

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-11H

47-041-05741-00-00

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.

Operator's Well Number: VANECK 1215 S-11H

Farm Name: HG ENERGY II, APPALACHI

Chief

U.S. WELL NUMBER: 47-041-05741-00-00

Horizontal 6A New Drill Date Issued: 9/22/2022

API Number:	
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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.

4704105741

API NO. 47-_

OPERATOR WELL NO. Vaneck 1215 S-11H

Well Pad Name: Vaneck 1215

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

1) Well Operator: HG Energy I	I Appalachia,	494519932	Lewis	Freeman Camden 7.5'
7		Operator ID	County	District Quadrangle
2) Operator's Well Number: Var	neck 1215 S-11	H / Well Pa	nd Name: Vanec	k 1215
3) Farm Name/Surface Owner: _	IG Energy II Appalaci	nia, LLC Public Ro	ad Access: Mare	e Run Rd at CR 10 / 9
4) Elevation, current ground:	1259' E	evation, proposed	l post-constructio	n: 1254.8'
5) Well Type (a) Gas x	Oil	Und	derground Storage	
Other				Soul
(b)If Gas Shal	low X	Deep	-	- Shillson
	zontal x			01412022
6) Existing Pad: Yes or No No	or spore a ser			
7) Proposed Target Formation(s) Marcellus at 6753'/6803' and 50				essure(s):
8) Proposed Total Vertical Depth	n: 6,790' ×			
9) Formation at Total Vertical Do	11 11 11 11 11 11	is C		
10) Proposed Total Measured De	epth: 19,066'	1	•	
11) Proposed Horizontal Leg Ler	ngth:10,938'	1		
12) Approximate Fresh Water St	rata Depths:	60', 214', 600',	861'	
13) Method to Determine Fresh	Water Depths:	Nearest offset we	l data, (47-041-02	173, 0693, 0236, 2308, 0578)
14) Approximate Saltwater Dept				
15) Approximate Coal Seam Dep	oths: 272', 700', 1	040', 1150' (Surface o	casing is being extend	ded to cover the coal in the DTI Field)
16) Approximate Depth to Possi	ble Void (coal m	ine, karst, other):	None	
17) Does Proposed well location directly overlying or adjacent to	contain coal sea an active mine?	Yes	No No	Х
(a) If Yes, provide Mine Info:	Name:			LECTAL DE
	Depth:			Office of Orland Gas
	Seam:			AUG 1 9 2022
	Owner:			Four colental Protection

OPERATOR WELL NO. Vaneck 1215 S-11H

Well Pad Name: Vaneck 1215

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	19066'	19066' 🗸	20% Excess Tail, CTS
Tubing							
Liners							

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ТҮРЕ	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, Tall 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	Lead 40% excess, Tail 0% Excess Lea
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/ClassA	20% excess yield = 1,19. Iail yield 1,94.0
Tubing							
Liners	1 1						

PACKERS

Kind:	
Sizes:	Office Market Cons
Depths Set:	AUG 1 9 2022

Environmental Protection

WW-6B (10/14) API NO. 44 7 0 4 1 0 5 7 4 1

OPERATOR WELL NO. Vaneck 1215 S-11H Well Pad Name: Vaneck 1215

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 10,938' lateral length, 19,066' 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
- 8.70 acres 22) Area to be disturbed for well pad only, less access road (acres):

23) Describe centralizer placement for each casing string:

er/Coal - centralized every 3 joints to surface

fiate 1 - Bow Spring on every joint, will also be running ACP for isolating storage zon

Intermediate 2 - Bow Spring on first 2 joints then every third joint to 100' from surface

on - Vertical - Run 1 spiral centralizer every 5 joints from the top of the curve to surface, Curve - Run 1 spiral centralizer every 3 joints from the 1st 5.5' long joint to the top of the cur

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

Intermediate 1 - ***** Storage String **** CTS ***15.4 ppg Lead - Yield 1.24 - D896 Surface Set 100 ib / sack (Mix of Class A and Gypsum to meet Dominton Requirements)B348 - 0.5% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack VBWOB Anii Foam / D020 - 0.15% BWOB Dispersant / D059 1.5 ib per BBL Clember* - 60% Excess 159 ppg Tail - Yield 1.17 - D896 Surface Set 100 ib / sack (Mix of Class A and Gypsum to meet Dominton Requirements)B160A - 0.15% BWOB Dispersant / B547 - 0.35% BWOB GasBLOK* / D013 - 0.3% BWOB Retarder / D047 - 0.02 gal / sack Anif Foam / D001 - 0.03 gal / sack Retarder - / Mix Retarder - / Mix

Intermediate 2 - "Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS"

cition - "Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170Tali: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% ExcessLead Yield=1.19Tall Yield=1.94CTS*

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.

Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping ceme

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

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*Note: Attach additional sheets as needed.

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

	Material Type	The second control of	CAS #	Tax	Tere :
		Premium NE-1 is a	Ingredient name	%	CAS number
		portland cement with	Portland cement	90 - 100	65997-15-1
		early compressive	Calcium oxide	1 - 5	1305-78-8
		strength properties.	Magnesium oxide Crystalline silica: Quartz (SiO2)	1-5	1309-48-4 14808-60-7
emium NE-1	Portland Cement		STATEMENT SHIPE SHIPE TO SAL	Total Control	7 1415, 12 1
		Community will and safe			
		Commonly called gel, it is a clay material used as a	Ingredient name	%	CAS number
		cement extender and to	bentonite	90 - 100	1302-78-9
		control excessive free	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7
		water.			
tonite	Extender				
		A powdered, flaked or	D. C. Waller	%	CAS number
		pelletized material used	Ingredient name	90 - 100	10043-52-4
		to decrease thickening	Calcium chloride	90 - 100	10043-32-4
		time and increase the rate			
	Arturia.	of strength development			
ium Chloride	Accelerator				
		Graded (3/8 to 3/4 inch)	Towns at the towns of	%	CAS number
		cellophane flakes used as	Ingredient name	Va.	SAS Intilides
		a lost circulation material.	No hazardous ingredient		
lo Flake	Lost Circulation	Secretary and an arrange of the second			
		FP-13L is a clear liquid			
		organic phosphate			
		antifoaming agent used in		1	Total .
		cementing operations. It	Ingredient name	%	CAS number
		is very effective	Tributyl phosphate	90 - 100	126-73-8
		minimizing air			
		entrapment and			
		preventing foaming			
		tendencies of latex			
		systems.			
13L	Foam Preventer				
			Ingredient name	%	CAS number
		Used to retard cement	Sucrose	90 - 100	57-50-1
nulated Sugar	Retarder	returns at surface.		The William	
A. IV. U. P.O.		A proprietary product			
		that provides expansive			
		properties and improves		10	Take
		bonding at low to	Ingredient name	%a	CAS number
		moderate	Calcium magnesium oxide	90 - 100	37247-91-9
		temperatures.			
1		and the second			
		Multi-purpose polymer			
		additive used to control	Ingredient name	%	CAS number
		free fluid, fluid loss,	No hazardous ingredient		
0.000		rheology, and gas			
A-170	Gas Migration	migration.			
		A synthetic passals a			
		A synthetic pozzolan, (primarily Silicon Dioxide).			
		When blended with			
		cement, Pozzolan can be		Tec	010
		used to create	Ingredient name	%	CAS number
		lightweight cement	Crystalline silica: Quartz (SiO2) Calcium oxide	5 - 10 1 - 5	14808-60-7 1305-78-8
		slurries used as either a	Calcium oxide	1.0	1505-70-0
		filler slurry or a sulfate	CINIX		
		resistant completion	AUG 1 9 2022		
		cement.	AUG I D LOCA		
			30.1		
(Fly Ash)	Base				
(Fly Ash)	Base		arctical votical	11011	
(Fly Ash)	Base	A low temperature	Tipy mental yotrol	ljon -	Take and
(Fly Ash)	Base	retarder used in a wide	Ingredient name	70	CAS number
(Fly Ash)	Base	retarder used in a wide range of slurry	Ingredient name Organic acid salt	% 40 - 50	CAS number Trade secret.
(Fly Ash)	Base	retarder used in a wide range of slurry formulations to extend	Ingredient name Organic acid salt	70	
		retarder used in a wide range of slurry	Ingredient name Organic acid salt	70	
	Base Retarder	retarder used in a wide range of slurry formulations to extend	Ingredient name Organic acid salt	70	
z (Fly Ash)		retarder used in a wide range of slurry formulations to extend	Ingredient name Organic acid salt	40 - 50	Trade secret.
		retarder used in a wide range of slurry formulations to extend	Ingredient name Organic acid salt Ingredient name	% 40 - 50	Trade secret.
		retarder used in a wide range of slurry formulations to extend	Ingredient name Organic acid salt Ingredient name 2-Butoxyethanol Proprietary surfactant	40 - 50	CAS number 111-76-2 Trade secret.
		retarder used in a wide range of slurry formulations to extend the slurry thickening time	Ingredient name Organic acid salt Ingredient name 2-Butoxyethanol Proprietary surfactant D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	% 40 - 50 % 20 - 30 10 - 20 5 - 10	CAS number 111-76-2 Trade secret. 110615-47-9
		retarder used in a wide range of slurry formulations to extend	Ingredient name Organic acid salt Ingredient name 2-Butoxyethanol Proprietary surfactant D-Glucopyranose, oligomeric, C10-16-alkyl glycosides Alkylavisulfonate amine salt	% 40 - 50 % 20 - 30 10 - 20	CAS number 111-76-2 Trade secret.

