



west virginia department of environmental protection

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

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

Thursday, June 6, 2024
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD


PARKERSBURG, WV 26101

Re: Permit approval for Barnes 1223 S-7H
47-017-06978-00-00

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

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

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



James A. Martin
Chief

Operator's Well Number: Barnes 1223 S-7H
Farm Name: Marilyn Barnes, et al
U.S. WELL NUMBER: 47-017-06978-00-00
Horizontal 6A New Drill
Date Issued: 6/6/2024

Promoting a healthy environment.

06/07/2024

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.

06/07/2024

4701706978

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

1) Well Operator: HG Energy II Appalachia, L.P. 494519932 Doddridge Cove Vadis 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Barnes 1223 S-7H Well Pad Name: Barnes 1223

3) Farm Name/Surface Owner: Barnes Public Road Access: SLS 29

4) Elevation, current ground: 1329' Elevation, proposed post-construction: 1335'

5) Well Type (a) Gas Oil Underground Storage
Other

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(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 7129' to 7132' and 53' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7155'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,800'

11) Proposed Horizontal Leg Length: 14,506'

12) Approximate Fresh Water Strata Depths: 150', 220', 339'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-017-02490, 47-017-02542, 2780)

14) Approximate Saltwater Depths: NA

15) Approximate Coal Seam Depths: 153'-158', 428'-438' (Surface Casing is being extended to cover the coal)

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

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

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

04/24/2024

WW-6B
(04/15)

API NO. 47- 017 - 06978
 OPERATOR WELL NO. Barnes 1223 S-7H
 Well Pad Name: Barnes 1223

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	20"	New	LS	94	120'	120'	Drilled In
Fresh Water	13.375"	NEW	J-55 BTC	54.5	1300'	1300'	40% excess yield = 1.18, CTS
Coal							
Intermediate	9 5/8"	NEW	N-80 BTC	40	6150'	6150'	Lead - 40% excess, Tail - 0% Excess
Production	5 1/2"	NEW	P-110 HP	23	22800'	22800'	Lead - Yield = 1.19, Tail - yield = 1.34
Tubing							
Liners							

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	20"	20"	.438				Drilled In
Fresh Water	17.5"	13 3/8"	.380	2730	1200	Type 1, Class A	30 % excess yield = 1.20, CTS
Coal							
Intermediate	9 5/8"	12 1/4"	.395	5750		Type 1/Class A	40% excess yield = 0% Excess Lead
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/Class A	20% excess yield = 1.19, tail yield 1.34
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

05/13/2024

WW-6B
(10/14)

API NO. 47- _____ -
OPERATOR WELL NO. Barnes 1223 S-7H
Well Pad Name: Barnes 1223

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7155'. Drill horizontal leg to an estimated 14,506' lateral length, 22,800' 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.

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. Maximum pressure not to exceed 12,500 psi.

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21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 51.82 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.11 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.
Freshwater - Bow Spring on every other joint.
Intermediate - Bow Spring on first 2 joints then every third joint to 100' from surface.
Production - 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.

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

Conductor - N/A, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water - "Lead: 15.8 ppg Class A Neat 94#/sk40% Excess/Yield=1.18 / CTS"
Intermediate - "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 FC1 + 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 - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.
Intermediate - 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.



1223 S-7H
Marcellus Shale Horizontal
Doddridge County, WV

1223 S-7H SHL

14204602.71N 1720586.06E

Ground Elevation

1329'

1223 S-7H LP

14202950.31N 1718435.94E

Azm

160.574°

1223 S-7H BHL

14189275.59N 1723258.59E

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	20"	20" 94# 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.	Surface casing = 0.438" wall thickness
	17.5"	13-3/8" 54.5# J-55 BTC	Coal	580		AIR	15.6 ppg Class A Neat 94#/sk 40% Excess Yield=1.18 /CTS	Bow Spring on every other joint	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.380" wall thickness Burst=2730 psi
			Coal	610						
			Coal	900						
	12.25"	9-5/8" 40# N-80 BTC	Little Lime/Big Lime	2290/2345	2305/2401	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=5750 psi
			Big Injun/Gantz	2401/2755	2495/2785					
			50 Foot/Gordon	2861/3042	2903/3122					
			Fifth	3213	3263					
			Bayard	3286	3311					
			Warren/Speechley	3594/3807	3629/3842					
	Benson / Alexander	5213 / 5474	5346 / 5604		Intermediate	0	TVD: 5700' MD: 6150' Inc. 29 deg.			
	8.75"	5-1/2" 23# P-110 HP TXP / W461				AIR / 9.0ppg SOB	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions
	8.5" Curve		Rhinestreet	6431	6719	11.5ppg-12.5ppg SOB				
			Cashaqua	6719	6864					
			Middlesex	6864	6943					
			West River	6943	7012					
			Burkett	7012	7053					
			Tully Limestone	7053	7078					
			Hamilton	7078	7129					
			Marcellus	7129	7182					
8.5" Lateral	TMD / TVD (Production)		22800	7155	11.5ppg-12.5ppg SOB					
	Onondaga	7182								

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LP @ 7155' TVD / 8294' MD 8.5" Hole - Cemented Long String +/-14506' ft Lateral TD @ +/-7155' TVD +/-22800' MD

X=centralizers

4701706978

WW-9
(4/16)

4701706978

API Number 47 - _____ - _____
Operator's Well No. Barnes 1223 S-7H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) Fink Creek Quadrangle Vadis 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 _____)

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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

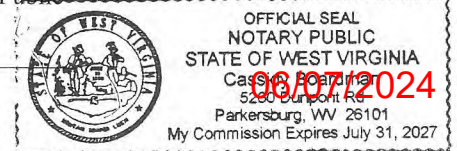
Company Official Title Agent

Subscribed and sworn before me this 5th day of April, 2024

Candy Boecher

Notary Public

My commission expires 7/31 2027



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Form WW-9

Operator's Well No. Barnes 1223 S-7H

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 51.82 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures


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

Maintain E&S controls through the drilling and completion process

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

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WV Department of
Environmental Protection

Comments:

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

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

Title: Oil & Gas Inspector

04/24/2024

Date: _____

Field Reviewed?

