



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

DEC 15 1980

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 December 11, 1980

Surface Owner Paul Ingram et ux

Company Ferrell Prior

Address St. Mary's West Virginia

Address P.O. Box 1486, Parkersburg, W. Va.

Mineral Owner Paul Ingram et ux

Farm Ingram Acres 110.5

Address St. Mary's West Virginia

Location (waters) Cow Creek of Ohio River

Coal Owner N/A

Well No. Four Elevation 770

Address N/A

District Grant County Pleasants

Coal Operator N/A

Quadrangle Willow Island 7.5

Address N/A

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 8-19-81.

INSPECTOR
TO BE NOTIFIED Phillip Lee Tracy

ADDRESS Middlebourne, West Virginia

PHONE 758-4573

J. E. 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 August 7 1980 by Paul B. and Carroll Ingram made to Santa Fe Leasing Co. and recorded on the 18th day of August 1980, in Pleasants County, Book 157 Page 137

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, *Ferrell Prior*
(Sign Name) _____
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

P. O. Box 1486
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

47-073-1088

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 _____

Date NOVEMBER 26, 1980
Well No. FOUR (4)
API No. 47 073 1088

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS

Company Name FERRELL PRIOR Designated Agent SAME
Address P.O. Box 1486; PARKERSBURG WV Address _____
Telephone 304-485-7419 Telephone _____
Landowner PAUL INGRAM Soil Cons. District UPPER OHIO

Revegetation to be carried out by PRIOR OIL COMPANY (Agent)
This plan has been reviewed by Upper Ohio SCD. All corrections
and additions become a part of this plan. 12/10/80 (Date) Samuel R. Mason (SCD Agent)

Access Road _____ Location _____
Structure OPEN DRAINAGE (A)
Spacing _____
Page Ref. Manual 1:8
Structure _____ (B)
Spacing _____
Page Ref. Manual _____
Structure _____ (C)
Spacing _____
Page Ref. Manual _____

Structure DIVERSION
Material _____
Page Ref. Manual 1:9
Structure _____
Material _____
Page Ref. Manual _____
Structure _____
Material _____
Page Ref. Manual _____

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OIL & GAS DIVISION
DEPT. OF MINES

All structures should be inspected regularly and repaired if necessary.
All commercial timber is to be cut and stacked. All brush and small timber
to be cut and removed from site before dirt work begins.

Revegetation

Treatment Area I

Lime _____ Tons/acre
or correct to pH 6.5
Fertilizer 600 lbs/acre
(10-20-20 or equivalent)
Mulch HAY (2) Tons/Acre
Seed* CROWN VETCH 15 lbs/acre
TALL FESCUE 45 lbs/acre

