

3/15/88

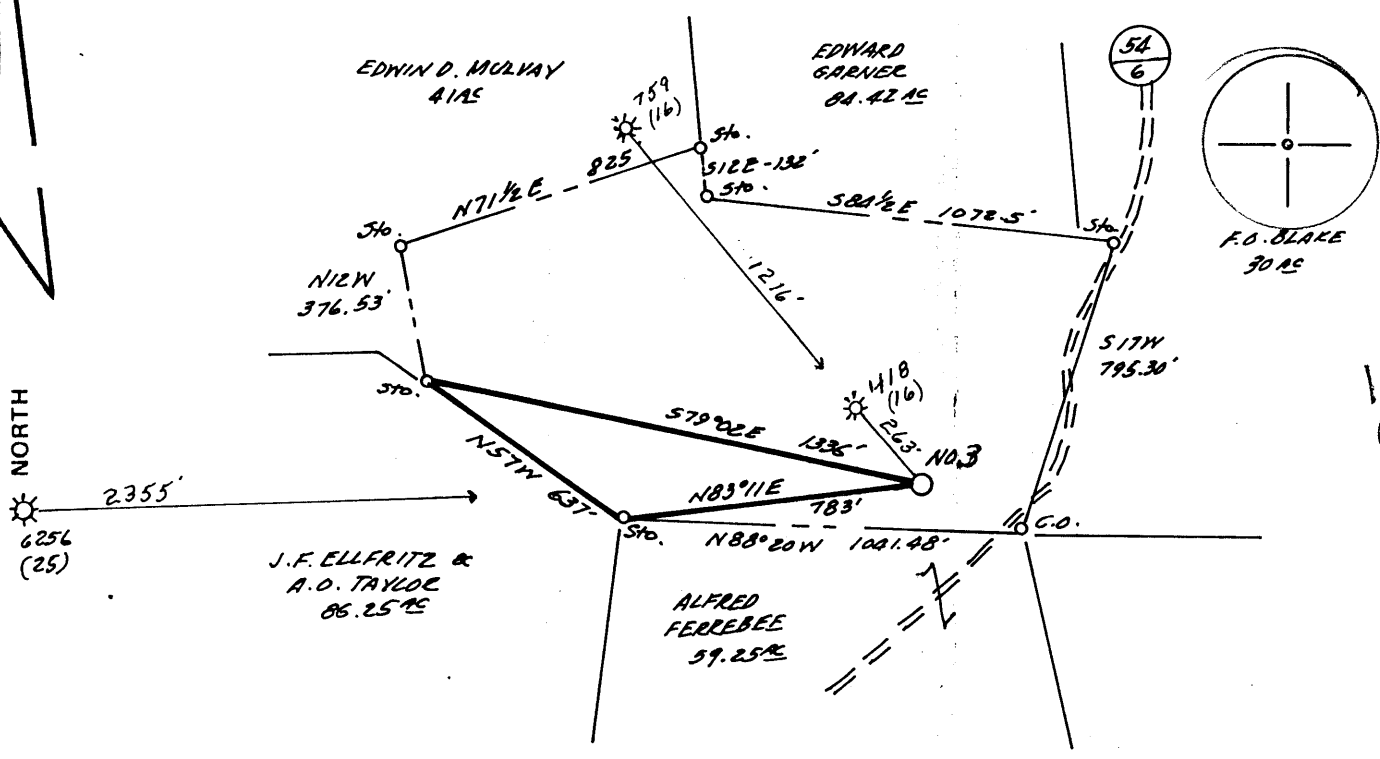
LATITUDE 39°20'00"

2100

1.02
2.63

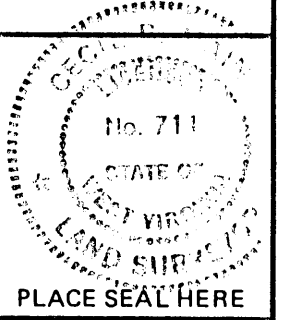
LONGITUDE 80°52'30"

5400'



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, 1988
 OPERATOR'S WELL NO. GARNER #3
 API WELL NO. 47 - 095 - 12.32
 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 1130' WATER SHED SHORT RUN
 DISTRICT CENTERVILLE 1 COUNTY TYLER
 QUADRANGLE PENNSBORO 7.5 539 133 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 X 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
BELINGTON, WV 26250 397 BELINGTON, WV 26250

