

2.81S
~~3.25W~~
 3.29W

39 17 35
 80 48 25

550W	808'
2765W	792'
361W	42'
354W	210'
304W	330'
9 1/2 W	132'
15 1/2 W	198'
42 1/2 E	363'
27 E	412'
N 50 E	132'
S 43 1/4 E	808'
S 62 W	343'

(15') 80° 45'
 80 47 1/2

TARGET FORMATION _____
 ESTIMATED DEPTH _____

API WELL NO. 47 - 017 -
 STATE COUNTY PERMIT _____

PROPOSED WORK: WELL TYPE: OIL _____ GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 Drill (if "GAS", PRODUCTION STORAGE _____ DEEP SHALLOW _____
 BM AT RAILROAD BRIDGE ELEV 816'

William R. Mossor
 200

Well Operator GLENN L. HAUGHT & SONS
 Address SMITHVILLE, W.VA. 26178
 Designated Agent WARREN HAUGHT
SMITHVILLE, W.VA. 26178
 SURFACE OWNER GEORGE NEELEY, ETUX. 64 Acres
 OIL & GAS ROYALTY OWNER C.P. HUDSON HRS.
 LEASE 244 3/5

OPERATOR'S H-722
812'
 Water Shed ARNOLD CREEK
WEST UNION, W.VA. 7 1/2' QUAD. 15'

Count DODDRIDGE CENTRAL
WILLIAM R. MOSSOR, I.L.S.
 Registrar's Registration No. 551
 Date 11 JAN. 1979 Scale 1" = 1000'

WELL NO. 47-017-2339

47-017-2339

Denotes location of well in United States
 Geographic Maps, scale 1 to 250,000
 and latitude lines being rounded to the nearest
 second as shown.
 Denotes one inch spaces on border line of
 original tracing.
 FEB 9 1979

FORM IV-35
(Obverse)

Operator's
Well No. H-722

[08-78]

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

API Well No. 47-017-2339
State County

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

LOCATION: Elevation: 812' Watershed: Arnold Creek
District: Central County: Doddridge Quadrangle: West Union, WV 7 1/2
C. P. Hudson Hrs. H-722

WELL OPERATOR Glenn L. Haught & Sons DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178 Address Smithville, WV 26178

PERMITTED WORK: Drill X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate
Plug off old formation ___ / Perforate new formation ___ / APR 12 1979
Other physical change in well (specify) _____

PERMIT ISSUED ON Jan. 24, 19 79

OIL & GAS INSPECTOR FOR THIS WORK:
Name Kenneth Paul Goodnight
Address Smithville, WV 26178
477-3660

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19 _____)

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 3669-5066 feet

Depth of completed well, 5236 feet Rotary X / Cable Tools ___

Water strata depth: Fresh, 387 feet; salt, ___ feet.

Coal seam depths: None Is coal being mined in the area? No

Work was commenced March 7, 19 79, and completed March 19, 19 79

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILLING OR SACKS (Cubic feet)	REMARKS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								
Fresh water	10.75			X		294'	294'	150 Sacks
Coal								
Intermediate	7		30.0	X		1416'	1416'	100 Sacks
Production	4 1/2	J-55	10.5	X			5177'	175 Sacks
Tubing								
Liners								

OPEN FLOW TESTS

Producing formation Devonian Shale Pay zone depth 3669-5066

2nd Initial open flow, Mcf/d 111: Initial open flow, Mcf/d

Final open flow, 2,000 Mcf/d Final open flow, Mcf/d

Time of open flow between initial and final tests, 8 hours

2nd pressure, 1750 psi (surface measurement) after 12 hours shut in

(If applicable due to multiple perforations)

Producing formation _____ Pay zone depth _____

2nd Initial open flow, Mcf/d 111: Initial open flow, Mcf/d

Final open flow, Mcf/d Final open flow, Mcf/d

Time of open flow between initial and final tests, _____ hours

APR 27 1979

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
 Hydrafraced by Halliburton - 3/23/79 -- 1,500 Gal. Acid -- 1,595 Bbls.
 Water -- 26,500 Lbs. 80-100 Mesh Sand -- 73,000 Lbs. 20-40 Mesh Sand.

