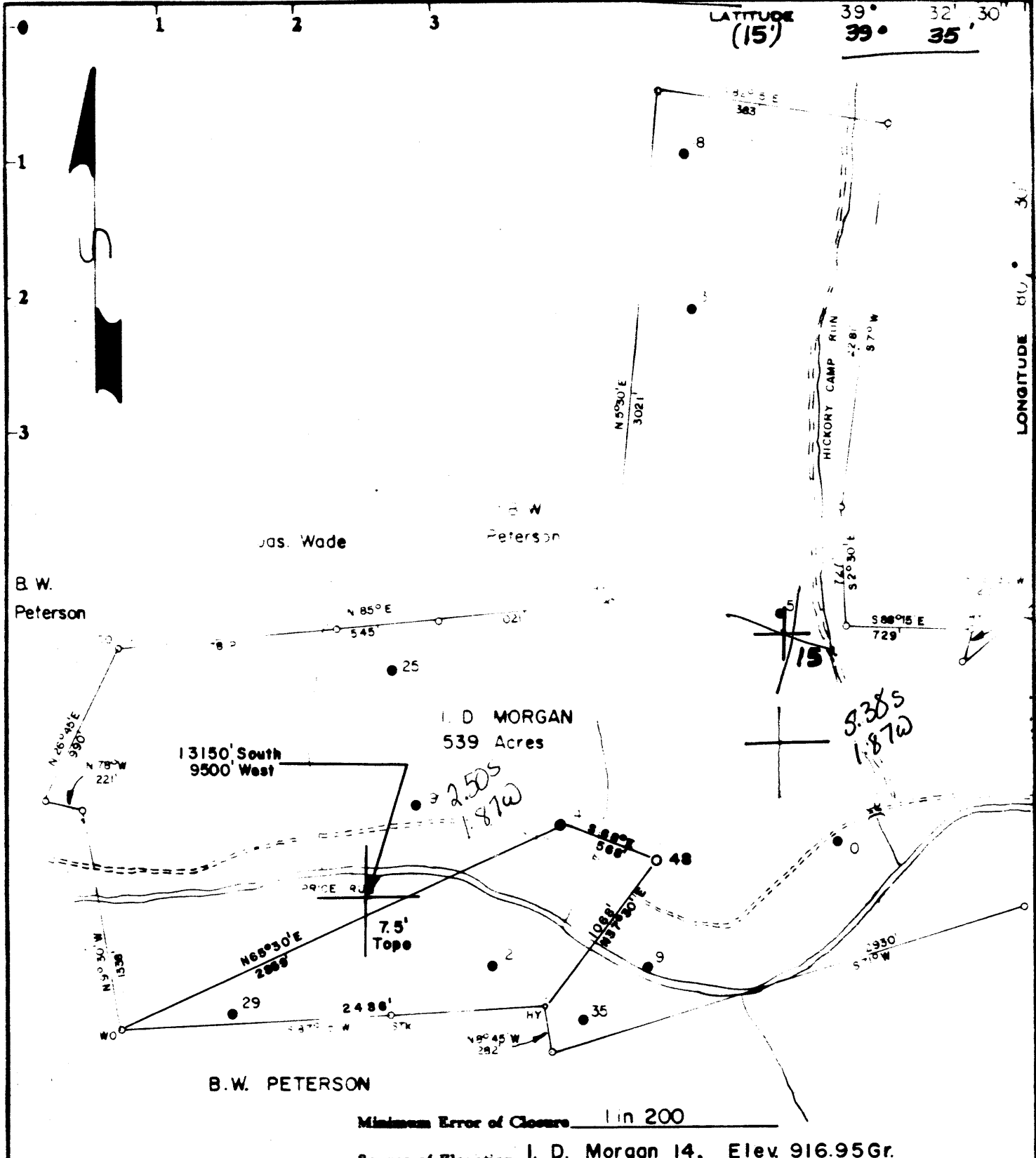


9/24/79

LATITUDE (15') 39° 32' 30" 39° 35'

LONGITUDE 80° 30'



Minimum Error of Closure 1 in 200

Source of Elevation I. D. Morgan 14, Elev. 916.95Gr.

