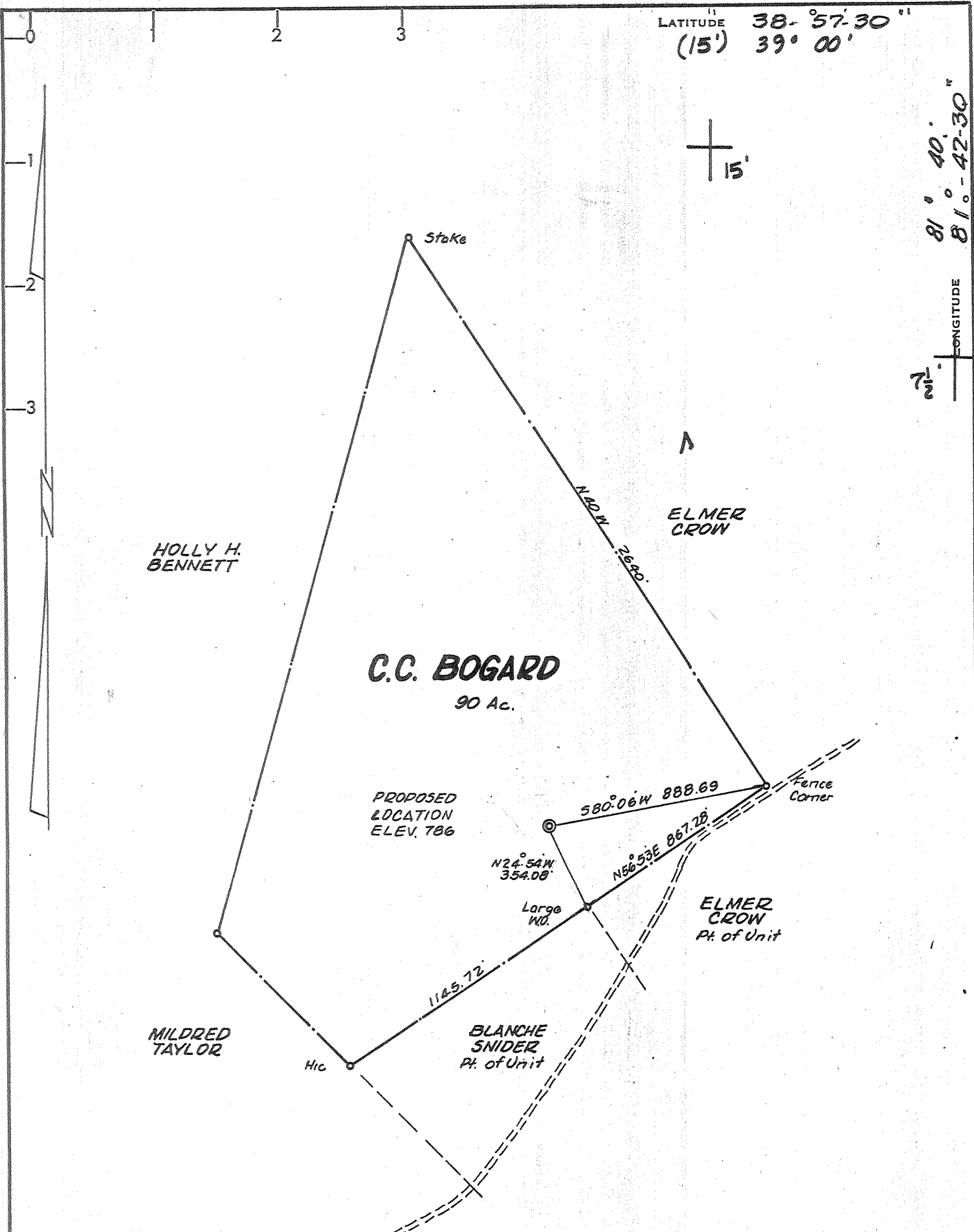


7/2/79

LATITUDE 38° 57' 30" (15') 39° 00'

LONGITUDE 81° 40' 81° 42' 30" 7 1/2'



**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 J. Barber LL5# 289

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY  
 ADDRESS P.O. BOX 8 RAVENSWOOD, WEST VIRGINIA  
 FARM C.C. BOGARD (NOBLE NEELEY)  
 MAP \_\_\_\_\_ ACRES 90 LEASE NO. \_\_\_\_\_  
 WELL (FARM) NO. 1 SERIAL NO. DEK 77  
 ELEVATION (SPIRIT LEVEL) 786  
 QUADRANGLE SANDYVILLE 7 1/2, RIPLEY 15'  
 COUNTY JACKSON DISTRICT RAVENSWOOD  
 POINT OF PROVEN ELEVATION Rd. Intersection El. 614

FILE NO. \_\_\_\_\_ DRAWING NO. \_\_\_\_\_  
 DATE MAY 21, 1979 SCALE 1" = 500 FT.

