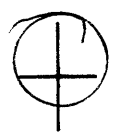
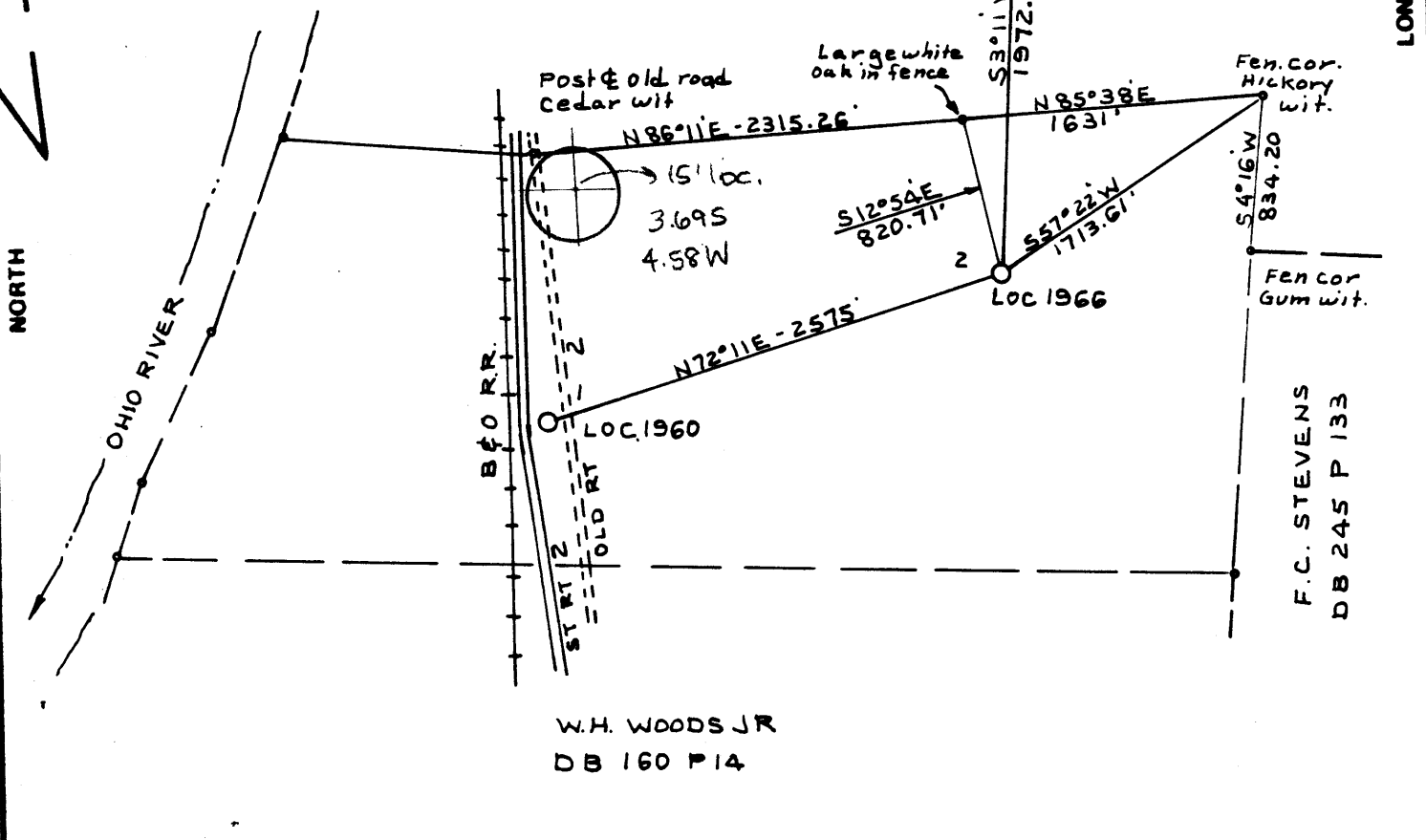


0.815
2.320



DALE NIBERT



FILE NO. BK 81 P 16
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION USGS BM E-118
EL 558.00'

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) C. J. Valley Jr.
R.P.E. C. J. Valley Jr.

