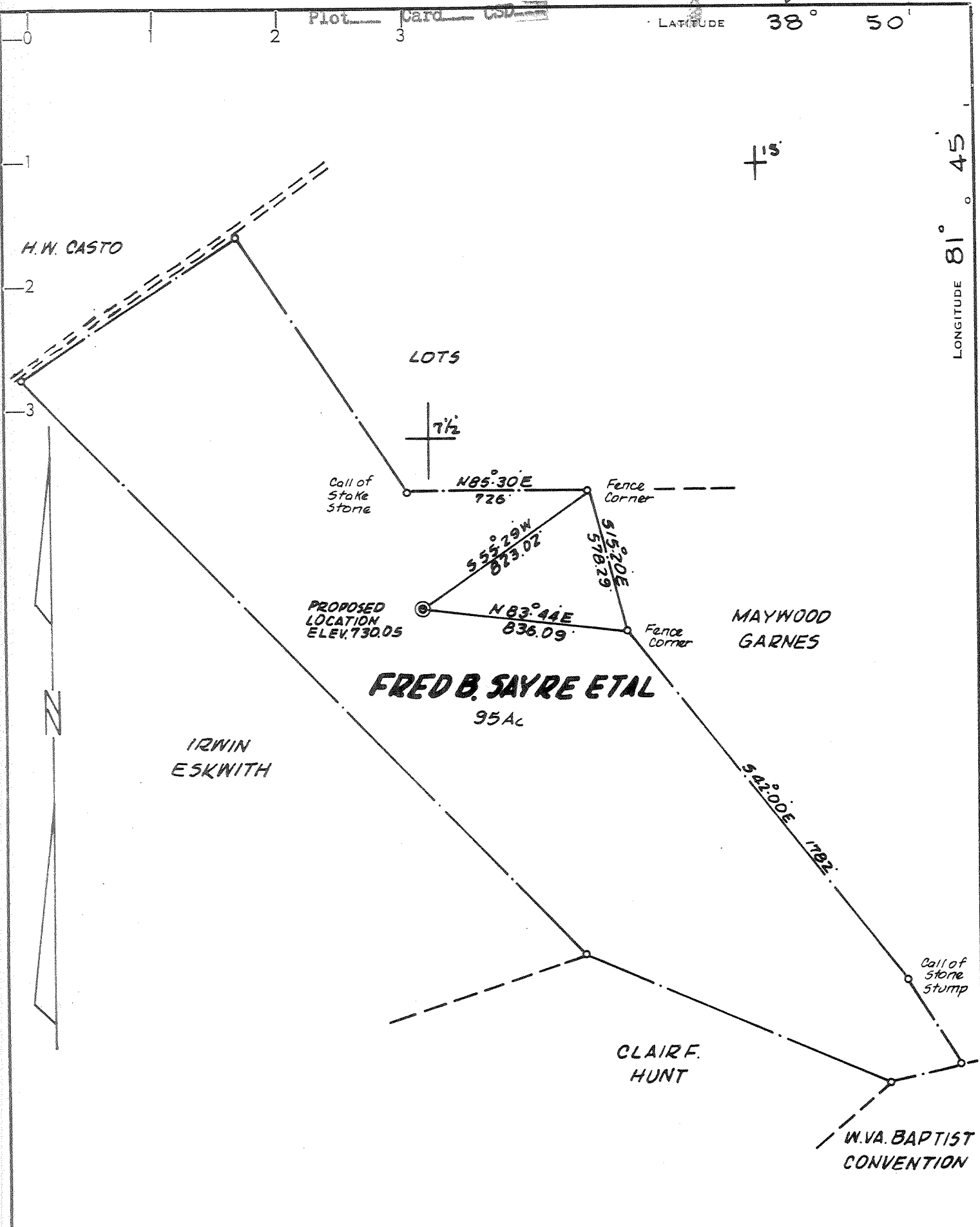


1453

Plot Card

LATITUDE 38° 50'

LONGITUDE 81° 45'



