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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, November 19, 2019  
WELL WORK PERMIT  
Vertical / Fracture

HG ENERGY, LLC  
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for AUSTIN GRIFFITH NO. 103  
47-043-03451-00-00

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: Austin Griffith NO. 103  
Farm Name: ALLEN, TERRY & DAWNA  
U.S. WELL NUMBER: 47-043-03451-00-00  
Vertical Fracture  
Date Issued: 11/19/2019

## PERMIT CONDITIONS

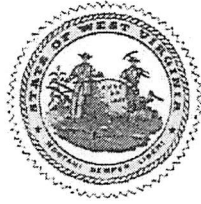
West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. 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 within 30 days of commencement of drilling.





1) Date: September 17, 2019  
 2) Operator's Well No. Austin Griffith 103  
 3) API Well No.: 47 - 043 - 03451  
State County Permit  
 4) UIC Permit No. \_\_\_\_\_

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

5) Surface Owner(S) To Be Served (a) Name <u>Terry and Dawna Allen</u> Address <u>28 Russell Road</u> <u>Yawkey, WV 25573</u> (b) Name _____ Address _____ (c) Name _____ Address _____	7) (a) Coal Operator Name <u>NA</u> Address _____ 7) (b) Coal Owner(S) With Declaration Of Record Name <u>NA</u> Address _____ Name _____ Address _____ 7) (c) Coal Lessee with Declaration Of Record Name <u>NA</u> Address _____
6) Inspector <u>Jeffery Smith</u> Address <u>5369 Big Tyler Road</u> <u>Cross Lanes, WV 25313</u> Telephone <u>681-313-6743</u>	

**RECEIVED**  
**Office of Oil and Gas**  
**OCT 23 2019**  
**WV Department of**  
**Environmental Protection**

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

- (1) The Application For A Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is \_\_\_\_\_ 20 \_\_\_\_ .

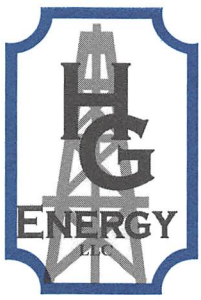
THE REASON YOU HAVE RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION [(FORM WW-3(B))] DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE ACTION AT ALL.

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 Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan 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 the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

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

Well Operator HG Energy, LLC  
 Address 5260 Dupont Road  
Parkersburg, WV 26101  
 By: Diane White  
 Its: Agent  
 Signature: Diane White



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

47-043-03451W

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September 17, 2019

Terry & Dawna Allen  
28 Russell Road  
Yawkey, WV 25573

RE: Austin Griffin No. 103 (47-043-03451)  
Duval District, Lincoln 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

WW-2A  
(Rev. 6-14)

OCT 15 2019

WV Department of  
Environmental Protection

1.) Date: September 17, 2019  
2.) Operator's Well Number Austin Griffith 103  
State County Permit  
3.) API Well No.: 47- 043 - 03451

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

4) Surface Owner(s) to be served:  
(a) Name Terry and Dawna Allen  
Address 28 Russell Road  
Yawkev. WV 25573  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Jeffery Smith  
Address 5369 Big Tyler Road  
Cross Lanes. WV 25313  
Telephone 681-313-6743  
5) (a) Coal Operator  
Name NA  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name NA  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name NA  
Address \_\_\_\_\_

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

       Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas  
**OR**

  x   Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through        on the above named parties by:

- Personal Service (Affidavit attached)
- x   Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator HG Energy, LLC  
By: Diane White *Diane White*  
Its: Agent  
Address: 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone: 304-420-1119  
Email: dwhite@hgenergvllc.com

Subscribed and sworn before me this 17th day of September, 03451


Cassidy Boardman Notary Public

My Commission Expires 7/31/2022

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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov)

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Office of Oil and Gas

 OCT 15 2019

WR-35  
Rev. 8/23/13

State of West Virginia      WV Department of  
Department of Environmental Protection - Office of Environmental Protection  
Well Operator's Report of Well Work

