

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

OIL AND GAS DIVISION

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

To THE DEPARTMENT OF MINES, Charleston, W. Va.	
	UNITED FUEL GAS CO.,
COAL OPERATOR OR COAL OWNER	NAME OF WELL OPERATOR % G. H. MOOTE
ADDRESS	P.O. Box 1273, Charleston 25, W. Va.
	August 17, 19 48
COAL OPERATOR OR COAL OWNER	PROPOSED LOCATION
ADDRESS	District
Wayne County Land & Mineral Co. % Howard F. Meek	County
OWNER OF MINERAL RIGHTS	200 55'
Huntington, West Virginia ADDRESS	Well No. 6405 82° 20'
GENTLEMEN:	F. D. Caldwell, et al Farm
The undersigned well operator is entitled to dr	rill upon the above named farm or tract of land for
on and gas, having fee title thereto, (or as the case n	may be) under promoter lease dated
May 1, 1931 made by	yF. D. Caldwell & Frank T. Clark, Truste
UNITED FUEL GAS CO	Train 1: Olars, Iruste
of October, 1937	, and recorded on the 2nd day
of October, 1931 , in Book 16 , page 350 .	the office of the County Clerk for said County in
aries of the same, who have mapped their workings are coal operators or coal owners (if any) above named as The above named coal operators or coal owners (if desire to make to such proposed location, or which they the drilling of a well at said proposed location will cause coal mines, must be received by, or filed with the Departma copy of this notice and accompanying plat by said Departman that forms for use in making such objections will be fur on request and that all such objections must set forth as grounds on which such objections are based and indicate the be moved to overcome same. (The next paragraph is to be completed only in	delieves there are no coal operators operating beds id well is located, or within 500 feet of the bounded filed their maps as required by law, excepting the addressees. If any) are notified that any objections they may are required to make by Section 3 of said Code, if a dangerous condition in or about their respectivement of Mines within ten* days from the receipt of expartment. Said coal operators are further notified arnished to them by the Department of Mines promptly definitely as is reasonably possible the ground or the direction and distance the proposed location should a Department's copy.
	nailed by registered mail, or delivered to the above
named coal operators or coal owners at their above sho or on the same day with the mailing or delivery of the West Virginia.	win respective address Same day before, is copy to the Department of Mines at Charleston,
Very trul	
	UNITED FUEL GAS CO.,
	WELL OPERATOR
Address)	% G. H. Moore
of	STREET DO
Well Operator)	P.O. Box 1273, Charleston 251/17/202
AUG STORMAN	CITY OR TOWN
*Soution of WISS WINES 2	West Virginia
*Section 3 If no such objections be filed or be four ten days from the receipt of said notice and plat by the depart ment shall forthwith issue to the well operator a drilling pern have been made by the coal operators to the location, or four approved and the well operator authorized to proceed to drill	and by the department of mines, within said period of ment of mines, to said proposed location, the department reciting the filing of such salarity.

WAY-608 PERMIT NUMBER

JARRETT PRINTING COMPANY, CHARLESTON, W. VA.

608

August 30, 1948

United Fuel Gas Company c/o G. H. Moore Box 1273 Charleston, West Virginia

Gentlemen:

and it is

Enclosed is permit WAY-608 to drill Well No. 6405 on the F. D. Caldwell et al Farm, Lincoln District, Wayne County.

Very truly yours,

Administrative Assistant OIL AND GAS DIVISION

CNH:K Encl-2

CC: Inspector D. E. Lawson

Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks
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					GW SHOL	tion to a	Page 1
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			BEATLE ST		Date	July 5,	, 19 49

