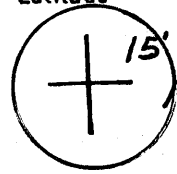
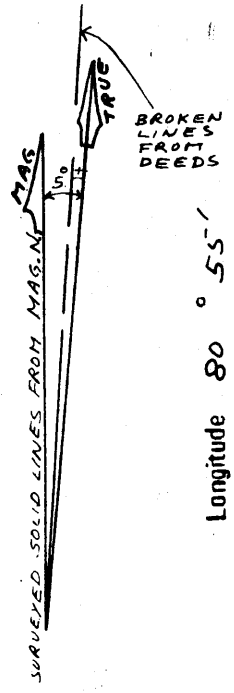


Latitude 39° 25'

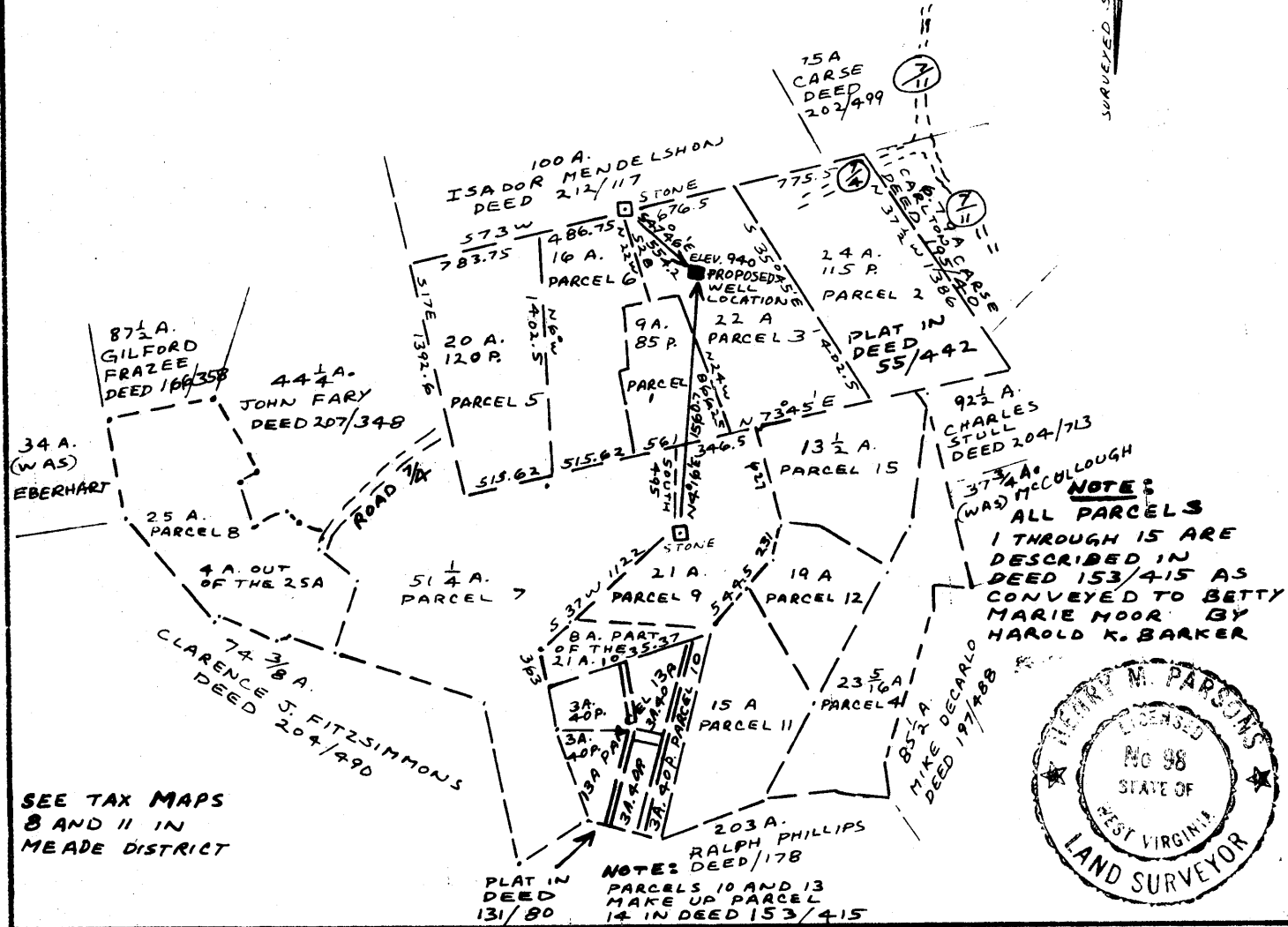
0.655
1.90 W



39 24 25
80 57 10

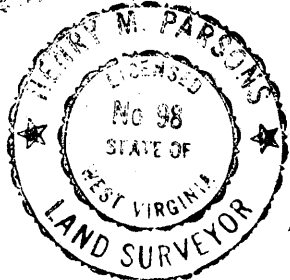


Longitude 80° 55'



