



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 600'  
 MINIMUM DEGREE OF ACCURACY 1' IN 2500'  
 PROVEN SOURCE OF ELEVATION BM at intersection of RT. 100 & 51 ELEV. = 946'

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) Duane R. Dushong  
 R.P.E. 8993 L.L.S.



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

DATE 6-16, 19 83  
 OPERATOR'S WELL NO. 1-1881  
 API WELL NO. 47 061 0731 REV.  
 STATE COUNTY PERMIT

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 1120' WATER SHED Robinson Run  
 DISTRICT CASS COUNTY MONONGALIA  
 QUADRANGLE OSAGE Blacksville 15' NE  
 SURFACE OWNER William L. Dipple et. ux. ACREAGE 31 ac.  
 OIL & GAS ROYALTY OWNER Thomas Keenan et. ux. LEASE ACREAGE 121 ac.  
 LEASE NO. 12010  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION ELK ESTIMATED DEPTH 5990'  
 WELL OPERATOR CARNEGIE NATURAL GAS CO. DESIGNATED AGENT J.C. STEPHENSON, DIVISION SUPERINTENDENT  
 ADDRESS 800 REGIS AVE. PITTSBURGH PA., 15236 ADDRESS P.O. BOX 387 MANNINGTON, W.VA. 26582

6-6 Cassville-Bowlby (68) L.E.M.

IV-35  
(Rev 8-81)

RECEIVED  
JUL - 2 1984



State of West Virginia

OIL & GAS DIVISION Department of Mines  
DEPT. OF MINES Oil and Gas Division

Date June 28, 1984  
Operator's Well No. 1-1881  
Farm Thomas Keenan  
API No. 47 - 061 - 0731

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: 1120' Watershed Robinson Run  
District: Cass County Monongalia Quadrangle Osage

COMPANY Carnegie Natural Gas Company  
ADDRESS 800 Regis Ave., Pgh., PA 15236  
DESIGNATED AGENT J. C. Stephenson  
ADDRESS Box 387, Mannington, WV 26582  
SURFACE OWNER William L. Dipple, et ux  
ADDRESS 23 West St., Morgantown, WV 26505  
MINERAL RIGHTS OWNER Mary D. Dudrear  
ADDRESS 245 S. 56th St., Mesa, Arizona 85206  
OIL AND GAS INSPECTOR FOR THIS WORK Bob Stewart  
ADDRESS Jane Lew, WV  
PERMIT ISSUED August 26, 1983  
DRILLING COMMENCED November 22, 1983  
DRILLING COMPLETED December 3, 1983  
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

| Casing & Tubing  | Used in Drilling | Left in Well | Cement fill up <del>in</del> ft. |
|------------------|------------------|--------------|----------------------------------|
| Size 20-16 Cond. |                  |              |                                  |
| 1 3/4" X 13-10X  | 332'             | 332'         | 332'                             |
| 9 5/8            |                  |              |                                  |
| 8 5/8            | 1550'            | 1550'        | 1550'                            |
| 7                |                  |              |                                  |
| 5 1/2            |                  |              |                                  |
| 4 1/2            |                  | 5412'        | 2350'                            |
| 3                |                  |              |                                  |
| 2                |                  |              |                                  |
| Liners used      |                  |              |                                  |

GEOLOGICAL TARGET FORMATION Elk Depth 5990 feet  
Depth of completed well 5990 feet Rotary X / Cable Tools  
Water strata depth: Fresh \_\_\_ feet; Salt 405 feet  
Coal seam depths: 186'-192 G.L. Is coal being mined in the area? Yes  
300'-310' G.L. (Open Mine)  
OPEN FLOW DATA Alexander, Elk  
Producing formation Warren, Balltown Pay zone depth 3347-5377 feet  
Gas: Initial open flow 47 Mcf/d Oil: Initial open flow \_\_\_ Bbl/d  
Final open flow 215 Mcf/d Final open flow \_\_\_ Bbl/d  
Time of open flow between initial and final tests 264 hours  
Static rock pressure 1400 psig (surface measurement) after 72 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 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

JUL 16 1984

(Continue on reverse side)

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

Foam fractured by Halliburton on Dec. 14, 1983.

