



---

west virginia department of environmental protection

---

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)

Monday, September 14, 2020  
WELL WORK PERMIT  
Vertical / Re-Work

HG ENERGY, LLC  
5260 DUPONT ROAD  
PARKERSBURG, WV 26101

Re: Permit approval for J. LONG 106  
47-087-04767-00-00

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: J. LONG 106  
Farm Name: KING, WILLIE  
U.S. WELL NUMBER: 47-087-04767-00-00  
Vertical Re-Work  
Date Issued: 9/14/2020

## 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

---

1. 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 §22-6-20, 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 fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.



1) Date: 08/03/2020  
 2) Operator's Well No. J. Long 106  
 3) API Well No.: 47 - Roane - 04767  
 State County Permit  
 4) UIC Permit No. 2R08700005AP

STATE OF WEST VIRGINIA  
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
 FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) WELL TYPE: Liquid Injection  / Gas Injection (not storage)  / Waste Disposal   
 6) LOCATION: Elevation: 1038' Watershed: Rush Run  
 District: Smithfield County Roane Quadrangle Looneyville 7.5'  
 7) WELL OPERATOR: HG Energy, LLC 8) DESIGNATED AGENT Diane White  
 Address 5260 Dupont Road Address 5260 Dupont Road  
 Parkersburg, WV 26101 Parkersburg, WV 26101

9) OIL & GAS INSPECTOR TO BE NOTIFIED 10) DRILLING CONTRACTOR  
 Name Joe Taylor Name  
 Address 1478 Claylick Road Address  
 Ripley, WV 25271

11) PROPOSED WELL WORK Drill  / Drill deeper  / Redrill  / Stimulate   
 Plug off old formation  / Perforate new formation  / Convert   
 Other physical change in well (specify) None

12) GEOLOGIC TARGET FORMATION Big Injun Depth 2350' Feet (top) to 2360' Feet (bottom)  
 13) Estimated Depth of Completed Well, (or actual depth of existing well): 2555' TMD Feet  
 14) Approximate water strata depths: Fresh NA Feet Salt 1750' Feet  
 15) Approximate coal seam depths: NA  
 16) Is coal being mined in the area? Yes No  
 17) Virgin reservoir pressure in target formation 1250 psig Source Estimated  
 18) Estimated reservoir fracture pressure 2650  
 19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom hole pressure 2400 psi  
 20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES Fresh water, Produced water,  
 bactericides, and other chemicals as needed to maintain water quality and improve oil recovery.

RECEIVED  
 Office of Oil and Gas  
 AUG 20 2020  
 WV Department of  
 Environmental Protection  
 psig (BHP)

21) FILTERS (IF ANY) Cartridge filters  
 22) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL  
 23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL -UP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For Drilling	Left In Well		
Conductor	11 5/8"	LS	NA		x	30'	30'		Kinds
Fresh Water	7"	LS	17	x		507'	507'	CTS	Tension
Coal									Sizes
Intermediate									2 3/8" x 4"
Production	4 1/2"	J-55	10.5	x		2537'	2537'	200 sks	Depths set
Tubing	2 3/8"	J-55	4.6	x		2240'	2240'		2240'
Liners									Perforations
									Top Bottom
									2350' 2360'

24) APPLICANT'S OPERATING RIGHTS were acquired from Jackson Long et ux  
 by deed / lease x / other contract / dated 02/04/1910 of record in the  
 Roane County Clerk's office in lease Book 17 Page 562

*JL*



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

API 47 - 087 - 04767 County ROANE District SMITHFIELD  
Quad LOONEYVILLE 7.5' Pad Name LONG, JACKSON Field/Pool Name CLOVER  
Farm name KING, WILLIE Well Number 106  
Operator (as registered with the OOG) H.G. ENERGY 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 4,285,299 M Easting 476,138 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4,285,512 M Easting 476,167 M

Elevation (ft) 1,038' 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 \_\_\_\_\_  
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)  
N/A

RECEIVED  
Office of Oil and Gas

AUG 20 2020

Date permit issued 3/31/15 Date drilling commenced 6/20/15 Date drilling ceased 6/25/15  
Date completion activities began 7/7/15 Date completion activities ceased 7/9/15  
Verbal plugging (Y/N) 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 None Open mine(s) (Y/N) depths None  
Salt water depth(s) ft 1750' Void(s) encountered (Y/N) depths None  
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths None  
Is coal being mined in area (Y/N) N

Reviewed by:

JRZ

WR-35  
Rev. 8/23/13

API 47-087 - 04767 Farm name KING, WILLIE Well number 106

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	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	507'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2537'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 20 sks to surface on 4 1/2" cement job.

