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THE ACCURACY OF THIS SURVEY IS WITHIN THE LIMITS PRESCRIBED TO THE OIL AND GAS DIVISION OF THE DEPARTMENT OF MINES.

PARTIAL PLUG FRACTURE - 7/3/75 Naw-Lookion 54 Drill Deeper

R THE UNDERSONED, HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFUFNATION REQUIRED BY PARAGRAPH 6 OF THE BULLS AND REGULATIONS OF THE DIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA.

Abandonment 1 4-9-50

Company CITIES SERVICE OIL COMPANY

Address BOX 873, CHARLESTON, WLVA.

Farm WALLER C. HARDY, JR. ET AL

Tract Acres 3707/9 Lease No.1-11-47-00884

Well (Farm) No. 19 Serial No. GW-1548

Elevation (Spirit Level) 688.96'

Quadrangle CHARLESTON 8 S500 WO41

County KANANHA District LOUDON

Engineer Wall Sylvan

Engineer's Registration No. 2113

File No. Drawing No. W-14-65

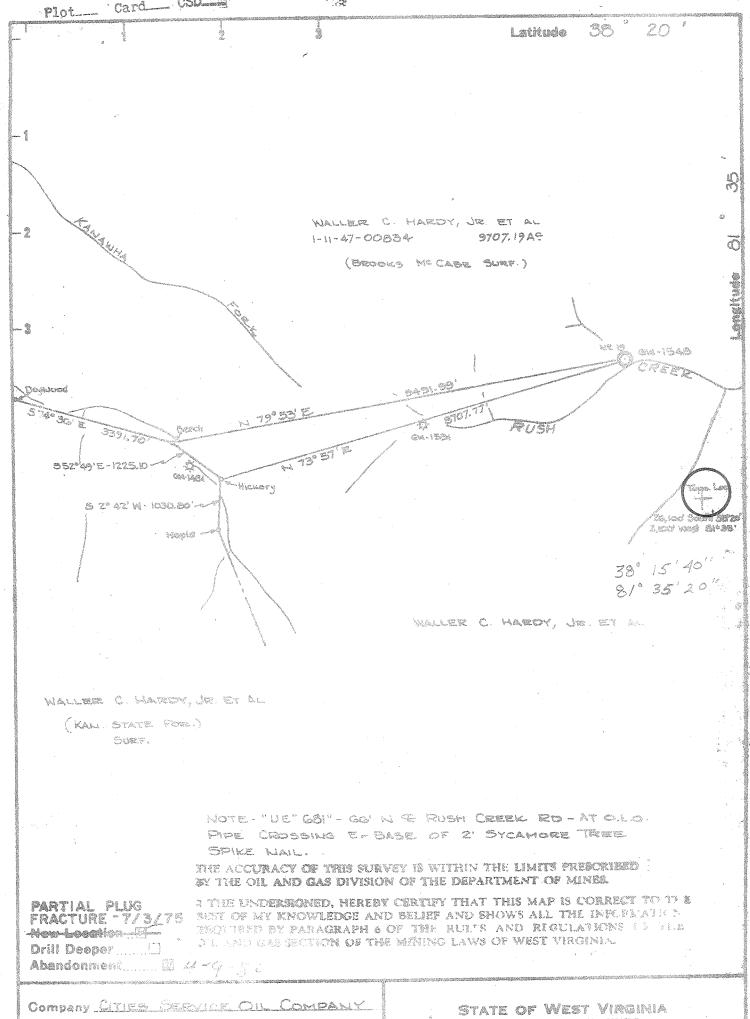
Date 31 MARCH 65 Scale 1"= 2000'

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

WELL LOCATION MAP

Denotes location of well on United States Topographic Maps, scale 1 to 2500 latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing. 47-039



