

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES OIL AND GAS DIVISION

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

Charleston, W. Va.		
	United Fuel Gas Company	
COAL OPERATOR OR COAL OWNER	NAME OF WELL OPERATOR	_
	Charleston, W. Va.	
ADDRESS	COMPLETE ADDRESS	_
	Ammil 08	(0
COAL OPERATOR OR COAL OWNER	April 28 ,19_6	50
	PROPOSED LOCATION	
ADDRESS	Grant Dist	trict
ADDRESS		
United Fuel Gas Co.	Wayhe 38000 Cou	inty
OWNER OF MINERAL RIGHTS	21 05015'8	10.50
	Well No. 8743 8278 4.	
ADDRESS	United Fuel Gas Co. Min. Tr.#1 F	
GENTLEMEN:	40,234.86 acres	arm
The undersigned well operator is entitled to dri	upon the above named farm or tract of land	for
oil and gas, having fee title thereto, (or as the case management 26, 1946	ty be) under grant or lease dated	
, made by.	Huntington Development & Gas	, 60
United Fuel Gas Co	, and recorded on the 27th	day
of December, 1946, in	the office of the County Clerk for said County	in
Book 234 , page 318 .	, and a second s	***
The enclosed plat was prepared by a competent er to be drilled for oil and gas by the undersigned well ope and County above named, determined by survey and coland marks.	rator on the tarm and in the Manistanial Dia	
The undersigned well operator is informed and be of coal beneath said farm or tract of land on which said aries of the same, who have mapped their workings an coal operators or coal owners (if any) above named as	d filed their maps as required by law, excepting addressees.	the
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 Departm a copy of this notice and accompanying plat by said Depthat 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.	are required to make by Section 3 of said Code a dangerous condition in or about their respec- ent of Mines within ten* days from the receipt partment. Said coal operators are further notic mished to them by the Department of Mines promy definitely as is reasonably possible the ground	e, if tive t of fied ptly
(The next paragraph is to be completed only in	Department's copy.)	
Copies of this notice and the enclosed plat were m		ove
named coal operators or coal owners at their above sho or on the same day with the mailing or delivery of th	wn respective address day bef	OFA
west viigilia.		.om,
Very trul	y yours,	
SE 27 28 29 30 S	UNITED FUEL GAS COMPANY	
a color	WELL OPERATOR	
APR OCC	P. O. Box 1273	
APR 960 RECEIVED OF Well Operator WEST VIRGINIA DEPT. OF MINES	STREET	art in the
Well Operator	Charleston 25	
DEPT OF THE	CITY OR TOWN 08/25/2	2023
DEPT. OF MINES	West Virginia	
9/9/5/01/21/10	STATE	

*Section 3 LLO If no such objections be filed or be found by the department of mines, within said period of ten days from the receipt of said notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a drilling permit reciting the filing of such plat, that no objections have been made by the coal operators to the location, or found thereto by the department, and that the same is approved and the well operator authorized to proceed to drill at said location.

1281

WAY-1281

PERMIT NUMBER

STATE OF WEST VIRGINIA DEPARTMENT OF MINES

ND GAS DIVISION 3/

		OIL AN
uadrangle _	Naugatuck	
duantangie —		

WELL BECORD

Supt., Civil Engineering Dept.

Adgust 23

UNITED FUEL GAS COMPANY

Permit No. WAY-1281	LL RECORD		Oil or	Gas Well Gas
Company United Fuel Gas Company Address P.O. Box 1273; Charleston 25, W. Va Farm United Fuel Gas Co.Min.Tr.#1 Acres 40,2		Used in Drilling	Left in Well	Packers
Location (waters) Left Fork of Wiley Branch Well No. 8743 County Wayne	Size			Kind of Packer
The surface of tract is owned in fee by	10_3/4		17' 518	Size of
Mineral rights are owned by United Fuel Gas Co	7 6% 5 3/16		1606	Depth set
Drilling commenced 5-21-60 Drilling completed 7- 5-60	2		3172	Perf. top Perf. bottom
Date Shot not shot From To With				Perf. top Perf. bottom
Open Flow /10ths Water in 32 /10ths Merc. in 3 Volume 1,980 M - Bhale Ct Rock Pressure 430 lbs. 48	_Inch a. Ft. CASING CEMI	ENTED	SIZE	No. FtDate
Oilbbls., 1st 2	FEE	rINC	CHES	FEETINCHES
WELL FRACTURED_	FEE	rINC	CHES	FEETINCHES

