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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Tuesday, January 14, 2020  
WELL WORK PLUGGING PERMIT  
Horizontal 6A Plugging

HG ENERGY II APPALACHIA, LLC  
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for RIDDLE 1301 S-4H  
47-021-05795-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: RIDDLE 1301 S-4H  
Farm Name: EMARY W. & JESSICA R. FR<sup>+</sup>  
U.S. WELL NUMBER: 47-021-05795-00-00  
Horizontal 6A Plugging  
Date Issued: 1/14/2020

Promoting a healthy environment.

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## PERMIT CONDITIONS

West Virginia Code § 22-6-11 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

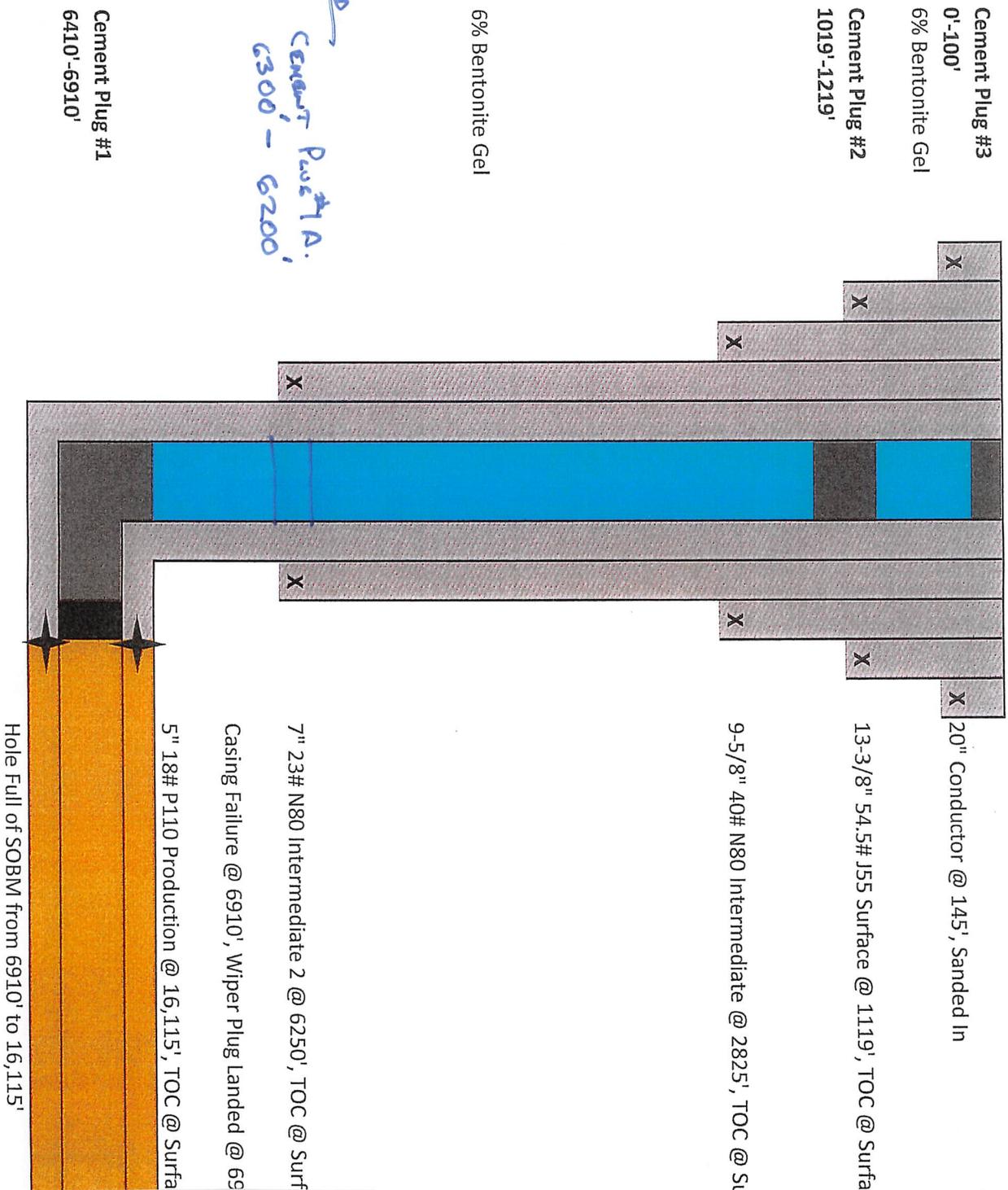
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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.



