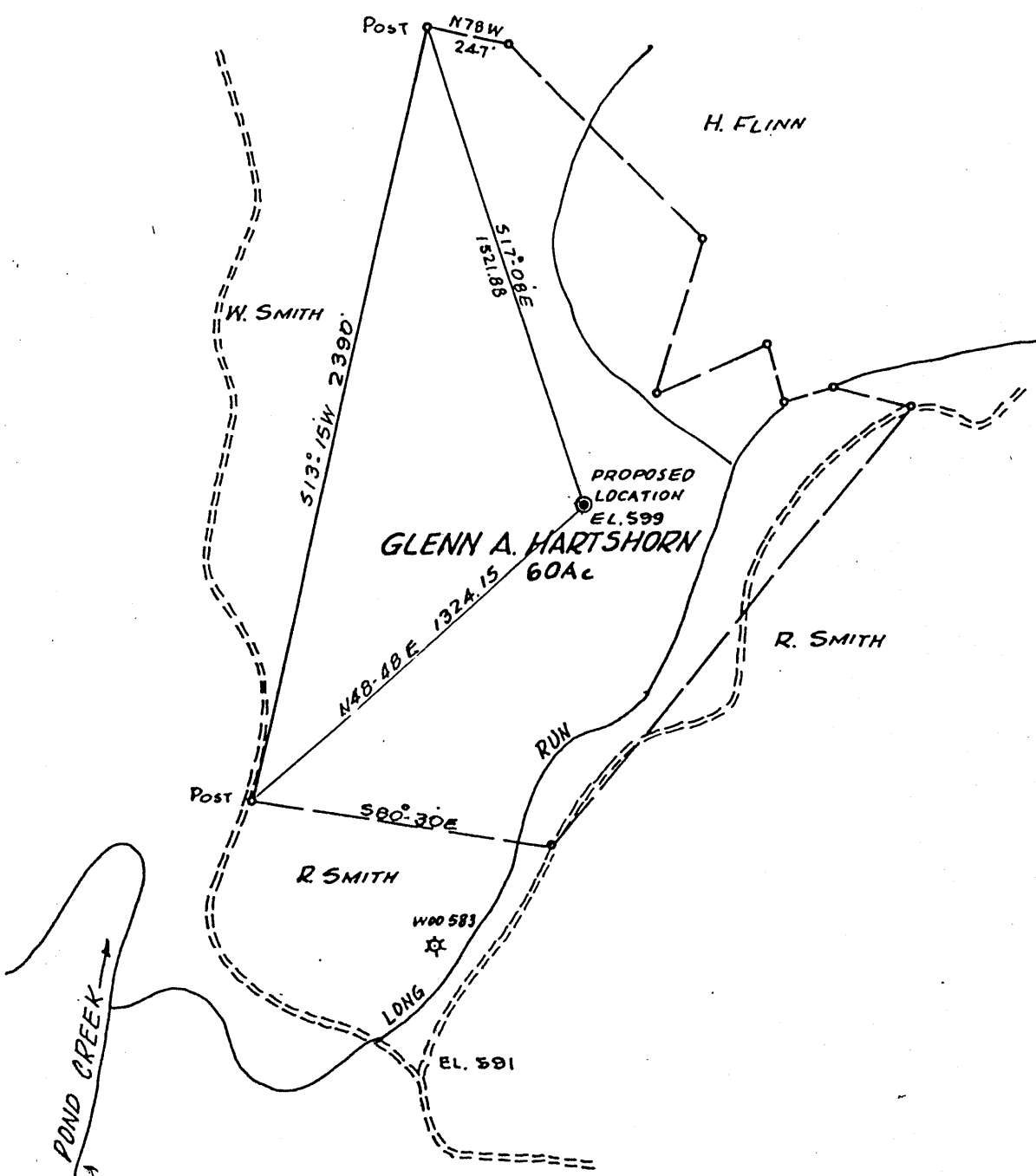


LATITUDE 39° 07' 30"

1,050'

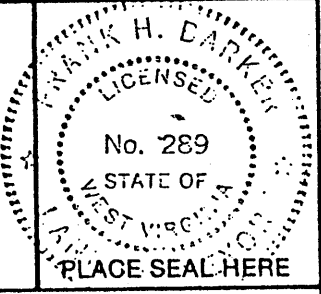
LONGITUDE 81° 42' 30"



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION Rd Inter EL. 591

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 H. Darken  
 R.P.E. \_\_\_\_\_ L.L.S. 289