PLACE SEAL HERE

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



DATE NOV 25, 1983
OPERATOR'S WELL NO. 1966 (2)
API WELL NO. _____
47-053-0325
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 X
LOCATION: ELEVATION 840.02 WATERSHED OHIO RIVER
DISTRICT CLENDENIN COUNTY MASON
QUADRANGLE APPLE GROVE 7.5' Glenwood 15' DC
SURFACE OWNER W.H. WOODS JR ACREAGE 279
OIL & GAS ROYALTY OWNER W.H. WOODS JR LEASE ACREAGE 504
LEASE NO. C-2-585
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 3000
WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH VANZANT
ADDRESS PO DRAWER 40 ADDRESS PO DRAWER 40
BUCKHANNON WVA 26201 BUCKHANNON WVA, 26201

JAN 3 1984

IV-35
(Rev 8-81)

RECEIVED
MAR 15 1984



OIL & GAS DIVISION *State of West Virginia*
DEPT. OF MINES *Department of Mines*
Oil and Gas Division

Date March 9, 1984
Operator's
Well No. 2 - 1966
Farm William Woods, Jr. #2
API No. 47 - 053 - 0325

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

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

LOCATION: Elevation: 840' Watershed Ohio River
District: Clendenin County Mason Quadrangle Apple Grove

COMPANY UNION DRILLING, INC.
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201
DESIGNATED AGENT Joseph C. Vanzant, Jr.
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201
SURFACE OWNER William Woods, Jr.
ADDRESS Gallipolis Ferry, WV 25515
MINERAL RIGHTS OWNER Same
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK _____

Jerry Tephabock ADDRESS Rt #1, Box 101-A, Ripley WV 25271
PERMIT ISSUED 12/29/83
DRILLING COMMENCED 2/26/84
DRILLING COMPLETED 3/2/84

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	23'		
9 5/8	1024.25'		391 cf
8 5/8			
7	2126.15'	725.10'	58 cf
5 1/2			
4 1/2	3359.55'		147 cf
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Lower Huron Depth 3000' feet
Depth of completed well 3404' feet Rotary x / Cable Tools _____
Water strata depth: Fresh 201'; 320' feet; Salt _____ feet
Coal seam depths: 320/330 Is coal being mined in the area? no

OPEN FLOW DATA
Producing formation Huron Pay zone depth 3350' feet
Gas: Initial open flow show Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 189 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 6 days

Static rock pressure not taken 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 Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours

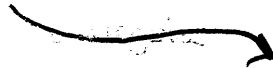
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

(Continue on reverse side)

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

Nowsco - 1 stage Foam Frac - 3/7/84

2901/3350 - Huron & Angola Shale - 60,000# 20/40 sand, 140 Bbls water and 847,200 scf nitrogen



2901 3230 - H
3230 - 3230 - J
3330 - 3250 - A
WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	320	1/2" stream water @201,320'
Coal			320	330	
Red Rock			330	805	
Sand & Shale			805	1201	
Berea		(P6)	2054	2070 ✓	
Upper Huron			2900	2914	
Lower Huron			2952	3230	
Angola Shale			3232	3352	
				3404	T.D. gas show

Formation of 2901
H - 2900 - 3230 (230)
J 3230 - 3230 (100)
A 3330 -
Stop

(Attach separate sheets as necessary)

UNION DRILLING, INC.

Well Operator

By: Joseph C. Pettey

Date: Joseph C. Pettey, Vice President of Production

3/13/84

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: December 8, 1983
 2) Operator's Well No. 1966 (2)
 3) API Well No. 47 -053 - 0325
 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: 840.02' Watershed: Ohio River
 District: Clendenin County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc. 7) DESIGNATED AGENT Joseph C. Vanzant, Jr.
 Address Post Office Drawer 40 Address Post Office Drawer 40
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Jerry Tephabock Name Union Drilling, Inc.
 Address Route 1, Box 101-A Address Post Office Drawer 40
Ripley, WV 25271 Buckhannon, 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, Devonian State LOWER HURON
- 12) Estimated depth of completed well, 3000 feet
- 13) Approximate trata 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	11-3/4		32		X	30'	30'		Kinds
Fresh water									
Coal									Sizes
Intermediate	8-5/8		23		X	1000'	1000'	210 sacks	PT. by rule 1505
Production	X 4 1/2	J	10 1/2	X		3000'	3000'	640 sacks	or as req. by rule 1501
Tubing									Perforations
Liners									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-053-0325

Date December 29, 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 December 29, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
BLANKET BOND	lp	ML	ML	011 594

Margaret J. Hase
 Administrator, Office of Oil and Gas

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