API 47-043-03451      County LINCOLN      District DUVAL  
Quad GRIFFITHSVILLE 7.5'      Pad Name AUSTIN GRIFFITH      Field/Pool Name GRIFFITHSVILLE  
Farm name ALLEN, TERRY & DAWNA      Well Number 103  
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 4,231,280 M      Easting 415,930 M  
Landing Point of Curve      Northing \_\_\_\_\_      Easting \_\_\_\_\_  
Bottom Hole      Northing \_\_\_\_\_      Easting \_\_\_\_\_

Elevation (ft) 861'      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

Date permit issued 5/31/2013      Date drilling commenced 7/10/14      Date drilling ceased 7/12/14  
Date completion activities began 7/28/14      Date completion activities ceased 7/29/14  
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 320'      Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1010', 1300'      Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 438'- 445'      Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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

OCT 15 2019

Page 2 of 4

WR-35  
Rev. 8/23/13

API 47-043 - 03451

Farm name ALLEN, TERRY & DAWNA

WV Department of  
Environmental Protection

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"	548'	New	LS	84'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2572.75'	New	J-55		N
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 50 sks to surface on 7" surface 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	150	14.2	1.27	191	672'	8
Tubing							

Drillers TD (ft) 2490' Loggers TD (ft) 2496'

Deepest formation penetrated Berea Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) N/A

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

6 Centralizers every 84 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- 043 - 03451 Farm name ALLEN, TERRY & DAWNA Well number 103

PRODUCING FORMATION(S)	DEPTHS
Berea	2338'- 2348' TVD _____ MD _____
_____	_____
_____	_____
_____	_____

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Environmental Protection

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	438	0		
Pittsburgh Coal	438	445			
Sand/Shale	445	1609			
Big Lime	1609	1814			
Big Injun	1814	1918			
Shale	1918	2314			
Coffee Shale	2314	2334			
Berea	2334	2354			
Shale	2354	2490			
TD	2490				

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

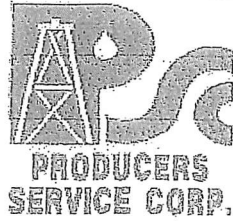
Cementing Company Universal Services  
Address 5252 Rt 1428 City Allen State KY Zip 41601

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 *R. Heldman* Title Operations Manager Date 10/15/14

Prepared for:  
**HG Energy**  
**Dustin Hendershot**  
 304 771 5432



Prepared by:  
**Producers Service Corp**  
**Chris Bryan**  
 109 S. Graham St.  
 Zanesville, OH 43702  
 740-454-6253

**INVOICE #:** 16760

**WELL NAME:** A. Griffith #103

**STATE & COUNTY:** Lincoln, WV

**TOWNSHIP/FIELD:** Griffithsville

**DATE of SERVICE:** 7/29/2014

**CUSTOMER PO#**

Description	Notes	Amount	Units	Unit Cost	Total Cost
ACID PUMP CHARGE 1000-2000 PSI		1	EA	\$	
MILEAGE CHARGE PER UNIT ONE WAY	1 Unit @ 200 Miles	200	MI	\$	
IC ACID 15%		500	GAL	\$	
ACID DELIVERY		2	HR	\$	
PRO HIB II		0.5	GAL	\$	
PRO CLA FIRM LP		0.5	GAL	\$	
PRO NE-1		0.5	GAL	\$	
PRO PEN		0.5	GAL	\$	
DATA VAN		1	STAGE	\$	

Customer Approval: \_\_\_\_\_

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 OCT 15 2019  
 WV Department of  
 Environmental Protection

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Office of Oil and Gas

WW-9  
(5/16)

OCT 15 2019

API Number 47 - 043 - 03451  
Operator's Well No. Austin Griffith 103

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) Porter Fork Quadrangle Griffithville 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

ANY WELL EFFLUENT (FRAC WATER) MUST BE CONTAINED IN TANKS AND DISPOSED OF OFF-SITE, *gww*

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 \_\_\_\_\_)

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

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

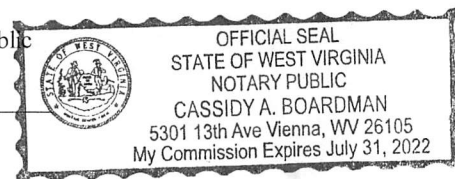
Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 17th day of September, 20 19

Cassidy Boardman Notary Public

My commission expires 7/31/2022



Proposed Revegetation Treatment: Acres Disturbed 0.2 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10/20/20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch Straw 200 Tons/acre

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Seed Mixtures

**Temporary**

**Permanent**

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

**\*\*Sediment Control Will Be Maintained At All Times\*\***

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: Jeffrey Smith

Comments: All sediment control to be removed prior to Release.

