

10,800'

1/15/80

Latitude 38° 20' 00"

STAKE TOP RIDGE
DOUBLE CHESTNUT
OAK, BEECH AND
HICKORY POINTERS
CALL OF BEECH
STAKE AND POINTERS
TOP OF RIDGE NEAR
HEAD OF BIG GATE
HOLLOW

CEDAR GROVE SEAM
MINE OPENING No. 4
880. ELEV. 1251.18'
COAL 1241.16'

CREEK

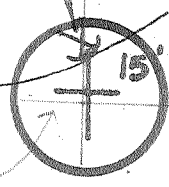
20659-T

2.53
2.04

CAMPBELLS
RR

S 12° 20' E
2695'

S 67° 45' E
1603'



2.475
2.0 W

8805

HUB BETWEEN
2 RAILS OF RAILROAD
OPPOSITE OLD
THEATER AT PUTNEY

SALLY D. TODD
MINERAL &
SURFACE

HAPPY HOLLOW

N 39° 30' E
2418'

R. GRAVES HUBBARD
TRUSTEE FOR
H. C. DICKINSON

FARM
MAP

75' 100'
2.535 38 20
2.04 W 81 20

SMALL
HICKORY ON
TOP OF RIDGE

BENCH MARK DESCRIPTION

BLOUNT, ABOUT 90' EAST OF
POST OFFICE SET IN TOP
NORTH EAST CONCRETE
ABUTMENT OF SMALL BRIDGE
ABOUT 2.2' LOWER THAN
BRIDGE FLOOR; STANDARD
TABLET GONE ELEVATION
792.936'

STAKE 75' NORTH
RIDGE AT HEAD
HAPPY HOLLOW OLD
BEECH POINTER SMALL
DOGWOOD POINTER
SMALL BLACK GUM POINTER

"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

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

1/15/80
ENGR. REG. No. 2330
BOX 1273 CHARLESTON

Signed William E. Dickinson

Company COLUMBIA GAS TRANS. CORP.
 Address BOX 1273 CHARLESTON, W. VA.
 Farm SALLY D. TODD
 Lease 25631 Acres 1350
 Well Farm No. _____ Ser. No. 20659-T
 Elevation - Spirit Level 1241.79'
 Quadrangle MIAMMOTH, CLENDENIN 15' SC
 Township or District MALDEN
 County KANAWHA
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT: 38° 17' 48" LONG: 81° 22' 16"
 File No. 74-55 Dwg. No. _____
 Date 3-21-79 Scale 1" = 400'

FORM 1495 CE 4 CSD
(REV. 11-78)

COLUMBIA GAS SYSTEM
COLUMBIA GAS TRANSMISSION CORPORATION

WELL LOCATION MAP
STATE OF WEST VIRGINIA

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

47-039-3462-P

Scale 15' 7-1/2'

DEEP WELL
3-0 Fivemile-Carpenter (216) FEB 28 1980

10,800'

13/19 72

Latitude 38° 20' 00"

Plot ___ Log ___ Card CSD ___

55

STAKE TOP RIDGE
DOUBLE CHESTNUT
OAK, BEECH, AND
HICKORY POINTERS
CALL OF BEECH
STAKE AND POINTERS
TOP OF RIDGE NEAR
HEAD OF BIG GATE
HOLLOW

CEDAR GROVE SEAM
MINE OPENING No. 4
ABD. ELEV. 1251.18'
CORL 1241.16'

CREEK
20659-T
2.505
2.02W

CAMPBELLS
RR

HUB BETWEEN
2 RAILS OF RAILROAD
OPPOSITE OLD
THEATER AT PUTNEY

SALLY D. TODD
MINERAL &
SURFACE

R. GRAVES HUBBARD
TRUSTEE FOR
H. C. DICKINSON

FARM
MAP

SMALL
HICKORY ON
TOP OF RIDGE

BENCH MARK DESCRIPTION

BLOUNT, ABOUT 90' EAST OF
POST OFFICE SET IN TOP
NORTH EAST CONCRETE
ABUTMENT OF SMALL BRIDGE
ABOUT 2.2' LOWER THAN
BRIDGE FLOOR; STANDARD
TABLET GONE ELEVATION
792.936'