*** 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 (b per BBL CemNET* - 60% Excess 16.9 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-11H

Marcellus Shale Horizontal Lewis County, WV

님 ENERGY

14205329.15N 1768481.71E 1215 S-11H SHL 1215 S-11H LP 14205767.84N 1770715.76E 1254.8 Ground Elevation 14195506.51N 1774490.24E 1215 S-11H BHL 160.262° Azm COMMENTS CONDITIONING CEMENT CENTRALIZERS BASE MUD WELLBORE DIAGRAM HOLE CASING GEOLOGY TOP Ensure the hole is clean at Conductor casing = 0.5" wall 30" 157.5# N/A. Casing to be drilled N/A AIR 30" thickness in w/ Dual Rotary Rig TD LS 0 120 Conductor Once casing is at setting 0 214, 600, 861 Fresh Water 15.6 ppg PNE-1 + 3% depth, circulate a minimum Surface casing = 0.438" wall Centralized every 3 bwoc CaCl 20" of one hole volume with thickness AIR 905 26" Kittaning Coal 900 40% Excess joints to surface 94# J-55 Fresh Water prior to Burst=2110 psi Yield=1.20 / CTS Fresh Water pumping cement. 0 1200 Protection Once casing is at setting Little Lime 1694 1714 See above (LEFT) for Bow Spring on every depth, Circulate and Storage String Cement Intermediate casing = 0.480' AIR / KCL ioint 1741 1818 Big Lime condition at TD. Circulate a 13-3/8" 68# wall thickness Blend to Meet DTI will also be running Salt 17.5" minimum of one hole 1904 / 2125 J-55 BTC Injun / Gantz (Storage) 1818 / 2073 Burst=3450 psi ACP for isolating Polymer Requirements for Gas volume prior to pumping Storage Field Isolation storage zone 0 2250 cement. Intermediate 1 2274 2286 Thirty Foot 2336 / 2446 2320 / 2346 Gordon Stray / Gordon 5th Sand 2590 2612 Once casing is at setting Lead: 15,4 ppg PNE-1 + deoth. Circulate and 2.5% bwoc CaCl Bow Spring on first 2 2675 Intermediate casing = 0.395" 2660 Bayard AIR / KCL 40% Excess / Tail: 15.9 joints then every third condition mud at TD. 9-5/8" 40# wall thickness Salt 12.25" 3301 ppg PNE-1 + 2.5% bwoc Speechley 3287 joint to 100' form Circulate a minimum of one N-80 BTC Burst=5750 psi Polymer CaCl surface hale valume prior to zero% Excess, CTS pumping cement. 4572 4588 Benson TVD: 4780 MD: 4950' Inc. Intermediate 2 49 dea. Run 1 spiral centralizer AIR / every 5 joints from the 9.0ppg 8.75" top of the curve to Lead: 14.5 ppg SOBM surface. POZ:PNE-1+0.3% bwoc R3 + 1% bwoc Once on bottom/TD with 6290 EC1 + 0.75 gal/sk FP13L Rhinestreet 6125 # 0.3% bwoc MPA170 casing, circulate at max Production casing = 0.415" 6391 Cashaqua 6290 allowable pump rate for at Tail: 14.8 ppg PNE-1 wall thickness 5-1/2" 6425 0.35% bwoc R3 + 0.75 least 2x bottoms up, or until Middlesex 6391 Burst=16240 psi 11.5ppg-23# returns and pump pressures gal/sk FP13L + 50% Note: Actual centralizer 8.5" Curve P-110 HP West River 6425 6500 12.5ppg indicate the hole is clean. bwoc ASCA1 + 0.5% SOBM Run 1 spiral centralizer schedules may be changed CDC HTQ Circulate a minimum of one 6500 6535 bwoc MPA170 Burkett every 3 joints from the due to hale conditions 20% Excess hole volume prior to 6625 1st 5,5" long joint to the Tully Limestone 6535 pumping cement. Lead Yield=1.19 top of the curve. 6625 6753 Tail Yield=1.94 Hamilton CTS 6803 Marcellus 6753 11.5ppg-TMD / TVD 19065 6789 12.5ppg 8.5" Lateral (Production) SOBM Onondaga 6803 X X X TD @ +/-6789' TVD LP @ 6789' TVD / 8128' 8.5" Hole - Cemented Long String +/-10937' ft Lateral +/-19065' MD 5-1/2" 23# P-110 HP CDC HTQ MD X X≓centralizers X Χ X

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
Vatershed (HUC 10) Middle West Fork Creek Q	Quadrangle Camden 7.5'
o you anticipate using more than 5,000 bbls of water to complete the	e proposed well work? Yes V No
Vill 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:	SDW
Land Application	8/4/2022
Underground Injection (UIC Permit Numb	
Reuse (at API Number TBD - At next anticipated	
Off Site Disposal (Supply form WW-9 for Other (Explain	disposal location)
Vill 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.
rilling medium anticipated for this well (vertical and horizontal)? A	
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
dditives to be used in drilling medium? Water, Soap, KCI, Barite, Base	Oil, Wetting Agents
rill cuttings disposal method? Leave in pit, landfill, removed offsite	e, etc. Approved Landfill
-If left in pit and plan to solidify what medium will be used?	
-Landfill or offsite name/permit number? See Attached	
Permittee shall provide written notice to the Office of Oil and Gas of a West Virginia solid waste facility. The notice shall be provided within where it was properly disposed.	any load of drill cuttings or associated waste rejected at any 124 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West Virginia provisions of the permit are enforceable by law. Violations of any taw or regulation can lead to enforcement action.	term or condition of the general permit and/or other applicable nined and am familiar with the information submitted on this my inquiry of those individuals immediately responsible for ccurate, and complete. I am aware that there are significant
Company Official Signature Diane White	TO JONES DAY
Company Official (Typed Name) Diane White	AUC 6 0 2025
Company Official Title Agent	AUG 1 3 AUGE
	En Section
Subscribed and sworn before me this 21st day of July	, 20 22
Com de Beader	Notary Pullion OFFICIAL SEAL NOTARY PUBLI
	STATE OF WEST VIE
My commission expires 7 31 2027	9720720 Parkersburg, W 26

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 Cochranton, PA 16314 814-425-7773

Disposal Locations:

Apex Environnemental, 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 724-929-7694

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

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

Max Environnemental 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 Environnemental 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

Nabors 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 1.1942 Veterans Memorial Highway Masontown, WV 26542

Miustang Olifield Services LLC PO Box 739 St. Clairsville, OH 48950

Wilson's Outdoor Services, ILC 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 6055 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 Olifield Serv 301 Commerce Drive Micorestown, 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 Carlisie, PA 17015

Myers Well Service, ____ 2001 Ballpark Court Export, PA 15632

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

Nichios 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 Norwich, 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 2530 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, PH 44505

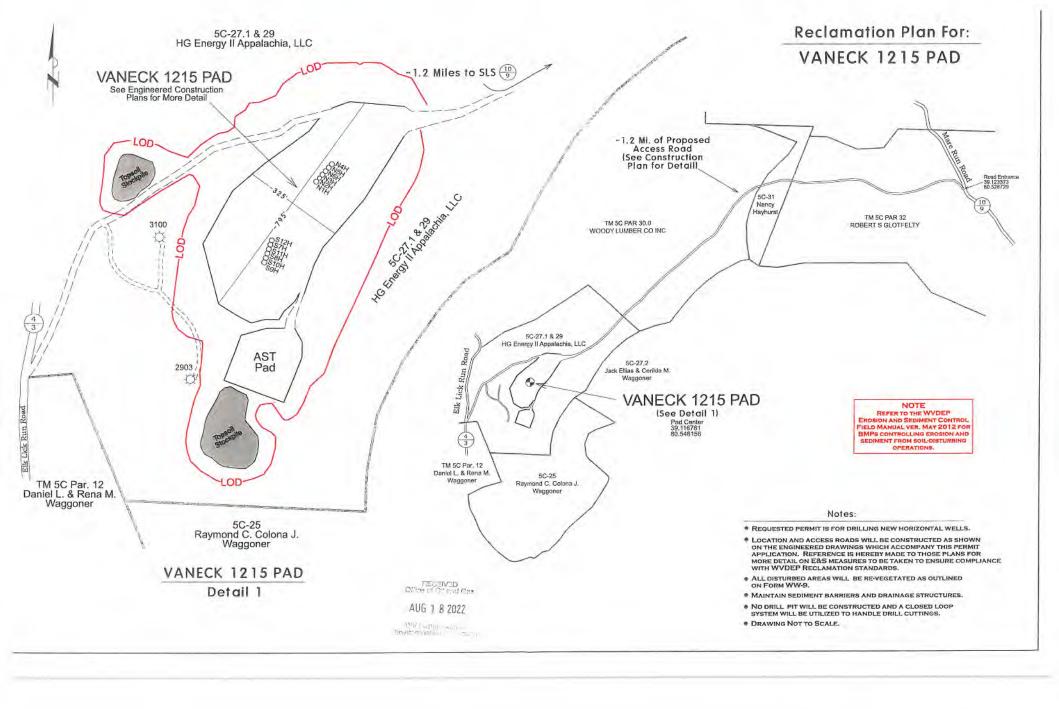
Dudley #1 UIC (SWIW #1) Permit # 34-121-2-2459-00-00 Select Energy Services, LLC 7994 S. Pleasants Hwy St. Marys, WV 26170 304-665-2652 OH UIC #1 Bu keye UIC Barnesville 1 & 2 CNX Gas Con, Jany, LLC 1000 Consol Energy Drive Permit # 34-013-2-0609-00-00 Permit # 34-013-2-0614-00-00 304-323-6568

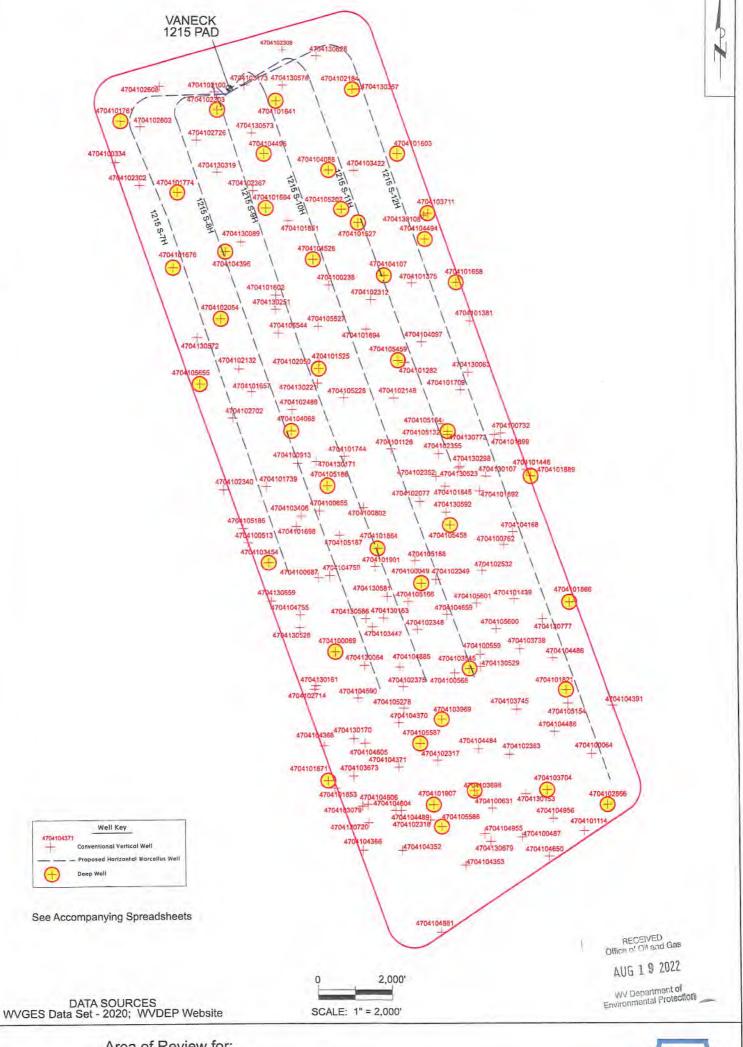
U\$ Steele 11385 Permit # 47-001-00561 200 Evergreen Drive Waynesburg, PA 15730 304-323-6568

