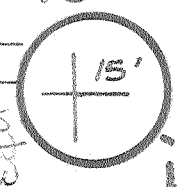
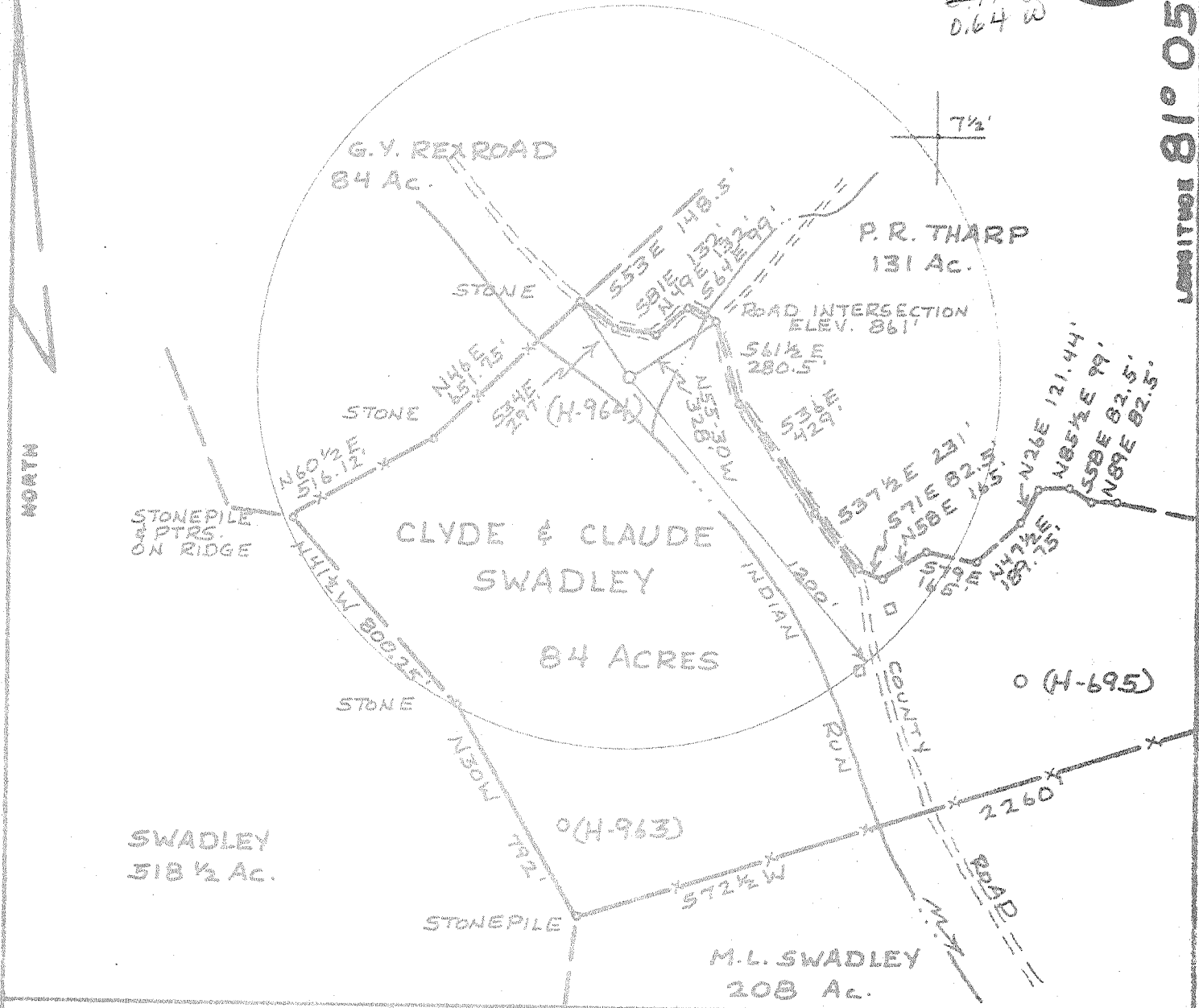


LATITUDE **39° 10'**
 3,980' SOUTH
 3,380' WEST
 0.73 S
 0.71 E
 0.64 W



LONGITUDE **81° 05'**



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION ROAD ELEV 861'

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. 751

PLACE SEAL HERE

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



DATE 17 JANUARY, 19 80
 OPERATOR'S WELL NO H-964
 API WELL NO. 47-085
 STATE COUNTY 4562 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 857' WATER SHED INDIAN RUN
 DISTRICT MURPHY COUNTY RITCHIE
 QUADRANGLE HARRISVILLE W.VA 7 1/2' QUAD. 15' C
 SURFACE OWNER CLYDE & CLAUDE SWADLEY ACREAGE 84
 OIL & GAS ROYALTY OWNER CLYDE & CLAUDE SWADLEY LEASE ACREAGE 84
 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 SIG INTUN ESTIMATED DEPTH 2100'
 WELL OPERATOR GLENN J. HAUGHT DESIGNATED AGENT WARREN HAUGHT
 ADDRESS SMITHVILLE, W.VA 26178 ADDRESS SMITHVILLE, W.VA 26178

