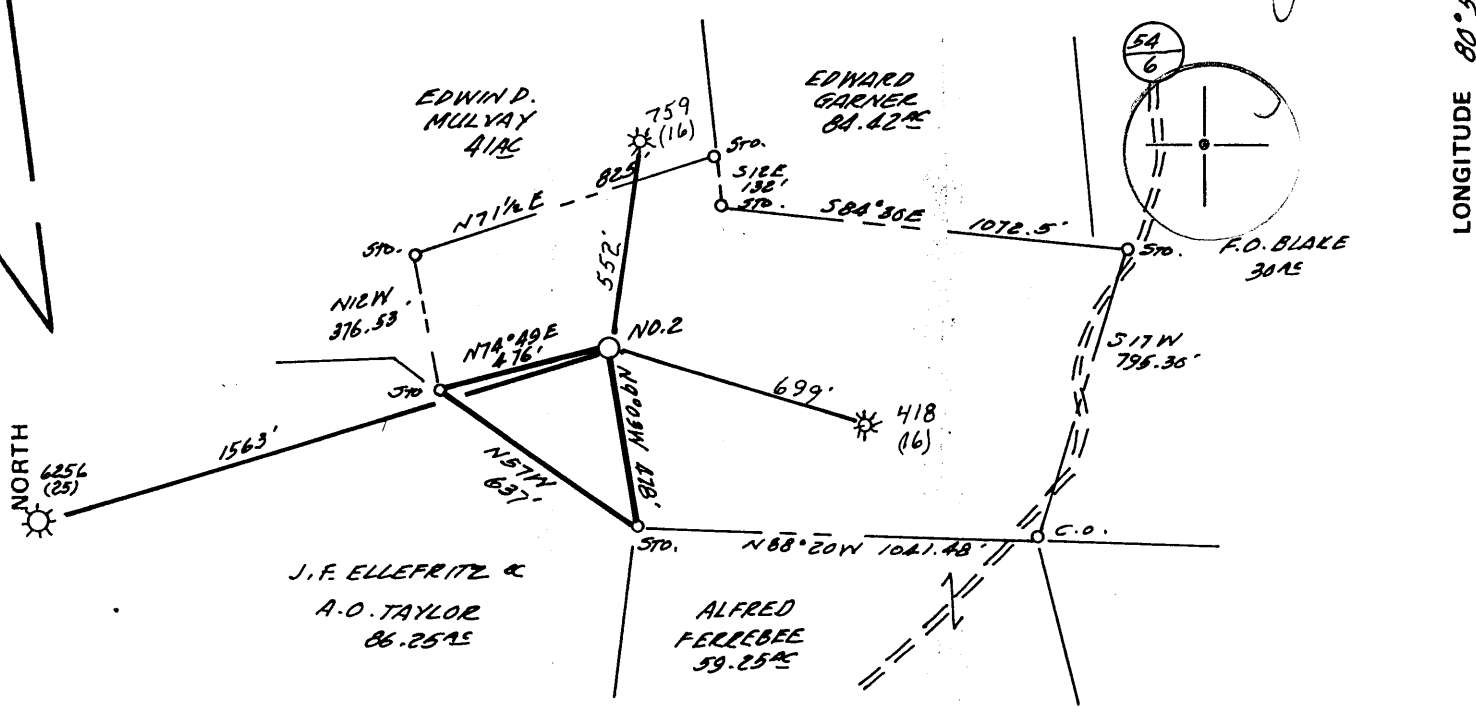


988 3/15/88

LATITUDE 39°20'00"

0.95
2.79

0.958
0.550

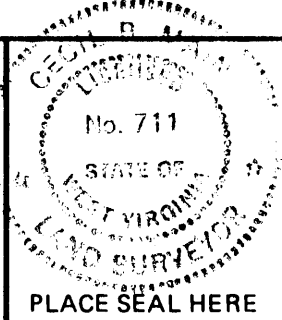


LONGITUDE 80°52'30"
5150'

WELL REFERENCE
N15W 115' TO 8" HY.
S38°05W 129' TO 4" LOC.

