



FILE NO. BK82 P 70  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION USGS BM  
Jck RT 2 & LS RT 37  
EL 583

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. S. Salley Jr.  
 R.P.E. \_\_\_\_\_ U.S. 92

PLACE SEAL HERE

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



DATE FEB 27, 1984  
 OPERATOR'S WELL NO. 2028-1  
 API WELL NO. \_\_\_\_\_  
47 - 053 - 0347  
 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 682.49' WATER SHED STONE COAL RUN  
 DISTRICT HANNAN 6 COUNTY MASON  
 QUADRANGLE APPLE GROVE 216 Glennwood 15' C 5  
 SURFACE OWNER ELMER F. LOWRY ACREAGE 410  
 OIL & GAS ROYALTY OWNER ELMER F. LOWRY LEASE ACREAGE 410  
 LEASE NO. C-2-602  
 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 3500'  
 WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH VANZANT  
 ADDRESS P.O. DRAWER 40 ADDRESS P.O. DRAWER 40  
BUCKHANNON WV 26201 BUCKHANNON WV 26201

APR 9 1984



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

Nowsco - 1 stage Foam Frac - 9/29/84

40 perforations - Superior Wireline

2948/84 - Lower Huron - 60,000# sand, 155 Bbls water and 806,160 scf nitrogen

3044/3224 Huron

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	171	
Clay			171	176	
Sand & Shale			176	230	
Clay			230	236	
Sand & Shale			236	386	
Coal			386	389	1/2" stream water @390'
Sand & Shale			389	1390	1" stream water @415'
Big Lime			1390	1492	1" stream salt water @741'
Injun			1492	1630	3" stream salt water @1290'
Berea			2002	2038	3" stream salt water @1630'
Top of Devonian Shale			2038		
Upper Huron Shale			2891	2900	
Lower Huron Shale			2944	3226	
Angola Shale			3226	3407	
				3415'	T.D. odor gas

from GR log  
65  
27 4  
834' Up Dev.

(Attach separate sheets as necessary)

Union Drilling, Inc.

Well Operator

By:

*Joseph C. Pettey*

Date:

Joseph C. Pettey, Vice President of Production

10/8/84

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: March 16, 1984  
 2) Operator's Well No. 2028  
 3) API Well No. 47 053 - 0347  
 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: 682.49 Watershed: Stonecoal Run  
 District: Hannan County: Mason Quadrangle: Apple Grove
- 6) WELL OPERATOR Union Drilling, Inc.  
 Address Post Office Drawer 40  
Buckhannon, WV 26201
- 7) DESIGNATED AGENT Joseph C. Vanzant, Jr.  
 Address Post Office Drawer 40  
Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Jerry Tephahock  
 Address Route 1, Box 101-A  
Ripley, WV XXX 25271
- 9) DRILLING CONTRACTOR:  
 Name Union Drilling, Inc.  
 Address Post Office Drawer 40  
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 Shale
- 12) Estimated depth of completed well, 3500 feet  
 13) Approximate trata depths: Fresh, ? feet; salt, ? feet.  
 14) Approximate coal seam depths: ? Is coal being mined in the area? Yes  No

RECEIVED  
 MAR 16 1984

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' 882'	1000' 882'	to surface	by rule 15.05
Production	4-1/2	J	10 1/2	X		3500'	3500'	as required	Depths set
Tubing									by rule 15.01
Liners									Perforations:
									Top Bottom

OIL & GAS DIVISION  
 DEPT. OF MINES

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-053-0347

April 6, 19 84  
 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 reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires April 6, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <u>LD</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>015-377</u>
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*[Signature]*  
 Administrator, Office of Oil and Gas

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