

FILE NO. D.E. #1 PAGE 17
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200'
 PROVEN SOURCE OF ELEVATION B.M. 767' DN BRIDGE ROUTE 18111 TANYARD RUN

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) Daniel L. Wheeler
 R.P.E. _____ L.L.S. 530



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



DATE JUNE 25th, 19 80
 OPERATOR'S WELL NO. 2-A
 API WELL NO. 47-095-0816
 STATE WEST VIRGINIA COUNTY TYLER T. ERMIT

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 915' WATER SHED TANYARD RUN
 DISTRICT LINCOLN COUNTY TYLER
 QUADRANGLE PADEN CITY 15' NEW MARTINSVILLE 15'
 SURFACE OWNER WILBERT DARLING AND SOL GROSS ACREAGE 114 Ac.
 OIL & GAS ROYALTY OWNER JAMES F. DOAN LEASE ACREAGE 121 Ac.
 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) _____

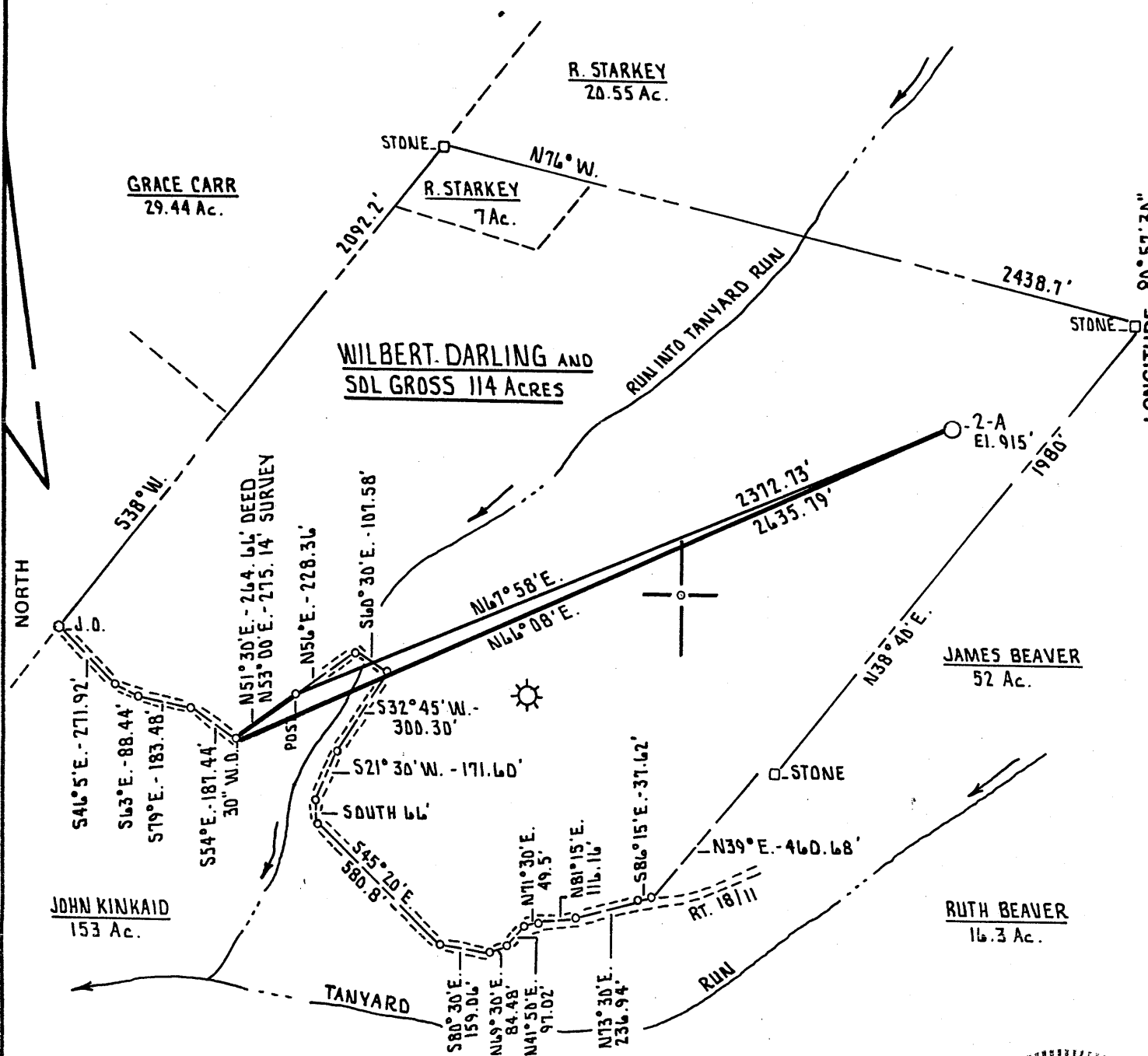
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION SPEECHLEY ESTIMATED DEPTH 3300'
 WELL OPERATOR PETROLEUM DEVELOPMENT DESIGNATED AGENT PETROLEUM DEVELOPMENT CORP.
 ADDRESS 103 E. MAIN STREET ADDRESS 103 E. MAIN STREET
BRIDGEPORT, WEST VIRGINIA 26330 BRIDGEPORT, WEST VIRGINIA 26330

3-3 Sistersville (28)

JUL 28 1980

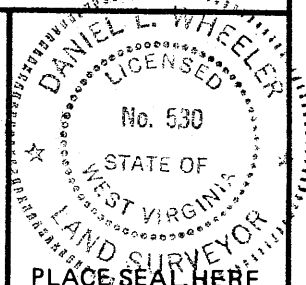
LATITUDE 39° 35'