2/20/80 E

LATITUDE **39° 10'**

3,980' SOUTH

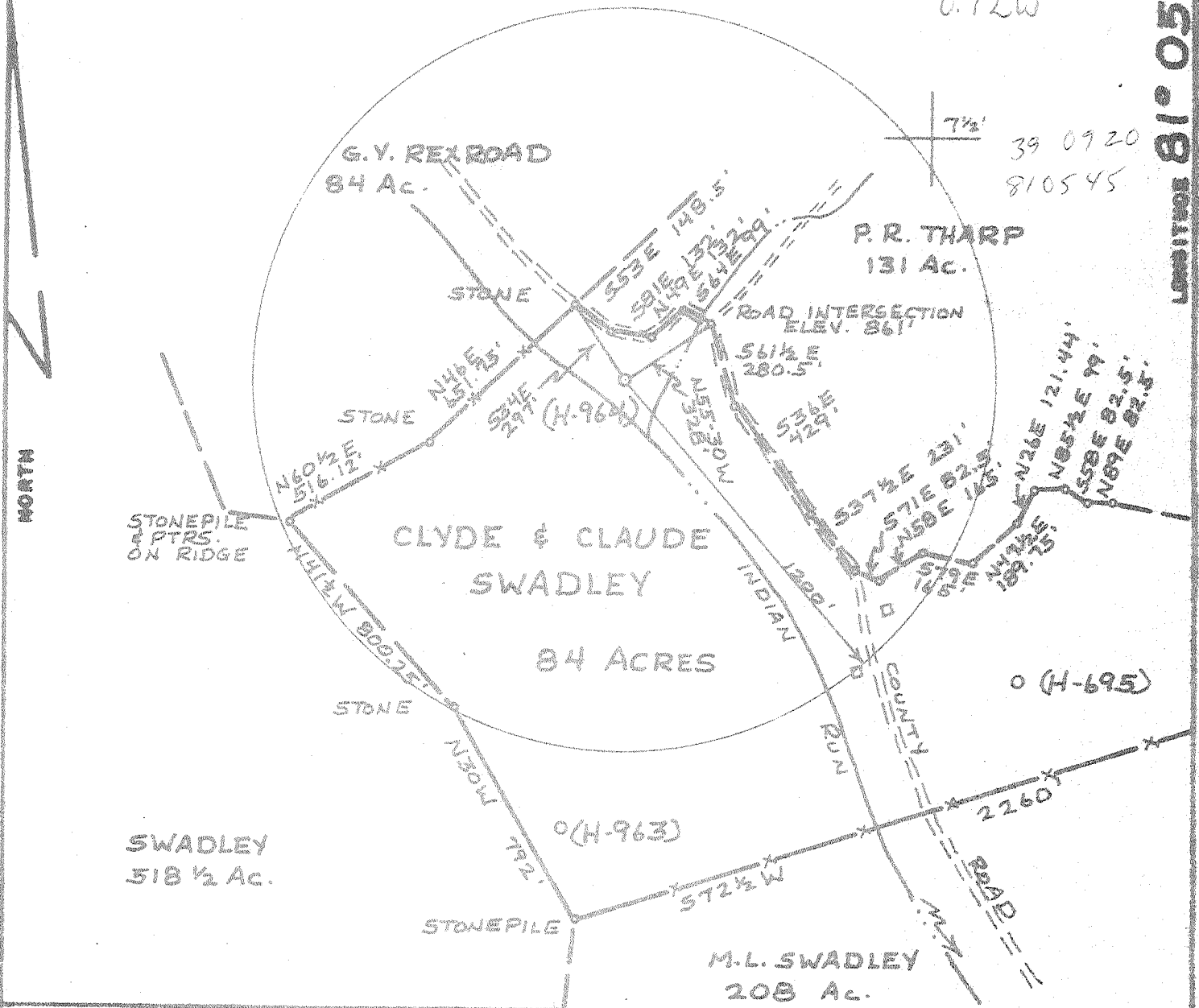
3,380' WEST



0.745
0.72W

7 1/2'
39 09 20
810545

SECTION 15-18-50



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION ROAD ELEV. 861'

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. Massor
R.P.E. _____ L.L.S. 551

