



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

December 10, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4100780, issued to ROSS AND WHARTON GAS COMPANY, INC., 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 all 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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: ESCKEW 1-1031
Farm Name: U.S. DEPT. OF INTERIOR
API Well Number: 47-4100780
Permit Type: Plugging
Date Issued: 12/10/2015

Promoting a healthy environment.

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 11/2, 2015
2) Operator's Well No. Edna Eskew #1
3) API Well No. 47-41 - 00750

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 X or Underground storage) Deep / Shallow X

5) Location: Elevation 1435 Watershed
District Skin Creek County Lewis Quadrangle Roanoke 7.5

6) Well Operator Ross & Wharton 7) Designated Agent Mike Ross
Address Route 5 Box 29 Address PO Box 219
Buckhannon, WV 26257 Coalton, WV 26257

8) Oil and Gas Inspector to be notified Name Barry Stollings
Address 28 Conifer Drive
Bridgeport, WV 26330
9) Plugging Contractor Name Unknown
Address

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

- 4630-TD
- Run 6% gel between each plug
- 1) 4630-4430 set cement plug
- * ~~Cut 4 1/2 in. pipe at 2100~~
- 3) 2300-2200 set cement plug
- 4) 1850-1750 set cement plug
- 5) 1450-1350 set cement plug
- ~~1070-970 set cement plug~~

- 2) * Cut 4 1/2" casing at freepoint and trip casing out of hole. Freepoint should be below 3000'. Set 100' Class A Cement Plug across casing cut.
- 7) * If 8 1/4" can not be pulled, then perforate the 8 1/4" to allow for a Class A Cement Plug from 1070' to 900' to cover salt water zones at 1070' and 965'.
- 8) * Try to pull 10" casing. If it can not be pulled, Set Class A Cement Plug from 400' to the surface. Proceed to step 11.
- 8a) * If 10" casing is pulled, then proceed as follows:

- 9) 500-400 set cement plug (Covers SW At 495')
- 10) 100-0 set cement plug

11) Set monument with API number 2015

RECEIVED
Office of Oil and Gas
WV Department of Environmental Protection

Jeff McLaughlin, OO & G

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

Work order approved by inspector Barry Stollings Date 10-28-15

4100780P



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Quadrangle Crawford NW

Permit No. LEW-780

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Union Drilling, Inc.
 Address Box 281, Washington, Penna.
 Farm Edna C. Eskew Acres 38
 Location (waters) _____
 Well No. 1 Elev. 1438
 District Skin Creek County Lewis
 The surface of tract is owned in fee by Edna C. Eskew
849 34th St., NW Address Canton, Ohio
 Mineral rights are owned by Edna Corathers Eskew
 Address Same as above
 Drilling commenced July 17, 1961
 Drilling completed October 12, 1961
 Date Shot _____ From _____ To _____
 With _____
 Open Flow /10ths Water in _____ Inch
 _____ /10ths Merc. in _____ Inch
 Volume 125,000 Cu. Ft.
 Rock Pressure 1800 lbs. 60 hrs.
 Oil _____ bbls., 1st 24 hrs.
 WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	397	397	Size of
8 1/4	1338	1338	
7	2369	Nona	Depth set
5 3/16			
4 1/2	4661	4661	Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED 4 1/2 SIZE 900 No. Ft. 10/13/61 Date
120 bags Cement - 2 gals. aquagel GAPATON

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

WELL FRACTURED 10/18/61 - with water and 52,000 lbs. sand

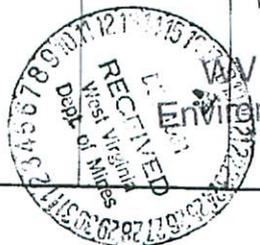
RESULT AFTER TREATMENT 8,000,000 cu. ft.

ROCK PRESSURE AFTER TREATMENT 1900 in 100 hrs.

Fresh Water _____ Feet Salt Water 495, 965, 1070 and 2230 feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	100			
Slate			100	150			
Red Rock			150	175			
Slate & Shells			175	290			
Red Rock			290	370			
Slate			370	424			
Limestone			424	480			
Sand			480	500	Water	495 ft.	1 B.P.H.
Slate & Shells			500	530			
Lime			530	559			
Red Rock			559	600			
Slate			600	645			
Lime			645	697			
Sand			697	795			
Slate			795	823			
Lime			823	886			
Sand			886	950			
Slate & Shells			950	990	Water	965 ft.	2 1/2 B.P.H.
Lime			990	1040			
Sand			1040	1090	Water	1070 ft.	3 1/2 B.P.H.
Slate & Shells			1090	1120			
Lime			1120	1135			
Sand			1135	1195			
Slate & Shells			1195	1270			
Lime			1270	1300			
Sand			1300	1320			
Slate & Shells			1320	1336			
Lime			1336	1360			