() Yes

() No

06/07/2024

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HG Energy II Appalachia, LLC

Site Safety Plan

**Barnes 1223 Well Pad
3160 Saint Clara Rd, Alum Bridge
Doddridge County, WV 26321**

October 2023: Version 1

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

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MAY 05 2024

WV Department of
Environmental Protection

HG Energy II Appalachia, LLC

5260 Dupont Road

Parkersburg, WV 26101



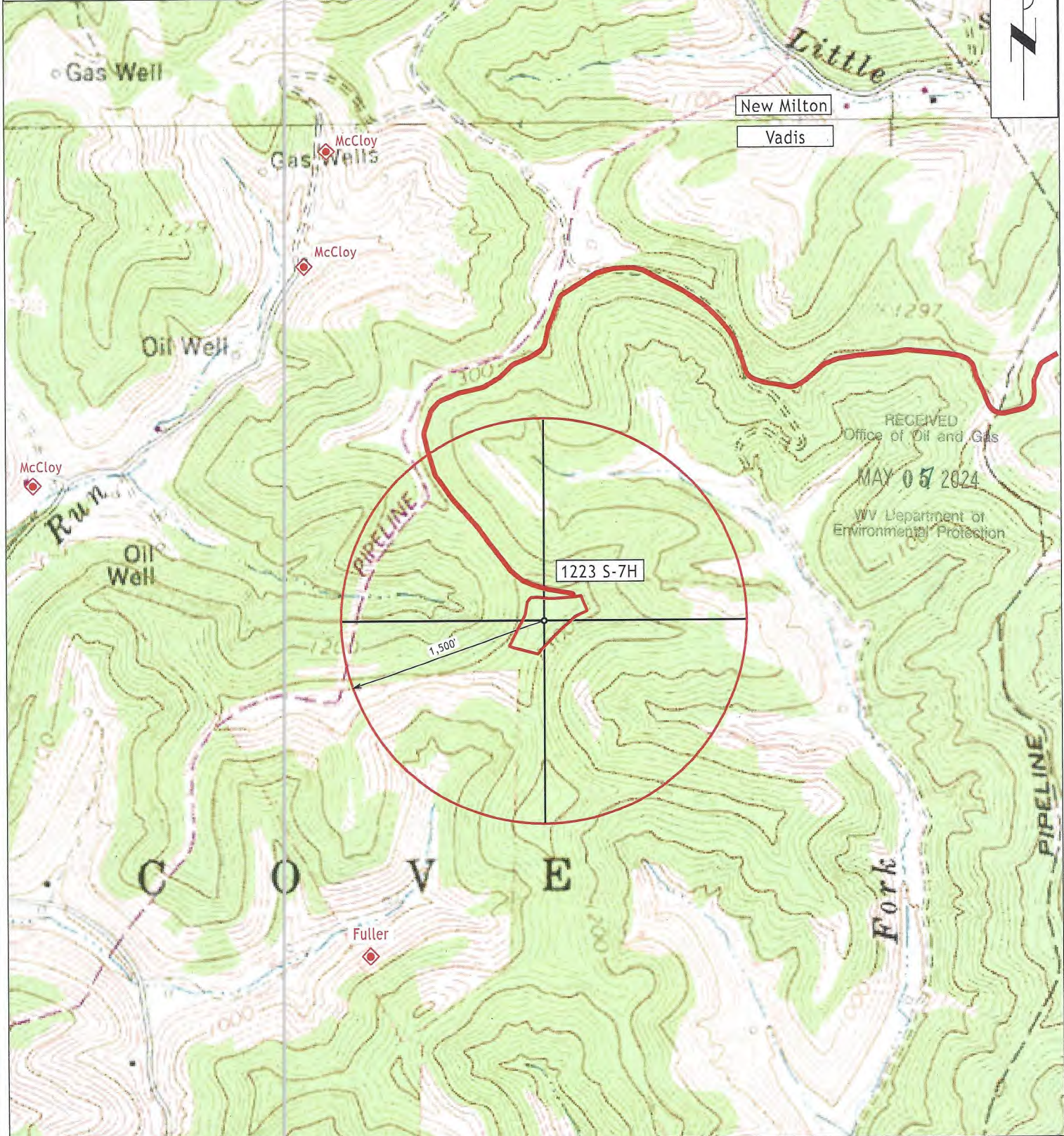
04/24/2024

Kenneth L. Drayton
10-16-23

06/07/2024

SUBJECT WELL
Barnes 1223 S-7H

4701706978



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1223 S-7H

1,500'

