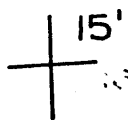


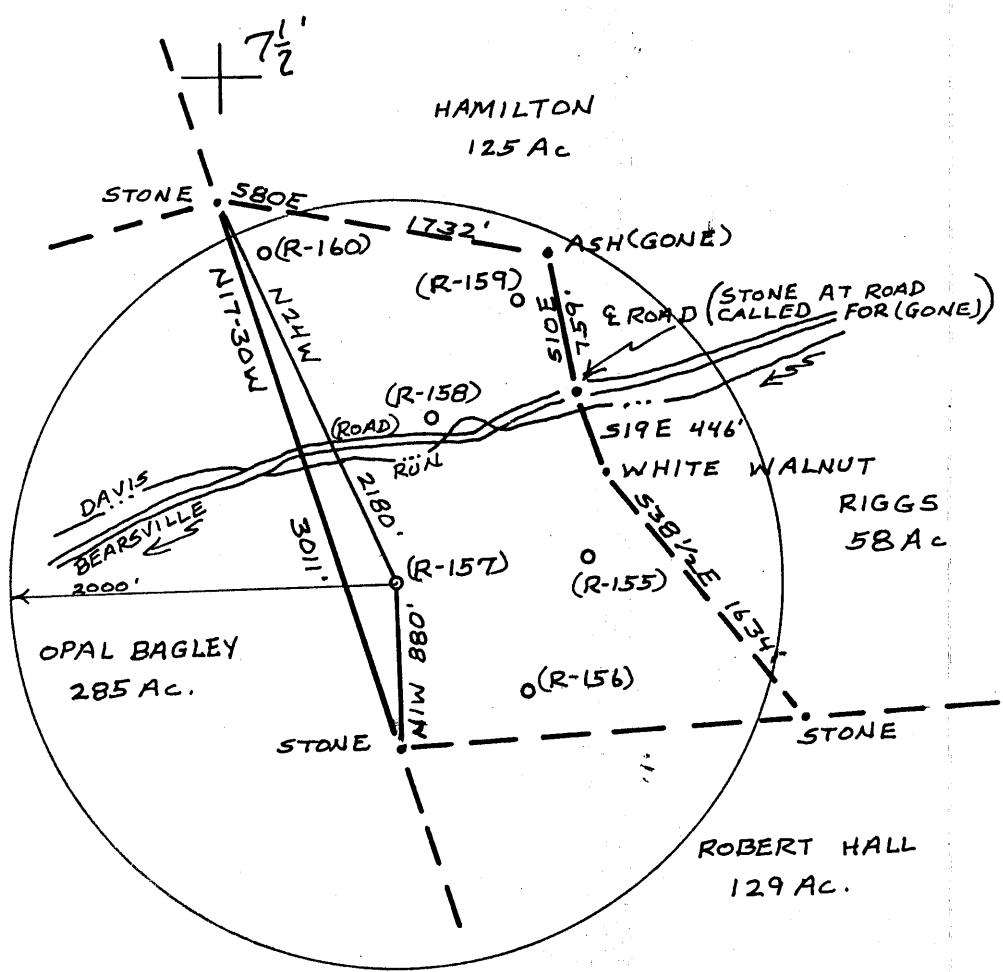
7/20/79

LATITUDE 39° 25'



3160 SOUTH
9350 WEST

80° 50'
80° 52 1/2'



NORTH

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION High Knob
ELEV 1190'

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.
(SIGNED) William R. Mosser
R.P.E. _____ L.L.S. 551

PLACE SEAL HERE

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



DATE 15 June 1979, 19 ____
OPERATOR'S WELL NO R-157
API WELL NO. 47-095-0719
STATE COUNTY PERMIT

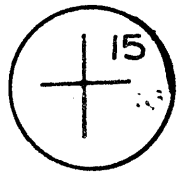
STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

CANC?