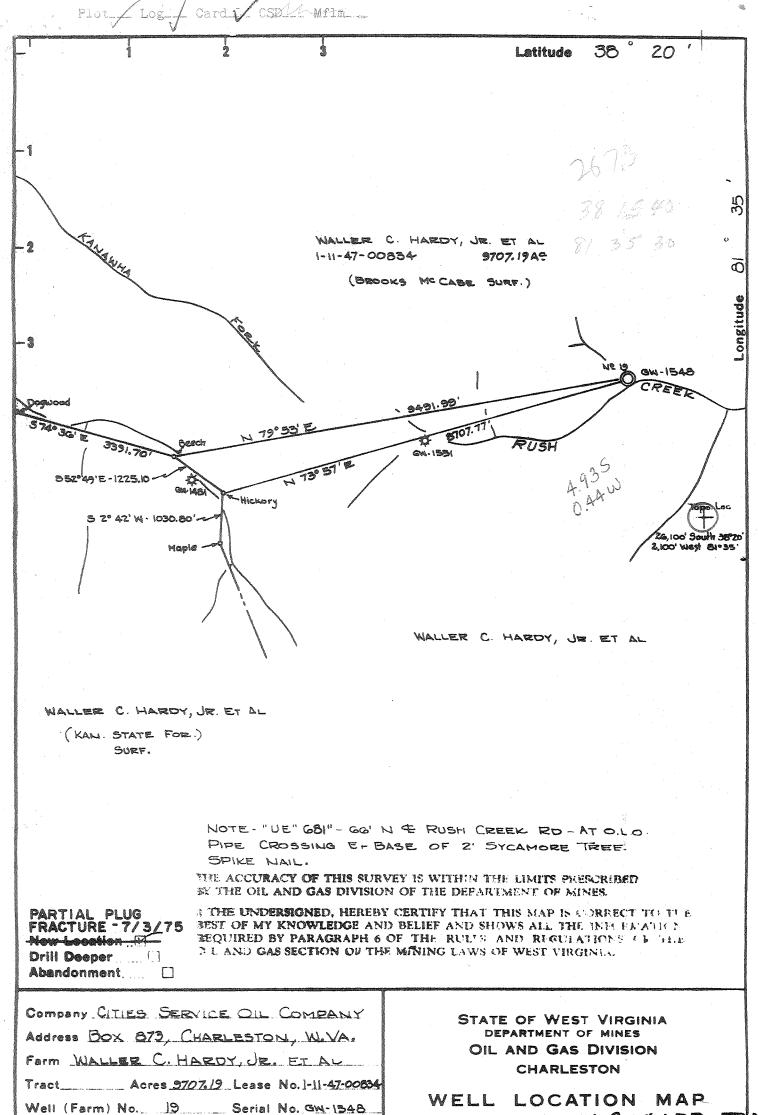
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Tract Acres	-27/27/19 Lease No.1-11-47-90834
Well (Farm) No	19 Serial No. 384-15-66
Elevation (Spirit Lev	el) <u>688-96'</u>
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Engineer Weak	A ZYKANON
Engineer's Registrat	Ion No. 2113
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Date BLWARLE G	50010 1 2 24

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

WELL LOCATION MAP

- Denotes location of well on United States. Topographic Maps, scale I to \$2500 lat itude and longitude lines being representative border lines as shown.
- Denotes one inch spaces on bridge line of original tracing.

1285 Ale form



Elevation (Spirit Level) 688.96' SC Quadrangle CHARLESTON 8 5500 WOAL 15 County KANAWHA District LOUDON Engineer Weuld SWARE

Engineer's Registration No. 2113

File No. _____ Drawing No. W-14-G5

Date 3 MARCH 65 Scale | " = 2000 "

OWO Kanawha Forest (305)

FILE NO. 14 AN-204 1-PP- FRAC

- 4 Denotes location of well on United States Topographic Maps, scale 1 to 62500 latitude and longitude lines being represented by border lines as shown.
- Denotes one inch spaces on border line of original tracing. 47-039