RESULT AFTER TREATMENT_

Berea Sand

ROCK PRESSURE AFTER TREATMENT

Fresh Water	200	Feet]	100'	Salt Water		Feet	
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth	Remarks
Soil			0	14	Water 200' 2	bailers per	hour
Sand			14	95			
Slate			95	195	Show gas 589	5'	
Coal			195	198			
Slate			198	222	Show of Coal	with gas 69	0-655'
Sand			222	368			
Slate			368	450	Hole full wa	ter 1100'	
Sand	6015		450	479			
Slate			479	493	Oil at 1685		
Sand			493	545			
Slate	to a second		545	574	Gas 2960' 4,	10 W 1" 21 M	4
Sand			574	596			
Slate			596	680	Gas 3050' 2,	10 W 2" 60 M	1
Sand			680	700			
Slate			700	815	Gas 3150' 1	/10 W 2" 158	M
Sand			815	935			
Slate			935	1030	Gas 3160-31	70' 25/10 W 7	" 20# 2,192 M
Sand			1030	1260			
Slate			1260	1405	NOT SHOT		
Sand			1405	1500			
Slate & Sh	ells		1500	1535	Test after	tubed 32/10 N	erc 3" 1,980 N
Red Rock		0000	1535	1545			
Slate	61787	930317	1545	1570	Temperature		
Lime	2000	930311723	1570	1580	G. G. Densi	08/	25/2023
Pencil Cav	e (90,	XA	1580	1582			
Big Lime	120	IG 1960 5	1582	1840	Shut in 4-6.	$60 \text{ in } 3\frac{1}{2}$ " to	bing.
Injun Sand		EIVED Z	1840	1895	Loca:		
Slate & Sh	ells wret	VIRGINIA 6		2400			
Brown Shal	9 16	OF MINES	2400	2418	LOGS:		

2400

(over)

(over)

Hammarke

2418

Formation	Color	Hard or Soft	Top 3/	Bottom	Oil, Gas or Water	Depth Found	Remarks
Brown Brown Berea Slate Pic Pi Total Leucii Con Pine Brane	Sand & Shells	US 1960 STATED STATES	2400 2418 2440 3180	2418 18 2440 18 3180 1980	LOGS: Gamma Ray Induction G. G. Densi Temperature	THE RESERVE THE PARTY OF THE PA	tubing.
State Sand Sand Slate Sand Sand State & Shall			935 1030 1260 1405 1500	1030 1260 1405 1500 1535	Cas 3160-31 NOT SHOT Test after		7° 20# 2,192 M
Sand Slate Slate Send Slate Slate			493 545 574 596 700 815	545 574 596 680 700 813	Cas 3050' 2 Cas 3150' 1	TO M S. 90	N
State Sand Sand State Sand Sand			195 198 222 368 450	198 222 368 450 479	Show of Coa Hole full w	with gas	650-655
Formation SOLL Sand Slave		Hard or Soft	1 to p 1 tr 95	Bottom 14 95 195	or Water Water 200' Show gas 58	Depth 2 bailers	Remarks .
WELD FRACTURE RESULT APTER ROCK PRESULT PRESULT FRESULT FRESULT Fresh Water			TOO,	Sall Water		Rect	
Rock Pressure On WELL ACIDIZE	rt30	ibs 48	bbis., 1st 24 hrs	COAL WAS I	NCOUNTERED T INCE		EEF INCHES
		3 Shale	Inch Inch Gu. Fit.	CASING CEM	ENTED	INE N	Perf. bottom o. 2n Dave
Drilling commence Drilling complete Date Shot not	7.			5 3/16 3 ½ 9 . Limens Used.			Perf. top Perf. bettorn Perf. bettorn
District The surface of tra				3/4 83x 5/8 7 3x ₈		17' 518	3 " × 7" Depth set
Madress F.O. Farm United Location (waters Well No.	Cox 1273; Muel Gas (Charleston 2	ranch elev 1050.0	Tabing Size	Drilling		Packers Kird of Packer
demurbakie	Mgatuck M-1291 ed Fuel (Sas Company	METT	RECORD Geing mid	Used In	OH OL OHO	8/25/2023

APPROVED UNITED FUEL GAS COMPANY , Owner

Supt., Civil Engineering Dept.

