



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

4704303610

January 30, 2020

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

Check AMT \$650
Check Date 01/30/2020
Check No. 4514

RE: Emma Griffith No. 166
Duval District, Lincoln County
West Virginia

RECEIVED
Office of Oil and Gas

FEB 18 2020

WV Department of
Environmental Protection

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, WW-3(B1), mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to drill the above referenced injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane White

Diane C. White

Enclosures

cc: Lionel & Linda Parker – Certified
Joshua D. Brumfield – Certified
Justin White - Certified
Jeffery Smith – Inspector

CAUTION: External email. Do not click links or open attachments unless you verify sender.

RE: Permit No. UIC2R04301AP
Wells: Emma Griffith 166 – Elevation 920'
Emma Griffith 167 – Elevation 920'
Emma Griffith 168 – Elevation 911'
Emma Griffith 267 – Elevation 920'
Nathaniel Mason 169 – Elevation 911'
Nathaniel Mason 268 – Elevation 911'
Operator: HG Energy, LLC
Locations: Duval District, Lincoln County, West Virginia
Quadrangle: Griffithsville 7.5' Watershed: Straight Fork
Elevations: 920'

I am writing on behalf of Joshua D. Brumfield of 31 Vandalia Drive, Yawkey, West Virginia 25573. His telephone number is 304-561-7831. My contact information is below.

Mr. Brumfield's comments are as follows:

1. Mr. Brumfield requests that any producing wells placed on his property have underground electricity run to them so electric motors can be installed. He was told by HG that this would be done on the well that is currently located on his property but it was never done. The well can be heard from his house.
2. He disagrees with the proximity to his home of at least one of the well pads which will be used for the Emma Griffith 166, 167 and 267 Wells and requests that they explore alternative locations.
3. He believes the road HG Energy intends to build to access the well sites will be a major land disturbance leading to erosion of his property. HG Energy claims to "already have a right-of-way" but he isn't sure if that is true.
4. He feels that the standard \$5,000 per pad offer for "nuisance pay" to the landowner is insufficient considering the locations they have chosen, one of which is very close to his home.
5. He also requests that the producing well established in 2014 or 2015 (believed to be Nathaniel Mason 224) be switched to an electric motor as he was told it would be so that there will be less noise from said well.

We are in the process of reviewing the applications and anticipate submitting more comments by the end of the month and hopefully by the end of next week.

Mo Persinger



Howard M. "Mo" Persinger, III
237 Capitol Street
Charleston, WV 25301
Phone: 304-346-9333
Fax: 304-346-9337
hmp3@persingerlaw.com

RECEIVED
Office of Oil and Gas
FEB 18 2020
WV Department of
Environmental Protection

FEB 18 2020

FORM WW-3 (B)
1/12



WV Department of
Environmental Protection

1) Date: 01/30/2020
 2) Operator's Well No. Emma Griffith 166
 3) API Well No.: 47 - 043 - s
 State County Permit
 4) UIC Permit No. UIC2R04301AP

**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: 920' Watershed: Straight Fork
 District: Duval County Lincoln Quadrangle Griffithsville 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 Jeffery L. Smith Name To Be Determined Upon Approval of the Permit
 Address 5369 Big Tyler Road Address _____
Cross Lanes, WV 25313

11) PROPOSED WELL WORK Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation Convert
 Other physical change in well (specify) _____

12) GEOLOGIC TARGET FORMATION Berea Depth 2530' Feet (top) to 2555' Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): 2680' MD Feet

14) Approximate water strata depths: Fresh 245' Feet Salt 980' Feet

15) Approximate coal seam depths: 380'

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 psig (BHFP)

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

21) FILTERS (IF ANY) Cartridge filters and charcoal bed filters

22) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL NA

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									Kinds
Fresh Water	7"	LS	17#	X		440'	440'	CTS	
Coal									Sizes
Intermediate									2.375"
Production	4 1/2"	J-55	10.5#	X		2660'	2660'	150 sks	Depths set
Tubing	2 3/8"	J-55	4.8#	X		2400'	2400'		2300'
Liners									Perforations
									Top Bottom

24) APPLICANT'S OPERATING RIGHTS were acquired from George Weiler Jr. et al
 by deed _____ / lease x / other contract _____ / dated 03/20/1945 of record in the
Lincoln County Clerk's office in Lease Book 125 Page 188

JS

WW-2B1
(5-12)

Well No. Emma Griffith 166

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 contactor chosen to collect sample.

Certified Laboratory Name Sturm Environmental Labs
Sampling Contractor Sturm Environmental Labs

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

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.

- * Two water sources identified for possible testing
- * Joshua D. Brumfield
31 Van

RECEIVED
Office of Oil and Gas

FEB 18 2020

WV Department of
Environmental Protection

Diane White

From: Diane White
Sent: Thursday, January 30, 2020 11:04 AM
To: Vicki Hoops
Subject: Water Sampling in the Area of Wells Emma Griffith 166, 167, 267
Attachments: 20200130110609350.pdf; 20200130110602596.pdf

Vicki,
Good morning. Listed below are two possible water sources for testing.

Joshua D. Brumfield
31 Vandalia Drive
Yawkey, WV 25573

David Brumfield
9 Brumfield Drive
Yawkey, WV 25573

I've attached a topo, rec plan and survey of area which may be of assistance in locating the water sources. Please let me know if they refuse to have their water tested. Let me know if you have any questions.

