

B. F. JONES, JR.

Minimum Error of Closure 1 in 200

Source of Elevation Elevation taken from B.M. at bridge = 817

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

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: Walter G. Gilbertson
 Squares: N S E W

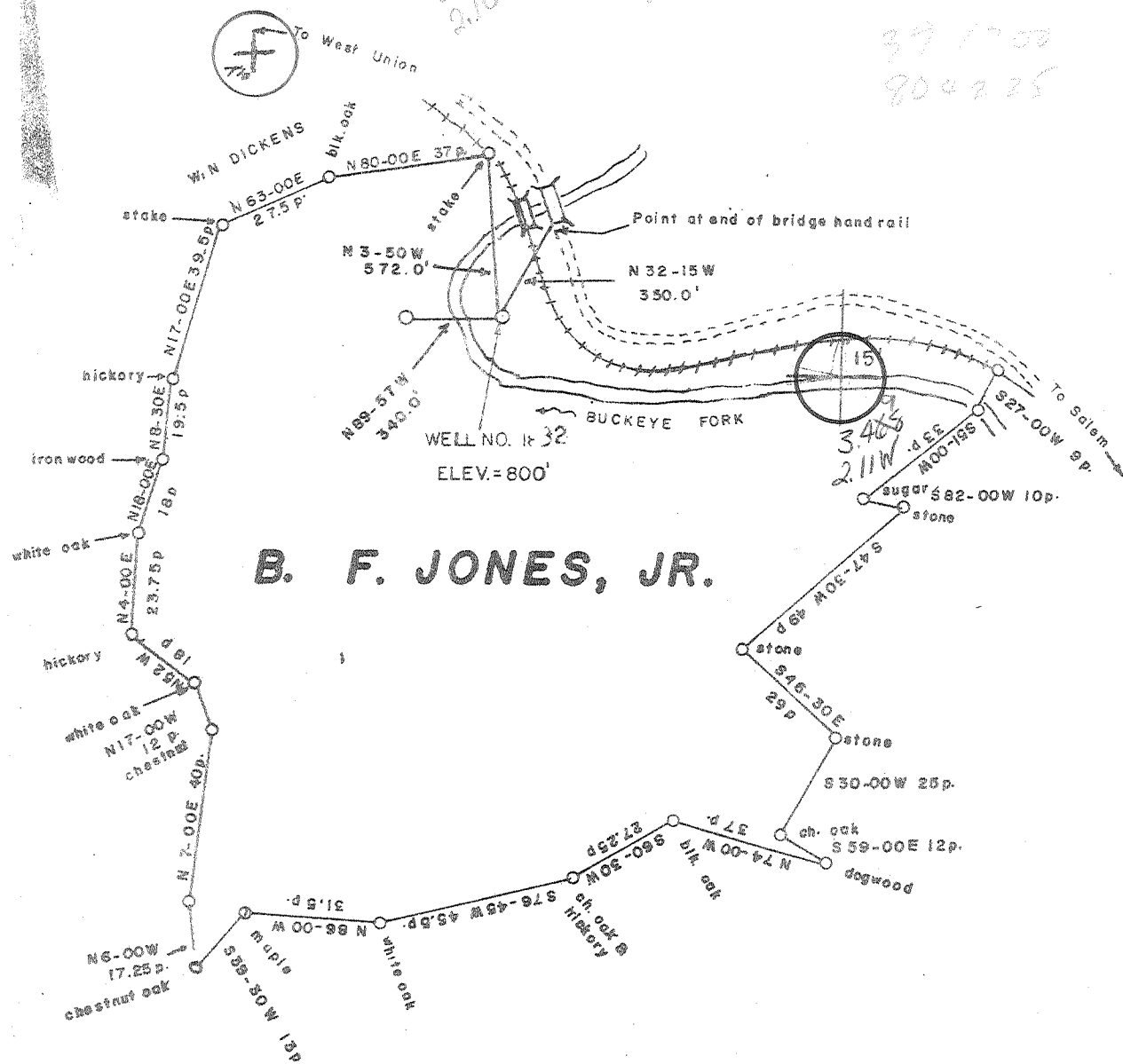
Map No. _____

Company	CARNEGIE NATURAL GAS
Address	MUNHALL, PENN.
Farm	B. F. JONES JR.
Tract	Acres <u>142.0</u> Lease No. <u>11061</u>
Well (Farm) No.	<u>2</u> Serial No. <u>1832</u>
Elevation (Spirit Level)	<u>800'</u>
Quadrangle	<u>Smithburg</u> ... <u>7 1/2'</u>
County	<u>Doddridge</u> District <u>West Union</u>
Engineer	<u>Walter G. Gilbertson</u>
Engineer's Registration No.	<u>C.E. 5112</u>
File No.	Drawing No. _____
Date	<u>July 3, 1980</u> Scale <u>1" = 40 poles</u>

WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 #10 McJUNKIN ROAD
 NITRO, WEST VIRGINIA 25143-2506

WELL LOCATION MAP

47-017-02810-7
 Drilled in 1990 TD 5725' production
 from Women, Speechley-Beltz
 Bradford & Alexander Set Temp
 Plug Back Gordon, Berea Blue Monday
 commingle with shale.
 JUL 3 1997



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Signed: [Signature]
 Squares: N S E W

Map No. _____

Company CARNEGIE NATURAL GAS
 Address MUNHALL, PENN.
 Farm B. F. JONES JR
 Tract _____ Acres 142.0 Lease No. 11061
 Well (Farm) No. 2 Serial No. 1837
 Elevation (Spirit Level) 800' CENTERPOINT 15'
 Quadrangle Smithsburg 7 1/2' SW
 County Doddridge District West Union
