

June 4/27/89

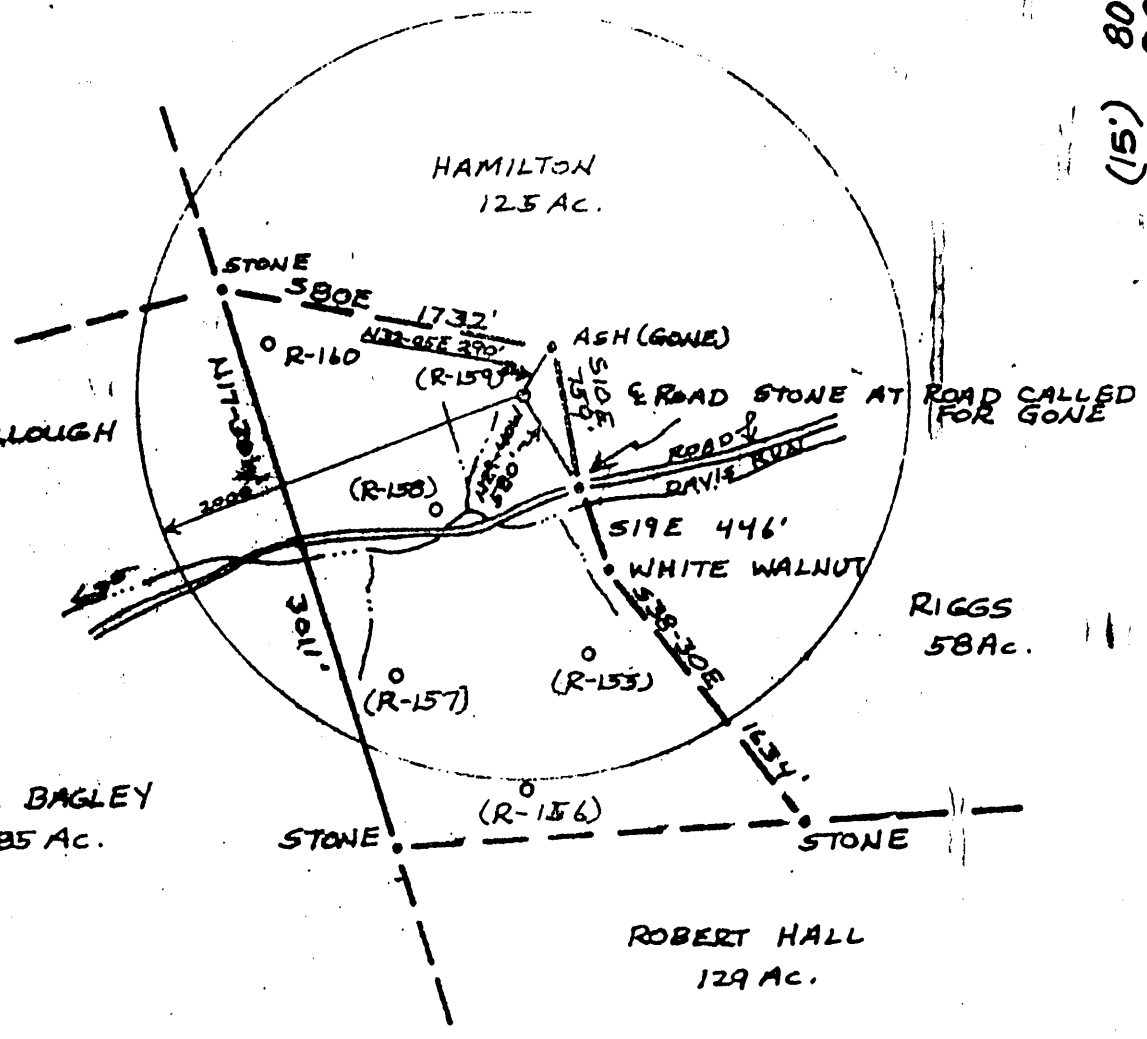
LATITUDE 39° 25'

1650 SOUTH
8780 WEST
8830



0.315
1666W

(15') 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 POINT 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 E. Moore
 R.R.E. _____ L.L.S. 551

PLACE SEAL HERE

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



DATE 25 JUNE, 1979
 OPERATOR'S WELL NO R-157
 API WELL NO. 47-095-0721-DD
 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 1201' WATER SHED DAVIS RUN OF SANCHO CREEK
 DISTRICT CENTERTVILLE COUNTY TYLER
 QUADRANGLE MIDDLEBOURNE WVA 7 1/2' QUAD. WEST UNION 15' 470,133 S
 SURFACE OWNER E.C. McCULLOUGH ACRES 97.2
 OIL & GAS ROYALTY OWNER _____ ACRES _____ LEASE ACRES _____
 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) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____

