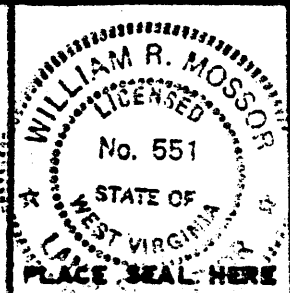


FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION Road Int. 616'

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) William R. Mossor
 R.P.E. _____ L.L.S. 551



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



DATE 3 Feb. 1981
 OPERATOR'S WELL NO H-1221
 API WELL NO. _____
47 - 107 - 1143
 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 628' WATER SHED Hannaman Run
 DISTRICT Clay COUNTY Wood
 QUADRANGLE Kanawaha, W. Va. 7 1/2 Quad. E6265TA 15
 SURFACE OWNER Richard W. + Sharon S. Warner ACREAGE 307
 OIL & GAS ROYALTY OWNER Richard W. + Sharon S. Warner LEASE ACREAGE 307
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUS _____
 TARGET FORMATION Devonian Shale ESTIMATED DEPTH 4500'
 WELL OPERATOR Haught, Inc. DESIGNATED AGENT Warren Haught
 ADDRESS Smithville, W. Va. 26178 ADDRESS Smithville, W. Va. 26178

RECEIVED

AUG 12 1982

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

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

WELL OPERATOR'S REPORT
OF

DRILLING, FRACURING AND/OR STIMULATION, OR PHYSICAL CHANGE

WELL TYPE: Oil XX / Gas XX / Liquid Injection _____ Waste Disposal _____

(If "Gas", Production XX / Underground storage _____ / Deep _____ / Shallow XX /)
LOCATION: Elevation: 628' Watershed: Hannaman Run
District: Clay County: Wood Quadrangle: Kanawha, WV
Richard Warner H-1221

WELL OPERATOR Haight, Inc. DESIGNATED AGENT Warren R. Haight
Address 4424 Emerson Ave. Address 4424 Emerson Ave.
Parkersburg, WV 26104 Parkersburg, WV 26104

PERMITTED WORK: Drill XX / Convert _____ / Drill deeper _____ / Redrill _____ / Fracture or stimulate
Plug off old formation _____ / Perforate new formation _____ /
Other physical change in well (specify) _____

PERMIT ISSUED ON February 17, 19 81 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Deo Mace
Address: Rt. 1, Box 5
Sandridge, WV 25274

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 3706-4184 feet
Depth of completed well, 4252 feet Rotary X / Cable Tools _____
Water strata depth: Fresh, 75 feet; salt, _____ feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced May 13, 19 81, and completed June 6, 19 81

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CERAMIC PACKING OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Hands
Fresh water	8-5/8	J-55	20#	X		215	215	100 sacks
Coal								Sizes
Intermediate								
Production	4 1/2"	K-55	10.5#	X			4092	435 Sacks
Tubing								
Liners								Perforations:
								Top
								3987
								4184
								?

OPEN FLOW DATA

Producing formation upper Devonian Shale Huron Pay zone depth 3987-4184
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ bbl/d
Final open flow, 225 Mcf/d Final open flow, _____ bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 435 psig (surface measurement) after 12 hours shut in

[If applicable due to multiple completion--]

Second producing formation _____ Pay zone depth _____
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

AUG 23 1982 Printed on reverse side.

DETAILS OF PERFORATED INTERVALS, FRACTURING OF WELL HEADS, PHYSICAL CHANGE, ETC.

Nitrogen fraced by B.J. Hughes
720,000 SCF
500 Gal. Acid

Perforations -- 36--^{10 Dev -> Huron}2987--4184

• 225

FORMATION:	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including indication of all casing and well water, etc., and gas
Injun			1435	1538	
Weir			1800	1811	
Berea			1922	1933	
Gantz			2035	2047	
Stray			2170	2181	
Gordon			2205	2217	
4th			2309	2318	
5th			2350	2356	
Bayard			2408	2413	
Tiona			2711	2715	
Spechly			3354	3362	
Balltown			3422	3435	
Riley			3706	3712	
Benson			4130	4145	
Huron-deepest fm.			T.D.	4252	

4184 b. pay
1933 b. Berea
2251

4145
628
3517

(Attach separate sheets as complete as necessary)

Haught, Inc.

Well Operator

By Beth A. Wilson

Its Well Administrative Agent

NOTE: Regulation 2.024: provides as follows:

"The term 'Log' or 'Well Log' shall mean a systematic, detailed geologic record of well perforations, including casing, 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
FEB 17 1981

WELL TYPE: Oil X / Gas X /
(If "Gas", Production X / Underground storage _____) Dept. OIL & GAS DIVISION
LOCATION: Elevation: 628' Watershed: Hannaman Run
District: Clayo County: Wood Quadrangle: Kanawha, W.V.
DEPT. OF MINES

WELL OPERATOR Haught, Inc. DESIGNATED AGENT Warren R. Haught
Address Route 3, Box 14 Address Smithville, WV 26178
Smithville, WV 26178

OIL & GAS ROYALTY OWNER Richard & Sharon Warner
Address P.O. Box 1783
Parkersburg, W.V. 26101

COAL OPERATOR None
Address _____

ACREAGE 307
SURFACE OWNER Richard & Sharon Warner
Address P.O. Box 1783
Parkersburg, W.V. 26101
ACREAGE 307

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____
Name _____
Address _____

FIELD SALE (IF MADE) TO:
Name Cabot Corp.
Address P.O. Box 1473
Charleston, WV 25325

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name K. Paul Goodnight
Address Smithville, WV 26178

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed _____ / lease X / other contract _____ / dated November 15, 1980, to the undersigned well operator from Richard & Sharon Warner

[If said deed, lease, or other contract has been recorded:]

Recorded on Dec. 8, 1980, in the office of the Clerk of the County Commission of Wood County, West Virginia, in _____ Book 748 at page 75. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____ /
Plug off old formation _____ / Perforate new formation _____ /
Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code 5, 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (304) 542-3092

Haught, Inc.
Well Operator

By Warren R. Haught
Its President

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-25 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Haight, Inc.
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Devonian Shale
Estimated depth of completed well, 4500' feet Rotary / Cable tools
Approximate water strata depths: Fresh, 75 feet; salt, feet.
Approximate coal seam depths: None Is coal being mined in the area? Yes No

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS 'Cable feet'	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Flange
Fresh water	3 5/8	K-55	20#	X		200'	200'	100 sacks	Cement to Surface
Coal									Seals
Intermediate									
Production	4 1/2	J-55	10.5#	X			4500'	100 sacks	Depth set
SIZE									
LOTS									Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-3, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8c from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

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 10-20-81.

[Signature]
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a Reclamation under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: , 1981

By
Its

[Handwritten signature]