C O V E

Fuller

Point Pleasant
Ch

No Water Supply
Wells Are Located
Within 1500' Of
Proposed Well

◆ Denotes Possible
Water Supply Source
to be Tested

Section of
New Milton & Vadis
7.5' Quadrangles

SCALE 1"=1000' 06/07/2024

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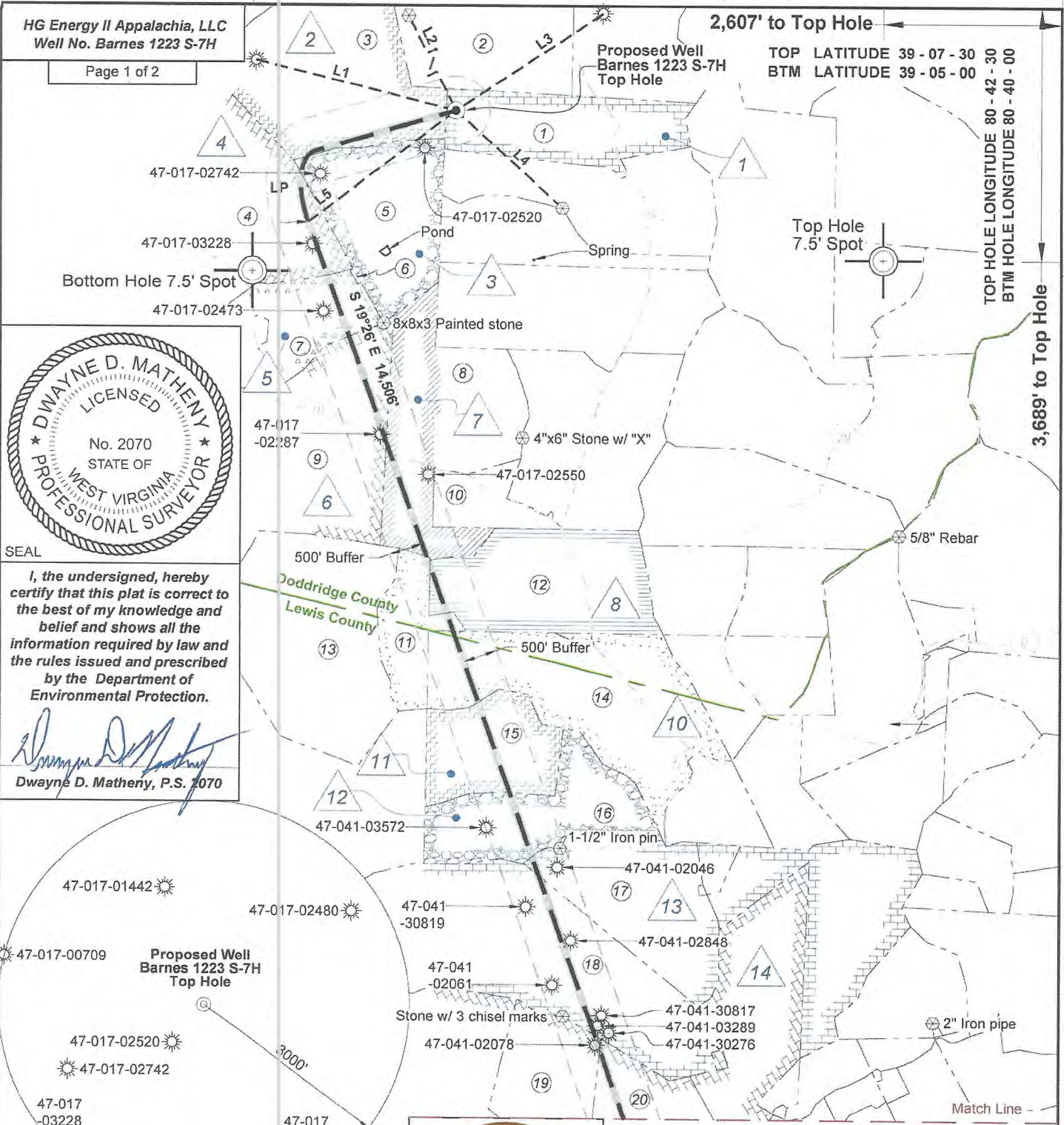
11,810' to Bottom Hole

2,607' to Top Hole

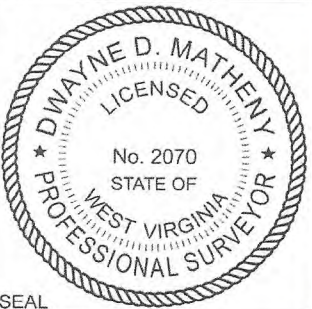
TOP LATITUDE 39 - 07 - 30
BTM LATITUDE 39 - 05 - 00

TOP HOLE LONGITUDE 80 - 42 - 30
BTM HOLE LONGITUDE 80 - 40 - 00

3,689' to Top Hole
3,854' to Bottom Hole

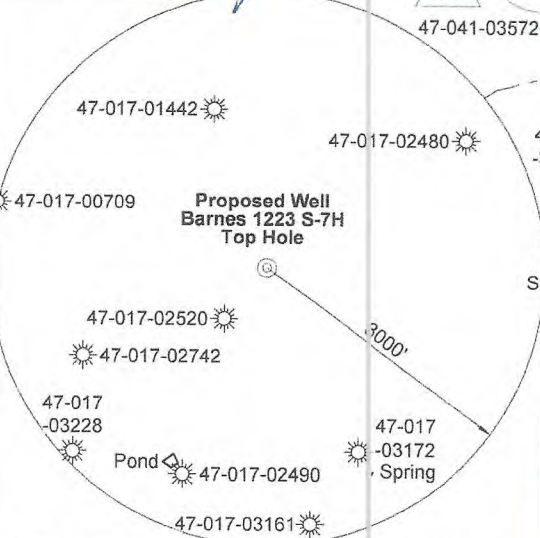


HG Energy II Appalachia, LLC
Well No. Barnes 1223 S-7H
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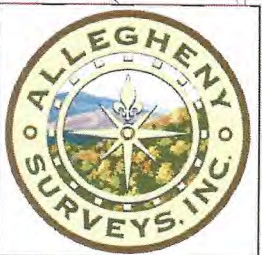


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny
Dwayne D. Matheny, P.S. 2070



Note: 0 water wells, 0 cistern, and 0 pond were found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Tag	Bearing	Dist.	Description
L1	S 76°00' E	2,998.1'	47-017-00709
L2	S 26°30' E	2,318.5'	5/8" Rebar
L3	S 56°37' W	2,568.7'	47-017-02480
L4	N 47°24' W	2,116.8'	1/2" Rebar @ fence corner
L5	S 52°27' W	2,711.7'	Landing Point

FILE NO: 171-12-30-FC-22
DRAWING NO: Barnes 1223 S-7H 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

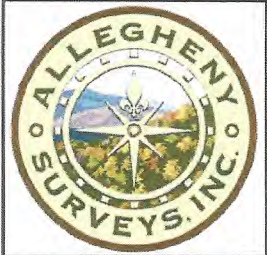
DATE: April 10 2024
OPERATOR'S WELL NO. Barnes 1223 S-7H
API WELL NO
47 - 017 -
STATE COUNTY PERMIT

