



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, March 2, 2022
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit approval for VANECK 1215 N-6H
47-041-05730-00-00

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: VANECK 1215 N-6H
Farm Name: HG ENERGY II, APPALACHIA
U.S. WELL NUMBER: 47-041-05730-00-00
Horizontal 6A New Drill
Date Issued: 3/2/2022

Promoting a healthy environment.

03/04/2022

PERMIT CONDITIONS

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. 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.

API Number: _____

PERMIT CONDITIONS

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.

03/04/2022



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Harold Ward, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: HG Energy, LLC
5260 Dupont Circle
Parkersburg, WV 26101

DATE: March 1, 2022
ORDER NO.: 2022-W-4

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.*, to HG Energy, LLC (hereinafter "HG" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. HG is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 5260 Dupont Circle, Parkersburg, WV 26101.
3. On January 27, 2022, HG submitted a well work permit application identified as API# 47-041-05730. The well is located on the Vaneck 1215 Pad in the Freemans Creek District of Lewis County, West Virginia.
4. On January 27, 2022, HG requested a waiver for Wetlands, R, S and X as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-041-05709. Wetlands R and S are outside the LOD limits of the 100' buffer of the pad area and will not be included in this waiver.

03/04/2022

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetland X from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-041-05730. The Office of Oil and Gas hereby **ORDERS** that HG shall meet the following site construction and operational requirements for the Vaneck 1215 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height.
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs.
- c. Wetland X shall be protected by a layer of Super Silt Fence and eighteen-inch (18”) compost filter sock. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual.
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill.
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill.
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls.
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs.
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period.
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies.
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 1st day of March 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 

JAMES A. MARTIN, CHIEF

API Number: 47-041-05730

Operator's Well Number: Vaneck 1215 N-6H

Wetland and Perennial Stream Waiver Request

Well Operator: HG Energy II Appalachia, LLC

Well Number: 1215 N-6H

Well Pad Name: Vaneck

County, District, Quadrangle of Well Location: Lewis, Freemans Creek, Camden

1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.

The 1215 Well Site is a proposed pad site located in Freemans Creek District, Lewis County, WV. The proposed pad location is situated on an existing bench area to the east of Elk Lick Run. The proposed project will be located within 100' of three delineated wetlands (Wetland R, Wetland S, & Wetland X). Exhibit A, Pre-Construction Site Conditions, shows the locations of the wetlands. The additional wetlands on the exhibit will have a USACE permit for partial/full disturbance of the wetland (Wetland N, V, Q, & Z).

Wetland R: Wetland R is located north of the proposed Well Pad Access Road and east of proposed Topsoil Stockpile #4. Super silt fence and 18" compost filter sock shall be installed upslope of Wetland R to control perimeter run-off and to also provide a physical barrier between the work area and the protected area. Additionally, orange construction fence will be installed around the wetland to further delineate the protected area. Access road construction will take place above the wetland with the primary activity being installing the toe key and fill slope for the proposed access road.

Wetland S: Wetland S is located north of the proposed Well Pad Access Road and east of proposed Topsoil Stockpile #4. Super silt fence, silt fence and 18" compost filter sock shall be installed upslope of Wetland S to control perimeter run-off and to also provide a physical barrier between the work area and the protected area. Additionally, orange construction fence will be installed around the wetland to further delineate the protected area. Minimal access road construction will take place above the wetland as well as stockpiling of topsoil in the proposed stockpile. The Limits of Disturbance (LOD) have been adjusted to allow for a 20' clear buffer between Wetland S and the LOD.

Wetland X: Wetland X is located south of the proposed AST Pad and east of proposed Topsoil Stockpile #5. Super silt fence, silt fence, and 18" compost filter sock shall be installed upslope of Wetland X to control perimeter run-off and to also provide a physical barrier between the work area and the protected area. Additionally, orange construction fence will be installed around the wetland to further delineate the protected area. Minimal AST Pad construction will take place adjacent to the wetland (cut slope, no filling for the AST Pad adjacent to the wetland) as well as stockpiling topsoil in the proposed stockpile downslope of the existing wetland. The LOD has been adjusted to allow for a 10' clear buffer between the Wetland X and the orange construction fence.

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- 2. Justify the proposed activity by describing alternatives to the project that were considered.**
- a. Include a No-Action Alternative to show "the future without the project"**
 - b. Location Alternatives must be shown**
 - c. Must demonstrate why a one hundred buffer cannot be maintained**
 - d. Describe how the proposed project is the least environmentally damaging practicable alternative.**

2a. No-Action Alternative: In a no-action alternative to the proposed project, the proposed location would not be constructed. The proposed location would need to be relocated to a different location with another wetland delineation survey.

2b.1. Location Alternative #1: Due to the geological, topographical, and leasing restrictions of the area, an alternative location was not evaluated for the site that included an environmental survey. The proposed location has modified fill slopes to eliminate environmental impacts to streams and wetlands.

2c. Must Demonstrate why a one hundred foot buffer cannot be maintained: See Exhibit A, Existing Site Conditions. A 100' buffer cannot be maintained due to the configuration of the well pad and access road.

2d. Describe how the proposed project is the least environmentally damaging practicable alternative:

The proposed alternate location would have stream and/or wetland impacts from a preliminary field survey. The proposed location does impact the four other wetlands delineated within the project area (Wetland N, Wetland V, Wetland Q, & Wetland Z) and a USACE permit will be submitted for the proposed disturbances. The proposed location was reduced in size compared to the alternative sites that were conceptually evaluated. The proposed access road, which follows existing logging trails was moved further up the hill to avoid the proposed wetlands (R, S, X).

3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.

Wetland R, Wetland S, and Wetland X will be protected with super silt fence, silt fence, and 18" compost filter sock. The controls shall be installed upslope of the wetland. In addition to the E&S controls, an orange construction fence shall be installed upslope of the wetlands to provide a buffer around the existing wetlands.

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API Number: _____
Operator's Well Number: Vaneck 1215 N-6H

4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.

4.a Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

See Exhibit B, Proposed Design for the proposed site layout and protective control installation locations.

Vegetative Buffer: A minimum 10' vegetative buffer shall be maintained around both wetlands at all times during construction and operation. The minimum 10' buffer shall be designated with an orange construction fence.

Super Silt Fence: Super silt fence shall be installed at the upslope edge of the vegetative buffer for the wetlands. The super silt fence shall provide sedimentation control above the wetland to prevent sediments and other materials from being carried downslope into the wetlands. Should any large material, typically rock or stone, manage to roll down a slope, the chainlink fence of the super silt fence structure shall act as a net to capture the material before it can proceed further downslope towards the wetlands.

Silt Fence: Silt fence shall be installed at the upslope edge of the vegetative buffer for the wetlands. The silt fence shall provide sedimentation control above the wetland to prevent sediments and other materials from being carried downslope into the wetlands.

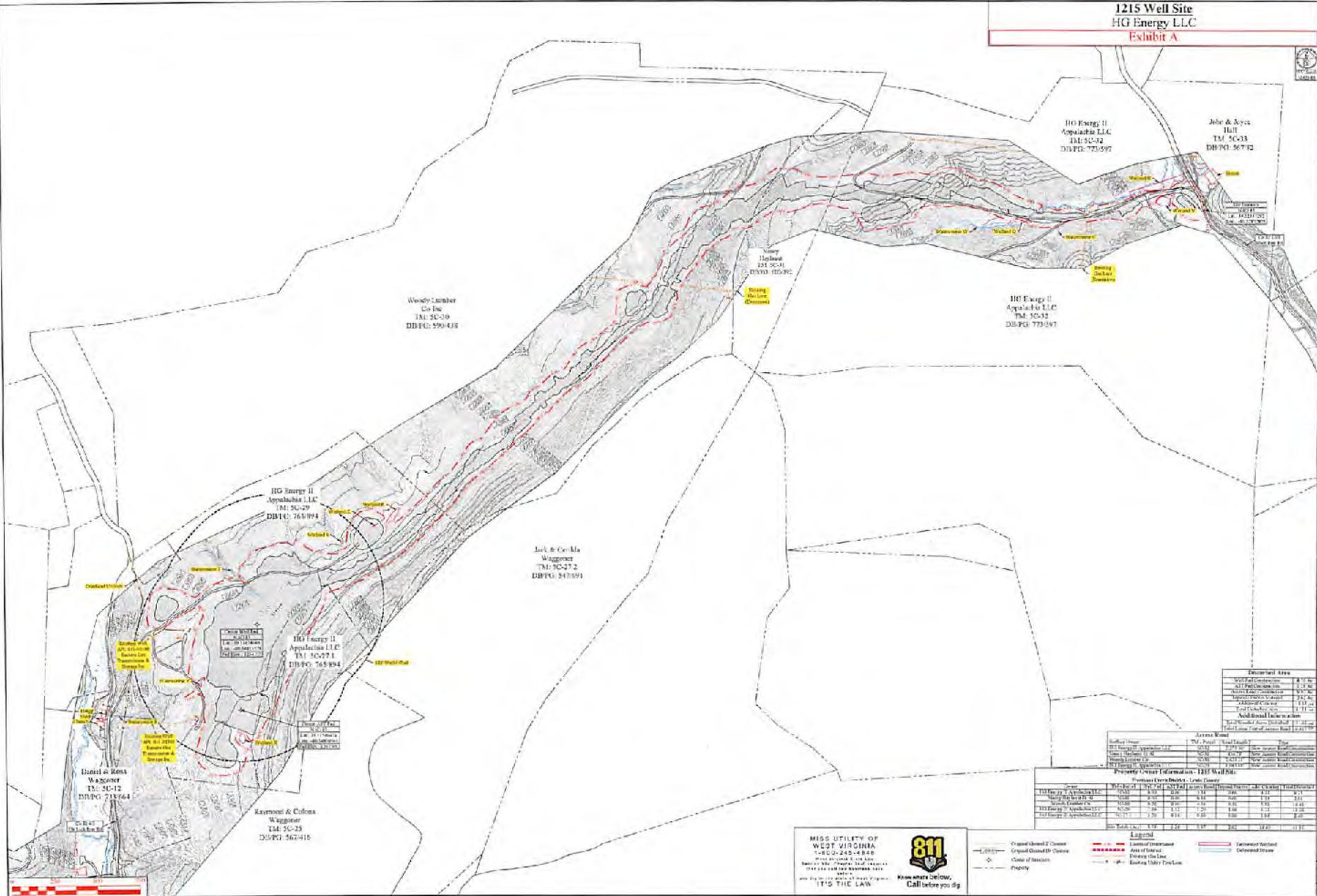
18" Compost Filter Sock: An 18" compost filter sock shall be installed 2' upslope of the super silt fence to provide additional sedimentation protection for the wetlands. The 18" compost filter sock will be the primary sediment filter protection for the wetland with the super silt fence being the secondary filter.

Permanent Seeding / Rolled Erosion Control Blankets: Permanent seeding of all disturbed areas upslope of the wetlands shall be performed as soon as practical. Earthwork above the wetlands shall be kept to a minimum to reduce the amount of disturbed area upslope of the wetlands and shall be vegetated as soon as construction permits. If construction activities upslope of the wetlands are completed at the end of the growing season, rolled erosion control blankets shall be installed to provide additional erosion control until permanent vegetation can be established.