APPROVED United Fuel Gas Co., Own

By Chief Engineer (Title)



naugatuck

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES OIL AND GAS DIVISION

WELL RECORD

Oil or Gas Well Permit No. WAY-608 Left in Well United Fuel Gas Company Used in Drilling Packers Casing and Tubing Address P. O. Box 1273, Charleston 25, W. Va. Acres 13,500 F. D. Caldwell, et al Size Jennie Cr. of Tug River Kind of Packer. Location (waters)_ Elev. 738.91 6405 Well No.__ Wayne District Lincoln 316 316 Size of_ The surface of tract is owned in fee by_ Pulled 1001 81/4_ Address_ Depth set. 1194 1194 Mineral rights are owned by Wayne Co. L. & M. Co. 5 3/16_ ite 1200, 1st. Htgn. Natdress Huntington, W. Va. Perf. top_ Drilling commenced_ Perf. bottom. 6-2-49 Drilling completed___ Perf. top_ Liners Used Date Shot 6-3-49 Perf. bottom. With 4800# Gel. Open Flow 108 /10ths Water in 2" Inch SIZE CASING CEMENTED_ Inch _/10ths Merc. in_ 438 M - Shale Cu. Ft. Volume_ COAL WAS ENCOUNTERED AT 50 48 hrs. INCHES Rock Pressure 440 lbs. FEET _bbls., 1st 24 hrs. Oil INCHES FEET FEET INCHES_

Fresh water		feet	feet	FEET	INCHE	SFEET	INCHES
Formation Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface Slate Sand Coal Slate & Shell Sand Slate & Shell Broken Sand Slate & Shell Red Rock Slate & Shell Black Lime Big Lime Injun Slate & Shell Coffee Shale Berea Slate Brown Shale Slate & Shell Brown Shale Slate & Shell Brown Shale Slate Total Depth	s ls ls	56789107 JUL 1949	0 15 30 50 52 400 450 600 885 960 970 1020 1030 1055 1145 1175 1377 1410 1880 1920 2015 2028 2110 2360 2455 2535 2843	15 30 50 52 400 450 600 885 960 970 1020 1030 1055 1145 1175 1377 1410 1880 1920 2015 2028 2110 2360 2455 2535 2843 2853	Shot 6-3-49	after shot	79202341-2853 208/10 W 2" 436 M

*CHECOUNTY

UNITED FUEL GAS COMPANY

COMPANY

eizk	CASING AN	D TUBING		
SIZE	And in contrast of the last of			Test before shot
	WEIGHT	USED IN DRILLING	LEFT IN	70 /10 of Water in 2 incl
10m	32.75#	3161211	3161211	/10 of Merc, inincl
8-1/4"	32/12/14	1001/11	NONE	Volume 353 MGF Cu. ft
6-5/811	50#	12051911	120519"	TEST AFTER SHOT
				108 /10 of Water in 2 incl
				/10 of Merc, inincl
				Volume 438 MCF Cu. ft
				1-3 hrno Hours After Sho
				Rock Pressure 1440/
				Date Shot June 3/ 1949
				Size of Torpedo 14800# Del.
		SHUT IN		Oil Flowedbbls. 1st 24 hrs
	Date		1949	Oil Pumpedbbls. 1st 24 hrs
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FORMATION	TOP	воттом	THICKNESS	REMARKS
Unjun	1377	1/410	33	
Slate & Shells	1/10	1880	470	
Coffee Shale	1880	1920	140	
Berea Sand	1920	2015	95	
Slate	2015	2028	13	
Brown Shale	2028	5110	82	
Slate & Shells	2110 0	2360	250	
Brown Shale	2360	2455	95	KERKRY Show of gas at 24551
White Shale	2455	2535	80	
Brown Shale	2535	2843	308	
Slate	2843	2853	10	Show of gas 2820 to 2825- 70/10 We
Total Depth	2853			14 of cavings in hole after shote
		****	***************************************	

				RECEIVED
				JUN 21 1949
				DIVISION SUPT.
				L IIIVIANA
				A contract of the contract of
				All Long and the State of the S
				APPROVED
				If st Tido
	-			Market State of the State of th

Devonian Shale - 2015 to 28531 Total Shale - 838'

no sand logged

no electric log Mary S. Friend Geologist

11/17/2023

CALCULA AND A



Mr. J. R. Hussey, Div. Su. Well No. 6405 (Serial No.) on	
Was shot this date with 4800/	
Number of Shells 72 She	lls
Length of Shells 4-1/4"	X10-1./2 ·
Top of Shot 2141:	
Bottom of Shot 28534	
Top of Slate & Shells (Name of Sand)	Sand 2141 feet
Bottom. of Brown Shale (Name of Sand)	Sand 28531 feet
Total Depth of Well 28531	2000 2000 C 2000 C 200 C 2
Results: before sho	ot 70/10 W-2" (353 MCF) t 108/10 W-2" (438 MCF)
Remarks:	RECEIVED
	JUN 21 1949
Signed # # # # # # # # # # # # # # # # # # #	District Sunt

NOTE-When a well is shot this form must be filled out and sent to the General Superintendent.