WW-4B Continued

API No 47-021-05795  
Farm RIDDLE  
Well # 1301 S 4H  
County Gilmer, WV



X 20" Conductor @ 145', Sanded In

X 13-3/8" 54.5# 155 Surface @ 1119', TOC @ Surfa

X 9-5/8" 40# N80 Intermediate @ 2825', TOC @ Su

X 7" 23# N80 Intermediate 2 @ 6250', TOC @ Surf

Casing Failure @ 6910', Wiper Plug Landed @ 69

5" 18# P110 Production @ 16,115', TOC @ Surfa

Hole Full of SOBMs from 6910' to 16,115'

Cement Plug #1  
6410'-6910'

*ADD*  
*CEMENT Plug #1 A.*  
*6300 - 6200*

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X
X

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-021-05795 County Gilmer District Dekalb  
Quad Burnt House Pad Name Riddle 1301 Field/Pool Name \_\_\_\_\_  
Farm name Fred Riddle Well Number Riddle 1301 S-4H  
Operator (as registered with the OOG) HG Energy II Appalachia, LLC  
Address 5260 Dupont Road City Parkersburg State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4320680.144 Easting 505598.512  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4317738.812 Easting 506766.099

Elevation (ft) 1237' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other Wasn't completed  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine

Mud Type(s) and Additive(s)  
Synthetic Oil Base Mud, Additives - Lime, Calcium Chloride, Gilsonite, Asphalt, Barite, Emulsifier, Base Oil

Date permit issued 8/28/18 Date drilling commenced 1/25/19 Date drilling ceased 5/5/19  
Date completion activities began Not completed Date completion activities ceased NA  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft not observed Open mine(s) (Y/N) depths N  
Salt water depth(s) ft not observed Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1076, 1230 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by: \_\_\_\_\_

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API 47-021-05795 Farm name Fred Riddle Well number Riddle 1301 S-4H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	26"	20"	145'	N	94#		
Surface	17 1/2"	13 3/8"	1147'	N	54.5#		
Coal							
Intermediate 1	12 1/4"	9 5/8"	2825'	N	40#		
Intermediate 2	8.5"	7"	6250	N	23#		
Intermediate 3							
Production	6 1/8	5"	16613'	N	18#		
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Class A	900	15.6	1.19			
Coal							
Intermediate 1	Class A	1097	15.4	1.23			
Intermediate 2	Class A	686	15.6	1.19			
Intermediate 3							
Production	Class A	1000	15.6	1.19			
Tubing							

Drillers TD (ft) 6626' Pilot, lateral: 16613' MD Loggers TD (ft) 6580' Pilot  
 Deepest formation penetrated Marcellus Plug back to (ft) 5350  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) 6300' MD

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

Conductor - NA  
 Surface Casing - Bow Springs (over collars) on first 2 joints then every third joint to 100' from surface  
 Intermediate Casing - Bow Springs (over collars) on first 12 joints, then every third joint to 100' from surface  
 Production Casing - 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.

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS Well wasn't completed, abandoned after attempts to drill were unsuccessful

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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Riddle 1301 4H tops for Completion report

