



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

Thursday, September 22, 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 S-9H
47-041-05739-00-00

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 S-9H
Farm Name: HG ENERGY II, APPALACHIA
U.S. WELL NUMBER: 47-041-05739-00-00
Horizontal 6A New Drill
Date Issued: 9/22/2022

Promoting a healthy environment.

09/23/2022

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.
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.

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 S-9H 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 _____

*SDW
8/4/2022*

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: 6,790'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23,832'

11) Proposed Horizontal Leg Length: 16,309'

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

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

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

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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	23832'	23832' ✓	20% Excess Tail, CTS
Tubing							
Liners							

*- SDW
8/4/2022*

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 = 1.18, tail yield 1.84
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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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 6790'. Drill horizontal leg to estimated 16,309' lateral length, 23,832' 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 8 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 - N/A, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water/Coal - *15.6 ppg PNE-1 + 3% bwoc CaCl2/0% Excess/Yield=1.20 / CTS*
Intermediate 1 - *** Storage Slring *** CTS *** 15.4 ppg Lead - Yield 1.24 - D996 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 1.0 lb per BBL CamNET* - 50% Excess/15.9 ppg Tail - Yield 1.17 - D090 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)B160A - 0.18% 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*
Intermediate 2 - *Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl2/0% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl2 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: 14.6 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 55% bwoc NSCA1 + 0.5% bwoc MPA17020% Excess/Lead 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.

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

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>1 - 5</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	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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*** 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)
 B160A - 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 S-9H
 Marcellus Shale Horizontal
 Lewis County, WV



				1215 S-9H SHL				14205286.52N 1768467.3E			
Ground Elevation		1254.8'		1215 S-9H LP				14204934.91N 1768358.6E			
Azimuth		159.73°		1215 S-9H BHL				14189565.81N 1773789.46E			
WELLBORE DIAGRAM		HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	30"	30" 157.5# LS	Conductor	0	120		AIR	N/A. Casing to be drilled in w/ Dual Rotary Rig	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" 88# 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 <i>*will also be running ACP for isolating storage zone*</i>	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: 4850' Inc: 22 deg.						
8.75"						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	
		Rhinestreet	6125	6290							
8.5" Curve	5-1/2" 23# P-110 HP CDC HTQ	Cashaqua	6290	6391		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.			
		Middlesex	6391	6425							
		West River	6425	6500							
		Burkett	6500	6535							
		Tully Limestone	6535	6625							
		Hamilton	6625	6753							
		Marcellus	6753	6803							
		TMD / TVD (Production)	23832	6789							
Onondaga	6803										
8.5" Lateral						11.5ppg-12.5ppg SOB M					

LP @ 6789' TVD / 7523' MD

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

+/-16309' ft Lateral

TD @ +/-6789' TVD
 +/-23832' MD

X=centralizers

Environmental Protection

AUG 18 2022

4704105739

WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Vaneck 1215 S-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
8/14/2022*

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/SOBM, Horizontal - SOBAM

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

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

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

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

-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

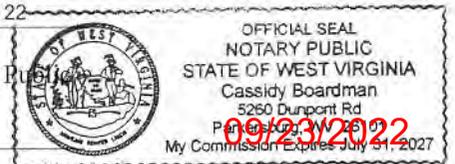
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AUG 18 2022
West Virginia Department of
Environmental Protection

Subscribed and sworn before me this 21st day of July, 2022

Cassidy Boardman

Notary Public

My commission expires 7/31/2027



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

Eap Industries, Inc. DOT # 0876278
 1575 Smith Two State Rd. Atlasburg, PA 15004
 1-888-294-5227

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

Environmental Coordination Services & Recycling (ECS&R)
 3237 US Highway 19
 Cochran, PA 16314
 814-425-7773

Disposal Locations:

Apex Environmental, LLC Permit # 06-08438
 11 County Road 78
 Amsterdam, OH 43903
 740-543-4389

Westmoreland Waste, LLC Permit # 100277
 111 Conner Lane
 Belle Vernon, PA 15012
 724-329-7694

Sycamore Landfill Inc, Permit #R30-079001 05-2010
 4301 Sycamore Ridge Road
 Hurricane, WV 25526
 304-562-2611

Max Environmental Technologies, Inc. Facility Permit # PAD004835146 / 301071
 233 Max Lane
 Yukon, PA 25968
 724-722-3500

Max Environmental Technologies, Inc. Facility Permit # PAD05087072 / 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 # 1032
 1488 Dawson Drive
 Bridgeport, WV 26330

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

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185
 Rt 1 Box 156A
 New Martinsville, WV 26035
 304-455-3800

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

Energy Solutions Services, Inc. Permit # R-73006-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
 231-258-9961

Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720485
 3790 State Route 7
 New Waterford, OH 44445
 330-892-0164

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

Select Energy Services, LLC
 PO Box 203997
 Dallas, TX 75320-3997

Nuverra Environmental Solutions
 11942 Veterans Memorial Highway
 Masontown, WV 26542

Mustang Oilfield Services LLC
 PO Box 739
 St. Clairsville, OH 43950

Wilson's Outdoor Services, LLC
 456 Cracraft 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
 330-536-6825

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

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

Force, Inc.
 1380 Rte. 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 15632

Burns Drilling & Excavating
 618 Crabapple Road P.O. Box
 Wind Ridge, PA 15380

Nichols 1-A (SWIW #13)
 Permit # 3862
 300 Cherrington Pkwy, Suite 200
 Coraopolis, PA 15108
 412-329-7275

Groselle (SWIW #34)
 Permit # 4096
 Rt. 88
 Garrettsville, OH
 713-275-4816

Kemble 1-D Well
 Permit # 8780
 7675 East Pike
 Norwlich, Oh 43767
 614-648-8898
 740-796-6495

Adams #2 (Buckeye Brine, LLC)
 2205 Westover Road
 Austin Tx 78703
 Permit # 34-031-2-7178
 740-575-4484
 512-478-6545

Adams #3 (Buckeye Brine, LLC)
 Permit #34-031-2-7241-00-00
 2630 Exposition, Suite 117
 Austin, TX 78703
 512-478-6545

Mozena #1 Well (SWIW # 13)
 Permit # 34-157-2-5511-00-00
 5367 E. State Street
 Newcomerstown, OH 43832
 740-763-3966

Goff SWD #1 (SWIW # 27)
 Permit # 34-119-2-8776-000
 300 Cherrington Pkwy, Suite 200
 Coraopolis, PA 15108
 412-329-7275

SOS D#1 (SWIW #12)
 Permit # 34-059-2-4202-00-00
 Silcor Oilfield Services, Inc.
 2939 Hubbard Road
 Youngstown, OH 44505

Dudley #1 UIC (SWIW #1)
 Permit # 34-121-2-2459-00-00
 Select Energy Services, LLC
 7994 S. Pleasants Hwy
 St. Marys, WV 26170
 304-665-2652

OH UIC #1, Bu keya UIC Barnesville 1 & 2
 CNX Gas Company, LLC
 1000 Consol Energy Drive
 Permit # 34-013-2-0609-00-00
 Permit # 34-013-2-0614-00-00
 304-323-6568

US Steele 11385
 Permit # 47-001-00561
 200 Evergreen Drive
 Waynesburg, PA 15730
 304-323-6568

Chapln #7 UIC (SWIW #7)
 Permit # 34-083-2-4137-00-00
 Elkhead Gas & Oil Company
 12163 Mame Rd. NE
 Newark, OH 43035
 740-763-3966

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]

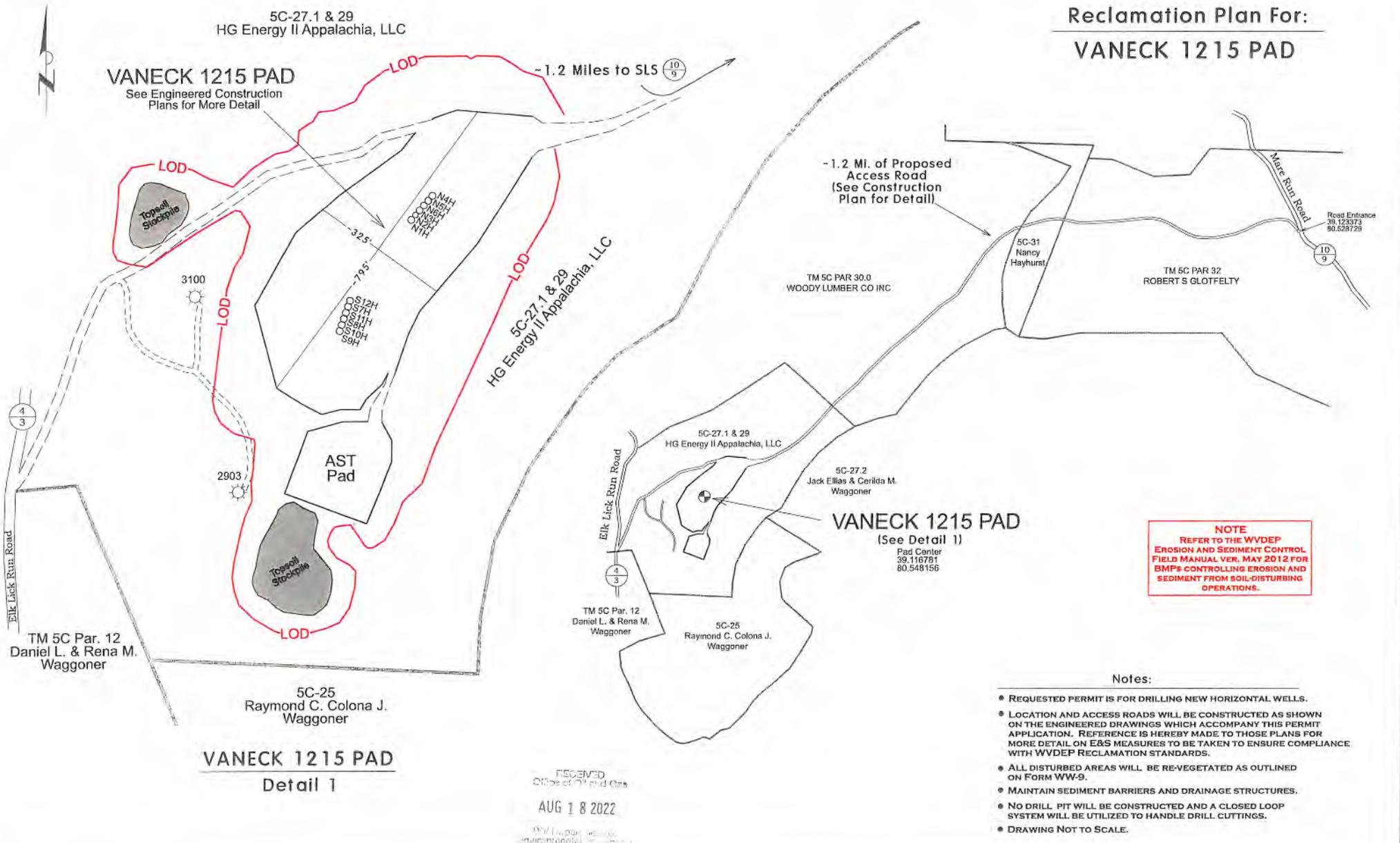
Comments: Pre-seed/mulch as soon as reasonably possible per regulation.
Upgrade E&S if needed per WV DEP E&S manual.

