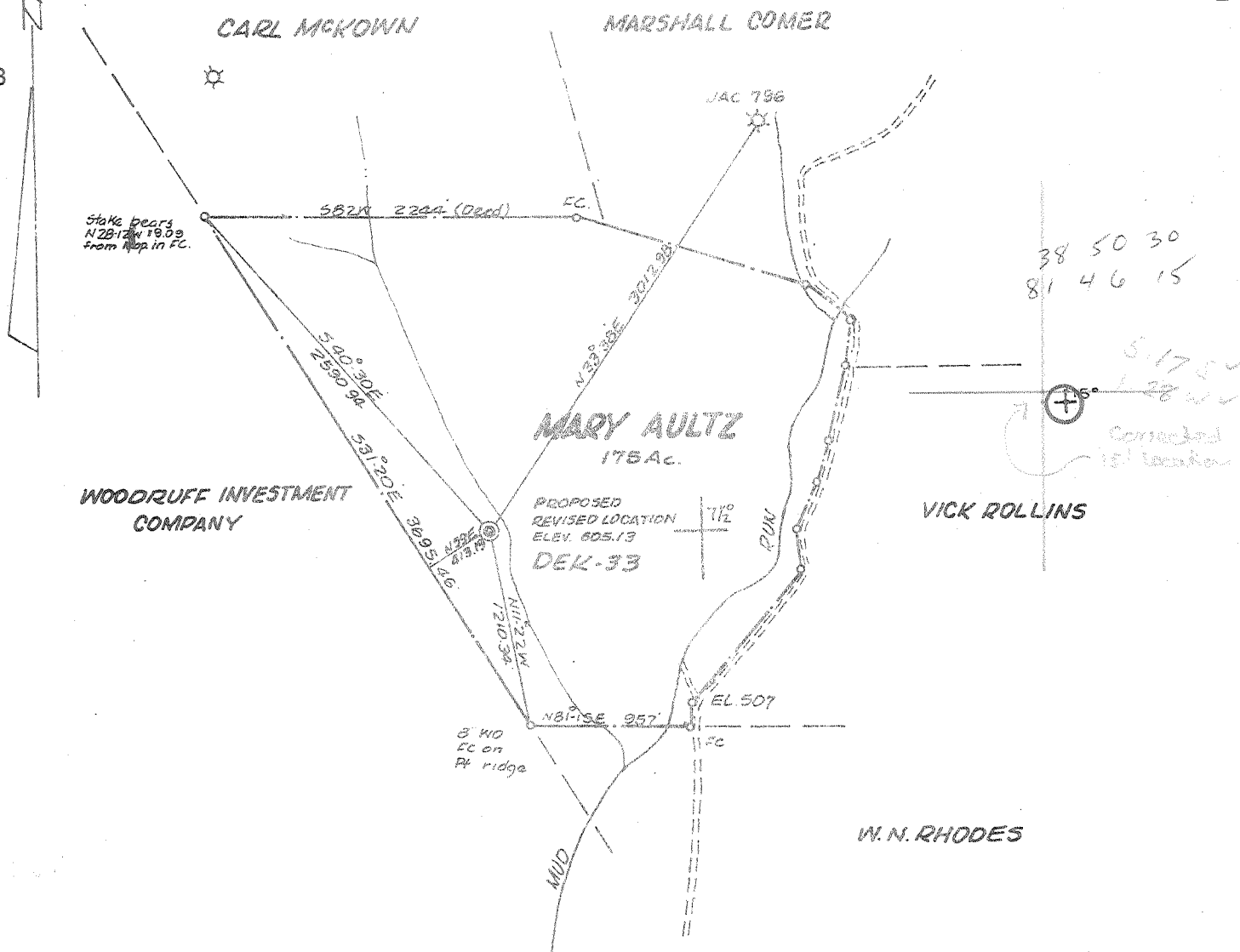


7 1/2° COTTAGEVILLE
15° RAVENSWOOD
LATITUDE 38° 52' 30"
38° 55'