Title: Oil & Gas Inspector

Date: 09/17/2019

Field Reviewed?  Yes  No

N/A



OCT 15 2019

WV Department of  
Environmental Protection  
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
GROUNDWATER PROTECTION PLAN

Operator Name: HG Energy, LLC

Watershed (HUC 10): Porter Fork Quad: Griffithsville 7.5'

Farm Name: Terry and Dawna Allen

- 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

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

N/A

NA

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: 09/17/2019

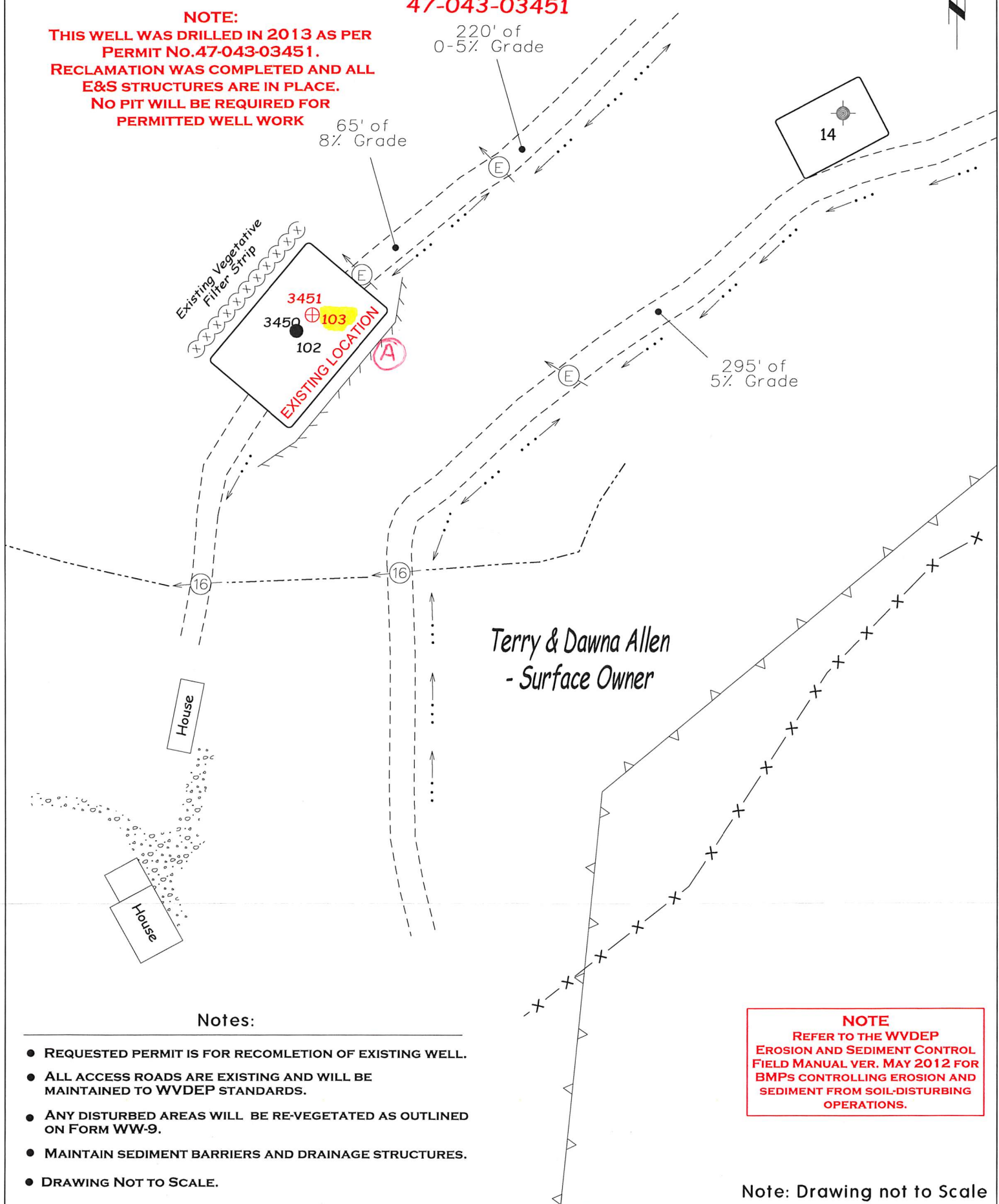
# Reclamation Plan For:

