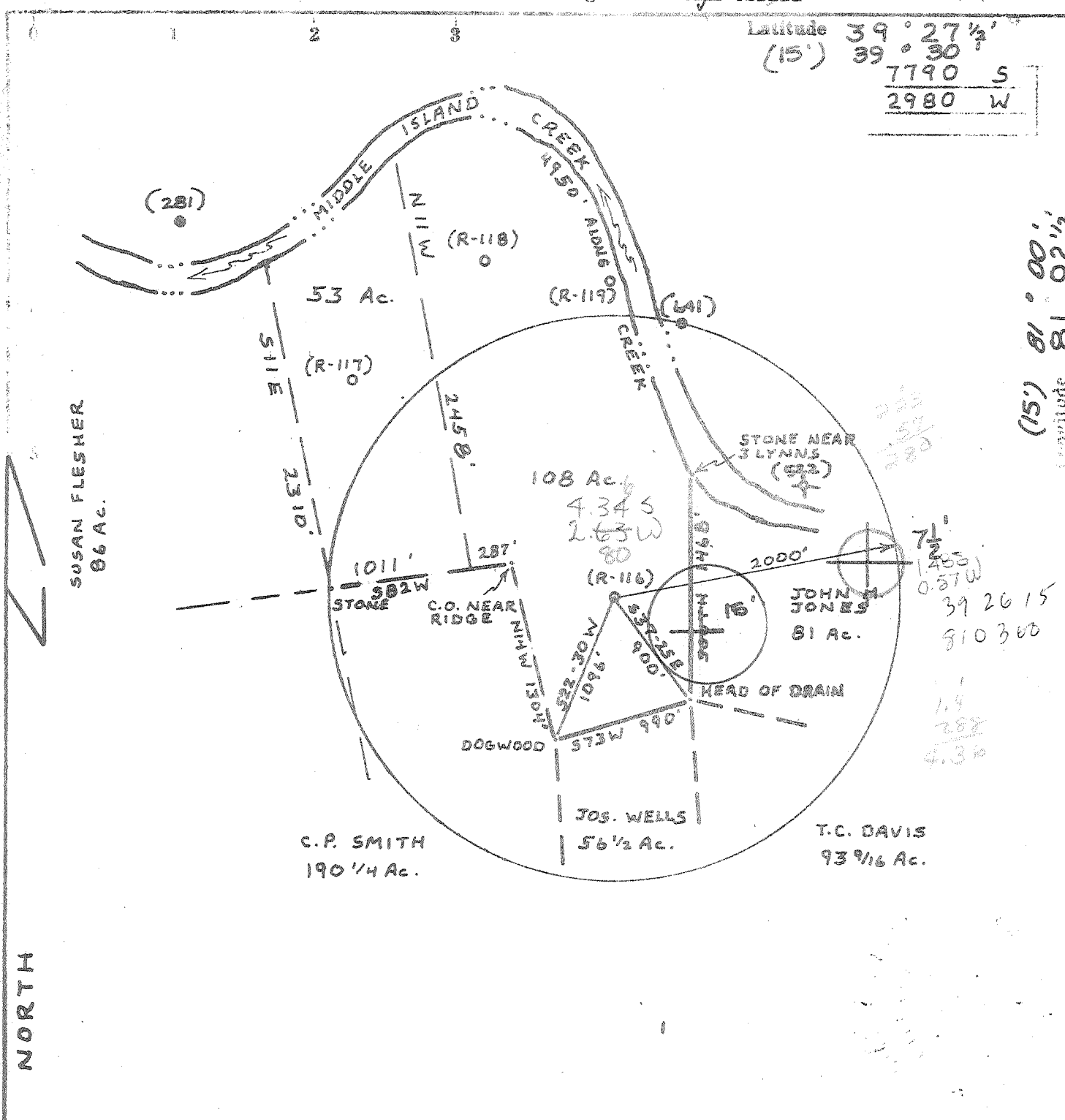


Latitude 39° 27' 1/2"
 (15') 39° 30'
7790 S
2980 W

(15') 81° 00'
81° 02' 1/2"



Target Formation GORDON
 Estimated Depth 3020'

API WELL NO. 47-073-
 State County Permit

PROPOSED WORK: WELL TYPE: Oil Gas Liquid Injection Waste Disposal
 Drill Fracture Re-drill New Location Drill Deeper Abandonment
 (IF "Gas", Production Storage Deep Shallow
 Source of Elevation BM AT ROAD INTERSECTION ELEV. 662
 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 production of the mining laws of West Virginia.
William R. Mossor Minimum accuracy, one part in 200

Well Operator C.W. RIGGS INC.
 Company Box 358, ST. MARYS, W.VA. 26170
 Designated Agent C.W. RIGGS
Box 358, ST. MARYS, W.VA. 26170
 Surface Owner JAMES GREEN
 Oil & Gas Royalty Owner C.W. RIGGS
 Acres 108 Lease No. R-116 Serial No. 1004' NE
 Water Shed MIDDLE ISLAND CREEK
 Quadrangle BENS RUN, W.VA, 7 1/2' QUAD.
ST. MARYS 15
 County PLEASANTS District UNION
 Surveyor WILLIAM R. MOSSOR, L.L.S.
 Surveyor's Registration No. 551
 Drawing No. 3 MARCH 1979 scale 1"=1000'

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

WELL LOCATION MAP
 FILE NO. 47-073-0739

— 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.