Thanks,
Diane

Diane C. White



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
304-420-1119 (O)
304-482-0108 (C)
dwhite@hgenergyllc.com

RECEIVED
Office of Oil and Gas

FEB 18 2020

WV Department of
Environmental Protection

7019 0700 0002 0456 8474

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee
 \$ 3.55

Extra Services & Fees (check box, add fee as appropriate)
 Return Receipt (hardcopy) \$ 2.85
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$ 1.40

Total Postage and Fees
 \$ 7.80

Sent To Joshua D. Brunfield ✓
 Street and Apt. No., or PO Box No.
 31 Vandalia Dr
 City, State, ZIP+4®
 Yawkey WV 25573

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0700 0002 0456 8481

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee
 \$ 3.55

Extra Services & Fees (check box, add fee as appropriate)
 Return Receipt (hardcopy) \$ 2.85
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$ 1.40

Total Postage and Fees
 \$ 7.80

Sent To Justin White ✓
 Street and Apt. No., or PO Box No.
 53 Bear Fork
 City, State, ZIP+4®
 Yawkey WV 25573

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 0700 0002 0456 8221

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee
 \$ 3.55

Extra Services & Fees (check box, add fee as appropriate)
 Return Receipt (hardcopy) \$ 2.85
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$ 1.60

Total Postage and Fees
 \$ 8.00

Sent To Lionel and Linda Parker ✓
 Street and Apt. No., or PO Box No.
 5008 Straight Fork
 City, State, ZIP+4®
 Yawkey WV 25573

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

RECEIVED
Office of Oil and Gas

FEB 18 2020

WV Department of
Environmental Protection



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

January 30, 2020

Justin White
53 Bear Fork
Yawkey, WV 25573

RE: Emma Griffith No. 166
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
FEB 18 2020
WV Department of
Environmental Protection



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

January 30, 2020

Joshua D. Brumfield
31 Vandalia Drive
Yawkey, WV 25573

RE: Emma Griffith No. 166
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

FEB 18 2020

WV Department of
Environmental Protection



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

January 30, 2020

Lionel & Linda Parker
5008 Straight Fork
Yawkey, WV 25573

RE: Emma Griffith No. 166
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

FEB 18 2020

WV Department of
Environmental Protection

SURFACE OWNER WAIVER

County 043

Operator HG Energy, LLC
Operator well number Emma Griffith 166

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 57th 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 Date _____

Company
Name _____
By _____
Its _____ Date _____

Print Name

Signature Date _____

RECEIVED
Office of Oil and Gas

FEB 18 2020

WW-9
(2/15)

API Number 47 - _____ - _____
Operator's Well No. Emma Griffith 166

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) Straight 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

If so, please describe anticipated pit waste: Fluids encountered while drilling subject well

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20 mil

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 _____)

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

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

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

Additives to be used in drilling medium? Water, Soap, KCl

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Offsite Disposal at a DEP Approved Landfill

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

-Landfill or offsite name/permit number? To Be Determined Upon Approval of Permit

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 Accountant

RECEIVED
Office of Oil and Gas

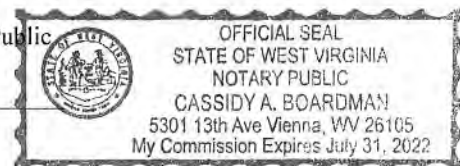
FEB 18 2020

WV Department of
Environmental Protection

Subscribed and sworn before me this 30th day of January, 2020

Cassidy A. Boardman Notary Public

My commission expires 7/31/2022



HG Energy, LLC

Proposed Revegetation Treatment: Acres Disturbed 1.5 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 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 and Erosion Control will be in place 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: Jeffrey Smith

