



New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure *1 IN 200*
 Source of Elevation *USGS Elev. 952' Road Intersection SOUTH OF Well Loc.*
 "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."

Company KAISER EXPL. & MINING COMPANY
 Address P.O. Box 98 RAVENSWOOD, W. VA. 26164
 Farm R.K. SAYRE
 Tract _____ Acres 188 Lease No. 3017
 Well (Farm) No. DEK #6 Serial No. _____
 Elevation (Spirit Level) 862.0
 Quadrangle RAVENSWOOD SE
 County JACKSON District UNION
 Engineer N. L. Lefton
 Engineer's Registration No. 1832
 File No. _____ Drawing No. _____
 Date 8-20-76 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. JAC - 1376

+ 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.

47-035
 SPD-shale

6- ~~APD~~ Providence (359) Deep well



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Ravenswood

Permit No. JAC 1376

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

Company <u>Kaiser Exploration & Mining Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>Box 98, Ravenswood, WV</u>	Size			
Farm <u>R.K. Sayre</u> Acres <u>188</u>	20-16			
Location (waters) <u>Silver Fork of MillCreek</u>	Cond.			
Well No. <u>DEK #6</u> Elev <u>862</u>	13-10"			
District <u>Union</u> County <u>Jackson</u>	9 5/8	197	197	100 Sax
The surface of tract is owned in fee by <u>R.K. Sayre, et al</u>	8 5/8			
Address <u>4139 Kenneth Road, Stow, Ohio</u>	7	2515	2515	75 Sax
Mineral rights are owned by <u>Same as above</u>	5 1/2			
Address _____	4 1/2	4788	4788	100 Sax
Drilling Commenced <u>October 13, 1976</u>	3			
Drilling Completed <u>October 22, 1976</u>	2		4740	
Initial open flow <u>Show</u> cu. ft. _____ bbls.	Liners Used			
Final production _____ cu. ft. per day _____ bbls.				
Well open _____ hrs. before test _____ RP.				

Well treatment details:

Attach copy of cementing record.

Perforated 4 1/2" casing @ 4739 1/2 to 4740 1/2 and 4743 1/2 to 4744 1/2 w/17 holes fractured with 780 bbl water and 27,500# sand. Open flow after frac -103 MCF/Day.

Shut in pressure 1400 psi - Oriskany.

Perforated 4 1/2" casing @ 3766' to 4054' with 26 shots.

Fractured with 1090 bbl water and 85,000# sand

Shut in pressure 850 psi - testing not complete.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Sand & Brown Shale Depth 4739 1/2 to 4744 1/2

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand and Shale			0	248		
Shale			248	292		
Sand			292	308		
Red Shale			308	334		
Sand			334	354		
Red Shale			354	421		
Sand			421	426		
Shale			426	444		
Sand			444	447		
Red Shales			447	478		
Sand			478	482		
Red Rock			482	526		
Sand			526	542		
Red Rock			542	608		
Sand			608	613		
Red Rock & Shales			613	1082		
Shale			1082	1181		
Sand			1181	1285		
Shale			1285	1322		
Salt Sand			1322	1409		
Shale			1409	1467		
Sand			1467	1480		
Shale			1480	1510		
Sand			1510	1531		

(over)

* Indicates Electric Log tops in the remarks section.

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Formation	Color	Hard or Soft	Top Feet >	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			1531	1663		
Sand			1663	1668		
Shale			1668	1787		
Maxon			1787	1844		
Shale			1844	1848		
Big Lime			1848	1954		
Keener			1954	1968		
Shale			1968	1982		
Injun			1982	2108		
Shale			2108	2442		
Coffee Shale			2442	2459		
Berea Sand			2459	2472		
Shale			2472	3627		
Brown Shale			3627	4079		
Shale			4079	4488		
Marcellus Shale			4488	4631		
Onondaga L.S.			4631	4726		
Oriskany Sand			4726	4748		
Helderberg L.S.			4748	4830		
Log Total Depth			4830			

Date October 10 19 77

APPROVED Robert A. Payne Owner

By Staff Petroleum Geologist
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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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 6, 1976

Surface Owner R. K. Sayre, et al
Address 4139 Kenneth Road, Stow, OH
Mineral Owner R. K. Sayre, et al
Address 4139 Kenneth Road, Stow, OH
Coal Owner R. K. Sayre, et al
Address 4139 Kenneth Road, Stow, OH
Coal Operator Not Operated
Address _____

Company Kaiser Exploration & Mining Company
Address P. O. Box 98, Ravenswood, WV 26164
Farm R. K. Sayre Acres 188
Location (waters) Silver Fork of Mill Creek
Well No. DEK #6 Elevation 862
District Union County Jackson
Quadrangle Ravenswood 15', 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 2-7-77.

Robert H. Bell

Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Richard Morris

GENTLEMEN:

PH: 354-7259 ADDRESS Grantsville, W. Va.

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 15 1967 by Minor K. Sayre, et al made to Commonwealth Gas Corp. and recorded on the 11th day of April 1967, in Jackson County, Book 104 Page 535

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, W. Va. 26505

Address
of
Well Operator

Very truly yours, KAISER EXPLORATION & MINING COMPANY

(Sign Name) Donald H. Lovell
D. H. Lovell, Well Operator Resident Engineer

P. O. Box 98

Street

Ravenswood

City or Town

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.

JAC-1376

PERMIT NUMBER

47-035

BLANKET LOG

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 Bill W. Backus
 ADDRESS P. O. Box 448, Elkview, WV ADDRESS P. O. Box 1433, Charleston, WV 25325
 TELEPHONE 965-3379 TELEPHONE 342-3171
 ESTIMATED DEPTH OF COMPLETED WELL: 4775 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
8 - 5/8			
7	2,500'	2,500'	75 Sax
5 ½			
4 ½	4,775'	4,775'	100 Sax
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