, and production. Please take corporate responsibility for controlling noise pollution. Please include environmental noise abatement as a normal part of the cost of doing business in our community. There are many companies with the ability to provide consulting services and/or equipment for this purpose, some of which are discussed in the following paragraphs.

During drilling operations, continuous noise originates from the top drive, drawworks, shale shakers, mud pumps, generators, purge/cooling air systems, trucks, forklift, equipment and pipe handling, air and fluid power systems ⁽⁹⁾. The drill-rig equipment and compressors are likely the major causes of the constant noise we described as “the low-frequency rumbling of military-transport helicopters hovering 24/7 almost every day at a fixed distance from your home” in our 10-7-22 comment letter regarding Permit Number 061-01914 for Dolls Run 1H. The persistent, low-frequency noises that we have continued to hear for years even during the production phase on the well pads near our residence are likely due to onsite compressors—which apparently are not subject to any of the laws or regulations governing compressor stations (and we assert that they should be regulated). Low frequencies propagate for long distances, and pass with little attenuation through walls and windows. At long distances from the source, or indoors, the noise spectrum will be selectively attenuated, resulting in a spectrum dominated by low frequencies ⁽¹⁰⁾.

The operating frequencies of most rock drills vary between 30 and 50 Hz ⁽¹¹⁾, which is a very low frequency just above the lower limit of human hearing (~20 Hz). Compressor operating frequencies are around 75 Hz; cooling compressors at 50-100 Hz ⁽¹²⁾. Will OOG and NNE please tell us if the well

pad will use any lift compressors and/or any compressors to feed the gas from the Dolls Run 7H wellhead into a pipeline during the production phase? And if yes, for how long will the compressors be used, and what times of day and for how many hours per day will they be used? Given that almost every producing well pad in the area has at least one onsite compressor, we suspect that Dolls Run will also have one and it needs to be better mitigated than the compressors at existing wells.

Generator cooling fans are often the cause of low-frequency sound issues. Low-frequency noise from these sources can be problematic as it travels easily over acoustic barriers and carries over long distances. An effective solution to the problem is to install a set of duct silencers to each fan. This type of silencer allows air to pass through it while dramatically reducing fan noise. The most effective noise control solution for mud pumps is to contain them within a sound-attenuating enclosure. The pumps generate significant heat and, when fully enclosed, require a cooling system. The enclosure will therefore usually need air intakes and vents that leak noise to the outside. These leaks can be mitigated with the use of duct silencers. The shakers are usually the main source of low-frequency noise on the rig. Each shaker contains a table that is vibrated at a low frequency. An enclosure around the shakers can be an effective mitigation option so long as safety concerns are resolved to make this option viable (ie. adequate ventilation must be provided inside the enclosure). Top drive noise may be mitigated with the installation of acoustical barriers applied to the mast. It is often possible to wrap acoustical blankets around at least three sides of the mast, to direct the top drive noise in one direction only ⁽¹³⁾.

Source treatments such as mufflers and sound-insulated equipment enclosures around motors and compressors reduce low-frequency noise emissions. These and other treatments include: equipping all engines with exhaust silencers; equipping all enclosures with ventilation silencers; minimizing the number of generators running at certain times of the day; instructing operators to keep enclosure doors closed; re-arranging operations' schedules to cut down on overlapping noises; and eliminating site-related traffic congestion ⁽²⁾.

Rig modifications/upgrades can include sound-insulated containers for the air compressors, the drawworks cooling unit, the hydraulic power pack, the BOP test pump and the generators (with double exhaust mufflers). The drawworks band brakes can be replaced by a silent 4Q braking system with an emergency disk brake. The top drive on the rig mast can be completely encased in soundproof material. ⁽⁹⁾

Other possible mitigation techniques that can be used to reduce sound levels at oil and gas sites include:

- engine sound barriers constructed from steel and sound-absorbing material; sound-insulating buildings around compressors; and rig orientation (e.g., pointing the exhaust side of machinery away from residents with noise grievances) ⁽¹⁴⁾.
- do not conduct flaring and blowdowns (pressure releases) at night or in the early morning; completely enclose engines, generators, and well-site compressors in sound-insulated

buildings; install hospital-grade mufflers on engines; and replace worn-out or loud fan blades (15).

- build enclosures with decoupled walls and ceilings; a floating ceiling is the best and most complete level of decoupling; use fiberglass insulation in conjunction with decoupling; add mass (e.g., multiple layers of plywood or drywall separated by “green glue”) (16).

“Damping”, a form of absorption, works best on low-frequency noises. High-density, porous materials made of open cells are used for damping. A rating system for classifying and comparing these various materials is called the noise reduction coefficient (NRC), which is for absorbers. The NRC rating ranges between 0 and 1 (17). Fiberglass batting has an NRC rating of 0.9 to 0.95 (18).

The following selection of companies produces structures and equipment designed or adapted for sound attenuation at oil and gas operations. We provide internet links to these companies in the “Literature Cited” section at the bottom of this comment letter. We encourage NNE to consult with these and other qualified companies about designing and implementing a comprehensive noise-control system on its industrial well pads in our community. We believe that the 30- to 40-foot tall sound blankets manufactured by some of these companies, however, would do little to attenuate the low-frequency noises originating from NNE’s well pads (Figure 1).

1. Kinetics Noise Control (19)

- Rigid enclosure systems (19a)
- Ventilation silencers (19b)
- Perforated metal acoustic panels (19c)

2. Behrens & Associates – Environmental Noise Control (20)

- Temporary Drilling Rig Generator Sound Control Systems
- Drilling Rig Floor, Derrick, & Sub-structure Sound Blanket Barrier Panels
- Draw Works Brake Shroud Sound Control System
- Production Equipment Acoustical Enclosures & Sound Control Systems
- Gas Compressor Sound Walls, Acoustical Enclosures, & Acoustical Buildings

3. Industrial Sound Mitigation and Noise Control (21)

- Sound control blankets and sound screens for enclosing machines

4. Industrial Noise Control (22)

- Acoustical Enclosure (22a)
- Acoustical Blankets (22b)

- Acoustical Baffles ^(22c)
- Acoustical Wall Panels ^(22d)

5. Sonobex Ltd. ⁽²³⁾

- modular acoustic panel system suitable for steel sheet metal fabrication
- can be used to enclose pumps and compressors

According to a USDE report, ⁽²⁴⁾ NNE and MSEEL2 initiated geothermal drilling operations at the Boggess Pad in December 2018 with the majority of drilling occurring in 2019. Was the low-frequency noise we heard from the Boggess Pad for three years due only to the Marcellus gas drilling and hydraulic fracturing, or was the noise intensified or prolonged by additional geothermal drilling? Why was there no legal advertisement or OOG public notice for a permit-modification, and why was there no notification afforded to the community? Now we learn that NNE is receiving Federal funding for their proposed geothermal-carbon-capture experiments ⁽²⁵⁾. Will these experiments include additional drilling at any of the already-producing well pads within a 10-mile radius of Cassville? Macroeconomic factors, such as Russia's war against Ukraine, are threatening an energy crisis in Europe and thus resigns us to the fact that there will continue to be an unconventional gas drilling industry in our rural community as the gas industry is rushing to extract all of the available natural gas out of the ground. So, given continual expansion of industrial development, will NNE make us live with its industrial-noise pollution for the rest of our lives without making any efforts at noise abatement?

Sincerely,

John M. Wood and Petra B. Wood
P.O. Box 4103
Morgantown, WV 26504
Phone/Text: 304-290-8448

cc:
Mike John, President
Northeast Natural Energy
707 Virginia Street East, Suite 1200
Charleston, WV 25301

Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail code: 1101A
Washington, DC 20460



Figure 1. A sound blanket surrounding the drill rig would not work very well for obvious reasons.