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

Title: Oil & Gas Inspector

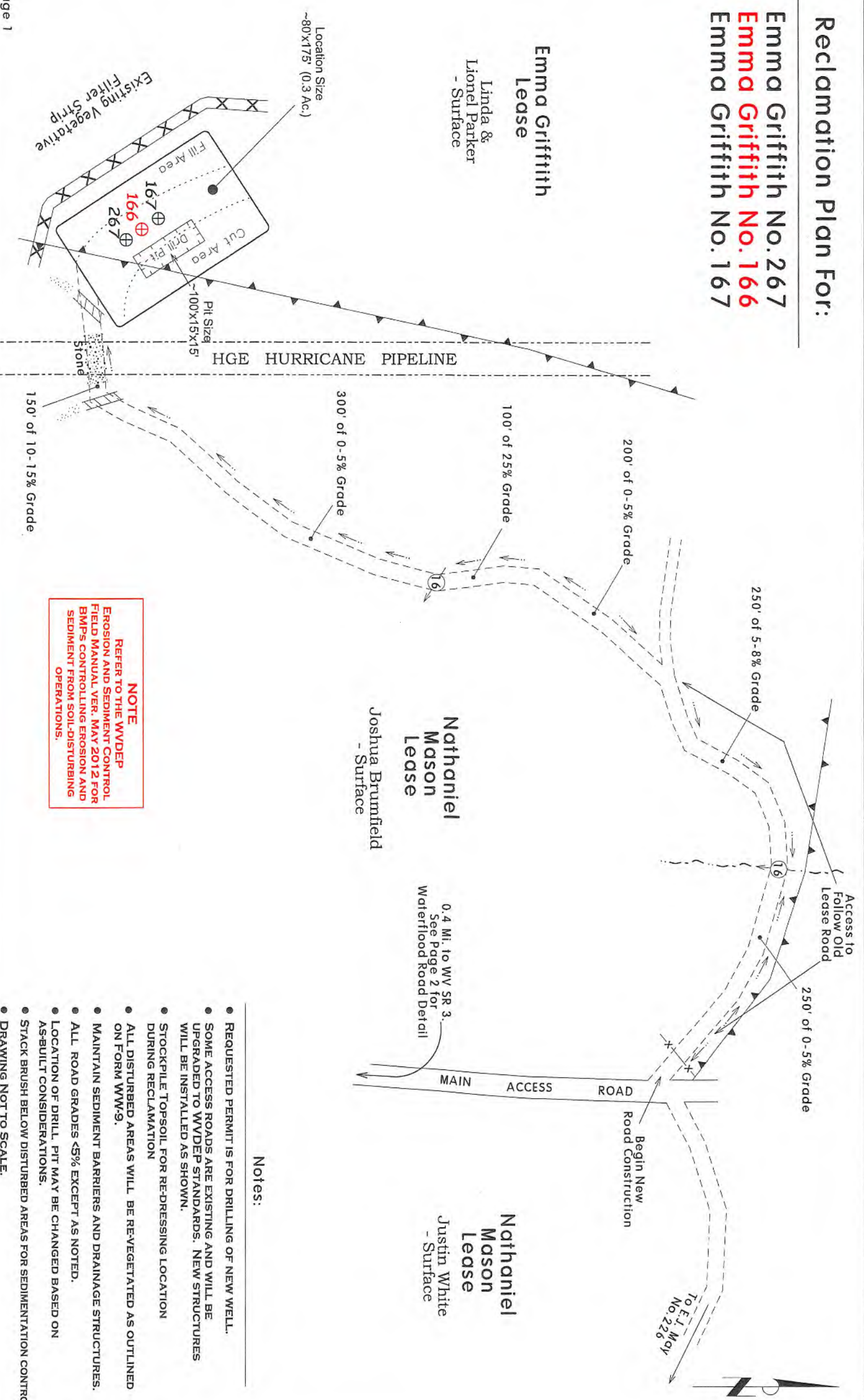
Date: 2-7-20

Field Reviewed? Yes No

RECEIVED
Office of Oil and Gas
FEB 18 2020
WV Department of
Environmental Protection

Reclamation Plan For:

Emma Griffith No. 267
Emma Griffith No. 166
Emma Griffith No. 167



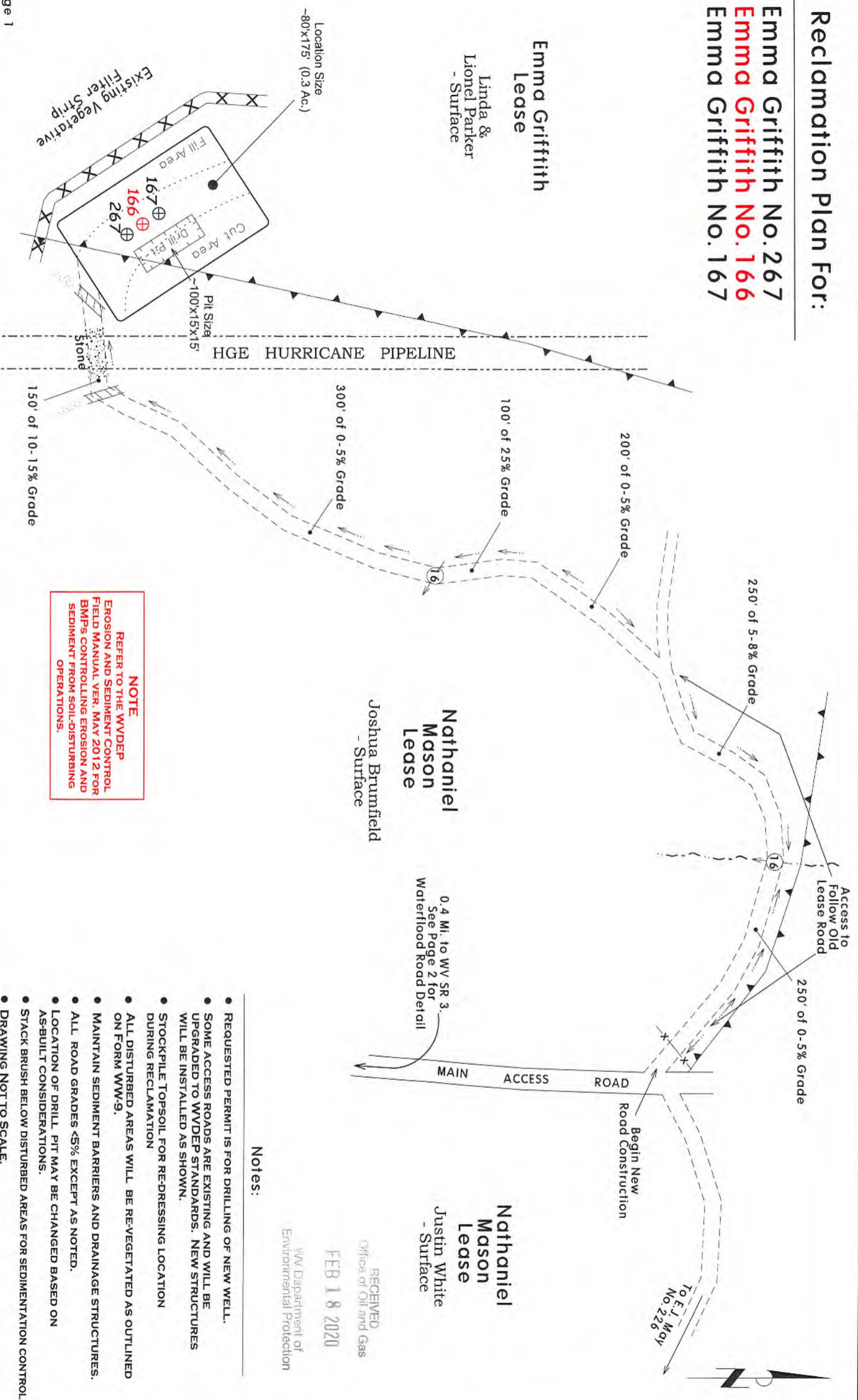
NOTE
 REFER TO THE WVDEP
 EROSION AND SEDIMENT CONTROL
 FIELD MANUAL VER. MAY 2012 FOR
 BMPs CONTROLLING EROSION AND
 SEDIMENT FROM SOIL-DISTURBING
 OPERATIONS.

Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- SOME ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED TO WVDEP STANDARDS. NEW STRUCTURES WILL BE INSTALLED AS SHOWN.
- STOCKPILE TOPSOIL FOR RE-DRESSING LOCATION DURING RECLAMATION
- 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.
- STACK BRUSH BELOW DISTURBED AREAS FOR SEDIMENTATION CONTROL.
- DRAWING NOT TO SCALE.

Reclamation Plan For:

Emma Griffith No. 267
Emma Griffith No. 166
Emma Griffith No. 167



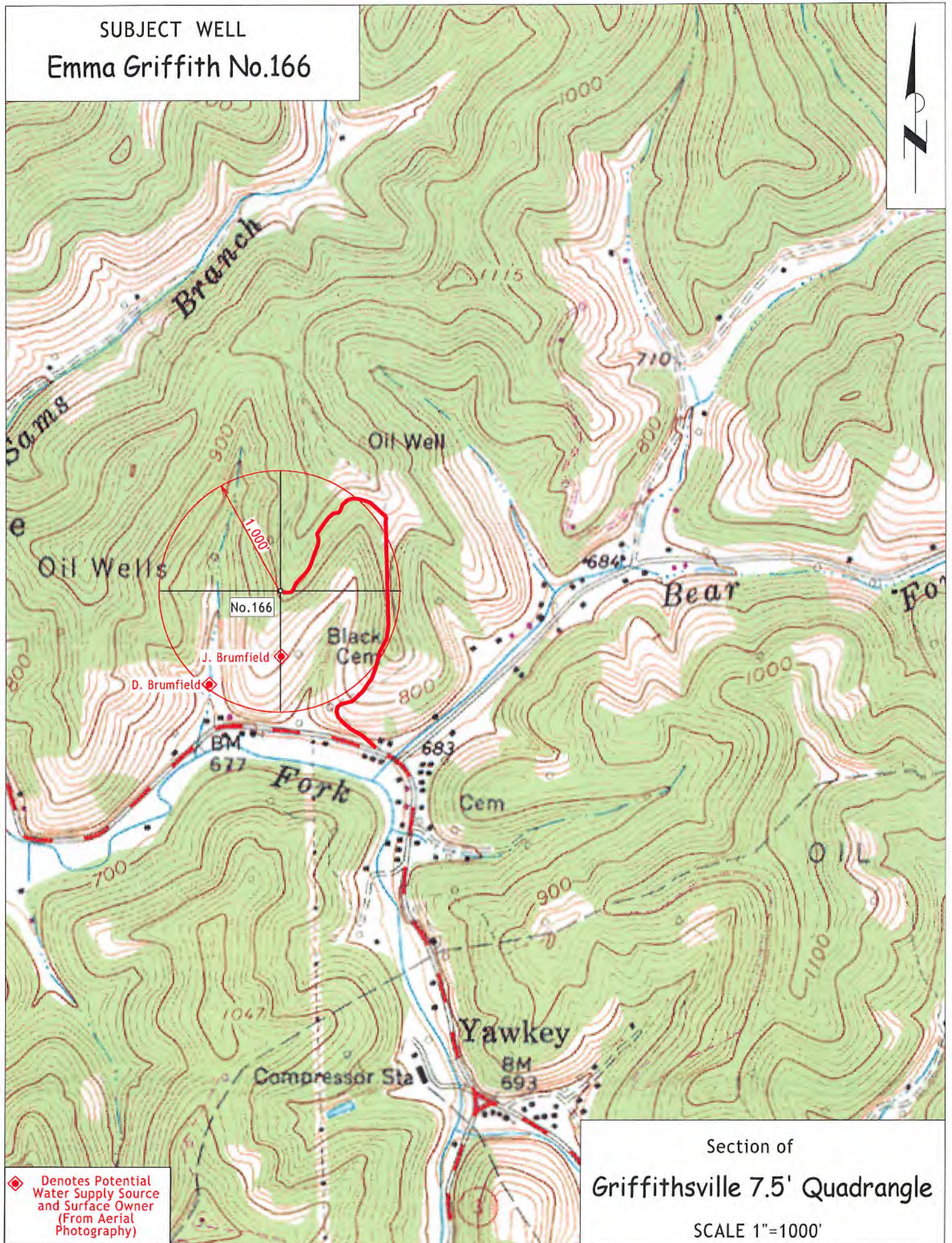
NOTE
 REFER TO THE WVDEP
 EROSION AND SEDIMENT CONTROL
 FIELD MANUAL, VER. MAY 2012 FOR
 BMPs CONTROLLING EROSION AND
 SEDIMENT FROM SOIL-DISTURBING
 OPERATIONS.

Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- SOME ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED TO WVDEP STANDARDS. NEW STRUCTURES WILL BE INSTALLED AS SHOWN.
- STOCKPILE TOPSOIL FOR REDRESSING LOCATION DURING RECLAMATION
- ALL DISTURBED AREAS WILL BE REVEGETATED 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.
- STACK BRUSH BELOW DISTURBED AREAS FOR SEDIMENTATION CONTROL.
- DRAWING NOT TO SCALE.

