



FILE NO. \_\_\_\_\_  
 DRAWING NO. 19 / 38-44  
 SCALE 1" = 1,000'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION J. & J. ENT.  
WELL # K-11 ELEV. - 1156'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE MARCH 14, 19 80  
 OPERATOR'S WELL NO. J-232  
 API WELL NO. 47 - 017 - 2625  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1167' WATER SHED CLAYLICK RUN  
 DISTRICT CENTRAL COUNTY DODDRIDGE  
 QUADRANGLE WEST VIRGINIA 7.5' SC  
 SURFACE OWNER PERRY L. & JANEET B. FERGUSON ACREAGE 67.2  
 OIL & GAS ROYALTY OWNER COUNTY COMMISSION (DODDRIDGE) LEASE ACREAGE 237  
 LEASE NO. H-18  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5,400'  
 WELL OPERATOR J. & J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT  
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48  
BUCKHANNON, W. VA. 26201 BUCKHANNON, W. VA. 26201 MAR 31 1980

Date: 5-7, 19 80  
 Operator's Well No. J-232  
 API Well No. 017 2625  
 State County Permit

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

WELL OPERATOR'S REPORT 7  
 OF  
DRILLING, FRACURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal   
 (If "Gas", Production  / Underground storage  / Deep  / Shallow   
 LOCATION: Elevation: 1167 Watershed: Clay Lick Run  
 District: Central County: Doddridge Quadrangle: West Union

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT H.L. Barnett  
 Address Box 48 Address Box 48  
Buckhannon, WV 26201 Buckhannon, WV 26201

PERMITTED WORK: Drill  / Convert  / Drill deeper  / Redrill  / Fracture or stimulate   
 Plug off old formation  / Perforate new formation   
 Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON 3-17, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:  
 Name Paul Garrett  
 (IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Address 321 Beech St.  
Clarksborg, WV 26301

GEOLOGICAL TARGET FORMATION: Alexander Depth 5420-5476 feet  
 Depth of completed well, 5606 feet Rotary  Cable Tools   
 Water strata depth: Fresh, 52,775 feet; salt, None feet.  
 Coal seam depths: 420-23 630-32 Is coal being mined in the area? NO  
 Work was commenced 3-24, 19 80, and completed 3-30, 19 80

CASING AND TUBING PROGRAM

| CASING OR TUBING TYPE | SPECIFICATIONS |       |               |     | FOOTAGE INTERVALS |              | CEMENT FILL-UP OR SACKS (Cubic feet) | PACKERS  |                   |
|-----------------------|----------------|-------|---------------|-----|-------------------|--------------|--------------------------------------|----------|-------------------|
|                       | Size           | Grade | Weight per ft | New | Used              | For drilling |                                      |          | Left in well      |
| Conductor             | 13/4H-40       | 42    | x             |     |                   | 30           | 0                                    | 0 sks    | Kinds <u>None</u> |
| Fresh water           | 5/8 ERW        | 23    | x             |     |                   | 1807.70      | 1807.70                              | 490 sks  |                   |
| Coal                  | 5/8 ERW        | 23    | x             |     |                   | 1807.70      | 1807.70                              | 490 sks. | Sizes             |
| Intermediate          |                |       |               |     |                   |              |                                      |          |                   |
| Production            | 1/2J-55        | 10.5  | x             |     |                   | 5525.90      | 5525.90                              | 380 sks  | Depths set        |
| Tubing                |                |       |               |     |                   |              |                                      |          |                   |
| Liners                |                |       |               |     |                   |              |                                      |          | Perforations:     |
|                       |                |       |               |     |                   |              |                                      |          | Top Bottom        |
|                       |                |       |               |     |                   |              |                                      |          | 5430 5461         |
|                       |                |       |               |     |                   |              |                                      |          | 4132 4146         |
|                       |                |       |               |     |                   |              |                                      |          | 3584 3723         |

RECEIVED  
 MAY - 9 1980

OPEN FLOW DATA  
 Producing formation Alexander OIL & GAS DIVISION DEPT. OF MINES both 5420-5496 feet  
 Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
 Combined Final open flow, 762 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests, 4 hours  
 Static rock pressure, 1050 psig (surface measurement) after 13 hours shut in  
 [If applicable due to multiple completion--]  
 Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
 Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
 Final open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests, \_\_\_\_\_ hours  
 Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

7-08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Alexander - Perforating: 5430-61 (19 holes)  
Fracturing: 200 lbs. Acid. 200 lbs. 80/100 sand: 300 lbs.  
20/40 sand. 500 Bbls. Fluid.