Source: <https://www.drillingnoisecontrol.com/drilling-rig-sound-control-systems/temporary-perimeter-sound-walls/>.

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PERMIT CONDITIONS 4706101929

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

06/09/2023

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Northeast Natural Energy 494498281 Monongalia Clay Osage
Operator ID County District Quadrangle

2) Operator's Well Number: 3H Well Pad Name: Dolls Run

3) Farm Name/Surface Owner: Bryan & Sierra VanNorman Public Road Access: Little Indian Creek Rd/SR 41

4) Elevation, current ground: 1,535' Elevation, proposed post-construction: 1,521'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 8,029', 110', 5,200 psi

8) Proposed Total Vertical Depth: 8,074'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 12,950'

11) Proposed Horizontal Leg Length: 4,430'

12) Approximate Fresh Water Strata Depths: 50', 890'

13) Method to Determine Fresh Water Depths: offset wells

14) Approximate Saltwater Depths: 2,299'

15) Approximate Coal Seam Depths: 399', 890'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

RECEIVED
Office of Oil and Gas
APR 24 2023
WV Department of
Environmental Protection

Gayne Knitowski
Digitally signed by
Gayne Knitowski
Date: 2023.04.18
07:56:09 -04'00'

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26"	New	NA	NA	100	100' /	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,070'	1,040' /	CTS
Coal							
Intermediate	9-5/8"	New	J-55	36	2,530'	2,500' /	CTS
Production	5-1/2"	New	P-110	20	12,950'	12,920' /	2895
Tubing	2-7/8"	New	P-110	6.5	NA		
Liners							

Gayne
Knitowski

Digitally signed by Gayne Knitowski
Date: 2023.04.18 07:55:51 -0400

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26"	28"	0.375	NA	NA	Type 1	1.18
Fresh Water	13-3/8"	17-1/2"	0.380	2,730	500	Class A or L	1.19
Coal							
Intermediate	9-5/8"	12-3/8"	0.395	3,520	2,800	Class A or L /	1.19
Production	5-1/2"	8-3/4"	0.361	14,360 /	11,400	50:50 POZ	1.07
Tubing	2-7/8"	NA	0.271	13,870	NA	NA	NA
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED
Office of Oil and Gas

APR 24 2023

WV Department of
Environmental Protection

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Utilize auger rig to set cellar & conductor. The conductor will be grouted with cement to surface. Mobilize top hole drilling rig. Drill surface section on air. Run surface (freshwater & coal string) casing to desired depth. The surface section will not penetrate sea level. Surface casing will be cemented to surface. Drill intermediate section on air. Run intermediate casing to desired depth. Intermediate casing will be cemented to surface. Drill on air the production section to the start of the curve (KOP). The well will be loaded with synthetic oil base drilling mud (SOBM). Demobilize top hole rig. Mobilize horizontal drilling rig. Finish drilling the production section utilizing MWD surveys and geosteering practices to maintain the wellbore in the Marcellus shale and prevent anti-collision. Production casing will be ran to TD and cement top will be inside the intermediate casing.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

A cement bond log will determine the top of production casing cement. The production casing will be pressure tested. The hydraulic fracturing equipment will then open the toe sleeves and begin pumping the first stage. The plug-and-perf method will be used for the remaining stages. The max anticipated pressure during frac is 11,200psi and a max rate of 90bpm. After frac, the drillout rig will drill all plugs out of the well. Land production tubing at desired depth. Then flowback well until ready to turn in line to production facilities.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 27.36

22) Area to be disturbed for well pad only, less access road (acres): 10.01

23) Describe centralizer placement for each casing string:

Surface: shoe track & every 3rd joint to surface
Intermediate: shoe track & every 3rd joint to surface
Production: Rigid bow centralizers at shoe track & every other joint in the lateral to KOP. Bow springs from KOP to surface every third joint.

24) Describe all cement additives associated with each cement type:

Surface: Class A or L Cement + Max 3% bwoc Calcium Chloride Fresh Water blend.
Intermediate: Class A or L Cement + Max 3% bwoc Calcium Chloride + Fresh Water.
Production: 50:50 Poz (Fly Ash & Class A or L) plus additives such as defoamer, retarder, & fluid loss to meet well specific requirements

25) Proposed borehole conditioning procedures:

Surface & intermediate on air will utilize high volumetric flow rates of air to ensure the wellbore is clean prior to TOH.
Production section will utilize synthetic oil based drilling mud to properly clean the wellbore. At TD, pump rate and rotation will be maximized and tripping will not begin until shakers flow clean.
Production casing will be circulated prior to cementing to ensure a prepared wellbore for cementing.

*Note: Attach additional sheets as needed.

Northeast Natural Energy LLC Mine Contingency Plan



On all wells drilled, Northeast Natural Energy LLC ("NNE") has contingency strategies in place should an unanticipated void or mine be encountered while drilling the surface section of the well. If encountered, any accumulated gases will be diverted a safe distance away from the drilling operations through the blooey line and/or flare.

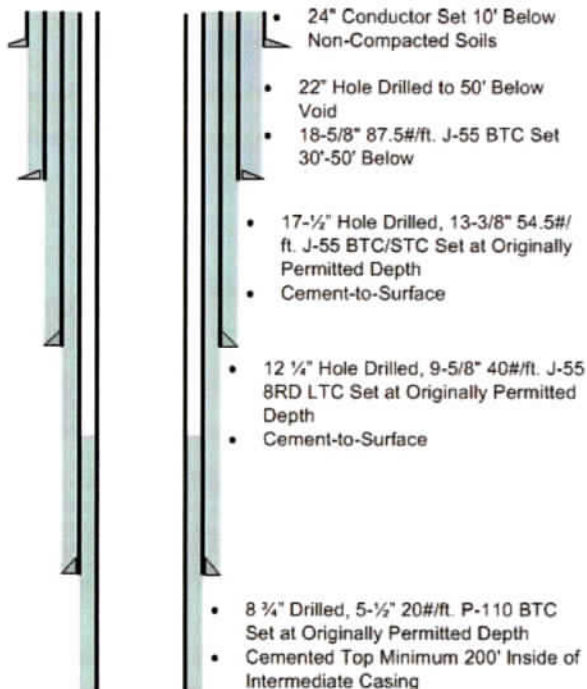
All casings programs submitted to the state incorporate the use of a 24" conductor over the previously used 20" that has long been the industry standard for a typical Marcellus design. The use of 24" conductor casing allows the use of a 22" bit to ream the surface hole, and drill 50' below the void to run a string of 18-5/8" 87.50#/ft J-55 through the section when needed.

The 18-5/8" would be set 30-50' below the void with cement baskets placed directly above and below. The section of pipe below the void would be cemented using the balance method with 100% excess. The section above the void would be cemented separately by using remedial top fill techniques and 30% excess.