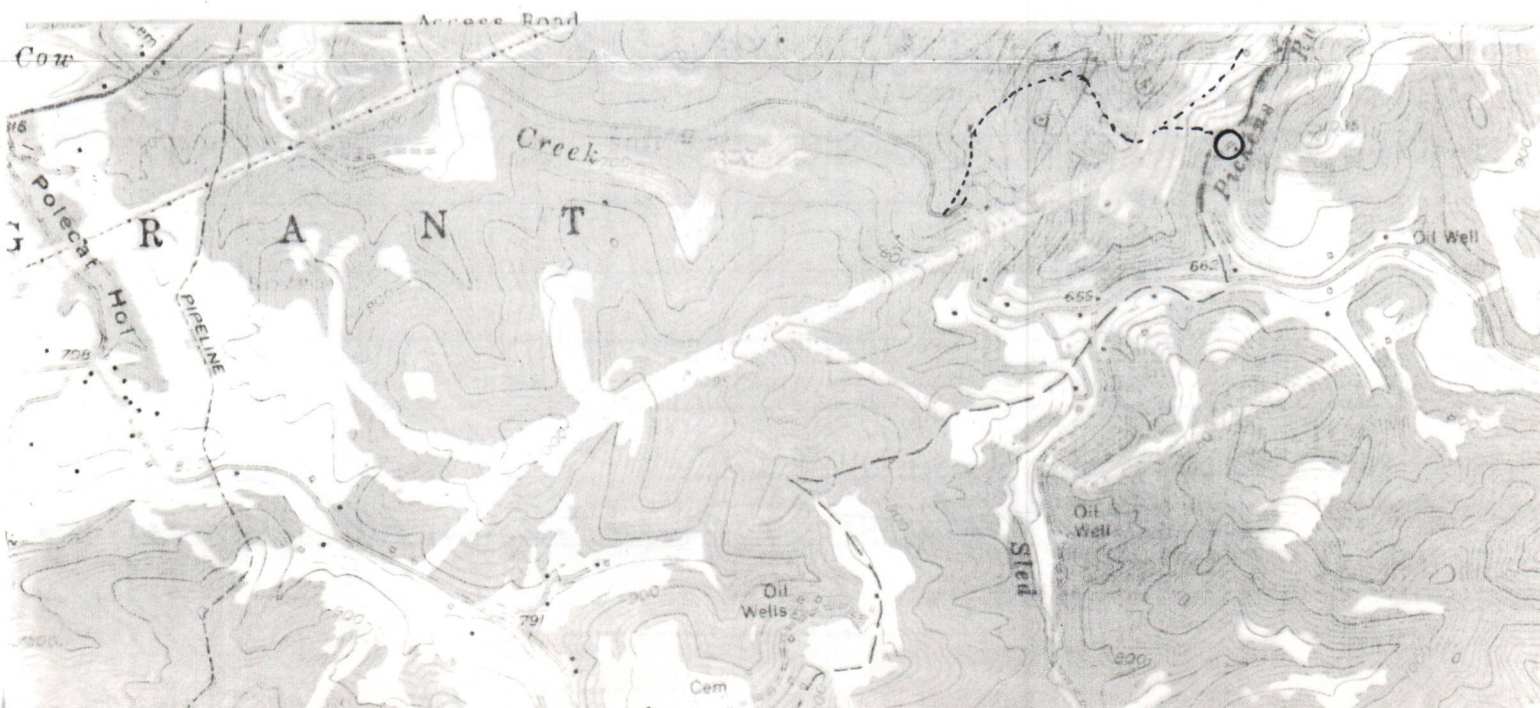
Treatment Area II

Lime _____ Tons/Acre
or correct to pH _____
Fertilizer _____ lbs/acre
(10-20-20 or equivalent)
Mulch _____ Tons/Acre
Seed* _____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper
bacterium. Inoculate with 3X recommended amount.

Attach or photocopy section of involved Topographic map. Quadrangle WILLOW ISLAND 75'

Legend:  Well Site



Well Site Plan

- Legend:
- Property Boundry
 - Road
 - Existing Fence
 - Planned Fence
 - Stream
 - Open Ditch

