



COAL : EASTERN ASSOC. COAL CORP., et al  
KOPPERS BLDG., PITTSBURG, P.A. 15219

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1 inch = 1000 feet  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION Jct. Rds. 4500' E  
 of Location Elev. = 839'

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) Mark C. Echard  
 MARK C. ECHARD  
 R.P.E. \_\_\_\_\_ L.L.S. 490

PLACE SEAL HERE

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



DATE DECEMBER 29, 1980  
 OPERATOR'S WELL NO. TWO  
 API WELL NO. \_\_\_\_\_  
47 - 017 - 2958  
 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 1130' WATER SHED SAND FORK  
 DISTRICT COVE COUNTY DODDRIDGE  
 QUADRANGLE VADIS 75  
 SURFACE OWNER NEVIN STAGARWALT ACREAGE 176.5  
 OIL & GAS ROYALTY OWNER CONSOLIDATED GAS SUPPLY CORP LEASE ACREAGE 466  
 LEASE NO. \_\_\_\_\_  
 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 DEVONIAN SHALE ESTIMATED DEPTH 5700'  
 WELL OPERATOR CARSON PETROLEUM CORP DESIGNATED AGENT MR. LOWELL M. JOHNSON  
 ADDRESS BOX 133 ADDRESS BOX 133  
SAND FORK, W.V. 26430 SAND FORK, W.V. 26430

6-6 New Milton South (307)

FEB 13 1981

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

Date February 24, 1981

FORM IV-35  
(Obverse)

Operator's  
Well No. Kreen #2  
API Well No. 47 - 017 - 2958  
State County Permi

[08-78]

WELL OPERATOR'S REPORT 3)  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal  /  
(If "Gas", Production  / Underground storage  / Deep  / Shallow  /)

LOCATION: Elevation: 1130' Watershed: Sand Fork  
District: Cove County: Doddridge Quadrangle: Vadis

WELL OPERATOR Carson Petroleum Corporation DESIGNATED AGENT Lowell M. Johnson  
Address P O Box 133 Address P O Box 133  
Sand Fork, WV 26430 Sand Fork, WV 26430

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 January 20 19 81

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Steve Casey  
Address Jane Lew, WV  
884-7470

GEOLOGICAL TARGET FORMATION: Elk Depth 5385 feet

Depth of completed well, 5496 feet Rotary  / Cable Tools

Water strata depth: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.

Coal seam depths: None Is coal being mined in the area? No

Work was commenced January 26, 1981, and completed January 31, 1981

GRADING AND TUBING PROGRAM

| GRADING OR TUBING TYPE | SPECIFICATIONS |       |               |     | FOOTAGE INTERVALS |              | CEMENT FILL-UP OR SACKS (Cubic feet) | PACKERS       |
|------------------------|----------------|-------|---------------|-----|-------------------|--------------|--------------------------------------|---------------|
|                        | Size           | Grade | Weight per ft | New | Used              | For drilling |                                      |               |
| Conductor              |                |       |               |     |                   |              |                                      | Kinds         |
| Fresh water            | 8 5/8          |       |               |     |                   | 1207'        | 1207'                                | To surface    |
| Coal                   |                |       |               |     |                   |              |                                      | Sizes         |
| Intermediate           |                |       |               |     |                   |              |                                      |               |
| Production             | 4 1/2          |       |               |     |                   |              | 5456'                                | 420 sks       |
| Tubing                 |                |       |               |     |                   |              |                                      | Deaths set    |
| Packers                |                |       |               |     |                   |              |                                      | Perforations: |
|                        |                |       |               |     |                   |              |                                      | Top Bottom    |

OIL & GAS DIVISION

DEPT. OF MINES

327 MCF

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4980 feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, 0 Bbl/d

Final open flow, \_\_\_\_\_ Mcf/d Final open flow, 0 Bbl/d

Time of open flow between initial and final tests, \_\_\_\_\_ hours

Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

[If applicable due to multiple completion--]

Second producing formation Elk Alex Pay zone depth 5247-5385 feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, 0 Bbl/d

Final open flow, 327,000 Mcf/d Final open flow, 0 Bbl/d

Time of open flow between initial and final tests, 10 hours

Static rock pressure, 1525 psig (surface measurement) after 30 hours shut in

MAR 23 1981

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

Fractured February 18, 1981

Elk - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
1600 lb. breakdown  
490 bbls. water  
18.1 BPM at 1800 lb.

Benson - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
1400 lb. breakdown  
464 bbls. water  
17.1 BPM at 1700 lb.

