

- Fracture Before 6/5/27
- 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 INTERSECTION Pt. 21 Elev 706'

Company Viking Energy Inc.  
 Address 1001 1/2 3300 Sissonville, W. Va 25360  
 Farm FLORA CROWDER  
 Tract \_\_\_\_\_ Acres 20 Ass. Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 832.27 QUAD. \_\_\_\_\_  
 Quadrangle CHARLESTON 15 Spontalis  
 County KAHAWHA District UNION 7.5  
 Engineer N.L. Lefton  
 Engineer's Registration No. 1832  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 2-16-68 Scale 1" = 200'

1095

STATE OF WEST VIRGINIA  
 Division of Environmental Affairs  
 Office of Oil & Gas

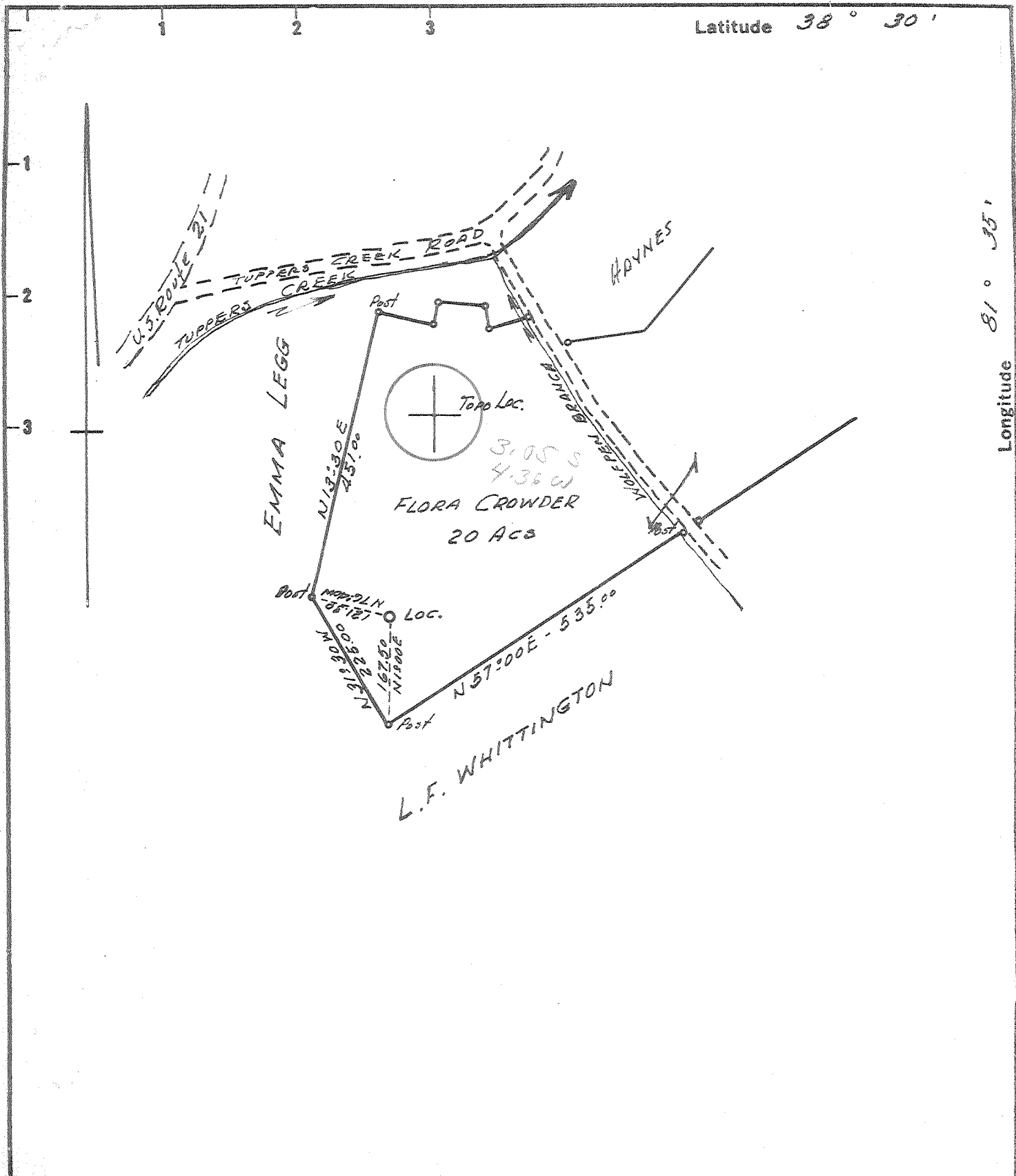
WELL LOCATION MAP  
 Well: 17-039-02226-1  
 Perm-Partial Plug back of Newburg & Seale

+ 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. JUL 2 1993

- Denotes one inch spaces on border line of original tracing.

