

Latitude $37^{\circ}52'30''$
 (15') $37^{\circ}55'$

3800'

+ 7 1/2'

I. H. YORK, ET. UX.

S 3.61
 W 3.27

Corrected 15' location

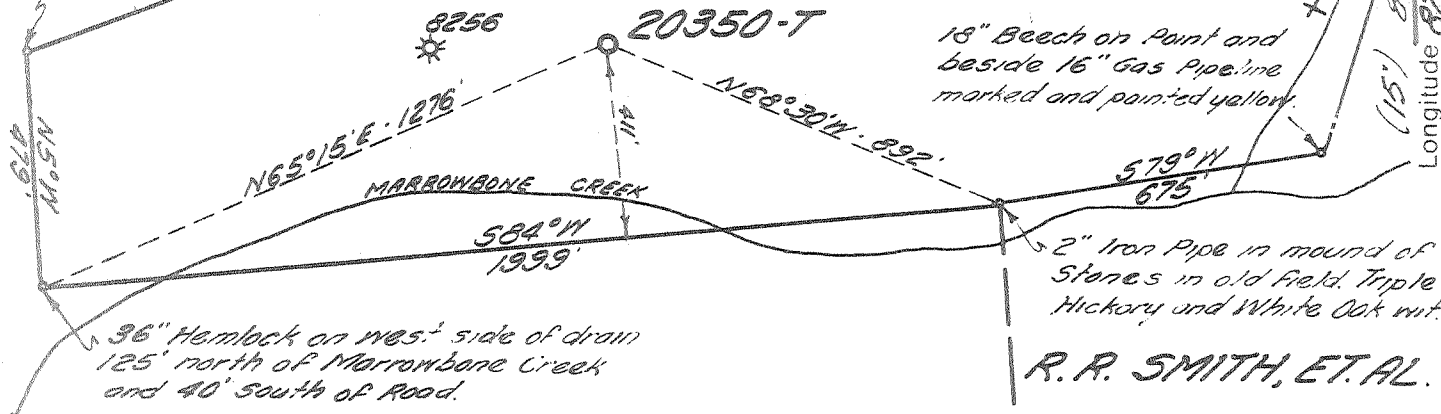
COLUMBIA GAS TRANS. CORP. MIN.
 CLAUDIA MCCOY SURF.

Stake on Hillside. Small Black Oak
 witness. Chestnut Oak Stump.

FARM MAP

18" Beech on Point and
 beside 16" Gas Pipeline
 marked and painted yellow.

(15') $82^{\circ}12'30''$
 Longitude



36" Hemlock on west side of drain
 125' north of Marrowbone Creek
 and 40' south of Road.

2" Iron Pipe in mound of
 Stones in old field. Triple
 Hickory and White Oak wit.

I. H. YORK, ET. UX.

BENCH MARK DESCRIPTION

U.S.G. & G.S. Disc in Face of Cliff
 8.5' from edge of Blacktop Stamped
 X-150-1957 North Side of Road
 Elev. 901'

Partial Plug, 1/12/77

REVISED
 7-29-76

- 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 W. VA.
 Minimum degree of accuracy is one part in 200

ENGR. REG. NO. 2330
 BOX 1273 CHARLESTON, W.VA.

Signed [Signature]

Company COLUMBIA GAS TRANSMISSION CORP.
 Address BOX 1273 CHARLESTON, W.VA.
 Farm COLUMBIA GAS TRANS. CORP. MIN.
 DEED 51651 Acres 175
 Well Farm No. 3 Ser. No. 20350-T
 Elevation - Spirit Level 1133.46' WC
 Quadrangle MYRTLE, HOLDEN 15'
 Township or District KERMIT
 County MINGO
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT. 37°51'52" LONG. 82°13'36"
 File No. 28-25 Dwg. No. _____
 Date 7-29-76 Scale 1" = 400'

WELL LOCATION MAP
 STATE OF WEST VIRGINIA

(+) Denotes Values Of Well On United
 States Topographic Maps

MINGO-863-PP

Scale 15' 7 1/2'

47-059

(Orisk.) Deep Well FEB 2 1977

Latitude 37° 52' 30"
 (15') 37° 55'

5250'

+ 7 1/2'

I. H. YORK, ET. UX.

~~3.585~~
~~3.150~~

COLUMBIA GAS TRANS. CORP. MIN.
 CLAUDIA MCCOY SURF.

Stake on Hillside. Small Black Oak
 witness. Chestnut Oak Stump.

FARM MAP

18" Beech on Point and
 beside 16" Gas Pipeline
 marked and pointed yellow.

8256

20350-T

N65°15'E · 1276'

MARROWBONE CREEK

N62°30'W · 892'

584°W
 1999'

579°W
 675'

Longitude 82° 12' 30"
 (15')

36" Hemlock on west side of drain
 125' north of Marrowbone Creek
 and 40' south of Road.

2" Iron Pipe in mound of
 Stones in old field. Triple
 Hickory and White Oak nut.