- 1st Stage - <sup>Alex.</sup> 5021'-23', <sup>Elk</sup> 5181'-83', 5348'-77'; 181 Bbls., 25,000# Sand.
- 2nd Stage - <sup>Bradford</sup> 4414'-17', <sup>Riley</sup> 4623'-37'; 161 Bbls., 17,500# Sand.
- 3rd Stage - <sup>Baltimore</sup> 3755'-58', 3908'-78'; 161 Bbls; 17,500# Sand.
- 4th Stage <sup>Warren</sup> 3347'-49', <sup>Speckley</sup> 3562'-80'; 108 Bbls; 30,000# Sand.

WELL LOG

| FORMATION    | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS<br>Including indication of all fresh and salt water, coal, oil and gas |
|--------------|-------|--------------|----------|-------------|--|
| Clay         |       |              | 0'       | 35'         |  |
| Sand         |       |              | 35       | 70          |  |
| Sand & Shale |       |              | 70       | 180         |  |
| Sand         |       |              | 180      | 186         |  |
| Coal         |       |              | 186      | 192         |  |
| Sand & Shale |       |              | 192      | 310         |  |
| Open Mine    |       |              | 310      | 320         |  |
| Sand & Shale |       |              | 320      | 595         | Salt Water @ 405'  |
| Red Rock     |       |              | 595      | 700         |  |
| Sand & Shale |       |              | 700      | 730         |  |
| Shale        |       |              | 730      | 737         |  |
| Sand         |       |              | 737      | 739         |  |
| Red Rock     |       |              | 739      | 745         |  |
| Shale        |       |              | 745      | 773         |  |
| Sand         |       |              | 773      | 778         |  |
| Shale        |       |              | 778      | 798         |  |
| Sand         |       |              | 798      | 830         |  |
| Shale        |       |              | 830      | 855         |  |
| Sand         |       |              | 855      | 965         |  |
| Shale        |       |              | 965      | 980         |  |
| Sand & Shale |       |              | 980      | 990         |  |
| Sand         |       |              | 990      | 1065        |  |
| Shale        |       |              | 1065     | 1115        |  |
| Sand         |       |              | 1115     | 1315        |  |
| Sand & Shale |       |              | 1315     | 1470        |  |
| Red Rock     |       |              | 1470     | 1520        |  |
| Little Lime  |       |              | 1520     | 1528        |  |
| Red Rock     |       |              | 1528     | 1548        |  |
| Big Lime     |       |              | 1548     | 1624        |  |
| Big Injun    |       |              | 1624     | 1710        |  |
| Sand & Shale |       |              | 1710     | 3157        |  |
| Warren       |       |              | 3157     | 3350        |  |
| Sand & Shale |       |              | 3350     | 4612        |  |
| Riley        |       |              | 4612     | 4767        |  |
| Shale        |       |              | 4767     | 4792        |  |
| Benson       |       |              | 4792     | 4880        |  |
| Sand & Shale |       |              | 4880     | 4953        |  |
| Alexander    |       |              | 4953     | 5055        |  |
| Sand & Shale |       |              | 5055     | 5990        |  |

TOTAL DEPTH Brallier@T.D.

(Attach separate sheets as necessary)  
5990'

Carnegie Natural Gas Company  
Well Operator

By: Kenneth H. Dewey

Date: June 28, 1984

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 coal, encountered in the drilling of a well."