- Fracture
- New Location
- Drill Deeper
- Abandonment

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.

Signed: *Curtis A. Lucas*

Map No. N59 Squares: N 4 S E 5 W

Company	PENNZOIL COMPANY		
Address	P. O. Box 1588, Parkersburg, W. Va. 26101		
Farm	I. D. Morgan		
Tract	Acres	Lease No.	
	539	15155-50	12117-50
Well (Farm) No.	48	Serial No.	
Elevation (Spirit Level)	952.74		
Quadrangle	BIG RUN 7.5' (LITTLETON 15') SE		
County	WETZEL	District	GRANT 4
Surveyor	CURTIS A. LUCAS		
Surveyor's Registration No.	275		
File No.	487	Drawing No.	
Date	Sept. 21, 1979 Scale 1" = 800'		

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

Exploratory Well

WELL LOCATION MAP

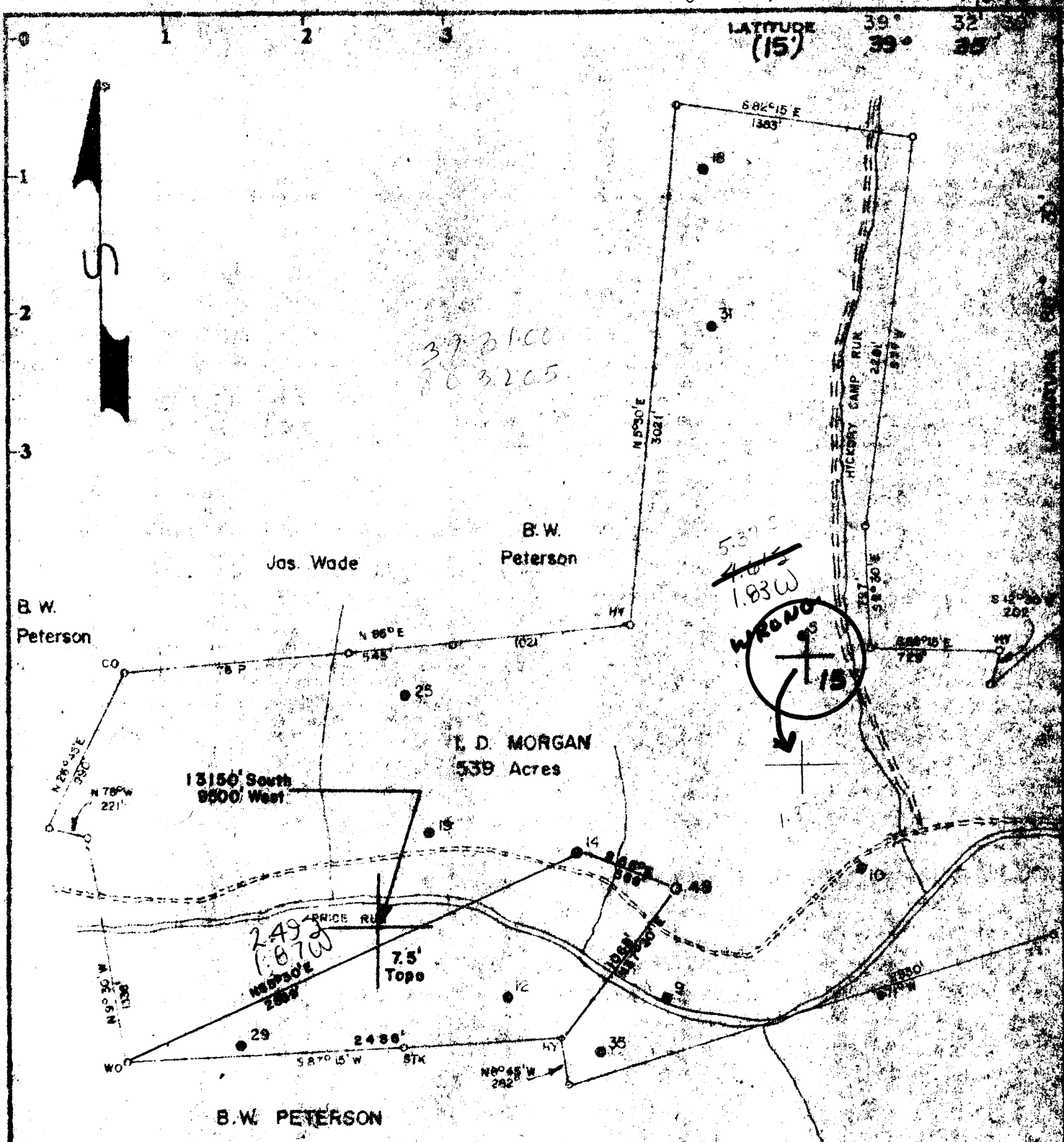
FILE NO. **47-103-1170-LI**

ACCORDING TO ORDER
 THIS EPISODE CANCELLED
 0 & G 2-2-87
 + 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.
 JAN 28 1985

- Denotes one inch spaces on border line of
 original tracing.

BRUNING 44 131 27198

9/21/79



Minimum Error of Closure 1 in 200
 Spores of Elevation I. D. Morgan 14, Elev 916.95Gr.

Fracture
 New Location
 Drill Deeper
 Abandonment

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 act and regulations of the oil and gas section of the mining laws of West Virginia.

Signed: *Curtis A. Lucas*

Map No. N59 Squares: N 4 5 W

Company PENNZOIL COMPANY
 Address P. O. Box 1500, Parkersburg, W. Va. 26101
 Farm BROWN & WITTENBERGER
 Tract I. D. Morgan Acres 539 Lease No. 15155-50
 Well (Farm) No. 46 Serial No. 12117-50
 Elevation (Spirit Level) 952.74 SE
 Quadrangle BIG RUN 7.5' (LITTLETON 15')
 County WETZEL District GRANT
 Surveyor CURTIS A. LUCAS
 Surveyor's Registration No. 275
 File No. 487 Drawing No.
