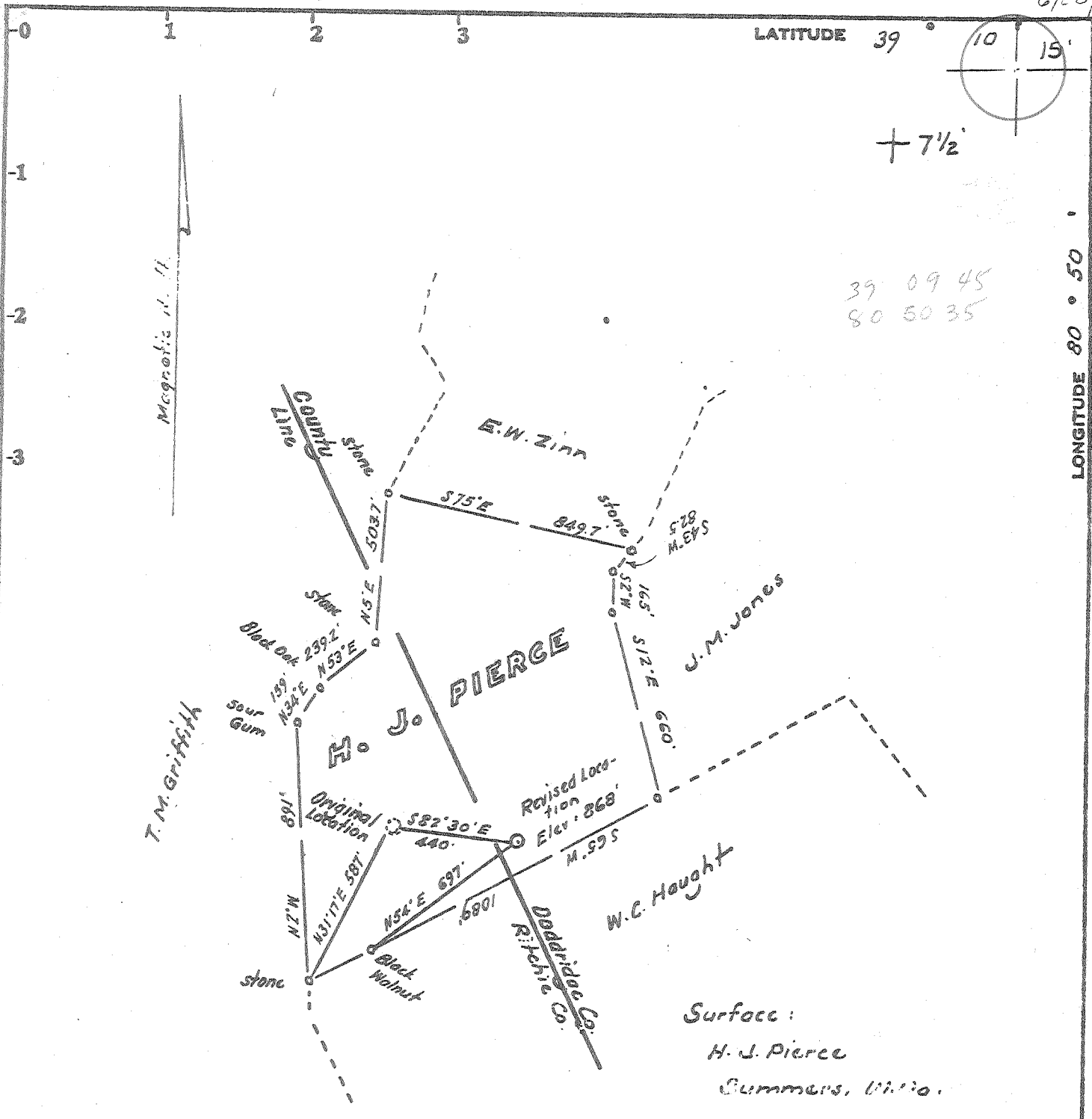


6/28/78



Revised Location

Minimum Error of Closure 1 in 200

Source of Elevation Elev. Well No. 1-616 (original location) = 943

- Fracture.....
- New Location.....
- 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.

Signed: W. S. H. [Signature]
 Squares: N S E W

Map No.