LONGITUDE 80° 57' 30"



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 PROVEN SOURCE OF ELEVATION B.M. 767' ON BRIDGE ROUTE 18111 TANYARD RUN

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



DATE JUNE 25th 19 80
 OPERATOR'S WELL NO. 2-A
 API WELL NO. 47-095-816
 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 915' WATER SHED TANYARD RUN
 DISTRICT LINCOLN COUNTY TYLER
 QUADRANGLE PADEN CITY 7.5'
 SURFACE OWNER WILBERT DARLING AND SOL GROSS ACREAGE 114 Ac.
 OIL & GAS ROYALTY OWNER JAMES F. DOAN LEASE ACREAGE 121 Ac.
 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 SPEECHLEY ESTIMATED DEPTH 3300'
 WELL OPERATOR PETROLEUM DEVELOPMENT DESIGNATED AGENT PETROLEUM DEVELOPMENT CORP.
 ADDRESS 103 E. MAIN STREET ADDRESS 103 E. MAIN STREET
BRIDGEPORT, WEST VIRGINIA 26330 BRIDGEPORT, WEST VIRGINIA 26330



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

Rotary X Oil _____
Cable _____ Gas X
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Paden City 7 1/2'

Permit No. 47-095-0816

Company Petroleum Development Corporation
Address PO Box 26, Bridgeport, WV 26330
Farm James F. Doan Acres 121
Location (waters) Tanyard Run
Well No. two (2-A) Elev. 915'
District Lincoln County Tyler
Wilbert
The surface of tract is owned in fee by Darling & Sol Gross
Address Unknown
Mineral rights are owned by James F. Doan
Star, route Box 194,
Address Middlebourne, WV
Drilling Commenced 1/12/81
Drilling Completed 1/18/81
Initial open flow show of gas cu. ft. no oil bbls.
Final production 1394 m cu. ft. per day _____ bbls.
Well open 48 hrs. before test 1225 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"	20	20	circulate
9 5/8			
8 5/8	1043	1043	circulate
7			
5 1/2			
4 1/2		3933	(440 sks)
3			
2			
Liners Used			

Well treatment details:

3800 - 3808' shale 2800 psi 1,100,000 scf nitrogen frac
average treatment pressure 2700 psi
shut in pressure 2300 psi

Attach copy of cementing record.

1,394 MCF

Coal was encountered at NONE Feet _____ Inches _____
Fresh water 85 Feet _____ Salt Water 1700 Feet _____
Producing Sand Devoniah Shale Balltown Depth 3808' 3800-08

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
R.R. Shale			0	40		
Sand			40	111		H ₂ O @ 85'
Sand, Shale			111	400		
Sand			400	740		
Sand, Shale			740	1090		
Sand			1090	1159		
Sand, Shale			1159	1650		
Sand, Lime			1650	1704		
Big Lime			1704	1780		
Big Injun			1780	1920		
Squaw			1920	1960		
Sand, Shale			1960	2158		
Weir			2158	2260		
Sand, Shale			2260	2332		
Berea			2332	2490		
Sand, Shale			2490	2725		
Gordon/Gordon Stray			2725	2756		
Sand, Shale			2756	3336		
Speechley			3336'	3388'		
Sand, Shale			3388'	3792'		
Balltown			3792'	3822'		
Sand, Shale			3822'	3985'TD		

RECEIVED

JUN - 3 1981

OIL & GAS DIVISION
DEPT. OF MIN.

3985

2900

Show of gas 1085 ft.
Show of gas exploratory

JUN 23 1981

Show of gas



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECORDED
JUL 1 1980

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE June 27, 1980

Surface Owner Wilbert Darling & Sol Gross
Address Unknown
Mineral Owner James F. Doan
Address Star Route, Box 194 Middlebourne, WV
Coal Owner Same as Surface Owner
Address _____
Coal Operator NONE
Address _____

Company Petroleum Development Corporation
Address P.O. Box 26 Bridgeport, WV 26330
Farm James F. Doan Acres 121
Location (waters) Tanyard Run
Well No. Two (2-A) Elevation 915'
District Lincoln County Tyler
Quadrangle Paden City 7 1/2'

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 3-7-81.

INSPECTOR
TO BE NOTIFIED Phillip Lee Tracy
ADDRESS P.O. Box 172, Dodd St., Middlebourne, WV
26149
PHONE 268-3820

John O. Moore
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 December 6 19 79 by Clarence W. Mutchelknaus made to Petroleum Development Corp and recorded on the 17th day of December 19 79 in Tyler County, Book 222 Page 525

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

Address
of
Well Operator

Very truly yours,
(Sign Name) John O. Moore
Well Operator
Petroleum Development Corporation
P.O. Box 26
Street
Bridgeport
City or Town
West Virginia
State

*SECTION 3 of the Code. 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 nature of such objections, if any, and the actions 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.

47-095-0816 PERMIT NUMBER

BLANKET BOND
Survey

**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: 3300' _____ ROTARY XX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Speechley _____
 TYPE OF WELL: OIL _____ GAS XX COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10	40'	40'	Circulate
9 - 5 8			
8 - 5 8	975'	975'	Circulate
7 -			
5 -			
4 -		3250'	
3 -			Perf. Top
2 -			Perf. Bottom
1 1/2 -			Perf. Top
1 -			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 85 FEET _____ SALT WATER 1700 FEET _____
 APPROXIMATE COAL DEPTHS NONE _____
 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

Handwritten signature/initials