



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500 FEET  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION U.S. G.S. B.M. M136  
0.4 MI. WEST OF INTERSECTION  
RT. 18 AND RT. 18/2

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) H. Nelson McCay  
 R.P.E. \_\_\_\_\_ C.S. 110

PLACE SEAL HERE

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

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 952 WATERSHED BADGER RUN  
 DISTRICT LINCOLN COUNTY TYLER  
 QUADRANGLE PADEN CITY 7.5' New Martinsville 15'SW  
 SURFACE OWNER EMERY and HELEN HEINTZMAN ACREAGE 70.34  
 OIL & GAS ROYALTY OWNER EMERY and HELEN HEINTZMAN LEASE ACREAGE 70.34  
 LEASE NO. 116900

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

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE JUNE 23, 19 81  
 OPERATOR'S WELL NO. 1A  
 API WELL NO. \_\_\_\_\_  
47 - 095 - 0934  
 STATE COUNTY PERMIT

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5,400 Sistersville (28)  
 WELL OPERATOR PETROLEUM DEVEL. CORP. DESIGNATED AGENT PETROLEUM DEVEL. CORP.  
 ADDRESS 103 E. MAIN ST. P.O. BOX 26 ADDRESS 103 E. MAIN ST. P.O. BOX 26  
BRIDGEPORT, W.V. 26330 BRIDGEPORT, W.V. 26330

AUG 24 1981

RECEIVED



IV-35  
(Rev 8-81)

JUL 2 1983

OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date July 15, 1983  
Operator's  
Well No. TWO (2)  
Farm E. HEINTZMAN  
API No. 47 - 095 - 0934

JUL 25 1983

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: 952' Watershed Badger Run  
District: Lincoln County Tyler Quadrangle Paden City

COMPANY PETROLEUM DEVELOPMENT CORPORATION

ADDRESS P.O. BOX 26 BRIDGEPORT WV 26301

DESIGNATED AGENT SAME AS ABOVE

ADDRESS SAME AS ABOVE

SURFACE OWNER EMERY & HELEN HEINTZMAN

ADDRESS RT. 2 SISTERSVILLE, WV 26175

MINERAL RIGHTS OWNER SAME AS ABOVE

ADDRESS SAME AS ABOVE

OIL AND GAS INSPECTOR FOR THIS WORK PHILLIP

L. TRACY ADDRESS RT 23 ALMA WV 26320

PERMIT ISSUED 7/24/81

DRILLING COMMENCED 11/2/81

DRILLING COMPLETED 11/15/81

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 Cord.			
<del>13-11/16</del> 11 3/4	40'	40'	circulate
9 5/8			
8 5/8	1340'	1340'	340 sks
7			
5 1/2			
4 1/2	5751.1'	5751.1'	360 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION ALEXANDER Depth 5300 feet

Depth of completed well 5798 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 391 feet; Salt 1400 feet

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

OPEN FLOW DATA

Producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ 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 \_\_\_\_\_ 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

(Continue on reverse side)

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

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'	1736'	1/4" H <sub>2</sub> O @ 391', @ 1400' Salt H <sub>2</sub> O
Big Lime			1736'	1832'	
Big Injun			1832'	2016'	
Squaw			2016'	2026'	
Sand, shale			2026'	2188'	
Weir			2188'	2291'	
Sand, shale			2291'	2354'	
Berea			2354'	2364'	
Sand, shale			2364'	2762'	
Gordon			2762'	2820'	
Sand, shale			2820'	3360'	
Speechley			3360'	3403'	
Sand, shale			3403'	3704'	
Balltown			3704'	3858'	
Sand, shale			3858'	4748'	
Riley			4748'	4790'	
Sand, shale			4790'	5006'	
Benson			5006'	5016'	
Sand, shale			5016'	5299'	
Cedar Creek			5299'	5334'	
Sand, shale			5334'	5509'	
<u>Rhinestreet</u>			5509'	5796' TD	

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION, BRIDGEPORT, WV 26301

Well Operator

By: M. C. Swans

Date: July 18, 1983

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 sand, encountered in the drilling of a well."



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

JUL 24 1981

Oil and Gas Division

OIL & GAS DIVISION  
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner Emery and Helen Heintzman  
Address Rt 2 Sistersville, WV 26175  
Mineral Owner Same as above  
Address \_\_\_\_\_  
Coal Owner Same as above  
Address \_\_\_\_\_  
Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

DATE July 23, 1981  
Company Petroleum Development Corporation  
Address P. O. Box 26 Bridgeport, WV 26330  
Farm Heintzman Acres 66  
Location (waters) Badger Run  
Well No. 2 Elevation 952  
District Lincoln County Tyler  
Quadrangle Paden City

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 4-13-82.

INSPECTOR  
TO BE NOTIFIED Phillip L. Tracy  
ADDRESS Rt. 23 Alma, WV 26320  
PHONE 58-4573

J. J. Haggerty  
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 March 7 1980 by Clarence W. Mutschelknaus made to Petroleum Development Corp. and recorded on the 13th day of March 1980, in Tyler County, Book 223 Page 493  
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 K. 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.

47-095-0934 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 \_\_\_\_\_

**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: 5400 \_\_\_\_\_ ROTARY XX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Alexander \_\_\_\_\_  
 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.
20 - 16			
13 - 10	40	40	Circulate
9 - 5/8			
8 - 5/8	1000	1000	Circulate
7			
5 1/2			
4 1/2		5300	<u>5300 SRS, or as</u> <u>400</u>
3			Perf. Top <u>step by</u>
2			Perf. Bottom <u>rule 15.01</u>
LEADS			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 100 FEET SALT WATER 1800 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