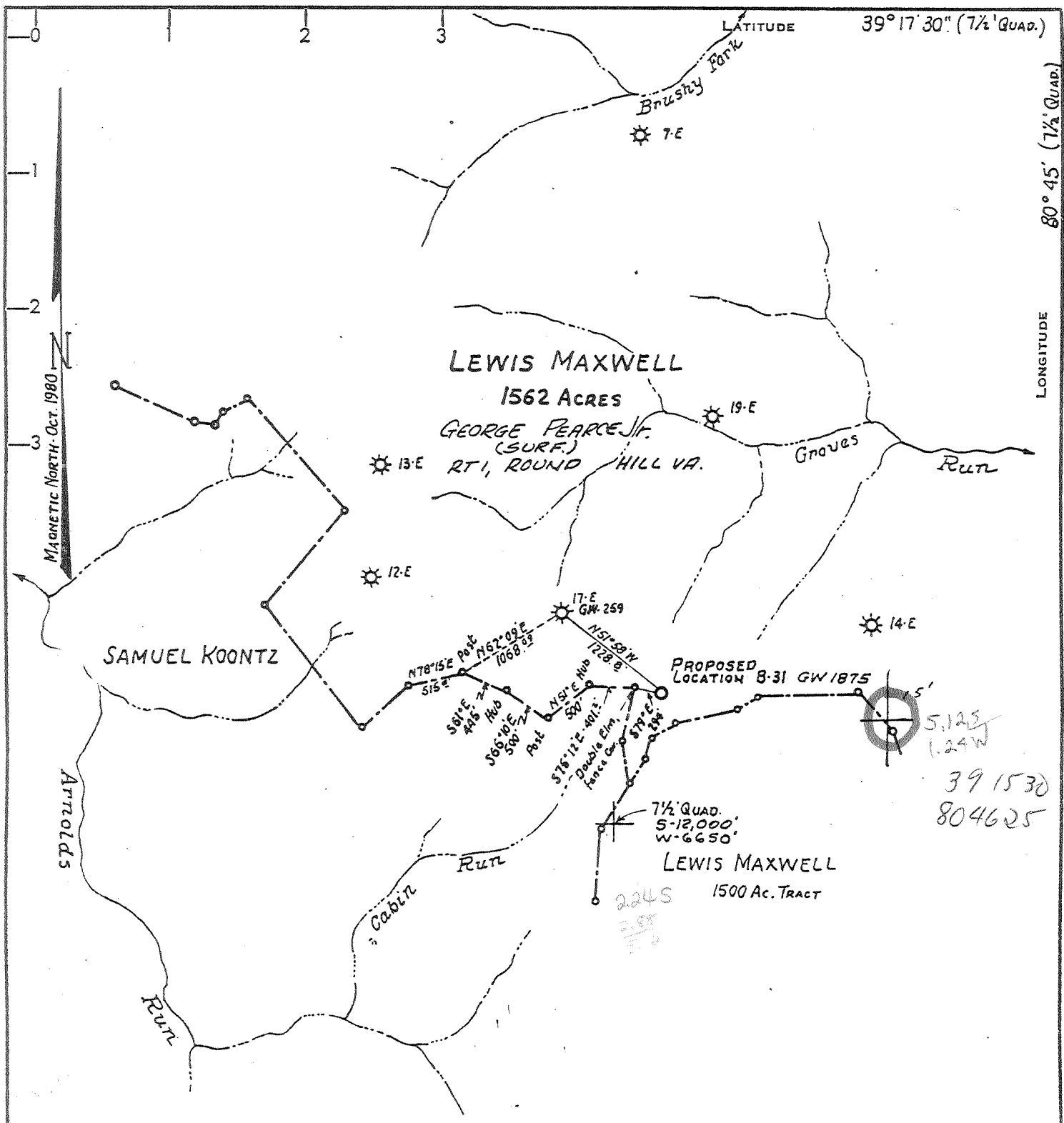


Plot U. Care # 20. 125/80

39° 20'



5,125
1,24W
39 1530
804625

CERTIFICATE

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

"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
 Signed William A. Grady L.L.S. No. 116
 (N.B. #118-B, 19)

COMPANY CITIES SERVICE COMPANY	
ADDRESS P.O. Box 873 CHARLESTON, W.VA. 25323	
FARM LEWIS MAXWELL	
MAP _____ ACRES 1562	LEASE NO. WV 431
WELL (FARM) NO. B-31	SERIAL NO. GW 1875
ELEVATION (SPIRIT LEVEL) 1234.03'	
QUADRANGLE WEST UNION	SE
COUNTY DODDRIDGE	DISTRICT WEST UNION
POINT OF PROVEN ELEVATION CITIES SERVICE Co. WELL No. 17-E U.S.G.S. DATUM	
FILE NO. _____	DRAWING NO. W-21-80
DATE OCTOBER 21, 1980	SCALE 1" = 1320'

STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION CHARLESTON WELL LOCATION MAP FILE No. 017-2894
+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 24,000. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN. - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

6-6 Smithton-Flint-Sedalia (19) 5000

JAN 2 1981



IV-35
(Rev 8-81)

Date September 11, 1981

Operator's Well No. "B" #31, GW-1875

Farm Lewis Maxwell B.

API No. 47 - 017 - 2894

RECEIVED
State of West Virginia
Department of Mines
Oil and Gas Division
OCT 1 - 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil ___ / Gas xx / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production xx / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 1234.02 Watershed Arnolds's Creek

District: West Union County Doddridge Quadrangle West Union

COMPANY Cities Service Company

ADDRESS P.O. Box 873, Charleston, WV 25323-0873

DESIGNATED AGENT Paul D. Phillips

ADDRESS P.O. Box 873, Charleston, WV 25323-0873

SURFACE OWNER George Pearce, Jr.

ADDRESS 4 Pier St., Oxford, MD 21654

MINERAL RIGHTS OWNER Lewis Maxwell, et ux

ADDRESS Rob't. Holland, Agent, West Union, WV 26456

OIL AND GAS INSPECTOR FOR THIS WORK

Paul Garrett ADDRESS 321 Beech St., Clarksburg, WV 26301

PERMIT ISSUED December 1, 1981

DRILLING COMMENCED 1-15-81

DRILLING COMPLETED 9-3-81

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
11-3/4" 13-10"	40'	40'	not cemented
9 5/8			
8 5/8	1976'	1976'	circ. to surface 476 sq.
7			
5 1/2			
4 1/2	5409'	5409'	901 cu. ft (609 sq.)
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Weir, Alexander Depth 5450 feet

Depth of completed well 5374 feet Rotary XXX / Cable Tools _____

Water strata depth: Fresh 90 feet; Salt - feet

Coal seam depths: - Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5266 feet

Gas: Initial open flow 793 Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 246 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure 1040 psig (surface measurement) after 24 hours shut in
(If applicable due to multiple completion--)

Second producing formation Benson Pay zone depth 4983 feet

Gas: Initial open flow -- Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 94 Mcf/d Oil: Final open flow 57 Bbl/d

Time of open flow between initial and final tests 15 hours minutes

Static rock pressure 820 psig (surface measurement) after 63 hours shut in

SEE ATTACHED SHEET FOR 3rd & 4th PRODUCING FORMATIONS. (Continue on reverse side)

Total 852 MCFPD 4 zones

OCT 22 1981

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

Alexander - Perforated interval 5280'-5305' (25 shots). Broke down formation with 1000 gal. 15% HCL. Pumped 100 bbl. pad. Fraced with 20,000# 80/100 sand and 100,000# sand suspended in crosslinked gel system.

Benson - Perforated interval 4983'-4989' (13 shots). Broke down formation 500 gal. Mod acid. Pumped 50 bbl. gel pad. Fraced with 20,000# 80/100 sand and 36,000# 20/40 sand suspended in 20#/1000 gelled water system.

Warren - Perforated interval 3470'-3319' (38 shots). Broke down formation with 1000 gal. 15% HCL. Balled out. Pumped 75 bbl. pad. Fraced with 15,000# 80/100 sand and 105,000# 20/40 sand suspended in crosslinked gel. Balled out during frac.

Weir - Perforated interval 2316'-2250' (36 shots). Broke down formation with 2,000 gal. 15% HCL. Balled out. Pumped 100 bbl. foam pad. Fraced with 30,000# 80/100 and 90,000# 20/40 sand suspended in crosslinked gel energized with nitrogen. Balled out.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Shale			0	10	
Sand			10	20	
Red Rock			20	24	
Sand			24	105	
Shale			105	140	
Sand			140	150	
Shale			150	190	
Sand			190	200	
Red Rock			200	220	
Sand			220	236	
Red Rock & Shale			236	317	
Coal			317	321	
Shale			321	430	
Sand			430	520	
Shale			520	595	
Sand			595	610	
Shale			610	700	
Red Rock			700	742	
Shale & Red Rock			742	1280	
Sand			1280	1340	Changed bit @ 869'; Started soaping @ 960'
Shale			1340	1530	
Sand			1530	1560	
Shale			1560	1685	
Sand			1685	1740	
Shale			1740	1790	
Sand			1790	1804	
Shale			1804	1885	
Lime			1885	1970	
Sand			1970	2075	
Shale			2075	2240	
Sand			2240	2340	
Shale			2340	2604	
Sand			2604	2615	
Shale			2615	2665	
Sand			2665	2700	
Shale			2700	2760	
Sand			2760	2885	
Shale			2885	2960	

