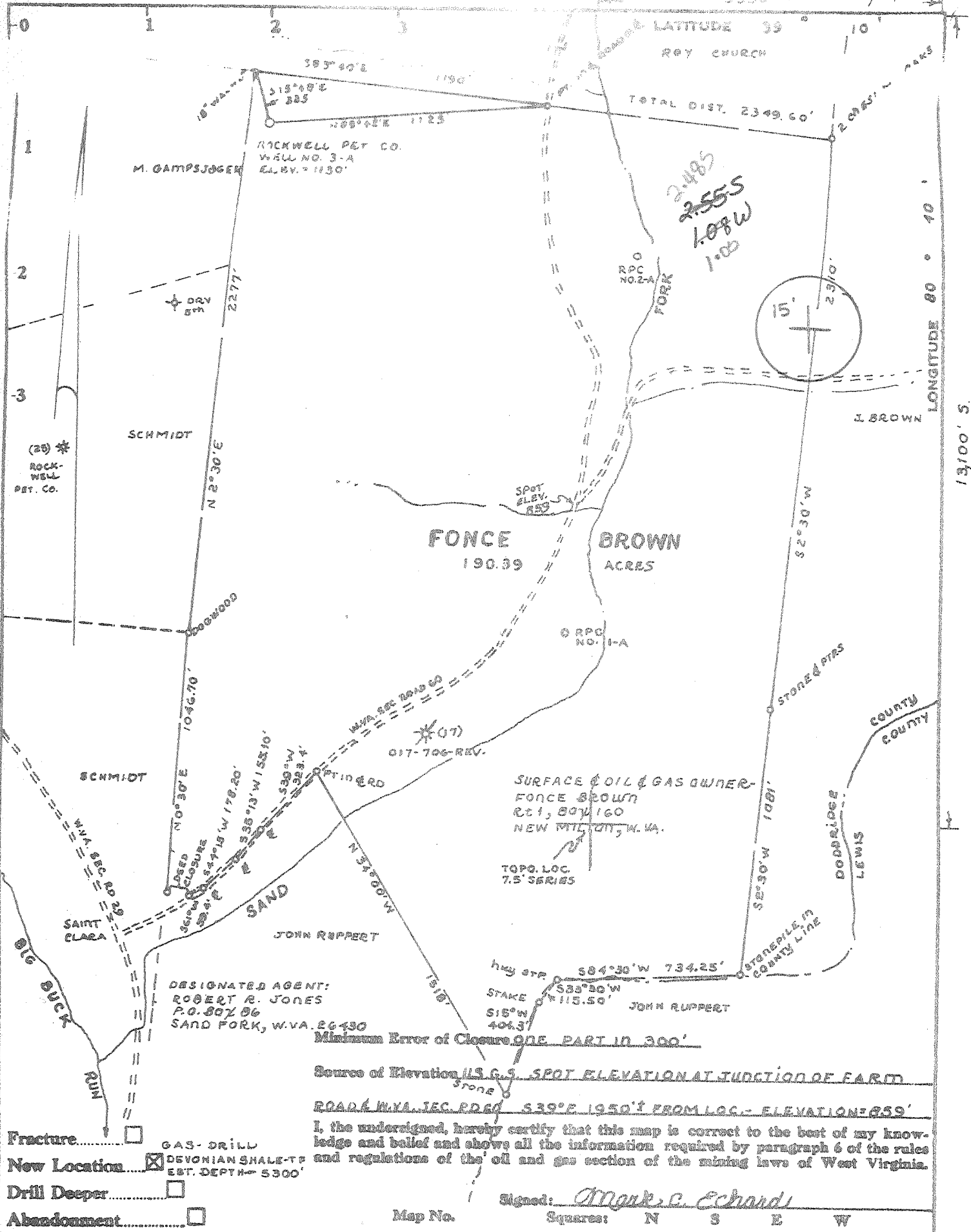


5550



Fracture   
 New Location  GAS-DRILL  
 Drill Deeper   
 Abandonment

DESIGNATED AGENT:  
 ROBERT R. JONES  
 P.O. BOX 86  
 SAND FORK, W.VA. 26430  
 Minimum Error of Closure ONE PART IN 300'  
 Source of Elevation U.S.G.S. SPOT ELEVATION AT JUNCTION OF FARM  
 ROAD & WVA. REC. ROAD 50 S39°E 1950' FROM LOC. - ELEVATION 859'  
 I, the undersigned, hereby certify that this map is correct to the best of my know-  
 ledge 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: *Mark C. Echard*  
 Squares: N S E W

WELL OPERATOR/  
 Company **ROCKWELL PETROLEUM COMPANY**  
 Address **P.O. BOX 86, SAND FORK, W.VA. 26430**  
 Farm **FONCE BROWN**  
 Tract \_\_\_\_\_ Acres **190.39** Lease No. \_\_\_\_\_  
 Well (Farm) No. **3-A** Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) **1130'** *WC*  
 Quadrangle **NEW MILTON** **7.5'**  
 County **DODDRIDGE** District **COYE**  
 SURVEYOR/  
 Engineer **MARK C. ECHARD**  
 SURVEYOR'S  
 Registration No. **490**  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date **MARCH 20, 1979** Scale **1" = 500'**

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

**WELL LOCATION MAP**  
 FILE NO. **47-017-2373**

+ Denotes location of well on United States  
 Topographic Maps, scale 1 to 24,000, latitude  
 and longitude lines being represented by  
 border lines as shown.

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

APR 27 1979

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

Date September 24, 1979

FORM IV-35  
(Obverse)

Operator's Well No. Brown #3A

WELL OPERATOR'S REPORT  
OF

API Well No. 47 - 017 - 2373  
State County Permi

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

[08-78]

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_  
(If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 1130' Watershed: Sand Fork  
District: Cove County: Doddridge Quadrangle: New Milton 7.5