## Austin Griffith No. 103

47-043-03451



**NOTE:**  
**THIS WELL WAS DRILLED IN 2013 AS PER PERMIT No.47-043-03451.**  
**RECLAMATION WAS COMPLETED AND ALL E&S STRUCTURES ARE IN PLACE.**  
**NO PIT WILL BE REQUIRED FOR PERMITTED WELL WORK**



### Notes:

- REQUESTED PERMIT IS FOR RECOMLETION OF EXISTING WELL.
- ALL ACCESS ROADS ARE EXISTING AND WILL BE MAINTAINED TO WVDEP STANDARDS.
- ANY DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- DRAWING NOT TO SCALE.

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

Note: Drawing not to Scale



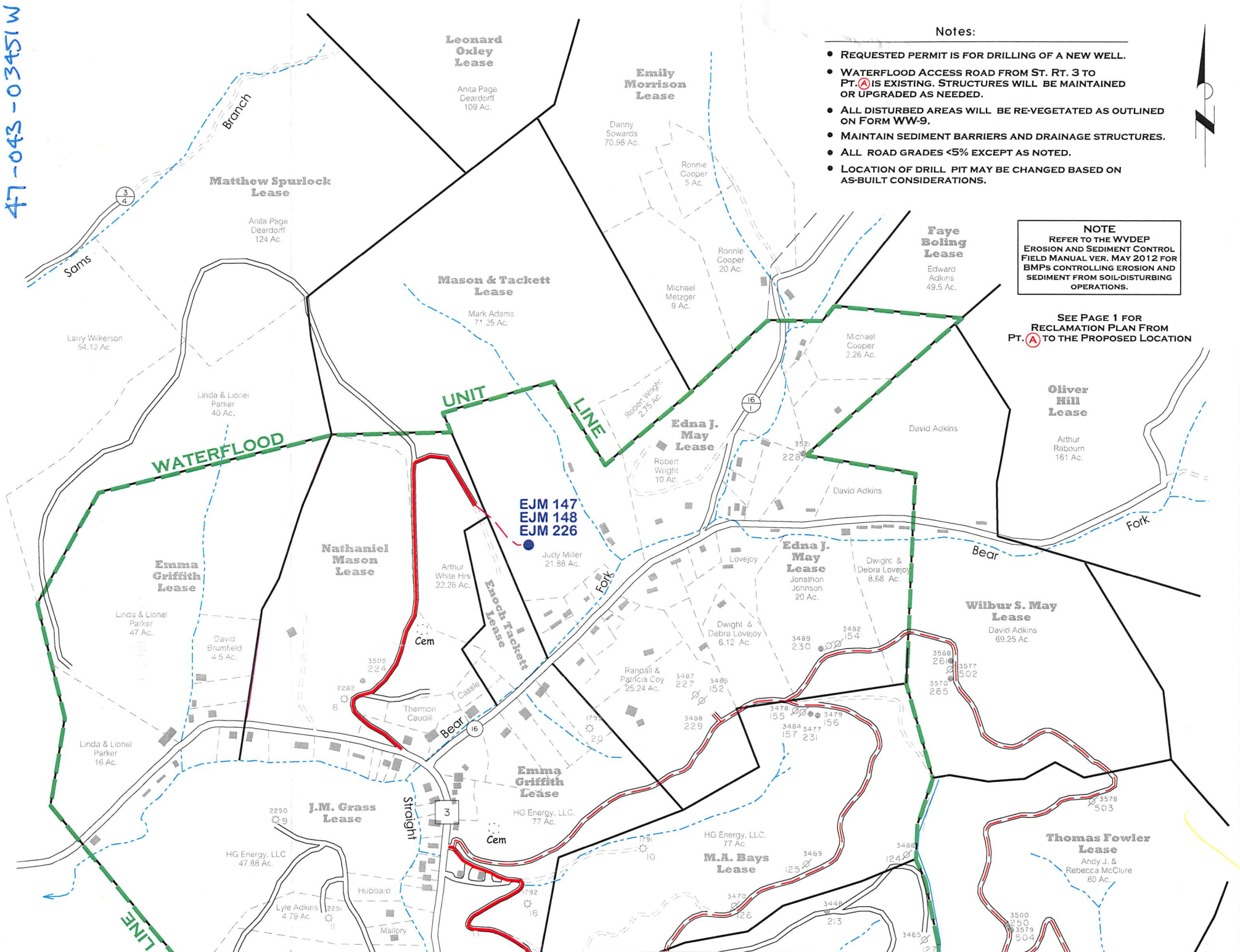
47-043-03451W

Notes:

- REQUESTED PERMIT IS FOR DRILLING OF A NEW WELL.
- WATERFLOOD ACCESS ROAD FROM ST. RT. 3 TO PT. A IS EXISTING. STRUCTURES WILL BE MAINTAINED OR UPGRADED AS NEEDED.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.