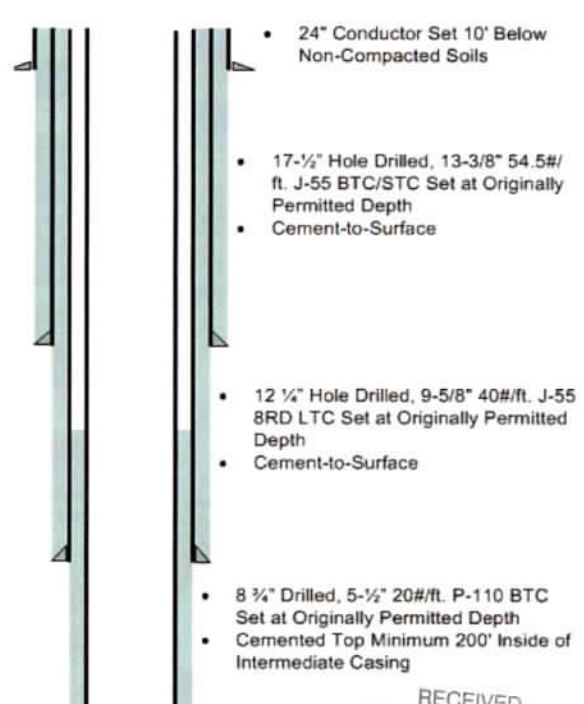
With the use of these string sizes and techniques, the surface and intermediate strings do not need to be altered. After a proper WOC time, the surface section of the well would continue to be drilled with a 17-1/2" bit and the 13-3/8" 54.50#/ft freshwater casing would be set at the originally permitted depth.

**The diagram below visually shows the alternative casing plan should an unanticipated void be encountered.*

Casing Schematic w/ Mine String



Casing Schematic w/o Mine String



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06/09/2023

NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: Dolls Run Pad

Slot: Slot #3H
 Well: Dolls Run 3H
 Wellbore: Dolls Run 3H

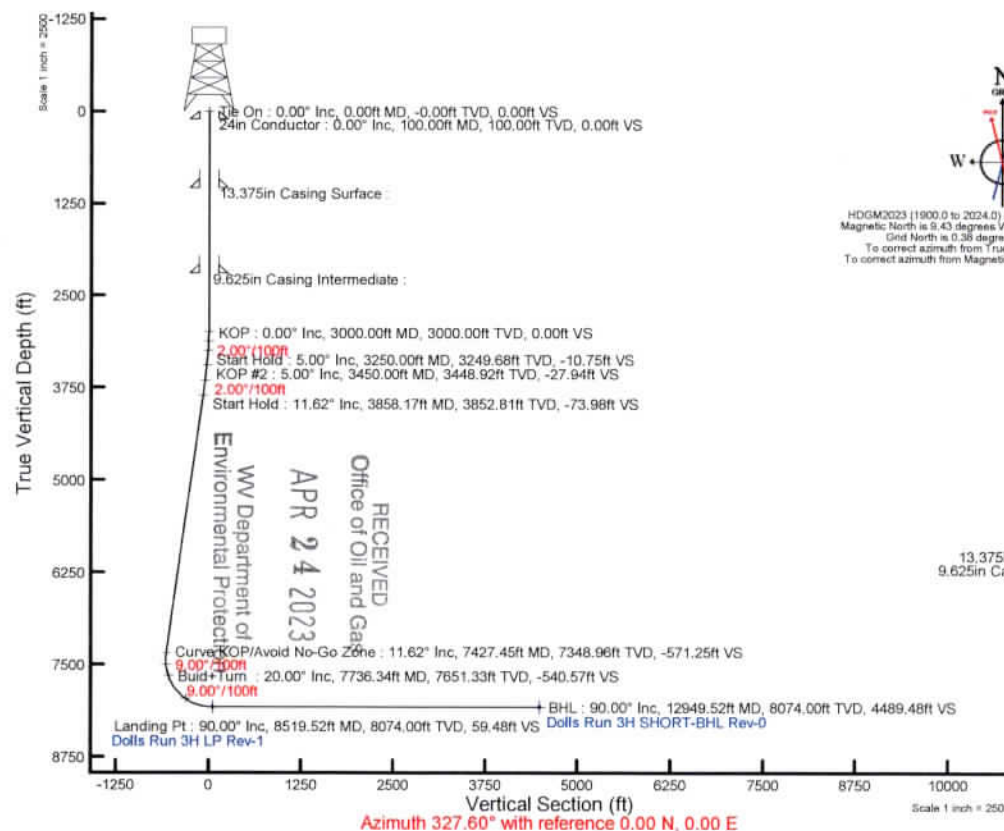


Reference wellbore is Dolls Run 3H	Grid System: NAD83 (1) unless otherwise specified, Northern Zone (4701), U.S. feet
True vertical depths are referenced to Ground Level (GL).	North Reference: Grid north
Reference wellbore measured depths are referenced to Ground Level (GL).	State: True vertical
Ground Level (GL) is Mean Sea Level: 1022 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground Level (M.S.L. Slot #3H): 1022 feet	Depths are in feet
Other wellbore MAs are referenced to each well's datum MD datum	Created by manager on 2023/04/11 Database: RW_MPL_EASTWINGUS_Curb

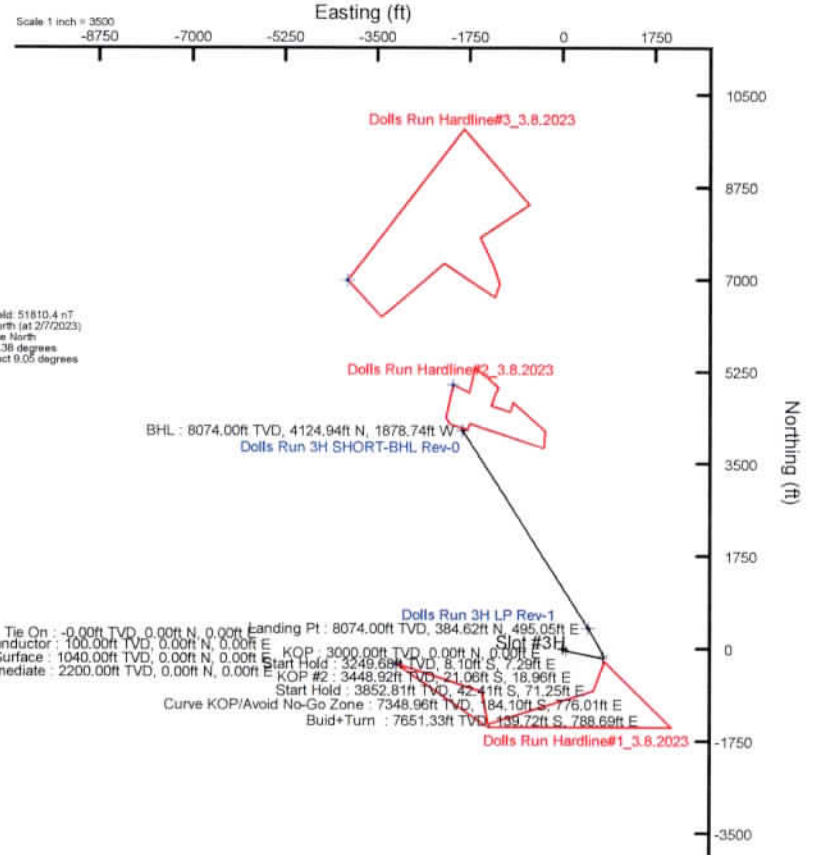
Location Information					
Facility Name	Grid East (U.S. Ft)	Grid North (U.S. Ft)	Latitude	Longitude	
Dolls Run Pad	1801477.970	417916.940	39°38'44.20687N	80°35'35.32177W	
Slot	Local N (ft)	Local E (ft)	Grid East (U.S. Ft)	Grid North (U.S. Ft)	Latitude
Slot #3H	39.52	6.17	1801484.140	417856.460	39°38'44.59707N
Ground Level (GL) to Ground Level (M.S.L. Slot #3H)					1022
Mean Sea Level to Ground Level (M.S.L. Slot #3H)					-1022
Ground Level (GL) to Mean Sea Level					1022

Formation	Top (GL)
Tully	7840
Hamilton	7904
Upper Marcellus	8011
Lower Marcellus	8056
Target	8074
Onondaga	8114

Casing Type	Hole Size	Casing Size	Grade	Weight	Casing Depth (GL)	Drill Depth
Conductor	32"	26"	N/A	N/A	100	100
Surface	17.5"	13.375"	J-55	54.5	1040	1070
Intermediate	12.25"	9.675"	J-55	36	2500	2530



HDGM2023 (1900.0 to 2024.0) Dip: 66.31° Field: 51810.4 mT
 Magnetic North is 9.43 degrees West of True North (at 2/7/2023)
 Grid North is 0.38 degrees West of True North
 To correct azimuth from True to Grid add 0.38 degrees
 To correct azimuth from Magnetic to Grid subtract 9.05 degrees



Azimuth 327.60° with reference 0.00 N, 0.00 E

4706101929



northeast
NATURAL ENERGY

47 06 10 19 29

April 18, 2023

Attn: Charles Taylor Brewer, Assistant Chief – Permitting
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Order No. 2022-14

Dear Mr. Brewer,

Northeast Natural Energy (“NNE”) would like to provide notice that it may use American Petroleum Institute (“API”) Class L cement in place of API Class A cement as approved by Order No. 2022-14, attached hereto, on its Dolls Run well construction.

