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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

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 Warder West  
47-007-00609-00-00

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: Warder West  
Farm Name: FRED WEST  
U.S. WELL NUMBER: 47-007-00609-00-00  
Vertical Plugging  
Date Issued: 8/23/2018

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## PERMIT CONDITIONS

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

### CONDITIONS

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1. 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.

WW-4B  
Rev. 2/01

1) Date August 7, 20 18  
2) Operator's  
Well No. Warder West  
3) API Well No. 47-007 - 00609

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 912' Watershed Bull Run  
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 9) Plugging Contractor  
Address 220 Jack Acres Rd. Name R & R Well Service  
Buckhannon, WV 26201 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 1735' to TD (2025') Plug 100' above top perf
- Set 100' cement plug across casing cut
- Set cement plug 1450' to 1650' (Lime, Blue Monday) and gas/oil shows
- Set cement plug 620' to 920' ( salt bearing strata) and gas show and 8"
- Set cement plug 256' to surface, (10" casing plug, freshwater protection plug and surface plug) Tag plug's as necessary, Set monument with API number

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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  Date 8-9-18



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

Quadrangle Glenville  
Permit No. 609 - BRAY

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company The Waverly Oil Works Company  
 Address 4403 Centre Avenue, Pittsburgh, Pa.  
 Farm Warder West Acres 101  
 Location (waters) Bull Run  
 Well No. 1 Elev. 912  
 District Otter County Braxton  
 The surface of tract is owned in fee by Fred West  
228 E. Philadelphia Ave. Youngstown, Ohio  
 Mineral rights are owned by Fred West & Daisy West  
 Address same above  
 Drilling commenced 4/28/65  
 Drilling completed 6/3/65  
 Date Shot From To  
 With  
 Open Flow 64 10ths Water in 1/2 Inch  
 /10ths Merc. in Inch  
 Volume 15M Cu. Ft.  
 Rock Pressure lbs. hrs.  
 Oil bbls., 1st 24 hrs.  
 WELL ACIDIZED

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer <u>None</u>
16	18'	18	
13			
10	206'	206	Size of
8 1/2	673'	0	
6 1/2	1785'	0	Depth set
<del>5 1/2</del> 4 1/2	2025'	2025	
3			Perf. top
<del>K</del> 1"	1988'	1988	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

DM

CASING CEMENTED Yes SIZE 4 1/2 No. Ft. 1600' Date 6/4/65 - 80 sks.  
 COAL WAS ENCOUNTERED AT FEET INCHES  
 FEET INCHES FEET INCHES  
 FEET INCHES FEET INCHES  
 WELL FRACTURED 6/9/65 Dowell, Two Allison, 1000 gal. acid, 30M 20 x 40 sand, broke 1200#, ave. press. 1600#, ave. inj. 32 BPM, 600 BBL. water.  
 RESULT AFTER TREATMENT 500M  
 ROCK PRESSURE AFTER TREATMENT 610# - 12 1/2 hrs.  
 Fresh Water hole full Feet 90' Salt Water Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Conductor			0	18			
Sand			18	40			
Slate			40	80			
Sand			80	100	HF Water	90'	
Red Rock			100	198			
Blue Slate			198	210			
Red Rock			210	215			
Blue Slate			215	230			
Red Rock			230	250			
Sand-Lime			250	305			
Red Rock			305	345			
Slate			345	355			
Red Rock			355	380			
Slate			380	400			
Red Rock			400	425			
Blue Slate			425	445			
Sand			445	480			
Dark Slate			480	490			
Red Rock			490	510			
Blue Slate - Lime			510	550			
Sand			550	555			
Slate			555	560			
Lime			560	570			
Dark Slate			570	585			
Gritty Lime			585	600			
Sand			600	650			
Dark Slate			650	660			
Blue Slate			660	665			
Lime & Shells			665	673			
Slate			673	685			



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(over)

