

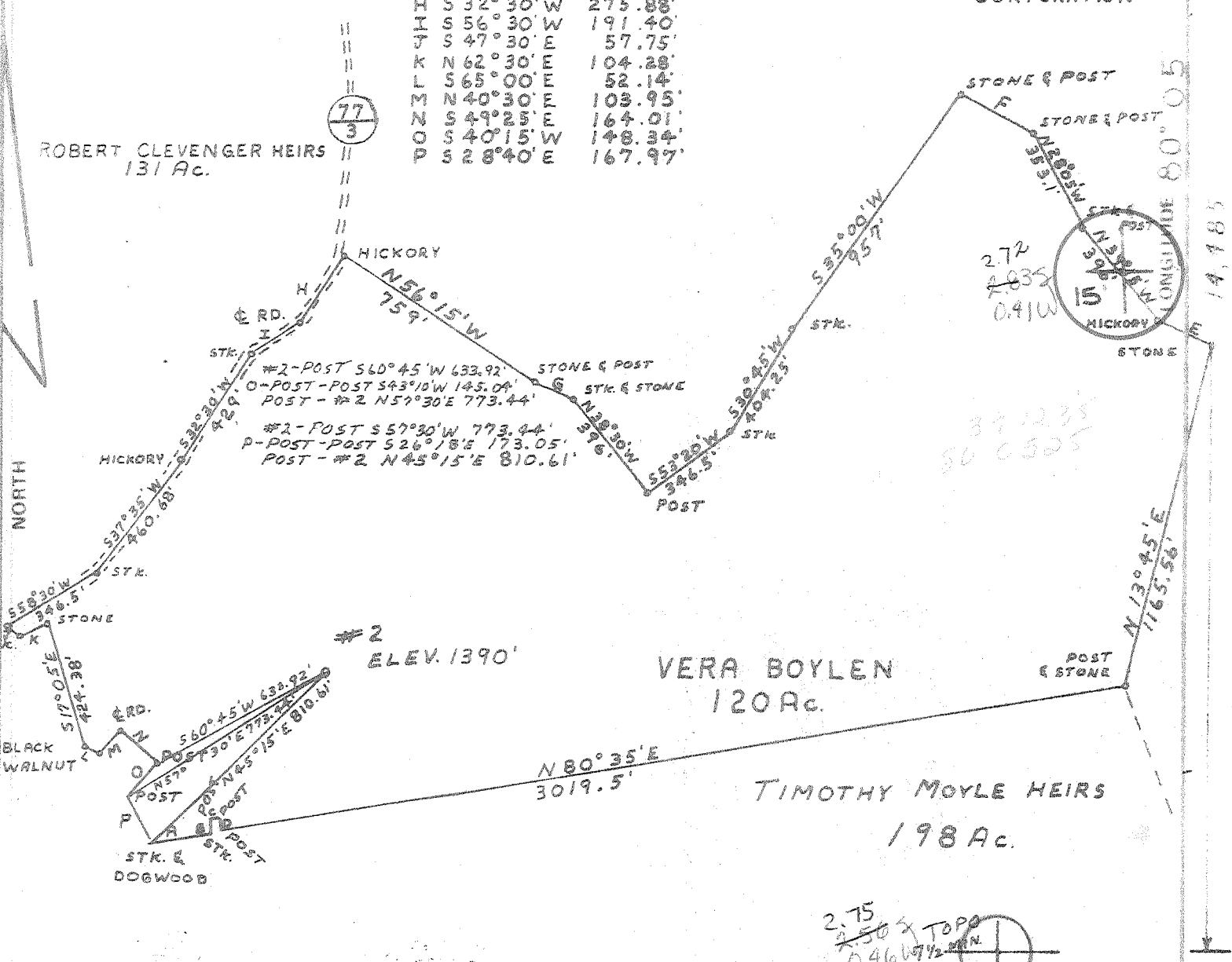
A	N 80° 35' E	219.78'
B	N 5° 15' W	49.50'
C	N 82° 30' E	36.30'
D	S 8° 05' E	48.35'
E	N 64° 35' W	201.30'
F	N 62° 20' W	270.60'
G	N 67° 05' W	143.88'
H	S 32° 30' W	275.88'
I	S 56° 30' W	191.40'
J	S 47° 30' E	57.75'
K	N 62° 30' E	104.28'
L	S 65° 00' E	52.14'
M	N 40° 30' E	103.95'
N	S 49° 25' E	164.01'
O	S 40° 15' W	148.34'
P	S 28° 40' E	167.97'

REPUBLIC STEEL CORPORATION

ROBERT CLEVENGER HEIRS  
131 Ac.