UNITED FUEL GAS COMPANY

COMPANY

SERIAL WELL NO. 8743		LEASE NO	No Ref.	Manager sparrought - pro-cor		MAP SQUARE 26-33
RECORD OF WELL NO. 8743	on the		CASING AND	DNIBUT	TOTAL TO SECURITION OF THE SECURITIES OF THE SECURITION OF THE SECURITIES OF THE SECURITION OF THE SECURITIES OF THE SECURITION OF THE SECURITIES OF THE SECURITION OF THE SECURITIES.	TEST BEFORE SHOT
JFG Co. Min. Tr. #1 farm of	-86 Acres	SIZE	WEIGHT	DHILLING DHILLING	LEFT IN	Not Shot /10 of Water ini
in Grant	District	10-3/4"	32#	17*	17"	/10 of Merc, ini
Wayne	County	8-5/8"	24#	524	5241	
State of: West Virginia		7"	20#	16191	16191	Volume Cu. WATURALII TEST AFTER SHOT
Field: Central Divisio	n	3-1/2"	9#	31891	31891	/10 of Water ini
Rig Commenced May 17,	1960					32 /10 of Merc, in 3" in
Rig Completed May 21,	1960					Volume 1,980 MCF Cu.
Drilling Commenced May 21,	1960					When Shut In WYYYYYYY
Drilling Completed July 5,	1960					Rock Pressure48 Hr. 430#
Drilling to cost	per foot					Date Shot Not Shot
Contractor is: Ray Brothers						Size of Torpedo
Address: Charleston, W.	Va.			SHUT IN		Oil Flowedbbls. 1st 24 l
			Date.	7-6-60		Oil Pumped bbls. 1st 24 1
Driller's Name James Maynard			3-1/2" in.	Tubing	Tubing or Casing	
B. D. Duncan				ker 3-1/2"		Well abandoned and
				_{cker} Hookwa		Plugged 19
NY CONTROL OF THE PARTY OF THE				etfr		Control of the Contro
Elevation: 10501				etfr		
		DRIL	LER'S RECORD			the state of the s
FORMATION	тор	воттом	THICKNESS			REMARKS
Soil	0	14	24			
Sand	14	95	81.			
Slate	95	195	100			The second secon
Coal	195	198	3			
Slate	198	222	24	Water	@ 200: -	2 BPH
Sand	222	368	146			
Slate	368	450	82	***************************************	AD	PROVAD
Sand	450	479	29		TXI.	rkovno
Slate	479	1493	14			
Sand	493	545	52		DIVISION	L & Tractus Schoolschildschildschild
Slate	545	574	29		DIVISIO	-SUPERINTENDENT
Sand	574	596	22	Show o	f Gas @	585 •
Slate	596	680	81,			ith Gas @ 6501-6551
Sand	680	700	20			
Slate	700	815	115		THE PROPERTY OF STREET PROPERTY SERVICE.	Andrew Andrew Andrew Color Col
Sand	815	935	120			

95

935

1030

Slate

SERIAL WELL NO. 874	12
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		DRILL	ER'S RECORD	
FORMATION	ТОР	воттом	THICKNESS	REMARKS
Sand	1030	1260	230	Water @ 1100' - Hole Full
Slate	1260	1405	145	
Sand	1405	1500	95	
Slate & Shells	1500	1535	35	
Red Rock	1535	1545	10	
Slate	1545	1570	25	
Iime	1570	1580	10	
Pencil Cave	1580	1582	2	
Big Lime	1582	1840	258	Show of Oil @ 1685*
Injun Sand	1840	1895	55	
Slate & Shells	1895	2400	505	Gas @ 2960' - 4/10 W-1"
Brown Shale	5700	2478	18	Gas @ 3050' - 2/3.0 W-2"
Berea Sand	21/ 1 8	5140	22	Gas @ 3150' - 14/10 W-2"
Slate & Shells	2140	3180	740	Gas @ 3160'-3170' - 25/10 W-7" Cas
TOTAL DEPTH	31.80 *			
			AND DESCRIPTION OF THE PARTY OF	

Devonian Shale-2446' to 3180' Total Shale - 740'

no sand logged no electric log Mary S. Friend Geologist

08/25/2023

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

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

Purchaser	Buyer Code
	Purchaser

FT7900806/1-2

1.0 API well number. (If not assigned, leave blank 14 digits.)	47-0	99-0128	<u>'</u>		
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 logation. (Only needed if sections 103 or 107 in 2.0 above.)		3/80	_feet		
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 W 25325 Tale 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	Field,	Area B	W U State	
(b) For OCS wells	Area Nam	Date of Lea	<u> </u>	Block Number OCS Lease Number	
(c) Name and identification number of this wel! (35 letters and digits maximum.)	TCO	Min. T	Tr. No. 1	80874	3
(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 Buyer Code
(b) Date of the contract:			Mo. Day	* Yr.	
(c) Estimated total annual production from the well			· 51	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 151982 Date Received by FERC *This is a pipeline production	Albert H. Mathena, Jr., Director, Production Eng. Name Cultut H. Mathena Signature (304) 346-0951 Date Application is Completed Phone Number				

STATE OF WEST VIRGINIA

Date 6-9-82

DEPARTMENT OF MINES OIL AND GAS DIVISION

Operator's Well No. 808743

API Well No.

