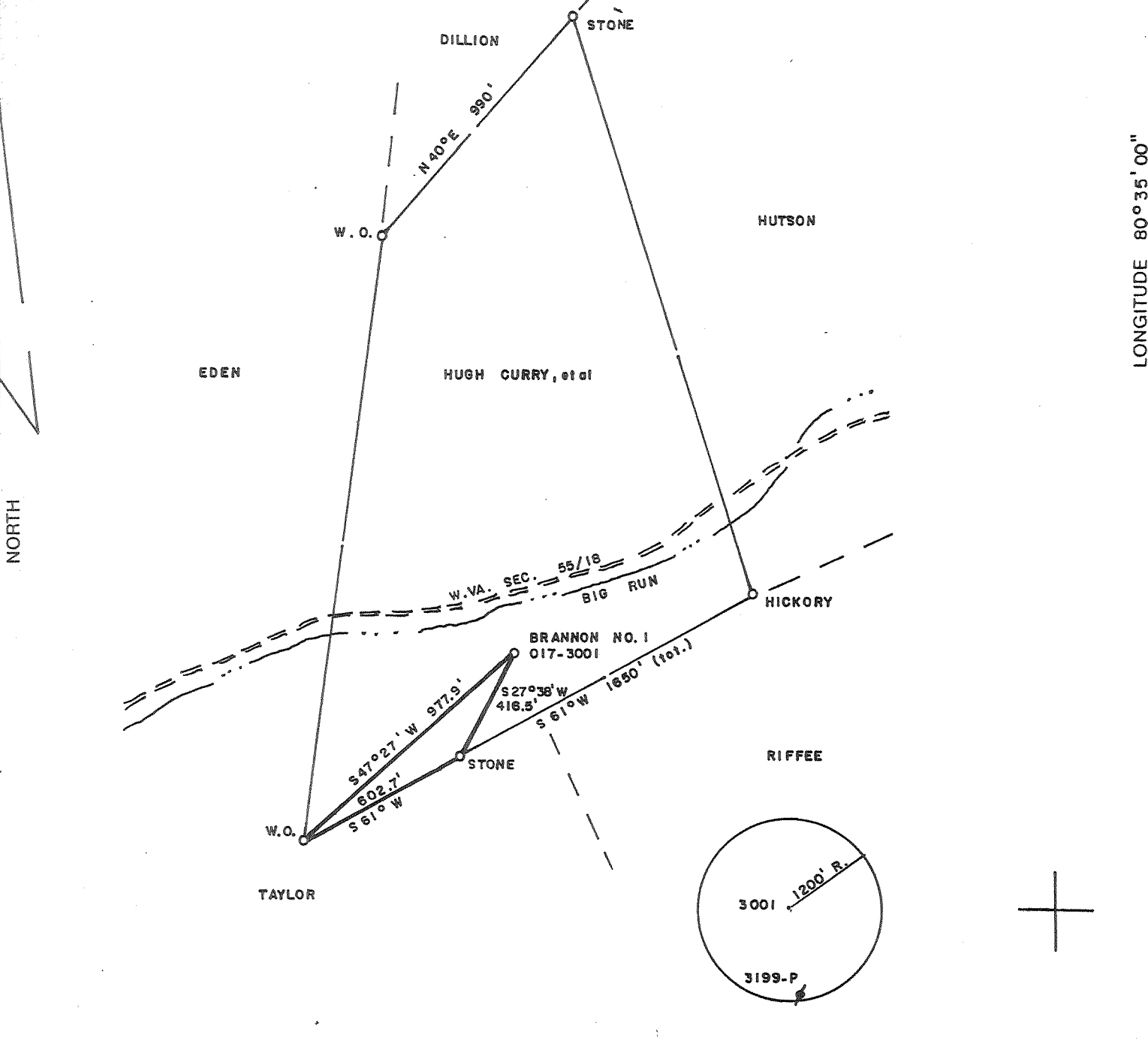


BRANNON LEASE 56 AC.



