

CODE CARD PLOT

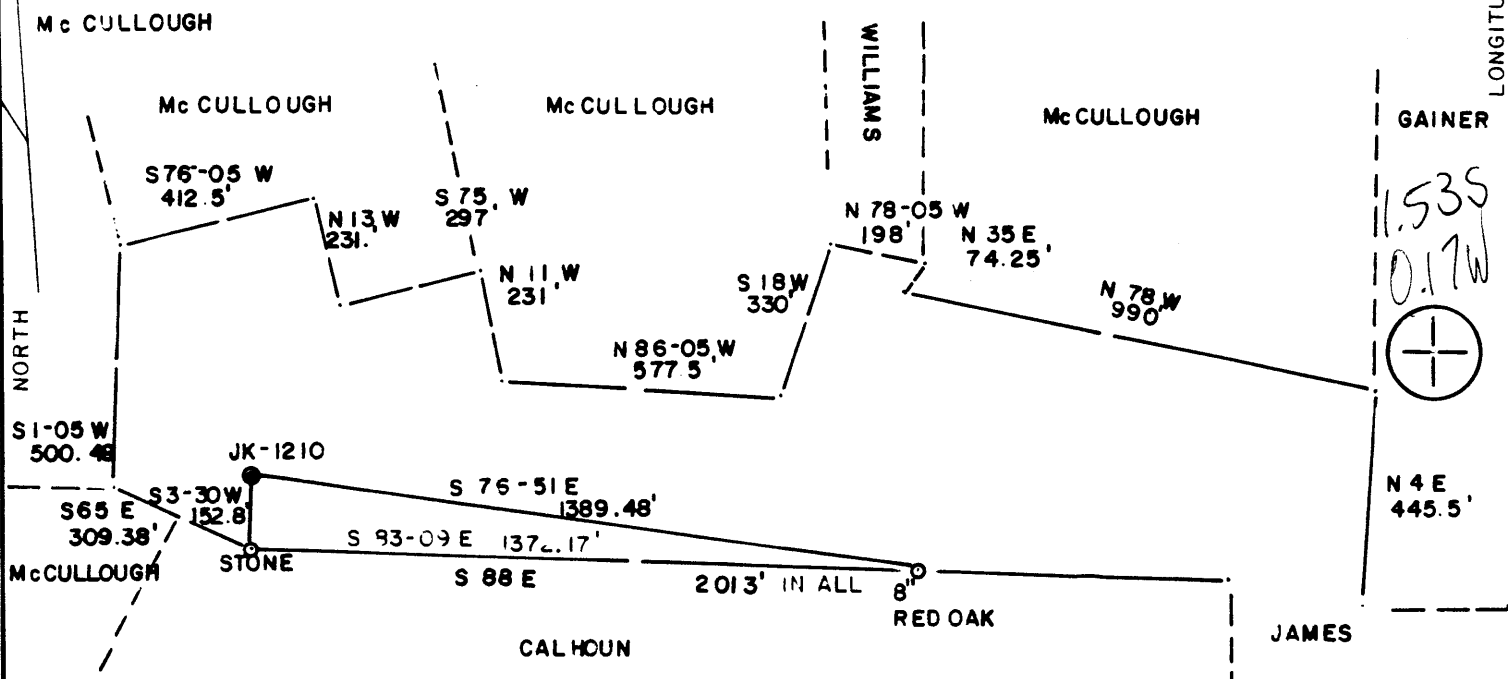
# ASH LEASE

# WELL NO.

## JK-1210

1.535  
2.40W

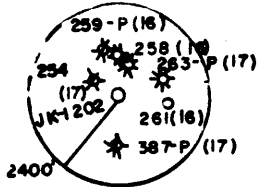
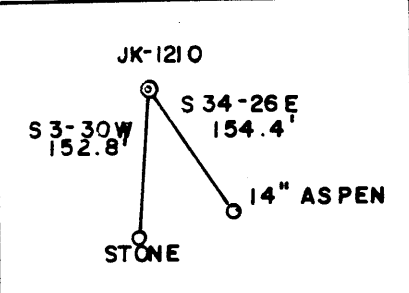
50 00  
LONGITUDE 80-52-30



1.535  
0.17W  
+

## 30 ACRES ±

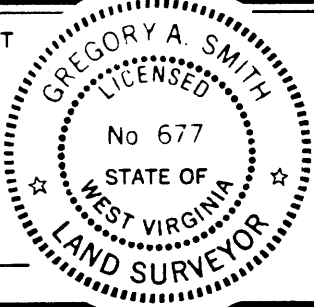
### REFERENCES



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 DATE MAY 13, 19 85  
 OPERATORS WELL NO. JK-1210  
 API WELL NO. 47 - 095 - 1112  
 STATE COUNTY PERMIT

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.