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WV Department of
Environmental Protection

Title: WV DEP Oil & Gas Inspector Date: 8/4/2022

Field Reviewed? Yes No

Reclamation Plan For:
VANECK 1215 PAD



VAN ECK 1215 PAD
 See Engineered Construction Plans for More Detail

TM 5C Par. 12
 Daniel L. & Rena M.
 Waggoner

5C-25
 Raymond C. Colona J.
 Waggoner

VAN ECK 1215 PAD
 Detail 1

5C-27.1 & 29
 HG Energy II Appalachia, LLC

5C-27.1 & 29
 HG Energy II Appalachia, LLC

VAN ECK 1215 PAD
 (See Detail 1)
 Pad Center
 39.116781
 80.548156

TM 5C PAR 30.0
 WOODY LUMBER CO INC

5C-27.2
 Jack Elias & Corilda M.
 Waggoner

TM 5C Par. 12
 Daniel L. & Rena M.
 Waggoner

5C-25
 Raymond C. Colona J.
 Waggoner

5C-31
 Nancy
 Hayhurst

TM 5C PAR 32
 ROBERT S GLOTFELTY

NOTE
 REFER TO THE WVDEP
 EROSION AND SEDIMENT CONTROL
 FIELD MANUAL VER. MAY 2012 FOR
 BMPs CONTROLLING EROSION AND
 SEDIMENT FROM SOIL-DISTURBING
 OPERATIONS.

Notes:

- REQUESTED PERMIT IS FOR DRILLING NEW HORIZONTAL WELLS.
- LOCATION AND ACCESS ROADS WILL BE CONSTRUCTED AS SHOWN ON THE ENGINEERED DRAWINGS WHICH ACCOMPANY THIS PERMIT APPLICATION. REFERENCE IS HEREBY MADE TO THOSE PLANS FOR MORE DETAIL ON E&S MEASURES TO BE TAKEN TO ENSURE COMPLIANCE WITH WVDEP RECLAMATION STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- NO DRILL PIT WILL BE CONSTRUCTED AND A CLOSED LOOP SYSTEM WILL BE UTILIZED TO HANDLE DRILL CUTTINGS.
- DRAWING NOT TO SCALE.

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EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

VANECK 1215 SOUTH UNIT AND PROPOSED WELLS S-7H, S-8H, S-9H, S-10H, S-11H & S-12H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4704100049	Lewis	Alfred Woolfter	Dominion Energy Transmission, Inc.	Helderberg	Gas	7325	PLUGGED	39.080348	-80.530425
2	4704100064	Lewis	R H Hall	Diversified Resources, Inc.	Fifth	Gas	2316	ACTIVE	39.067649	-80.514534
3	4704100089	Lewis	J L J Bailey	Diversified Production LLC	Helderberg	Gas	7022	ACTIVE	39.075324	-80.538664
4	4704100238	Lewis	G W Jordon	Dominion Energy Transmission, Inc.	Fifth	Gas	2471	PLUGGED	39.102380	-80.538855
5	4704100334	Lewis	Alice Burnside	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2478	ACTIVE	39.111415	-80.559086
6	4704100487	Lewis	A E Wright	Deran Resources, Inc.	Up Devonian	Gas w/ Oil Show	2304	ACTIVE	39.061528	-80.521206
7	4704100513	Lewis	J A White	Clem Energy, LLC	Price Fm & equivs	Gas	1410	ACTIVE	39.083465	-80.546827
8	4704100559	Lewis	Florence Wagner et al	Deran Resources, Inc.	Conemaugh Group	Gas	685	ACTIVE	39.075044	-80.524939
9	4704100568	Lewis	Florence Waggoner	Deran Resources, Inc.	Price Fm & equivs	Gas	1623	ACTIVE	39.073670	-80.527386
10	4704100631	Lewis	C M Hall	UNKNOWN	Price Fm & equivs	Dry w/ Gas Show	1666	PLUGGED	39.063703	-80.523997
11	4704100655	Lewis	John White	Alliance Petroleum Co. LLC	Price Fm & equivs	Gas w/ Oil Show	1698	ABANDONED	39.085791	-80.540008
12	4704100687	Lewis	Sarah A Kemper	Consol Gas Co.	Big Injun (Grnbr)	Gas w/ Oil Show	1658	PLUGGED	39.080815	-80.540191
13	4704100732	Lewis	John W Kemper	UNKNOWN	Hampshire Grp	Gas	2370	NEVER DRILLED	39.091447	-80.522704
14	4704100762	Lewis	S A Hall	Clem Energy, LLC	Squaw	Gas w/ Oil Show	1507	ACTIVE	39.083184	-80.522572
15	4704100802	Lewis	Edward Carrell	Alliance Petroleum Co. LLC	Price Fm & equivs	Gas	1801	ACTIVE	39.085990	-80.535815
16	4704100913	Lewis	Israel Simmons	Dominion Energy Transmission, Inc.	Big Injun (Grnbr)	Gas	1577	ACTIVE	39.089777	-80.542014
17	4704101114	Lewis	Gerald R Wright	Diversified Production LLC	Price Fm & equivs	Gas	1684	ACTIVE	39.061943	-80.515336
18	4704101126	Lewis	Bruce/J Carrell/M Bailey	Alliance Petroleum Co. LLC	Price Fm & equivs	Gas	1473	ACTIVE	39.090285	-80.533119
19	4704101282	Lewis	F White	Dominion Energy Transmission, Inc.	Undf PRICE blw INJN	Gas w/ Oil Show	1716	ACTIVE	39.096724	-80.531754
20	4704101375	Lewis	F White	Dominion Energy Transmission, Inc.	Undf PRICE blw INJN	Gas	1649	ACTIVE	39.102532	-80.531000
21	4704101381	Lewis	F White	Eastern Gas Transmission & Storage, Inc.	Price Fm & equivs	Gas	1533	ACTIVE	39.099706	-80.525513
22	4704101439	Lewis	Odie Bailey et al	UNKNOWN	not available	not available	-	PLUGGED	39.079115	-80.521697
23	4704101446	Lewis	S & C Hall	Allegheny Land and Mineral Co.	Undf PRICE blw INJN	Dry w/ Oil Show	1661	PLUGGED	39.088695	-80.520315
24	4704101525	Lewis	Israel Simmons	Dominion Energy Transmission, Inc.	Big Injun (Grnbr)	Gas w/ Oil Show	1942	ACTIVE	39.096753	-80.539858
25	4704101527	Lewis	Edward E Garrett	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4718	ACTIVE	39.106969	-80.536030
26	4704101602	Lewis	F White	Dominion Energy Transmission, Inc.	Benson	Gas	4414	ACTIVE	39.101644	-80.543897
27	4704101603	Lewis	J Kent Burnside	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4670	ACTIVE	39.112060	-80.532288
28	4704101641	Lewis	F White	Dominion Energy Transmission, Inc.	Benson	Gas	4703	ACTIVE	39.115940	-80.543809
29	4704101657	Lewis	Helen H Garrell	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4450	ACTIVE	39.094622	-80.546304
30	4704101658	Lewis	James S Hall	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4532	ACTIVE	39.102559	-80.526798
31	4704101664	Lewis	T T Taylor	Eastern Gas Transmission & Storage, Inc.	Brallier	Gas	4571	ACTIVE	39.108066	-80.544783
32	4704101676	Lewis	Bruce Garrett	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4600	ACTIVE	39.103695	-80.553642
33	4704101692	Lewis	S A & C M Hall	Diversified Production LLC	Benson	Gas	4475	ACTIVE	39.087211	-80.524793
34	4704101694	Lewis	Clark White	Alliance Petroleum Co. LLC	Benson	Gas	4455	ACTIVE	39.099133	-80.535363
35	4704101698	Lewis	John A White	UNKNOWN	Benson	Dry	4450	PLUGGED	39.084633	-80.542210
36	4704101709	Lewis	James H Hall	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4345	ACTIVE	39.094637	-80.526492

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37	4704101739	Lewis	Gerald Hull	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4176	ACTIVE	39.087605	-80.544982
38	4704101744	Lewis	Israel Simmons	Dominion Energy Transmission, Inc.	Misc Sands-BNSN/BRLR	Gas	4375	ACTIVE	39.089762	-80.537573
39	4704101761	Lewis	William Burnside	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4760	ACTIVE	39.114437	-80.558559
40	4704101774	Lewis	E W & R M Waggoner	Eastern Gas Transmission & Storage, Inc.	Benson	Gas	4765	ACTIVE	39.109214	-80.553177
41	4704101821	Lewis	R H Hall	Greylock Conventional, LLC	Benson	Gas	4541	ACTIVE	39.072366	-80.516803
42	4704101845	Lewis	J A Kemper	Alliance Petroleum Co. LLC	Big Injun (Grnbr)	Gas	2062	ACTIVE	39.087540	-80.528065
43	4704101851	Lewis	T T Taylor	Dominion Energy Transmission, Inc.	Up Devonian	Gas	2548	ACTIVE	39.107144	-80.542702
44	4704101853	Lewis	M L Butcher	UNKNOWN	not available	not available	-	NEVER DRILLED	39.065298	-80.538880
45	4704101864	Lewis	Albert Woofter	Mountain V, LLC	Helderberg	Gas w/ Oil Show	7045	ACTIVE	39.082958	-80.534527
46	4704101866	Lewis	F M McKinley	Clem Energy, LLC	Helderberg	Gas	7325	ACTIVE	39.078844	-80.516421
47	4704101871	Lewis	M L Butcher	Mountain V, LLC	Helderberg	Gas	7104	ACTIVE	39.065841	-80.539537
48	4704101889	Lewis	S A & C M Hall	Mountain V, LLC	Helderberg	Gas w/ Oil Show	7140	ACTIVE	39.088230	-80.519941
49	4704101899	Lewis	Charles Kemper	Clem Energy, LLC	Benson	Gas	4443	ACTIVE	39.091370	-80.523335
50	4704101901	Lewis	Alfred Woofter	Alliance Petroleum Co. LLC	Big Injun (Grnbr)	Gas	1650	ACTIVE	39.081599	-80.534810
51	4704101907	Lewis	Harvey Hall	Eastern Gas Transmission & Storage, Inc.	Helderberg	Gas w/ Oil Show	7206	PLUGGED	39.063990	-80.529565
52	4704102050	Lewis	Israel Simmons	Alliance Petroleum Co. LLC	Benson	Gas	4775	ACTIVE	39.096272	-80.539878
53	4704102054	Lewis	Israel Simmons	Diversified Production LLC	Benson	Gas	4670	ABANDONED	39.099940	-80.549132
54	4704102077	Lewis	A T Simmons	Ross & Wharton Gas Co., Inc.	Benson	Gas	4324	ACTIVE	39.086449	-80.530455
55	4704102132	Lewis	A C Simmons	Mike Ross, Inc.	Bayard	Gas	2575	ACTIVE	39.096272	-80.547464
56	4704102148	Lewis	J B Snyder	Alliance Petroleum Co. LLC	Benson	Gas	4420	ACTIVE	39.094083	-80.532822
57	4704102184	Lewis	M C Burnside	Dominion Energy Transmission, Inc.	Benson	Gas	4848	ACTIVE	39.116787	-80.536540
58	4704102302	Lewis	M Halterman	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Gas	2420	ACTIVE	39.109733	-80.556808
59	4704102303	Lewis	Orpha D Waggoner	Dominion Energy Transmission, Inc.	Benson	Oil and Gas	4777	ACTIVE	39.115272	-80.549369
60	4704102308	Lewis	F Riley	Eastern Gas Transmission & Storage, Inc.	Gordon	Gas	2393	ACTIVE	39.119733	-80.543167
61	4704102312	Lewis	C White	Alliance Petroleum Co. LLC	not available	not available	-	ACTIVE	39.101284	-80.534893
62	4704102317	Lewis	C Flesher	Alliance Petroleum Co. LLC	Hampshire Grp	Gas	2243	ACTIVE	39.067267	-80.529123
63	4704102318	Lewis	C Flesher	Diversified Production LLC	Hampshire Grp	Gas	2261	ACTIVE	39.062863	-80.529881
64	4704102340	Lewis	I Simmons	Eastern Gas Transmission & Storage, Inc.	not available	Gas	-	ACTIVE	39.087382	-80.549064
65	4704102348	Lewis	A Woofter	Alliance Petroleum Co. LLC	not available	not available	-	ACTIVE	39.076895	-80.530846
66	4704102349	Lewis	A Woofter	Alliance Petroleum Co. LLC	not available	not available	-	ACTIVE	39.080604	-80.529038
67	4704102352	Lewis	E Hall	Diversified Production LLC	not available	not available	-	ABANDONED	39.088272	-80.528906
68	4704102355	Lewis	C Robinson	Alliance Petroleum Co. LLC	not available	not available	-	ACTIVE	39.089927	-80.528642
69	4704102363	Lewis	M Losh	Alliance Petroleum Co. LLC	not available	not available	-	ACTIVE	39.067651	-80.522328
70	4704102367	Lewis	T T Taylor	Dominion Energy Transmission, Inc.	Gordon	Gas	2322	ACTIVE	39.109335	-80.546012
71	4704102375	Lewis	J Bailey	Alliance Petroleum Co. LLC	Hampshire Grp	Gas	2434	ACTIVE	39.072712	-80.532273
72	4704102486	Lewis	Helen Garrett	Dominion Energy Transmission, Inc.	Balltown	Gas	3535	ACTIVE	39.093256	-80.542467
73	4704102532	Lewis	M Fultinear	Alliance Petroleum Co. LLC	Benson	Gas	4496	ACTIVE	39.081256	-80.524657
74	4704102603	Lewis	W Burnside	Eastern Gas Transmission & Storage, Inc.	not available	Storage	-	ACTIVE	39.114018	-80.556711
75	4704102608	Lewis	G W Waggoner	Eastern Gas Transmission & Storage, Inc.	Hampshire Grp	Storage	2296	ACTIVE	39.117018	-80.554880
76	4704102702	Lewis	Israel Simmons	UNKNOWN	Gantz	Gas	2265	ABANDONED	39.092671	-80.548089

