

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:300  
 PROVEN SOURCE OF ELEVATION ROAD INT. 929'

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 P. ...  
 R.P.E. \_\_\_\_\_ L.L.S. 551

PLACE SEAL HERE

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

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE 21 MARCH, 1980  
 OPERATOR'S WELL NO H-959  
 API WELL NO. 47-017  
 STATE COUNTY PERMIT 2609-Rev

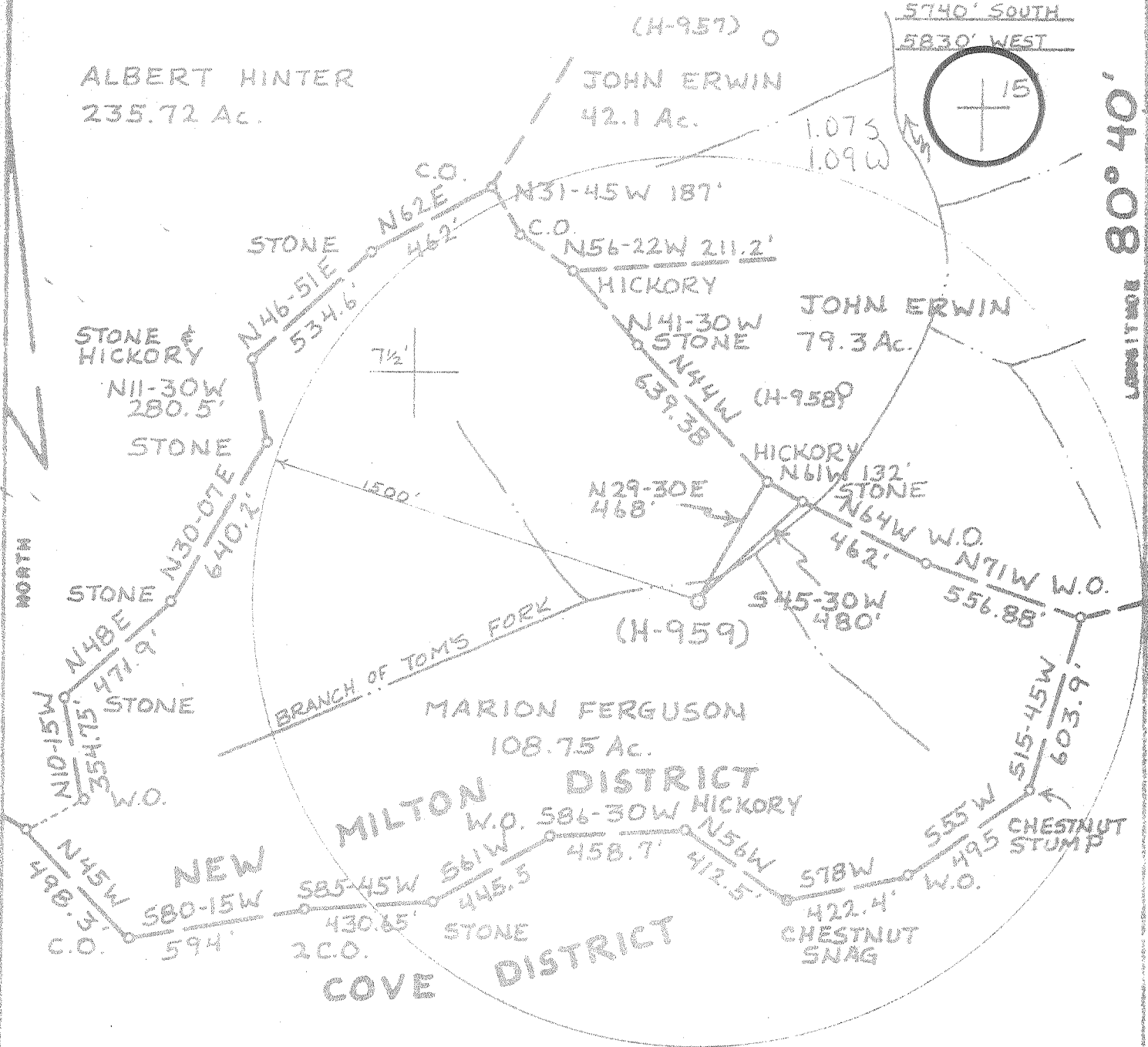
WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS", PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 1196' WATER SHED TOM'S FORK  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE NEW MILTON, W.V.A. 7 1/2 QUAD. VADIS 15' WC  
 SURFACE OWNER MARION FERGUSON ACREAGE 108.75  
 OIL & GAS ROYALTY OWNER WILMA ALKIRE LEASE NO. \_\_\_\_\_ LEASE ACREAGE 108.75  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ RE-DRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IF WELL (SPECIFY) \_\_\_\_\_  
 PLUS AND ABANDON \_\_\_\_\_  
 TARGET FORMATION DEVONIAN ESTIMATED DEPTH 2450' - 5900'  
 WELL OPERATOR GLENN L. HAUGHT DESIGNATED AGENT WARREN HAUGHT  
 ADDRESS SMITHVILLE, W.V.A. 26178 ADDRESS SMITHVILLE, W.V.A. 26178

