

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2")

FILE NO. _____
 DRAWING NO. 7208
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION SEE NOTE ABOVE

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 ENERGY.
 (SIGNED) Richard L. Coby
 R.P.E. _____ L.L.S. 019

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 SECTION OF OIL & GAS

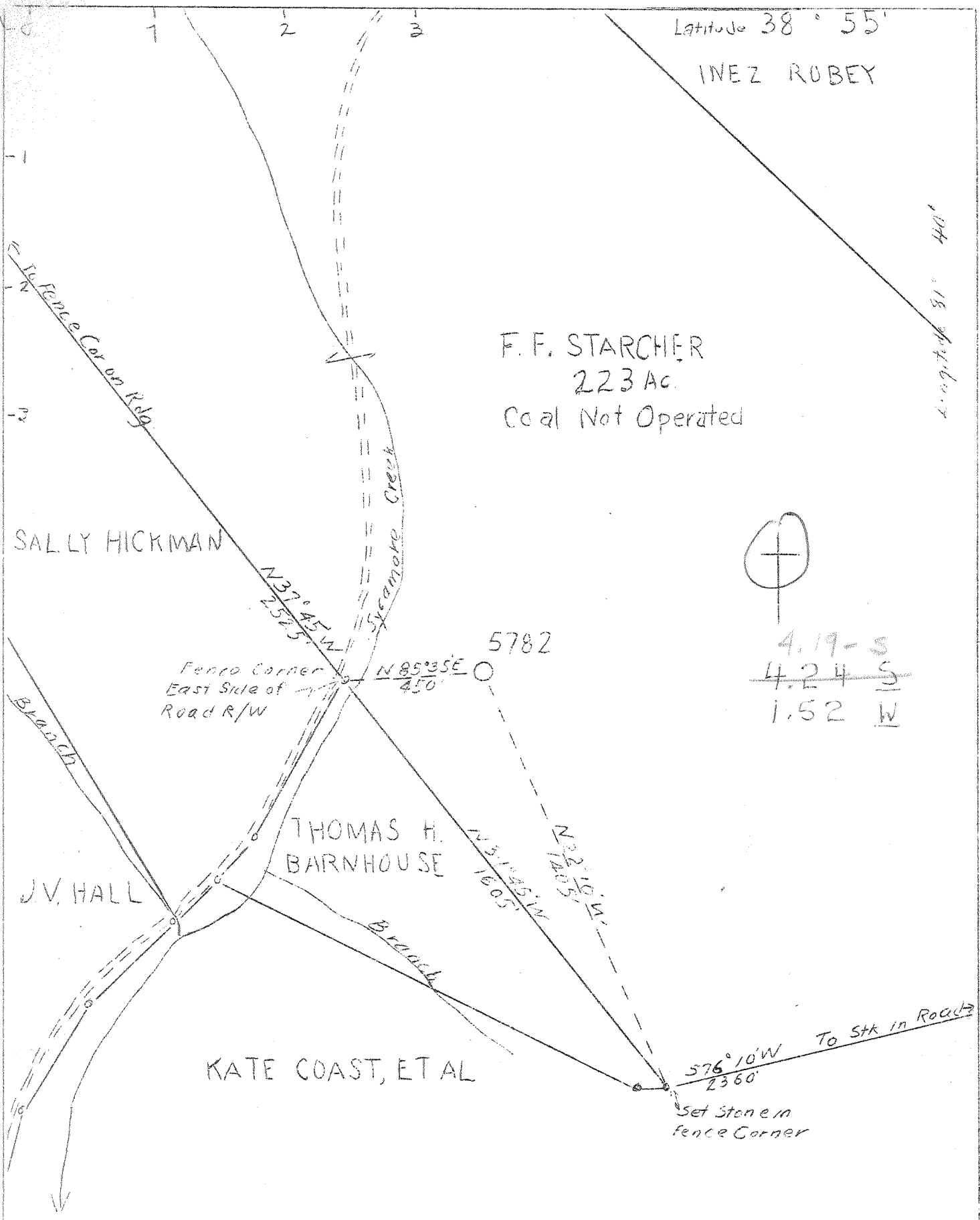


DATE APRIL 7, 1999
 OPERATOR'S WELL NO. 7208
 API WELL NO. 47 035 00531
 STATE COUNTY PERMIT

WELL TYPE: OIL X GAS X LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE X DEEP SHALLOW
 LOCATION: ELEVATION 738.0' WATER SHED Left Fork Of Sycamore Creek
 DISTRICT Ripley COUNTY Jackson
 QUADRANGLE Ripley, WV COORDINATES LAT. 36°51'12" LONG. 87°41'41"
 SURFACE OWNER Emily Ann Starcher Pace ACREAGE 150
 OIL & GAS ROYALTY OWNER Elizabeth Lewis, Et Al. LEASE ACREAGE 150
 COAL OWNER Elizabeth Lewis, Et Al. LEASE NO. 41777
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Storage Recondition