Company United Operating Co.
 Address 500 Commerce Sq. Charleston, W.V.
 Farm H. J. Pierce
 Tract _____ Acres 30.32 Lease No. _____
 Well (Farm) No. 1-616 Serial No. _____
 Elevation (Spirit Level) 868
 Quadrangle Oxford 7 1/2, Holbrook 15
 County Doddridge District Southwest
 Engineer W. S. H. [Signature]
 Engineer's Registration No. 1227 LLS 200
 File No. _____ Drawing No. _____
 Date June 26, 1978 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. DODD-2187

+ Denotes location of well on United States Topographic Maps, scale 1 to $\frac{62,000}{24,000}$, latitude and longitude lines being represented by border lines as shown.

JUL 13 1978

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

47-017



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD

Quadrangle Oxford 7 1/2

Permit No. D0DD-2187

Rotary Oil _____
Cable _____ Gas _____
Recycling _____ Comb.
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company UNITED OPERATING COMPANY
Address 600 Commerce Sq., Charleston, WV
Farm H. J. PIERCE Acres 31
Location (waters) Lower Run
Well No. 1 (I-616) Elev. 868
District Southwest County Doddridge
The surface of tract is owned in fee by _____
H. J. Pierce
Address Troy, W. Va. Same
Mineral rights are owned by _____
Address _____ Same
Drilling Commenced 7-9-78
Drilling Completed 7-13-78
Initial open flow No test cu. ft. _____ bbls.
Final production 424 M. cu. ft. per day 5 bbls.
Well open 4 hrs. before test 1150 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8			
8 5/8	317	317	Circulated
7			
5 1/2			
4 1/2	0	2224	110 sacks
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.
Weir treated two stages - Total treatment 1,000 bbls. treated water, 500 gallon acid, 28,000# 80/100 sand - 530 sacks 20/40 sand. Average rate 20 BPM. Average pressure 2,500 psi - Instant shut-in 1700 psi.

Coal was encountered at No record Feet _____ Inches _____
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand WEIR Depth 2,046-2172

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
SAND/SHALE	Grey	Soft	0	1050		
SAND	Grey	Hard	1050	1100		
SHALE	Grey	Soft	1100	1170		
SAND	Grey	Hard	1170	1274		
SAND/SHALE	Grey	Soft	1274	1594		
SAND	Grey	Hard	1594	1644		
SHALE	Grey	Soft	1644	1740		
LIME	Grey	Hard	1740	1812		
SAND (BIG INJUN)	Grey	Hard	1812	1890		
SHALE	Grey	Soft	1890	2046		
SAND (WEIR)	Grey	Hard	2046	2172		
SHALE	Grey	Soft	2172	2224	T.D.	

(over)

* Indicates Electric Log tops in the remarks section.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

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OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE June 19, 1978

Surface Owner H. J. Pierce

Company United Operating Company

Address Troy, W, Va.

Address 600 Commerce Sq., Charleston, WV

Mineral Owner H. J. Pierce

Farm H. J. PIERCE Acres 31

Address Troy, W. Va.

Location (waters) Lower Run

Coal Owner _____

Well No. 1 (I-616) Elevation 943 868

Address _____

District Southwest County Doddridge

Coal Operator _____

Quadrangle Oxford 7 1/2

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 drilling. This permit shall expire if
operations have not commenced by 10-28-78.

INSPECTOR
TO BE NOTIFIED Paul Garrett

ADDRESS 321 Beech St., Clarksburg, WV

PHONE 622-3871

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 1-11 1977 by H. J. Pierce made to Consolidated thence/United Operating Co. and recorded on the _____ day of _____ 19 , in Doddridge County, Book 102 Page 288

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, United Operating Company
(Sign Name)
Well Operator

600 Commerce Sq.
Street

Charleston
City or Town

West Virginia 25071
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.

BLANKET BOOK

DODD-2187 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."

47-017

Signed by

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 Warren Haught NAME Lyle Coffman & J. L. Trittipo

ADDRESS Smithville, WV ADDRESS Norris Road, Glenville, WV

TELEPHONE 1-477-2222 TELEPHONE 1-462-7176

ESTIMATED DEPTH OF COMPLETED WELL: 2400' ROTARY X CABLE TOOLS

PROPOSED GEOLOGICAL FORMATION: Weir

TYPE OF WELL: OIL X 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			
9 - 5/8			
8 - 5/8	300'	300'	Circ.
7			
5 1/2			
4 1/2	0	2400'	700' Fill-up
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 140 FEET SALT WATER FEET

APPROXIMATE COAL DEPTHS

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