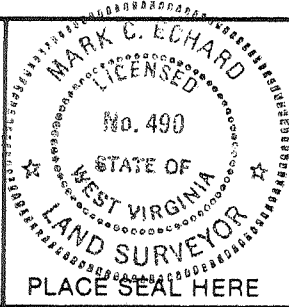
LONGITUDE 80°56'00"

NORTH

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION USGS BM
 ELEV. = 889'

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) Mark C. Echard
 R.P.E. _____ L.L.S. 490



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS

DATE FEBRUARY 12, 2001
 OPERATOR'S WELL NO. BRANNON NO. 1
 API WELL NO. 47 017 3001W

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW

LOCATION: ELEVATION 1080' WATER SHED BIG RUN
 DISTRICT McCLELLAND COUNTY DO DDRIDGE
 QUADRANGLE SALEM

SURFACE OWNER HUGH L. CURRY, et al ACREAGE 56
 OIL & GAS ROYALTY OWNER PAUL BRANNON LEASE ACREAGE 56
 LEASE NO. _____

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION GORDON ESTIMATED DEPTH 3000'
 WELL OPERATOR CLOWSER WELL SERVICE DESIGNATED AGENT JOHN CLOWSER
 ADDRESS ROUTE 3 ADDRESS ROUTE 3
SALEM, WV 26426 SALEM, WV 26426