Lithology/fo	Top Depth	Bottom De	Top Depth	Bottom De	Rock type, type of fluid, gas,oil
Red rock	0	1076	0	1076	Red/Brown SLTST,SH,SS: no gas/water observed
Coal	1076	1090	1076	1090	Coal no gas/water observed
	1090	1230	1090	1230	SH and SS
Coal	1230	1240	1230	1240	Coal no gas/water observed
	1240	2096	1240	2096	SH/SLTST/SS first gas at 18030' 160 units
Little Lime	2096	2142	2096	2142	Limestone
Big Lime	2142	2206	2142	2206	Limestone, 2170' 500 units connection gas
Big Injun	2206	2296	2206	2296	Sandstone, 57 units background gas
Weir	2245	2540	2446	2541	Sandstone/Siltstone, oil show 549 units gas
Berea	2588	2594	2589	2595	Sandstone, 70 units gas
Devonian	2594	3487	2595	3488	Shale/Siltstone, 41 units background gas
Warren	3529	3569	3530	3570	Shale, 17 untis gas
Balltown	3929	3956	3930	3957	Shale/Siltstone, 98 units background gas
Riley	4637	4647	4638	4648	Siltstone 40 units gas
Benson	4987	4994	4988	4995	Sandstone, 111 ubnits gas
Alexander	5185	5250	5186	5251	Sandstone/Siltstone, 34 units gas
Pilot tops					
Cashaqua	6230	6366	6231	6367	
Middlesex	6366	6433	6366	6434	
Geneseo	6433	6462	6434	6463	
Burket	6462	6497	6463	6498	
Tully	6497	6503	6498	6504	
Marcellus	6503	6551	6504	6552	
Onondaga	6551	6595	6552	6596	
Huntersvill	6595	6625	6596	6626	
Side track	5350				43571
Cashaqua	6230	6366	6257	6440	
Middlesex	6366	6433	6440	6543	
Geneseo	6433	6462	6543	6611	
Burket	6462	6497	6611	6697	
Tully	6497	6500	6697	6717	
Marcellus	6500	6516	6717	16613	

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WW-4A  
Revised 6-07

1) Date: November 18, 2019  
2) Operator's Well Number  
Riddle 1301 S-4H

3) API Well No.: 47 - 021 - 05795

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name Fred Riddle	Name NA
Address 12579 Staunton Tpke Smithville, WV 26178	Address _____
(b) Name Paul & Brian Bostic	(b) Coal Owner(s) with Declaration
Address 840 Irish Heights Drive Summersville, WV 26651	Name NA
(c) Name Emary Frymier	Address _____
Address 840 Ellis Fork Road Coxs Mills, WV 26342	Name _____
6) Inspector Danny Mullins	(c) Coal Lessee with Declaration
Address 220 Jack Acres Road Buckhannon, WV 26201	Name NA
Telephone 304-932-6844	Address _____

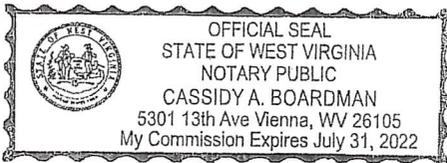
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator HG Energy II Appalachia, LLC  
 By: Diane White *Diane White*  
 Its: Agent  
 Address 5260 Dupont Road  
 Parkersburg, WV 26101  
 Telephone 304-420-1119



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 WV Department of  
 Environmental Protection

Subscribed and sworn before me this 18th day of NOVEMBER 2019  
*Cassidy A. Boardman*  
 My Commission Expires 7/31/2022 Notary Public

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyoffier@wv.gov](mailto:depprivacyoffier@wv.gov).

WW-9  
(5/16)

API Number 47 - 021 - 05795  
Operator's Well No. \_\_\_\_\_

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 494519932

Watershed (HUC 10) Ellis Fork Quadrangle Burnt House

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 (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Any wastes will be moved off site to an approved disposal site)

ANY WELL EFFLUENT MUST BE CONTAINED IN TANKS AND DISPOSED OF OFFSITE. JMM

Will closed loop system be used? If so, describe: No

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. NA

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

Additives to be used in drilling medium? NA

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

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

-Landfill or offsite name/permit number? \_\_\_\_\_

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 April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature Diane White  
Company Official (Typed Name) Diane White  
Company Official Title Agent

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Subscribed and sworn before me this 18th day of NOVEMBER, 20 19

Cassidy A. Boardman Notary Public

My commission expires 7/31/2022



Proposed Revegetation Treatment: Acres Disturbed 3.74 acres 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

Pre-seed and mulch all disturbed areas as soon as possible. Maintain E&S controls through the plugging process per regulations.

