12/22/86

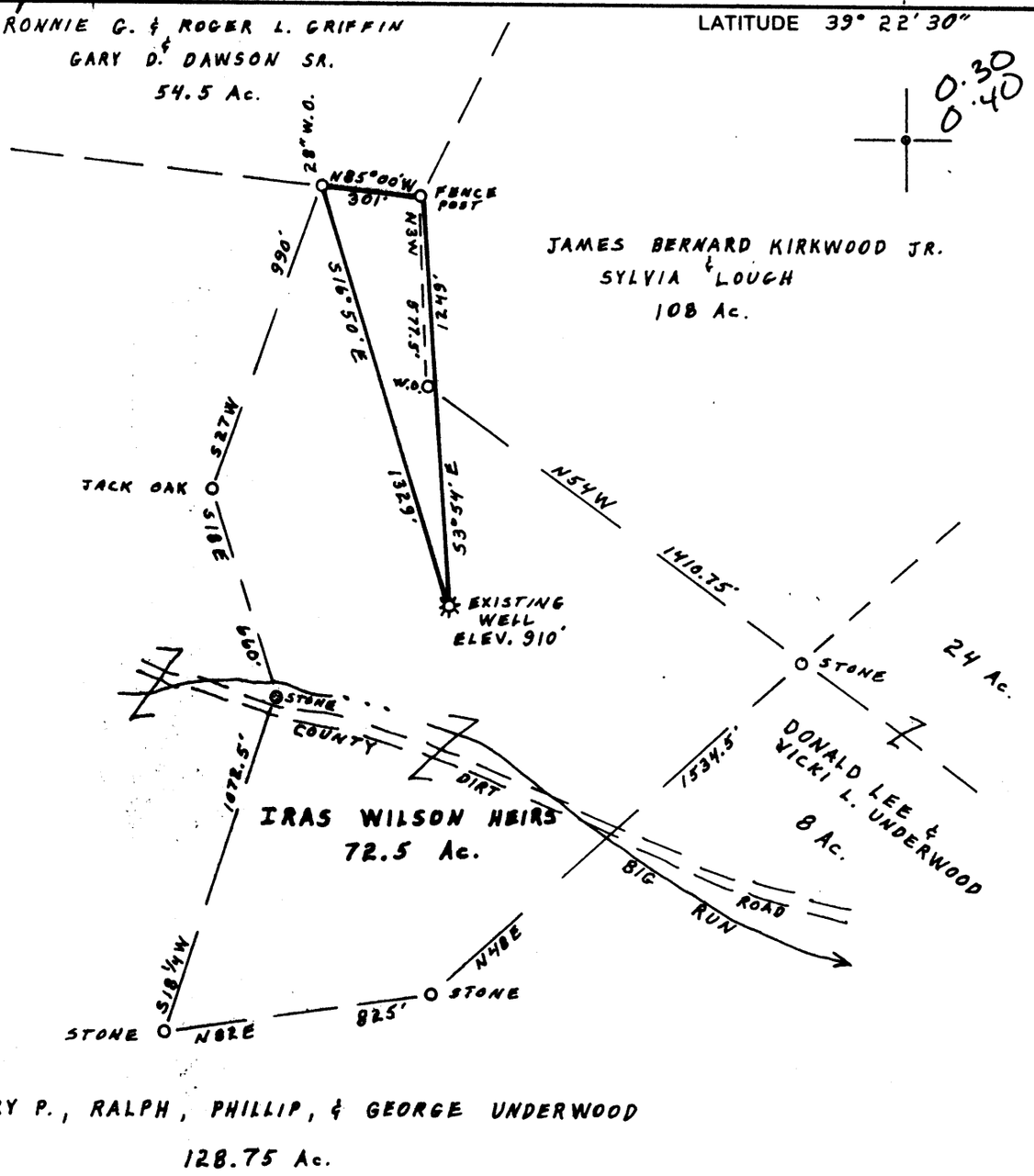
2,100'

LATITUDE 39° 22' 30"