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77	4704102714	Lewis	W J Bailey	Diversified Production LLC	Gordon	Gas	2305	ACTIVE	39.072570	-80.540695
78	4704102726	Lewis	E W Wagonner	Consolidated Gas Supply Corp.	Hampshire Grp	Gas	2435	PLUGGED	39.113030	-80.551358
79	4704102866	Lewis	Uriah Rexroad	Petroleum Service Partners, Inc.	Greenland Gap Fm	Oil and Gas	4648	ACTIVE	39.063878	-80.513079
80	4704103079	Lewis	M L Butcher	Red Gas Co.	not available	Gas	-	ACTIVE	39.063922	-80.536298
81	4704103100	Lewis	Marjorie Hyatt	Dominion Energy Transmission, Inc.	Big Injun (Grnbr)	Oil w/ Gas Show	2075	ACTIVE	39.116597	-80.549618
82	4704103173	Lewis	Orpha Waggoner	Consolidated Gas Supply Corp.	Big Injun (Grnbr)	Dry	2089	PLUGGED	39.117125	-80.546833
83	4704103406	Lewis	R Hall/D Fisher	Mountain V, LLC	Benson	Gas	4431	ACTIVE	39.085428	-80.541750
84	4704103422	Lewis	J Kent Burside	Dominion Energy Transmission, Inc.	Hampshire Grp	Oil and Gas	2930	ACTIVE	39.110813	-80.536431
85	4704103447	Lewis	Nellie B Rohr	Mineral Resource Management, LLC	Benson	Gas	4326	ACTIVE	39.077104	-80.535130
86	4704103454	Lewis	Fisher et al	Mountain V, LLC	Benson	Gas	4602	ACTIVE	39.081958	-80.544873
87	4704103545	Lewis	R & V Cunningham	American Energy Holdings, LLC	Brallier	Gas	5975	ABANDONED	39.073986	-80.525964
88	4704103673	Lewis	James M Sheared	Red Gas Company	Salt Sands (undiff)	Gas	605	ACTIVE	39.066161	-80.537114
89	4704103698	Lewis	Frances/A Marple	Alliance Petroleum Co. LLC	Brallier	Gas	6104	ACTIVE	39.064619	-80.525432
90	4704103704	Lewis	Frances J/Allen Marple	Alliance Petroleum Co. LLC	Brallier	Gas	6225	ACTIVE	39.065008	-80.518789
91	4704103711	Lewis	John L Burnside	Eastern Gas Transmission & Storage, Inc.	Benson	Oil and Gas	4621	ACTIVE	39.107689	-80.529411
92	4704103738	Lewis	Johathon R Dodson	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3444	ACTIVE	39.075411	-80.521187
93	4704103745	Lewis	Jonathon R Dodson	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3626	ACTIVE	39.070988	-80.521548
94	4704103969	Lewis	Ronald L Cunningham et al	Diversified Resources, Inc.	Alexander	Gas	4912	ABANDONED	39.070294	-80.528681
95	4704104068	Lewis	Helen H Garrett	Enervest Operating, LLC	Greenland Gap Fm	Gas	4605	ACTIVE	39.091674	-80.542559
96	4704104088	Lewis	Margaret Waggoner Hrs	Enervest Operating, LLC	Greenland Gap Fm	Gas	4855	ACTIVE	39.110853	-80.538807
97	4704104097	Lewis	Carroll Gum	Enervest Operating, LLC	Greenland Gap Fm	Gas	4426	ACTIVE	39.098206	-80.530123
98	4704104107	Lewis	Edward E Garrett	Enervest Operating, LLC	Greenland Gap Fm	Gas	4625	ACTIVE	39.103087	-80.533609
99	4704104168	Lewis	Robert D Hall et al	Murvin & Meier Oil Co.	Greenland Gap Fm	Gas	4431	ACTIVE	39.084109	-80.521710
100	4704104352	Lewis	Elmer C Cox	Diversified Production LLC	Greenland Gap Fm	Gas	2422	ACTIVE	39.060657	-80.532553
101	4704104353	Lewis	Patrick Boyle	Diversified Production LLC	Greenland Gap Fm	Gas	2636	ACTIVE	39.059497	-80.526600
102	4704104366	Lewis	Jay T Shearer	Red Gas Co.	Greenland Gap Fm	Gas	2510	ACTIVE	-80.536308	-1.000000
103	4704104368	Lewis	Jay T Shearer	Red Gas Co.	Price Fm & equivs	Gas	2013	ACTIVE	-80.539887	-1.000000
104	4704104370	Lewis	Jay T Shearer	Red Gas Co.	Price Fm & equivs	Gas	2157	ACTIVE	39.070084	-80.532743
105	4704104371	Lewis	Jay T Shearer	Red Gas Co.	Price Fm & equivs	Gas	2204	ACTIVE	39.066806	-80.532805
106	4704104391	Lewis	Johahan R Dodson	Diversified Production LLC	Greenland Gap Fm	Gas	3475	ACTIVE	39.071205	-80.512484
107	4704104396	Lewis	Kenneth H Heckert	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4604	ACTIVE	39.104854	-80.548657
108	4704104484	Lewis	Simeon A Hall/D Hall hrs	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3655	ACTIVE	39.068072	-80.525221
109	4704104486	Lewis	Jonathan R Dodson	Diversified Production LLC	Greenland Gap Fm	Gas	3568	ACTIVE	39.069314	-80.518032
110	4704104489	Lewis	Elmer Cox Est	Diversified Production LLC	Greenland Gap Fm	Gas	3595	ACTIVE	39.063584	-80.532636
111	4704104494	Lewis	J K Burnside/W Brunside	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	4906	ACTIVE	39.105763	-80.529710
112	4704104496	Lewis	Joseph C Waggoner Sr	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4529	ACTIVE	39.112039	-80.544948
113	4704104526	Lewis	Melvin L Davis	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4718	ACTIVE	39.104278	-80.540345
114	4704104590	Lewis	Jay T Shearer	Red Gas Co.	Greenland Gap Fm	Gas	2651	ACTIVE	39.071881	-80.536584
115	4704104604	Lewis	Jay T Shearer	Red Gas Co.	Hampshire Grp	Gas	2015	ACTIVE	39.063589	-80.533182
116	4704104605	Lewis	Jay T Shearer	Red Gas Co.	Greenland Gap Fm	Gas	2560	ACTIVE	39.068574	-80.535996