District Supt.



U.S. DEPARTMENT OF ENERGY Federal Energy Regulatory Commission Washington, D.C. 20426

APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA) (Sections 102, 103, 107 and 108)

PLEASE READ BEFORE COMPLETING THIS FORM:

General Instructions:

Complete this form if you are applying for price classification under sections 102, 103, 107 or 108 of the NGPA. A separate application is required for each well. If any reservoir qualifies for a category which differs from the category applicable to the producing well, separate applications must be made for the producing well and the reservoir. Complete each appropriate item on the reverse side of this page. The code numbers used in items 4.0 and 6.0 can be obtained from the Buyer/Seller Code Book. If there is more than one purchaser or contract, identify the additional information in the space below. Enter any additional remarks in the space below.

Submit the completed application to the appropriate Jurisdictional Agency as listed in title 18 of the CFR, part 274.501. If there are any questions, call (202) 275-4539.

Specific Instructions for Item 2.0, Type of Determination:

Section of NGPA	Category Code	Description
102	1	New OCS Lease
102	2	New onshore well (2.5 mile test)
102	3	New onshore well (1,000 feet deeper test)
102	4	New onshore reservoir
102	5	New reservoir on old OCS Lease
103	-	New onshore production well
107	-	High cost natural gas
108	-	Stripper well

Other Purchasers/Contracts: Contract Date (Mo. Day Yr.) Remarks:

FT7900806/1-2

1.0 API weii number	47-0	99-0060	8-		
2.0 Type of determination being sought (Use the codes found on the front of this form.)	107) Section of		Category Code		
3.0 Depth of the deepest completion location (Only needed if sections 103 or 107 in 2.0 above.)		2853	_feet	-bise	
4.0 Name, address and code number of applicant (35 letters per line maximum. If code number not available, leave blank.)	Name	Box 1273		orporation WV 25325 State Zip Code	004030 Seller Code
5.0 Location of this well. [Complete (a) or (b).] (a) For onshore wells (35 letters maximum for field name.)	Field Nam Way County	Field Ace	ea B	WU State	
(b) For OCS wells	Area Nam	Date of Lea	<u> </u>	Block Number	
(c) Name and identification number of this wel! (35 letters and digits maximum.)	EDO	Caldwell	No.45	806405	
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)		NA			
6.0 (a) Name and code number of the purchaser (35 letters and digits maximum. If code number not available, leave blank.)	Name	*			004030 Buye [,] Code
(b) Date of the contract:			Mo. Day	* Yr.	
(c) Estimated total annual production from the well			12	Million Cu	bic Feet
		(a) Base Price	(b) Tax	(c) All Other Prices (Indicate (+) or (-).)	(d) Total of (a), (b) and (c)
7.0 Contract price (As of filing date. Complete to 3 decimal places.)	S/MMBTU				
8.0 Maximum lawfu! rate (As of filing date. Complete to 3 decimal places.)	S'MMBTU	Dereg			
9.0 Person responsible for this application: Agency Use Only Date Received by Juris. Agency JUN 3 - 1982 Date Received by FERC	Signature	H. Mathenaut H. M.	athenw)	Title 04) 346-0951 Phone Number	_

Date 5-20-82

DEPARTMENT OF MINES OIL AND GAS DIVISION Operator's Well No. 806405

API Well No.

