

FILE NO. _____ DRAWING NO. _____ SCALE <u>1" = 500'</u> MINIMUM DEGREE OF ACCURACY <u>1:200</u> PROVEN SOURCE OF ELEVATION <u>HIGH POINT 1285'</u>	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) <u>William R. Mosser</u> R.P.E. _____ L.L.S. <u>551</u>	PLACE SEAL HERE
--	---	-----------------

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-73)

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE 25 MARCH, 19 80
 OPERATOR'S WELL NO H-978
 API WELL NO. 47-095 0894
 STATE COUNTY PERMIT Formerly 095-795

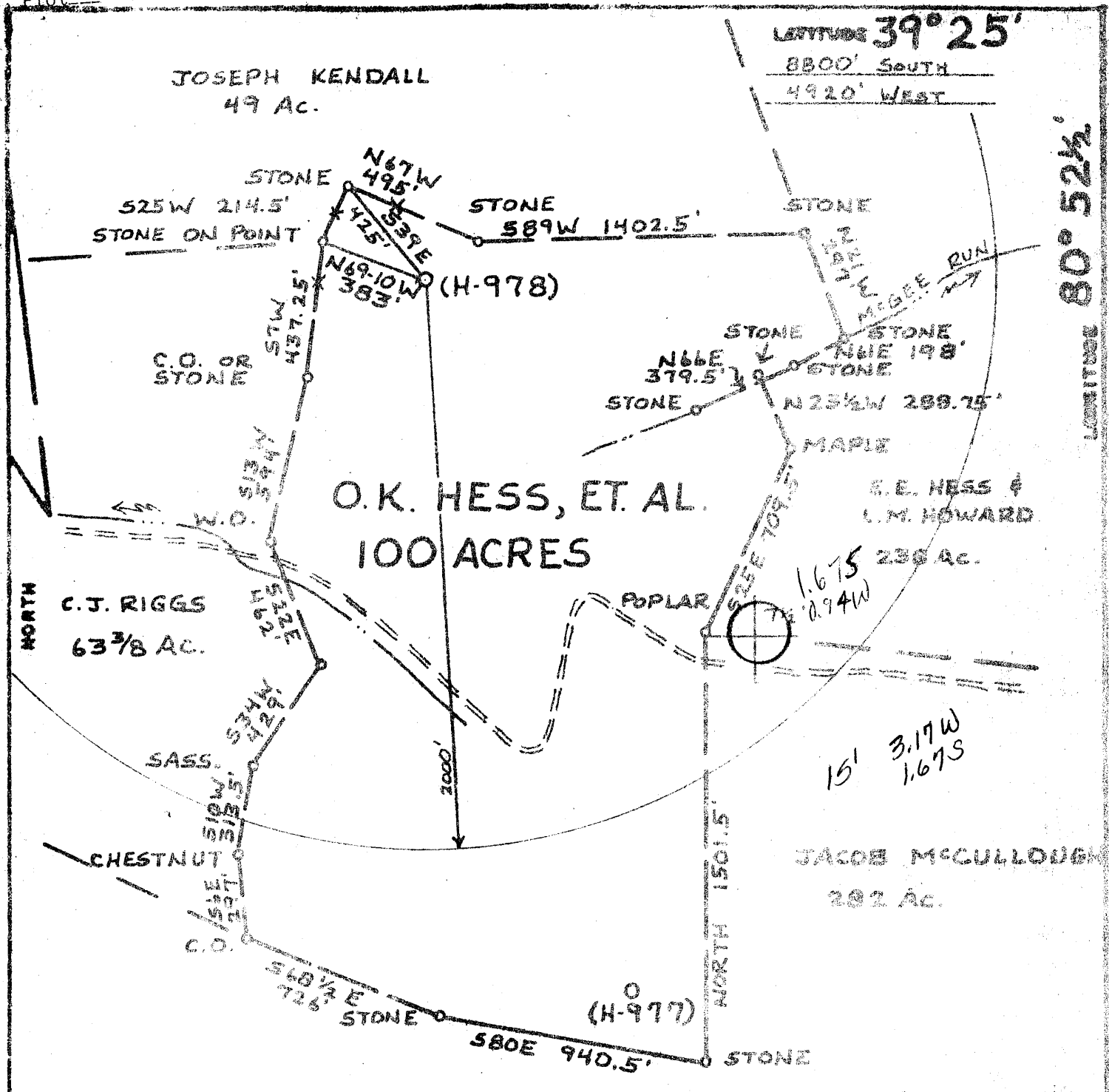
WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION STORAGE _____ DEEP SHALLOW _____)