**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 1 FOR  
 RECLAMATION PLAN FROM  
 PT. A TO THE PROPOSED LOCATION



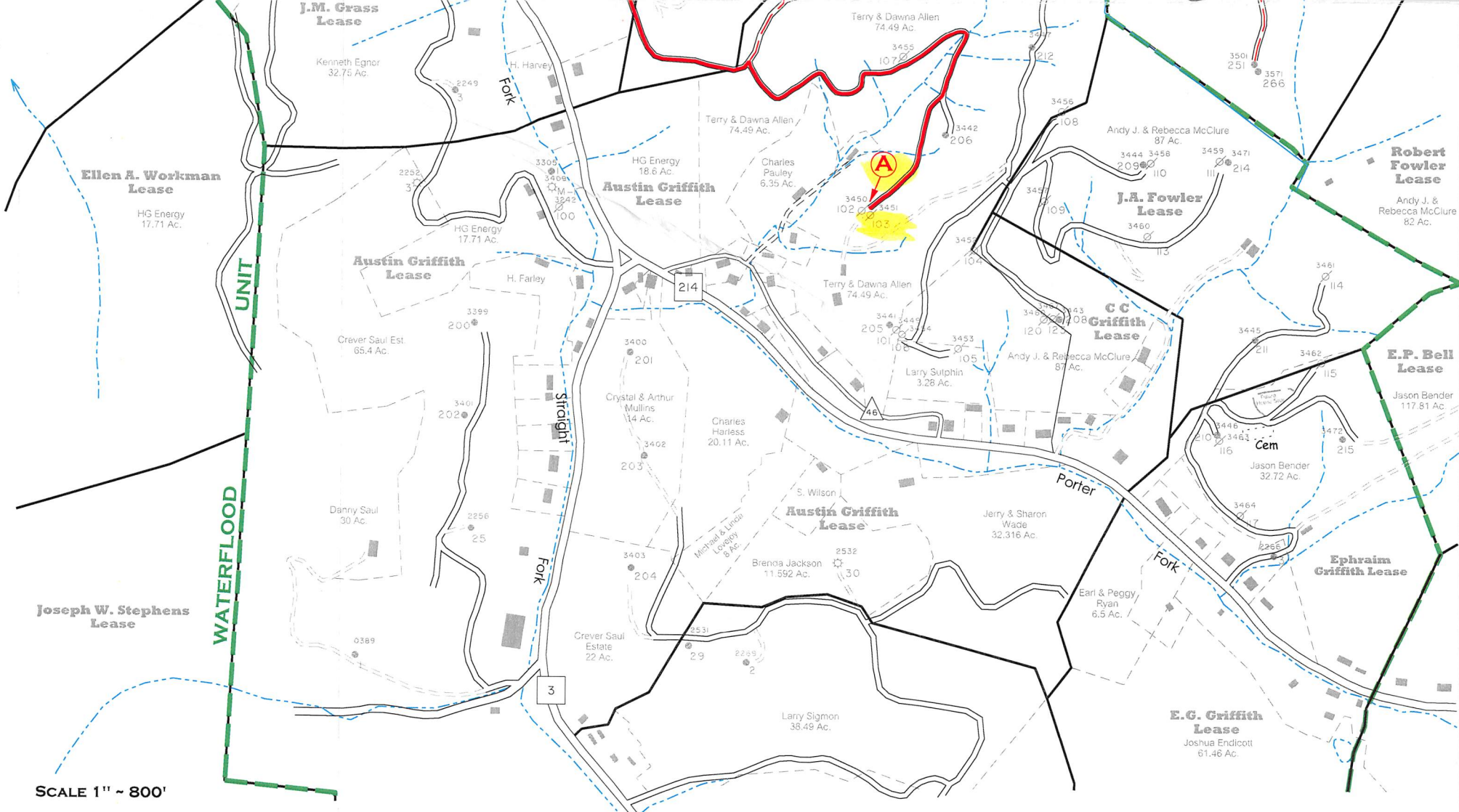
**EJM 147  
 EJM 148  
 EJM 226**

**WATERFLOOD**

**UNIT LINE**

**LINE**





SCALE 1" ~ 800'



# GRIFFITHSVILLE WATERFLOOD







Lincoln County, W.Va.

