



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

Monday, January 5, 2026
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for GUM 1217 S-5H
47-041-05783-00-00

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.


H. Jason Harmon
Acting Chief

Operator's Well Number: GUM 1217 S-5H
Farm Name: GARNETT A. GUM
U.S. WELL NUMBER: 47-041-05783-00-00
Horizontal 6A New Drill
Date Issued: 1/5/2026

Promoting a healthy environment.

01/09/2026

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. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

01/09/2026

WW-6B
(04/15)

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DEC 01 2025

WV Department of
Environmental Protection

STATE OF WEST VIRGINIA

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

4704105783
API NO. 47- -
OPERATOR WELL NO. Gum 1217 S-5H ✓
Well Pad Name: Gum 1217

- 1) Well Operator: HG Energy II Appalachia, LLC 494519932 Lewis Freeman Camden 7.5'
Operator ID County District Quadrangle
- 2) Operator's Well Number: Gum 1217 S-5H ✓ Well Pad Name: Gum 1217
- 3) Farm Name/Surface Owner: HG Energy II Appalachia, LLC Public Road Access: CR 10 @ SR 16
- 4) Elevation, current ground: 1180' Elevation, proposed post-construction: 1162'
- 5) Well Type (a) Gas x Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow x Deep _____
Horizontal x _____
- 6) Existing Pad: Yes or No No
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 6870' / 6934' and 64' in thickness. Anticipated pressure at 4314#.
- 8) Proposed Total Vertical Depth: 6,900' ✓
- 9) Formation at Total Vertical Depth: Marcellus ✓
- 10) Proposed Total Measured Depth: 30,233' ✓
- 11) Proposed Horizontal Leg Length: 21,797' ✓
- 12) Approximate Fresh Water Strata Depths: 214', 600', 861', 1132' ✓
- 13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-04767, 5758)
- 14) Approximate Saltwater Depths: 1372, 1605' (Vanek 1215, 47-041-05062) ✓
- 15) Approximate Coal Seam Depths: 704', 865', 1214', 1285' (Surface casing is being extended to cover the coal in the DTI Field)
- 16) Approximate Depth to Possible Void (coal mine, karst, other): None
- 17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X
- (a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

4704105783

WW-6B
(04/15)

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WV Department of
Environmental Protection

API NO. 47- _____
OPERATOR WELL NO. Gum 1217 S-5H
Well Pad Name: Gum 1217

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'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1150'	1150'	40% Excess, CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2260'	2260'	40% Excess, CTS
Intermediate 2	9 5/8"	NEW	N/L-80 BTC	40	7900'	7900'	40% Excess Tail, CTS
Production	5 1/2"	NEW	P-110 HP	23	30233'	30233'	20% Excess Tail, CTS
Tubing							
Liners							

Kenneth
Greynolds

Digitally signed by Kenneth Greynolds
DN: CN = Kenneth Greynolds email = Kenneth.
L Greynolds@wv.gov C = AD O = WVDEP OU
= Oil and Gas
Date: 2025.11.17 10:54:34 -0500

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	Lead 40% excess, Tail 0% excess
Production	5 1/2"	8 1/2"	.415	16240		Type 1/Class A	20% excess yield = 1.19, tail yield 1.51
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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4704105783
API NO. 47- -
OPERATOR WELL NO. Gum 1217 S-5H
Well Pad Name: Gum 1217

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 6900'. Drill horizontal leg to estimated 21,797' lateral length, 30,233' 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): 30.31 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.74 acres

23) Describe centralizer placement for each casing string:

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

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

Conductor - N/A, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water/Coal - ~15.6 ppg PNE-1 + 3% bwoc CaCl40% Excess/Yield=1.20 / CTS
Intermediate 1 - **** 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 VSWOB Anti Foam / D202 - 0.15% BWOB Dispersant / D055 1.5 lb per BBL CemNET* - 60% Excess/15.9 ppg Tail - Yield 1.17 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)B160A - 0.15% BWOB Dispersant / B547 - 0.35% BWOB GasBLOK* / D013 - 0.3% BWOB Retarder / D047 - 0.02 gal / sack Anti Foam / D801 - 0.03 gal / sack Retarder - 0% Excess
Intermediate 2 - *Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess: CTS
Production - *Lead: 14.5 ppg POZ-PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% Excess/Lead Yield=1.19Tail Yield=1.94CTS

25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

PROPOSAL TO DRILL WITHIN BHE GAS TRANSMISSION & STORAGE FIELD

FIELD/ZONES: BHE - FINK/KENNEDY/LOST CREEK -GANTZ SAND

WELL NAME: Gum 1217 N-4H

Well # Gum 1217 N-4H

DISTRICT/COUNTY/STATE: Freemans Creek/ Lewis / WV

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Office of Oil and Gas

DEC 01 2025

WV Department of
Environmental Protection


Submitted


JOSH HINTON
HG ENERGY II Appalachia, LLC

DATE

12/17/2024

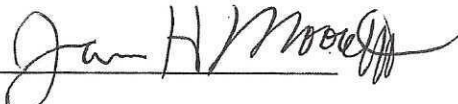
Approved


MATTHEW GORALCZYK
BHE GT&S

DATE

12/17/2024

Approved


BHE GT&S

DATE

12/17/2024

Comments:

HG Energy II Appalachia, LLC, has submitted this Casing & Cementing diagram and Drilling Plan to Berkshire Hathaway Energy for review. This signed document acknowledges that BHE has reviewed the proposed casing program and the well's location within the Fink/Kennedy/Lost Creek storage field. This acknowledgement also confirms the proposed casing program is accurate to the proper storage zone as provided by HG Energy II Appalachia, LLC

DEC 01 2025

HG Energy II Appalachia, LLC
Gum 1217 Well Pad (N-1H to S-7H)
Cement Additives

WV Department of
Environmental Protection

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Portland cement</td><td>90 - 100</td><td>65997-15-1</td></tr><tr><td>Calcium oxide</td><td>1 - 5</td><td>1305-78-8</td></tr><tr><td>Magnesium oxide</td><td>1 - 5</td><td>1309-48-4</td></tr><tr><td>Crystalline silica: Quartz (SiO2)</td><td>0.1 - 1</td><td>14808-60-7</td></tr></table>	Ingredient name	%	CAS number	Portland cement	90 - 100	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
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Magnesium oxide	1 - 5	1309-48-4																			
Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7																			
Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>bentonite</td><td>90 - 100</td><td>1302-78-9</td></tr><tr><td>Crystalline silica: Quartz (SiO2)</td><td>5 - 10</td><td>14808-60-7</td></tr></table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
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			bentonite	90 - 100	1302-78-9																
			Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																
Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Calcium chloride</td><td>90 - 100</td><td>10043-52-4</td></tr></table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
			Ingredient name	%	CAS number																
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			Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>No hazardous ingredient</td><td></td><td></td></tr></table>	Ingredient name	%	CAS number	No hazardous ingredient											
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FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.				<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Tributyl phosphate</td><td>90 - 100</td><td>126-73-8</td></tr></table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8									
			Ingredient name	%	CAS number																
			Tributyl phosphate	90 - 100	126-73-8																
			Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Sucrose</td><td>90 - 100</td><td>57-50-1</td></tr></table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1									
Ingredient name	%	CAS number																			
Sucrose	90 - 100	57-50-1																			
EC-1		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.				<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Calcium magnesium oxide</td><td>90 - 100</td><td>37247-91-9</td></tr></table>	Ingredient name	%	CAS number	Calcium magnesium oxide	90 - 100	37247-91-9									
			Ingredient name	%	CAS number																
			Calcium magnesium oxide	90 - 100	37247-91-9																
			MPA-170	Gas Migration	A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Crystalline silica: Quartz (SiO2)</td><td>5 - 10</td><td>14808-60-7</td></tr><tr><td>Calcium oxide</td><td>1 - 5</td><td>1305-78-8</td></tr></table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8						
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Calcium oxide	1 - 5	1305-78-8																			
Poz (Fly Ash)	Base	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>Organic acid salt</td><td>40 - 50</td><td>Trade secret.</td></tr></table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
			Ingredient name	%	CAS number																
			Organic acid salt	40 - 50	Trade secret.																
			R-3	Retarder	Used to water wet casing and formation to facilitate cement bonding.	<table><tr><th>Ingredient name</th><th>%</th><th>CAS number</th></tr><tr><td>2-Butoxyethanol</td><td>20 - 30</td><td>111-76-2</td></tr><tr><td>Proprietary surfactant</td><td>10 - 20</td><td>Trade secret.</td></tr><tr><td>D-Glucopyranose, oligomeric, C10-16-alkyl glycosides</td><td>5 - 10</td><td>110615-47-9</td></tr><tr><td>Alkylarylsulfonate amine salt</td><td>1 - 5</td><td>Trade secret.</td></tr><tr><td>Polyoxyalkylenes</td><td>0.1 - 1</td><td>Trade secret.</td></tr></table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.
Ingredient name	%	CAS number																			
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Alkylarylsulfonate amine salt	1 - 5	Trade secret.																			
Polyoxyalkylenes	0.1 - 1	Trade secret.																			
S-5	Surfactant																				