Should you have any questions please contact me at 304-212-0422 or by email at hmedley@nne-llc.com.

Sincerely,

Hollie M. Medley
Regulatory Manager

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west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304
Phone (304) 928-0450

Harold D. Ward, Cabinet Secretary
dep.wv.gov

**BEFORE THE OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA**

**IN THE MATTER OF A VARIANCE FROM)
LEGISLATIVE RULE 35CSR4) ORDER NO. 2022-14
SECTION 11.5 AND LEGISLATIVE RULE)
35CSR8 SECTION 9.2.h.8.,)
RELATING TO THE CEMENTING)
OF OIL AND GAS WELLS)**

REPORT OF THE OFFICE

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well construction.

FINDINGS OF FACT

1. On July 14, 2022, Northeast Natural Energy (NNE) submitted a variance request from Legislative Rule 35CSR8 Section 9.2.h.8., for the use of API Class L cement in place of API Class A cement, relating to the construction of horizontal wells.
2. Laboratory analysis submitted by NNE on July 14, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR4 Section 11.5., for the use of API Class L cement in place of API Class A cement, relating to the construction of vertical wells.

Promoting a healthy environment.

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4. On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

CONCLUSIONS OF LAW

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.


ORDER

It is ordered that the Class L cement product approved and monogrammed by API is approved for use in place of API Class A cement for well construction subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OF THE STATE OF WEST VIRGINIA

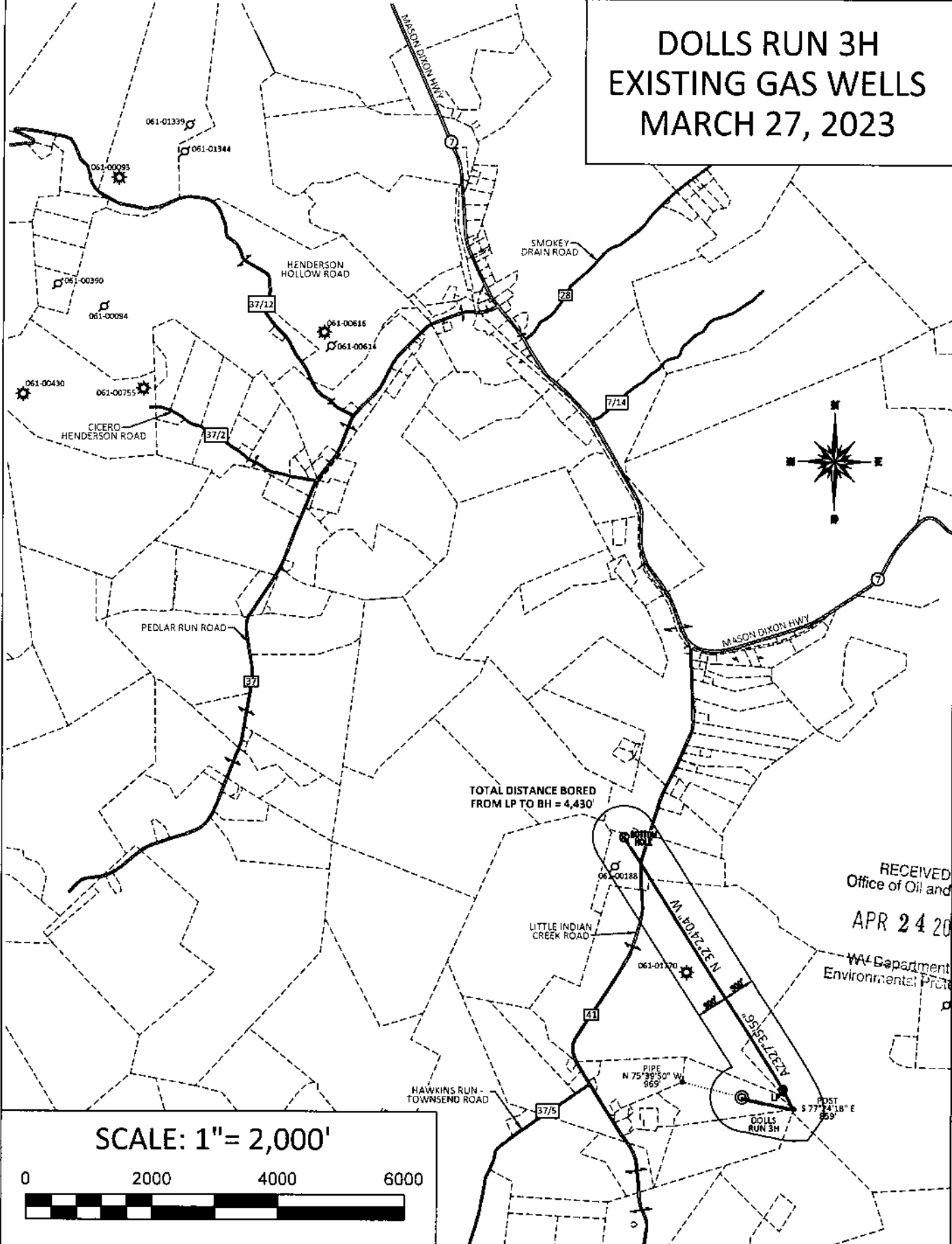


James Martin, Chief
Office of Oil and Gas

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DOLLS RUN 3H EXISTING GAS WELLS MARCH 27, 2023



TOTAL DISTANCE BORED
FROM LP TO BH = 4,430'

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SCALE: 1" = 2,000'



DOLLS RUN 3H AREA OF REVIEW

API Number	Well Name	Well Number	Operator	Latitude (NAD 83)	Longitude (NAD 83)	TMP	TVD	Notes
061-01770	NA	NA	NA	NA	NA	4-15-41	NA	NA
061-00188	L B WILDMAN HEIRS	1	OPER IN MIN.OWNER	39.655717	-80.100391	4-15-40.1	2955	NA

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47 06 10 19 29

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WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Dolls Run 3H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Northeast Natural Energy LLC OP Code 494498281
Watershed (HUC 10) Upper Monongahela Quadrangle Osage

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: NA

Will a synthetic liner be used in the pit? Yes No If so, what ml.? NA

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number unknown at this time, TBD)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes, Please See Attachment "A"

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical - Air/ Curve & Horizontal - Oil Based

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Based Mud

Additives to be used in drilling medium? Organophilic Clay Viscosifiers, Lime, Unsaturated Fatty Acids, CaCl, Barite, Emulsifiers, Mica LCM, Water Loss Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removed Offsite - Please See Attachment "A"

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? Please See Attachment "A"

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.