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF GAS, PRODUCTION STORAGE _____ DEEP _____ SHALLOW _____
LOCATION: ELEVATION 971 WATER SHED DAVIS RUN OF SANGHO CREEK
DISTRICT CENTREVILLE COUNTY TYLER
QUADRANGLE Middlebourne 7 1/2' Quad
SURFACE OWNER E.O. McCullough ACREAGE 97 1/2
OIL & GAS ROYALTY OWNER SAMG LEASE ACREAGE _____
LEASE NO. _____
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

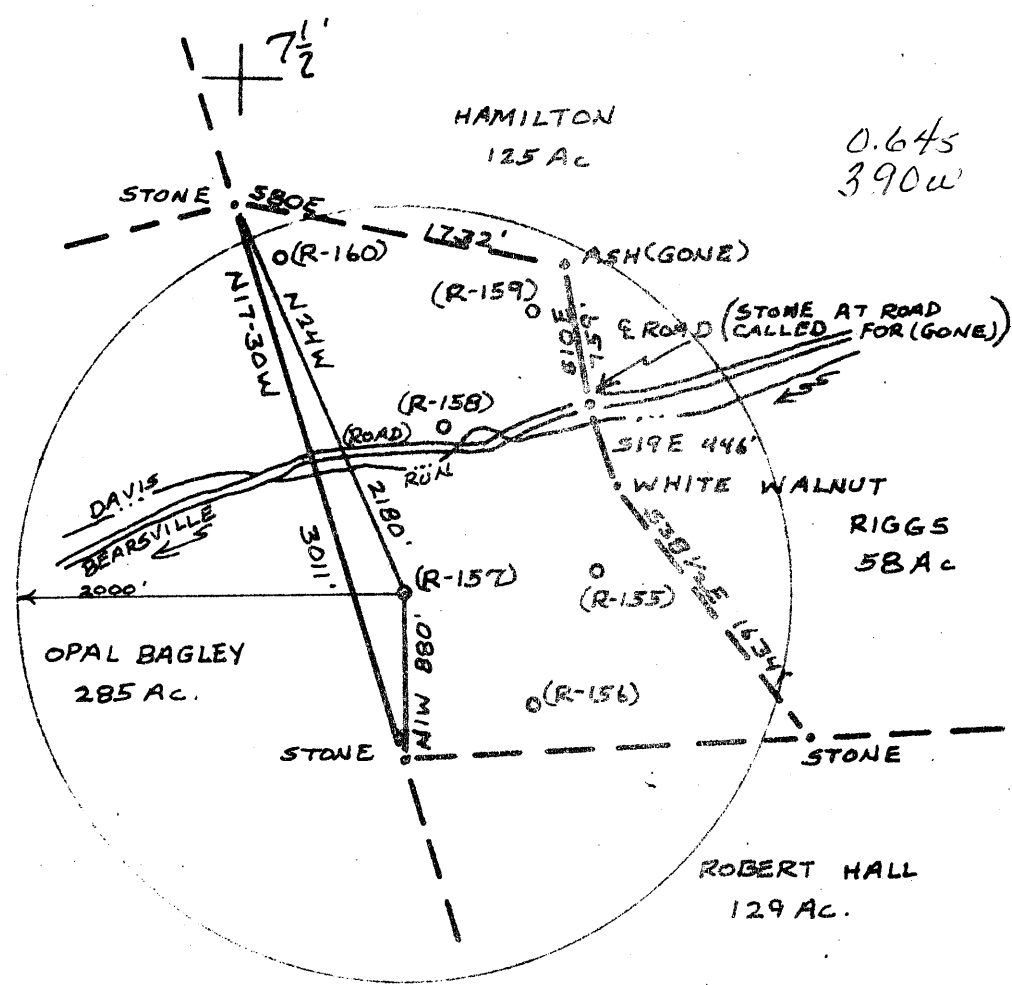
FEB 0 1987

PLUS AND ABANDON _____ CLEAN OUT AND REPLUS _____
TARGET FORMATION UPPER DEVONIAN ESTIMATED DEPTH 3100
WELL OPERATOR C.W. RIGGS, INC. DESIGNATED AGENT C.W. RIGGS
ADDRESS Box 358, ST. MARYS, WVA. ADDRESS ST. MARYS, WVA.