Deep a sel

Latitude - 4 3 WALLER C. HARDY, JR. ET AL - 2 1-11-47-00834 9707.19AS 0 (BROOKS MC CABE SURF.) - 2 GW-1548 CREEK 9491.99 Dogwood 8707.17 3391.70 RUSH GW-1531 73° 51 E 552°49'E-1225.10 Hickory 5 2° 42' W - 1030.80'~ 26,100' South 38°20 West 81035 Maple -WALLER C. HARDY, JR. ET AL 5,0 \$ S. 0.4 × 3 W WALLER C. HARDY, JR. ET AL (KAN. STATE FOR.) SURF. 8 SE (J-5-2) NOTE - "UE" G81" - GG' N & RUSH CREEK RD - AT O.L.O PIPE CROSSING E- BASE OF 2' SYCAMORE TREE SPIKE NAIL. : . . Couracy of this survey is withouthe the units prescribed (TO THE UNDERSTONED, HEARDY CENTER THAT THIS HAP IS NOT RECT TO THE ROTH OF MY KNOWLEDGH AND BELIEF AND SHOWS ALL THE INFLIGIATION REQUIRED BY PARAGRAPH 6 OF THE BULTE AND REGULATIONS OF TALL DISAND GAS SECTION OF THE MITTING LAWS OF WEST VINGINIA. New Location . M Drill Deeper Abandonment..... Company CITIES SERVICE OIL COMPANY STATE OF WEST VIRGINIA DEPARTMENT OF MINES Address Box 873, CHARLESTON, W.VA. OIL AND GAS DIVISION Farm WALLER C. HARDY, JR. ET AL CHARLESTON Tract_____ Acres 9707./9 Lease No.1-11-47-00834 WELL LOCATION MAP Well (Farm) No. 19 Serial No. GW-1548 FILE NO. KAN-204/ Elevation (Spirit Level) 688.96 Quadrangle CHARLESTON 8 5500 WO41 + Denotes location of well on United States County KANAWHA District LOUDON Topographic Maps, scale 1 to 62500 latitude and longitude lines being represented Engineer Wendell Sylvoor by border lines as shown. Engineer's Registration No. 2113 Denotes one inch spaces on border line _____ Drawing No. W-14-G5 of original tracing. Date 3 MARCH 65 Scale | = 2000 Deep Well Samples 4200-5200

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIV SION Dat

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[08-78]

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WELL OPERATOR'S REPORT 7

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[If appl	icable	due to	multi _l	ole comp	Pletion)			
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		al open	flow,		Mcf/d	Fina	al open flow	

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

Perforated the Big Injun 1231-1255' (25 shots) with 4" Omega Hollow Jet. Fraced the Big Injun with 5000# 80-100 sand and 5870# of 20-40 sand. Screened out at 3500 psi. Washed out sand and continued frac the next day by pumping 33 bbl. of gel water pad and 8100# of 20-40 sand. Total volume 634 bbl.

ELL LOG

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PORMATION	Color	llard or Soft	7 Top Feet	Botton	Agmarks Including indication of all fresh and salt water, coal, all and gas
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(Attach separate sheets to complete as necessary,

Cities Service Company

Well Operator

By Sam J.

Sam J. Matchews

Its Region Production Manager

NOTE: Regulation 2,02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geologial record of all formations, including coal, encountered in the



STATE OF WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION /2

Rotary	ATA
Spudder	
Cable Tools	
Storage	r

Quadrangle Chas. 8 SW

Permit No. Kan-2041

WELL FRACTURED (DETAILS) see attached shoot

WELL RECORD

ermit No.			200 and	(KIND)
Ompany Cities Service Oil Co.	Caring and Tobing	Used in Drilling	Left in Well	Packers
carm W. C. Hardy, Jr., et al Acres 9707. 19 ocation (waters) Rush Creek	Size	371	321	Kind of Packer
Well No. 19 - GW-1548 Elev. 688. 961	13 3 / 8 " 4.8 f	[2901	none
County Kanawha Che surface of tract is owned in fee by B. F. McCabe	32x9-5/81132		12931	Size of
Jax 1692 Address Charleston, W. Va.	4 3 11. 6	45921	52391	Depth set
Vineral rights are owned by W. C. Hardy, Ir., et al. 100 2nd Avenue Address Vienna, W. Va.	41/2	8		
Orilling commenced 4-28-65	3 3/8"4. 7#	5178	51781	Perf. top
Drilling completed 5-25-65 Date Shot not shot From To	Liners Used W/	Baker Ma	del "F"	Perf. top
With	seatin _i	z nipole iz	bottom	Perf. bottom

