



CERTIFICATE

- 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: Frank J. Barber LL# 289

COMPANY KAISER EXPLORATION AND MINING COMPANY
 ADDRESS P.O. BOX 537 RIDLEY, WEST VIRGINIA
 FARM HOWARD SCHULTZ ETAL, DELBERT GREENLEE
 MAP _____ ACRES 220 LEASE NO. _____
 WELL (FARM) NO. 1 SERIAL NO. KEM 14
 ELEVATION (SPIRIT LEVEL) 868.01
 QUADRANGLE ELMWOOD 7 1/2, WINFIELD 15' NC
 COUNTY MASON DISTRICT UNION
 POINT OF PROVEN ELEVATION BM ELEV. 836
 FILE NO. _____ DRAWING NO. _____
 DATE FEB. 23, 1979 SCALE 1" = 1000 FT.

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 FILE NO. 47-053-0178
 + 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.
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.
 MAR 21 1979

Deep Well 4-5-6 Rock-Castle (346)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

FEB 20 1980

Oil and Gas Division

WELL RECORD 33

OIL & GAS DIVISION

DEPT OF MINES

Quadrangle Elmwood
Permit No. 47-053-0178

Rotary Oil
Cable _____ Gas
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>				
Farm <u>Howard Schultz</u> Acres <u>63</u>	Size			
Location (waters) <u>Thirteen Mile Creek</u>	20-16			
Well No. <u>KEM 14</u> Elev. <u>868.01</u>	Cond.			
District <u>Union</u> County <u>Mason</u>	13-10" <u>10 3/4"</u>		<u>247'</u>	125 sc Class A (to surface)
The surface of tract is owned in fee by <u>Delbert Greenlee</u>	9 5/8			
Address <u>2306 Charles Avenue, Dunbar, WV 25064</u>	8 5/8			
Mineral rights are owned by <u>Delbert Greenlee</u>	7		<u>2598'</u>	655 sx Pozmix
Address <u>Same as above</u>	5 1/2			100 sx Class A-110
Drilling Commenced <u>10/8/79</u>	4 1/2			225 sx Pozmix
Drilling Completed <u>10/17/79</u>	3			2300'
Initial open flow <u>87 M</u> cu. ft. <u>--</u> bbls.	2			
Final production <u>1500 M</u> cu. ft. per day <u>--</u> bbls.	Liners Used			
Well open <u>10</u> hrs. before test <u>1850</u> RP.				

Well treatment details: Attach copy of cementing record.
Oriskany perforated 4771' - 4779' (K.B.) w/4 holes/ft; Halliburton and Aircowell fractured w/15,000# 80/100 sand and 30,000# 20/40 sand; used 763 bbl of water and 193,000 SCF of nitrogen.

1,500 MCF

Coal was encountered at -- Feet -- Inches --
 Fresh water -- Feet -- Salt Water -- Feet --
 Producing Sand Oriskany Depth 4771-79

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand & shale			0	80		
Shale			80	140		
Sand			140	245		
Shale			245	420		
Sand			420	470		
Shale			470	625		
Sand & Shale			625	810		
Shale			810	990		
Sand			990	1015		
Shale			1015	1065		
Salt Sand			1065	1200		
Shale			1200	1280		
Salt Sand			1280	1430		
Shale			1430	1475		
Sand			1475	1495		
Shale			1495	1585		
Sand			1585	1705		
Shale			1705	1810		
Maxton Sand			1810	1880		
Big Lime			1880	2010		
Big Shale			2010	2070		
Big Injun			2070	2120		
Shale			2120	2495		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ³	Bottom Feet	Oil, Gas or Water	* Remarks
Coffee Shale			2495	2515		
Berea Sand			2515	2528		
Shale			2528	3690		
Brown Shale			3690	4132		
Shale			4132	4365		
Marcellus			4365	4678		
Onondaga Lime			4678	4752		
Oriskany			4752	4788	S/G	
Lime			4788	4864	Total Depth	
GR log - from 520' to						
H 3095						
J 4134						
A 4269						
E 4473						
D 4678						

Date February 20

1980

APPROVED Kaiser Exploration and Mining Company

By Kath A. Payne
Operations Manager



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

FEB 23 1979

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 February 23, 1979

Surface Owner Delbert Greenlee
Address 2306 Charles Avenue, Dunbar, WV 25064
Mineral Owner Same as above
Address Same as above
Coal Owner Same as above
Address Same as above
Coal Operator None
Address None

Company Kaiser Exploration and Mining Company
Address P. O. Box 537, Ripley, WV 25271
Farm Howard Schultz Acres 63-220
Location (waters) Thirteen Mile Creek
Well No. KEM #14 Elevation 868.01
District Union County Mason
Quadrangle Elmwood

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 10-27-79.

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

[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 March 20, 1972 by Howard Schultz, etal made to Ashland Oil, Inc assigned to Kaiser Exploration and Mining Company and recorded on the ----- day of ----- 1972 in Mason County, Book 42 Page 319

XXX 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:

Very truly yours,
(Sign Name) R. A. Pryce
R. A. Pryce Well Operator Operations Manager
P. O. Box 537
Ripley
West Virginia

VA. OIL & GAS CONSERVATION COMMISSION
13 WASHINGTON STREET, EAST
CHARLESTON, WEST VIRGINIA 25311

Address
of
Well Operator

Street
City or Town
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 BOND

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

PROPOSED WORK ORDER TO XXX 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 537, Ripley, WV 25271
 TELEPHONE _____ TELEPHONE 372-2828 or 372-2827
 ESTIMATED DEPTH OF COMPLETED WELL: 4850 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	250	250	Cement to surface
8 - 5/8			
7	2550	2550	125 sks = 570 feet
5 1/2			
4 1/2	4850	4850	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? None 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