



Minimum Error of Closure — 1 in 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."

JRG

Company	Cumberland Gas Co.		
Address	1200 Union Bldg. Chas. W. Va.		
Farm	Acra Land Company		
Tract	Acres	244	Lease No.
Well (Farm) No.	5	Serial No.	MC.47
Elevation (Spirit Level)	592.0		
Quadrangle	Guyandot NC		
County	Cabell	District	Guyandotte
Engineer	J.H. Hall		
Engineer's Registration No.	2602		
File No.	Drawing No.		
Date	9-28-72	Scale	1" = 500'

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

WELL LOCATION MAP
 FILE NO. Cab-542

+ 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
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Quadrangle Guyandotte

Permit No. CAB-542

Company Cumberland Gas Company
Address Box 2386, Charleston, W.Va.
Farm Acre Land Company Acres 344.31
Location (waters) Altizer Creek
Well No. MC-47 Elev. 592'
District Guyandotte County Cabell

The surface of tract is owned in fee by _____

Address _____

Mineral rights are owned by PCT Company
2 Maple Drive, Huntington, W.Va.

Drilling Commenced 11-7-72

Drilling Completed 2-8-73

Initial open flow Show cu. ft. _____ bbls.

Final production 94,000 cu. ft. per day _____ bbls.

Well open _____ hrs. before test 270# RP.

Well treatment details:

Shot with 1933# Oil Well Gelatin 2930' - 2690'

Attach copy of cementing record.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 14	18'	18'	
13-10" 10-3/4	383'6"	383'6"	150 Sks. to Surface
9 5/8			
8 5/8	1208'	--	
7	2047'	2047'	25 Sks. 2047' to 1787
5 1/2			
4 1/2			
3			
2			
Liners Used			

Coal was encountered at _____ Feet _____ Inches
Fresh water 60 Feet _____ Salt Water 640 Feet
Producing Sand Brown Shale Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	17		
Sand			17	30		
Slate			30	112	Water 60'	
Red Rock			112	120		
Slate			120	212		
Sand			212	303		
Slate			303	313		
Sand			313	495	Water 350'	
Slate			495	500		
Sand			500	502		
Slate			502	535		
Sand			535	697	Hole full water 640'	
Slate			697	950		
Sand			950	986		
Slate			986	1169		
Little Lime			1169	1181		
Slate			1181	1183		
Big Lime			1183	1195		
Slate			1195	1208		
Lime			1208	1337		
Slate			1337	1350		
Injun Sand			1350	1390		
Broken Sand			1390	1406		
Sand			1406	1480	Water 1 Bailer/Hr. 1470'	

(over)

* Indicates Electric Log tops in the remarks section.

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Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Slate & Shells			1480	1960		
Brown Shale			1960	1985		
Berea Sand			1985	1991	Gas Show	1986'
Slate			1991	1996		
Shell			1996	2006		
Red Rock			2006	2028		
Slate			2028	2035		
Brown Shale			2035	2120	Gas Show	2100'
Slate & Shells			2120	2445		
Brown Shale			2445	2811	Gas Show	2710'
Slate			2811	2835		
Brown Shale			2835	2935	Gas Show	2875'
White Slate			2935	3125		
Brown Shale			3125	3182		
Corniferous Lime- Onond,			3182	3934		
Red Rock			3934	4086		
Slate			4086	4120		
Red Rock			4120	4168		
Sandy Shell			4168	4174		
Slate			4174	4218		
Clinton Sand - Tuscarora			4218	4245		
Slate & Shells			4245	4326		
Red Rock - Juniata			4326			
TOTAL DEPTH				4363		

town shale

Rose Hill

Hold, Coy + Melt

4326
594
3732

615

4363
3182
1181 expl. ft.

3182
594
2588

Date April 6, 1973

APPROVED CUMBERLAND GAS COMPANY, Owner

By *J. C. Liming*
J. C. Liming (Title) Gen. Supt.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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OCT 6 1972

Ladd
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 October 3, 1972

Surface Owner _____

Company Gumberland Gas Company

Address _____

Address P. O. Box 2386, Charleston, W. Va.

Mineral Owner PCT Company

Farm Acre Land Company Acres 344.31

Address 2 Maple Dr., Huntington, W. Va.

Location (waters) Altizer Creek

Coal Owner Same

Well No. MC-47 Elevation 592'

Address _____

District Guyandotte County Cabell

Coal Operator _____

Quadrangle Guyandotte

Address _____

Inspector to be notified Butcher

R.F.D. #1 PH: 736-4885

Barboursville
W. Va. 25504

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 2-6-73

Robert L. Todd
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, 1931, by Acre Land Company made to Merritts Creek Gas Co. and recorded on the 20th day of May 1932, in Cabell County, Book 122 Page 437

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,

(Sign Name) By: G.H. Hall
G.H. Hall Well Operator Vice President
1200 Union Bldg., Box 2347

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.

BLANKET BOND

Cab-542 PERMIT NUMBER

Survey

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

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Co. Tools - Cumberland Gas Company NAME J. C. Liming
 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 X
 PROPOSED GEOLOGICAL FORMATION: Brown Shale
 TYPE OF WELL: OIL _____ GAS X 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>380'</u>	380' <u>380</u>	<u>TO SURFACE</u>
9 - 5/8			
8 - 5/8	<u>1,250'</u>	1,250'	_____
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 1,035 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