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

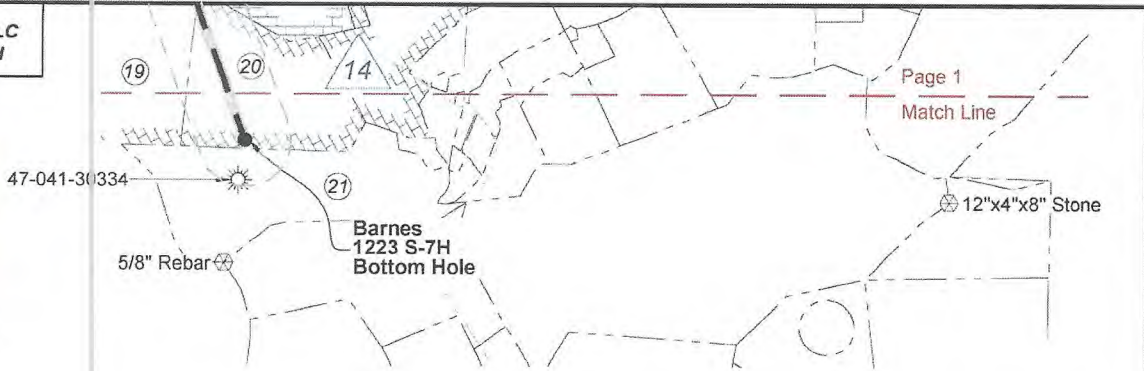
LOCATION: ELEVATION: 1,329' WATERSHED: Fink Creek QUADRANGLE: Vadis
DISTRICT: Cove COUNTY: Doddridge
SURFACE OWNER: Marilyn Barnes, et al ACREAGE: 76.00
ROYALTY OWNER: Carolyn Rasle Bass, et al LEASE NO: ACREAGE: 123
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,155' TVD
22,800' MD

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

HG Energy II Appalachia, LLC
Well No. Barnes 1223 S-7H

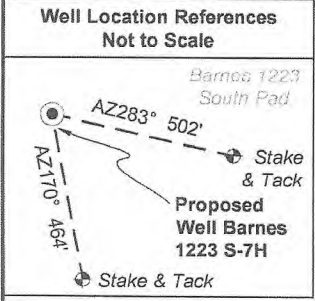


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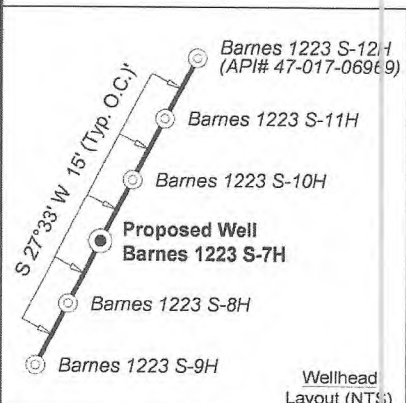


Notes: Well No. Barnes 1223 S-7H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,204,602.71'
E: 1,720,586.06'
Landing Point Coordinates
N: 14,202,950.31'
E: 1,718,435.94'
Bottom Hole Coordinates
N: 14,189,275.59'
E: 1,723,258.59'

Notes: Well No. Barnes 1223 S-7H
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°06'53.52" Latitude: 39°04'21.89"
Longitude: 80°43'03.09" Longitude: 80°42'29.80"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,329,571.565m N: 4,324,899.850m
E: 524,435.680m E: 525,250.269m
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.



- 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.)



ID	Lease
1	Carolyn Rastle Bass, et al
2	James L. Marsh, et al
3	Asset Management, LLC, et al
4	William M. Bailey, et al
5	Carolyn Davita Woofter Chancellor, et al
6	Dolores Hinter, et al
7	Martin Dwight Hall
8	HG Energy II Appalachia, LLC
10	HG Energy II Appalachia, LLC
11	HG Energy II Appalachia, LLC
12	HG Energy II Appalachia, LLC
13	William H. Hall & Mary E. Hall
14	Frank Rastle, et ux, et al

Doddridge Co. (Cove Dist.)				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	10 / 16	Marilyn Barnes, et al	W28 / 552	76.10
2	9 / 21	Carolyn R. Bass, et al	239 / 151	120.00
3	9 / 20	Clyde W. Marsh, et al	W36 / 152	149.00
4	9 / 26	Chestnut Oak, LLC.	513 / 465	91.75
5	9 / 27	Willard L. Fuller, III	215 / 149	89.00
6	13 / 15.3	Willard L. Fuller, III	215 / 149	0.28
7	13 / 15.2	Diana H. Frank	W38 / 439	43.47
8	13 / 16	Ralph T. Buntin, Jr., et al	224 / 79	114.76
9	13 / 11	Yvonne Foster	W40 / 419	147.64
10	13 / 16.1	Ralph T. Buntin, Jr., et al	224 / 79	26.90
11	13 / 19	Henry G. & Sylvia R. Rastle	187 / 44	35.60
12	13 / 18	Kevin M. Kearney	251 / 298	100.00
Lewis Co. (Freemans Creek Dist.)				
No.	TM / Par	Owner	Bk / Pg	Ac.
13	1D / 1	Elaine B. Mines & Helen B. Keplinger	515 / 317	154.25
14	1D / 5	Henry G & Sylvia Rastle	398 / 311	142.00
15	1D / 4	Fonda W. Simmons Trust	629 / 66	64.00
16	1D / 6	Fonda W. Simmons Trust	629 / 66	83.00
17	1D / 7	Fonda W. Simmons Trust	629 / 66	100.10
18	1E / 12	Fonda W. Simmons Trust	629 / 66	197.25
19	1E / 13	Thomas R. Riley, et al	577 / 553	59.90
20	1E / 14	Thomas E. Rastle	128 / 584	51.25
21	1E / 15	Lee M. Reese & Karon L. de Silva	620 / 391	63.38

FILE NO: 171-12-30-FC-22
DRAWING NO: Barnes 1223 S-7H 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: April 10 2024
OPERATOR'S WELL NO. Barnes 1223 S-7H
API WELL NO
47 - 017 -
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,329' WATERSHED: Fink Creek QUADRANGLE: Vadis
DISTRICT: Cove COUNTY: Doddridge
SURFACE OWNER: Marilyn Barnes, et al ACREAGE: 76.10
ROYALTY OWNER: Carolyn Rastle Bass, et al LEASE NO: ACREAGE: 123

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 7,155' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,800' 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

06/07/2024

**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 plan, 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
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****See Attached Sheets****

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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: Accountant

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HG Energy II Appalachia, LLC
Barnes 1223 S-7H Lease Chain