Formation	Color	Hard or Soft	Top /	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime			685	710			
Slate-Shells			710	790			
Gritty Lime			790	835			
Slate&Shells			835	850			
Sand			850	960	Show Gas	860	50M
Dark Slate			960	975			
Sand			975	1010			
Slate&Shells			1010	1035			
Sand			1035	1060			
Slate&Shells			1060	1360			
1st Salt Sand			1360	1440			
Lime			1440	1450			
Sand			1450	1465			
Slate			1465	1470			
Sand			1470	1485			
Slate-Lime			1485	1505			
Sand-2nd Salt Sand			1505	1562			
					5/14/65 - 6:00 pm - Show oil & gas. Est. 250M in 2nd Salt Sand 1550-1555'. Shut down for test.		
					5/15/65-10:00 am - 100' oil in 8" hole in 18 hrs. One hour test 10 gal. oil. Gas blew down to 33M 22/10 W in 1".		
					5/17/65-1:00 am - 36 hr. test, 35' of oil. Depth 1566'.		
Slate			1562	1585			
Sand			1585	1600	Show gas	1595'	
Red Rock			1600	1645			
Slate & Shells			1645	1670			
Red Rock			1670	1680			
Slate & Shells			1680	1701			
Sand			1701	1709			
Slate			1709	1725			
Pencil Cave			1725	1728			
Slate			1728	1731			
Little Lime			1731	1778			
Blue Monday Shale			1788	1794			
					Ran 7" OD at 1785. Show gas 1785-1790' Gauge at 1792, 24/10 W - 34M - 1" orifice		
Big Lime			1794	1867			
Keener Sand (limey)			1867	1915			
Injun Sand (limey)			1915	1972	Show Gas	1930-1939'	
Squaw Sand			1972	1996	Increase	1939-42 - 33/10W - 1/2" orf.	
					Gauged	35/10W - 1/2" orf. 1983'	
Blue Siltstone			1996	2025	Increase	50/10W 1/2" @ 1992'	
T.D.				2025	Increase	64/10W 1/2" @ 1998	

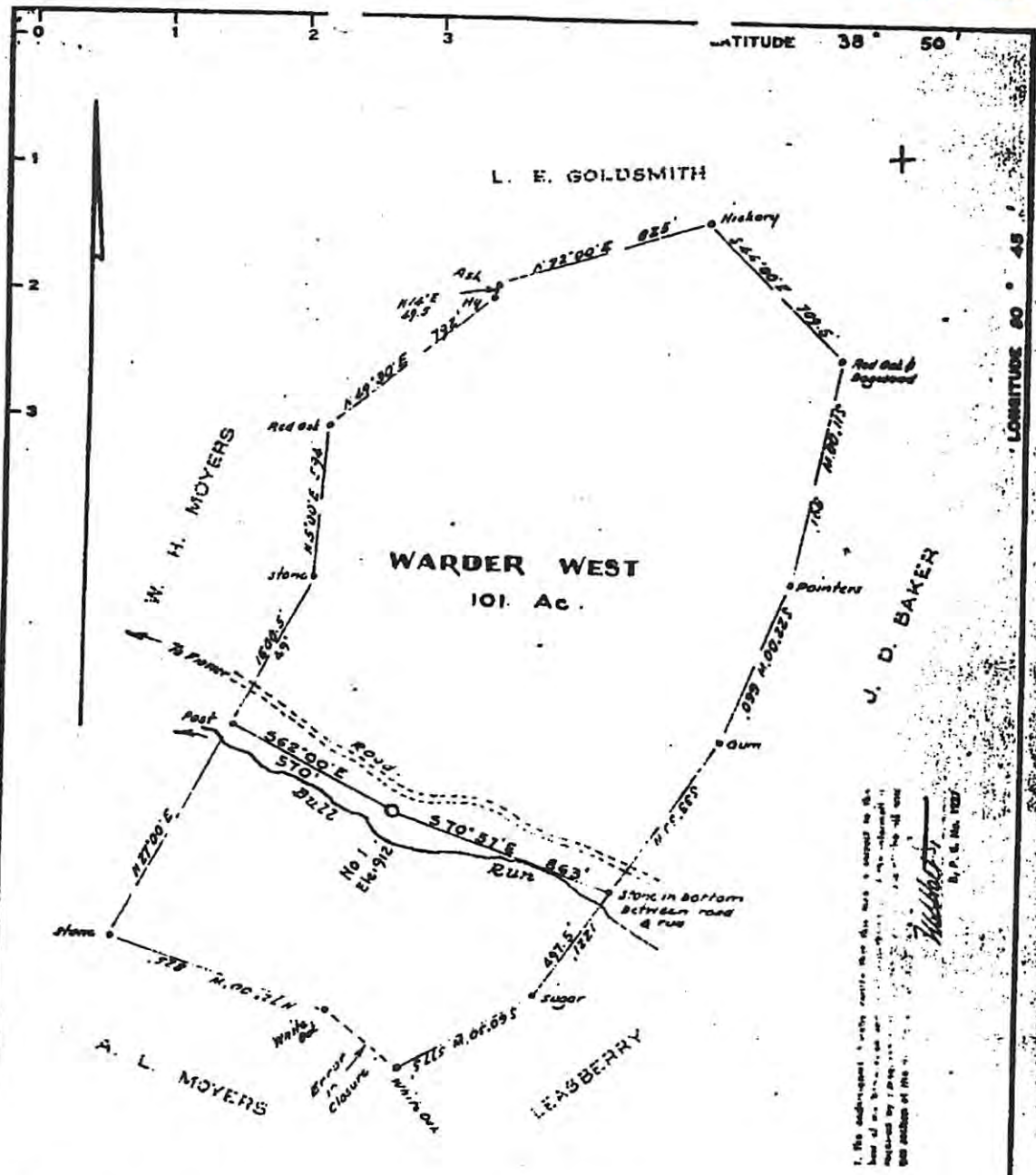
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Date June 25, 19 65