According to DEP work order completed 6/21/93

Latitude 38° 30'



Longitude 81° 35'

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 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 INTERSECTION Pt. 21 Elev 706'**

Company BIG "B" INVESTMENT CO.  
 Address SPENCER, W.VA.  
 Farm FLORA CROWDER  
 Tract \_\_\_\_\_ Acres 20 Acres Lease No. \_\_\_\_\_  
 Well (Farm) No. 1 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 832.27  
 Quadrangle CHARLESTON NC  
 County KANAWHA District UNION  
 Engineer T.L. Sefton  
 Engineer's Registration No. 1832  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 2-16-68 Scale 1" = 200'

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

**WELL LOCATION MAP**  
 FILE NO. KAN-2226

+ 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.



RECEIVED

NOV 1 1971

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

Rotary   
Spudder   
Cable Tools   
Storage  G. NOLL

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Quadrangle Charleston

Permit No. Kan 2226  
(Allen Beard)

Company Big B Investment Company  
Address P.O. Box 179, Spencer, W. Va.  
Farm Flora Crowder Acres 20  
Location (waters) Wolf Pen Branch  
Well No. 1 Elev. 832.27  
District Union County Kanawha  
The surface of tract is owned in fee by \_\_\_\_\_

Mineral rights are owned by Joseph Crowder, et al  
Address Charleston, W. Va.

Drilling commenced 4/19/68  
Drilling completed 5/3/68  
Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

With \_\_\_\_\_  
Open Flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
\_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
Volume 5,000 Cu. Ft.  
Rock Pressure 1235.0 lbs. hrs.

Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED (DETAILS) \_\_\_\_\_

WELL FRACTURED (DETAILS) Mud Acid 500; J-111 1000; J-84 500; Sand 30,000 lbs.

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 15,000 maf  
ROCK PRESSURE AFTER TREATMENT 1235 HOURS

Fresh Water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet  
Producing Sand Newburg Depth 5702

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16.			
13. <u>3/8</u>	<u>262</u>	<u>262</u>	
10.			Size of
8 1/4 <u>8 5/8</u>	<u>1944</u>	<u>1944</u>	
6 1/2			Depth set
5 3/16			
4 1/2 <u>5 1/2</u>	<u>5650</u>	<u>5650</u>	
3.			Perf. top
2.			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Attach copy of cementing record.  
CASING CEMENTED 13 SIZE \_\_\_\_\_ No. Ft. 4/20/68 Date  
Amount of cement used (bags) \_\_\_\_\_  
Name of Service Co. Dowell  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Subsoil			0	250			
Shale			250	450			
Shale			450	765			
Sand & Shale			765	1111			
Salt Sand			1111	1370			
Salt Sand & Shale			1370	1617			
Lime <u>Little</u>			1617	1664			
Pencil Cave			1664	1669			
Big Lime			1669	1825			
Shale			1825	1944			
Shale			1944	4837			
Lime <u>Onondaga</u>			4837	4980			
Lime Sand & Shale			4980	5702			
Newburg			5702	5717			
Shale & Lime			5717	5718 TD			

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

- 1) Well Operator: Viking Energy Inc. <sup>1095</sup> 51440 (9)
- 2) Operator's Well Number: F. Crowder #1 WV9660 3) Elevation: 832.27
- 4) Well type: (a) Oil   / or Gas X/
- (b) If Gas: Production   / Underground Storage   /  
Deep   / Shallow X/  
<sub>441</sub>
- 5) Proposed Target Formation(s): Shale Sand
- 6) Proposed Total Depth: 4837 feet
- 7) Approximate fresh water strata depths:
- 8) Approximate salt water depths:
- 9) Approximate coal seam depths:
- 10) Does land contain coal seams tributary to active mine? Yes   / No X/
- 11) Proposed Well Work: Perforate and Fracture Shale Sand
- 12) *Note Existing well permanent plug Newburg with 100 stick.*

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	13 3/8			262	262	Fix-up (cement to surf)
Fresh Water	8 5/8			1944	1944	?
Coal						
Intermediate	5 1/2			5650	5650	
Production						
Tubing						
Liners						

*Existing from Well #1000 well record is not accurate cement*

*Set separate Tubing produce both zones independent*

*Set temp plug frac shale*

PACKERS : Kind                       
Sizes                       
Depths set                     

For Division of Oil and Gas Use Only

1077/10

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP

Plat  WW-9  WW-2B  Bond CD Blanket Agent                       
(Type)

1) Date: November 16, 1992  
2) Operator's well number  
F. Crowder #1 WV9660  
3) API Well No: 47 - 39 - 2226 -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 Eugene Thaxton  
Address Box 403 Wolf Pen Dr.  
Charleston, WV. 25312  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone (304)- \_\_\_\_\_

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 \_\_\_\_\_

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.

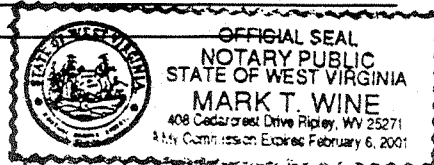
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, 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: [Signature]  
Its: Designated Agent  
Address P. O. Box 13366  
Sissonville, WV. 25360  
Telephone 304-984-3389

Subscribed and sworn before me this 4 day of June, 1993

My commission expires \_\_\_\_\_



[Signature] Notary Public