I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Hollie Medley
Company Official (Typed Name) Hollie Medley
Company Official Title Regulatory Manager

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APR 24 2023

Subscribed and sworn before me this 5th day of April, 2023, 20
Kristen Brooks
My commission expires Aug. 10, 2023

Notary Public



WV Department of Environmental Protection
OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Kristen Brooks
Northeast Natural Energy LLC
48 Donley St., Suite 601
Morgantown, WV 26501
My Commission Expires Aug. 10, 2023
06/09/2023

Northeast Natural Energy LLC

Proposed Revegetation Treatment: Acres Disturbed 27.36 Prevegetation pH 5-7

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 300 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	46	Orchard Grass	46
Red Clover	8	Red Clover	8
Tetraploi Perennial Rye	16	Tetraploid Perennial Rye	16
Timothy 15 Annual Rye 15		Timothy 15 Annual Rye	15

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gayne Knitowski Digitally signed by Gayne Knitowski Date: 2023.04.04 12:41:22 -0400

Comments: _____

Title: Inspector

Date: 04/04/2023

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Field Reviewed? () Yes () No

Attachment A to WW-9

Northeast Natural Energy LLC (“NNE”) plans to utilize a closed loop process for its drilling of the well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

The Cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal:

- Westmoreland Sanitary Landfill (Noble Environmental) – Belle Vernon, PA (Permit # 100277)
- Chestnut Valley Landfill (Nobel Environmental) – McClellandtown, PA (Permit # 100419)
- Austin Master Services – Martins Ferry, OH (Permit # WF-2022-05)
- Belmont Solids Control LLC – Cadiz, OH (Permit # WF-2022-01)

NNE plans to reuse and recycle all flowback fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved to accept waste at time of disposal:

UIC Well Name	Owner/Operator	API No.
K & H Disposal	Central Environmental Services	47-061-01689
Dennison Disposal Well	Dennison Disposal	34-157-2-5507
Nichols	Tidal Logistics	34-167-2-3862
Goff	Tidal Logistics	34-119-2-8776
Clearwater 3	Tidal Logistics	34-059-2-3986
Bo	Tidal Logistics	34-059-2-4473
Shields	Tidal Logistics	34-059-2-4445
Redbird #2	Redbird Development, LLC	34-167-2-9731
Redbird #4	Redbird Development, LLC	34-167-2-9767
Mills	Omega Drilling/FQ Energy	34-105-2-3619
Dexter City	Omega Drilling/FQ Energy	34-121-24037
Ritchie	Omega Drilling/FQ Energy	47-085-09721