RECEIVED
 Office of Oil and Gas
FEB 18 2020
 WV Department of
 Environmental Protection

SUBJECT WELL
Emma Griffith No.166



◆ Denotes Potential Water Supply Source and Surface Owner (From Aerial Photography)

Section of
Griffithsville 7.5' Quadrangle

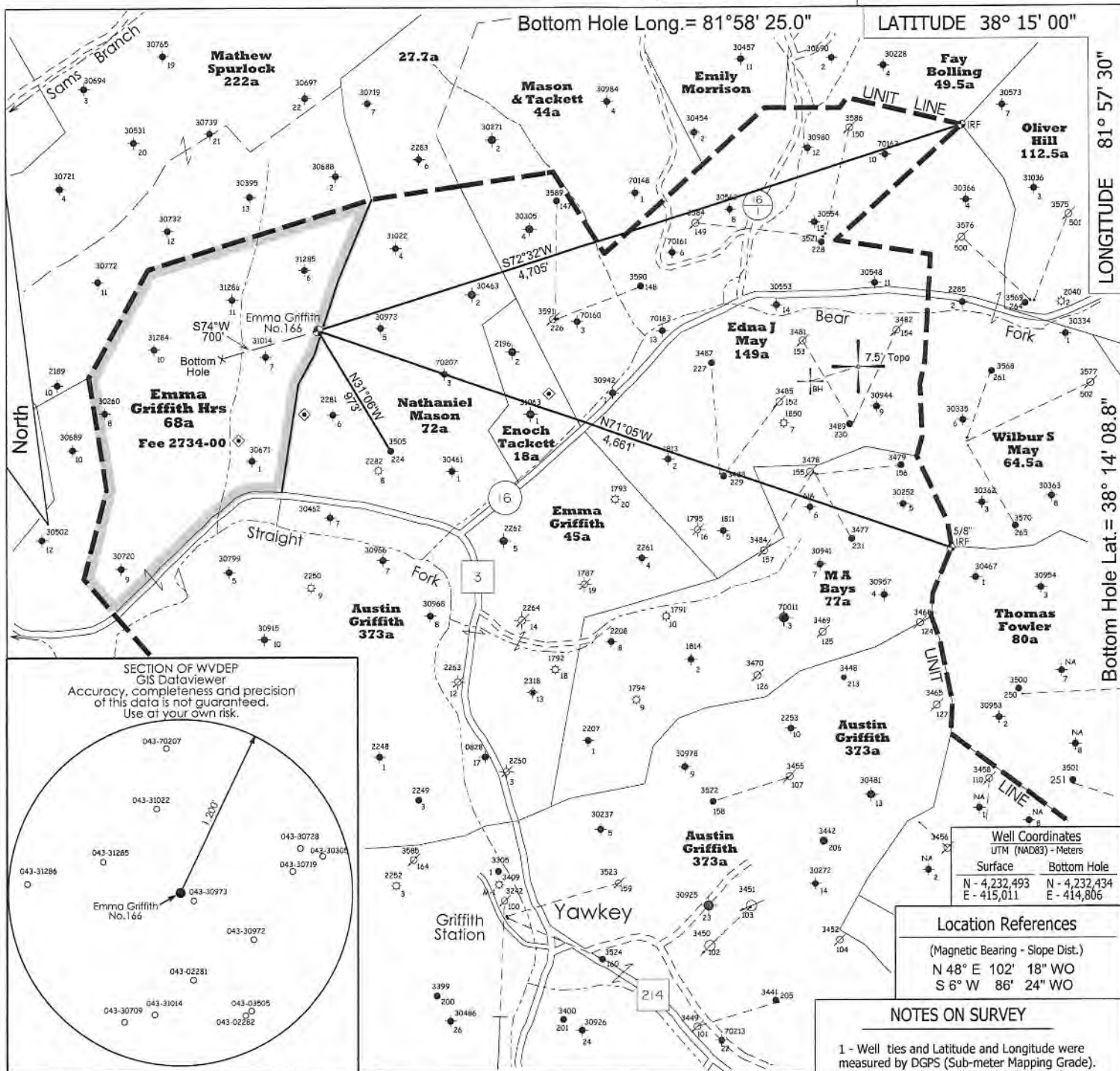
SCALE 1"=1000'

Longitude = 81°58' 16.57"

3,714'

Bottom Hole Long. = 81°58' 25.0"

LATITUDE 38° 15' 00"

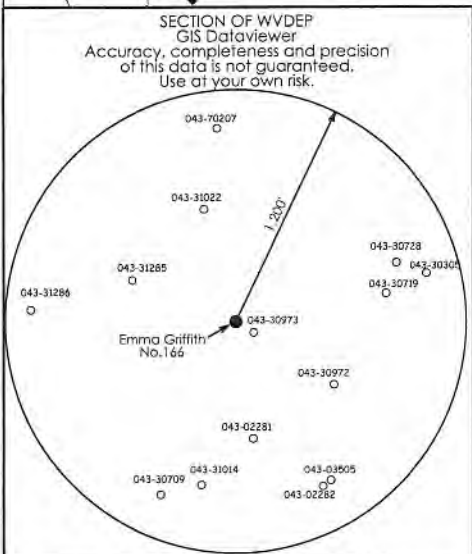


LONGITUDE 81° 57' 30"

4,979'

Bottom Hole Lat. = 38° 14' 08.8"

Latitude = 38° 14' 10.78"



Well Coordinates	
UTM (NAD83) - Meters	
Surface	Bottom Hole
N - 4,232,493 E - 415,011	N - 4,232,434 E - 414,806

Location References	
(Magnetic Bearing - Slope Dist.)	
N 48° E 102' 18" WO	
S 6° W 86' 24" WO	

NOTES ON SURVEY

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 1927).

2 - Surface owner information obtained from the Lincoln County Assessor's tax records.

- ◆ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2016 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.
- ⊕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

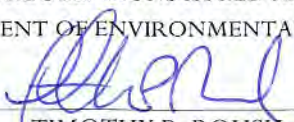
FILE NO. _____

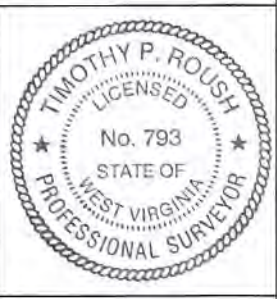
SCALE 1" = 1000'

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) 
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 920' WATERSHED Straight Fork

DISTRICT Duval COUNTY Lincoln

QUADRANGLE Griffithsville 7.5'

SURFACE OWNER Linda & Lionel Parker; Joshua Brumfield ACREAGE 47 Ac; 42.72 Ac.

