



ACCURACY: 1/200

New Location

Drill Deeper

Abandonment

Fracture

Redrill

Other

Formation ALEXANDER Oil

Est. Depth 5300' Gas

Other

Source of Elevation DODD-1195P-ABANDONED WELL 14A (966')

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.

Chet Waterman

Company	CITIES SERVICE CO.
Address	CHARLESTON, WV
Surface Owner	ROBERT MAXWELL
Mineral Owner	LEWIS MAXWELL HEIRS ("A")
Well No.	<u>A-75</u> Acres <u>2654.88</u> <i>NE</i>
Elevation	<u>1040'</u> <i>Holbrook 13</i>
Quadrangle	<u>OXFORD</u> Series <u>7.5'</u>
County	<u>DODDRIDGE</u> District <u>WEST UNION</u>
Date	<u>2/11/81</u> Scale <u>1" = 2000'</u>

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

WELL LOCATION MAP
47 - 017 - 2990
STATE COUNTY PERMIT

+ Denotes location of well on United States Topographic Maps.
Engineer CHET WATERMAN
Engineer's Registration No. 3788 File No. 81-057

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MAR 11 1982

IV-35 (Rev 8-81)

OIL AND GAS DIVISION WV DEPARTMENT OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date March 9, 1982 Operator's Well No. "A" #75, GW-1884 Farm Lewis Maxwell Heirs API No. 47 - 017 - 2990

WELL OPERATOR'S REPORT OF DRILLING, ~~FRACURING AND/OR STIMULATING~~ OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1040' Watershed Left Fork Arnolds Creek District: West Union County Doddridge Quadrangle Oxford

COMPANY Cities Service Company ADDRESS P.O. Box 873, Charleston, WV 25323 DESIGNATED AGENT Paul D. Phillips ADDRESS same SURFACE OWNER Robert Maxwell ADDRESS West Union, West Virginia 26436 MINERAL RIGHTS OWNER Lewis Maxwell Heirs ADDRESS Robert Holland, Agent; West Union, WV 26436 OIL AND GAS INSPECTOR FOR THIS WORK Steve Casey ADDRESS Jane Lew, WV 26301 PERMIT ISSUED April 14, 1981 DRILLING COMMENCED June 24, 1981 DRILLING COMPLETED February 1, 1982 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16, 11 3/4", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Alexander, Weir Depth 5200 feet Depth of completed well 5147 feet Rotary XX / Cable Tools Water strata depth: Fresh 170 feet; Salt -- feet Coal seam depths: N/A Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5014 feet Gas: Initial open flow -- 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 93 hours Static rock pressure 1150 psig (surface measurement) after 24 hours shut in (If applicable due to multiple completion--)

Handwritten circled note: 444 MCF

Second producing formation Weir Pay zone depth 1986 feet Gas: Initial open flow -- Mcf/d Oil: Initial open flow -- Bbl/d Final open flow 198 Mcf/d Oil: Final open flow -- Bbl/d Time of open flow between initial and final tests 4 hours Static rock pressure 750 psig (surface measurement) after 60 hours shut in

CONTINUED ON ATTACHMENT (Continue on reverse side)

MAR 29 1982

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

Alexander - (5072-5020, 17 shots) Broke down perms with 1000 gal. 15% HCl. Fraced with 90,000 lbs. of sand suspended in 40 lb. gel system.

Weir - (2073-1993, 30 shots) Broke down perms with 2000 gal. 15% HCl. Fraced with 76,000 lbs. of sand suspended in 40 lb. gel system energized with nitrogen.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Red Clay			0	5	
Sandstone			5	15	
Red Rock			15	25	
Sandstone			25	45	
Siltstone			45	60	
Sandstone			60	75	
Red Rock			75	85	
Sandstone			85	118	
Red Rock			118	134	
Sandstone			134	173	Fresh water @ 170'.
Siltstone			173	357	
Sandstone			357	414	
Red Rock			414	440	
Sandstone			440	470	
Red Rock & Shale			470	605	
Sandstone			605	645	
Red Rock & Shale			645	900	
Sandstone			900	1010	
Shale			1010	1035	
Sandstone			1035	1320	Show of water and oil @ 1170'.
Shale			1320	1360	
Sandstone			1360	1550	
Shale			1550	1556	
Sandstone			1556	1570	
Shale			1570	1587	
Sandstone			1587	1598	
Shale			1598	1624	
Sandstone			1624	1665	
Shale & Limestone			1665	1750	
Big Lime			1750	1790	
Big Injun			1790	1834	
Shale			1834	1986	
Weir Sandstone			1986	2104	
Shale			2104	2188	
Sandstone			2188	2197	
Shale			2197	2416	
Gordon			2416	2433	