 Date Sept. 21, 1979 Scale 1" = 800'

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

WELL LOCATION MAP
 FILE NO. 47-103-1170

+ Denotes location of well on United States Topographic Maps, scale 1 to 25000, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

OCT 12 1979

BRUNING 44-131 27198

7-0 SMITHFIELD 100

[08-79]

WELL OPERATOR: Pennzoil Company

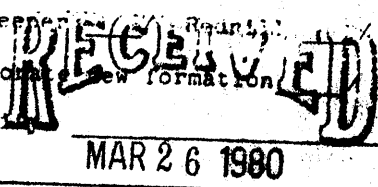
Well No. I. D. Morgan 48

Phone No. 47-103-1170

WELL TYPE: Oil Gas Liquid Injection Waste Disposal Core X
 (If "Gas", Production Underground storage Deep Shallow)
 LOCATION: Elevation: 952.74' Watershed: Hickory Camp Run
 District: Grant County: Wetzel Quadrangle: Big Run 7.5'

WELL OPERATOR Pennzoil Company
 Address P. O. Box 1588
Parkersburg WV 26101

DESIGNATED AGENT James A. Crews
 Address P. O. Box 1588
Parkersburg, WV 26101



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

PERMIT ISSUED ON October 2, 19 79

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19 _____)

OIL & GAS INSPECTOR FOR THIS WORK:
DEPT. OF MINES
Philip Tracy

Address Rt. 23
Alma, WV

GEOLOGICAL TARGET FORMATION: Gordon Depth 2943 feet
 Depth of completed well, 2940 feet Rotary X / Cable Tools
 Water strata depth: Fresh, _____ feet; salt, _____ feet.
 Coal seam depths: _____ Is coal being mined in the area? no
 Work was commenced November 11, 19 79, and completed November 21, 19 79

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								Minds	
Fresh water									
Coal	<u>8-5/8</u>					<u>840</u>	<u>840</u>	<u>340 sks</u>	Sizes
Intermediate									
Production	<u>4-1/2</u>					<u>2940</u>	<u>2940</u>	<u>300 sks</u>	Depths set
Tubing									
Liners									Perforations:
									Tap Bottom