3160 SOUTH
 9360 WEST

80° 50'
 LONGITUDE 80° 52 1/2'



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION High Knob
 ELEVATION 1857 100'

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.
 (SIGNED) William P. Maccos
 R.P.E. _____ L.L.S. SS

PLACE SEAL HERE

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



DATE 15 June 1979
 OPERATOR'S WELL NO. R-157
 API WELL NO. 47-095-0719
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION & STORAGE _____ DEEP _____ SHALLOW _____)
 LOCATION: ELEVATION 971 WATER SHED DAVIS RUN OF SANCHO CREEK
 DISTRICT CENTREVILLE COUNTY TYLER
 QUADRANGLE Middlebourne 7 1/2' Quad ACRES 97 1/2
 SURFACE OWNER E. O. McCullough LEASE NO. _____ LEASE ACRES _____
 OIL & GAS ROYALTY OWNER Same

PROPOSED WORK: DRILL CONVERT _____ DRILL BEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUS AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION UPPER DEVONIAN ESTIMATED DEPTH 3100' AUG 10 1979
 WELL OPERATOR C. W. RIGGS, INC. DESIGNATED AGENT C. W. Riggs
 ADDRESS Box 398, St. Marys, W.Va. ADDRESS St. Marys, W.Va.

UPPER DEVONIAN 3100'



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

JUL 20 1979

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner E.O. McCullough
Address Bearsville, W. Va.
Mineral Owner E.O. McCullough
Address Bearsville, W. Va.
Coal Owner E.O. McCullough
Address Bearsville, W. Va.
Coal Operator None
Address _____

DATE 7-6-79
Company C.W. Riggs, Inc.
Address Box 358, St. Marys, W. Va.
Farm E.O. McCullough Acres 97 1/2
Location (waters) Davis Run
Well No. R-157 Elevation 971
District Centerville County Tyler
Quadrangle Middlebourne

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 3-23-80

INSPECTOR
TO BE NOTIFIED Phillip Tracy
ADDRESS Middlebourne, W. Va.
PHONE 758-4573

[Signature]
Deputy Director - Oil & Gas Division
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 June 6 1979 by Paul & Mary McCullough made to Loren Bagley and recorded on the 22nd day of June 1979, in Tyler County, Book 219 Page 431

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

Very truly yours,

(Sign Name) C.W. Riggs
Well Operator

Address
of
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

47-095-0719

PERMIT NUMBER

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

PROPOSED WORK ORDER TO DRILL DEEPEN FRACTURE STIMULATE

DRILLING CONTRACTOR: (If Known) Little Swiss Drilling RESPONSIBLE AGENT C.W. Riggs, Inc.
 NAME Little Swiss Drilling NAME C.W. Riggs, Inc.
 ADDRESS Bucannon, W. Va. ADDRESS St. Marys, W. Va.
 TELEPHONE 472-6396 TELEPHONE 684-3974

ESTIMATED DEPTH OF COMPLETED WELL 3100' ROTARY CABLE TOOLS

PROPOSED GEOLOGICAL FORMATION Upper Devonian

TYPE OF WELL: OIL GAS COMB. STORAGE DISPOSAL
 RECYCLING WATER FLOOD OTHER

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	FEET IN WELL	CEMENT FILL UP OR SACKS (CUBIC FT)
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8 250'		250'	Cement Top-Bottom
7			
5 1/2			
4 1/2		3100'	200 sks.
3			Perf. Top
2			Perf. Bottom
LINERS			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 120 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