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION API 1146
ELEV. 1218'

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) Cecil R. Main
 R.P.E. _____ L.L.S. 711



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE FEBRUARY 18, 19 88
 OPERATOR'S WELL NO. GARNER #2
 API WELL NO. _____
47 - 095 - 1231
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1300' WATER SHED SHORT RUN
 DISTRICT CENTERVILLE 1 COUNTY 30.56
 QUADRANGLE PENNSBORO 2.5 539 133 8 West Union SC
 SURFACE OWNER CLAUDE GARNER ACREAGE 30.56
 OIL & GAS ROYALTY OWNER CLAUDE GARNER LEASE ACREAGE 30.56
 LEASE NO. _____
 PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW
 FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5900
 WELL OPERATOR APPALACHIAN ENERGY DEV., INC. DESIGNATED AGENT GEORGE WILLIAMS
 ADDRESS P.O. BOX 902 ADDRESS P.O. BOX 902
BELMONT, WV 26250 397 6-6 Stanley (90)
BELMONT, WV 26250

MAR 18 1988

FORM IV-6 (8-78)



WR-35
RECEIVED
 MAY 04 1988
 DIVISION OF OIL & GAS
DEPT. OF ENERGY

State of West Virginia
 DEPARTMENT OF ENERGY
 Oil and Gas Division

Date 4/15/88
 Operator's _____
 Well No. #2
 Farm Garner
 API No. 47 - 095 - 1231

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: 1300 Watershed Short Run
 District Centerville County Tyler Quadrangle Pennsboro

COMPANY Appalachian Energy Dev., Inc.
 ADDRESS Rt 2, Box 499 Grafton, Wv 26354
 DESIGNATED AGENT George R. Williams
 ADDRESS Rt 2, Box 499 Grafton, Wv 26354
 SURFACE OWNER Claude Garner
 ADDRESS Pennsboro, Wv Rural Rt.
 MINERAL RIGHTS OWNER Claude Garner
 ADDRESS Pennsboro, Wv Rural Rt.
 OIL AND GAS INSPECTOR FOR THIS WORK Robt. Lowther
 ADDRESS Middlebourne, Wv
 PERMIT ISSUED 3/16/88
 DRILLING COMMENCED 4/4/88
 DRILLING COMPLETED 4/9/88
 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 Cu. ft. |
|------------------|------------------|--------------|------------------------|
| Size 20-16 Cond. | | | |
| 13-10" | 30 | 0 | 0 |
| 9 5/8 | | | |
| 8 5/8 | 1482 | 1482 | surface |
| 7 | | | |
| 5 1/2 | | | |
| 4 1/2 | 5446 | 5446 | 1600' |
| 3 | | | |
| 2 | | | |
| Liners used | | | |

GEOLOGICAL TARGET FORMATION Alexander Depth 5401 feet
 Depth of completed well 5741 feet Rotary x / Cable Tools _____
 Water strata depth: Fresh 35 feet; Salt 1700 feet
 Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA Note: These zones are downhole commingled. See perf.
 Producing formation Alexander/Benson/Riley Pay zone depth detail feet
 Gas: Initial open flow 65 Mcf/d Oil: Initial open flow 0 Bbl/d
 Final open flow 825 Mcf/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 hours
 Static rock pressure 1725 psig (surface measurement) after 48 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

MAY 09 1988

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

- 1) Alexander-perf 5443-53 w/14 holes. Frac w/30,000# 20/40 sand in 315 bbls water, using 42,000 SCF N₂. Avg rate-25, Avg pr-2750, ISDP-1350.
- 2) Benson-perf 5153-57 w/14 holes. Frac w/30,000# 20/40 sand in 313 bbls water, using 45,000 SCF N₂. Avg Rate 28, Avg pr-2970, ISDP-1425.
- 3) Riley-perf 4757-88 w/14 holes. Foam frac using 30,000# 20/40 sand in 656 bbls 75 quality foam, using 525,000 SCF N₂. Avg rate-24, Avg pr-3275, ISDP-1450.

