



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, May 13, 2019
WELL WORK PLUGGING PERMIT
Vertical Plugging

HG ENERGY, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for 2
47-043-00231-00-00

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

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

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

James A. Martin
Chief

Operator's Well Number: 2
Farm Name: ALFORD, JONAS V.
U.S. WELL NUMBER: 47-043-00231-00-00
Vertical Plugging
Date Issued: 5/13/2019

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

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

05/17/2019

WW-4B
Rev. 2/011) Date March 5, 2019
2) Operator's
Well No. Jonas V Alford 2
3) API Well No. 47-043 - 00231 PSTATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil / Gas / Liquid injection / Waste disposal /
(If "Gas, Production or Underground storage) Deep / Shallow
- 5) Location: Elevation 800' Watershed Trace Fork
District Duval County Lincoln Quadrangle Garrett's Bend 7.5'
- 6) Well Operator HG Energy, LLC 7) Designated Agent Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jeffery L. Smith Name To Be Determined Upon Approval of the Permit
Address 5369 Big Tyler Road Address _____
Cross Lanes, WV 25313

- 10) Work Order: The work order for the manner of plugging this well is as follows:

- See Attached Sheet for the Plugging Manners -

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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

Jeffrey Smith

Date

3-11-19

47-043-00231P

05/17/2019

WW-4B - Conti
Rev. 2/01

- 1) Date: March 4, 2019
- 2) Operator's Well Number
Jonas V Alford # 2
- 3) API Well No: 47 - 043 - 0231
State County Permit

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) WELL TYPE: Oil _____ Gas x Liquid Injection _____ Waste Disposal _____ Observation x
(If "Gas", Production x Underground Storage _____) Deep _____ Shallow x
- 5) LOCATION: Elevation: 800' Watershed: Trace Fork
District: Duval County: Lincoln Quadrangle Garrett's Bend 7.5'
- 6) WELL OPERATOR: HG Energy II Appalachia, LLC 494519932 7) DESIGNATED AGENT Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR
Name Jeffery L Smith Name To Be Determined Upon Approval of Permit
Address 5369 Big Tyler Road Address _____
Cross Lanes, WV 25313

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

TD- 2,303'

Manners of plugging:

Tag bottom, flush well with fresh water

SPOT GEL TO FILL SHOT HOLE.

- Plug No 1 2275' to 2175', located above the highest perforation, pump Class A Portland Hydraulic Cement, WOC 8 hours, tag plug, pump 6% Bentonite gel to surface
- Plug No 2 located from 2000' to 1900', free point, cut & pull 5 3/16" - est 1700'
- Plug No 3 1750' to 1650' - if necessary adjusted to cover casing cut freepoint, cut & pull 6 5/8" - est 800'
- Plug No 4 850' - 750' - if necessary adjusted to cover casing cut
- Plug No 5 250' - 150'
- Plug No 6 100' - surface

Recover all possible casing. If casing can not be recovered, perforate for plug placement.

Monument -

6" minimum diameter metal pipe

30" above surface

10' in well below surface

Sealed with cement

API identification (1/2") height numbering

6% Gel between all plugs

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| | | | | | |
|--------------------|-------------------|------|--------|------------------------|------------|
| Well No. 2 | Jonas V. Alford | | | (Continued) Farm | Acres |
| Lease No. | Township District | | | County | State |
| Contractor | | | | 19 | Contractor |
| Drilling Commenced | | 19 | | Drilling Completed | |
| N. | S. | E. | W. | Elevation | |
| Rock Formation | | Top | Bottom | Steel Line Measurement | Remarks |
| Broken Sand | | 1160 | 1170 | | |
| Sand, White | | 1170 | 1398 | | |
| Slate | | 1398 | 1400 | | |
| Sand, Hard | | 1400 | 1518 | | |
| Slate | | 1518 | 1520 | | |
| Mason Sand | | 1520 | 1575 | | |
| Little Linn | | 1575 | 1600 | | |
| Black Slate | | 1600 | 1607 | | |
| Big Linn | | 1607 | 1780 | | |
| Casing 6 5/8" | | | 1756 | | |
| Gas | | | 1735 | | |
| Big Linn | | 1780 | 1823 | | |
| Red Rock | | 1823 | 1825 | | |
| Bray Sand | | 1825 | 1840 | | |
| Slate + Shells | | 1840 | 1985 | | |
| Casing 5 7/16" | | | 1946 | | |
| Blue Linn, Hard | | 1985 | 2020 | | |
| Slate | | 2020 | 2248 | | |
| Copper Shale | | 2248 | 2282 | | |
| Berea Sand | | 2282 | 2302 | | |
| Slate | | 2302 | 2303 | | |
| Total Depth | | | 2303 | 2303 | |