Perforations 12 -- 5010-5066 *alex.*
 12 -- 4221-4334 *Bradford*
 12 -- 3712-3716 *Balltown*

WELL LOG

FORMATION	Color	Hard or Soft	S Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Red Rock & Shale	Red/Gray	Soft	0	581	Water @ 7 Ft.
Lime		Hard	581	590	Water @ 387'
Shale	Gray	Soft	590	951	
1st Salt Sand	White	Hard	951	957	
Shale	Gray	Soft	957	1131	
2nd Salt Sand	White	Hard	1131	1138	
Shale	Gray	Soft	1138	1169	
3rd Salt Sand	White	Hard	1169	1180	
Shale	Gray	Soft	1180	1537	
Maxon Sand	White	Hard	1537	1569	
Shale	Gray	Soft	1569	1724	
1. Lime	White	Hard	1724	1739	
Shale	Gray	Soft	1739	1752	
2. Lime	White	Hard	1752	1862	
Sand	White	Soft	1862	1910	
Shale	Gray	Soft	1910	3669	
Devonian Shale	Gray/White	S/H	3669	5236	T.D.

Glenn L. Haught & Sons

Glenn L. Haught
 Partner

[Faint, illegible text in a box]

Survey

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Glenn L. Haught & Sons
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Devonian Shale

Estimated depth of completed well, 5600 feet Rotary X / 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 X /

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	11 3/4		42 lb.	X		250	250	100 sacks	
Coal									Sizes
Intermediate	8 5/8		20 lb.	X		1800	1800	50 sacks	
Production	4 1/2	K55	10.50	X		5400	5400	150 sacks	Depths set
Tubing									
Liners									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-9, "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 § 22-4-8a from the owner of any water well or drilling 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 9-24-79

Robert T. [Signature]
Deputy Director, Oil & Gas Division

This permit must be completed by the coal operator and by any coal owner or lessee who has recorded a declaration 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: , 19

By
Its

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's
Well No. H-722

API Well No. 47-017-2339
State County Perm

WELL TYPE: Oil / Gas X /
(If "Gas", Production X / Underground storage / Deep X / Shallow /)

LOCATION: Elevation: 812' Watershed: Arnold Creek
District: Central County: Doddridge Quadrangle: West Union, WV 7 1/2'

WELL OPERATOR Glenn L. Haught & Sons
Address Smithville, WV 26178

DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178

OIL & GAS
ROYALTY OWNER C. P. Hudson Hrs.
Address c/o Wm. Rollins
Central Station, WV 26340

COAL OPERATOR None
Address

SURFACE OWNER George Neeley, et ux
Address West Union, WV 26456
Acreage 64

COAL OWNER(S) WITH DECLARATION ON RECORD:

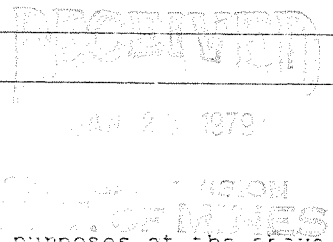
Name None
Address

FIELD SALE (IF MADE) TO:
Name
Address

Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address Clarksburg, WV 26301
622-3871

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address



The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract X / dated Nov. 30, 1978, to the undersigned well operator from James Drilling Corp.

[If said deed, lease, or other contract has been recorded:]
Recorded on Dec. 4, 1978, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Lease Book 105 at page 770. 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 obligation they wish to make or are required to make by Code § 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
OR PHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION COMMISSION
103 WASHINGTON STREET EAST
CHARLESTON, WV 25301
TELEPHONE: (304) 343-3397

BLANKET BOND

GLENN L. HAUGHT & SONS
Well Operator

By Warren R. Haught
the Partner