## RECLAMATION PLAN SHOWING ROAD SYSTEMS TO BE USED FOR 2019 DRILLING PROGRAM

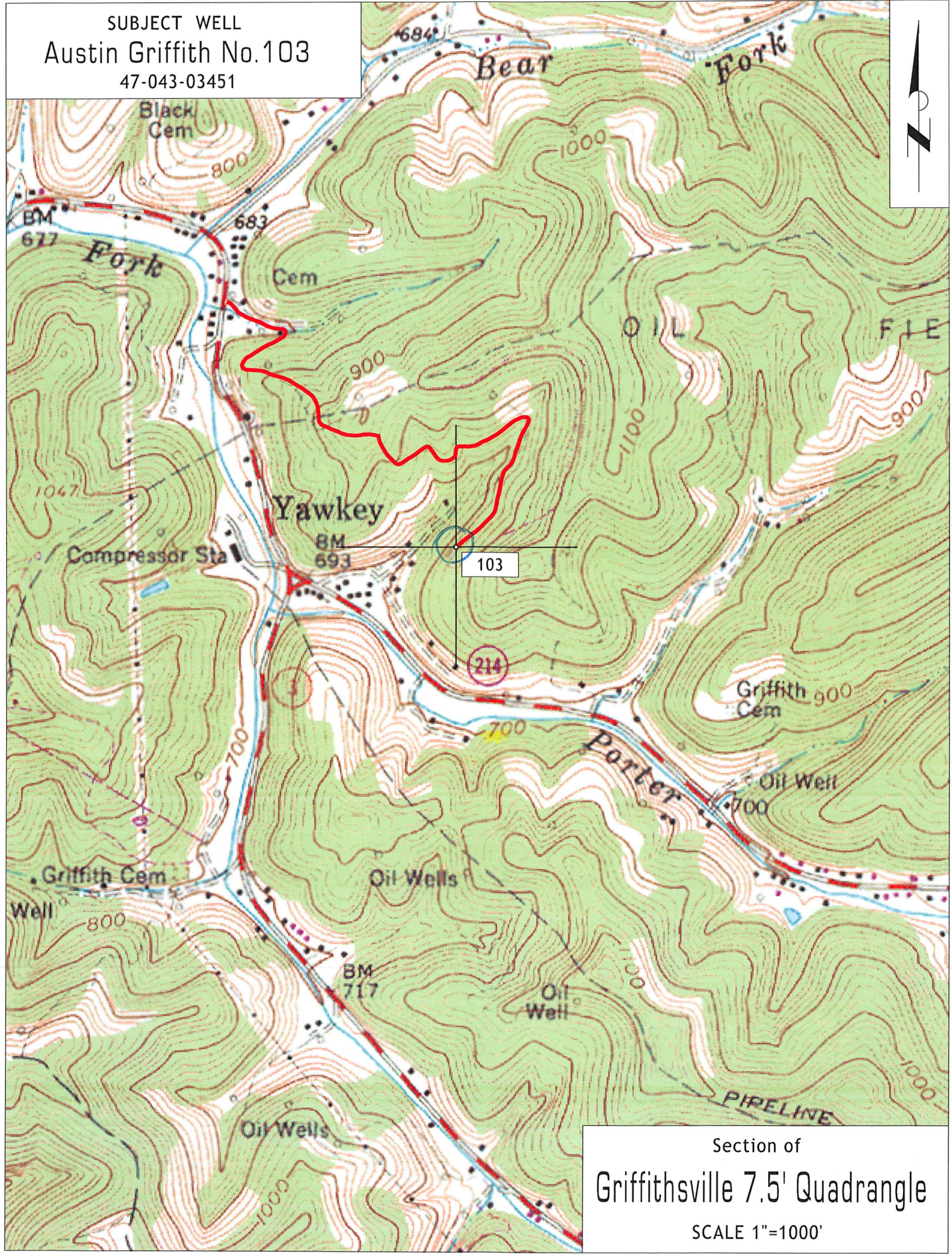
### NOTES

1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING EROSION AND SEDIMENTATION FROM ALL SOIL-DISTURBING OPERATIONS.
