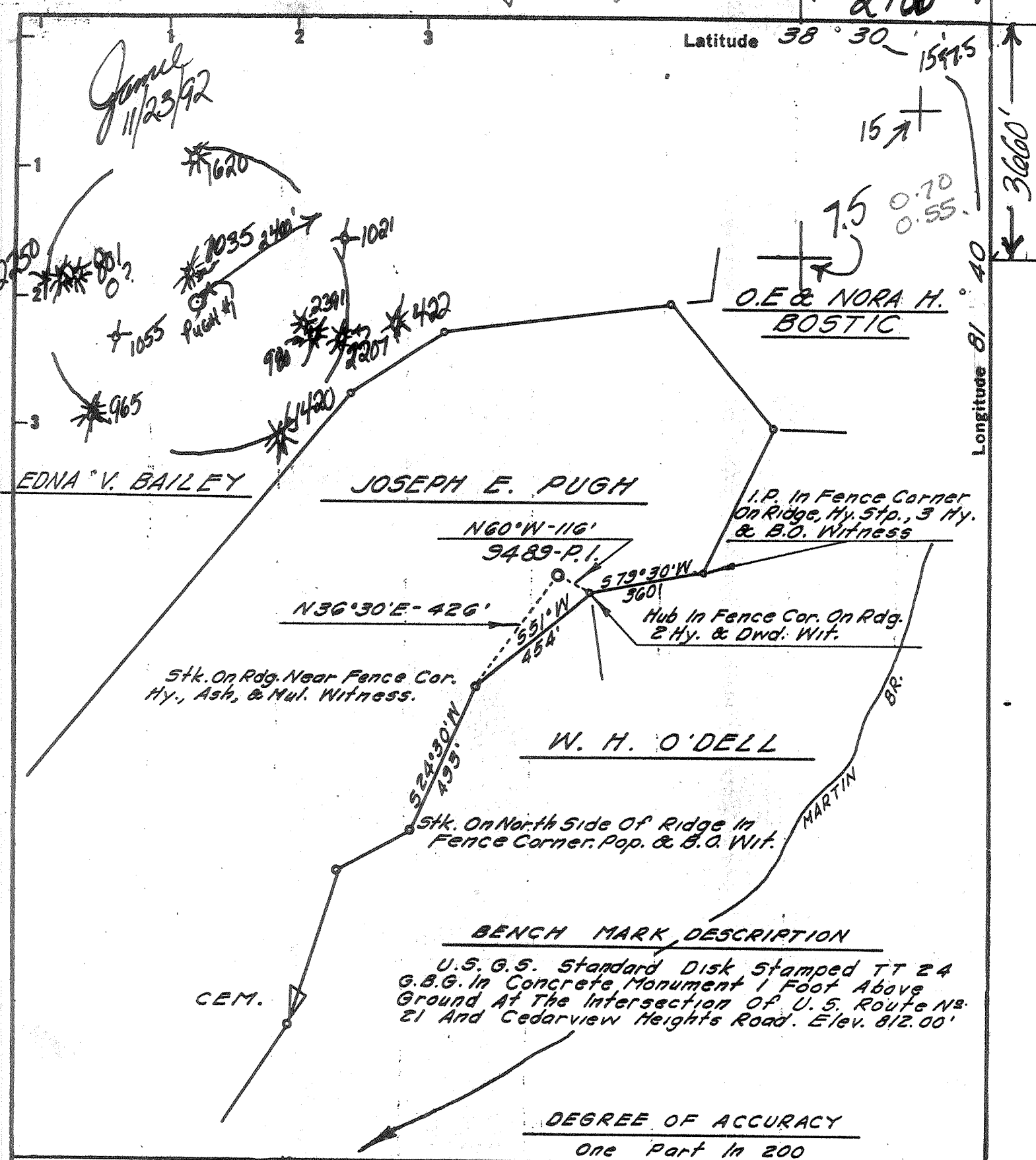


← 2980' →

Latitude 38° 30' 15.415

Longitude 81° 40'

Januel  
11/23/92



Stk. On Rdg. Near Fence Cor.  
Hy., Ash, & Mul. Witness.

Hub In Fence Cor. On Rdg.  
2 Hy. & Dwd. Wit.

Stk. On North Side Of Ridge In  
Fence Corner. Pop. & B.O. Wit.

BENCHMARK DESCRIPTION

U.S.G.S. Standard Disk Stamped TT 24  
G.B.G. In Concrete Monument 1 Foot Above  
Ground At The Intersection Of U.S. Route No.  
21 And Cedarview Heights Road. Elev. 812.00'

DEGREE OF ACCURACY  
One Part In 200

- Fracture Before 6/5/29
- New Location
- Drill Deeper
- Redrill
- 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 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 812.00'

Company Viking Energy Inc. 1095

Address Box 13366, Sissonville, W.V. 25360

Farm JOSEPH E. PUGH, ET AL

WILDA M. PUGH

Tract Acres 280.1 Lease No. 48538 ET AL.