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, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: \_\_\_\_\_

\_\_\_\_\_

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Title: OOG Inspector Date: 12-2-19

Field Reviewed? ( ) Yes (  ) No

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

Operator Name: HG Energy II Appalachia, LLC  
Watershed (HUC 10): Ellis Fork Quad: Burnt House  
Farm Name: Riddle 130i

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

NA

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

NA

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

NA

4. Summarize all activities at your facility that are already regulated for groundwater protection.

NA

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5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

[Empty rectangular box]

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

NA

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

NA

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

NA

Signature: Diane White

Date: 11/18/19

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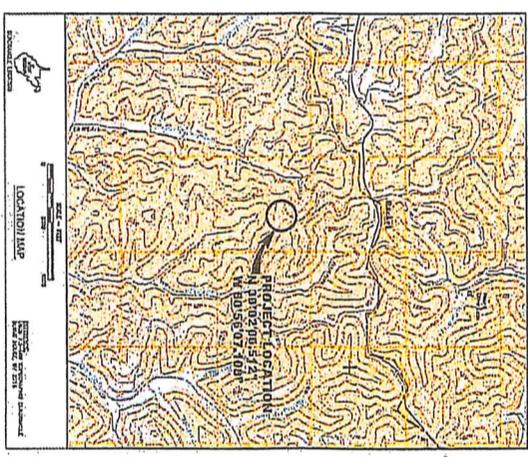
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# CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS HG WELL PAD 1301

DEKALB DISTRICT  
GILMER COUNTY  
WEST VIRGINIA

### CONSTRUCTION SEQUENCE

1. Prior to commencement of any earth disturbance activity, the contractor shall identify and delineate the boundaries of the site and adjacent property lines. The applicant shall identify all utility lines. The applicant also must clearly delineate sensitive areas, riparian forest buffer, boundaries, the limits of clearing, and trees that are to be conserved within the project site, and shall install appropriate barriers where equipment may not be used.
2. Site access: The site shall be accessed from the following areas: entrance to the site, construction routes, and areas designated for equipment or other use at the site including parking, stockpiles.
3. Sediment Barriers - Install perimeter BMPs, silt fences, and other sediment control devices as required for cleaning and grading limited to only that amount required for installing perimeter BMPs.
4. Land Clearing and Grading - Implement clearing and grading only after all down slope ERS BMPs have been constructed and stabilized.
5. Surface Stabilization - Apply temporary or permanent stabilization measures to all exposed soil surfaces where work has not been completed, has been delayed or otherwise temporarily suspended.
6. Construction of Buildings, Utilities, and Parking - During construction, install and maintain any additional erosion and sediment control BMPs, and implement any structural best construction stormwater BMPs that may be required.
7. Upon completion of pad grading, compact the pad to grade and begin placement of pad seal cement.
8. Final Stabilization, Topsoil, Trees and Shrubs - After construction is completed, install stabilization BMPs including permanent seeding, mulching and riprap, and complete implementation of stormwater BMPs in the last constructed phase. Stabilize all open areas, including BMPs and address any disturbances associated with the removal of the BMPs.



PREPARED BY:  
**HG ENERGY, LLC**  
5040 DUPONT ROAD  
PARKERSBURG, WEST VIRGINIA 26101  
(304) 420-1100

PREPARED BY:  
**PENN ENVIRONMENTAL & REMEDIATION, INC.**  
111 OGAN COURT  
PITTSBURGH, PA 15205  
(412) 772-1222

SHT. NO.	TITLE SHEET	SHEET TITLE
1	SITE LAYOUT PLANS	
2-5	POD & IMPROVEMENT SECTIONS	
6	ACCESS ROAD SECTIONS	
7-9	GENERAL NOTES	
10-11	DETAILS	
12-15	RESTORATION PLAN	
16		

ACCESS ROAD EMPLOYE	N 38.041709	W 80.840357
N 01.1	U 0.000000	W 0.000000
40	H 38.055132	W 80.840357
50	H 38.055132	W 80.840357