Bradford & Warren: Perforating- 4132-4356 (15 holes) 3592-3639 (14 holes)  
Fracturing: 150 lbs. Acid. 100 sks. 80/100 sand  
700 sks. 20/40 sand, 950 Bbls fluide

WELL LOG

| FORMATION              | Color | Hard or Soft | Top Feet | Bottom Feet | Remarks<br>Including indication of all gases and salt water, coal, oil and gas |
|------------------------|-------|--------------|----------|-------------|--|
| Shale & Red Rock       |       |              | 51       | 100         | Wet @ 52'  |
| Sand                   |       |              | 100      | 141         |  |
| Sand & Shale           |       |              | 141      | 172         |  |
| Sand                   |       |              | 172      | 420         |  |
| Coal                   |       |              | 420      | 423         |  |
| Sand, Shale & Red Rock |       |              | 423      | 630         |  |
| Coal                   |       |              | 630      | 632         |  |
| Sand & Shale           |       |              | 632      | 740         |  |
| White Sand             |       |              | 740      | 765         | Damp @ 775'  |
| Sand & Shale           |       |              | 765      | 1053        |  |
| White Sand             |       |              | 1053     | 1118        |  |
| Sand & Shale           |       |              | 1118     | 1150        |  |
| White Sand             |       |              | 1150     | 1214        |  |
| Sand & Shale           |       |              | 1214     | 1435        |  |
| White Sand             |       |              | 1435     | 1500        |  |
| Sand & Shale           |       |              | 1500     | 1570        | 2  |
| Sand                   |       |              | 1570     | 1600        |  |
| Sand & Shale           |       |              | 1600     | 1715        |  |
| White & Gray Sand      |       |              | 1715     | 1820        | 2  |
| Sand & Shale           |       |              | 1820     | 1950        |  |
| Sand                   |       |              | 1950     | 1980        |  |
| Shale                  |       |              | 1980     | 2140        |  |
| Little Lime            |       |              | 2140     | 2197        |  |
| Big Lime               |       |              | 2197     | 2271        |  |
| Big Injun              |       |              | 2271     | 2322        |  |
| Shale                  |       |              | 2322     | 2480        |  |
| Weir                   |       |              | 2480     | 2590        |  |
| Shale                  |       |              | 2590     | 2678        |  |
| Berea                  |       |              | 2678     | 2692        |  |
| Shale                  |       |              | 2692     | 2880        |  |
| Sand                   |       |              | 2880     | 2887        |  |
| Shale                  |       |              | 2887     | 2953        |  |
| Sand                   |       |              | 2953     | 2970        |  |

(Attach separate sheets to complete as necessary.)

J & J Enterprises, Inc.

Well Operator \_\_\_\_\_  
By Peter Battles  
Peter Battles  
Geologist

NOTE: Regulation 2.02(d) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

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| FORMATION        | Color | Hard or Soft | 7<br>Top Feet | Bottom Feet | Remarks<br>Including indication of oil, gas, and salt water, coal, etc. |
|------------------|-------|--------------|---------------|-------------|---|
| Shale            |       |              | 2970          | 3540        |   |
| Sand             |       |              | 3540          | 3605        |   |
| Shale            |       |              | 3605          | 4122        |   |
| Sand             |       |              | 4122          | 4135        |   |
| Shale            |       |              | 4135          | 4340        |   |
| Sand             |       |              | 4340          | 4848        |   |
| Shale            |       |              | 4848          | 5420        |   |
| <u>Alexander</u> |       |              | 5420          | 5476        |   |
| Shale            |       |              | 5476          | 5608        | T.D.  |