Chapin #7 UIC (SWIW #7)
Permit # 34-083-2-4197-00-00
Elkhead Gas& Oil Company
12163 Marne Rd. NE
Newark, OH 43055
740-763-3966

Operator's Well No. Vaneck 1215 S-11H

Proposed Revegetation Treatr	ment: Acres Disturbed 22.5	Prevegetation pF	I
Lime	3 Tons/acre or to correct to	pH 6.5	
Fertilizer type10-	20-20	_	
Fertilizer amount	500	_lbs/acre	
Mulch_ Hay	2 _{Tor}	ns/acre	
	<u>s</u>	Seed Mixtures	
Tei	mporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5
Attach: Maps(s) of road, location, pit provided). If water from the pacreage, of the land application	and proposed area for land appit will be land applied, include on area.	g and completion process plication (unless engineered plans include dimensions (L x W x D) of the pit, and	ding this info have been I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involv	and proposed area for land applict will be land applied, include on area. ved 7.5' topographic sheet.	plication (unless engineered plans inclu	ding this info have been I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involve Plan Approved by:	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet.	plication (unless engineered plans include dimensions (L x W x D) of the pit, and	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involv Plan Approved by: Comments: Pre-seed/	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet. Market and was soon as a	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involv Plan Approved by: Comments: Pre-seed/	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet.	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involve Plan Approved by: Comments: Pre-seed/	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet. Market and was soon as a	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the pacreage, of the land application Photocopied section of involve Plan Approved by: Comments: Pre-seed/	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet. Market and was soon as a	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involv Plan Approved by: Comments: Pre-seed/	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet. Market and was soon as a	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involv Plan Approved by: Comments: Pre-seed/	and proposed area for land appoint will be land applied, include on area. wed 7.5' topographic sheet. Market and was soon as a	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land application Photocopied section of involv Plan Approved by: Comments: Pre-seed/	and proposed area for land applit will be land applied, include on area. The wed 7.5' topographic sheet. The wed as soon as the eeded per WV DE	plication (unless engineered plans include dimensions (L x W x D) of the pit, and reasonably possible per	I dimensions (L x W), and





Area of Review for:

VANECK 1215 SOUTH UNIT

Proposed 1215 S-7H Proposed 1215 S-10H Proposed 1215 S-8H Proposed 1215 S-11H Proposed 1215 S-9H Proposed 1215 S-12H HG ENERGY, II APPALACHIA, LLC 5260 DuPont Road, Parkersburg, WV 26101

ENERGY

Freeman's Creek District, Lewis County, W.Va.

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 Woofter	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	-80.538564
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 QT 20	Price Fm & equivs	Dry w/ Gas Show	1666	PLUGGED	39.063703	-80.523997
11	4704100655	Lewis	John White	Alliance Petroleum Co. LLC 2= 60 3 3	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 E8 9	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	39.089277	-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	39.096/24	-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	-80,521,697
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

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	80,516863
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	имоми 22 28	not available	not available	1 8 1	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	39.091320	-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	l Simmons	Eastern Gas Transmission & Storage, Inc.	not available	Gas	140	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	- 9	ACTIVE	39.080604	-80.529038
67	4704102352	Lewis	E Hall	Diversified Production LLC	not available	not available	30	ABANDONED	39.088272	-80,528906
68	4704102355	Lewis	C Robinson	Alliance Petroleum Co. LLC	not available	not available	50	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	-80,542,467
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	1202	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

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	-80.54865
108	4704104484	Lewis	Simeon A Hall/D Hall hrs	Alliance Petroleum Co. LLC	Greenland Gap Fm	Gas	3655	ACTIVE	39,068072	-80.525223
109	4704104486	Lewis	Jonathan R Dodson	Diversified Production LLC	Greenland Gap Fm	Gas	3568	ACTIVE	39.069314	-80.518033
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	-80,54034
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	-80,53318
116	4704104605	Lewis	Jay T Shearer	Red Gas Co.	Greenland Gap Fm	Gas	2560	ACTIVE	39.058574	-80,535996

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	39.105568	-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	T	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

SOUR	E: WVGES DAT	ASET (202	0) and WVDEP WEBSITE A	AND FIELD SURVEYS	YELLOW DENOTES WELL WITH TVD > 4,500'		DENOTES SU	RVEYED WELL COO	RDINATES	
174	4704130777	Lewis	Jas McKinley Hrs	Consolidated Gas Supply Corp.	not available	not available		, 200020		1 20 40 40 40 40 40
173	4704130773	Lewis	Clark White	Consolidated Gas Supply Corp.	not available	not available	2340	PLUGGED	39.077625	-80.518979
172	4704130720	Lewis	M L Butcher	Hope Natural Gas Company	Hampshire Grp	Gas	2346	UNKNOWN	39.091347	-80.527729
171	4704130679	Lewis	Pleasant Alford	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2206	PLUGGED	39.062687	-80.535716
170	4704130659	Lewis	G L White	Hope Natural Gas Company	Hampshire Grp	Gas	2534	PLUGGED	39.061237	-80.524182
169	4704130628	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas	2399	PLUGGED	39.079108	-80.544659
		2.700	White Hall		not available	not available	2702	UNKNOWN	39.119287	-80.539976
168	4704130592	Lewis	Sarah A Kemper	Hope Natural Gas Company	Fifth	Gas	2250	PLUGGED	39.087966	-80.528286
167	4704130586	Lewis	1,000 = 1,000 =	Hope Natural Gas Company	Hampshire Grp	Gas	2241	PLUGGED	39.077727	-80.535725
166	4704130578	Lewis	Alfred Woofter	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2242	PLUGGED	39.079365	-80.533678
165	4704130578	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas	2602	PLUGGED	39.117115	-80.543159
164	4704130573	Lewis	Fortunatus White	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2611	PLUGGED	39.113567	-80.546105
163	4704130572	Lewis	Israel Simmons	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2397	PLUGGED	39.098598	-80.551368
162	4704130529	Lewis	James R Bailey	Hope Natural Gas Company	Hampshire Grp	Gas w/ Oil Show	2250	PLUGGED	39.074144	-80.524931
161	4704130528	Lewis	Cora B Bailey	Hope Natural Gas Company	Hampshire Grp	Gas	2409	PLUGGED	39.077107	-80.542004
160	4704130523	Lewis	JT Lovett	Hope Natural Gas Company	Hampshire Grp	Oil and Gas	2244	PLUGGED	39.088876	-80.526763
159	4704130357	Lewis	Mary C Burnside	Hope Natural Gas Company	not available	not available		PLUGGED	39.116825	-80.535930
158	4704130319	Lewis	E W & R M Waggoner	Hope Natural Gas Company	Hampshire Grp	Gas	2443	PLUGGED	39.110702	-80.549391
157	4704130298	Lewis	Hannah Kemper	Hope Natural Gas Company	Hampshire Grp	Gas	2186	PLUGGED	39.088981	-80.526611