OIL & GAS ROYALTY OWNER HG Energy, LLC et al. LEASE ACREAGE 68 Ac.

LEASE NO. Fee 2734-00

PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) NOTE: This well will be drilled directionally as shown on the plat above.

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___


TARGET FORMATION Berea ESTIMATED DEPTH 2,680' MD

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

DATE December 19, 2019

FARM Emma Griffith No.166

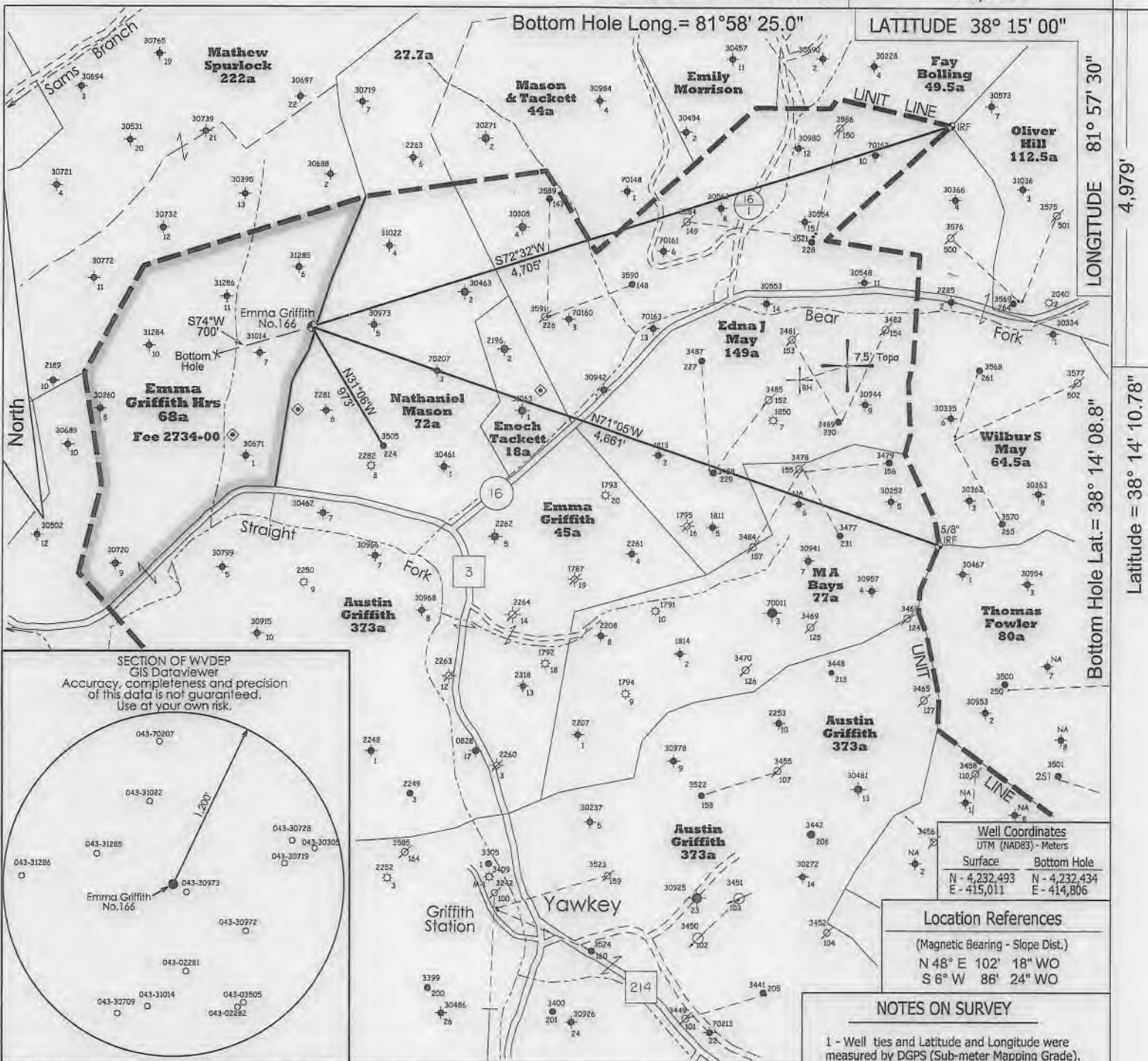
API WELL NO. 47 - 043 - 03610



FORM IV-6

Longitude = 81°58' 16.57"

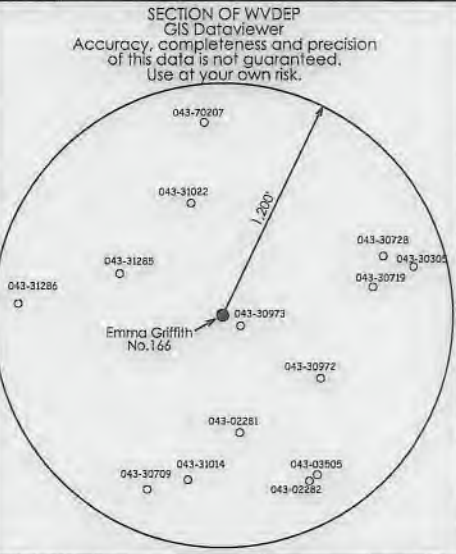
3,714'



LONGITUDE 81° 57' 30"
 LONGITUDE 81° 57' 30"
 Bottom Hole Lat. = 38° 14' 08.8"
 Latitude = 38° 14' 10.78"

LATITUDE 38° 15' 00"

Bottom Hole Long. = 81°58' 25.0"



Well Coordinates	
UTM (NAD83) - Meters	
Surface	Bottom Hole
N - 4,232,493	N - 4,232,434
E - 415,011	E - 414,806

Location References	
(Magnetic Bearing - Slope Dist.)	
N 48° E 102' 18" WO	
S 6° W 86' 24" WO	

NOTES ON SURVEY

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 1927).