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1215 Well Site
HG Energy LLC
Exhibit A



Woody Lumber
 Co Inc
 TM: 50-30
 DBPG: 590438

Lacey
 LLC
 TM: 50-31
 DBPG: 50390

HG Energy II
 Appalachia LLC
 TM: 50-32
 DBPG: 773-597

John & Anna
 Hill
 TM: 50-33
 DBPG: 56732

HG Energy II
 Appalachia LLC
 TM: 50-29
 DBPG: 765994

Lick & Co's Lda
 Waggoner
 TM: 50-27.2
 DBPG: 547691

HG Energy II
 Appalachia LLC
 TM: 50-27.1
 DBPG: 565994

Daniel & Ross
 Waggoner
 TM: 50-12
 DBPG: 718664

Kaymont & Colona
 Waggoner
 TM: 50-25
 DBPG: 567415

Estimated Area

Well Pad	0.15
20' Buffer	0.15
Access Road	0.15
Gravel Pad	0.15
Drill Pad	0.15
Water Pad	0.15
Other	0.15
Total	0.90

Property Owner Information - 1215 Well Site

Parcel ID	Owner Name	Address	Phone	County
001-000-000-000	John & Anna Hill	1215 Hill Rd	773-56732	Lincoln
001-000-000-000	Lacey LLC	1215 Lacey Rd	773-50390	Lincoln
001-000-000-000	HG Energy II Appalachia LLC	1215 Energy Rd	773-597	Lincoln
001-000-000-000	Woody Lumber Co Inc	1215 Lumber Rd	590438	Lincoln
001-000-000-000	Daniel & Ross Waggoner	1215 Waggoner Rd	718664	Lincoln
001-000-000-000	Kaymont & Colona Waggoner	1215 Waggoner Rd	567415	Lincoln
001-000-000-000	Lick & Co's Lda Waggoner	1215 Waggoner Rd	547691	Lincoln

MISS UTILITY OF WEST VIRGINIA
 1-800-243-6868
 1000 10th St. S.W.
 Denver, CO 80202
 www.missutility.com

811
 Know what's below. Call before you dig.

Legend

	Proposed 20' Contour		Gravel Gravel Dr. Contour		Area of Disturbance		Estimated Wetland
	Class of Structure		Property		Existing Utility		Estimated Stream

THIS DOCUMENT IS PRELIMINARY FOR HG ENERGY LLC
 Key Surveying
 1215 Well Site
 Precast Concrete District
 Lincoln County, WV
 Date: 12/20/21
 Scale: As Shown
 Drawn By: J.S.
 Sheet: 1 of 1

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

1) Well Operator: HG Energy II Appalachia, LLC 494519932 Lewis ✓ Freeman Camden 7.5' ✓
Operator ID County District Quadrangle

2) Operator's Well Number: Vaneck 1215 N-6H ✓ Well Pad Name: Vaneck 1215 ✓

3) Farm Name/Surface Owner: HG Energy II Appalachia, LLC Public Road Access: Mare Run Rd at CR 10 / 9 ✓

4) Elevation, current ground: 1259' Elevation, proposed post-construction: 1254.8'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow Deep _____
Horizontal _____

*SAW
1/13/2022*

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 6753'/6803' and 50' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6,789' ✓

9) Formation at Total Vertical Depth: Marcellus ✓

10) Proposed Total Measured Depth: 23,207' ✓

11) Proposed Horizontal Leg Length: 14,484' ✓

12) Approximate Fresh Water Strata Depths: 60', 214', 600', 861' ✓

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-02173, 0693, 0236, 2308, 0578)

14) Approximate Saltwater Depths: 1605'

15) Approximate Coal Seam Depths: 272', 700', 1040', 1150' (Surface casing is being extended to cover the coal in the DTI Field)

16) Approximate Depth to Possible Void (coal mine, karst, other): None

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

JAN 27 2022

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

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	30"	New	LS	157.5	120'	120'	CTS
Fresh Water/Coal	20"	NEW	J-55	94	1200'	1200'	40% Excess, CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2250'	2250'	40% Excess, CTS
Intermediate 2	9 5/8"	NEW	N-80 BTC	40	4780'	4780'	40% Excess Tail, CTS
Production	5 1/2"	NEW	P-110 HP	23	23207'	23207'	20% Excess Tail, CTS
Tubing							
Liners							

SDW 1/28/2022

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	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	Lead 40% excess, Tail 0% Excess
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/Class A	20% excess yield = 1.19, tail yield 1.20
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6789'. Drill horizontal leg to estimated 14,484' lateral length, 23,207' TMD. Hydraulically fracture, stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ACP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.55 acres

22) Area to be disturbed for well pad only, less access road (acres): 8.70 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.
Freshwater/Coal - centralized every 3 joints to surface.
Intermediate 1 - Bow Spring on every joint, will also be running ACP for isolating storage zone
Intermediate 2 - Bow Spring on first 2 joints then every third joint to 100' from surface.
Production - Vertical - Run 1 spiral centralizer every 5 joints from the top of the curve to surface, Curve - Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.

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

Conductor -NA, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water/Coal - "15.6 ppg PNE-1 + 3% bwoc CaCl40% ExcessYield=1.20 / CTS"
Intermediate 1 - "" Storage String "" CTS "" 15.4 ppg Lead - Yield 1.24 - D898 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)B348 - 0.5% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack V8WOB And Foam / D202 - 0.15% BWOB Dispersant / D095 1.5 lb per SBL CamNET* - 60% Excess15.9 ppg Tail - Yield 1.17 - D898 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)B160A - 0.15% BWOB Dispersant / B547 - 0.35% BWOB GasBLOK / D013 - 0.3% BWOB Retarder / D047 - 0.02 gal / sack And Foam / D801 - 0.03 gal / sack Retarder - 0% Excess"
Intermediate 2 - "Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS"
Production - "Lead: 14.5 ppg POZ-PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% ExcessLead Yield=1.19Tail Yield=1.94CTS"

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.
Fresh Water/Coal - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.
Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.
Intermediate 2 - Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.
Production - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

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*Note: Attach additional sheets as needed.

*** Storage String *** CTS ***

15.4 ppg Lead - Yield 1.24 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
 B348 - 0.5% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack VBWOB Anti Foam / D202 - 0.15% BWOB Dispersant / D095 1.5 lb per BBL CemNET* - 60% Excess
 15.9 ppg Tail - Yield 1.17 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
 B180A - 0.15% BWOB Dispersant / B547 - 0.35% BWOB GasBLOK* / D013 - 0.3% BWOB Retarder / D047 - 0.02 gal / sack Anti Foam / D801 - 0.03 gal / sack Retarder - 0% Excess

1215 N-6H
 Marcellus Shale Horizontal
 Lewis County, WV



Ground Elevation			1215 N-6H SHL				1420552.75N 1768692.53E			
Azimuth			1215 N-6H LP				14207032.73N 1771594.03E			
WELLBORE DIAGRAM			1215 N-6H BHL				14220757.5N 1766984.67E			
HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS	
30"	30" 157.5# LS	Conductor	0	120	AIR	CTS	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness	
26"	20" 94# J-55	Fresh Water	0	214, 600, 881	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi	
		Kittanning Coal	900	905						
		Fresh Water Protection	0	1200						
17.5"	13-3/8" 68# J-55 BTC	Little Lime	1694	1714	AIR / KCL - Salt Polymer	See above (LEFT) for Storage String Cement Blend to Meet DTI Requirements for Gas Storage Field Isolation	Bow Spring on every joint *will also be running ACP for isolating storage zone*	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi	
		Big Lime	1741	1818						
		Injun / Gantz (Storage)	1818 / 2073	1904 / 2125						
		Intermediate 1	0	2250						
12.25"	9-5/8" 40# N-80 BTC	Thirty Foot	2274	2286	AIR / KCL - Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=5750 psi	
		Gordon Stray / Gordon	2320 / 2346	2336 / 2446						
		5th Sand	2590	2612						
		Bayard	2660	2675						
		Speechley	3287	3301						
		Benson	4572	4588						
Intermediate 2	0	TVD: 4780' MD: 5025' Inc: 53 dep.								
8.75"	5-1/2" 23# P-110 HP CDC HTQ				AIR / 9.0ppg SOB M	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions	
8.5" Curve		Rhinestreet	6125	6290	11.5ppg-12.5ppg SOB M		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.			
		Cashaqua	6290	6391						
		Middlesex	6391	6425						
		West River	6425	6500						
		Burkett	6500	6535						
		Tully Limestone	6535	6625						
		Hamilton	6625	6753	11.5ppg-12.5ppg SOB M					
		Marcellus	6753	6803						
		TMD / TVD (Production)	23207	6789						
8.5" Lateral		Onondaga	6803							

LP @ 6789' TVD / 8723' MD

8.5" Hole - Cemented Long String
 5-1/2" 23# P-110 HP CDC HTQ

+/-14484' ft Lateral

TD @ +/-6789' TVD
 +/-23207' MD

4704105730

HG Energy II Appalachia, LLC
Vaneck 1215 Well Pad (N-1H - N6H, S7H - S12H)
Cement Additives

4704105730

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>65997-15-1</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> <tr> <td>Magnesium oxide</td> <td>1 - 5</td> <td>1309-48-4</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>0.1 - 1</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Portland cement	90 - 100	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
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Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
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Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
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Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Tributyl phosphate</td> <td>90 - 100</td> <td>126-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8												
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Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Sucrose</td> <td>90 - 100</td> <td>57-50-1</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1												
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EC-1	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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Poz (Fly Ash)	Base	A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> <tr> <td>Calcium oxide</td> <td>10 - 20</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	10 - 20	1305-78-8									
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R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
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S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucopyranose, oligomeric, C10-16-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
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JAN 27 2022

WV Department of
Environmental Protection

03/04/2022

WW-9
(4/16)

4704105730

API Number 47 - _____ - _____
Operator's Well No. Vaneck 1215 N-9H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) Middle West Fork Creek Quadrangle Camden 7.5'

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.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number TBD - At next anticipated well)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

*SOW
11/13/2022*

Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected in a closed loop system, re-used or hauled to an approved disposal site or landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical - Air, Air/KCL, Air/SOBW, Horizontal - SOBW

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

Additives to be used in drilling medium? Water, Soap, KCl, Barite, Base Oil, Wetting Agents

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Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Approved Landfill

JAN 27 2022

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

WV Department of
Environmental Protection

-Landfill or offsite name/permit number? See Attached

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 Diane White

Company Official (Typed Name) Diane White

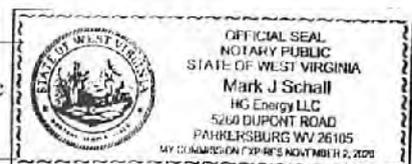
Company Official Title Agent

Subscribed and sworn before me this 11th day of January, 2022

[Signature]

Notary Public

My commission expires 11/2/2026



03/04/2022

Cuttings Disposal/Site Water**Cuttings Haul off Company:**

Exp Industries, Inc. DOT # 0876278
1875 Smith Two State Rd. Atlasburg, PA 15004
1-888-284-5227

Waste Management
200 Rangos Lane
Washington, PA 15301
724-222-3272

Environmental Coordination Services & Recycling (ECS&R)
8297 US Highway 19
Cochranon, PA 16814
814-425-7773

Disposal Locations:

Apex Environmental, LLC Permit # 06-08488
1.1 County Road 78
Amsterdam, OH 43903
740-548-4889

Westmoreland Waste, LLC Permit # 100277
111 Conner Lane
Belle Vernon, PA 15012
724-929-7694

Sycamore Landfill Inc. Permit #R80-079001 05-2010
4301 Sycamore Ridge Road
Hurricane, WV 25526
304-562-2611

Max Environmental Technologies, Inc. Facility Permit # PA0004835146 / 901071
233 Max Lane
Yukon, PA 25968
724-722-3500

Max Environmental Technologies, Inc. Facility Permit # PA005087072 / 301359
200 Max Drive
Bulger, PA 15019
724-796-1571

Waste Management Kelly Run Permit # 100663
1901 Park Side Drive
Elizabeth, PA 15037
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100592
3100 Hill Road
Library, PA 15129
724-348-7013
412-384-7569

Waste Management Arden Permit # 100172
200 Rangos Lane
Washington, PA 15301
724-222-3272

Waste Management Meadowfill Permit # 1082
1488 Dawson Drive
Bridgeport, WV 26330

Brooke County Landfill Permit # SWR-103-97 / WV 0109029
Rd 2 Box 410
Colliers, WV 26035
304-748-0014

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4704105730

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185
Rt 1 Box 156A
New Martinsville, WV 26035
804-455-3800

Energy Solutions, LLC Permit # UT 2300249
428 West 300 South
Suite 200
Salt Lake City, UT 84101

Energy Solutions Services, Inc. Permit # R-79006-L24
1560 Bear Creek Road
Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MID020906814
3947 US 131 North, PO Box 1030
Kalkaska, MI 49646
281-258-9961

Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720485
8790 State Route 7
New Waterford, OH 44445
880-892-0164

Nabors Completion & Production Services Co.
PO Box 975682
Dallas, TX 75397-5682

Select Energy Services, LLC
PO Box 208997
Dallas, TX 75320-8997

Nuverra Environmental Solutions
11942 Veterans Memorial Highway
Masontown, WV 26542

Mustang Oilfield Services LLC
PO Box 789
St. Clairsville, OH 43950

Wilson's Outdoor Services, LLC
486 Craecraft Road
Washington, PA 15301

Disposal Locations:

Solidification
Waste Management, Arden Landfill Permit # 100172
200 Rangos Lane
Washington, PA 15301
724-225-1589

Solidification/Incineration
Soil Remediation, Inc. Permit # 02-20753
6065 Arrel-Smith Road
Lowelville, OH 44436
880-586-6825

Adams #1 (Buckeye Brine, LLC)
Permit # 34-031-2-7177
23986 Airport Road
Coshooton, OH 43812
740-575-4484
512-478-6545