LATITUDE 39° 10'

5740' SOUTH  
5830' WEST



LONGITUDE 80° 40'

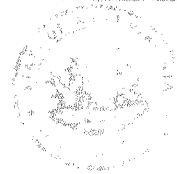


FILE NO \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 500'  
MINIMUM DEGREE OF ACCURACY 1:200  
PROVEN SOURCE OF ELEVATION ROAD INT. 929'

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. Koswal*  
R.P.E. \_\_\_\_\_ U.S. \$51

PLACE SEAL HERE

INDICATES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
FORM IV-B  
(8-78)



DATE 21 FEBRUARY 1980  
OPERATOR'S WELL NO H-959  
AP WELL NO. 47-017-2609  
STATE COUNTY PERMI

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 1017' WATER SHED TOM'S FORK  
DISTRICT NEW MILTON COUNTY DODDRIDGE  
ADDRESS NEW MILTON, W.VA. 7 1/2 QUAD. VADIS 15' WC  
SURFACE OWNER MARION FERGUSON ACREAGE 108.75  
OIL & GAS ROYALTY OWNER WILMA ALKIRE ACREAGE 108.75

PROPOSED WORK DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REPAIR \_\_\_\_\_  
STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PENETRATE NEW FORMATION \_\_\_\_\_ OTHER \_\_\_\_\_

PLUS AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPAIR \_\_\_\_\_  
TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'  
WELL OPERATOR GLENN L. HAUGHT & SONS DESIGNATED AGENT WARREN HAUGHT  
ADDRESS SMITHVILLE, W.VA. 26178 ADDRESS SMITHVILLE, W.VA. 26178

Date: May 13, 1980  
Operator's Well No. H-959  
API Well No. - - 017 - 2609  
State County Permit

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

WELL OPERATOR'S REPORT 4  
OF  
DRILLING, FRACURING AND/OR STIMULATIONS, OR PHYSICAL CHANGE

WELL TYPE: Oil  Gas  Liquid Injection  Waste Disposal   
(If "Gas", Production  Underground storage  Deep  Shallow   
LOCATION: Elevation: 1017' Watershed: Tom's Fork  
District: New Milton County: Doddridge Quadrangle: New Milton, Wv 7 1/2  
Wilma Alkire  
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  Fracture or stimulate   
Plug off old formation  Perforate new formation   
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON February 25, 1980, OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Paul Garrett  
Address 321 Beech Street  
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Big Injun Depth 2404 - 2458 feet  
Depth of completed well, 2532 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 March 31, 1980, and completed April 5, 1980

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								Kind	
Fresh water	10 3/4"			X		380'	380'	60 sacks	
Coal								Sizes	
Intermediate									
Production	7"			X			2542'	75 sacks	Depth set
Tubing									
Liners									Perforations:
									Top Bottom
									2410 2444