STAKE 75' NORTH
RIDGE AT HEAD
HAPPY HOLLOW OLD
BEECH POINTER SMALL
DOGWOOD POINTER
SMALL BLACK GUM POINTER

"I, the undersigned, hereby certify that this map is correct to the best of my knowl-
edge 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

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

ENGR. REG. No. 2330
BOX 1273 CHARLESTON

Signed Thomas E. [Signature]

Company COLUMBIA GAS TRANS. CORP.
 Address BOX 1273 CHARLESTON, W. VA.
 Farm SALLY D. TODD
 Lease 25631 Acres 1250
 Well Farm No. _____ Ser. No. 20659-T
 Elevation - Spirit Level 1241.75'
 Quadrangle MAMMOTH CLAYDEN 19°
 Township or District MALDEN
 County KANAWHA
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LAT. 38° 17' 48" LONG. 81° 22' 16"
 File No. 74-55 Dwg. No. _____
 Date 3-21-79 Scale 1" = 400'

FORM 1495 CE-4 CSD
(REV. 11-78)

COLUMBIA GAS SYSTEM
COLUMBIA GAS TRANSMISSION CORPORATION

WELL LOCATION MAP
STATE OF WEST VIRGINIA

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

47-039-3462

Scale 15' 7 1/2'

AUG 7 1979

10. near Black River

220242

3-6

IV-35
(Rev 8-81)

RECEIVED

MAR 16 1984

OIL & GAS DIVISION
DEPT. OF MINES



State of West Virginia
Department of Mines
Oil and Gas Division

Date 3-12-84
Operator's
Well No. 20659-T
Farm Sallie D. Chase Todd
API No. 47 - 039 - 3462

REVISED

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 ___ / Underground Storage ___ / Deep X / Shallow ___ /)

LOCATION: Elevation; 1241.79 Watershed Campbells Creek
District: Malden County Kanawha Quadrangle Mammoth

COMPANY Columbia Gas Transmission Corp.
ADDRESS P. O. Box 1273, Charleston, WV
DESIGNATED AGENT J. L. Weekley
ADDRESS P. O. Box 1273, Charleston, WV
SURFACE OWNER Sally D. Todd
ADDRESS c/o Kanawha Valley Bank
Charleston, WV 25301
MINERAL RIGHTS OWNER same as Surface Owner
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Martin
Nichols ADDRESS Clendenin, WV
PERMIT ISSUED July 5, 1979
DRILLING COMMENCED 9-6-79
DRILLING COMPLETED 1-16-80 ✓
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- 18 X Cond.	245'	245'	to surface
13- 18 "	2598	2598	"
9 5/8	6539	6539	"
8 5/8			
7	8913	8913	
5 1/2			
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Black River Depth 10,522 feet
Depth of completed well 10,580 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 20 feet; Salt 60 feet
Coal seam depths: 180, 204 Is coal being mined in the area? NO

OPEN FLOW DATA DRY HOLE
Producing formation P/A Pay zone depth _____ feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ Mcf/d 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
(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

MAR 2 1984

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

Plugged & Abandoned ✓

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			0	20	
Shale			20	60	
Sand			60	100	
Shale			100	145	
Sand			145	155	
Shale			155	180	
Coal			180	182	
Shale			182	204	
Coal			204	206	
Shale			206	764	
Sand			764	795	
Shale			795	860	
Sand			860	900	
Shale			900	1035	
Salt Sand			1064	1540	
Big Lime			1844	2083	
Injun			2083	2112	
Weir			2166	2291	
Berea			2528	2596	
Onondaga			5594	5700	
Oriskany			5700	5728	
Helderberg			5728	5874	
Newburg			6480	6509	
Rose Hill			6761	7151	
Tuscarora			7151	7254	
Trenton Lime			8777	9061	
Black River			9061	10,278	
Wells Creek			10,278	10,522	
Beekmantown Dolomite			10,522	T.D. 10580	

(Attach separate sheets as necessary)