01/09/2026

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

15.4 ppg Lead - Yield 1.24 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
 B348 - 0.5% BWOB Fluid Loss / D013 - 0.75% BWOB Retarder / D47 - 0.02 gal / sack VBWOB Anti Foam / D202 - 0.15% BWOB
 Dispersant / D095 1.5 lb per BBL CemNET* - 60% Excess
 15.9 ppg Tail - Yield 1.17 - D896 Surface Set 100 lb / sack (Mix of Class A and Gypsum to meet Dominion Requirements)
 B160A - 0.15% BWOB Dispersant / B547 - 0.35% BWOB GasBLOK* / D013 - 0.3% BWOB Retarder / D047 - 0.02 gal / sack Anti Foam /
 D801 - 0.03 gal / sack Retarder - 0% Excess

1217 S-5H
 Marcellus Shale Horizontal
 Lewis County, WV



				1217 S-5H SHL				14198978.11N 1759179.96E						
Ground Elevation		1187'		1217 S-5H LP				14196893.72N 1756628.09E						
Azm		160.712°		1217 S-5H BHL				14176348.12N 1763871.21E						
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS				
	30"	30" 157.5# LS	Conductor	0	120	AIR	N/A, Casing to be drilled in w/ Dual Rotary Rig	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness				
	26"	20" 94# J-55	Coal	506, 747, 1047		AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi				
			Fresh Water Protection	0	1150									
			Little Lime	1707	1727									
	17.5"	13-3/8" 68# J-55 BTC	Big Lime	1752	1832	AIR / KCL Salt Polymer	See above (LEFT) for Storage String Cement Blend to Meet DTI Requirements for Gas Storage Field Isolation	Bow Spring on every joint *will also be running ACP for isolating storage zone*	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi				
			Injun / Gantz (Storage)	1832 / 2102	1917 / 2160									
			Intermediate 1	0	2260									
			Thirty Foot	2306	2321									
	12.25"	9-5/8" 40# N / L-80 BTC & GBOD	Gordon	2382	2457	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 9" long joint to the top of the curve.	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=5750 psi Note: Actual centralizer schedules may be changed due to hole conditions				
			5th Sand	2607	2632									
			Bayard	2672	2687									
			Speechley	3305	3321									
			Benson	4635	4675									
			Alexander / Elk	5145 / 5300	5214 / 5475									
			Rhinestreet	6103	6338									
			Cashaqua / W. River	6338 / 6609	6531 / 6691									
			Burkett	6691	6723									
			Tully Limestone	6723	6800									
	8.5" Curve	5-1/2" 23# P-110 HP TXP / W461	Intermediate 2	0	TVD: 6800' MD: 7900' Inc: 65 deg.	11.5ppg-12.5ppg SOBM	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note: Actual centralizer schedules may be changed due to hole conditions				
	8.5" Lateral		Hamilton	6800	6870	11.5ppg-12.5ppg SOBM								
Marcellus			6870	6934										
TMD / TVD (Production)			30233	6900										
			Onondaga	6934										
LP @ 6900' TVD / 8436' MD				8.5" Hole - Cemented Long String 5-1/2" 23# P-110 HP TXP / W461				+/-21797' ft Lateral			TD @ +/-6900' TVD +/-30233' MD			

LP @ 6900' TVD / 8436' MD

8.5" Hole - Cemented Long String
 5-1/2" 23# P-110 HP TXP / W461

+/-21797' ft Lateral

TD @ +/-6900' TVD
 +/-30233' MD

X=centralizers

RECEIVED
 Office of Oil and Gas
 DEC 01 2025
 WV Department of Environmental Protection

4704105783

4704105783

WW-9
(4/16)

API Number 47 - _____
Operator's Well No. Gum 1217 S-5H

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

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Office of Oil and Gas

DEC 01 2025

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907 WV Department of Environmental Protection

Watershed (HUC 10) Fink Creek Quadrangle Camden 7.5'

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

Will a pit be used? Yes ☐ No ☒

If so, please describe anticipated pit waste: NA

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

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

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

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

-Landfill or offsite name/permit number? See Attached

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

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

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

Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 14th day of November, 20 25

Melinda K Haddox

My commission expires December 24, 2027

Notary Public



OFFICIAL SEAL
Melinda K Haddox
Notary Public
State of West Virginia
My Commission Expires
12/24/2027
327 OAKDALE AVE
MINERAL WELLS WV 26150

Form WW-9

Operator's Well No. Gum 1217 S-5HHG Energy II Appalachia, LLCProposed Revegetation Treatment: Acres Disturbed 30.31 Prevegetation pH _____Lime 3 Tons/acre or to correct to pH 6.5Fertilizer type 10-20-20Fertilizer amount 500 lbs/acreMulch Hay 2 Tons/acreRECEIVED
Office of Oil and Gas

DEC 01 2025

WV Department of
Environmental ProtectionSeed MixturesTemporaryPermanent

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Maintain E&S controls through the drilling and completion process

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Kenneth Greynolds

Digitally signed by: Kenneth Greynolds
DN: cn = Kenneth Greynolds email = Kenneth.L.
Greynolds@wv.gov c = AD O = WVDEP OU = Oil and Gas
Date: 2025.11.17 10:58:15 -0500

Plan Approved by: _____

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

Date: _____

Field Reviewed? () Yes () No

01/09/2026

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4704105773

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JAN 20 2025
WV Department of
Environmental Protection

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WV Department of
Environmental Protection

HG Energy II Appalachia, LLC

Site Safety Plan

**Gum 1217 Well Pad
2686 Freemans Creek Road, Camden
Lewis County, WV 26338**

November 2024: Version 1

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

HG Energy II Appalachia, LLC

5260 Dupont Road

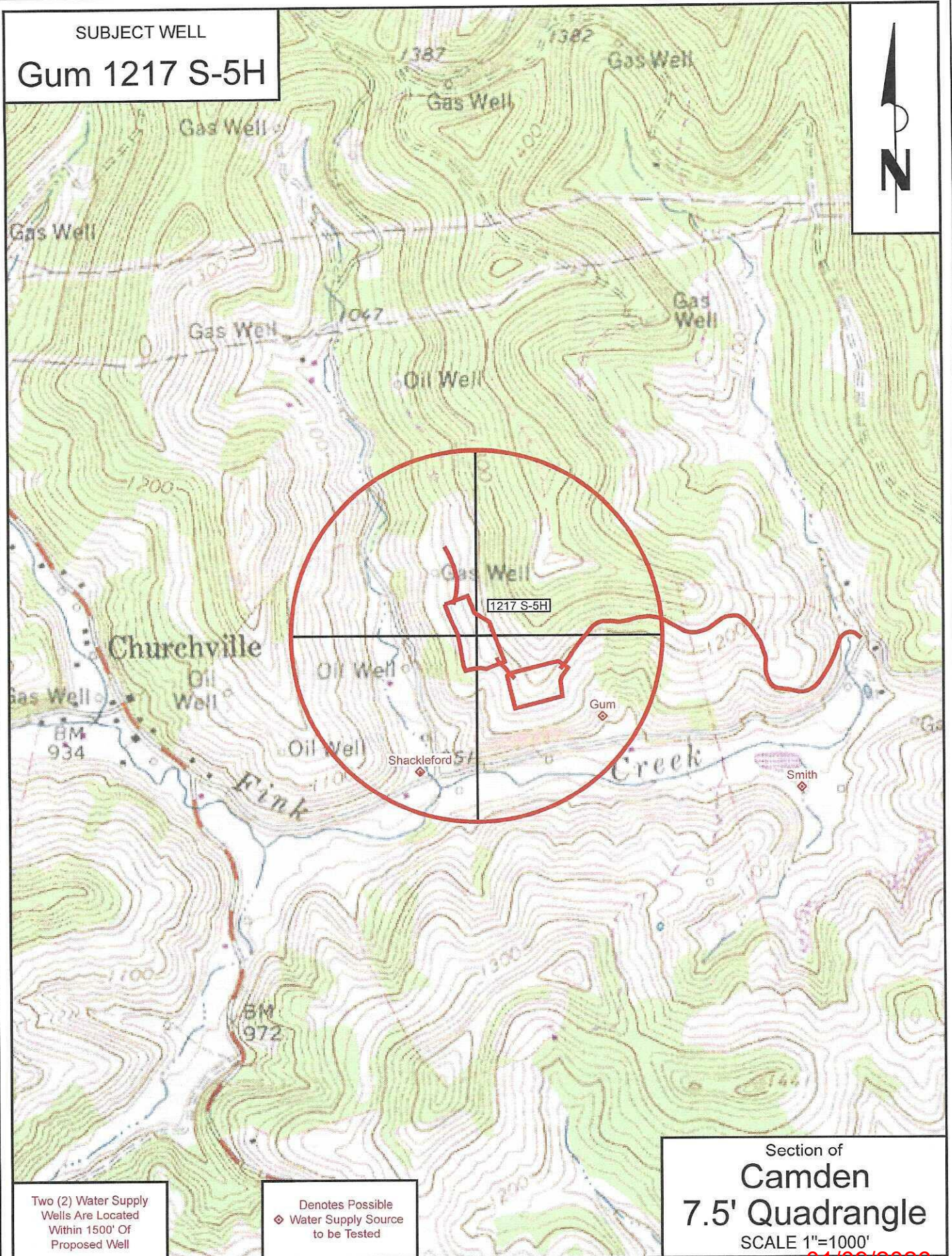
Parkersburg, WV 26101

Kenneth Greynolds
Supervisory Assistant to Director
Office of Oil and Gas
West Virginia Department of Environmental Protection
Date: 2/26/25 10:11 AM

