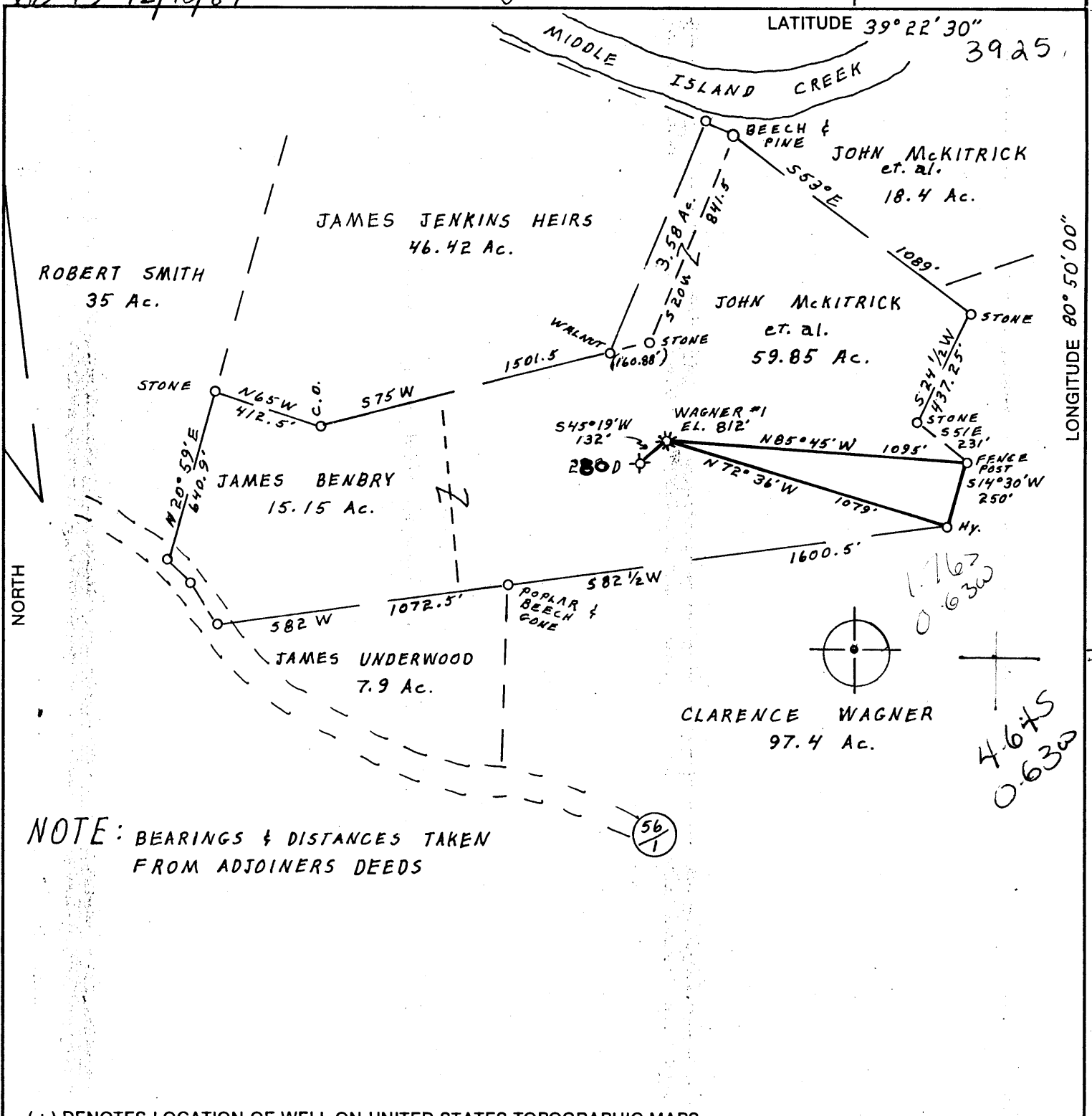


89B 12/10/87

3350'

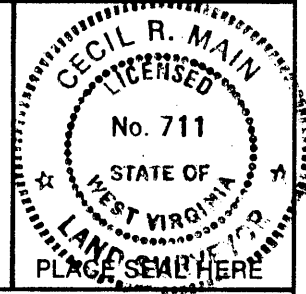


NOTE: BEARINGS & DISTANCES TAKEN FROM ADJOINERS DEEDS

(+) 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 WELL 208-D
EL. 817.70'