0.30
0.40

LONGITUDE 80° 52' 30"

NORTH



318
263

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 PART IN 200'
PROVEN SOURCE OF ELEVATION BM SOUTH OF LOCATION, ELEV. 951'

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

CECIL R. MAIN LICENSED No. 711 STATE OF WEST VIRGINIA LAND SURVEYOR

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE DECEMBER 18, 1986
OPERATOR'S WELL NO. WILSON #1
API WELL NO.
47 - 095 - 1166-D-F
STATE COUNTY PERMIT

WELL TYPE: OIL___ GAS X LIQUID INJECTION___ WASTE DISPOSAL___
(IF "GAS,") PRODUCTION X STORAGE___ DEEP___ SHALLOW X
LOCATION: ELEVATION 910' WATER SHED BIG RUN OF MIDDLE ISLAND CREEK
DISTRICT CENTERVILLE COUNTY TYLER
QUADRANGLE PENNSBORO 7.5' Wls
SURFACE OWNER IRAS WILSON HEIRS ACREAGE 72 ½
OIL & GAS ROYALTY OWNER IRAS WILSON HEIRS LEASE ACREAGE 72 ½
LEASE NO. _____
PROPOSED WORK: DRILL___ CONVERT___ DRILL DEEPER X 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 BENSON ESTIMATED DEPTH 4905'
WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT, INC. DESIGNATED AGENT GEORGE WILLIAMS
ADDRESS P.O. BOX 902 397 ADDRESS P.O. BOX 902
BELINGTON, W. Va. BELINGTON, W. Va.