PLACE SEAL HERE

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



DATE 17 JANUARY, 19 80
OPERATOR'S WELL NO. H-964
API WELL NO. 47-085-4562
STATE _____ COUNTY _____ PERMIT NUMBER CORRECTED 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 857' WATER SHED INDIAN RUN
DISTRICT MURPHY COUNTY BITCHIE
QUADRANGLE HARRISVILLE W.VA 7 1/2' QUAD. 15' C
SURFACE OWNER CLYDE & CLAUDE SWADLEY ACREAGE 84
OIL & GAS ROYALTY OWNER CLYDE & CLAUDE SWADLEY LEASE ACREAGE 84
LEASE NO. _____
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ RE-DRILL _____ 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 RIG INTUM ESTIMATED DEPTH 2100'
WELL OPERATOR GLENN L HAUGHT (S) DESIGNATED AGENT WARREN HAUGHT
ADDRESS SMITHVILLE W.VA. 26178 ADDRESS SMITHVILLE W.VA. 26178

6-4 MAHONE

MAR 31 1980

124

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

WELL OPERATOR'S REPORT 3 /
OF
DRILLING, TRAPPING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil Gas Liquid Injection Waste Disposal
(If "Gas", Production Underground storage Deep Shallow
LOCATION: Elevation: 857' Watershed: Indian Run
District: Murphy County: Ritchie Quadrangle: Harrisville, WV 71'

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 Plug off old formation Perforate new formation Other physical change in well (specify) _____
AUG 20 1980



PERMIT ISSUED ON February 21, 19 80, OIL & GAS INSPECTOR Kenneth Paul Goodnight
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Smithville, WV 26178

GEOLOGICAL TARGET FORMATION: Big Injun Depth 1845 to 1920 feet
Depth of completed well, 2000 feet Rotary Cable Tools
Water strata depth: Fresh, _____ feet; salt, _____ feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced June 11, 19 80, and completed June 14, 19 80

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		
Conductor								Kinds
Fresh water	8 5/8	K-55	20 #	X		211'	211'	75 sacks
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5#	X			1949'	110 sacks
Tubing								Depos set
Liners								Perforations:
								Top Bottom
								1840 1912

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 1845 to 1920 feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 310 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 485 psig (surface measurement) after 12 hours shut in

(If applicable see no multiple completions--)
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

SEP 9 1980

08-78]

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

Hydrafraced by Halliburton 6-23-80 -- 1000 Gal. Acid -- 775 Bbls. Water

31,500 Lbs. 20/40 Mesh Sand -- 12,000 Lbs. 80/100 Mesh Sand

Perforations: 10--1840--1868

8--1896--1912

WELL LOG

FORMATION	Color	Hard or Soft	3 / Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Slate			215	230	
Red Rock			230	250	
Slate			250	275	
Red Rock			275	330	
Sand			330	377	
Slate			377	454	
Red Rock			454	495	
Slate			495	518	
Red Rock			518	564	
Sand			564	575	
Slate			575	600	
Red Rock			600	625	
Slate			625	641	
Red Rock			641	645	
Slate			645	665	
Red Rock			665	670	
Slate			670	675	
Red Rock			675	747	
Slate			747	787	
Red Rock			787	800	
Slate			800	953	
Sand			953	995	
Slate			995	1105	
Sand			1105	1180	
Slate			1180	1205	
Sand			1205	1246	
Slate			1246	1303	
Sand			1303	1338	
Slate			1338	1355	
Sand			1355	1377	
Slate			1377	1402	
Sand			1402	1478	
Slate			1478	1556	
Sand			1556	1585	
Slate			1585	1600	
Sand			1600	1625	
Slate			1625	1663	
Sand			1663	1700	
Slate			1700	1740	
Lime			1740	1845	
Sand			1845	1920	
Shale			1920	2000	T. D.

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed

Glenn L. Haught & Sons

Well Operator

By

Glenn R. Haught

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: 857' Watershed: Indian Run
District: Murphy County: Ritchie Quadrangle: Harrisville, 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 Clyde & Claude Swadley
Address Harrisville, WV 26362

COAL OPERATOR None
Address _____

ACREAGE 84
SURFACE OWNER Clyde & Claude Swadley

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

Address Harrisville, WV 26362

RECEIVED
FEB 20 1980

ACREAGE 84

Name _____
Address _____

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

OIL & GAS DIVISION
DEPT. OF MINES
COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Kenneth Paul Goodnight
Address Smithville, WV 26178
Phone: 477-3660

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 February 1, 1978, to the undersigned well operator from Ritchie Petroleum Corp.

[If said deed, lease, or other contract has been recorded:]
Recorded on February 2, 1978, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 124 at page 566. 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 § 22-2-3 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) 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-35 UPON COMPLETION

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

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2100 feet Rotary X / Cable tools _____
Approximate water strata depths: Fresh, 50 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		
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			2100'	100 sacks
Tubing								Depths set
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 § 22-4-12c, and (v) if applicable, the consent required by Code § 22-4-2c 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 10-21-80.

[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: _____, 19____

By _____
Its _____