APPROVED The Waverly Oil Works Company Owner  
By R.L. Vockel R.L. Vockel - Pres.  
(Title)

08/24/2018



New Location   
 Drill Deeper   
 Abandonment

Reference to elevation :- Hydrocarbon well  
 No. 1. Despard Lease (Permit Brax-539)  
 = 880'

Error in Closure :- Less than 1' in 200'

Company WAVERLEY OIL WORKS  
 Address No. 4, East Locust, Newark, Ohio  
 Farm Warder West  
 Tract \_\_\_\_\_ Acres 101 Lease No. \_\_\_\_\_  
 Well (Farm) No. One Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 912  
 Quadrangle Glenville  
 County Braxton District Attur  
 Engineer Hubbert  
 Engineer's Registration No. 1227  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date April 18, 1965 Scale 1" = 500'

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

**WELL LOCATION MAP**  
 FILE NO. BRAX-609

+ 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.

I, the undersigned, certify that this map is a correct and true copy of the original map as shown to me by the engineer named above, and that the same has been prepared by me in accordance with the provisions of the act of the Legislature of this State, approved March 10, 1927.  
 Hubbert  
 P. E. No. 1027

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 WV Department of  
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WW-4A  
Revised 6-07

1) Date: August 7, 2018  
2) Operator's Well Number  
Warder West #1

3) API Well No.: 47 - 007 - 00609

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>Ronald E. West</u>	Name <u>N/A</u>
Address <u>78 Roche Way</u>	Address _____
<u>Youngstown, OH 44512</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 Rd.</u>	Name <u>N/A</u>
<u>Buckhannon, WV 26201</u>	Address _____
Telephone <u>304-932-8049</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: \_\_\_\_\_  
 Address 354 Morton Ave.  
Buckhannon, WV 26201  
 Telephone 1-304-472-4289

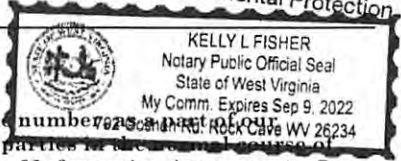
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Subscribed and sworn before me this 13<sup>TH</sup> day of August, 2018

Kelly L. Fisher Notary Public  
My Commission Expires September 9, 2022

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 numbers, for regulatory duties. Your personal information may be disclosed to other State agencies or third parties for the purpose of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

08/24/2018

WW-9  
(5/16)

API Number 47 - 007 - 00609  
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) Bull Run 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

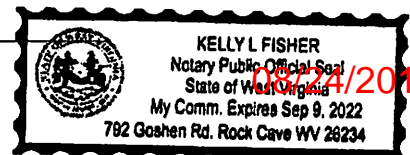
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Subscribed and sworn before me this 13<sup>TH</sup> day of August, 2018

*Kelly L. Fisher* Notary Public

My commission expires September 9, 2022





Proposed Revegetation Treatment: Acres Disturbed 1 acre 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 \_\_\_\_\_ Tons/acre

**Seed Mixtures**

<b>Temporary</b>		<b>Permanent</b>	
Seed Type	lbs/acre	Seed Type	lbs/acre
Fescue	30	Fescue	30
Contractors Mix		Contractors 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: *[Signature]*

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Title: *OG Inspector* Date: *8-9-18*

Field Reviewed? ( ) Yes (  ) No

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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): Bull Run 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.