UPDATED 6/22/2022



HG Energy II Appalachia, LLC

Site Safety Plan

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

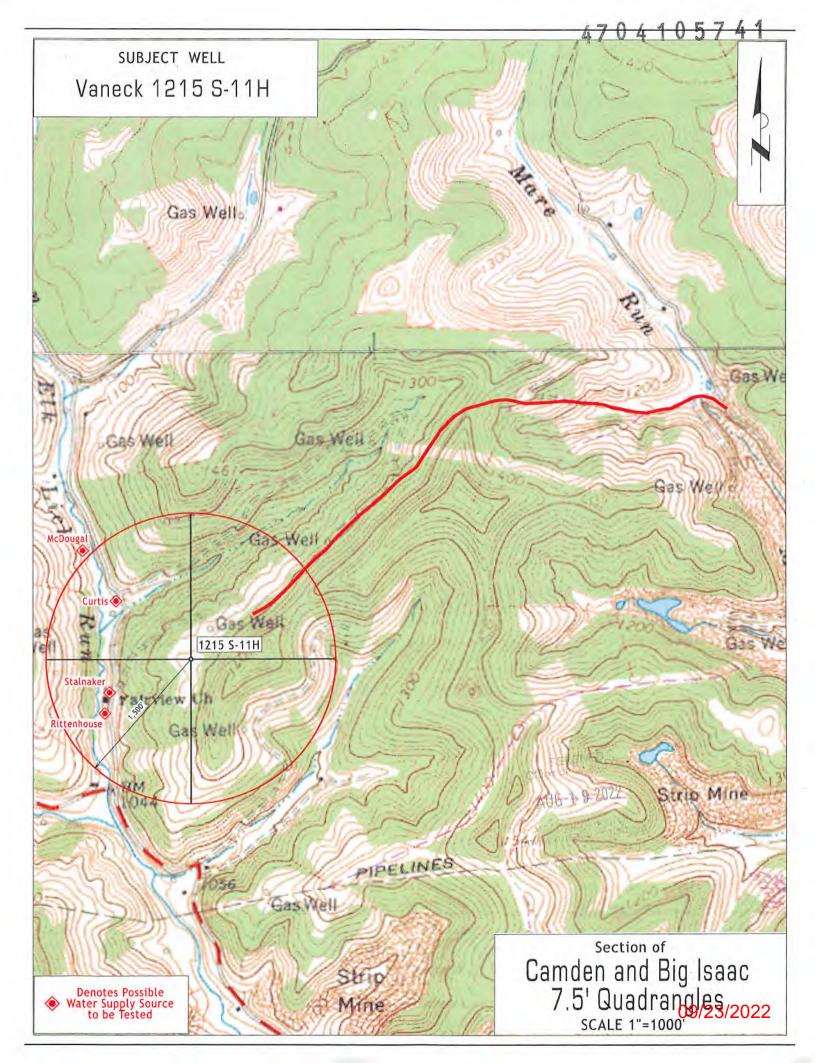
January 2022: Version 1

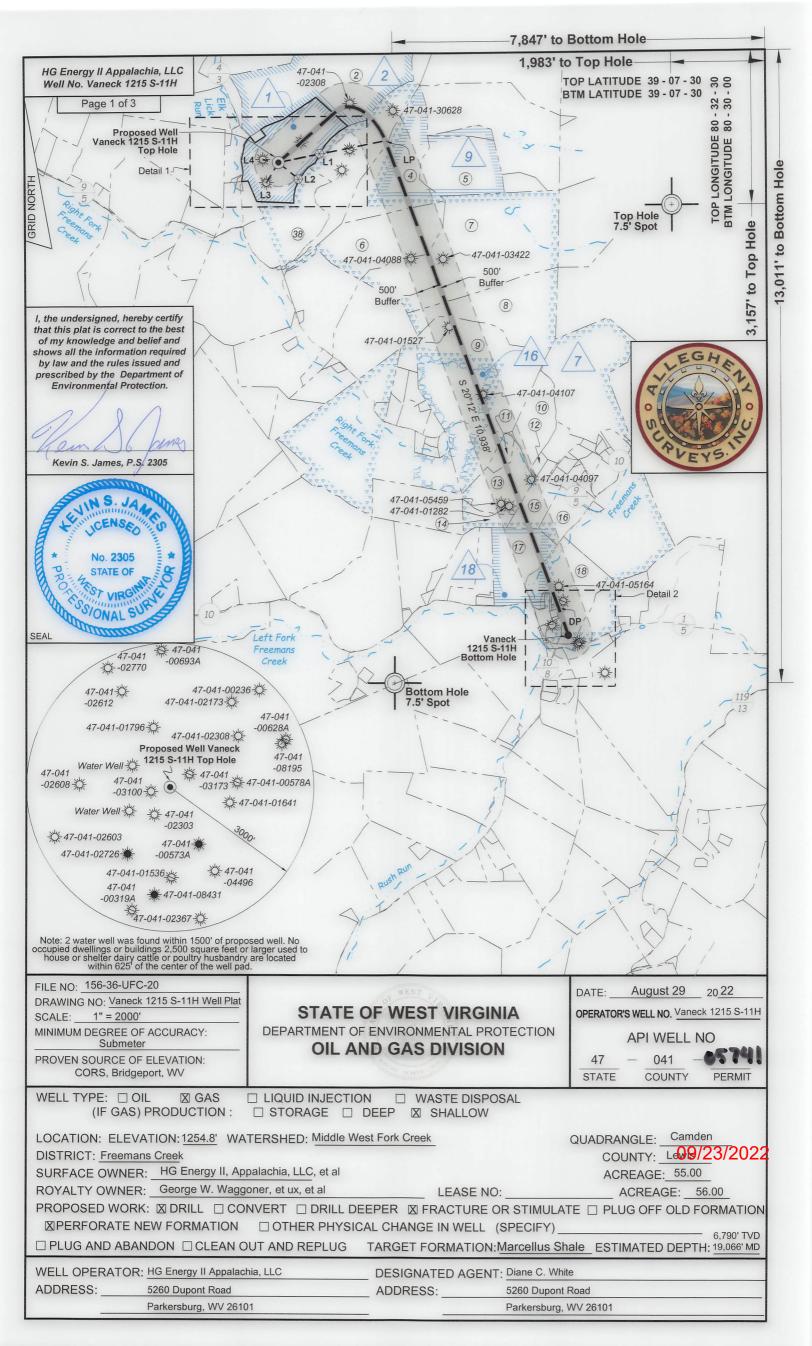
For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas

HG Energy II Appalachia, LLC

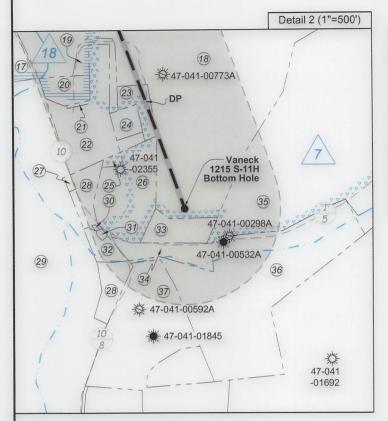
5260 Dupont Road

Parkersburg, WV 26101









Notes Well No. Vaneck 1215 S-11H UTM NAD 1983 (USSF)

Top Hole Coordinates N: 14,205,329.15' E: 1,768,481.71' Landing Point Coordinates N: 14,205,767.84' E: 1,770,715.76 **Deflection Point Coordinates** N: 14,196,065.52 E: 1,774,289.56' Bottom Hole Coordinates N: 14.195.506.51

E: 1,774,490.24

Notes: Well No. Vaneck 1215 S-11H West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.

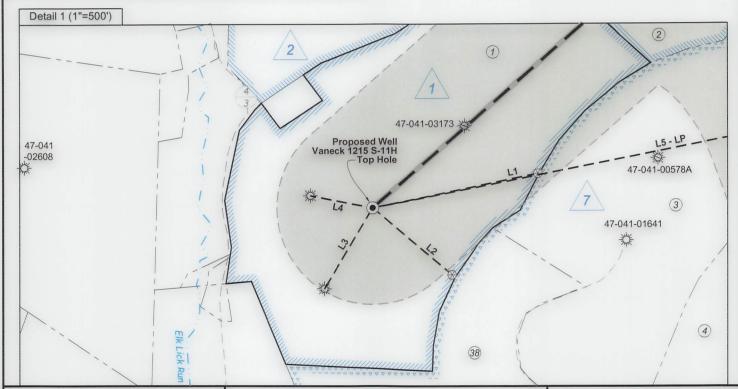
Top Hole coordinates
Latitude: 39°06'58.78" Latitude: 39°05'21.36"

Latitude: 39°06'58.78" Latitude: 80°32'55.17" Longitude: 80°31'39.56" <u>UTM Zone 17, NAD 1983</u>

Top Hole Coordinates N: 4,329,792.983m N: 4,326,799.038m

N: 4,329,792.983m E: 539,034.303m E: 540,865.708m 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 78°20' W	879.8'	1/2" Rebar
L2	N 50°07' W	539.9'	1/2" Rebar
L3	N 31°01' E	488.7'	47-041-02303
L4	S 79°00' E	330.6'	47-041-03100
L5	N 78°53' E	2,276.7'	Landing point



FILE NO: 156-36-UFC-20 DRAWING NO: Vaneck 1215 S-11H Well Plat 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

August 29 20 22 OPERATOR'S WELL NO. Vaneck 1215 S-11H

API WELL NO

05741 47 041 STATE COUNTY PERMIT

WELL T	YPE:	OIL	⊠ GAS	☐ LIQUID	INJEC	CTIO	N 🗆	W	ASTE DISPOSAL	
	(IF	GAS) PROD	DUCTION:	□ STOR	AGE		DEEP	X	SHALLOW	
LOCATIO	ON: F	ELEVATION	·1254.8' WA	TERSHED	· Middl	e We	est Fork C	Cree	k	

DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II, Appalachia, LLC, et al ROYALTY OWNER: George W. Waggoner, et ux, et al

LEASE NO:

QUADRANGLE: Camden COUNTY: LOS/23/2022 ACREAGE: 55.00

ACREAGE: _ 56.00 PROPOSED WORK: ☑ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION

⊠PERFORATE NEW FORMATION	OTHER PHYSIC	CAL CHANGE IN WELL	(SPECIFY)		6.790' TVD
☐ PLUG AND ABANDON ☐ CLEAN O	JT AND REPLUG	TARGET FORMATION	:Marcellus Shale	ESTIMATED DEPTH	01.00

WELL OPERATOR: HG Energy II Appalachia, LLC

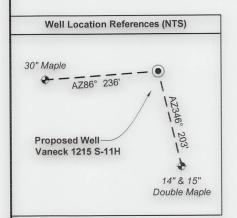
ADDRESS: 5260 Dupont Road Parkersburg, WV 26101 DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

Page 3 of 3





ID	Lease
1	George W. Waggoner, et ux
2	Fielding B. Riley, et al
7	F. White
9	J.A. Burnside, et ux
16	Clark White, et ux
18	J. Belle Snyder, et al

Wellhead Lay	out (NTS)
Vaneck	ck 1215 S-12H 1215 S-7H
Proposed Vaneck 12	
Vaneck 1215	5 S-8H
Vaneck 1215 8	S-10H
	ЭН

No.	TM / Par	Owner	Bk / Pg	Ac.
1	5C / 29	H.G. Energy II Appalachia, LLC	765 / 894	55.00
2	5C / 30	Woody Lumber Co. Inc.	590 / 438	140.50
3	5C / 27.2	Jack E. & Cerilda M. Waggoner	547 / 691	57.97
4	5C / 22	Linda Lou Waggoner	W33 / 157	57.76
5	5C / 39	Phillip E. Burnside, et al	666 / 503	47.00
6	5C / 22.1	Janet L. & Joseph C. Waggoner, Sr.	705 / 183	57.53
7	5C / 45	Phillip E. Burnside, et al	666 / 503	121.42
8	5C / 46	John K. Burnside, et al	W1 / 393	60.00
9	5D / 35	Edward E. Garrett, et al	429 / 245	130.47
10	5D / 60.13	Richard B. & Erica S. Messenger	577 / 212	23.96
11	5D / 36.1	Clifford B. Messenger	625 / 166	5.00
12	5D / 60.1	Michael & Juile Lough	750 / 243	2.02
13	5D / 36.2	Clifford B. Messenger	625 / 166	27.32
14	5D / 36	Carroll G. Gum, et al	625 / 343	9.71
15	5D / 37	Rebecca & Archie E. Lattea, Jr.	484 / 553	13.86
16	5D / 38	Marsha Boggs	W8 / 308	4.12
17	5D / 39.3	Janice W. Sundstrom	W41 / 517	35.09
18	5D / 39	John M. & Diana L. Garrett	701 / 658	41.92
19	5D / 40	United Brethern Church Cemetery	219 / 27	1.00
20	5D / 41	Freemansburg U.M. Church	20 / 104	0.90
21	5D / 42	Freemansburg U.M. Church	5 / 216	0.05
22	5D / 56	Freemans Creek Baptist Church	-/-	0.90
23	5D / 39.1	L.L. Kemper (Cemetery)	284 / 287	1.50
24	5D / 44	Freemans Creek Baptist Church	28 / 337	1.00
25	5D / 43	Perry & Grace Waggoner	616 / 250	0.75
26	5D / 45	Perry & Grace Waggoner	616 / 250	2.45
27	5D / 46	Edward E. Garrett, et al	429 / 245	0.07
28	5D / 49	Edward E. Garrett	WB R / 498	1.50
29	5D / 32	Burce Garrett, et al	577 / 351	100.60
30	5D / 55	Harvey A. Hall Estate	F31 / 109	0.02
31	5D / 66	Donald Smith & William Self, Sr.	760 / 898	0.06
32	5D / 47	John P. & Betty L. Rowan	640 / 15	0.50
33	5D / 39.2	Timothy R. & Alicia L. Beer	601 / 673	1.25
34	5D / 48	Edward E. Garrett	553 / 382	1.00
35	5D / 57	John T. Garrett	728 / 296	28.70
36	5D / 54	Edward E. Garrett	W7 / 578	10.50
37	5D / 51	Michael & Glodell Morris	621 / 412	13.55
38	5C / 25	Raymond C. & Colona J. Waggoner	567 / 416	45.48

Lewis Co. - Freeman Creek Dist.