RECEIVED
Office of Oil and Gas
NOV 05 2015



WV Department of Environmental Protection

Formation	Color	Hard or Soft	Top <i>g</i>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate & Shells			1360	1490			
Sand			1490	1602			
Slate & Shells			1602	1640			
Red Rock			1640	1780			
Lime			1780	1840			
Slate			1840	1848			
Lime			1848	1893			
Slate	Dark		1893	1900			
Big Lime		Hard	1900	2020			
Injun Sand			2020	2100			
Squaw Sand			2100	2197			
Slate & Shells			2197	2224			
Sand			2224	2275	Water	2230 ft.	
Slate & Shells			2275	2366	Gas	2230	Show
Lime			2366	2397			
Sand	White	Hard	2397	2420			
Sand	Gray	Hard	2420	2590			
Lime			2590	2595			
Slate & Shells			2595	2670			
Sand		Hard	2670	2730			
Slate & Shells			2730	4611			
Benson Sand	Br.		4611	4621			
Slate & Shells			4621	4696	Gas	4626	Show
TOTAL DEPTH *		4696 FEET					

RECEIVED
Office of Oil and Gas
NOV 05 2015

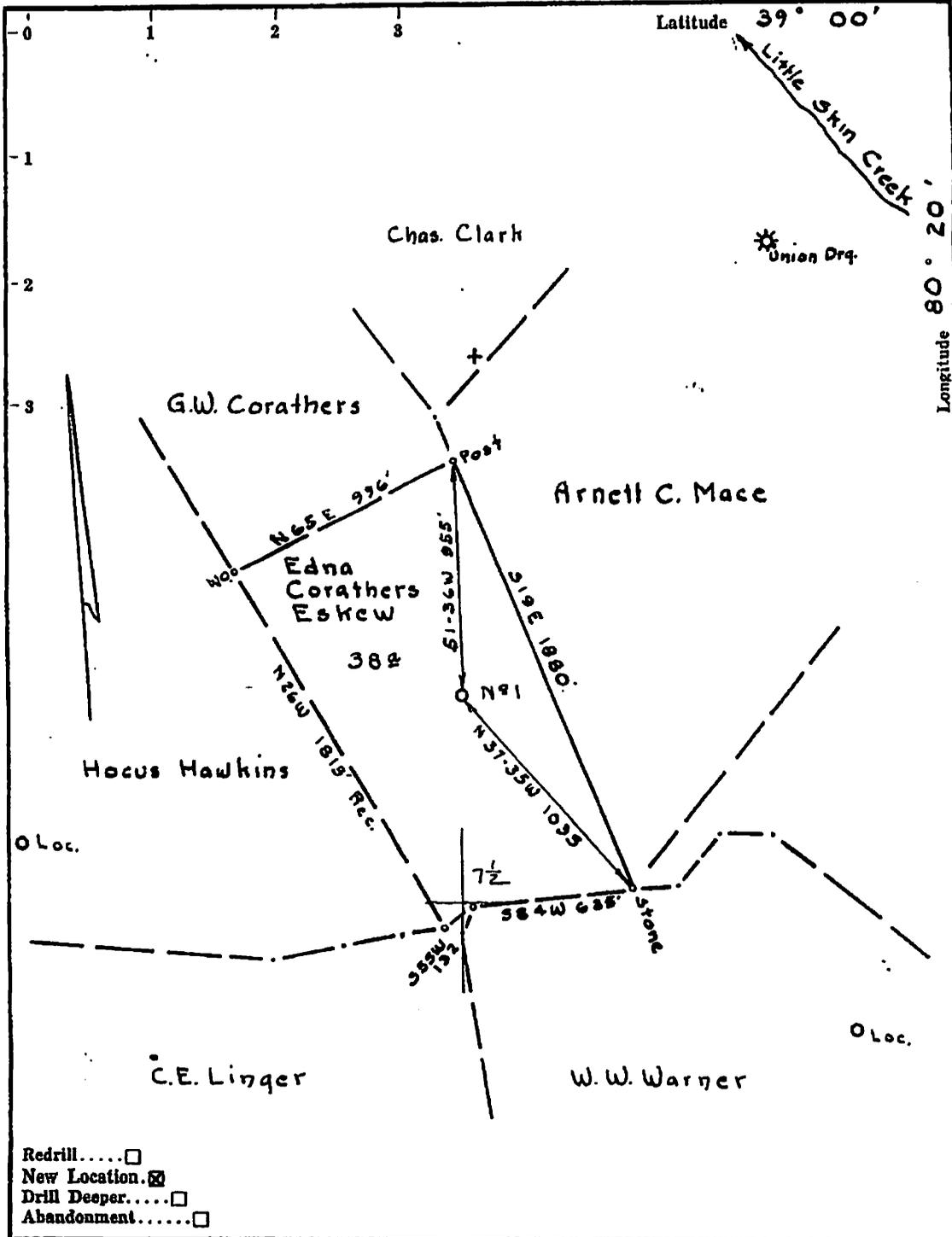
WV Department of
Environmental Protection