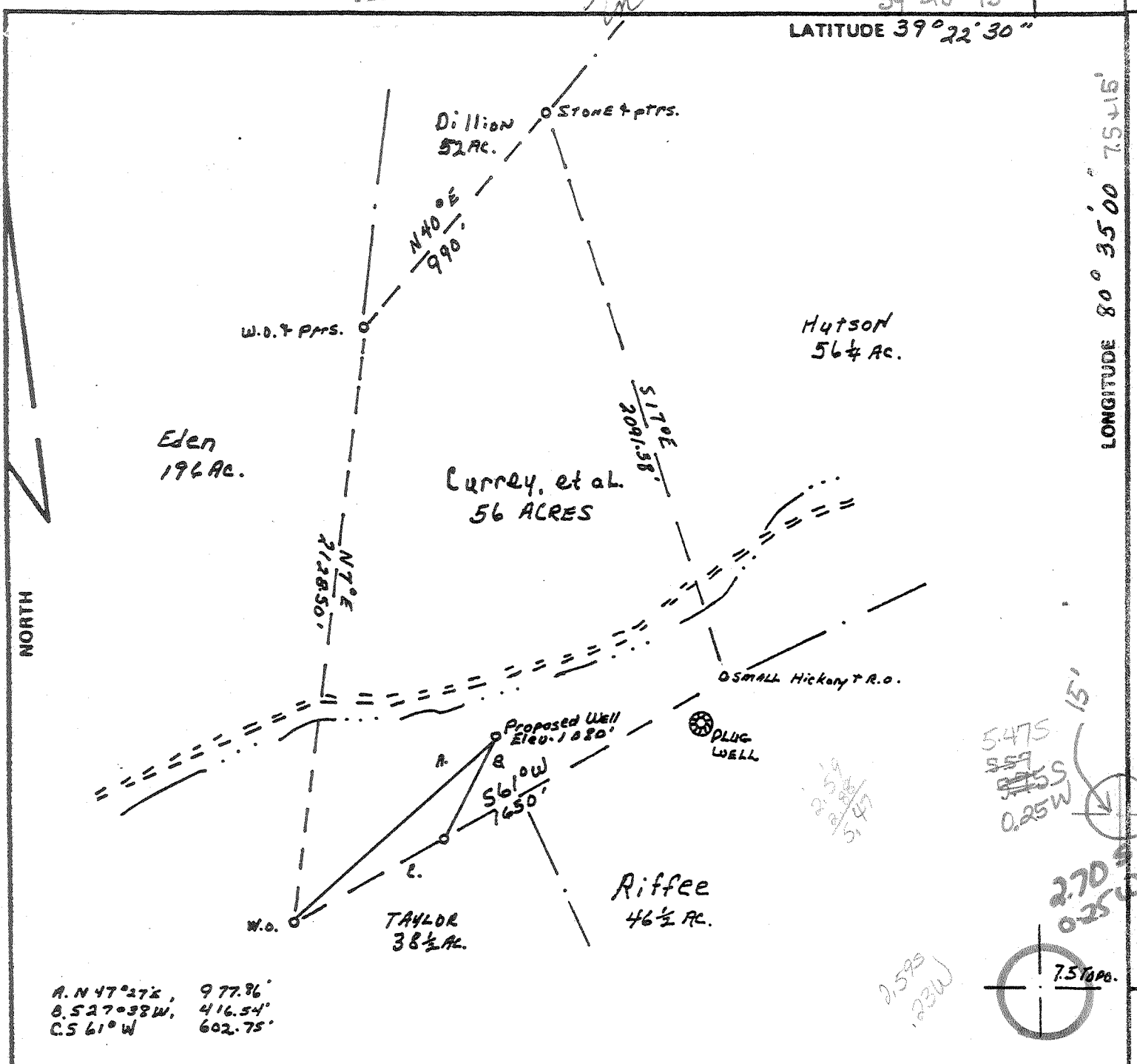
CANCELLED

COUNTY NAME 0000

PERMIT 3001

CANC. JUN 09 2006

FORM WW-6



A. N 47° 27' E, 977.86'
 B. S 27° 38' W, 416.54'
 C. S 61° W, 602.75'

5475
 859
 855
 0.25W
 15'
 2.70
 0.25W
 7.51000
 2.595
 0.23W

FILE NO. _____
 DRAWING NO. 4
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION USGS BM Possum Run 889, USGS Salem Quad.

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) Wayne D. Jordan
 R.P.E. _____ L.L.S. 624
 Norton Surveys + Consulting, Inc.

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE April 21 1981
 OPERATOR'S WELL NO. Brannon #1
 API WELL NO. 47-017-3001
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION 1080' WATER SHED Big Run
 DISTRICT McClelland COUNTY Doddridge
 QUADRANGLE Salem Centerpoint C
 SURFACE OWNER Hugh L. Currey, et al ACREAGE 56 ACRES
 OIL & GAS ROYALTY OWNER Paul and Hester Brannon LEASE ACREAGE 56 ACRES
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Benson ESTIMATED DEPTH 5000
 WELL OPERATOR Petroleum Development DESIGNATED AGENT Petroleum Development Corp
 ADDRESS 103 E. Main Street ADDRESS 103 E. Main Street
Bridgeport, W. Va. 26330 Bridgeport, W. Va. 26330

RECEIVED
RECEIVED
SEP 30 1982



IV-35
(Rev 8-81)

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date September 27, 1982
Operator's
Well No. ONE (1)
Farm PAUL BRANNON
API No. 47 - 017 - 3001

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 ___ /)

LOCATION: Elevation: 1080' Watershed _____
District: McCLELLAN County DODDRIDGE Quadrangle SALEM

COMPANY PETROLEUM DEVELOPMENT CORPORATION

ADDRESS P.O. BOX 26 BRIDGEPORT WV 26330

DESIGNATED AGENT Same as above

ADDRESS _____

SURFACE OWNER HUGH L. CURRY ET AL

ADDRESS RT. 3 BOX 561-D CLARKSBURG WV 26301

MINERAL RIGHTS OWNER PAUL & HESTER BRANNON

ADDRESS 120 McNABB DR. ELKVIEW WV 25091

OIL AND GAS INSPECTOR FOR THIS WORK _____

ADDRESS _____

PERMIT ISSUED 4/23/81

DRILLING COMMENCED 7/13/81

DRILLING COMPLETED 7/19/81

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"	40'	40'	circulate
9 5/8			
8 5/8	1628'	1628'	400 sks
7			
5 1/2			
4 1/2	5218'	5218'	400 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Benson Depth 5102 feet

Depth of completed well 5338 feet Rotary X / Cable Tools _____

Water strata depth: Fresh 102 feet; Salt _____ feet

Coal seam depths: 1580-83 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Balltown -> Benson ~~Devonian Shale~~ Pay zone depth 3850-5176 feet

Gas: Initial open flow 212 Mcf/d Oil: Initial open flow 2 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 1090 psig (surface measurement) after 24 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

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

Devonian Shale -- N₂ & CO₂ 1000 gal. acid 980,000 CF - N₂
 72 Perforations 3850-5176 37 tons (179 bbl) - CO₂ - Total

~Balltown → Benson

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
K.B. - G.L.			0'	10'	
Sand, shale, red rock			10'	921'	1/2" stream H ₂ O @ 102'
Sand, shale, red rock			921'	1298'	
Sand, shale, red rock			1298'	1580'	
Coal			1580'	1583'	
Sand, shale			1583'	2046'	
Big Lime			2046'	2082'	
Big Injun			2082'	2191'	
Pocono			2191'	2227'	
Sand, shale			2227'	2334'	
Weir			2334'	2373'	
Sand, shale			2373'	2567'	
Gantz			2567'	2593'	Gas check @ 2578' -- NO SHOW
Sand, shale			2593'	2641'	
50 Ft.			2641'	2716'	
Sand, shale			2716'	2757'	
Gordon Stray			2757'	2802'	1/4" stream H ₂ O at 2766
Sand, shale			2802'	2858'	
Gordon			2858'	2924'	Gas Check @ 2891' - Slight odor
Sand, shale			2924'	2972'	
4TH			2972'	3029'	
Sand, shale			3029'	3111'	
5TH			3111'	3150'	
Sand, shale			3150'	3429'	
Warren			3429'	3469'	
Sand, shale			3469'	3630'	
Upper Speechley			3630'	3683'	
Sand, shale			3683'	3777'	
Speechley			3777'	3840'	
Sand, shale			3840'	3939'	
Balltown			3939'	4087'	
Sand, shale			4087'	4498'	
Bradford			4498'	4618'	
Sand, shale			4618'	4832'	
Riley			4832'	4954'	
Sand, shale			4954'	5102'	
Benson			5102'	5152'	
Sand, shale			5152'	5342' TD	