Well (Farm) No. \_\_\_\_\_ Serial No. 9489-P.I.

Elevation (Spirit Level) 960.39'

Quadrangle CHARLESTON 15 / Locality 7.5

County KANAWHA District UNION 9

Engineer William Edgeman

Engineer's Registration No. 2330

File No. 58-69 Drawing No. \_\_\_\_\_

Date MARCH 19, '68 Scale 1" = 400'

STATE OF WEST VIRGINIA  
Office of Oil & Gas  
Division of ENVIRONMENT PROTECTION  
NITRO, WV.

**WELL LOCATION MAP**

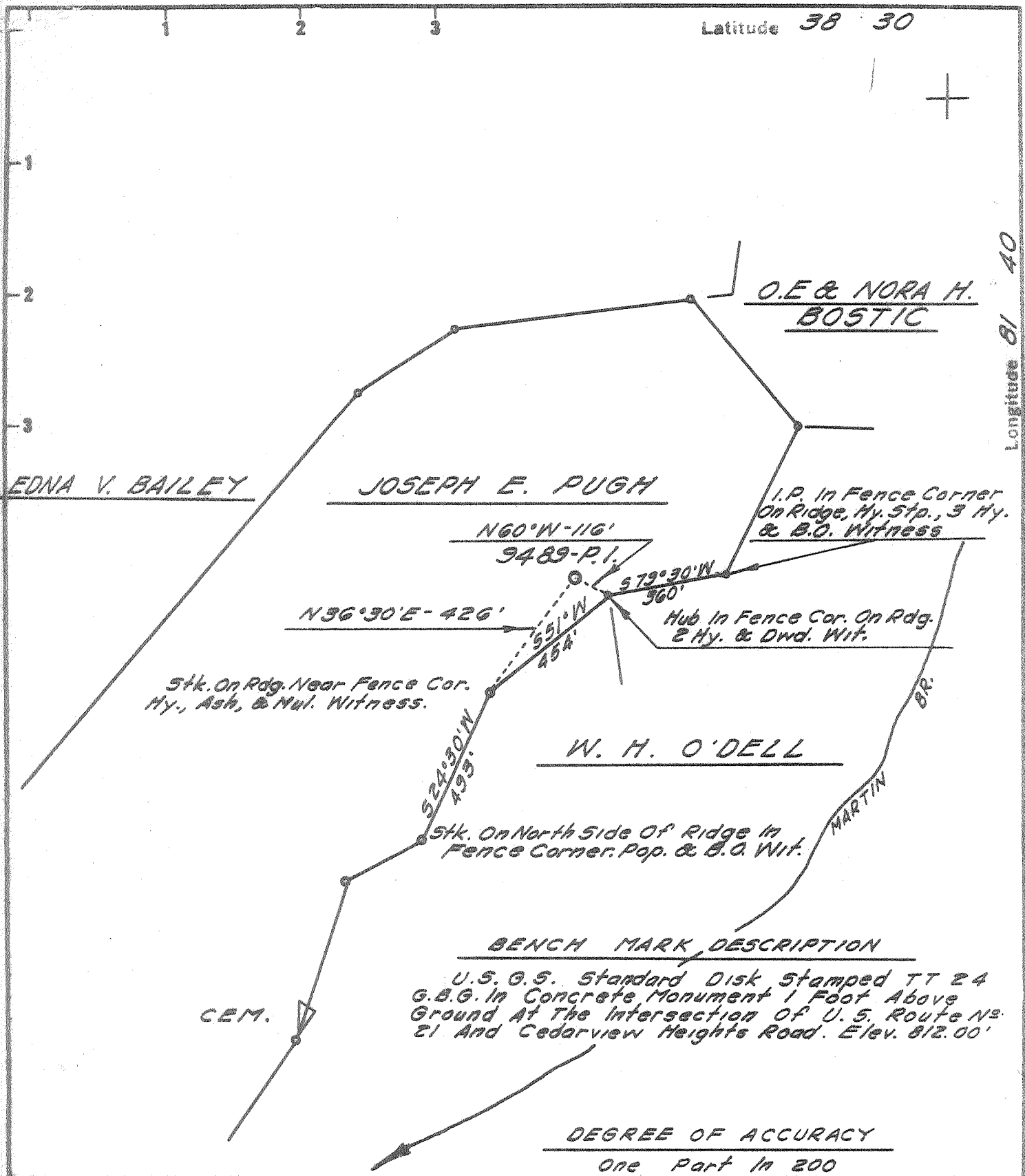
API well no. N7-039-22 He-Flux

Back & Rec.

