



FILE NO. P.D.C. PG
 DRAWING NO. 1
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1' in 200'
 PROVEN SOURCE OF ELEVATION USGS AM Smithburg, 797' 456.5 Smithburg Road.

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) [Signature]
 R.P.E. [Signature] L.L.S. 624

PLACE SEAL HERE

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



DATE January 8, 1980
 OPERATOR'S WELL NO. 2
 API WELL NO. 47-017-2590
 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 1120' WATER SHED WOLF PEN RUN
 DISTRICT GRANT COUNTY DODDRIDGE
 QUADRANGLE SMITHBURG 7 1/2 CORNER 15'SW
 SURFACE OWNER CLYDE FRASHURE ACREAGE 115.5
 OIL & GAS ROYALTY OWNER CLYDE FRASHURE LEASE ACREAGE 115.5
 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 CEDAR CREEK ESTIMATED DEPTH 5300'
 WELL OPERATOR PETROLEUM DEVELOPMENT DESIGNATED AGENT PETROLEUM DEVELOPMENT
 ADDRESS 103 E. MAIN PO BOX 26 BRIDGEPORT W.VA. 26330 ADDRESS 103 E. MAIN PO BOX 26 BRIDGEPORT, W.VA. 26330

08-78]

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

Cedar Creek	400 bbl	10,000# 80/100	40,000# 20/40	1000 gal. acid	5249-5342
Leopold	365 bbl	10,000# 80/100	35,000# 20/40	500 gal. acid	5169-5184

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
G.L. - K.B., sand			0	10	
sand, shale			10	87	fresh H ₂ O 1" @ 40'
coal			87	287	
sand, shale			287	292	
sand			292	473	
sand, shale			473	810	
big lime			810	1906	
big injun			1906	1953	
sand, shale			1953	2084	
weir			2084	2271	
sand, shale			2271	2304	
riley			2304	4782	
sand, shale			4782	4816	
benson			4816	4982	
sand, shale			4982	4996	
leopold			4996	5165	
sand, shale			5165	5191	
cedar creek			5191	5243	
sand, shale			5243	5342	
			5342	5460 TD	

(Attach separate sheets to complete as necessary)

Petroleum Development Corporation

Well Operator

By Charles M. [Signature]

Its Completion Engineer

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

Date May 13, 1980

FORM IV-35
(Obverse)

Operator's
Well No. Clyde Frashure #2

[08-78]

WELL OPERATOR'S REPORT
OF

API Well No. 47 - 017 - 259
State County Perm.

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: 1100' Watershed: Wolfpen Run
District: Grant County: Doddridge Quadrangle: Smithburg 7 1/2'

WELL OPERATOR Petroleum Development Corporation DESIGNATED AGENT Petroleum Development Corporation
Address 103 East Main Street, PO Box 26 Address 103 East Main Street, PO Box 26
Bridgeport, W. Va. 26330 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) _____

PERMIT ISSUED ON January 22, 1980

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Paul Garrett
Address 321 Beech Street
Clarksburg, W. Va. 26301

GEOLOGICAL TARGET FORMATION: Cedar Creek Depth 5249 feet
Depth of completed well, 5451 feet Rotary X / Cable Tools ___
Water strata depth: Fresh, 1"@40 feet; salt, ___ feet.
Coal seam depths: 287' Is coal being mined in the area? no
Work was commenced February 25, 1980, and completed May 8, 1980

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-IN OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor	11 3/4"			X		32'	32'	surface	Winds
Fresh water									
Coal									Sires
Intermediate	8 5/8"	H-40	20#	X		1826'	1708'	450 sks.	
Production	4 1/2"	K-55	10.5#	X		5451'	5409'	725 sks.	Depth set
Tubing									
Liners									Perforations:
									Top Bottom

RECEIVED
MAY 19 1980

OIL & GAS DIVISION
DEPT. OF MINES

OPEN FLOW DATA

Producing formation Cedar Creek Pay zone depth 5249 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Final open flow, 377 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, ___ hours
Static rock pressure, 1575 psi (surface measurement) after 48 hours shut in.

(If applicable due to multiple completion--)
Second producing formation Leopold Pay zone depth 5169 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

JUN 16 1980



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JAN 22 1980

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE January 17, 1980

Surface Owner Clyde Frashure Company Petroleum Development Corp.
 Address Rt 2, Box 146, West Union, WV 26246 Address P.O. Box 26, Bridgeport, WV 26330
 Mineral Owner Clyde Frashure Farm Clyde Frashure Acres 115.5
 Address same Location (waters) Wolfpen Run
 Coal Owner Willis G. Tetrick Well No. Two Elevation 1100'
 Address P.O. Box 267, Clarksburg, WV 26301 District Grant County Doddridge
 Coal Operator _____ Quadrangle Smithburg 7 1/2'
 Address _____

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 10-5-80

Robert T. [Signature]

Deputy Director - Oil & Gas Division
GENTLEMEN:

INSPECTOR
TO BE NOTIFIED Paul Garrett
ADDRESS 321 Beech St., Clarksburg, WV 26301
PHONE 622-3871

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 May 11, 1979 by Clarence W. Mutschelknaus made to Petroleum Development Corp. and recorded on the 5th day of Nov. 1979 in Doddridge County, Book 112 Page 186

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.

Very truly yours, Petroleum Development Corp.
(Sign Name) [Signature]
Well Operator

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

Address
of
Well Operator

103 East Main Street
Street
Bridgeport,
City or Town
West Virginia
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.

47-017-2590 _____ PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by _____

BLANKET BOND

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

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME Unknown _____ NAME Petroleum Development Corp. _____
 ADDRESS _____ ADDRESS P.O. Box 26, Bridgeport, WV. _____
 TELEPHONE _____ TELEPHONE 304-842-6256 _____
 ESTIMATED DEPTH OF COMPLETED WELL: 5400' _____ ROTARY X _____ CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Alexander _____
 TYPE OF WELL: OIL _____ GAS X _____ 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.
20 - 16	40'	40'	
13 - 10			
9 - 5.8			
8 - 5.8	1950'	1950'	
7			
5 1/2			
4 1/2	5400'	5400'	
3			Perf. Top
2			Perf. Bottom
LINKS			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 200' FEET _____ SALT WATER 1350' FEET _____
 APPROXIMATE COAL DEPTHS 750', 1150' _____
 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