 Engineer _____
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date July 3, 1980 Scale 1" = 40 poles

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

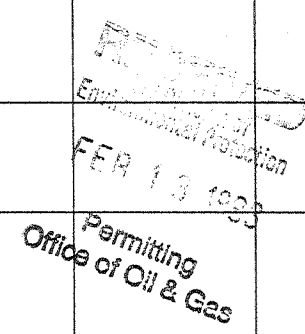
WELL LOCATION MAP
 FILE NO. 017-2810

+ Denotes location of well on United States Topographic Maps, scale 1 to _____, latitude and longitude lines being represented by border lines as shown.
 — Denotes one inch spaces on border line of original tracing. S100 ALEXANDER

**State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work**

FARM NAME Jones, Silas Franklin **OPERATOR WELL NO.** Jones 1832
LOCATION: **ELEVATION** 800.00 **QUADRANGLE** Smithburg
DISTRICT: West Union **COUNTY** Doddridge
LATITUDE: 3420 Feet South of 39 Deg. 17 Min. 30 Sec.
LONGITUDE: 11005 Feet West of 80 Deg. 40 Min. 0 Sec.

COMPANY:	<u>CARNEGIE NATURAL GAS CO.</u>	CASING/ TUBING SIZE	USED IN DRILLING	LEFT IN WELL	CEMENT FILL UP CU. FT.
	<u>800 REGIS AVENUE PITTSBURGH, PA 15236</u>				
AGENT:	<u>DOUGLAS R. NAY</u>	NO ADDITIONAL PIPE RUN			
INSPECTOR:	<u>Mike Underwood</u>				
PERMIT ISSUED:	<u>07/01/97</u>	Refer to Original Report			
WELL WORK COMMENCED:	<u>7/12/97</u>				
WELL WORK COMPLETED:	<u>7/13/97</u>				
VERBAL PLUGGING PERMISSION GRANTED ON:					
ROTARY _____ CABLE _____	RIG _____				
TOTAL DEPTH (FEET):	<u>5026'</u>				
FRESH WATER DEPTHS (FT):					
SALT WATER DEPTHS (FT):					
IS COAL BEING MINED IN AREA (Y/N)					
COAL DEPTHS (FT):					