01/09/2026

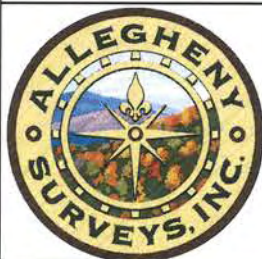
SUBJECT WELL

Gum 1217 S-5H

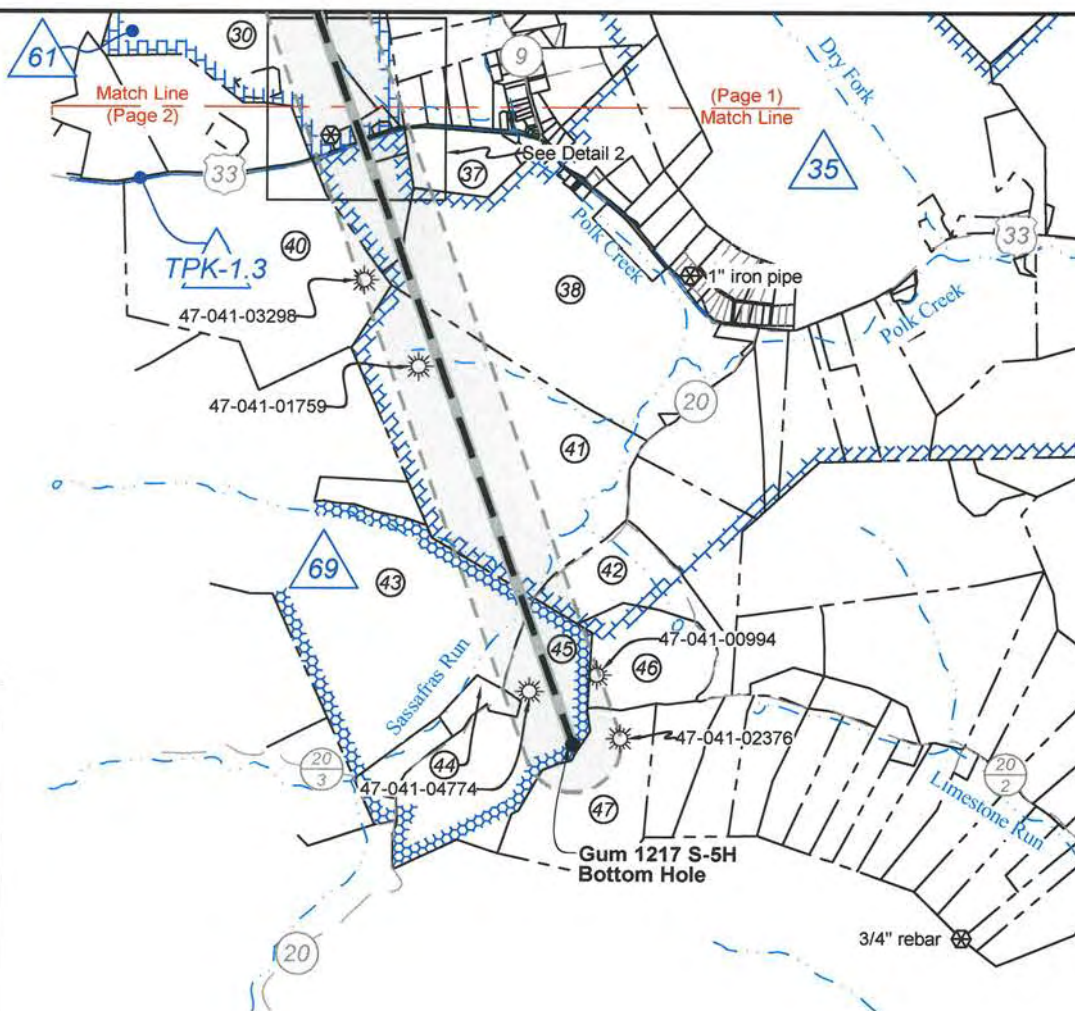


01/09/2026

6,900' TVD
30,233' MD



Page 2 of 3



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.)

Tag	Bearing	Dist.	Description
L1	S 20°37' W	1,496.7'	4x8x12 planted stone (chisel mark)
L2	N 69°46' W	1,266.8'	47-041-01748
L3	N 05°17' E	842.2'	47-041-04048
L4	S 30°55' E	752.2'	47-041-02294
L5	S 50°45' W	3,295.0'	Landing Point

West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.

Notes: Well No. Gum 1217 S-5H
WVCS 1927, North Zone
Top Hole Coordinates
Lat: 39°05'56.43"
Lon: 80°34'53.60"
Landing Point Coordinates
Lat: 39°05'35.93"
Lon: 80°35'26.10"
Bottom Hole Coordinates
Lat: 39°02'12.45"
Lon: 80°33'55.45"

UTM Zone 17, NAD 1983

Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

Notes: Well No. Gum 1217 S-5H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,198,978.11'
E: 1,759,179.96'
Landing Point Coordinates
N: 14,196,893.72'
E: 1,756,628.09'
Bottom Hole Coordinates
N: 14,176,348.12'
E: 1,763,871.21'

Notes: Well No. Gum 1217 S-5H
UTM NAD 1983 (Meters)
Top Hole Coordinates
N: 4,327,857.184m
E: 536,199.124m
Landing Point Coordinates
N: 4,327,221.860m
E: 535,421.313m
Bottom Hole Coordinates
N: 4,320,959.549m
E: 537,629.020m

FILE NO: 100-12-FC-21

DRAWING NO: Gum 1217 S-5H Well Plat

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: December 17 20 25

OPERATOR'S WELL NO. Gum 1217 S-5H

API WELL NO

47 — 041 — 05783
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,162.0' WATERSHED: Fink Creek

DISTRICT: Freemans Creek

SURFACE OWNER: Garnett A. Gum

ROYALTY OWNER: Joseph Gum, et al

LEASE NO: ACREAGE: 305.49

QUADRANGLE: Camden

COUNTY: 01/09/2026

ACREAGE: 101.00

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

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,900' TVD 30,233' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

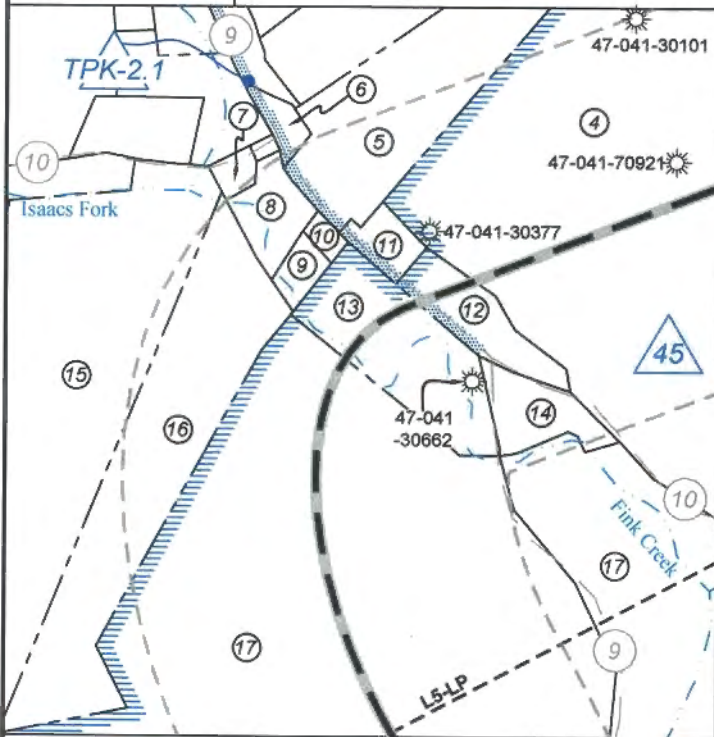
ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

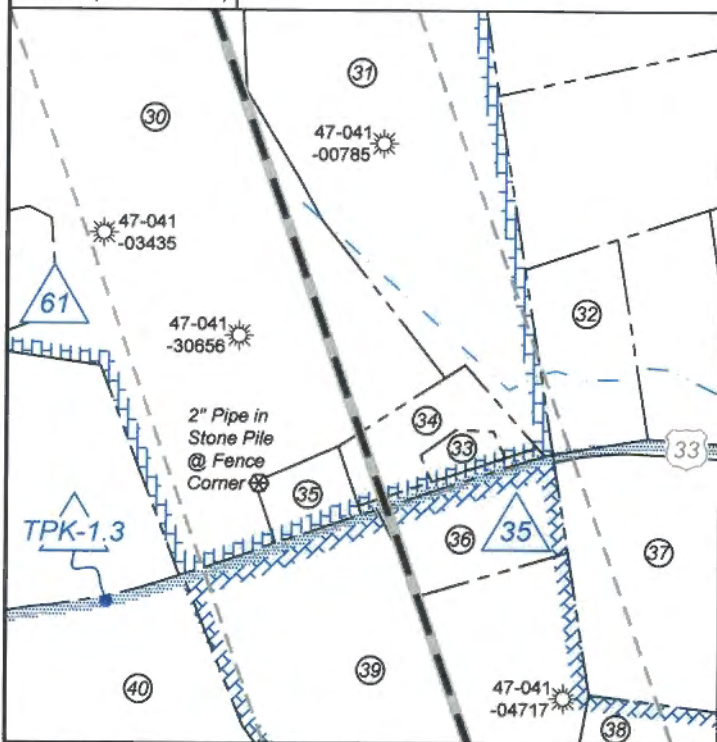
Parkersburg, WV 26101



Detail 1 (Scale 1"=500')



Detail 2 (Scale 1"=500')



