



15' TOPO Longitude 81° 45'
 7.5' TOPO Loc = 81° 47' 30"

New Location Drill Deeper Abandonment

Minimum Error of Closure 1 IN. 200
 Source of Elevation U.S.G.S. Elev. 627' SOUTH EAST 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 Co.
 Address Box 98 RAVENSWOOD, W.VA.
 Farm LLOYD STEPHENS
 Tract _____ Acres 104.5 Lease No. 4344
 Well (Farm) No. DEK # 35 Serial No. _____
 Elevation (Spirit Level) 769'
 Quadrangle 7.5' COTTAGEVILLE 15' RAVENSWOOD EC
 County JACKSON District UNION
 Engineer N.L. Lefton
 Engineer's Registration No. 1832
 File No. _____ Drawing No. _____
 Date 3-20-77 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. JAC-1402

+ 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 JUN 8 1977



RECEIVED

FEB - 7 1978

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Ravenswood 15'

Permit No. 1402
57-035

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

Company Kaiser Exploration & Mining Co.
Address Box 98, Ravenswood, WV
Farm Lloyd Stephens Acres 104 1/2
Location (waters) Loglick Run
Well No. DEK #35 Elev. 769'
District Union County Jackson

The surface of tract is owned in fee by _____
Lloyd Stephens Et ux

Address Rt. 2, Box 205 Cottageville, WV
Mineral rights are owned by Same as above
Address _____

Drilling Commenced 7/18/77
Drilling Completed 8/10/77
Initial open flow Show cu. ft. _____ bbls.
Final production 61 MCFD cu. ft. per day _____ bbls.
Well open _____ hrs. before test 1725 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	269'	269'	110 Sax
8 5/8			
7	2401	2401	75 Sax
5 1/2			
4 1/2	4663	4663	150 Sax
3			
2			
Liners Used			

Well treatment details:

Perforated Oriskany section at 4592'-4594' with 8 Omega shots/foot. Halliburton
Fractured Oriskany with 1000 gas hcl, 613 bbl water, 4600 lbs. of 80/100 and 1200 lbs. 20/40 sand.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Depth 4592'-4594'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			0	227		
Sand			227	264		
Shale			264	342		
Sand			342	347		
Red Rock			347	420		
Sand			420	435		
Red Rock			435	463		
Sand			463	472		
Red Rock			472	564		
Sand			564	585		
Red Rock			585	652		
Sand			652	670		
Shale			670	761		
Red Rock			761	833		
Sand			833	835		
Red Rock			835	911		
Sand			911	918		
Shale			918	963		
Red Rock			963	998		
Sand			998	1007		
Red Rock			1007	1028		
Shale			1028	1080		
Salt Sand			1080	1162		
Shale			1162	1245		

(over)

* Indicates Electric Log tops in the remarks section.

FEB 10 1978

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			1245	1277		
Shale			1277	1300		
Sand			1300	1406		
Shale			1406	1431		
Sand-Shales			1431	1469		
Shale			1469	1522		
Sand			1522	1555		
Shale			1555	1608		
Shale-Sand			1608	1618		
Maxon			1618	1769		
Big Lime			1769	1824		
Shale			1824	1847		
Injun Sand			1847	1933		
Shale			1933	2296		
Coffee Shale			2296	2315		
Berea Sand			2315	2321		
Shale			2321	3475		
Brown Shale			3475	3940		
Shale			3940	4355		
Marcellus Shale			4355	4494		
Onondage L.S.			4494	4570		
Oriskany Sand			4570	4598		
Helderberg L.S.			4598	TD		
Log Total Depth				4725		

Date February 3 19 78

APPROVED Kaiser Exploration & Mining Owner

By K.A. Pinyan
(Title)
Operations Manager



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE March 29, 1977

Surface Owner Lloyd E. Stephens, et ux

Company Kaiser Exploration & Mining Co.

Address Rt. 2, Box 205, Cottageville, WV

Address Box 98, Ravenswood, WV

Mineral Owner Lloyd E. Stephens 25239

Farm Lloyd Stephens Acres 104 1/2

Address Rt. 2, Box 205, Cottageville, WV

Location (waters) Loglick Run

Coal Owner Same as above 25239

Well No. DFK #35 Elevation 769'

Address _____

District Union County Jackson

Coal Operator Not operated

Quadrangle Cottageville 7 1/2', Ravenswood 15'

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 9-20-77

INSPECTOR TO BE NOTIFIED Richard Morris

ADDRESS Grantsville, W. Va.

PHONE 354-7259

Robert T. [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 January 19 1977 by Lloyd E. Stephens, et ux made to Devon Corp & Eason Oil and recorded on the 1st day of February 1977, in Jackson County, Book 143 Company 48 Page 48

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

Address of Well Operator

Very truly yours, Kaiser Exploration & Mining Co.

(Sign Name) W. F. Wegener
Well Operator's Representative

Box 98
Street

Ravenswood
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 BOND

JAC-1402 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 1-5 and will carry out the specified requirements."

Signed by [Signature]

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 Bill W. Backus
 ADDRESS Box 448, Elkview, WV ADDRESS Box 1433, Charleston, WV
 TELEPHONE 965-3379 TELEPHONE 342-3171
 ESTIMATED DEPTH OF COMPLETED WELL: 4675 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	250	250	100 Sack = To Surface
8 - 5/8			
7	2400	650	75 Sack = 625'
5 1/2			
4 1/2	4675	4675	125 Sack = 1500'
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