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION P. O. BOX 26 BRIDGEPORT WV
 Well Operator

By: John Mitchell

Date: September 27, 1982

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."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

RECEIVED
APR 24 1981
OIL & GAS DIVISION
DEPT. OF MINES

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE April 22, 1981

Surface Owner Hugh L. Curry et al
Address Rt 3 Box 56ld Clarksburg, WV 26301
Mineral Owner Paul & Hester Brannon
Address 120 McNabb Drive Elkview, WV 25071
Coal Owner 1 Willis G. Tetrick, Jr.
Union National Center
Address 2 Clarksburg, WV 26301
Maxwell Sutton
Coal Operator Country Club Addn,
Clarksburg, wy 26301
Address 3 Union National Bank
Clarksburg, WV 26301

Company Petroleum Development Corporation
Address P. O. Box 26, Bridgeport, WV 26330
Farm Paul Brannon #1 Acres 56
Location (waters) Big Run
Well No. One Elevation 1080'
District McClelland County Doddridge
Quadrangle Salem

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22,
of the W. Va. Code, the location is hereby approved
for drilling. This permit shall expire if
operations have not commenced by 1-9-82

INSPECTOR
TO BE NOTIFIED Paul Garrett

ADDRESS 321 Beech Street, Clarksburg, WV 26301

PHONE 622-3781

Fred B. ...
Deputy Director - Oil & Gas Division

GENTLEMEN:
The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated January 15 1981 by Clarence W. Mutschelknaus made to Petroleum Development Corp. and recorded on the 24th day of February 1981 in Doddridge County, Book 119 Page 285

XX NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,

(Sign Name) John R. Mitchell

Well Operator

PETROLEUM DEVELOPMENT CORPORATION

P. O. Box 26

Street

Address
of
Well Operator

Bridgeport

City or Town

West Virginia 26330

State

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

47-017-3001

PERMIT NUMBER

THIS IS AN ESTIMATE ONLY.
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Unknown _____ NAME Petroleum Development Corporation _____
 ADDRESS _____ ADDRESS P. O. Box 26 Bridgeport, WV 26330 _____
 TELEPHONE _____ TELEPHONE (304) 842-6256 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 5000 _____ ROTARY XX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Benson _____
 TYPE OF WELL: OIL _____ GAS XX COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
11-16			
10-10	40'	40'	Circulate
5.8			
5.8	1650'	1650'	Circulate to surface
		5000	300 sks
			Perf. Top
			Perf. Bottom
			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 80 FEET SALT WATER 180 FEET

APPROXIMATE COAL DEPTHS 300

IS COAL BEING MINED IN THE AREA? No BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