ID	Lease
6	Joseph Gum & Margaret Gum, his wife, et al
7	A.P. White & E.L. White, his wife
10	Roscoe V. Holden & Pauline Holden, his wife
11	Michael Eachus, single
12	P.E. Fetty & Lummie Fetty, his wife
35	S.D. Camden & Flora Camden
45	Ira P. Simmons & Adaline Simmons, his wife
61	Fred E. Beachy & Daisy D. Beachy, his wife
65	William H. Lively, Jr.
66	A.A. Rohrbough, et ux
69	David A. Cunningham, et al
TPK-1.3	WVDOH
TPK-2.1	WVDOH
TPK-2.2	WVDOH

Lewis Co. (Freemans Creek Dist.)				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	4D / 43	Garnett A. Gum	W11 / 74	101.00
2	4D / 43.1	Jesse & Amber Shackelford	670 / 280	46.00
3	4D / 43.2	William L. & Martha S. Gum	385 / 534	12.00
4	4D / 41.2	William L. & Martha S. Gum	385 / 538	44.70
5	4D / 36	William L. & Martha S. Gum	371 / 506	5.25
6	4D / 37	Churchville United Methodist Church	- / -	0.34
7	4D / 22	Wilma M. Teague, et al	378 / 279	0.24
8	4D / 23	HG Energy II Appalachia, LLC	812 / 12	1.00
9	4D / 24	Thomas J. Maisey	F30 / 826	0.40
10	4D / 65	Baptist Church of Churchville	440 / 588	0.18
11	4D / 41.1	Churchville Baptist Church	562 / 122	0.54
12	4D / 41	William L. & Martha S. Gum	484 / 181	1.20
13	4D / 25	William L. & Martha S. Gum	484 / 181	2.60
14	4D / 34	William L. & Martha S. Gum	355 / 91	1.10
15	4D / 26	David & Korrene Woofter	444 / 324	14.37
16	4D / 26.2	Sue E. & David M. Woofter, II	767 / 220	7.09
17	4D / 27	John A. Cole	W13 / 628	204.30
18	4D / 33	James D. & Avanel Metzgar	710 / 200	67.20
19	4D / 32.1	Chera Smith	617 / 403	2.55
20	4D / 32.2	John A. & Stachie M. Cole	597 / 617	41.98
21	4D / 30	Samuel L. Garrett	436 / 76	30.00
22	4D / 66	Samuel L. & Kathy J. Garrett	511 / 674	12.32
23	4E / 19	Charles J. Miller	505 / 697	397.73
24	4E / 5.1	Linda Kirby	569 / 810	590.59
25	4E / 23	Diane L. Walker, et al	W23 / 693	31.00
26	4E / 18	Laretta D. Walker, et al	601 / 76	46.75
27	4E / 24	Lee Ann & John A. Cole, Jr.	557 / 595	165.04
28	4E / 16	Daniel C. & Nancy E. Conkling	W20 / 223	19.50
29	4E / 14	John J. & Nancy L. Sargent	629 / 757	45.58
30	4F / 25.1	John J. & Nancy L. Sargent	629 / 757	74.91
31	4F / 25	Dannie J. Gum	536 / 548	15.46
32	4F / 30	Robert L. Pope	681 / 602	2.75
33	4F / 24	Dannie J. Gum	536 / 548	0.42
34	4F / 24.1	Dannie J. Gum	536 / 548	1.90
35	4F / 23	Wahneta Lattea, et al	781 / 768	0.95
36	4F / 22.1	Mark & Katherine White	570 / 631	2.29
37	4F / 34.2	Robert L. Pope	681 / 602	15.82
38	4F / 36	Samuel L. Garrett	502 / 510	132.03
39	4F / 22	David R. Lamb	682 / 175	19.61
40	4F / 21	Bernadette H. Law	W4 / 607	99.00
41	4F / 37	William R. Pratt	W52 / 329	119.00
42	5F / 10.1	Kenneth L. Nicholas, Jr.	606 / 547	27.86
43	4F / 9	Phillip Renzelli, Jr.	510 / 634	293.58
44	4F / 38.2	Charles G. & Veronica S. Cunningham	467 / 625	3.89
45	4F / 38	David A. Cunningham	556 / 586	73.42
46	5F / 10	Catherine J. Nicholas-Farley	606 / 552	27.86
47	4G / 16	David A. Cunningham	556 / 586	47.50

FILE NO: 100-12-FC-21

DRAWING NO: Gum 1217 S-5H Well Plat

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: December 17 20 25

OPERATOR'S WELL NO. Gum 1217 S-5H

API WELL NO

47 - 041 - 05783
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,162.0' WATERSHED: Fink Creek

DISTRICT: Freemans Creek

SURFACE OWNER: Garnett A. Gum

ROYALTY OWNER: Joseph Gum, et al

LEASE NO:

QUADRANGLE: Camden

COUNTY: 01/00/2026

ACREAGE: 101.00

ACREAGE: 305.49

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

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,900' TVD 30,233' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road

ADDRESS: 5260 Dupont Road

Parkersburg, WV 26101

Parkersburg, WV 26101

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****

~~Co-Tenancy utilization - At least 75% of the royalty owners have consented to the lawful use or development of the natural gas mineral property on the tract. The interests of the remaining co-tenants will be secured pursuant to the Co-Tenancy Act~~
~~Horizontal Well Unit Utilization - Subject to unitization filing with the WV Oil and Gas Conservation Commission~~

**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

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: Agent

HG Energy II Appalachia, LLC
Gum 1217 S-5H Lease Chain

4704105783

1217S Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
6	FK014331	03-004D-0042-0000 03-004D-0042-0001 03-004D-0043-0001 03-004D-0043-0002	Q100421000	JOSEPH GUM AND MARGARET GUM, HIS WIFE; A. F. GUM AND M. L. GUM, HIS WIFE; AND MARY SIMMONS AND LOIS SIMMONS	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	68	209
				HOPE CONSTRUCTION & REFINING COMPANY	HOPE NATURAL GAS COMPANY	MERGER/NAME CHANGE	169	2
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
7	CNX053240 CNXD011656	03-004E-0019-0000 03-004E-0019-0002 thru 03-004E-0019-0016 03-004D-0030-0000 03-004D-0066-0000 03-004E-0028-0000		A. P. WHITE AND E. L. WHITE, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	274
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651	318
				CONSOL ENERGY HOLDINGS LLC XVI	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	9	471
				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
10	MBM-8	03-004E-0017-0000 03-004E-0018-0000 03-004E-0018-0001 p/o 03-004E-0023-0000	MBM-8	ROSCOE V. HOLDEN AND PAULINE HOLDEN, HIS WIFE	EDWARD MULLOOLY	NOT LESS THAN 1/8	567	295
				EDWARD MULLOOLY	PETROLEUM RESOURCES INC	ASSIGNMENT	572	485
				PETROLEUM RESOURCES INC	MBM INTERESTS INC	ASSIGNMENT	611	910
				MBM INTERESTS INC	HG ENERGY II APPALACHIA, LLC	PARTIAL TERM ASSIGNMENT	795	159
11	MBM-5	03-004E-0024-0000 03-004E-0024-0001 03-004E-0024-0002	MBM-5	MICHAEL EACHUS, SINGLE	EDWARD MULLOOLY	NOT LESS THAN 1/8	567	333
				FRANK HINZMAN & PATRICIA HINZMAN, HIS WIFE	EDWARD MULLOOLY	NOT LESS THAN 1/8	567	419
				WILMA LOUISA MCCLUNG, WIDOW	EDWARD MULLOOLY	NOT LESS THAN 1/8	567	545
				LOUISA STEINBECK, WIDOW	EDWARD MULLOOLY	NOT LESS THAN 1/8	568	8
				ROBERT P. HECKERT & JOYCE HECKERT, HIS WIFE	EDWARD MULLOOLY	NOT LESS THAN 1/8	570	289
				NAN HALL, WIDOW BY MARY CONNOLE, HER ATTORNEY-IN-FACT	EDWARD MULLOOLY	NOT LESS THAN 1/8	571	63
				ALVIN E. HALL, BY DOUGH HALL, HIS ATTORNEY-IN-FACT, AND SUE HALL, HIS WIFE				
				EDWARD MULLOOLY	EDWARD MULLOOLY	NOT LESS THAN 1/8	572	187
				PETROLEUM RESOURCES INC	PETROLEUM RESOURCES INC	ASSIGNMENT	572	485
				PETROLEUM RESOURCES INC	MBM INTERESTS INC	ASSIGNMENT	611	910
				MBM INTERESTS INC	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	795	159
		03-004E-0014-0000 03-004E-0016-0000 03-004E-0025-0000 03-004E-0025-0001 03-004E-0027-0000 03-004F-0026-0000		P. E. FETTY AND LUMMIE FETTY, HIS WIFE	THE SOUTHERN OIL COMPANY	NOT LESS THAN 1/8	40	24
				T.N. BARNSDALL, SOUTHERN OIL COMPANY, FRED S. RICH AND W.S. MOWRIS				
				HOPE NATURAL GAS COMPANY	RESERVE GAS COMPANY	ASSIGNMENT	85	106
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127