- Diverter
- Spring
- Wet Spot
- Building
- Drain Pipe
- Waterway

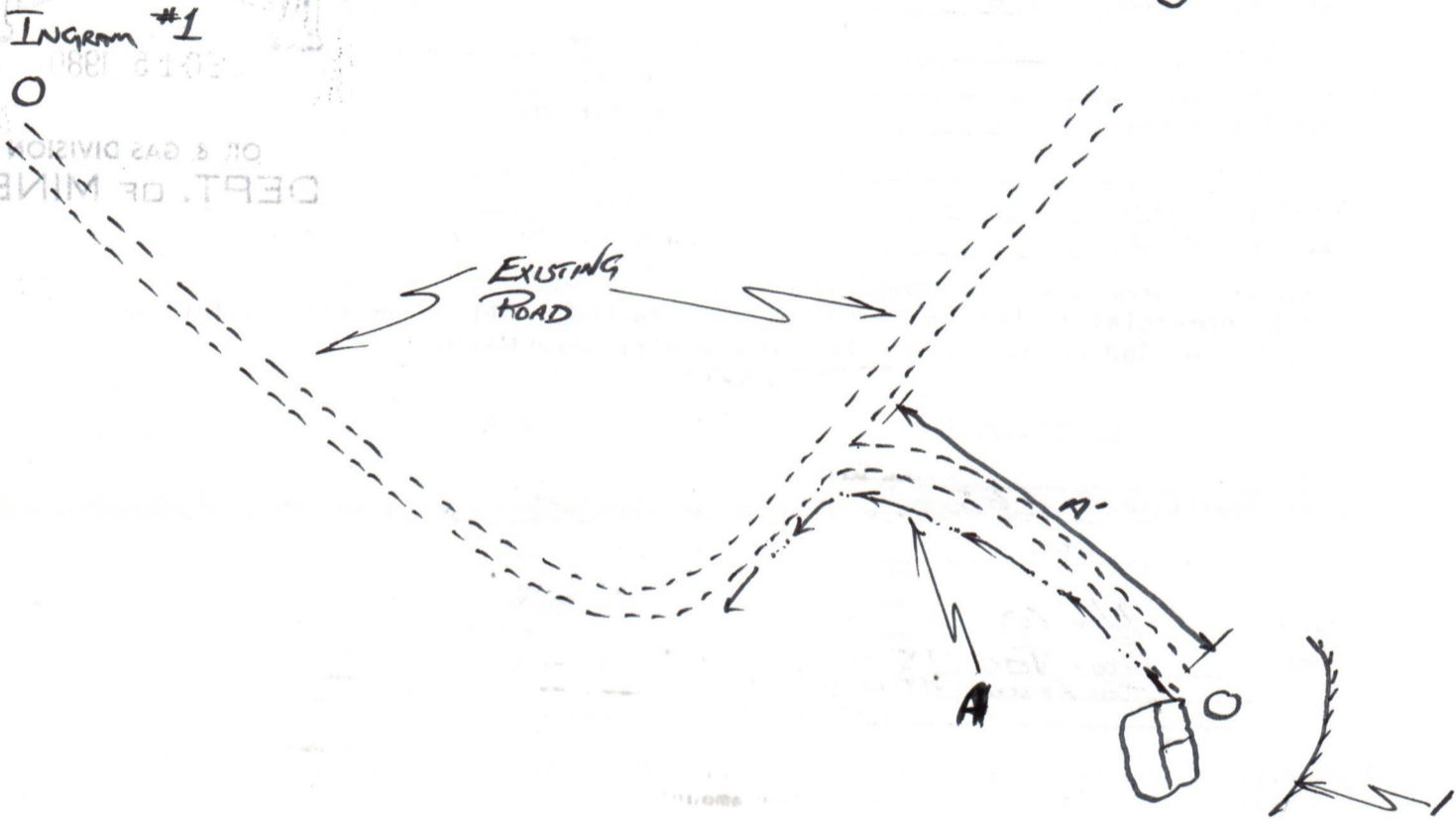
Sketch to include well location, existing access road, roads to be constructed, drilling pits and necessary structures numbered or lettered to correspond with first part of this plan. Include all natural drainage.

FINAL APPROVEMENT BY INSPECTOR

Inspector:

INGRAM #3

RECEIVED
 INGRAM #1
 1981 2102
 DEPT. OF MINES
 OR & GAS DIVISION



SLOPE of A' 10% to 15%

Paul C. Kistner

P.O. Box 1466 Parkersburg, WV
Address

304-265-7419
Phone Number

RECEIVED

OCT 31 1984



IV-35 (Rev 8-81)

OIL & GAS DIVISION DEPT. OF MINES

RECEIVED OCT 4 1984

OIL & GAS DIVISION DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date October, 1984 Operator's Well No. Four (4) Farm Ingram API No. 47-073-1088

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 / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 770 Watershed Cow Creek of Ohio River System District: Grant County Pleasants Quadrangle Willow Island 7.5