1223S Tract	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
1		02-0010-0016-0000	HGII02150 et al	Carolyn Rastle Bass et al.	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	520	529
				Marilyn Rastle Barnes	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	520	527
				Richard E. Spracklen	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	521	214
				Chad W. Johnson			500	298
				James J. Cava, Jr.	HG ENERGY II APPALACHIA LLC	NOT LESS THAN 1/8	501	398
2	HGII03136 ET AL	<p>RECEIVED Office of Oil and Gas MAY 07 2024 WV Department of Environmental Protection</p>	N/A	James L. Marsh et al.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	618
				Carol Ann Henry	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	624
				Donna Jean Getsinger	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	622
				Jane White AKA Carolyn Jane White	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	515	620
				Alice Margaret Rastle Taylor	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	514	708
				Yvonne Foster	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	514	710
				Henry Gray Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	514	417
				Maxine Cole Rastle aka Maxine S. Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	512	222
				Helen J. McClain	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	420
				Christine A. Davis Wampler	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	512	581
				Nroma C. Bowyer AKA Norma Sue (Cole) Bowyer	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	422
				Cheryl DeWeese	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	521	216
				Richard Gage Spray	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	513	134
				James Edward Postle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	531	160
				Michael Eric Robertson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	521	603
				St. Johannes Lutheran Church of St. Clara, by Phyllis Hinterer, Clara Mae Spray, Marion Zorn, Rebecca Strickling, and James Strickling Church Council Members	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	524	331
				Karen Walters Gardner	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	532	428
				William Douglas Robertson	HG ENERGY II APPALACHIA, LLC	MINERAL DEED	532	301
				Gail Frost Venrick, a/k/a, Gail F. Venrick	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				Amanda E. Hamilton	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				Andrew L. Frost	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				George Kent Walters	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				Deborah Lee (Spray) Anderson Guy	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				Susan Lorraine (Spray) Robertson	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				Janet Lynne (Spray) Masimer	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				Robert Daniel Spray	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				The Estate of Timothy David Spray, by Cheryl Deweese, Administrator	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
Kathleen Postle	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Joel David Robertson	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Randall Bruce Robertson	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
unknown heirs or successors of Eleanor Jean Landis	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Phillip C. Parker aka Philip C. Parker	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Pamela Kinzel AKA Pamela S. Liotta	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Asset Management, LLC et al.			526	303				
Dale/Peregrine Minerals Fund, LP	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	516	478				
Southland Capital Realty Group, LLC			525	153				
T. Todd Martin, III, managing member Selwyn H. Turner, III, managing member Elizabeth Turner, managing member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8						

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3	HGII03825 ET AL	02-0009-0027-0000	N/A	Panacea Energy, Inc.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	529	598
				Upstream Energy, LLC	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	525	151
				Billy R. Powell	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	370
				Estate of Nannie Bell Brooks "Red" Womack, Ellen Womack Giles, Executrix	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Rawls Energy, LLC			531	490
				James H. Rawls, Managing Member	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Homer Roberts Collins	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	528	605
				Gold City Mineral Partners, LP	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	507	304
				William Kirkpatrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	533	390
				Sylvia Kirkpatrick	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	533	388
				Marilyn Allen	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	263
				James E. Poole, Jr.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	518	278
				Dale Williston Minerals 2012-B, LP	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
				John C. Sipple	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT		
Pinebelt Oil & Gas, Inc.	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Robert M. Newsome	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
Petroleum Properties, LLC	HG ENERGY II APPALACHIA, LLC	COTENANCY AFFIDAVIT						
4	HGII031014 ET AL	02-0009-0026-0000 02-0013-0020-0000	N/A	William M. Bailey et al.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	513	130
				Sara S. Bailey	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	509	729
				Jan Martin Pira	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	510	374
				Lewis Edward Pira AKA Edward Pira	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	511	216
				Gunnar Folke Pira	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	511	318
				Lauren Elisabeth Pira AKA Lauren Elisabeth Pira Nelson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	511	218
5	HGII02628 / HGII03507	02-0013-00015-0000 02-0013-00015-0001 02-0013-00015-0002 02-0013-00015-0003 02-0013-00015-0004	N/A	Carolyn Davita Woofter Chancellor et al.			508	396
				Janice Woofter	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	520	593
6	HGII02973 ET AL	02-0013-0011-0000 02-0013-0012-0000	N/A	Dolores Hinterer et al.	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Barbara Gail Peterson	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Alan John Poling	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				David Kenneth Poling	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Edward Mark Doak	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Eula Jean Ruckman, Life Estate	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Edward Mark Doak, remainderman, subject to the life estate of Eula Jean Ruckman	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Arlene Pope	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Alice Rastle Taylor aka Alice M. Rastle Taylor	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Maxine Cole Rastle aka Maxine S. Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
7	HGII02851	02-0013-0016-0000	HGII02851	Yvonne Rastle Foster	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Henry Gray Rastle	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Unknown Heirs or Successors of Catherine F. Gray	HG ENERGY II APPALACHIA, LLC	MINERAL DEED		
				Jacqueline K. Gray	HG ENERGY II APPALACHIA, LLC	MINERAL DEED		
				William R. Bass and Carolyn R. Bass, trustees of The Bass Living Trust Dated December 2, 2019	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Marilyn Barnes	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8		
				Martin Dwight Hall	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	511	316
8	FK080709 FEE	02-0013-0018-0000	FK080709 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
10	FK079326 FEE	02-0013-0009-0000 02-0014-0006-0000 03-001D-0005-0000	FK079326 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
11	FK088480 FEE	03-001D-0004-0000	FK088480 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
12	FK083958 FEE	03-001D-0006-0000	FK083958 FEE	DOMINION ENERGY TRANSMISSION, INC.	HG Energy II Appalachia, LLC	MINERAL DEED	740	746
				WILLIAM H. HALL AND MARY E. HALL	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	24	364

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03-001D-0007-0000
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SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570
SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	106	494
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
DOMINON TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
		SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC		723	499
		THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC		734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220