CMS of Delaware Inc. DBA CMS Oilfield Serv
301 Commerca Drive
Moorestown, NJ 08057

Force, Inc.
1380 Rta. 286 Hwy. E, Suite 303
Indiana, PA 15701

Solo Construction
P.O. Box 544
St. Mary's, WV 26170

Equipment Transport
1 Tyler Court
Carlisle, PA 17015

Myers Well Service, -----
2001 Ballpark Court
Export, PA 15682

Burns Drilling & Excavating
618 Crabapple Road P.O. Box
Wind Ridge, PA 15880

Nichols 1-A (SWIW #13)
Permit # 3862
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-829-7275

Grosella (SWIW #34)
Permit # 4096
Rt. 88
Garrettsville, OH
718-275-4816

Kamble 1-D Well
Permit # 8780
7675 East Pike
Norwich, Oh 43767
614-648-8898
740-786-6485

03/04/2022

Adams #2 (Buckeye Brine, LLC)
2205 Westover Road
Austin TX 78708
Permit # 84-081-2-7178
740-575-4484
612-478-6545

Adams #3 (Buckeye Brine, LLC)
Permit # 84-081-2-7241-00-00
2580 Exposition, Suite 117
Austin, TX 78703
612-478-6545

Mozena #1 Well (SWIW # 13)
Permit # 84-157-2-5511-00-00
5367 E. State Street
Newcomerstown, OH 43882
740-763-3968

Goff SWD #1 (SWIW # 27)
Permit # 84-119-2-8776-000
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-829-7276

SOS D#1 (SWIW #12)
Permit # 84-059-2-4202-00-00
Silcor Oilfield Services, Inc.
2999 Hubbard Road
Youngstown, OH 44505

Dudley #1 UIC (SWIW #1)
Permit # 84-121-2-2459-00-00
Select Energy Services, LLC
7994 S. Pleasants Hwy
St. Marys, WV 26170
804-665-2652

OH UIC #1. Bu keya UIC Barneaville 1 & 2
CNX Gas Company, LLC
1000 Conoco Energy Drive
Permit # 84-013-2-0609-00-00
Permit # 84-013-2-0614-00-00
804-823-6568

US Steele 11385
Permit # 47-001-00561
200 Evergreen Drive
Waynesburg, PA 15780
804-823-6568

Chapin #7 UIC (SWIW #7)
Permit # 84-083-2-4187-00-00
Elkhead Gas & Oil Company
12163 Marne Rd. NE
Newark, OH 43055
740-763-3968

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 22.55 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

Maintain E&S controls through the drilling and completion process

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: [Signature]

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.

Upgrade E&S if needed per WV DEP E&S manual.

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JAN 27 2022

WV Department of
Environmental Protection

Title: WV DEP Oil & Gas Inspector

Date: 1/13/2022

Field Reviewed? Yes No

EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

VANECK 1215 NORTH UNIT AND PROPOSED WELLS N-1H, N-2H, N-3H, N-4H, N-5H & N-6H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4703302678	Harrison	K W Coffindaffer	Tenmile Land, LLC	Alexander	House Gas	5550	ABANDONED	39.164144	-80.558442
2	4703302721	Harrison	Robert B Weiman	Tenmile Land, LLC	Alexander	Gas	5081	ACTIVE	39.163273	-80.571299
3	4703305378	Harrison	Ray Mosser Jr	Alliance Petroleum Co. LLC	Greenland Gap Fm	Oil and Gas	4010	ACTIVE	39.160970	-80.554949
4	4703330207	Harrison	Harvey Morris	South Penn Oil Co.	Hampshire Grp	Oil	3021	PLUGGED	39.161822	-80.566082
5	4703330792	Harrison	J B Coffindaffer	Hope Natural Gas Company	Hampshire Grp	Gas	2857	PLUGGED	39.162983	-80.569250
6	4703331035	Harrison	William Moses	Moses, William	Gordon Stray	Oil	2660	PLUGGED	39.160956	-80.555326
7	4703331209	Harrison	Tillman Clemens	Bradford Supply Co.	Gordon	Oil	2592	PLUGGED	39.160956	-80.562964
8	4703331210	Harrison	J B Coffindaffer	Bradford Supply Co.	Gordon Stray	Oil	2775	PLUGGED	39.165016	-80.565762
9	4704100205	Lewis	Flossie Riley	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2361	ACTIVE	39.126554	-80.538388
10	4704100236	Lewis	F B Riley	Dominion Energy Transmission, Inc.	Gantz	Storage	2110	ACTIVE	39.123206	-80.540588
11	4704100239	Lewis	George C Francis	Dominion Energy Transmission, Inc.	Gantz	Storage	2322	ACTIVE	39.135143	-80.551911
12	4704100255	Lewis	J T Bailey	Hope Natural Gas Company	Fifth	Storage	2556	PLUGGED	39.130502	-80.546138
13	4704100256	Lewis	J T Bailey	Hope Natural Gas Company	Gordon Stray	Storage	2435	PLUGGED	39.131952	-80.544090
14	4704100262	Lewis	Olive Thoms	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2370	ACTIVE	39.128472	-80.544276
15	4704100266	Lewis	L E Gall	Hope Natural Gas Company	Gantz	Storage	2346	PLUGGED	39.137463	-80.555636
16	4704100267	Lewis	L E Gall	Dominion Energy Transmission, Inc.	Gantz	Storage	2240	ACTIVE	39.134998	-80.555077
17	4704100335	Lewis	J T Bailey	Hope Natural Gas Company	Up Devonian	Storage	2341	PLUGGED	39.131082	-80.544649
18	4704100343	Lewis	E Haney	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2312	ACTIVE	39.123351	-80.556936
19	4704100358	Lewis	L E Gall	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	2767	ACTIVE	39.131662	-80.560662
20	4704101233	Lewis	Jacob Freeman Heirs	Diversified Resources, Inc.	Fifth	Oil and Gas	2796	ACTIVE	39.155445	-80.560110
21	4704101246	Lewis	L E Gall	Hope Natural Gas Company	Thirty-foot	Storage	2594	PLUGGED	39.139934	-80.555775
22	4704101483	Lewis	D C Burnside	Diversified Resources, Inc.	Squaw	Gas w/ Oil Show	2102	ACTIVE	39.155735	-80.553405
23	4704101501	Lewis	E Freeman	Pioneer Petroleum, Inc.	Squaw	Dry	2100	PLUGGED	39.148850	-80.567438
24	4704101630	Lewis	W S Bennett	Dominion Energy Transmission, Inc.	Gantz	Storage	2368	PLUGGED	39.138805	-80.558116
25	4704101793	Lewis	Burnside & Freeman	Stephen Gas Company	Benson	Gas w/ Oil Show	4705	ACTIVE	39.134800	-80.546980
26	4704101796	Lewis	David A Caynor	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4755	ACTIVE	39.120305	-80.549489
27	4704101900	Lewis	Burnside & Freeman	Stephen Gas Company	Big Injun (Grnbr)	Oil and Gas	1988	ACTIVE	39.135288	-80.545022
28	4704102173	Lewis	Woody Lumber Co Inc	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4746	ACTIVE	39.121756	-80.543531
29	4704102303	Lewis	Orpha D Waggoner	Dominion Energy Transmission, Inc.	Benson	Oil and Gas	4777	ACTIVE	39.115810	-80.550605
30	4704102309	Lewis	J S Burnside	Dominion Energy Transmission, Inc.	not available	Gas	2591	PLUGGED	39.148547	-80.558619
31	4704102611	Lewis	George C Francis	Dominion Energy Transmission, Inc.	not available	Storage	2350	ACTIVE	39.134563	-80.553587
32	4704102612	Lewis	S Minter Heirs	Dominion Energy Transmission, Inc.	not available	Storage	2273	ACTIVE	39.122481	-80.551537
33	4704102613	Lewis	Caroline Minter	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2622	ACTIVE	39.129052	-80.546325

34	4704102615	Lewis	Geo C Francis	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.132242	-80.552842
35	4704102662	Lewis	Francis M McKinley	Hope Natural Gas Company	not available	not available	-	ABANDONED	39.137318	-80.554891
36	4704102663	Lewis	Francis M McKinley	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.135723	-80.553401
37	4704102664	Lewis	Francis M McKinley	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.138913	-80.554147
38	4704102665	Lewis	W S Bennett	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.140653	-80.555823
39	4704102666	Lewis	Norman S Small	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2673	ACTIVE	39.135578	-80.556380
40	4704102667	Lewis	L E Gall	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.137753	-80.558243
41	4704102668	Lewis	L E Gall	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.133376	-80.559000
42	4704102670	Lewis	B J & B E Rhoades	Dominion Energy Transmission, Inc.	Hampshire Grp	Observation	2141	ACTIVE	39.127747	-80.554703
43	4704102671	Lewis	L E Gall	Dominion Energy Transmission, Inc.	not available	Storage	-	ACTIVE	39.132532	-80.557869
44	4704102770	Lewis	Sheldon Minter	Dominion Energy Transmission, Inc.	undetermined unit	Storage	2232	ACTIVE	39.124076	-80.552840
45	4704102955	Lewis	Zella Curry	Alliance Petroleum Co. LLC	Alexander	Gas	5353	ACTIVE	39.155445	-80.561414
46	4704102956	Lewis	James E Elmer	Diversified Resources, Inc.	Alexander	Oil and Gas	5431	ABANDONED	39.157911	-80.552288
47	4704102966	Lewis	Ralph Pitzer	Alliance Petroleum Co. LLC	Greenland Gap Fm	Oil and Gas	5535	ACTIVE	39.154285	-80.569982
48	4704103100	Lewis	Marjorie Hyatt	Dominion Energy Transmission, Inc.	Big Injun (Grnbr)	Oil w/ Gas Show	2075	ACTIVE	39.116970	-80.549302
49	4704103173	Lewis	Orpha Waggoner	Consolidated Gas Supply Corp.	Big Injun (Grnbr)	Dry	2089	PLUGGED	39.117405	-80.546510
50	4704103958	Lewis	James W Wagner et al	Diversified Resources, Inc.	Greenland Gap Fm	Gas	3131	ACTIVE	39.150370	-80.550610
51	4704104722	Lewis	W S Bennett	Dominion Energy Transmission, Inc.	Fifth	Gas	2752	PLUGGED	39.140307	-80.560812
52	4704104753	Lewis	Allegheny Wood Products	Dominion Energy Transmission, Inc.	not available	not available	-	PLUGGED	39.138043	-80.550422
53	4704105165	Lewis	J Todd Hatfield	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4910	ACTIVE	39.147469	-80.554521
54	4704105481	Lewis	Jerry Tomes	Diversified Resources, Inc.	Hampshire Grp	Oil and Gas	3300	ACTIVE	39.154351	-80.566871
55	4704130007	Lewis	L E Gall	Hope Construction & Refining	not available	not available	-	PLUGGED	39.129052	-80.556751
56	4704130014	Lewis	Stella Freeman Hrs	South Penn Oil Co.	Gordon Stray	Oil	2778	PLUGGED	39.152835	-80.564021
57	4704130020	Lewis	S M Burnside	South Penn Oil Co.	Greenland Gap Fm	Oil and Gas	3675	PLUGGED	39.151820	-80.561972
58	4704130021	Lewis	J L Freeman	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	3038	PLUGGED	39.155010	-80.563649
59	4704130067	Lewis	L O Stutler	Pittsburgh & WV Gas	Gordon	Oil and Gas	2411	PLUGGED	39.129342	-80.556751
60	4704130070	Lewis	William Furley	Pittsburgh & WV Gas	Hampshire Grp	Gas	2760	PLUGGED	39.143699	-80.562714
61	4704130103	Lewis	Earl Freeman	South Penn Oil Co.	Hampshire Grp	Oil	2782	PLUGGED	39.151384	-80.564765
62	4704130149	Lewis	F M McKinley	Douglas, Septer W.	not available	not available	-	PLUGGED	39.141669	-80.546698
63	4704130201	Lewis	J L Freeman	UNKNOWN	not available	not available	-	PLUGGED	39.156170	-80.563649
64	4704130208	Lewis	Enn Bailey	Atha Supply Company	not available	not available	-	PLUGGED	39.141959	-80.551726
65	4704130209	Lewis	Jacob L Freeman Bros	South Penn Oil Co.	Gordon Stray	Oil and Gas	2580	PLUGGED	39.156460	-80.565381
66	4704130215	Lewis	Lelia Grace	South Penn Oil Co.	Hampshire Grp	Oil	2846	PLUGGED	39.144134	-80.551402
67	4704130228	Lewis	Chas A Coffindaffer	South Penn Oil Co.	Gordon	Oil	2736	PLUGGED	39.157765	-80.569853
68	4704130284	Lewis	Francis M McKinley	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2821	PLUGGED	39.139493	-80.545440
69	4704130289	Lewis	John S Burnside	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2818	PLUGGED	39.142829	-80.552891