WELL LOG

| FORMATION | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS Including indication of all fresh and salt water, coal, oil and gas |
|--------------|-------|--------------|----------|-------------|--|
| sand & shale | | | 0 | 975 | |
| shale | | | 975 | 1050 | Water @ 35'. |
| sand & shale | | | 1050 | 2130 | |
| Big Lime | | | 2130 | 2211 | Water @ 1700' |
| Big Injun | | | 2211 | 2338 | |
| shale | | | 2338 | 2502 | |
| Weir | | | 2502 | 2619 | |
| shale | | | 2619 | 2682 | |
| Berea | | | 2682 | 2688 | |
| shale | | | 2688 | 4756 | |
| Riley | | | 4756 | 4792 | |
| shale | | | 4792 | 5154 | |
| Benson | | | 5154 | 5157 | |
| shale | | | 5157 | 5428 | |
| ✓ Alexander | | | 5428 | 5465 | |
| shale | | | 5465 | 5741 | |
| total depth | | | | <u>5741</u> | |

Note: Gas tests were inaccurate due to soaping of hole.

(Attach separate sheets as necessary)

Appalachian Energy Dev., Inc.
Well Operator
By: [Signature]
Date: _____ President.

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 ..., encountered in the drilling of a well."
6734

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MAR 09 1988

Page 1 of 8
Form WW2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: March 2, 1988
2) Operator's well number
Garner #2
3) API Well No: 47 - 095 - 1231
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Claude Garner
Address 4523 W. Keim ST.
Glendale, AZ. 85301
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Robert Lowther
Address General Delivery
Middlebourne, WV 26149
Telephone (304)-758-4764

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

XX Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR _____ Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:
XX Personal Service (Affidavit attached)
XX Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Appalachian Energy Dev., Inc.
By: [Signature]
Its: President
Address P.O. Box 902
Belington, WV 26250
Telephone (304) 265-4147

Subscribed and sworn before me this 3rd day of March, 1988

[Signature] Notary Public
My commission expires April 13, 1991

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION**

10 095-1231
Issued 3/16/88
Expired 3/16/90
Page 2 of 8

- 1) Well Operator: ³⁹⁷ Alexander Appalachian Energy Dev. Inc. 2325, 1538
- 2) Operator's Well Number: Garner #2 3) Elevation: 1300
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5771 feet
- 7) Approximate fresh water strata depths: 150 ft. @ 840'-860', 815'-835'
- 8) Approximate salt water depths: 1550 ft. OK.
- 9) Approximate coal seam depths: None
- 10) ^{From Taylor 258, 263} Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill
- 12)

CASING AND TUBING PROGRAM

| TYPE | SPECIFICATIONS | | | FOOTAGE INTERVALS | | CEMENT |
|-------------------------------|----------------|------------|----------------|-------------------|--------------|-------------------------------|
| | Size | Grade | Weight per ft. | For drilling | Left in well | Fill-up (cu. ft.) |
| <u>OK R.A.L.</u> Conductor | <u>11 3/4</u> | | <u>42</u> | <u>30</u> | <u>30</u> | surface or as required |
| Fresh Water | | | | | | |
| Coal | | | | | | <u>3805R18-11.3</u> |
| Intermediate | <u>8 5/8</u> | | <u>23</u> | <u>1450</u> | <u>1450</u> | surface or as required |
| Production | <u>4 1/2</u> | <u>J55</u> | <u>10.5</u> | <u>5608</u> | <u>5608</u> | <u>560 sks or as required</u> |
| Tubing | | | | | | |
| Liners | | | | | | |

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PACKERS : Kind _____
Sizes _____
Depths set _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: 6 Well Work Permit 6 Reclamation Fund 6 WPCP
Plat 6 WW-9 6 WW-2B 6 Bond 50 Blanket Agent 6
(Type)

6154
1246
6