

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION NGS B.M. "G-118"
 Elev. = 579.851

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) Ronald L. [Signature]
 R.P.E. _____ L.L.S. 150

PLACE SEAL HERE

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



DATE August 13, 19 83
 OPERATOR'S WELL NO. 1917
 API WELL NO. _____
47-053-0310-REV
 STATE COUNTY PERMIT

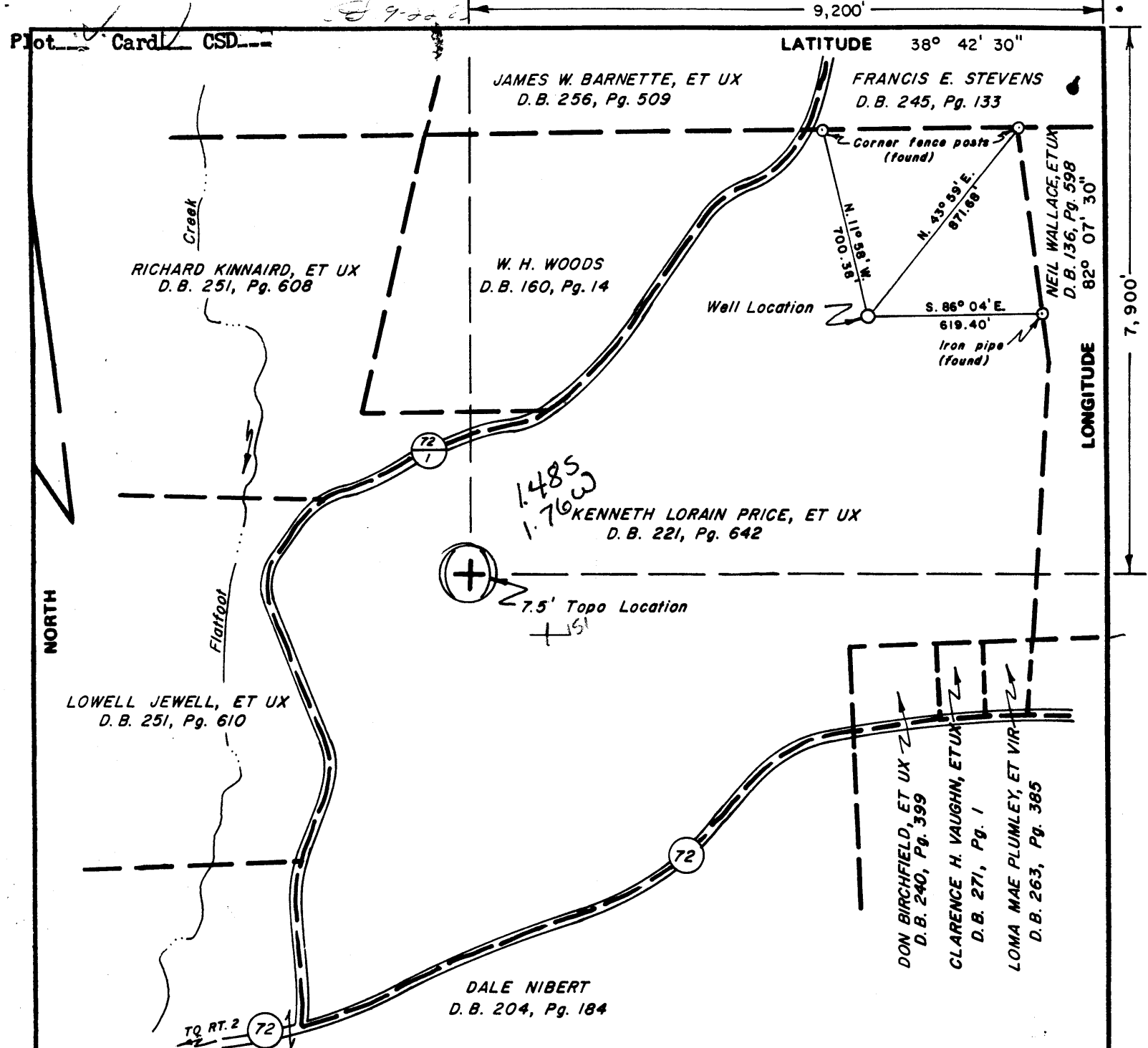
STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 797.35 WATER SHED Flatfoot Creek
 DISTRICT Clendenia COUNTY Mason
 QUADRANGLE Apples Grove Glenwood 15' NC
 SURFACE OWNER Kenneth Lorain Price, et ux ACREAGE 124.85
 OIL & GAS ROYALTY OWNER Kenneth Lorain Price, et ux LEASE ACREAGE 124.85
 LEASE NO. _____
 PROPOSED WORK: DRILL X 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 Devonian Shale ESTIMATED DEPTH 3,500' 5300'
 WELL OPERATOR Union Drilling, Inc. DESIGNATED AGENT Joseph C. Vanzant, Jr.
 ADDRESS Drawer 40 Buckhannon, WV 26201 ADDRESS Drawer 40 Buckhannon, WV 26201

NOV 07 1983

7222 Well 1917 36' (unclear)

MAS. 0310-REV



FILE NO. _____
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 Elev. = 579.851

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) Ronald L. Smith
 R.P.E. _____ L.L.S. 150

