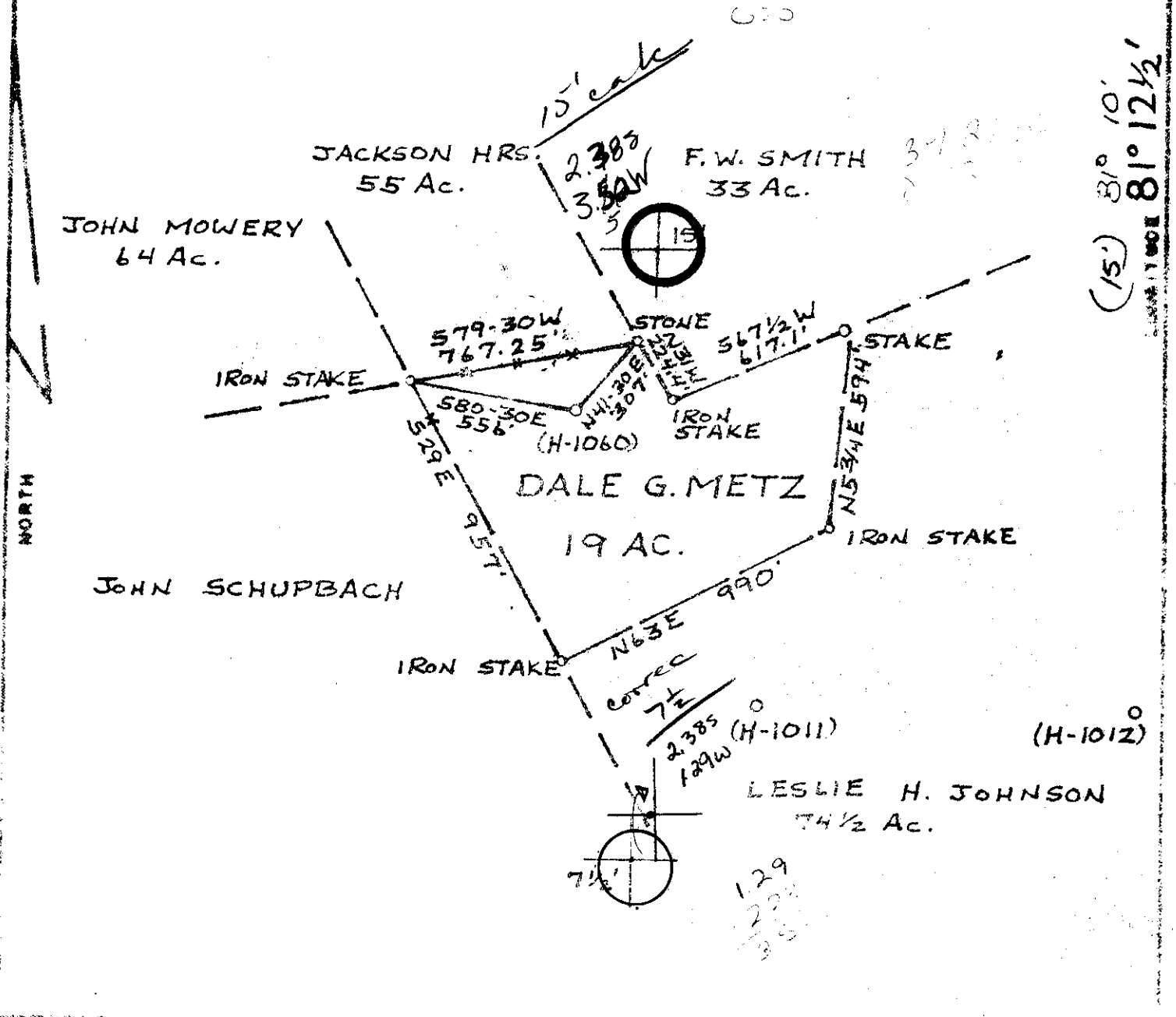


LATITUDE 39° 25'
13,120' SOUTH
7,020' WEST



FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION HIGH POINT ELEV. 1115'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS A TRUE AND CORRECT COPY 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 A. Moseley*
 R.P.S. _____ L.L.S. 551

PLACE SEAL HERE

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



DATE 14 JULY 1980
 OPERATOR'S WELL NO. H-1060
 API WELL NO. 47-073-0912
 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 878' WATER SHED OHIO RIVER
 DISTRICT WASHINGTON COUNTY PLEASANTS
 QUADRANGLE RAVEN ROCK, W.VA. 7 1/2' QUAD. ST. MARY'S 15' WC
 SURFACE OWNER DALE G. METZ ACRES 19
 OIL & GAS ROYALTY OWNER DALE G. METZ LEASE SCREAGE 19
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ RE-DRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT _____
 TARGET FORMATION SHALE ESTIMATED DEPTH 3500'
 WELL OPERATOR HAUGHT, INC. ADDRESS SMITHVILLE, W.VA. 26178
 OPERATOR'S ADDRESS SMITHVILLE, W.VA. 26178

RECEIVED

AUG - 2 1982

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

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

WELL TYPE: Oil XX / Gas XX / Liquid Injection _____ Waste Disposal _____
 (If "Gas", Production XX / Underground storage _____ / Deep _____ / Shallow XX /
 LOCATION: Elevation: 878' Watershed: Ohio River
 District: Washington County: Pleasants Quadrangle: Raven Rock, WV
Metz H-1060

