



81 05

W. B. MORRIS  
248 Ac.

Fracture   
 Road   
 New Location   
 Well Deeper   
 Abandonment

Source of Elevation ROAD INTERSECTION ELEV. 1182'  
 I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 1 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

*William R. Mossor*

Minimum accuracy, one part in 200

Company GLENN L. HAUGHT & SONS  
 Address SMITHVILLE, W.VA. 26178  
 Name SWADLEY, WARREN R. HAUGHT  
 Tract 10 Acres 42 1/2 Lease No. \_\_\_\_\_  
 Well (Farm) No. H-707 Serial No. \_\_\_\_\_  
 Elevation (Spot Level) 1016'  
 Quadrangle HARRISVILLE, W.VA. 7 1/2' QUAD.  
 County RITCHIE District MURPHY  
 Surveyor or Engineer WILLIAM R. MOSSOR, L.L.S.  
 Surveyor's or Engineer's Registration No. 551  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 21 DEC. 1978 Scale 1" = 30 P.

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

**WELL LOCATION MAP**  
 FILE NO. **47-085-4428**  
 FORMERLY *Rit-4191*

Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces or border line of original tracing.

NOV 26 1979

*G G MAHONE R. 470' R. 100'*

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

WAS-4191

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

WELL TYPE: Oil  Gas  Liquid Injection  Waste Disposal   
(If "Gas", Production  Underground storage  Deep  Shallow   
LOCATION: Elevation: 1016' Watershed: Branch of Indian Run  
District: Murphy County: Ritchie Quadrangle: Harrisville, WV 7 1/2'  
Swadley H-707  
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  Re-drill  Fracture or stimulate   
Plug off old formation  Perforate new formation   
Other physical change in well (specify): \_\_\_\_\_

PERMIT ISSUED ON October 30, 1979, OIL & GAS INSPECTOR FOR THIS WORK:  
Name Kenneth Paul Goodnight  
Address Smithville, WV 26178  
Phone: 477-3660  
(IF APPLICABLE: PLUGGING OF DRY WILE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED \_\_\_\_\_, 19\_\_\_\_)

GEOLOGICAL TARGET FORMATION: Big Injun Depth 2005 to 2086 feet  
Depth of completed well, 2175' 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 10, 1979, and completed November 13, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT BELL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Rands
Fresh water	8 5/8	K-55	20#	X		203'	203'	75 sacks
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5#	X			2138'	90 sacks
Tubing								Seals set
Liners								Perforations:
								Top Bottom
								2024 2086

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 2005 to 2086 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, 160 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 8 hours  
Static rock pressure, 385 psig (surface measurement) after 12 hours shut in

[If applicable use so 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

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

Hydrafraced by Halliburton 11-17-79 -- 800 Gal. Acid -- 759 Bbls. Water  
32,500 Lbs. 20/40 Mesh Sand -- 12,000 Lbs. 80/100 Mesh Sand

Perforations 12--2054--2086  
10--2024--2036

WELL LOG

FORMATION	Color	Hard or Soft	2/ Top Feet	Bottom Feet	Remarks Including indication of all fres and salt water, coal, oil and gas
Slate			208	286	
Red Rock			286	309	
Slate			309	401	
Red Rock			401	471	
Slate			471	560	
Red Rock & Slate			560	588	
Slate			588	673	
Red Rock			673	708	
Slate			708	805	
Red Rock			805	825	
Sand			825	836	
Red Rock			836	843	
Slate			843	857	
Red Rock			857	864	
Slate			864	891	
Red Rock			891	897	
Sand			897	918	
Red Rock			918	926	
Sand			926	961	
Slate			961	1023	
Red Rock			1023	1048	
Sand			1048	1078	
Slate			1078	1101	
Sand			1101	1154	
Slate			1154	1195	
Sand			1195	1220	
Slate			1220	1262	
Sand			1262	1278	
Slate			1278	1313	
Sand			1313	1333	
Slate			1333	1443	
Sand			1443	1600	
Slate			1600	1608	
Sand			1608	1665	
Slate			1665	1717	
Sand			1717	1728	
Slate			1728	1760	
Sand			1760	1794	
Slate			1794	1834	
Sand			1834	1849	
Slate			1849	1877	
Sand			1877	1925	
Lime			1925	2005	
Sand <i>BZ</i>			2005	2086	Show of Gas @ 2021
Slate			2086	2175	T. D.

Glenn L. Haight & Sons

Well Operator

By Walter R. Haight  
Partner

Its

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

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: 1016' Watershed: Branch of 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 Charley Swadley  
Address Harrisville, WV 26362

COAL OPERATOR \_\_\_\_\_  
Address \_\_\_\_\_

Acreage 42 1/2

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

SURFACE OWNER Warren R. Haught  
Address Smithville, WV 26178

Name \_\_\_\_\_  
Address \_\_\_\_\_

Acreage 42 1/2

Name \_\_\_\_\_  
Address \_\_\_\_\_  
OIL & GAS DIVISION  
DEPT. OF MINES

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
Name \_\_\_\_\_  
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 \_\_\_/ dated July 12, 1976, to the undersigned well operator from Charley and Anna Swadley

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

Recorded on \_\_\_\_\_, 19\_\_\_\_, in the office of the Clerk of the County Commission of Ritchie County, West Virginia, in Lease Book 121 at page 425. 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 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

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, 2150 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			2150'	100 sacks	Depths set
Taping									
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 § 22-4-3a 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 6-30-80

Robert R. [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 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