2 - Surface owner information obtained from the Lincoln County Assessor's tax records.

- ◆ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2016 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.
- ⊕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____

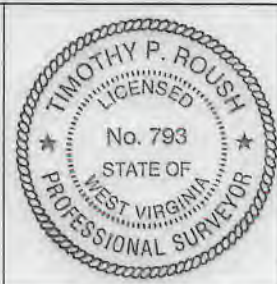
SCALE 1" = 1000'

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) *Timothy P. Roush*
TIMOTHY P. ROUSH PS 793



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



DATE December 19, 2019

FARM Emma Griffith No.166

API WELL NO. 47 - 043 - 03610

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

LOCATION: ELEVATION 920' WATERSHED Straight Fork
DISTRICT Duval COUNTY Lincoln
QUADRANGLE Griffithsville 7.5'

SURFACE OWNER Linda & Lionel Parker; Joshua Brumfield ACREAGE 47 Ac; 42.72 Ac.

OIL & GAS ROYALTY OWNER HG Energy, LLC et al. LEASE ACREAGE 68 Ac.
LEASE NO. Fee 2734-00

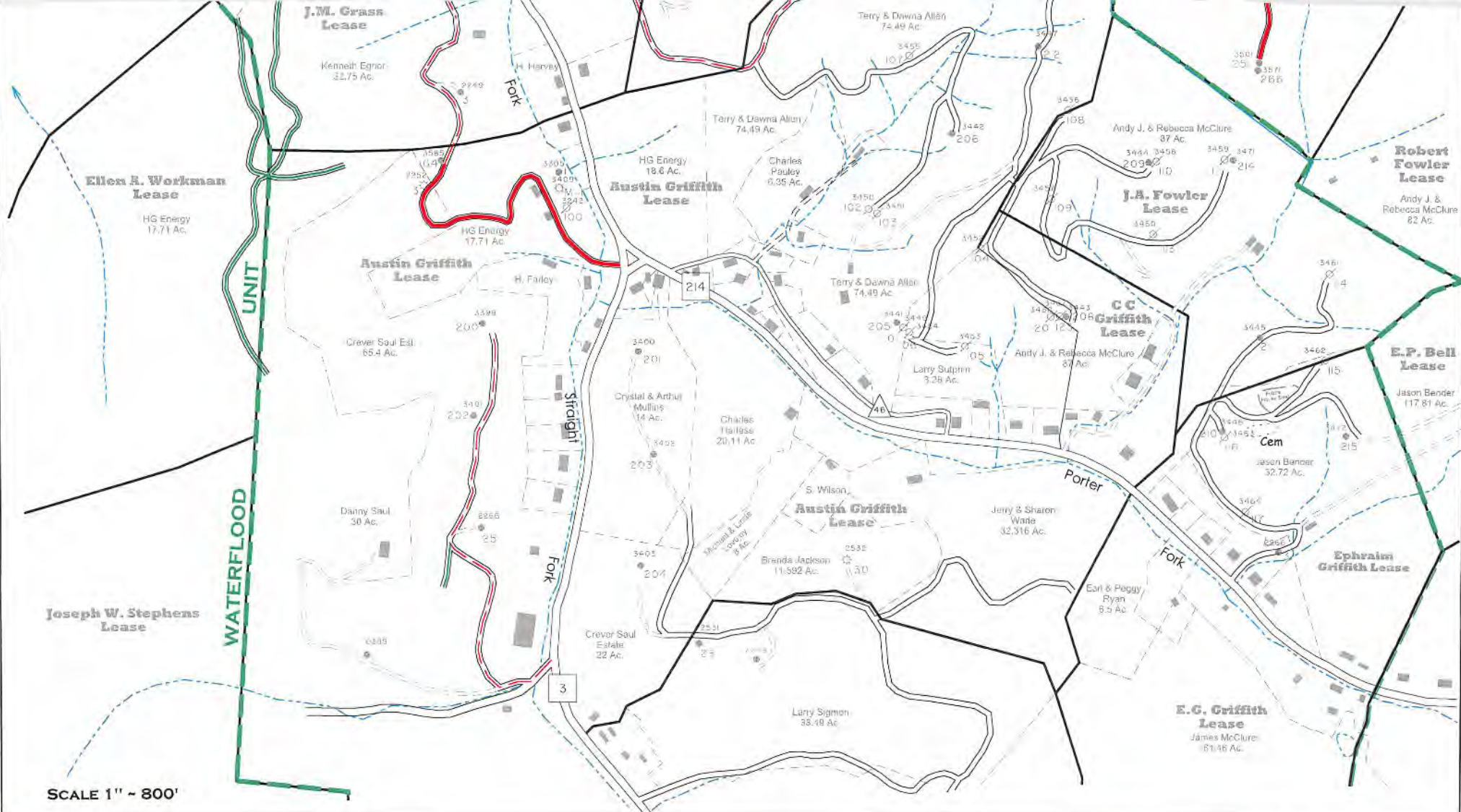
PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW
FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) NOTE: This well will be drilled directionally as shown on the plat above.

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION Berea ESTIMATED DEPTH 2,680' MD

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

FORM IV-6



SCALE 1" = 800'



GRIFFITHSVILLE WATERFLOOD

Lincoln County, W.Va.