Well Operator

By: Director, Exploration & Development

Date: 3-12-84

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 ... encountered in the well."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary
Spudder
Cable Tools
Storage

Quadrangle Mammoth
Permit No. 47-039-3462

WELL RECORD 15

Oil or Gas Well Gas
(KIND)

Company Columbia Gas Trans. Corp.
Address P.O. Box 610 Clendenin, WV 25045
Farm Sallie D. Chase Todd Acres 1350
Location (waters) Campbells Creek
Well No. 20659-T Elev. 1241.79'
District Malden County Kanawha
The surface of tract is owned in fee by Sallie D. Todd
Address Charleston, WV
Mineral rights are owned by Sallie D. Todd
Address Charleston, WV
Drilling commenced 9-6-79
Drilling completed 1-16-80
Date Shot From To
With
Open Flow 1/10ths Water in Inch
1/10ths Merc. in Inch
Volume Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS)
WELL FRACTURED (DETAILS)

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
20"		245'	Kind of Packer
13-3/8"		2598'	
10"			Size of
9-5/8"		6539'	
7"		8913'	Depth set
5 3/16"			
4 1/2"			
3"			Perf. top
2"			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Attach copy of cementing record.
CASING CEMENTED 20" SIZE 245 No. Ft. 9-13-79 Date
Amount of cement used (bags) 250 sks. Class-A
Name of Service Co. Halliburton
COAL WAS ENCOUNTERED AT 180 FEET INCHES
182 FEET INCHES 204 FEET INCHES
206 FEET INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.) Not Treated
ROCK PRESSURE AFTER TREATMENT HOURS
Fresh Water 20' Feet 60' Salt Water Feet
Producing Sand Depth

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand			0	20			
Shale			20	60			
Sand			60	100			
Shale			100	145			
Sand			145	155			
Shale			155	180			
Coal			180	182			
Shale			182	204			
Coal			204	206			
Shale			206	764			
Sand			764	795			
Shale			795	860			
Sand			860	900			
Shale			900	1035			
Salt Sand			1035	1195			
Shale			1195	1215			
Sand			1215	1225			
Shale			1225	1260			
Sand			1260	1350			
Shale			1350	1370			
Sand			1370	1390			
Shale			1390	1415			
Sand			1415	1510			
Shale			1510	1545			
Sand			1545	1565			
Shale			1565	1595			
Sand			1595	1615			
Shale			1615	1725			
Maxon			1725	1770			

JUN 13 1980
OIL & GAS DIVISION
DEPT. OF MINES

JUL 16 1980

Information	Color	Hard or Soft	Top 15	Bottom	Oil, Gas or Water	Depth Found	Remarks
nd			1770	1800			
ttle Lime			1800	1885			
g Lime			1885	2053			
jun Sand			2053	2075			
ale			2075	2158			
nd Weir			2158	2178			
ale			2178	2255			
ir			2255	2480			
ale			2480	2500			
ren			2500	2600			
ale			2600	2611			

13-3/8" cemented using 1000 sacks
Haliburton lite cement and 200 sacks
Class-A on 9-23-79.

9-5/8" cemented using 470 sacks
50/50 posimix and 100 sacks Class-A
on 12-11-79.

7" cemented using 480 sacks 50/50
posimix on 12-27-79.

Date June 12, 1980

APPROVED

Bernard Prather

By

Eric Technical Insp.

(Title)

C. A. F. T. Co.

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. 20659-T

API Well No. 47 - 039-3462
State County Form

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

LOCATION: Elevation: 1241.79' Watershed: Campbell's Creek
District: Malden County: Kanawha Quadrangle: Mammoth

WELL OPERATOR Columbia Gas Transmission Corp.
Address P.O. Box 1273
Charleston, WV 25325

DESIGNATED AGENT John R. Henning
Address P.O. Box 1273
Charleston, WV 25325

OIL & GAS ROYALTY OWNER Sally D. Todd
Address c/o Kanawha Valley Bank
Charleston, WV 25301
Acreage 1350

COAL OPERATOR Valley Camp Coal Company
Address 700 Westgate Tower
Cleveland, Ohio 44101