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

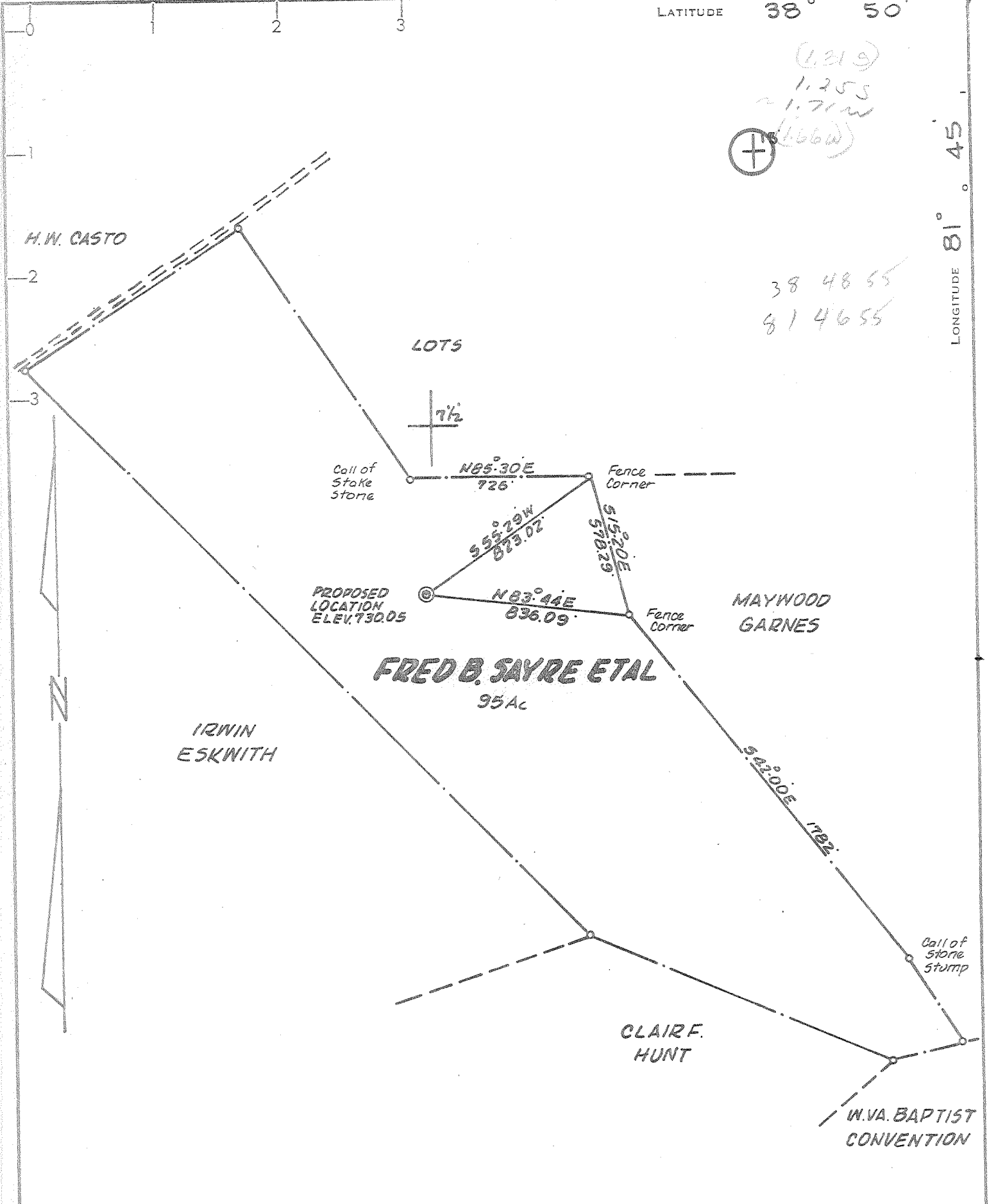
Signed Frank Z. Barber LLS#289

COMPANY KAISER EXPLORATION & MINING CO.
 ADDRESS P.O. BOX 537 RIPLEY, W. VA.
 FARM FRED B. SAYRE ETAL
 MAP _____ ACRES 95 LEASE NO. _____
 WELL (FARM) NO. 1 SERIAL NO. _____
 ELEVATION (SPIRIT LEVEL) 730.05
 QUADRANGLE COTTAGEVILLE 7 1/2 RAVENSWOOD 15'
 COUNTY JACKSON DISTRICT RIPLEY
 POINT OF PROVEN ELEVATION USCG BM RD. INTERSECTION
ON RT. 85 3000 SW. OF EVANS EL. 611
 FILE NO. _____ DRAWING NO. _____
 DATE APRIL 1, 1978 SCALE 1" = 500 FT.