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

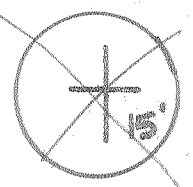
WELL LOCATION MAP  
 FILE NO. 47-035-1513-P

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 24,000 LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.  
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

tagl Oriskany 4900'

7/2/79

LATITUDE 38° 57' 30" (15') 39° 00'



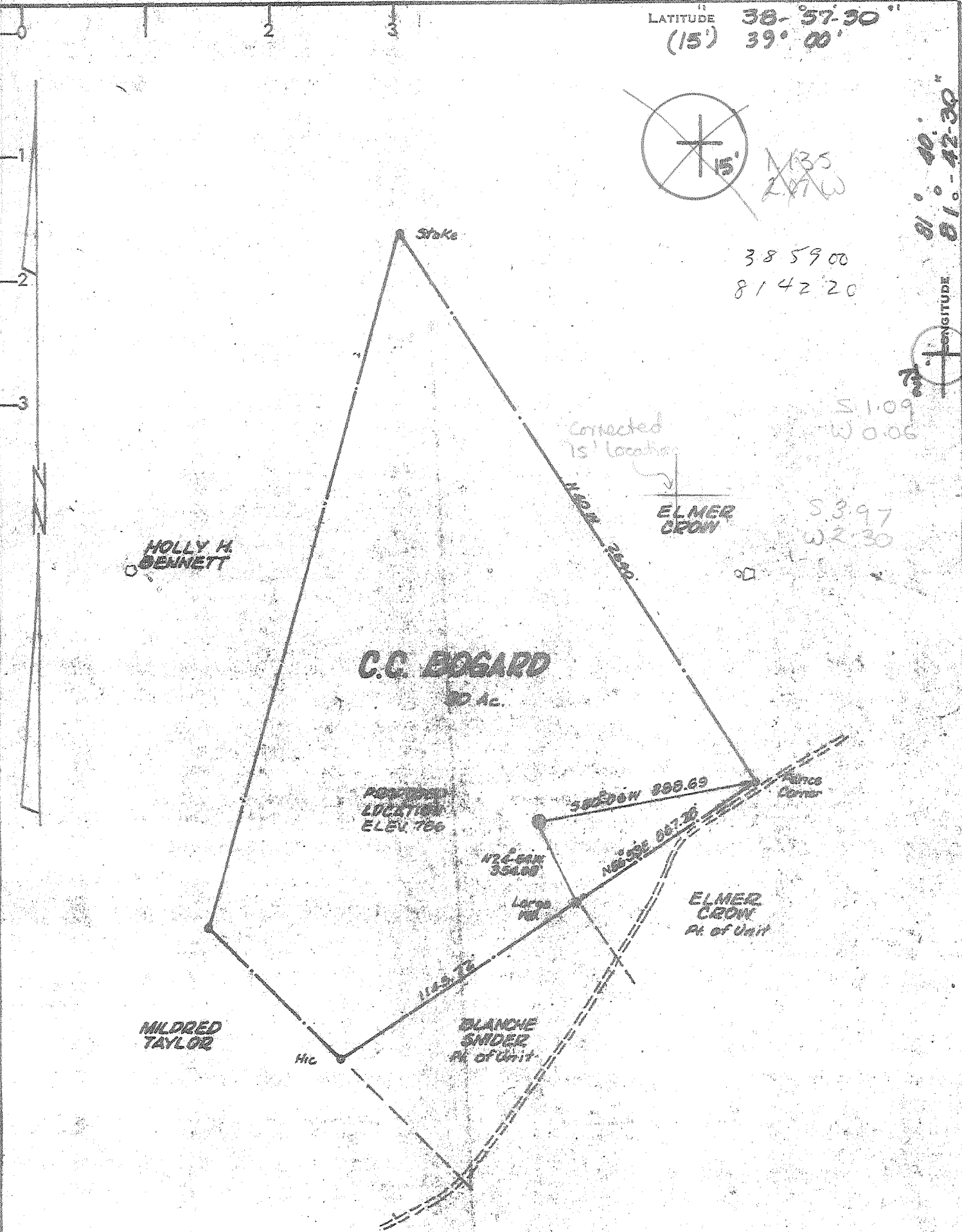
N 135  
207W

38 59 00  
81 42 20

81° 40' - 42-30"