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE Nov 5, 19 83  
 OPERATOR'S WELL NO. 1  
 API WELL NO. 47-107-01296P

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 599 WATER SHED LONG RUN OF POND CREEK COUNTY WOOD PERMIT CANCELLED  
 DISTRICT HARRIS  
 QUADRANGLE POND CREEK  
 SURFACE OWNER GLENN A. HARTSHORN ACREAGE 60  
 OIL & GAS ROYALTY OWNER GLENN A. HARTSHORN LEASE ACREAGE 60

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 DEVONIAN SHALE ESTIMATED DEPTH 4500  
 WELL OPERATOR H.O. WELLS OIL & GAS EXP. & DEV. INC. DESIGNATED AGENT SAME

COUNTY NAME

WOOD

PERMIT

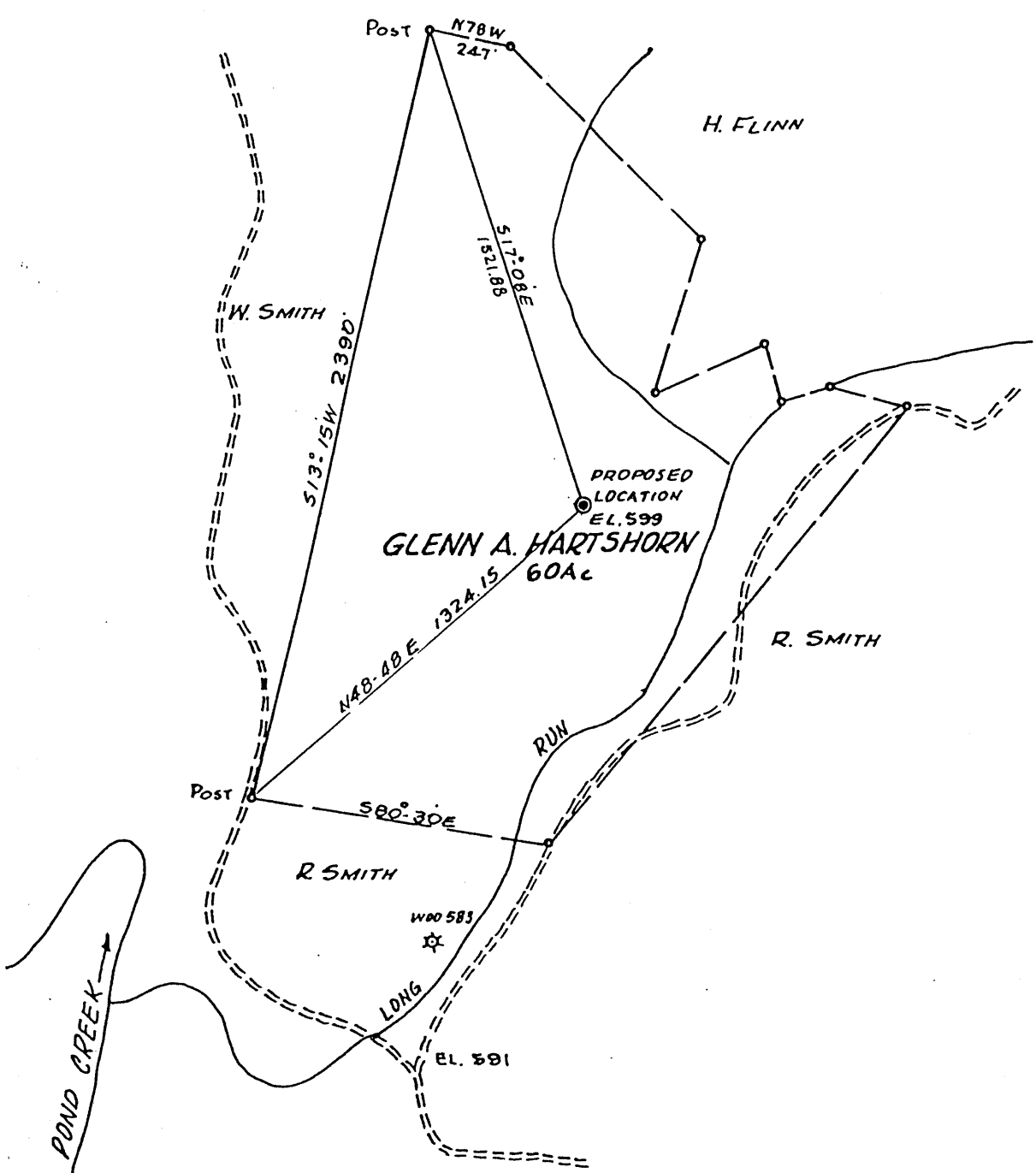
1296 CANCELLED

LATITUDE 39°-07'-30"