CONTINUED ON ATTACHMENT

(Attach separate sheets as necessary)

Cities Service Company

Well Operator

Paul D. Phillips
Region Operations Man.

By: Paul D. Phillips

Date: March 9, 1982

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."

1750
1993
1982

WELL LOG - CONTINUED
 MAXWELL "A" #75
 API #47-017-2990

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Sandstone	2546	2576	
Shale	2576	3055	
Warren	3055	3218	
Shale	3218	3818	
Sandstone	3818	3897	
Shale	3897	4028	
Sandstone	4028	4059	
Sandstone	4059	4172	
Sand & Shale	4511	4652	
Benson	4710	4722	
Shale	4722	5014	
Alexander	5014	5076	
Shale	5076	5209	T.D.

4722-4511
 4511-4710

PPP

OPEN FLOW DATA - CONTINUED
MAXWELL "A" #75
API #47-017-2990

The Alexander and the Weir were tested for commingled production.

Four hour open flow	1905 MCF/D
24-hour open flow	660 MCF/D
Static Rock Pressure	1300 psig after 22 days shut in

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OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

APR 10 1981

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner Robert Maxwell
Address West Union, WV 26436
Mineral Owner Lewis Maxwell Heirs
Address Robert Holland, Agent
West Union, WV 26436
Coal Owner _____
Address _____
Coal Operator _____
Address _____

DATE April 8, 1981
Company Cities Service Company
Address Box 873, Charleston, WV 25323
Farm Lewis Maxwell Heirs Acres 2654.88
Location (waters) Left Fork Arnolds Creek
Well No. "A" #75, GW-1884 Elevation 1040'
District West Union County Doddridge
Quadrangle Oxford

PERMIT MUST BE POSTED AT THE WELL SITE

Provisions being in accordance with Chapter 22,
of the W. Va. Code, the location is hereby approved
drilling. This permit shall expire if
operations have not commenced by 12-14-81
Paul D. Phillips
Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Steve Casey
ADDRESS Jane Lew, WV 26301
PHONE 884-7470

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 8/5 1905 by Lewis Maxwell et ux made to Columbia Carbon(now Cities Service) and recorded on the _____ day of _____ 19____, in Doddridge County, Book 23 Page 69
X 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 _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

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

Very truly yours, Cities Service Company
(Sign Name) Paul D. Phillips
Well Operator Paul D. Phillips
Operations Manager
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.

47-017-2990 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

Survey

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 Paul D. Phillips
 ADDRESS _____ ADDRESS Box 873, Charleston, WV 25323
 TELEPHONE _____ TELEPHONE _____
 ESTIMATED DEPTH OF COMPLETED WELL: 5200' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: 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 <u>11"42#/ft.</u>	<u>80'</u>	<u>80'</u>	<u>Circulate to surface</u>
9 - 5/8			
8 - 5/8 <u>24#/ft</u>	<u>1800'</u>	<u>1800</u>	<u>Circulate to surface</u>
7			
5 1/2			
4 1/2 <u>10.5#/ft.</u>	<u>5200'</u>	<u>5200</u>	<u>911 ft.³</u>
3			<u>Perf. Top</u>
2			<u>Perf. Bottom</u>
Liners			<u>Perf. Top</u>
			<u>Perf. Bottom</u>

APPROXIMATE FRESH WATER DEPTHS 1150' FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS none
 IS COAL BEING MINED IN THE AREA? No 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