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-232  
API Well No. 47 - 017<sup>2625</sup>  
State County Perm

WELL TYPE: Oil      / Gas X /  
(If "Gas", Production X / Underground storage      / Deep      / Shallow X /)  
LOCATION: Elevation: 1167 Watershed: Clay Lick Run  
District: Central County: Doddridge Quadrangle: West Union

WELL OPERATOR J & J Enterprises, Inc.  
Address P.O. Box 48  
Buckhannon, WV 26201

DESIGNATED AGENT Harry Barnett  
Address P.O. Box 48  
Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER Doddridge Co. Commission  
Address West Union Courthouse  
West Union, WV 26456

COAL OPERATOR None  
Address     

SURFACE OWNER Perry Ferguson  
Address RT. # 1  
West Union, WV 26456

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name Doddridge Co. Commission  
Address West Union Courthouse  
West Union, WV 26456  
Name       
Address     

FIELD SALE (IF MADE) TO:  
Name       
Address     

COAL LESSEE WITH DECLARATION ON RECORD:  
Name NONE  
Address       
**MAR 17 1980**

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address 321 Beech Street  
Clarksburg, W. Va. 26301

OIL & GAS DIVISION  
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed      / lease X / other contract      / dated Dec. 4, 1978, to the undersigned well operator from Paul Farr.

[If said deed, lease, or other contract has been recorded:]  
Recorded on Dec. 10, 1978, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Book 107 at page 189. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper      / Redrill      / Fracture or stimulate X /  
Plug off old formation      / Perforate new formation      /  
Other physical change in well (specify)     

--Classified as set forth on the work order on the reverse side hereof.

The above named well operator, coal owner(s), and coal lessee are hereby notified that any other action they wish to take or are required to take by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

J & J Enterprises, Inc.

Well Operator

By Peter Battles  
Peter Battles  
Its Geologist

BLANKET BOND

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMISSION  
1608 WASHINGTON STREET EAST  
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3093

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRIILLING CONTRACTOR (IF KNOWN) S.W. Jack  
Address P.O. Box 48  
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5500 feet Rotary X / Cable tools      /

Approximate water strata depths: Fresh, 80 feet; salt, 100 feet.

Approximate coal seam depths: None Is coal being mined in the area: Yes      / No X /

casing AND TUBING PROGRAM

| CASING OR TUBING TYPE | SPECIFICATIONS |       |               |     |      | FOOTAGE INTERVALS |              | CEMENT FILL-UP OR SACKS (Cubic feet) | PACKERS       |
|-----------------------|----------------|-------|---------------|-----|------|-------------------|--------------|--------------------------------------|---------------|
|                       | Size           | Grade | Weight per ft | New | Used | For drilling      | Left in well |                                      |               |
| Conductor             | 11 3/4         | H-40  | 42            | X   |      | 30                | 0            |                                      | Kinds         |
| Fresh water           | 8 5/8          | ERW   | 23            | X   |      | 1700              | 1700         | 300 sks                              |               |
| Coal                  | 8 5/8          | ERW   | 23            | X   |      | 1700              | 1700         | 300 sks                              | Sizes         |
| Intermediate          |                |       |               |     |      |                   |              |                                      |               |
| Production            | 4 1/2          | J-55  | 10.5          | X   |      | 5500              | 5500         | 410 sks                              | Depths set    |
| Tubing                |                |       |               |     |      |                   |              |                                      |               |
| Runners               |                |       |               |     |      |                   |              |                                      | Perforations: |
|                       |                |       |               |     |      |                   |              |                                      | Top Bottom    |

**NOTE:** Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall be required for fracturing or stimulating a well where fracturing or stimulation is to be part of the work for which a permit is sought and 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 11-17-80.

[Signature]  
Deputy Director - Oil & Gas Division

The undersigned coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

By \_\_\_\_\_  
Its \_\_\_\_\_