Perforations - 5385 - 5247, 8 holes

Perforations - 4978 - 4980, 5 holes

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 |
|-----------------------|-------|--------------|----------|-------------|--|
| Sand, Shale, Red Rock |       |              | 0        | 1504        |  |
| Sand                  |       |              | 1504     | 1570        |  |
| Sahle                 |       |              | 1570     | 1654        |  |
| Sand                  |       |              | 1654     | 1694        |  |
| Shale                 |       |              | 1694     | 1867        |  |
| Sand                  |       |              | 1867     | 1932        |  |
| Shale                 |       |              | 1932     | 1970        |  |
| Gray Shale            |       |              | 1970     | 2070        |  |
| Little Lime           |       |              | 2070     | 2084        |  |
| Pencil Cave           |       |              | 2084     | 2100        |  |
| Blue Monday           |       |              | 2100     | 2130        |  |
| Big Lime              |       |              | 2130     | 2186        |  |
| Big Injun             |       |              | 2186     | 2277        |  |
| Gray Shale            |       |              | 2277     | 2320        |  |
| Weir Sand             |       |              | 2320     | 2447        |  |
| Gray Shale            |       |              | 2447     | 2527        |  |
| Gantz                 |       |              | 2527     | 2740        |  |
| Gray Shale            |       |              | 2740     | 4520        |  |
| Bradford Sand         |       |              | 4520     | 4564        |  |
| Gray Shale            |       |              | 4564     | 4975        |  |
| Benson Sand           |       |              | 4975     | 4986        |  |
| Gray Shale            |       |              | 4986     | 5245        |  |
| Elk Sand              |       |              | 5245     | 5391        |  |
| Total Depth           |       |              | 5496     |             |  |

(Attach separate sheets to complete as necessary)

Carson Petroleum Corporation  
Well Operator

By

*Lowell M. Johnson*

Its

Agent

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."

COPY



Kreem #2

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

JAN 20 1981

Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE January 15, 1981

Surface Owner Nevin Stagarwalt  
Address New Milton, WV  
Mineral Owner Consolidated Gas Supply Corp.  
Address Clarksburg, WV  
Coal Owner Eastern Assoc. Coal Company  
Address Pittsburgh, PA  
Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

Company Carson Petroleum Corporation  
Address P O Box 133, Sand Fork, WV 26430  
Farm Kreem Acres 466  
Location (waters) Sand Fork  
Well No. Two Elevation 1130'  
District Cove County Doddridge  
Quadrangle Vadis

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 9-23-81

INSPECTOR  
TO BE NOTIFIED Steve Casey

ADDRESS Jane Lew, WV

PHONE 884-7470

Fred R. Ruppelle  
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 October 1980 by Consolidated Gas Supply Corp. made to Carson Petroleum Corporation and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 1980 in NOT OF RECORD County, Book \_\_\_\_\_ Page \_\_\_\_\_

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:

Very truly yours, Carson Petroleum Corporation  
(Sign Name) Lawell M. Johnson  
Well Operator

OFFICE OF OIL AND GAS  
615 Washington Street, East  
Charleston, West Virginia  
Area Code 304 -348-3092 348-3096

Address  
of  
Well Operator

P O Box 133 Street  
Sand Fork City or Town  
West Virginia 26430 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.

SURETY BOND

47-017- 2958

PERMIT NUMBER

I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements.

Signed by Lawell M. Johnson

**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) Union Drilling, Inc. RESPONSIBLE AGENT: Lowell M. Johnson  
ADDRESS Drawer 40, Buckhannon, WV 26201 ADDRESS P O Box 133, Sand Fork, WV 26430  
TELEPHONE 472-4610 TELEPHONE 462-7009  
ESTIMATED DEPTH OF COMPLETED WELL: 5700' ROTARY X CABLE TOOLS \_\_\_\_\_  
PROPOSED GEOLOGICAL FORMATION: Devonian Shale  
PURPOSE OF WELL: OIL \_\_\_\_\_ GAS X COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

**PROPOSED CASING PROGRAM:**

| CASING AND TUBING SIZE | USED FOR DRILLING | LEFT IN WELL | CEMENT FILL UP OR SACKS - CUBIC FT. |
|------------------------|-------------------|--------------|-------------------------------------|
|                        |                   |              |                                     |
|                        |                   |              |                                     |
|                        | 1200'             | 1200'        | To surface                          |
|                        |                   |              |                                     |
|                        |                   | 5700'        | 750 sks                             |
|                        |                   |              | Perf. Top                           |
|                        |                   |              | Perf. Bottom                        |
|                        |                   |              | Perf. Top                           |
|                        |                   |              | Perf. Bottom                        |

APPROXIMATE FRESH WATER DEPTHS 115 FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
APPROXIMATE COAL DEPTHS N/A  
COAL BEING MINED IN THE AREA? No BY WHOM? \_\_\_\_\_

**DRILL:**  
SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.  
**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.  
**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 of \_\_\_\_\_  
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