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	Reg Neat	130	15.6	1.18	153	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	95/125	13.2/14.2	1.64/1.27	156/186	54'	8
Tubing							

Drillers TD (ft) 2555' Loggers TD (ft) 2555'  
Deepest formation penetrated Big Injun Plug back to (ft) N/A  
Plug back procedure N/A

Kick off depth (ft) 650'

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  NA  
RECEIVED Office of Oil and Gas AUG 20 2020  
NA Department of Environmental Protection

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING  
20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS

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



WR-35  
Rev. 8/23/13

API 47- 087 - 04767 Farm name KING, WILLIE Well number 106

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Big Injun	2068'- 2093' TVD	2332'- 2368' MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sand/Shale	0	1400	0	1426	
Sand	1400	1420	1426	1450	
Shale	1420	1592	1450	1652	
Sand	1592	1742	1652	1848	
Shale	1742	1748	1848	1858	
Sand	1748	1762	1858	1878	
Shale	1762	1798	1878	1930	
Sand	1798	1948	1930	2152	
Big Lime	1948	2040	2152	2292	
Keener	2040	2068	2292	2332	
Big Injun	2068	2093	2332	2368	Drilled directional N 10.7° E a distance of 776'
Shale	2093	2233	2368	2555	
TD	2233		2555		

RECEIVED  
Office of Oil and Gas  
AUG 20 2020  
WV Department of  
Environmental Protection

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling  
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International  
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services  
Address Hall Rd City Buckhannon State WV Zip 26201

Stimulating Company Producers Service Corp.  
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107  
Signature [Signature] Title Operations Manager Date 7/28/15

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

*SR*









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

47-087-047675A

August 3, 2020

Willie King  
1090 Clover Road  
Spencer, WV 25276

RE: J. Long No. 106  
Smithfield District, Roane County  
West Virginia

Dear Landowner:

Enclosed are copies of various application papers that we have filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a landowner are detailed in the enclosed permit application papers.

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

Very truly yours,

*Diane White*

Diane C. White

Enclosures

RECEIVED  
Office of Oil and Gas  
AUG 20 2020  
WV Department of  
Environmental Protection

47-087-04767SR

7019 2280 0000 1287 1396

<b>U.S. Postal Service™</b> <b>CERTIFIED MAIL® RECEIPT</b> <i>Domestic Mail Only</i>	
For delivery information, visit our website at <a href="http://www.usps.com">www.usps.com</a> ®.	
<b>OFFICIAL USE</b>	
Certified Mail Fee \$ _____	
Extra Services & Fees (check box, add fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy) \$ _____	
<input type="checkbox"/> Return Receipt (electronic) \$ _____	
<input type="checkbox"/> Certified Mail Restricted Delivery \$ _____	
<input type="checkbox"/> Adult Signature Required \$ _____	
<input type="checkbox"/> Adult Signature Restricted Delivery \$ _____	
Postage \$ _____	
<b>Total Postage and Fees</b> \$ _____	
Sent To <u>Willie King</u>	
Street and Apt. No., or PO Box No. <u>1090 Clover Road</u>	
City, State, ZIP+4® <u>Spencer WV 25276</u>	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

RECEIVED  
 Office of Oil and Gas  
 AUG 20 2020  
 WV Department of  
 Environmental Protection

WW-2A / 3A Surface Waiver

SURFACE OWNER WAIVER

County Roane Operator HG Energy, LLC  
Operator well number J Long 106

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A / 3A**

The well operator named on page WW-2A / 3A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

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

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) 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.

**Comments must be in writing.** Your comments must 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.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

**If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.**

**List of Water Testing Laboratories.** The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A / 3A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW-2B / 3A, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

\_\_\_\_\_  
Signature  
  
04767  
\_\_\_\_\_  
Print Name

Date \_\_\_\_\_

Company Name \_\_\_\_\_  
By \_\_\_\_\_  
Its \_\_\_\_\_  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Date

RECEIVED  
Office of Oil and Gas

AUG 20 2020

WV Department of  
Environmental Protection

WW-2B1  
(5-12)

Well No. J Long 106

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contractor chosen to collect sample.