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT.

| | | | | | | | |
|-------------|--------|------------|------|--------------|------|-------------------|---------------------------|
| Put in Well | | Pulled Out | | Left in Well | | Shot Date 3-15-38 | |
| Size | Feet | In | Feet | In | Feet | In | Amount 90 gts. |
| 10" | 17 | | | | | | Sand 2284-2302 |
| 8 1/4" | 211.11 | | | | | | Result Open Flow |
| 6 5/8" | 175.6 | | | | | | 150 ft. of Fluid in Hole |
| 5 7/16" | 194.6 | | | | | | When Shot |
| 2" U.E. | 2294.4 | | | | | | Packer Size OW3 Hook Mill |
| | | | | | | | 5 3/16" x 6 7/8" x 10" |
| | | | | | | | Depth Set 1946 |

Production First 24 Hours Oil Bbls. Gas Test

Approved by B. H. Crummitt Superintendent

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47-043-00231P
05/17/2019

Well No. 2 *Jonas V. Alford* Farm 123 Acres
 Lease No. 75059 *Amal* District *Lincoln* County *W. Va.* State
Meabow Drilling Co. Contractor *Meabow Drilling Co.* Contractor
 Drilling Commenced 1-24-1938 Drilling Completed 3-9-1938
 N. S. E. W. Elevation

| Rock Formation | Top | Bottom | Steel Line Measurement | Remarks |
|---------------------------------|-----|---------|------------------------|---------|
| Red Rock | | 15 | | |
| Sand | 15 | 25 | | |
| Coaming - 10" | | 17 | | |
| Red Rock | 25 | 60 | | |
| Sand | 60 | 70 | | |
| Water, 3 Barrels Per Hr. | | 65 | | |
| Red Rock | 70 | 130 | | |
| Sand | 130 | 155 | | |
| Slate | 155 | 272 | | |
| Coaming 8 1/4" | | 211-11" | | |
| Red Rock | 272 | 380 | | |
| Sand | 380 | 415 | | |
| Slate | 415 | 425 | | |
| Broken Sand | 425 | 705 | | |
| Water, Fresh, 1 Barrel Per Hour | | 570 | 570 | |
| Slate + Shells | 705 | 810 | | |
| Slate | 810 | 865 | | |
| Sand | 865 | 960 | | |
| Slate | 960 | 965 | | |
| Salt Sand | 965 | 1160 | | |
| Water, Hole Full | | 1130 | | |

(Continued)

CASING RECORD AS TALLIED. NOT STEEL LINE MEASUREMENT.

| Size | Put in Well | | Pulled Out | | Left in Well | | Shot Date |
|------|-------------|----|------------|----|--------------|----|-------------|
| | Feet | In | Feet | In | Feet | In | |
| | | | | | | | Amount |
| | | | | | | | Sand |
| | | | | | | | Result |
| | | | | | | | Packer Size |
| | | | | | | | Depth Set |

Production First 24 Hours.....Bbla. Gas Test.....

Approved by..... Superintendent

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WW-4A
Revised 6-07

1) Date: March 5, 2019
2) Operator's Well Number
Jonas V. Alford 2

3) API Well No.: 47 - 043 - 00231

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

| | |
|--------------------------------------|------------------------------------|
| 4) Surface Owner(s) to be served: | 5) (a) Coal Operator |
| (a) Name <u>Darryl E. Chance</u> | Name <u>NA</u> |
| Address <u>500 Hershey Road</u> | Address _____ |
| <u>Pittsburgh, PA 15235</u> | _____ |
| (b) Name _____ | (b) Coal Owner(s) with Declaration |
| Address _____ | Name <u>NA</u> |
| _____ | Address _____ |
| (c) Name _____ | Name _____ |
| Address _____ | Address _____ |
| _____ | _____ |
| 6) Inspector <u>Jeffery L. Smith</u> | (c) Coal Lessee with Declaration |
| Address <u>5369 Big Tyler Road</u> | Name <u>NA</u> |
| <u>Cross Lanes, WV 25313</u> | Address _____ |
| Telephone <u>681-313-6743</u> | _____ |

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

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

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

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



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

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Subscribed and sworn before me this 5th day of _____
 My Commission Expires 11/2/2021 Notary Public

MAR 15 2019

WV Department of Environmental Protection

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.

47-043-00231P

05/17/2019

WW-9
(5/16)

API Number 47 - 043 - 00231
Operator's Well No. _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy, LLC OP Code 494497948

Watershed (HUC 10) Trace Fork Quadrangle Garrett's Bend 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 plugging the 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 (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Any well effluent will be contained in tanks until disposed of off site at an approved disposal site.)