Bull Run

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

N/A

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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

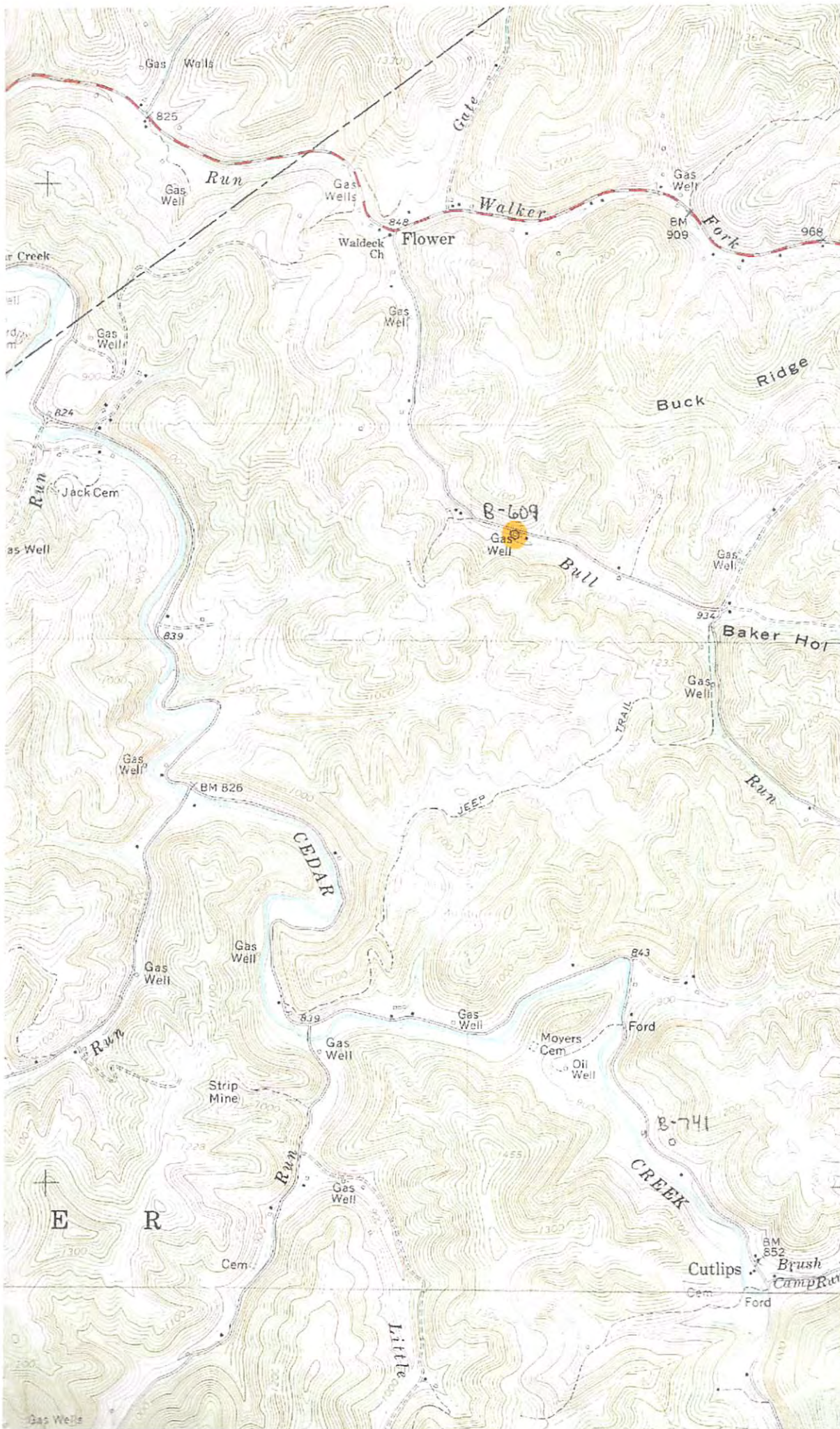
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Signature: Mike Ross

WV Department of  
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Date: August 13, 2018

47-007-00609A



50'  
4298  
COPEN 1.5 MI.  
4297  
4861 (SW)  
(BURNSVILLE)  
4295  
4294  
47'30"  
4293

12M

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WW-7  
8-30-06



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

API: 47-007-00609 WELL NO.: \_\_\_\_\_  
 FARM NAME: Warder West  
 RESPONSIBLE PARTY NAME: Mike Ross  
 COUNTY: Braxton DISTRICT: Otter  
 QUADRANGLE: Cedarville  
 SURFACE OWNER: Fred West  
 ROYALTY OWNER: Ronald West  
 UTM GPS NORTHING: 4296691 N  
 UTM GPS EASTING: 520218 E GPS ELEVATION: 912'

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.

*Mike Ross*

Signature

President

Title

8-13-18

Date

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