



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 200 FT  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION WELL W00 413

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) Frank J. Barber  
 R.P.E. \_\_\_\_\_ L.L.S. 289

PLACE SEAL HERE

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE OCT 13, 1985  
 OPERATOR'S WELL NO. \_\_\_\_\_  
 API WELL NO. \_\_\_\_\_

47-107-1384  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS \_\_\_\_\_ LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
 LOCATION: ELEVATION 714 WATER SHED COVE RUN  
 DISTRICT HARRIS 2 COUNTY WOOD  
 QUADRANGLE POND CREEK 553 009 W64 Belleville  
 SURFACE OWNER ELMER E SMITH ACREAGE 23.87  
 OIL & GAS ROYALTY OWNER ELMER E SMITH LEASE ACREAGE SAME  
 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) \_\_\_\_\_  
NOV 12 1985

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION BEREA DEV. SH. ESTIMATED DEPTH 3650'  
 WELL OPERATOR H.D. WELLS OIL & GAS EXP. & DEV. INC. DESIGNATED AGENT H.D. WELLS III  
 ADDRESS P.O. BOX 1785, CHARLESTON, WV. 25326 ADDRESS SAME ADDRESS

FORM IV-6 (8-78)  
 H.T. HALL

COUNTY NAME  
 PERMIT

943

(296)



**RECEIVED**  
NOV 27 1985

State of West Virginia  
Department of Mines  
DIVISION OF OIL & GAS  
**DEPT. OF ENERGY**  
Oil and Gas Division

Date November 27, 1985  
Operator's Smith #1  
Well No. Smith #1  
Farm Elmer Smith  
API No. 47 - 107 - 1384

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

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

LOCATION: Elevation: 714' Watershed Cove Run  
District: Harris County Wood Quadrangle Pond Creek 7.5'

COMPANY H.D. WELLS OIL & GAS INC.  
ADDRESS P. O. Box 1785 Charleston, WV 25326  
DESIGNATED AGENT H. D. Wells III  
ADDRESS Same  
SURFACE OWNER Elmer Smith  
ADDRESS Belleville, WV  
MINERAL RIGHTS OWNER same  
ADDRESS \_\_\_\_\_  
OIL AND GAS INSPECTOR FOR THIS WORK Glenn  
Robinson ADDRESS Mineral Wells, WV 26150  
PERMIT ISSUED \_\_\_\_\_  
DRILLING COMMENCED 11/17/85  
DRILLING COMPLETED 11/23/85  
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"			
9 5/8	340'	340'	110 sks
8 5/8			
7	1850'	1850'	140 sks
5 1/2			
4 1/2		3668'	200 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale (Huron) Depth 2480-3620 feet  
Depth of completed well 3670 feet Rotary  / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 86 feet; Salt 1300 feet  
Coal seam depths: N/A Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale (Huron) Pay zone depth 2510-3612 feet  
Gas: Initial open flow show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow (250) Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 24 hours  
Static rock pressure 390 psig (surface measurement) after 8 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Berea Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow (100) 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

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

1st Stage	2nd Stage	3rd Stage	4th Stage
<u>Huron</u> 505-3586 (8 Holes)	<u>Huron</u> Up. Dev. 3268-2984 (18 Holes)	<u>Huron</u> Up. Dev. 2817-2608 (15 Holes)	<u>Berea</u> 1985-1988 (12 Holes)
700,000 SCF-N <sub>2</sub>	700,000 SCF-N <sub>2</sub>	600,000 SCF-N <sub>2</sub>	40,000 #20/40
Inj. Rate 60,000 SCF/M	Inj. Rate 67,000 SCF/M	Inj. Rate 60,000 SCF/M	100,000 SCF-N <sub>2</sub>
50 gallons HCL (15%)	250 gallons HCL	250 gallons HCL	250 gallons HCL
SIP 1500#	ISIP 1200#	ISIP 1000#	Max. Press. 2800#
Max. Press. 3900#	Max. Press. 3100#	Max. Press. 2600#	Avg. Press. 2100#
Avg. Press. 2800#	Avg. Press. 2200#	Avg. Press. 1500#	

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Topsoil			0	15	
Sand			15	68	
Shale			68	86	Fresh Water @ 86'
Sand			86	166	
Shale			166	841	
Sand & Shale			841	950	
Shale			950	1296	
Sand			1296	1310	Salt Water @ 1300'
Lime Blk			1310	1420	
Sand Big inj. interval			1420	1450	
Sandy Shale			1450	1983	
Sand - Berea			1983	1988	
Shale			1988	3675 DTD	
very nearby log top thickness up. Dev under 1988 1152 low Huron 3140 500 Java 3640					low Huron @ TD

(Attach separate sheets as necessary)

H. D. Wells Oil & Gas Exploration & Development, Inc.  
Well Operator

By:

*H. D. Wells, III*

Date: 11/27/85

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."

**RECEIVED**  
OCT 23 1985



1) Date: October 23, 1985  
 2) Operator's Well No. E. Smith #1  
 3) API Well No. 47 107-1384  
 State County Permit

**DIVISION OF OIL & GAS**  
**DEPT. OF ENERGY** STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY, OIL AND GAS DIVISION  
**APPLICATION FOR A WELL WORK PERMIT**

- 4) WELL TYPE: A Oil        / Gas X /  
 B (If "Gas", Production X / Underground storage        / Deep        / Shallow X /)
- 5) LOCATION: Elevation: 714' Watershed: Cove Run  
 District: Harris 943 County: Wood Quadrangle: Pond Creek 7.5'
- 6) WELL OPERATOR H. D. WELLS OIL & GAS CO. EXP. & DEV., INC. 7) DESIGNATED AGENT H. D. Wells III  
 Address Box 1785 Address Same  
Charleston, WV 25326
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Glen P. Robinson  
 Address Rt. 1 #6 Mt. Pleasant Estate  
Mineral Wells, WV 26150
- 9) DRILLING CONTRACTOR: Name         
 Address
- 10) PROPOSED WELL WORK: Drill X / Drill deeper        / Redrill        / Stimulate X /  
 Plug off old formation        / Perforate new formation         
 Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Berea/Gordon/Devonian Shale 40'  
 12) Estimated depth of completed well, 3650 feet  
 13) Approximate strata depths: Fresh, 45 feet; salt, 1000 feet.  
 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes        / No X /
- 15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	9 5/8"	J55	26	X		300'	300'	to surf. by	rule 15.05
Coal									Sizes
Intermediate	7"			X		2100'	2100'	1000' fill up	
Production	4 1/2"	K55	10.5	X		3650'	3650'	200 ft <sup>3</sup>	Depths set
Tubing									
Lin...									Perforations:
									Top Bottom

**OFFICE USE ONLY**  
**DRILLING PERMIT**

Permit number 47-107-1384 Date November 1 19 85

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires November 1, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>MU</u>	Plat: <u>MU</u>	Casing: <u>MU</u>	Fee: <u>3779</u> <u>3780</u>	WPCP: <u>MU</u>	S&E: <u>MU</u>	Other: <u>      </u>
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Margaret J. Hassel  
 Director, Division of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.