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

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

Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

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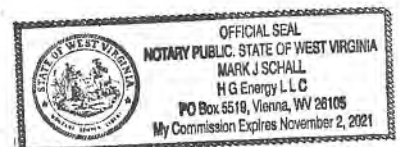
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WV Department of
Environmental Protection

Subscribed and sworn before me this 5th day of _____, 20____

[Signature] Notary Public

My commission expires 11/2/2021



Form WW-9

Operator's Well No. _____

Proposed Revegetation Treatment: Acres Disturbed 1.3 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 Control Will Be In Place 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

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Title: Oil & Gas Inspector

Date: 3-11-19

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Field Reviewed? () Yes () No

N/A

WW-9- GPP
Rev. 5/16

Page 1 of 2
API Number 47 - 043 - 00231
Operator's Well No. _____

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

Operator Name: HG Energy, LLC
Watershed (HUC 10): Trace Fork Quad: Garrett's Bend 7.5'
Farm Name: _____

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

NA

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

NA

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

NA

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

NA

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

N/A

WW-9- GPP
Rev. 5/16

Page 2 of 2
API Number 47 - 043 - 00231
Operator's Well No. _____

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

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Signature: Diane White

Date: 3-5-19

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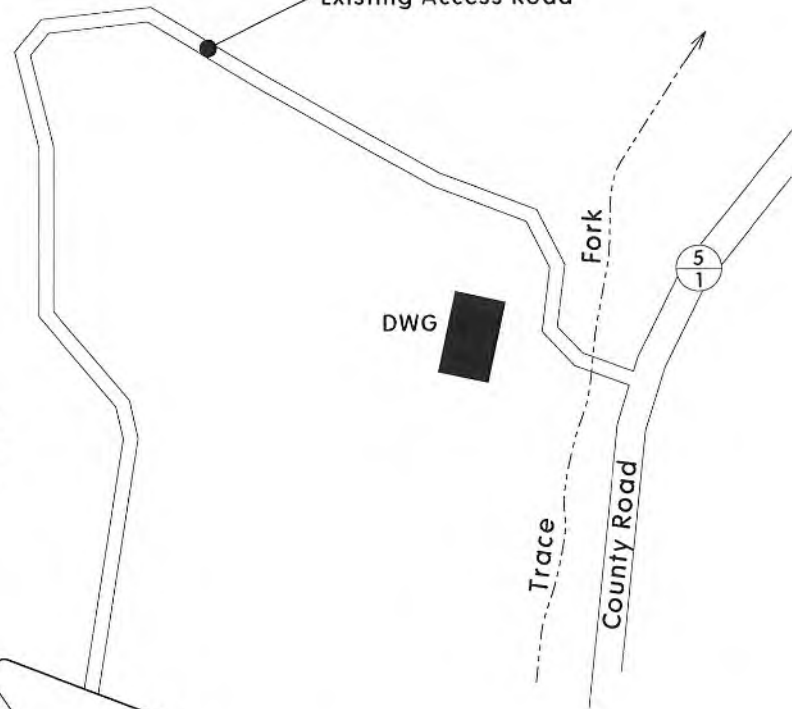
Reclamation Plan For:

Jonas V. Alford No.2

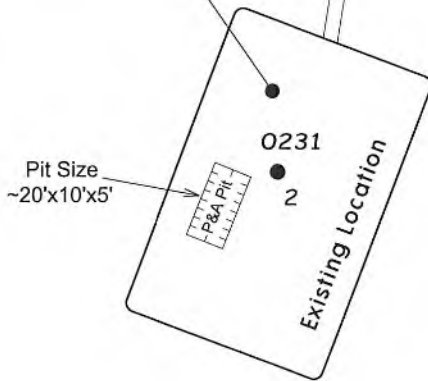
47-043-0231



Approximately 1,200' of Existing Access Road



NOTE:
Location is existing. Only minimal earthwork will be required to P&A existing well. Any disturbed areas will be revegetated as per the attached WW-9.