MAR 18 1988

FORM IV-6 (8-78)

WR-35

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DIVISION OF OIL & GAS
DEPT. OF ENERGY

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 5/12/88
Operator's _____
Well No. #3
Farm Garner
API No. 47 - 095 - 1232

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: 1130 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 Rural, Pennsboro, Wv
MINERAL RIGHTS OWNER Claude Garner
ADDRESS Rural Rt, Pennsboro, Wv
OIL AND GAS INSPECTOR FOR THIS WORK Bob
Lowther ADDRESS Middlebourne, Wv
PERMIT ISSUED 3/16/88
DRILLING COMMENCED 4/11/88
DRILLING COMPLETED 4/16/88
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 Cord.			
13-10"	30	0	0
9 5/8			
8 5/8	1256	1256	surface
7			
5 1/2			
4 1/2	5391	5391	1500'
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Alexander Depth 5282 feet
Depth of completed well 5717 feet Rotary x / Cable Tools _____
Water strata depth: Fresh 55 feet; Salt 1553 feet
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA Note: These zones are downhole commingled see perf. detail
Producing formation Alexander/Benson/Riley Pay zone depth _____ feet
Gas: Initial open flow 65 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 750 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1695 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 20 1988

(Continue on reverse side)

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

- 1) Alexander-perf 5284-94 w/18 holes. Frac w/30,000# 20/40 sand in 318 bbls water, using 37,800 SCF N₂. Avg Rate-24, Avg Pr-2150, ISDP-1250.
- 2) Benson-perf 4994-5000 w/18 holes. Frac w/30,000# 20/40 sand in 313 bbls water, using 38,000 SCF N₂. Avg Rate-25, Avg Pr-1950, ISDP-1385.
- 3) Riley-perf 4595-4626 w/17 holes. Foam frac w/30,000# 20/40 sand in 636 bbls 75 quality foam, using 526,000 SCF N₂. Avg Rate-24, Avg Pr-3070, ISDP-1650.

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 and Shale			0	360	1" water @ 55'
Red rock			360	411	
sand & shale			411	1360	
red rock			1360	1469	
sand & shale			1469	1961	2" water @ 1553'
Big Lime			1961	2041	
Big Injun			2041	2158	
shale			2158	2326	
Weir			2326	2445	
shale			2445	2509	
Berea			2509	2515	
shale			2515	2750	
5th sand			2750	2763	
shale			2763	4594	
Riley			4594	4628	
shale			4628	4993	
Benson			4993	5000	
shale			5000	5284	
Alexander			5284	5305	
shale			5305	5717	
		total depth		<u>5717</u>	Note: Gas tests were inaccurate due to soaping the hole.

(Attach separate sheets as necessary)

Appalachian Energy Dev., Inc.

Well Operator

By:

Date:

5/12/88

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."

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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 #3
3) API Well No: 47 - 095 - 1232
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:

- _____ 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: George H. Williams
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

My commission expires April 13, 1995

Notary Public

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

- 1) Well Operator: ³⁹⁷ Appalachian Energy Dev., Inc. 2325, 1, 538
- 2) Operator's Well Number: Garner #3 3) Elevation: 1130
- 4) Well type: (a) Oil ___ / or Gas XXX
(b) If Gas: Production XX / Underground Storage ___
Deep ___ / Shallow X
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5600 feet
- 7) Approximate fresh water strata depths: 150 ft. @ 670-690 FW. 645-665
- 8) Approximate salt water depths: 1550 OK
- 9) Approximate coal seam depths: None
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No XX
From Tyler 258, 263,
- 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.)
OK R.A.H. Conductor	11 3/4		42	30	30 cfs	surface or as required
Fresh Water						
Coal						38CSR18-11.3
Intermediate	8 5/8		23	1280	1280 cfs	surface or as required
Production	4 1/2	J55	10.5	5450	5450 38CSR-18-11.1	540 sks or as required
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

1246
6735
Fee(s) paid: XX Well Work Permit XX Reclamation Fund XX WPCP
Plat XX WW-9 XX WW-2B XX Bond 50 Blanket XX Agent
(Type)