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117	4704104606	Lewis	Jay T Shearer	Red Gas Co.	Greenland Gap Fm	Gas	2440	ACTIVE	39.064041	-80.535779
118	4704104650	Lewis	Gerald R Wright	Diversified Production LLC	Greenland Gap Fm	Gas	3497	ACTIVE	39.060098	-80.518680
119	4704104659	Lewis	Robert B Burnside	Alliance Petroleum Co. LLC	Misc Sands-RILY/BNSN	Gas	3576	ACTIVE	39.078007	-80.528041
120	4704104755	Lewis	Helen Garrett et al	Dominion Exploration & Production	Greenland Gap Fm	Gas	2693	ACTIVE	39.078060	-80.541952
121	4704104759	Lewis	Robert B Burnside	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas w/ Oil Show	2665	ACTIVE	39.080960	-80.539075
122	4704104881	Lewis	Madeline Moody	Diversified Production LLC	Hampshire Grp	Gas	2803	ACTIVE	39.054566	-80.529016
123	4704104885	Lewis	Charles R Kemper	Alliance Petroleum Co. LLC	Misc Sands-RILY/BNSN	Gas	3440	ACTIVE	39.074161	-80.532587
124	4704104955	Lewis	Kenneth/S Fox	Horizon Energy Corp.	Greenland Gap Fm	Gas	3807	ACTIVE	39.061818	-80.524741
125	4704104956	Lewis	Violet I Wright	Horizon Energy Corp.	Misc Sands-RILY/BNSN	Gas	3465	ACTIVE	39.062891	-80.518252
126	4704105132	Lewis	Hal A Brown	Ross & Wharton Gas Co., Inc.	Greenland Gap Fm	Gas	5257	ACTIVE	39.091592	-80.527729
127	4704105154	Lewis	Dodson Farm LLC	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3370	ACTIVE	39.071389	-80.516706
128	4704105164	Lewis	Richard Billanti	Dominion Energy Transmission, Inc.	Benson	Gas	4430	ACTIVE	39.092141	-80.528155
129	4704105166	Lewis	Robert B Burnside	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	2450	ACTIVE	39.078997	-80.531699
130	4704105185	Lewis	Gerald Hull	Eastern Gas Transmission & Storage, Inc.	Greenland Gap Fm	Gas	3440	ACTIVE	39.084491	-80.547275
131	4704105186	Lewis	Gerald Hull	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4520	ACTIVE	39.087632	-80.539191
132	4704105187	Lewis	Edward E Garrett	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	2690	ACTIVE	39.083963	-80.538115
133	4704105188	Lewis	Edward E Garrett	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	2450	ACTIVE	39.082051	-80.530995
134	4704105228	Lewis	Paul J Heater Jr	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4490	ACTIVE	39.094107	-80.537552
135	4704105278	Lewis	Ronald Lee Cunningham Jr	Diversified Resources, Inc.	Greenland Gap Fm	Gas	3900	ACTIVE	39.071152	-80.532234
136	4704105458	Lewis	Michael R Morris	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	4538	ACTIVE	39.084647	-80.527630
137	4704105459	Lewis	Clifford B Messenger	Dominion Energy Transmission, Inc.	Benson	Gas	4561	ACTIVE	39.096861	-80.532349
138	4704105527	Lewis	Melvin L Davis	Alliance Petroleum Co. LLC	Misc Sands-BNSN/BRLR	Gas	4430	ACTIVE	39.099365	-80.539908
139	4704105544	Lewis	Melvin L Davis	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	3375	ACTIVE	39.098875	-80.543700
140	4704105586	Lewis	Nancy E Smith/R C Smith Jr	Eastern Gas Transmission & Storage, Inc.	Harrell Sh	Gas	5894	ACTIVE	39.062354	-80.528819
141	4704105587	Lewis	Nancy E & Ronald C Jr Smith	Alliance Petroleum Co. LLC	Harrell Sh	Gas	6125	ACTIVE	39.068525	-80.530749
142	4704105600	Lewis	Michael Meixner	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3542	ACTIVE	39.076892	-80.523411
143	4704105601	Lewis	Michael Meixner	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3640	ACTIVE	39.078825	-80.525202
144	4704105655	Lewis	Helen H Garrett	Eastern Gas Transmission & Storage, Inc.	Brallier	Gas	4747	ACTIVE	39.095193	-80.551189
145	4704130063	Lewis	Harvey & Blondie Hall	Reserve Gas Co.	Fifth	Gas	2135	PLUGGED	39.095952	-80.525746
146	4704130064	Lewis	J L J Bailey	Reserve Gas Co.	Hampshire Grp	Gas	2378	PLUGGED	39.074289	-80.535908
147	4704130089	Lewis	Mrs Ova Lester	Reserve Gas Co.	Hampshire Grp	Gas w/ Oil Show	2389	PLUGGED	39.105563	-80.547186
148	4704130107	Lewis	S A Hall	Reserve Gas Co.	Hampshire Grp	Gas	2265	PLUGGED	39.088256	-80.524192
149	4704130108	Lewis	James Burnside	Reserve Gas Co.	Hampshire Grp	Gas	2440	PLUGGED	39.107544	-80.529783
150	4704130153	Lewis	Joseph Losh	Reserve Gas Co.	not available	not available	-	PLUGGED	39.064718	-80.520835
151	4704130161	Lewis	D B Bailey	Reserve Gas Co.	Hampshire Grp	Gas	2325	PLUGGED	39.072839	-80.540558
152	4704130163	Lewis	Nell Rohr	Reserve Gas Co.	Hampshire Grp	Gas	2183	PLUGGED	39.077770	-80.534049
153	4704130170	Lewis	M L Butcher	Reserve Gas Co.	Hampshire Grp	Gas	2304	PLUGGED	39.068923	-80.537022
154	4704130171	Lewis	Israel Simmons	Reserve Gas Co.	Hampshire Grp	Gas	2183	PLUGGED	39.089396	-80.540232
155	4704130221	Lewis	Israel Simmons	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2449	PLUGGED	39.095217	-80.540013
156	4704130251	Lewis	F White	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2362	PLUGGED	39.100628	-80.543925

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157	4704130298	Lewis	Hannah Kemper	Hope Natural Gas Company	Hampshire Grp	Gas	2186	PLUGGED	39.088981	-80.526611
158	4704130319	Lewis	E W & R M Waggoner	Hope Natural Gas Company	Hampshire Grp	Gas	2443	PLUGGED	39.110702	-80.549391
159	4704130357	Lewis	Mary C Burnside	Hope Natural Gas Company	not available	not available	-	PLUGGED	39.116825	-80.535930
160	4704130523	Lewis	J T Lovett	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2244	PLUGGED	39.088876	-80.526763
161	4704130528	Lewis	Cora B Bailey	Hope Natural Gas Company	Hampshire Grp	Gas	2409	PLUGGED	39.077107	-80.542004
162	4704130529	Lewis	James R Bailey	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2250	PLUGGED	39.074144	-80.524931
163	4704130572	Lewis	Israel Simmons	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2397	PLUGGED	39.098598	-80.551368
164	4704130573	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2611	PLUGGED	39.113567	-80.546105
165	4704130578	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas	2602	PLUGGED	39.117115	-80.543159
166	4704130581	Lewis	Alfred Woofter	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2242	PLUGGED	39.079365	-80.533678
167	4704130586	Lewis	Sarah A Kemper	Hope Natural Gas Company	Hampshire Grp	Gas	2241	PLUGGED	39.077727	-80.535725
168	4704130592	Lewis	White Hall	Hope Natural Gas Company	Fifth	Gas	2250	PLUGGED	39.087966	-80.528286
169	4704130628	Lewis	Fortunatus White	Hope Natural Gas Company	not available	not available	2702	UNKNOWN	39.119287	-80.539976
170	4704130659	Lewis	G L White	Hope Natural Gas Company	Hampshire Grp	Gas	2399	PLUGGED	39.079108	-80.544659
171	4704130679	Lewis	Pleasant Alford	Hope Natural Gas Company	Hampshire Grp	Gas	2534	PLUGGED	39.061237	-80.524182
172	4704130720	Lewis	M L Butcher	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2206	PLUGGED	39.062687	-80.535716
173	4704130773	Lewis	Clark White	Consolidated Gas Supply Corp.	Hampshire Grp	Gas	2346	UNKNOWN	39.091347	-80.527729
174	4704130777	Lewis	Jas McKinley Hrs	Consolidated Gas Supply Corp.	not available	not available	-	PLUGGED	39.077625	-80.518979

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

YELLOW DENOTES WELL WITH TVD > 4,500'

DENOTES SURVEYED WELL COORDINATES

UPDATED 6/22/2022

RECEIVED
 Office of Oil and Gas
 AUG 18 2022
 WV Department of
 Environmental Protection

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
8/4/2022*

09/23/2022



SUBJECT WELL
Vaneck 1215 S-9H

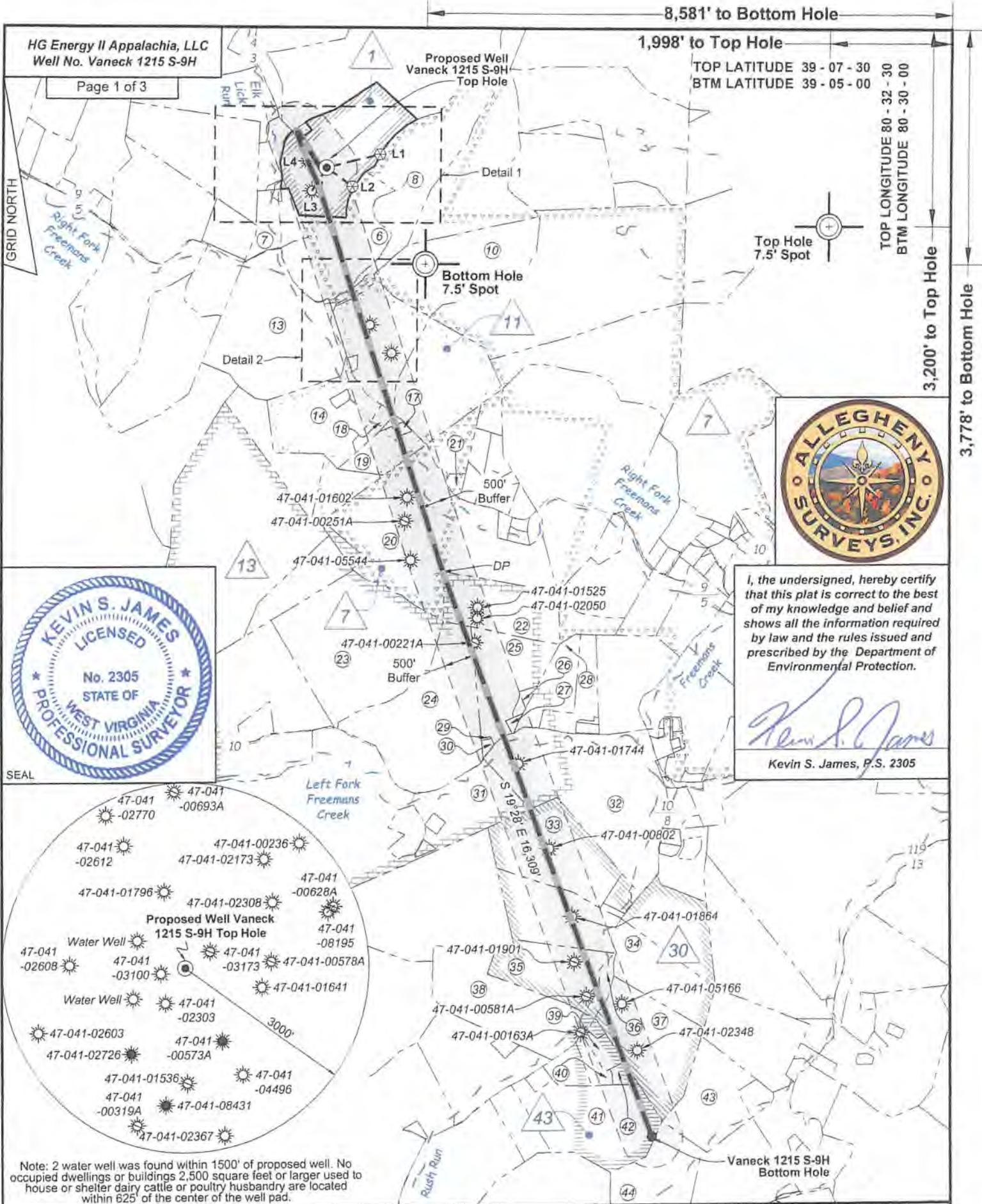


◆ Denotes Possible Water Supply Source to be Tested

Section of
Camden and Big Isaac
7.5' Quadrangles

SCALE 1"=1000

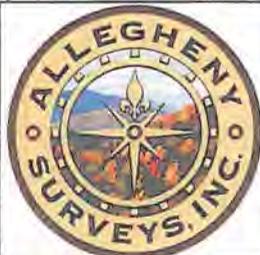
09/23/2022



HG Energy II Appalachia, LLC
Well No. Vaneck 1215 S-9H

Page 1 of 3

GRID NORTH

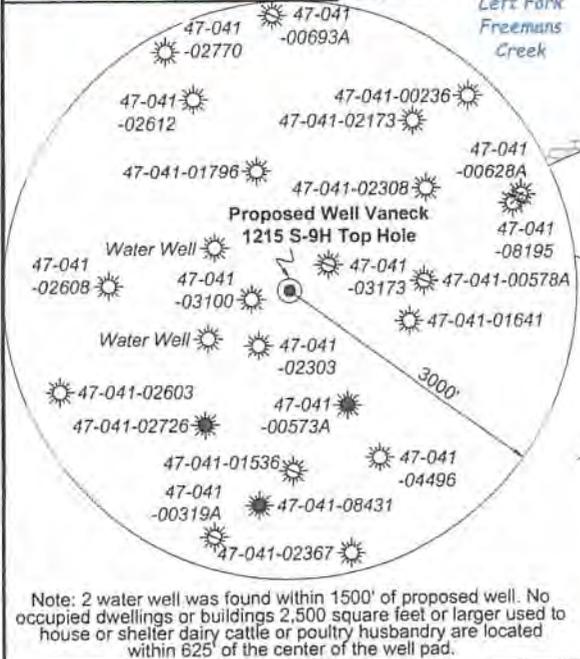


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Kevin S. James
Kevin S. James, P.S. 2305