1085  
207W



**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 700

Signed Frank J. Barber LLS # 200

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY  
 ADDRESS P.O. BOX 8 RAVENSWOOD, WEST VIRGINIA  
 FARM C.C. BOGARD (NORLE NISLER)  
 MAP \_\_\_\_\_ ACRES 30 LEASE NO. \_\_\_\_\_  
 WELL (FARM) NO. 1 SERIAL NO. DEK 77  
 ELEVATION (SPIRIT LEVEL) 786  
 QUADRANGLE SANDYVILLE T1, RIPLEY N1  
 COUNTY JACKSON DISTRICT RAVENSWOOD  
 POINT OF PROVEN ELEVATION Rd. Intersection El. 614  
 FILE NO. \_\_\_\_\_ DRAWING NO. \_\_\_\_\_  
 DATE MAY 21, 1979 SCALE 1" = 500 FT.

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. 47-035-1513  
 DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. SCALE 1 TO 24,000. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.  
 DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

JUL 24 1979

5-07 Elk Area (197)



**RECORDED**

FEB 20 1980

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

WELL RECORD <sub>23</sub>

Rotary XX Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas XX  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Quadrangle Sandyville  
Permit No. 47-035-1513

Company KAISER EXPL. & MINING CO.  
Address PO Box 8, Ravenswood, WV  
Farm C. C. Bogard Acres 90  
Location (waters) Straight Fork  
Well No. DEK 77 Elev. 786  
District Ravenswood County Jackson  
The surface of tract is owned in fee by \_\_\_\_\_  
Noble Neeley  
Address Silverton, W. Va.  
Mineral rights are owned by Frank Abels  
Address 1113 Ann St., Ravenswood, WV  
Drilling Commenced July 7, 1979  
Drilling Completed July 15, 1979  
Initial open flow 2 MCFD XXXX bbls.  
Final production 20 M cu. ft. per day \_\_\_\_\_ bbls.  
Well open 10 hrs. before test 525 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10" 10 3/4	255	255	125 sax=to srf
9 5/8			
8 5/8			
7	2343	2343	165 sax=825'
5 1/2			
4 1/2		4758	225 sax=2400
3			
2		3976	
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforated Oriskany at 4714' - 4716' w/10 holes per foot. Fractured Oriskany with 3700# back down 16 BPM at 4600 psig w/15,000# 80/100 & 30,000 20/40 sand, total 935 bbl; avg. rate 16 BPM (no results). Set plug at 4050', perforated the Brown Shale from 3845' to 3983' w/16 holes. Fractured with 15,000# 80/100 sand, 45,000 of 20/40 sand, 326 total fluid; 576,000 SCF nitrogen treated 1900# average.

Coal was encountered at None Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Brown Shale Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Surface			0	14		
Shale			14	52		
Sand			52	85		
Shale			85	130		
Sand			130	148		
Shale			148	202		
Sand			202	270		
Shale			270	323		
Sand			323	355		
Shale			355	446		
Sand			446	480		
Shale			480	550		
Sand			550	627		
Shale			627	707		
Sand			707	742		
Shale			742	1172		
Sand			1172	1203		
Shale			1203	1260		
Sand			1260	1275		
Shale			1275	1330		
Sand			1330	1357		
Shale			1357	1522		
Sand			1522	1550		
Shale			1550	1573		

(over)

\* Indicates Electric Log tops in the remarks section.