Date Shot not shot From To	Liners Used W / Baker Model "F" Perf. top.
With	seating nipple in bottom Perf. bottom
Open Flow /10ths Water inInch	Attach copy of cementing record.
	CASING CEMENTED SIZE No. Ft. Date
Volume show Cu. Ft.	Amount of cement used (bags)
Rock Pressure lbs. hrs.	Name of Service Co. see reverse side
Oilbbis., 1st 24 hrs.	COAL WAS ENCOUNTERED AT MODE FEET INCHES
	FEET INCHES: FEET INCHES
	FERT INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open Plow or bbla.) 128/10 M. 3" = 3, 960 MCF (Newburg) ROCK PRESSURE AFTER TREATMENT 144 hours 2050 Hours

Fresh Water 20 Feet Salt Water 304 Feet Donits 157_5177! (Schlumberger meas)

Producing Sand	Newbu	T 6		The second secon	Depth5152-5	1.1.5. facumo	oberger mea
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Formation	Color	Hard or Soft	Top /2	Bottom	Oil, Gas or Water	Depth Found	Remarks
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	and 3% C	alcium Chlo	ride. Pump	ed plug to 2	791. Cement	ed by Dowel	
<u>.</u>		-					
			1 A A		_		
5-5-65	Set and c	emented 9-5	/8' 32.30#	H-40 casing	with guide	shoe at 1294	Schlumberge
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5-27-65		Z'' casing wi					
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5-22-65	Depth 5, 1	45° - starte	d coring Ne	rburg San d	- Coxo/41 5	45-5183° -	recovered
5-22-65	Ran Schl	ion. T.D. 3	ge thru Nev 2211 - Newt	burg Sand: urg Sand by	Camma Ray Electric Lo	, Caliper, S. gs 5152-517	P., Density 21.
5-26-65		n Test #1 5		Commonwealth and the commonwea	A. C. T. Market Control of the Contr		
5-31-65	Ran McC Newburg Shot.	ullough Bon at 5, 166' So	Log. Good klumberger	bonding thr Measureme	n Nowberg S eat with McC	and, Perfor	ated Lower ple Notch
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6-22-65	Final op last four	en flow 128/ hours.	10 M. 3" =	3, 960 MCF	- Water ave	raged 54 gal	lons/bour
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Date Jama 29 , 10 65 APPROVED Cities Service Oil Company