COMPANY Ferrell Prior ADDRESS 4818 Rosemar Road, Parkersburg, W. Va. DESIGNATED AGENT Ferrell Prior ADDRESS 4818 Rosemar Road, Parkersburg, W. Va. SURFACE OWNER Paul Ingram et ux ADDRESS St. Marys, W. Va. MINERAL RIGHTS OWNER Paul Ingram et ux ADDRESS St. Marys, W. Va. OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther ADDRESS Middlebourne, W. Va. PERMIT ISSUED 12-15-1980 DRILLING COMMENCED 2-25-1981 DRILLING COMPLETED 3-2-1981

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 9 5/8, 8 5/8 (250), 7, 5 1/2, 4 1/2 (3670), 3, 2, and 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 4200 feet Depth of completed well 3708 feet Rotary x / Cable Tools Water strata depth: Fresh 60 feet; Salt None feet Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA Producing formation Devonian Shale Pay zone depth Devonian shale feet Gas: Initial open flow show Mcf/d Oil: Initial open flow show Bbl/d Final open flow 900,000 Mcf/d Final open flow 7 Bbl/d Time of open flow between initial and final tests 4 hours Static rock pressure 1050 psig (surface measurement) after 24 hours shut in (If applicable due to multiple completion--)

(Continue on reverse side)

PLEAS 1088

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

Dowell Fracturing
August 13, 1981

RECEIVED
 DIVISION OF OIL AND GAS
 DEPT. OF MINES

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS		
					Including indication of all fresh and salt water, coal, oil and gas		
No Record			0	250			
Shale			250	308			
Lime			308	390			
Shale			390	400			
Lime			400	409			
Shale			409	412			
Lime			412	420			
Shale			420	422			
Lime			422	470			
Sandy Shale			470	535	2098	2118	Gordon
Lime			535	558	2118	3410	Shale
Shale			558	585	3410	3470	Marcellus Sand
Lime			585	600	3470	3708	Shale
Shale			600	618	Total Depth 3708		
Sand			618	652			
Shale			652	672			
Sand			672	686			
Shale			686	700			
Sand			700	722			
Shale			722	802			
Sand			802	840			
Lime			840	860			
Shale			860	930			
Sand			930	1000			
Shale			1000	1012			
Sand			1012	1072			
Shale			1072	1112			
Big Injun Sand			1112	1148			
Shale			1148	1170			
Squaw Sand			1170	1198			
Shale			1198	1594			
Coffee Shale			1594	1604			
Berea Sand			1604	1608			
Shale			1608	1720			
Gantz Sand			1720	1740			
Shale			1740	2070			
Gordon Stray Sand			2070	2090			
Shale			2090	2098			

(Attach separate sheets as necessary)

Well Operator

By: _____

Date: _____

Stephen J. Jordan
10/2/81

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."

[08-78] **RECEIVED**

OCT 31 1984

Operator's Well No. Four (4)

API Well No. 47 - 073 - 1088
State County Permit

OIL & GAS DIVISION
DEPT. OF MINES

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

**WELL OPERATOR'S REPORT
OF
INITIAL GAS-OIL RATIO TEST**

WELL OPERATOR Ferrell Prior
Address 4818 Rosemar Road
Parkersburg, W. Va. 26101

DESIGNATED AGENT Ferrell Prior
Address 4818 Rosemar Road
Parkersburg, W. Va 26101

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 4200 feet
Perforation Interval 1112 to 3670 feet

GUIDELINES FOR TESTING:

- 1- A minimum of gas vented or flared
- 2- A 24 hour preflow into pipelines or tanks
- 3- Uniform producing rate during the 24 hour test per test period
- 4- Measurement standards as for Form IV-39, "Report of Annual Production" (see Regulation 21.01)
- 5- Separate Form IV-36 for each producing formation in a multiple completion

TEST DATA				
START OF TEST-DATE 8-15-81	TIME 7:00AM	END OF TEST-DATE 8:16 AM	TIME 7:00	DURATION OF TEST 24 hours
TUBING PRESSURE N/A	CASING PRESSURE N/A	SEPARATOR PRESSURE N/A	SEPARATOR TEMPERATURE N/A	
OIL PRODUCTION DURING TEST 7 bbls.	GAS PRODUCTION DURING TEST 900,000 Mcf		WATER PRODUCTION DURING TEST & SALINITY None bbls. ppm.	
OIL GRAVITY 49	PRODUCING METHOD (Flowing, pumping, gas lift, etc.) *API Flowing			

