

OK
 S. 5.63 38° 50'
 W. 3.12 79° 40'

Latitude 38° 50'

Longitude 79° 40'

- New Location
- Drill Deeper
- Abandonment

Company COLUMBIAN CARBON COMPANY
 Address Box 873 CHARLESTON W. VA.
 Farm UNITED STATES OF AMERICA
 C-4436-B
 Tract 32 Acres 1863.6132 Lease No. BLM-A-032819
 Well (Farm) No. G-4 Serial No. SW-1275
 Elevation (Spirit Level) 3249.17
 Quadrangle HORTON 9 - SW 3565 W 308
 County RANDOLPH District DRY FORK
 Engineer R. B. Anderson
 Engineer's Registration No. 2074
 File No. _____ Drawing No. W-15-57
 Date 8-14-57 Scale 1"=2000'

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

WELL LOCATION MAP
 FILE NO. TRAN-96

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

6-6 261 Deepwell



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 6

Peep

Quadrangle Horton 9 SW

Permit No. Ran-96

WELL RECORD

Oil or Gas Well gas
(KIND)

Company Columbian Carbon Company, Oper.
Address Box 873, Charleston 23, W. Va.
Farm United States of America Acres 1863.6132
Location (waters) East Fork of Gladly Fork
Well No. G-4, GW-1275 Elev. 3249.17' G16
District Dry Fork County Randolph
The surface of tract is owned in fee by Director, Bureau of Land Management
Interior Bldg. Address Washington 25, D. C.
Mineral rights are owned by same

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
1 3/8" 48#	48'6"	48'6"	none
3/4" 40#	970'1"	970'1"	Size of
5/8" 16			Depth set
3			Perf. top
2 3/8" 4#	5424'4"	5424'4"	Perf. bottom
Liners Used with 2" cage at 5392'			Perf. top
			Perf. bottom

Drilling commenced 9-14-57
Drilling completed 12-29-57
Date Shot not shot From _____ To _____
With _____
Open Flow 85 /10ths Water in _____ Inch
7" 23# /10ths Merc. in _____ Inch
Volume 14,519,000 cu. ft. Cu. Ft.
(before killing gas)
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED see reverse side

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see reverse side
COAL WAS ENCOUNTERED AT none FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

WELL FRACTURED not fractured

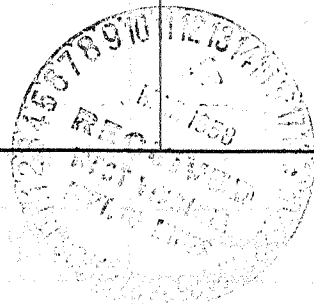
RESULT AFTER TREATMENT 30# thru 3" = 9,156,000 cu. ft.

ROCK PRESSURE AFTER TREATMENT 20 hours 1825#

Fresh Water 42' Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			0	5			
Clay and Rock			5	25			
Gravel			25	35			
Sand			35	80	F. water	42'	hole full
Slate and Lime			80	220			
Slate			220	260			
Lime			260	375			
Slate			375	400			
Lime			400	422			
Slate and Shells			422	1020	960'DLM=960'SLM		
Lime and Shale			1020	2100			
Shale			2100	3530	4964	5157	5416
Shale and Lime			3530	3780	3249	3249	3249
(the following formations are from sample log)					1715	1908	2167
Gray Shale			3780	4360			
Brown Shale			4360	4964			
Onondaga			4964	5011	Gas:		
Chert			5011	5086	5170' 80/10 M. 6-5/8" 13#= 13,600M		
Chert and Shale			5086	5109	5290-5340' incr. from 12,502M to		
Shale			5109	5157	104/10 M. 7" 23# = 16,000M		
Oriskany			5157	5416	5370- incr. from 16,000M to 110/10		
Lime			5416	5451	M. 7" 23# 16,521= MCF		
Total depth - Landing Flange				5451' =			
Rotary Measurement				5465'			
Cable tools 0 - 985'							
Rotary tools 985' to T. D.							

(over)