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION OSISKANY ESTIMATED DEPTH 4950'
 WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP DESIGNATED AGENT RICHARD L COBY
 ADDRESS PO Box 1273, Charleston, WV ADDRESS PO Box 1273, Charleston, WV
25325-1273 25325-1273

JACKSON COUNTY NAME PERMIT



F. F. STARCHER
223 Ac.
Coal Not Operated

SALLY HICKMAN

J.V. HALL

THOMAS H. BARNHOUSE

KATE COAST, ET AL

4.19-S
4.24 S
1.52 W

NEW LOCATION X

| | |
|---------------------|---------------------------|
| COMPANY | UNITED FUEL GAS CO. |
| ADDRESS | CHARLESTON, W. VA. |
| FARM | F. F. STARCHER |
| TRACT | ACRES 223 LEASE NO. 41777 |
| WELL (FARM) NO. | SERIAL NO. 5782 |
| ELEVATION(S.L.) | 738.02 |
| QUADRANGLE | RIPLEY - WC. |
| COUNTY | JACKSON DISTRICT RIPLEY |
| ENGINEER | G. H. MOORE |
| ENGINEER'S REG. NO. | 662 |
| FILE NO. | 58-93 DRAWING NO. |
| DATE | 7/26/46 SCALE 1" - 400' |

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON
WELL LOCATION MAP
FILE NO. JAC-531

+ DENOTES LOCATION OF WELL ON U.S. TOPOGRAPHIC MAPS, SCALE 1 TO 62,500 LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.
- DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

6-2-192 Deep Well

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Jac 531

Gas Well
CASING & TUBING

Ripley Quad.

Company United Fuel Gas Company
Address P.O. Box 1273, Charleston 25, W.Va.
Farm F.F. Starcher et al Acres 223
Location Sycamore Creek
Well No. 5782 Elev. 738.02 GR
District Ripley Jackson County
Surface
Mineral

13 3/8 654
10 1/2 1032
8 2076
7 4838

Commenced 8-2-46
Completed 12-3-46
Not shot
Rock Pressure 1110 lbs. 12 hrs.
Fresh Water 330' H.F.
Salt Water 1675' H.F.