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FRANK RASTLE AND MARGARET A. RASTLE, HIS WIFE; AND M. J. LOVETT	A. F. GUM AND G. B. DETERMAN	NOT LESS THAN 1/8	92	531
A. F. GUM	G. B. DETERMAN	ASSIGNMENT	92	531
G. B. DETERMAN	LOUIS BENNETT AND W. H. AHNER	ASSIGNMENT	95	576
JOHNSON C. MCKINLEY AND HUNTER M. BENNETT, EXECUTORS OF THE LAST WILL AND TESTAMENT OF LOUIS BENNETT, SR. DECEASED	AGRA B. MCKINLEY	CONVEYANCE/ASSIGNMENT	1	13
W.H. AHNER AND MYRTLE AHNER, HIS WIFE	ERNEST G. SMITH, IN TRUST	CONVEYANCE/ASSIGNMENT	15	460
W.H. AHNER AND MYRTLE AHNER, HIS WIFE; AND ERNEST G. SMITH TRUSTEE	AGRA B. MCKINLEY	CONVEYANCE/ASSIGNMENT	117	504
HOMER THOMPSON AND RACHAEL THOMPSON, HIS WIFE	FRANK RASTLE	CONVEYANCE/ASSIGNMENT	100	329
FRANK RASTLE AND MARGARET A. RASTLE, HIS WIFE	AGRA B. MCKINLEY	CONVEYANCE/ASSIGNMENT	118	135
AGRA B MCKINLEY AND JOHNSON C. MCKINLEY, HER HUSBAND	ROY TALBOTT	CONVEYANCE/ASSIGNMENT	125	428
MARY TALBOTT IN HER OWN RIGHT AND AS ADMINISTRATRIX OF THE ESTATE OF ROY TALBOTT, DECEASED	C. M. BENNETT, THOMAS J. GILLOOLY AND W. C. BLACK, PARTNERS DBA C. M. BENNETT AND COMPANY	CONVEYANCE/ASSIGNMENT	125	429
C. M. BENNETT, THOMAS J. GILLOOLY AND W. C. BLACK, PARTNERS DBA C. M. BENNETT AND COMPANY	GILCO OIL & GAS COMPANY	ASSIGNMENT	129	46
GILCO OIL & GAS COMPANY	SOUTH PENN OIL COMPANY	ASSIGNMENT	138	174
SOUTH PENN OIL COMPANY	SOUTH PENN NATURAL GAS CO	ASSIGNMENT	156	570
SOUTH PENN NATURAL GAS CO	HOPE NATURAL GAS COMPANY	ASSIGNMENT	166	494
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	
		SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC		723	499
		THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC		734	558
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220



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

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April 15, 2024

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

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Office of Oil and Gas

MAY 08 2024

WV Department of
Environmental Protection

RE: Drilling Under Roads – Barnes 1223 S-7H
Cove District, Doddridge County
West Virginia

Dear Mr. Blevins:

HG Energy II Appalachia, LLC, is submitting the attached application for a new well work permit for the Barnes 1223 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 Barnes 1223 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

06/07/2024

WW-PN
(11-18-2015)

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**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

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 Herald Record Newspaper

Public Notice Date: Wednesday, April 3rd & Wednesday, April 10th, 2024

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:** Barnes 1223 S-7H

Address: 5260 Dupont Road
Parkersburg, WV 26101

Business Conducted: Natural gas production.

Location –

State: West Virginia County: Doddridge
District: Cove Quadrangle: Vadis 7.5'
UTM Coordinate NAD83 Northing: 4329571.6
UTM coordinate NAD83 Easting: 524435.7
Watershed: Fink Creek

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/inside/dep/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 5th 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 5th 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

06/07/2024

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

Date of Notice Certification: 04/19/2024

RECEIVED
Office of Oil and Gas
MAY 05 2024
WV Department of
Environmental Protection

API No. 47- _____

Operator's Well No. Barnes 1223 S-7H

Well Pad Name: Barnes

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
County: Doddridge
District: Cove
Quadrangle: Vadis WV 7.5's
Watershed: Fink Creek

UTM NAD 83 Easting: 524435.7
Northing: 4329571.6
Public Road Access: WV18 and CR29
Generally used farm name: Barnes

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:

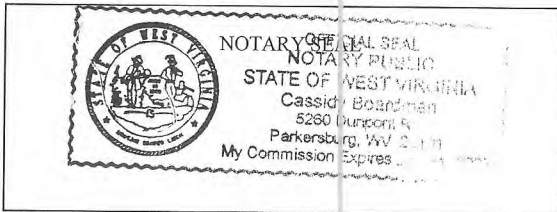
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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.

4701706978

Certification of Notice is hereby given:

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

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



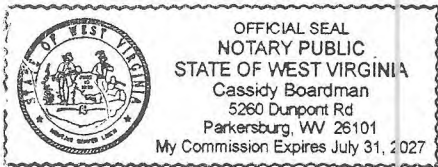
Subscribed and sworn before me this 19th day of April, 2023

Cassidy Boardman Notary Public

My Commission Expires 7/31/2027

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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WW-6A
(9-13)

API NO. 4701706978
OPERATOR WELL NO. Barnes 1223 N1H to S12H
Well Pad Name: Barnes 1223

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: 10/13/23 Date Permit Application Filed: 10/19/23

Notice of:

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

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

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

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

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

SURFACE OWNER(s)
Name: Carolyn Bass
Address: 832 Elizabeth Avenue
Salem, VA 24153

Name: Marilyn Barnes
Address: 771 Barbours Creek Road
New Castle, VA 24127

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: James Cava
Address: 190 Ridgeway Drive
Bridgeport, WV 26330

Name: _____
Address: _____

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

COAL OWNER OR LESSEE
Name: NA
Address: _____

COAL OPERATOR
Name: NA
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: NA
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: NA
Address: _____

*Please attach additional forms if necessary

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WV Department of
Environmental Protection

06/07/2024

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

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas
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WV Department of Environmental Protection

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

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WV Department of
Environmental Protection

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)

4701706978
API NO: 47-
OPERATOR WELL NO. Barnes 1223 N1H to S12H
Well Pad Name: Barnes 1223

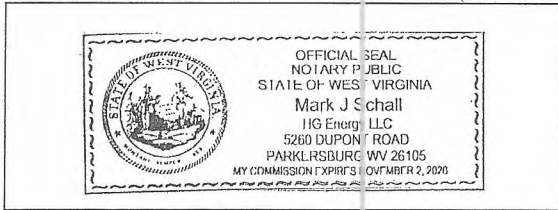
Notice is hereby given by:

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: 304-863-3172

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.