Date December 18, _____, 1961

APPROVED UNION DRILLING, INC., Owner

By J. L. Damm, Vice President
(Title)

7800



- Redrill.....
- New Location.
- Drill Deeper.....
- Abandonment.....

Company Union Drilling Inc.
 Address Washington, Pa.
 Farm Edna Corathers Eskew
 Tract _____ Acres 38 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 1430 VA
 Quadrangle Crawford NW 23-4
 County Lewis District Skin Creek
 Engineer James J. Jeffries
 Engineer's Registration No. 1084
 File No. 201/14 Drawing No. _____
 Date 5-23-61 Scale 1"=500'

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

RECEIVED
 Office of Oil and Gas
 NOV 0 2015

WV Department of
 Environmental Protection

WELL LOCATION MAP
 FILE NO. NEW-780P
 041

+ 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.

WW-4A
Revised 6-07

1) Date: 11/2/15
2) Operator's Well Number
Edna Eskew #1
3) API Well No.: 47 - 041 - 00780

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

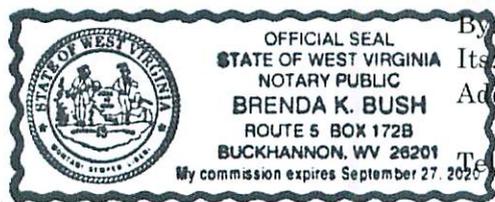
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>US Dept. of Interior, Bureau of Land Management</u>	Name <u>N/A</u>
Address <u>626 E. Wisconsin Ave., Suite 200</u>	Address _____
<u>Milwaukee, WI 53202-4617</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Barry Stollings</u>	(c) Coal Lessee with Declaration
Address <u>28 Conifer Drive</u>	Name <u>N/A</u>
<u>Bridgeport, WV 26330</u>	Address _____
Telephone <u>304-552-4194</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	<u>Ross & Wharton (Mike Ross Inc.)</u>
	By	<u>Mike Ross</u>
	Its	<u>Chairman of the Board</u>
	Address	<u>PO Box 219</u>
	Telephone	<u>Coalton, WV 26257</u> <u>304-472-4289</u>

RECEIVED
Office of Oil and Gas
NOV 05 2015

WV Department of Environmental Protection

Subscribed and sworn before me this 2nd day of November, 2015
Brenda Bush Notary Public
My Commission Expires September 27, 2020

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.

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Ross & Wharton Gas Company (Mike Ross Inc.) OP Code 305680

Watershed (HUC 10) _____ Quadrangle Roanoke 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: _____

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

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 _____)

ALL WELL EFFLUENT MUST BE CONTAINED IN TANKS, AND DISPOSED OF PROPERLY. gnm

Will closed loop system be used? If so, describe: N/A

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

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-Landfill or offsite name/permit number? N/A

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.

RECEIVED
Office of Oil and Gas

Company Official Signature Mike Ross

NOV 05 2015

Company Official (Typed Name) _____

Company Official Title _____

WV Department of Environmental Protection

Subscribed and sworn before me this 2nd day of November, 2015

Brenda Bush

Notar

My commission expires September 27, 2020



Ross & Wharton Gas Company (Mike Ross Inc.)