Certified Laboratory Name Sturm Analytical Lab  
Sampling Contractor Sturm Analytical Lab

Well Operator HG Energy, LLC  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone 304-420-1119

RECEIVED  
Office of Oil and Gas

AUG 20 2020

WV Department of  
Environmental Protection

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

\* Not Applicable



WW-9  
(2/15)

API Number 47 - 87 - 04767

Operator's Well No. J Long 108

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy, LLC OP Code 494497948

Watershed (HUC 10) Rush Run Quadrangle Looneyville 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

*ALL WELL EFFLUENT MUST BE CONTAINED IN TANKS BEFORE DISPOSING OFF-SITE.*

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 \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No waste anticipated, should there be any fluids they'll be hauled for disposal)

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. NA

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? NA

RECEIVED  
Office of Oil and Gas

AUG 20 2020

WV Department of  
Environmental Protection

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

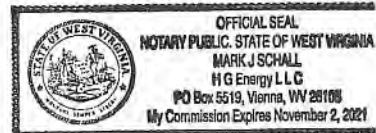
Company Official Title Agent

Subscribed and sworn before me this 3rd day of August, 20 20

*[Handwritten Signature]*

Notary Public

My commission expires 11/2/2021



*[Handwritten Initials]*

Form WW-9

Operator's Well No. J Long 106

HG Energy, LLC

Proposed Revegetation Treatment: Acres Disturbed 0.1 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Straw 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

**\*\* Sediment Control Plan will be in effect at all times \*\***

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Joe Taylor 

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

RECEIVED  
Office of Oil and Gas

AUG 20 2020

WV Department of  
Environmental Protection

Title: Inspector

Date: 8-12-2020

Field Reviewed?

( X ) Yes

( ) No



47-087-04767 SR



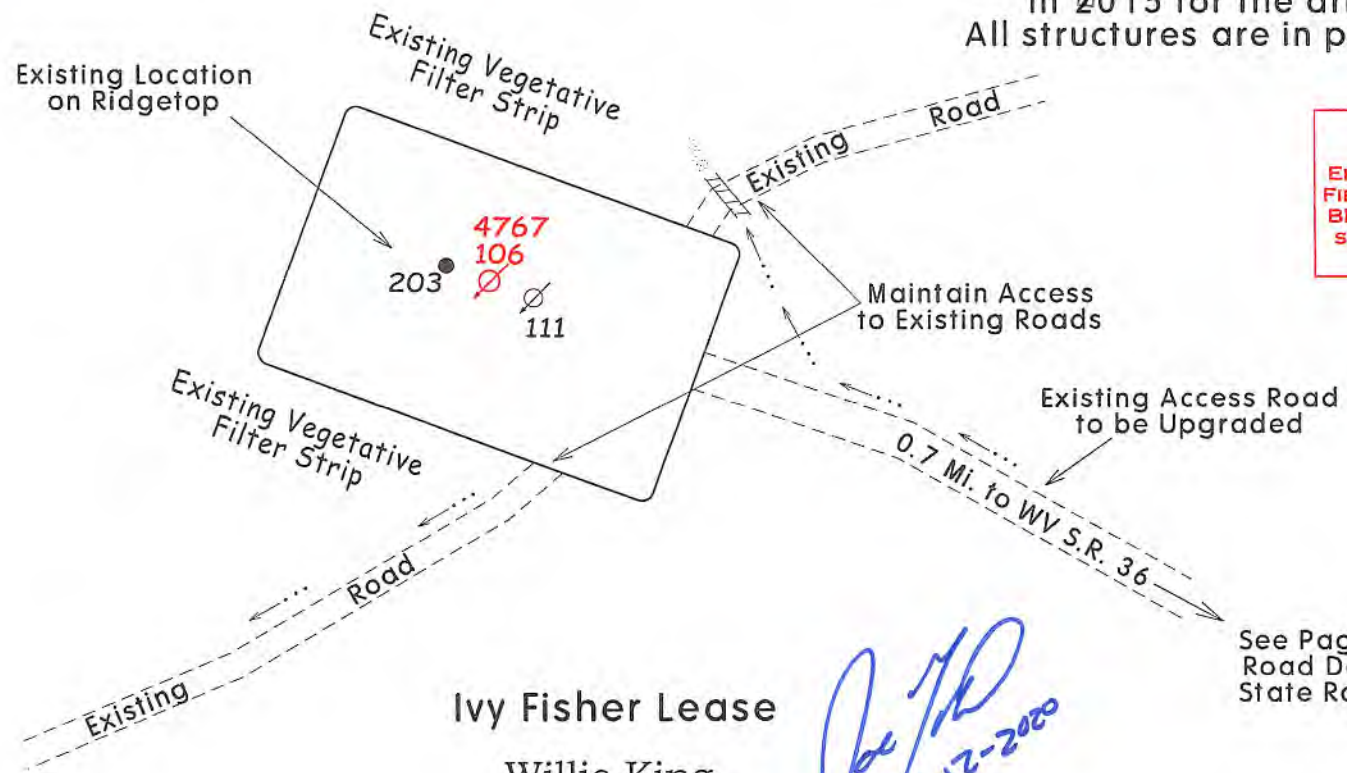
# Reclamation Plan For: Jackson Long No. 106

