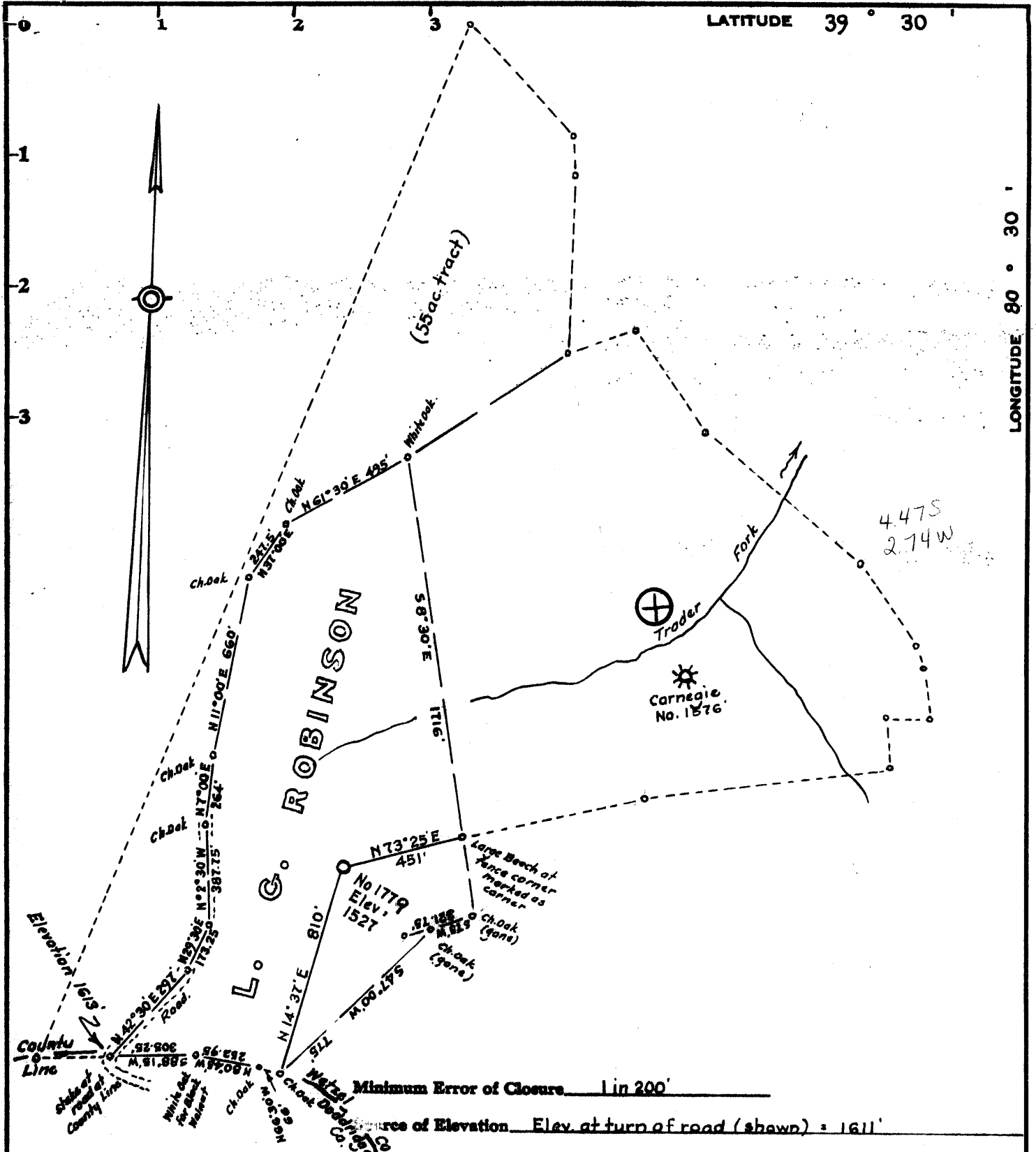


LATITUDE 39° 30'

LONGITUDE 80° 30'



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

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: [Signature]
 Squares: N S E W

Map No.

