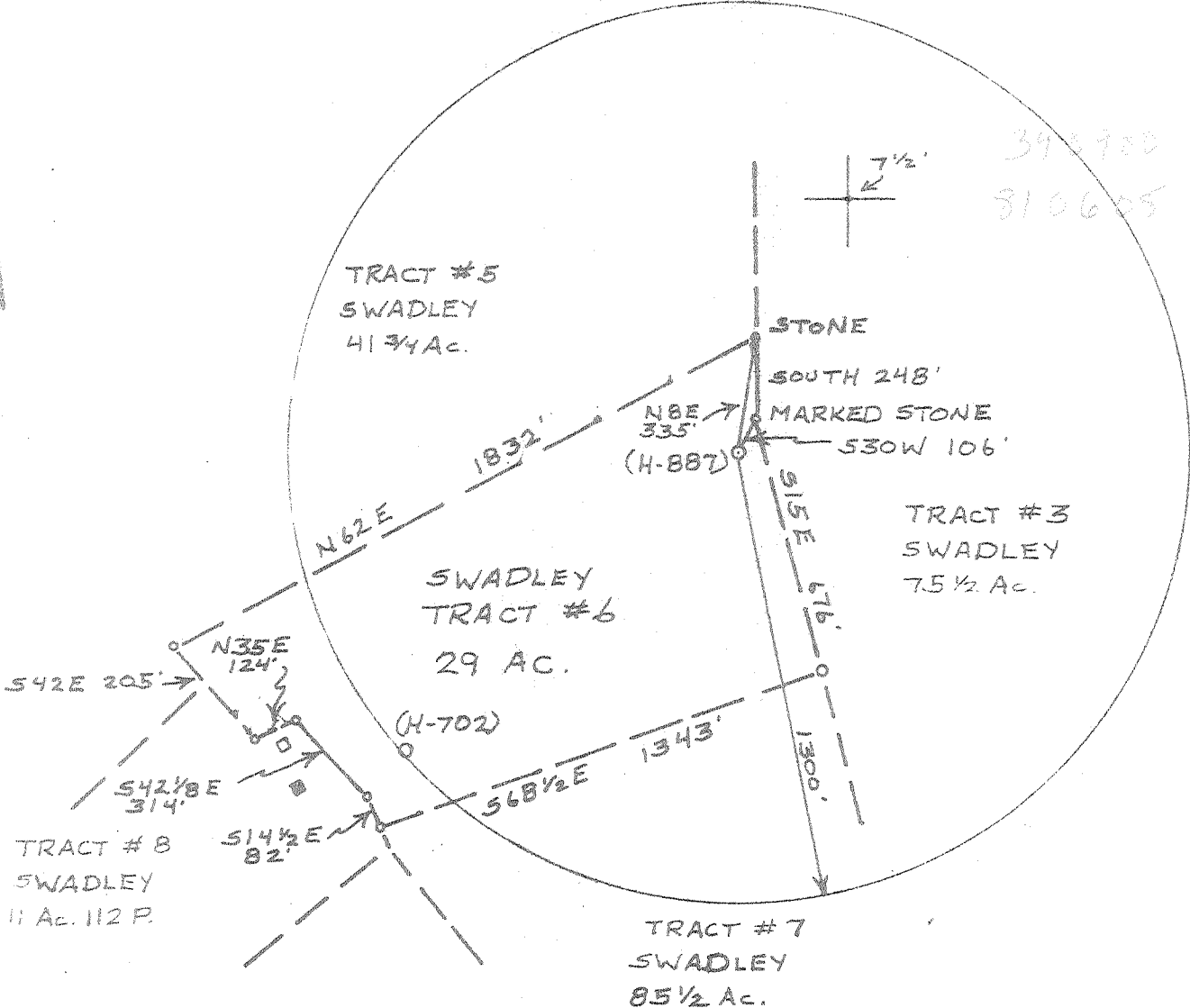




LONGITUDE **81°05'**

NORTH



39 10 00
81 06 05

FILE NO. _____
DRAWING NO. _____
SCALE **1"=500'**
DIMENSIONAL ACCURACY **1:200**
PROVER SOURCE OF ELEVATION **HIGH POINT 1113'**

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 K. Hesser
R.P.E. _____ L.L.S. **551**

PLACE SEAL HERE

↑ INDICATES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
FORM **VS 8**
15-79