**WEST VIRGINIA** CALL BEFORE YOU DIG! Dial 811 or 800-444-4343

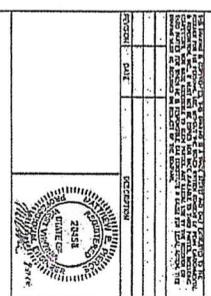
4. REPRESENTATIVE STATE AGENCIES SHALL BE CONSULTED FOR ALL NECESSARY PERMITS AND REGULATIONS AND SHALL BE ADVISED OF ANY CHANGES TO THE PROJECT.

TITLE SHEET  
HG WELL PAD 1301  
DEKALB DISTRICT  
GILMER COUNTY, WEST VIRGINIA

PREPARED BY:  
**HG ENERGY, LLC**  
PARKERSBURG, WEST VIRGINIA

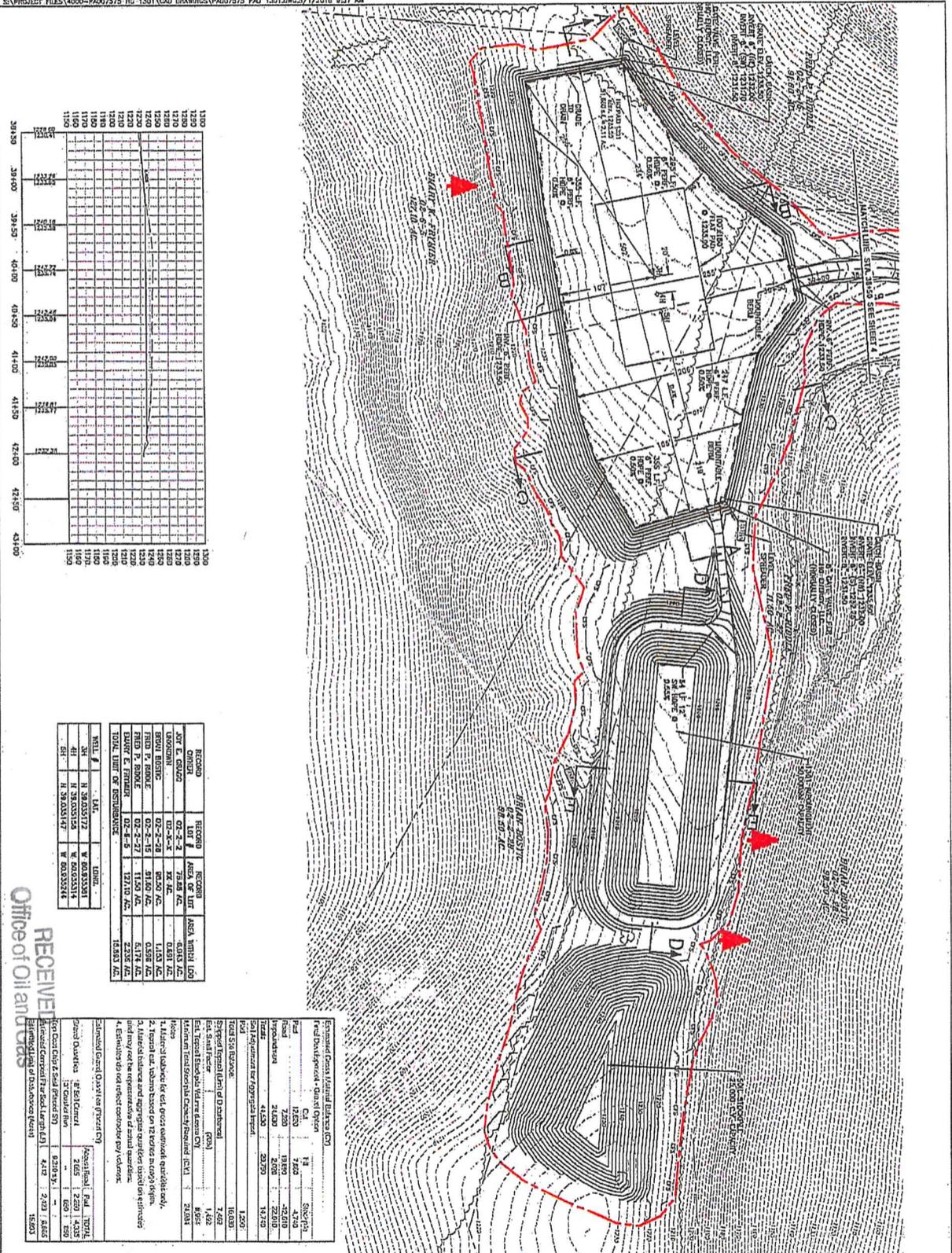
DATE: 08/21/2018  
DRAWN BY: M. WATSON  
CHECKED BY: M. WATSON  
SCALE: AS SHOWN  
PROJECT: HG WELL PAD 1301  
SHEET 1