Company CARNEGIE NATURAL GAS CO.
 Address Munhall, Pennsylvania
 Farm L.G. Robinson
 Tract Acres 26.00 Lease No. 3551
 Well (Farm) No. FIVE Serial No. 1779
 Elevation (Spirit Level) 1527
 Quadrangle Centerpoint NE
 County Wetzel District Grant
 Engineer [Signature]
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date June 20, 1973 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. Wet-595

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

47-103

3500' 5th Survey
 6-6 Smithton - Flint - Sedalia (99)

SEP 4 1974



Page 1 of 2

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

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

Quadrangle Centerpoint N.E.

Permit No. Wet - 595

Company Carnegie Natural Gas Company
Address 3904 Main St., Munhall, Pa. 15120
Farm L. G. Robinson Acres 2600
Location (waters) Trader Fork
Well No. 5-1779 Elev. 1527
District Grant County Wetzel
The surface of tract is owned in fee by _____
William T. Keen
Address Locust Grove, Va. 22508
Mineral rights are owned by Robinson Improvement Co.
c/o M.L. Dyer Address Roxeyville, Va.
Drilling Commenced August 12, 1974
Drilling Completed August 21, 1974
Initial open flow _____ cu. ft. _____ bbls.
Final production 1,107,000 cu. ft. per day _____ bbls.
Well open _____ hrs. before test 725# RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"	7'	7'	
9 5/8	246'	246'	100 sacks
8 5/8			
7	2449'	2449'	35 sacks
5 1/2			
4 1/2	3384'	3384'	105 sacks
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforated: Gordon 3256-3260, 3276-3284, 3288-3292, 3318-3324. FFH
Fractured with 10 bbls. water, 6000# sand, using 1000 gals. mud acid to breakdown.
With baffle set at 2614' FFH perforated 2538-2548 and fractured with 519 bbls. water, 20,000# sand, using 500 gals. 15" HCL to breakdown.

Coal was encountered at 1226-1239 Feet 156 Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Big Injun, Fifth and Gordon Depth 2486-2610, 3238-3335

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Rock			0	3		
Sand			3	50		
Red Rock			50	75		
Sand			75	104		
Shale			104	118		
Sand			118	137		
Red Rock			137	145		
Sand			145	168		
Shale			168	188		
Sand			188	199		
Shale			199	205		
Sand			205	216		
Shale			216	230		
Red Rock			230	249		
Sand			249	260		
Red Rock			260	280		
Sand			280	290		
Shale			290	320		
Sand			320	332		
Red Rock			332	341		
Sand			341	360		
Red Rock			360	368		
Shale			368	400		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Rock			400	417		
Sand			417	454		
Shale			454	480		
Sand			480	490		
Red Rock			490	501		
Sand			501	510		
Shale			510	580		
Sand			580	589		
Red Rock			589	596		
Shale			596	625		
Red Rock			625	637		
Shale			637	673		
Sand			673	684		
Shale & Slate			684	725		
Sand			725	780		
Shale			780	810		
Sand			810	845		
Shale			845	860		
Sand			860	890		
Red Rock			890	901		
Sand			901	930		
Shale			930	967		
Sand			967	972		
Shale			972	992		
Sand			992	1005		
Shale			1005	1022		
Sand			1022	1040		
Shale			1040	1074		
Sand			1074	1085		
Shale			1085	1109		
Sand			1109	1118		
Shale			1118	1226		
Coal			1226	1239		
Sand			1239	1257		
Shale			1257	1278		
Sand			1278	1295		
Shale			1295	1320		
Sand			1320	1373		
Shale			1373	1400		
Sand			1400	1473		
Shale			1473	1546		
Lime			1546	1554		
Shale			1554	1595		
Sand			1595	1608		
Shale			1608	1730		
Sand			1730	1748		
Shale			1748	1769		
Sand			1769	1790		
Shale			1790	1840		
Sand			1840	1865		
Shale			1865	1875		
Sand			1875	1885		
Shale			1885	1950		
Sand			1950	1955		
Shale			1955	1965		
Sand			1965	1975		
Shale			1975	1984		
Sand			1984	2020	1987 Water	
Shale			2020	2060		
Sand			2060	2130		
Shale			2130	2170		
Sand			2170	2274		

Continued on page 2

Date MARCH 6 19 75

APPROVED CARNEGIE NATURAL GAS Owner
 By Roger E. Ludwig
 (Title) GEOLOGIST



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Page 2

Oil and Gas Division

WELL RECORD 7

Quadrangle Centerpoint N.E.