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northeast

NATURAL ENERGY

Dolls Run Pad Site Safety Plan

September 2022

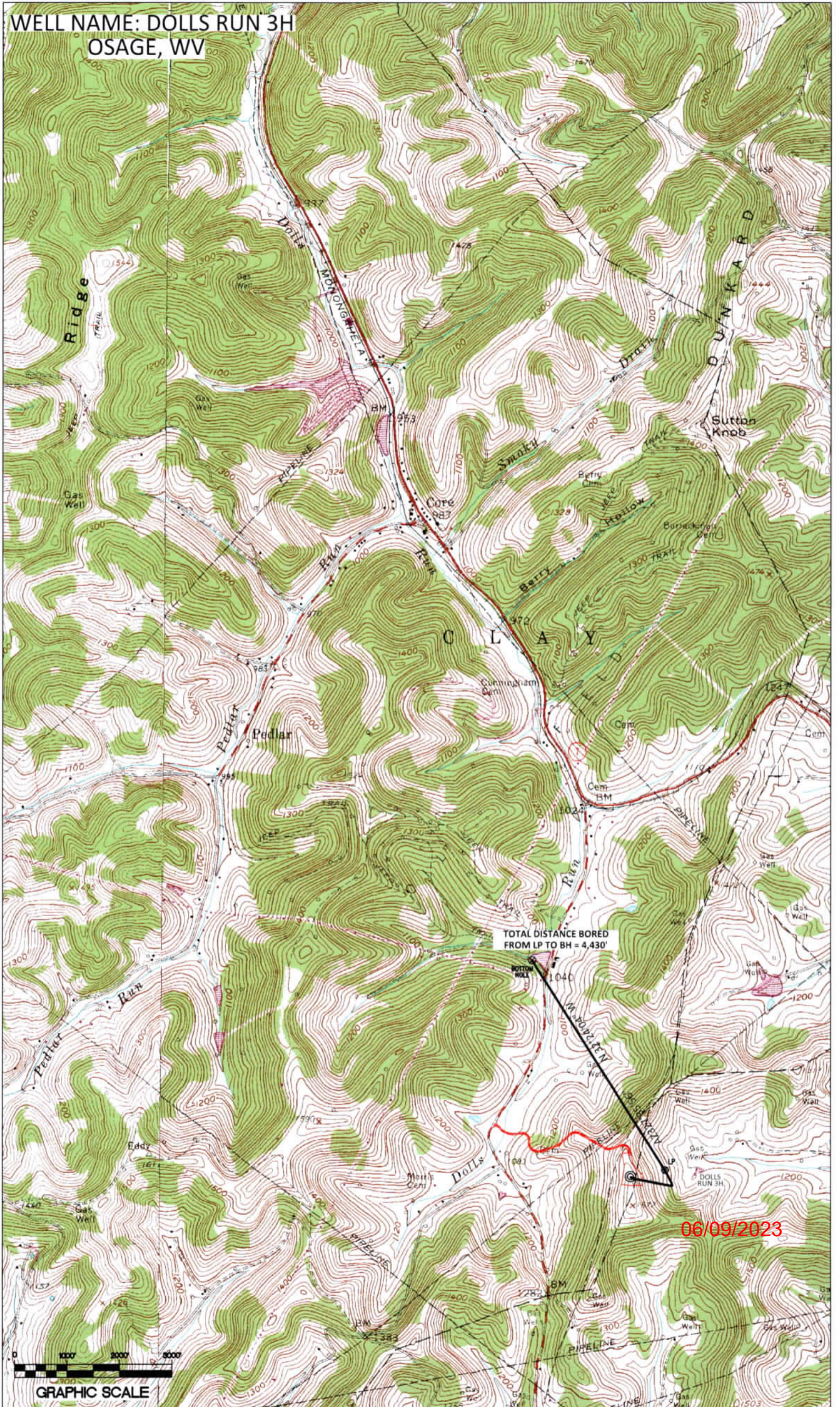
Amos L. Reynolds

9-14-22

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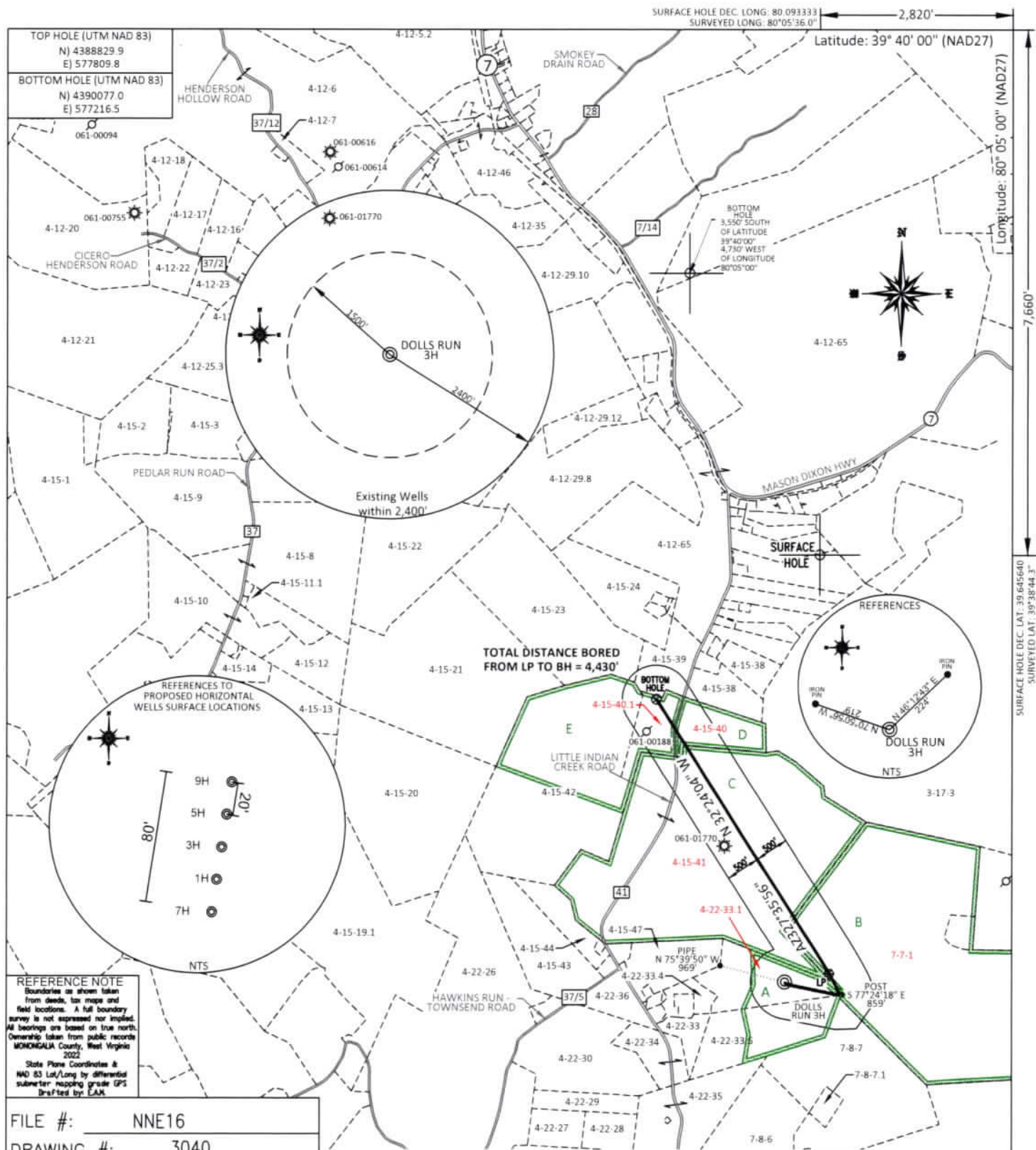
06/09/2023

WELL NAME: DOLLS RUN 3H
OSAGE, WV



06/09/2023



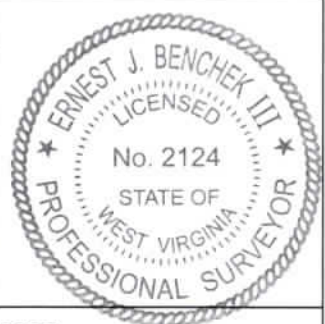


REFERENCE NOTE
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records MONONGALIA County, West Virginia 2022
 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS. Drawn by: LAA

FILE #: NNE16
 DRAWING #: 3040
 SCALE: PLAT: 1" = 2000'
TICK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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: [Signature]
 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 / CLAY
 SURFACE OWNER: BRYAN & SIERRA VANNORMAN
 OIL & GAS ROYALTY OWNER: MARK V EDDY
 LEASE NUMBERS: _____
 TARGET FORMATION: MARCELLUS
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

DATE: MARCH 27, 2023
 OPERATOR'S WELL #: DOLLS RUN 3H
 API WELL #: 47 61 01929 HCA
 STATE COUNTY PERMIT
 PROPOSED ELEVATION: 1,521.9'
 QUADRANGLE: OSAGE
 ACREAGE: 27.74 06/09/2023
 ACREAGE: 551.26 +/-

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____
 ESTIMATED DEPTH: TVD: 8,074' TMD: 12,950'
 DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

PROPERTY OWNER INDEX	
4-15-40.1	STATE OF WEST VIRGINIA BUREAU OF COMMERCE
4-15-41	DONNA N & ROBERT ALLEN WRIGHT
4-22-33.1	DENNIS J & MELINDA S THORNE
7-7-1	OWEN REALTY CO INC
4-15-40	LEROY E & GLENNA J TENNANT LEGACY PROTECTOR TRUST

LEASE INDEX	
A	WV-061-004020-000
B	WV-061-086230-001
C	WV-061-005246-002
D	WV-061-004237-001
E	WV-061-004237-001

06/09/2023

FILE #: NEE14

DRAWING #: 3040

SCALE: N/A

DATE: MARCH 27, 2023

OPERATOR'S WELL #: DOLLS RUN 3H

API WELL #: 47 61 01929
STATE COUNTY PERMIT

WW-6A1
(5/13)

Operator's Well No. Dolls Run 3H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Northeast Natural Energy
 By: Hollie Medley *Hollie Medley*
 Its: Regulatory Manager

WW6A-1

Operators Well No. Dolls Run 3H

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
A	WV-061-004020-000	Mark V. Eddy	Northeast Natural Energy, LLC	12.5% Royalty or More	1505	572
	WV-061-002154-006	Donald Ayersman	Northeast Natural Energy, LLC	12.5% Royalty or More	1786	413
	WV-061-002154-008	Raymond D. Williams	Northeast Natural Energy, LLC	12.5% Royalty or More	1786	650
	WV-061-002154-005	Deloris Hoey	Northeast Natural Energy, LLC	12.5% Royalty or More	1786	411
B	WV-061-086230-001	Shuman Inc.	Northeast Natural Energy, LLC	12.5% Royalty or More	1800	88
C	WV-061-005246-002	Beverly J. Core	Northeast Natural Energy, LLC	12.5% Royalty or More	1642	145
D	WV-061-004237-001	Howard Keener, Administrator C.T.A of the Estate of Luverna Belle Wildman	Washington Oil Company	12.5% Royalty or More	417	144
		Washington Oil Company	Northern United Petroleum Company	12.5% Royalty or More	9	148
		Northern United Petroleum Company	United Petroleum Corporation	12.5% Royalty or More	9	217
		United Petroleum Corporation	Chill Can International, Ltd.	12.5% Royalty or More	9	329
		Chill Can International, Ltd.	Jerome Klubeck	12.5% Royalty or More	9	677
		Jerome Klubeck	N-K, LLC	12.5% Royalty or More	65	373
		N-K, LLC	Northeast Natural Energy, LLC	12.5% Royalty or More	130	840
		N-K, LLC	Northeast Natural Energy, LLC	12.5% Royalty or More	130	840
E	WV-061-004237-001	Howard Keener, Administrator C.T.A of the Estate of Luverna Belle Wildman	Washington Oil Company	12.5% Royalty or More	417	144
		Washington Oil Company	Northern United Petroleum Company	12.5% Royalty or More	9	148
		Northern United Petroleum Company	United Petroleum Corporation	12.5% Royalty or More	9	217
		United Petroleum Corporation	Chill Can International, Ltd.	12.5% Royalty or More	9	329
		Chill Can International, Ltd.	Jerome Klubeck	12.5% Royalty or More	9	677
		Jerome Klubeck	N-K, LLC	12.5% Royalty or More	65	373
		N-K, LLC	Northeast Natural Energy, LLC	12.5% Royalty or More	130	840
		N-K, LLC	Northeast Natural Energy, LLC	12.5% Royalty or More	130	840

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WV Department of
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4706101929



April 4, 2023

WV Department of Environmental Protection
Office of Oil and Gas Management
601 57th Street, SE
Charleston, WV 25304

RE: Dolls Run 3H

Dear Permit Reviewer:

Please be advised that Northeast Natural Energy LLC has the right to drill, extract and produce the minerals beneath Little Indian Creek Road as identified on the included plat.

