

SET STONE (30" WHITE OAK)

BENCH MARK DESCRIPTION
U.S. GOV'T STANDARD DISK
SET IN CONCRETE POST STAMPED
#7-JJS-1965 ELEV. 902.32'

N-27798.20
E-25076.80
1 1/4" Bolt & NUT 2
BEECH POINTERS APPROX.
300' NORTH OF BRANCH
ON HILLSIDE
(8" SEWER PIPE FILLED WITH CONCRETE)

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 2000.

ENGR. REG. NO. 2330
BOX 1273 CHARLESTON, W. VA. Signed: *Edward E. Anderson*

Company COLUMBIA GAS TRANSMISSION CORP.
 Address BOX 1273 CHARLESTON, W. VA.
 Farm AMHERST COAL COMPANY
 Lease 1021 Acres 640[±] UNIT
 Well Farm No. _____ Ser. No. 20545
 Elevation - Spirit Level 930.55'
 Quadrangle QUICK, W. VA. 500
 Township or District CABIN CREEK
 County KANAWHA
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT. 38°16'59" LONG. 81°28'34"
 File No. 70-53 Dwg. No. _____
 Date 11-1-78 Scale 1" = 1000'

FORM 1495 CE 4 CSD

COLUMBIA GAS SYSTEM
 COLUMBIA GAS TRANSMISSION CORPORATION
WELL LOCATION MAP
 STATE OF WEST VIRGINIA

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

47-039-3700

Scale 15' □ 7 1/2' ■

MAR 9 1981

6-6 INDIAN CR.

Tuscaraora 6560' deep wells 358

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IV-35
(Rev 8-81)

JUL 9 - 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date June 30, 1982

Operator's Well No. 20545

Farm Amherst Coal Company

API No. 47 - 039 - 3700

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas x / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production x / Underground Storage ___ / Deep x / Shallow ___ /)

LOCATION: Elevation: 930.55 Watershed Left Fork of Witchers Creek
District: Cabin Creek County Kanawha Quadrangle Quick

COMPANY Columbia Gas Transmission Corporation

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

DESIGNATED AGENT James L. Weekley

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

SURFACE OWNER Amherst Coal Company

ADDRESS Port Amherst, Charleston, WV 25306

MINERAL RIGHTS OWNER Amherst Coal Company

ADDRESS Port Amherst, Charleston, WV 25306

OIL AND GAS INSPECTOR FOR THIS WORK Martin

Nichols ADDRESS P.O.Box 554, Clendenin, WV

PERMIT ISSUED February 19, 1982

DRILLING COMMENCED March 15, 1982

DRILLING COMPLETED April 10, 1982

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13 3/8" 13-10"	253.15	253.15	250 sacks
9 5/8	2071.60	2071.60	600 sacks
8 5/8			
7	5135	3266.30	200 sacks
5 1/2			
4 1/2	6500.75	6500.75	170 sacks
3			
2 3/8"	5810	5810	
Liners used			

GEOLOGICAL TARGET FORMATION Clinton Depth 6560 feet

Depth of completed well 6620 feet Rotary x / Cable Tools

Water strata depth: Fresh 30 feet; Salt 830 feet

Coal seam depths: Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Clinton Pay zone depth 6552-6562 feet

Gas: Initial open flow 1424 Mcf/d Oil: Initial open flow Bbl/d

Final open flow 3450 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 1625 psig (surface measurement) after 6 hours shut in

(If applicable due to multiple completion--)

Second producing formation Pay zone depth feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure psig (surface measurement) after hours shut in

JUL 19 1982

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Fractured Clinton 2-9-82 from 6552-6568' with 740 bbls. water, 1,000 gals.
HF (15%) acid and 26,100# 20/40 sand.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand			12	37	Fresh water at 30'
Sand - Shale			37	51	
Limestone			51		
Shale				275	
Sand - Shale			275	685	
1st Salt Sand			685	977	Salt water at 830'.
Shale			977	1030	
Sand			1030	1250	
Sand - Shale			1250	1315	
Little Lime			1315	1370	
Shale			1370	1375	
Big Lime			1375	1550	
Injun			1550	1585	
Sand & Shale			1585	1765	
Weir			1765	1850	
Sand & Shale			1850	2014	
Sand & Shale			2014	2100	
Sand & Shale			2100	2390	
Shale			2390	2740	
Shale			2740	3073	
Shale			3073	3490	
Shale			3490	3500	
Shale			3500	3760	
Shale			3760	4225	
Shale			4225	4569	
Shale			4569	4940	
Onondaga			4960	5052	
Oriskany			5052	5085	
Helderberg			5085	5350	
Salina			5350	5820	
Newburg			5820	5845	
McKenzie			5845	6090	
Rose Hill			6090	6480	
Tuscarora			6480	6570	
<u>Juniata</u>			6570	TD	
TD			6620		

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation

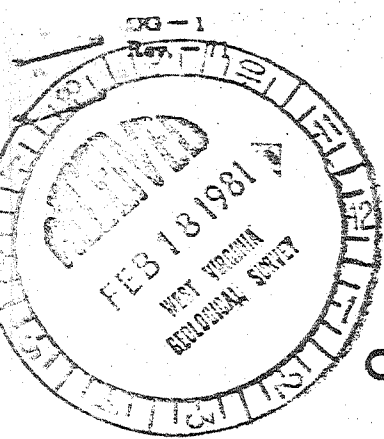
Well Operator

By:

Date:

June 30, 1982

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE February 3, 1981

Company Columbia Gas Transmission Corp.

Address P. O. Box 1273, Charleston, WV

Farm Amherst Coal Co. Acres 640

Location (waters) Left Fork of Witcher Ck.

Well No. 20545 Elevation 930.55

District Cabin Creek County Kanawha

Quadrangle Quick

Surface Owner Amherst Coal Company

Address Port Amherst, Charleston, WV 25306

Mineral Owner Same as above

Address _____

Coal Owner Same as above

Address _____

Lessee Pratt Mining Company

Coal Operator Pratt Mining Company

Address Box 175, Hansford, WV 25103

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 10-13-81.

Fred Burdette
Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Martin Nichols

ADDRESS P. O. Box 554, Clendenin, WV

PHONE 548-6993

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 6 - 1 1910 by Courtney Coal Co. made to United Fuel Gas Co. and recorded on the _____ day of _____ 19____ in Kanawha County, Book 20 Page 331

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) *[Signature]* Well Operator

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.

47-039-3700 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 2-b and will carry out the specified requirements."

Signed by *[Signature]*
Director, Exploration & Development

BLANKET BOND

[Handwritten signature]

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 _____ NAME Larry Friend
 ADDRESS _____ ADDRESS P. O. Box 610, Clendenin, WV
 TELEPHONE _____ TELEPHONE 965-3317
 ESTIMATED DEPTH OF COMPLETED WELL: 6560' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Tuscarora
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT LIFT UP OR SACKS - CUBIC FT.
20 - 1 1/2	30'		To Surface
13 - 1 1/2 3/8	160'		To Surface
9 - 5/8	2010'		To Surface
8 - 5/8			
7	5030'		
5 1/4			
4 1/4	6560'		<i>Rule 15-01</i>
3			Perf. Top
2 3/8	6560'		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