47-087-04767

RECEIVED  
Office of Oil and Gas  
AUG 20 2020  
WV Department of Environmental Protection

**Note**  
Access roads and Drill Site were constructed in 2015 for the drilling of the subject well. All structures are in place and will be maintained

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



See Page 2 for  
Road Detail to  
State Route 36

*Joe [Signature]*  
5-12-2020

Ivy Fisher Lease  
Willie King  
- Surface

**Notes:**

- REQUESTED PERMIT IS FOR RECOMPLETION OF AN EXISTING WELL.
- ACCESS ROADS ARE EXISTING AND WILL BE MAINTAINED TO WVDEP STANDARDS.
- NO EARTHWORK IS ANTICIPATED FOR REQUESTED WELL WORK
- NO PIT WILL BE REQUIRED FOR REQUESTED WELL WORK.
- ANY DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- DRAWING NOT TO SCALE.

47-087-04767 SR



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

**EXISTING LOCATION:**

Ivy Fisher No.111 (47-087-04765)  
Ivy Fisher No.203 (47-087-04779)  
Jackson Long No.106 (47-087-04767)

Ivy Fisher Lease  
Willie King  
- Surface Owner

Maintain Existing  
Access Road

*Joe Fisher*  
5-12-2020

**EXISTING WELLS**

C. McGraw No.116 (47-087-04766)  
C. McGraw No.207 (47-087-04777)

RECEIVED  
Office of Oil and Gas  
AUG 20 2020  
WV Department of  
Environmental Protection

Charles McGraw Lease  
Richard Fisher, et al.  
- Surface Owners

Maintain Existing  
Access Road

Shooting  
House

150' of 10-12% Grade

UNIT  
WATERFLOOD  
LINE

L.D. Webb

Field

500' of 0-5% Grade  
Along Edge of Field

Gas

Pipeline

Garages

Fisher  
Residence

36

Existing Commercial  
Road Approach

Gate

Existing Lease Road

Alice J. Epling Lease  
Richard Fisher, et al.  
- Surface Owners

**EXISTING WELLS**

A.J. Epling No.119 (47-087-04763)  
A.J. Epling No.120 (47-087-04764)  
A.J. Epling No.211 (47-087-04771)  
A.J. Epling No.215 (47-087-04772)

