

Latitude 38° 40'

9820' SOUTH

5510' WEST

30" W.O. WEST 100' EAST 100' 4" CEDAR

1.855
1.03W

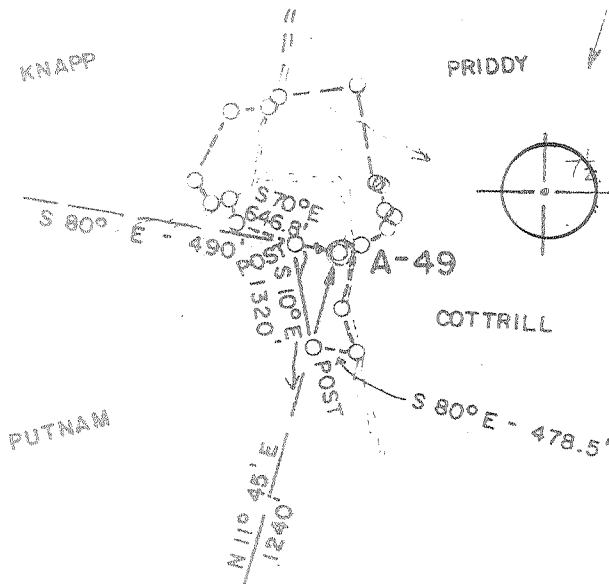


Longitude 81° 50'

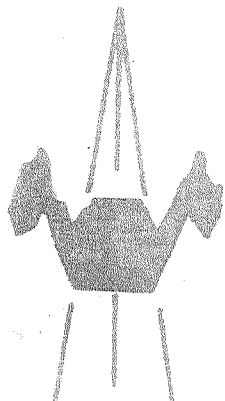
81.75 ACRES

SURFACE: CLARENCE WINE

MINERALS: J. L. MCLEAN



38 38 15
81 51 10



ACCURACY: 1' / 200'

Source of Elevation NOB ON BEE RIDGE (952')

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.

- New Location
- Drill Deeper
- Abandonment
- Fracture
- Redrill

Chet Waterman

Company APPALACHIAN EXPL. & DEV., INC.
 Address CHARLESTON, WV
 Farm J. L. MCLEAN
 Tract _____ Acres 81.75 Lease No. _____
 Well (Farm) No. A-49 Serial No. _____
 Elevation (Spirit Level) 960' WINFIELD 15'
 Quadrangle ELMWOOD (75' SERIES) C
 County PUTNAM District UNION
 Engineer CHET WATERMAN
 Engineer's Registration No. 3788
 Map No. 79-80 Drawing No. _____
 Date 2/9/79 Scale 1" = 2000'

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

WELL LOCATION MAP
FILE NO. 079-0995

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

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

4905 ORISKANY

DEEP WELL

6-6

MIDWAY EXTRA

SEP 9 1980

278

RECEIVED
JUN 1981

WELL TYPE: Oil: / Gas & Gas Division Injection Waste Disposal
(If "Gas" DEPT. OF MINES Underground storage / Deep Shallow)

LOCATION: Elevation: 960' Watershed: Eighteen Mile Creek
District: Union County: Putnam Subdrainage: Elmwood

WELL OPERATOR Appalachian Exploration & Dev., Inc. DESIGNATED AGENT James R. Cramblett
Address P. O. Box 628 Address P. O. Box 628
Charleston, West Virginia 25322 Charleston, West Virginia 25322

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

PERMIT ISSUED ON August 4, 1980 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Martin Nichols
Address P. O. Box 554
Clendenin, West Virginia 2504

GEOLOGICAL TARGET FORMATION: Oriskany Depth 4950-4983 feet
Depth of completed well, 5092' 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 September 9, 1980, and completed September 19, 1980

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		
Conductor	13-3/8"					50'	50'	20 sks. Ends
Intermediate	9-5/8"		36#			767'	767'	280 sks.
Coal	7"		23#			2741'	2741'	435 sks. Sizes
Intermediate								
Production	4-1/2"		9.5#			5082'	5082'	150 sks. Depth set
Tubing								
Liners								Perforations: Top Bottom

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth 4965-4976 feet
Gas: Initial open flow, 150 Mcf/d Oil: Initial open flow, Bbl/d
Final open flow, 452 Mcf/d Final open flow, Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1280# 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

JUN 29 1981

[09-72]

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

5/16/81 - Broke down Oriskany @ 300#. Treated with 140,000 scf of Nitrogen (200 cf/bbl.) and 15,000# of 80/100, maximum concentration 2-1/2#/gal. and 45,000# of 20/40 maximum concentration 3-1/2#/gal. Total volume 775 bbls. ISIP 600#; 5 min., 400#.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of oil, gas, and salt water, coal, etc.
Shale and Sand			0	382	
Sand			382	404	
Shale			404	630	
Sand			630	654	
Shale			654	1060	
Sand			1060	1090	
Shale			1090	1149	
Sand			1149	1188	
Shale			1188	1323	
Sand			1323	1417	
Shale			1417	1787	
Sand			1787	1844	
Shale			1844	1928	
Big Lime			1928	2138	
Shale			2138	2183	
Big Injun			2183	2285	
Shale			2285	2638	
Sunbury Shale			2638	2667	
Berea			2667	2684	
Shale			2684	4878	
Onondaga Limestone			4878	4950	150 Mcf - 4972'
Oriskany			4950	4983	Slight show 5058'
Helderberg			4983	TD	
			DTD 5080'		
			LTD 5092'		

(Attach separate sheets to complete as necessary)

APPALACHIAN EXPLORATION & DEVELOPMENT, INC.
Well Operator

By James L. Campbell
Its Regional Manager, Drilling and Production

REG: 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."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

AUG - 4 1980

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION OF MINES

OIL & GAS DIVISION

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

Surface Owner Clarence Wine
Address Rt.1, Box 28, Robertsburg, WV 25172
Mineral Owner (See attached list)
Address " " "
Coal Owner Attn: Mr. William Barker
Address Union Carbide Corporation
Rt.2, Box 224-B, Clendenin, WV 25045
Coal Operator Union Carbide Corporation
Address Same as shown previously

DATE July 7, 1980
Company Appalachian Exploration & Development, Inc.
Address Box 628, Charleston, WV 25322
Farm McLean Acres 81.75
Location (waters) Eighteen Mile Creek
Well No. A-49 Elevation 960'
District Union County Putnam
Quadrangle Elmwood

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 4-19-81

INSPECTOR TO BE NOTIFIED Martin Nichols
ADDRESS P. O. Box 554, Clendenin, WV 25045
PHONE 548-6993

Fred B. Burgett
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 April 1 1936 by Helen M. Hoge, et al made to Godfrey L. Cabot, Inc. and recorded on the 1st day of June 1936 in Putnam County, Book 31 Page 507

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:

Very truly yours,
Appalachian Exploration & Development, Inc.
(Sign Name) R. W. Mason
Well Operator

Box 628 _____ Street
Charleston _____ City or Town
West Virginia 25322 _____ State

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address of Well Operator

*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

47-079-0995 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 _____

Jawney

