



OWNERSHIP

No coal in this area.
 Surface: Garnet C. Davis
 New Milton, W. Va.
 Oil & Gas: B.O. Davis Hrs, et al.
 New Milton, W. Va.

LEGEND

- Lines plotted from deed calls
- Surveyed Lines
- * Active Wells
- o Well Location

Minimum Error of Closure Lin 200'

Source of Elevation USGS elev on point 1250' N.W. = 1354'

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.

Signed: *W. H. Hoet*

Map No.

Squares: N S E W

- Fracture.....
- New Location.....
- Drill Deeper.....
- Abandonment.....

Company CARNEGIE NATURAL GAS CO.
 Address Munhall, Penna.
 Farm B.O. Davis GARNETT C. DAVIS
 Tract _____ Acres 55 Lease No. 12421
 Well (Farm) No. 2 Serial No. 2-1829
 Elevation (Spirit Level) 1093
 Quadrangle New Milton 7 1/2, DAVIS NW
 County Doddridge District New Milton
 Engineer *W. H. Hoet*
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date July 24, 1979 Scale 1" = 500'

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

WELL LOCATION MAP

FILE NO. 47-017-2469

+ Denotes location of well on United States Topographic Maps, scale 1 to ^{24,000}/_{62,500}, latitude and longitude lines being represented by border lines as shown.

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

AUG 22 1979



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Vadis N.W.

Permit No. Dodd-2469

Rotary X Oil _____
Cable _____ Gas X
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company Carnegie Natural Gas
Address 3904 Main Street, Munhall, PA 15120
Farm B.O. Davis Acres 55
Location (waters) Lick Run
Well No. 2-1829 Elev. 1093
District New Milton County Doddridge
The surface of tract is owned in fee by _____
Garnett C. Davis
Address Blandville, W.VA 26328
Mineral rights are owned by B.O. Davis Heirs.
etal. Address Blandville, W.VA 26328
Drilling Commenced August 29, 1979
Drilling Completed September 9, 1979
Initial open flow 6,300 cu. ft. _____ bbls.
Final production 375,000 cu. ft. per day _____ bbls.
Well open _____ hrs. before test 1760 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8	1202	1202	450 sks.
8 5/8			
7			
5 1/2			
4 1/2	5440	5440	85 sks.
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforated 5342-5404 with 18 shots. Fractured by Halliburton on 10/18/79 with 34,158 gal. of water and 500 gal. of acid and 90,000 lb. of sand.

Coal was encountered at None Feet _____ Inches _____
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Alexander Depth 5342-5404

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Substructor			0	10		
Sand			10	15		
Red Rock			15	30		
Sand			30	75		
Shale			75	100		
Sand			100	180		
Shale			180	220		
Red Rock			220	240		
Shale			240	340		
Sand			340	404		
Red Rock			404	515		
Sand			515	562		
Red Rock & Shale			562	661		
Line			661	680		
Shale			680	803		
Red Rock & Shale			803	1010		
Sand			1010	1074		
Shale			1074	1227		
Sand			1227	1345		
Shale			1345	1355		
Sand			1355	1565		
Shale			1565	1780		
Sand			1780	1811		

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(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			1811	1880		
Sand			1880	1935		
Shale			1935	1942		
Red Rock			1942	1948		
Shale			1948	1972		
Lime			1972	2060		
Sand			2060	2160		
Shale			2160	2250		
Sand			2250	2375		
Shale			2375	2604		
Sand			2604	2636		
Shale			2636	4505		
Sand			4505	4580		
Shale	ALEX.		4580	5472		
T.D.				5472		

Date November 28, 1975

APPROVED Carnegie Natural Gas Company (owner)

By Roger L. Lindsey Geologist
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

OIL & GAS DIVISION
DEPT. OF MINES

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

DATE August 10, 1979

Surface Owner Carnegie C. Davis Company Carnegie Natural Gas Company
 Address Blandville, W. Va. 26328 Address 3904 Main Street, Munhall, Pa. 15120
 Mineral Owner B. O. Davis Heirs etal Farm B. O. Davis Acres 56
 Address Blandville, W. Va. 26328 Location (waters) Lick Run
 Coal Owner _____ Well No. 2-1829 Elevation 1093
 Address _____ District New Milton County Doddridge
 Coal Operator No commercial coal Quadrangle Vadis N.W.
 Address _____

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 4-14-80.

INSPECTOR TO BE NOTIFIED Paul Garrett
 ADDRESS _____
 PHONE _____

Robert S. [Signature]
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 July 12, 1926 by B. O. Davis made to Carnegie Natural Gas Co. and recorded on the September 3 day of 1926 in Doddridge County, Book 43 Page 475

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:

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

Very truly yours, Carnegie Natural Gas Company
 (Sign Name) [Signature]
 Well Operator

Address of Well Operator
3904 Main Street Street
Munhall, City or Town
Pennsylvania, 15120 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

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Hugh K. Spencer NAME J. L. Yoho- Div. Supt.
 ADDRESS West Union, W. Va. 26456 ADDRESS Toll Gate, W. Va. 26412
 TELEPHONE 304 - 873-1602 TELEPHONE 304-659-2921
 ESTIMATED DEPTH OF COMPLETED WELL: 5400' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Alexander
 TYPE OF WELL: OIL _____ GAS COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10 11 3/4"	30'		
9 - 5/8			
8 - 5/8	1200'	1200'	To surface
7			
5 1/2			
4 1/2 Steel	5400'	5400'	600'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? No BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title