L.L.S. 677 Gregory A. Smith



MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 18-20  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB OF ELEV.=1310 SCALE 1"=400'



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1064 WATERSHED MUDLICK RUN  
 DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE PENNSBORO 7.5 539  
 SURFACE OWNER DALE ASH, JR. HEIRS ACREAGE 30 West Union 133  
 OIL & GAS ROYALTY OWNER DALE ASH, JR. HEIRS LEASE ACREAGE 30 SC 8  
 LEASE NO. JJ-1819

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF   
 OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION RHINE STREET  
 ESTIMATED DEPTH 5995'

WELL OPERATOR J & J ENTERPRISES, INC. 427 DESIGNATED AGENT RICHARD REDDECLIFF  
 ADDRESS P.O. BOX 48, BUCKHANNON, WV 26201 ADDRESS P.O. BOX 48, BUCKHANNON, WV 26201

COUNTY NAME  
TYLER  
PERMIT  
112

RECEIVED  
NOV 13 1985



DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date November 12, 1985  
Operator's JK-1210  
Well No. \_\_\_\_\_  
Farm Dale Ash  
API No. 47 - 095 - 1112

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

WELL TYPE: Oil \_\_\_ / Gas x / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production x / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow x /)

LOCATION: Elevation: 1064 Watershed Mudlick Run  
District: Centerville County Tyler Quadrangle Pennsboro

COMPANY J&J Enterprises, Inc.  
ADDRESS P.O. Box 48, Buckhannon, WV 26201  
DESIGNATED AGENT Richard Reddecliff  
ADDRESS P.O. Box 48, Buckhannon, WV 26201  
SURFACE OWNER Dale Ash hr. C/O Ralph Ash  
ADDRESS Star Route, Box 57, West Union, WV 26456  
MINERAL RIGHTS OWNER Same as surface  
ADDRESS \_\_\_\_\_  
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther  
ADDRESS General Delivery Middlebourne, WV 26149  
PERMIT ISSUED 7/17/85  
DRILLING COMMENCED 10/7/85  
DRILLING COMPLETED 10/14/85

| Casing & Tubing  | Used in Drilling | Left in Well | Cement fill up Cu. ft. |
|------------------|------------------|--------------|------------------------|
| Size 20-16 Cond. |                  |              |                        |
| 13-10"           | 205.55           | 205.55       | 100 sks.               |
| 9 5/8            |                  |              |                        |
| 8 5/8            | 1666.90          | 1666.90      | 125 sks.               |
| 7                |                  |              |                        |
| 5 1/2            |                  |              |                        |
| 4 1/2            | 5348.50          | 5348.50      | 265 sks.               |
| 3                |                  |              |                        |
| 2                |                  |              |                        |
| Liners used      |                  |              |                        |

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

GEOLOGICAL TARGET FORMATION Rhine Street Depth \_\_\_\_\_ feet  
Depth of completed well 5987 feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 55,595 feet; Salt 0 feet  
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Alexander Pay zone depth 5209-20 feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Combined Final open flow 1,254 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 4 hours

Static rock pressure 1700 psig (surface measurement) after 96 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Benson & Riley Pay zone depth 4516-44 / 4916-18 feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: 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

NOV 25 1985

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

Riley: Perforations: 4516-20 (6 holes) 4526-28 (8 holes) 4542-44 (6 holes)  
 Fracturing: 500 sks. 20/40 sand: 475 Bbls. fluid.  
 Benson: Perforations: 4916-18 (8 holes)  
 Fracturing: 350 sks. 20/40 sand: 500 gal. acid: 433 Bbls. fluid.  
 Alexander: Perforations: 5209-12 (8 holes) 5218-20 (6 holes)

BOTTOM HOLE PRESSURE Pf=Pwe<sup>XGLS</sup>

$$t=60 + (0.0075 \times 5349) + 459.7=560 \quad \frac{1}{53.35 \times 560} = \frac{1}{29876} = 0.000033 \quad Pf=1700 \times 2.72^{(0.000033)}$$