**Penn E&R**  
Environmental Remediation  
111 Ogan Court  
Pittsburgh, PA 15205  
412-772-1222



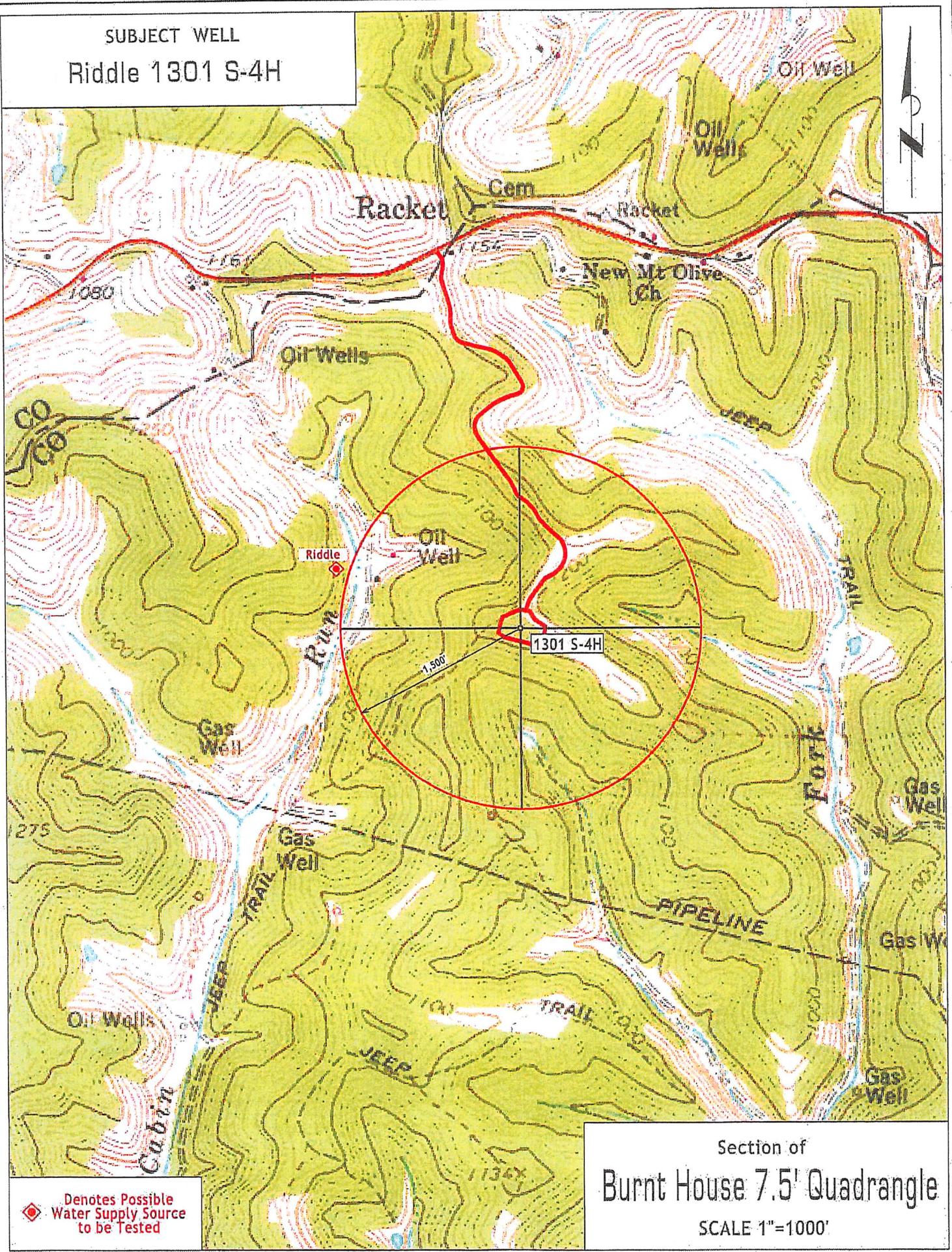


