

3.46 S.
0.53 W
6 EC (I-4)

CERTIFICATE

"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 paragraph 6 of 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

(12-16-63 - N.B. No. 91 Pt. 49 - W.S.G.) Signed *W.A. Hardy*

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY	COMMONWEALTH GAS CORPORATION		
ADDRESS	P.O. Box 1433 CHARLESTON, W. VA.		
FARM	FRANK A. HARDY ET AL		
MAP	OV 22	ACRES 1401	LEASE NO 2343
WELL (FARM) NO.	1	SERIAL NO	725
ELEVATION (SPIRIT LEVEL)	701.72'		
QUADRANGLE	WINFIELD - CD - EC.		
COUNTY	PUTNAM	DISTRICT	UNION
POINT OF PROVEN ELEVATION	INTERSECTION OF PAINTERS FORK ROAD WITH BRANCH ELEV. 693 - N.E. CORNER BANCROFT 1:2000 QUAD. - U.S.G.S. DATA.		
FILE NO.	DRAWING NO.		
DATE	DECEMBER 17, 1963		
	SCALE	1" = 660'	

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON
WELL LOCATION MAP
FILE NO PUT-699

⊕ 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.

No Samples 6-6-1962 Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 12

Rotary
Spudder
Cable Tools
Storage

Quadrangle Winfield S.E.

Permit No. Put 699

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Commonwealth Gas Corporation
Address P. O. Box 1433, Charleston, W. Va.
Farm Frank A. Hardy et al Acres 1401
Location (waters) Rainters Branch
Well No. 725 Elev. 701.72'
District Union County Putnam
The surface of tract is owned in part by William D. Harrison
Liberty, W. Va. Address _____
Mineral rights are owned by Frank A. Hardy et al
Rupert Route Address Lewisburg, W. Va.
Drilling commenced January 22, 1964
Drilling completed May 6, 1964
Date ~~fract~~ 5-1-64 From 4838'8" To 4847'6"
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume 119,000 natural 330,000 after frac. Cu. Ft.
Rock Pressure 450 lbs. 24 hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16	22'	22'	Kind of Packer <u>None</u>
13	499'3"	319'3"	
10	1011'2"		Size of _____
8 1/4	2045'1"	2045'1"	
6 5/8			Depth set _____
5 xxxx 1/2	4838'8"	4838'8"	
3			Perf. top _____
2	4846'6"	4846'6"	Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

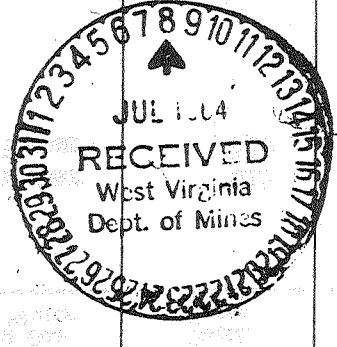
CASING CEMENTED 5" SIZE No. Ft. 4-25-64 Date

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

WELL FRACTURED May 1, 1964 30,000' sand 692 bbl. water

RESULT AFTER TREATMENT Sandfrac 330,000 cu. ft. final gauge
ROCK PRESSURE AFTER TREATMENT 450# 24 hr.
Fresh Water 120, 173, 815 Feet 830 Salt Water 1550 - 1586 Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	15			
Red mud			15	25			
Blue rock			25	30			
Red mud			30	50			
Blue slate			50	75			
Red mud			75	100			
Blue slate			100	130	Water	120	2-1/2 bailers per hr.
Red rock			130	156			
Blue sand			156	176	Water	173	5-3/4 bailers per hr.
Blue slate			176	195			
Red rock			195	220			
Blue slate			220	245			
Red rock			245	260			
Blue slate			260	350			
Sand			350	380			
Blue slate			380	400			
Red rock			400	420			
Blue slate			420	445			
Red rock			445	455			
Blue slate			455	467			
Sand			467	495			
Blue slate			495	534			
Red rock			534	554			
Blue slate			554	587			
Sand			587	605			
Blue slate			605	655			
Red rock			655	665			
Blue slate			665	710			
Sand			710	725			



Formation	Color	Hard or Soft	Top <i>12</i>	Bottom	Oil, Gas or Water	Depth Found	Remarks
Black slate			725	735			
Blueslate			735	805			
Sand			805	850	Water	815	1 bailer per hr
Blueslate			850	860	Water	830	1 bailer per hr
Broken sand			860	875			
Blue slate			875	1000			
Sand			1000	1038			
Blue slate			1038	1170			
Sand			1170	1211			
Blue slate			1211	1251			
Sand			1251	1275			
Blue slate			1275	1308			
Sand			1308	1326			
Slate & shells			1326	1473			
<u>SALT SAND</u>			1473	1687	Water	1550-1586	Hole full
<u>LITTLE LIME</u>			1687	1707			
<u>BIG LIME</u>			1707	1860		1721	SLM
White slate			1860	1867			
<u>INJUN SAND</u>			1867	1942			
Slate & shells			1942	1976			
Sand			1976	1991			
Slate & shells			1991	2043			
Lime shell			2043	2050		2045	SLM
Blue slate & shells			2050	2332			
Brown shale			2332	2356			
<u>HEREA SAND</u>			2356	2368	Gas	2360	Show
Slate & shells			2368	2700			
White slate			2700	2585			
<u>BROWN SHALE</u>			3585	3650		3606	SLM
Slate & shells			3650	3840	Gas	3710	Burned 4" high in 1" pipe
<u>BROWN SHALE</u>			3840	3945			
White slate			3945	3995			
<u>BROWN SHALE</u>			3995	4115			
White slate			4115	4475			
<u>BROWN SHALE</u>			4475	4748			
<u>CORNIFEROUS LIME</u>			4748	4839			
<u>CRISKANY SAND</u>			4839	4851½	Gas	4840-4845	
					Gas	4842-8"-4845-8"	119 M cu.ft.
		TOTAL DEPTH		4851½			

FINAL GAUGE: 330,000 cu. ft. after fracturing

4748
702
4046

Date July 7, 19 64
 APPROVED COMMONWEALTH GAS CORPORATION, Owner
 By W. J. Smith
 (Title) Land & Eng. Dept.