310 55-5 Shiloh-Wick (86)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 51

FEB 22 1980

OIL & GAS DIVISION
 OIL GAS
 MINE MINE
 Cable _____ Gas _____
 Recycling _____ Comb.
 Water Flood _____ Storage _____
 Disposal _____ (Kind)

Quadrangle BENS Run
 Permit No 47-073-0739

Company C. W. Rigg, Inc.
 Address Box 358, St. Marys, W.Va.
 Farm JAMES GREEN Acres 108
 Location (waters) MIDDLE ISLAND CREEK
 Well No. R-116 Elev. 1004'
 District UNION County PLEASANTS
 The surface of tract is owned in fee by _____
JAMES GREEN
 Address ARYLLA
 Mineral rights are owned by SAME
 Address SAME
 Drilling Commenced 5-29-79
 Drilling Completed 6-2-79
 Initial open flow N/A cu. ft. N/A bbls.
 Final production 25,000 cu. ft. per day 3 bbls.
 Well open _____ hrs. before test: _____ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Skts.)
Size			
20-16			
Cond.			
13(10) M.W.	250'	250'	
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2		3101'	435 skts
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

PERFORATIONS

2835-38 4 shots 2855-57 3 shots 2895-97 3 shots

FRACTURE TREATMENT

1500 BBL H₂O, 100,000# 20-40 SAND, 136,000 SCF N₂

Coal was encountered at N/A Feet _____ Inches _____
 Fresh water N/A Feet _____ Salt Water N/A Feet _____
 Producing Sand BORDON SH SAND, 4H SAND Depth 3101 D.
2603-2700 2972-87 2915-27

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
SALT SAND		1	1400	1434		* Top Log
"	"	2	1481	1504		
"	"	3	1530	1559		
MAXON			1607	1635		
Big LIME			1675	1718		
KEENER			1733	1771		
INJUN			1888	2062		
SQUAW			2153	2168		
WELLH STRAY			2198	2280		
BEREA			2349	2359		
50 foot			2450	2499		

(over)

Indicate Electric Log tops in the remarks section.

MAR 10 1980

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
30 Foot			2548	2582		
GORDON STRAY			2603	2700	OIL & GAS	
4th SAND			2915	2927	GAS	
5th SAND			2972	2987	OIL & GAS	
				3101		

Date 1-31 1980

APPROVED CW Riggs, Inc. Owner

By [Signature]



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

APR - 9 1979

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE 4-5-79

Surface Owner James Green
Address Arvilla, W. Va.
Mineral Owner James Green
Address Arvilla, W. Va.
Coal Owner James Green
Address Arvilla, W. Va.
Coal Operator None
Address _____

Company C. W. Riggs, Inc.
Address Box 358, St. Marys, W. Va.
Farm Green Acres 108
Location (waters) Middle Island Creek
Well No. R-116 Elevation 1004'
District Union County Pleasants
Quadrangle Bens Run, W. Va.

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 INSPECTOR

for drilling. This permit shall expire if TO BE NOTIFIED Philip Tracy

operations ~~have not commenced by~~ 12-10-79 ADDRESS Middlebourne, W. Va.

Deputy Director - Oil & Gas Division

PHONE 758-4573

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 Sept. 15 19 78 by James Green made to Loren Bagley and recorded on the 7th day of Feb. 19 79, in Pleasants County, Book 151 Page 230

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,
(Sign Name) C. W. Riggs
Well Operator

Box 358
Street
St. Marys
City or Town
W. Va.
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.

BLANKET BOND

47-073-0739

PERMIT NUMBER

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Little Swiss Drilling NAME C. W. Riggs, Inc.
 ADDRESS Buchannon, W. Va. ADDRESS Box 358, St. Marys, W. Va.
 TELEPHONE 472-6396 TELEPHONE 684-3974
 ESTIMATED DEPTH OF COMPLETED WELL: 3105' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Upper Devonian
 TYPE OF WELL: OIL _____ GAS _____ COMB. X STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8 <u> 250' </u>		<u> 250' </u>	<u> Cement top-bottom </u>
7			
5 1/2			
4 1/2			
3		<u> 3105' </u>	<u> 200 sks. </u>
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 175' FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? no BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

 For Coal Company

 Official Title