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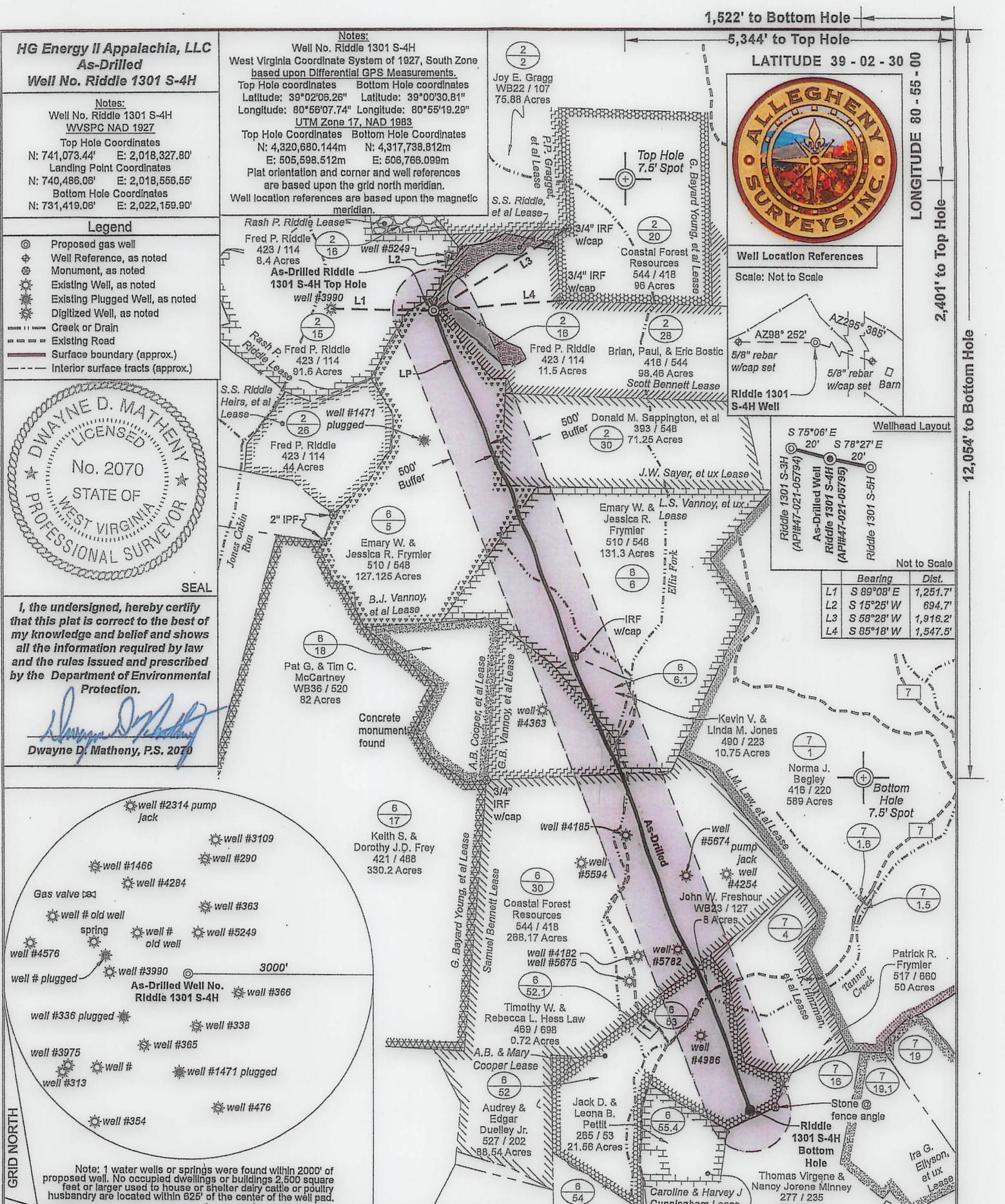
SUBJECT WELL  
Riddle 1301 S-4H



