



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

Thursday, August 23, 2018
WELL WORK PLUGGING PERMIT
Vertical Plugging

ROSS AND WHARTON GAS COMPANY, INC.
RT. 5, BOX 29

BUCKHANNON, WV 262010000

Re: Permit approval for JACK BUSFIELD
47-007-00741-00-00

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: JACK BUSFIELD
Farm Name: BUSFIELD, OPAL & JACK
U.S. WELL NUMBER: 47-007-00741-00-00
Vertical Plugging
Date Issued: 8/23/2018

Promoting a healthy environment.

I

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 August 7, 2018
2) Operator's
Well No. Jack Busfield
3) API Well No. 47-007 - 00741X

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 ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 905' Watershed Cedar Creek
District Otter County Braxton Quadrangle Cedarville

6) Well Operator Ross & Wharton Gas Co. Inc. 7) Designated Agent Mike Ross
Address 354 Morton Ave. Address P.O. Box 219
Buckhannon, WV 26201 Coalton, WV 26257

8) Oil and Gas Inspector to be notified Name Danny Mullins
Address 220 Jack Acres Rd.
Buckhannon, WV 26201
9) Plugging Contractor Name R & R Well Service
Address 42 Lynch Ridge
Walton, WV 25286

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

- Free point and recover casing's & tubular's
- 6% Gel between plug's
- Set cement plug 1815' to TD (2067') Plug 100' above top perf
- Set 100' cement plug across casing cut
- Set 100' cement plug 1650' to 1750' (Lime, Blue Monday)
- Set 100' cement plug 800 to 900' (salt bearing strata)
- Set cement plug 350' to surface, (8" casing plug, freshwater protection plug and surface plug) Tag plug's as necessary, Set Monument with API number

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

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AUG 15 2018

Work order approved by inspector  Date 8-9-18
WV Department of Environmental Protection



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary
Spudder
Cable Tools
Storage

Quadrangle Glennville
Permit No. BRAX - 741

WELL RECORD

Oil or Gas Well gas
(KIND)

Company White Shield Oil & Gas Corporation
Address P. O. Box 2139 - Tulsa, Oklahoma 74101
Farm Jack Busfield Acres 123
Location (waters) _____
Well No. 1 Elev. 905
District Otter County Braxton
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by _____
Address _____
Drilling commenced 8-31-68
Drilling completed 9-6-68
Date Shot 10-4 From 1919 To 2039
With 21 holes
Open Flow /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS) w/500 gals. 15 % acid
WELL FRACTURED (DETAILS) w/2500 BW & 60,000# 20-40 Mesh sand, 30,000# 10-20 Mesh Sand

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer <u>None</u>
16.			
13.			Size of _____
10.			Depth set _____
8 5/8	295	295	
6 3/4			
5 3/16			
4 1/2	2067	2067	
3.			Perf. top _____
2 1" approx	1919	1919	Perf. bottom _____
Liners Used _____			Perf. top <u>1919</u>
			Perf. bottom _____