1,050

LONGITUDE 81°-47'-30"

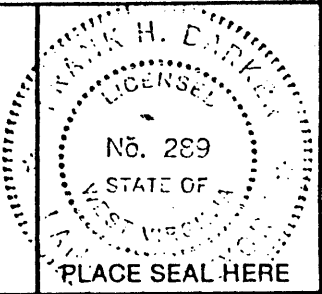
NORTH



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION Rd Inter EL. 591

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 H. Barber  
 R.P.E. \_\_\_\_\_ L.L.S. 289



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE Nov 5 19 83  
 OPERATOR'S WELL NO. 1  
 API WELL NO. 47-107-01296P

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 599 WATERSHED LONG RUN OF POND CREEK  
 DISTRICT HARRIS COUNTY WOOD  
 QUADRANGLE POND CREEK  
 SURFACE OWNER GLENN A. HARTSHORN ACREAGE 60  
 OIL & GAS ROYALTY OWNER GLENN A. HARTSHORN LEASE ACREAGE 60

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 DEVONIAN SHALE ESTIMATED DEPTH 4500  
 WELL OPERATOR K.O. WELLS OIL & GAS EXP. & DEV. INC. DESIGNATED AGENT SAME

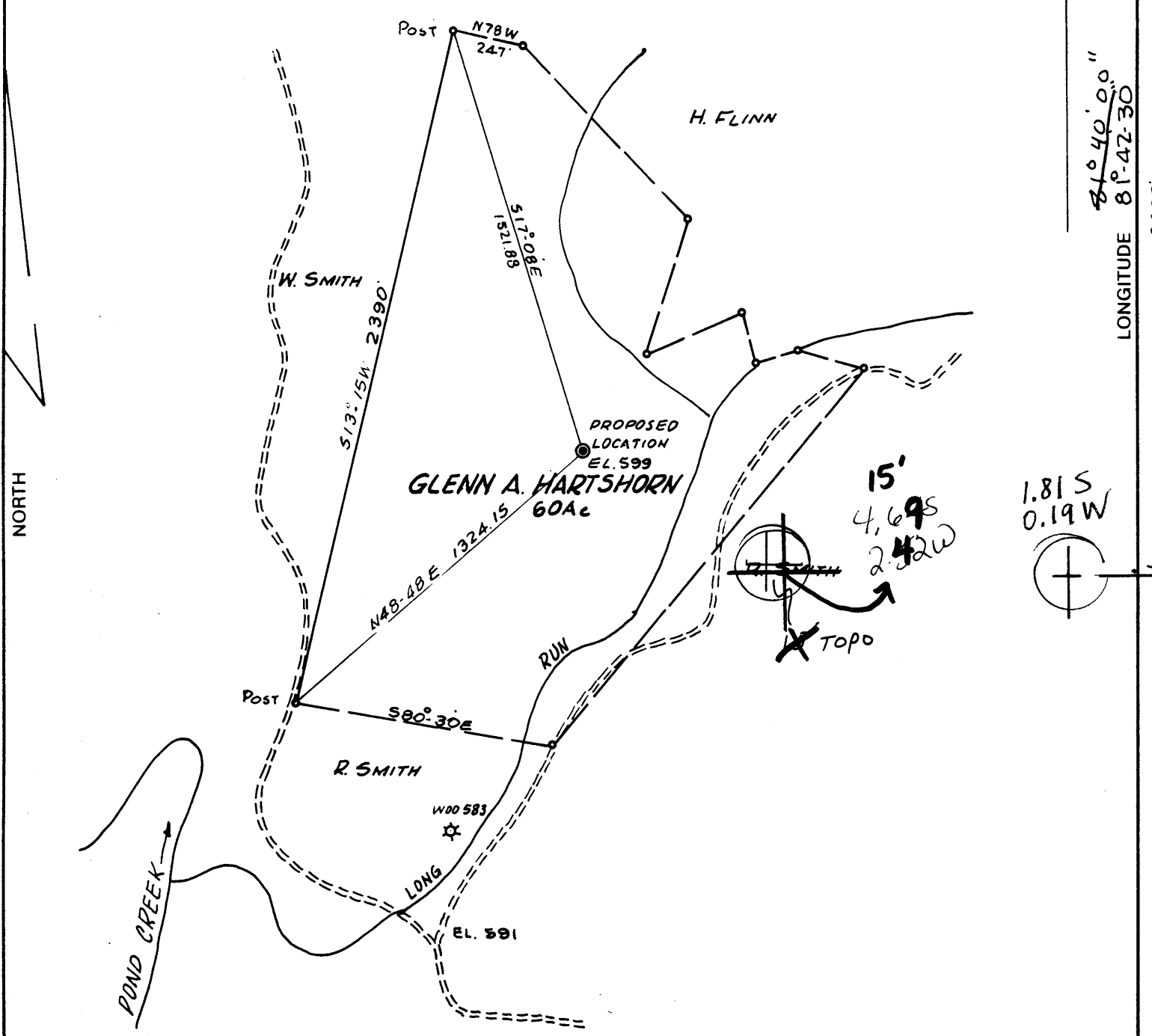
SEP 05 2003

COUNTY NAME WOOD

PERMIT 1296

FORM IV-5 (8-78) H. T. HALL

NORTH



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION Rd Inter EL. 591

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 Nov 5, 19 83  
 OPERATOR'S WELL NO. 1  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 599 WATERSHED LONG RUN OF POND CREEK  
 DISTRICT HARRIS COUNTY WOOD  
 QUADRANGLE POND CREEK Bellville 15' WC  
 SURFACE OWNER GLENN A. HARTSHORN ACREAGE 60  
 OIL & GAS ROYALTY OWNER GLENN A. HARTSHORN LEASE ACREAGE 60

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 DEVONIAN SHALE ESTIMATED DEPTH 4500  
 WELL OPERATOR H.D. WELLS OIL & GAS EXP. & DEV. INC. DESIGNATED AGENT SAME  
 ADDRESS P.O. Box 1785 ADDRESS \_\_\_\_\_  
CHARLESTON, W. VA. 25326

NOV 28 1983

COUNTY NAME PERMIT

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

SPD H... 66 New England (200)

IV-35  
(Rev 8-81)



State of West Virginia  
Department of Mines  
Oil and Gas Division

Date March 27, 1984  
Operator's  
Well No. Hartshorn #1  
Farm Hartshorn  
API No. 47 - 107 - 1296

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

RECEIVED  
APR 13 1984

WELL TYPE: Oil \_\_\_ / Gas x / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ / OIL & GAS DIVISION  
