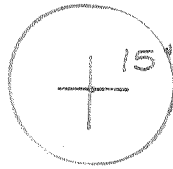
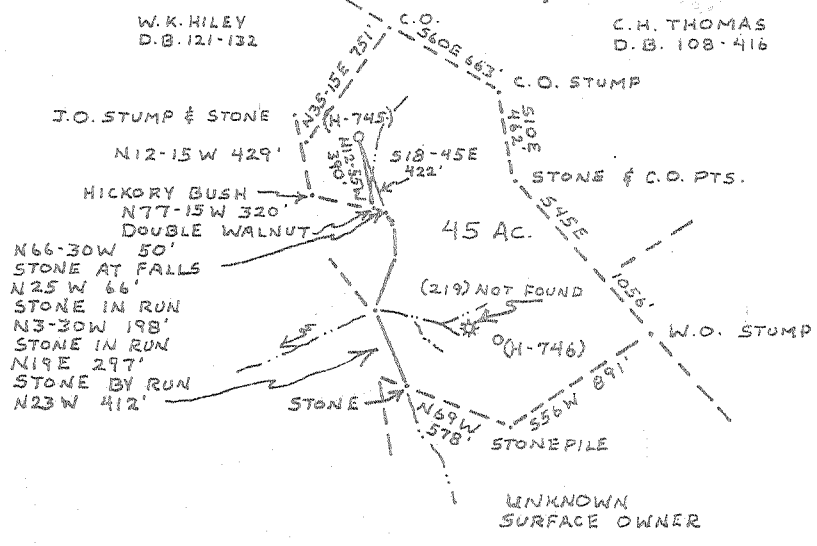


Latitude 39° 20'

5990 SOUTH
6640 WEST



80° 45'
80° 47 1/2'



Willie R. Mass
551



DATE 17 MAY 1979
OFFICE WELL H-745
APR 1980
47 - 017 - 2437
STATE COUNTY

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
PRODUCTION STORAGE DEEP WELL
LOCATION: SURFACE ELEV. 968' WATER SHED ARNOLD CREEK
OIL FIELD CENTRAL COUNTY DODDRIDGE
DIAGRAM & WEST UNION, W.VA. 7 1/2 QUAD. 15' SE
SURFACE OWNER L.D. J. CORP. ACRES 45
OIL & GAS ROYALTY OWNER WARREN R. & LEMMA G. HAUGHT LEASE ACRES 47.66
LEASE NO.
PROPOSED WORK: DRILL CONVERT DRILL DEEPER REPAIR REFRIGERATE
STIMULATE PLUS OIL OLD FORMATION REFRIGERATE
FORMATION OTHER SPECIFIC CHANGE IN IT SPECIFIC
PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION GORDON ESTIMATED DEPTH 3500' JUN 14 1979
WELL OPER. FOR GLENN HAUGHT & SONS OPERATED BY WARREN HAUGHT
ADDRESS SMITHVILLE, W.VA. 26178 ADDRESS SMITHVILLE, W.VA. 26178
6--

6601 - CENTRAL STATION 91

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

Date June 29, 1979

FORM IV-35
(Obverse)

Operator's

Well No. H-745

WELL OPERATOR'S REPORT #

API Well No. -7-017-2437

[08-78]

State County Permi

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

Warren R. & Lenna G. Haught H-745
WELL OPERATOR Glenn L. Haught & Sons DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178 Address Smithville, WV 26178

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

PERMIT ISSUED ON May 22, 19 79 OIL & GAS INSPECTOR FOR THIS WORK:
Name Paul Garrett
IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED Address 321 Beech St.
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 4435 to 5204 feet
Depth of completed well, 5386 feet Rotary / Cable Tools
Water strata depth: Fresh, 90 feet; salt, _____ feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced May 31, 19 79, and completed June 12, 19 79

LOGGING AND TUBING PROGRAM

LOGGING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kinds
Fresh water	11 3/4	K-55				28'	28'	10 Sacks
Intermediate	8 5/8	K-55	20#	X		812'	812'	200 Sacks
Production	4 1/2	J-55	10.5	X			5238'	275 Sacks
Logging								Depths set
Packers								Perforations:
								Top Bottom
								4442 5176