PLACE SEAL HERE

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



DATE August 13, 1983
 OPERATOR'S WELL NO. 1917
 API WELL NO. _____
 STATE COUNTY PERMIT 47-053-0310

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 797.35 WATER SHED Flatfoot Creek
 DISTRICT Clendenin COUNTY Mason
 QUADRANGLE Apple Grove Glenwood 15' NC
 SURFACE OWNER Kenneth Lorain Price, et ux ACREAGE 124.85
 OIL & GAS ROYALTY OWNER Kenneth Lorain Price, et ux LEASE ACREAGE 124.85
 LEASE NO. _____
 PROPOSED WORK: DRILL X 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 Devonian Shale ESTIMATED DEPTH 3,500'
 WELL OPERATOR Union Drilling, Inc. DESIGNATED AGENT Joseph C. Vanzant, Jr.
 ADDRESS Drawer 40 ADDRESS Drawer 40
Buckhannon, WV 26201 Buckhannon, WV 26201

OCT 3 1983

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

On 11/30/83 Dowell Foam Fractured the Devonian Shale (2590/06, 2896/2988, 3022/3220) ^{Huron}
with 60,000# sand, 1500 gallon 15% HCL, 1,150,000 SCF Nitrogen and 299 BBL Water.

2590-06
2896-2988
3022-3220

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand and Shale			0	1362	Water at 1140' 1/2" stream
Big Lime			1362	1450	Water at 1300' 1/2" stream
Big Injun			1450	1616	Water at 1616' 1" stream
Sand and Shale			1616	2028	Water at 2035' 1 1/2" stream
Berea			2028	2052	2052
Top of Devonian Shale			2052		
Bottom of Devonian Shale				3548	
Onondaga (Big Lime of Ohio)			3548	4716	
Tuscarora (Clinton)			4716	4743	
Sand and Shale <u>Junjata</u>			4743	TD 4906	show of gas at TD 2/10 - 1" water
<p>from GR log all 200' up Dowell 4150 - 4185 Rock 4111 4290</p> <p>Huron 2890 - 32256 J 3700 A 3000-3400 R 3945 - 3220</p> <p>2052 1496</p> <p>3548 2052 1496</p> <p>2052 1496</p>					

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By: Joseph C. Pettey

Date: 12/19/83 Joseph C. Pettey, Vice President of Prod.

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 ..., encountered in the drilling of a well."



1) Date: October 17, 1983
 2) Operator's Well No. 1 - 1917
 3) API Well No. 47 - 053 - 0310 - Rev
 State County Permit

To revise application from shallow well to deep well

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

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production / Underground storage Deep Shallow)
- 5) LOCATION: Elevation: 797.35 Watershed: Flatfoot Creek
 District: Clendenin County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc.
 Address P. O. Drawer 40
Buckhammon, WV 26201
- 7) DESIGNATED AGENT Joseph C. Vanzant
 Address P. O. Drawer 40
Buckhammon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Jerry Tephabock
 Address Route 1, Box 101-A
Ripley, WV 25271
- 9) DRILLING CONTRACTOR:
 Name Union Drilling, Inc.
 Address P. O. Drawer 40
Buckhammon, WV 26201
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Clinton
- 12) Estimated depth of completed well, 5,000 feet
 13) Approximate trata depths: Fresh, ? feet; salt, ? feet.
 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes

RECEIVED
OCT 20 1983

OIL & GAS DIVISION
DEPT. OF MINE

15) 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	11-3/4		36#	X		700	700	to surface	Kinds
Fresh water									Sizes
Coal									Depths set
Intermediate	8-5/8		20#	X		2000	2000	350 sks.	Perforations: Top Bottom
Production	4-1/2		110.5#	X		5000	5000	500 sks.	
Tubing									
Liners									

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-053-0310-Rev Date October 27, 19 83

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 reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires October 27, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

ANKET BOND	Bond:	Agent: <u>[Signature]</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>NF</u>
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[Signature]
Administrator, Office of Oil and Gas

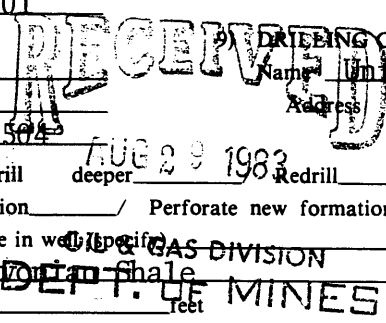
NOTE: Keep one copy of this permit posted at the drilling location.



1) Date: August 26, 19 83
 2) Operator's Well No. 1 - 1917
 3) API Well No. 47 - 053 - 0310
 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 797.35 Watershed: Flatfoot Creek
 District: Clendenin County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc. 7) DESIGNATED AGENT Joseph C. Vanzant, Jr.
 Address P. O. Drawer 40 Address P. O. Drawer 40
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED DRILLING CONTRACTOR:
 Name Kenneth Butcher 736-4885 Name Union Drilling, Inc.
 Address RFD #1 Address P. O. Drawer 40
Barboursville, WV 25504 Buckhannon, WV 26201
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well specifications _____
- 11) GEOLOGICAL TARGET FORMATION, Defton Shale
- 12) Estimated depth of completed well, 3500 feet
 13) Approximate strata depths: Fresh, ? feet; salt, ? feet.
 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes / No /



15) 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	9 5/8		36#	X		300	300	to surface	Kinds	
Fresh water										
Coal									Sizes	
Intermediate	7		20#	X		2250	2250	400 sks.		
Production	4 1/2		10.5#	X			3500	350 sks.	Depths set	
Tubing										
Liners									Perforations: Top Bottom	

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-053-0309 Date September 26, 1983

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 reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires September 26, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>B</u>	Agent: <u>[Signature]</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>008380</u>
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[Signature]
 Administrator, Office of Oil and Gas

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