



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200'
 PROVEN SOURCE OF ELEVATION SPOT ELEV AT TOTAL FARM RD. & W.V. SEC. RD. 60 - EL 859

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

Mark C. Echard
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE MAY 5, 1980
 OPERATOR'S WELL NO. FIVE-B
 API WELL NO. 47-017-2763
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 960 WATER SHED SAND FORK
 DISTRICT COVE COUNTY ROADRIDGE
 QUADRANGLE NEW MILTON 14D13 15' WC
 SURFACE OWNER FENCE BROWN ACREAGE 190.39
 OIL & GAS ROYALTY OWNER FENCE BROWN LEASE ACREAGE 190.39
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION BIG INTJN ESTIMATED DEPTH 2250'
 WELL OPERATOR ROCKWELL PETROLEUM CO. DESIGNATED AGENT MR. ROBERT B. JONES
 ADDRESS P.O. BOX 86 SAND FORK, W.V. 26430 ADDRESS P.O. BOX 86 SAND FORK, W.V. 26430

6-6 NEW MILTON 5

JUL 16 1980 307

[08-78]

WELL OPERATOR'S REPORT OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 960' Watershed: Sand Fork
District: Cove County: Doddridge Quadrangle: New Milton

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

RECEIVED

AUG 22 1980

PLANNED WORK: Drill X / Convert ___ / Drill deeper ___ / Re-drill ___ / Fracture or stimulate ___
Plug off old formation ___ / Other physical change in well (specify) ___

DATE ISSUED ON June 11, 1980

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Paul Garrett
Address Clarksburg, WV 26301
622-3871

LOGICAL TARGET FORMATION: Big Injun Depth 2115 feet

Depth of completed well, 2235 feet Rotary X / Cable Tools ___

Water strata depth: Fresh, 88 feet; salt, ___ feet.

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

Work was commenced July 17, 1980, and completed July 19, 1980

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		
Drill pipe								Kinds
Production tubing	<u>8 5/8</u>					<u>1319'</u>	<u>1319'</u>	<u>325 sks</u>
Completion tubing								Sizes
Wellhead tubing	<u>4 1/2</u>						<u>2153'</u>	<u>125 sks</u>
Wellhead tubing								Depth set
Wellhead tubing								Perforations:
								Top Bottom

FLOW DATA

Producing formation Blue Monday Pay zone depth 1976 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 Big Injun Pay zone depth 2115 feet

Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d

Combined Final open flow, 850 Mcf/d Final open flow, ___ Bbl/d

Time of open flow between initial and final tests, 24 hours

Static rock pressure, ___ psig (surface measurement) after 48 hours shut in

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

Fractured July 30, 1980

Big Injun - 3150 lb. 80/100 sand
30,000 lb. 20/40 sand
335 bbls. water
3000 lb. breakdown
20.9 BPM at 2200 lb.

Blue Monday - 1850 lb. 80/100 sand
25,000 lb. 20/40 sand
415 bbls. water
1500 lb. breakdown
19.8 BPM at 2600 lb.

Perforations - 2083 - 2115, 7 holes

Perforations - 1956 - 1976, 6 holes

LL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface			0	88	
Sand			88	91	Water
Red Rock			91	99	
Slate			99	126	
Sand			126	129	Water
Shale			129	308	
Red Rock			308	360	
Shale			360	720	
Sand			720	740	
Shale			740	810	
Red Rock			810	890	
Shale			890	990	
Red Rock			990	1040	
Shale			1040	1298	
Sand			1298	1340	
Shale			1340	1805	
Sand			1805	1848	
Shale			1848	1885	
Sand			1885	1902	
Shale			1902	1920	
Lime			1920	1940	
Slate			1940	1948	
Sandy Lime			1948	1986	
Lime			1986	2080	
Sand			2080	2090	Show of gas & oil
Lime			2090	2110	
Sand <i>BT</i>			2110	2124	Show of gas. & oil
Shale			2124	2223	
Total Depth			2223		

(Attach separate sheets to complete as necessary)

Rockwell Petroleum Company
Well Operator

By *James J. Cochran*
Its Secretary

DPE: 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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. F. Brown #5B
API Well No. 47 - 017 - 2763
State County Permit

WELL TYPE: Oil / Gas /
(If "Gas", Production / Underground storage / Deep / Shallow /)
LOCATION: Elevation: 960' Watershed: Sand Fork
District: Cove County: Doddridge Quadrangle: New Milton

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

OIL & GAS ROYALTY OWNER Fonce Brown COAL OPERATOR N/A
Address Route 1, Box 160 Address _____
New Milton, WV

ACREAGE 190.39 COAL OWNER(S) WITH DECLARATION ON RECORD:
Name N/A
Address _____
Name N/A
Address _____

SURFACE OWNER Fonce Brown FIELD SALE (IF MADE) TO:
Name N/A
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address Clarksburg, WV 26301
622-3871

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / 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 Lease Book 107 at page 673. A permit is requested as follows:

PROPOSED WORK: Drill / 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
615 WASHINGTON STREET EAST CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

RECEIVED

JUN 11 1980

OIL & GAS DIVISION
DEPT. OF MINES

Rockwell Petroleum Company
Well Operator

Mark R. Wood

Its Partner

BLANKET BOND

PROPOSED WORK ORDER

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

DILLING CONTRACTOR (IF KNOWN) Union Drilling, Inc.
Address Drawer 40
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2250' feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 148 feet; salt, N/A feet.

Approximate coal seam depths: N/A Is coal being mined in the area? Yes / No X /

DRILLING AND TUBING PROGRAM

DRILLING 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					1100'	1100'	To surface	
Intermediate									Sizes
Production	4 1/2						2250'		Depths set
Perforations									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 2-17-81.

[Signature]
Deputy Director, Oil & Gas Division

to 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.

_____, 19____

By _____
Its _____