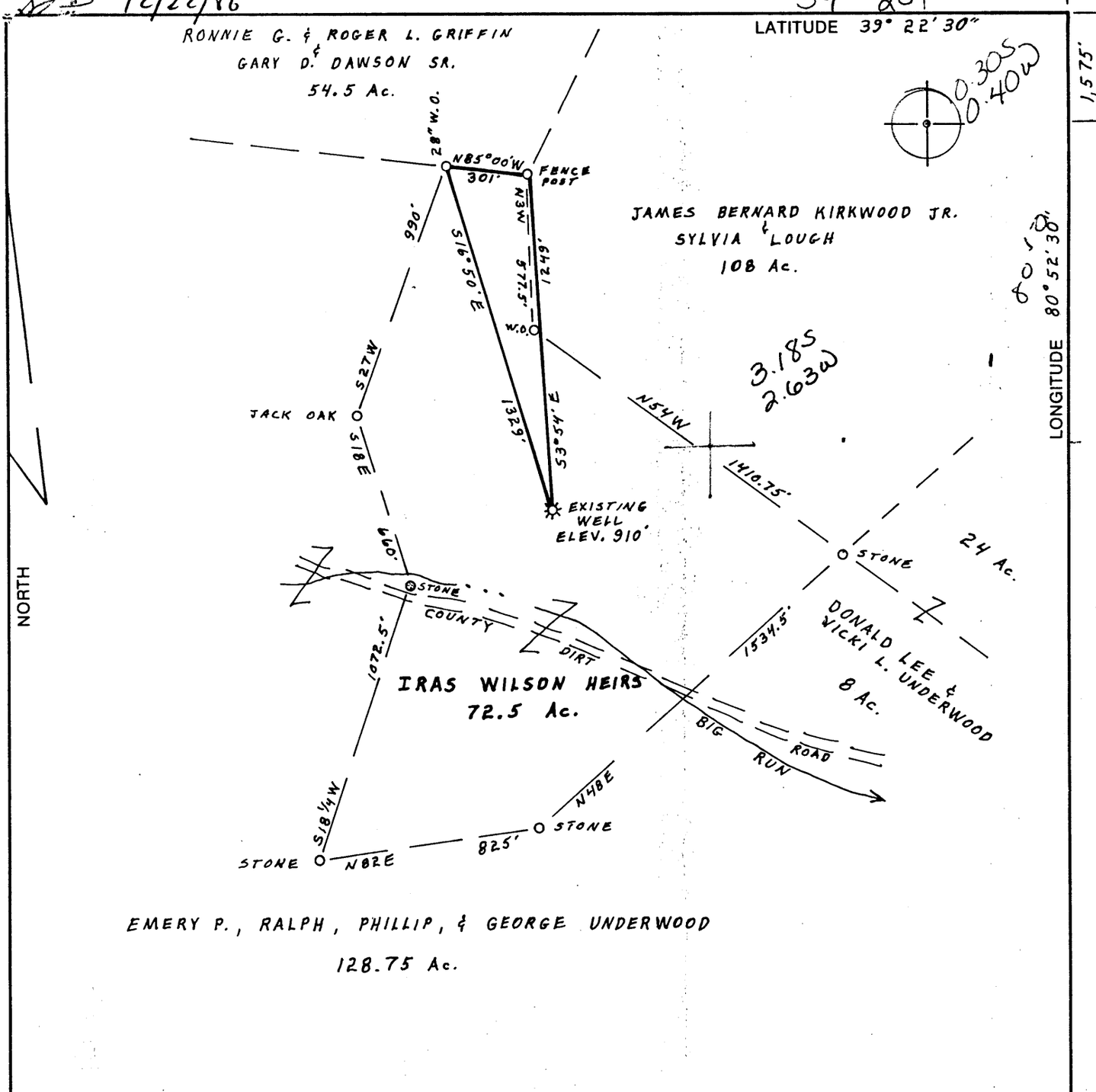
COUNTY NAME TYLER
PERMIT 1166-D-F

FORM IV-6 (8-78)
H.T. HALL

12/22/86

39 25 | 2,100'

LATITUDE 39° 22' 30"



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
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(SIGNED) Cecil R. Main
R.P.E. _____ L.L.S. 711

CECIL R. MAIN LICENSED No. 711 STATE OF WEST VIRGINIA LAND SURVEYOR
PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE DECEMBER 18, 1986
OPERATOR'S WELL NO. WILSON #1
API WELL NO.
47 - 095 - 1166-D
STATE COUNTY PERMIT

WELL TYPE: OIL___ GAS X LIQUID INJECTION___ WASTE DISPOSAL___
(IF "GAS,") PRODUCTION X STORAGE___ DEEP___ SHALLOW X
LOCATION: ELEVATION 910' WATER SHED BIG RUN OF MIDDLE ISLAND CREEK
DISTRICT CENTERVILLE 1 COUNTY TYLER
QUADRANGLE PENNSBORO 7.5' 539 133 C5 West Union
SURFACE OWNER IRAS WILSON HEIRS ACREAGE 72 1/2
OIL & GAS ROYALTY OWNER IRAS WILSON HEIRS LEASE ACREAGE 72 1/2
LEASE NO. _____
PROPOSED WORK: DRILL___ CONVERT___ DRILL DEEPER X 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 BENSON ESTIMATED DEPTH 4905'
WELL OPERATOR APPALACHIAN ENERGY DEVELOPMENT, INC DESIGNATED AGENT GEORGE WILLIAMS
ADDRESS P.O. BOX 902 397 ADDRESS P.O. BOX 902
BELINGTON, W. Va. BELINGTON, W. Va.

DEC 23 1986

COUNTY NAME
PERMIT

FORM IV-6 (8-78)
H.T. HALL

6-6 Wilbur (92)

WR-35

RECEIVED
OFFICE OF OIL AND GAS
SEP 1995
WV Division of Environmental Protection

07-Jan-94
API # 47- 95-01166 F

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

Well Operator's Report of Well Work

Farm name: CAMPBELL, MARY KAY Operator Well No.: WILSON HEIRS #1

LOCATION: Elevation: 910.00 Quadrangle: PENNSBORO

District: CENTERVILLE County: TYLER
Latitude: 1575 Feet South of 39 Deg. 22Min. 30 Sec.
Longitude 2100 Feet West of 80 Deg. 52 Min. 30 Sec.