70	4704130356	Lewis	William Moses	Moses, William	Gordon Stray	Oil	2805	PLUGGED	39.157765	-80.557000
71	4704130427	Lewis	Mrs Alona May Lowman	Bradford Supply Co.	Gordon Stray	Gas	2702	PLUGGED	39.155880	-80.567802
72	4704130428	Lewis	Mrs Alona May Lowman	Bradford Supply Co.	Gordon Stray	Oil	2594	PLUGGED	39.154430	-80.565938
73	4704130468	Lewis	J A Fox	Bradford Supply Co.	Hampshire Grp	Gas	2850	PLUGGED	39.153995	-80.552341
74	4704130499	Lewis	J A Fox	South Penn Oil Co.	Hampshire Grp	Oil	2793	PLUGGED	39.147614	-80.547866
75	4704130578	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas	2602	PLUGGED	39.117115	-80.543159
76	4704130599	Lewis	U A Morris	Bradford Supply Co.	Gordon Stray	Oil	2707	PLUGGED	39.160086	-80.565700
77	4704130620	Lewis	J L Freeman	Hal Pack & Company	Hampshire Grp	Oil	2619	PLUGGED	39.156750	-80.569666
78	4704130628	Lewis	Fortunatus White	Hope Natural Gas Company	not available	not available	2702	not available	39.119580	-80.539655
79	4704130693	Lewis	Shelton Minter Hrs	Hope Natural Gas Company	Hampshire Grp	Gas	2594	PLUGGED	39.124656	-80.548745
WELLS ADDED 11/11/2021										
80	4703300335	Harrison	C A Coffindaffer Hrs	Eastern Gas Transmission & Storage, Inc.	Fifth	Gas w/ Oil Show	3000	PLUGGED	39.167929	-80.576517
81	4703302754	Harrison	Robert B Weiman	Tenmile Land, LLC	Alexander	Oil and Gas	5389	ACTIVE	39.167058	-80.574654
82	4703302755	Harrison	Robert B Weiman	Tenmile Land, LLC	Alexander	Oil and Gas	5520	ACTIVE	39.169816	-80.572044
83	4703305812	Harrison	John E Tyler	Diversified Resources, Inc.	UNKNOWN	not available	-	UNKNOWN	39.167992	-80.581201
84	4703330224	Harrison	Luetta Bowen	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil and Gas	2707	PLUGGED	39.167494	-80.563286
85	4703331235	Harrison	Minerva Walker	Bradford Supply Co.	Gordon Stray	Gas	2778	PLUGGED	39.169381	-80.567386
86	4703331569	Harrison	Goynor Wise	Moses, William	Gordon Stray	Gas	2778	PLUGGED	39.168655	-80.565895
87	4703331798	Harrison	Burgess Morris	Jackson, Richard C.	UNKNOWN	not available	-	PLUGGED	39.166176	-80.563155
88	4704100205	Lewis	Flossie Riley	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2361	ACTIVE	39.126554	-80.538388
89	4704100343	Lewis	E Haney	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2312	ACTIVE	39.123351	-80.556936
90	4704101296	Lewis	E L Haney	UNKNOWN	Gantz	Storage	2610	PLUGGED	39.124622	-80.560098
91	4704101578	Lewis	W A Booth	Diversified Resources, Inc.	Gordon	Gas	2674	ACTIVE	39.157766	-80.551356
92	4704101641	Lewis	Jack E Waggoner	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4703	ACTIVE	39.115955	-80.543903
93	4704101761	Lewis	William Burnside	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4760	ACTIVE	39.114649	-80.558796
94	4704101807	Lewis	E L Hanley	Eastern Gas Transmission & Storage, Inc.	Benson	Storage	4876	ACTIVE	39.122286	-80.559783
95	4704101966	Lewis	Brent Maxwell	Eastern Gas Transmission & Storage, Inc.	Gordon	Dry	2896	PLUGGED	39.154711	-80.578247
96	4704102184	Lewis	M C Burnside	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4848	ACTIVE	39.11755	-80.535745
97	4704102303	Lewis	Orpha D Waggoner	Eastern Gas Transmission & Storage, Inc.	Benson	Oil and Gas	4777	ACTIVE	39.11581	-80.550605
98	4704102579	Lewis	Sarepta Nutter	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.130647	-80.566062
99	4704102580	Lewis	J R H Straley	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.132532	-80.566249
100	4704102588	Lewis	Minor J Hall	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2350	ACTIVE	39.119866	-80.561015
101	4704102603	Lewis	W Burnside	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.114351	-80.557109
102	4704102605	Lewis	T J Halterman	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.120447	-80.558783
103	4704102608	Lewis	G W Waggoner	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2296	ACTIVE	39.117979	-80.555807

104	4704102669	Lewis	L E Gall	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.132532	-80.561966
105	4704102672	Lewis	L E Gall	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.129892	-80.562168
106	4704102697	Lewis	J A Fox	Fluharty Enterprises, Inc.	UNKNOWN	not available	-	XABANDONED	39.15472	-80.550106
107	4704102726	Lewis	E W Wagonner	UNKNOWN	Hampshire Grp	Gas	2435	PLUGGED	39.113199	-80.551349
108	4704102849	Lewis	Francis McKinley	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.136993	-80.554712
109	4704102850	Lewis	L E Gall et al	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	Storage	-	ACTIVE	39.135333	-80.558905
110	4704103343	Lewis	R B Weimann	Diversified Resources, Inc.	Benson	Oil and Gas	5058	ACTIVE	39.166611	-80.577997
111	4704104784	Lewis	Troy/D Rickles	Eastern Gas Transmission & Storage, Inc.	UNKNOWN	not available	-	PLUGGED	39.141793	-80.567013
112	4704104976	Lewis	Phillip Burnside	Mountain V Oil and Gas, Inc.	Alexander	Gas	5600	ACTIVE	39.150804	-80.573519
113	4704105688	Lewis	John E Tyler	Diversified Resources, Inc.	-	-	-	NEVER DRILLED	39.165574	-80.582408
114	4704130076	Lewis	Ray & Delphia Holden	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil	2869	PLUGGED	39.129197	-80.564199
115	4704130109	Lewis	F M McKinley	Federal Oil Co.	UNKNOWN	not available	2909	PLUGGED	39.127456	-80.559544
116	4704130227	Lewis	Ray & Delphia Holden	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil and Gas	2932	PLUGGED	39.128036	-80.564982
117	4704130355	Lewis	William Moses	Moses, William	Fifth	Oil	2806	PLUGGED	39.158346	-80.551972
118	4704130469	Lewis	Alice White	Bradford Supply Co.	Hampshire Grp	Oil	2850	PLUGGED	39.143409	-80.545395
119	4704130486	Lewis	Serepta Nutter	South Penn Oil (S. Penn Nat. Gas)	Hampshire Grp	Oil	2914	PLUGGED	39.126151	-80.561219

SOURCE: WVGES DATASET (2020) and WVDEP WEBSITE AND FIELD SURVEYS

YELLOW DENOTES WELL WITH TVD > 4,500'

GREEN DENOTES SURVEYED WELLS

UPDATED 11/11/2021

HG Energy II Appalachia, LLC

Site Safety Plan

Vaneck 1215 Well Pad
1451 Mare Run Road, Weston
Lewis County, WV 26452

January 2022: Version 1

For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas

HG Energy II Appalachia, LLC

5260 Dupont Road

Parkersburg, WV 26101

SDW
1/13/2022

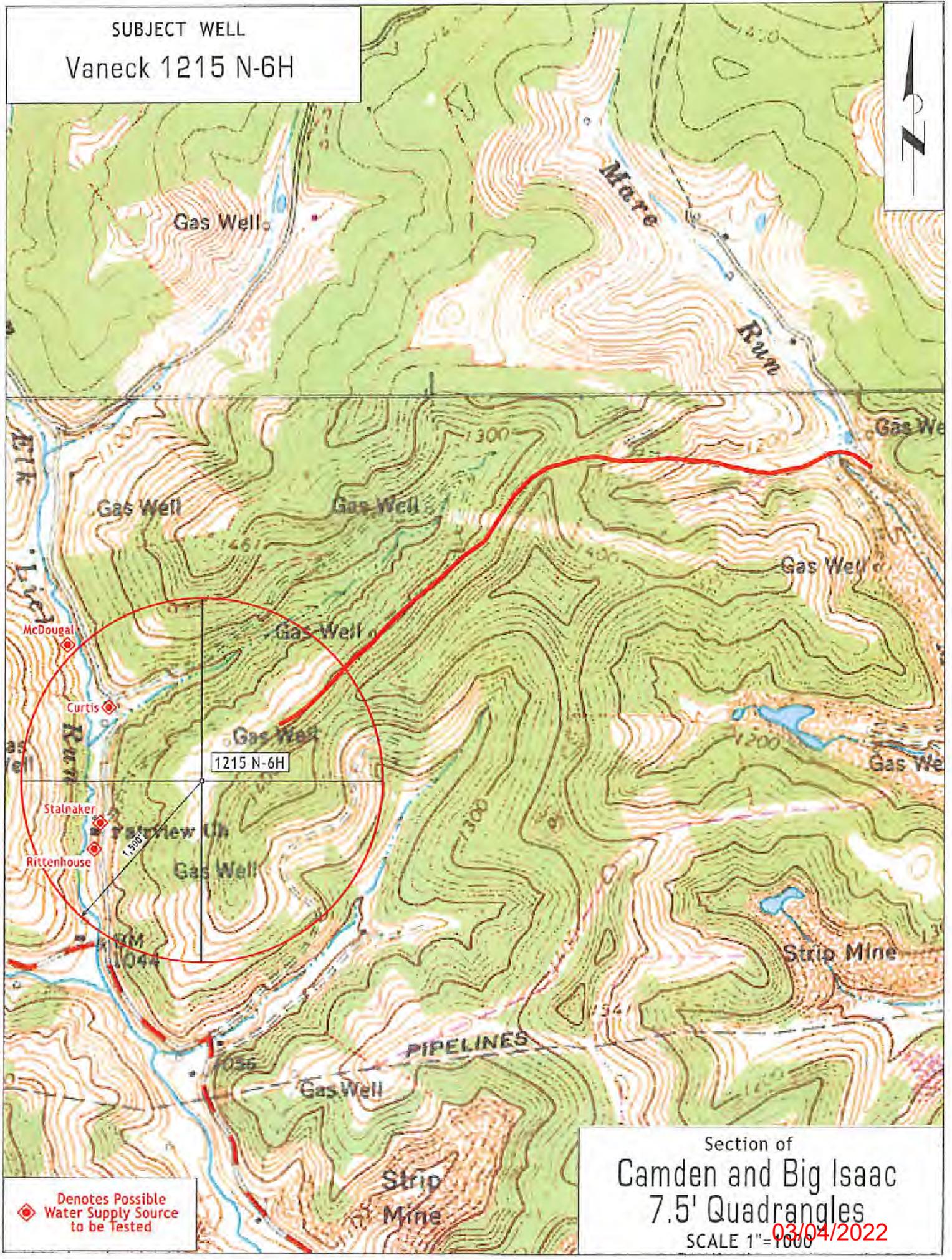
RECEIVED
Office of Oil and Gas

JAN 27 2022

WV Department of
Environmental Protection

03/04/2022

SUBJECT WELL
Vaneck 1215 N-6H



Denotes Possible
Water Supply Source
to be Tested

Section of
Camden and Big Isaac
7.5' Quadrangles
SCALE 1"=1000
03/04/2022

1,771' to Top Hole

3,402' to Bottom Hole

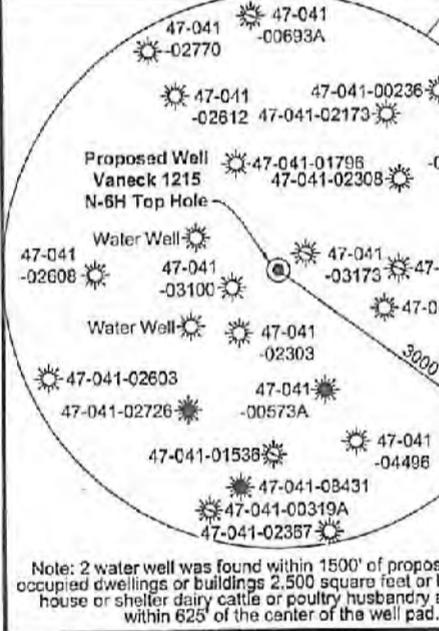
TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 10 - 00



Notes:
Well No. Vaneck 1215 N-6H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,552.75'
E: 1,768,692.54'
Landing Point Coordinates
N: 14,207,032.73'
E: 1,771,594.03'
Bottom Hole Coordinates
N: 14,220,757.50'
E: 1,766,984.67'

Tag	Bearing	Dist.	Description
L1	N 86°00' W	652.4'	1/2" Rebar
L2	N 19°39' W	605.1'	1/2" Rebar
L3	N 35°46' E	791.7'	#47-041-02303
L4	N 73°18' E	558.9'	#47-041-03100
L5	N 62°59' E	3,257.2'	Landing point

Notes: Well No. Vaneck 1215 N-6H
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°07'00.98" Latitude: 39°09'31.41"
Longitude: 80°32'52.48" Longitude: 80°33'13.20"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,861.182m N: 4,334,495.699m
E: 539,093.560m E: 538,578.010m
Plat orientation and corner and well references are
based upon the grid north meridian. Well location
references are based upon the magnetic meridian.