LONGITUDE 81° 45'



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 F. Barber LLS #209

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING CO
 ADDRESS PO BOX 537 RIDLEY W. VA.
 FARM MARY AULTZ
 MAP _____ ACRES _____ LEASE NO. _____
 WELL (FARM) NO. 1-REV. DEK 33 SERIAL NO. EC
 ELEVATION (SPIRIT LEVEL) 605.13
 QUADRANGLE COTTAGEVILLE 7 1/2° RAVENSWOOD 15°
 COUNTY JACKSON DISTRICT RIDLEY
 POINT OF PROVEN ELEVATION PT. IN ROAD INTERSECTION SHOWN ABOVE EL. 507
 FILE NO. OCT. 5, 1978 DRAWING NO. _____
 DATE _____ SCALE 1"=1000 FT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. JAC-1467
035
 + 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. **47-035**
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

Dep well (0000) → H625-ORIS 6-6 North Ripley (342)

OCT 19 1978



MAR 16 1979

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Cottageville
Permit No. JAC-1467

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

Company KAISER EXPLORATION & MINING CO.
Address Box 537, Ripley, W. Va.
Farm Mary Aultz Acres 175
Location (waters) Mud Run
Well No. DEK #33 Elev. 613 KB
District Ripley County Jackson
The surface of tract is owned in fee by _____
Dewayne Clendenin
Address Evans, W. Va.
Mineral rights are owned by W. C. Kuryla
113 Chiles St. St. Albans, W. Va.
Drilling Commenced 10/9/78
Drilling Completed 10/17/78
Initial open flow 17 MCFD xxxx bbls.
Final production 100 MCFD xxxx per day bbls.
Well open 4 hrs. before test 1340 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	209	209	100 Sax
8 5/8			
7	2240	2240	75 Sax
5 1/2			
4 1/2		4632	200 Sax
3			
2		4558	
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforated 4 1/2" casing 4559' to 4561' with 16 shots.

Frac with 783 bbl water and 43,000# sand.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Sand Depth 4559-4561

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Surface			0	36		
Shale			36	92		
Sand			92	138		
Shale & Shale/Sand Stringers			138	330		
Shale			330	536		
Shale			536	958		
Sand			958	1036		
Shale			1036	1130		
Sand			1130	1160		
Shale			1160	1218		
Sand			1218	1280		
Shale			1280	1478		
Sand Stringers			1478	1552		
Maxon Sand			1552	1622		
Big Lime			1622	1714		
Shale			1714	1728		
Injun Sand			1728	1856		
Shale			1856	2181		
Coffee Shale			2181	2206		
Berea Sand			2206	2208		
Gray Shale			2208	3384		
Brown Shale			3384	3869		
Gray Shale			3869	4290		

(over)

* Indicates Electric Log tops in the remarks section.

APR 10 1979

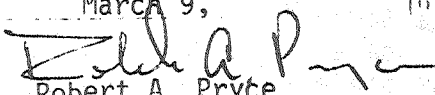
Formation	Color	Hard or Soft	Top Feet ₂₃	Bottom Feet	Oil, Gas or Water	* Remarks
Marcellus Shale			4290	4448		
Onondaga L. S.			4448	4525		
Oriskany Sand			4525	4564		
Helderberg L. S.			4564			
Total Depth			4653'			

Date

March 9,

1979

APPROVED


 Robert A. Pryce

Owner

By

Operations Manager

(Title)

[08-78]

WELL OPERATOR'S REPORT
OF

DRILLING, TAP CHANGING AND/OR STIMULATING, REPAIRS AND CHANGE

WELL TYPE: Oil / Gas / Liquid Injection / Waste Disposal
(If "Gas", Production / Underground storage / Feed / Shallow
LOCATION: Elevation: 705.13 Watershed: Mud Run
District: Ripley County: Jackson Gas triangle: Cottageville (7.5')

WELL OPERATOR Kaiser Exploration and Mining Co. DESIGNATED AGENT SAME
Address P. O. Box 8 Address _____
Ravenswood, WV 26164

