

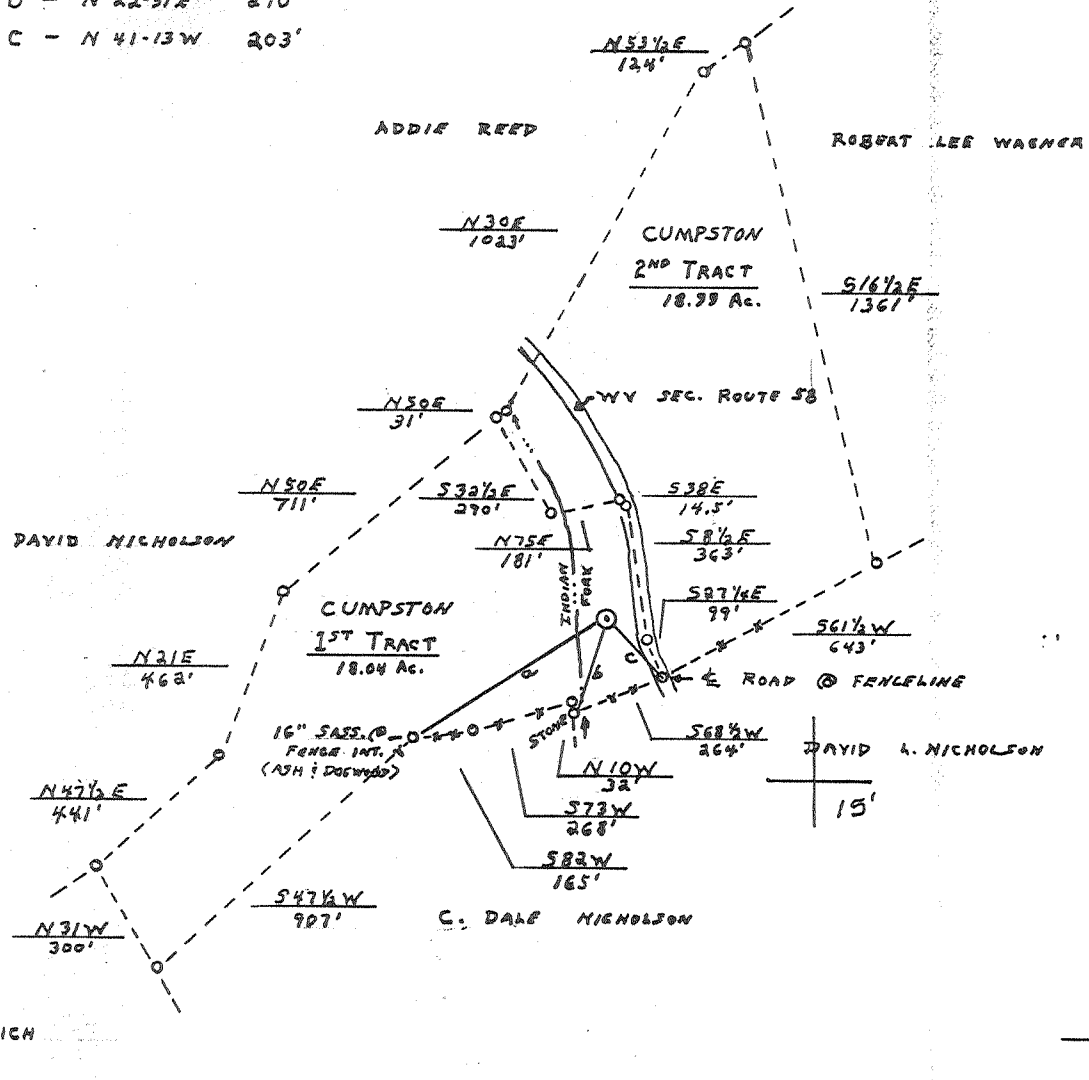
*Janice 6/22/89*

LATITUDE

39-12-30

**WELL LOCATION TIES**

- a - N60-34E 612'
- b - N22-51E 270'
- c - N41-13W 203'



80-37-30

LONGITUDE

13,800'

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION B.M. @ JST. OF CO.  
RTE. 58 @ 60 - ELEV. 896

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) Burd J. Smith  
 R.P.E. 6288 L.L.S. \_\_\_\_\_  
 SMITH ENG'G. CO., BUCKHANNON, WV