CLOVER

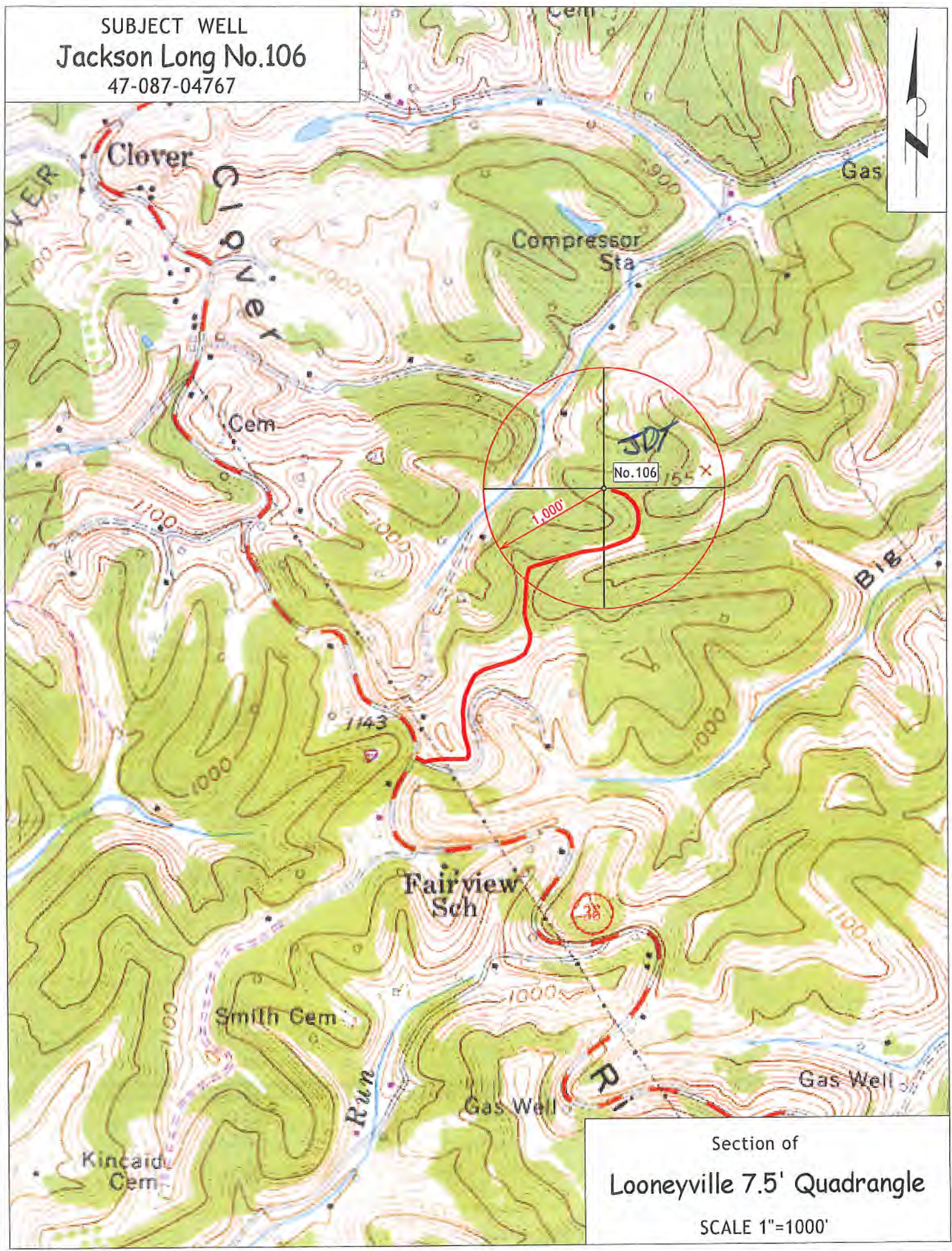


CLOVER WATERFLOOD  
Roane County, W.Va.

RECLAMATION PLAN  
SHOWING EXISTING ROAD  
CONSTRUCTED FOR THE  
2015 DRILLING PROGRAM



SUBJECT WELL  
Jackson Long No.106  
47-087-04767



Section of  
Looneyville 7.5' Quadrangle  
SCALE 1"=1000'