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-6H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

GRID NORTH

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

DATE: January 5 2022
OPERATOR'S WELL NO. Vaneck 1215 N-6H
API WELL NO
47 - 041 - 05730
STATE COUNTY PERMIT

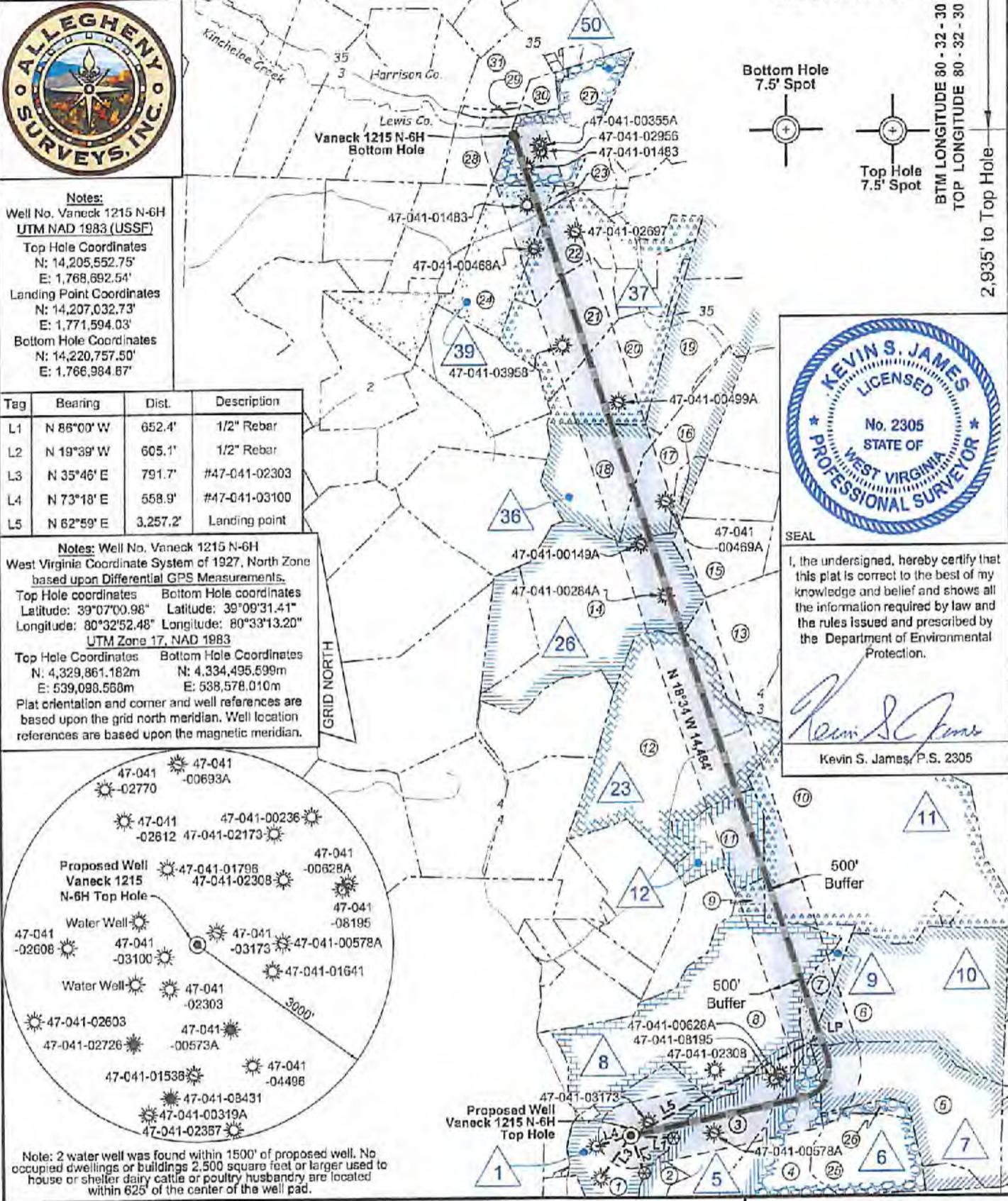
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1254.8 WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: ACREAGE: 56.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,789' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,207' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101



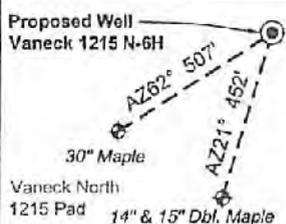
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.
Kevin S. James
Kevin S. James, P.S. 2305

Bottom Hole 7.5' Spot
Top Hole 7.5' Spot
2,935' to Top Hole
2,892' to Bottom Hole





Well Location References
Not to Scale

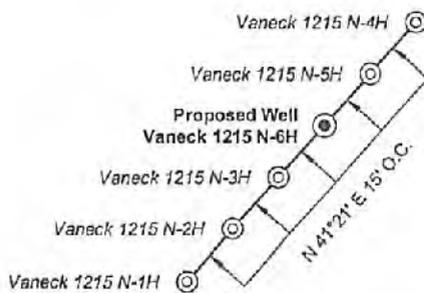


ID	Lease
1	George W. Waggoner, et ux
5	F. White
6	J.A. Burnside, et al
7	Blonda S. Hall, et al
8	Fielding B. Riley, et al
9	Flossie Riley, et al
10	N.A. Lovett, et al
11	Hudson Bailey, et al
12	Hunter M. Bennett, et al
23	George I. Davison, et al
26	Francis M. McKinley, et ux
36	J.A. White, et al
37	Guffey Oil and Gas Royalties, Inc., et al
39	Donaver C. Burnside, et al
50	William A. Booth, et ux

Legend

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Adjoiner surface tracts (approx.)

Wellhead Layout (NTS)



Lewis Co. - Freeman Creek Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	HG Energy II Appalachia, LLC	765 / 894	55.00
2	5C / 25	Raymond C. & Colona J. Waggoner	567 / 416	45.48
3	5C / 27.2	Jack E. & Cerilda M. Waggoner	547 / 691	57.97
4	5C / 22	Linda L. Waggoner	W33 / 157	57.76
5	5C / 37	Phillip E. Burnside	766 / 831	83.75
6	5C / 32	Robert S. Clotfelty	399 / 241	94.40
7	5C / 31	Nancy Hayhurst, et al	F30 / 392	13.75
8	5C / 30	Woody Lumber Co., Inc.	590 / 438	140.50
9	5B / 17	Mike Ross, Inc.	659 / 215	3.50
10	5B / 18	Mike Ross Inc.	659 / 215	279.97
11	5B / 19	Theodore J. & Jacqueline Riley	578 / 99	35.00
12	5B / 21	Theodore J. & Jacqueline Riley	467 / 254	140.00
13	5B / 31	Mark D. & Lisa A. Griffith	652 / 69	54.04
14	5B / 25.1	Jeffrey P. & Anessa E. Griffith	745 / 338	118.29
15	5B / 29	Kelly Joanne Bowie	622 / 463	32.00
16	5B / 27	Kelly Joanne Bowie	622 / 463	6.25
17	5B / 43	Brian K. & Debra D. Lough	728 / 285	43.77
18	5B / 26	Dawna Jo Burnside	762 / 219	52.00
19	5A / 13	Dawna Jo Burnside	762 / 219	27.00
20	5A / 12	Jeffrey P. & Anessa E. Griffith	745 / 162	47.84
21	5A / 12.1	Jeffrey P. & Anessa E. Griffith	745 / 162	47.84
22	5A / 8	Robert F. Burnside	710 / 276	32.61
23	5A / 7	Robert F. Burnside	710 / 276	1.50
24	5A / 6	Jeffrey P. & Anessa E. Griffith	692 / 498	78.00
25	5C / 39	Phillip E. Burnside	866 / 503	47.00
26	5C / 38	Phillip E. Burnside	766 / 831	4.25
Harrison Co. - Union-Outside Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
27	421 / 44	Matthew C. & Shana L. Gould	1468 / 1020	51.21
28	421 / 36	Sterling & Sheila Smith	1416 / 875	23.00
29	421 / 43.4	John Puddister	1536 / 225	2.39
30	421 / 38	Atlantic Coast Pipeline	1616 / 421	6.00
31	421 / 43.3	Ray M. Moser, Jr.	1281 / 1136	29.11

FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-6H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: January 5 2022
OPERATOR'S WELL NO. Vaneck 1215 N-6H
API WELL NO
47 - 041 - 05730
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek

QUADRANGLE: Btm: Big Isaac
Top: Camden

DISTRICT: Freemans Creek

COUNTY: Lewis

SURFACE OWNER: HG Energy II, Appalachia, LLC, et al

ACREAGE: 56.00 03/04/2022

ROYALTY OWNER: George W. Waggoner, et ux, et al

LEASE NO: _____ ACREAGE: 56.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,207' MD 6,789' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

Parkersburg, WV 26101

1,771' to Top Hole

3,402' to Bottom Hole

TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 10 - 00

BTM LONGITUDE 80 - 32 - 30
TOP LONGITUDE 80 - 32 - 30

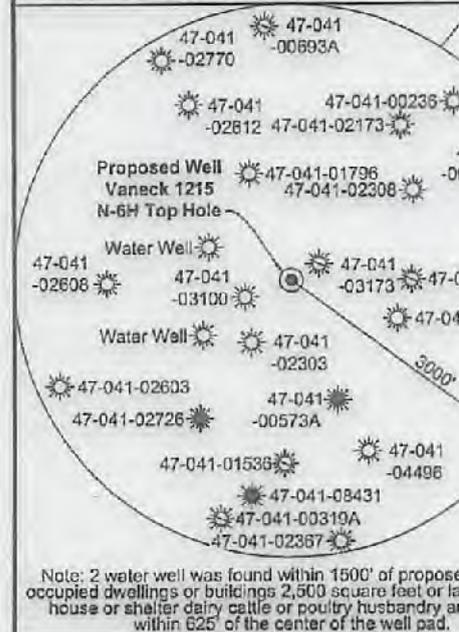
2,935' to Top Hole
2,892' to Bottom Hole



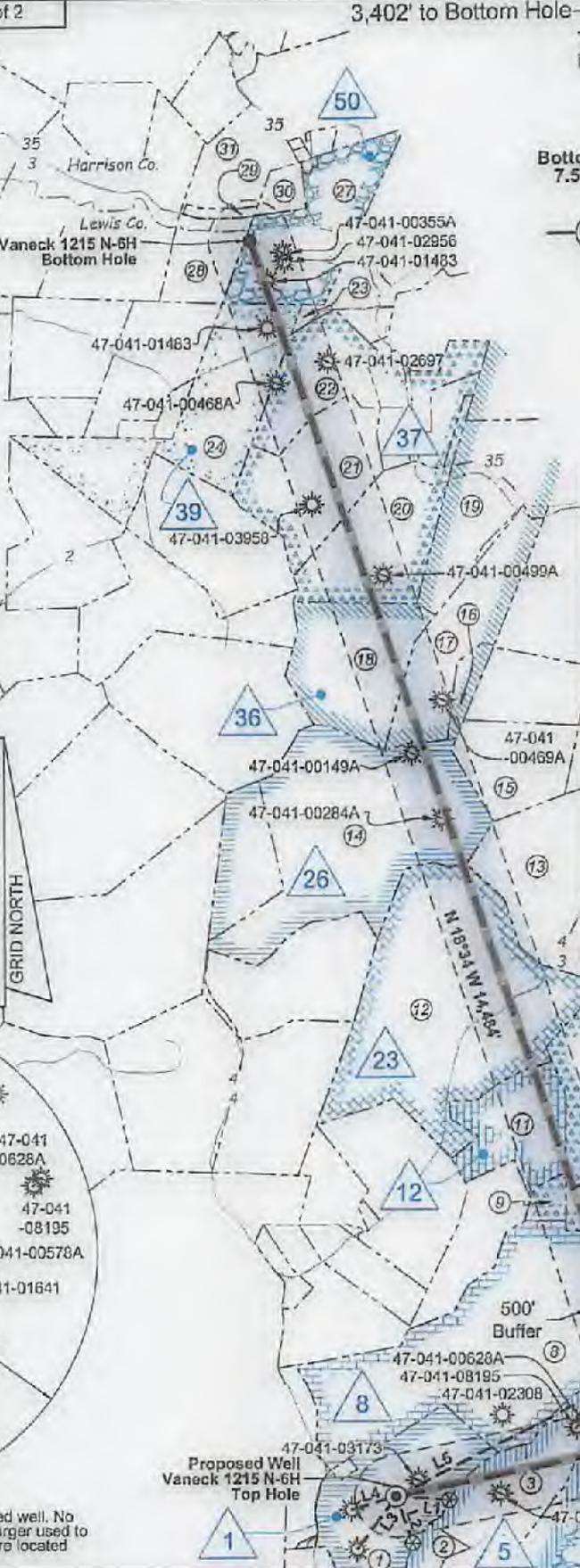
Notes:
Well No. Vaneck 1215 N-6H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,562.75'
E: 1,768,692.54'
Landing Point Coordinates
N: 14,207,032.73'
E: 1,771,594.03'
Bottom Hole Coordinates
N: 14,220,757.50'
E: 1,766,984.67'