DESIGNATED AGENT James L. Weekley

47 - 099-0/28/ State County Permit

WELL CLASSIFTCATION FORM HIGH COST GAS WELL - DEVONIAN SHALE NGPA Section 107

	ADDRESS P. O. Box 1273
	Charleston, WV 25325
	LOCATION Elevation 1050.
WELL OPERATOR Columbia Gas Trans. Corp.	Watershed
ADDRESS P. O. Box 1273	nist. Stonewall County Wagne Quad.
Charleston, WV 25325	Gas Purchase Contract No. N.A.
GAS PURCHASER N.A.	
ADDRESS	Meter Chart Code
	Date of Contract N.A.
This is a pipeline production well and no	gas purchase contract exists.
Date surface drilling began: 5-2/-/	960
Indicate the bottom hole pressure of the	well and explain how this was calculated.
See Supplem	-nt
See Supplem	
AF	FIDAVIT
I have calculated the percentage of foota 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 for percent of the gross Devonian age interval	l; and I have no knowledge of any information inconsistent with a conclusion that the well
STATE OF WEST VIRGINIA	
COUNTY OF KANAWHA , TO-WIT:	
	ry Public in and for the state and county
aforesaid, do certify that Albert H. Math	nena, Jr. , whose name is signed to
acknowledged the same before me, in my co	
Given under my hand and official seal the	is 5 day of fine, 19 82.
My term of office expires on the 13 de	ay of August , 1989 .
	W. U. 2. 1. 1.
(NOTARIAL SEAL)	Notary Public
(notween ones)	1 4

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date	6.	-9	,	1982
Operat	tor's	208	71	43

STATE APPLICATION FOR WELL CLASSIFICATION

Previous File No. (If Applicable)

WELL OPERATOR Columbia Gas Trans. Cor	P. DESIGNATED AGENT James L. Weekley	
ADDRESS P. O. Box 1273	ADDRESS P. O. Box 1273	
Charleston, WV 25325	Charleston, WV 2532	25
Gas Purchase Contract No. NA*	and Date	
Meter Chart Code	(Month, day and year)	
Name of First Purchaser NA*		
(Sha		
(Clty)	(State) (Zip Code)	
FERC Seller Code NA*	FERC Buyer Code NA*	
TYPE OF DETERMINATION BEING SOUGHT:	10701	
(1) Initial determination (See FERC Formula) (2) Determination that increased produce recovery technology.	occaon of min	
(3) Determination of a seasonally affe	Director,	
	Albert H. Mathena, Jr. Production Eng	jineering
*This well is a pipeline production	abert H. Mathena &	
and no gas purchase contract exist		
	Street or P. O. Box	
	Charleston WV 25325	
	304) 346-0951	
	Area Phone Number	
(Certificate of Proof of Service to Purchas	· ·	
A copy of this filing is being reta owner and operator of the identifie	ained by Columbia Gas Transmission Corporationed well.	on,
(All of the above to be completed by the Op	perator/Applicant)	
(To be completed by Jurisdictional Agency. purchaser, if known).	Executed copy to be returned to Operator/Applicant and	d ·
well as meeting the requirements of Section	received a request. for certification of the above do under the Natural Gas Policy Act of 19 assed production is the result of enhanced recovery technication of a seasonally affected well under Section	978. hnology
All interested parties are hereby the office of the Oil and Gas Division in O be heard there will be a public hearing, if	notified that on the day of 19 Charleston, West Virginia, or as soon thereafter as it is requested, or if objection is filed.	may at
This Application is assigned File	No	
antitled to cortification as claimed under	omitted indicates the well is. is not the Natural Gas Policy Act (NGPA). A review of this extends the time appointed for a public hearing or as soon the	vidence ereafter
Unless objections are timely file days, a hearing will not be held except on go to determination.	ed or a request for a hearing is made within fifteen all ex parte motion of the department and the matter will	5)
	WEST VIRGINIA DEPARTMENT OF MINES	
JUN 15 1982	of ector	
	By My M	
Date received by Jurisdictional Agency	Title 08/25/2	2023



State of West Virginia

Department of Mines Oil and Gas Division Charleston 25305

WALTER N. MILLER DIRECTOR THEODORE M. STREIT ADMINISTRATOR

BEFORE THE OFFICE OF OIL AND GAS 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

- 1. 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

Bv:

Theodore M. Streit, Administrator

COLUMBIA GAS TRANSMISSION CORPORATION

WELL NO. 808743 SUPPLEMENT: METHOD OF CALCULATION OF BOTTOM HOLE PRESSURE PBH = PWH + PWH (E**0.0000347*G*L - 1.)