12	CNX053108	p/o 03-004F-0027-0000 p/o 03-004F-0027-0003 p/o 03-004F-0029-0000 03-004F-0046-0000 03-004F-0047-0000 03-004F-0048-0000 03-004F-0052-0000 03-004F-0053-0000		CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651	318
				CONSOL ENERGY HOLDINGS LLC XVI	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	9	471
				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
35	CNX053120	03-005E-0029-0000 etal		S. D. CAMDEN AND FLORA CAMDEN	SOUTHERN OIL COMPANY	NOT LESS THAN 1/8	40	561
				T. N. BARNSDALL AND SOUTHERN OIL COMPANY, FRED S. RICH, AND W. S. MOWRIS	RESERVE GAS COMPANY	ASSIGNMENT	85	106
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202
				HOPE NATURAL GAS COMPANY	UNITED FUEL GAS COMPANY	ASSIGNMENT	171	18
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651	318
				CONSOL ENERGY HOLDINGS LLC XVI	CNX GAS COMPANY	MERGER/NAME CHANGE	9	471
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	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
				IRA P. SIMMONS AND ADALINE SIMMONS, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	44	242
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	85	127
45	FK002521	03-004D-0025-0000 03-004D-0027-0000 03-004D-0033-0000 03-004D-0034-0000 03-004D-0035-0000 03-004D-0041-0000 03-004D-0041-0002	Q100361000 HGII0299	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	9	628
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
61	UPEC0001	03-004F-0023-0000 03-004F-0024-0000 03-004F-0024-0001 p/o 03-004F-0025-0000 03-004F-0025-0001 03-004F-0025-0002	UPEC0001	FRED E. BEACHY AND DAISY D. BEACHY, HIS WIFE	JUSTINE ROGERS AND MICHAEL ROGERS DBA ROGERS & SON	NOT LESS THAN 1/8	381	109
				ROBERT G. HILL, HEANNE S. WHITE AND WILLIAM A. WHITE, JR	JUSTINE ROGERS AND MICHAEL ROGERS DBA ROGERS & SON	NOT LESS THAN 1/8	381	111
				JAMES K. CLARK AND VIVIAN W. CLARK, HIS WIFE	JUSTINE ROGERS AND MICHAEL ROGERS DBA ROGERS & SON	NOT LESS THAN 1/8	381	113
				REVA J. HARRISON	JUSTINE ROGERS AND MICHAEL ROGERS DBA ROGERS & SON	NOT LESS THAN 1/8	381	115
				VIRGINIA COLLIN KNEPPER AND HOMER C. KNEPPER, HER HUSBAND	JUSTINE ROGERS AND MICHAEL ROGERS DBA ROGERS & SON	NOT LESS THAN 1/8	381	117
				MRS. M. JACKSON WHITE, WIDOW	JUSTINE ROGERS AND MICHAEL ROGERS DBA ROGERS & SON	NOT LESS THAN 1/8	381	302
				JUSTINE ROGERS AND MICHAEL ROGERS BBA ROGERS & SON	UNITED PETRO, LTD	ASSIGNMENT	417	201
				UNITED PETRO, LTD	J. E. WHITE #1 UPL LIMITED PARTNERSHIP	PARTIAL ASSIGNMENT (10 ACRES AROUND WELLS WHITE #1 AND WHITE #2)	449	339
				UNITED PETRO, LTD & J. E. WHITE #1 UPL LIMITED PARTNERSHIP	HG ENERGY II APPALACHIA, LLC	PARTIAL TERM ASSIGNMENT	800	643
				William H. Lively, Jr.	HG Energy II Appalachia, LLC		814	880
						NOT LESS THAN 1/8		
				Thomas S. Hoffman	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	815	937
				Sidney D. Lively	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	814	922
				Anne Nixon Lively AKA Anne Lively Nixon	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	815	301

65	HGII04714 ET AL	03-004D-0032-0001 03-004D-0032-0002	HGII04714 ET AL	Helen M. Burton	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	817	885
				Ryan C. Radtka	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	817	883
				Karen Cathern Helms	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	812	748
				Alicia L. Lineberry	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	812	753
				Standard Land Company, LLC	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	813	135
				EIGG Land Limited	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	810	68
				Joseph D. Gartrell	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	810	623
				Kenneth R. Kurtz	HG Energy II Appalachia, LLC	MINERAL DEED	734	399
					HG Energy II Appalachia, LLC	MINERAL DEED	734	410
				Morris Mountaineer Oil and Gas LLC	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	814	577
				The Sidney Austin Smith Trust c/o Security National Trust Company	HG Energy II Appalachia, LLC	NOT LESS THAN 1/8	814	579
				E. Leslie Hoffman III	HG Energy II Appalachia, LLC	COTENANCY AFFIDAVIT	TBD	TBD
				JP Morgan Chase Bank, NA, Trustee	HG Energy II Appalachia, LLC	COTENANCY AFFIDAVIT	TBD	TBD
				66	CNX053276	p/o 03-004E-0005-0001		A. A. ROHRBOUGH ET UX
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	MERGER/NAME CHANGE	155					202
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425					127
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	WVSOS					
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651					318
CONSOL ENERGY HOLDINGS LLC XVI	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	9					471
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	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
69	SEC1217T69	p/o 03-004F-0009-0000 03-004F-0038-0000 03-004F-0038-0002 03-004G-0019-0000 03-004G-0020-0000 03-004G-0021-0000 03-004G-0022-0000 03-004G-0023-0000	SEC1217T69					DAID A. CUNNINGHAM; CHARLES GARY CUNNINGHAM AND VERONICA SUE CUNNINGHAM, HUSBAND AND WIFE; AND CHARLES E. CUNNINGHAM AND SARAH E. CUNNINGHAM, HUSBAND AND WIFE
				MICHAEL ROSS AND JO ANN ROSS, HUSBAND AND WIFE	STALNAKER ENERGY CORPORATION	NOT LESS THAN 1/8	583	178
				WACO OIL AND GAS CO INC, A WEST VIRGINIA CORPORATION; AND WACO OIL AND GAS CO INC AS SUCCESSOR IN TITLE TO TRIO PETROLEUM CORP.	STALNAKER ENERGY CORPORATION	NOT LESS THAN 1/8	583	180
				STALNAKER ENERGY CORPORATION	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	818	889
SRC1.3, TPK-2.1 & TPK-2.2		Historic Turnpike (Staunton-Parkersburg)		State of West Virginia, Department of Transportation		Horizontal Lease Order, Hearing Scheduled 11/03/2025		



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

4204105783

RECEIVED
Office of Oil and Gas

DEC 01 2025

WV Department of
Environmental Protection

November 14, 2025

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

RE: Drilling Under Roads – Gum 1217 S-5H
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 Gum 1217 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 Gum 1217 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

01/09/2026

4704105783

RECEIVED
Office of Oil and GasWW-PN
(11-18-2015)**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

DEC 01 2025

WV Department of
Environmental Protection**Notice is hereby given:**

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: The Weston Democrat Newspaper ✓**Public Notice Date:** Wednesday, November 12th, 2025 and Wednesday, November 19th, 2025 ✓

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: HG Energy II Appalachia, LLC **Well Number:** Gum 1217 S-5H ✓**Address:** 5260 Dupont Road
Parkersburg, WV 26101**Business Conducted:** Natural gas production.**Location –**

State:	<u>West Virginia</u> ✓	County:	<u>Lewis</u> ✓
District:	<u>Freemans Creek</u> ✓	Quadrangle:	<u>Camden 7.5</u> ✓
UTM Coordinate NAD83 Northing:	<u>4327857.2</u> ✓		
UTM coordinate NAD83 Easting:	<u>536199.1</u> ✓		
Watershed:	<u>Fink Creek</u> ✓		

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

01/09/2026

WW-6AC
(1/12)

DEC 01 2025

WV Department of
Environmental ProtectionSTATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

4704105783

Date of Notice Certification: 11/13/2025

API No. 47- -
Operator's Well No. Gum 1217 S-5H
Well Pad Name: Gum 1217**Notice has been given:**

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

State:	West Virginia	UTM NAD 83	Easting:	536352.8
County:	Lewis		Northing:	4327722.9
District:	Freemans Creek	Public Road Access:		SR10 @ SR16
Quadrangle:	Camden WV 7.5's	Generally used farm name:		Gum Farm
Watershed:	Fink Creek			

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

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

- ☐ 1. NOTICE OF SEISMIC ACTIVITY or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- ☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☒ NO PLAT SURVEY WAS CONDUCTED
- ☒ 3. NOTICE OF INTENT TO DRILL or ☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or
- ☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- ☒ 4. NOTICE OF PLANNED OPERATION
- ☒ 5. PUBLIC NOTICE
- ☒ 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- ☐ RECEIVED/
NOT REQUIRED
- ☐ RECEIVED
- ☐ RECEIVED/
NOT REQUIRED
- ☐ RECEIVED
- ☐ 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.

01/09/2026

4704105783

Certification of Notice is hereby given:

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

Well Operator: HG II Appalachia, LLC

By: Diane White *Diane White*

Its: Agent

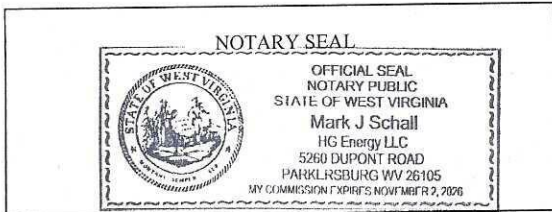
Telephone: 304-420-1119

Address: 5260 Dupont Road

Parkersburg, WV 26101

Facsimile: 304-863-3172

Email: dwhite@hgeneryllc.com



Subscribed and sworn before me this 13th day of November, 2025.