OPEN FLOW DATA

Producing formation Exploratory Core Well Pay zone depth _____ feet
 Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
 Final open flow, _____ Mcf/d 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
 [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 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

[08-78]

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

WELL LOG

FORMATION	Color	Hard or Soft	44 Top Feet	Bottom Feet	Remarks Including indication of all fr and salt water, coal, oil and
Shale & Silt			0	85	
Sand & Silt			85	232	
Shale & Silt			232	442	
Sand & Silt			442	756	
Pittsburgh Coal			756	766	
Shale & Silt			766	1263	
Sand			1263	1281	
Shale			1281	1420	
Sand			1420	1482	
Shale & Silt			1482	1552	
Sand			1552	1600	
Silt & Shale			1600	1684	
Little Lime			1684	1730	
Pencil Cave			1730	1941	
Big Lime			1941	1956	
Loyalhanna			1956	1973	
Pocono Big Injun			1973	2044	
Pocono Shale			2044	2102	
Thirty Foot			2102	2196	
Shale			2196	2722	
Gordon Stray			2722	2802	
Gordon			2802	2827	
Shale			2827	2854	
4th			2854	2868	
Shale			2868	2904	
			2904	2913	
			2913	2940	
				2919	
Total Depth				2940	
PBD				2919	

(Attach separate sheets to complete as necessary)

Pennzoil Company

Well Operator

By Curtis A. Luman

xxxx Civil Engineering Dept.

NOTE: Regulation 2.0265, 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
SEP 24 1979

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE September 21, 1979

Surface Owner Brown and Wittkamper
Address c/o Charles C. Browne
Route 1, Box 206, Hinton, WV
Mineral Owner Joseph D. Morgan, Agt.
Address 812A E. Washington Ave., Escondido, Calif.
Coal Owner Consolidation Coal Company
Address P. O. Box 1314, Morgantown, WV 26505
Coal Operator _____
Address _____

Company Pennzoil Company
Address P. O. Box 1588, Parkersburg, WV 26101
Farm I. D. Morgan Acres 539
Location (waters) Hickory Camp Run
Well No. 48 Elevation 952.74'
District Grant County Wetzel
Quadrangle Big Run 7.5'

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 6-2-80

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

Robert L. [Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of 1893 for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated May 3, 1893 by Jacob Morgan, et al made to South Penn Oil Company and recorded on the _____ day of _____ 19____, in _____ County, Book 38 Page 520

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, PENNZOIL COMPANY
(Sign Name) Curtis A. Lucas
Well Operator Curtis A. Lucas,
Civil Eng. Dept.
P. O. Box 1588
Street
Parkersburg,
City or Town
West Virginia 26101
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

47-103-1170

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 Clint Hurt NAME Pennzoil Company
 ADDRESS _____ ADDRESS Parkersburg, WV 26101
 TELEPHONE _____ TELEPHONE 422-6565
 ESTIMATED DEPTH OF COMPLETED WELL: 2943' ROTARY _____ CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Gordon
 TYPE OF WELL: OIL _____ GAS _____ COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER Core

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	806'	806'	Cement to Surface
7			
5 1/2			
4 1/2	2943'	2943'	300 sks.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ 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

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-103-1170-LI

January 24 19 85
Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and (if required) construction and reclamation plan, subject to any modifications and conditions specified below.

Permit expires January 24, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <i>B</i>	Agent: ✓	Plat: <i>M.J.</i>	Casing: <i>M.J.</i>	Fee: <i>12296</i>
-------------------	-------------	----------------------	------------------------	----------------------

D. Rowland Street M.J.
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

OFFICE USE ONLY

This part of Form IV-3(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date	Follow-up inspection(s)	Date(s)
Application received			
Well work started		" "	
Total depth reached		" "	
Well Record received		" "	
Reclamation completed		" "	

OTHER INSPECTIONS

Reason: _____

Reason: _____