

Longitude 80 45

Fracture
 Before 5/5/30
 New Location
 Drill Deeper
 Redrill
 Abandonment

2/5/76

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 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.
 The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations
PROVEN ELEVATION Well No 2 = 1152

JUSTIN M. HENDERSON

Address **West Union, West Va.**
 Farm **Mary Lou Holland**
 Tract Acres **3150** Lease No. _____
 Well (Farm) No. **Four** Serial No. _____
 Elevation (Spirit Level) **907**
 Quadrangle **Holbrook NE**
 County **Doddridge** District **West Union**
 Engineer *Justin M. Henderson*
 Engineer's Registration No. **1227**
 File No. _____ Drawing No. _____
 Date **March 23, 1968** Scale **1" = 40p = 660'**

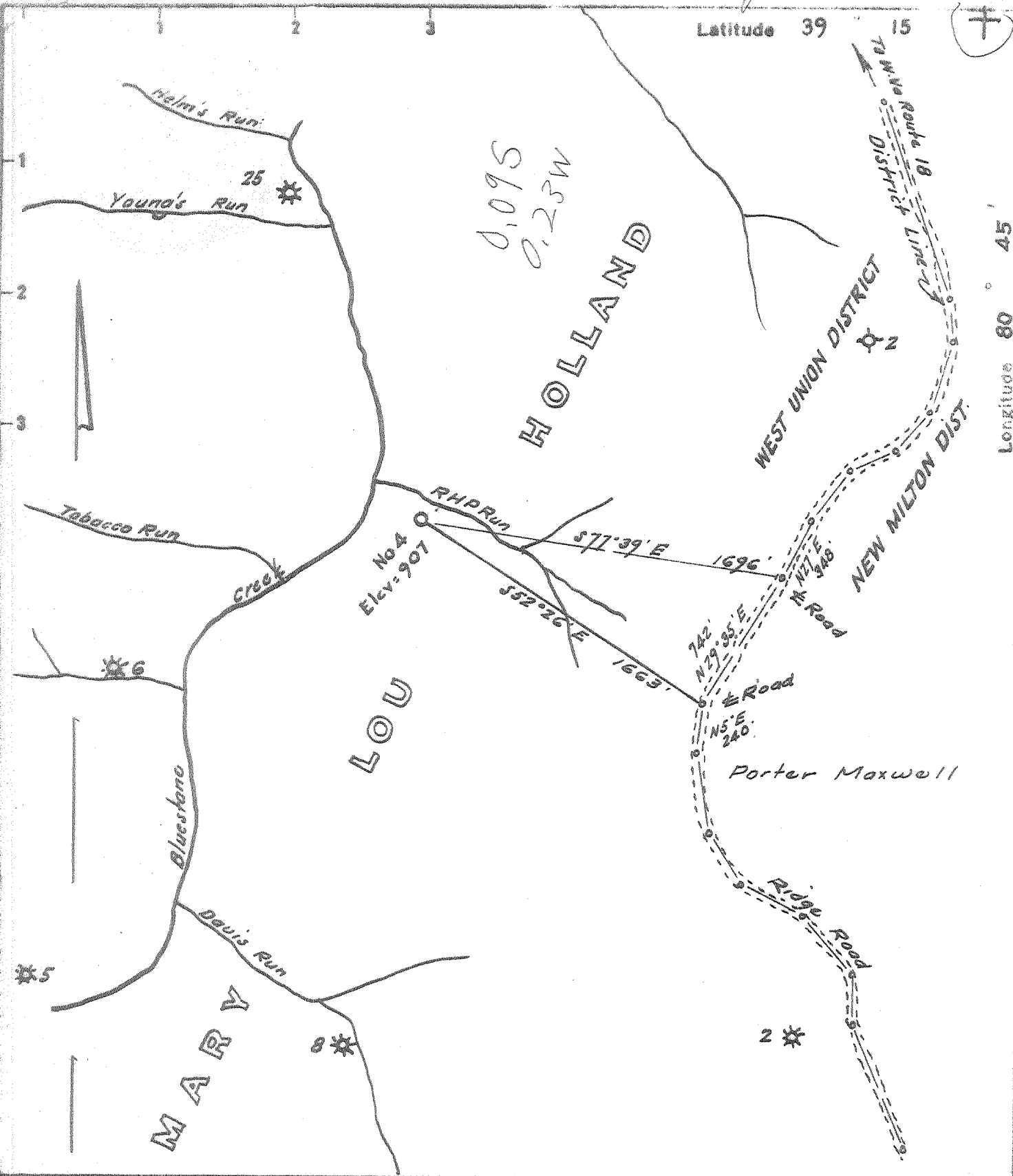
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
FILE NO. DOD - 1502-DD