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. JAC-1426-PP
 + 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.

4200 Oriskany

(359)



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 Z. Barber* LLS#289

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING CO.
 ADDRESS P.O. BOX 537 RIPLEY, W. VA.
 FARM FRED B. SAYRE ETAL
 MAP _____ ACRES 95 LEASE NO. _____
 WELL (FARM) NO. 1 SERIAL NO. 57
 ELEVATION (SPIRIT LEVEL) 730.05
 QUADRANGLE COTTAGEVILLE 7 1/2 RAVENSWOOD 15'
 COUNTY JACKSON DISTRICT RIPLEY
 POINT OF PROVEN ELEVATION USCG BM RD. INTERSECTION
ON RT. 85 3000 SW. OF EVANS EL. 611
 FILE NO. _____ DRAWING NO. _____
 DATE APRIL 1, 1978 SCALE 1" = 500 FT.

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 FILE NO. JAC-1426
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.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 12

Quadrangle Cottageville 15'

Permit No. JAC-1426
47-035

Rotary XXX Oil show
Cable _____ Gas XXXXX
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 537, Ripley, WV 25271</u>				
Farm <u>Fred B. Sayre</u> Acres <u>95</u>	Size			
Location (waters) <u>Isaac's Run</u>	20-16			
Well No. <u>KEM-#1</u> Elev. <u>730.05</u>	Cond.			
District <u>Ripley</u> County <u>Jackson</u>	13-10"			
The surface of tract is owned in fee by <u>Fred B. Sayre</u> <u>& Orville Sayre</u>	9 5/8	312	312	100 Sax-to surface
Address <u>340 N. Church St. & 406 N. Church St.</u> <u>Ripley</u>	8 5/8			
Mineral rights are owned by <u>Same</u>	7	2413	2413	125 Sax-1073'
Address <u>Same</u>	5 1/2			
Drilling Commenced <u>7/27/78</u>	4 1/2	4808	4808	150 Sax-1688'
Drilling Completed <u>8/2/78</u>	3			
Initial open flow <u>0</u> cu. ft. _____ bbls.	2			
Final production <u>50</u> cu. ft. per day _____ bbls.	Liners Used			
Well open _____ hrs. before test <u>1300</u> RP.				

Well treatment details:

Attach copy of cementing record.

Perforated Oriskany at 4730-32, 4756-58 with 32 Omega Jet shots.

Dowell fractured Oriskany w/15,000# 80/100 and 30,000# 20/40 sand, 210,000 SCF Nitrogen;
739 BBL Total. (Lost frac job due to channeling will recomplete in shale later)

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Depth 4730-32 4756-58

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	10		
Siltstone			10	90		
Shale			90	150		
Sand			150	315		
Shale			315	410		
Siltstone			410	425		
Red Rock			425	508		
Sand			508	515		
Red Rock			515	550		
Sand			550	585		
Red Rock			585	630		
Sand			630	690		
Siltstone			690	810		
Shale			810	850		
Sand			850	870		
Shale			870	890		
Sand			890	895		
Shale			895	1030		
Sand			1030	1160		
Shale			1160	1190		
Salt Sand			1190	1440		
Shale			1440	1655		
Maxton			1655	1785		

RECORDED
JAN 25 1979
OIL & GAS DIVISION
DEPT. OF MINES

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet ^{1/2}	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			1785	1800		
Big Lime			1800	1885		
Shale			1885	1905		
Big Injun			1905	2010		
Shale			2010	2030		
Sand			2030	2050		
Shale			2050	2357		
Coffee Shale			2357	2380		
Berea			2380	2390		
Shale			2390	3576		
Brown Shale			3576	4436		
Marcellus Shale			4436	4642		
Onondaga Lime			4642	4716		
Oriskany			4716	4772		
Helderberg L.S.			4772	4853		
Total Depth			4853			

Date January 4, 19 79

APPROVED *E. A. P.* Owner
 By Operations Manager
 (Title)

REVISED

Operator
Well No. KEM - 1

[08-78]

WELL OPERATOR'S REPORT

API Well No. 47 - 035 - 1426

OF
REWORKING, TAG DRILLING OR FOR STIMULATING, OR OTHER SPECIAL CHANGE

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production X / Underground storage ___ / Fees ___ / Wellflow ___)