GAS PRODUCTION		
MEASUREMENT METHOD FLANGE TAP <input type="checkbox"/> PIPE TAP <input type="checkbox"/> L-10 <input type="checkbox"/>	POSITIVE CHOKE CRITICAL FLOW PROVER <input checked="" type="checkbox"/>	
ORIFICE DIAMETER 1/8"	PIPE DIAMETER (INSIDE DIAM.) N/A	NOMINAL CHOKE SIZE - IN.
DIFFERENTIAL PRESSURE RANGE	MAX. STATIC PRESSURE RANGE	PROVER & ORIFICE DIAM. - IN.
DIFFERENTIAL	STATIC	GAS GRAVITY (Air-1.0) MEASURED ESTIMATED .68
GAS GRAVITY (Air-1.0) 68	FLOWING TEMPERATURE 60	GAS TEMPERATURE °F
24 HOUR COEFFICIENT	24 HOUR COEFFICIENT	
PRESSURE - psia		

TEST RESULTS			
DAILY OIL 7 bbls.	DAILY WATER None bbls.	DAILY GAS 900,000 Mcf.	GAS-OIL RATIO 12,857 SCF/STB

Ferrell Prior
Well Operator

By: Ferrell Prior

Its: Operator

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
STATUS INSPECTION REQUEST
INSPECTOR'S COMPLIANCE REPORT

RECEIVED
SEP 17 1984
OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 073-1088 County. Pleasants
Company. Ferrell Prior Farm. Paul Ingram
Inspector. Robert Lowther Well No. 4
Date. August 28, 1984 Issued. 12-19-80

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to starting Work	___	___
25.04	Prepared before Drilling to prevent Waste	___	___
25.03	High-Pressure Drilling	___	___
16.01	Required Permits at Wellsite	___	___
15.03	Adequate Fresh Water Casing	✓	___
15.02	Adequate Coal Casing	___	___
15.01	Adequate Production Casing	✓	___
15.04	Adequate Cement Strength	___	___
23.02	Maintained Access Roads	✓	___
25.01	Necessary Equipment to prevent Waste	✓	___
23.03	Reclaimed Drilling Site	✓	___
23.04	Reclaimed Drilling Pits	✓	___
23.05	No Surface or Underground Pollution	✓	___
7.03	Identification Markings	✓	___

COMMENTS: Please issue final on cancellation if location is okay. Permit
expired on 8-19-81. This well was drilled, location
Has been Re claimed. ok to Release

I have inspected the above well and (Have/Have Not) found it to be in compliance with all of the rules and regulations of the Office of Oil and Gas-Department of Mines of the State of West Virginia.

SIGNED: R. A. Lowther
DATE: Sept 13, 1984



State of West Virginia
 Department of Mines
 Oil and Gas Division
 Charleston 25305

WALTER N. MILLER
 DIRECTOR

THEODORE M. STREIT
 ADMINISTRATOR

January 7, 1985

Ferrell Prior
 P. O. Box 1486
 Parkersburg, WV 26101

In Re: PERMIT NO: 47-073-1088
 FARM: Paul Ingram
 WELL NO: 4
 DISTRICT: Grant
 COUNTY: Pleasants
 ISSUED: 12-19-80

Gentlemen:

The FINAL INSPECTION REPORT for the above captioned well has been received in this office. Only the column checked below applies:

 The well designated by the above permit number has been released under your Blanket Bond.

 Please return the enclosed cancelled single bond which covered the well designated by the above permit number to the surety company who executed said bond in your behalf, in order that they may give you credit on their records.

XX Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above captioned well will remain under bond coverage for life of the well.

