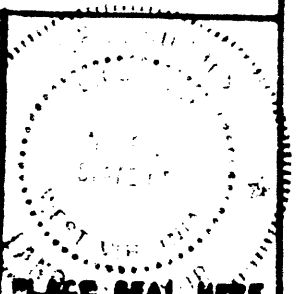


FILE NO. 81-32  
 DRAWING NO. 1  
 SCALE 1"=500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION BM 806

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) Neal Hughes  
 R.P.E. \_\_\_\_\_ L.L.S. 632



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



DATE SEPT. 8, 19 81  
 OPERATOR'S WELL NO. 47-095-0964  
 API WELL NO. 47-095-0964  
 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 770 WATER SHED SUGAR CREEK  
 DISTRICT MEADE COUNTY TYLER  
 QUADRANGLE BENS RUN St. Marys EC  
 SURFACE OWNER BILL MONROE ACREAGE 133.52  
 OIL & GAS ROYALTY OWNER H. JEMISON LEASE ACREAGE 158  
 LEASE NO. \_\_\_\_\_  
 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 Dev. SHALE ESTIMATED DEPTH 4700 NOV 19 1981  
 WELL OPERATOR BISON INC. DESIGNATED AGENT HAROLD E. WILSON  
 ADDRESS RT 2 BOX 83 ADDRESS RT 2 BOX 83  
ST. MARYS W.V. ST. MARYS, W.V.  
26170 26170

6-4 Shiloh-Wick (86)



IV-35  
(Rev 8-81)

Date 7-22-82  
Operator's Well No. 2  
Farm HERMAN JEMISON  
API No. 47-095-0964

State of West Virginia  
Department of Mines  
Oil and Gas Division

WELL OPERATOR'S REPORT  
OF  
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: 770 Watershed SUGAR CREEK  
District: Meade County Tyler Quadrangle Bears Run

COMPANY Bison, Inc.  
ADDRESS 111 Lafayette St. St. Marys, W. Va.  
DESIGNATED AGENT HAROLD E. Wilson  
ADDRESS RT. 2 Box 83 St. Marys, W. Va.  
SURFACE OWNER BILL MORROE  
ADDRESS Bears Run, W. Va.  
MINERAL RIGHTS OWNER Herman Jemison  
ADDRESS 105 W. 4th St. Paden City, W. Va.  
OIL AND GAS INSPECTOR FOR THIS WORK ROBERT LOWTHER ADDRESS Middlebourne, W. Va.  
PERMIT ISSUED 11-5-81  
DRILLING COMMENCED 3-11-82  
DRILLING COMPLETED 3-17-82

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	891	891	335
7			
5 1/2			
4 1/2	4691	4691	600
3			
2			
Liners used			

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

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 4624 feet  
Depth of completed well 4790 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?    

OPEN FLOW DATA  
Producing formation Muron Pay zone depth 4282-4633 feet  
Gas: Initial open flow 70,000 Mcf/d Oil: Initial open flow 0 Bbl/d  
Final open flow 30,850 Mcf/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 8 hours  
Static rock pressure 480 psig (surface measurement) after 24 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation     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

30 MCF

(Continue on reverse side)

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

PERFORATIONS

33-.39 Holes

4282-4633 Huron

FRACTURE

805,000 SCF N<sub>2</sub>

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
1ST	SALT		1073	1089	
2nd	SALT		1185	1260	
3rd	SALT		1279	1319	
MAXON			1402	1431	
Big Lime			1447	1503	
Keener			1541	1573	
Big Injun			1610	1672	
Weir			1883	1911	
Berea			2090	2112	
50 FT			2169	2188	
30 FT			2331	2351	
Gordon			2433	2455	
4TH SAND			2559	2571	
5TH SAND			2621	2637	
TIONA			3149	3157	
speechly			3218	3232	
BALL TOWN			3449	3477	
scheffield			3511	3537	
BRADFORD			3678	3690	
ELK			3835	3855	
Riley			4253	4280	
BENSON			4614	4624	

4740  
2112  
-----  
2628

TD 4740  
in-  
Jaw

(Attach separate sheets as necessary)

Bison, Inc.

Well Operator

By: Ruth A. Blum

Date: 7-22-82

Note: 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."



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

NOV - 5 1981

Oil and Gas Division

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE Oct. 6, 1981

Surface Owner Bill Monroe

Company Bison, Inc.

Address Bens Run, WV.

Address Rt. 2 Box 83 St. Marys, WV.

Mineral Owner Herman Jemison

Farm Bill Monroe Acres 133.52

Address 105 Wash. St. Paden City, WV. 26159

Location (waters) Sugar Creek

Coal Owner N/A

Well No. 2 Elevation 770'

Address \_\_\_\_\_

District Meade County Tyler

Coal Operator \_\_\_\_\_

Quadrangle Bens Run

Address \_\_\_\_\_

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 7-12-82.

INSPECTOR

TO BE NOTIFIED Phillip Tracy

ADDRESS Rt. 3 Alma, WV.

PHONE 304-758-4573

*J. B. Murray*  
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 Aug. 29 19 81 by Don Wagner made to Bison, Inc. and recorded on the 9th day of Sept. 19 81, in Tyler County, Book 233 Page 196

X 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) Bison, Inc. Harold E. Wilson Pres.  
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

Rt. 2 Box 83

Street

St. Marys,

City or Town

WV.

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.

47-095-0964 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by Harold E. Wilson

BLANKET BOND

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 Unknown \_\_\_\_\_ NAME Harold E. Wilson \_\_\_\_\_  
 ADDRESS \_\_\_\_\_ ADDRESS Rt. 2 Box 83 St. Marys, WV. \_\_\_\_\_  
 TELEPHONE \_\_\_\_\_ TELEPHONE 304-684-3994 \_\_\_\_\_  
 ESTIMATED DEPTH OF COMPLETED WELL: 4700' \_\_\_\_\_ ROTARY  \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Devonian Shale \_\_\_\_\_  
 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	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10	40'	40'	
9 - 5/8			
8 - 5/8	870'	870'	Cement up to surface
7			
5 1/2			
4 1/2	4700'	4700'	Cement up 2700'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 350' FEET \_\_\_\_\_ SALT WATER 950' FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS N/A \_\_\_\_\_  
 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