FORM OG-8

STATE OF WEST VIRGINIA DEPARTMENT OF MINES

UCT 1 9 1983

OIL AND GAS WELLS DIVISION

OIL & GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELPET. OF MINES

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE

		ities Service Oil & Ga	s Corpor	ration
P. O. Box 169	surface 2, Charleston, WV 25326	Name of Well Ope	RATOR	
	ADDRESS P	O. Box 873, Charlest		25323
M. C. Hardy,	Jr. & Charlotte Hardy	October 7		19 83
5100 2nd Aven	surface ue, Vienna, WV	WELL AND LOCA	ATION	19
JIOU ZIIG AVEII	ADDRESS	Loudon		District
Frank A. Hard	y & Katherine Hardy	Kanawha		
	OR PROPERTY OWNER	Nama		County
Ruper Route,	Lewisburg, WV W	Vell No. 19-GW-1548		
	ADDRESS			
•		W.C. Hardy, Jr	., et al	Farm
STATE INSPECTOR	SUPERVISING PLUGGING Craig	Duckworth		
	We downed thermal it insured the class of the	of the Secretary		
STATE OF WEST	AFFIDAV			
	çe.			
County of Jack	son J ss.	1 + 0 . 1.1		
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being my duly s	worn according to law depose and	say that they are experience	eed in the	work of
well operator, and	g oil and gas wells and were employ participated in the work of pluggin	ed by Cities Service O	il & Gas	Corporat
was commenced or	n the 3rd day of October	g and minis me above we	ii, that s	aid work
and filled in the fo	ollowing manner:	and that the	well was	s plugged
JAND OR ZONE RECORD			CO PARTY AND DESCRIPTION OF THE PARTY OF THE	
FORMATION	* 2 cm me 11 d dt. 141 hd 1 cm L 1 hd 5m	PLUGS USED	CA	REING
PORMATION	Gelled hole with 8% gel	SIZE & KIND	CSG	CSG
D: T:			PULLED	LEFT IN
Big Injun	13.9 sacks 1255'-1180'	cement	POLLED	TELL IN
Big Injun Surface plug		cement	PULLED	LEFT IN
Surface plug	13.9 sacks 1255'-1180'	cement	POLLED	LEFT IN
Surface plug	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface	cement	POLLED	LEFT IN
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Surface plug	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface 10 sacks 8' cellar to cmt. used 33.2 sacks	Cement GL cement 7"-23# J-55 9-5/8" 32.3# H-40		
Surface plug	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface 10 sacks 8' cellar to cmt. used 33.2 sacks	Cement GL cement 7"-23# J-55 9-5/8" 32.3# H-40 13-3/8" 48# H-40	0 0 0	1292° 1294° 287°
Surface plug	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface 10 sacks 8' cellar to cmt. used 33.2 sacks	Cement GL cement 7"-23# J-55 9-5/8" 32.3# H-40 13-3/8" 48# H-40 20" Drive pipe	0 0 0	1292 ° 1294 ° 287 ° 37 °
Cellar Coal Seams	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface 10 sacks 8' cellar to cmt. used 33.2 sacks	Cement GL cement 7"-23# J-55 9-5/8" 32.3# H-40 13-3/8" 48# H-40 20" Drive pipe PESCRIPTION	O O O O	1292 ° 1294 ° 287 ° 37 °
Cellar Coal Seams	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface 10 sacks 8' cellar to cmt. used 33.2 sacks	Cement GL cement 7"-23# J-55 9-5/8" 32.3# H-40 13-3/8" 48# H-40 20" Drive pipe DESCRIPTION 5' X 5" casing er	O O O O	1292 ° 1294 ° 287 ° 37 °
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Cellar Coal Seams	13.9 sacks 1255'-1180' 9.3 sacks 50'-surface 10 sacks 8' cellar to cmt. used 33.2 sacks	Cement GL cement 7"-23# J-55 9-5/8" 32.3# H-40 13-3/8" 48# H-40 20" Drive pipe DESCRIPTION 5' X 5" casing er	O O O O	1292 ° 1294 ° 287 ° 37 °

day of..

And further deponents saith not.

Sworn to and subscribed before me this...

My commission expires:

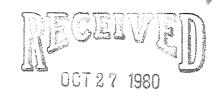
Notary Public.
Permit No.47-039-2041PP P