Very truly yours,

Theodore M. Streit, Administrator
 Office of Oil & Gas - Dept. Mines

5900' W

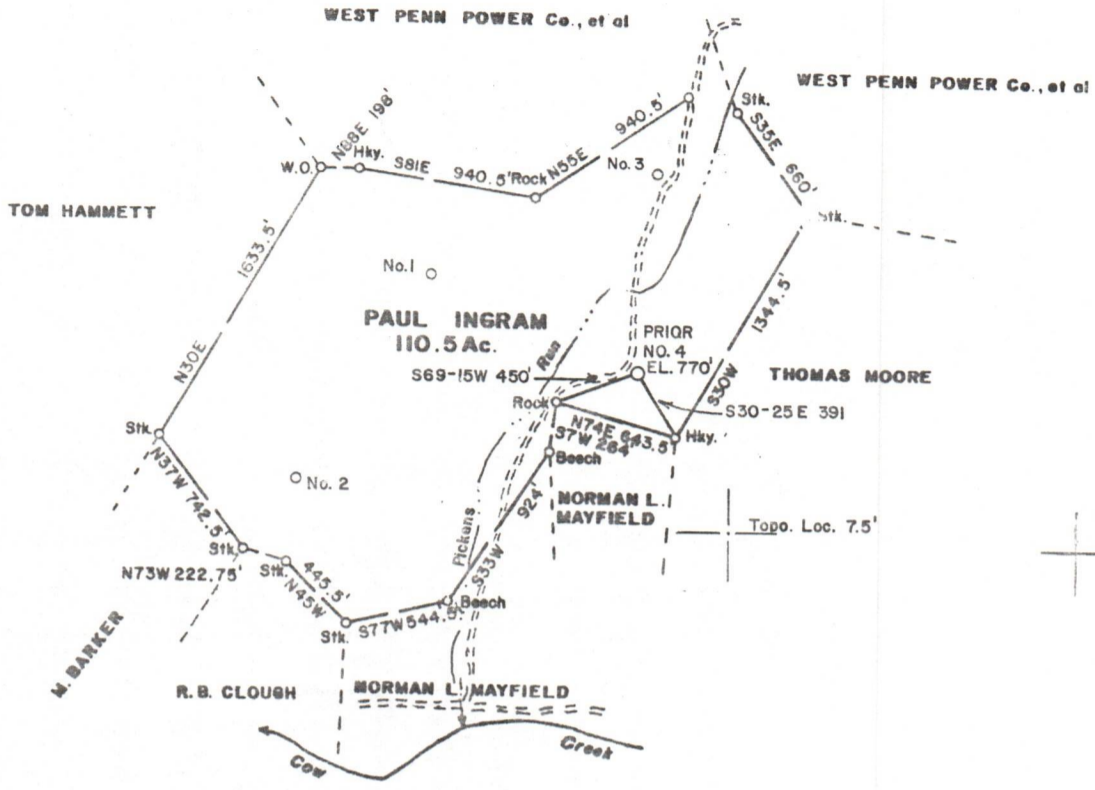
LATITUDE = 39-22-30

39° 25'

LONGITUDE = 81-15-00

9200' S

NORTH



FILE NO. _____
 DRAWING NO. _____
 SCALE 1 inch = 1000 feet
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION Junction Rds. 2400' SW of Location Elev. = 655'

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.

Mark C. Echard
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490



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



DATE NOVEMBER 7, 1980
 OPERATOR'S WELL NO. FOUR
 API WELL NO. 47-073-1088
 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 COW CREEK of OHIO RIVER SYSTEM
 DISTRICT GRANT COUNTY PLEASANTS
 QUADRANGLE WILLOW ISLAND 7.5'
 SURFACE OWNER PAUL INGRAM, et ux ACREAGE 110.5
 OIL & GAS ROYALTY OWNER PAUL INGRAM, et ux LEASE ACREAGE 110.5
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OF
 STIMULATE _____ PLUG OFF CL. FORMATION _____ PERFORATE NEW
 FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 4200'
 WELL OPERATOR MR. FERRELL PRIOR DESIGNATED AGENT MR. FERRELL PRIOR
 ADDRESS BOX 1486 ADDRESS BOX 1486
 PARKERSBURG, W.V. 26101 PARKERSBURG, W.V. 26101