Company: APPALACHIAN ENERGY DEVELO
ROUTE 2, BOX 499
GRAFTON, WV 26354-0499

Agent: GEORGE WILLIAMS

Inspector: MIKE UNDERWOOD
Permit Issued: 01/10/94
Well work Commenced: 02-4-94
Well work Completed: 02-5-94
Verbal Plugging
Permission granted on: _____
Rotary N/A Cable _____ Rig
Total Depth (feet) 2860
Fresh water depths (ft) _____
N/A
Salt water depths (ft) _____
N/A
Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
5 1/2	2068	2068	cts
2 7/8	5020	4986	235 sks

OPEN FLOW DATA

Producing formation Gordon Pay zone depth (ft) 2635
Gas: Initial open flow smell MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 646 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 375# psig (surface pressure) after 48 Hours

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.

For: APPALACHIAN ENERGY DEVELOPMENT, INC.
By: George R. Williams
Date: 9/13/94

Perforate Gordon from 2634 - 2638 with 12 holes

Frack with 50 sks 80/100, 300 sks20/40, 27,500 scf N2, 500 gal acid

395 bbls sand laden fluid

See original OG-10 for drillers log

WR-35

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FEB 13 1987
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 1-11-87
Operator's
Well No. # 1
Farm Wilson Heirs
API No. 47 - 095 - 1166-D

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

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

LOCATION: Elevation: 910' Watershed Big Run of Middle Island Creek
District: Centerville County Tyler Quadrangle Pennsboro

COMPANY Appalachian Energy Development, Inc.
ADDRESS PO Box 902, Belington, WV 26250
DESIGNATED AGENT George Williams
ADDRESS PO Box 902, Belington, WV 26250
SURFACE OWNER Ralph J. Underwood
ADDRESS Rt.1,B 177, Pennsboro, WV 26415
MINERAL RIGHTS OWNER
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK
Robert Lowther ADDRESS Middlebourne, WV
PERMIT ISSUED 12-22-86
DRILLING COMMENCED 12-23-86
DRILLING COMPLETED 1-11-87
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON NA

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10" 3/4"	396'	396'	
9 5/8			
8 5/8	1118'	1118'	
7			
5 ~~XXX~~ 3/16"	1852'	1852'	70 sks.
4 1/2			
3			
2 7/8"		4986'	235 sks.
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 4919' feet
Depth of completed well 4950' feet Rotary XXX / Cable Tools
Water strata depth: Fresh None Reported feet; Salt None Reported feet
Coal seam depths: No Record Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Combination Benson/Riley Pay zone depth 4509'/4919' feet
Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 689,000 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1575 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

FEB 18 1987

(Continue on reverse side)

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

PERFORATING - Superior Wireline 1-27-87

Benson	4876-4919'	20 holes	Avg. pressure 3700 #	Avg. rate	14 BPM
Riley	4509-4558'	14 holes	Avg. pressure 3300 #	Avg. rate	16 BPM

FRACTURING - Halliburton Services 1-28-87

1st. Stage	10,000 #	20/40 sand	5,000 #	80/100 sand
2nd. Stage	25,000 #	20/40 sand	5,000 #	80/100 sand

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale	2038'	2621'	
Gordon	2621'	2644'	
Shale	2644'	4494'	
Riley	4494'	4547'	
Shale	4547'	4860'	
Benson	4860'	4868'	
Shale	4868'	5016'	
T.D.		5016'	

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FEB 13 1987
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Appalachian Energy Development, Inc.
Well Operator

By: George R. Williams President

Date: February 1987

FEB 18 1987

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."