RECEIVED

PERMITTED WORK: Drill / Convert / Drill deeper / Re-drill / Fracture or stimulate
Plug off old formation / Perforate new formation / OIL AND GAS DIVISION
Other physical change in well (specify) _____ WV DEPARTMENT OF MINES

FEB 9 - 1982

PERMIT ISSUED ON October 5, 1978 OIL & GAS INSPECTOR FOR THIS WORK:
Name Richard Morris (354-7259)
IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED Address P. O. Box 372
_____, 19_____ Grantsville, WV

GEOLOGICAL TARGET FORMATION: Plugged Oriskany; Fractured Marcellus ^{old} Depth 4653 feet
NEW Depth of completed well, 4520 feet Rotary / Cable Tools
Water strata depth: Fresh, _____ feet; salt, _____ feet.
Coal seam depths: NONE Is coal being mined in the area? NO
Plug Back Work was commenced March 28, 1979, and completed March 29, 1979

CASING AND TUBING PROGRAM: See previous well record filed upon Oriskany completion.

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Winds
Fresh water								
Coal								Sizes
Intermediate								
Production								Depth set
Tubing								
Liners								Perforations: Marcellus 4246 Top 4443 Bottom

OPEN FLOW DATA
OLD Producing formation Devonian Oriskany Sandstone Old pay zone depth 4559-4561 feet
Gas: Initial open flow, 17 Mcf/d Oil: Initial open flow, 0 Bbl/d
Final open flow, 100 Mcf/d Final open flow, 0 Bbl/d
Time of open flow between initial and final tests, N/A hours
Static rock pressure, 1340 psig (surface measurement) after N/A hours shut in

[If applicable due to multiple completion--]
Second producing formation Devonian Marcellus Shale Pay zone depth 4246-4443 feet
Gas: Initial open flow, N/A Mcf/d Oil: Initial open flow, 0 Bbl/d
Final open flow, est. 75 Mcf/d Final open flow, 0 Bbl/d
Time of open flow between initial and final tests, N/A hours
Static rock pressure, 625 psig (surface measurement) after 12 hours shut in

MAR 01 1982



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

001 4 - 1978

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 October 4, 1978

Surface Owner Dewayne & Betty Clendenin
Address Evans, W. Va.

Company KAISER EXPLORATION & MINING CO.
Address Box 537, Ripley, W. Va.

Mineral Owner William C. Kuryla, et al
Address 113 Chiles St., St. Albans, WV

Farm Mary Aultz Acres 175 acres

Coal Owner Same as above

Location (waters) Mud Run of Mill Creek

Address _____

Well No. 1-DEK 33 Elevation 610.13

Coal Operator Not operated

District Ripley County Jackson

Address _____

Quadrangle Cottageville 7 1/2

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 2-5-79

Robert H. [Signature]

Deputy Director - Oil & Gas Division

INSPECTOR
TO BE NOTIFIED Richard Morris

ADDRESS Grantsville, W. Va.

PHONE 354-7259

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 May 15 1975 by W. N. & Mary V. Rhodes made to Devon & Eason and recorded on the _____ day of _____ 1975 in Jackson County, Book 131 Page 513

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:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours, KAISER EXPLORATION & MINING CO.
(Sign Name) R. A. [Signature]
Well Operator

Address
of
Well Operator

Box 537
Street
Ripley,
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.

BLANKET BOARD

JAC-1467

PERMIT NUMBER

47-035

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 FWA Drilling Company NAME Robert A. Pryce
 ADDRESS Box 448, Elkview, W. Va. ADDRESS Box 537, Ripley, W. Va.
 TELEPHONE 965-3379 TELEPHONE 372-2827
 ESTIMATED DEPTH OF COMPLETED WELL: 4625 ROTARY XXX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS XXX 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	200	200	100 sax=to surface
8 - 5/8			
7	2225	2225	75 sax=625'
5 1/2			
4 1/2		4625	200 sax=2400'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS None anticipated
 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