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.)

Logond

FILE NO: 156-36-UFC-20 DRAWING NO: Vaneck 1215 S-11H Well Plat 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**

OPERATOR	'S WELL NO. Vaneck 1215 S-11H
	API WELL NO
47	- 041 - 05741
STATE	COUNTY PERMIT

DATE: ___ August 29 __ 20_22

WELL TYPE: ☐ OIL ☐ GAS ☐ LIQUID INJECTION (IF GAS) PRODUCTION : ☐ STORAGE ☐		
LOCATION: ELEVATION: 1254.8' WATERSHED: Middle Web DISTRICT: Freemans Creek SURFACE OWNER: HG Energy II, Appalachia, LLC, et al	est Fork Creek	QUADRANGLE: Camden COUNTY: LQQ/23/2022 ACREAGE: 55.00
ROYALTY OWNER:George W. Waggoner, et ux, et al	LEASE NO:	ACREAGE: 56.00
PROPOSED WORK: ☑ DRILL ☐ CONVERT ☐ DRILL DE ☑ PERFORATE NEW FORMATION ☐ OTHER PHYSIC	EEPER 🛛 FRACTURE OR STIMU CAL CHANGE IN WELL (SPECIF)	JLATE ☐ PLUG OFF OLD FORMATION ()
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG		
WELL OPERATOR: HG Energy II Appalachia, LLC	DESIGNATED AGENT: Diane C.	White
ADDRESS: 5260 Dupont Road	ADDRESS: 5260 Dup	oont Road
Parkersburg, WV 26101	Parkersb	urg, WV 26101

WW-6A1 (5/13)

Operator's V	Well No.	Vaneck 1215 S-11H

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:

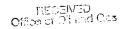
Lease Name or	•			
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

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



AUG 1 9 2022

vvv 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				

Page 1 of

HG Energy II Appalachia, LLC - Vaneck 1215 S11H Lease Chains

215S Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGI
				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	
	1 1			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	
	1		Mr. I	CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	1
	41	03-005C-0027-0001	40.0	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	wvsos	
1	FK051509	03-005C-0027-0001	Q100665000	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	
		03-005C-0029-0000		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	
	1			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	
F			DOMINION ENERGY TRANSMISSION, INC.	SECOND AMENDMENT TO MEMORANDUM OF HG ENERGY II APPALACHIA, LLC FARMOUT AGREEMENT		723		
			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734		
3	Q			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	
10 TO	C 8-	9		FIELDING B. RILEY AND SAMUEL M. RILEY AND M. V. RILEY	E. W. BOYD	NOT LESS THAN 1/8	35	
3 D	10 and			E. W. BOYD	S. E. BARRETT	ASSIGNMENT	30	
98	Ditt.			S. E. BARRETT	LOUIS BENNETT	ASSIGNMENT (50%)	36	
亞品	5 0			LOUIS BENNETT AND S. E. BARRETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT (75%)	71	
70 %	G 1 9 20			S. E. BARRETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44	
22	2022			LOUIS BENNETT	J. M. GUFFEY AND JNO. H. GALEY	ASSIGNMENT	44	
nent of Protection	2			J. M. GUFFEY AND JNO. H. GALEY	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	44	
0				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURG AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	85	-
0				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	
			1	EQUITABLE GAS COMPANY AND PHILADELPHIA OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	246	
/	Carl William		100000000000000000000000000000000000000	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	
2	FK052230	03-005C-0030-0000	Q100666000	CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	
				CONSOLIDATED GAS TRANSMISSION CORPORATION CNG TRANSMISSION CORPORATION MERGER/NAME CHANGE		MERGER/NAME CHANGE	WVSOS	
			CNG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. MERGER/NAME CHANGE		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	/
	1 1			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	

		l Î		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					
		p/o 03-005C-0020-0000										
		p/o 03-005C-0022-0000		F. WHITE	SOUTHERN OIL COMPANY	NOT LESS THAN 1/8	40					
		03-005C-0022-0001 03-005C-0023-0000		T. N.BARNSDALL, SOUTHERN OIL COMPANY, AND FRED S. RICH	RESERVE GAS COMPANY	ASSIGNMENT	85					
		p/o 03-005C-0025-0000		RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155					
		03-005C-0027-0000		HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294					
- 1		03-005C-0027-0002 03-005C-0045-0000		CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425					
		03-005C-0046-0000		CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
- 1		p/o 03-005D-0019-0000		CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
		03-005D-0020-0000 p/o 03-005D-0035-0000		DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672					
		03-0050-0036-0000		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684					
1.00		03-0050-0036-0001		DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712					
1	EVALUACI	p/o 03-005D-0036-0002	0100333000	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					
1 .	FK053097	03-005D-0037-0000 p/o 03-005D-0038-0000	Q100333000	NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					
		p/o 03-005D-0039-0000		DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
		03-0050-0039-0001		COMMON TRANSPORTING.	DOMESTIC CHERT INCOMEDIATION INCO	SECOND AMENDMENT TO MEMORANDUM OF						
		p/o 03-005D-0039-0003 p/o 03-005D-0040-0000		DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	FARMOUT AGREEMENT	723					
ņ.		p/o 03-005D-0045-0000		DOMINION ENERGY TRANSMISSION, INC.	ING ENERGY II AFFACACITA, ECC	TAMINO OF MORESMENT						
RECEIVED Office of Office AUG 1 9 20 INV Dapatcher INV Dap	Chicago	p/o 03-005D-0057-0000 03-005D-0059-0000 03-005D-006D-0000 03-005D-006D-0001		DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734					
	THRU 03-005D-006D-0018 03-005D-0061-0000 03-005D-0061-0001		DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736						
80 7	0			J. A. BURNSIDE AND ELLA BLANCHE BURNSIDE, HIS WIFE, EACH IN		Library Community Co.	000					
77	14			THEIR OWN RIGHT	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	209					
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	_				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	_				
		1		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					
2.0		03-005C-0038-0000		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684					
9	FK061775	03-005C-0039-0000	Q100785000	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712					
		p/o 03-005C-0022-0000		CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					
1		P/8 33 33 33 33 33 3		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	734 736					
			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	40	1					
				CLARK WHITE AND KATE E. WHITE, HIS WIFE	SOUTHERN OIL COMPANY	NOT LESS THAN 1/8	40					
				T. N.BARNSDALL, SOUTHERN OIL COMPANY, FRED S. RICH AND W. S.	Country and Country	ACCICAINATAIT	85					
				MORRIS	RESERVE GAS COMPANY	ASSIGNMENT		-				
		1		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					
15	FK053098	p/o 03-005D-0019-0000	CNX053098	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
16	14003030	p/o 03-005D-0035-0000	CIAVOSSOSS	DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651					

1	1					T	
			CONSOL ENERGY HOLDINGS LLC XVI AND CONSOL GAS COMPANY	CNX GAS COMPANY	MERGER/NAME CHANGE	. 9	471
			CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	659	521
		1	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
1	1	ļ.	NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
	1	· ·	DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	wvsos	
			DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
	p/o 03-005D-0038-0000 p/o 03-005D-0039-0000	J. BELLE SNYDER, WIDOW; UNION NATIONAL BANK - TRUSTEE FOR S. A. SMITH AND C. BURKE MORRIS; JOHN R. MORRIS, IN HIS OWN RIGHT AND AS ATTORNEY-IN-FACT FOR WILLIAM Y. MORRIS AND					
			VIRGINIA MORRIS, HIS WIFE; ROBERT H. MORRIS	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	314	625
		1 1	CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
		CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	wvsos		
18	CNX079187	p/o 03-005D-0040-0000	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
			DOMINION TRANSMISSION INC	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651	313
		p/o 03-005D-0041-0000	CONSOL ENERGY HOLDING LLC XVI	CONSOL GAS COMPANY	MERGER/NAME CHANGE	WVSOS	
		p/o 03-005D-0056-0000	CONSOL GAS COMPANY	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	WVSOS	
		1	CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	659	521
			CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
			NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170

WV Department of Environmental Protection

Office of Official Cas
AUG 1 9 2022



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-11H

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

Office of Oil and Cas

AUG 1 9 2022

Environmental Protection

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

Date of Notic	e Certification: 07/19/2022	API No. 47				
		Operator's We	Operator's Well No. Vaneck 1215 S-11H			
		Well Pad Nam	e: Vaneck	1215 Well Pad		
	neen given: e provisions in West Virginia Code tract of land as follows:	§ 22-6A, the Operator has provided the require	ed parties w	vith the Notice Forms listed		
State:	West Virginia	Easting: 530	9034.3			
County:	Lewis	IIIIVINAD 83	29793.0			
District:	Freemans Creek		Mare Run Road / CR 10 / 9			
Quadrangle:	Camden WV 7.5's		Vaneck			
Watershed:	Middle West Fork Creek					
information re of giving the requirements Virginia Code	equired by subsections (b) and (c), so surface owner notice of entry to su of subsection (b), section sixteen of	bed in subdivisions (1), (2) and (4), subsective tion sixteen of this article; (ii) that the requirement pursuant to subsection (a), section tends of this article were waived in writing by the tender proof of and certify to the secretary that int.	ement was of this artic surface ow	deemed satisfied as a resul- cle six-a; or (iii) the notice wner; and Pursuant to Wes		
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY	perator has attached proof to this Notice Certified parties with the following:	fication	OOG OFFICE USE ONLY		
☐ 1. NO	FICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAUSE SEISMIC ACTIVITY WAS CONDUCTED		☐ RECEIVED/ NOT REQUIRED		
■ 2. NO′	ΓΙCE OF ENTRY FOR PLAT SUR	VEY or 🗀 NO PLAT SURVEY WAS COND	DUCTED	□ received		
■ 3. NO	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or		☐ RECEIVED/ NOT REQUIRED		
		☐ WRITTEN WAIVER BY SURFACE ((PLEASE ATTACH)	OWNER			
		(FLEASE ATTACIT)				
■ 4. NO	TICE OF PLANNED OPERATION			□ received		
	TICE OF PLANNED OPERATION	OFFICE ATTACH) OFFICE		□ RECEIVED □ RECEIVED		

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.