PLACE SEAL HERE

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



DATE MAY 1, 1981  
 OPERATOR'S WELL NO. 1  
 API WELL NO. \_\_\_\_\_  
47 - 017 - 2999-P  
 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 899 WATER SHED INDIAN FORK  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE NEW MILTON  
 SURFACE OWNER JAMES M. CUMPSTON ACREAGE 37 1/2  
 OIL & GAS ROYALTY OWNER MEREDITH NICHOLSON LEASE ACREAGE 37 1/2  
 LEASE NO. \_\_\_\_\_

*Plugging Cancelled*

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

AUG 12 1991

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON & ELK ESTIMATED DEPTH 5800  
 WELL OPERATOR PETROLEUM DEV. CORP. DESIGNATED AGENT STEVEN R. Williams  
 ADDRESS 103 E. MAIN ST. ADDRESS 103 E. MAIN ST.  
BRIDGEPORT, WY 26330 BRIDGEPORT, WY 26330

2700'

LATITUDE

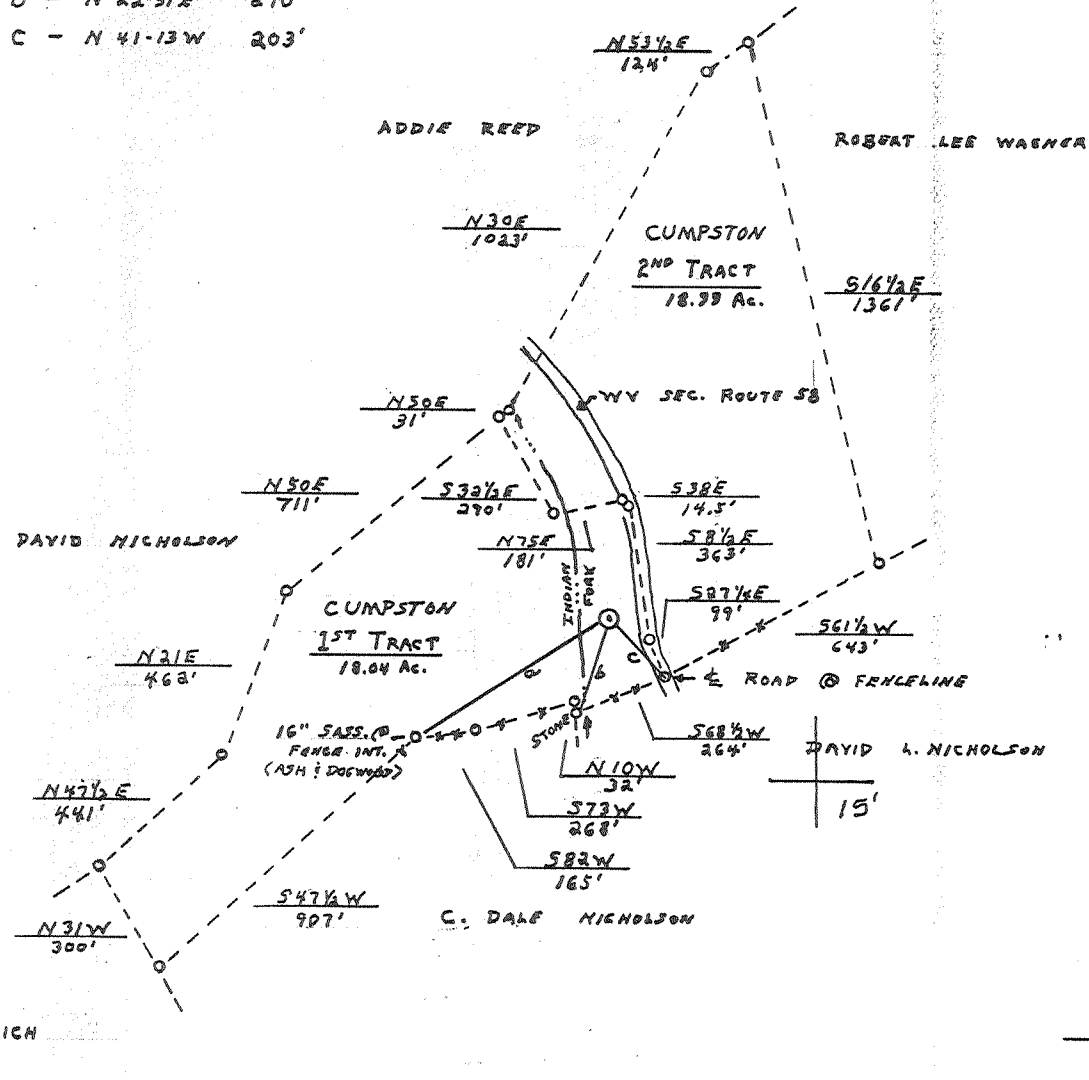
39-12-30

*Jamie 6/22/89*

80-37-30

WELL LOCATION TIES

- a - N60-34E 612'
- b - N22-51E 270'
- c - N41-13W 203'



LONGITUDE

13,800'

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION B.M. @ JST. OF CO.  
