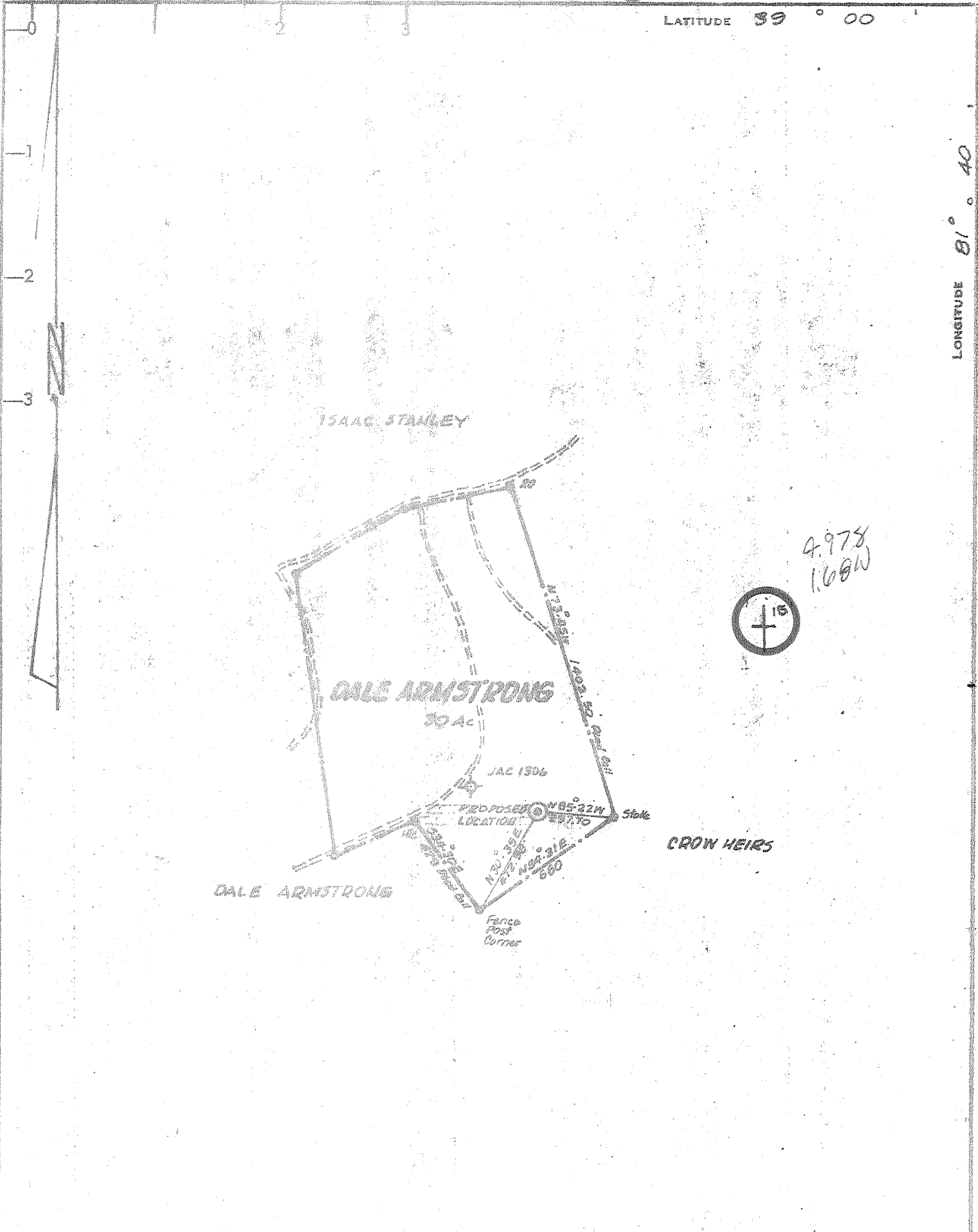


LATITUDE 39° 00'

LONGITUDE 81° 40'



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 H. Barker, L.L.S. #289

- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

COMPANY KAISER EXPLORATION & MINING COMPANY
 ADDRESS P.O. BOX 8, RAVENSWOOD, WEST VIRGINIA
 FARM DALE ARMSTRONG
 MAP _____ ACRES 30 LEASE NO. _____
 WELL (FARM) NO. 1 SERIAL NO. KEM-45
 ELEVATION (SPIRIT LEVEL) 965 NW
 QUADRANGLE RIPLEY 15 SANDYVILLE 7 1/2
 COUNTY JACKSON DISTRICT RAVENSWOOD
 POINT OF PROVEN ELEVATION PH on Knob PL. 1002
 FILE NO. _____ DRAWING NO. _____
 DATE JUNE 28, 1980 SCALE 1" = 500 FT.

