



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

Tuesday, August 07, 2018
WELL WORK PLUGGING PERMIT
Vertical Plugging

HG ENERGY, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for 6
47-043-01769-00-00

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: 6
Farm Name: HORSE CREEK TRACT C
U.S. WELL NUMBER: 47-043-01769-00-00
Vertical Plugging
Date Issued: 8/7/2018

H

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.

1) Date June 11, 2018
2) Operator's
Well No. Horse Creek Tract "C" # 6
3) API Well No. 47-043 - 01789

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 / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow

5) Location: Elevation 930' Watershed Laurel 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 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 ****

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Office of Oil and Gas
JUL 12 2018
WV Department of
Environmental Protection

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

Work order approved by inspector  Date 6-21-18

1) Date: June 11, 2018
 2) Operator's Well Number
Horse Creek Tract "C" # 6
 3) API Well No: 47 - 043 - 1769
State County Permit

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) WELL TYPE: A Oil Gas Liquid Injection _____ Waste Disposal _____
 B (If "Gas", Production _____ Underground Storage _____ Deep _____ Shallow)

5) LOCATION: Elevation: 930' Watershed: Laurel Fork
 District: Duval County: Lincoln Quadrangle: Garrett's Bend 7.5"

6) WELL OPERATOR: HQ Energy LLC 308122 Address: 5260 Dupont Road
Parkersburg, WV 26101

7) DESIGNATED AGENT: Diane White Address: 5260 Dupont Road
Parkersburg, WV 26101

8) OIL & GAS INSPECTOR TO BE NOTIFIED Name: Jeffery L. Smith
 Address: 5369 Big Tyler Road
Cross Lanes, WV 25313

9) PLUGGING CONTRACTOR Name: To Be Determined Upon Approval of Permit
 Address: _____

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

TD - 2,476'
Manners of Plugging:
 Plug #1 - 2300' - 2200'
 Located above the highest perforation
 Free-point, part and pull 4 1/2" casing at approx 1850'
 Plug #2 - Approx 1900' - 1800'
 Located at 4 1/2" casing stub
 Plug #3 - 975' - 875'
 Located at elevation
 Plug #4 - 325' - 0'
 Located at 8 5/8" casing shoe, fresh water to surface

Erect Monument with API #, 1/2" height numbering
 Cement Plugs are Class A, Regular Neat Cement
 Cement tops will be tagged
 6% Gel between all cement plugs.

Recover all possible casing. If casing can not be recovered, perforate for plug placement.
 Monument - 6" minimum diameter metal pipe, 30" above surface

OFFICE USE ONLY

PLUGGING PERMIT

Permit Number _____ Date _____ 19____

This permit covering the well operator and the well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual work has commenced.

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires _____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	WPCP	Other
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 Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator

Copy

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 WV Department of
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PENNZOIL COMPANY
Well Completion Report

Lease: HORSE CREEK TRACT "C" Well No. 6 New Well Old Well

District: Duval County: Lincoln State: West Virginia

Pool Name: Griffithsville Northeast Pool No. 57 Elevation 921.22' KB:GL

Producing Formation: Berea Depth: From 2413' to 2433'

Date Drilled In: April 15, 1977 Pays: Oil: From 2413' to 2433'
From _____ to _____

Original Total Depth: 2476'

Plug Back Depth: 2456'

Gas: From 2413' to 2433'
From _____ to _____

Production	Initial	Present	After Fracture
Oil	_____	_____	_____
Gas	_____	_____	_____

Surface Csg. set @ 288' KB:GL Gr. H-40 New:Used Wt. 20# Collars

Cement Reg. Neat Amount 175 Sacks Plug Down @ 9:00 AM:PM Date 4/11/77

Production Csg. set @ 2476.41' KB:GL Gr. ERW New:Used Wt. 10.50# Collars

Cement 50/50 Posmix Amount 75 Sacks Plug Down @ 6:00 AM:PM Date 4/15/77

Logged by: Basin Surveys Date: April 15, 1977

Logs Used: Gamma Ray-Comp. Density-Caliper

Perforated by: McCullough Date: April 21, 1977

Perforations: 2420'-2425' - 4 holes/ft. - 20 holes

Treatment Data

Type	Fluid	Sand	Acid	Solvent	Gel	Breaking Agent	Fluid Loss Agent	F.R. Agent	N.E. Agent
Lease Crude	20/40	15% HCl	Parathin						15-N
Amount	558	26,000	500	1 drum					2