 FEB 13 1998
 Permitting
 Office of Oil & Gas

OPEN FLOW DATA * Cemented Existing 4.5" casing See Treatment

PRODUCING FORMATION	<u>Gordon, Blue Monday</u>	PAY ZONE DEPTH (FT)	
GAS INITIAL OPEN FLOW	<u>-</u> MCF/d	OIL INITIAL OPEN FLOW	<u> </u> Bbl/d
FINAL OPEN FLOW	<u>130</u> MCF/d	FINAL OPEN FLOW	<u> </u> Bbl/d
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS			<u> </u> HOURS
STATIC ROCK PRESSURE	<u>110</u> Psig	(SURFACE PRESSURE) AFTER	<u>12</u> HOURS

SECOND PRODUCING FORMATION		PAY ZONE DEPTH (FT)	
GAS INITIAL OPEN FLOW	<u> </u> MCF/d	OIL INITIAL OPEN FLOW	<u> </u> Bbl/d
FINAL OPEN FLOW	<u> </u> MCF/d	FINAL OPEN FLOW	<u> </u> Bbl/d
TIME OF OPEN FLOW BETWEEN INITIAL AND FINAL TESTS			<u> </u> HOURS
STATIC ROCK PRESSURE	<u> </u> Psig	(SURFACE PRESSURE) AFTER	<u> </u> HOURS

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

FOR: CARNEGIE NATURAL GAS COMPANY
BY: Douglas R. Nay
DATE: 2/9/98

FEB 20 1998

Squeeze Cement Data:

Set Bridge Plug @ 2387', original 4.5" Cmt. top @ 2230'
Perforated 4.5" csg. @ 2200', squeeze cemented with 205 sks of 50/50 POZ, 4.5" cement top @
Drilled out cement and wiper plug to 2387'.

Well Treatment Data:

First Stage

Perforated Gordon (2027-2269') with 12 holes, treated with Energized XLink frac, 1,000 gals 28%
HCL, 350 sks 20/40 sand and 101,000 SCF N₂. BD 2100 psi, MTP 3073 psi, ATP 2706 psi @ 20
BPM Rate, ISIP 1981 psi.

Second Stage

Set Big Mount Frac Plug @ 1570'

Perforated Blue Monday (1500-1518') with 10 holes, treated with Energized XLink Frac, 750 gal. 28%
HCL, 250 sks 20/40 sand and 75,000 SCF N₂. BD 31000 psi, MTP 3100 psi, ATP 2463 psi @ 17
BPM Rate, ISIP 1639

Flowed well back and drilled out all plugs to T.D. 5026'.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Quadrangle Centerpoint S.W.
Permit No. Dodd-2810

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

Company Carnegie Natural Gas Company
Address 3904 Main St. Munhall, Pa. 15120
Farm B. F. Jones Acres 142
Location (waters) Buckeye Fork
Well No. 1832 Elev. 800'
District West Union County Doddridge
The surface of tract is owned in fee by B. F. Jones
Heirs.
Address _____
Mineral rights are owned by Silas F. Jones,
Address Tulsa, Oklahoma.
Drilling Commenced November 4, 1980
Drilling Completed November 16, 1980
Initial open flow 15 cu. ft. _____ bbls.
Final production 169 M cu. ft. per day _____ bbls.
Well open 12 hrs. before test 1275 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. <u>11-3/4</u>	80'	80'	50 sks.
9 5/8	122'	122'	105 sks.
8 5/8			
7	1413'	1413'	250 sks.
5 1/2			
4 1/2	5026'	5020'	220 sks.
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.
Perforated 2920-3023 15 Holes Warren, Perforated 3303-4119 with 15 Holes Speechley-First Balltown & Bradford, Perforated 4874-4917 with 17 holes in Alexander.
Fractured by Haliburton on January 15, 1981. Used 38 bbls of acid, Used 1421 bbls of water. Used 190,000 of sand.