19 63



DEPARTMENT OF MINES

Oil and Gas Division



OIL AND GAS WELL PERMIT APPLICATION OF MINES

TO THE DEPARTMENT OF MINES,	
Charleston, W. Va.	DATE October 24, 1980)
Surface Owner Brooks F. McCabe & Jane M. McCabe	Company Cities Service Company
Address P. O. Box 1692, Charleston, WV 25326	Address Box 873, Charleston, WV 25323
	Farm Waller C. Hardy, Jr. et al 9707.19
Mineral Owner W. C. Hardy, Jr.et al & Charlotte	
Address 5100 2nd Ave., Vienna, WV2610 Hardy	Location (waters) Rush Creek 688.96
Coal Owner Brooks F. McCabe & Jane M. McCabe	Well No. Elevation
Address P. O. Box 1692, Charleston, WV 25326	District Loudon County Kanawha
O&G Owner zzzzzzzz Frank A. Hardy & Katherine Hardy	Quadrangle Charleston
Address Rupert Route, Lewisburg, WV 24901	。 (1) 1.拼解码
THIS PERMIT MUST BE POSTED AT THE WELL SITE	
All provisions being in accordance with Chapter 22,	
	SPECTOR
	BE NOTIFIED Martin Nichols
6-29-81	DRESS Clendenin, WV 25045
Obelding (1744) and the second of the second	otendenin, wv 25045
PHO PHO	DNE 548-6993
Deputy Director - Oil & Gas Division GENTLEMEN:	
The undersigned well operator is entitled to drill upon the a	above named farm or tract of land for oil and gas, having fee
title thereto, (or as the case may be) under grant or lease dat	
Hardy, Jr. et al made to Cities Service Oil(for	merlynd recorded on the day of
19 in County, Book147	
	PILIC BACK
NEW WELLDRILL DEEPER	
X OIL AND GAS WELL ORIGINALLY DRILLED	BEFORE JUNE 5, 1969.
The enclosed plat was prepared by a registered engineer or	licensed land surveyor and all coal owners and/or operators
have been notified as of the above date.	meetada mina surveyor and an eoar owners and/or operators
The above named coal owners and/or operator are hereby no to make by Section 3 of the Code, must be received by, or file	
Copies of this notice and the enclosed plat were mailed by re or coal owners at their above shown respective address	same day before, or on the
same day with the mailing or delivery of this copy to the Depart	
V	ery truly yours, Cities Service Company
PLEASE SUBMIT COPIES OF ALL	
GEOPHYSICAL LOGS DIRECTLY TO: (S	ign Name) Well Operator
WEST VIRGINIA GEOLOGICAL AND	B 072
ECONOMIC SURVEY Address	Box 8/3 Street
P. O. BOX 879	
MORGANTOWN, WEST VIRGINIA 26505 Well Operator AC-304 - 292-6331	Charleston City or Town
	W. Va. 25323
	State
*SECTION 3 If no objections are filed or found by the Dep notice and plat by the department of mines, to said proposed location, the filing of such plat, that no objections have been made by the coal operand the well operator authorized to proceed.	partment of mines, within said period of ten days from the receipt of the department shall forthwith issue to the well operator a permit reciting ators or found thereto by the department and that the same is approved
	47-039-2041-P -FRAC PERMIT NUMBER
"I have read and understand the reclamation requirements as set for Chapter 22, Article 4, Section 12-b and will carry out the specified requirement	th in ents."