Target Formation Chemung of Ohio Shale Estimated Depth 5200'
 Well Operator Sancho Oil & Gas Corp. Agent Loren Bagley
 Address P.O. Box 179 Same Address
 St. Marys, WVa. 26170 PH: 304-684-7170

APR 28 1989

-OWND- 6-6 Bearsville (366)

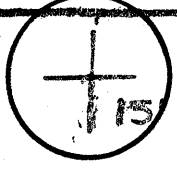
LATITUDE 39° 25'

1650 SOUTH
8780 WEST

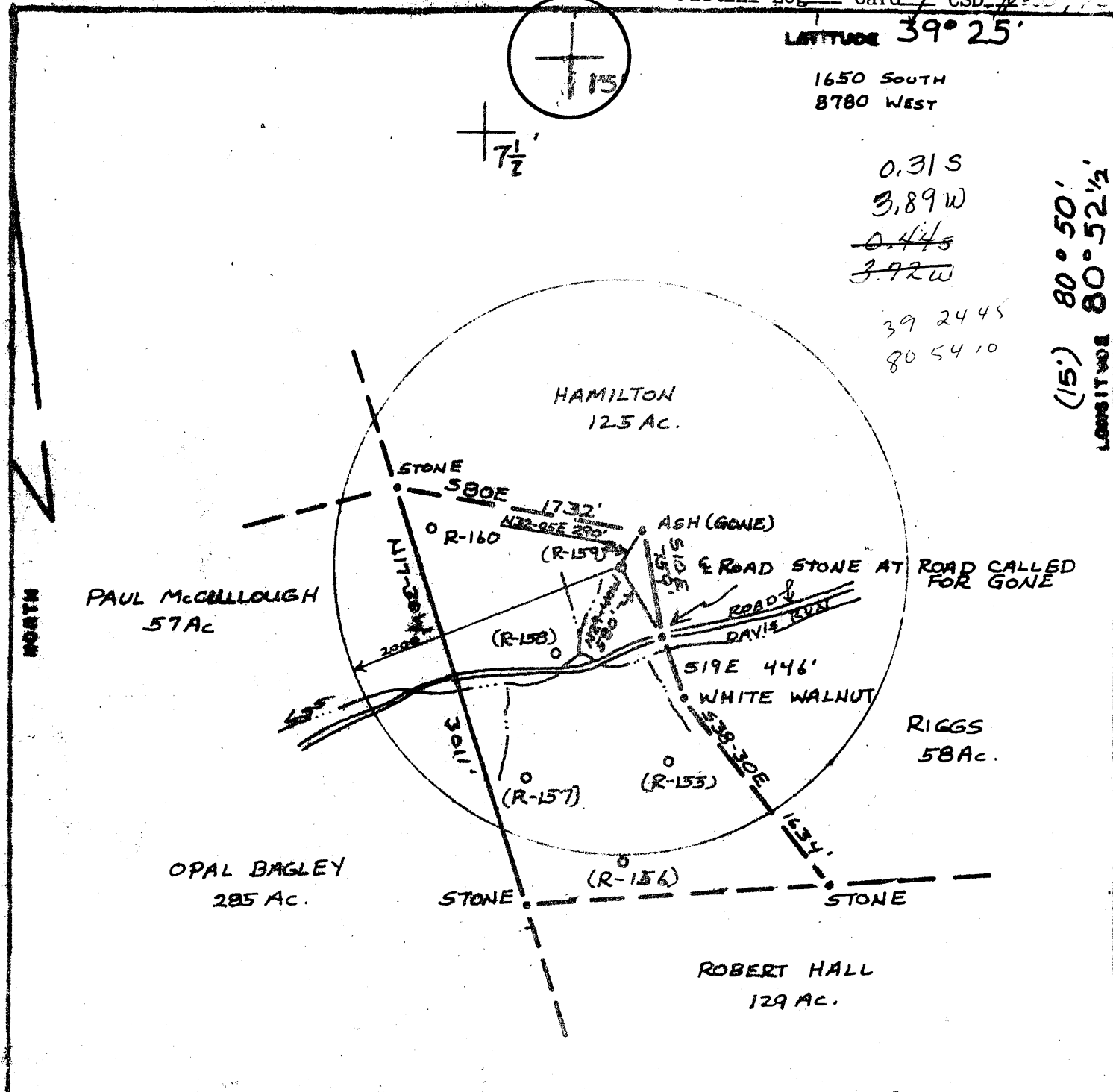
0.315
3.89W
~~0.445~~
3.92W

39 24 45
80 54 10

(15) 80° 50'
LONGITUDE 80° 52 1/2'



7 1/2'



FILE NO. _____
DRAWING NO. _____
SCALE 1"=1000'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION HIGH POINT 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 P. Moore
R.P.E. _____ L.L.S. 551

