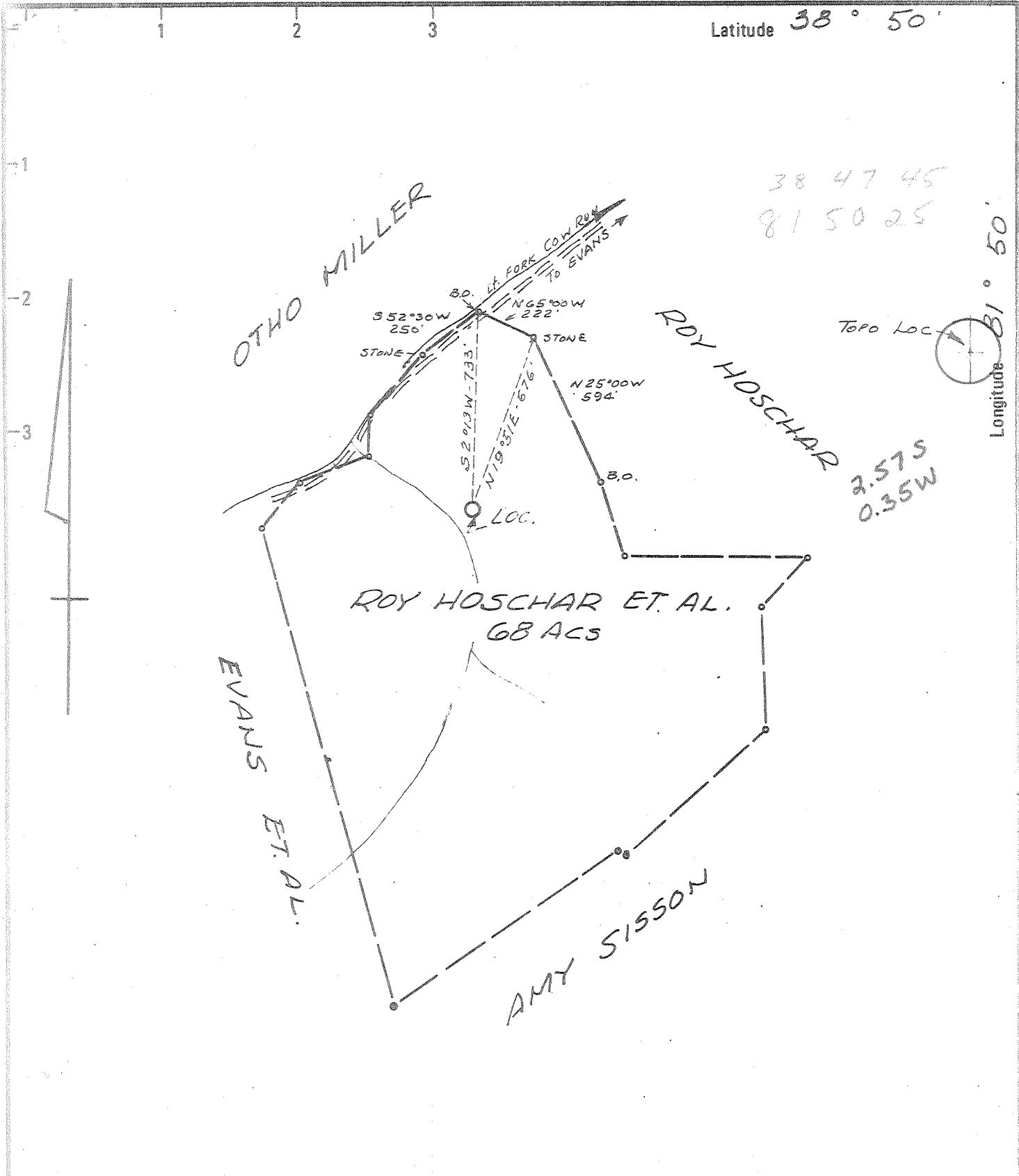


Latitude 38° 50'



New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure 1 IN 200
 Source of Elevation USGS Elev. 642' Road Intersection NORTH 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 ROY HOSCHAR ET. AL.
 Tract _____ Acres 68 Lease No. 3273
 Well (Farm) No. DEK #14 Serial No. _____
 Elevation (Spirit Level) 659.0
 Quadrangle RAVENSWOOD SC
 County JACKSON District UNION
 Engineer N. L. Sefton
 Engineer's Registration No. 1832
 File No. _____ Drawing No. _____
 Date 9-6-76 Scale 1" = 500' (359)