47 - 099 - 00608 State County Permit

WELL CLASSIFICATION FORM HIGH COST GAS WELL - DEVONTAN SHALE

NGPA Sec	(tion 10/
	DESIGNATED AGENT James L. Weekley
	ADDRESS P. O. Box 1273
	Charleston, WV 25325
	LOCATION Elevation 738.9/
WELL OPERATOR Columbia Gas Trans. Corp.	Watershed
ADDRESS P. O. Box 1273	Dist. Lineo/n County Wayne Quad.
Charleston, WV 25325	Contract No. N.A.
GAS PURCHASER N.A.	Meter Chart Code
ADDRESS	Date of Contract N.A.
This is a pipeline production well and no g	
Date surface drilling began: 3-/7	- 1949
	well and explain how this was calculated.
See Supplement	
A 12	ETDAVID
	FIDAVIT
Devonian Shale as indicated by a Gamma Ra described in subparagraph (3)(i) or (3)(i report described in subparagraph (3)(ii)(of potentially disqualifying non-shale fo percent of the gross Devonian age interval	l; and I have no knowledge of any information inconsistent with a conclusion that the well
COLOR OF LOCAL DEPOSITION	· ·
STATE OF WEST VIRGINIA	
COUNTY OF KANAWHA , TO-WIT:	
I, Larry G. Burdette , a Notar	
aforesaid, do certify that Albert H. Math	ena, Jr. , whose name is signed to
the writing above, bearing date the 20 acknowledged the same before me, in my co	unty aforesaid.
Given under my hand and official seal thi	s 20 day of //ay, 1982.
My term of office expires on the 13 da	y of August, 1989
(NOTARIAL SEAL)	Notary Public

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date 5-20 . 1982
Operator's 806405

API Well No. 47 -

99 - 00608

STATE APPLICATION FOR WELL CLASSIFICATION

Previous File No. (If Applicable)

WELL OPERATOR Columbia Gas Trans. Corp.	DESIGNATED AGENT James L. Weekley
ADDRESS P. O. Box 1273	ADDRESS P. O. Box 1273
Charleston, WV 25325	Charleston, WV 25325
Gas Purchase Contract No. NA* and	Date
Meter Chart Code	(Month, day and year)
Name of First Purchaser NA*	
(Street or	P () Box)
	(Zip Code)
FERC Seller Code NA*	FERC Buyer Code NA*
TYPE OF DETERMINATION BEING SOUGHT:	
(1) Initial determination (See FERC Form 121. (2) Determination that increased production is recovery technology.	s the result of enhanced
(3) Determination of a seasonally affected we	Albert H. Mathena, Jr. Production Engineering
*This well is a pipeline production and no gas purchase contract exists.	Signature P. O. Box 1273 Street or P. O. Box
	Charleston WV 25325 City State (Zip Code)
	304) 346-0951 Area Phone Number
(Certificate of Proof of Service to Purchaser)	
A copy of this filing is being retained owner and operator of the identified wel	by Columbia Gas Transmission Corporation, 1.
(All of the above to be completed by the Operator/	Applicant)
(To be completed by Jurisdictional Agency. Execut purchaser, if known).	ed copy to be returned to Operator/Applicant and
well as meeting the requirements of Section	a request. for certification of the above described under the Natural Gas Policy Act of 1978, roduction is the result of enhanced recovery technology ion of a seasonally affected well under Section 108 of (NGPA)
All interested parties are hereby notifithe office of the Oil and Gas Division in Charlest be heard there will be a public hearing, if reques	ed that on the day of , 19 , at on, West Virginia, or as soon thereafter as it may sted, or if objection is filed.
This Application is assigned File No	
Initial review of information submitted entitled to certification as claimed under the Nat and any additional evidence will be made at the tias the matter may be heard.	indicates the well is. is not ural Gas Policy Act (NGPA). A review of this evidence me appointed for a public hearing or as soon thereafter
Unless objections are timely filed or a days, a hearing will not be held except on ex part go to determination.	request for a hearing is made within fifteen (15) e motion of the department and the matter will
	WEST VIRGINIA DEPARTMENT OF MINES
	- 0.4
JUN 3 - 1983	By
Date received by Jurisdictional Agency	Title 11/17/2023



State of West Virginia Department of Mines Gil and Gas Stoision Charleston 253115

WALTER N. MILLER DIRECTOR

THEODURE M. STREIT ADMINISTRATOR

OF THE DEPARTMENT OF MINES OF THE STATE OF WEST VIRGINIA

IN THE MATTER OF THE APPLICATIONS OF COLUMBIA GAS TRANSMISSION CORPORATION REQUESTING CLASSI-FICATION UNDER SECTION 107 OF THE NATURAL GAS POLICY ACT OF CERTAIN WELLS IN BOONE, CABELL, JACKSON, KANAWHA, LINCOLN, LOGAN, MINGO AND WAYNE COUNTIES, WEST VIRGINIA.