DATE **11 NOVEMBER**, 19 **79**
OPERATOR'S WELL NO. **H-887**
API WELL NO. **47-085-4448**
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (C) "GAS", PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION **1095'** WATER SHED **INDIAN RUN**
 DISTRICT **MURPHY** COUNTY **RITCHIE**
 QUADRANGLE **HARRISVILLE, W.VA. 7 1/2' QUAD (15')**
 SURFACE OWNER **SWADLEY TRACT #6** ACREAGE **29** C
 OIL & GAS ROYALTY OWNER **SWADLEY TRACT #6** LEASE ACREAGE **29**
 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 **BIG INDIAN** ESTIMATED DEPTH **2100'** DEC 6 1979
 WELL OPERATOR **GLENN L. HAUGHT & SONS** DESIGNATED AGENT **WARREN HAUGHT**
 ADDRESS **SMITHVILLE, W.VA. 26178** ADDRESS **SMITHVILLE, W.VA. 26178**

RECEIVED

AUG -2 1982

Date: April 14, 19 80

Operator's Well No. H-887

API Well No. -7-085-4448
State County Permit

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

WELL OPERATOR'S REPORT
OF
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: 1095' Watershed: Branch of Indian Run
District: Murphy County: Ritchie Quadrangle: Harrisville, WV 7 1/2'
Swadley H-887
WELL OPERATOR Glenn L. Haught & Sons a 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 October 30, 19 79 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Kenneth Paul Goodnight
Address Smithville, WV 26178
Phone: 477-3660

GEOLOGICAL TARGET FORMATION: Big Injun Depth 1970 to 2050 feet
Depth of completed well, 2120 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 November 15, 19 79, and completed November 19, 19 79

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		204'	204'	75 sacks	
Coal									Sizes
Intermediate									
Production	4 1/2	J-55	10.5#	X			2100'	100 sacks	Devices set
Tubing									
Liners									Perforations:
									Top Bottom
									2010 2045

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 2010 to 2045 feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 220 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 8 hours
Static rock pressure, 510 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

AUG 9 1982

(Continue on reverse side)

[08-78]

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

Hydrafraced by Halliburton -- 1000 Gal. Acid -- 750 Bbls. Water
32,500 Lbs. 20/40 Mesh Sand -- 10,000 Lbs. 80/100 Mesh Sand

Perforations: 10--2010--2045

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Shale	Grey	Soft	0	50	
Sand Stone	Brown	Soft	50	65	
Red Rock & Shale	Red/Grey	Soft	65	317	
Sand	White	Hard	317	327	
Shale & Red Rock	Red/Grey	Soft	327	875	
Sand	White	Hard	875	882	
Red Rock & Shale	Red/Grey	Soft	882	1049	
Shale	Grey.	Soft	1049	1117	
Red Rock	Red	Soft	1117	1160	
Shale	Grey	Soft	1160	1226	
Red Rock	Red	Soft	1226	1241	
Shale	Grey	Soft	1241	1870	
L. Lime	Grey	Hard	1870	1880	
Sand	Grey	Soft	1880	1890	
B. Lime	Grey	Hard	1890	1970	
Sand <i>Big Injun</i>	White	Med.	1970	2050	
Shale	Grey	Soft	2050	2120	T. D.

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

Glenn L. Haught & Sons
Well Operator

By *Glenn R. Haught*

Its Partner

[68-78]

Operator's Well No. H-887
API Well No. 47-085-4448
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: 1095' 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 Swadley, Charles
Address Route 1, Harrisville, WV 26362

COAL OPERATOR None
Address _____

Acreage 29

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Charles Swadley
Address Route 1 Harrisville, WV 26362

Name _____
Address _____

Acreage 29

Name _____
Address _____

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

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

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 X / dated July 12, 1976, to the undersigned well operator from Dale Wolfe

[If said deed, lease, or other contract has been recorded:]
Recorded on May 10, 1977, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 123 at page 156. 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

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. Haight & Sons
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Big Injun

Estimated depth of completed well, 2100 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				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 plan 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 § 22-4-3c 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 7-16-80.


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

[08-78]

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

Hydrafraced by Halliburton -- 1000 Gal. Acid -- 750 Bbls. Water
 32,500 Lbs. 20/40 Mesh Sand -- 10,000 Lbs. 80/100 Mesh Sand

Perforations: 10--2010--2045

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