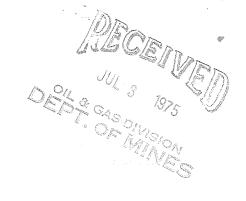
THIS IS AN ESTIMATE ONLY

ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

Plug Back to Big Lime

PROPOSED WORK ORDER TO.	DRILL	DEEPENI	FRACTURE-STIMULATE
DRILLING CONTRACTOR: (If	Known)	RESPONSIBLE AGENT	r:
NAME_Unknown		NAME Cities Serv	ice Company
ADDRESS		ADDRESS P.O. Box	873, Charleston, WV 25323
TELEPHONE			
ESTIMATED DEPTH OF COMPL	ETED WELL: 1220	ROTARY	CABLE TOOLSX
PROPOSED GEOLOGICAL FORM			
TYPE OF WELL: OIL_		OMB STORAG	E DISPOSAT
			OOD OTHER
	ILEO I OBII	WAIDIT TO	OODOTHER
TENTATIVE CASING PROGRAM	· :		
CASING AND TUBING	USED FOR	LEFT IN	CEMENT FILL UP
SIZE	DRILLING	37 °	OR SACKS - CUBIC FT.
20 -xixx 13xxixx3/8"	37 t 290 t	290	None 40 sacks
9 - 5/8			
\$\times \frac{5}{8} \times 7\frac{11}{8}	1294 ' 4550 '	1294 ¹ 445	100 sacks 40 sacks
7 Plug Back to Big Lime	1292	1292'	320 sacks
5 ½			
Salvaged prior to plu	g back 5220'	5001	25 sacks
	·		Perf Top 1231
-3/8"	1255	1255	Perf. Bottom 1255
Liners			Perf Top 5153
			Perf. Bottom 5156
			The state of the s
APPROXIMATE FRESH WATER	DEPTHS20 FEET	SALT WATER	
APPROXIMATE COAL DEPTHS		· · · · · · · · · · · · · · · · · · ·	
IS COAL BEING MINED IN THE			
·		2 1110111.	
ro Drill:			
SUBMIT FIVE (5) COPIES (OF OG - 1, \$100.00 PERMIT	FEE, PERFORMANCE B	OND AND PERMANENT COPY
OF PLAT.	,	·	
O DRILL DEEPER OR REDRILI	L:		
SUBMIT FIVE (5) COPIES O	F OG - 1, SHOWING ORIGIN	NAL PERMIT NUMBER AN	ND PERFORMANCE BOND. ON
WELLS DRILLED PRIOR TO	O 1929, A PERMANENT CO	PY OF THE PLAT AND	THE ORIGINAL WELL RECORD
MUST ALSO BE SUBMITTEI	D.		
TO FRACTURE - STIMULATE:			
OIL AND/OR GAS WELL OR	IGINALLY DRILLED BEFOR	E HINE 5 1999 FIVE (5)	COPIES OG - 1, PERFORMANCE
BOND, PERMANENT PLAT	AND ORIGINAL WELL RECO	ORD.	COLIED CO. 1, I BUT ORWANCE
OIL AND/OR GAS WELL OR	IGINALLY DRILLED ON AN	D/OR AFTER JUNE 5, 192	29, FIVE COPIES OG - 1, SHOW-
ING ORIGINAL PERMIT NUM	BER, AND PERFORMANCE	BOND.	· · · · · · · · · · · · · · · · · · ·
Required forms must be filed	within ninoty (00) days of a		Y
four (24) hours in advance.	within innery (90) days of ec	empletion for bond release.	Inspector to be notified twenty-
		-	-
	TO COMMON CHARLES AND		
The following waiver must be	completed by the coal oper	ator if the permit is to be	issued within ten days of receipt
hercof.	· · · · · · · · · · · · · · · · · · ·	avoi it and permit is to be	issued within ten days of receipt
WAIVER: I the undersigned, Agen	t for	Coal Company Owner	or Operator of the goal under
	d and place on our mine map		
			rell being drilled at this location,
Code.	mpiled with an rules and regul	auous in Articles 4, 5, and	7, Chapter 22 of the West Virginia
		and a	or Coal Company
			Otficial Title





Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,	
Charleston, W. Va.	DATE
Surface Owner	Company
Address	Address
Mineral Owner	Farm Acres
Address	Location (waters)
Coal Owner	Well No.
Address	District County
Coal Operator	Quadrangle
Address	
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 <u>Fracturing</u> . This permit shall expire if	
operations have not commenced by 11-3-75	
Nobert h W	
Deputy Director - Oil & Gas Division INSPEC	TOR TO BE NOTIFIED Martin Nichols
GENTLEMEN: 54	8-6993 ADDRESS Clendenin, W.Va.
The undersigned well operator is entitled to drill upon the	above named farm or tract of land for oil and gas, having fee
title thereto, (or as the case may be) under grant or lease da	and recorded on the
19, in County, Book	
NEW WELLDRILL DEEPER	REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILLED	BEFORE JUNE 5, 1969.
The enclosed plat was prepared by a registered engineer or have been notified as of the above date.	licensed land surveyor and all coal owners and/or operators
The above named coal owners and/or operator are hereby not to make by Section 3 of the Code, must be received by, or file	otified that any objection they wish to make, or are required ed with the Department of Mines within ten (10) days. *
Copies of this notice and the enclosed plat were mailed by ror coal owners at their above shown respective address same day with the mailing or delivery of this copy to the Department.	day before, or on the
v	ery truly yours,
	Sign Name)
,	Well Operator
PIRACE SUBMIT COPIES OF ALL ADDRESS AND ADDRESS AND Address	Street
GEOPHYSICAL LOGS DIRECTLY TO: of Went Minning Confered and Footonic Survey Well Operat	or
West Virginia Geological and Economic Survey Well Operator P 0. Box 879	City or Town
Morgantown, W. Va. 26505	West Virginia 23323
AC 304-296-4461	State