2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT **A** TO DRILL SITE LOCATION.
3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG PRIOR TO 2015 (AS SHOWN). SEE PERMITS ON FILE FOR MORE DETAIL.

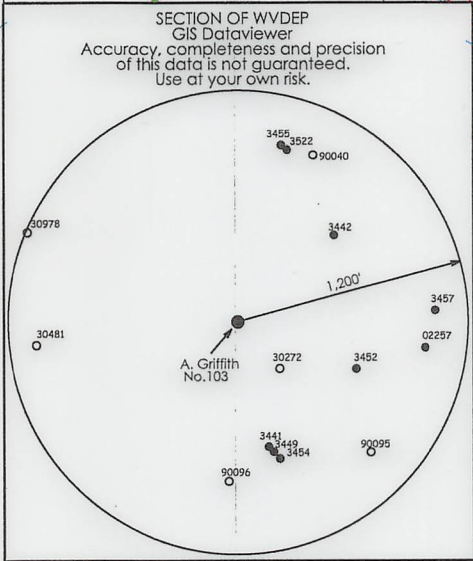
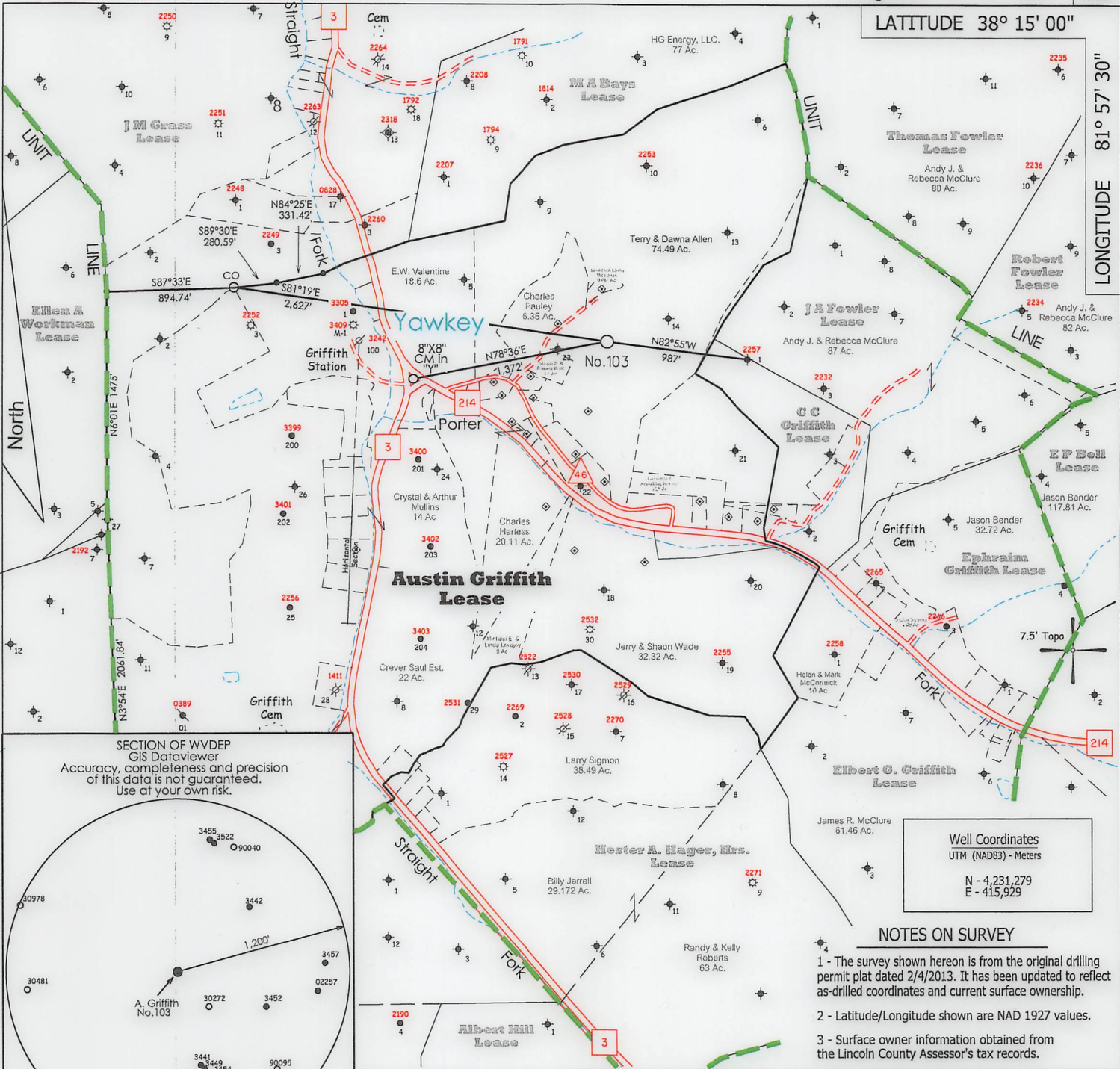
### LEGEND

