



CERTIFICATE

"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

Frank H. ...

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY
 ADDRESS P.O. BOX 8, RAVENSWOOD, WEST VIRGINIA
 FARM WILLIAM WARNER ETAL
 MAP _____ ACRES 378.63 LEASE NO. _____
 WELL (FARM) NO. 1 SERIAL NO. KEM 38
 ELEVATION (SPIRIT LEVEL) 761
 QUADRANGLE NE ELMWOOD 1/4 Winfield 15'
 COUNTY MASON DISTRICT UNION
 POINT OF PROVEN ELEVATION USGS BM. 691
 FILE NO. DEEP WELL DRAWING NO. _____
 DATE JAN. 21, 1960 SCALE 1" = 1000'

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

WELL LOCATION MAP

FILE NO. 053-0223

6-6 Rock Castle (346)

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1" TO 62,500'. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY DASHED LINES AS SHOWN.
 * DENOTES ONE INCH SPACES ON ORIGINAL MAP.
 JAN 28 1960



RECEIVED

JUL - 5 1984

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

OIL & GAS DIVISION
DEPT. OF MINES

Quadrangle Elmwood

Permit No. MAS-223

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

Company <u>Kaiser Exploration and Mining Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P. O. Box 8, Ravenswood, WV 26164</u>	Size			
Farm <u>William Warner, et al Acres 378.63</u>	20-16			
Location (waters) <u>Sapsucker Run</u>	Cond.			
Well No. <u>KEM #34</u> Elev. <u>761</u>	13-10" 10 3/4	261'(KB)	261'(KB)	150 sks class A (to surface)
District <u>Union</u> County <u>Mason</u>	9 5/8			65 sks 50/50 po
The surface of tract is owned in fee by _____	15/8			100 sks class A (1400' fillup)
<u>West Virginia Pulp and Paper Company</u>	7	2492'(KB)	2492'(KB)	225 sks 50/50 p (2000' fillup)
Address <u>P. O. Box 4216, Parkersburg, WV 26101</u>	5 1/2			
Mineral rights are owned by <u>William Warner, et al</u>	4 1/2	4778'(KB)	4778'(KB)	
Address <u>209 56th St, Charleston, WV</u>	3			
Drilling Commenced <u>9/6/80</u>	2		4679'(KB)	
Drilling Completed <u>9/12/80</u>	Liners Used			
Initial open flow <u>107 M</u> cu. ft. -- bbls.				
Final production <u>800 M</u> cu. ft. per day -- bbls.				
Well open <u>10</u> hrs. before test <u>1800</u> RP.				

Attach copy of cementing record.

Perforated pay zone from 4680'-4690' (K.B.), 4 holes/ft, 40 holes, .39" diameter; (Basin Surveys) Halliburton & B.J. Hughes on location 9/16/80; hydrofractured zone with 30,000# 80/100 sand, 21,000# 20/40 sand, 500 gal 28% HCL acid 170,000 SCF of nitrogen, 1688 hydraulic horsepower, 731 BBL of water; 34 BPM at 2100 psig treatment rate; opened well up.

Coal was encountered at -- Feet -- Inches
Fresh water -- Feet -- Salt Water -- Feet --
Producing Sand Oriskany Sandstone Depth 4680'-4690' (K.B.)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil & Shale			0	100		
Sand			100	151		
Siltstone			151	268		
Shale			268	376		
Sand			376	394		
Shale			394	514		
Sand			514	523		
Shale			523	581		
Sand			581	600		
Red Rock			600	882		
Sand			882	906		
Shale			906	979		
Sand Sands			979	1102		
Shale			1102	1195		
Sand			1195	1218		
Shale			1218	1250		
Sand			1250	1296		
Siltstone			1296	1371		
Shale			1371	1744		
Big Lime			1744	1894		
Shale			1894	1953		
Big Injun			1953	2076		
Shale			2076	2384		

Tops from KB = 771

(over)

* Indicates Electric Log tops in the remarks section.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

MAR 19 1980
OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE January 23, 1980

Surface Owner West Virginia Pulp and Paper Co. Company Kaiser Exploration and Mining Company
 Address P. O. Box 4216, Parkersburg, WV 26101 Address P. O. Box 8, Ravenswood, WV 26164
 Mineral Owner William Warner, et al Farm William Warner, et al Acres 378.63
 Address 209 56th Street, Charleston, WV 25304 Location (waters) Sapsucker Run
 Coal Owner Union Carbide Corporation Well No. KEM 34 Elevation 761
 Address 32 Sanderson Road, Clendenin, WV 25045 District Union County Mason
 Coal Operator Union Carbide Corporation Quadrangle Elmwood
 Address 32 Sanderson Road, Clendenin, WV 25045

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 11-24-80

INSPECTOR
TO BE NOTIFIED Kenneth Butcher

ADDRESS RFD #1, Barboursville, WV 25504

PHONE 736-4885

Robert H. [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 September 13 19 78 by William Warner et al made to Kaiser Exploration & Mining Co. and recorded on the 3rd. day of October 19 78 in Mason County, Book 43 Page 767

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)

R. A. Pryce
Well Operator

Kaiser Exploration and Mining Company
Street

P. O. Box 8
City or Town

Ravenswood, West Virginia 26164
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 BOARD

**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 Not know at this time _____ NAME R. A. Pryce _____
 ADDRESS _____ ADDRESS P. O. Box 8, Ravenswood, WV 26164 _____
 TELEPHONE _____ TELEPHONE 273-5371 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 4750' _____ ROTARY X _____ CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany _____
 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			
9 - 5/8 10 3/4"	200'	200'	Cement to surface
8 - 5/8			
7	2350'	2350'	125 sks = 570 feet
5 1/2			
4 1/2	4625'	4625'	125 sks = 1500 feet
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET _____ SALT WATER _____ FEET _____

APPROXIMATE COAL DEPTHS _____

IS COAL BEING MINED IN THE AREA? Not at the present time 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