RECLAMATION PLAN SHOWING ROAD SYSTEMS TO BE USED FOR 2020 DRILLING PROGRAM







NOTES

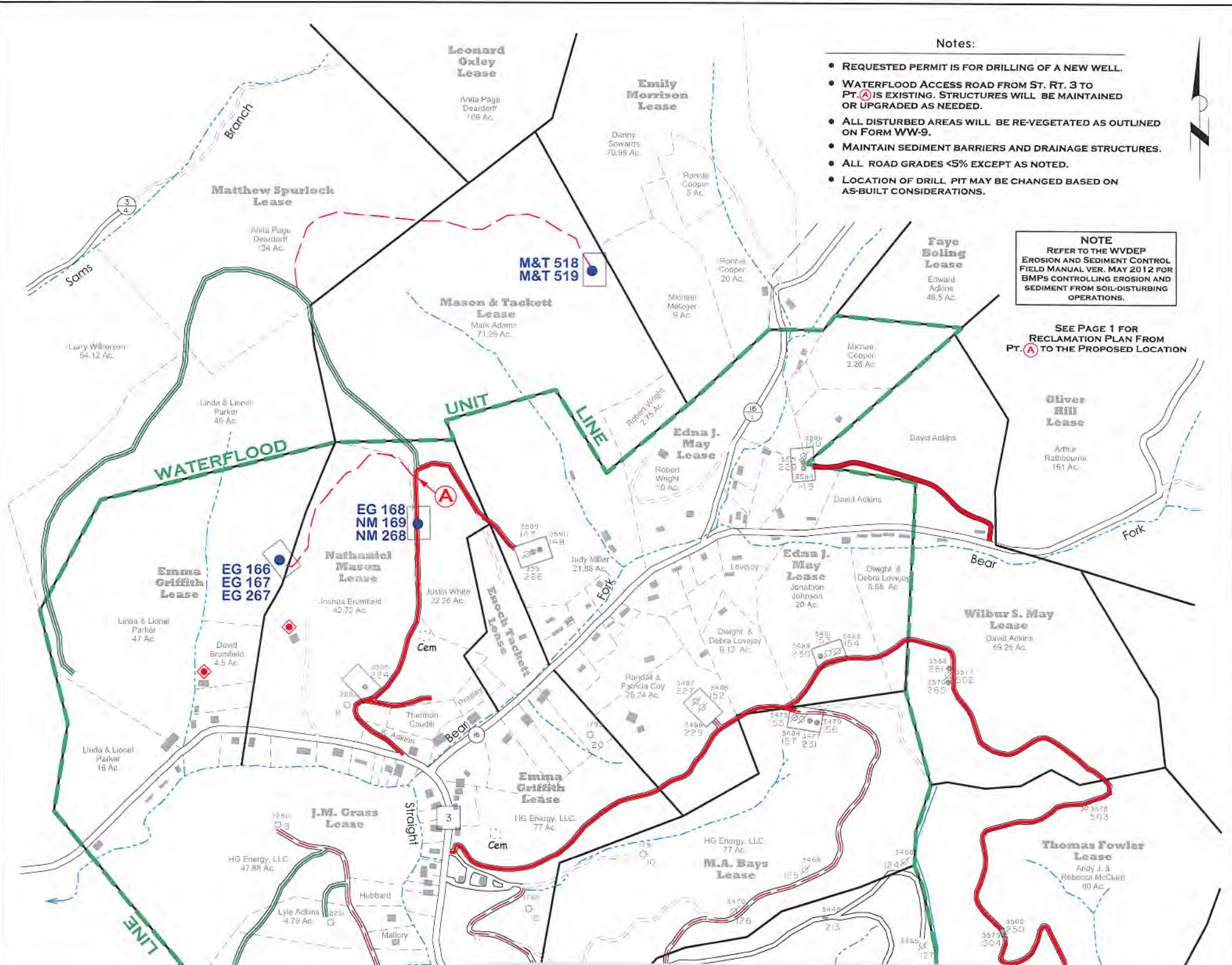
1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING EROSION AND SEDIMENTATION FROM ALL SOIL-DISTURBING OPERATIONS.

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.
-  EG 166
LOCATION FOR PROPOSED WELLS
-  POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED (SEE TOPO SHEET)



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

M&T 518
M&T 519

EG 168
NM 169
NM 268

EG 166
EG 167
EG 267

Thomas Fowler
 Lease
 Andy J. &
 Rebecca McClure
 80 Ac.

Wilbur S. May
 Lease
 David Atkins
 69.25 Ac.

Edna J. May
 Lease
 Jonathan Johnson
 20 Ac.

Edna J. May
 Lease
 Robert Wright
 10 Ac.

Mason & Tackett
 Lease
 Mark Adams
 71.25 Ac.

Matthew Spurlock
 Lease
 Anita Page Deardorff
 124 Ac.

Leonard Oxley
 Lease
 Anita Page Deardorff
 108 Ac.

Emily Morrison
 Lease
 Danny Sowards
 70.98 Ac.

Faye Boling
 Lease
 Edward Atkins
 48.5 Ac.

Oliver Hill
 Lease
 Arthur Rathbourne
 151 Ac.

Emma Griffith
 Lease

Nathaniel Mason
 Lease
 Joshua Brumfield
 42.72 Ac.

Edna J. May
 Lease
 Justin White
 22.26 Ac.

Randyall & Patricia Coy
 26.24 Ac.

M.A. Bays
 Lease
 HG Energy, LLC.
 77 Ac.

J.M. Grass
 Lease
 HG Energy, LLC.
 47.88 Ac.

Emma Griffith
 Lease
 HG Energy, LLC.
 77 Ac.

Linda & Lionel Parker
 47 Ac.

David Brumfield
 4.5 Ac.

Therman Caudill
 17.9 Ac.

Dwight & Debra Lovejoy
 6.12 Ac.

Dwight & Debra Lovejoy
 8.68 Ac.

David Atkins
 69.25 Ac.

Linda & Lionel Parker
 16 Ac.

Lyle Atkins
 4.79 Ac.

Hubbard
 12.25 Ac.

Mallory
 12.25 Ac.

HG Energy, LLC.
 77 Ac.

HG Energy, LLC.
 77 Ac.

3570
 30.4

3500
 27.50

3450
 12.4

3468
 12.5

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6

3470
 12.6