WELL OPERATOR Rockwell Petroleum Company DESIGNATED AGENT Robert R. Jones  
Address P O Box 86 Address P O Box 86  
Sand Fork, WV 26430 Sand Fork, WV 26430

PERMITTED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_  
Plug off old formation \_\_\_ / Perforate new formation III  
Other physical change in well (specify) OCT 15 1979

PERMIT ISSUED ON April 4, 19 79

OIL & GAS INSPECTOR FOR THIS WORK  
OIL & GAS DIVISION  
DEPT. OF MINES  
Name Paul Garrett

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

Address Clarksburg, WV 26301  
622-3871

GEOLOGICAL TARGET FORMATION: Elk Depth 5450 feet

Depth of completed well, 5460 feet Rotary X / Cable Tools \_\_\_

Water strata depth: Fresh, 105 feet; salt, \_\_\_ feet.

Coal seam depths: None Is coal being mined in the area? No

Work was commenced August 28, 19 79, and completed September 3, 19 79

LOGGING AND TUBING PROGRAM

LOGGING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kinds
Fresh water	8 5/8					1188	1188	To surface
Intermediate								Sizes
Production	4 1/2						5390	630 sks
Logging								Depths set
Packers								Perforations:
								Top Bottom

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4679 feet

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 measurement) after \_\_\_ hours shut in

[If applicable due to multiple completion--]

Second producing formation Elk Pay zone depth 5354 feet

Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
Final open flow, 1300 Mcf/d Final open flow, \_\_\_ Bbl/d

Time of open flow between initial and final tests, 3 hours

Static rock pressure, 1830 psig (surface measurement) after 30 hours shut in

OCT 25 1979

TAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Fractured September 17, 1979

Elk - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
737 bbls. water  
19.3 BPM at 2125 lb.  
1900 lb. breakdown

Benson - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
628 bbls. water  
15.7 BPM at 1500 lb.  
2700 lb. breakdown