SEE ATTACHED SHEET FOR ADDITIONAL FORMATIONS.
(Attach separate sheets as necessary)

Cities Service Company
Well Operator
By: Paul D. Phillips Paul D. Phillips
Region Operations Manager
Date: 9/30/81

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

WELL OPERATOR'S REPORT OF DRILLING
Cities Service Company

Maxwell "B" #31 (GW-1875)
API No. 47-017-2894
ATTACHMENT #1

OPEN FLOW DATA CONTINUED: *

Third Producing Formation: Warren
Gas: Final open flow: 84 MCF/D

Pay Zone Depth: 3318'

Well open 24 hours.

Static rock pressure: 800 psig after 74 hrs. shut in

Fourth Producing Formation: Weir
Gas: Final open flow: 158 MCF/D

Pay Zone Depth: 2245'

Well open 56 hours.

Static rock pressure: 360 psig after 20 hrs. shut in

*All the production from the completed zones will be commingled. Final open flow from all zones: 852 MCF/D. Well open 4 hours.

WELL LOG CONTINUED:

<u>Formation</u>	<u>Top Feet</u>	<u>Bottom Feet</u>	<u>Remarks</u>
Sand	2960	2990	
Shale	2990	3310	
Sand	3310	3480	
Shale	3480	4080	
Sand	4080	4140	
Shale	4140	4520	
Sand	4520	4550	
Shale	4550	4980	
Sand	4980	4995	
Shale	4995	5260	
Sand	5260	5320	
Shale	5320	5410	
Total depth:		5410	

POP

RECEIVED

OCT 1 - 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

OCT 22 1981



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

RECEIVED
NOV 26 1980

OIL AND GAS WELL PERMIT APPLICATION
OIL & GAS DIVISION
DEPT. OF MINES

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE November 25, 1980

Surface Owner George Pearce, Jr.
Address Rt. 1, Round Hill, Virginia 22141
(Box 1)
Mineral Owner Lewis Maxwell, et ux
Address Robert Holland, Agent
xxxxxxx West Union, West Virginia 26456
Address _____
Coal Operator _____
Address _____

Company Cities Service Company
Address Box 873, Charleston, WV 25323
Farm Lewis Maxwell B Acres 1562
Location (waters) Arnolds Creek
Well No. "B" #31, GW-1875 Elevation 1234.02
District West Union County Doddridge
Quadrangle West Union

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 drilling. This permit shall expire if
operations have not commenced by 8-1-81

INSPECTOR
TO BE NOTIFIED Paul Garrett
321 Beech St.
ADDRESS Clarksburg, West Virginia 26301
PHONE 622-3871

[Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

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 dated 2/1/1899 19 by Lewis Maxwell, et ux made to Columbian Carbon (now Cities Service) and recorded on the _____ day of _____ 19 , in Doddridge County, Book 33 Page 431
 NEW WELL _____ DRILL 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 licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators 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 Department of Mines at Charleston, West Virginia.

Very truly yours, Cities Service Company
(Sign Name) *[Signature]*
Sam J. Matthews Well Operator Region Prod. Manager

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address _____
of _____
Well Operator _____
Box 873 _____
Street _____
Charleston _____
City or Town _____
W. Va. 25323 _____
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.

47-017-2894 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by _____

BLANKET BOND

[Signature]

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

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME _____ NAME Sam J. Matthews
 ADDRESS _____ ADDRESS Box 873, Charleston, WV 25323
 TELEPHONE _____ TELEPHONE 304 344-8383
 ESTIMATED DEPTH OF COMPLETED WELL: 5450 ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Weir, Alexander
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10 11-3/4 42#/ft. H-40A	80	80	to surface
8-5/8 24#/ft. K-55 A	2060	2060	to surface
8 - 5/8			
7			
5 1/2			
4 1/2 10.5#/ft. K-55 A	5450	5450	300' above Weir
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 383 FEET _____ SALT WATER none FEET _____
 APPROXIMATE COAL DEPTHS none
 IS COAL BEING MINED IN THE AREA? none BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title