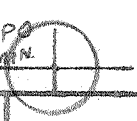
VERA BOYLEN  
120 Ac.

TIMOTHY MOYLE HEIRS  
198 Ac.



FILE NO. PDC # 3 Pg. 7  
 DRAWING NO. 1  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1" IN 200'  
 PROVEN SOURCE OF ELEVATION 1208' INT. RT. 76 AND RT. 76/2

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) Paul G. Dean  
 R.P.E. 7856 L.L.S. \_\_\_\_\_



PLACE SEAL HERE

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



DATE JULY 23, 19 79  
 OPERATOR'S WELL NO. 2  
 API WELL NO. \_\_\_\_\_  
47 - 001 - 1190  
 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 1390' WATER SHED SIMPSON CREEK  
 DISTRICT PLEASANT COUNTY BARBOUR  
 QUADRANGLE PHILIPPI 7 1/2, 15' NC  
 SURFACE OWNER VERA BOYLEN HEIRS ACREAGE 120  
 OIL & GAS ROYALTY OWNER VERA BOYLEN LEASE ACREAGE 120  
 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) \_\_\_\_\_

SEP 24 1979

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON ESTIMATED DEPTH 5500'  
 WELL OPERATOR PETROLEUM DEVELOPMENT DESIGNATED AGENT PETROLEUM DEVELOPMENT CORP.  
 ADDRESS 103 E. MAIN (PO Bx 26) ADDRESS 103 E. MAIN (PO Bx 26)  
6-0 BRIDGEPORT W.VA. 26101 BRIDGEPORT W.VA. 26101  
 SURVEYED AND PLATED BY PAUL G. DEAN GRADUATE CE UNDER THE SUPERVISION OF PAUL G. DEAN

FORM IV-35 (Obverse)

Operator's Well No. Vera Boylen #2

[08-78]

WELL OPERATOR'S REPORT / OF

API Well No. 17-001-1190 State County Permit

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: 1390' Watershed: Simpson Creek

District: Pleasant County: Barbour Quadrangle: Philippi

WELL OPERATOR Petroleum Development Corporation

DESIGNATED AGENT Petroleum Development Corporation

Address 103 East Main Street, PO Box 26 Bridgeport, W. Va. 26330

Address 103 East Main Street, PO Box 26 Bridgeport, W. Va. 26330

PERMITTED WORK: Drill X / Convert / Drill deeper / Re-drill / Fracture or stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify)

RECEIVED MAR 28 1980

PERMIT ISSUED ON July 24, 1980

OIL & GAS INSPECTOR FOR THIS WORK:

IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

Name Robert Stewart OIL & GAS DIVISION DEPT. OF M. & NES Address Box 34 Jane Lew, WV 26378

PHYSICAL TARGET FORMATION: Benson Depth: 5500 feet

Depth of completed well, 4557 feet Rotary X / Cable Tools

Water strata depth: Fresh, 300 feet; salt, 1950 feet.

Coal seam depths: 105, 116, 763, 827 Is coal being mined in the area? no

Work was commenced January 30, 1980, and completed February 5, 1980

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight), FOOTAGE INTERVALS (New, Used, For drilling, Left in well), CEMENT FILLED OR CASING (Cubic feet), PACKERS. Rows include conductor, fresh water, intermediate, production, casing, and liners.

OPEN FLOW DATA

Producing formation: Benson Pay zone depth 4448 feet

Gas: Initial open flow, 112 Mcf/d Oil: Initial open flow, 144 bbl/d Final open flow, 1,033 Mcf/d Final open flow, 144 bbl/d

Time of open flow between initial and final tests,      hours

Static rock pressure, 1275 psia (surface measurement) after 48 hours shut in

(If applicable, due to multiple completions)

Second producing formation: Riley Pay zone depth 4147 feet

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,      psia (surface measurement) after      hours shut in

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

enson	420 bbl	10,000# 80/100	40,000# 20/40	500 gal. 15% acid	4448' -75'
riley	385 bbl	10,000# 80/100	35,000# 20/40	500 gal. 15% acid	4147' -54'