Rts. 58 & 60 - ELEV. 896

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 (SIGNED) Burl J. Smith  
 R.P.E. 6888 L.L.S. \_\_\_\_\_  
 SMITH ENG'G. CO., BUCKHANNON, WV

PLACE SEAL HERE

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



DATE MAY 1, 1981  
 OPERATOR'S WELL NO. 1  
 API WELL NO. \_\_\_\_\_  
47 - 017 - 2999-P  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 899 WATER SHED INDIAN FORK  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE NEW MILTON  
 SURFACE OWNER JAMES M. CUMPSTON ACREAGE 37 1/2  
 OIL & GAS ROYALTY OWNER MEREDITH NICHOLSON LEASE ACREAGE 37 1/2  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

JUN 30 1989

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON & ELK ESTIMATED DEPTH 5800  
 WELL OPERATOR PETROLEUM DEV. CORP. DESIGNATED AGENT STEVEN R. Williams  
 ADDRESS 103 E. MAIN ST. ADDRESS 103 E. MAIN ST.  
BRIDGEPORT, WY 26330 BRIDGEPORT, WY 26330

2700'

LATITUDE 39-12-30  
39° 15'

10-37-30

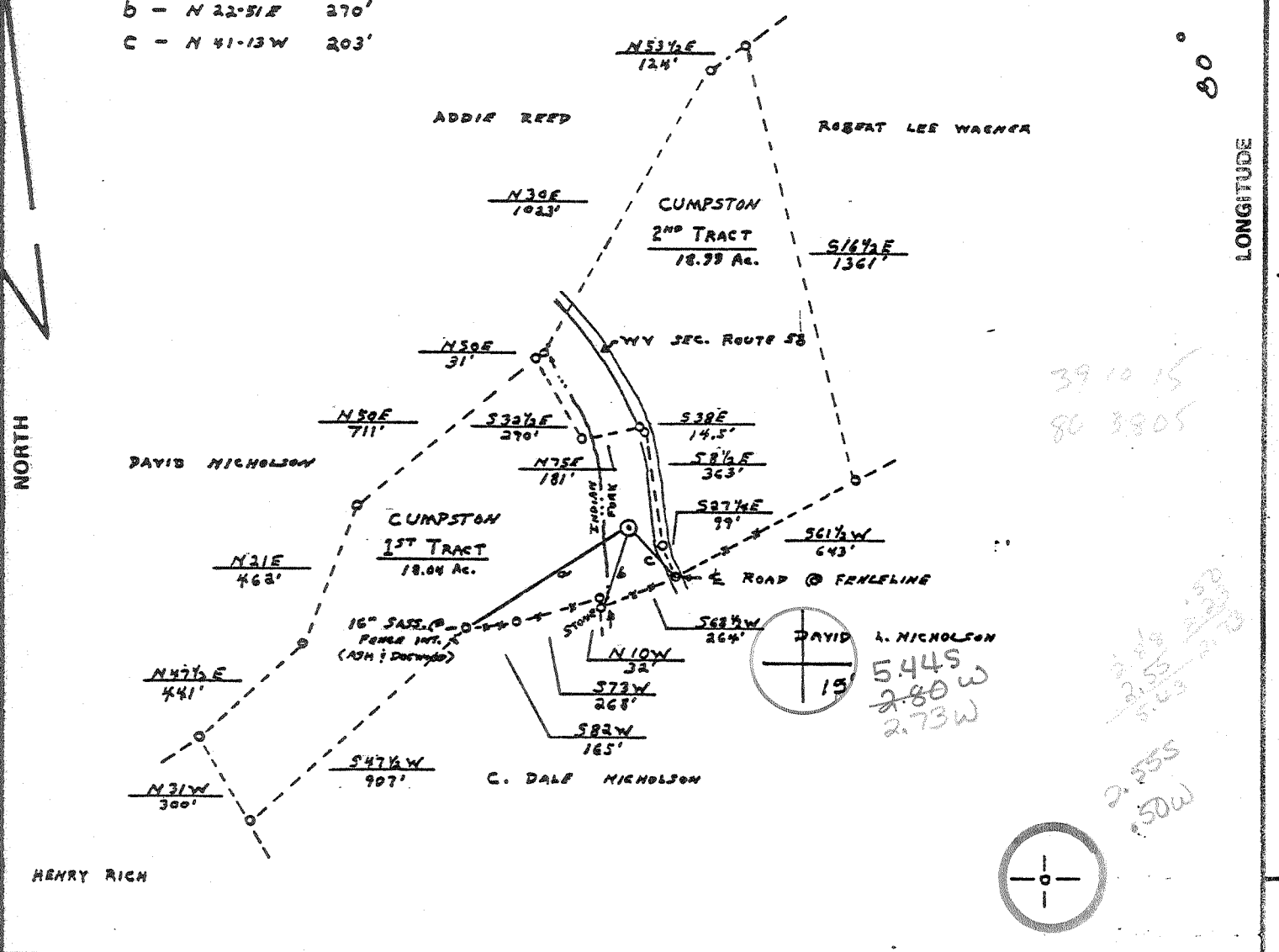
80° 35'

