

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" / 400'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ON PROPERTY ELEV. 770

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) Gregory A. Smith  
 R.P.E. \_\_\_\_\_ L.L.S. 677

PLACE SEAL HERE

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



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE AUGUST 30, 19 80  
 OPERATOR'S WELL NO. 1A  
 API WELL NO. \_\_\_\_\_  
47 - 085 - 4934  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 892' WATERSHED OTTERSGLIDE CREEK  
 DISTRICT UNION 4 COUNTY RITCHIE  
 QUADRANGLE PULLMAN 7.5' HOLDING 15' WC 038  
 SURFACE OWNER L.E. & THELMA RICHARDS ACREAGE 56.38  
 OIL & GAS ROYALTY OWNER L.E. & THELMA RICHARDS, et al. LEASE ACREAGE 56.38  
 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 INFUN ESTIMATED DEPTH 2100  
 WELL OPERATOR GWF CORPORATION DESIGNATED AGENT BILL K. PAGE  
 ADDRESS 6172 BUSCH BLVD. SUITE 2021 ADDRESS 824 LAKEVIEW DRIVE 306-I  
COLUMBUS, OHIO 43229 PARKERSBURG, W.V. 26101



RECEIVED  
JUL 06 1987

WR-35

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

State of West Virginia  
DEPARTMENT OF ENERGY  
Oil and Gas Division

Date JUNE 30, 1987  
Operator's  
Well No. # 1-A  
Farm L. E. RICHARDS  
API No. 47 - 085 - 4934

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil XX / Gas XX / Liquid Injection     / Waste Disposal     /  
(If "Gas," Production XX / Underground Storage     / Deep     / Shallow XX /)

LOCATION: Elevation: 892' Watershed OTTERSIDE CREEK  
District: UNION County RITCHIE Quadrangle PULLMAN 7.5'

COMPANY G.W.F. CORPORATION

ADDRESS 6172 BUSCH BLVD. SU 3003 COLUMBUS, OH 43229

DESIGNATED AGENT BILL KNIGHT

ADDRESS RT. #1, BOX 44C, BURNSVILLE, WV 26335

SURFACE OWNER L. E. RICHARDS

ADDRESS RT. #1, BOX 71, BEREA, WV 26327

MINERAL RIGHTS OWNER L. E. OR THELMA RICHARDS

ADDRESS RT. #1, BOX 71, BEREA, WV 26327

OIL AND GAS INSPECTOR FOR THIS WORK SAM

HERSHMAN ADDRESS BOX 66, SMITHVILLE, WV 26178

PERMIT ISSUED 9/30/80

DRILLING COMMENCED 10/20/80

DRILLING COMPLETED 10/26/80 ✓

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	425'	425'	50 sks
7			
5 1/2			
4 1/2		2010'	60 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION INJUN Depth 1935-1970 feet

Depth of completed well 2400 feet Rotary XX / Cable Tools    

Water strata depth: Fresh     feet; Salt     feet

Coal seam depths:     Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation INJUN Pay zone depth 1935-1970 feet

Gas: Initial open flow 2 Mcf/d Oil: Initial open flow 1 Bbl/d

Final open flow 20 Mcf/d Final open flow 3 Bbl/d

Time of open flow between initial and final tests 6 hours

Static rock pressure 650 psig (surface measurement) after 12 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

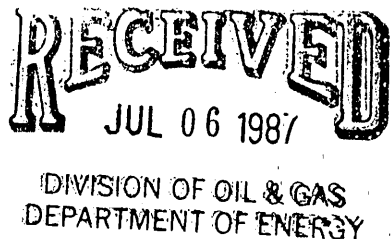
(Continue on reverse side)

AUG 02 1987

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

INJUN PERFERED 1935-1970: FRACED W/545 BBLs. WATER, 30M# SAND, BREAKDOWN 1900 PSI.  
TREATED 1700 PSI., SHUT IN 1400 PSI.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
RED ROCK			435	450	
SLATE			450	459	
RED ROCK			459	463	
SLATE			463	475	
SAND			475	620	
RED ROCK			620	630	
SAND			630	665	
RED ROCK			665	675	
SHALE			675	703	
RED ROCK			703	730	
SLATE			730	752	
SAND			752	761	
SLATE			761	770	
SAND			770	790	
SHALE			790	858	
SAND			858	888	
SLATE			888	919	
SLATE			919	972	
SAND			972	1018	
SLATE			1018	1065	
SAND			1065	1109	
SLATE			1109	1147	
SAND			1147	1188	
SLATE			1188	1225	
SLATE			1225	1241	
SHALE			1241	1255	
SAND			1255	1275	
SLATE			1275	1312	
SAND			1312	1334	
SLATE			1334	1341	
SAND			1341	1379	
SLATE			1379	1467	
SAND			1467	1500	
SLATE			1500	1530	
SAND			1530	1531	
SLATE			1531	1600	
SAND			1600	1635	
SHALE			1635	1705	
SAND			1705	1753	
SHALE			1753	1782	
(Attach separate sheets as necessary)					
SAND			1782	1828	
LIME			1828	1935	
SAND	Inj 1935	1970	O&G SHOW	G.W.E. CORPORATION	
SHALE	1970	2075		Well Operator	
SLATE	2075	2100		By: <u>Conni Paul, U.P.</u>	
SHALE	2100	2400		Date: <u>6-30-87</u>	

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DEPARTMENT OF ENERGY

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

# OIL AND GAS WELL PERMIT APPLICATION

RECEIVED  
SEP 25 1980  
DEPT. OF MINES & GAS DIVISION

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

DATE September 11, 1980

Surface Owner L. E. Richards

Company G.W.F. Corporation

Address \_\_\_\_\_

Address 6172 Busch Blvd., Columbus, OH.

Mineral Owner L. E. Richards

Farm L. E. Richards Acres 56 AC.

Address \_\_\_\_\_

Location (waters) \_\_\_\_\_

Coal Owner L. E. Richards

Well No. 1-A Elevation 770'

Address \_\_\_\_\_

District Union County Ritchie

Coal Operator None

Quadrangle Pullman 7.5'

Address \_\_\_\_\_

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All operations 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 5-26-81.

INSPECTOR TO BE NOTIFIED Paul Goodnight

ADDRESS \_\_\_\_\_

PHONE 477-3660

*John B. Bennett*  
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 \_\_\_\_\_, 19\_\_\_\_ by DR. W. HARDMAN D.B.A. DRILCO made to G.W.F. Corporation and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in RITCHIE County, Book 130 Page 349

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

Very truly yours, G.W.F. CORPORATION

(Sign Name) *Arnold W. Parker, agent*  
Well Operator

6172 Busch Blvd.

Street

Columbus

City or Town

Ohio 43229

State

Address of Well Operator

\*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

47-085-4934

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 *Arnold W. Parker, agent*

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 \_\_\_\_\_ NAME B. K. Page  
 ADDRESS \_\_\_\_\_ ADDRESS 824 Lakeview Dr., Parkersburg, W. VA  
 TELEPHONE \_\_\_\_\_ TELEPHONE 422-6891  
 ESTIMATED DEPTH OF COMPLETED WELL: 2100' ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Injun  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS \_\_\_\_\_ COMB. X 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			
9 - 5/8			
8 - 5/8	200'	200'	Surface
7			
5 1/2			
4 1/2	2100'	2100'	50 SKS.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

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