Tag	Bearing	Dist.	Description
L1	N 86°00' W	652.4'	1/2" Rebar
L2	N 19°39' W	605.1'	1/2" Rebar
L3	N 35°46' E	791.7'	#47-041-02303
L4	N 73°18' E	558.9'	#47-041-03100
L5	N 62°59' E	3,257.2'	Landing point

Notes: Well No. Vaneck 1215 N-6H
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°07'00.98" Latitude: 39°09'31.41"
Longitude: 80°32'52.48" Longitude: 80°33'13.20"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,861.182m N: 4,334,495.599m
E: 539,098.566m E: 538,578.010m
Plat orientation and corner and well references are
based upon the grid north meridian. Well location
references are based upon the magnetic meridian.



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-6H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV



SEAL
I, the undersigned, hereby certify that
this plat is correct to the best of my
knowledge and belief and shows all
the information required by law and
the rules issued and prescribed by
the Department of Environmental
Protection.
Kevin S. James
Kevin S. James, P.S. 2305

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

DATE: January 5 20 22
OPERATOR'S WELL NO. Vaneck 1215 N-6H
API WELL NO
47 - 041 - 05730
STATE COUNTY PERMIT

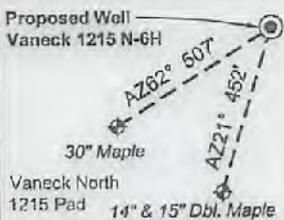
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1254.8 WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: ACREAGE: 55.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,789' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,207' MD

WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101
DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

03/04/2022



Well Location References
Not to Scale

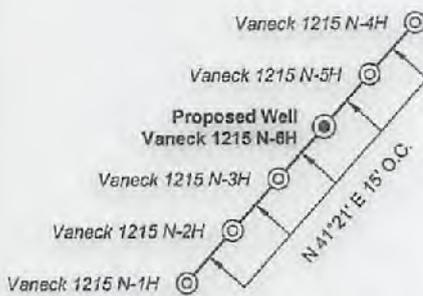


ID	Lease
1	George W. Waggoner, et ux
5	F. White
8	J.A. Burnside, et al
7	Blonda S. Hall, et al
8	Fielding B. Riley, et al
9	Flossie Riley, et al
10	N.A. Lovett, et al
11	Hudson Bailey, et al
12	Hunter M. Bennett, et al
23	George I. Davisson, et al
26	Francis M. McKinley, et ux
36	J.A. White, et al
37	Gulley Oil and Gas Royalties, Inc., et al
39	Donever C. Burnside, et al
50	William A. Booth, et ux

Legend

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Adjoiner surface tracts (approx.)

Wellhead Layout (NTS)



Lewis Co. - Freeman Creek Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	HG Energy II Appalachia, LLC	766 / 894	55.00
2	5C / 25	Raymond C. & Colona J. Waggoner	567 / 416	45.48
3	5C / 27.2	Jack E. & Cerilda M. Waggoner	547 / 691	57.97
4	5C / 22	Linda L. Waggoner	W33 / 157	57.76
5	5C / 37	Phillip E. Burnside	766 / 831	83.75
6	5C / 32	Robert S. Grolfely	399 / 241	94.40
7	5C / 31	Nancy Hayhurst, et al	F30 / 392	13.75
8	5C / 30	Woody Lumber Co., Inc.	590 / 438	140.50
9	5B / 17	Mike Ross, Inc.	659 / 215	3.50
10	5B / 18	Mike Ross Inc.	659 / 215	279.97
11	5B / 19	Theodore J. & Jacqueline Riley	578 / 99	35.00
12	5B / 21	Theodore J. & Jacqueline Riley	487 / 254	140.00
13	5B / 31	Mark D. & Lisa A. Griffith	652 / 69	64.04
14	5B / 25.1	Jeffrey P. & Anessa E. Griffith	745 / 338	118.29
15	5B / 29	Kelly Joanne Bowie	622 / 463	32.00
16	5B / 27	Kelly Joanne Bowie	622 / 463	6.25
17	5B / 43	Brian K. & Dabra D. Lough	728 / 285	43.77
18	5B / 26	Dawna Jo Burnside	762 / 219	62.00
19	5A / 13	Dawna Jo Burnside	782 / 219	27.00
20	5A / 12	Jeffrey P. & Anessa E. Griffith	745 / 162	47.84
21	5A / 12.1	Jeffrey P. & Anessa E. Griffith	745 / 162	47.84
22	5A / 8	Robert F. Burnside	710 / 276	32.61
23	5A / 7	Robert F. Burnside	710 / 276	1.50
24	5A / 6	Jeffrey P. & Anessa E. Griffith	892 / 498	78.00
25	5C / 39	Phillip E. Burnside	666 / 503	47.00
26	5C / 38	Phillip E. Burnside	766 / 831	4.25
Harrison Co. - Union-Outside Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
27	421 / 44	Matthew C. & Shana L. Gould	1468 / 1020	51.21
28	421 / 36	Sterling & Sheila Smith	1416 / 875	23.00
29	421 / 43.4	John Puddister	1536 / 225	2.39
30	421 / 38	Atlantic Coast Pipeline	1616 / 421	6.00
31	421 / 43.3	Ray M. Moser, Jr.	1291 / 1136	29.11

FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 N-6H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: January 5 2022
OPERATOR'S WELL NO. Vaneck 1215 N-6H
API WELL NO
47 - 041 - 05730
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek

DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II, Appalachia, LLC, et al

ROYALTY OWNER: George W. Waggoner, et ux, et al

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
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WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

Btm: Big Isaac

QUADRANGLE: Top: Camden

COUNTY: Lewis

ACREAGE: 55.00

ACREAGE: 56.00

03/04/2022

**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 Sheets****

**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

RECEIVED
Office of Oil and Gas

JAN 27 2022

WV Department of
Environmental Protection

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: HG Energy II Appalachia, LLC
 By: Diane White *Diane White*
 Its: Accountant

RECEIVED
 Office of Oil and Gas
 JAN 27 2022
 WV Department of
 Environmental Protection

HG Energy II Appalachia, LLC Vaneck 1215 N-6H Lease Chain

1215N Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
1	FK051509	03-005C-0027-0001 03-005C-0029-0000	Q100665000	GEO. W. WAGGONER AND ROSA M. WAGGONER, HIS WIFE	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	NOT LESS THAN 1/8	73	383
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	141
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	DEED	125	371
				PITTSBURG AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				5	FK053097	p/o 03-005C-0022-0000 p/o 03-005C-0022-0001 p/o 03-005C-0025-0000 p/o 03-005C-0027-0002 03-005C-0045-0000 03-005C-0046-0000 03-005D-0020-0000 p/o 03-005D-0035-0000 p/o 03-005D-0036-0000 03-005D-0036-0001 03-005D-0036-0002 03-005D-0037-0000 03-005D-0038-0000 03-005D-0060-0000 03-005D-0060-0001 THRU 03-005D-0060-0015 03-005D-0061-0000 03-005D-0061-0001 03-005D-0062-0000	Q100333000	F. WHITE
T. N.BARNSDALL, SOUTHERN OIL COMPANY, AND FRED S. RICH	RESERVE GAS COMPANY	ASSIGNMENT	85					106
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155					202
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294					89
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425					127
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672					154
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684					57
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712					848
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					1
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					170
DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723					499
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734					558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736					220
6								J. A. BURNSIDE AND ELLA BLANCHE BURNSIDE, HIS WIFE, EACH IN THEIR OWN RIGHT
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154

6	FK061775	03-005C-0038-0000 03-005C-0039-0000 p/o 03-005C-0022-0000	Q100785000	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170				
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
7	FK064784	03-005C-0037-0000 03-005C-0040-0000 03-005C-0041-0000	Q101057000	BLONDA S. HALL AND LUCY S. HALL, HIS WIFE; JAMES H. HALL AND PATRICIA HALL, HIS WIFE; MABEL HALL, WIDOW; MARJORIE HALL COSBY AND ROBERT S. COSBY, JR., HER HUSBAND; ROBERTA HALL STEPHENS AND CHARLES H. STEPHENS, HER HUSBAND; MABEL JANE HALL GIBBS; AND, HERBERT F. GIBBS, JR., HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	222	449				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170				
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
				10	FK053161	03-005C-0032-0000 03-005C-0033-0000	Q100334000	N. A. LOVETT AND S. E. A. LOVETT, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42	109
								SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294					89				
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425					127				
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS									
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DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712					848				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					1				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					170				
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723					499				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734					558				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220								
9	FK059418	03-005C-0031-0000	Q100352000	FLOSSIE RILEY, WIDOW; AND RUBY M. RILEY, SINGLE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	191	506				
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127				
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				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				FIELDING B. RILEY AND SAMUEL M. RILEY AND M. V. RILEY	E. W. BOYD	NOT LESS THAN 1/8	35	235
				E. W. BOYD	S. E. BARRETT	ASSIGNMENT	30	369
				S. E. BARRETT	LOUIS BENNETT	ASSIGNMENT (50%)	36	517
				LOUIS BENNETT AND S. E. BARRETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT (75%)	71	14
				S. E. BARRETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44	569
				LOUIS BENNETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44	571
				J. M. GUFFEY AND JNO. H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	583
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	141
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	DEED	125	371
				PITTSBURG AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				HUDSON BAILEY AND CHARLOTTE BAILEY, HIS WIFE	A. W. WOODFORD AND GEO. MCGIRE	NOT LESS THAN 1/8	33	424
				JAMES M. GUFFEY AND JOHN H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	583
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	141
				PITTSBURG AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216	185
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	192
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				HUNTER M. BENNETT AND MADGE BENNETT, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	153	185
				OLIVE THOMAS	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	171	379

12	FK051202 FK056624	03-005B-0019-0000	Q100469000 Q100905000	JASON G. BAILEY AND MINNIE E. BAILEY, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	237	128
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
23	FK056122	03-005B-0020-0000 03-005B-0021-0000	Q100493000	JOHN T. BAILEY, INCOMTETENT, BY GEORGE I. DAVISSON, COMMITTEE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	172	30
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
26	FK056567 FK056567-1	03-005B-0025-0000 03-005B-0025-0001 03-005B-0025-0002	Q100776000	F. M. MCKINLEY AND M. E. MCKINLEY, HIS WIFE	J. M. GUFFEY AND JOHN H. GALEY	NOT LESS THAN 1/8	44	194
				J. M. GUFFEY AND JOHN H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	73	318
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	141
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125	379
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	DEED	125	371
				PITTSBURGH AND WEST VIRGINIA GAS COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	174	231
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220				
36				J. A. WHITE AND J. ALICE WHITE, HIS WIFE	LOUIS BENNETT	NOT LESS THAN 1/8	39	70
				J. A. WHITE AND J. ALICE WHITE, HIS WIFE	HOPE NATURAL GAS COMPANY AND LOUIS BENNETT	MODIFICATION OF LEASE	52	465