+ 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.

partial page



Fracture Before 6/5/29	<input type="checkbox"/>
New Location	<input checked="" type="checkbox"/>
Drill Deeper	<input type="checkbox"/>
Redrill	<input type="checkbox"/>
Abandonment	<input type="checkbox"/>

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 812.00'

Company UNITED FUEL GAS CO.  
 Address CHARLESTON, W. VA.  
 Farm JOSEPH E. PUGH, ET AL.  
 Tract \_\_\_\_\_ Acres 280.1 Lease No. 48538 ET AL.  
 Well (Farm) No. \_\_\_\_\_ Serial No. 9489-P.I.  
 Elevation (Spirit Level) 960.39'  
 Quadrangle CHARLESTON, W. VA. NW  
 County KANAWHA District UNION  
 Engineer Edman Edgeman  
 Engineer's Registration No. 2330  
 File No. 58-69 Drawing No. \_\_\_\_\_  
 Date MARCH 19, '68 Scale 1" = 400'

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

**WELL LOCATION MAP**  
 FILE NO. KAN-2246

+ 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.

United Fuel Gas Co. - 89.6466%  
 Pennzoil Co. 10.3534%

Form OG-10

Map Square 58-69



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

- Rotary
- Spudder
- Cable Tools
- Storage

Quadrangle Charleston  
 Permit No. Kan-2246

WELL RECORD

Oil or Gas Well GAS  
 (KIND)

Company United Fuel Gas Company  
 Address 1700 MacCorkle Ave., Charleston, W. Va.  
 Farm Joseph E. Pugh, et al Acres 280.1  
 Location (waters) Martin Branch  
 Well No. 9489-PI Elev. 960.39'  
 District Union County Kanawha  
 The surface of tract is owned in fee by \_\_\_\_\_

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8"	62'	62'	
9 5/8"	2053'	2053'	Size of
7"	5749'	5749'	
6"			Depth set
5 3/16"			
4 1/2"			
3"			Perf. top
2 3/8"	5789'	5789'	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

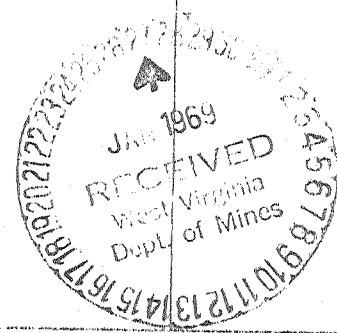
Mineral rights are owned by \_\_\_\_\_  
 Address \_\_\_\_\_  
 Drilling commenced May 1, 1968  
 Drilling completed May 10, 1968  
 Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 With \_\_\_\_\_  
 Open Flow /10ths Water in \_\_\_\_\_ Inch  
/10ths Merc. in \_\_\_\_\_ Inch  
 Volume \_\_\_\_\_ Cu. Ft.  
 Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
 Oil \_\_\_\_\_ bbls., 1st 24 hrs.

Attach copy of cementing record.  
 CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
 Amount of cement used (bags) \_\_\_\_\_  
 Name of Service Co. \_\_\_\_\_  
 COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

WELL ACIDIZED (DETAILS) \_\_\_\_\_  
 WELL FRACTURED (DETAILS) 5-15-68 with 1,000 gallons mud acid, 39,396 gallons water,  
30,000# 20/40 sand

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 70,000 Mcf (Four Point Potential Test) 70,000,000  
 ROCK PRESSURE AFTER TREATMENT 1881# D.W. HOURS \_\_\_\_\_  
 Fresh Water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
 Producing Sand Newburg Depth 5799'

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
oil			0	60			
and & Shale			60	1271	<u>Gas 5795-5799'</u>		Estimated 40,000 Mcf
and			1271	1666			
and & Shale			1666	1820			
ig Lime			1820	1940			
njun			1940	2005			
hale			2005	4935			
orniferous Lime			4935	5036			Test before fracture - 40,000 Mcf
riskany Sand			5036	5075			Final Open Flow - 70,000 Mcf
ime and Shale			5075	5793			Four Point Potential Test
ewburg			5793				
otal Depth			5799'				
					Casing Points:		
					13 3/8"	48# 62'	Cemented with 70 sacks to Surface
					9 5/8"	32# 2033'	Cemented with 600 Poz-Mix & 100 Neat to Surface
					7"	23# 5728'	Cemented with 150 sacks from 5753-4750'
					2 3/8"	4.6# 5768'	



24-Nov-92

API # 47-039-02246 F

State of West Virginia  
Division of Oil and Gas

Well Operator's Report of Well Work

Name: Pugh, Wilda M.