(If "Gas," Production \_\_\_ / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow x) DEPT. OF MINES

LOCATION: Elevation: 599 Watershed Long Run of Pond Creek  
District: Harris County Wood Quadrangle Pond Creek

COMPANY H. D. Wells Oil & Gas, Inc.  
ADDRESS P.O. Box 1785, Charleston, WV 25326  
DESIGNATED AGENT same  
ADDRESS same  
SURFACE OWNER Glen A. & Loraine Hartshorn  
ADDRESS Rt. 1, Box 70, Belleville, WV 26133  
MINERAL RIGHTS OWNER same  
ADDRESS same  
OIL AND GAS INSPECTOR FOR THIS WORK Jerry  
Rc. 1 Box 101-A  
Tephabock ADDRESS Ripley, WV  
PERMIT ISSUED 11/28/83  
DRILLING COMMENCED 12/12/83  
DRILLING COMPLETED 12/18/83 3  
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		293	Surface
8 5/8			
7		1,910	500
5 1/2			
4 1/2		3,838	1,000
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth            feet  
Depth of completed well 3,852 feet Rotary X / Cable Tools             
Water strata depth: Fresh 65 feet; Salt 1,100 feet  
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3,550 feet  
Gas: Initial open flow 20,000 Mcf/d Oil: Initial open flow None Bbl/d  
Final open flow (75,000) Mcf/d Final open flow (None) Bbl/d  
Time of open flow between initial and final tests 8 hours  
Static rock pressure 650 psig (surface measurement) after 12 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation None 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

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

N<sup>2</sup> Frac 120 Holes 3,550 Feet *Huron*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand			0	100	Fresh Water at 65 Feet
Red Rock			100	190	
Shale			190	330	
Sand			330	776	
Shale			776	1,100	
Salt-Sand			1,100	1,215	Salt Water at 1,100 Feet
Red Rock			1,215	1,605	
Sand			1,605	1,795	
Shale			1,795	1,900	
Berea			1,900	1,904	Gas Show
Shale			1,904	3,852	Total Depth <i>Huron</i>

3852  
1904  
 1948

3550  
1904  
 1696

(Attach separate sheets as necessary)

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

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

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

*[Handwritten Signature]*

*4/5/84*

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."