Sincerely,

A handwritten signature in blue ink, appearing to read 'CD', with a long horizontal flourish extending to the right.

Charles Dornetto
Manager Land Acquisitions

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WW-6AC
(1/12)

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION**

Date of Notice Certification: 04/04/2023

API No. 47- _____ - _____
Operator's Well No. 3H
Well Pad Name: Dolls Run

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>577809.8</u>
County:	<u>Monongalia</u>		Northing:	<u>4388829.9</u>
District:	<u>Clay</u>	Public Road Access:	<u>Little Indian Creek Rd/ SR 41</u>	
Quadrangle:	<u>Osage</u>	Generally used farm name:	<u>Dolls Run</u>	
Watershed:	<u>Dunkard Creek</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

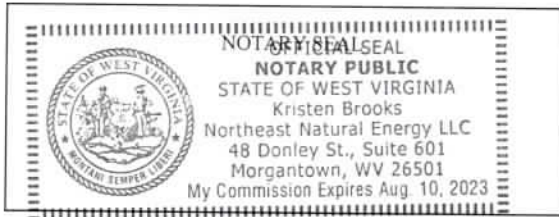
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06/09/2023
WV Department of
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Certification of Notice is hereby given:

THEREFORE, I Hollie Medley, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Northeast Natural Energy, LLC Address: 707 Virginia St, E, Suite 1200
By: Hollie Medley Charleston, WV 25301
Its: Regulatory Manager Facsimile: 304-241-5972
Telephone: 304-241-5752 Email: _____



Hollie Medley
Subscribed and sworn before me this 5th day of April, 2023
Kristen Brooks Notary Public
My Commission Expires Aug. 10, 2023

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

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WW-6A
(9-13)

API NO. 47- _____
OPERATOR WELL NO. 3H _____
Well Pad Name: Dolls Run _____

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION**

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 3/31/23 **Date Permit Application Filed:** 4/10/23

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Bryan D VanNorman & Siera Jordan VanNorman
Address: 2468 Little Indian Creek Road
Core, WV 26541

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: Donna N Wright & Robert Allen
Address: 2714 Little Indian Creek Road
Core, WV 26541

Name: Marvin E. Morris
Address: 2500 Little Indian Creek Road
Core, WV 26541

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Consolidation Coal Company
Address: 46226 National Road
St. Clairsville, OH 43952

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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06/09/2023

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- _____
OPERATOR WELL NO. 3H _____
Well Pad Name: Dolls Run _____

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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APR 24 2023

WV Department of

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

06/09/2023

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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W. Virginia Dept. of Environmental Protection
Environ. Protection

06/09/2023

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(8-13)

API NO. 47- _____ - _____
OPERATOR WELL NO. 3H _____
Well Pad Name: Dolls Run

Notice is hereby given by:

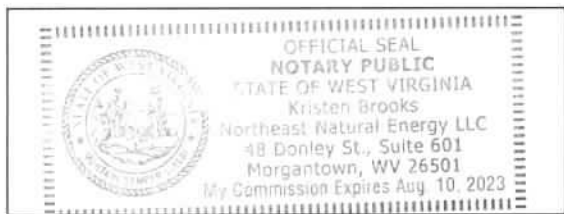
Well Operator: Northeast Natural Energy LLC
Telephone: 304-414-7060
Email: _____

Address: 707 Virginia St. E., Suite 1200
Charleston, WV 25301
Facsimile: _____

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Hallmeyer



Subscribed and sworn before me this 29th day of March 2023

Kristen Brooks Notary Public

My Commission Expires Aug. 10, 2023

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Office of Oil and Gas

APR 24 2023

WV Department of
Environmental Protection

06/09/2023



DOLLE RUN WATER WELLS
 AUGUST 22, 2022
 SCALE - (1" = 700')

WW-6A3
(1/12)Operator Well No. Dolls Run Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 1/11/2022 **Date of Planned Entry:** 1/18/2022

Delivery method pursuant to West Virginia Code § 22-6A-10a

PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Bryan Van Norman and Sierra Van Norman
Address: 2468 Little Indian Creek Rd.
Core, WV 26541

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: _____
Address: _____

MINERAL OWNER(s)

Name: _____
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.6448, -80.093115</u>
County: <u>Monongalia</u>	Public Road Access: <u>Little Indian Creek Rd/SR 41</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Osage</u>	Generally used farm name: <u>Dolls Run</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
Telephone: 304-414-7060
Email: _____

Address: _____
707 Virginia St. E., Suite 1200 Charleston, WV 25301
Facsimile: 304-241-5972

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Office of Oil and Gas
APR 24 2023
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

06/09/2023

WW-6A3
(1/12)

Operator Well No. Dolls Run Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 1/11/2022 **Date of Planned Entry:** 1/18/2022

Delivery method pursuant to West Virginia Code § 22-6A-10a

PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Robert Allen Wright and Donna N Wright
Address: 2714 Little Indian Creek Rd
Core, WV 26541

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: _____
Address: _____

MINERAL OWNER(s)

Name: _____
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.6448, -80.093115</u>
County: <u>Monongalia</u>	Public Road Access: <u>Little Indian Creek Rd/SR 41</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Osage</u>	Generally used farm name: <u>Dolls Run</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
Telephone: 304-414-7060
Email: _____

Address: _____
Facsimile: 304-241-5972

RECEIVED
Office of Oil and Gas

APR 24 2023

WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

06/09/2023

4706-1-01-9-2-9

WW-6A3
(1/12)

Operator Well No. Dolls Run Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 1/11/2022 **Date of Planned Entry:** 1/18/2022

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
 REGISTERED MAIL
 METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Daniel Sperandio and Martha P. Sperandio

Address: 2484 Little Indian Creek Rd.
Core, WV 26541

Name: _____

Address: _____

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: _____

Address: _____

MINERAL OWNER(s)

Name: _____

Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.6448, -80.093115</u>
County: <u>Monongalia</u>	Public Road Access: <u>Little Indian Creek Rd/SR 41</u>
District: <u>Clay</u>	Watershed: <u>Dunkard Creek</u>
Quadrangle: <u>Osage</u>	Generally used farm name: <u>Dolls Run</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC

Telephone: 304-414-7060

Email: _____

Address: _____

707 Virginia St. E., Suite 1200 Charleston, WV 25301

Facsimile: 304-241-5972

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Office of Oil and Gas
APR 24 2023
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

06/09/2023

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 1/11/2022 **Date of Planned Entry:** 1/18/2022

Delivery method pursuant to West Virginia Code § 22-6A-10a

PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(S)

Name: Marvin E. Morris
Address: 2500 Little Indian Creek Rd.
Morgantown, WV 26501

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: _____
Address: _____

MINERAL OWNER(S)

Name: _____
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State:	<u>West Virginia</u>	Approx. Latitude & Longitude:	<u>39.6448, -80.093115</u>
County:	<u>Monongalia</u>	Public Road Access:	<u>Little Indian Creek Rd/SR 41</u>
District:	<u>Clay</u>	Watershed:	<u>Dunkard Creek</u>
Quadrangle:	<u>Osage</u>	Generally used farm name:	<u>Dolls Run</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
Telephone: 304-414-7060
Email: _____

Address: _____
707 Virginia St. E., Suite 1200 Charleston, WV 25301
Facsimile: 304-241-5972

