



BENCH MARK DESCRIPTION

U.S.G.S. STANDARD DISC 230-SKS-1956
 63' S.W. OF E BRIDGE FOR ROAD OVER
 3 MILE FORK OF BLUE CREEK IN S.E.
 ABUTMENT OF R.R. BRIDGE.
 ELEV. 635.76'

- New Location
- Storage
- Drill Deeper
- Abandonment
- Re-Drill/Fracture

"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 the rules and regulations of the oil and gas section of the mining laws of WEST VIRGINIA.
 Minimum degree of accuracy is one part in 200'

ENGR. REG. # 2330
 BOX 1273 CHARLESTON, W. VA.

Signed *John E. [Signature]*

Company COLUMBIA GAS TRANS. CORP.
 Address BOX 1273 CHARLESTON, W. VA.
 Farm W. A. MACCORKLE, CLYDE BARE
 Lease 4832 Acres 338
 Well Farm No. _____ Ser. No. 12084
 Elevation - Spirit Level 1292.88' *NC*
 Quadrangle BLUE CREEK, CLENDENIN, 15'
 Township or District ELK
 County KANAWHA
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT: 38° 25' 20" LONG: 81° 23' 36"
 File No. 74-63 Dwg. No. _____
 Date 12-22-77 Scale 1" = 400'

FORM 1495 CE 4 CSD
 COLUMBIA GAS SYSTEM
 COLUMBIA GAS TRANSMISSION CORPORATION
WELL LOCATION MAP
WEST VIRGINIA
 (+) Denotes Values Of Well On United States Topographic Maps
KAN-2831
 Scale 15' 7 1/2'
Deep Well
 STORAGE
47-039
 MAR 13 1978
 BLUE CT - HACKBERAY 84



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

RECEIVED

1978

OIL & GAS DIVISION
DEPT. OF MINES

Rotary

Spudder

Cable Tools

Storage

Oil or Gas Well Gas
(KIND)

Quadrangle Blue Creek

Permit No. Kan. 2831

Company Columbia Gas Trans. Corp.
Address P.O. Box 1273 Charleston, W. Va.
Farm W. A. MacCorkle Acres 338
Location (waters) Blue Creek
Well No. 12084 Elev. 1292
District Elk County Kanawha
The surface of tract is owned in fee by Clyde Bare
Address So. Chas., W. Va.
Mineral rights are owned by Sam MacCorkle
Address Charleston, W. Va.

Drilling commenced 3-25-78
Drilling completed 4-6-78

Date Shot From To
With

Open Flow /10ths Water in Inch

/10ths Merc. in Inch

Volume 3.5 million Cu. Ft.

Rock Pressure 1120 lbs. 72 hrs. hrs.

Oil bbls., 1st 24 hrs.

WELL ACIDIZED (DETAILS) 1000 gal.
MCA 15%

WELL FRACTURED (DETAILS) 1012 BBLs with 50,000 lbs. 20-40 mesh sand treating at 2600#
pressure.

RESULT AFTER TREATMENT (Initial open Flow or bbls.)

ROCK PRESSURE AFTER TREATMENT 1120

Fresh Water Feet

Producing Sand Oriskany

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8	95.8	95.8	
9-5/8	2321	2321	Size of
7"	5616	5616	Depth set
6"			
5 3/16			Perf. top
4 1/2			Perf. bottom
3			Perf. top
2 3/8	5635	5635	Perf. bottom
Liners Used			

Attach copy of cementing record.

CASING CEMENTED 13-3/8 SIZE 95' No. Ft. 3-26-78 Date

Amount of cement used (bags) 150 sacks

Name of Service Co. Halliburton

COAL WAS ENCOUNTERED AT FEET INCHES

FEET INCHES FEET INCHES

FEET INCHES FEET INCHES

HOURS 72 hours

Salt Water Salt Sand Feet 1265

Depth 5619 to 5652

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand&Shale			0	170			
Sand			170	175			
Sand&Shale			175	1150			
Salt Sand			1150	1540	Water	1265	
Shale			1540	1620			
LittleLime			1620	1675			
Pencil Cave			1675	1680			
Big Lime			1680	1860			
Injun Sand			1860	1900			
Weir			1900	2090			
Shale			2090	5500			
Lime			5500	5619	5619	5652	5500
Oriskany			5619	5652	1293	1293	1293
Heldsburg			5652	5700	4326	4359	4207



RECEIVED

MAR - 3 1978

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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 February 27, 1978

Surface Owner Clyde Bare, Jr.

Company Columbia Gas Transmission Corporation

Address 709 Berry St., So. Charleston, W. Va.

Address P. O. Box 1273, Charleston, W. Va.

Mineral Owner Sam MacCorkle, et al

Farm W. A. MacCorkle Acres 338

Address #8 Capitol Street, Charleston, W. Va.

Location (waters) 3 Mile Fk. of Blue Creek

Coal Owner Same As Above

Well No. 12084 Elevation 1292.88'

Address _____

District Elk County Kanawha

Coal Operator Not Operated

Quadrangle Blue Creek

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 7-7-78.

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

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 May 4 19 50 by W. A. MacCorkle made to United Fuel Gas Company and recorded on the _____ day of _____ 19 50, in Kanawha County, Book 123 Page 193

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

Address
of
Well Operator

Very truly yours,
(Sign Name)
DIRECTOR, Well Operator
Exploration and Development
P. O. Box 1273
Street
Charleston,
City or Town
West Virginia 25325
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 BOARD

KAN-2831 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."

47-039

Signed by
DIRECTOR, Exploration and Development

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 _____ NAME Larry Friend
 ADDRESS _____ ADDRESS P. O. Box 610, Clendenin, W. Va.
 TELEPHONE _____ TELEPHONE 304/965-3317
 ESTIMATED DEPTH OF COMPLETED WELL: 5700' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 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 - $\frac{1}{2}$	30'		Cement to Surface
13 - $\frac{1}{2}$ 3/8	200'		Cement to Surface
9 - 5/8	2300'		Cement to Surface
8 - 5/8			
7	5610'		
5 1/2			
4 1/2			
3			Perf. Top
2 3/8	5620'		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