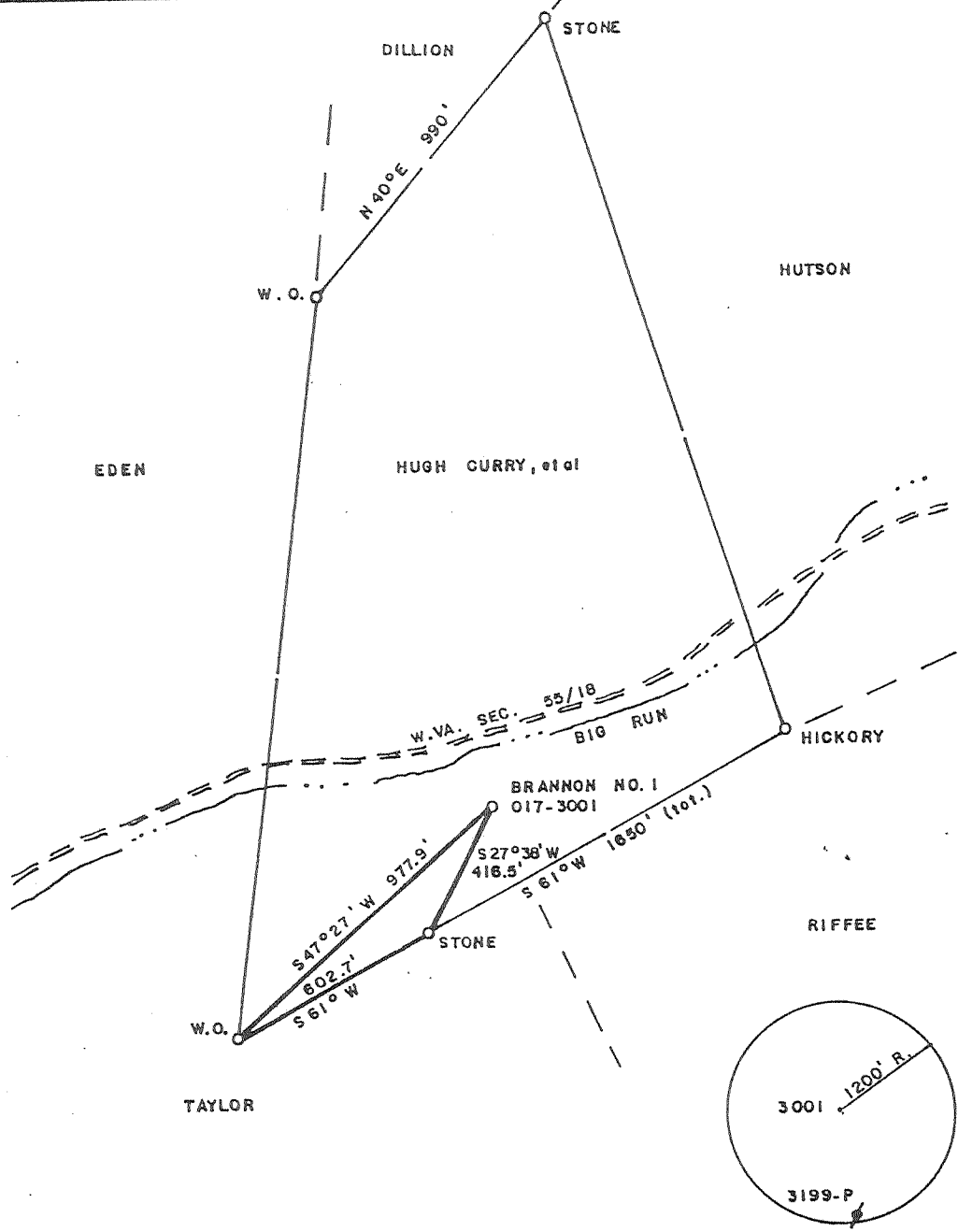
For Coal Company

Official Title

BRANNON LEASE 56 AC.

12 90' W
LATITUDE 39°22'30"

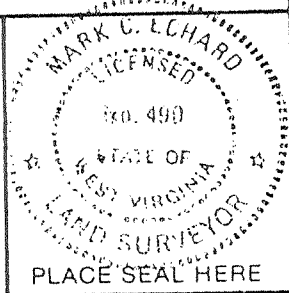
LONGITUDE 80°35'00"



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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1/200
PROVEN SOURCE OF ELEVATION USGS BM
ELEV. = 889'

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) Mark C. Echard
R.P.E. _____ L.L.S. 490



STATE OF WEST VIRGINIA
Division of Environmental Protection
OFFICE OF OIL AND GAS

DATE FEBRUARY 12, 2001
OPERATOR'S WELL NO. BRANNON NO. 1
API WELL NO. 47 017 3001W
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1080' WATERSHED BIG RUN
DISTRICT McCLELLAND COUNTY DO DDRIDGE
QUADRANGLE SALEM

SURFACE OWNER HUGH L. CURRY, et al ACREAGE 56
OIL & GAS ROYALTY OWNER PAUL BRANNON LEASE ACREAGE 56
LEASE NO. _____

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION GORDON ESTIMATED DEPTH 3000'
WELL OPERATOR CLOWSER WELL SERVICE DESIGNATED AGENT JOHN CLOWSER
ADDRESS ROUTE 3 ADDRESS ROUTE 3
SALEM, WV 26426 SALEM, WV 26426

COUNTY NAME DOOD
PERMIT 3001W

MAR 02 2001