LOCATION: Elevation: 730.05 Watershed: Isaac's Run
District: Ripley County: Jackson Coordinates: Cottageville (7.5')

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

PERMITTED WORK: Drill ___ / Convert ___ / Drill deeper ___ / Re-drill ___ / Fracture or stimulate
Plug off old formation X / Perforate new formation X / Other physical change in well (specify) _____

RECEIVED

FEB 9 - 1982

PERMIT ISSUED ON April 7, 1978

OIL & GAS INSPECTOR FOR THE STATE OF WEST VIRGINIA
Name Richard Morris (354-7259)
Address P. O. Box 372
Grantsville, WV

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19____)

GEOLOGICAL TARGET FORMATION: Plugged Oriskany; Frac'd Dev. Br. Shale ^{old} Depth 4853' (KB) feet

NEW Depth of completed well, 4100' (KB) 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 May 14, 1979, and completed May 16, 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		Left in well	
Conductor									Kinds
Fresh water									
Coal									Sizes
Intermediate									
Production									Depths set
Tubing									
Liners									Perforations: Br. Shal
									Top Bottom
									3834' 4054'

OPEN FLOW DATA

OLD Producing formation Devonian Oriskany Sandstone OLD pay zone depth 4730'-4758' (KB)

Gas: Initial open flow, 0 Mcf/d Oil: Initial open flow, 0 bbl/d
Final open flow, 50 Mcf/d Final open flow, 0 bbl/d

Time of open flow between initial and final tests, N/A hours

Static rock pressure, 1300 psig (surface measurement) after N/A hours shut in

[If applicable due to multiple completion--]

Second producing formation Devonian Brown Shale Pay zone depth 3834'-4054' (KB) feet

Gas: Initial open flow, 20 Mcf/d Oil: Initial open flow, 0 bbl/d
Final open flow, N/A Mcf/d Final open flow, 0 bbl/d

Time of open flow between initial and final tests, N/A hours

Static rock pressure, 620 psig (surface measurement) after 72 hours shut in

MAR 01 1982

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

- 5/15/79: Set permanent bridge plug in 4 1/2" casing at 4100' (KB). Perforated the Brown Shale with 20 holes (.41" diameter, 2 1/8" glass jets) from 3834'-4054' (KB)
- 5/16/79: Foam fractured the Brown Shale interval with nitrogen, 30,000 lbs. of 80/100 sand, 30,000 lbs of 20/40 sand, 375 bbl of water and 500 gallons of 15% HCL Acid. Formation fractured at a rate of 23 BPM and an average treating pressure of 2050 psig instantaneous shut-in pressure was 1425 psig.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
NOTE: See previous well record filed upon Oriskany completion.					

(Attach separate sheets to complete as necessary)

KAISER EXPLORATION AND MINING COMPANY

Well Operator

By R.A.P.

Its Operation Manager

NOTE: Regulation 2.05(f) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including soil, encountered in the drilling of a well."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
APR - 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 4 April 1978

Surface Owner Fred B. Sayre & Orville Sayre
Address 340 N. Church St. & 406 N. Church St., Ripley
Mineral Owner Same as above
Address _____
Coal Owner Same as above
Address _____
Coal Operator None
Address _____

Company KAISER EXPLORATION & MINING COMPANY
Address P. O. Box 537, Ripley, WV 25271
Farm Fred B. Sayre Acres 95
Location (waters) Isaacs Run
Well No. 1 Elevation 730.05
District Ripley County Jackson
Quadrangle Cottageville

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 8-7-78

INSPECTOR Richard Morris
TO BE NOTIFIED

[Signature]
Deputy Director - Oil & Gas Division

ADDRESS P. O. Box 372, Grantsville, WV
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 5 December 19 77 by Fred B. Sayre & Orville Sayre made to Kaiser Exploration & Mining Co. and recorded on the 6th day of Dec. 19 77 in Jackson County, Book 146 Page 155

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.

Very truly yours, KAISER EXPLORATION & MINING COMPANY

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

(Sign Name) R. A. Pryce
R. A. Pryce, Well Operator, Operations Manager
P. O. Box 537
Street
Ripley
City or Town
West Virginia 25271
State

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

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.

JAC-1426 PERMIT NUMBER