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

WELL LOCATION MAP
035-1527
 FILE NO. _____

+ 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.
 2720 BEREA
 - DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

6-6 Wheaton Run Silvaco (324) (21) JUL 28 1980



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

RECORDED
SEP 13 1984

OIL & GAS DIVISION
Rotary Oil
Cable Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Ravenswood

Permit No. JAC-1527

| | | | | |
|--|-------------------|------------------|--------------|-------------------------------|
| 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 8, Ravenswood, WV 26164</u> | | | | |
| Farm <u>Dale and Hazel Armstrong</u> Acres <u>30</u> | Size | | | |
| Location (waters) <u>Straight Fork of Sand Creek</u> | 20-16 | | | |
| Well No. <u>KEM #45</u> Elev. <u>965</u> | Cond. | | | |
| District <u>Ravenswood</u> County <u>Jackson</u> | 13-10" | | | |
| The surface of tract is owned in fee by _____ | 9 5/8 | | | |
| <u>Dale and Hazel Armstrong</u> | 5 5/8 | 253 (KB) | 253 (KB) | 175 sks class A to surface |
| Address <u>Rt. 1, Box 202, Ravenswood, WV 26164</u> | 7 | | | |
| Mineral rights are owned by <u>Same</u> | 5 1/2 | | | |
| Address <u>Same</u> | 4 1/2 | 2645 (KB) | 2645 (KB) | 165 sks pozmix (900' fillup) |
| Drilling Commenced <u>7/23/80</u> | 3 | | | |
| Drilling Completed <u>7/31/80</u> ✓ | 2 | | 2576 (KB) | |
| Initial open flow <u>on fluid</u> cu. ft. <u>--</u> bbls. | Liners Used | | | |
| Final production <u>75 MCF</u> cu. ft. per day <u>--</u> bbls. | | | | |
| Well open <u>--</u> hrs. before test <u>700</u> RP. | | | | |

Well treatment details: Attach copy of cementing record.
McCullough perforated Berea from 2576'-2580' (K.B.) w/3 1/2" glass jets on strip, 4 holes/ft 16 holes; Halliburton & B.J. Hughes on location August 3, 1980 to versagel fracture treat zone; used 500 gal 15% HCL, 30,000# 80/100 sand, 30,000# 20/40 sand, 285,000 SCF of nitrogen, and 572 bbl of water in treatment; avg. rate: 15 BPM; pressure: 1850 psig; max. pressure: 2200 psig; breakdown: 1500 psig; instantaneous shut in: 1100 psig.

Coal was encountered at None Feet -- Inches
Fresh water -- Feet -- Salt Water -- Feet --
Producing Sand Berea Sandstone 395 Depth 2576'-2580' (K.B.)

| Formation | Color | Hard or Soft | Top Feet | Bottom Feet | Oil, Gas or Water | * Remarks |
|-------------------|-------|--------------|----------|-------------|-------------------|-----------|
| No samples or log | | | 0 | 1650 | | |
| Shale | | | 1650 | 1680 | | |
| Sand | | | 1680 | 1687 | | |
| Shale | | | 1687 | 1699 | | |
| Sand | | | 1699 | 1711 | | |
| Shale | | | 1711 | 1736 | | |
| Sand | | | 1736 | 1781 | | |
| Shale & Siltstone | | | 1781 | 1887 | | |
| 345 Big Lime | | | 1887 | 2090 | | |
| Shale | | | 2090 | 2122 | | |
| 365 Big Injun | | | 2122 | 2216 | | |
| Siltstone | | | 2216 | 2550 | | |
| 397 Coffee Shale | | | 2550 | 2575 | | |
| 395 Berea | | | 2575 | 2580 | | |
| Siltstone | | | 2580 | 2630 | | |
| Total Depth | | | 2630 | | | |

(over)

OCT 22 1984

* Indicates Electric Log tops in the remarks section.

| Formation | Color | Hard or Soft | Top Feet | Bottom Feet | Oil, Gas or Water | Remarks |
|-----------|-------|--------------|----------|-------------|-------------------|---------|
| | | | | | | |

Date December 2, 1980

APPROVED Kell A. P. Owner

By: Operations Manager
(Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

JUL 2 1980
OIL & GAS DIVISION
DEPT. OF MINES

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

DATE June 30, 1980

Surface Owner Dale and Hazel Armstrong
Address Rt. 1, Box 202, Ravenswood, WV 26164
Mineral Owner Dale Armstrong, et al
Address Rt. 1, Box 202, Ravenswood, WV 26164
Coal Owner Same as above
Address Same as above
Coal Operator None
Address _____

Company Kaiser Exploration and Mining Company
Address P. O. Box 8, Ravenswood, WV 26164
Farm Dale Armstrong Acres 30
Location (waters) Straight Fork of Sand Creek
Well No. KEM #45 Elevation 965'
District Ravenswood County Jackson
Quadrangle Ravenswood

THIS PERMIT MUST BE POSTED AT THE WELL SITE

provisions being in accordance with Chapter 22,
the W. Va. Code, the location is hereby approved
for drilling. This permit shall expire if
operations have not commenced by 3-7-81.

INSPECTOR
TO BE NOTIFIED Richard J. Morris
ADDRESS P. O. Box 372, Grantsville, WV 26147
PHONE 354-7259

Frederic B. Smith
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 5, 1980 by Dale & Hazel Armstrong made to Kaiser Exploration and Mining Co. and recorded on the 15 day of May 1980 in Jackson County, Book 156 Page 108

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
C-304 - 292-6331

Address
of
Well Operator

Very truly yours,
(Sign Name) R. A. Pryce
Well Operator
Kaiser Exploration and Mining Company
Street
P. O. Box 8, 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.

Survey

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

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Burdette Drilling Company NAME Robert A. Pryce
 ADDRESS P. O. Box 10167, Charleston, WV 25312 ADDRESS P. O. Box 8, Ravenswood, WV 26164
 TELEPHONE 744-1361 TELEPHONE 273-5371
 ESTIMATED DEPTH OF COMPLETED WELL: 2720' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Berea
 TYPE OF WELL: OIL _____ GAS X 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' | Cement to surface |
| 8 - 5/8 | | | |
| 4 1/2 | 2720' | 2720' | 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? Not at present 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