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. fill			0	10	
sand, shale			10	15	
R.R., shale			15	80	
coal			80	105	
sand, shale			105	108	
R.R.			108	360	
sand, shale			360	400	
coal			400	716	
shale			716	721	
coal			721	763	
sand, shale			763	768	
coal			768	827	
sand, shale, R.R.			827	832	
big lime			832	1564	fresh H <sub>2</sub> O 1 1/2" @ 900'
big injon			1564	1638	
sand, shale			1638	1778	
ganza			1778	2007	
sand, shale			2007	2052	gas check 6/10 thru 2" H <sub>2</sub> O
5th sand			2052	2520	
sand shale			2520	2604	
speechley			2604	3161	
sand, shale			3161	3204	
riley			3204	4142	gas check @ 3600' 7/10 thru 2" H <sub>2</sub> O
sand, shale			4142	4160	
enson			4160	4438	gas check @ 4350' 7/10 thru 2" H <sub>2</sub> O
sand, shale			4438	4491	
			4491	4551 TD	gas check @ TD 7/10 thru 2" H <sub>2</sub> O

(Attach separate sheets to complete as necessary)

Petroleum Development Corporation  
 Well Operator  
 By Charles M. Wheeler  
 Its COMPETITION ENGINEER

NOTE: Regulation 1.1.1.1 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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. Two  
API Well No. 47 - 001 - 1190  
State County Permit

WELL TYPE: Oil      / Gas X /  
(If "Gas", Production X / Underground storage      / Deep      / Shallow      /)

LOCATION: Elevation: 1390' Watershed: Simpson Creek  
District: Pleasant County: Barbour Quadrangle: Philippi

WELL OPERATOR Petroleum Development Corp.  
Address P. O. Box 26  
Bridgeport, WV 26330

DESIGNATED AGENT Petroleum Development Corp.  
Address P. O. Box 26  
Bridgeport, WV 26330

OIL & GAS ROYALTY OWNER Vera V. Boylen  
Address Route 1  
Flemington, WV 26347

COAL OPERATOR       
Address     

Acreage 120

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Same  
Address       
Acreage     

Name Republic Steel Corporation  
Address Fayette Bank Bldg.  
Uniontown, PA 15401

FIELD SALE (IF MADE) TO:  
Name       
Address     

Name       
Address     

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Robert Stewart  
Address Box 345  
Jane Lew, WV 26378

COAL LESSEE WITH DECLARATION ON RECORD  
Name       
Address     

**RECEIVED**  
**AUG 15 1979**  
**OIL & GAS DIVISION**  
**DEPT. OF MINES**

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed      / lease      / other contract X / dated June 25th, 19 79, to the undersigned well operator from W. B. Berry

[If said deed, lease, or other contract has been recorded:]

Recorded on July 3rd, 19 79, in the office of the Clerk of the County Commission of Barbour County, West Virginia, in O/G Book 81 at page 335. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper      / Redrill      / Fracture or stimulate      /  
Plug off old formation      / Perforate new formation      /  
Other physical change in well (specify)     

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMISSION  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

**BLANKET BOND**

PETROLEUM DEVELOPMENT CORPORATION  
Well Operator

By Johnny Mitchell  
Its Drilling Superintendent

PROPOSED WORK ORDER  
THIS IS AN ESTIMATE ONLY;  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Unknown

Address

GEOLOGICAL TARGET FORMATION, Benson

Estimated depth of completed well, 5500 feet Rotary  Cable tools   
 Approximate water strata depths: Fresh, 150 feet; salt, 1650 feet.  
 Approximate coal seam depths: 730 feet Is coal being mined in the area? Yes  No

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS		PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	
Conductor	11 3/4"	J55	33#	X			30
Fresh water	8 5/8"	J55	24#	X			350
Coal	AA			X			
Intermediate	AA			X			
Production	4 1/2"	J55	105#	X			250
Tubing							
Liners							
Perforations:							
Top							
Bottom							

NOTE:

Regulation 2.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (1) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 18, or in lieu thereof the other security allowed by code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by code § 22-4-12b and Regulation 88, (iv) unless previously paid on the same well, the fee required by code § 22-4-12a, and (v) if applicable, the consent required by code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and **THIS PERMIT MUST BE POSTED AT THE WELL SITE** filed in connection therewith.

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 5-1-80

Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location, has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.