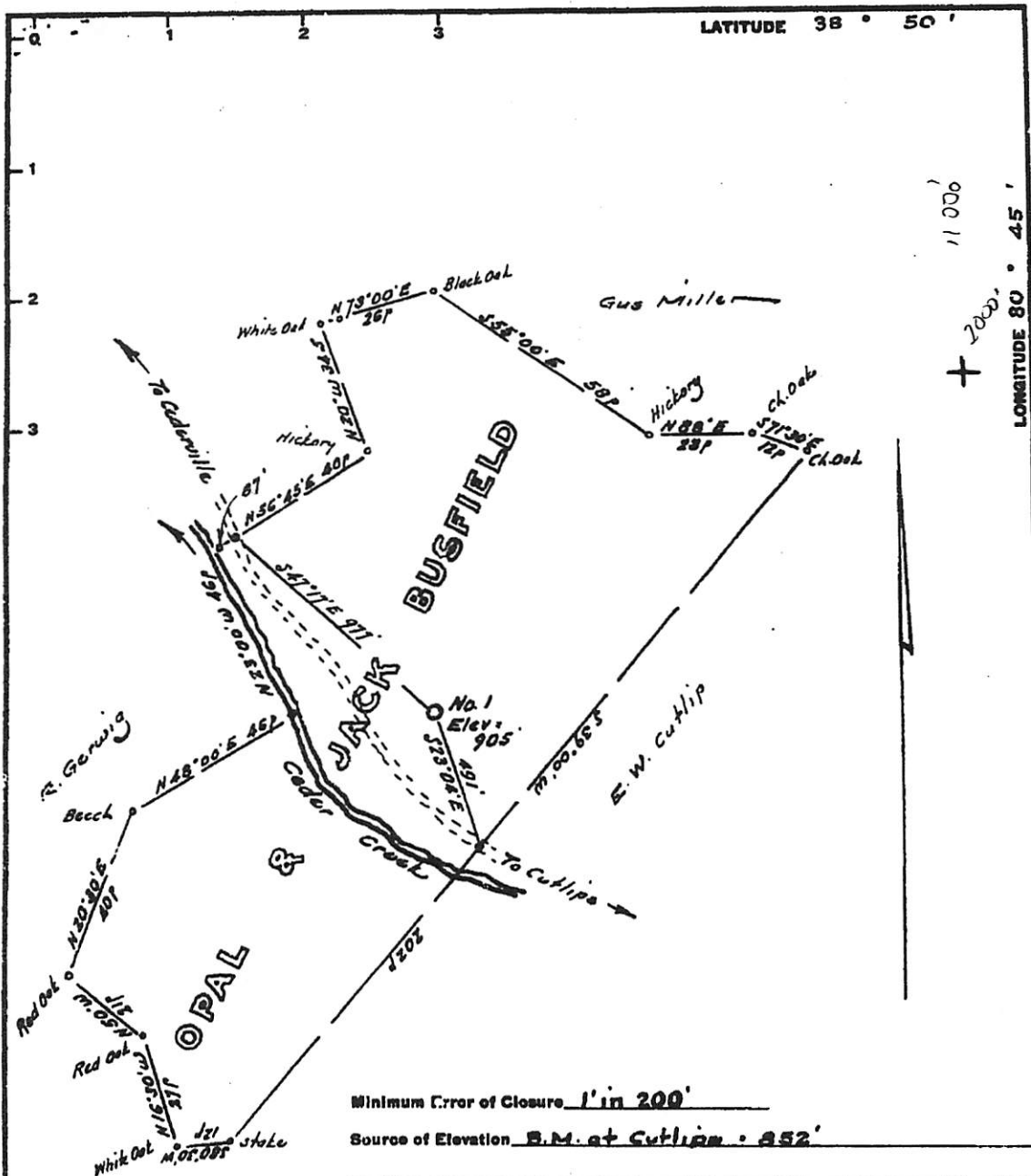
DM

Attach copy of cementing record.
CASING CEMENTED 4 1/2 SIZE 2067.53 No. Ft. 9-6-68 Date
Amount of cement used (bags) 125 sz.
Name of Service Co. Dowell
COAL WAS ENCOUNTERED AT None FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 2 MMCFPD 7,000,000
ROCK PRESSURE AFTER TREATMENT 550# HOURS 48
Fresh Water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Big Injun Depth' 1919

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	50			
" "			50	225			
Shale & Rock			225	295			
" "			295	405			
Shale			405	431			
Shale, Sand			431	589			
Sand & Shale			589	809			
Sand & Shale			809	969			
" "			969	1014			
Shale			1014	1076			
Shale w/Sand			1076	1349			
Shale Sand			1349	1567			
" "			1567	1710			
L. Lime			1710	1755			
" "			1755	1770			
B. Lime			1770	1807			
Big Lime			1807	1930			
Lime			1930	2038			
Sand and Shale			2038	2075	T.D.		