Subscribed and sworn before me this 9th day of October, 2023.

[Handwritten Signature]

Notary Public

My Commission Expires 11/2/2026

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WV Department of
Environmental Protection

06/07/2024

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

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

Date of Notice: 10/03/2023

Date of Planned Entry: 10/10/2023

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Marilyn Barnes
 Address: 771 Barbours Creek Road
New Castle, VA 24127

Name: Carolyn Bass
 Address: 812 Elizabeth Avenue
Salem, VA 24153

Name: James L Marsh
 Address: 10153 Webster Road
Summersville, WV 26651

COAL OWNER OR LESSEE

Name: NA
Address: _____

MINERAL OWNER(s)

Name: **See Attached Sheet**
Address: _____

*please attach additional forms if necessary

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WV Department of Environmental Protection

Notice is hereby given:

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

State: West Virginia
 County: Doddridge
 District: Cove
 Quadrangle: Vadis

Approx. Latitude & Longitude: 39.115066 / 80.717274
 Public Road Access: SLS 29
 Watershed: Fink Creek
 Generally used farm name: Barnes

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

Notice is hereby given by:

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

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.

06/07/2024

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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: 09/29/2023 **Date Permit Application Filed:** 10/15/2023

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Office of Oil and Gas

MAY 07 2024

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: Carolyn Bass
Address: 832 Elizabeth Avenue
Salem, VA 24153

Name: Marilyn Barnes James Marsh
Address: 771 Barbours Creek Rd 10153 Webster Road
New Castle VA 24127 Summersville, WV 26651

Notice is hereby given:

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

State: West Virginia
County: Doddridge
District: Cove
Quadrangle: Vadis WV 7.5'
Watershed: Fink Creek

UTM NAD 83 Easting: 524442.0
Northing: 4329583.7
Public Road Access: SLS 29
Generally used farm name: Barnes

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 *Diane White*
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.

06/07/2024

WW-6A5
(1/12)

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**
Date of Notice: 10/02/2023 **Date Permit Application Filed:** 10/15/2023

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

CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

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

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MAY 07 2024

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: Carolyn Bass
Address: 832 Elizabeth Avenue
Salem, VA 24153

Name: Marilyn Barnes James Marsh
Address: 771 Barbours Creek Rd 10153 Webster Road
New Castle, VA 24127 Summersville, WV 26651

WV Department of
Environmental Protection

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 UTM NAD 83 Easting: 524442.0
County: Doddridge Northing: 4329583.7
District: Cove Public Road Access: SLS 29
Quadrangle: Vadis WV 7.5' Generally used farm name: Barnes
Watershed: Fink Creek

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@hgeneryllc.com *Diane White*

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.

06/07/2024

4701706978



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

Alanna J. Keller, P.E.
Deputy Secretary of Transportation
Deputy Commissioner of Highways

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

October 5, 2023

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

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MAY 04 2024

WV Department of
Environmental Protection

Subject: DOH Permit for the Barnes 1223 Pad, Doddridge County
Barnes 1223 S-7H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2021-0824 which has been issued to HG Energy II Appalachia, LLC for access to the State Road for a well site located off Doddridge County Route 29 SLS MP 3.01.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

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

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

Cc: Diane White
HG Energy II Appalachia
OM, D-4
File

4701706978

HG Energy II Appalachia, LLC

List of Frac Additives by Chemical Name and CAS #

Barnes 1223 Well Pad (N-1H thru S-12H)

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

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Office of Oil and Gas

MAY 05 2024

WV Department of
Environmental Protection

06/07/2024

OPERATOR: HG Energy II Appalachia, LLC WELL NO: Barnes 1223 S-7H

PAD NAME: Barnes 1223

REVIEWED BY: Diane White SIGNATURE: Diane White

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

WEST VIRGINIA COUNTY MAP



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1223 Well Site
Site Design, Construction Plan, &
Erosion and Sediment Control Plans
HG Energy LLC
Doddridge County
Cove District
Latitude 39.11495156°
Longitude -80.71727053°
Fink Creek Watershed

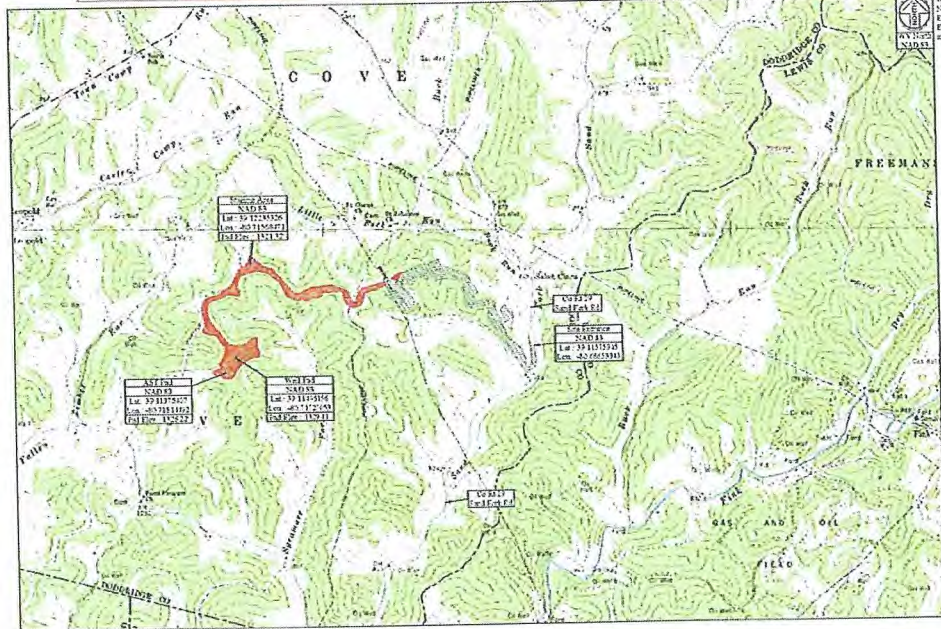
Pertinent Site Information
1223 Well Site
Emergency Number: 304-873-1343
Cove District, Doddridge County, WV
Watershed: Fink Creek Watershed
Site 911 Address:
HG Energy Contact Number: 304-420-1100