R. R. SMITH, ET. AL.

I. H. YORK, ET. UX.

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 8.5' from edge of Blacktop Stamped
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Signed William E. Howard

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 Elevation - Spirit Level 1139.46' WC
 Quadrangle MYRTLE, HOLDEN 15'
 Township or District KERMIT
 County MINGO
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT. 37° 51' 52" LONG. 82° 13' 36"
 File No. 28-25 Dwg. No. _____
 Date 7-29-76 Scale 1" = 200'

**WELL LOCATION MAP
 STATE OF WEST VIRGINIA**

(+) Denotes Values Of Well On United
 States Topographic Maps

MINGO-863

Scale 15' 7 1/2'

47-059

NOV 23 1976

36 BREEDEN CREEK 243



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

RECORDED
JUN 21 1977

Rotary
OIL & GAS DIVISION
Drill Spudger
Cable Tools
Storage
Oil or Gas Well Gas
(KIND)

Quadrangle Myrtle
Permit No. Mingo-863

WELL RECORD

Company Columbia Gas Transmission Corp.
Address P.O. Box 1273, Charleston, WV
Farm Columbia Gas Mineral Tr. Acres 175
Location (waters) Marrowbone Creek 1204 K
Well No. 20350-T Elev. 1193.46
District Kermit County Mingo
The surface of tract is owned in fee by Clauda J. McCoy
Address Williamson, WV 25661
Mineral rights are owned by Columbia Gas Trans. Corp.
Address Same as above
Drilling commenced 12/13/76
Drilling completed 12/22/76
Date Shot Not Shot From _____ To _____
With _____
Open Flow 8/10ths Water in _____ 2" Inch
_____ /10ths Merc. in _____ Inch
Volume 119,000 MCF Cu. Ft.
Rock Pressure Not taken when drilling completed
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer <u>None</u>
13	191.59	191.59	
10			Size of _____
8 5/8	1662.20	1662.20	Depth set _____
6 5/8			
5 3/16			
4 1/2	2002.80	2002.80	Perf. top <u>1845</u>
2			Perf. bottom <u>1853</u>
Liners Used			Perf. top <u>1870</u>
			Perf. bottom <u>1878</u>

CASING CEMENTED 8 5/8 SIZE 1662.20 No. Ft. 12/14/76 Date
4 1/2 csg from 2002 to 1650, 12/22/76

COAL WAS ENCOUNTERED AT 135 FEET 60 INCHES
160 FEET 24 INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

WELL FRACTURED Foam fractured; 16,000# 80/100 and 20,000# 20/40 sand; 290 BBL H₂O and 450,000 std. cu. ft. nitrogen (Injun Formation)

RESULT AFTER TREATMENT 516,000
ROCK PRESSURE AFTER TREATMENT 48 hr. - 307#
Fresh Water None Feet _____ Salt Water 2" stream Feet @ 1610

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
KB-GL			0	12	from T. D.	50	
Sand		Hard	12	135	Waxton	135	
Coal		Soft	135	140	Little Linc	140	
Sand		Hard	140	160	Big Linc	160	
Coal		Soft	160	162	Injun	162	
Sand		Hard	162	370	Sunbury	370	
Sand		Hard	370	480	Berea	480	
Shale & Sand			480	715		715	
Sand		Soft	715	770	Upr dav	770	
Shale			770	920	Huron	920	
Sand Med.			920	1060	Taura	1060	
Shale		Soft	1060	1075	Anada	1075	
Sand Med.			1075	1250	Elmestee	1250	
Shale Sand			1250	1335	Onondaga	1335	
Salt Sand		Hard	1335	1645	Onondaga	1645	
Limy shale			1645	1680	2" water (salt) @ 1610	1680	
Little Lime			1680	1850	Holdrege	1850	
Injun Sand			1850	1870		1870	
Shale			1870	2505	Show gas	2505	Well plugged back from T.D. to 2150 per stat inspection.
Coffee Shale			2505	2530	Show gas	2530	
Berea Sand			2530	2565		2565	
Shale			2565	4048		4048	
Ironiferous Lime			4048	4175		4175	
Riskany Sand			4175	4185		4185	
Ironiferous Lime			4185	4260		4260	
Shale			4260				
Gas 16/10 2" @ T.D.							

Expl. Footage 4260
-1870
2390 ft

(over)

JUN 30 1977



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE October 28, 1976

Surface Owner Claudia McCoy

Company Columbia Gas Transmission Corporation

Address Williamson, W. Va. 25661

Address P.O. Box 1273, Charleston, WV 25325

Mineral Owner Columbia Gas Transmission Corp.

Farm Col. Gas Trans. Corp. Min. Acres 175

Address P.O. Box 1273, Charleston, WV 25325

Location (waters) Marrowbone Creek

Coal Owner Same as above

Well No. 20350-T Elevation 1193.46'

Address _____

District Kermit County Mingo

Coal Operator Not Operated

Quadrangle Myrtle

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 3-9-77

INSPECTOR

TO BE NOTIFIED Mr. Arthur St. Clair

ADDRESS P.O. Box 157, Brenton, WV 24818

PHONE 732-6227

[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 February 20 19 53 by Thomas Alexander Hamilton made to United Fuel Gas Co. and recorded on the _____ day of _____ 19____, in Mingo County, Book 122 Page 423

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, COLUMBIA GAS TRANSMISSION CORP.

(Sign Name) [Signature]
Well Operator
Director, Exploration & Development
Post Office Box 1273

Street
Charleston
City or Town
West Virginia
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

MINGO-863 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."

47-059

Signed by [Signature]
Director, Exploration & Development