36	FK002814	03-005A-0013-0000 03-005A-0014-0000 03-005A-0015-0000 03-005B-0026-0000 03-005B-0027-0000 20-0442-0005-0000 p/o 20-442-0004-0001 p/o 20-422-0029-0000	Q100365000	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				37	FK066192 DAD36977	03-005A-0008-0000 03-005A-0009-0000 03-005A-0010-0000 03-005A-0012-0000 03-005A-0012-0001 20-0442-0001-0000 20-0442-0001-0000 20-0442-0002-0000 20-0442-0003-0000	Q143841001 Q143841002 Q098904000	GUFFEY OIL AND GAS ROYALTIES, INC (Q143841001)
EARL FREEMAN (Q143841002)	E. DAVISSON HARDMAN	NOT LESS THAN 1/8 (104 ACRES)	395					553
CENTRAL-PITTSBURGH COAL CORPORATION	E. DAVISSON HARDMAN	NOT LESS THAN 1/8 (10 ACRES)	1113					98
OWEN J. SCHMITT (Q098904000)	CNX GAS COMPANY	NOT LESS THAN 1/8 (7.53 ACRES)	700					70
E. DAVISSON HARDMAN	J. ROBERT HORNOR	ASSIGNMENT (388/65 & 395/553)	1111					791
E. DAVISSON HARDMAN	J. ROBERT HORNOR	ASSIGNMENT (1113/98)	1117					375
J. ROBERT HORNOR	STONEWALL GAS COMPANY	ASSIGNMENT (388/65 & 395/553)	HARRISON 1118					331
J. ROBERT HORNOR	STONEWALL GAS COMPANY	ASSIGNMENT (1113/98)	LEWIS 408					636
J. ROBERT HORNOR	STONEWALL GAS COMPANY	ASSIGNMENT (1113/98)	HARRISON 1118					876
JESSE PAUL BURNSIDE AND BETTY BURNSIDE, HUSBAND AND WIFE	STONEWALL GAS COMPANY	NOT LESS THAN 1/8 (32.61 ACRES)	421					256
STONEWALL GAS COMPANY	DOMINION APPALACHIAN DEVELOPMENT INC.	MERGER/NAME CHANGE	59					1086
DOMINION APPALACHIAN DEVELOPMENT LLC	CONSOL GAS RESERVES INC	MERGER/NAME CHANGE	WVSOS					
CONSOL GAS RESERVES, INC.	CONSOL GAS COMPANY	MERGER/NAME CHANGE	59					961
CONSOL GAS COMPANY	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	WVSOS					
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT (700/70) (388/65) (395/553)	717					1
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (388/65) (395/553)	727					765
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (700/70)	722					170
39	FK066261 FK066175	03-005A-0006-0000	CNX140236000					DOVENER C. BURNSIDE AND DORTHA M. BURNSIDE
				DOVENER C. BURNSIDE AND DORTHA M. BURNSIDE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	237	134
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1722	728
				WILLIAM A. BOOTH AND EVELYN Y. BOOTH, HIS WIFE	PIONEER PETROLEUM INC	NOT LESS THAN 1/8	899	226
				PIONEER PETROLEUM INC	E. DAVISSON HARDMAN	ASSIGNMENT	1099	825
50	Tract 50	20-0421-0044-0000 20-0421-0044-0001 20-0421-0044-0003	CNX298566000	E. DAVISSON HARDMAN	J. ROBERT HORNOR	ASSIGNMENT	1094	879
				J. ROBERT HORNOR	STONEWALL GAS COMPANY	ASSIGNMENT	1097	844
				STONEWALL GAS COMPANY	DOMINION APPALACHIAN DEVELOPMENT INC.	MERGER/NAME CHANGE	59	1086
				DOMINION APPALACHIAN DEVELOPMENT INC	DOMINION APPALACHIAN DEVELOPMENT LLC	MERGER/NAME CHANGE	59	1335
				DOMINION APPALACHIAN DEVELOPMENT LLC	CONSOL GAS APPALACHIAN DEVELOPMENT LLC	MERGER/NAME CHANGE	59	936
				CONSOL GAS APPALACHIAN DEVELOPMENT LLC	CONSOL GAS RESERVES INC	MERGER/NAME CHANGE	1472	294
				CONSOL GAS RESERVES, INC.	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	1472	294
				CNX GAS COMPANY LLC	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1722	728



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January 18, 2022

Cragin Blevins
WV DEP
Division of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Drilling Under Roads – Vaneck 1215 N-6H
Freemans Creek District, Lewis County
West Virginia

Dear Mr. Blevins -

HG Energy II Appalachia, LLC, is submitting the attached application for a new well work permit for the Vaneck 1215 well pad. As an authorized representative, I certify HG Energy II Appalachia, LLC, has the right to drill, stimulate, extract, produce and market the oil, gas or condensate for all leases through which the Vaneck 1215 laterals will drill through including any and all roads crossed under as identified on the attached survey plat.

Should you have any questions or desire further information, please contact me at dwhite@hgenergyllc.com or 304-420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

RECEIVED
Office of Oil and Gas

JAN 27 2022

WV Department of
Environmental Protection

03/04/2022

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

Date of Notice Certification: 01/18/2022

API No. 47- _____ - _____
Operator's Well No. Vaneck 1215 N-6H
Well Pad Name: Vaneck 1215 Well Pad

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>539089.4</u>
County:	<u>Lewis</u>		Northing:	<u>4329869.2</u>
District:	<u>Freemans Creek</u>	Public Road Access:	<u>Mare Run Road / CR 10 / 9</u>	
Quadrangle:	<u>Camden WV 7.5's</u>	Generally used farm name:	<u>Vaneck</u>	
Watershed:	<u>Middle West Fork 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.

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: *PLEASE CHECK ALL THAT APPLY <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <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 <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		OOG OFFICE USE ONLY <input type="checkbox"/> RECEIVED/NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED/NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED
RECEIVED Office of Oil and Gas JAN 27 2022 WV Department of Environmental Protection		

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.

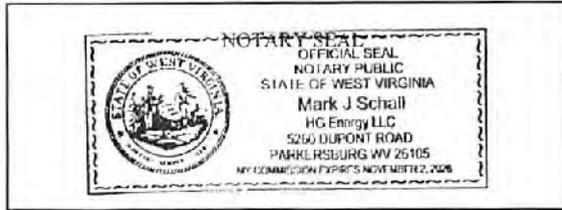
03/04/2022

Certification of Notice is hereby given:

THEREFORE, I Diane White, 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: HG II Appalachia, LLC
By: Diane White *Diane White*
Its: Agent
Telephone: 304-420-1119

Address: 5280 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-3172
Email: dwhite@hgenergyllc.com



Subscribed and sworn before me this 18th day of January, 2022.
Mark J Schall Notary Public
My Commission Expires 11/2/2026

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.

RECEIVED
Office of Oil and Gas
JAN 27 2022
WV Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47- _____
OPERATOR WELL NO. Vaneck 1215 N1H - S12H
Well Pad Name: Vaneck 1215

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: 01/17/2022 **Date Permit Application Filed:** 01/25/22

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) * *Not noticed as surface owner is also the operator*
 Name: HG Energy II Appalachia, LLC (pad and road)
 Address: 5260 Dupont Road
Parkersburg, WV 26101

COAL OWNER OR LESSEE
 Name: NA
 Address: _____

COAL OPERATOR
 Name: NA
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: Nancy Hayhurst
 Address: 195 Rexroad Drive
Weston, WV 26452
 Name: Woody Lumber Company
 Address: 201 Vicksburg Road
Buckhannon, WV 26201

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: Charles Curtis Gary Stalnaker Timothy Rittenhouse
 Address: 377 Elk Lick Road 179 Elk Lick Road 1729 R Freeman's Creek
Weston, WV 26452 Weston, WV 26452 Weston, WV 26452

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: Dominion Energy Transmission - Attn: Ronald Waldren
 Address: 925 White Oaks Blvd
Bridgeport, WV 26330

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas

JAN 27 2022

WV Department of
Environmental Protection

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.

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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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

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.**

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.

4704105730

API NO. 47-
OPERATOR WELL NO. Vaneck 1215 N1H - S12H
Well Pad Name: Vaneck 1215

WW-6A
(8-13)

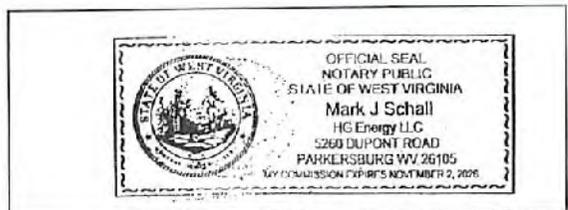
Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com *Diane White*

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-653-2172

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.



Subscribed and sworn before me this 17th day of January, 2022.

Mark J Schall Notary Public

My Commission Expires 11/2/2026

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WV Department of
Environmental Protection

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January\19, 2022

Dominion Energy Transmission
Attn: Ronald Waldren
925 White Oaks Blvd
Bridgeport, WV 26330

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

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WV Department of
Environmental Protection

Enclosures

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January\19, 2022

Timothy Rittenhouse
1729 R Freeman's Creek
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

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Very truly yours,

Diane White

Diane C. White

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Office of Oil and Gas

JAN 27 2022

WV Department of
Environmental Protection

Enclosures

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January\19, 2022

Gary Stalnaker
179 Elk Lick Road
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January\19, 2022

Charlie Curtis
377 Elk Lick Road
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January\19, 2022

Woody Lumber Company
201 Vicksburg Road
Buckhannon, WV 26201

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Sir -

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No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

January\19, 2022

Nancy Hayhurst
195 Rexroad Drive
Weston, WV 26452

RE: Vaneck 1215 N-1H – S-12H Well Work Permit Applications - Notification
Freemans Creek District, Lewis County
West Virginia

Dear Ms. Hayhurst -

Enclosed are copies of various application papers that we will be filing with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a surface owner (road) are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

03/04/2022

Sturm Environmental Services

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JAN 27 2022

WV Department of
Environmental Protection

STURM ENVIRONMENTAL
BRUSHY FORK ROAD
BRIDGEPORT, WV 26330
PHONE: 304-623-6549
FAX: 304-623-6552

STURM ENVIRONMENTAL SERVICES
610 D STREET
SO. CHARLESTON, WV 25303
PHONE: 304-744-9864
FAX: 304-744-7866

MAILING ADDRESSES ARE LISTED BELOW

REPORT TO: Client Name: HG Evers
Address: _____
City/State/Zip: _____
Contact Person: _____
Telephone Number: _____ Fax No. _____
Email Address: _____
Sampler Name: (Print) Kenneth Wallin
Sampler Signature: _____
Project Name: Vanceck 1215
Special Reporting: Email Results Fax Results

BILL TO: Client Name: _____
Address: _____
City/State/Zip: _____
Contact Person: _____
Telephone Number: _____ Fax No. _____
Email Address: _____
Purchase Order #: _____
TURN AROUND TIME: _____ Standard _____
RUSH (pre-scheduled; surcharges may apply) Please Check One

1 DAY	2 DAY	3 DAY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date Needed

Sample ID / Description	COMPOSITE SAMPLE				GRAB SAMPLE		PRESERVATIVE						MATRIX					METHOD/ANALYSES										
	START DATE	START TIME	END DATE	END TIME	DATE	TIME	Ice	OTHER	Na ₂ S ₂ O ₃	HCl	NaOH	H ₂ SO ₄ Plastic	H ₂ SO ₄ Glass	None	HNO ₃	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	# of Bottles	Field pH	Flow (gpm, cfs, mgd) circle one	Field Conductivity	Field DO	Field Chlorine (mg/L or ug/L) circle one	Field Temp (F° or C°) circle one
DMS Gary Stalwagen 39 06 55.33 80 33 8033 04.79					1-4-21	1570																3	7.6		1233			20.2
Charles Curtis 39 07 05.24 80 33 0353						1605																3	7.3		584			13.5
Barview Methodist Church NO Well																												

Comments: _____
Records retained for 5 years

Laboratory Comments:
Temperature Upon Receipt: _____
Bottles Preserved? 16
Temp upon Receipt: _____

Relinquished by: <u>Kenneth Wallin</u>	Date: <u>1-4-22</u>	Time: <u>1654</u>	Received by: <u>LAL</u>	Date: <u>1-4-22</u>	Time: <u>1654</u>
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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: 12/29/2021 **Date of Planned Entry:** 01/05/2022

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: * *Notice not given to Surface Owner as SO is also the Operator*

SURFACE OWNER(S)

Name: HC Energy II Appalachia, LLC (pad, road, royalty owner)
Address: 5260 Dupont Road
Parkersburg, WV 26101

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: NA
Address: _____

MINERAL OWNER(S)

Name: ** See Attached List
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>39.117104 & 80.547833</u>
County:	<u>Lewis</u>	Public Road Access:	<u>Mara Run Road / SR 19</u>
District:	<u>Freeman's Creek</u>	Watershed:	<u>Middle West Fork River</u>
Quadrangle:	<u>Camden WV 7.5'</u>	Generally used farm name:	<u>Vaneck</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.

