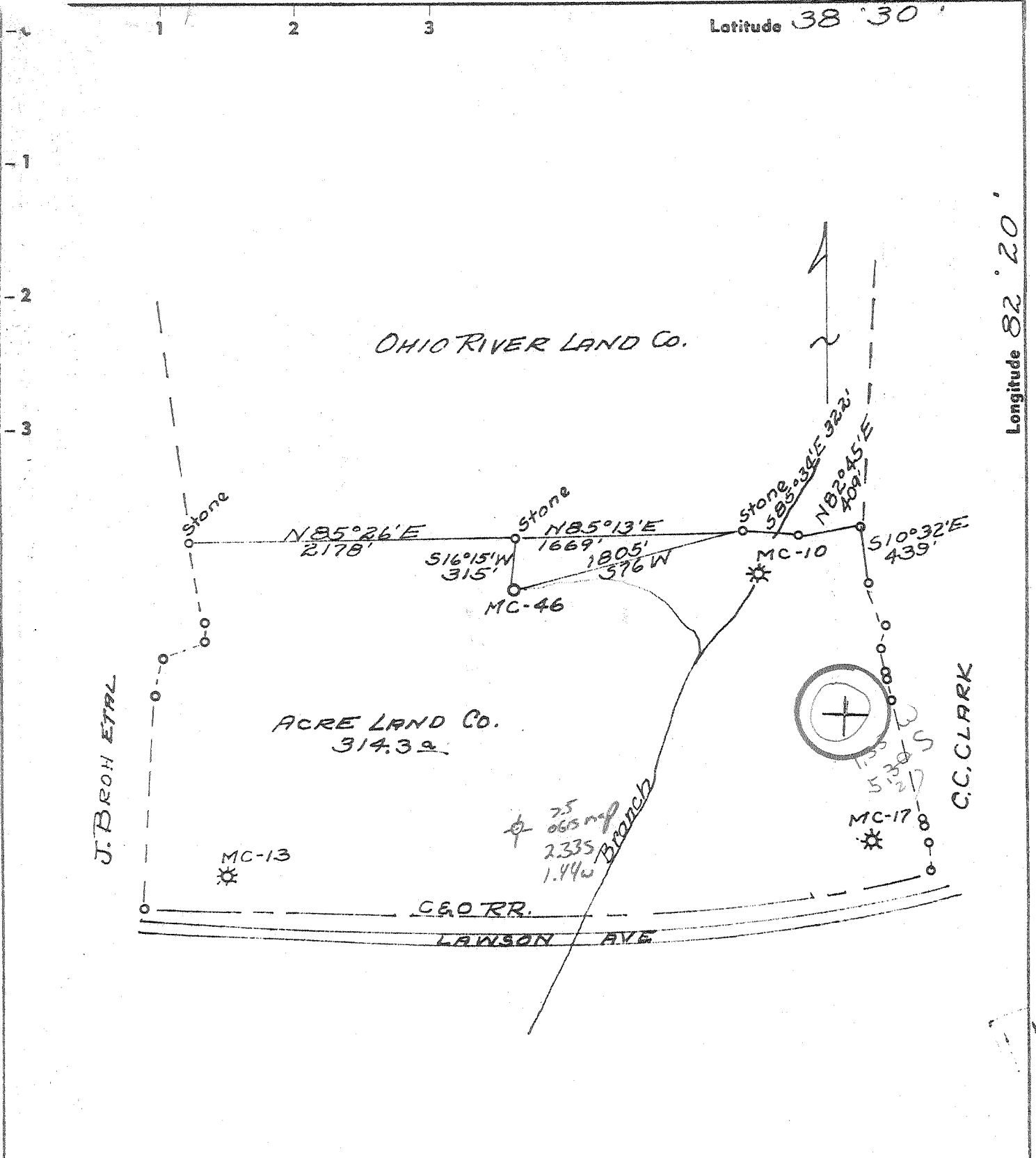


38 27 30"  
Latitude 38 30'



J. BROOK ETAL

C.C. CLARK

Source of Elev: B.M. (556) 3000' S.E. of LOC.

Closure: 1/200

- New Location .
- Drill Deeper . . . .
- Redrill . . . . .
- 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."

Company Cumberland Gas Co.  
~~SOUTHEASTERN GAS CO.~~  
 Address 1200 UNION BLDG., CHARLESTON, W.Va.  
 Farm ACRE LAND CO  
 Tract \_\_\_\_\_ Acres 314.3 Lease No. \_\_\_\_\_  
 Well (Farm) No. 4 Serial No. MC-46  
 Elevation (Spirit Level) 756'  
 Quadrangle GUYANDOT NC  
 County CABELL District GUYANDOT  
 Engineer G.W. Hall  
 Engineer's Registration No. 2602  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 6-30-72 Scale 1" = 1000'

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

WELL LOCATION MAP  
 FILE NO. Cab-541

+ 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.