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 NOVEMBER 11, 1986
 OPERATOR'S WELL NO. WAGNER #1
 API WELL NO. 47-095-1167-D
 STATE COUNTY PERMIT

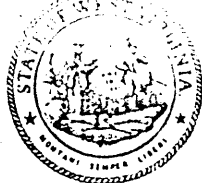
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE X DEEP ___ SHALLOW X
 LOCATION: ELEVATION 812' WATER SHED MIDDLE ISLAND CREEK
 DISTRICT CENTERVILLE 1 COUNTY TYLER
 QUADRANGLE WEST UNION 7.5' 671 133 C5
 SURFACE OWNER JOHN MCKITRICK et al. ACREAGE 59.85
 OIL & GAS ROYALTY OWNER C. WAGNER LEASE ACREAGE 77
 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 4950 6-6 Wilbur
 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 PERMIT

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

JAN 25 1987 (92)



WR-35

RECEIVED
FEB 13 1987

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 10-30-86
Operator's
Well No. # 1
Farm Wagner
API No. 47 - 095 - 1167-D

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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: 818' Watershed Middle Island Creek
District: Centerville County Tyler Quadrangle West Union

COMPANY Appalachian Energy Development, Inc.

ADDRESS P.O. Box 902, Belington, WV

DESIGNATED AGENT George Williams

ADDRESS P.O. Box 902, Belington, WV

SURFACE OWNER John McKittrick et al

ADDRESS

MINERAL RIGHTS OWNER C. Wagner

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK

Robert Lowther ADDRESS Middlebourne, WV

PERMIT ISSUED 9-02-86

DRILLING COMMENCED 9-18-86

DRILLING COMPLETED 10-16-86

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 Cord.			
13-10"			
9 5/8			
8 5/8	196'	196'	
7			
5 1/2	885'	885'	
4 1/2			
3			
2 7/8"		4900'	4300' fill-up
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 4716' feet

Depth of completed well 4866' feet Rotary XX / 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 4716'/4306' feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 432,000 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 1720 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 8 hours

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

(Continue on reverse side)

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

PERFORATIONS Benson 4711' - 4717' 14 holes Avg. press. 3550 # Avg. Rate 18 BPM
 Riley 4295' - 4328' 16 holes Avg. press. 3650# Avg. Rate 16 BPM

FRACTURED

Halliburton Services
 10-30-86
 2-stage frac: 1st. stage 20,000# 20/40 sand
 2nd. stage 20,000# 20/40 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			1850'	2600'	
Gordon			2600'	2608'	
Shale			2608'	2792'	
5th. Sand			2792'	2804'	
Shale			2804'	4306'	
Riley			4306'	4340'	
Shale			4340'	4720'	
Benson			4720'	4726'	
Shale			4726'	4866'	
T.D.				<u>4866'</u>	

2000 4866
 2600 1850
 DP 49? 3016

RECEIVED
 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 9, 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."

FEB 18 1987



1) Date: _____, 19__

2) Operator's Well No. Wagner #1

3) API Well No. 47 State 095 County 01167-D Permit

RECEIVED
NOV 26 1986

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil _____ / Gas X
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow X)
- 5) LOCATION: Elevation: 818' Watershed: Middle Island Creek
 District: Centerville 1 County: Tyler 095 Quadrangle: West Union 670
- 6) WELL OPERATOR Appalachian Engy CODE: ~~095~~ 2325 7) DESIGNATED AGENT George Williams
 Address Box 902 Address Box 902
Belington WV Belington WV
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Bob Lowther 9) DRILLING CONTRACTOR:
 Address General Delivery Name _____
Middlebourne WV Address _____
- 10) PROPOSED WELL WORK: Drill ~~0~~ / Drill deeper X / Redrill _____ / Stimulate X
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Benson
- 12) Estimated depth of completed well, 5000' feet
- 13) Approximate strata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No X

15) CASING AND TUBING PROGRAM Sec 095-0830

CASING OR TUBING TYPE	Size	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
		Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									
Fresh water	<u>7"</u>					<u>430</u>	<u>430</u>	<u>CTS Per Rule 15.05</u>	Kings
Coal									Sizes
Intermediate	<u>4 1/2</u>						<u>1738</u>	<u>cts</u>	
Production	<u>2 7/8</u>						<u>4850</u>	<u>2500' fill</u>	<u>Drop</u> sets
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-095-01167-D Date December 29 19 86

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 29, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: <u>370</u>	WPCP: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: _____
---	--	---	---	-----------------	---	--	--------------

155

12/8/86
overphone

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.

8725