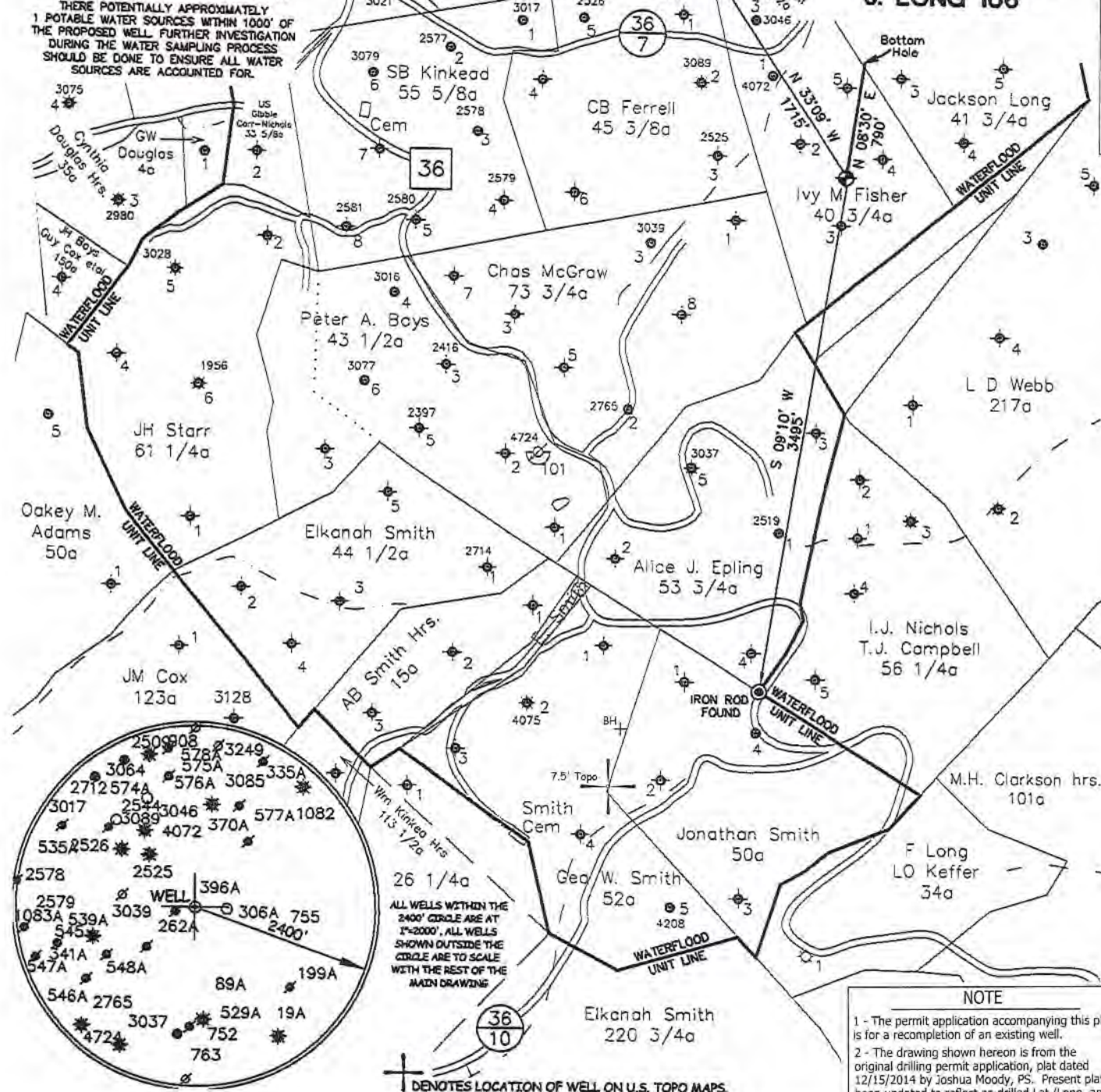


**SURVEY NOTES**

- 1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).
- 2 - Surface owners and adjoining information obtained from the Roane County Assessor's tax records.
- 3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete Title Opinion.
- 4 - Existing well spots from HGE or Seneca Tech, Inc. data

UTM Coordinates (Zone 17N-NAD 1983)		LOCATION REFERENCES	
Surface	N-4,285,299m. E-476,138m.	MAGNETIC BEARING S 04° E 104.0' 6" HICKORY S 85° E 125.8' 10" HICKORY	
Bottom Hole	N-4,285,537m. E-476,174m.		

**MAP OF H.G. ENERGY, LLC -WATERFLOOD UNIT- J. LONG 106**



**NOTE**

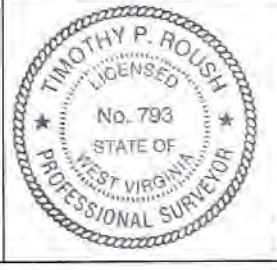
- 1 - The permit application accompanying this plat is for a recompletion of an existing well.
- 2 - The drawing shown hereon is from the original drilling permit application, plat dated 12/15/2014 by Joshua Moody, PS. Present plat has been updated to reflect as-drilled Lat./Long. and current surface ownership.