-  EXISTING WATERFLOOD ROADS TO BE USED.
-  OTHER EXISTING MAIN WATERFLOOD ROADS (POSSIBLE ACCESS).
-  EXISTING LEASE OR FARM ROADS TO BE UPGRADED.
-  NEW ROADS TO BE CONSTRUCTED.
-  WSM 265  
LOCATION FOR PROPOSED WELLS
-  POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED (LOC. APPROX.)

SUBJECT WELL  
Austin Griffith No.103  
47-043-03451



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



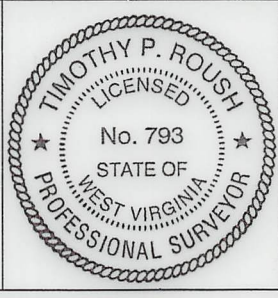
- NOTES ON SURVEY**
- 1 - The survey shown hereon is from the original drilling permit plat dated 2/4/2013. It has been updated to reflect as-drilled coordinates and current surface ownership.
  - 2 - Latitude/Longitude shown are NAD 1927 values.
  - 3 - Surface owner information obtained from the Lincoln County Assessor's tax records.

- ⬠ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2003 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.
- ⊕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY Sub-Meter  
 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



DATE September 3, 2019  
 FARM Austin Griffith No.103  
 API WELL NO. 47 - 043 - 03451 W

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 861' WATERSHED Porter Fork  
 DISTRICT Duval COUNTY Lincoln  
 QUADRANGLE Griffithsville 7.5'  
 SURFACE OWNER Terry & Dawna Allen ACREAGE 74.49 Ac.  
 OIL & GAS ROYALTY OWNER HG Energy, LLC., et al LEASE ACREAGE 375 Ac.  
 LEASE NO. 56489-50  
 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 Berea ESTIMATED DEPTH 2,490'  
 WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Diane White  
 ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road  
 Parkersburg, WV 26101 Parkersburg, WV 26101