Permit No. Wet - 595

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

Company _____	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address _____	Size			
Farm _____ Acres _____	20-16			
Location (waters) _____	Cond.			
Well No. _____ Elev. _____	13-10"			
District _____ County _____	9 5/8			
The surface of tract is owned in fee by _____	8 5/8			
Address _____	7			
Mineral rights are owned by _____	5 1/2			
_____ Address _____	4 1/2			
Drilling Commenced _____	3			
Drilling Completed _____	2			
Initial open flow _____ cu. ft. _____ bbls.	Liners Used			
Final production _____ cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Attach copy of cementing record.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			2274	2426		
Little Lime			2426	2432		
Pencil Cave			2432	2440		
Big Lime			2440	2486		
<u>Big Injun</u>			2486	2610	Gas at 2555	2440 1527 913
Shale			2610	2725		
Sand			2725	2735		
Shale			2735	2760		
Sand			2760	2790		
Shale			2790	2800		
Sand			2800	2835		
Shale			2835	2871		
Sand			2871	2881		
Shale			2881	2958		
Sand			2958	2968		
Shale			2968	2986		
Sand			2986	3005		
Shale			3005	3075		
Sand			3075	3110		
Shale			3110	3178		
Sand			3178	3218		
Shale			3218	3238		
<u>Sand</u> <i>Gordon</i>			3238	3260		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ⁷	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			3286	3292		
Sand			3292	3306		
Shale			3306	3320		
Sand	<i>Fine</i>		3320	3335		
Shale			3335	3500		Total Depth

Date MARCH 6 1975

APPROVED CARNEGIE NATURAL GAS Owner

By Ray S. Lewis
(Title) GEOLOGIST



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

AUG 1 1974

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE July 29, 1974

Surface Owner William T. Keen
Address Locust Grove, Va. 22508
Mineral Owner Robinson Improvement Co., c/o M.L. Dyer
Address Roxeyville, Va.
Coal Owner Mountaineer Coal Co.
Address Monongah, W. Va.
Coal Operator _____
Address _____

Company Carnegie Natural Gas Company
Address 3904 Main St., Munhall, Pa. 15120
Farm L. G. Robinson Acres 2600
Location (waters) Trader Fork
Well No. 5-1779 Elevation 1527
District Grant County Wetzel
Quadrangle Center Point N.E.

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 12-1-74

NOTICE TO BE NOTIFIED Paul Garrett
Clarksburg PH: 622-3871
W.Va.

[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 Aug. 7 1899 by L.G. & J. S. Robinson made to J. E. Carnahan and recorded on the 5th day of Dec. 1901 in Wetzel County, Book 73 Page 266
X _____ 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 one 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, W. Va. 26505
AC 304-296-4461

Address
of
Well Operator

Very truly yours, CARNEGIE NATURAL GAS COMPANY
(Sign Name) [Signature] Well Operator Div. Supt.
3904 Main St. Street
Munhall City or Town
Pennsylvania 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 LOG

Wet-595 PERMIT NUMBER
47-103

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

X

PROPOSED WORK ORDER TO _____ DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) Hugh K. Spencer RESPONSIBLE AGENT: J. W. Sweeney
 NAME West Union, W. Va. 26156 NAME Drawer No. 387, Mannington, WV 26588
 ADDRESS 304-873-1602 ADDRESS 986-2060
 TELEPHONE _____ 3500 TELEPHONE X
 ESTIMATED DEPTH OF COMPLETED WELL Fifth Sand ROTARY _____ CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: _____ X _____
 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	250'	250'	to surface
9 - 5/8			
8 - 5/8	2475'	2475'	
7			
5 1/2	3500'	3500'	1000'
4 1/2			
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 1220' FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS no _____
 IS COAL BEING MINED IN THE AREA? _____ 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