Operator Well No. J. Pugh #1 WV 9498

LOCATION: Elevation: 960.39      Quadrangle: Pocatalico  
District: Union      County: Kanawha  
Latitude: 3660 Feet South of 38 Deg. 30 Min. 0 Sec.  
Longitude: 2980 Feet West of 81 Deg. 40 Min. 0 Sec.

Company:

Viking Energy Corporation  
P.O. Box 13366  
Sissonville, WV 25360

Agent: Michael Pinkerton  
Inspector: Carlos W. Hively

Permit Issued: 11-24-92  
Well work Commenced: 12-13-92

Well work Completed: 12-16-92  
Verbal Plugging \_\_\_\_\_

Permission granted on: \_\_\_\_\_  
Rotary \_\_\_\_\_ Cable \_\_\_\_\_ Rig

Total Depth (feet) \_\_\_\_\_  
Fresh water depths (ft) n/a

Salt water depths (ft) n/a

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill up Cu.Ft.
Size			
7"		*4286'	* 99 cf
2 3/8"		4081'	

Is coal being mined in area (Y/N)? N

Coal Depths (ft): \_\_\_\_\_

\* See Back

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) \*  
Gas: Initial open flow 173 MCF/D Oil: Initial open flow 0 Bbl/d  
Final open flow 143 MCF/D Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 780 psig (surface pressure) after 24 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/D Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/D Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ 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: Viking Energy Corporation

Reviewed TMG  
Recorded \_\_\_\_\_

BY: W Thomas White Consultant  
DATE: 12-29-92

JUL 30 1993

STIMULATION SUMMARY

Partial Plugging Data:

Set 5.61 Bridge plug @ 4500'

Squeeze Cement Data:

7" Casing perforated and squeeze cemented attaining 99 cf fill-up to 3720'. Total Depth inside 7" at 4286'.

Recompletion Data:

Devonian "Brown" Shale <sup>SB</sup> 3990-4200' 20 holes  
75 quality foam frac, 45,000 lbs 20/40 sand

See original record for additional formation information and flow data.

TD 5799  
DF }  
OFT } 535

14627

RECEIVED

WV Division of Environmental Protection

039-2246 Frac

FORM WW-2B

NOV 13 92

Permitting STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION

Page 1 of 11/24/92

Issued 11/24/92 Expires 11/24/94 389 550

- 1) Well Operator: Viking Energy Inc. 51440 (91)
2) Operator's Well Number: J. Pugh #1 WV9498
3) Elevation: 960.39
4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production / Underground Storage / Deep / Shallow X /
5) Proposed Target Formation(s): Shale Sand 441
6) Proposed Total Depth: 4935 feet
7) Approximate fresh water strata depths: NA
8) Approximate salt water depths: NA
9) Approximate coal seam depths: NA
10) Does land contain coal seams tributary to active mine? Yes / No X /

11) Proposed Well Work: Perforate and Fracture Shale Sand

12) Permanently plug bottom hole with Laflex Cement Cut & Re-run OR Perforate & Spurge

CASING AND TUBING PROGRAM

Table with columns: TYPE, SPECIFICATIONS, FOOTAGE INTERVALS, CEMENT. Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, Liners. Includes handwritten notes like 'Back to 2053' and '300' above shale'.

PACKERS : Kind \_\_\_\_\_ Sizes \_\_\_\_\_ Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
Bond Blanket ADS Agent
(Type)

RECEIVED  
NOV 13 92  
Permitting  
Office of Oil & Gas

1) Date: October 29, 1992  
2) Operator's well number J. Pugh #1 WV9498  
3) API Well No: 47 - 39 - 2246 - FRAC  
State - County - Permit

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Wilda M. Pugh  
Address 2042-B Martin Branch Road  
Charleston, WV. 25312
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:
- Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (b) Coal Owner(s)-with Declaration  
Name NO COAL  
Address \_\_\_\_\_
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone (304)- \_\_\_\_\_

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:  
\_\_\_\_\_ Personal Service (Affidavit attached)  
\_\_\_\_\_ Certified Mail (Postmarked postal receipt attached)  
\_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. 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, 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 and imprisonment.

Well Operator Viking Energy Inc.  
By: Mark T Wine  
Its: \_\_\_\_\_ Designated Agent  
Address \_\_\_\_\_ P. O. Box 13366  
Sissonville, WV. 25360  
Telephone \_\_\_\_\_ 304-984-3389

Subscribed and sworn before me this 11 day of November, 1992

My commission expires \_\_\_\_\_  
Mark T Wine Notary Public