PLACE SEAL HERE

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



DATE 15 JUNE 1979
OPERATOR'S WELL NO R-159
API WELL NO. 47-095-0721
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 1201' WATER SHED DAVIS RUN OF SANCHO CREEK
DISTRICT CENTERVILLE COUNTY TYLER
QUADRANGLE MIDDLEBOURNE, W.VA. 7 1/2' QUAD. WEST UNION 15'
SURFACE OWNER E.C. McCULLOUGH ACREAGE 97 1/2
OIL & GAS ROYALTY OWNER SAME LEASE NO. _____ LEASE ACREAGE _____
PROPOSED WORK: DRILL 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 UPPER DEVONIAN ESTIMATED DEPTH 3100' AUG 10 1979
WELL OPERATOR C.W. RIGGS, INC. DESIGNATED AGENT C.W. RIGGS
ADDRESS BOX 358, ST. MARYS, W.VA. ADDRESS BOX 358, ST. MARYS, W.VA.

UPPER Devonian 3100' - 0 Bearsville (366)



WR-35

RECEIVED JUN 09 1989

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

State of West Virginia DEPARTMENT OF ENERGY Oil and Gas Division

Date 6/6/89 Operator's Well No. R159 Farm E.O. McCullough API No 47 -095 -0721 D

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

WELL TYPE: Oil / Gas xx/ Liquid Injection / Waste Disposal / (If "Gas," Production xx/ Underground Storage / Deep / Shallow xx/)

LOCATION: Elevation: 1001 gl Watershed Davis Run of Sancho Creek District: Centerville County Tyler Quadrangle Middlebourne 7 1/2'

COMPANY Sancho Oil & Gas Corp

ADDRESS 210 Second Street St. Marys W.Va. 26170

DESIGNATED AGENT Loren E. Bagley

ADDRESS Rt 1 Middlebourne, W.Va.

SURFACE OWNER Paul McCullough

ADDRESS Rt 1 Bearsville, W.Va.

MINERAL RIGHTS OWNER Paul McCullough

ADDRESS Rt 1 Bearsville, W.Va.

OIL AND GAS INSPECTOR FOR THIS WORK

Robinson ADDRESS West Virginia

PERMIT ISSUED 4/27/89

DRILLING COMMENCED 5/1/89

DRILLING COMPLETED 5/29/89

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

Table with 4 columns: Casing Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes like 20-16 Cond., 13-10", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2 7/8" and Liners used.

GEOLOGICAL TARGET FORMATION Chemung group of Ohio Shale Depth 4580-5000 feet

Depth of completed well 5080 feet Rotary xx/ Cable Tools

Water strata depth: Fresh none feet; Salt none feet

Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Chemung Pay zone depth 4584-4968 feet

Gas: Initial open flow 50 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 50 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure 1500 psig (surface measurement) after 24 hours shut in (If applicable due to multiple completion--)

Second producing formation none Pay zone depth feet

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

Final open flow Mcf/d Oil: 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

JUN 16 1989

(Continue on reverse side)

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OCT 29 1980

OIL & GAS DIVISION STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
FORM IV-1 (Obverse) DEPT. OF MINES

Date 10-28, 1980

Operator's Well No. McCullough R-15

[08-78]

WELL OPERATOR'S REPORT
OF

API Well No. 47-095-072
State County Perm

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1001' Watershed: DAVIS RUN
District: CENTERVILLE County: TYLER Quadrangle: MIDDLEBOURNE

WELL OPERATOR C.W. Riggs, Inc. DESIGNATED AGENT Same As Operator
Address Box 358 Address _____
ST. MARYS, W.VA.

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

PERMIT ISSUED ON 7-20, 1979 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Phillip Tracy
Address MIDDLEBOURNE, W.VA.

GEOLOGICAL TARGET FORMATION: UPPER DEVONIAN Depth 3118 feet
Depth of completed well, 3118 feet Rotary X / Cable Tools ___
Water strata depth: Fresh, N/A feet; salt, N/A feet.
Coal seam depths: N/A Is coal being mined in the area? No
Work was commenced 2-16, 1980, and completed 2-20, 1980

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	<u>10 3/4"</u>		<u>32.25#</u>	<u>X</u>		<u>250'</u>	<u>250'</u>	<u>130sks</u>	
Coal									Sizes
Intermediate									
Production Tubing	<u>4 1/2"</u>		<u>10.5#</u>	<u>X</u>			<u>3118'</u>	<u>455sks</u>	Depths set
Liners									Perforations: Top Bottom

OPEN FLOW DATA

Producing formation GORDON, GORDON STRAY Pay zone depth 2930 feet
Gas: Initial open flow, 40 Mcf/d Oil: Initial open flow, 0 Bbl/d
Final open flow, 16 Mcf/d Final open flow, 0 Bbl/d
Time of open flow between initial and final tests, 2 hours