LONGITUDE

13,800'

WELL LOCATION TIES

- a - N60-34E 612'
- b - N 22-51E 270'
- c - N 41-13W 203'



FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 500'  
MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
PROVEN SOURCE OF ELEVATION B.M. @ JST. OF Co. RTS. 58 & 60 - ELEV. 896

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R.P.E. 6488 L.I.S. \_\_\_\_\_  
SMITH ENG'G. CO., BUCKHANNON, W.V.

PLACE SEAL HERE

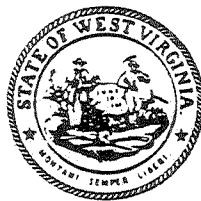
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
FORM IV-6 (8-78)



DATE MAY 1, 1981  
OPERATOR'S WELL NO. 1  
API WELL NO. \_\_\_\_\_  
47 - 017 - 2999  
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
LOCATION: ELEVATION 899 WATER SHED INDIAN FORK  
DISTRICT NEW MILTON COUNTY DODDRIDGE  
QUADRANGLE NEW MILTON VADIS NC  
SURFACE OWNER JAMES M. CUMPTON ACREAGE 37 1/2  
OIL & GAS ROYALTY OWNER MEREDITH NICHOLSON LEASE ACREAGE 37 1/2  
LEASE NO. \_\_\_\_\_  
PROPOSED WORK: DRILL X 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 HENSON & ELK ESTIMATED DEPTH 5800  
WELL OPERATOR PETROLEUM DEV. CORP. DESIGNATED AGENT PETROLEUM DEV. CORP.  
ADDRESS 103 E. MAIN ST. ADDRESS 103 E. MAIN ST.  
BRIDGEPORT, WY 26330 BRIDGEPORT, WY 26330



AUG - 6 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

IV-35  
(Rev 8-81)

Date August 4, 1982

Operator's  
Well No. One (1)

State of West Virginia  
Department of Mines  
Oil and Gas Division

Farm Meredith Nicholson

API No. 47 - 017 - 2999

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: 899' Watershed Indian Fork  
District: New Milton County Doddridge Quadrangle New Milton

COMPANY Petroleum Development Corporation

ADDRESS P.O. Box 26 Bridgeport, WV 26330

DESIGNATED AGENT Same as Above

ADDRESS Same as Above

SURFACE OWNER James M. Cumpston

ADDRESS Rt. 1 New Milton WV 26411

MINERAL RIGHTS OWNER Forrest J. Nicholson Et Al

ADDRESS P.O. Box 302, Bridgeport, WV 26330

OIL AND GAS INSPECTOR FOR THIS WORK

ADDRESS

PERMIT ISSUED 5/5/81

DRILLING COMMENCED 05/30/81

DRILLING COMPLETED 06/09/81

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	1426'	1426'	Circulate
7			
5 1/2			
4 1/2	5408'	5408'	250 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION \_\_\_\_\_ Depth \_\_\_\_\_ feet