| | | | | | |
|------------------|------|------|-------------------------------|------|------|
| Soil | 0 | 10 | Sand - <i>Injunc - 340</i> | 1877 | 1963 |
| Clay | 10 | 30 | Slate | 1963 | 1965 |
| Red Rock | 30 | 50 | Sand - <i>NEAR - Injunc</i> | 1965 | 2070 |
| Blue Mud | 50 | 70 | Lime | 2070 | 2074 |
| Red Rock | 70 | 95 | Slate & Shells | 2074 | 2400 |
| Blue Mud | 95 | 120 | Coffee Shale | 2400 | 2420 |
| White Sand | 120 | 145 | Lime Shells | 2420 | 2424 |
| Red Rock | 145 | 180 | Berea Sand | 2424 | 2440 |
| Blue Mud | 180 | 280 | Lime | 2440 | 2545 |
| Sand | 280 | 335 | Slate & Shells | 2545 | 2600 |
| Slate | 335 | 340 | Lime | 2600 | 2998 |
| Red Rock | 340 | 370 | Shale | 2998 | 3010 |
| Slate | 370 | 438 | White Slate | 3010 | 3635 |
| Red Rock | 438 | 460 | Dark Lime | 3635 | 3815 |
| Slate | 460 | 490 | Brown Shale | 3815 | 3830 |
| Red Rock | 490 | 525 | White Slate | 3830 | 3915 |
| Slate | 525 | 570 | Brown Shale | 3915 | 4020 |
| Pitts. Sand | 570 | 610 | White Slate | 4020 | 4050 |
| Black Slate | 610 | 650 | Brown Shale | 4050 | 4225 |
| Lime Black | 650 | 658 | White Slate | 4225 | 4515 |
| Slate | 658 | 740 | Brown Shale | 4515 | 4600 |
| Pink Rock | 740 | 760 | Dark Br. Shale | 4600 | 4826 |
| Slate & Shells | 760 | 785 | Corniferous Lime - <i>463</i> | 4826 | 4934 |
| Red Rock | 785 | 790 | Criskany Sand | 4934 | 4950 |
| Gray Lime | 790 | 820 | Total Depth <i>(475)</i> | | 4950 |
| Slate | 820 | 830 | | | |
| Red Rock | 830 | 865 | Gas 2998-3010 show | | |
| Slate | 865 | 930 | Gas 3915-3920 show | | |
| Red Rock | 930 | 925 | Gas 4938-4948 | | |
| Slate | 925 | 1025 | | | |
| Gray Lime | 1025 | 1034 | | | |
| White Slate | 1034 | 1080 | | | |
| White Sand | 1080 | 1095 | | | |
| Blue Lime | 1095 | 1105 | | | |
| White Slate | 1105 | 1115 | | | |
| Pink Rock | 1115 | 1125 | | | |
| Sand | 1125 | 1160 | | | |
| Slate & Shells | 1160 | 1215 | | | |
| Sand | 1215 | 1225 | | | |
| Slate | 1225 | 1280 | | | |
| Sand | 1280 | 1295 | | | |
| Black Slate | 1295 | 1330 | | | |
| White Sand | 1330 | 1375 | | | |
| Black Slate | 1375 | 1390 | | | |
| Gray Lime | 1390 | 1405 | | | |
| Black Slate | 1405 | 1440 | | | |
| Lime Gray | 1440 | 1450 | | | |
| Slate & Shells | 1450 | 1650 | | | |
| Salt Sand | 1650 | 1770 | | | |
| Slate | 1770 | 1772 | | | |
| White Lime | 1772 | 1790 | | | |
| Slate | 1790 | 1800 | | | |
| Pencil Cave | 1800 | 1802 | | | |
| Big Lime | 1802 | 1875 | | | |
| Slate <i>340</i> | 1875 | 1877 | | | |

DATE
APR # 47-035-00531

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

AB

Well Operator's Report of Well Work

Farm name: Pace Operator Well No: 7238

LOCATION: Elevation: 738.0' Quadrangle: Ripley, WV

District: Ripley County: Jackson
Latitude: Feet South of 55 Deg. 51 Min. 12 Sec.
Longitude: Feet West of 81 Deg. 41 Min. 41 Sec.

Company: Columbia Gas Transmission

| Address: | Casing & Tubing | Used in drilling | Left in well | Cement fill in Cu. Ft. |
|---|-----------------|------------------|--------------|------------------------|
| <u>RR 2 Box 132</u> | | | | |
| <u>Sandsville WV 25275</u> | | | | |
| Agent: <u>Paul Amick</u> | | | | |
| Inspector: <u>Larry Parrish</u> | | | | |
| Date Permit Issued: <u>5-27-99</u> | | | | |
| Date Well Work Commenced: <u>5-5-01</u> | | | | |
| Date Well Work Completed: <u>10-13-01</u> | | | | |
| Verbal Plugging: | | | | |
| Date Permission granted on: | | | | |
| Rotary Cable Rig | | | | |
| Total Depth (feet): | | | | |
| Fresh Water Depth (ft.): | | | | |
| Salt Water Depth (ft.): | | | | |
| Is coal being mined in area (N/Y)? | | | | |
| Coal Depths (ft.): | | | | |

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DEC 14 2001
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation Oriskany Sand Pay zone depth (ft) 4920'-4950'
 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 pressure) after * Hours
 * - Not Applicable - STORAGE RESERVOIR
 Second producing formation _____ Pay zone depth (ft) _____
 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 pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: [Signature]
By: JOHN V. McALLISTER
Date: 12-12-01