[Signature] Notary Public

My Commission Expires 11/2/2026

Oil and Gas Privacy Notice:

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

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Office of Oil and Gas

DEC 01 2025

WV Department of
Environmental Protection

01/09/2026

WW-6A
(9-13)

4704105783
API NO. 47- -
OPERATOR WELL NO. Gum 1217 N1H to S7H
Well Pad Name: Gum 1217

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

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

Date of Notice: 11/13/2025 **Date Permit Application Filed:** 11/21/2025

Notice of:

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

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

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

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

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

☒ SURFACE OWNER(s)

Name: Dustin Kent James (Surface, Road, Water)

Address: 6009 Medina Drive
Midland, TX 79707

Name: Amber Nicole Moyers

Address: 13421 Arrowhead Drive
Findlay, OH 45840

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

Name: _____

Address: _____

Name: _____

Address: _____

☐ SURFACE OWNER(s) (Impoundments or Pits)

Name: _____

Address: _____

☐ COAL OWNER OR LESSEE

Name: Western Pocahontas Properties, LP

Address: 5260 Irwin Road
Huntington, WV 25705

☐ COAL OPERATOR

Name: NA

Address: _____

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

Name: Garrett A Gum Jesse Shackleford

Address: 385 Churchville Road 3414 Freemans Creek Rd
Camden, WV 26338 Camden, WV 26338

☒ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: BHE - GT&S - Attn: Jamie Moore

Address: 925 White Oaks Blvd
Bridgeport, WV 26330

*Please attach additional forms if necessary

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Office of Oil and Gas
DEC 01 2025
WV Department of
Environmental Protection

01/09/2026

DEC 01 2025

API NO. 47-4704-105783
OPERATOR WELL NO. Gum 1217 N1H to S7H
Well Pad Name: Gum 1217

WV Department of
Environmental Protection

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WW-6A
(8-13)

API NO. 47- 4704105783
OPERATOR WELL NO. Gum 1217 N1H to S7H
Well Pad Name: Gum 1217

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC

Telephone: 304-420-1119

Email: dwhite@hgenergyllc.com

Diane White

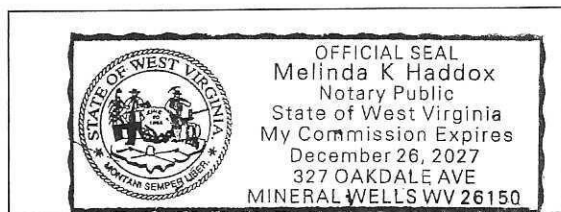
Address: 5260 Dupont Road

Parkersburg, WV 26101

Facsimile: 304-863-2172

Oil and Gas Privacy Notice:

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



Subscribed and sworn before me this 13th day of November, 2025.

Melinda K Haddox Notary Public

My Commission Expires December 26, 2027

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

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

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

Date of Notice: 11/12/2025 **Date Permit Application Filed:** 11/21/2025

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WV Department of
Environmental Protection

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

☐ HAND DELIVERY ☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

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

Name: Amber Nicole Moyers
Address: 13421 Arrowhead Drive
Findley, OH 45840

Name: Dustin Kent James
Address: 6009 Medina Drive
Midland, TX 79707

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>536197.5</u>
County: <u>Lewis</u>	Northing: <u>4327861.5</u>
District: <u>Freemans Creek</u>	Public Road Access: <u>SR10 @ SR16</u>
Quadrangle: <u>Camden WV 7.5'</u>	Generally used farm name: <u>Gum</u>
Watershed: <u>Fink Creek</u>	

This Notice Shall Include:

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

Notice is hereby given by:

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

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

Oil and Gas Privacy Notice:

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

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

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

Date of Notice: 11/12/2025

Date Permit Application Filed: 11/21/2025

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Office of Oil and Gas

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WV Department of
Environmental Protection

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

☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

☐ HAND
DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: Amber Nicole Moyers
Address: 13421 Arrowhead Drive
Findley, OH 45840

Name: Dustin Kent James
Address: 6009 Medina Drive
Midland, TX 79707

Notice is hereby given:

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

State: West Virginia
County: Lewis
District: Freemans Creek
Quadrangle: Camden WV 7.5'
Watershed: Fink Creek

UTM NAD 83 Easting: 536197.5
Northing: 4327861.5
Public Road Access: SR10 @ SR16
Generally used farm name: Gum

This Notice Shall Include:

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

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

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

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.

01/09/2026



47-041-05783

**WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION**

1900 Kanawha Boulevard East • Building Five • Room 109
Charleston, West Virginia 25305-0440 • (304) 558-0444

Michael J. DeMers
Deputy Secretary of Transportation

Stephen T. Rumbaugh, P.E.
Secretary of Transportation
Commissioner of Highways

December 9, 2025

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

Subject: DOH Permit for the Gum 1217 Well Pad, Lewis County
Gum 1217 N-1H Unit Site Gum 1217 N-2H Unit Site Gum 1217 N-3H Unit Site
Gum 1217 N-4H Unit Site Gum 1217 S-5H Unit Site Gum 1217 S-6H Unit Site
Gum 1217 S-7H Unit Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #07-2024-3305 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 SLS MP 9.507.

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 March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Lacy D. Pratt
Central Office O&G Coordinator

Cc: Diane White
HG Energy II Appalachia LLC
OM, D-7
File

4704105783

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HG Energy II Appalachia, LLC
List of Frac Additives by Chemical Name and CAS #
Gum 1217 Well Pad (N-1H thru S-7H)

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	

01/09/2026

OPERATOR: HG Energy II Appalachia, LLC WELL NO: Gum 1217 S-5H

PAD NAME: Gum 1217

REVIEWED BY: Diane White SIGNATURE: _____

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

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Well Restrictions

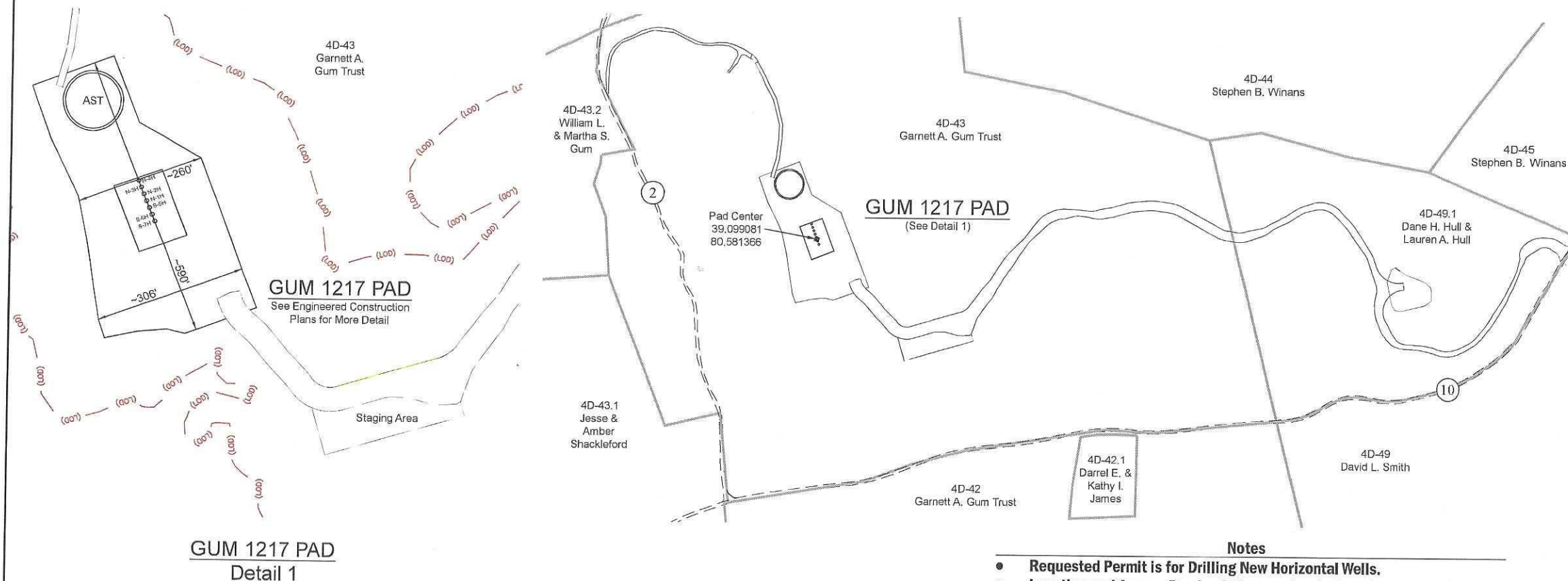
- ☐ At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
 - ☒ DEP Waiver and Permit Conditions
- ☒ At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
 - ☐ DEP Waiver and Permit Conditions
- ☒ At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
 - ☐ DEP Waiver and Permit Conditions
- ☒ At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
 - ☐ Surface Owner Waiver and Recorded with County Clerk, OR
 - ☐ DEP Variance and Permit Conditions
- ☒ At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
 - ☐ Surface Owner Waiver and Recorded with County Clerk, OR
 - ☐ DEP Variance and Permit Conditions
- ☒ At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
 - ☐ Surface Owner Waiver and Recorded with County Clerk, OR
 - ☐ DEP Variance and Permit Conditions

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Reclamation Plan for:
GUM 1217 PAD

NOTE
Refer to the WVDEP Erosion and Sediment Control Field Manual ver. May 2012 for BMPs controlling erosion and sediment from soil-disturbing operations.