Proposed Revegetation Treatment: Acres Disturbed 1 Acre Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type _____

Fertilizer amount _____ lbs/acre

Mulch _____ Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Fescue

Contractor's Mix

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: Barry Stille

Comments: _____

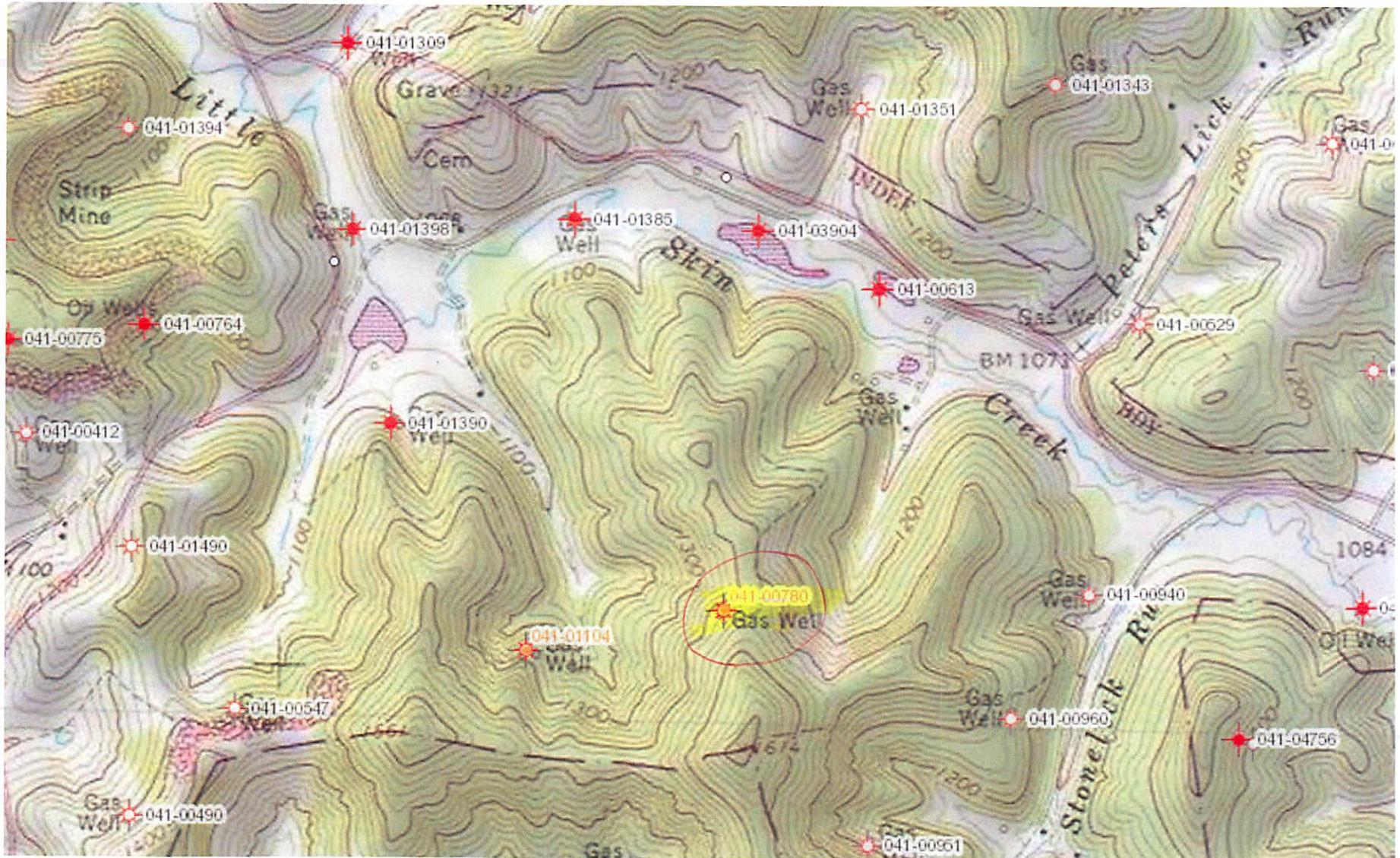
RECEIVED
Office of Oil and Gas

NOV 05 2015

Title: Inspector

WV Department of Environmental Protection
Date: 10-28-15

Field Reviewed? Yes No



4100780P

Google Maps 38°57'34.5"N 80°24'14.3"W



Map data ©2015 Google 1000 ft

RECEIVED
 Office of Oil and Gas
 NOV 05 2015
 WV Department of
 Environmental Protection

4100780P

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-041-00780 WELL NO.: 1

FARM NAME: Edna Corathers Eskew

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Lewis DISTRICT: Skin Creek

QUADRANGLE: Roanoke 7.5

SURFACE OWNER: US Department of Interior, Bureau of Land Management

ROYALTY OWNER: US Department of Interior, Bureau of Land Management

UTM GPS NORTHING: 4312461

UTM GPS EASTING: 551640 GPS ELEVATION: 1435

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 ____

RECEIVED
Office of Oil and Gas

NOV 05 2015

WV Department of
Environmental Protection

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

11/2/15
Date