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Office of Oil and Gas

JAN 27 2022

Notice is hereby given by:

Well Operator: HC Energy II Appalachia, LLC
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-3172

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 deprivacyofficer@wv.gov.

03/04/2022



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

4704105730

December 29, 2021

RE: Vaneck 1215 N-1H thru S-12H
Freeman's Creek District, Lewis County
West Virginia

Dear Royalty Owner

Enclosed is a copy of a Department of Environmental Protection "Notice of Entry For Plat Survey" form WW-6A3. This notice is provided to you as a royalty owner to advise you that HG Energy II Appalachia, LLC, is beginning the process of applying for permits to drill a well(s) where you are identified as an owner of minerals underlying such tract in the county tax records. A well work permit application will be filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because you are an owner of mineral rights on one or more of the underlying leases impacted by this well (s). Statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WVDEP at 304-926-0450, located at 601 57th Street, Charleston, WV. Copies of such documents or additional information related to horizontal drilling may also be obtained by visiting the WV DEP online.

No action on your part is required. If you have any questions or comments regarding this permit application, you may call this office at (304) 420-1119. Questions concerning lease issues may be directed to Mark Schall at 304-420-1115. Address inquiries should be directed to Bethanne Wilson at 304-370-3246.

Very truly yours,

Diane White

Diane C. White

Enclosures

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WV Department of
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03/04/2022

Marjorie W Hyatt & Linda C Weekley
2908 Macon St.
South Charleston, WV 25303

Bertha F. Benedum
604 Mare Run Rd.
Weston, WV 26452

J. Kent Burnside
645 Mare Run Rd.
Weston, WV 26452

Betty Craft
120 E. 7th St.
Weston, WV 26452

Patrick A. Nies
571 Deer Hill Rd.
Sykesville, MD 21784

Mary Katherine Hull
1000 Maplewood Dr. Apt. 3102
Bridgeport, WV 26330

Kimberly Diana Byrd Trustee
For Benefit of Kelly Ann Byrd
512 Jackson Ave. E.
Hampton, SC 29924

John E. Determan
& Carolyn S. Determan
302 Copley Rd.
Weston, WV 26452

William L. Perry, Jr. & Hilda R. Perry
93 Riverview Hts.
Weston, WV 26452

Mark R. Fitzpatrick
958 McCanns Run Rd.
Jane Lew, WV 26378

Jane E. Horn
958 McCanns Run Rd.
Jane Lew, WV 26378

Joan E. Burnside Anderson
PO Box 863
Blairsdan, CA 96103

Waco Oil and Gas Co.
PO Box 880
Glenville, WV 26351

Michael Ross
PO Box 219
Coalton, WV 26257-0219

Donald R. Reynolds
PO Box 607
Jane Lew, WV 26378

Mary Kemper Gum
47 Meade St.
Buckhannon, WV 26201

Richard Clay Hamrick
7 Westferry Ct.
Savannah, GA 31411

Steven Jay Hamrick
12104 Foley St.
Silver Spring, MD 20902

Linda Rose O'Hara
402 Thackery Ave.
Catonsville, MD 21228

Linda Lou Waggoner
24 Queen Eleanor Dr.
Elkton, MD 21921

Jack E. Waggoner
1450 Kent Rd.
Essex, MD 21221

Joseph C. Waggoner
8892 US Hwy. 33 W.
Camden, WV 26338

Mary Kay Small Justice
931 Beech Dr.
Greenwood, IN 46142

Bea Ann Small Wilfong
543 Lee Burke Rd.
Front Royal, VA 22630

Michael Lynn Small
456 Gaston Manor Rd.
Jane Lew, WV 26378

Sharon Lea Small Senk
24 Fairview Ave.
Ellington, CT 06029

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Environmental Protection

Dorsey Frazier Hamrick, Jr.
105 Mitchell Rd.
Airville, PA 17302

William Everett Hamrick
1224 Trappe Road
Street, MD 21154

Janet Rose Dawson
1744 Castleton Road
Darlington, MD 21034

Alice Faye McQueen
401 Winslow Drive
Bel Air, MD 21015

03/04/2022

Elizabeth Carol Brown
84 Schoolhouse Lane
Windsor, PA 17366

Barbara Jean Evans
1944 Franklin Church Road
Darlington, MD 21034

Vickie Lynn Erickson
515 Evans Street
Perryville, MD 21903

Tina Louise Hamrick
17104 Indian Grass Drive
Germantown, MD 20874

Raymond C. Waggoner
7305 Church Ave.
Pittsburg, PA 15202

Margaret J. Morley
4429 Francis Younge Way
Hollywood, SC 29449

Delores E. Small
105 Howard St.
Clarksburg, WV 26301

J.P. Morgan Chase Bank, Trustee
For S. Austin Smith and C. Burke Morris
P.O. Box 659
Wichita Falls, TX 76307

J.P. Morgan Chase Bank,
Trustee For Will E. Morris Heirs
P.O. Box 659
Wichita Falls, TX 76307

Edward Earl Garrett
2151 Rush Run Rd.
Weston, WV 26452

Bruce Hall Garrett,
Trustee for Helen Garrett, et al.
1326 Freemans Creek Rd.
Camden, WV 26338

Phillip E. Burnside
3 Briarwood Ter.
Fairmont, WV 26554

John Kent Burnside
645 Mare Run Rd.
Weston, WV 26452

Appalachian Royalties, Inc.
PO Drawer 1917
Clarksburg, WV 26301

03/04/2022

4704105730

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: 01/18/2022 Date Permit Application Filed: 01/27/2022

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

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND 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) * Notice not sent as Surface Owner is also Operator (at the address listed in the records of the sheriff at the time of notice):

Name: <u>HG Energy II Appalachia, LLC</u>	Name: _____
Address: <u>5260 Dupont Road</u>	Address: _____
<u>Parkersburg, WV 26101</u>	_____

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>539039.4</u>
County: <u>Lewis</u>		Northing: <u>4329869.2</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>Mare Run Road / CR 10 / 9</u>	
Quadrangle: <u>Garden WV 7.5'</u>	Generally used farm name: <u>Vanack</u>	
Watershed: <u>Middle West Fork 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: <u>HG Energy II Appalachia, LLC</u>	Address: <u>5260 Dupont Road</u>
Telephone: <u>304-420-1119</u>	<u>Parkersburg, WV 26101</u>
Email: <u>dwhite@hgenerallyllc.com</u> <i>Diane White</i>	Facsimile: <u>304-863-3172</u>

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.

03/04/2022

4704105730



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

December 27, 2021

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 Vaneck 1215 Pad, Lewis County
Vaneck 1215 N-6H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #07-2021-0333 which has been issued to HG Energy II Appalachia, LLC for access to the State Road for a well site located off Lewis County Route 10/9 SLS MP 1.40.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE 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,

A handwritten signature in blue ink that reads "Gary K. Clayton".

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

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Office of Oil and Gas
JAN 27 2022
WV Department of
Environmental Protection

Cc: Diane White
HG Energy II Appalachia, LLC
CH, OM, D-6
File

HG Energy II Appalachia, LLC
List of Frac Additives by Chemical Name and CAS #
Vaneck 1215 Well Pad (N-1H to N-6H, S-7H to S-12H)

Chemical Name	CAS #	Multiple CAS #'s
Pro Shale Slik 405	Mixture	68551-12-2 7647-14-5 12125-02-9 64742-47-8
Pro Hib II	Mixture	68412-54-4 68607-28-3 107-21-1 111-76-2 67-56-1 107-19-7
Silica Sand and Ground Sand	Mixture	14808-60-7 1344-28-1 1309-37-1 13463-67-7
Hydrochloric Acid 22 DEG BE	7647-01-0	
PROGEL - 4.5	64742-96-7	
BIO CLEAR 2000	Mixture	25322-68-3 10222-01-2
SCALE CLEAR SI 112	107-21-1	
PROBREAK 4	Mixture	57-50-1 107-21-1
Sulfamic Acid	5329-14-6	
PRO - Flow - 102-N	Mixture	67-63-0 68439-45-2 2687-96-9
PROGEL - 4	9000-30-0	

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WEST VIRGINIA COUNTY MAP



APPROVED WVDEP OOG 3/2/2022

1215 Well Site Site Design, Construction Plan, & Erosion and Sediment Control Plans HG Energy LLC Lewis County Freemans Creek District Latitude 39.11678083° Longitude -80.54815578° Middle West Fork River Watershed

Pertinent Site Information 1215 Well Site Emergency Number: 304-269-8243 Freemans Creek District, Lewis County, WV Watershed: Middle West Fork River Watershed Site 911 Address: HG Energy Contact Number: 304-420-1100

Table with 7 columns: Item, Well No., Well Depth, Well Type, Well Construction, Well Completion, Well Status. Lists well details for 1215 Well Site.

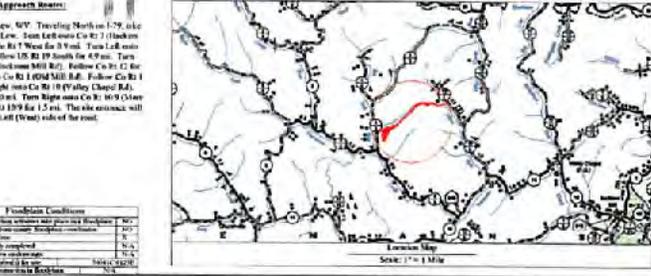
Exhibit A: Final Design: Issue for Permitting

Grid of tables containing well coordinates (Easting, Northing) and well identifiers for various well locations.



Technical tables including: Access Road (Stationing, Elevation, etc.), Diversion Area (Area, Volume, etc.), 1215 Well Site Quantities (Excavation, Backfill, etc.), Diversion Stream Impact (Length, Volume, etc.), and Diversion Well Impact (Capacity, Volume, etc.).

Project Contact: HG Energy LLC, 1100 Energy Blvd, Morgantown, WV 26505. Includes contact information for HG Energy LLC and West Virginia Utility of 811.



Well Location Information: All well locations are shown on the following conditions. Includes a list of sheet numbers and descriptions for the project exhibits.



THIS DOCUMENT PREPARED FOR HG ENERGY LLC

Kelly Savinova

1215 Well Site Freemans Creek District Lewis County, WV

Date: 12/20/2021 Scale: As Shown Drawn By: DSJ Date: 12/20/21 Sheet 1 of 31

1215 Well Site
 HG Energy LLC
 Exhibit A: Final Design: Issue for Permitting



HG Energy II
 Appalachia LLC
 TM: SC-29
 DB/PG: 765/894

HG Energy II
 Appalachia LLC
 TM: SC-27.1
 DB/PG: 765/894

Raymond & Coloma
 Waggoner
 TM: SC-25
 DB/PG: 567/418

Daniel & Reza
 Waggoner
 TM: SC-12
 DB/PG: 733/654

HG Energy II
 Appalachia LLC
 TM: SC-29
 DB/PG: 765/894

HG Energy II
 Appalachia LLC
 TM: SC-29
 DB/PG: 765/894



- Legend**
- Original Contour Lines
 - Original Contour 10' Contour
 - Design 2' Contour
 - Design 10' Contour
 - Center of Structure
 - Height
 - Existing Fence
 - 30' Gravel Filter Tank
 - 20' Gravel Filter Tank
 - Open Air Pans
 - Edges of Disturbance
 - Area of Interest
 - Existing Gas Lines
 - Existing Utility Pole Line
 - East and West
 - Existing Centerline Road
 - Disturbed Wetland
 - Disturbance Sensitive
 - Tree Key
 - Existing Control Easement Slope Area
 - Tree Check Time

Disturbed Area

Wall Pad Construction	4.93 Ac
30' Pad Construction	1.78 Ac
Access Road Construction	0.27 Ac
Gravel Filter Tank	11.05 Ac
Open Air Pans	11.05 Ac
Additional Information	41.11 Ac
100% Wooded Area (Inventory)	1.41 Ac
Wooded Area (Inventory)	1.41 Ac

Judith
 Percy
 TM: SC-28
 DB/PG: FID3596



THIS DOCUMENT
 PREPARED FOR
 HG ENERGY LLC



Extension and Submittal Control Plan
 1215 Well Site
 Freeman's Creek District
 Lewis County, WV

Date: 12/30/2021
 Scale: As Shown
 Designer: HWJ/RS
 Title No:
 Sheet 10 of 26

SDW
 11/3/2022