Depth of completed well \_\_\_\_\_ feet Rotary x / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 196 feet; Salt 1000' 1710 feet

Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 4612-5406 feet

Gas: Initial open flow 60 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 1750 psig (surface measurement) after \_\_\_\_\_ 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

AUG 16 1982

(Continue on reverse side)

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

Devonian Shale -- N<sub>2</sub> 935,000 CF - N<sub>2</sub>

Inst. Shut in pressure -- 3020 psi

15' Shut in pressure -- 3000 psi

4612-5406 Lower Chemung Sifts + Shale

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'	400'	1/2" stream H <sub>2</sub> O @ 196'
Sand			400'	420'	
Sand, shale			420'	1930'	Fresh H <sub>2</sub> O @ 1000' 1 1/2" H <sub>2</sub> O @ 1000'
Big Lime			1930'	2016'	
Big Injun			2016'	2081'	Gas check @ 2027' - No Show
Sand, shale			2081'	2136'	
Weir			2136'	2165'	
Sand, shale			2165'	2328'	
Gantz			2328'	2363'	
Sand, shale			2363'	2452'	
50Ft.			2452'	2484'	
Sand, shale			2484'	2538'	
Gordon Stray			2538'	2585'	
Sand, shale			2585'	2646'	
Gordon			2646'	2664'	
4th			2664'	2757'	
Sand, shale			2757'	2826'	
5th			2826'	2912'	
Sand, shale			2912'	3176'	
Warren			3176'	3220'	
Sand, shale			3220'	3356'	
Upper Speechley			3356'	3447'	
Sand, shale			3447'	3530'	
Speechley			3530'	3594'	
Sand, shale			3594'	3692'	
Balltown			3692'	3782'	
Sand, shale			3782'	4270'	Gas check @ 3900' 5/10 1" H <sub>2</sub> O
Bradford			4270'	4356'	
Sand, shale			4356'	4540'	
Riley			4540'	4608'	
Sand, shale			4608'	4801'	
Benson			4801'	4832'	
Sand, shale			4832'	5112'	
Leopold			5112'	5168'	
Sand, shale			5168'	5271'	
Cedar Creek			5271'	5346'	
Sand, shale			5346'	5553' TD	

(Attach separate sheets as necessary)

Petroleum Development Corporation, Bridgeport, WV 26330  
Well Operator

By: \_\_\_\_\_

Date: \_\_\_\_\_

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

RECEIVED

MAY - 5 1981

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 May 5, 1981

Surface Owner James M. Cumpston  
Address Rt. 1 New Milton, WV 26411

Company Petroleum Development Corporation  
Address P. O. Box 26, Bridgeport, WV 26301

Mineral Owner Forrest J. Nicholson, et al  
Address P. O. Box 302 Bridgeport, WV 26330

Farm Meredith Nicholson Acres 37

Coal Owner Same as Surface  
Address \_\_\_\_\_

Location (waters) Indian Fork

Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

Well No. One Elevation 899

District New Milton County Doddridge

Quadrangle New Milton

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 \_\_\_\_\_ This permit shall expire if operations have not commenced by \_\_\_\_\_

INSPECTOR

TO BE NOTIFIED Paul Garrett

ADDRESS 321 Beech St. Clarksburg, WV 26301

PHONE 622-3871

Paul Garrett  
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 May 6 1978 by Meredith D. Nicholson, et al made to Petroleum Development Corp and recorded on the 17th day of May 1978 in Doddridge County, Book 103 Page 762

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 R. Mitchell

Well Operator  
PETROLEUM DEVELOPMENT CORPORATION

P. O. Box 26  
Street

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

47-017-2999

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: 5800' \_\_\_\_\_ ROTARY XX \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Benson & Elk \_\_\_\_\_  
 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.
10 - 16			
<del>XXXX</del> 11 3/4"	40	40	Surface
8 - 5.8			
8 - 5.8	1800	1800	Circulate from TD to surface
6 - 12			
6 - 12		5300	500 sacks
			Perf. Top
			Perf. Bottom
4 INCHES			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 35 FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS 520 \_\_\_\_\_  
 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