Breakdown Pressure: 2000 Treating Pressure: Max. 2700 Min. 2500 Avg. 2600

Avg. Inj. Rate 30.0 BPM ISIP 1550 @ 12:40 AM:PM 5 min. SIP 1300

10 min. SIP 1200 15 min. SIP 1150 Other _____

EQUIPMENT USED

Service Company: Halliburton HHP 1912

By: Michael McCown Date Fractured: 4/21/77

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08/10/2018

CONFIRMING COMPLETION TICKET

COMPANY REMARKS

WRS COMPLETION REPORT 38.15.00 81.50.00 PAGE 1
 PI# 47-T-0050 05/01/77 PERMIT 1769

W VA LINCOLN 200 S 22000 W WELL CLASS D DO
 STATE COUNTY FOOTAGE DISTRICT SPOT INIT FIN
 PENNZOIL CO 6 HORSE CREEK
 OPERATOR WELL NO LEASE NAME
 913 GR DUVAL GRIFFITHSVILLE
 OPER. ELEV. DISTRICT FIELD/POOL/AREA
 API 47-043- 21769-00
 COMMERCIAL ELEV. LEASE NO. PERMIT OR WELL ID. NO. STATUS
 04/11/1977 04/15/1977 ROTARY OIL
 SPUD DATE COMP. DATE TYPE TOOL
 2472 BEREA
 PROD. DEPTH PROD. FORM CONTRACTOR
 DTD 2476 PB 2456 FM/TD MISS
 CRILLER'S T.D. LOG T.O. PLUG BACK T.O. OLD T.O. FORM/T.O.

CASING DATA

CSG 8 5/8 @ 288 W/ 175 4 1/2 @ 2476 W/ 75 01 02

LOCATIGN DESCRIPTION

TR-C

INITIAL POTENTIAL

IPU 12BOPD 18MCFD
 BEREA PERF 004
 SOFR
 ACID
 INT NOT RPTD

TYPE	FORMATION	DEPTH	SUBSEA	FORMATION	DEPTH	SUBSEA
SPL	L LIME	1694	781-	BG LIME	1628	715-
	B INJUN	1935	1022-			
SPL	WEIR	2058	1145-	BEREA	2413	1500-
SPL	BL LIME	1723	810-	BBG LIME	1917	1004-
	BB INJUN	1978	1065-			
SPL	BWEIR	2125	1212-	BBEREA	2433	1520-

PRODUCTION TEST DATA

PTU 18BOPD 22MCFD
 BEREA PERF 003
 SOFR 5588BLS 26000LBS SAND
 20/40 SD
 ACID 500GALS 15%
 INT NOT RPTD

MISCELLANEOUS

MAP QUAD ST ALBANS

ACRES 416 RECEIVED
 Office of Oil and Gas

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WV Department of
 Environmental Protection

PI-WRS-RMR
 Form No. 33B

Petroleum Information
 COMPANY

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WW-4A
Revised 6-07

1) Date: June 11, 2018
2) Operator's Well Number Horse Creek Tract "C" # 6

3) API Well No.: 47 - 043 - 01769

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>Keith E. Tyler, Sr.</u>	Name <u>NA</u>
Address <u>P. O. Box 172</u>	Address _____
<u>Culloden, WV 25510</u>	_____
(b) Name <u>Larry & Sue Carroll</u>	(b) Coal Owner(s) with Declaration
Address <u>P. O. Box 186</u>	Name <u>NA</u>
<u>Sod, WV 25564</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>	_____

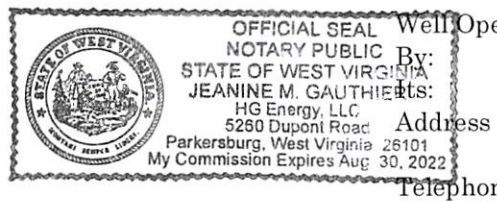
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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.

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

JUL 12 2018
WV Department of Environmental Protection

Subscribed and sworn before me this 11th day of June 2018
Jeanine M. Gauthier Notary Public
My Commission Expires Aug 30 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 depprivacyoffier@wv.gov.

43-01769P

WW-9
(5/16)

API Number 47 - 043 - 01769
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 49449748
Watershed (HUC 10) Laurel 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: No fluids are anticipated with plugging the well, if there are any, they'll be disposed of off site

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

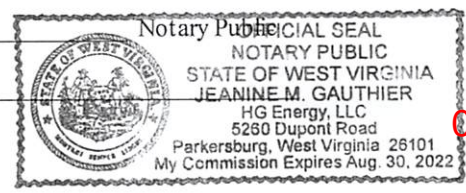
Company Official (Typed Name) Diane White

Company Official Title Agent

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Environmental Protection

Subscribed and sworn before me this 11th day of June, 2018

Jeanne M. Gauthier
My commission expires Aug 30 2022



08/10/2018

Proposed Revegetation Treatment: Acres Disturbed 1.0 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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Office

JUL 2

WW Dept.
Environmental

Title: Oil & Gas Inspector Date: 6-21-78

Field Reviewed? Yes 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): Laurel 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.