SEAL



Note: 2 water well was found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 S-9H 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: August 29 2022
OPERATOR'S WELL NO. Vaneck 1215 S-9H
API WELL NO HGA
47 - 041 - 05139
STATE COUNTY PERMIT

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

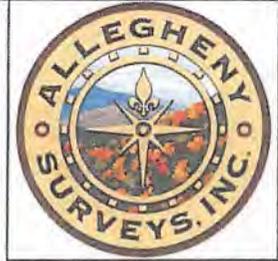
LOCATION: ELEVATION: 1254.8' WATERSHED: Middle West Fork Creek
DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II, Appalachia, LLC, et al
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: ACREAGE: 56.00

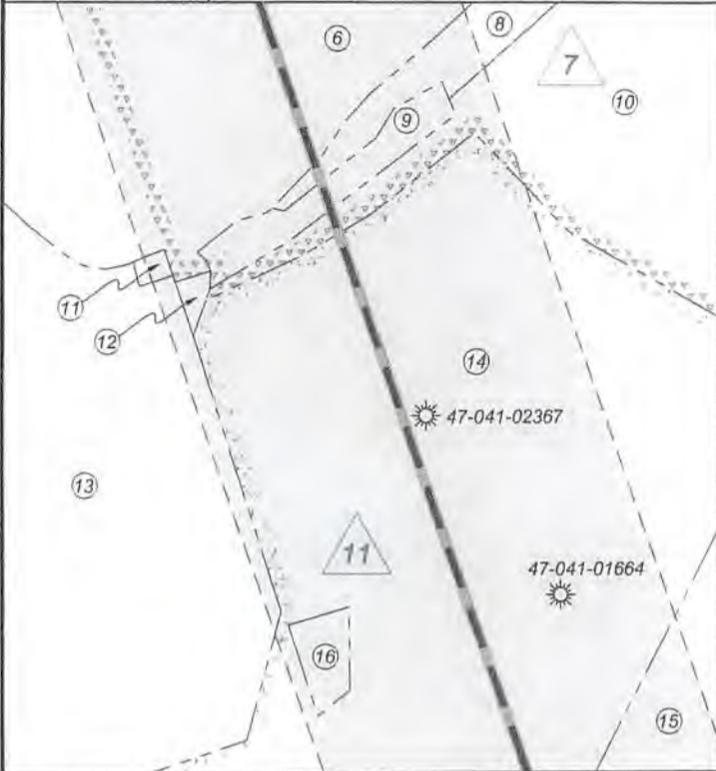
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) 6,790' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,832' MD

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

09/23/2022



Detail 2 (1"=500')

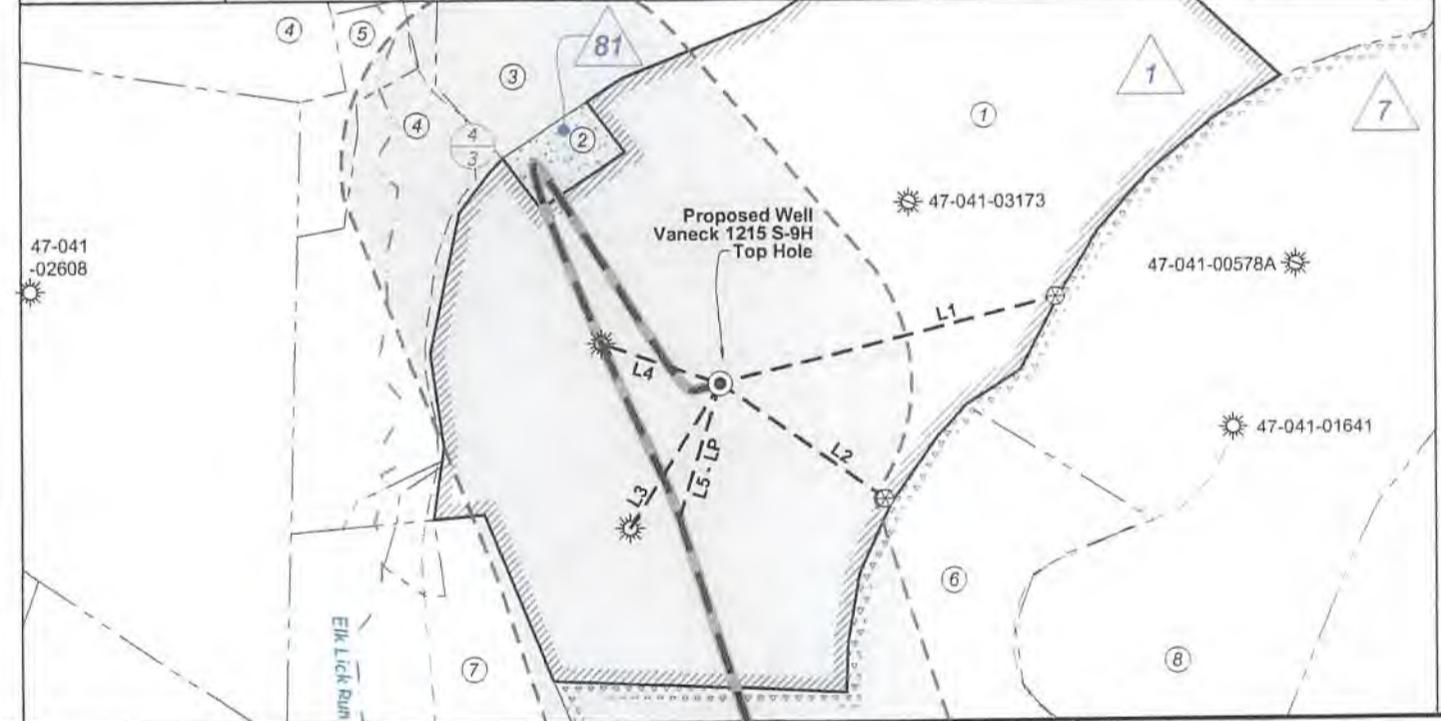


Notes:
Well No. Vaneck 1215 S-9H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,286.52'
E: 1,768,467.30'
Landing Point Coordinates
N: 14,204,934.91'
E: 1,768,358.60'
Deflection Point Coordinates
N: 14,198,764.17'
E: 1,770,394.30'
Bottom Hole Coordinates
N: 14,189,565.81'
E: 1,773,789.46'

Notes: Well No. Vaneck 1215 S-9H
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°06'58.36" Latitude: 39°04'22.65"
Longitude: 80°32'55.35" Longitude: 80°31'48.84"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,779.990m N: 4,324,988.310m
E: 539,029.910m E: 540,652.108m
Plat orientation and corner and well references are
based upon the grid north meridian. Well location
references are based upon the magnetic meridian.

Tag	Bearing	Dist.	Description
L1	S 75°52' W	903.4'	1/2" Rebar
L2	N 54°41' W	525.3'	1/2" Rebar
L3	N 32°15' E	444.9'	47-041-02303
L4	S 71°11' E	327.6'	47-041-03100
L5	S 17°11' W	368.0'	Landing point

Detail 1 (1"=500')



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 S-9H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

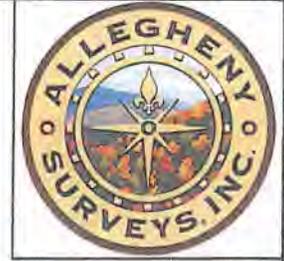
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: August 29 2022
OPERATOR'S WELL NO. Vaneck 1215 S-9H
API WELL NO. 1461
47 - 041 - 05739
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: Camden
DISTRICT: Freemans Creek COUNTY: Lewis
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al ACREAGE: 55.00
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) _____ 6,790' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,832' 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

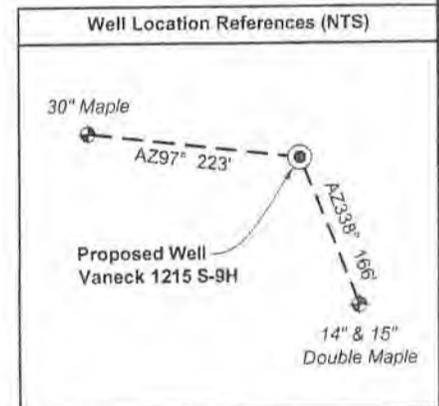
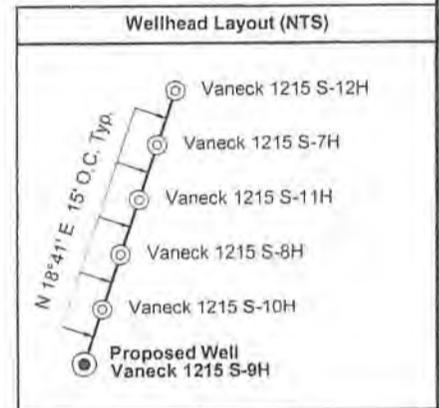
09/23/2022



ID	Lease
1	George W. Waggoner, et ux
7	F. White
11	Thornton Taylor, et al
13	Israel Simmons
30	Alfred Woofter, et ux
43	J.L.J. Bailey, et ux
81	P.W. Arbogast, et al

Lewis Co. - Freeman Creek Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	H.G. Energy II Appalachia, LLC	765 / 894	55.00
2	5C / 28	Judith G. Piercy	F30 / 596	1.00
3	5C / 30	Woody Lumber Co. Inc.	590 / 438	140.50
4	5C / 7	Charles B. Curtis, Jr.	W19 / 725	45.65
5	5C / 7.3	Dustin McDougal	746 / 65	2.05
6	5C / 25	Raymond C. & Colona J. Waggoner	567 / 416	45.48
7	5C / 12	Daniel L. & Rena M. Waggoner	733 / 664	14.50
8	5C / 27.2	Jack E. & Cerilda M. Waggoner	547 / 691	57.97
9	5C / 27	Robert P. & Grace A. Waggoner	547 / 696	1.63
10	5C / 22.1	Janet L. & Joseph C. Waggoner, Sr.	705 / 183	57.53
11	5C / 24	Timothy S. & Karen J. Rittenhouse	481 / 611	0.14
12	5C / 23	Timothy S. & Karen J. Rittenhouse	481 / 611	0.25
13	5C / 17	Timothy S. & Karen J. Rittenhouse	481 / 611	84.75
14	5C / 19	Randal D. & Martika Mick	763 / 674	78.23
15	5C / 21	Billy E. Davisson	661 / 708	54.11
16	5C / 19.1	Randal D. Mick	763 / 464	1.00
17	5C / 21.2	Bobby D. & Alicia K. Lowther	627 / 241	0.92
18	5C / 19.2	Kevin L. & Regina L. Heckert	516 / 422	4.00
19	5D / 69	Smoke Camp Crafts, LLC	767 / 832	13.01
20	5D / 19	Smoke Camp Crafts, LLC	767 / 832	124.75
21	5D / 20	Randal S. Mick, et al	549 / 432	1.50
22	5D / 25	Dorothy M. Davis	Inv173 / 846	35.75
23	5D / 27	Bruce H. Garrett	W46 / 324	95.57
24	5D / 27.1	John T. Garrett	W46 / 324	80.00
25	5D / 26	Verna E. & Paul J. Heater, Jr.	561 / 371	34.80
26	5D / 26.4	Joseph W. & Shana J. Heater	570 / 559	2.00
27	5D / 26.1	Verna E. & Paul J. Heater, Jr.	368 / 290	0.90
28	5D / 34	Betty E. Rhoades	W35 / 524	16.90
29	5D / 26.3	Bernard L. & Charlotte I. Hicks	499 / 475	0.09
30	5D / 26.2	Bernard L. & Charlotte I. Hicks	497 / 662	0.84
31	5D / 12	Gerald P. Hull	W18 / 661	168.19
32	5D / 32	Bruce Garrett, et al	577 / 351	100.60
33	5D / 31	Edward E. Garrett	334 / 565	81.27
34	5D / 29	Edward E. Garrett	334 / 565	70.25
35	5E / 18	Carolyn L. Bennett	W47 / 358	32.34
36	5E / 18.1	Robert P. Snuffer	FR31 / 197	4.65
37	5E / 18.2	Robert P. Snuffer	FR31 / 197	49.16
38	5E / 17	Lee M. Marsh, et al	680 / 116	57.96
39	5E / 17.1	Alan C. Kemper	721 / 302	5.04
40	5E / 19.3	Alan C. Kemper	663 / 314	4.73
41	5E / 19	Charles A. Kemper	770 / 842	55.57
42	5E / 19.4	Alan C. Kemper	723 / 920	2.48
43	5E / 39	Ronald L. Cunningham, Jr. & Vicky A. Browning	426 / 546	34.09
44	5E / 20	Ronald L. Cunningham, Jr. & Vicky A. Browning	426 / 546	38.00

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.)



FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 S-9H 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: August 29 2022
OPERATOR'S WELL NO. Vaneck 1215 S-9H
API WELL NO. H6A
47 - 041 - 05739
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: Camden
COUNTY: Log **09/23/2022**
ACREAGE: 55.00

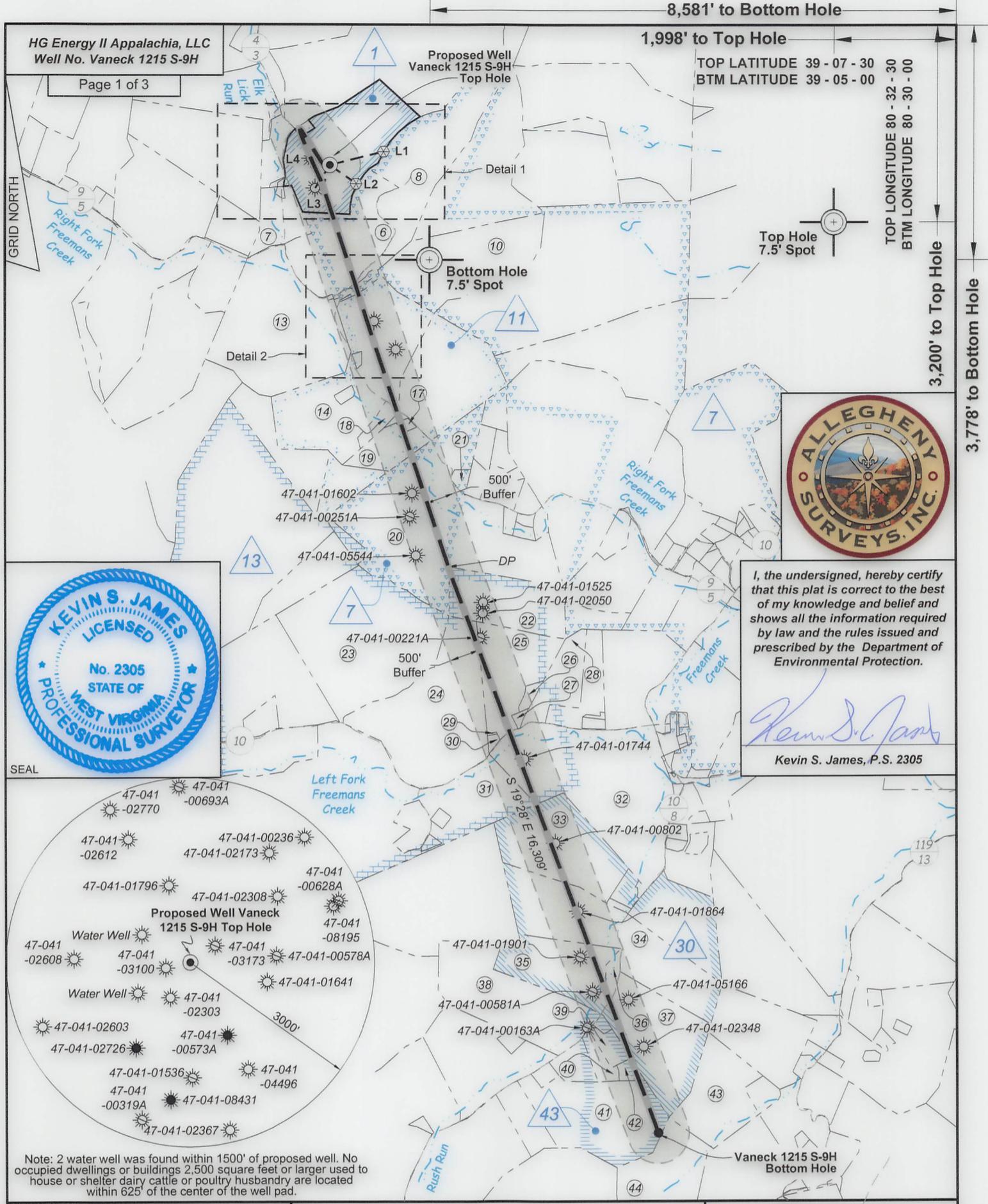
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al

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) _____ 6,790' TVD

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,832' 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



HG Energy II Appalachia, LLC
Well No. Vaneck 1215 S-9H

Page 1 of 3

8,581' to Bottom Hole

1,998' to Top Hole

TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 05 - 00

TOP LONGITUDE 80 - 32 - 30
BTM LONGITUDE 80 - 30 - 00

3,200' to Top Hole

3,778' to Bottom Hole



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



SEAL

47-041-02770
47-041-00693A
47-041-02612
47-041-02173
47-041-01796
47-041-02308
47-041-00628A
47-041-08195
47-041-02608
47-041-03100
47-041-03173
47-041-00578A
47-041-01641
47-041-02303
47-041-02603
47-041-00573A
47-041-01536
47-041-04496
47-041-00319A
47-041-08431
47-041-02367

Proposed Well Vaneck 1215 S-9H Top Hole

Water Well

Water Well

3000'

Note: 2 water well was found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

FILE NO: 156-36-UFC-20
DRAWING NO: Vaneck 1215 S-9H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

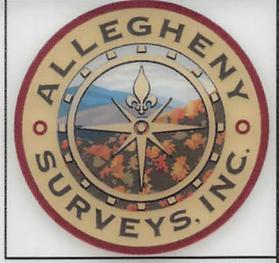
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: August 29 2022
OPERATOR'S WELL NO. Vaneck 1215 S-9H
API WELL NO
47 - 041 - 65731
STATE COUNTY PERMIT

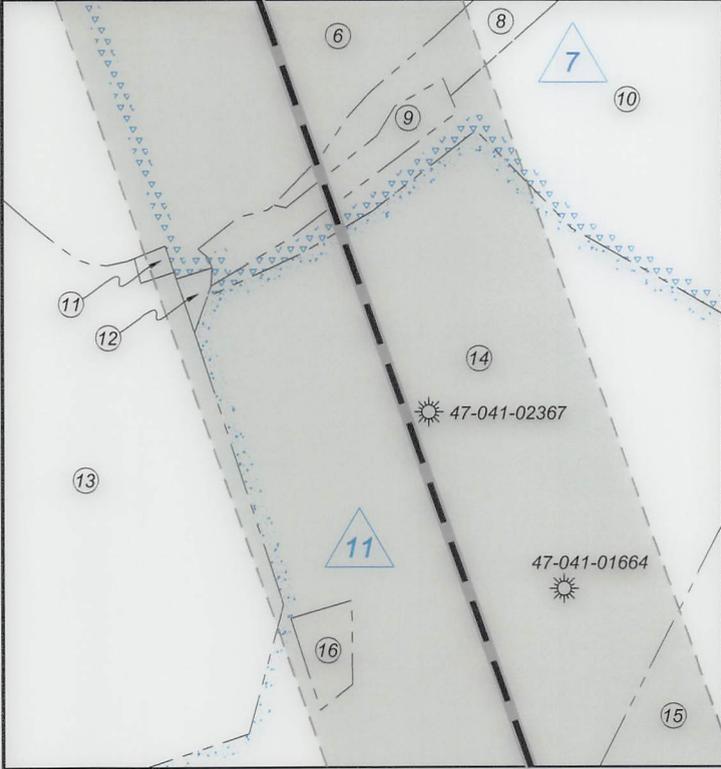
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

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) 6,790' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,832' 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



Detail 2 (1"=500')

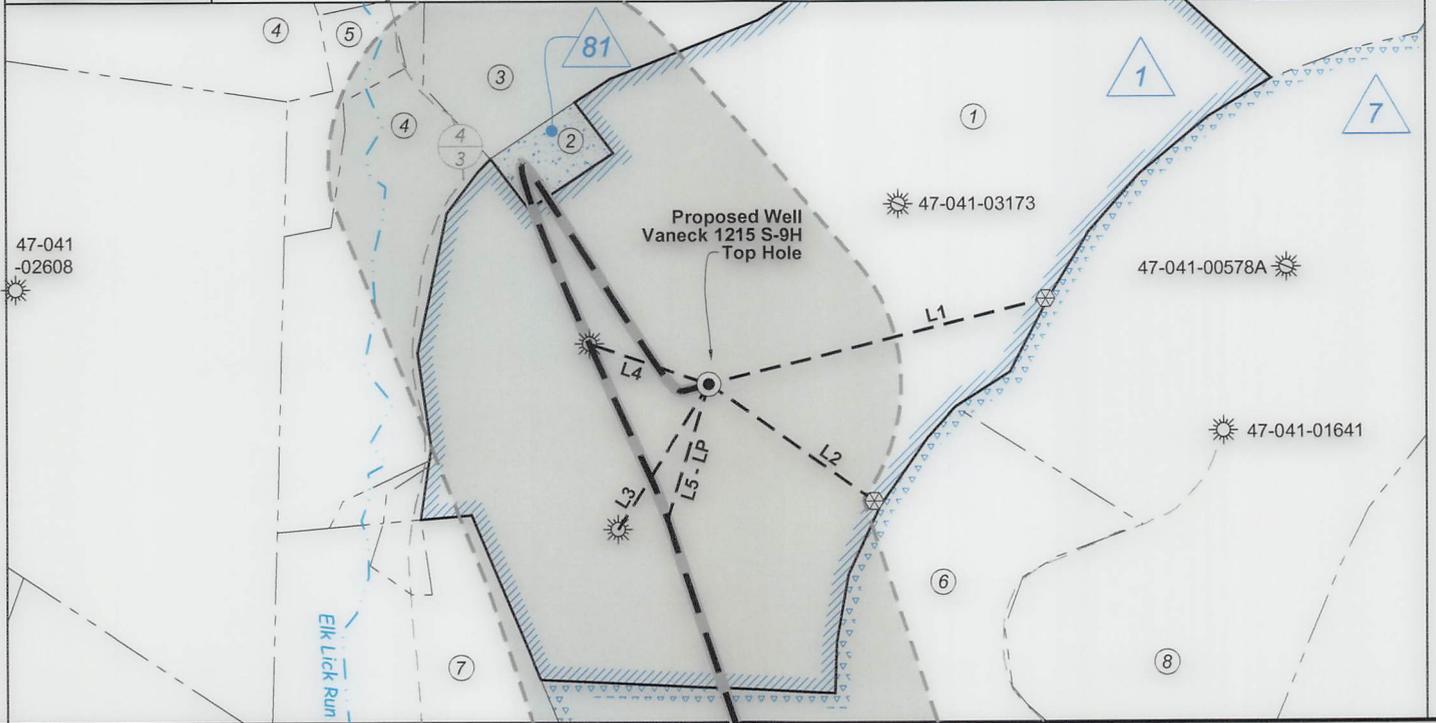


Notes:
Well No. Vaneck 1215 S-9H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,205,286.52'
E: 1,768,467.30'
Landing Point Coordinates
N: 14,204,934.91'
E: 1,768,358.60'
Deflection Point Coordinates
N: 14,198,764.17'
E: 1,770,394.30'
Bottom Hole Coordinates
N: 14,189,565.81'
E: 1,773,789.46'

Notes: Well No. Vaneck 1215 S-9H
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°06'58.36" Latitude: 39°04'22.65"
Longitude: 80°32'55.35" Longitude: 80°31'48.84"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,779.990m N: 4,324,988.310m
E: 539,029.910m E: 540,652.108m
Plat orientation and corner and well references are
based upon the grid north meridian. Well location
references are based upon the magnetic meridian.