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Minimum Error of Closure 1' in 200'
 Source of Elevation B.M. at Cutlip - 852'

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Signed: [Signature]
 Squares: N S E W

- Fracture
- New Location
- Drill Deeper
- Abandonment

Company WHITE SHIELD OIL & GAS CORP.
 Address P.O. 2129, Tulsa, Oklahoma.
 Farm Opal and Jack Busfield
 Tract Acres 12.5 Lease No. _____
 Well (Farm) No. One Serial No. _____
 Elevation (Spirit Level) 905'
 Quadrangle Glennville SE
 County Barbour District Other
 Engineer [Signature]
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date August 26, 1968 Scale 1" = 200' = 495'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. BRAX-741

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

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 AUG 15 2018
 WV Department of Environmental Protection

WW-4A
Revised 6-07

1) Date: August 7, 2018
2) Operator's Well Number
Jack Busfield
3) API Well No.: 47 - 007 - 00741

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>Bernard and/or Velma Seal</u>	Name <u>N/A</u>
Address <u>1644 Riffle Rd.</u>	Address _____
<u>Exchange, WV 26619</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Danny Mullins</u>	(c) Coal Lessee with Declaration
Address <u>220 Jack Acres</u>	Name <u>N/A</u>
<u>Buckhannon, WV 26201</u>	Address _____
Telephone <u>1-304-932-6844</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 Ross & Wharton Gas Co. Inc. (Mike Ross Inc.)
 By: *Mike Ross*
 Its: President
 Address 354 Morton Ave.
Buckhannon, WV 26201
 Telephone 1-304-472-4289

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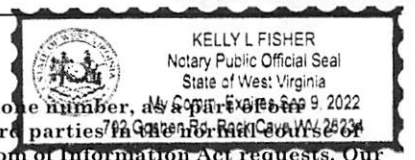
Subscribed and sworn before me this 13th day of August, 2018
Kelly L. Fisher Notary Public
 My Commission Expires September 9, 2022

AUG 15 2018

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 its regulatory duties. Your personal information may be disclosed to other State agencies or third parties in order to carry out its regulatory 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.



WW-9
(5/16)

API Number 47 - 007 - 00741
Operator's Well No. _____

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

Operator Name Ross & Wharton Gas Co. Inc. OP Code 306580

Watershed (HUC 10) Cedar Creek Quadrangle Cedarville

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: _____

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: _____

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

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

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

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

-Landfill or offsite name/permit number? _____

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 Mike Ross

Company Official (Typed Name) Mike Ross

Company Official Title President

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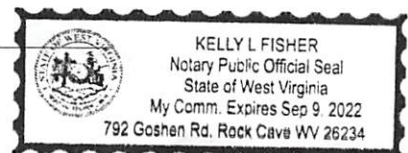
AUG 15 2018

Subscribed and sworn before me this 13TH day of August, 2018

WV Department of Environmental Protection

Kelly L Fisher Notary Public

My commission expires September 9, 2022



Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount _____ lbs/acre

Mulch Hay Tons/acre


Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Fescue	30	Fescue	30
Contractor's Mix		Contractor's Mix	
_____		_____	
_____		_____	

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: 

Comments: _____

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Title: OOG Inspector

Date: 8-9-18

WV Department of
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Field Reviewed? () Yes () No

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

Operator Name: Ross & Wharton Gas Co. Inc.

Watershed (HUC 10): Cedar Creek Quad: Cedarville

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.

N/A

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

N/A

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

Cedar Creek

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

N/A

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

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No material will be used

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.

N/A

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

N/A

Signature:

Mike Ross

Date:

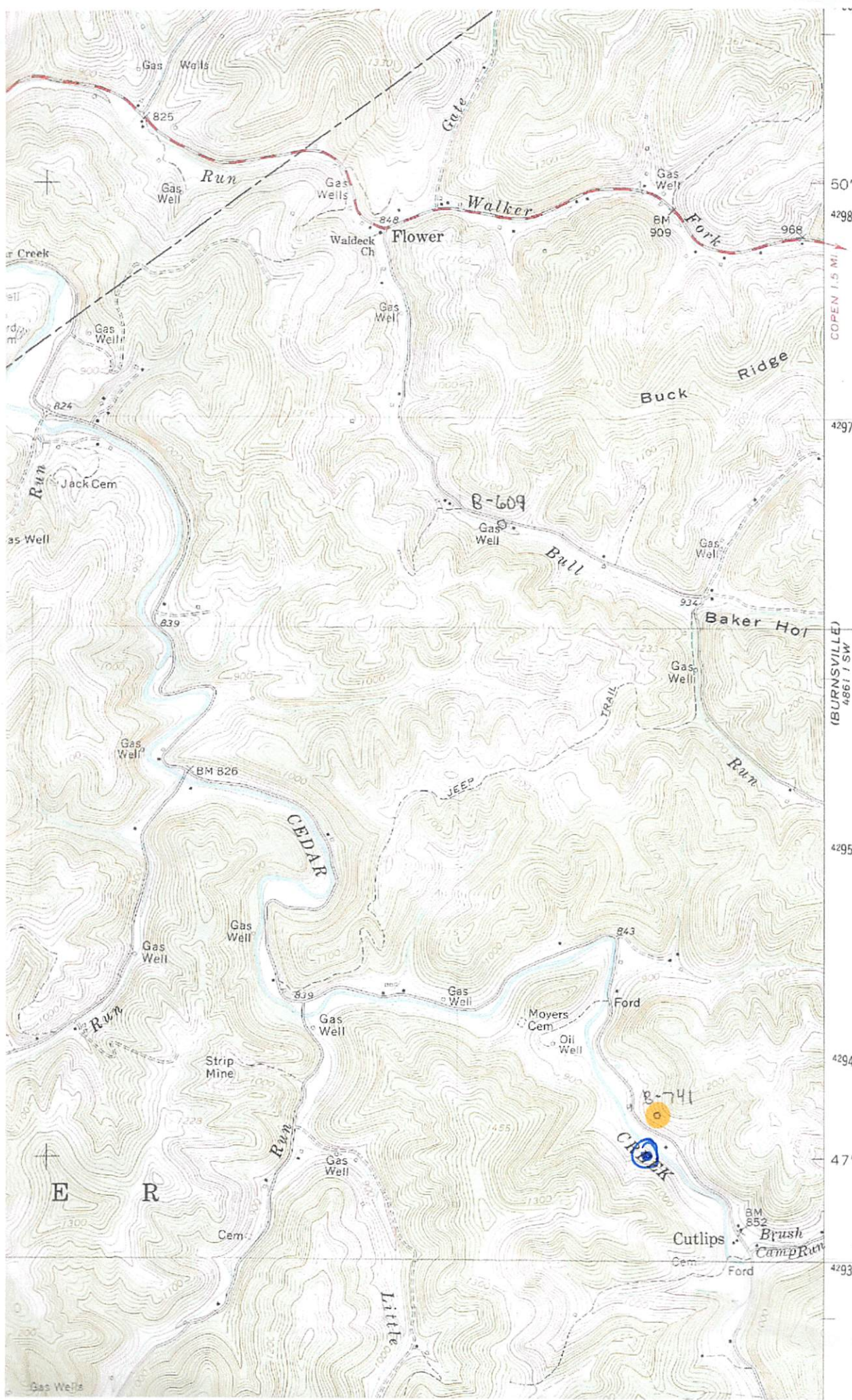
August 13, 2018

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WV Department of
Environmental Protection

47-007-00741P



50'
4298
COPEN 1.5 MI
4297
(BURNSVILLE) 4867 SW
4295
4294
47'30"
4293

W

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WV Department of
Environmental Protection

WW-7
8-30-06



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

API: 47-007-00741 WELL NO.: _____

FARM NAME: Jack Busfield

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Braxton DISTRICT: Otter

QUADRANGLE: Cedarville

SURFACE OWNER: Bernard and/or Velma Seal

ROYALTY OWNER: Bernard and/or Velma Seal

UTM GPS NORTHING: 4293701.0

UTM GPS EASTING: 520914.4 GPS ELEVATION: 905'

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 _____: 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.

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Office of Oil and Gas

AUG 15 2018

WV Department of
Environmental Protection

Mike Ross

President

8-13-18

Signature

Title

Date