6.2502" 12/28/01

Installed new API 5000 wellhead

Stimulated Oriskany sand w/

500 gals 28% HCl

423 bbls water

26,600 # 20/40 sand

140,000 scf N₂

Avg treating Pressure 3100 psig

All fluid hauled to L.A.D. Wheeling, WV

26-25-04

United Fuel Gas Co.
COMPANY

SERIAL WELL NO. 5782

LEASE NO. 11776 & 11777

MAP SQUARE 22-53

| RECORD OF WELL NO. <u>5782</u> on the | CASING AND TUBING | | | | TEST BEFORE SHOT |
|---|-------------------|--------------|------------------|--------------------------------------|--|
| | SIZE | WEIGHT | USED IN DRILLING | LEFT IN WELL | |
| <u>7.7. Starbuck et alms of 323 Acres</u> | | | | | <u>34</u> /10 of Water in <u>22-7</u> inc. |
| in <u>Wayles</u> District | <u>12-3/8"</u> | <u>22.5</u> | <u>661'8"</u> | <u>None</u> | <u>20</u> /10 of Merc. in <u>22-7</u> inc. |
| <u>Jackson</u> County | <u>12-1/4"</u> | <u>22.75</u> | <u>1091'1"</u> | <u>None</u> | Volume <u>7,117,000</u> Cu. ft. |
| State of: <u>West Virginia</u> | <u>8-1/8"</u> | <u>20</u> | <u>2023'8"</u> | <u>2027'8"</u> | TEST AFTER SHOT |
| Field: <u>Gland-Glencoveille</u> | <u>7"</u> | <u>22</u> | <u>2269'1"</u> | <u>2269'1"</u> | /10 of Water in _____ inc. |
| Rig Commenced _____ 194 | <u>2"</u> | <u>17</u> | | <u>2262'10"</u> | /10 of Merc. in _____ inc. |
| Rig Completed _____ 194 | | | | | Volume _____ Cu. ft. |
| Drilling Commenced <u>August 2</u> 19 <u>46</u> | | | | | _____ Hours After Sho |
| Drilling Completed <u>December 3</u> 19 <u>46</u> | | | | | Rock Pressure <u>1990</u> |
| Drilling to cost _____ per foot | | | | | Date Shot _____ |
| Contractor is: <u>Wayles Drilling Co.</u> | | | | | Size of Torpedo _____ |
| Address: <u>Exona, W. Va.</u> | | | | | SHUT IN |
| | | | | | Oil Flowed _____ bbls. 1st 24 hrs |
| | | | | | Date <u>Dec. 3, 1946</u> Oil Pumped _____ bbls. 1st 24 hrs |
| Driller's Name <u>Carl Nichols</u> | | | | <u>2</u> in. Tubing or _____ | |
| <u>Don Syco</u> | | | | Size of Packer <u>None</u> | Well abandoned and |
| | | | | Kind of Packer _____ | Plugged _____ 194 |
| | | | | 1st Perf. Set. <u>427</u> from _____ | |
| Elevation: <u>730.02 Cr.</u> | | | | 2nd Perf. Set. _____ from _____ | |

DRILLER'S RECORD

| FORMATION | TOP | BOTTOM | THICKNESS | REMARKS |
|------------|-----|--------|-----------|--------------------------------|
| Soil | 0 | 10 | 10 | |
| Clay | 10 | 30 | 20 | <i>Indicates that 80% w 1"</i> |
| Red Rock | 30 | 50 | 20 | |
| Blue Sand | 50 | 70 | 20 | <i>Foot by Marshall</i> |
| Red Rock | 70 | 95 | 25 | |
| Blue Sand | 95 | 120 | 25 | <i>Min - 7.54</i> |
| White Sand | 120 | 145 | 25 | |
| Red Rock | 145 | 160 | 15 | |
| Blue Sand | 160 | 200 | 40 | |
| Fe. 1 | 200 | 335 | 135 | Hole full water 330 |
| Slate | 335 | 340 | 5 | |
| Red Rock | 340 | 370 | 30 | |
| Slate | 370 | 438 | 68 | |
| Red Rock | 438 | 460 | 22 | |
| Slate | 460 | 490 | 30 | |
| Red Rock | 490 | 525 | 35 | |
| Blue Sand | 525 | 570 | 45 | |