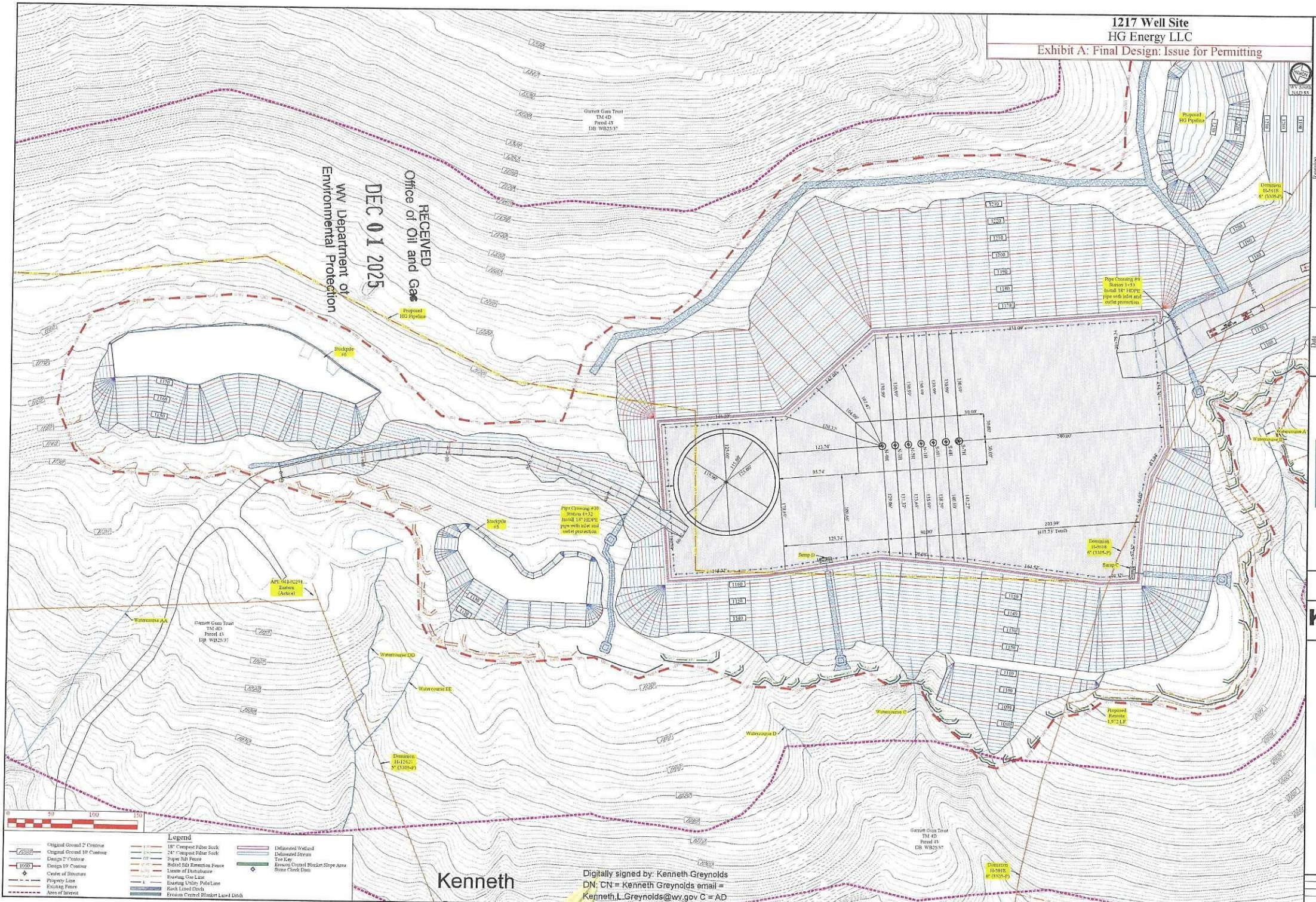
Kenneth
Greynolds

Digitally signed by: Kenneth Greynolds
DN: CN = Kenneth Greynolds email =
Kenneth.L.Greynolds@wv.gov C = AD O =
WVDEP OU = Oil and Gas
Date: 2025.11.17 08:59:41 -05'00'

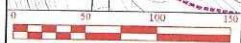
Notes

- Requested Permit is for Drilling New Horizontal Wells.
- Location and Access Roads will be constructed as shown on engineered drawings which will accompany this permit application. Reference is hereby made to those plans for more detail on E&S measures to be taken to ensure compliance with WDEP Reclamation Standards.
- All disturbed areas will be re-vegetated as outlined on form WW-9.
- Maintain sediment barriers and drainage structures.
- No drill pit will be constructed and a closed loop system will be utilized to handle drill cuttings.
- Drawing Not to Scale.

1217 Well Site
HG Energy LLC
Exhibit A: Final Design: Issue for Permitting



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- Legend**
- Original Ground 2' Contour
 - Original Ground 10' Contour
 - Design 2' Contour
 - Design 10' Contour
 - Center of Structure
 - Property Line
 - Existing Fence
 - Area of Interest
 - 18" Composite Fiber Stock
 - 24" Composite Fiber Stock
 - Super 300 Fence
 - Reinforced Concrete Fence
 - Limit of Disturbance
 - Existing Gas Line
 - Existing Utility Pole Line
 - Rock Lined Ditch
 - Existing Control Blanket Lined Ditch
 - Delineated Wetland
 - Delineated Stream
 - Tree Key
 - Boundary of Blanket Slope Area
 - Shoreline Ditch

Kenneth
Greynolds

Digitally signed by: Kenneth Greynolds
DN: CN = Kenneth Greynolds email =
Kenneth.L.Greynolds@wv.gov C = AD
O = WVDEP OU = Oil and Gas
Date: 2025.11.17 09:01:33 -05'00'

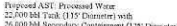


THIS DOCUMENT
PREPARED FOR
HG ENERGY LLC

Kelly Surveying
P.O. Box 1000
Martinsburg, WV 26150

Site Plan
1217 Well Site
Fremans Creek District
Lewis County, WV

Date: 10/24/2025
Scale: As Shown
Designed By: ZS
File No:
Sheet 7 of 7



Pertinent Site Information
1217 Well Site
Emergency Number: 304-269-8243
Freemans Creek District, Lewis County, WV
Watershed: Leading Creek Watershed
Site 911 Address:

HG Energy Contact Number: 304-420-1100

Property Owner Information - 1217 Well Site							
Freeman Creek District - Lewis County							
Owner	TM - Parcel	Well Fee	Shanag	Access Road	Stockpiles	Add. Cleaning	Total Estimated
Dane Hill	4D-29.1	0.00	0.63	1.92	0.50	3.87	7.92
Garnett Grain Trust	4D-43	7.75	1.69	4.12	2.63	10.58	27.09
Site Totals (Add)							
		7.75	2.32	6.04	3.13	14.45	35.11

Disturbed Area	
Well Pad Construction	7.75 Ac
Storage Area Construction	2.62 Ac
Access Road Construction	6.64 Ac
Stockpile Material	8.25 Ac
Additional Clearing	14.45 Ac
Total Disturbed Area	34.11 Ac
Additional Information	
Total Wooded Acres Disturbed	16.52 Ac
Total Linear Feet of Access Road	1,476' x 14'

Access Road				
	TM - Parcel	Road Length	Type	
	4D-09	2.0	1.02	East Well Pad Access Road
	4D-09	1	102.40	Staging Area Access Road
	4D-13	1	1,250.92	East Well Pad Access Road
	4D-13	2	51	West Well Pad Access Road
	4D-13	3	334.89	Exhausting Well Access Road
	4D-13	5	603.69	Boasting, Tanks, Road, etc.

1217 Well Site - 10-24-2025 Rev Design				
	Cut (CY)	Fill (CY)	Export (CY)	Import (CY)
West Well Pad	193,139.26	87,125.52	16,013.74	-
East Pad Staging	10,349.87	11,844.65	7,399.22	-
Staging Area	1,397.26	417.04	980.22	-
Access Road	20,819.25	16,547.22	4,272.03	-
Existing Road Tie	495.33	412.74	82.59	-
Stockpile #1	-	330.00	-	(350.00)
Stockpile #2	-	1,500.00	-	(1,500.00)
Stockpile #3	-	4,500.00	-	(4,500.00)
Stockpile #4	-	12,000.00	-	(12,000.00)
Stockpile #5	-	4,500.00	-	(4,500.00)
Stockpile #6	-	10,000.00	-	(10,000.00)
Stockpile #7	-	5,003.00	-	(5,003.00)
Stockpile #8	-	4,000.00	-	(4,000.00)
Total	155,194.97	158,301.37	28,749.87	(41,853.00)