SEE TAX MAPS 8 AND 11 IN MEADE DISTRICT

PLAT IN DEED 131/80
NOTE: PARCELS 10 AND 13 MAKE UP PARCEL 14 IN DEED 153/415



New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure METHODS USED SHOULD PRODUCE 1 IN 2500
 Source of Elevation 818 AT WICK ROAD AND SOUTH FORK ROAD INTERSECTION
 EAST OF THE VILLAGE OF WICK SHOWN ON THE MIDDLEBOURNE TOPO MAP
 "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 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia. Henry M. Parsons

Company C.W. RIGGS, INC.
 Address BOX 358, ST. MARKS, WVA.
 Farm BETTY MARIE MOORE (PAR #3)
 Tract _____ Acres 243 Lease No. _____
 Well (Farm) No. MOORE #3 Serial No. _____
 Elevation (Spirit Level) 940
 Quadrangle MIDDLEBOURNE, WEST UNION 15'
 County TYLER District MEADE
 SURVEYOR
 Engineer HENRY M. PARSONS
 SURVEYOR'S
 Engineer's Registration No. 98
 File No. 79-5358 Drawing No. 79-5358
 Date MAY 21, 1979 Scale 1"=1000'

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

WELL LOCATION MAP
 FILE NO. 47-095-0694

+ Denotes location of well on United States Topographic Maps, scale 1 to ~~62,500~~ ^{25,000} latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

JUN 14 1979

6-0 Shiloh-Wick (86)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 51

RECEIVED
FEB 22 1980
OIL & GAS DIVISION
DEPT. OF MINES

Quadrangle Middlebourne
Permit No. 47-095-0694

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb.
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company C.W. Riggs, Inc
Address Box 358 St. Marys, W. Va.
Farm Betty Moore Acres 26.3
Location (waters) Sugar Creek
Well No. #3 Elev. 940'
District MEADE County Tyler
The surface of tract is owned in fee by Betty Moore
Address Middlebourne, W. Va.
Mineral rights are owned by Betty Moore
Address SAME
Drilling Commenced 8-8-79
Drilling Completed 8-13-79
Initial open flow _____ cu. ft. _____ bbls.
Final production 20,000 cu. ft. per day _____ bbls.
Well open _____ hrs. before test _____ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			455 SKS
Cond. 13-10"	250	250	
9 5/8			
8 5/8	968'	968'	
7			
5 1/2			
4 1/2		3020'	
3			
2			
Liners Used			

Well treatment details: Fertigation Attach copy of cementing record. 2842' - 2880'

Fracture Treatment
1500 BBL H₂O, 100,000^{lb} SAND, 110,000 SCFN₂

Coal was encountered at N/A Feet _____ Inches _____
Fresh water N/A Feet _____ Salt Water N/A Feet _____
Producing Sand GREEN Depth 2837-2885

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
1st	SALT SAND		1501'	1550'		* TOP LOG
2nd	SALT SAND		1558'	1575'		
3rd	SALT SAND		1637	1670'		
MAKON			1740	1781'		
Big Lime			1803'	1858'		
Keener			1859'	1887		
Insler			1897'	2033'		
Squaw			2034'	2053'		
Welch Straty			2181'	2230'		
Berea			2320'	2328'		
50 FOOT			2495'	2545'		
30 FOOT			2554'	2595'		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
COBBLE SAND			2715'	2747'		
COBBLE			2837'	2885'	GAS	
4 1/2" SAND		✓	2940'	2953'		
drilled on log 3049 btm 4 1/2" csg-3020						

Date Feb 13, 19 80

APPROVED C. W. Riggs, Inc. Owner

By John Schmidt



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

JUN - 1 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 5-30-79
Company C. W. Riggs, Inc.
Address Box 358, St. Marys, W. Va.
Farm Moore Acres 263
Location (waters) Sugar Creek
Well No. 3 Elevation 940
District Meade County Tyler
Quadrangle Middlebourne, W. Va.

Surface Owner Betty M. Moore
Address Middlebourne, W. Va.
Mineral Owner Betty M. Moore
Address Middlebourne, W. Va.
Coal Owner Betty M. Moore
Address Middlebourne, W. Va.
Coal Operator None
Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

provisions being in accordance with Chapter 22,
the W. Va. Code, the location is hereby approved
drilling _____. This permit shall expire if
operations have not commenced by 2-4-80

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

GENTLEMEN:
Deputy Director - Oil & Gds Division

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 March 17 1979 by Barker and Moore made to Loren Bagley and recorded on the 29th day of March 1979 in Tyler County, Book 218 Page 459

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.

Very truly yours,

(Sign Name) C. W. Riggs
Well Operator

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

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

47-095-0694

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) RESPONSIBLE AGENT:
 NAME Little Swiss Drilling NAME C. W. Riggs, Inc.
 ADDRESS Buchannon, 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	LEFT IN WELL	CEMENTED 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 103' 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