+ 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

47-017



- Fracture Before 6/5/29
- New Location
- Drill Deeper
- Redrill
- Abandonment

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PROVEN ELEVATION Well No. 2 = 907 1152

Company **JUSTIN M. HENDERSON**

Address **West Union, West Va.**

Farm **Mary Lou Holland**

Tract _____ Acres **3150** Lease No. _____

Well (Farm) No. **Four** Serial No. _____

Elevation (Spirit Level) **907**

Quadrangle **Holbrook** *NE*

County **Doddridge** District **West Union**

Engineer *[Signature]*

Engineer's Registration No. **1227**

File No. _____ Drawing No. _____

Date **March 23, 1968** Scale **1" = 40p. 660'**

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

WELL LOCATION MAP
 FILE NO. **DOD - 1502**

+ 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.

6-6-098



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

RECEIVED

MAR 14 1977

OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD

Quadrangle Holbrook

Permit No. DOD-1502 D.D. 47017

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company <u>Hawk Well Justin M. Henderson Agt.</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>108 Wood St. West Union, W. Va.</u>				
Farm <u>Mary Lou H. Holland</u> Acres <u>approx 7500</u>				
Location (waters) <u>Bluestone Creek-Ringer Horse</u>	Size			
Well No. <u>4</u> Elev <u>407</u>	20-16			
District <u>West Union</u> County <u>Doddridge</u>	Cond.			
The surface of tract is owned in fee by <u>M. L. H. Holland</u>	13-10"			
<u>308 Church St.</u>	9 5/8			
Address <u>West Union, W. Va. 26456</u>	8 5/8			
Mineral rights are owned by <u>M. L. H. Holland-J. M. Henderson & Leeman Maxwell Trs.</u>	7			
Address _____	5 1/2			
Drilling Commenced <u>2-09-1976</u>	4 1/2			
Drilling Completed <u>3-26-1976</u>	3 1/2		619'	
Initial open flow _____ cu. ft. _____ bbls.	2			
Final production <u>30,000</u> cu. ft. per day _____ bbls.	Liners Used			
Well open _____ hrs. before test _____ RP.				

Well treatment details:

Attach copy of cementing record.

Gordon Sand treated by 1000 gal acid & 500 bbls water

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet
Producing Sand GORDON Depth 2306-2316

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Mud			0	45	35	1 bailor hour
Sand			45	95		
Slate			95	128		
Lime			128	154		
Red Rock			154	178		
Lime			178	195		
Shale			195	225		
Lime			225	243		
Slate & Shell			243	302		
Lime			302	310		
Slate & Shell			310	339		
Red	red		339	365		
Slate & Shell			365	375		
Rock	red		375	510		
Slate			510	550		
Shale			550	580		
Rock	red		580	602		
Shale			602	608		
Lime			608	650		
Shale			650	675		
Rock	Pink		675	685		
Shale			685	710		
Lime			710	730		
Lime	Black rotten		730	760		

(over)

* Indicates Electric Log tops in the remarks section.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 4

Quadrangle West Union
Permit No. DOD-1502

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Hawk Well - Justin M. Henderson Agent
Address 108 Wood St.
Farm Mary Lou Holland Acres 1500
Location (waters) Bluestone Creek
Well No. 4 Elev. 907'
District West Union County Doddridge
The surface of tract is owned in fee by Mary Lou Holland
108 Church St. Address West Union, W. Va.
Mineral rights are owned by Leeman Maxwell Heirs
Agents - L. F. Maxwell Address Jane Lew, W. Va.
Mary L. Holland 5/18/1968 West Union, W. Va.
Drilling commenced 5/18/1968
Drilling completed 6/13/1968
Date Shot From To
With

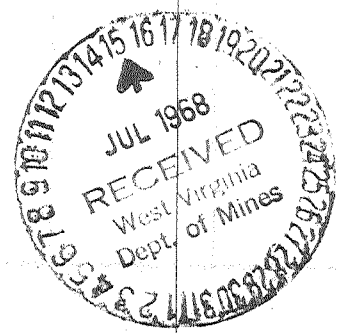
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
15 9.16	18		
10"	300'		Size of
8 3/4	940'		
6 3/4			Depth set
5 3/4 16-	1724		
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED 1000 gallons
WELL FRACTURED See fracture on reversed side

CASING CEMENTED _____ SIZE 1742' No. Ft. 6/14/68 Date
with float shoe
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