WHERE:

PBH = BOTTOM HOLE PRESSURE (PSIA)

PWH = WELLHEAD PRESSURE (PSIA)

= 444.7

G = SPECIFIC GRAVITY OF GAS

L = DEPTH TO MIDDLE OF PERFORATIONS (FT.) = 2810

STEPS:

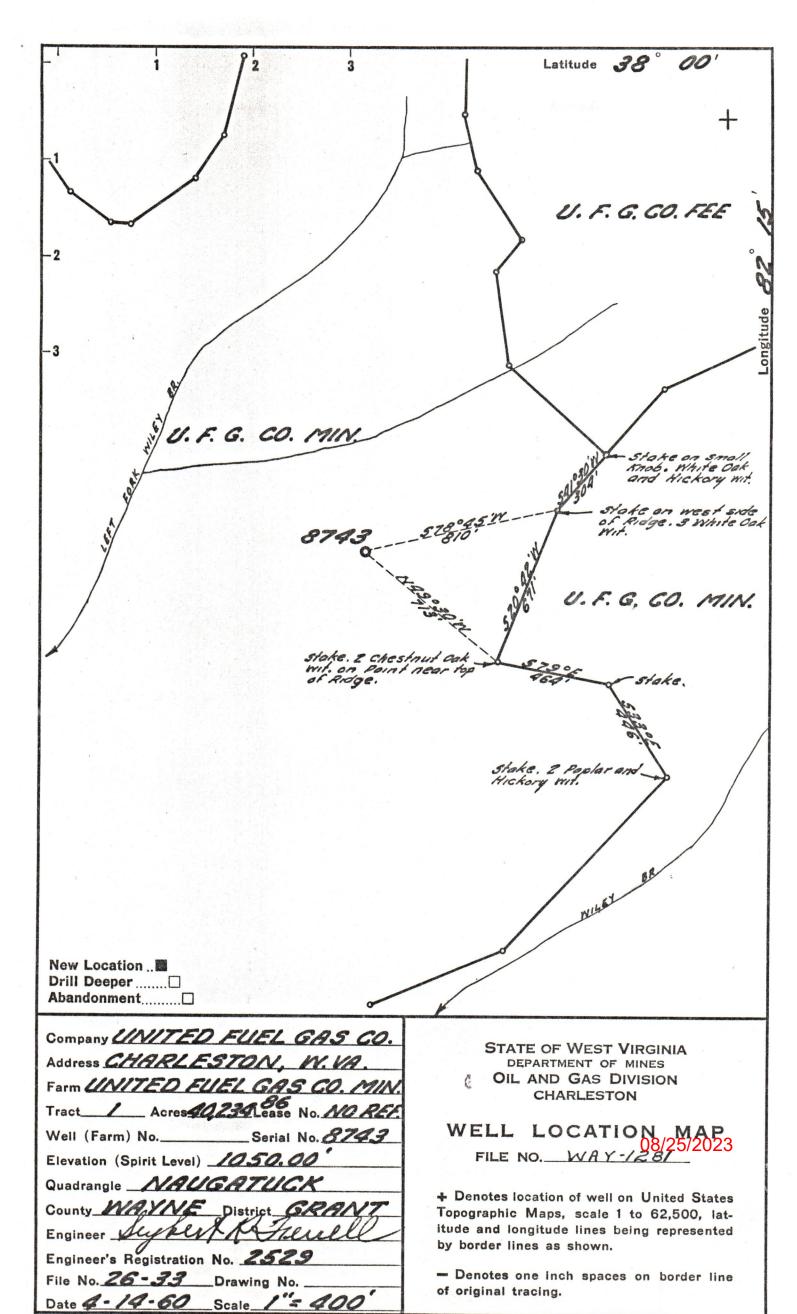
PBH = 444.7 (E**0.0000347*2014.770 -1.)

PBH = 444.7 (E**0.069912 -1.) PBH = 444.7 + 444.7 (1.07241 -1.)

PBH = 444.7 + 444.7 (

PBH = 444.7 + 32.2

PBH = 476.9 (PS



S 186 IMPERIAL 600

60046