RECEIVED
JAN 0 6 94
Office of Oil & Gas

095-1166 - F
Issued 01/10/94
Expires 01/11/96

FORM WW-2B

Page ___ of ___

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

18593

1) Well Operator: Appalachian Energy Development Inc. 0397 2325 ① 53

2) Operator's Well Number: Wilson Heirs #1 3) Elevation: 910

4) Well type: (a) Oil __/ or Gas XX/

(b) If Gas: Production XX/ Underground Storage __/
Deep __/ Shallow XX/

5) Proposed Target Formation(s): Gordon 419

6) Proposed Total Depth: _____ feet

7) Approximate fresh water strata depths: N/a

8) Approximate salt water depths: N/A

9) Approximate coal seam depths: N/A

10) Does land contain coal seams tributary to active mine? Yes ___/ No ___/

11) Proposed Well Work: Set frac plug and stimulate

12) Set Temporary Plug. Frac Gordon Remove Plug & Commingle with Original Production from Benson & Riley

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	10 3/4		Pulled or left in Hole ???		396	??
Fresh Water						
Coal	8 5/8				1118	??
Intermediate	5 3/16				1852	10 sks
Production	2 7/8		Existing from well Records		4986	235 sks
Tubing						
Liners						

PACKERS : Kind Please show Cement Records for 10 3/4" & 8 5/8" on Frac Completion Report
Sizes
Depths set

For Divison of Oil and Gas Use Only

226/N

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

10

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

JAN 0 6 94
Permitting
Office of Oil & Gas

1) Date: !@ 12-5-93
2) Operator's well number
Wilson Heirs #1
3) API Well No: 47 - 0095 - 1166D
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 Mary Kay Campbell
Address 48-769 Lakeview Circle
East Liverpool Ohio
(b) Name ____
Address ____
(c) Name ____
Address ____

5) (a) Coal Operator:
Name ____
Address ____
(b) Coal Owner(s) with Declaration
Name ____
Address ____
Name ____
Address ____
(c) Coal Lessee with Declaration
Name ____
Address ____

6) Inspector Mike Underwood
Address ____
Salem WV
Telephone (304)- 782-1043

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

X 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)
X 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 Williams
Its: President
Address ____
Grafton WV
Telephone 304-265-4147

Subscribed and sworn before me this 1st day of January, 1994

Belinda Bifore Notary Public

My commission expires 11/12/2000

FORM IV-2(B) FILE COPY
(Obverse)
7/81

RECEIVED
DEC 23 1986
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: December, 19 86
2) Operator's Well No. Wilson Heirs # 1
3) API Well No. 47 -095-1166-D
State County Permit

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

4) WELL TYPE: A Oil ____/ Gas XX /
B (If "Gas", Production XX / Underground storage ____/ Deep XX / Shallow ____/)
5) LOCATION: Elevation: 910' 347 Watershed: Big Run of Middle Island Creek
District: Centerville 1 County: Tyler 095 Quadrangle: Pennsboro 7.5' 538
6) WELL OPERATOR Appalachian Energy CODE: 2325
Address Development, Inc.
P.O. Box 902, Belington, WV 26250
7) DESIGNATED AGENT George Williams
Address P.O. Box 902
Belington, WV 26250
8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Robert Lowther
Address General Delivery
Middlebourne, WV 26149
9) DRILLING CONTRACTOR:
Name Clouser Well Services
Address P.O. Box 1366
Clarksburg, WV 26301
10) PROPOSED WELL WORK: Drill ____/ Drill deeper XX / Redrill ____/ Stimulate ____/
Plug off old formation ____/ Perforate new formation ____/
Other physical change in well (specify) ____
11) GEOLOGICAL TARGET FORMATION, Benson 425
12) Estimated depth of completed well, 5,000' feet
13) Approximate trata depths: Fresh, NA feet; salt, NA feet.
14) Approximate coal seam depths: ____ Is coal being mined in the area? Yes ____/ No XX /
15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	10 3/4					396'			Kinds
Fresh water	8 5/8					1118'			
Coal									Sizes
Intermediate	5 3/16					1852'			
Production									Depths set
Tubing	2 7/8			5,000'			5,000'	1,000'	
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-095-1166-D December 22 19 86
Date

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. 8) 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.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires December 22, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee	WPCP	S&E	Other
✓	R.B.	RS	RS	394 162	RS	RS	

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

Director, Division of Oil and Gas

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.