



COAL LEASED TO PRATT MINING CO.
NOT OPERATED IN VICINITY OF PROPOSED WELL AT PRESENT.

FILE NO. 70-55
 DRAWING NO. 21079
 SCALE 1"=100'
 MINIMUM DEGREE OF ACCURACY 1 Part in 2500
 PROVEN SOURCE OF ELEVATION U.S. GOV'T BM
ELEV. 902'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) *Stacy C. Hart*
 R.P.E. _____ L.L.S. 99

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78) LAT: 38°17'46"
 LONG: 81°27'51"



DATE MARCH 30, 19 82
 OPERATOR'S WELL NO. 21079
 API WELL NO. 47-039-3883
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE X DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1328.28' WATER SHED POINTLICK FORK
 DISTRICT MALDEN COUNTY KANAWHA
 QUADRANGLE QUICK Clendenen 15' SW
 SURFACE OWNER AMHERST COAL CO. ACREAGE _____
 OIL & GAS ROYALTY OWNER AMHERST COAL CO. LEASE ACREAGE 640 AC. UNIT
 LEASE NO. 1021
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
plug and abandon ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION TUSCARORA ESTIMATED DEPTH 7,000'
 WELL OPERATOR COL. GAS TRANS. CORP. DESIGNATED AGENT J. L. WEEKLEY
 ADDRESS CHARLESTON, WV ADDRESS SAME
25325-1273 6-6 Indian Creek (358)

JUL 06 1982

IV-35
(Rev 8-81)

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FEB 9 - 1984



OIL & GAS DIVISION
DEPT. OF MINES
State of West Virginia
Department of Mines
Oil and Gas Division

Date February 6, 1984
Operator's
Well No. 21079
Farm Amherst Coal Company
API No. 47 - 039 - 3883

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: 1328.28 Watershed Point Lick Fork
District: Malden County Kanawha Quadrangle Quick

COMPANY Columbia Gas Transmission Corporation
ADDRESS P. O. Box 1273, Charleston, WV
DESIGNATED AGENT James L. Weekley
ADDRESS P. O. Box 1273, Charleston, WV
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 P. O. Box 554
ADDRESS Clendenin, WV 25045
PERMIT ISSUED 6-18-82
DRILLING COMMENCED 7-7-82
DRILLING COMPLETED 8-2-82
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-DBX Cond.	39'	39'	30 sacks
13-10X"	878.73'	878.73'	520 sacks
9 5/8	2370.70'	2370.70'	1226 sacks
8 5/8			
7	5544'	3242'	119
5 1/2			
4 1/2	6920'	6920'	117
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Tuscarora Depth 6996 feet
Depth of completed well 7010 feet Rotary X / Cable Tools
Water strata depth: Fresh ___ feet; Salt ___ feet
Coal seam depths: 191-199' Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Tuscarora Pay zone depth 6948-6956 feet
Gas: Initial open flow 1420 Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 4300 Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure 1560 psig (surface measurement) after 72 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

FEB 21 1984

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

Acidized Tuscarora 9-22-82 from 6948-6960' with 1000 gallons HCL and 2000 gallons HF, 22,125# 20/50 sand.

7" casing run to 5544'. Pulled 2302'. Left 3242' in hole hanging on packer set at 2302'.

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	White			140	
Shale	gray		140	153	
Sand	gray		153	191	
Coal	black		191	199	
Shale	gray		199	283	
Sand	gray		283	1018	
Sand	white	hard	1018	1115	
Sandy shale	medium	gray	1115	1180	
Sand	white	hard	1180	1325	
Sandy shale	medium	gray	1325	1474	
Salt Sand			1474	1620	
Shale			1620	1635	
Maxon			1635	1675	
Little Lime			1675	1735	
Shale			1735	1740	
Big Lime			1740	1900	
Injun			1900	1960	
Siltstone			1960	2170	
Weir			2170	2210	
Siltstone			2210	2310	
Berea			2310	2330	
Onondaga			5350	5450	
Oriskany			5450	5500	
Williamsport			6210	6240	
Keefer			6450	6485	
Tuscarora			6890	6970	
LTD				7012	
DTD				7010	

5890
1528
5592

(Attach separate sheets as necessary)

Columbia Gas Transmission Corporation

Well Operator

By:

Date:

February 6, 1984

Note: Regulation 3.02(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."



Well No. 21079
Farm Amherst Coal Co.
API 747 - 039 - 3883
Date June 16, 1982

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil / Gas X /
(If "Gas", Production X / Underground storage / Deep X / Shallow /

LOCATION: Elevation: 1328.28 Watershed: Point Lick Fork
District: Malden County: Kanawha Quadrangle: Quick

WELL OPERATOR Columbia Gas Transmission Corp. DESIGNATED AGENT J. L. Weekley
Address P. O. Box 1273 Address P. O. Box 1273
Charleston, WV 25325 Charleston, WV 25325

OIL AND GAS ROYALTY OWNER Amherst Coal Co.
Address Port Amherst
Charleston, WV 25306
Acreage 640

COAL OPERATOR Pratt Mining Co.
Address P. O. Box 175
Hansford, WV 25103

SURFACE OWNER Amherst Coal Co.
Address Port Amherst
Charleston, WV 25306
Acreage

COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME Same as Royalty Owner
Address
NAME
Address

FIELD SALE (IF MADE) TO:
NAME
Address

COAL LESSEE WITH DECLARATION ON RECORD:
NAME Pratt Mining Co.
Address P. O. Box 175
Hansford, WV 25103

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME Martin Nichols
Address P. O. Box 554
Clendenin, WV 25045
Telephone 548-6993

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OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease X / other contract / dated 6/1, 1910, to the undersigned well operator from .

(If said deed, lease, or other contract has been recorded:)

Recorded on , 19 , in the office of the Clerk of County Commission of Kanawha County, West Virginia, in 20 Book at page 331. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill Deeper / Redrill / Fracture or stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify)

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1613 WASHINGTON ST., E.
CHARLESTON, WV 25311
Telephone - 304/348-3092

BLANKET BRAND

Columbia Gas Transmission Corporation
Well Operator

By: D.H. Smith

Its: Manager, Drilling & Operations, East

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY: ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) _____

Address _____

GEOLOGICAL TARGET FORMATION Clinton

Estimated depth of completed well 6995 feet. Rotary X / Cable tools /
Approximate water strata depths: Fresh, 578 feet; salt, feet.
Approximate coal seam depths: 313, 821
Is coal being mined in this area: Yes / No X /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drilling	Left in Well		
Conductor	20			X		60'	60'	To surface	Kinds
Fresh water	13-3/8			X		600'	600'	To surface	
Coal	9-5/8			X		2600'	2600'	To surface	Sizes
Intermed.	7			X		5600'			
Production Tubing	4-1/2			X		6995			Depths set
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR Drilling THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 2-24-83

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19____.

[Signature]

By: _____

Its: _____