47035-00531-7

SERIAL WELL NO. 572

LEASE NO. 51776 & 51777

MAP SQUARE 2-93

DRILLER'S RECORD

| FORMATION | TOP | BOTTOM | THICKNESS | REMARKS |
|----------------|------|--------|-----------|----------------------|
| Pittsburg Sand | 570 | 610 | 40 | |
| Black Slate | 610 | 650 | 40 | |
| Black Lime | 650 | 658 | 8 | |
| Slate | 658 | 740 | 82 | |
| Pink Rock | 740 | 760 | 20 | |
| Slate & Shells | 760 | 785 | 25 | |
| Red Rock | 785 | 790 | 5 | |
| Gray Lime | 790 | 820 | 30 | |
| Slate | 820 | 830 | 10 | |
| Red Rock | 830 | 865 | 35 | |
| Slate | 865 | 930 | 65 | |
| Red Rock | 930 | 985 | 55 | |
| Slate | 985 | 1025 | 40 | |
| Gray Lime | 1025 | 1034 | 9 | |
| White Slate | 1034 | 1080 | 46 | |
| White Sand | 1080 | 1095 | 15 | |
| Blue Lime | 1095 | 1103 | 10 | |
| White Slate | 1103 | 1115 | 10 | |
| Pink Rock | 1115 | 1125 | 10 | |
| Sand | 1125 | 1160 | 35 | |
| Slate & Shells | 1160 | 1215 | 55 | |
| Sand | 1215 | 1225 | 10 | |
| Slate | 1225 | 1280 | 55 | |
| Sand | 1280 | 1295 | 15 | |
| Black Slate | 1295 | 1330 | 35 | |
| White Sand | 1330 | 1375 | 45 | |
| Black Slate | 1375 | 1390 | 15 | |
| Gray Lime | 1390 | 1405 | 15 | |
| Black Slate | 1405 | 1440 | 35 | |
| Gray Lime | 1440 | 1450 | 10 | |
| Slate & Shells | 1450 | 1650 | 200 | |
| Salt Sand | 1650 | 1770 | 120 | Hole full water 1675 |
| Slate | 1770 | 1772 | 2 | |
| Little Lime | 1772 | 1790 | 18 | |
| Slate | 1790 | 1800 | 10 | |
| Pencil Cave | 1800 | 1802 | 2 | |
| Big Lime | 1802 | 1875 | 73 | |

47035-00531-7

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Oil Division
Environmental P.

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Permitting

MAY 06 1999

Oil Division
Environmental P.

6.25.02

SERIAL WELL NO. 702

LEASE NO. 41776 & 41777

MAP SQUARE 51-95

DRILLER'S RECORD

| FORMATION | TOP | BOTTOM | THICKNESS | REMARKS |
|----------------|------|--------|-----------|------------------------------|
| Slate | 1873 | 1877 | 2 | |
| Sand | 1877 | 1963 | 86 | |
| Slate | 1963 | 1965 | 2 | |
| Sand | 1965 | 2070 | 105 | |
| Lime | 2070 | 2074 | 4 | |
| Slate & Shells | 2074 | 2400 | 326 | |
| Coarse Sand | 2400 | 2420 | 20 | |
| Lime Shell | 2420 | 2424 | 4 | |
| Brown Sand | 2424 | 2440 | 16 | |
| Lime | 2440 | 2525 | 105 | |
| Slate & Shells | 2525 | 2600 | 75 | |
| Lime | 2600 | 2998 | 398 | |
| Shale | 2998 | 3010 | 12 | Showing of gas 2998-3010 |
| White Slate | 3010 | 3535 | 525 | |
| Dark Lime | 3535 | 3615 | 80 | |
| Brown Shale | 3615 | 3630 | 15 | |
| White Slate | 3630 | 3715 | 85 | |
| Brown Shale | 3715 | 4020 | 105 | Showing of gas 3715-3920 |
| White Slate | 4020 | 4090 | 70 | |
| Brown Shale | 4090 | 4225 | 135 | |
| White Slate | 4225 | 4315 | 90 | |
| Brown Shale | 4315 | 4500 | 185 | |
| Dark B. Shale | 4500 | 4826 | 326 | |
| Coniferous | 4826 | 4934 | 108 | S.L.M. 4838 casing Point 7" |
| Crinoid | 4934 | 4950 | 16 | |
| Total Depth | 4950 | | | |
| | | | | Gas 4938-4943 38/10 H-7" 224 |
| | | | | 4943-4948 20/10 H-7" 224 |
| | | | | 7,117 H |

47035-00531-7

6-25-11

12.25.00

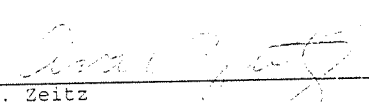
STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

WELL WORK PERMIT

This permit, issued to COLUMBIA GAS TRANSMISSION CORP. is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector HOMER DOUGHERTY at 304-543-0731 at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-654-3312 and to the Oil and Gas inspector.

Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

This permit shall expire within two (2) years from the issue date.



Ava C. Zeitz
Chief
Office of Oil and Gas

Date of Signature: 5/27/90

Operator's Well No: 7288

Farm Name: PACE, EMILY

API Well Number : 47-035-00531F

Date Issued : 5/27/90

Expires two (2) years from issue date.

6-25-02