LOCATION: ELEVATION 130' WATER SHED MCGEE RUN
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE MIDDLEBOURNE, W.VA. 7 1/2' QUAD. WEST UNION 15' C

SURFACE OWNER O.K. HESS, et. al. ACREAGE 100
 OIL & GAS ROYALTY OWNER O.K. HESS, et. al. LEASE ACREAGE 100
 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) _____

PLUS AND ABANDON _____ CLEAN OUT AND REPLUS _____
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5700'
 WELL OPERATOR GLENN L. HAUGHT & SONS DESIGNATED AGENT WARREN HAUGHT
 ADDRESS SMITHVILLE, W.VA. 26178 ADDRESS SMITHVILLE, W.VA. 26178



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION HIGH POINT 1285'

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. Mosser
 R.P.E. _____ L.L.S. 581

PLACE SEAL HERE

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



DATE 25 MARCH 1980
 OPERATOR'S WELL NO H-973
 API WELL NO. 47-095
 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 1130' WATER SHED MCGEE RUN
 DISTRICT CENTERVILLE COUNTY TYLER
 QUADRANGLE MIDDLEBOURNE, W.VA. 7 1/2' QUAD C Harrisonville 15
 SURFACE OWNER O.K. HESS, et al. ACREAGE 100
 OIL & GAS ROYALTY OWNER O.K. HESS, et al. LEASE ACREAGE 100
 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) _____
 PLUS AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5700'
 WELL OPERATOR GLENN L. HAUGHT & SONS DESIGNATED AGENT WARREN HAUGHT
 ADDRESS SMITHVILLE, W.VA. 26178 ADDRESS SMITHVILLE, W.VA. 26178

0795
9894

RECEIVED

JUN 24 1981

Date: April 14, 1981

Operator's Well No. H-978

API Well No. 095 - 0894
State County Federal

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

OIL & GAS DIVISION
DEPT. OF MINES

WELL OPERATOR'S REPORT

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1130' / Watershed: McGee Run
District: Centerville / County: Tyler / Quadrangle: Middlebourne, WV 7 1/2

WELL OPERATOR Glenn L. Haught & Sons / O.K. Hess H-978
Address Route 3 Box 14 / Designated Agent Warren R. Haught
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 _____
Other physical change in well (specify) _____

PERMIT ISSUED January 6, 1981, OIL & GAS INSPECTOR FOR THIS WORK:

IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED
Name Phillip Lee Tracy
Address P.O. Box 173 Dodd Street
Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Injun & Berea / Depth 2106-2250 / 2606-2616 feet
Depth of completed well, 2700 feet / Rotary X / Cable Tools 2616-2700
Water strata depth: Fresh, _____ feet; salt, _____ feet.
Coal seam depths: None / Is coal being mined in the area? No
Work was commenced March 17, 1981 and completed March 24, 1981

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		617'	617'	100 sacks
Coal								Sizes
Intermediate								
Production	4 1/2'	J-55	10.5#	X		2673'	210	sacks Depths set
Tubing								
Liners								Perforations: Top Bottom 2120 2627

OIL & GAS DIVISION
DEPT. OF MINES

OPEN FLOW DATA

Producing formation Injun & Berea / Pay zone depth 2616-2700 feet

Gas: Initial open flow, _____ Mcf/d / Oil: Initial open flow, _____ bbl/d
Final open flow, 20 Mcf/d / Final open flow, _____ bbl/d
Time of open flow between initial and final tests, 8 hours

Static rock pressure, 100 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

JUL 09 1981

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

Hydra fraced by Halliburton--800 Bbls.
20/40 Mesh Sand 55,000 Lbs. -- 80/100 Mesh Sand 18,000 Lbs.
1000 Gal. Acid.