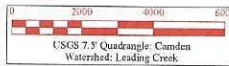
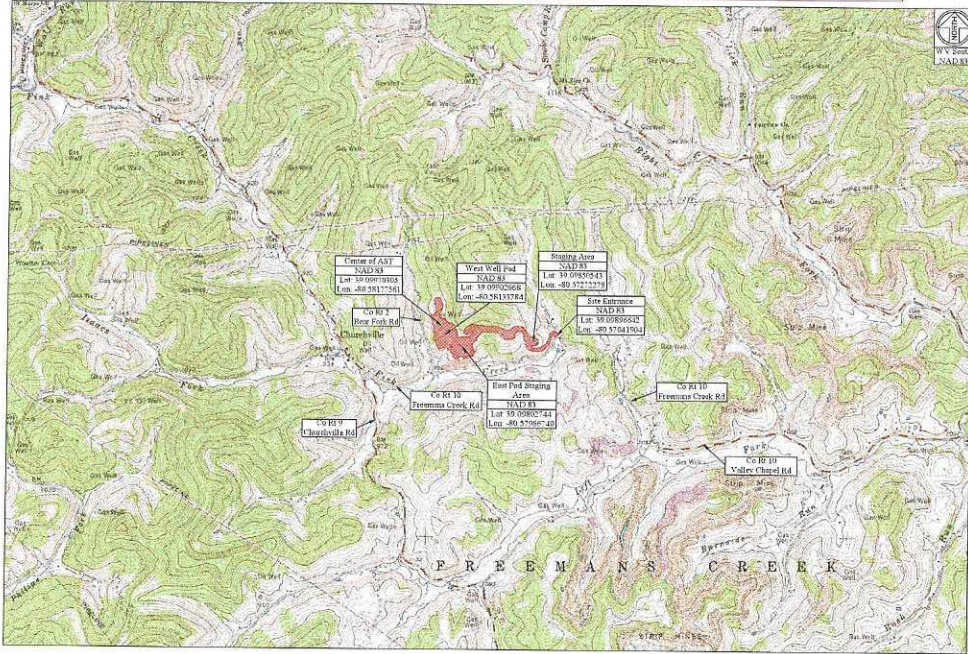
Perennial Stream Impact (Linear Feet)					
Stream and Impact Cause	Advert (LF)	Inlet/Outlet Structures (LF)	Slope Fall (LF)	Const. Distrib. to L.O.D (LF)	Total Impact (LF)
Wainwright IS (Access Road)	67.25	7.65	-	-	74.90
				Total Stream Impacts	74.90

Intermittent Stream Impact (Linear Feet)					
Stream and Impact Cause	Colvert (LF)	Intake/Outfall Structure Fill (LF)	Slope Fill (LF)	Cross Disturb. to LOD (LF)	Total Impact (LF)
Watercourse A (Access Road)	-	-	19.80	21.72	41.52
				Total Stream Impacts	41.52

Ephemeral Stream Impact (Linear Feet)					
Stream and Impact Cause	Colvert (LF)	Inlet/Outlet Structures Fill (LF)	Slope Fill (LF)	Cost Estimate to LOP (LF)	Total Impact (LF)
Watercourse C (Access Road)	-	-	23.92	8.14	31.06
Total Stream Impacts					31.06

Wetland Impact (Square Feet)			
Wetland (Impact Cause)	Fill (SF)	Gravel (Disturb. w/ LOD) (SF)	Total Impact (SF)
Wetland Q (Access Road)	40	214.5	218.5
Total Impacts			218.5
Total Impacts (Acres)			0.005

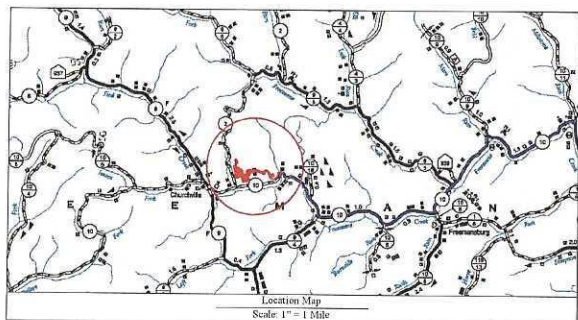
Sheet	Description
	Cover Sheet
M-1-M4	Site Notes
3	Pre-Construction Site Conditions
4	Site Soil Map
4	Cleaning Exhibit
	Overall Plan View
60P	E&S Plan View
	Tree Exhibit
	Plan View
11-14	Cross Sections - East Pad Staging Area
15-16	Cross Sections - West Wall Pad
17-20	Cross Sections - West Pad Access Road
21	Cross Sections - Stockpiles
24	Geotechnical Exhibit
CG-1	Underwater Disturbed Area Exhibit
LI	Site Remediation
M-1-M3	Production Exhibit
D-1-D2	Erosion and Sediment Control Details
R1	Access Road Details
	Particulates

[illegible][illegible]

Project Contacts	
<u>HG Energy LLC</u>	<u>Survey and Engineer</u>
David Strangle - Construction Manager 304-836-2477	Kenneth Kelly 304-738-9885 Olf
	John F. See 304-452-9228 Olf
	Zachary Summersfield 304-668-6887 Olf
<hr/>	
<u>Environmental:</u>	
<p>Wetland Determination as provided by Palmetto Environmental dated June 18, 2024</p> <p><u>Topographic Information:</u></p> <p>The topographic information shown herein is based on aerial photography by the Mountain America Webcam, WSX.</p>	

From 1-
Jane Lev
Co Rt 7 H
Rt 19 S
Mill Rd
Old Mill
Rt 10,
Right cut
2.7 mi.

Floodplain Conditions	
Do site construction activities take place in a floodplain:	NO
Permit needed from county floodplain coordinator:	NO
Flood Hazard Zone:	X
HEC-4AS Study completed:	N/A
Floodplain shown on drawings:	N/A
FIRM Map Number(s) for site:	54041C 0125E
Attaches of construction in floodplain:	N/A



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Design Certification

The drawings, construction notes and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas REG-008.

All Plans, Specs, and/or Reference Diagrams included in this design constitute a complete set of plans. A complete set of plans is necessary to construct the site in accordance with the design.

Zachary C. Summers
NPE 22214

 Date: 11-07-2024



THIS DOCUMENT
PREPARED FOR
HG ENERGY LLC

Kelly Surveying
P.O. Box 254
Dalley, WV 26039
(304)388-0988

Cover Sheet
1217 Well Site
Freemans Creek District
Lewis County, WV

Date: 10/24/2023
Scale: As Shown
Designed By: ZS
File No.
Sheet 1 of 24

11/3/14

Wetland and Perennial Stream Waiver Request

4704105783

API Number:

Operator's Well Number: Gum 1217 N-4H

Well Operator: HG ENERGY LLC

Well Number: Gum 1217 N-4H

Well Pad Name: Gum 1217 WELL SITE

County, District, Quadrangle of Well Location: Lewis, Freemans Creek, Camden 7.5' USGS Quad

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(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.

§22-6A-12(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.

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01/09/2026

4704105783

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: Gum 1217 N-4H

Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

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

The proposed HG 1217 Well Site is located in Freemans Creek District, Lewis County, West Virginia, lying north of County Route 10, Freemans Creek Road, lying east of County Route 2, Bear Fork Road. The waiver request is for Wetland R and an unnamed farm pond. Wetland R is located at the site entrance on the right hand side of the access road (south side of the road) at Station 1+00 - 1+50. The unnamed farm pond is located on the backside of the well location below (south side of the road) Station 1+00 - 1+50 of the existing access road tie.

2. Justify the proposed activity by describing alternatives to this project that were considered.

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

See Attached

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01/09/2026

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: Gum 1217 N-4H

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

Wetland R and the existing unnamed farm pond are located downstream of the access roads only (not located downstream of the Well Pads). Wetland R will have enhanced BMPs with Belted Silt Retention Fence (BSRF) and 12" filter sock installed upstream of the wetland. All disturbed areas upstream of the wetland will be mulched and seeded as soon as final grade is achieved. The existing unnamed farm pond will have Belted Silt Retention Fence (BSRF) and 12" filter sock installed upstream of the pond. Additionally, a 15' buffer shall be maintained between the existing pond and the Limits of Disturbance (LOD). The enhanced BMPs shall extend outward from the wetland and pond for 100'.

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

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

Wetland R will have enhanced BMPs with Belted Silt Retention Fence (BSRF) and 12" filter sock installed upstream of the wetland. All disturbed areas upstream of the wetland will be mulched and seeded as soon as final grade is achieved.

The existing unnamed farm pond will have Belted Silt Retention Fence (BSRF) and 12" filter sock installed upstream of the pond. Additionally, a 15' buffer shall be maintained between the existing pond and the Limits of Disturbance (LOD). All disturbed areas upstream of the wetland will be mulched and seeded as soon as final grade is achieved.

The enhanced BMPs shall extend outward from the wetland and pond for 100'.

01/09/2026

2. Justify the proposed activity by describing alternatives to this project that were considered.

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable

alternative

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A. No-Action Alternative:

Wetland R is located on the south side of an existing gas well access road. If the site is not constructed, the wetland will still be adjacent to the existing gas well access road.

The existing unnamed farm pond is located on the back side of an existing vertical well (API: 041-02294). If no action is taken, the wetland will still be located within 100' of an existing vertical well.

B. Location Alternatives

The alternate access to the proposed 1217 Well Site would involve upgrading County Route 2, Bear Fork Road which would have impacted several perennial streams and wetlands along the course of upgrading the county road for site traffic. The Bear Fork Access would also include a large box culvert crossing in the existing perennial stream (of which the existing county road runs through the stream).

C. Must Demonstrate why a 100' buffer cannot be maintained.

Wetland R: Wetland R is located on the south side of the existing gas well access road. Relocating the access road to a different location would impact several other streams and/or wetlands to access the location.

Existing unnamed farm pond: The farm pond is located within 100' of the existing road that will need to remain open to access the existing vertical gas wells within the area.

D. Describe how the proposed project is the least environmentally damaging practicable alternative

The only other practicable alternative access road to the proposed site is the upgrade to County Route 2, Bear Fork Road. Upgrading the county road would involve crossing and disturbing several perennial streams and wetlands to facilitate the traffic into and out of the proposed location. By utilizing the existing gas well access road, the number of wetlands and streams impacted by the project are significantly reduced.

01/09/2026