OIL & GAS DIVISION
DEPT. OF MINES

OPEN FLOW DATA

Producing formation Devonian Shale ALEX Pay zone depth 4435 to 5204 feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 780 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 1650 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 Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, _____ hours NOV 14 1979
Static rock pressure, _____ psig (surface measurement) after _____ hours shut in

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

Hydrafraced by Halliburton 6-21-79 -- 750 Gal. Acid -- 1253 Bbls. Water
 52,000 Lbs. 20/40 Mesh Sand -- 21,500 Lbs. 80/100 Mesh Sand

Perforations 11--5176--5128
 10--4865--4442

WELL LOG

FORMATION	Color	Hard or Soft	4 Top Feet	Bottom Feet	Remarks Including indication of all fres and salt water, coal, oil and ga
Red Rock & Sand			75	234	Water @ 90'
Red Rock			234	359	
Shale			359	410	
Red Rock			410	490	
Sand			490	540	
Shale			540	640	
Sand			640	660	
Sand & Shale			660	935	
Sand			935	965	
Shale			965	1303	
Sand			1303	1334	
Shale			1334	1386	
Sand			1386	1415	
Shale			1415	1448	
Sand			1448	1472	
Shale			1472	1503	
Sand			1503	1550	
Shale			1555	1580	
Sand			1580	1593	
Shale			1593	1611	
Sand			1611	1680	
Shale			1680	1820	
Sand			1820	1860	
Shale			1860	1930	
Sand			1930	1965	
Shale			1065	1990	
Lime			1990	2040	
Shale			2040	2200	
Sand			2200	2250	
Lime			2250	2346	
Sand			2346	2376	
Shale			2376	2408	
Sand			2408	2442	
Shale			2442	2491	
Sand			2491	2521	
Shale			2521	2546	
Sand			2546	2573	
Shale			2573	2604	
Sand			2604	2690	
Sand & Shale			2690	3400	
Sand			3400	3420	
Shale			3420	3501	
Sand			3501	3535	
Shale			3535	3560	
Sand			3560	3570	
Shale			3570	4035	
Sand			4035	4050	
Shale			4050	4435	
Sand			4435	4468	
Shale			4468	4510	
Sand			4510	4586	
Shale			4586	4628	
Sand			4628	4650	
Shale			4650	4663	
Sand			4663	4780	
Shale			4780	4870	
Sand			4870	4880	
Shale			4880	5130	
Sand ALEX.			5130	5204	
Shale			5204	5421	

T.D.

GLENN L. HAUGHT & SONS
 Well Operator

By Glenn L. Haught
 Its partner

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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. H-745

API Well No. 47 - 017 - 2437
State County Permit

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

LOCATION: Elevation: 968' Watershed: Arnold Creek
District: Central County: Doddridge Quadrangle: West Union, WV 7 1/2'

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

OIL & GAS ROYALTY OWNER Warren R. & Lenna G. Haught COAL OPERATOR None
Address Smithville, WV 26178 Address

ACREAGE 47.66 COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER L.D.J. Corp. Name
Address West Union, WV Address

RECEIVED
MAY 21 1979

ACREAGE 45 Name

FIELD SALE (IF MADE) TO: Address OIL & GAS DIVISION
Name **DEPT. OF MINES**

COAL LESSEE WITH DECLARATION ON RECORD:

Name

Address

OIL & GAS INSPECTOR TO BE NOTIFIED Name Paul Garrett

Address 321 Beech St.

Clarksburg, WV 26301

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 , 19 , to the undersigned well operator from Warren R. & Lenna G. Haught

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

Recorded on , 19 , in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Book at page . 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 § 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) 348-3092

BLANKET BOOK

GLENN L. HAUGHT & SONS
Well Operator
By Warren R. Haught
Its Partner

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, Gordon

Estimated depth of completed well, 3500 feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 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	8 5/8	K-55	20	X		400 675	400 675	100 Sacks	<i>Connect to surface</i>
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X			3500	125 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 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 1-22-80.

[Signature]
Deputy Director - Oil & Gas Division

The following order must be completed by the coal operator and by any coal owner or coal 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