



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 W. Barber LL# 200

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY
 ADDRESS PO. BOX 8, RAVENSWOOD, WEST VIRGINIA
 FARM BEULAH BADGLEY ETAL
 MAP _____ ACRES 134 LEASE NO. _____
 WELL (FARM) NO. _____ SERIAL NO. KEM 28 (REV. 7)
 ELEVATION (SPIRIT LEVEL) 748.53
 QUADRANGLE ELMWOOD T5, WINFIELD 15' NC
 COUNTY MASON DISTRICT UNION
 POINT OF PROVEN ELEVATION Rd Intersection EL. 929
 FILE NO. _____ DRAWING NO. _____
 DATE MAY 24, 1980 SCALE 1"=500 FT.

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON,
 WELL LOCATION MAP
 FILE NO. 053-0227
FORMERLY 0202
 + DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC
 MAPS. SCALE 1 TO 25,000 LATITUDE AND LONGITUDE LINES
 BEING REPRESENTED BY BORDER LINES AS SHOWN.
4930 ORISKANY
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING

DEEP WELL 64 Rock Castle (346) JUL 7 1980



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

JUL - 5 1984

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

WELL RECORD

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

Quadrangle Elmwood

Permit No. MAS-227

Company Kaiser Exploration and Mining Company
Address P. O. Box 8, Ravenswood, WV 26164
Farm Gary Stone (Formerly: Beulah Badgley) 134
Location (waters) Warner's Branch
Well No. KEM 28 Elev. 748.53
District Union County Mason
The surface of tract is owned in fee by _____
Gary Kent Stone
Address Murraysville, WV
Mineral rights are owned by Same as above
Address Same as above
Drilling Commenced 8/26/80
Drilling Completed 9/4/80
Initial open flow 34 M cu. ft. -- bbls.
Final production 1,500 Mcu. ft. per day -- bbls.
Well open 10 hrs. before test 2000# RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"	10 3/4"	247' (KB)	247' (KB)
9 5/8			150 sks class A (to surface)
8 5/8			
7	2476' (KB)	2476' (KB)	65 sks 50/50 po 100 sks class A (1400' fillup)
5 1/2			
4 1/2	4720' (KB)	4720' (KB)	225 sks 50/50 po (2000' fillup)
3			
2			
Liners Used			

Attach copy of cementing record.

Perforated pay zone from 4660'-4668' (K.B.), 4 holes/ft, 32 holes, .39" diameter (McCullough Halliburton & B.J. Hughes on location to hydrofracture pay zone 9/7/80; used 30,000# 80/100 sand, 30,000# 20/40 sand, 833 BBL water, 2174 hydraulic horsepower, 200,000 SCF of nitrogen, 22 BPM avg rate at 4000 psig; opened well up.

Coal was encountered at -- Feet -- Inches
Fresh water -- Feet -- Salt Water -- Feet --
Producing Sand Oriskany Sandstone Depth 4660'-4668' (KB)

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil & Shale			0	48		
Sand			48	65		
Shale			65	90		
Sand			90	241		
Shale			241	458		
Sand			458	468		
Shale			468	521		
Sand			521	534		
Shale			534	824		
Sand			824	849		
Shale			849	914		
Sand			914	958		
Shale			958	980		
Sand			980	1032		
Shale			1032	1110		
Salt Sands			1110	1262		
Shale			1262	1302		
Sand			1302	1320		
Shale			1320	1600		
Sand			1600	1626		
Shale			1626	1744		
Big Lime			1744	1870		
Shale			1870	1923		
Big Injun			1923	1984		

(over)

JUL 30 1984

053-0227

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Col. Gas or Water	Remarks
Shale			1984	2372		TOP FROM KB
Coffee Shale			2372	2393		759
Berea Sand			2393	2410		
Shale			2410	3582		
Brown Shale			3582	4024	Show/Gas	3825'
Shale			4024	4354		
Marcellus			4354	4570		
Onondaga Lime			4570	4646	Show/Gas	4602'
Oriskany Sand			4646	4678	Show/Gas	4666'
Helderberg Lime			4678	4754		
Total Depth			4754			

BR log from 759 KB

S 3570
 S 4020
 A 4354
 Ch 4359
 On 4570

Date November 12, 1980

APPROVED *John A. P.*

P. Operations Manager



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RENEW
REVISED

Oil and Gas Division
OIL AND GAS WELL PERMIT APPLICATION

RECEIVED
MAY 28 1980
OIL AND GAS DIVISION
DEPT. OF MINES

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

DATE May 27, 1980
Company Kaiser Exploration and Mining Company
Address P. O. Box 8, Ravenswood, WV 26164
Farm Formerly Beulah Badgley Acres 134
Location (waters) Warners Branch
Well No. KEM #28 Elevation 922.50
District Union County Mason
Quadrangle Flmwood

Surface Owner Gary Kent Stone
Address Murraysville, WV
Mineral Owner Same as above
Address Same as above
Coal Owner Union Carbide Corporation
Address 32 Sanderson Road, Clendenin, WV
Coal Operator None
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 2-4-81.

Robert H. [Signature]

Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Kenneth Butcher
ADDRESS RFD #1, Barboursville, WV 25504
PHONE 736-4885

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 October 24 1978 by Beulah Badgley, et al made to Kaiser Exploration and Mining Co. and recorded on the 1st day of October 1979, in Mason County, Book 46 Page 471

XX 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

Very truly yours,
(Sign Name) R. A. Pryce
Well Operator
Address P. O. Box 8
Street
Ravenswood
City or Town
West Virginia 26164
State

Address
of
Well Operator

BLANKET BOND

*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.

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 known at this time _____ NAME Robert A. Pryce _____
 ADDRESS _____ ADDRESS P. O. Box 8, Ravenswood, WV 26164 _____
 TELEPHONE _____ TELEPHONE 273-5371 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 4930' _____ ROTARY xx _____ 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	250'	250'	Cement to surface
8 - 5/8			
7	2700'	2700'	125 sk = 570 feet
5 1/2			
4 1/2	4930'	4930'	125 sk = 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? 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