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OIL & GAS DIVISION  
DEPT. OF MINES

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD /

Rotary \_\_\_\_\_ Oil \_\_\_\_\_  
Cable  Gas  HOLE  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Quadrangle Guyandot

Permit No. Cab-541

Company <u>Cumberland Gas Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 2386, Charleston, W. Va. 25328</u>	Size			
Farm <u>Acre Land Company</u> Acres <u>314.3</u>	20-16			
Location (waters) <u>Guyandotte River</u>	Cond. 14" C.D.	19'	19'	
Well No. <u>MC-46</u> Elev. <u>756'</u>	13-10" 10-3/4"	158'	None	
District <u>Guyandotte</u> County <u>Cabell</u>	9 5/8"			
The surface of tract is owned in fee by _____	8 5/8"	453'	453'	110 Cu. Ft.
Address _____	7	1572'	1572'	
Mineral rights are owned by <u>P. C. T. Company</u>	5 1/2"			
Address <u>2 Maple Dr., Huntington, W. Va.</u>	4 1/2"			
Drilling Commenced <u>Aug. 10, 1972</u>	3			
Drilling Completed <u>Sept. 23, 1972</u>	2			
Initial open flow <u>29 M cu. ft.</u> bbls.	Liners Used			
15 min. after shot <u>696 M cu. ft.</u>				
Final production <u>cu. ft. per day</u> bbls.				
1 hr. after shot <u>381 M cu. ft.</u>				
Well open _____ hrs. before test <u>120//</u> RP.				

Well treatment details:

Shot 2700' - 2950' with 2000# Gel

Attach copy of cementing record.

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water 750' Feet  
Producing Sand Brown Shale Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	20		
Sand			20	40		
Slate			40	60		
Red Rock			60	80		
Slate			80	135		
Red Rock			135	145		
Slate			145	220		
Red Rock			220	225		
Slate			225	280		
Sand			280	365		
Slate			365	385		Water 385' - 1 Bailer per hr.
Sand			385	523		
Slate			523	541		
Sand			541	565		Water 550' - 1 Bailer per hr.
Slate			565	625		
Sand			625	657		
Slate			657	888		Hole full water 750'
Sand			888	912		
Slate			912	1076		
Salt Sand			1076	1120		
Slate			1120	1150		
Lime			1150	1162		
Slate			1162	1226		

(over)

\* Indicates Electric Log tops in the remarks section.

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STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

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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 5, 1972  
Company Cumberland Gas Company  
Address P. O. Box 2386, Charleston, W. Va.  
Farm Acre Land Company Acres --400 314.3  
Location (waters) Guyandotte River  
Well No. 4- NC-46 Elevation 756'  
District Guyandotte County Cabell  
Quadrangle Guyandot

Surface Owner \_\_\_\_\_  
Address \_\_\_\_\_  
Mineral Owner PCT Company  
Address 2 Maple Dr., Huntington, W. Va.  
Coal Owner Same  
Address \_\_\_\_\_  
Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

INSPECTOR TO BE NOTIFIED Mr. Kenneth Butcher  
RFD #1  
Barhoursville, W. Va. 25504  
PH 736-4885

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 November 7, 1972.

Robert Hodde  
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 June 24, 19 31, by Acre Land Company made to Merritts Creek Gas Co. and recorded on the 20th day of May 19 32 in Cabell County, Book 122 Page 437  
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 \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia

Very truly yours,  
By: [Signature] Vice President  
(Sign Name) H. Hall Well Operator  
1300 Union Building  
P. O. Box 2386

Address  
of  
Well Operator

Street  
Charleston  
City or Town  
West Virginia 25328  
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.

CAB-541

PERMIT NUMBER

BOND DRILL

[Handwritten Signature]

**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 Company tools - Cumberland Gas Co. NAME J. C. Lining  
 ADDRESS P. O. Box 2386, Charleston, W. Va. ADDRESS P. O. Box 2386, Charleston, W. Va.  
 TELEPHONE 343-9566 TELEPHONE 343-9566  
 ESTIMATED DEPTH OF COMPLETED WELL: 3,000' ROTARY \_\_\_\_\_ CABLE TOOLS   
 PROPOSED GEOLOGICAL FORMATION: Brown Shale  
 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 <u>14"</u>	<u>20'</u>	<u>20'</u>	
13 - 10 <u>10-3/4"</u>	<u>100'</u>	<u>None</u>	
9 - 5/8			
8 - 5/8	<u>425'</u>	<u>425'</u>	<u>98 Sacks</u>
7	<u>1,600'</u>	<u>1,600'</u>	
5 1/2			
4 1/2			
3		<u>3,000'</u>	Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 50 FEET SALT WATER 1,010 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