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.

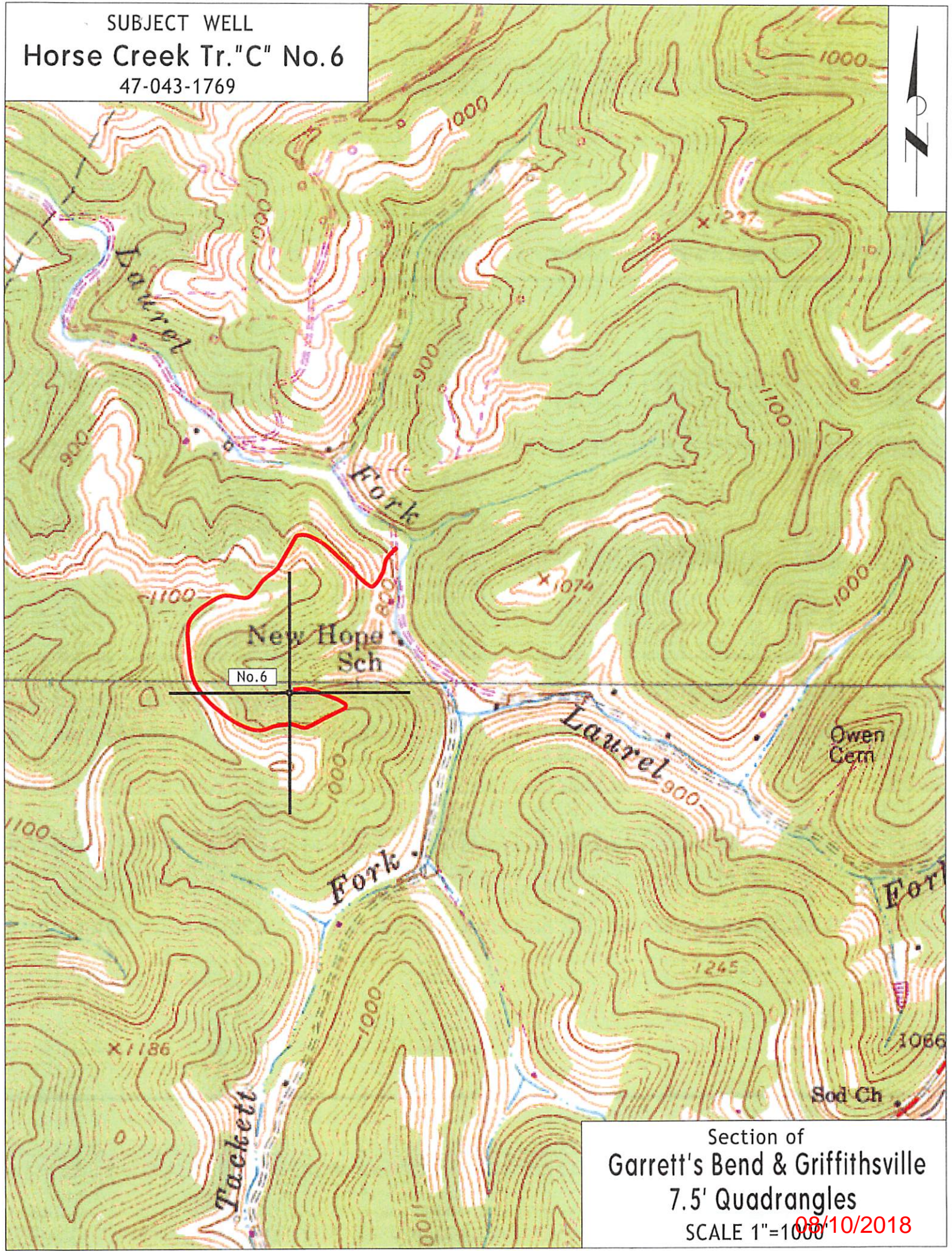
NA

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WV Department of
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Signature: Diane White

Date: 6-11-18

SUBJECT WELL
Horse Creek Tr."C" No.6
47-043-1769



Section of
Garrett's Bend & Griffithsville
7.5' Quadrangles
SCALE 1"=1000' 08/10/2018

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-043-01769 WELL NO.: 6

FARM NAME: Horse Creek Tr. "c" No. 6

RESPONSIBLE PARTY NAME: HG Energy, LLC

COUNTY: Lincoln DISTRICT: Duval

QUADRANGLE: Garrett's Bend 7.5'

SURFACE OWNER: Larry & Sue Carroll

ROYALTY OWNER: HG Energy, LLC et al

UTM GPS NORTHING: 4233926 (NAD 83) (928')

UTM GPS EASTING: 420620 GPS ELEVATION: 283m

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 and 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 X: Post Processed Differential X

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
Signature

Agent
Title

6/11/18
Date

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