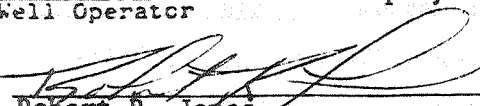
Perforations - 5109 - 5354, 7 holes

Perforations - 4676 - 4679, 7 holes

LL LOG

FORMATION	Color	Hard or Soft	S		Remarks Including indication of all fresh and salt water, coal, oil and gas
			Top Feet	Bottom Feet	
Surface			0	105	
Sand			105	109	Water
Red Rock			109	128	
Sand			128	131	Water
Shale			131	206	
Red Rock			206	214	
Slate			214	219	
Sand			219	221	
Red Rock			221	251	
Shale			251	421	
Red Rock			421	466	
Slate			466	478	
Shale			478	610	
Sand			610	701	
Shale			701	910	
Red Rock			910	989	
Shale			989	1120	
Red Rock			1120	1131	
Slate			1131	1142	
Sandy Shale			1142	2000	
Sand			2000	2030	
Shale			2030	2060	
Sand			2060	2140	
Lime			2140	2222	
Sand			2222	2248	Show of oil & gas
Sandy Shale			2248	2410	Show of gas
Shale			2410	2500	
Sand			2500	2530	
Shale with sand stringers			2530	3315	
Sand			3315	3360	
Shale			3360	3850	
Sandy Shale			3850	3890	Show of gas
Shale with sand stringers			3890	4970	
Sandy Shale			4970	4990	Show of gas
Shale			4990	5250	
Sandy Shale ZIK			5250	5365	Show of gas
Shale			5365	5460	
Total Depth			5460		

NOTE: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

Rockwell Petroleum Company  
Well Operator  
By   
Robert R. Jones  
Its Partner

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil      / Gas   X   /  
(If "Gas", Production      / Underground storage      / Deep      / Shallow   X   /)

LOCATION: Elevation: 1130' Watershed: Sand Fork  
District: Cove County: Doddridge Quadrangle: New Milton 7.5'

WELL OPERATOR Rockwell Petroleum Company  
Address P O Box 86  
Sand Fork, WV 26430

DESIGNATED AGENT Robert R. Jones  
Address P O Box 86  
Sand Fork, WV 26430

OIL & GAS ROYALTY OWNER Fonce Brown  
Address Route 1, Box 160  
New Milton, WV

COAL OPERATOR       
Address     

ACREAGE 190.39  
SURFACE OWNER Fonce Brown  
Address Route 1, Box 160  
New Milton, WV  
ACREAGE 190.39

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name       
Address       
APR - 4 1979

FIELD SALE (IF MADE) TO:  
Name       
Address     

Name       
Address       
OIL & GAS DIVISION  
DEPT. OF MINES

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address Clarksburg, WV  
Phone: 622-3871

COAL LESSEE WITH DECLARATION ON RECORD:  
Name       
Address     

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed      / lease   X   / other contract      / dated February 26, 1979, to the undersigned well operator from Fonce E. Brown and Rita B. Brown

[If said deed, lease, or other contract has been recorded:]

Recorded on March 8, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in 107 Book      at page 673. A permit is requested as follows:

PROPOSED WORK: Drill   X   / Drill deeper      / Redrill      / Fracture or stimulate      /  
Plug off old formation      / Perforate new formation      /  
Other physical change in well (specify)     

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

BLANKET BOND

Rockwell Petroleum Company  
Well Operator  
By [Signature]  
Its Partner

[08-78]

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY;  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Union Drilling, Inc.

Address Drawer 40

Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, F1k

Estimated depth of completed well, 5450 feet Rotary  / Cable tools  /

Approximate water strata depths: Fresh, 170' feet; salt,        feet.

Approximate coal seam depths:        **IS coal being mined in the area?** Yes  / No  /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	8 5/8		20	X		1325	1325	To surface	
Coal									Sizes
Intermediate									
Production	4 1/2		9.5	X			5450	160 sks	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

**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 12-05-79



The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator        / owner        / lessee        / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:       , 19      

By       

Its