Tag	Bearing	Dist.	Description
L1	S 75°52' W	903.4'	1/2" Rebar
L2	N 54°41' W	525.3'	1/2" Rebar
L3	N 32°15' E	444.9'	47-041-02303
L4	S 71°11' E	327.6'	47-041-03100
L5	S 17°11' W	368.0'	Landing point

Detail 1 (1"=500')



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Submeter
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CORS, Bridgeport, WV

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

DATE: August 29 2022
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API WELL NO
47 - 041 - 05731
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: Camden
COUNTY: 09/23/2022

DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al

ACREAGE: 55.00

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

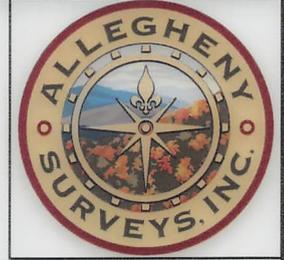
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Parkersburg, WV 26101

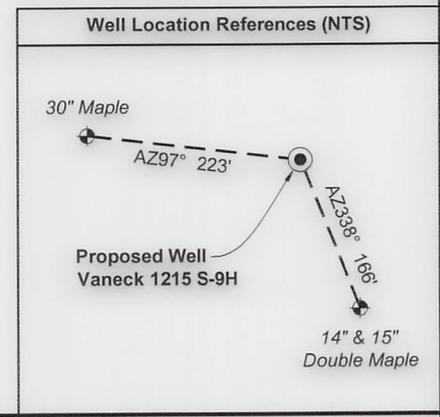
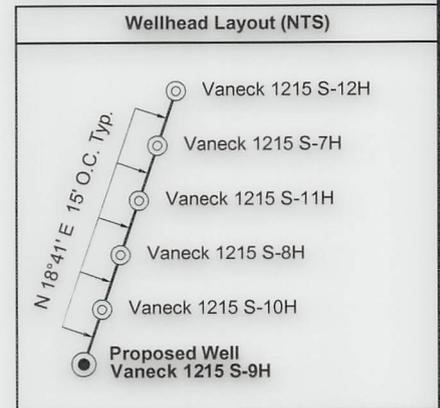


ID	Lease
1	George W. Waggoner, et ux
7	F. White
11	Thornton Taylor, et al
13	Israel Simmons
30	Alfred Woofter, et ux
43	J.L.J. Bailey, et ux
81	P.W. Arbogast, et al

Lewis Co. - Freeman Creek Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	H.G. Energy II Appalachia, LLC	765 / 894	55.00
2	5C / 28	Judith G. Piercy	F30 / 596	1.00
3	5C / 30	Woody Lumber Co. Inc.	590 / 438	140.50
4	5C / 7	Charles B. Curtis, Jr.	W19 / 725	45.65
5	5C / 7.3	Dustin McDougal	746 / 65	2.05
6	5C / 25	Raymond C. & Colona J. Waggoner	567 / 416	45.48
7	5C / 12	Daniel L. & Rena M. Waggoner	733 / 664	14.50
8	5C / 27.2	Jack E. & Cerilda M. Waggoner	547 / 691	57.97
9	5C / 27	Robert P. & Grace A. Waggoner	547 / 696	1.63
10	5C / 22.1	Janet L. & Joseph C. Waggoner, Sr.	705 / 183	57.53
11	5C / 24	Timothy S. & Karen J. Rittenhouse	481 / 611	0.14
12	5C / 23	Timothy S. & Karen J. Rittenhouse	481 / 611	0.25
13	5C / 17	Timothy S. & Karen J. Rittenhouse	481 / 611	84.75
14	5C / 19	Randal D. & Martika Mick	763 / 674	78.23
15	5C / 21	Billy E. Davisson	661 / 708	54.11
16	5C / 19.1	Randal D. Mick	763 / 464	1.00
17	5C / 21.2	Bobby D. & Alicia K. Lowther	627 / 241	0.92
18	5C / 19.2	Kevin L. & Regina L. Heckert	516 / 422	4.00
19	5D / 69	Smoke Camp Crafts, LLC	767 / 832	13.01
20	5D / 19	Smoke Camp Crafts, LLC	767 / 832	124.75
21	5D / 20	Randal S. Mick, et al	549 / 432	1.50
22	5D / 25	Dorothy M. Davis	Inv173 / 846	35.75
23	5D / 27	Bruce H. Garrett	W46 / 324	95.57
24	5D / 27.1	John T. Garrett	W46 / 324	80.00
25	5D / 26	Verna E. & Paul J. Heater, Jr.	561 / 371	34.80
26	5D / 26.4	Joseph W. & Shana J. Heater	570 / 559	2.00
27	5D / 26.1	Verna E. & Paul J. Heater, Jr.	368 / 290	0.90
28	5D / 34	Betty E. Rhoades	W35 / 524	16.90
29	5D / 26.3	Bernard L. & Charlotte I. Hicks	499 / 475	0.09
30	5D / 26.2	Bernard L. & Charlotte I. Hicks	497 / 662	0.84
31	5D / 12	Gerald P. Hull	W18 / 661	168.19
32	5D / 32	Bruce Garrett, et al	577 / 351	100.60
33	5D / 31	Edward E. Garrett	334 / 565	81.27
34	5D / 29	Edward E. Garrett	334 / 565	70.25
35	5E / 18	Carolyn L. Bennett	W47 / 358	32.34
36	5E / 18.1	Robert P. Snuffer	FR31 / 197	4.65
37	5E / 18.2	Robert P. Snuffer	FR31 / 197	49.16
38	5E / 17	Lee M. Marsh, et al	680 / 116	57.96
39	5E / 17.1	Alan C. Kemper	721 / 302	5.04
40	5E / 19.3	Alan C. Kemper	663 / 314	4.73
41	5E / 19	Charles A. Kemper	770 / 842	55.57
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	Well Reference, as noted
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	Creek or Drain
	Existing Road
	Surface boundary (approx.)
	Adjoiner surface tracts (approx.)



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

DATE: August 29 2022
OPERATOR'S WELL NO. Vaneck 1215 S-9H
API WELL NO
47 - 041 - 05739
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: Camden
DISTRICT: Freemans Creek COUNTY: Logan 09/23/2022
SURFACE OWNER: HG Energy II, Appalachia, LLC, et al ACREAGE: 55.00
ROYALTY OWNER: George W. Waggoner, et ux, et al LEASE NO: ACREAGE: 56.00
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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

WW-6A1
(5/13)

Operator's Well No. Vaneck 1215 S-9H

**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
AUG 18 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

1215S Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK
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
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	125
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	DEED	125
				PITTSBURG AND WEST VIRGINIA GAS COMPANY	EQUITABLE GAS COMPANY	ASSIGNMENT	216
				EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425
				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
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722
				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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736
				81	FK062076	03-005C-0028-0000	Q101043000 Q100666000
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294				
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		p/o 03-005C-0020-0000 p/o 03-005C-0022-0000 03-005C-0022-0001 03-005C-0023-0000 p/o 03-005C-0025-0000 03-005C-0027-0000 03-005C-0027-0002 03-005C-0045-0000 03-005C-0046-0000		F. WHITE	SOUTHERN OIL COMPANY	NOT LESS THAN 1/8	40
				T. N. BARNSDALL, SOUTHERN OIL COMPANY, AND FRED S. RICH	RESERVE GAS COMPANY	ASSIGNMENT	85

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 By DEP OOG

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7	FK053097	03-005D-0048-0000 p/o 03-005D-0019-0000 03-005D-0020-0000 p/o 03-005D-0035-0000 03-005D-0036-0000 03-005D-0036-0001 p/o 03-005D-0036-0002 03-005D-0037-0000 p/o 03-005D-0038-0000 p/o 03-005D-0039-0000 03-005D-0039-0001 p/o 03-005D-0039-0003 p/o 03-005D-0040-0000 p/o 03-005D-0045-0000 p/o 03-005D-0057-0000 03-005D-0059-0000 03-005D-0060-0000 03-005D-0060-0001 THRU 03-005D-0060-0018 03-005D-0061-0000 03-005D-0061-0001 03-005D-0062-0000	Q100333000	RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294
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				11	FK053266	03-005C-0019-0000 03-005C-0019-0011 03-005C-0019-0002 03-005C-0019-0003 03-005C-0021-0000 03-005C-0021-0001 03-005C-0021-0002 03-005D-0067-0000	Q100768000
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155				
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NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722				
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				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736				
13	FK053172	03-005D-0012-0000 03-005D-0012-0001 03-005D-0012-0002 03-005D-0012-0003 03-005D-0015-0000 03-005D-0015-0001 03-005D-0016-0000 03-005D-0017-0000 03-005D-0018-0000 03-005D-0027-0000	Q100481000	ISRAEL SIMMONS	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	42
				SOUTH PENN OIL COMPANY	RESERVE GAS COMPANY	ASSIGNMENT	79
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	DEED	155
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425
				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
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS

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				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723			
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734			
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736			
30	FK053205	03-005D-0031-0000 p/o 03-005D-0030-0000 03-005D-0030-0001 p/o 03-005D-0030-0002 03-005D-0029-0000 03-005E-0018-0000 03-005E-0018-0001 03-005D-0018-0002		ALFRED WOOFER AND MARY M. WOOFER, HUSBAND AND WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	58			
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155			
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294			
				CONSOLIDATED GAS SUPPLY CORPORATION	ALLEGHENY LAND AND MINERAL COMPANY	ASSIGNMENT	380			
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425			
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG DEVELOPMENT COMPANY	DEED	438			
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS			
				CNG DEVELOPMENT COMPANY	DOMINION EXPLORATION AND PRODUCTION INC	MERGER/NAME CHANGE	WVSOS			
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS			
				DOMINION EXPLORATION AND PRODUCTION INC	CONSOL GAS COMPANY	MERGER/NAME CHANGE	WVSOS			
				DOMINION TRANSMISSION INC	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651			
				CONSOL ENERGY HOLDINGS LLC XVI	CONSOL GAS COMPANY	MERGER/NAME CHANGE	WVSOS			
				CONSOL GAS COMPANY	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	WVSOS			
				CNX GAS COMPANY LLC	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	766			
			43	CNX053289	p/o 03-005E-0017-0000 03-005E-0017-0001 p/o 03-005E-0019-0000 03-005E-0019-0003 03-005E-0019-0004		J. L. J. BAILEY AND BEATRICE E. BAILEY, HIS WIFE	EASTERN OIL COMPANY	NOT LESS THAN 1/8	58
							EASTERN OIL COMPANY	WEST VIRGINIA CENTRAL GAS COMPANY	ASSIGNMENT	46
	WEST VIRGINIA CENTRAL GAS COMPANY	CONSOLIDATED NATURAL GAS COMPANIES OF WEST VIRGINIA				ASSIGNMENT	55			
	CONSOLIDATED NATURAL GAS COMPANIES OF WEST VIRGINIA	WEST VIRGINIA CENTRAL GAS COMPANY				ASSIGNMENT	71			
	WEST VIRGINIA CENTRAL GAS COMPANY	CUMBERLAND AND ALLEGHENY GAS COMPANY				ASSIGNMENT	119			
	CUMBERLAND AND ALLEGHENY GAS COMPANY	RESERVE GAS COMPANY				ASSIGNMENT	148			
	RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY				ASSIGNMENT	155			
	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION				CONFIRMATORY DEED	294			
	CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				ASSIGNMENT	425			
	CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION				MERGER/NAME CHANGE	WVSOS			
	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.				MERGER/NAME CHANGE	9			
	DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI				ASSIGNMENT	651			
	CONSOL ENERGY HOLDINGS LLC XVI AND CONSOL GAS COMPANY	CNX GAS COMPANY				MERGER/NAME CHANGE	9			
	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.				LIMITED PARTIAL ASSIGNMENT (50%)	659			
	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.				ASSIGNMENT	717			
	NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC				ASSIGNMENT	722			