SURFACE OWNER Sally D. Todd
Address c/o Kanawha Valley Bank
Charleston, WV 25301
Acreage _____

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Sally D. Todd
Address c/o Kanawha Valley Bank
Charleston, WV 25301

FIELD SALE (IF MADE) TO:
Name _____
Address _____

Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Martin Nichols
Address P. O. Box 554
Clendenin, WV 25045

COAL LESSEE WITH DECLARATION ON RECORD:
Name Valley Camp Coal Company
Address 700 Westgate Tower
Cleveland, Ohio 44101

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated January 14, 1978, 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 the County Commission of Kanawha County, West Virginia, in Deed Book 53 at page 311. A portion of the same is recorded on _____.

RECEIVED
JUL - 3 1979

PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or hydraulic fracture
Plug off old formation / Perforate new formation
Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side of this application.
OIL & GAS DIVISION
DEPT. OF MINES

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 the receipt of this Application by the Department.

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 lessee on the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE PRINT NAME AND ADDRESS OF ALL PHYSICIAN(S) CONSULTED DIRECTLY TO:
WEST VIRGINIA OIL AND GAS COMMISSION
415 WATER STREET EAST
CHARLESTON, WV 25301

COLUMBIA GAS TRANSMISSION CORPORATION
Well Operator
[Signature]
Director, Exploration & Development

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) DELTA DRILLING COMPANY

Address P. O. Box 781
Indiana, Pennsylvania 15701

GEOLOGICAL TARGET FORMATION, Black River

Estimated depth of completed well, 10,000 feet Rotary / Cable tools
Approximate water strata depths: Fresh, 70 feet; salt, feet.
Approximate coal seam depths: 170' - 210' Is coal being mined in the area?

CASING AND TUBING PROGRAM

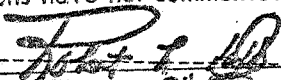
CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor	20	H-40	94	X		250'		To surface	Kinds
Fresh water	13-3/8	K-55	61	X		2600'		To surface	
Coal									Sizes
Intermediate	9-5/8	N-80	43.5	X		6500'			
Production	4-1/2	N-80	11.6	X		10,000'			Depths set
Tubing									
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 drilling 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 stimulation is 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, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 3-19-80.


Deputy Director - Oil & Gas Division

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

By
Its

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

RECEIVED
MAR 16 1984

OIL & GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL DEPT. OF MINES

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

Sally D. Todd
COAL OPERATOR OR OWNER
c/o Kanawha Valley Bank
Charleston, WV 25301
ADDRESS

Columbia Gas Transmission Corp.
NAME OF WELL OPERATOR
P. O. Box 1273, Charleston, WV 25325
COMPLETE ADDRESS

COAL OPERATOR OR OWNER
ADDRESS

3-12 19 84
WELL AND LOCATION
Malden District

Sally D. Todd
LEASE OR PROPERTY OWNER
ADDRESS

Kanawha County

Well No. 20659-T
Sally D. Todd Farm

STATE INSPECTOR SUPERVISING PLUGGING Martin Nichols

AFFIDAVIT

STATE OF WEST VIRGINIA, }
County of Kanawha } SS:

Charles Fordyce and Larry Friend
being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Columbia Gas Transmission Corp. well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 16 day of January, 19 80, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
			CSG PULLED	CSG LEFT IN
FORMATION	Cement 9980'-8800'			
	Plug set @ 4788'	7"	4702	4211
	Plug set @ 4698'	9-5/8"	2313	4262
	Cement 2300'-1900'			
	Plug set @ 100'			
	Cement 100' - surface			
COAL SEAMS			DESCRIPTION OF MONUMENT	
(NAME)			Erect monument as prescribed	
(NAME)			by law.	
(NAME)				
(NAME)				

and that the work of plugging and filling said well was completed on the 11 day of March, 19 80.

And further deponents saith not.

Sworn to and subscribed before me this 16 day of March, 19 84

My commission expires: 8-13-89

Charles Fordyce
Larry Friend
Larry J. Burdette
Notary Public.