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

ANNEL Distan

-PP-FRAC. __PERMIT NUMBER

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

DRILLING CONTRACTOR: (If K			
NAME	nown)	RESPONSIBLE AGENT:	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	NAME	
ADDRESS		ADDRESS	: 373, Charleston, W. Ma.
TELEPHONE			
ESTIMATED DEPTH OF COMPLET	TED WELL:	ROTARY	CABLE TOOLS
PROPOSED GEOLOGICAL FORMA	TION:		
TYPE OF WELL: OIL	GAS K CC	OMB STORAGE	DISPOSAL
	RECYCLIN	NG WATER FLO	ODOTHER
TENTATIVE CASING PROGRAM:			
CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16	22	***	
13 - 10 3/4"	****	***	40 88638
9 - 5/8			100 sacks
8 - 5/8	A marin h	\$ \$.40 M	8.04
7 5 ½		**	40 146 15
4 ½			
3			Perf. Top
2	\$ 1.7 m	4.	Perf. Bottom
Liners			Perf. Top
			Perf. Bottom
TO DRILL:			OND AND PERMANENT COPY
TO DRILL: SUBMIT FIVE (5) COPIES OF PLAT. TO DRILL DEEPER OR REDRILL: SUBMIT FIVE (5) COPIES OF WELLS DRILLED PRIOR TO MUST ALSO BE SUBMITTED. TO FRACTURE - STIMULATE: OIL AND/OR GAS WELL ORIGINAL PERMIT NUMBER OF STIMULAND ORIGINAL PERMIT NUMBER OF STIMULAND ORIGINAL PERMIT NUMBER OF STIMULAND ORIGINAL PERMIT NUMBER ORIGINAL PERMIT NUMBER OF STIMULAND ORIGINAL PERMIT NUMBER ORIGINAL PERMIT NUMBER OF STATES	F OG - 1, \$100.00 PERMITOR OG - 1, SHOWING ORIGINALLY DRILLED BEFORM ORIGINAL WELL RECOMMENT OF THE PROPERTY O	T FEE, PERFORMANCE BO NAL PERMIT NUMBER AN OPY OF THE PLAT AND T RE JUNE 5, 1929, FIVE (5) O CORD. ND/OR AFTER JUNE 5, 192 BOND.	
TO DRILL: SUBMIT FIVE (5) COPIES OF OF PLAT. TO DRILL DEEPER OR REDRILL: SUBMIT FIVE (5) COPIES OF WELLS DRILLED PRIOR TO MUST ALSO BE SUBMITTED. TO FRACTURE - STIMULATE: OIL AND/OR GAS WELL ORIBOND, PERMANENT PLAT A OIL AND/OR GAS WELL ORIGINAL PERMIT NUMBER OF OUR (24) hours in advance. The following waiver must be thereof. WAIVER: I the undersigned, Agent this lease have examined We the	F OG - 1, \$100.00 PERMIT OG - 1, SHOWING ORIGIT 1929, A PERMANENT CO GINALLY DRILLED BEFORM ND ORIGINAL WELL REC GINALLY DRILLED ON AN BER, AND PERFORMANCE within ninety (90) days of co completed by the coal ope for and place on our mine ma Coal Company 1	NAL PERMIT NUMBER AND TO THE PLAT AND THE PLAT AND THE PLAT AND TO THE PLAT AND THE PLA	OND AND PERMANENT COPY TO PERFORMANCE BOND. ON THE ORIGINAL WELL RECORD COPIES OG - 1, PERFORMANCE 9, FIVE COPIES OG - 1, SHOW- Inspector to be notified twenty- issued within ten days of receipt or Operator of the coal under

Official Title