Jonas V. Alford Lease

Darryl E. Chance
- Surface

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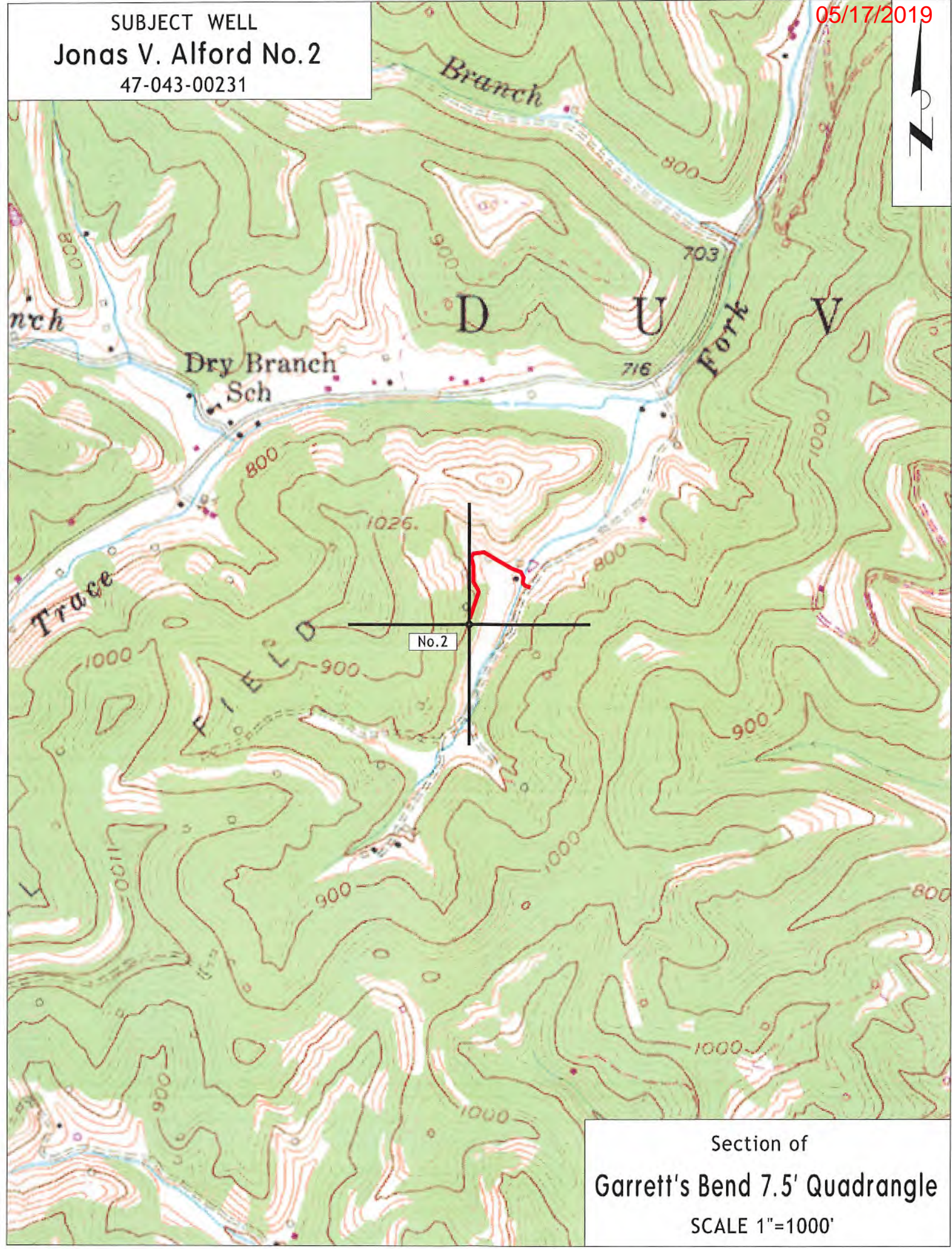
NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

Notes:

- REQUESTED PERMIT IS FOR PLUGGING AN EXISTING WELL
- ALL ACCESS ROADS ARE EXISTING AND WILL BE UPGRADED IN ORDER TO ACCOMODATE WELL WORK EQUIPMENT AND THEN WILL BE RECLAIMED TO WVDEP STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

05/17/2019

SUBJECT WELL
Jonas V. Alford No.2
47-043-00231



Section of
Garrett's Bend 7.5' Quadrangle
SCALE 1"=1000'

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 043 - 0231 WELL NO: 2

FARM NAME: Jonas V. Alford No.2

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Lincoln DISTRICT: Duval

QUADRANGLE: Garrett's Bend 7.5'

SURFACE OWNER: Darryl E. Chance

ROYALTY OWNER: HG Energy, LLC

UTM GPS NORTHING: 4,236,240 (NAD 83)

UTM GPS EASTING: 418,328 (NAD 83) GPS ELEVATION: 244 m. (800')

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS Post Processed Differential
 Real-Time Differential

Mapping Grade GPS Post Processed Differential
 Real-Time Differential

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Diane White
Diane C. White

Designated Agent
Title

2/8/2019
Date

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