Perforations: 31--2120--2150
17--2607--2614
3--2623--2627

WELL LOG

FORMATION	Color	Hard, or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface Pipe			0	617	
Sand			617	687	
Red Rock			687	696	
Slate			696	725	
Sand			725	760	
Slate			760	816	
Sand			816	867	
Slate			867	934	
Red Rock			934	944	
Slate			944	1017	
Red Rock			1017	1047	
Slate			1047	1061	
Red Rock			1061	1070	
Slate			1070	1082	
REd Rock			1082	1142	
Slate			1142	1210	
REd Rock			1210	1229	
Slate			1229	1352	
REd rock			1352	1359	
Slate			1359	1407	
Sand			1407	1492	
Slate			1492	1545	
Sand			1545	1740	
Slate			1740	1860	
Shale			1860	1907	
Shale/Sand			1970	1980	
Lime			1980	1996	
Shale			1996	2009	
Lime			2009	2106	
Sand			2106	2250	
Shale			2250	2292	
Sand			2292	2314	
Slate			2314	2348	
Sand			2348	2378	
Slate			2378	2410	
Sand			2410	2520	
Slate/Shells			2520	2606	
Berea Sand			2606	2616	
Sand/Shells			2616	2700	T.D.

NOTE: Regulation 2.02(i) provides as follows:
The term 'log' or 'well log' shall mean a systematic, detailed record of all formations.

Glenn L. Haught & Sons
Well Operator

By *Walter R. Haught*
Its Partner

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

OIL AND GAS WELL PERMIT APPLICATION

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

LOCATION: Elevation: 1130' Watershed: McGee Run
District: Centerville County: Tyler Quadrangle: Middlebourne, WV

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

DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER O. K. Hess et al
Address Pennsboro, WV 26415

COAL OPERATOR None
Address

Acres 100
SURFACE OWNER same as above

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name

Address

Address

Acres 100

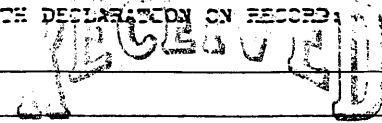
Name

FIELD SALE (IF MADE) TO:
Name
Address

Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip Lee Tracy
Address P. O. Box 173 - Dodd Street
Middlebourne, WV 26149

COAL LESSEE WITH DECLARATION ON RECORD
Name None
Address



MAR 28 1980

OIL & GAS DIVISION
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated October 10, 1979, to undersigned well operator from O. K. Hess et al

[If said deed, lease, or other contract has been recorded:]
Recorded on October 12, 1979, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Lease Book 221 at page 603. A permit is requested as follows:

PROPOSED WORK: Drill / 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, 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) 342-3092

Glenn L. Haught & Sons
Well Operator
By Warren R. Haught
Partner

BLANKET BOND

PROPOSED WORK ORDER

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

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

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5700 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

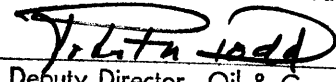
CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS ('Cable Feet')	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Stands
Fresh water	10 3/4"			X		300'	300'	75 sacks	
Coal									Sizes
Intermediate	7"			X		2000'	2000'	50 sacks	
Production	4 1/2"	J-55	10.5#	X			5700	100 sacks	Depths set
Tubing									
Miners									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 12-2-80.


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 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 _____

Operator's Well No. H-978

API Well No. 47-095-0894
State County Permit

Former Permit #47-095-0795

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: 1130' Watershed: McGee Run
District: Centerville County: Tyler Quadrangle: Middlebourne, WV 7 1/2'

WELL OPERATOR _____
Address Route 3, Box 14
Smithville, WV 26178

DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER O.K. Hess et al
Address Pennsboro, WV 26415

COAL OPERATOR None
Address _____

Acreage 100

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

SURFACE OWNER same as above
Address _____

Address _____
Name _____

Acreage 100

Address OIL & GAS DIVISION
DEPT. OF MINES

FIELD SALE (IF MADE) TO:

Name Columbia Gas Transmission Corp.
Address P.O. Box 1273
Charleston, WV 25325

COAL LESSEE WITH DECLARATION ON RECORD:
Name None

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip Lee Tracy
Address P.O. Box 173 Dodd Street
Middlebourne, WV 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 November 12, 1980, to the undersigned well operator from O.K. Hess and Wanda L. Hess, his wife

[If said deed, lease, or other contract has been recorded:]
Recorded on November 21, 1980, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Deed Book 227 at page 428. 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
1515 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 342-3092

Glenn L. Haught & Sons
Well Operator
By Warren R. Haught
Its Partner

BLANKET BOND

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-2 UPON COMPLETION

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

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5700 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	B 5/8	K-55	20#	X		200'	200'	75 sacks	to surface
Coal									Sizes
Intermediate								570	
Production	4 1/2	J-55	10.5#	X			5700'	100 sacks	Deaths set
T casing								as reqd. by	
Liners								by rule 15.01	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 § 22-4-3a 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 9-6-81.

J. H. Huggins
Deputy Director of 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 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 _____