$$(0.695)(4868)(0.9) = 1700 \times 2.72^{0.1} = 1700 \times 1.1$$

Pf=1870 psi

WELL LOG

| FORMATION              | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET  | REMARKS<br>Including indication of all fre<br>and salt water, coal, oil and c |
|------------------------|-------|--------------|----------|--------------|---|
| Top Soil & Clay        |       |              | 0        | 5            |   |
| Red rock & shale       |       |              | 5        | 35           | Damp @ 55'  |
| Sand, red rock & shale |       |              | 35       | 110          |   |
| Red rock, shale & sand |       |              | 110      | 200          | Damp @ 595'   |
| Red rock, shale & sand |       |              | 200      | 450          |   |
| Sand & shale           |       |              | 450      | 560          | Gas ck @ 2110 6/10-7" w/water<br>3,965,000 cu.ft.                             |
| Red rock, sand & shale |       |              | 560      | 680          |   |
| Sand, shale & red rock |       |              | 680      | 905          |   |
| Sand & shale           |       |              | 905      | 1060         | Gas ck @ 2887 4/10-7" w/water<br>3,233,000 cu.ft.                             |
| Red rock, sand & shale |       |              | 1060     | 1240         |   |
| Red rock & shale       |       |              | 1240     | 1390         |   |
| Sand & shale           |       |              | 1390     | 1440         | Gas ck @ 3445 4/10-7" w/water<br>3,233,000 cu.ft.                             |
| Sand & shale           |       |              | 1440     | 1725         |   |
| Sand & shale           |       |              | 1725     | 1860         |   |
| Lime & shale           |       |              | 1860     | 1900         | Gas ck @ 4468 4/10-7" w/water<br>3,233,000 cu.ft.                             |
| Shale                  |       |              | 1900     | 1935         |   |
| Big Lime               |       |              | 1935     | 1985         |   |
| Big Injun <i>GR</i>    |       |              | 1985     | 2095         | Gas ck @ 4590 4/10-7" w/water<br>3,233,000 cu.ft.                             |
| Shale                  |       |              | 2095     | 2275         |   |
| Sand & shale           |       |              | 2275     | 3065         |   |
| Sand & shale           |       |              | 3065     | 3800         |   |
| Sand & shale           |       |              | 3800     | 4440         |   |
| Sand & shale           |       |              | 4440     | 4516         |   |
| Riley                  |       |              | 4516     | 4544         |   |
| Sand & shale           |       |              | 4544     | 4916         |   |
| Benson                 |       |              | 4916     | 4918         |   |
| Sand & shale           |       |              | 4918     | 5209         |   |
| Alexander              |       |              | 5209     | 5220         |   |
| Sand & shale           |       |              | 5220     | 5987<br>T.D. |   |

*Rhinist @ TD.*

(Attach separate sheets as necessary)

J & J Enterprises, Inc.

Well Operator

By: *[Signature]*

Date: 11/12/85

*[Signature]* Robert Dahlin - Geologist

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ~~any~~, encountered in the drilling of a well."



1) Date: May 31, 19 85  
 2) Operator's Well No. JK-1210  
 3) API Well No. 47 -095-1112  
 State County Permit

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OIL AND GAS DIVISION  
 OIL & GAS DIVISION FOR A WELL WORK PERMIT  
 DEPT. OF MINES

- 4) WELL TYPE: A Oil  Gas   
 B (If "Gas", Production  Underground storage  Deep  Shallow )  
 5) LOCATION: Elevation: 1064' Watershed: Mudlick Run  
 District: Centerville County: Tyler Quadrangle: Pennsboro 7.5'  
 6) WELL OPERATOR J & J Enterprises, Inc. 427 7) DESIGNATED AGENT Richard Reddecliff  
 Address P.O. Box 48 24150 Address P.O. Box 48  
Buckhannon, WV 26201 Buckhannon, WV 26201  
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Robert Lowther Name S.W. Jack Drilling  
 Address General Delivery Address P.O. Box 48  
Middlebourne, WV 26149 Buckhannon, WV 26201  
 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate   
 Plug off old formation  / Perforate new formation   
 Other physical change in well (specify) \_\_\_\_\_  
 11) GEOLOGICAL TARGET FORMATION, Rhine Street 441  
 12) Estimated depth of completed well, 5995' feet  
 13) Approximate trata depths: Fresh, 125' feet; salt, N/A feet.  
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes  / No

15) 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   |      | 200'              | 200'         | <del>0 Sacks</del> <i>by rule 15-01</i> |                             |
| Fresh water           | 8 5/8          | ERW   | 23             | X   |      | 1664'             | 1664'        | To Surface                              |                             |
| Coal                  | 8 5/8          | ERW   | 23             | X   |      | 1664'             | 1664'        | To Surface                              | Sizes                       |
| Intermediate          |                |       |                |     |      |                   |              |   |                             |
| Production            | 4 1/2          | J-55  | 10.5           | X   |      | 5995'             | 5945'        | 300 Sacks                               | Depths set                  |
| Tubing                |                |       |                |     |      |                   |              | or as required                          | by rule 15-01               |
| Liners                |                |       |                |     |      |                   |              |   | Perforations:<br>Top Bottom |

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-095-1112

July 17 19 85

Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires July 17, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

|       |        |       |        |      |
|-------|--------|-------|--------|------|
| Bond: | Agent: | Plat: | Casing | Fee  |
| 82    | AIB    | MN    | MW     | 1984 |

*[Signature]*

Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.