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 July 29, 1980 OIL & GAS INSPECTOR FOR THIS WORK:
 (IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Phillip L. Tracy
 Address Rt. 23
Alma, WV 26320

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 3276-3893 feet
 Depth of completed well, 3500' feet Rotary XX / 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 August 10, 1980, and completed August 17, 1980

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-IN OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Rinds
Fresh water	8-5/8	K-55	20#	X		1078'	1078'	Cement to Surface
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5#	X			3500'	300 Sacks Cement set
Tubing								
Liners								Perforations: See Back
								3465-3806

OPEN FLOW DATA

Producing formation Huron Devonian Shale Pay zone depth 3465-3806 feet
 Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
 Final open flow, 165,000 Mcf/d 165 MCF Final open flow, _____ Bbl/d
 Time of open flow between initial and final tests, 8 hours
 Static rock pressure, 425 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
 Static rock pressure, _____ psig (surface measurement) after _____ hours shut in

*Continue to reverse side.

AUG 9 1982

108-76

DETAILS OF PERFORATED INTERVALS, FRACTURING OF COUPLERS, PHYSICAL CHANGE, ETC.

Nitrogen fraced by B.J. Hughes

Perforations: 28 holes 3465-3806

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Including indication of all fresh and salt water, sand, etc. and size	FORMATION	
						Top Ft.	Bottom Ft.
Top soil			0	35	Shale	1815	1864
Sand			35	82	Sand	1864	1873
Shale			82	135	Shale	1873	1974
Red Rock			135	147	Sand	1974	1990
Shale			147	152	Shale	1990	2096
Red Rock			152	193	Sand	2096	2109
Sand			193	229	Shale	2109	2120
Shale			229	297	Sand	2120	2128
Sand			297	336	Shale	2128	2240
Shale			336	354	Sand	2240	2254
Sand			354	399	Shale	2254	2384
Shale			399	438	Sand	2384	2401
Sand			438	465	Shale	2401	2493
Shale			465	479	Sand	2493	2499
Sand			479	504	Shale	2499	2851
Shale			504	537	Sand	2851	2857
Sand			537	558	Shale	2857	3029
Shale			558	573	Sand	3029	3050
Sand			573	611	Shale	3050	3259
Shale			611	676	Sand	3259	3276
Sand			676	703	Shale	3276	3570
Shale			703	788	Sand	3570	3578
Sand			788	809	Shale	3578	3642
Shale			809	857	Sand	3642	3653
Sand			857	893	Shale	3653	3751
Shale			893	946	Sand	3751	3756
Sand			946	995	Shale	3756	3893
Shale			995	1066			
Sand			1066	1091			
Shale			1091	1137			
Sand			1137	1151			
Shale			1151	1189			
Sand			1189	1213			
Shale			1213	1266			
Sand			1266	1283			
Shale			1283	1301			
Sand			1301	1305			
Shale			1305	1373			
Sand			1373	1400			
Shale			1400	1444			
Sand			1444	1459			
Shale			1459	1516			
Sand			1516	1533			
Shale			1533	1611			
Sand			1611	1628			
Shale			1628	1762			
Sand			1762	1775			
Shale			1775	1809			
Sand			1809	1815			

Huron

T.D.

(Attach separate sheets as complete as necessary)

Haught, Inc.

Well Operator
 by Walter R. Haught
 President

NOTE: Regulation 2.321: provides as follows:
 "The term 'Log' or 'Well Log' shall mean a systematic, detailed geological record of all formations, including sand, encountered in the drilling of a well."

Date: July 25, 1980

Operator's Well No. H-1060

API Well No. 47 - 073 - 0912
State County Permit

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

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas X /
(If "Gas", Production X / Underground storage _____ Deep _____ Shallow X)
LOCATION: Elevation: 878 Watershed: Ohio River
District: Washington County: Pleasants Quadrangle: Raven Rock WV 7 1/2
WELL OPERATOR Haight, Inc. DESIGNATED AGENT Warren R. Haight
Address Route 3, Box 14 Address Smithville, WV 26178
Smithville, WV 26178

OIL & GAS ROYALTY OWNER Dale G. Metz & Raymond Dotson
Address Rt. 3 Box 277
St. Marys, WV 26170
Acreage 19
SURFACE OWNER Dale G. Metz
Address Rt. 3, Box 277
St. Marys, WV 26170
Acreage 19

COAL OPERATOR None
Address _____

COAL OWNER(S) WITH DECLARATION ON RECORD: **RECEIVED**
Name _____
Address _____
JUL 29 1980
Name _____
Address OIL & GAS DIVISION
DEPT. OF MINES

FIELD SALE (IF MADE) TO:
Name _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip L. Tracy
Address P.O. Box 173
Middlebourne, W.V. 26149

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 May 28, 1980, to the undersigned well operator from Dale G. Metz et als
[If said deed, lease, or other contract has been recorded:]

Recorded on June 16, 1980, in the office of the Clerk of the County Commission of Pleasants County, West Virginia, in Deed Book 156 at page 308. 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) 343-3092

Haight, Inc.
Well Operator
By Warren R. Haight
President

BLANKET BOND

Survey

PROPOSED WORK ORDER

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

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

GEOLOGICAL TARGET FORMATION, Shale

Estimated depth of completed well, 3500 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 (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		200'	200'	75 sacks	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			3500'	100 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-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 § 22-4-3c 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 3-30-81.

Fred B. Smith
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: _____, 19____

By _____
Its _____