Formation	Color	Hard or Soft	Top 6	Bottom	Oil, Gas or Water	Depth Found	Remarks
12-30-57	Circulated mud to kill well - used 1100 barrels mud, 220 bags Gel, 690 sacks Baroid. Before killing well gas gauged 14,519 MCF (85/10 M. 7" 23#)						
Perforated 7" casing as follows:							
5196-5200'	17 shots						
5208-5214'	25 shots						
5216-5222'	24 shots						
5224-5240'	65 shots						
5243-5261'	73 shots						
5268-5278'	41 shots						
5282-5284'	9 shots						
5287-5295'	33 shots						
5340-5350'	40 shots						
5326-5332'	25 shots						
5157-5167'	41 shots						
2-19-58	Ran 5424'4" of 2" tubing with cage at 5392'						
2-21-58	Pumped in 65 barrels water - down tubing. Displaced with 65 bbls. mud - took 1200# to start - circulating at 950#.						
2-22-58	Pumped in 15 bbls. water - 2,000 gallons MCA with braden head open until MCA was on bottom - closed braden head - displaced first 500 gallons MCA into perforations - pressure started at 1400# - finished at 1100#. Shut down 5 minutes - displaced second 500 gallons MCA at 975# pressure - waited five minutes - displaced third 500 gallons MCA at 975# - waited five minutes - displaced last 500 gallons MCA at 975#. Shut down one hour - opened braden head - circulated all mud and MCA out of hole.						
2-24-58	Blew 24 hours thru Braden Head - gas gauged 30# thru 3" = 9,156 MCF - opened tubing - gas gauged same. Final open flow 9,156 MCF - 20 hour pressure 1825#.						
<u>CASING RECORD</u>							
10-6-57	Ran 10-3/4" casing with shoe at 960' DLM - cemented with 280 sacks.						
1-3-58	Ran 7" to bottom - 5 centralizers on pipe. Float collar between first and 2nd joints - Guide shoe on bottom. Cemented with 250 sacks Uniflo.						

Date March 12, 1958, 19

APPROVED Columbian Carbon Co., Oper., Owner

By R. B. Anderson, General Manager
(Title)

RECEIVED
WV Division of
Environmental Protection

083-0096 - Frac

FORM WW-2B

JUN 16 94 STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
Office of Oil & Gas WELL WORK PERMIT APPLICATION

Page of
Issued 06/21/94
Expires 06/21/96
1045° (2) 369

- 1) Well Operator: COLUMBIA GAS TRANSMISSION CORPORATION
- 2) Operator's Well Number: WELL #7443 3) Elevation: 3256.90
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) ~~Proposed~~ Formation(s): EXISTING 475 ORISKANY-CHERT
- 6) ~~Proposed~~ Total Depth: 5465 feet
- 7) Approximate fresh water strata depths: 80'
- 8) Approximate salt water depths: 1200' (APP.)
- 9) Approximate coal seam depths: NONE
- 10) Does land contain coal seams tributary to active mine? Yes / No /
KILL WELL, PULL 2-3/8" TUBING, CLEAN OUT TO 5465'(TD), INSTALL
- 11) Proposed Well Work: NEW FLANGED API-3000 10-3/4"X7"X2-3/8" WELLHEAD, RUN NEW 2-3/8" UPSET TUBING, MATRIX ACIDIZE WELL TO CLEAN UP STORAGE ZONE, OR FRACTURE TO
- 12) IMPROVE DELIVERABILITY. (NOTE: ADDITIONAL PERFORATIONS MAY BE ADDED IN CHERT).
CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	13-3/8"	UNK.	48#	48	48	TO SURF.
Fresh Water	10-3/4"	UNK.	40.50#	970	970	280 SKS.
Coal						
Intermediate						
Production	7"	UNK.	23#	-	5455	250 SKS.
Tubing	2-3/8"	J-55	4.7#		5400	
Liners						

PACKERS Kind NONE
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond _____ Agent
(Type)

19375

00387393
21

RECEIVED
WV Division of
Environmental Protection
JUN 16 94
Permitting
Division of Oil & Gas

Page 1 of _____
Form WW2-A
(09/87)

1) Date: June 10, 1994
2) Operator's well number
WELL #7443
3) API Well No: 47 - 083 - 00096 - F
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name U.S. FOREST SERVICE
Address MONONGAHELA NATIONAL FOREST
P.O. BOX 1548, ELKINS, WV 26241
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
Name _____
Address _____
- (b) Coal Owner(s) with Declaration
Name U.S. DEPT. OF INTERIOR, BUREAU OF LAND M
Address P.O. BOX 631
MILWAUKEE, WI 53201-0631
Name (SENT TO: BUREAU OF LAND MGT., FIELD
Address INSPECTION OFFICE, RT. 1, BOX 132
MARIETTA, OH 45750)
 - (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector PHILLIP TRACY
Address RT. 2, BOX 37A
MONTROSE, WV 26283
Telephone (304)- 636-8798

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

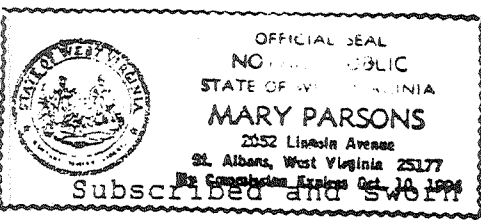
- _____ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator COLUMBIA GAS TRANSMISSION CORP.
By: [Signature] JUN 10 1994
Its: DIRECTOR, DRILLING & MAINTENANCE
Address P. O. BOX 1273
CHARLESTON, WV 25325-1273
Telephone 304-357-2459



Subscribed and Sworn before me this 10th day of June, 1994

Mary Parsons Notary Public
October 10, 1994

My commission expires _____