Address:

Well Operator: HG II Appalachia, LLC

By: Diane White Diane White

Its: Agent

Telephone: 304-420-1119

5260 Dupont Road Parkersburg, WV 26101

Facsimile: 304-863-3172

Email: dwhite@hgenergyllc.com

NOTARY SFAL
OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
CASSIDY A. BOARDMAN
5301 13th Ave Vienna, WV 26105
My Commission Expires July 31, 2022

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

_Notary Public

My Commission Expires 7 31 2023

Oil and Gas Privacy Notice:

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

WW-6A (9-13)

API NO. 47		
OPERATOR WEL	L NO.	Vaneck 1215 N1H - S12H
Well Pad Name: V	aneck 12	15

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

HOHELOI	TRI DIOIRIE.
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	5/22
Notice of:	
	· ·
PERMIT FOR ANY CERTIFICATE OF APPI	· · · · · · · · · · · · · · · · · · ·
WELL WORK CONSTRUCTION OF A	N IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10((b)
☐ PERSONAL ☐ REGISTERED ☑ METHO	DD OF DELIVERY THAT REQUIRES A
	PT OR SIGNATURE CONFIRMATION
the surface of the tract on which the well is or is proposed to be local oil and gas leasehold being developed by the proposed well work, if described in the erosion and sediment control plan submitted pursual operator or lessee, in the event the tract of land on which the well promore coal seams; (4) The owners of record of the surface tract or trace well work, if the surface tract is to be used for the placement, construint impoundment or pit as described in section nine of this article; (5) A have a water well, spring or water supply source located within one to provide water for consumption by humans or domestic animals; and proposed well work activity is to take place. (c)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section expression of this article to the contrary, notice to a lien holder is not a section of the section of the section that the contrary is a section of the section of the section that the contrary is not to be maintained pursuant to section of this article to the contrary, notice to a lien holder is not a section of the section of the section that the contrary is not to be maintained pursuant to section of the section of this article to the contrary, notice to a lien holder is not a section of the sect	nt to subsection (c), section seven of this article; (3) The coal owner, oposed to be drilled is located [sic] is known to be underlain by one or cts overlying the oil and gas leasehold being developed by the proposed action, enlargement, alteration, repair, removal or abandonment of any my surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to (6) The operator of any natural gas storage field within which the tenants in common or other co-owners of interests described in t may serve the documents required upon the person described in the light, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. ovide the Well Site Safety Plan ("WSSP") to the surface owner and any
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice	
☑ SURFACE OWNER(s) * Not noticed as Surface Owner 1's also the Name:HG Energy II Appalachia, LLC (pad and road) Operator	☐ COAL OWNER OR LESSEE Name: NA Office of Oil and Cas
Address: 5260 Dupont Road	Address:AUG 1 9 2022
Parkersburg, WV 26101	
	Name: NA Wy Department of
Address:	COAL OPERATOR Name: NA Address: Convironmental Protection Environmental Protection
☐ SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name: Nancy Hayhurst	☐ SURFACE OWNER OF WATER WELL
Address: 195 Rexroad Drive	AND/OR WATER PURVEYOR(s)
Weston, WV 26452	Name: Charles Curtis Gary Stalnaker Timothy Rittenhouse
Name: Woody Lumber Company	Address: 377 Elk Lick Road 179 Elk Lick Road 1729 R Freemans Creek
Address: 201 Vicksburg Road	Weston, WV 26452 Weston, WV 26452 Weston, WV 26452
Buckhannon, WV 26201	☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits)	Name: Dominion Energy Transmission - Attn: Ronald Waldren
Name:	Address: 925 White Oaks Blvd
Address:	Bridgeport, WV 26330
•	*Please attach additional forms if necessary

WW-6A (8-13) API NO. 47-_

OPERATOR WELL NO. Vanucky 1215 NIH - 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

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WW-6A (8-13) 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 AUG 1 9 2022

tVV Department of Environmental Protection

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.

WW-6A (8-13) 47 0 4 1 0 5 7 4 1 API NO. 47-OPERATOR WELL NO. Vaneck 1215 N1H-S12H

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 1 9 2022

WW-6A (8-13)

Email:

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

304-420-1119 Telephone:

dwhite@hgenergyllc.com Diane White

5260 Dupont Road Address:

Parkersburg, WV 26101

304-863-2172 Facsimile:

Oil and Gas Privacy Notice:

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



Subscribed and swern before me this 17th day of January, 2022 Notary Public

My Commission Expires

Environmental Protection



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

Office of Office Octs

AUG 1 9 2022

TOTAL CONTROL OF THE PROTECTION

Environmental Protection



January\19, 2022

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

RE:

Vaneck 1215 N-1H - S-12H Well Work Permit Applications - Notification

Freemans Creek District, Lewis County

West Virginia

Dear Sir -

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Very truly yours,

Diane White

Diane C. White

Enclosures

AUG 1 9 2022

AUG 1 Protection



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 -

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Very truly yours,

Diane White

Diane C. White

Enclosures



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 -

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

Very truly yours,

Diane White

Diane C. White

Enclosures

AUG 1 9 2022

NAVI Department of Environmental Protection



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

Enclosures

Office of Oil and Cast

AUG 19 2022

NEW Department of Environmental Protection



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.

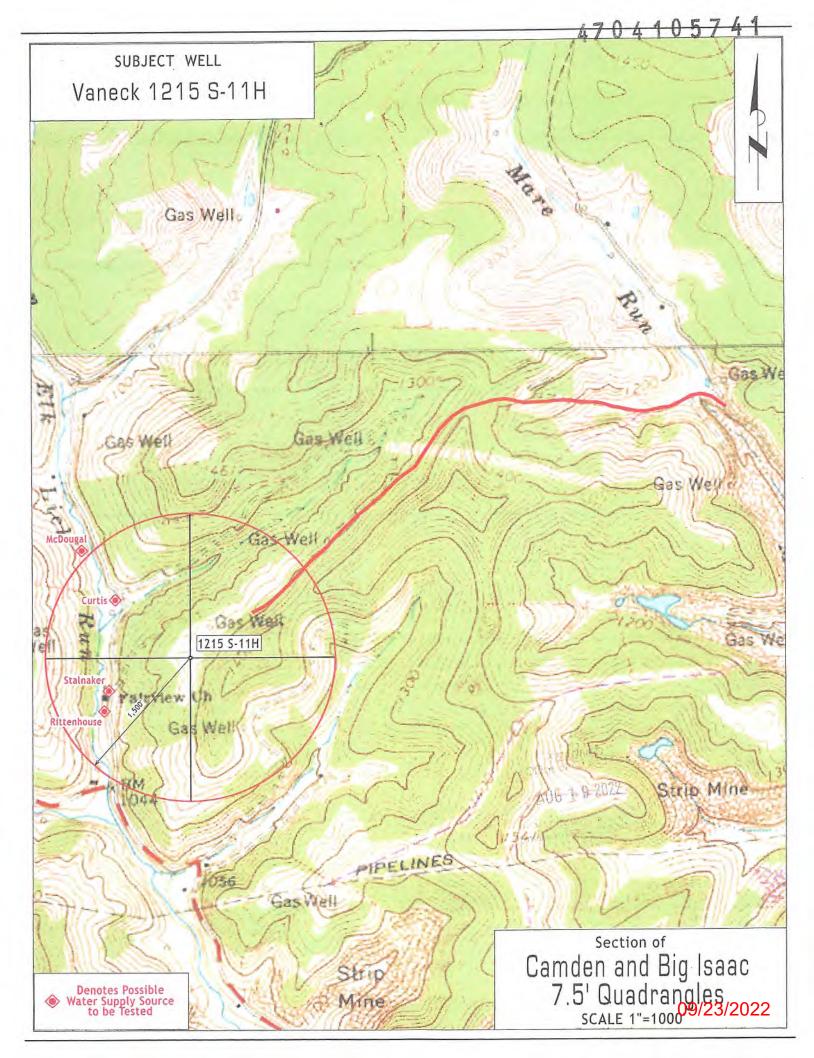
No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures



Eturm Environmental Ervices

VICTORIA L. HOOPS, PRESIDENT

COMPANY:

H.G. ENERGY, LLC.

DATE/TIME SAMPLED:

01-04-22 1550

SAMPLE ID:

GARY STALNAKER

DATE/TIME RECEIVED:

01-04-22 1654

VANECK 1215 SAMPLED BY: K. WILLIAMS

LABORATORY ID:

HG 220104-1

5 units 2 °C β μmhos N	,			01-04-22 1550	KW
β μmhos					
				01-04-22 1550	KW
3 N				01-04-22 1550	KW
				01-04-22 1550	KW
W		1		01-04-22 1550	KW
5 units	SM 22 nd 4500 H B	.1	210.	01-05-22 1426	ZT
mg/L	EPA 200.7 Rev 4.4-1994	.05	.25	01-06-22 2007	DB
mg/L	USGS I-1750-85	4	4	01-06-22 1527	MRM
5 mg/L	EPA 300.0 Rev 2.1-1993	1.0	1.0	01-07-26 0729	DC
5 mg/L	SM22 nd 5540C	.02	.04	01-05-22 2101	SW
	r.			:	
				C to section	VSD End Cas
				AUG 1	2022
				y v Depar Environmenta	nencof Protection
					AUG 1 (

*Client Provided

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

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 Dough # Bosto



VICTORIA L. HOOPS, PRESIDENT

COMPANY:

H.G. ENERGY, LLC.