169 MCF

Coal was encountered at None Feet _____ Inches _____
Fresh water 50, 175 Feet _____ Salt Water _____ Feet _____
Producing Sand Alexander-Balltown-Bradford-Warren Depth 5125'
4874-4917 ? ? 2920-3023

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Rock			0	10		
Sand			10	45		
Shale			45	80		
Sand			80	184		
Shale			184	192		
Sand			192	207		
Shale			207	215		
Sand			215	242		
Shale & Red Rock			242	267		
Sand			267	290		
Shale			290	825		
Lime			825	835		
Sand			835	874		
Shale			874	918		
Sand			918	940		
Shale			940	990		
Sand			990	1077		
Shale			1077	1086		
Sand			1086	1135		
Shale			1135	1215		
Sand			1215	1345		
Shale			1345	1404		
Sand			1404	1412		
Shale			1412	1490		

RECEIVED

MAY 20 1981

OIL & GAS DIVISION
DEPT. OF MINES



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

JUL 30 1980

Oil and Gas Division
OIL AND GAS WELL PERMIT APPLICATION

OIL & GAS DIVISION
DEPT. OF MINES

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

DATE July 29, 1980

Surface Owner B. F. Jones Heirs, Company Carnegie Natural Gas Company
Address _____ Address 390L Main Street, Murrill, Pa. 15120
Mineral Owner Silas F. Jones Farm B. F. Jones Acres 112
Address 2619 East 73rd. street, Tulsa, Oklahoma Location (waters) Buckeye Fork
Coal Owner _____ Well No. 1832 Elevation 800'
Address _____ District West Union County Putnam
Coal Operator _____ Quadrangle Centerpoint S.W.
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 drilling. This permit shall expire if operations have not commenced by 4-6-81.

INSPECTOR
TO BE NOTIFIED P. Garrett

ADDRESS _____

PHONE 622-3871

Fred B. Smith
Deputy Director - Oil & Gas Division
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 September 11, 1923 by E. F. & Margaret Jones made to Carnegie Natural Gas Company and recorded on the 20 day of October 1923, in Putnam County, Book 49 Page 8

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, WEST VIRGINIA 26505
AC-304 - 292-6331

Address of Well Operator

Very truly yours, Carnegie Natural Gas Company
(Sign Name) W. S. Yoho
Well Operator

390L Main Street
Street
Murrill,
City or Town
Pennsylvania, 15120
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.

47-017-2810

PERMIT NUMBER

BLANKET BOND

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: CARNEGIE NATURAL GAS COMPANY ⁰¹⁵⁵ 611 (8)
- 2) Operator's Well Number: JONES #1832 3) Elevation: 800'
- 4) Well type: (a) Oil / or Gas X / Issued 07/01/97
 (b) If Gas: Production X / Underground Storage Expires 07/01/99
 Deep / Shallow X /
- 5) Proposed Target Formation(s): GORDON, BEREA, BLUE MONDAY SANDS
- EXISTING Proposed Total Depth: 5121 feet
- Approximate fresh water strata depths: 50, 175
- Approximate salt water depths:
- Approximate coal seam depths: NO COAL
- Does land contain coal seams tributary to active mine? Yes / No X /
- 11) Proposed Well Work: STIMULATE LISTED SANDS AND COMINGLE WITH EXISTING PRODUCTION.
- 12) ALL PIPE EXISTING

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WV Division of
Environmental Protection
1997
Permitting
Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling / Left in well	
ALL PIPE EXISTING					Fill-up (cu. ft.)
Conductor	11 3/4			50 SKS → 80	
Fresh Water	9 5/8			105 SKS → 122	
Coal					
Intermediate	7			250 SKS → 1414	
Production	4 1/2			220 SKS → 5026	
Tubing					
Liners					

to be mated.
may need
sq.

Existing from well record.

PACKERS : Kind
 Sizes
 Depths set

For Office of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Agent
 (Type)

23733

01/14/97

B. F. JONES WELL 1832

1. Set Plug at 2230'
2. Perforate at 2229'
3. Squeeze from 2229' to 1200'
4. Run Bond Log
5. Drill Out Cement and Plug
6. Set Plug at 2300'
7. Perforate and Fracture Gordon and Berea, 350 sks., EW.
8. Set Plug at 1700'
9. Perforate and Fracture Blue Monday, 25 sks. EW.

Top Of Existing Cement @ 2230'

Top Existing Perforation 2923'

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WV Division of
Environmental Protection

APR 11 1997

Permitting
Office of Oil & Gas

*Remove plug
existing
comingle with
shale production*