Static rock pressure, 800# psig (surface measurement) after 24 hours shut in **NOV 25 1980**

[If applicable due to multiple completion--] SINGLE COMPLETION

Second producing formation GORDON STRAY Pay zone depth 2855 feet

[08-78]

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

3	shots	.50	CALIBER	2822-26
2	"	"	"	2837-39
3	"	"	"	2845-47
3	"	"	"	2853-55
9	"	"	"	2921-29

STIMULATION

1200 BBL H₂O, 60,000 # 20.40 SAND, 130,200 SCF N₂

WELL LOG

FORMATION	Color	Hard or Soft	CS Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
COW RUN			1324	1375	
1ST SALT			1380	1420	
2ND SALT			1492	1514	
3RD SALT			1564	1604	
MAXON			1736	1760	
KEENER			1790	1820	
TUNJUN			1900	2120	
SQUAW			2128	2136	
WEIR			2316	2344	
WELCH STRAY			2380	2430	
BEREA			2496	2501'	
50'			2690'	2711'	
30'			2760'	2784'	
GORDON STRAY			2820	2858	GAS
GORDON			2916	2930	GAS
5TH SAND			3012	3028	
				TD 3118	

(Attach separate sheets to complete as necessary)

C.W. Riggs, Inc.
Well Operator

By John Cox
Its V.P.

NOTE: Regulation 2.02(t) 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."

47-095-0721DD

Issued 4/27/89 Expires 4/27/91

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Sancho Oil And Gas Corporation **44005, 1, 470**
- 2) Operator's Well Number: E.O. McCullough R-159 3) Elevation: 1001
- 4) Well type: (a) Oil x/ or Gas x/
(b) If Gas: Production x/ Underground Storage /
Deep / Shallow x/
- 5) Proposed Target Formation(s): Chemung Group of Ohio Shale
- 6) Proposed Total Depth: 5200 feet
- 7) Approximate fresh water strata depths: 100
- 8) Approximate salt water depths: 1200
- 9) Approximate coal seam depths: none
- 10) Does land contain coal seams tributary to active mine? Yes / No x/
- 11) Proposed Well Work: deepen existing well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor		<u>New</u>		<u>From Well Record</u>		
Fresh Water	<u>10 3/4</u>	<u>32.25#</u>	<u>32.25#</u>	<u>250'</u>	<u>250'</u>	<u>30 Sk</u>
Coal						
Intermediate	<u>4 1/2"</u>	<u>J 55</u>	<u>10.5</u>	<u>3118'</u>	<u>3118'</u>	<u>@600' GL</u>
Production	<u>2 7/8"</u>	<u>J 55</u>	<u>6.4</u>	<u>5200</u>	<u>5200'</u>	<u>38CSR18-11.1</u>
Tubing						
Liners						

PACKERS : Kind
Sizes
Depths set

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APR 27 1989

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond Agent

(Type)

8733

4336

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APR 27 1989

Page 1 of _____
Form WW2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: April 17, 1989
Operator's well number
McCullough R 159
API Well No: 47 - 095 - 0721-DD
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Paul McCullough
Address Route 1 Box 100
Middlebourne, W.Va. 26170
- (b) Name _____
Address _____
- (c) Name _____
Address _____
- 5) (a) Coal Operator:
Name none
Address _____
- (b) Coal Owner(s) with Declaration
Name _____
Address _____
- Name _____
Address _____
- 6) Inspector Glen P. Robinson
Address Rt 1, #6 Mt Pleasant Est
Mineral Wells, W.Va. 26150
Telephone (304)-489-9162
- (c) Coal Lessee with Declaration
Name _____
Address _____

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
x Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 5 on the above named parties, by:

- Personal Service (Affidavit attached)
 Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Sancho Oil And Gas Corp
By: Loren Bagley
Its: President
Address P.O. Box 179, St. Marys, West Virginia 26170

Telephone (304) 684-7170

Subscribed and sworn before me this 17th day of April, 1989

[Signature] Notary Public
My commission expires February 11, 1997



Handwritten notes and date stamp
JUL 20 1979

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES 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 7-6-79

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 _____

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-159 Elevation 1001'
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

Robert S. [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

Address
of
Well Operator

Very truly yours,
(Sign Name) C.W. Riggs
Well Operator
Box 358 Street
St. Marys, W. Va. City or Town
W. Va. State

*SECTION 3 ... If 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

47-095-0721

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	FEET IN WELL	CEMENT FEET 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		<u>3100'</u>	<u>200 sks.</u>
3			
2			
LINERS			
			Perf. Top
			Perf. Bottom
			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.

I, FOR HUNTERDON AREA 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