DATE/TIME SAMPLED:

01-04-22 1605

SAMPLE ID:

CHARLES CURTIS

DATE/TIME RECEIVED:

01-04-22 1654

VANECK 1215 SAMPLED BY: K. WILLIAMS

LABORATORY ID:

HG 220104-2

PARAMETER	TEST RESULTS	UNITS	METHOD	METHOD DETECTION LIMIT	MINIMUM REPORTING LIMIT	DATE/TIME ANALYZED	ANALYST
FIELD pH	7.3	units				01-04-22 1605	KW
FIELD TEMP	13.5	°C				01-04-22 1605	KW
FIELD COND	584	μmhos		*		01-04-22 1605	KW
LATTITUDE	39 07 05.24	N				01-04-22 1605	KW
LONGITUDE	80 33 0353	W	:			01-04-22 1605	KW
рН О	7.1	units	SM 22 nd 4500 H B	.1	210.	01-05-22 1426	ZT
Fe	3.87	mg/L	EPA 200.7 Rev 4.4-1994	.05	.25	01-06-22 2007	DB
TDS	146	mg/L	USGS I-1750-85	4	4	01-06-22 1527	MRM
Cl-	2.70	mg/L	EPA 300.0 Rev 2.1-1993	1.0	1.0	01-07-26 0729	DC
MBAS	.03 J	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

Analyte found in reagent blank. Indicates possible reagent or background contamination. B

Estimated Reported value exceeded calibration range. E

Reported value is an estimate because concentration is less than reporting limit.

PND Precision not determined.

Sample results rejected because of gross deficiencies in QC or method performance. Re-sampling and/or re-analysis is necessary. Activation R

Recovery not determined. RND Compound was analyzed for, but not detected. U

Out of holding. Time does not meet 40 CFR 136/141 compliance. 0

This result is not supported by our certification ID. T

Does not meet 40 CFR 136/141 compliance. A

Does not meet 47 CSR 32 compliance. C

Narrative:

1

Dough H Buto

Eturm 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

6552 FAX: 304-744-7866 MAILING ADDRESSES ARE LISTED BELOW

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REPORT TO: Client Name:		10	L /	v-en	500			_		_	D1121																	Office and	3	The second
Address: City/State/Zip:			-										City			_												100	-	5
Contact Person:														ct Pei																*
Telephone Number:					Fax No.						-	Telep	hone	e Nun	nber							Fax N	lo.					2.1		
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Sampler Name: (Print)	iken	wa	Cu,	llian	2							Pur	chas	e Orc	ler#	:														
Sampler Signature:	10	.,.,-									TI	JRN A	AROL	JND T	IME		St	tand	ard									1 DAY	2 DAY	3 DAY
Project Name:	VA	Nec	.k	121	5												R	USH	(pre-s	schedu	led; surch	narges	may app	ly) Plea	se Che	ck One				1721
Special Reporting:	- Inches	Email R				Fax Res	sults										-			Date 1	Needed									
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DMS Sample ID/Description GNY Stalvaken	START DATE	START TIME	END DATE	END TIME	J-4-TI	1550	Ice	OTHER	Na ₂ S ₂ O ₃ 72/FC	NaOH	H ₂ SO ₄ Plastic	None HNO ₃	Groundwater	Wastewater Drinking Water	Sludge	Other (specify):	7 ML, 705,CI	_						W # of Bottles	Hd plais	Flow (gpm, cfs, mgd) circle one	Field Conductivity	Field DO	Field Chloring (mg/L.or.ug/L.) circle one	Field Temp (F° or c°) circle
39 06 55,33							++		H	H	+		\forall	1	+	+														
50 33 8033 04,79	-		-			1.605	-	-	+		+	11	1		+		1	1 1		Ħ				3	713		584			13.5
Charles Curtis	-			-		1.005	1		+	+		77	+	+	+	+		, ,					11	-	11/		1	+		
39 07 05,24				-		_	+	-	++	+	+	1		-	1	+	+		\vdash			+	+			1				
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Operator Well No. Vanack 1215 N-1H to 8-12H

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 prov	rided at leas	t SEVEN (7) da	ys but no more tha	n FORTY-FI	VE (45) days prior to
entry							40
Date of Notic	e: 12/29/2021	Date of Plan	nned Entry	01105/2022			
Delivery met	hod pursuant	to West Virginia C	ode § 22-6A	-10a	1		
☐ PERSO	NAL 🗆	REGISTERED	■ ME	THOD OF DE	IVERY THAT RE	QUIRES A	
SERVIC		MAIL	REC	CEIPT OR SIG	NATURE CONFIR	MATION	
on to the surfi but no more t beneath such owner of min and Sediment Secretary, wh enable the sur	nce tract to con- than forty-five of tract that has fiverals underlying Control Manusich statement services to con- face owner to con-	duct any plat surveys lays prior to such ent led a declaration pur g such tract in the co	s required p try to: (1) The suant to sect ounty tax rec and rules related information the secretary.	ursuant to this a he surface owner tion thirty-six, a cords. The notice ted to oil and ga to including the a	rticle. Such notice so or of such tract; (2) article six, chapter to be shall include a state of exploration and pandress for a web pandress for a web pandress.	shall be provid to any owner o wenty-two of t atement that co roduction may age on the Secr	
			J	-	L OWNER OR LE		
	CE OWNER(s)		Y-1				
Timerro		LC (pad, road, royalty owner)	<u>) </u>	Name:			
Address: 526	tersburg, WV 26101		-	Audiess.			
			-	0			
Address:			9	I MIN	ERAL OWNER(s)		
71dd1000.				Name:	** See Attached List		4
Name:							
Address:			_				
		14	_	*please attac	h additional forms if ne	cessary	¥
Notice is he Pursuant to W a plat survey State: County: District:	est Virginia Co	ode § 22-6A-10(a), n and as follows:	notice is here	Approx. Latit Public Road A Watershed:	ude & Longitude: Access:	operator is pla 39.117104 & 80.5/ Mare Run Road / Middle West Fork	SR 19
Quadrangle:	Camden WV 7.5'			Generally use	ed farm name:	Vaneck	
may be obtain Charleston, V	ned from the Se /V 25304 (304	cretary, at the WV I	Department of such doc	of Environments uments or addit	ıl Protection headqı ional information r	uarters, located	oration and production I at 601 57 th Street, SE, ontal drilling may be
Notice is be	reby given by	7.				4	1 1/9
Well Operato				Address:	5260 Dupont Road		
Telephone:	304-420-1119	k-man mal man	7	"weeks could	Parkersburg, WV 26101		AUG 1 9 2022
Email:	dwhite@hgenerg	vilc.com	- 1	Facsimile:	304-863-3172		
							Jaroin PoliBinial Committee
011 7.0	m	Sec.					

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



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

4704105741

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 Blairsden, 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 Darlington, MD 21034 Environmental Protect

AUG 1 9 2022

Office of oil and Cas

Alice Faye McQueen rotection 401 Winslow Drive Bel Air, MD 21015 09/23/2022

4704105741

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.

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

Delores E. Small 105 Howard St. Clarksburg, WV 26301 Pittsburg, PA 15202

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

AUG 1 9 2022

ทุกการคลบังจะกับดี ปักรถตามสถังมี Protection

WW-6A4 (1/12) Operator Well No. Vaneck 1215 N-3H to S-1211

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.

Date of Notic	Requirement: Notice ce: 12/17/2021	e shall be provided at lea Date Permit	ast TEN (10) days prior to filing a Application Filed: 01/15/2022	permit application.
Delivery me	thod pursuant to We	st Virginia Code § 22-6	5A-16(b)	
☐ HAND	■ CER	TIFIED MAIL		
DELIVI		URN RECEIPT REQUE	ESTED	
receipt reque drilling a hor of this subsection mand if available	sted or hand delivery, rizontal well: Provide etion as of the date the ay be waived in writing the, facsimile number	give the surface owner ad. That notice given put notice was provided to ag by the surface owner.	notice of its intent to enter upon the result to subsection (a), section to the surface owner: <i>Provided, how</i> . The notice, if required, shall includes of the operator and the operator.	an operator shall, by certified mail return ne surface owner's land for the purpose of an of this article satisfies the requirements wever. That the notice requirements of this ude the name, address, telephone number, or's authorized representative.
Name:	IG Energy II Appalachia, LLC		Name:	
. rudi ebb.	260 Dupont Road		Address:	
F	Parkersburg, WV 26101			
				well operator has an intent to enter upon flows:
Pursuant to V the surface of State:			nereby given that the undersigned ontal well on the tract of land as for UTM NAD 83 Easting: Northing: Public Road Access:	
Pursuant to V the surface of State: County:	wner's land for the pu West Virginia Lewis		ontal well on the tract of land as for UTM NAD 83 Easting: Northing:	llows: 539089.4 4329869.2
Pursuant to V the surface of State: County: District:	wner's land for the pu West Virginia Lewis Freemans Creek		ontal well on the tract of land as for UTM NAD 83 Public Road Access: Easting: Northing:	Hows: 539089.4 4329869.2 Mare Run Road / SR19
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho	wner's land for the pu West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic in rizontal drilling may	\$ 22-6A-16(b), this not nail address of the ope be obtained from the Se	ontal well on the tract of land as for UTM NAD 83 Public Road Access: Generally used farm name: dice shall include the name, addresser and the operator's authorize ecretary, at the WV Department of	Hows: 539089.4 4329869.2 Mare Run Road / SR19
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60	wner's land for the pure West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic rizontal drilling may 1 57th Street, SE, Char	\$ 22-6A-16(b), this not nail address of the ope be obtained from the Se	ontal well on the tract of land as for UTM NAD 83 Public Road Access: Generally used farm name: dice shall include the name, addresser and the operator's authorize ecretary, at the WV Department of	ellows: 539089.4 4329869.2 Mare Run Road / SR19 Vaneck ress, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters,
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60	wner's land for the pure West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic prizontal drilling may 1 57th Street, SE, Charactereby given by:	§ 22-6A-16(b), this not nail address of the ope be obtained from the Seleston, WV 25304 (304)	ontal well on the tract of land as for UTM NAD 83 Public Road Access: Generally used farm name: dice shall include the name, addresser and the operator's authorize ecretary, at the WV Department of	ellows: 539089.4 4329869.2 Mare Run Road / SR19 Vaneck ress, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters,
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60 Notice is he	wner's land for the pure West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic prizontal drilling may 1 57th Street, SE, Characterby given by:	§ 22-6A-16(b), this not nail address of the ope be obtained from the Seleston, WV 25304 (304)	ontal well on the tract of land as for Easting: Northing: Public Road Access: Generally used farm name: dice shall include the name, addrester and the operator's authorize ecretary, at the WV Department of 1926-0450) or by visiting www.de	ess, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60 Notice is he Well Operato	wner's land for the pure West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic prizontal drilling may 1 57th Street, SE, Charactereby given by: Or: HG Energy II Appalach	§ 22-6A-16(b), this not nail address of the ope be obtained from the Seleston, WV 25304 (304)	ontal well on the tract of land as for Easting: Northing: Public Road Access: Generally used farm name: dice shall include the name, addrator and the operator's authorized recretary, at the WV Department of 1-926-0450) or by visiting www.de	Allows: 539089.4 4329869.2 Mare Run Road / SR19 Vaneck ress, telephone number, and if available, and representative. Additional information f Environmental Protection headquarters, ap.wv.gov/oil-and-gas/pages/default.aspx. Diane White
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60 Notice is he Well Operato	wner's land for the pure West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic prizontal drilling may 1 57th Street, SE, Characterby given by: HG Energy II Appalacted S260 Dupont Road	§ 22-6A-16(b), this not nail address of the ope be obtained from the Seleston, WV 25304 (304)	ontal well on the tract of land as for Easting: Northing: Public Road Access: Generally used farm name: dice shall include the name, addrator and the operator's authorized recretary, at the WV Department of 1-926-0450) or by visiting www.de	ellows: 539089.4 4329869.2 Mare Run Road / SR19 Vaneck ress, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Diane White 5260 Dupont Road
Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to facsimile nur related to ho located at 60 Notice is he Well Operate Address:	wner's land for the pure West Virginia Lewis Freemans Creek Camden WV 7.5' Middle West Fork Creek Shall Include: West Virginia Code mber and electronic prizontal drilling may 1 57th Street, SE, Charactereby given by: Or: HG Energy II Appalact 5260 Dupont Road Parkersburg, WV 2610	§ 22-6A-16(b), this not nail address of the ope be obtained from the Seleston, WV 25304 (304)	ontal well on the tract of land as for Easting: Northing: Public Road Access: Generally used farm name: dice shall include the name, addrester and the operator's authorized recretary, at the WV Department of 1-926-0450) or by visiting www.de Authorized Representative: Address:	ellows: 539089.4 4329869.2 Mare Run Road / SR19 Vaneck ress, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Diane White 5260 Dupont Road Parkersburg, WV 26101