RESULT AFTER TREATMENT 4,820,000 ft. MCF Big Injun
ROCK PRESSURE AFTER TREATMENT 24 hours after treatment 475 lbs. in 10 minutes
Fresh Water 35 Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
ud			0	45		35	1 bailor hour
and			45	95			
late			95	128			
lime			128	154			
red Rock			154	178			
lime			178	195			
shale			195	225			
lime			225	243			
late & shell			243	302			
lime			302	310			
late & "			310	339			
rock	Red		339	365			
late & Shell			365	375			
rock	Red		375	510			
late			510	550			
shale			550	580			
rock	Red		580	602			
shale			602	608			
lime			608	650			
shale			650	675			
rock	Pink		675	685			
shale			685	710			
lime			710	730			
lime	Black rotten		730	760			
shale			760	830			
lime			830	862			
late & Shell			862	932			
and			932	975			
late & Shell			975	1095			
and			1095	1120			



(over)

Formation	Color	Hard or Soft	Top 4	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate	Black	Hard	1120	1145			
Lime			1145	1232			
Slate			1232	1332			
Sand			1332	1376			
Shale			1376	1411			
Sand			1411	1425			
Slate & Shell			1425	1490			
Slate			1490	1515			
Little Lime			1515	1573			
Pencil Cave			1573	1581			
Big Lime			1581	1672			
Big Injun			1672	1724			
Slate			1724				
Casing Record							
5-18-1968	Conductor put in well 20" casing-one joint						
5-23- "	300' of 10" casing						
	940' of 8½" "						
6-14- "	1742' 5½" " on float shoe						
	Cemented 5½ up to 1300'						
Fracturing Record							
6-25-1968	Fractured with 1,020, of water and 1,000 gals acid and 300 cwt of sand 20-40 bl. 280 cwt of sand 10-20 blk.						
	It was pumped at 47.7/10ths B.P.M. @ 2200 P.S.I. Well opened up, flowed back for 3½ hours, balled and swabed for ½ hour. Natural flow back for 5 hours. Open flow test 4,820,000' with rock pressures at 475 lbs in 5 min.						
	Outside of 5½ was filled with aqugel, copy attached to report, as prescribed by mine inspector.						

Date 6/25/1968, 19

APPROVED Hawk Well, Owner

By Justin M. Henderson Agent
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

JAN 30 1976

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE January 29, 1976
Company Head note Justin H. Henderson
Address 108 Wood St. West Union, W. Va.
Farm Bluestone Mary Lou Holland Acres 3500+
Location (waters) Bluestone Creek - Silver Run
Well No. 8 in deep all 4 Elevation 157
District West Union County Dodderidge
Quadrangle valhalla

Surface Owner Mary Lou Holland
Address West Union, W. Va. 26456
Mineral Owner Leemon Maxwell Heiler
Address West Union, W. Va.
Coal Owner _____
Address _____
Coal Operator _____
Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for deepening. This permit shall expire if operations ~~have not~~ commenced by 6-5-76.

Robert R. Hill
Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Paul Garrett
PH: 632-3871 ADDRESS Clarksburg, W. Va.

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated April 3 1969 by Carnegie Natural Gas Company made to Justin H. Henderson and recorded on the _____ day of April 1969 in Dodderidge County, Book 92 Page 141

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

West Virginia Geological and Economic Survey
P. O. Box 879
Morgantown, W. Va. 26505
AC 304-296-4461

Address
of
Well Operator

Very truly yours,
(Sign Name) Justin H. Henderson
Well Operator
108 Wood St.
Street
West Union, W. Va. 26456
City or Town
W. Va.
State

*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

Bond Deepen

100 000-1502-00 PERMIT NUMBER

47-017

Security

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO _____ DRILL DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME (Hugh X. Spencer of) Spencer Enterprises NAME Same
 ADDRESS Smithburg, W. Va. ADDRESS West Union, W. Va. Route
 TELEPHONE 304-873-1602 TELEPHONE 304-873-2381
 ESTIMATED DEPTH OF COMPLETED WELL: 2324' ROTARY _____ CABLE TOOLS
 PROPOSED GEOLOGICAL FORMATION: Gordon
 TYPE OF WELL: OIL possibly GAS COMB. STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8			
7			
5 1/2			
4 1/2			
3	<u>2412' (2342, 700')</u>	<u>500'</u>	Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 35 FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? No. BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

~~TO DRILL DEEPER OR REDRILL:~~

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

~~TO FRACTURE STIMULATE:~~

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title