Exhibit A: Final Design: Issue for Permitting

Property Owner Information - 1223 Well Site
Cove District, Doddridge County

Owner	Acres	Parcel ID	Assessed Value	Market Value	Market Rent	AMT	Change	2022 Occupancy
WV State	1.50	000	0.00	0.00	0.00	0.00	0.00	0.00
...
TOTAL	8.11	1.11	0.85	15.63	1.24	24.18	0.00	0.00

Center of Well Pad	Center of AST Pad	Center of Storage Area
WVNSAD 83 N 22560 25 WVNSAD 83 E 10181 75 WVNSAD 27 N 2244 40 WVNSAD 27 E 16531 32 Lot NAD 83 39 117 215 Lot NAD 27 39 116 766 Lot NAD 27 40 167 1192 UTM17NAD 83 E 10269 49 UTM17NAD 83 E 10269 49	WVNSAD 83 N 2245 47 WVNSAD 83 E 10201 32 WVNSAD 27 N 2258 72 WVNSAD 27 E 16534 48 Lot NAD 83 39 118 186 Lot NAD 83 39 117 509 Lot NAD 27 39 116 652 Lot NAD 27 40 171 747 UTM17NAD 83 E 10201 32 UTM17NAD 83 E 10201 32	WVNSAD 83 N 2244 41 WVNSAD 83 E 10200 32 WVNSAD 27 N 2258 99 WVNSAD 27 E 16534 79 Lot NAD 83 39 117 517 Lot NAD 83 39 116 652 Lot NAD 27 39 116 652 Lot NAD 27 40 171 747 UTM17NAD 83 E 10201 32 UTM17NAD 83 E 10201 32



Access Road

Access Road	Area (Ac)	Notes
...
TOTAL	12.48	12.48

Included Area

Area	Area (Ac)
Well Pad Construction	1.11
AST Pad Construction	1.11
Storage Area Construction	2.85
Access Road Construction	13.41
Topsoil Erosion Control	2.44
...	...
TOTAL	24.93

1223 Well Site Quantities

Item	Quantity	Unit	Notes
Well Pad	1.11	Ac	
AST Pad	1.11	Ac	
Storage Area	2.85	Ac	
Access Road	13.41	Ac	
Topsoil Erosion Control	2.44	Ac	
...
TOTAL	24.93	Ac	

APPROVED
WVDEP OOG
11/27/2023



Project Contacts

HG Energy LLC
Lead Engineer - Construction Manager
304-420-1100

Superior Engineer
Edward Kelly
304-331-6155 Cell
John P. See
304-642-0213 Cell
Zachary Summers
304-533-6751 Cell

HG Energy, LLC
2500 Poplar Hill
Parkersburg, WV 26101
PH: 304-205-1100
Fax: 304-205-1100

Permitting
WVDEP Online - approved by Federal Environmental dated November 7, 2022

Topographic Information
The topographic information shown on this plan was obtained from the following sources:
811 Know what's below. Call before you dig.

MISS UTILITY OF WEST VIRGINIA
1-800-245-4148
www.missutility.com

Approach Road:
From the intersection of WV Rt 18 and US Rt 59 near West Union, WV. Travel South on WV Rt 18 for 14.1 mi. Turn Right onto County Route 29, Sinc Fork. Follow County Route 29 for 3.0 mi. The entrance will be on the Right (West) side of the road.

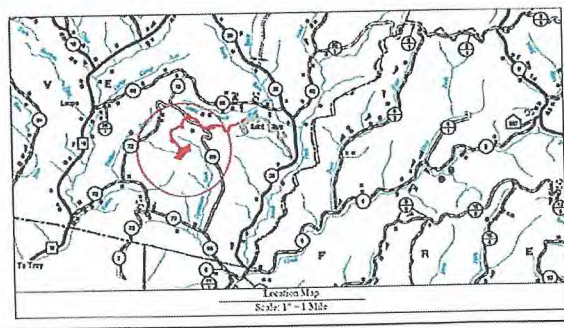
HG Energy LLC will obtain an Encroachment Permit (Form MM-109) from the WV Department of Transportation, Division of Highways, prior to the commencement of any construction activities.

The WV Mine Website was searched. Previous mining activities are not within the AOI.

WVDEP Website files show that there are active and/or abandoned gas wells within the AOI.

Floodplain Certificate

Property	Area	Notes
...
TOTAL	0.00	Ac



Well Location Restrictions

All Well Locations are subject to the following restrictions:

- *250' from any existing or proposed gas well (if the area of the well is not within the AOI)
- *25' from any existing or proposed gas well (if the area of the well is not within the AOI)
- *150' from the edge of a ditch to the water table (if the area of the well is not within the AOI)
- *100' from the edge of a ditch to the water table (if the area of the well is not within the AOI)

Location Map
Scale: 1" = 1 Mile

Professional Engineer
Zachary Summers
304-533-6751
Professional Engineer
No. 22114
State of West Virginia

Sheet	Description
01	Cover Sheet
02	Schedule of Quantities
03	Site Notes
04	Pre-Construction Site Conditions
05	Site Soil Map
06	Cleaning Exhibit
07	Overall Plan View
08	EAC Plan View
09	Tree Key Exhibit
10	Plan View
11	Cross Sections - Well Pad
12	Cross Sections - AST Pad
13	Cross Sections - Access Road
14	Geological Exhibit
15	Landowner Disturbed Area Exhibit
16	Site Reclamation
17	Facilities Exhibit
18	Erosion and Sediment Control Details
19	Access Road Details
20	Pad Details

Cover Sheet
1223 Well Site
Cove District
Doddridge County, WV

Date: 04/24/2024
Scale: As Shown
Designed By: ZS
File No.:
Sheet 1 of 37