OIL & GAS DIVISION  
DEPT. OF MINES

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth 2404 - 2458 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, 260 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 8 hours  
Static rock pressure, 500 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

JAN 26 1981

6-78]

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

Acid Fraced by Halliburton - 4-14-80 -- 530 Gal. Acid -- 2400 Bbls. Water  
 42,500 Lbs. 20/40 Mesh Sand -- 20,000 Lbs. 80/100 Mesh Sand

Perforation: 19--2410--2444

LL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks
					Including indication of all fresh and salt water, coal, oil and gas
Red Rock			245	260	
Shale			260	310	
Sand			310	330	
Red Rock			330	345	
Shale			345	355	
Red Rock			355	370	
Shale			370	414	
Red Rock			414	430	
Shale			430	455	
Red Rock			455	470	
Sand			470	490	
Red Rock			490	510	
Shale			510	525	
Sand			525	540	
Shale			540	631	
Sand			631	690	
Red Rock			690	705	
Sand			705	754	
Shale			754	793	
Sand			793	841	
Shale			841	886	
Sand			886	950	
Shale			950	1031	
Sand			1031	1040	
Red Rock			1040	1050	
Shale			1050	1086	
Sand			1086	1120	
Shale			1120	1175	
Red Rock			1175	1180	
Shale			1180	1217	
Sand			1217	1250	
Shale			1250	1279	
Red Rock			1279	1285	
Sand			1285	1305	
Red Rock			1305	1310	
Sand			1310	1350	
Shale			1350	1460	
Red Rock			1460	1470	
Sand			1470	1560	
Shale			1560	1600	
Red Rock			1600	1615	
Shale			1615	1740	
Sand			1740	1793	
Sandy Shale			1793	1930	
Sand			1930	1945	
Shale			1945	1976	
Sand			1976	1980	
Sandy Shale			1980	2140	
Red Rock			2140	2146	
Sand			2146	2290	
L. Lime			2290	2310	
Pencil Cave			2310	2315	
Blue Monday			2315	2352	
B. Lime			2352	2404	
Sand <i>BI</i>			2404	2458	
Shale			2458	2532	T. D.

Glenn L. Haught & Sons

Well Operator

*Warren R. Haught*

By

Partner

NOTE: Regulation 1.02(1) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic, detailed record of all formations.

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: 1017' Watershed: Tom's Fork  
District: New Milton County: Doddridge Quadrangle: New Milton, 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 Wilma Alkire  
Address \_\_\_\_\_  
Slainesville, WV 25444

COAL OPERATOR None  
Address \_\_\_\_\_

Acreage 108.75

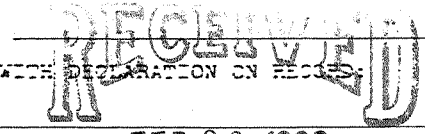
COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Marion Ferguson  
Address \_\_\_\_\_  
New Milton, WV 26411  
Acreage 108.75

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

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

COAL LESSEE WITH DECLARATION ON RECORD:  
Name None  
Address \_\_\_\_\_



FEB 22 1980

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address 321 Beech Street  
Clarksburg, WV 26301  
Phone: 622-3871

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 March 6, 1977, to the undersigned well operator from Zedack Pethtel

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

Recorded on \_\_\_\_\_, 19\_\_\_\_, in the office of the Clerk of the County Commission of \_\_\_\_\_ County, West Virginia, in \_\_\_\_\_ Book \_\_\_\_\_ at page \_\_\_\_\_. 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) 542-3092

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, Alexander

Estimated depth of completed well, 5400 feet Rotary  / 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

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		200'	200'	75 sacks
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5#	X			5400'	100 sacks
casing								Deaths 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 § 22-4-12a, 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 10-25-80.

Robert L. [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 § 22-6-20, 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: \_\_\_\_\_