



- 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: J. B. Shuck P.E. 1-5-76

CERTIFICATE

COMPANY: KEY DRILL COMPANY
 ADDRESS: P.O. Box 239 GLENVILLE, W.VA. 26351
 FARM: J.N. MARKEY, KENNETH POWELL
 MAP: _____ ACRES: 197 LEASE NO.: _____
 WELL (FARM) NO.: TWO SERIAL NO.: _____
 ELEVATION (SPIRIT LEVEL): 1043'
 QUADRANGLE: WEST UNION 7.5, 15' SE
 COUNTY: DODD & EDWARDS DISTRICT: WEST UNION
 POINT OF PROVEN ELEVATION: B.M. on road bridge EL: 86.6'
 FILE NO.: _____ DRAWING NO.: _____
 DATE: 8-18-78 SCALE: 1" = 500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. **DODD-2284**
 SEP 11 1978
 + 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. 24,000
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING. **47-017**

66-83 5500 11 SMITATION-FLINT SEDALIA 99 91-99



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

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OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD

Rotary X Oil _____
Cable _____ Gas ①
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Quadrangle _____

Permit No. DODD-2284

47-017

Company Key Oil Company
Address West Union, WV
Farm J. N. Markey Acres 197
Location (waters) Doe Run
Well No. 2 Elev. 1043
District West Union County Doddridge
The surface of tract is owned in fee by _____
Kenneth Powell
Address West Union, WV 26456
Mineral rights are owned by J. N. Markey, et al
Address Lexington, Ky
Drilling Commenced 8-21-78
Drilling Completed 8-28-78
Initial open flow NA cu. ft. _____ bbls.
Final production 600,000 cu. ft. per day _____ bbls.
Well open 3 hrs. before test 1780 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	665		
7			
5 1/2			
4 1/2	5393		
3			
2 1/2	5270		
Liners Used			

Well treatment details:

Attach copy of cementing record.

695 bbl	200 sks	80/100	400 sks	20/40	1st stage	5300-5337
565 bbl	100 sks	80/100	350 sks	20/40	2nd stage	3418-3442
						3549 -3555

Coal was encountered at _____ Feet _____ Inches
Fresh water 648 Feet _____ Salt Water _____ Feet _____
Producing Sand Alexander & Warren Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Clay, Sand, Shale & Red Rock			0	2030		production history 1994-2341 mcf, 14bbs
Big Lime			2030	2116		
Big Injun			2116	2172		
Sand Shale			2172	3390		
Warren			3390	3560		
Sand Shale			3560	5270		
Alexander			5270	5350		
Shale			5350	5553		800

(over)

* Indicates Electric Log tops in the remarks section.

800 EXPL. FT

FEB 9 1979



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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AUG 21 1978

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner Kenneth Powell
Address West Union, WV
Mineral Owner J.N. Markey heirs, etal
Address Lexington, Ky.
Coal Owner same as mineral
Address same as mineral
Coal Operator none
Address _____

DATE August 21, 1978
Company Key Oil Company
Address Glenville, WV
Farm J. N. Markey Acres 197
Location (waters) Doe Run
Well No. 2 Elevation 1043
District West Union County Doddridge
Quadrangle West Union SE

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 12-21-78.

Robert H. [Signature]

Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Paul Garrett
ADDRESS Clarksburg, WV
PHONE 622-3871

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 March 17 1978 by Markey Heirs made to Key Oil Company and recorded on the 12 day of July 1978, in Doddridge County, Book 104 Page 293
 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,
(Sign Name) Joe McLaughlin
Well Operator
P. O. Box 239
Street
Glenville
City or Town
West Virginia
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.

CASH DEPOSIT
FIELD BY TREASURER-

DOD-2284 PERMIT NUMBER
47-017

"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 Joe McLaughlin

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

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Fox Drilling Company NAME Joe McLaughlin
 ADDRESS Glenville, WV ADDRESS Glenville, WV
 TELEPHONE 462-7353 TELEPHONE 462-5587
 ESTIMATED DEPTH OF COMPLETED WELL: 5500' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Alexander
 TYPE OF WELL: OIL _____ GAS _____ 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	640'		cement to surface
7			
5 1/2			
4 1/2	5500'		
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 493 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