⊕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

FILE NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY \_\_\_\_\_  
 PROVEN SOURCE OF ELEVATION DGPS Survey  
 (Sub-Meter Mapping Grade)

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) *[Signature]*  
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA  
 Division of Environmental Protection  
 Office of Oil and Gas  
 601 57th Street  
 Charleston, West Virginia 25301

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

LOCATION: ELEVATION 1,038' WATERSHED Rush Run  
 DISTRICT Smithfield COUNTY Roane  
 QUADRANGLE Looneyville 7.5'

SURFACE OWNER Willie King ACREAGE 40.16 Ac.  
 OIL & GAS ROYALTY OWNER Myrtle Long Brooks, et al. LEASE ACREAGE 42 Ac.  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ 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 Big Injun ESTIMATED DEPTH 2,555' MD  
 WELL OPERATOR H.G. Energy LLC. DESIGNATED AGENT Diane White  
 ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road  
 Parkersburg, WV 26101 Parkersburg, WV 26101

DATE July 24, 2020  
 FARM Jackson B. Long No.106  
 API WELL NO. 47 - 087 - 04767



1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).

2 - Surface owners and adjacent information obtained from the Roane County Assessor's tax records.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title opinion.

4 - Existing well spots from HGE or Seneca Tech, Inc. data

THERE POTENTIALLY APPROXIMATELY 1 POTABLE WATER SOURCES WITHIN 1000' OF THE PROPOSED WELL. FURTHER INVESTIGATION DURING THE WATER SAMPLING PROCESS SHOULD BE DONE TO ENSURE ALL WATER SOURCES ARE ACCOUNTED FOR.

SURVEY NOTES

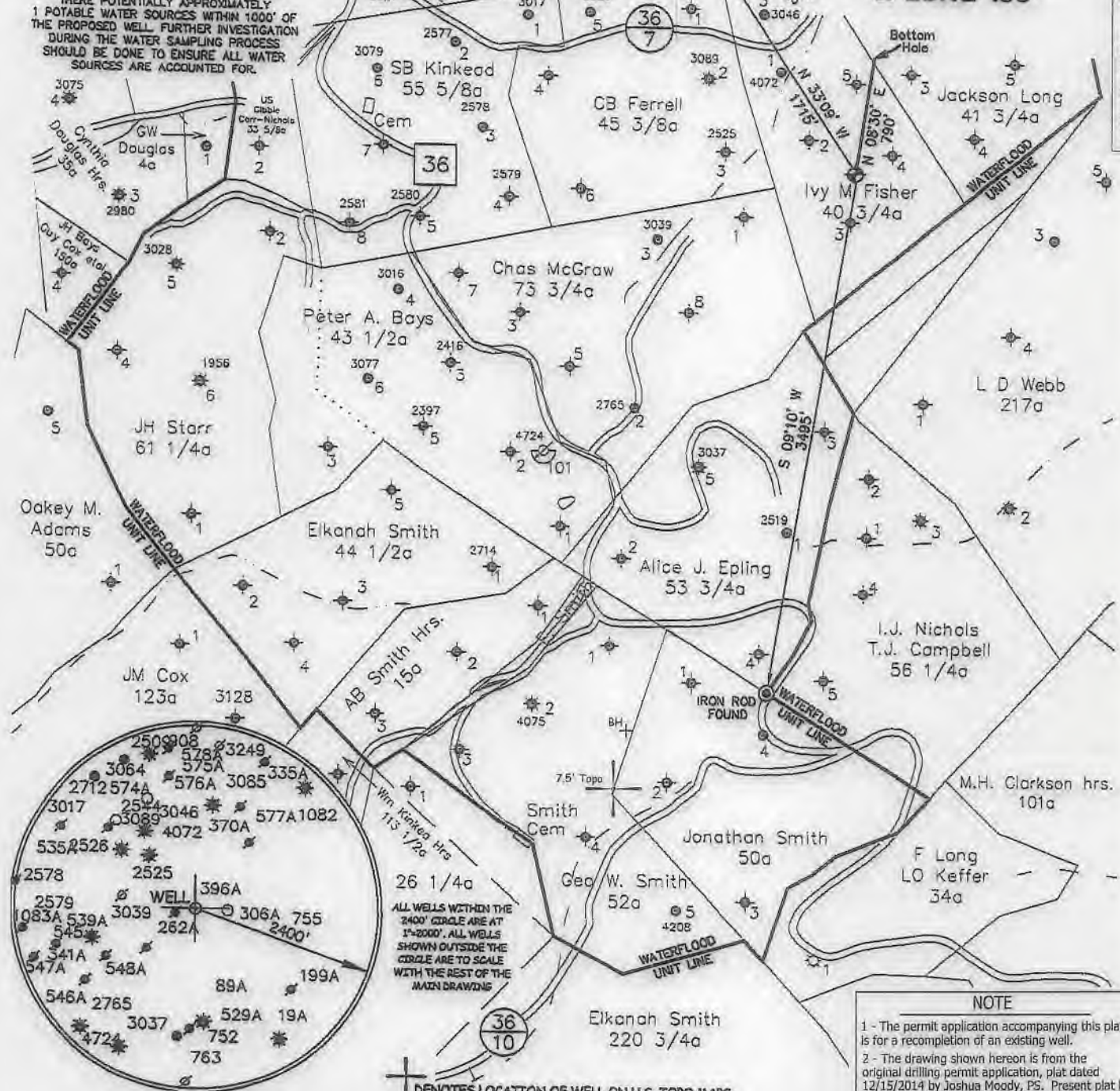
UTM Coordinates (Zone 17N-NAD 1983)