CAUSE NO. 33

ORDER NO. 1

REPORT OF THE OFFICE

This cause came before the Administrator of the Office of Oil and Gas on June 28, 1982, at 1:00 p.m., in Conference Room C, Capitol Conference Center, Charleston, West Virginia, after giving notice of hearing as required by law on the applications of Columbia Gas Transmission Corporation for certification of certain wells in Boone, Cabell, Jackson, Kanawha, Lincoln, Logan, Mingo and Wayne Counties as Devonian Shale wells under Section 107(c)(4) of the Natural Gas Policy Act.

FINDINGS OF FACT

- l. Applicant is an operator within the meaning of paragraph (w) of Chapter 22-4-1.
 - 2. Applicant has made filings for certification pursuant to Rule 34.04.
- 3. The Natural Gas Policy Act (NGPA) in Section 107, Ceiling Price For High-Cost Natural Gas--(c) Definition of High-Cost Natural Gas-- "For purposes of this section, the term "high-cost natural gas" means natural gas determined in accordance with Section 503 to be....(4) produced from Devonian Shale."
- 4. The Federal Energy Regulatory Commission (FERC) by Rule 272.101-(c) prescribes the method by which the jurisdictional agency may determine gas produced from Devonian Shale.
- 5. Exhibits refer to evidence gathered at a public hearing held June 28, 1982.

- 6. Exhibits No. 2 and 3 lists the wells to be under consideration for Section 107 pricing. All these wells are located on Exhibits No. 4 and 5 and have been completed in the Devonian Shale.
- 7. Applicant, by letter dated June 25, 1982 (Exhibit No. 3) requested that eight (8) of the wells listed on Attachment A be stricken from the docket for hearing and they have been withdrawn.
- 8. Exhibit No. 6 shows random sampling of already qualified Devonian Shale wells.
- 9. Various cross-sections throughout the interval show gamma ray logs of the wells (see Exhibits Nos. 7, 8 and 9).
- 10. No well has any non-shale greater than 5% in the Devonian interval penetrated.
- 11. No gamma ray logs are available on these wells since they were all drilled before logging was common in West Virginia.

CONCLUSION OF LAW

- 1. That due notice of the time, place and purpose of the hearing has been given in all respects as required by law.
- 2. That pursuant to Chapter 22, Article 4, Code of West Virginia of 1931, as amended, the Office has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

ORDER

NOW, therefore, based on the aforementioned Findings of Fact and Conclusion of Law, it is found by the Administrator that Columbia Gas Transmission Corporation's applications for classification under Section 107 of the Natural Gas Policy Act for certain wells in Boone, Cabell, Jackson, Kanawha, Lincoln, Logan, Mingo and Wayne Counties, identified in Attachment A, are approved.

The Office of Oil and Gas further incorporates the Report of the Office and Findings of Fact and Conclusion of Law dated June 28, 1982, as if the same were fully set forth and includes hereto the Report of the Office and Findings of Fact and Conclusion of Law as a part of this Order.

Entered this 12th day of July, 1983.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

y: 1117

Theodore M. Streit, Administrator

COLUMBIA GAS TRANSMISSION CORPORATION

WELL NO. 806405 SUPPLEMENT: METHOD OF CALCULATION OF BOTTOM HOLE PRESSURE PBH = PWH + PWH (E**0.0000347*6*L - 1.)

WHERE:

PBH = BOTTOM HOLE PRESSURE (PSIA)

PWH = WELLHEAD PRESSURE (PSIA)

= 454.7 = 0.7170

G = SPECIFIC GRAVITY OF GAS

L = DEPTH TO MIDDLE OF PERFORATIONS (FT.) = 2497

STEPS:

PBH = 454.7 + 454.7 (E**0.0000347*1790.349 -1.)

PBH = 454.7 + 454.7 (E**0.062125 -1.)

PBH = 454.7 + 454.7 (1.06410 -1.)

PBH = 454.7 + 454.7 (

PBH = 483.8 (PS

29.1

PBH =

11/17/2023