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

WELL LOCATION MAP
 FILE NO. JAC-1378

+ 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 NOV 18 1976

6-6-76 (158) Deep well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 9

RECEIVED
OCT 12 1977

OIL & GAS DIVISION
DEPT. OF MINES

Quadrangle Ravenswood

Permit No. JAC 1378

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

Company <u>Kaiser Exploration & Mining Co.</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>Box 98, Ravenswood, WV</u>				
Farm <u>Roy Hoschar</u> Acres <u>68</u>				
Location (waters) <u>Left Ek. of Cow Run</u>	Size			
Well No. <u>DEK #14</u> Elev <u>659</u>	<u>20-16</u>			
District <u>Union</u> County <u>Jackson</u>	Cond.			
The surface of tract is owned in fee by _____	<u>13-10"</u>			
<u>Roy Hoschar, et al</u>	<u>9 5/8</u>	<u>210</u>	<u>210</u>	<u>100 Sax</u>
Address <u>Rt. 2, Cottageville, WV</u>	<u>8 5/8</u>			
Mineral rights are owned by <u>Same as above</u>	<u>7</u>	<u>2273</u>	<u>2273</u>	<u>75 Sax</u>
Address _____	<u>5 1/2</u>			
Drilling Commenced <u>November 3, 1976</u>	<u>4 1/2</u>	<u>4505</u>	<u>4505</u>	<u>110 Sax</u>
Drilling Completed <u>November 10, 1976</u>	<u>3</u>			
Initial open flow <u>Show</u> cu. ft. <u>-0-</u> bbls.	<u>2</u>		<u>4436</u>	
Final production _____ cu. ft. per day _____ bbls.	Liners Used			
Well open _____ hrs. before test _____ RP.				

Well treatment details:

Attach copy of cementing record.

Perforated 4 1/2" casing at 4,449' and 4461' with 16 shots.

Fractured with 1,000 bbls water and 32,500# sand. Open flow 580 M/D - 1640 psi.

Perforated 4 1/2" casing 3427 to 3797 with 19 shots

Fractured with 372 bbls water and 5000# sand

Shut in pressure = 1025 psi. Testing not complete.

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Sand & Brown Shale Depth 4449 to 4461

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Red Shales			0	74		
Red Rock			74	88		
Shales			88	104		
Red Rock			104	110		
Shale			110	190		
Sand			190	204		
Red Rock			204	290		
Sand			290	307		
Red Rock			307	440		
Sand			440	450		
Red Rock & Shales			450	724		
Shale			724	757		
Red Rock			757	763		
Shale			763	777		
Sand			777	792		
Shale			792	824		
Red Rock			824	840		
Shale			840	958		
Salt Sand			958	1018		
Shale			1018	1152		
Sand			1152	1182		
Shale			1182	1439		
Sand			1439	1467		
Shale			1467	1576		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			1576	1638		
Big Lime			1638	1741		
Shale			1741	1756		
Injun Sand			1756	1892		
Shale			1892	2222		
Coffee Shale			2222	2236		
Berea Sand			2236	2251		
Shale			2251	3394		
Brown Shale			3394	3834		
Shale			3834	4228		
Marcellus Shale			4228	4363		
Onondaga L.S.			4363	4446		
Oriskany Sand			4446	4465		
Helderberg L.S.			4465	4552		

Date October 10 19 77

APPROVED Karl A. Payne Owner

By Staff Petroleum Geologist
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

RECEIVED
NOV 2 1976

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

DATE November 1, 1976

Surface Owner Roy Hoschar, et al
Address Rt. 2, Cottageville, W. Va.

Company Kaiser Exploration & Mining Co.
Address Box 98, Ravenswood, W. Va.

Mineral Owner Roy Hoschar & John Friese
Address Rt. 2, Cottageville, W. Va.

Farm Roy Hoschar, et al Acres 68 ac

Coal Owner Roy Hoschar & John Friese
Address Rt. 2, Cottageville, W. Va.

Location (waters) Left Fk. of Cow Run of Mill Creek

Coal Operator Not Operated
Address _____

Well No. DEK #14 Elevation 659 Gr.

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 3-3-77.

INSPECTOR TO BE NOTIFIED Richard Morris

ADDRESS Cottageville, W. Va.

PHONE 354-7259

Robert F. Bell
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 May 10th 1974 by Roy Hoschar, et al made to Devon Corp. & Eason Oil Co. and recorded on the 16th day of April 1974, in Jackson County, Book 126 Page 427

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) Donald H. Lovell

D. H. Lovell, Resident Engineer
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.

PLANET BOARD

Jan-13-78 PERMIT NUMBER
47-035

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by Donald H. Lovell

**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 Co. NAME Bill W. Backus
 ADDRESS Box 448, Elkview, W. Va. 25071 ADDRESS Box 1433, Charleston, W. Va.
 TELEPHONE 965-3379 TELEPHONE 342-3171
 ESTIMATED DEPTH OF COMPLETED WELL: 4550 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	2300	2300	75 Sax
5 1/2			
4 1/2	4550	4550	110 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