1) Date: July 8, 19 83  
 2) Operator's Well No. 1-1881  
 3) API Well No. 47 - 061 - 0731  
 State County Permit

DRILLING CONTRACTOR:

S. W. Jack Drilling Co.  
Indiana, PA

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

OIL AND GAS WELL PERMIT APPLICATION

**REVISED**

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas X /  
 B (If "Gas", Production X / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)
- 5) LOCATION: Elevation: 1120 Watershed: Robinson Run  
 District: Cass County: Monongalia Quadrangle: Osage
- 6) WELL OPERATOR Carnegie Natural Gas Co. 11) DESIGNATED AGENT J. C. Stephenson  
 Address 800 Regis Avenue Address Box 387  
Pittsburgh, PA 15236 Mannington, WV 26505
- 7) OIL & GAS ROYALTY OWNER Mary D. Dudrear 12) COAL OPERATOR \* Prime Coal  
 Address 245 S. 56th Street #3 Address Box 1066  
Mesa, Arizona 85206 Morgantown, WV 26505  
 Acreage 121
- 8) SURFACE OWNER William L. Dipple, etux 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Address 23 West Street Name Consolidation Coal Co. (1)  
Morgantown, WV 26505 Address P.O. Box 1314  
 Acreage 31 Morgantown, WV 26505  
 Name (1) Pittsburgh Coal Mined Out
- 9) FIELD SALE (IF MADE) TO: Address \_\_\_\_\_
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED 14) COAL LESSEE WITH DECLARATION ON RECORD:  
 Name Mr. Bill Blosser Name \_\_\_\_\_  
 Address \_\_\_\_\_ Address \_\_\_\_\_  
Fairmont, WV
- 15) PROPOSED WORK: Drill X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Fracture or stimulate \_\_\_\_\_  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 16) GEOLOGICAL TARGET FORMATION, Elk \* Presently mining the Mapletown Seam
- 17) Estimated depth of completed well, 5990 feet
- 18) Approximate water strata depths: Fresh, 240370 feet; salt, \_\_\_\_\_ feet.
- 19) Approximate coal seam depths: 160,260 Is coal being mined in the area? Yes X / No \_\_\_\_\_
- 20) CASING AND TUBING PROGRAM

DEPT. OF MINES

| 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             |                |             |                |          |      |                   |                |                                      | Kinds   |
| Fresh water           | <u>11 3/4</u>  | <u>H-40</u> | <u>42</u>      | <u>X</u> |      | <u>400 300</u>    | <u>400 300</u> | <u>300' LTS</u>                      | <u>by Rule 15-05</u>                                |
| Coal                  |                |             |                |          |      |                   |                |                                      | Sizes   |
| Intermediate          | <u>8 5/8</u>   | <u>J-55</u> | <u>24</u>      | <u>X</u> |      | <u>1720</u>       | <u>1720</u>    | <u>1720'</u>                         |   |
| Production            | <u>4 1/2</u>   | <u>J-55</u> | <u>10.5</u>    | <u>X</u> |      |                   | <u>5990</u>    | <u>2000'</u>                         | Depths set <u>02 AB 254</u><br><u>by Rule 15-01</u> |
| Tubing                |                |             |                |          |      |                   |                |                                      | Perforations:                                       |
| Liners                |                |             |                |          |      |                   |                |                                      | Top Bottom  |

- 21) EXTRACTION RIGHTS  
 Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS  
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) 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.
- Notary: [Signature] Signed: [Signature]  
 My Commission Expires Feb 7, 1987 Its: President

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-061-0731 Date August 26, 1983

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. 10) 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.)

Permit expires August 26, 1985 unless drilling is commenced prior to that date and prosecuted with due diligence.

|                          |                           |                          |                            |                    |
|--------------------------|---------------------------|--------------------------|----------------------------|--------------------|
| Bond: <u>[Signature]</u> | Agent: <u>[Signature]</u> | Plat: <u>[Signature]</u> | Casing: <u>[Signature]</u> | Fee: <u>139713</u> |
|--------------------------|---------------------------|--------------------------|----------------------------|--------------------|

Administrator, Office of Oil and Gas

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