Denotes Possible  
Water Supply Source  
to be Tested

Section of  
Burnt House 7.5' Quadrangle  
SCALE 1"=1000'

RECEIVED  
Office of Oil and Gas  
DEC 19 2019  
WV Department of  
Environmental Protection

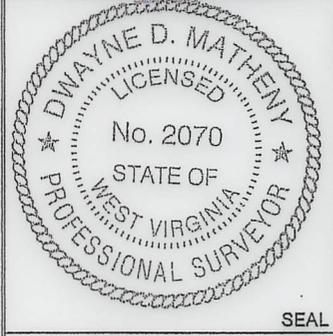


**HG Energy II Appalachia, LLC**  
**As-Drilled**  
**Well No. Riddle 1301 S-4H**

**Notes:**  
 Well No. Riddle 1301 S-4H  
 WVSPC NAD 1927  
 Top Hole Coordinates  
 N: 741,073.44' E: 2,018,327.80'  
 Landing Point Coordinates  
 N: 740,486.06' E: 2,018,566.55'  
 Bottom Hole Coordinates  
 N: 731,419.06' E: 2,022,159.90'

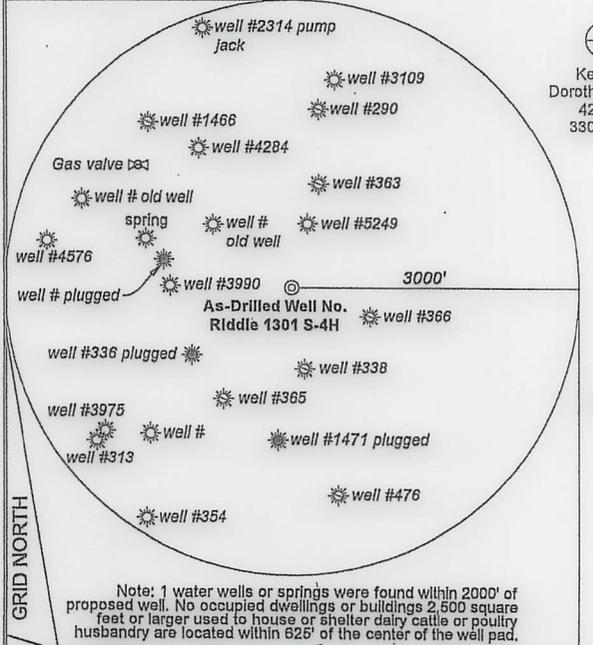
**Legend**

- ⊙ 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.)
- Interior surface tracts (approx.)



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



FILE NO: 11-19-D-18  
 DRAWING NO: Riddle 1301 S-4H As-Drilled Plat  
 SCALE: 1" = 1500'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: CORS, Harrisville, WV

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

DATE: November 7 20 19  
 OPERATOR'S WELL NO. Riddle 1301 S-4H  
 API WELL NO  
 47 — 021 — 05795P  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,237' WATERSHED: Ellis Fork  
 DISTRICT: Dekalb Fred P. Riddle, COUNTY: Gilmer  
 SURFACE OWNER: Emary W. & Jessica R. Frymier  
 ROYALTY OWNER: B. J. Vannoy; S. S. Riddle, et al LEASE NO: 260204000 ACREAGE: 127.125 / 11.50  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,516' TVD 16,613' 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