MAR 10 1980

MAR 10 1980

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			1573	1630		
Shale			1630	1672		
Sand			1672	1699		
Big Lime			1699	1844		
Shale			1844	1906		
Injun Sand			1906	1958		
Shale			1958	2268		
Coffee Shale			2268	2298		
Berea Sand			2298	2301		
Shale			2301	3463		
Brown Shale			3463	3983		
Shale			3983	4441		
Marcellus Shale			4441	4591		
Onondaga L. S.			4591	4684		
Oriskany Sand			4684	4708		
Helderberg			4708	4830		
Log Total Depth				4830'		

Date February 20 19 80

APPROVED Kaiser Exploration and Mining Company

By [Signature]  
(Title)  
Operations Manager



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

JUN 29 1979

Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner Noble Neeley  
Address Silverton, WV  
Mineral Owner Frank L. Abels, et al  
Address 1113 Ann Street, Ravenswood, WV 26164  
Coal Owner Same as above  
Address Same as above  
Coal Operator None  
Address None

DATE June 28, 1979  
Company Kaiser Exploration and Mining Company  
Address P. O. Box 8, Ravenswood, WV 26164  
Farm C. C. Bogard Acres 90 Acres  
Location (waters) Straight Fork  
Well No. DEK 77 Elevation 825  
District Ravenswood County Jackson  
Quadrangle Sandyville

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22,  
of the W. Va. Code, this location is hereby approved  
for drilling. This permit shall expire if  
operations have not commenced by 3-6-79

INSPECTOR  
TO BE NOTIFIED Richard Morris  
ADDRESS P. O. Box 372, Grantsville, WV 26147  
PHONE 354-7295

Robert L. Pryce  
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 October 4 1976 by C. C. Bogard, et al made to Devon Corporation, et al and recorded on the 22 day of October 1976, in Jackson County, Book 141 Page 700

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,  
(Sign Name) R. A. Pryce  
Well Operator  
P. O. Box 8  
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.

BLANKET BOND

THIS IS AN ESTIMATE ONLY  
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO \_\_\_\_\_ DRILL  DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME Not Known At This Time NAME Robert A. Pryce  
 ADDRESS \_\_\_\_\_ ADDRESS P. O. Box 8, Ravenswood, WV 26164  
 TELEPHONE \_\_\_\_\_ TELEPHONE 273-5371  
 ESTIMATED DEPTH OF COMPLETED WELL: 4900 ROTARY  CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Oriskany  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS  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 10 3/4	300	300	Cement back to surface
8 - 5/8			
7	2350	2350	125 sk = 570'
5 1/2			
4 1/2	4875	4875	125 sk = 1500'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS \_\_\_\_\_ FEET SALT WATER \_\_\_\_\_ FEET  
 APPROXIMATE COAL DEPTHS \_\_\_\_\_  
 IS COAL BEING MINED IN THE AREA? None 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

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

None  
Coal Operator or Owner  
\_\_\_\_\_  
Address  
\_\_\_\_\_  
Coal Operator or Owner  
\_\_\_\_\_  
Address  
Frank Abels  
Lease or Property Owner  
1113 Ann St., Ravenswood, WV 26164  
Address

Kaiser Exploration and Mining Company  
Name of Well Operator  
P.O. Box 8, Ravenswood, WV 26164  
Complete Address  
September 11 19 86  
WELL AND LOCATION  
Ravenswood District  
Jackson County  
WELL NO. DEK #77 (47-035-1513)  
Bogard Farm

STATE INSPECTOR SUPERVISING PLUGGING Jerry Tephabock

AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of Jackson

ss:

John McCallister and Walter Morgan  
being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Kaiser Exploration and Mining Company, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 16th day of July, 19 86, and that the well was plugged and filled in the following manner:

Sand or Zone Record Formation	Filling Material	Plugs Used Size & Kind	Casing	
			CSG PULLED	CSG LEFT IN
Brown Shale	Gel between all plugs	3.5" Alpha Perm. bridge plug @ 3300' w/10' Cal- Seal on top.	4 1/2" 2185'	4 1/2" 2586'
Cut in 4 1/2" casing		150' Class A cement		
Cut in 7" casing		150' Class A cement		
Surface Plug	<i>9/15/86</i> <i>10' 23-86</i>	300' Class A cement		
Coal Seams		Description of Monument		
(Name)		7" casing with an aluminum tag cemented in top.		
(Name)				
(Name)				
(Name)				

and that the work of plugging and filling said well was completed on the 17th day of July, 19 86.

And further deponents saith not.

Sworn to and subscribed before me this 15th day of September, 19 86.  
John V. McCallister  
Walter J. Morgan  
Denese Carney  
Notary Public

My commission expires:  
August 30, 1993

Permit No. 47-035-1513  
OCT 27 1986