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WV Department of
Environmental Protection

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06/09/2023

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.
Date of Notice: 03/31/2023 **Date Permit Application Filed:** 04/10/2023

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Bryan D Van Norman & Siera Jordan Van Norman
Address: 2468 Little Indian Creek Road
Core, WV 26541

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia
County: Monongalia
District: Clay
Quadrangle: Osage
Watershed: Dunkard Creek

UTM NAD 83 Easting: 577809.8
Northing: 4388829.9
Public Road Access: Little Indian Creek Rd/SR 41
Generally used farm name: Dolls Run

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC
Address: 707 Virginia St. E., Suite 1200
Charleston, WV 25301
Telephone: 304-414-7060
Email: _____
Facsimile: _____

Authorized Representative: Hollie Medley, Regulatory Manager
Address: 48 Donley St., Suite 601
Morgantown, WV 26501
Telephone: 304-212-0422
Email: hmedley@nne-llc.com
Facsimile: _____

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Office of Oil and Gas
APR 24 2023
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6A5
(1/12)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 03/31/2023 **Date Permit Application Filed:** 04/10/2023

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Bryan D Van Norman & Siera Jordan Van Norman
Address: 2468 Little Indian Creek Road
Core, WV 26541

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>577809.8</u>
County:	<u>Monongalia</u>		Northing:	<u>4388829.9</u>
District:	<u>Clay</u>	Public Road Access:	<u>Little Indian Creek Rd/SR 41</u>	
Quadrangle:	<u>Osage</u>	Generally used farm name:	<u>Dolls Run</u>	
Watershed:	<u>Dunkard Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Northeast Natural Energy, LLC
Telephone: 304-414-7061
Email: hmedley@nne-llc.com

Address: 48 Donley St., Suite 601
Morgantown, WV 26501
Facsimile: _____

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Office of Oil and Gas

APR 24 2023

WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

D. Alan Reed, P.E.
State Highway Engineer

Jimmy Wriston, P. E.
Secretary of Transportation
Commissioner of Highways

September 7, 2022

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Dolls Run Pad, Monongalia County
Dolls Run 3H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2022-0611 which has been issued to Northeast Natural Energy for access to the State Road for a well site located off Monongalia County Route 41 SLS MP 3.73.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Hollie Medley
Northeast Natural Energy
CH, OM, D-4
File

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APR 24 2023
WV Department of
Environmental Protection

Planned Additives To Be Used In Fracturing Stimulations

Trade Name	Purpose	Ingredients	Cemical Abstract Service Numner (CAS#)
Water	Carrier	Water	7732-18-5
HCl, 10.1-15%	Acidizing	Hydrochloric Acid Water	7647-01-0 7732-18-5
Alpha 1427	Biocide	Alkyl Dimethyl Benzyl Ammonium Chloride (C12-16) Ethanol Glutaraldehyde Quaternary Ammonium Chloride Water	68424-85-1 64-17-5 111-30-8 7173-51-5 7732-18-5
Enzyme G-NE	Breaker	Hemicellulase Enzyme Concentrate Water	9025-56-3 7732-18-5
CI-14	Corrosion Inhibitor	Fatty Acids Methanol Olefin Polyoxyalkylenes Propargyl Alcohol	NA 67-56-1 NA NA 107-19-7
GW-3LDF	Gelling Agent	Guar Gum Petroleum Distillate Blend	9000-30-0 CBI
FRW-18	Friction Reducer	Hydrotreated Light Distillate	64742-47-8
Ferrotrol 300L	Iron Control	Citric Acid	77-92-9
Sand, White, 40/70	Proppant	Cystalline Silica (Quartz)	14808-60-7
Sand, White, 100 mesh	Proppant	Cystalline Silica (Quartz)	14808-60-7
Scaletrol 720	Scale Inhibitor	Diethylene Glycol	111-46-6

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 Office of Oil and Gas
 APR 24 2023
 WV Department of
 Environmental Protection

47 06 10 19 29

WW-6A7
(6-12)

OPERATOR: Northeast Natural Energy LLC WELL NO: 3H

PAD NAME: Dolls Run

REVIEWED BY: Hollie Medley SIGNATURE: Hollie Medley

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR

DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR

DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

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Office of Oil and Gas

APR 24 2023

WV Department of
Environmental Protection

06/09/2023



TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE WV ONE CALL SYSTEM, INC., 1-800-245-4848 (WV ONE CALL TICKET 2202168024)

OWNER



northeast
NATURAL ENERGY
NORTHEAST NATURAL ENERGY LLC
707 VIRGINIA STREET EAST, SUITE 1200,
CHARLESTON, WV 25301

DOLLS RUN WELL PAD CLAY & GRANT DISTRICT, MONONGALIA COUNTY, WV JULY 2022

PLANS PREPARED BY:

BOORD BENCHEK & ASSOC., INC.
ENGINEERING, SURVEYING, CONSTRUCTION AND MINING SERVICES
SOUTHPOINTE, PA 15317 PHONE: 724-746-1055



ANDREW BENCHEK
P.E.

SHEET INDEX	
1.	TITLE SHEET
2-3.	EVACUATION ROUTE/PREVAILING WIND
4.	E&S CONTROL LAYOUT OVERVIEW
5-7.	E&S CONTROL LAYOUT
8.	E&S CONTROL AND SITE PLAN OVERVIEW
9-11.	E&S CONTROL AND SITE PLAN
12.	ACCESS ROAD PROFILE
13.	WELL PAD CROSS SECTIONS & PROFILE A-A' & B-B'
14-17.	ACCESS ROAD CROSS-SECTIONS
18-21.	DETAILS
22.	RECLAMATION PLAN OVERVIEW
23-25.	RECLAMATION PLAN

TOTAL DISTURBED AREA: 27.36 AC.
ACCESS ROAD DISTURBED AREA: 17.35 AC.
WELL PAD DISTURBED AREA: 10.01 AC.

PROPERTY OWNER DISTURBANCE - 27.36 ACRES
MARVIN E MORRIS (TAX MAP AND PARCEL NUMBER 4-15-47) 3.79 AC.
DORNA H WRIGHT (TAX MAP AND PARCEL NUMBER 4-15-41) 14.59 AC.
BRYAN & SIERRA VANNORMAN (TAX MAP AND PARCEL NUMBER 4-22-33.1) 8.98 AC.



APPROVED
WVDEP OOG
11/4/2022

COORDINATES

SITE ENTRANCE
(NAD 83)
LAT: 39° 38' 54.14"
LONG: 80° 06' 08.42"
(NAD 27)
LAT: 39° 38' 53.85"
LONG: 80° 06' 09.17"

CENTER OF WELL PAD
(NAD 83)
LAT: 39° 38' 45.56"
LONG: 80° 05' 34.93"
(NAD 27)
LAT: 39° 38' 45.27"
LONG: 80° 05' 35.68"



IN ACCORDANCE WITH WV DEPARTMENT OF ENVIRONMENTAL POLICE (DEP) BEST MANAGEMENT PRACTICES (BMP) MANUAL, A GENERAL CONSTRUCTION SEQUENCE, DESCRIPTION OF STABILIZATION METHODS, AND DETAILS & SPECIFICATIONS FOR EROSION & SEDIMENT BEST MANAGEMENT PRACTICES HAVE BEEN INCLUDED IN THE PROVIDED DETAIL SHEETS.

REVISIONS		
NO.	DATE	DESCRIPTION

TITLE SHEET
DOLLS RUN WELL PAD
CLAY & GRANT DISTRICT, MONONGALIA COUNTY, WV

SHEET
1
OF
25



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Environmental
WV Department
APR 24 2022

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