Oil and Gas Privacy Notice:

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



WW-6A5 (1/12) Operator Well No. Vanuek 1215 N-TH to 8-12H

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

Notice Time Date of Notic	Requirement: notice shall be provi ce: 12/21/2021 Date Per	ded no mit Ap	later than the filing plication Filed: 01/1	date of permit 5/2022	application.
Delivery met	hod pursuant to West Virginia Co	ode § 2	2-6A-16(c)		
	FIED MAIL RN RECEIPT REQUESTED		HAND DELIVERY		
return receipt the planned of required to be drilling of a damages to the (d) The notice of notice.	requested or hand delivery, give the operation. The notice required by a provided by subsection (b), section horizontal well; and (3) A propose the surface affected by oil and gas opes required by this section shall be a	e surfacthis surfaction of surfaceration given to	ce owner whose land bsection shall include this article to a surface use and compens s to the extent the date the surface owner a	I will be used for de: (1) A copy ace owner whos sation agreemen amages are com	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information see land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter. Sted in the records of the sheriff at the time
Notice is her (at the addres	eby provided to the SURFACE Of s listed in the records of the sheriff:	WNER at the ti	k(s) ime of notice):		
Name: HG	Energy II Appalachia, LLC		Name:		
Address: 526	Dupont Road		Address	S:	*
Parl	kersburg, WV 26101				
operation on State: County: District: Quadrangle:	the surface owner's land for the pur West Virginia Lewis Freemans Creek Camden WV 7.5'	rpose o	UTM NAD 8	Easting: Northing:	539089.4 4329869.2 Mare Run Road / SR 19 Vaneck
Watershed:	Middle West Fork River				
Pursuant to V to be provide horizontal we surface affect information r	ed by W. Va. Code § 22-6A-10(b) ell; and (3) A proposed surface use a ted by oil and gas operations to the related to horizontal drilling may be located at 601 57th Street, SE,	to a sand cor e extent e obtai	urface owner whose inpensation agreement the damages are conned from the Secret	e land will be unt containing are ompensable und cary, at the WV	code section; (2) The information required used in conjunction with the drilling of a noffer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting

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.

Dita = 10 1 md Ora



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

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

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

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

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-11H 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

Gary K. Clayton

Cc: Diane White

HG Energy II Appalachia, LLC

CH, OM, D-6

File

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

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

RECEIVED Office of O'l and Cas

AUG 1 9 2022

Viv Expandment of Environmental Protection



APPROVED WVDEP OOG 1/1/3/2/2022

1215 Well Site

Site Design, Construction Plan, & Erosion and Sediment Control Plans HG Energy LLC Lewis County Freemans Creek District Latitude 39.11678083° Longitude -80.54815578°

eparanent of lental Protection 5 AUG

Pertinent Site Information 1215 Well Site

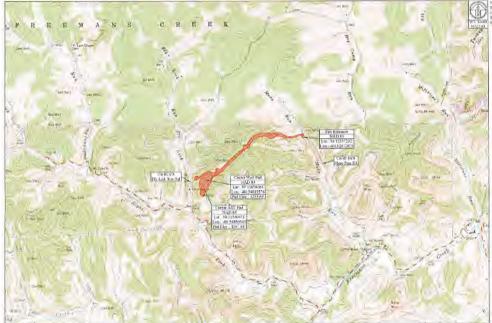
Emergency Number: 304-269-8243 Freemans Creek District, Lewis County, WV Watershed: Middle West Fork River Watershed Site 911 Address:

HG Energy Contact Number: 304-420-1100

	Property	Owner I	nformati	on - 1215 V	ell Site		
	Fre	emans Cre	ak District	- Leets Costs	D.		
Orto	TSI+Purel	Well Pad	A37 158	Accus Read	Toystal Excest	All Owning	Total Distr
HG Energy II Appolacion LLC	90'432	0.00	0.00	3.33	17.86	4.22	837
Names Dayberra ELAL	50-31	1930	1/00	0.88	0.00	1.12	2.05
Woody Lamber Co	505-10	0,00	0.00	150	0.30	5.35	10.58
103 Pagery J Arvolating LLC	5000	1.30	1.10	1.20	1.66	FIL	18.08
Ho Enemy II Appolacina LDC	VC-27 L	120	0.16	0.00	0.00	1.64	2.40
	Sou Torola IA e	8.50	1.7%	1 40	265	1885	1 -4211

Exhibit A: Final Design: Issue for Permitting

Middle West Fork River Watershed



	Acress l	oad	
Surface Owner	TM-Percel	Read Lyngth	Type
107 Interney II Armsleckin LTC	5C-32		New Agoese Road Communica
Novey Hasterry Ft Al	5031	435.76	New America Read Construction
Woods Limiter Co	5(54)	2,623.28	New Agrees Rand Construction
FEI BIANG II Appointin LUC	3020	1,083,88	New Arrest Read Construction

Disturbed Area	
Well Hel Compaction	85% As
AST Ped Consequence	28 At
Acres Road Construction	30.7
Topoul Excess Starmal	CAL A
	18 65 3
Total Distribed Area	44.11A
Additional Informat	ion
Total Woodel Acres Disturred	
Tired Laneau Feet of Arraso Kree.	6,417."

	121	5 Well Site	· Quantitie	es .		
Describes	De CO	EMP (627.2)	Special (Car)	Banney (CY)	Marc Slope	Length of Sky
WALLSTE	53.679.20	40,533,20	13,506.00		NA	NA
AST Fed	3,723.02	4,223.55	1.503.05		NIA	NA.
Well 2nd Agrees Read	33,919,03	92,138,41	1.380 SP	823.04	34 2%	1460.75
ANT Ped Access Road	0.09	738 16	-	739,16	12.00%	31832
Trendil Excess Missensi Strockrala	1.87	30,500.02		50,409.01	NA	7474
Totals	99,321,45	105.061 98	16,485.63	31,247.16		
	Total Speed C	1213	-14.760,53	1 Exp	est Specializes	waty)

Street and Impact Comm	thisestile	Structures Fill (LF)	Store Policity	to LOD (LF)	(LF)
Welmonene W LAcores Rooft	51	10	-	5.02	99.00
Waterpourse I. (Appear Road	- 29	10		2.45	40.45
Watrigutine T (Well Pod)	-		121.11	5,58	120.15
Waserprograf Y (Wall Pad)			14.15	17.24	31.39

Wednest Q	Wetland report (System)	Fit (3F)	to Lop (SF)	Total Imp
(Arcan Rout) 207.5 962.5 I.		189.6	15902	1,776
		207.5	962.5	1,150
		-177	973.9	5480
Wetherd Z. (Topical Specifies) 110.9 0 1	Wetland & (Topsed Stockyde)	210.9	0	110 0



THIS DOCUMENT PREPARED FOR HG ENERGY LLC



1215 Well Site

From 1-79 mars Jame Lew, WY. Travelling North on 1-79, take Exist 99 wowth Jame Low. Turn Left mate Cris 87 (Histoker Creds, Ed.), Edwice Cris 21 West for 6 9 m.; Turn Left mate Cris 82 14 South. Follow US 87: 19 South For 4.5° m.; Turn Eight conto Cris 12 Left-down Mill 160), Hollow Cris 12 for 4.0° m.; Turn Left anto Cris 11 God Mill 240. Follow Cris 12 for 4.0° m.; Turn Left anto Cris 11 God Mill 240. Follow Cris 12 for 4.0° m.; Turn Left anto Cris 11 God Mill 240. Follow Cris 12 for 10 m.; Turn Left anto Cris 11 (10) 40. Hollow Cris 12 for 10 m.; Turn Left anto Cris 11 (10) 40. Hollow Cris 11 (1

HG Energy LLC will obtain an Encroselment Permit (Form MM-109) from the WV Department of Transportation, Division of Highways.

activities are not within the AOL

Floodalain Conditions



USGS 7.5' Quadrangle: Camden Watershed: Middle West Fork Rive



Description
Cover Sheet
Schedule of Quantities
Sike Netes
Pro-Constitution Site Conditions
Site Said May
Good State Said May
Good State Said May
Good State Said May
Good Said Said May
Good Said Said May
Good Said Said Said
Cover Said Said
Cover Said
Land S

V1 N1-N4



0

HG Swegy LLC Survey and Engineer June Bergle - Construction Manager

Kenneth Kelly 104-118-698-018 Zickny Semietold 104-328-6187 Cff.

HG Faergy, LLA

0

doed Deimestron as provi dued January 12, 2001 Tapagraphic Information:

MISS UTILITY OF WEST VIRGINIA 1-800-245-4848

Know what's below. Call before you dig.

WVDEP Website files show that there are ctive and/or ahandoned gas wells within the AOI