4704105739



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

July 29, 2022

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

RE: Drilling Under Roads – Vaneck 1215 S-9H
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

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09/23/2022

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

Date of Notice Certification: 07/19/2022

API No. 47- _____
Operator's Well No. Vaneck 1215 S-9H
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>539029.9</u>
County: <u>Lewis</u>	Northing: <u>4329780.0</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.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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West Virginia Dept of
Environmental Protection

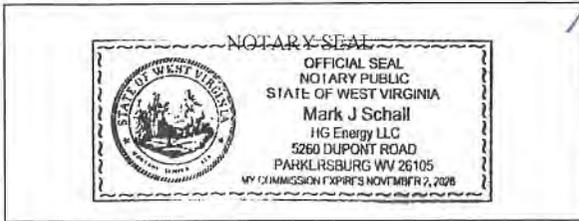
Required Attachments:

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.

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:	<u>HG II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
By:	<u>Diane White <i>Diane White</i></u>		<u>Parkersburg, WV 26101</u>
Its:	<u>Agent</u>	Facsimile:	<u>304-863-3172</u>
Telephone:	<u>304-420-1119</u>	Email:	<u>dwhite@hgeneryllc.com</u>



Subscribed and sworn before me this 21st day of July, 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 deprivacyofficer@wv.gov.

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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:

- [X] 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 [X] 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.

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

[X] 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:

Name:
Address:

[] COAL OPERATOR
Name: NA
Address:

[] SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Nancy Hayhurst
Address: 195 Rexroad Drive
Weston, WV 26452

[] 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 Freemans Creek
Weston, WV 26452 Weston, WV 26452 Weston, WV 26452

Name: Woody Lumber Company
Address: 201 Vicksburg Road
Buckhannon, WV 26201

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

[] SURFACE OWNER(s) (Impoundments or Pits)
Name:
Address:

*Please attach additional forms if necessary

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(8-13)

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

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

09/23/2022

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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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.**

09/23/2022

WW-6A
(8-13)

API NO. 47- _____ - _____
 OPERATOR WELL NO. Vaneck 1215 N1H - 512H
 Well Pad Name: Vaneck 1215

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.

AUG 18 2022

West Virginia Department of Environmental Protection

09/23/2022

4704105739

WW-6A
(8-13)

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

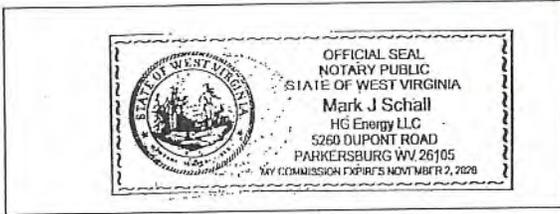
Notice is hereby given by:

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: 304-863-2172

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 depprivacyofficer@wv.gov.



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

[Signature] Notary Public

My Commission Expires 11/2/2026

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Office of Oil and Gas
AUG 18 2022
WV Department of
Environmental Protection

09/23/2022



SUBJECT WELL
Vaneck 1215 S-7H



Denotes Possible Water Supply Source to be Tested

Section of Camden and Big Isaac
7.5' Quadrangles
09/23/2022
SCALE 1"=1000'



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

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

Enclosures

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WV Department of
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09/23/2022

4704105739



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

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 -

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

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

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AUG 18 2022
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HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

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

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4704105739



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

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 -

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
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09/23/2022



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

4704105739

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

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Office of Oil and Gas
AUG 18 2022
West Virginia Dept of
Environmental Protection

09/23/2022

Sturn Environmental Services

VICTORIA L. HOOPS, PRESIDENT

COMPANY: H.G. ENERGY, LLC.

DATE/TIME SAMPLED: 01-04-22 1550

SAMPLE ID: GARY STALNAKER
VANECK 1215

DATE/TIME RECEIVED: 01-04-22 1654

SAMPLED BY: K. WILLIAMS

LABORATORY ID: HG 220104-1

PARAMETER	TEST RESULTS	UNITS	METHOD	METHOD DETECTION LIMIT	MINIMUM REPORTING LIMIT	DATE/TIME ANALYZED	ANALYST
FIELD pH	7.6	units				01-04-22 1550	KW
FIELD TEMP	20.2	°C				01-04-22 1550	KW
FIELD COND	1233	µmhos				01-04-22 1550	KW
LATTITUDE	39 06 55.33	N				01-04-22 1550	KW
LONGITUDE	80.33 04.79	W				01-04-22 1550	KW
pH O	7.5	units	SM 22 nd 4500 H B	.1	2.-10.	01-05-22 1426	ZT
Fe	2.59	mg/L	EPA 200.7 Rev 4.4-1994	.05	.25	01-06-22 2007	DB
TDS	148	mg/L	USGS I-1750-85	4	4	01-06-22 1527	MRM
Cl ⁻	3.75	mg/L	EPA 300.0 Rev 2.1-1993	1.0	1.0	01-07-26 0729	DC
MBAS	.05	mg/L	SM22 nd 5540C	.02	.04	01-05-22 2101	SW

*Client Provided

**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

Data Qualifiers

- B Analyte found in reagent blank. Indicates possible reagent or background contamination.
- E Estimated Reported value exceeded calibration range.
- J Reported value is an estimate because concentration is less than reporting limit.
- PND Precision not determined.
- R Sample results rejected because of gross deficiencies in QC or method performance. Re-sampling and/or re-analysis is necessary.
- RND Recovery not determined.
- U Compound was analyzed for, but not detected.
- O Out of holding. Time does not meet 40 CFR 136/141 compliance.
- T This result is not supported by our certification ID.
- A Does not meet 40 CFR 136/141 compliance.
- C Does not meet 47 CSR 32 compliance.

Narrative:

Approved Douglas H. Burt

APR 18 2022
Environmental Protection

09/23/2022

Sturm Environmental Services

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

AUG 18 2022
 Environmental Services

REPORT TO: Client Name: HG Evans
 Address: _____
 City/State/Zip: _____
 Contact Person: _____
 Telephone Number: _____ Fax No. _____
 Email Address: _____
 Sampler Name: (Print) Kenna Collins
 Sampler Signature: _____
 Project Name: Vancek 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 1 DAY 2 DAY 3 DAY
RUSH (pre-scheduled; surcharges may apply) *Please Check One*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

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 Stalwick 39 06 55,33 80 33 8033 04,79					1-4-21	1550															1								
Charles Curtis 39 07 05,24 80 33 0353						1605															1								
Parvula Methodist Church NO Well																													

Comments: _____

Laboratory Comments: _____

Records retained for 5 years

Relinquished by: <u>Kenna Collins</u>	Date: <u>1-4-22</u>	Time: <u>1654</u>	Received by: <u>LOL</u>	Date: <u>1-4-22</u>	Time: <u>1654</u>
---------------------------------------	---------------------	-------------------	-------------------------	---------------------	-------------------

WW-6A3
(1/12)

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: HG 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>Mare 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.

Notice is hereby given by:

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

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

RECEIVED
AUG 18 2022

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.

09/23/2022



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

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

1787
OCT 17 2021
AUG 18 2021
WV DE
Environmental

09/23/2022

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

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

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OFFICE OF ENVIRONMENTAL PROTECTION
AUG 18 2022

09/23/2022

4704105739

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

RECEIVED
Office of Oil and Gas
AUG 18 2022
WV Department of
Environmental Protection

09/23/2022

WW-6A4
(1/12)

Operator Well No. Vaneck 1215 N-14 to S-12H

4704105739

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

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

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 12/17/2021 **Date Permit Application Filed:** 01/15/2022

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

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

Name: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101

Name: _____
Address: _____

Notice is hereby given:

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

State: West Virginia UTM NAD 83 Easting: 539089.4
County: Lewis Northing: 4329869.2
District: Freemans Creek Public Road Access: Mare Run Road / SR19
Quadrangle: Camden WV 7.5' Generally used farm name: Vaneck
Watershed: Middle West Fork Creek

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com
Facsimile: 304-863-3172

Authorized Representative: Diane White
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com
Facsimile: 304-863-3172

RECEIVED
AUG 18 2022
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Oil and Gas Privacy Notice:

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

09/23/2022

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: 12/21/2021 Date Permit Application Filed: 01/15/2022

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)
(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>539089.4</u>
County: <u>Lewis</u>	Northing: <u>4329869.2</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>Mare Run Road / SR 19</u>
Quadrangle: <u>Camden WV 7.5'</u>	Generally used farm name: <u>Vaneck</u>
Watershed: <u>Middle West Fork River</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@hgenergyllc.com</u>	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.

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OFFICE OF OIL AND GAS
AUG 18 2022
WV Department of
Environmental Protection
09/23/2022



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 S-9H 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,

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

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

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 DIVISION OF HIGHWAYS

AUG 18 2022

West Virginia
 Environmental Protection

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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 and Cas
 APR 18 2022
 Department of
 Environmental Protection

09/23/2022

HG Energy II
Appalachia LLC
TM: 5C-29
DB/PG: 765/894

HG Energy II
Appalachia LLC
TM: 5C-27.1
DB/PG: 765/894

Raymond & Coloma
Wagoner
TM: 5C-25
DB/PG: 567/416

Daniel & Rena
Wagoner
TM: 5C-17
DB/PG: 733/661

HG Energy II
Appalachia LLC
TM: 5C-29
DB/PG: 765/894

APPROVED
WVDEP OOG
3/2/2022

HG Energy II
Appalachia LLC
TM: 5C-29
DB/PG: 765/894

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8/4/2022



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Disturbed Area	
Well Pad Construction	1.37 AC
20' Pad Construction	1.33 AC
Access Road Construction	9.97 AC
Utility Line Construction	7.26 AC
Additional Storage	18.00 AC
Final Disturbed Area	41.11 AC
Additional Information	
Total Disturbed Area (Including 20' Pad)	59.37 AC
Total Disturbed Area (Excluding 20' Pad)	39.40 AC

Josh
Pleacy
TM: 5C-28
DB/PG: 813/596



Site Plan
1215 Well Site
Frohmans Creek District
Lewis County, WV

Date: 12/20/2021
Scale: As Shown
Designed By: JPS
File No:
Sheet 16 of 25