Surface N-4,285,299m. E-476,138m. Bottom Hole N-4,285,537m. E-476,174m.

LOCATION REFERENCES

MAGNETIC BEARING S04° E 104.0' 6" HICKORY S85° E 125.8' 10" HICKORY

MAP OF H.G. ENERGY, LLC -WATERFLOOD UNIT- J. LONG 106



ALL WELLS WITHIN THE 2400' CIRCLE ARE AT 1"=2000'. ALL WELLS SHOWN OUTSIDE THE CIRCLE ARE TO SCALE WITH THE REST OF THE MAIN DRAWING

+ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

NOTE

1 - The permit application accompanying this plat is for a recompletion of an existing well. 2 - The drawing shown hereon is from the original drilling permit application, plat dated 12/15/2014 by Joshua Moody, PS. Present plat has been updated to reflect as-drilled Lat./Long. and current surface ownership.

FILE NO. \_\_\_\_\_

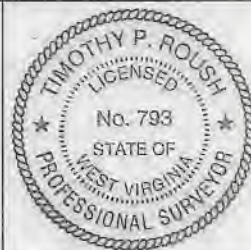
SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY \_\_\_\_\_

PROVEN SOURCE OF ELEVATION DGPS Survey (Sub-Meter Mapping Grade)

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) TIMOTHY P. ROUSH PS 793



WEST VIRGINIA Division of Environmental Protection Office of Oil and Gas 601 57th Street Charleston, West Virginia 25301



DATE July 24, 2020 FARM Jackson B. Long No.106 API WELL NO. 47 - 087 - 04767 SR

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

LOCATION: ELEVATION 1,038' WATERSHED Rush Run DISTRICT Smithfield COUNTY Roane QUADRANGLE Looneyville 7.5'

SURFACE OWNER Willie King ACREAGE 40.16 Ac. OIL & GAS ROYALTY OWNER Myrtle Long Brooks, et al. LEASE ACREAGE 42 Ac.

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ TARGET FORMATION Big Injun ESTIMATED DEPTH 2,555' MD

WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Diane White ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road Parkersburg, WV 26101





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

47-087-04767 SR

August 3, 2020

Mr. Jeff McLaughlin  
WVDEP  
Division of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

*CHK# 4707  
Amt \$ 550  
Date 8/7/20*

RE: J. Long No. 106 (API 47-087-04767)  
Smithfield District, Roane County  
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate an injection well. Also enclosed is our check in the amount of \$550.00 to cover the associated permit fees.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

cc: Willie King – Certified  
Joe Taylor – Inspector

RECEIVED  
Office of Oil and Gas  
AUG 20 2020  
WV Department of  
Environmental Protection